



ADDENDUM NO. 1

Issue Date: August 30, 2019

Project Name: Indian River Boulevard and Grand Harbor Boulevard
Signalization (Re-bid)

Bid Number: 2019076

Bid Opening Date: September 17, 2019

The pre-bid meeting scheduled for September 4th is **canceled**, and will not be rescheduled due to Hurricane Dorian. Because the agenda is the same as for the meeting held when this project was originally bid, please find the meeting minutes attached for information and reference.

The due date for the bid is **not** changed, so please note the deadline to submit questions remains as September 7, 2019.

This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.

Attachments:

Pre-Bid Meeting Minutes



Board of County Commissioners

***1801 27th Street
Vero Beach, Florida 32960-3365
Telephone: (772) 567-8000
Fax: (772) 778-9391***

MANDATORY PRE-BID MEETING MINUTES

JULY 30, 2019, 2:00 P.M.

INDIAN RIVER COUNTY ADMINISTRATION BUILDING

Room A1-303 Building A

INDIAN RIVER BOULEVARD AND GRAND HARBOR BOULEVARD SIGNALIZATION

PROJECT No. IRC-1806

The following meeting notes set forth our understanding of the discussions and decisions made at the subject meeting. If no objections, questions, additions, or comments are received within three (3) working days from issuance of the meeting notes, we will assume that our understandings are correct. The project will move forward according to the bid plans and specifications and the understandings herein.

Project Name: INDIAN RIVER BOULEVARD AND GRAND HARBOR SIGNALIZATION
Project Number: IRC-1806
Bid Number: 2019071

INTRODUCTIONS / SIGN IN SHEET

Attendance at this conference by all bidders was **MANDATORY**. No bidder arriving after the meeting began was allowed to sign in. This meeting was recorded as part of the project records.

PROJECT DESCRIPTION:

The proposed improvements to the intersection of Indian River Boulevard and Grand Harbor Boulevard consist of the signalization of the intersection by installing mast arm assemblies which will be provided by the County, with all other appurtenances to be furnished by the Contractor. Also included is milling and resurfacing, curb ramp upgrades, signing and pavement markings, and sodding.

CONTRACT DETAILS

Bid opening: Thursday, August 8, 2019 at 2:00 PM
Contract time: 150 days to substantial completion
180 days to final completion
Engineers Estimate: \$472,501.00 (includes force account)
Liquidated Damages: \$1,241.00 per day

CONTACTS BIDDING PROCESS

All communications concerning this bid shall be directed to Indian River County Purchasing Division at purchasing@ircgov.com.

PROJECT CONSULTANTS:

Kimley-Horn and Associates, Inc.

UTILITIES

AT&T
Comcast Cable Communications, Inc.
Florida City Gas
Florida Power and Light, Co.
Indian River County Department of Utilities Services
Indian River County Telecommunications
Indian River County Traffic Operations

OTHER ISSUES

- Bidders to review plan documents and provide comments to Indian River Purchasing Department as soon as possible. No further comments or questions will be addressed from end of business, August 2, 2019.
- Maintenance of Traffic:
 - Contractor shall submit a Maintenance of Traffic Plan to the Indian River County, Engineering Division for approval.
 - The Maintenance of Traffic Plan shall meet the FDOT Index 600, FY2017-2018 Edition and shall be signed and sealed by a Florida Professional Engineer.
 - Traffic shall be maintained at all times.
 - Access for businesses and residences shall be maintained at all times.
 - School buses, sanitation & US Postal Service must be maintained.
- All testing on this project will follow FDOT specifications, this will include subgrade, asphalt, concrete and the drilled shaft testing installation.
- All drilled shaft locations will require a 5 ft hand excavation for utility clearance.
- A Drilled Shaft Installation Plan needs to be submitted for approval.
- The mast arms have been purchased by the County and are in the process of being manufactured. There will be no submittal for the mast arms. Mast arms will be delivered to the site around October 25, 2019. A close coordination between the County and the contractor will be required for the delivery time and the handling of the mast arms.
Kirstin Leiendecker (IRC-Eng) added that the Mast Arm Supplier is Valmont and the current delivery date is an estimate. For further information see approved mast arm submittal attached to this document.
John Ankeny (IRC) added that the contractor is expected to unload the mast arms at the time of arrival.
Al LaShier (Traffic Engineering and Management LLC) asked for a lay down area onsite. Kirstin Leiendecker (IRC) stated that we have enough right-of-way at the northeast corner of the intersection, that can be used for storage. Contractor shall keep in mind that all disturbed areas will need to be restored.
John Ankeny (IRC-Traffic) stated that bolts for the mast arms are at the IRC traffic yard at 41st Street and shall be picked up by the contractor.
- The mast arms shall be handled by the contractor at delivery.
Al LaShier (Traffic Engineering and Management LLC) stated that Valmont will give 2 days advanced notice to the delivery.

Kirstin Leiendecker (IRC-Eng) stated that the contractor shall coordinate directly with IRC for delivery time and the necessary equipment that is needed to unload the mast arms at delivery.

- All areas disturbed by the contractor will need to be restored to original conditions or better.

Tim Rose (Tim Rose Contracting, Inc.) asked if irrigation is present. Mike Forman (KH - Kimley-Horn Associates, Inc.) stated that irrigation is believed to be present and needs to be replaced if damaged.

- Contractor shall submit a "Hurricane Preparedness" plan prior to Notice to Proceed.

PROJECT REQUIREMENTS:

- Subcontractors – per Contract Documents requirements "Section 00458 – List of Subcontractors" must be completed.
- Summary of required contractor form submittals checklist (Section 00300 – Bid Package Contents)
- Invoicing shall be submitted on monthly basis and must include release of liens and Surety's Consent.

DISCUSSION

Questions & Answers

Mike Forman (KH) stated that the electrical service connection is in the southwest corner behind bushes, underground.

KL (IRC-Eng) stated that the contractor shall look at the submittal from Valmont to determine which items are included with the mast arm purchase by IRC. For example, the luminaires are part of the purchase but no cabinets, cameras, or signals.

ATTACHMENTS

Sign In-sheet

Approved Mast Arm Submittal by DOT Lighting, Inc. for Valmont, Inc.



Transmittal

Dot Lighting, Inc.
6353 Millstone Drive
New Port Richey FL 34655
Phone: (727) 375-0555

Project Indian River Blvd and Grand Harbor Blvd - Traffic

Quote DOT19-13292

To Indian River County
1801 27th Street
Bldg. A
Vero Beach FL 32960
Contact: Kirsten Leiendecker, P.E.

Location Indian River FL
From Nikki Supernor
Distributor: Dot Lighting, Inc.
Municipality Indian River County

ATTACHED WE ARE SENDING YOU 1 COPIES OF THE FOLLOWING ITEMS:

- | | | |
|-----------------------------------|--|--------|
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Specifications | Other: |
| <input type="checkbox"/> Prints | <input type="checkbox"/> Information | |
| <input type="checkbox"/> Plans | <input checked="" type="checkbox"/> Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| <input type="checkbox"/> Prior Approval | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input checked="" type="checkbox"/> Approval | <input type="checkbox"/> Corrections | Bids due on: |
| <input type="checkbox"/> Approval as Submitted | <input type="checkbox"/> Your Use | Other: |
| <input type="checkbox"/> Approval as Noted | <input type="checkbox"/> Review and Comment | |

Qty	Type	MFG	Part
1	1	Valmont Traffic (Valle	649-21-15-70 S FP/GV A70/S - P5/S
1	2	Valmont Traffic (Valle	649-21-10-60 S FP/GV A60/S - P4/S
1	3	Valmont Traffic (Valle	649-21-15-70 S FP/GV A70/S - P5/S
1	4	Valmont Traffic (Valle	649-21-6-50 S FP/GV A50/S - P3/S
4	715-5-	General Electric Co. (ERL2030D340DGRAYGIT Item Note: Qty-4

Notes:

1 Valmont Drawings,

* Page 1 of 1, Valmont Cover Page for DB01192 Drawings

* Pages 1 thru 6 of 6, # DB01192 Per FDOT 2017-18 design standard index # 17743 & 17745 (for Reference Only)

1 GELS Cutsheet, ERL2030D340DGRAYGIT

*****PROVIDE HIGHWAY GREEN PAINT SAMPLE IN ORDER TO MATCH*****

DOT19-13292
Sold To: DOT Lighting, Inc.
PO #83638-00
Valmont Order #447652-P1

INDIAN RIVER COUNTY SHOP DRAWING REVIEW

- ☒ APPROVED
- ☐ APPROVED AS NOTED
- ☐ NOT APPROVED - RESUBMIT

REVIEWER: E. Leiendecker
DATE: 6/28/2019

**Job Name:**

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
Municipality: Indian River County (Vero Beach)

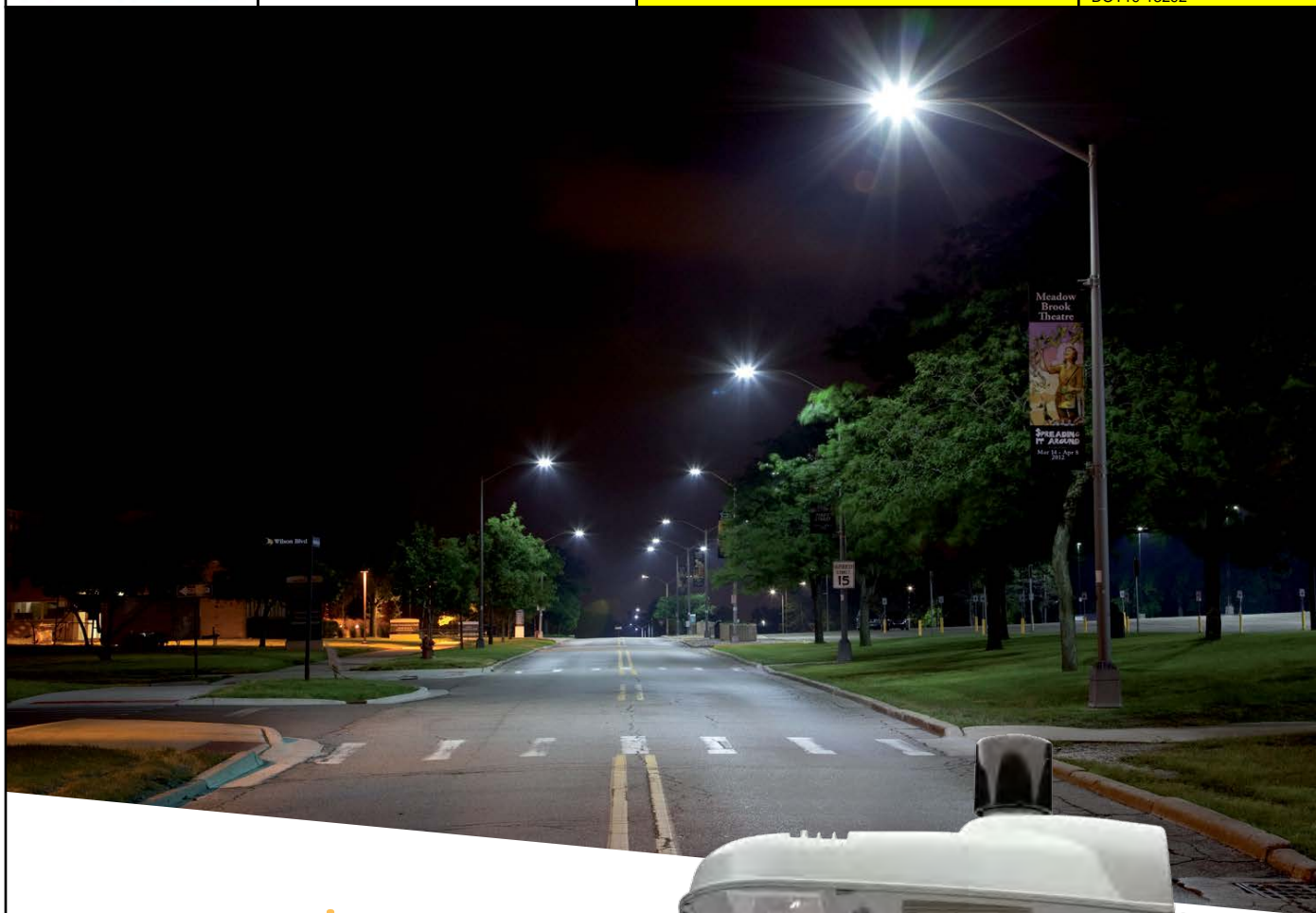
Catalog Number:

ERL2030D340DGRAYGIT

Notes: Qty-4

Type:**715-5-31**

DOT19-13292



GE Evolve™

LED Roadway Lighting

ERL1-ERLH-ERL2

INDIAN RIVER COUNTY SHOP DRAWING REVIEW



- ☒ APPROVED
- ☐ APPROVED AS NOTED
- ☐ NOT APPROVED - RESUBMIT

REVIEWER: E. Winder
DATE: 6/28/2019



current
powered by GE



Submitted by Dot Lighting, Inc.  	Job Name: Indian River Blvd and Grand Harbor Blvd - Traffic Distributor: Dot Lighting, Inc. (New Port Richey) Municipality: Indian River County (Vero Beach)	Catalog Number: ERL2030D340DGRAYGIT Notes: Qty-4	Type: 715-5-31 DOT19-13292
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GE Evolve™ LED Roadway Lighting ERL1-ERLH-ERL2



The **Evolve** LED Roadway Luminaire is optimized for customers requiring a LED solution for local, collector and major roadways. GE's unique reflective optics are designed to optimize application efficiency and minimize glare. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expense over the life of the fixture. This efficient solution lowers energy consumption compared to a traditional HID fixture for additional operating cost savings.

Features:

- Optimized roadway photometric distributions
- **Evolve™** light engine consisting of reflective technology designed to optimize application efficiency and minimize glare
- 70 CRI at 2700K, 3000K and 4000K typical.
- -40°C to 50°C UL Ambient Typical.
- ULOR = 0 (zero uplight)
- Designed & Assembled in USA

Applications:

- Local Roadways
- Collector Roads
- Major Roadway/Streets



INDIAN RIVER COUNTY
SHOP DRAWING REVIEW

☒ **APPROVED**
☐ **APPROVED AS NOTED**
☐ **NOT APPROVED - RESUBMIT**

REVIEWER: E. Wiender
DATE: 6/28/2019

Compatible with **LightGrid™** Outdoor Wireless Control System



To learn more about **GE Evolve** LED Roadway Lighting, go to: www.currentbyge.com



GE Evolve™

LED Roadway Lighting

ERL1-ERLH-ERL2

Typical Specifications: ERL1-ERLH-ERL2

LED & Optical

- **Output Range:** 1900 – 30000 lm
- **Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- **System Efficacy:** 100 - 145 LPW
- **CCT:** 2700K, 3000K, 4000K; High brightness LEDs @ 70 CRI

Lumen Maintenance Tables

Projected Lxx per IES TM-21 at 25°C for reference:

ERL1 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
02,03,04,05,06	L96	L95	L91
07,08,09	L95	L91	L84
10	L89	L80	L64

ERLH LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
10, 11	L97	L96	L94
13, 14	L95	L93	L88
15, 16	L94	L91	L85

ERL2 LUMEN OUTPUT CODES	LXX(10K)@HOURS		
	25,000 HR	50,000 HR	100,000 HR
16, 18, 19, 21, 23	L96	L94	L91
25, 27, 28	L95	L93	L88
30	L95	L93	L87


Note: Projected Lxx based on LM80 (10,000 hour testing). DOE Lighting Facts Verification Testing Tolerances apply to initial luminous flux and lumen maintenance measurements.

Electrical

- **Input Voltage:** 120-277 volt and 347-480 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)*:** >90%
- **Total Harmonic Distortion (THD)*:** <20%

*Power factor and THD tolerance exceptions: ERL1 "02" Lumen output: PF and THD within tolerances above only at 120 volt. ERL1 "03" Lumen output: @120 volt PF~0.89; @ 480 volt THD~26% ERL1 "04" Lumen output: @480 volt THD~22%

Ratings

- **Surge Protection:** per ANSI C136.2-2015: (Driver Internal):
 - 6kV/3kA "Basic: (120 Strikes)" - Standard on ERL1 (02-06)
 - 10kV/5kA "Enhanced: (40 Strikes)" - Standard on ERL1 (07 - 10), ERLH, ERL2
- **(Additional Separate Secondary SPD)**
 - 10kV/5kA "Enhanced: (40 Strikes)" - Option "R"
 - 20kV/10kA "Elevated" (40 Strikes)" - Option "T"
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations 
- **Environmental:** Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3G per ANSI C136.31-2010
- LM-79 testing in accordance with IESNA Standards
- Std. Optical enclosure rated per ANSI C136.25-2009:
 - ERL1/ERLH/ERL2 = IP65, Optional: IP66



Please refer to the DLC QPL website for the latest and most complete information. www.designlights.org/QPL



International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

INDIAN RIVER COUNTY SHOP DRAWING REVIEW

Project name _____

Date _____

☒ **APPROVED**

Type _____

☐ **APPROVED AS NOTED**

☐ **NOT APPROVED - RESUBMIT**

REVIEWER: K. Wiendr

DATE: 6/28/2019

Operating Temperature:

PRODUCT ID	LUMEN OUTPUT	AMBIENT READING
ERL1	02-10	-40°C to 50°C
ERLH	10-11, 13	-40°C to 50°C
ERLH	14-16	-40°C to 45°C
ERL2	16-28	-40°C to 50°C
ERL2	30	-40°C to 45°C

Delayed start may be experienced < -35°C

Construction & Finish

- **Housing:**
 - Die Cast Enclosure
 - Casting-integral heat sink for maximum heat transfer
- **Lensing:** Impact resistant tempered glass, standard
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
 - Standard Colors: Dark Bronze, Black, & Gray
 - RAL & custom colors available
 - Optional coastal finish available.
- **Weight:** 12.4lbs (5.6kg) – 24lbs (10.9kg)

Warranty

- **System Warranty:** 5 Year Standard, 10 Year Optional

Controls

- **Dimming:**
 - Standard: 0-10V; Optional: DALI (120-277V Only)
- **Sensors:**
 - Photo electric sensors (PE) available.
- LightGrid™ compatible

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Suggested HID Replacement Lumen Levels

- ~4,000–5,000 lumens to replace 100W HPS Cobra-head
- ~7,000–8,800 lumens to replace 150W HPS Cobra-head
- ~8,500–11,500 lumens to replace 200W HPS Cobra-head
- ~11,500–14,000 lumens to replace 250W HPS Cobra-head
- ~21,000–30,000 lumens to replace 400W HPS Cobra-head

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

CONVERSION FROM PREVIOUS GENERATION OPTICS TO CURRENT GENERATION OPTICS**			
PREVIOUS	DESCRIPTION	CURRENT	DESCRIPTION
A1, B1	Extra Narrow/Narrow Asymmetric	A3	Type II Narrow
C1, E1	Asymmetric Short/Medium	B3	Type II Wide
D1, G1	Asymmetric Forward/Extra Wide	C3	Type III
F1	Asymmetric Wide	D3	Type IV
		E3	Type II Enhanced Back Light

**The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is do a lighting layout Utilizing AGI.



GE Evolve™ LED Roadway Lighting ERL1-ERLH-ERL2

INDIAN RIVER COUNTY SHOP DRAWING REVIEW

Project name _____
 Date _____
☒ **APPROVED**
☐ **APPROVED AS NOTED**
☐ **NOT APPROVED - RESUBMIT**
 REVIEWER: E. Wiendr
 DATE: 6/28/2019

ERL2

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION*	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve R = Roadway L = Local 2 = Double Module	0 = 120-277V* 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 D = 347 H = 347-480*# * Not available with Fusing. Must choose a discrete voltage with F option. # Not available with E controls option.	16 18 19 21 23 25 27 28 30 See Table	A3 = Type II Narrow B3 = Type II Wide C3 = Type III D3 = Type IV E3 = Type II Enhanced Back Light See Table *Nominal IES Type classing subject to typical variation, individual units may differ.	30 = 3000K 40 = 4000K 50 = 5000K* <> Select 3000K CCT for IDA approved units. *50 = 5200K for ERL2 lumen outputs 25, 27, 28, and 30.	A = ANSI C136.41 7-pin D = ANSI C136.41 7-pin with Shorting Cap E = ANSI C136.41 7-pin with non-Dimming PE Control.* *PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.	GRAY = Gray BLCK = Black DKBZ = Dark Bronze	A = 4 Bolt Slipfitter † F = Fusing G = Internal Bubble Level I = IP66 Optical L = Tool-Less Entry R = Secondary 10kV/5kA SPD T = Secondary 20kV/10kA SPD U = DALI Programmable ^ V1 = Variable Output via Field Adjustable Module** Y = Coastal Finish* XXX = Special Options † Contact manufacturer for Lead-Time. * Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time. ^ Compatible with LightGrid 2.0 nodes. ^ Not available in 347V, 480V or 347-480V. ** Not available with DALI (U) option.

***Special Color Match Highway Green**

LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING		IES FILE NUMBER					
		4000K/5000-5200K	3000K	120-277V	347-480V	4000K	3000K	120-277V	4000K	347-480V	120-277V	3000K	347-480V
16	A3	16000	15300	120	120	B3-U0-G3	B3-U0-G3	ERL2_16A340	.IES		ERL2_16A330	.IES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_16B340	.IES		ERL2_16B330	.IES	
	C3					B2-U0-G3	B2-U0-G3	ERL2_16C340	.IES		ERL2_16C330	.IES	
	D3					B2-U0-G3	B2-U0-G3	ERL2_16D340	.IES		ERL2_16D330	.IES	
	E3					B3-U0-G3	B3-U0-G3	ERL2_16E340	.IES		ERL2_16E330	.IES	
18	A3	18000	17300	140	140	B3-U0-G3	B3-U0-G3	ERL2_18A340	.IES		ERL2_18A330	.IES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_18B340	.IES		ERL2_18B330	.IES	
	C3					B2-U0-G3	B2-U0-G3	ERL2_18C340	.IES		ERL2_18C330	.IES	
	D3					B2-U0-G3	B2-U0-G3	ERL2_18D340	.IES		ERL2_18D330	.IES	
	E3					B3-U0-G3	B3-U0-G3	ERL2_18E340	.IES		ERL2_18E330	.IES	
19	A3	19000	18200	149	149	B3-U0-G3	B3-U0-G3	ERL2_19A340	.IES		ERL2_19A330	.IES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_19B340	.IES		ERL2_19B330	.IES	
	C3					B3-U0-G3	B2-U0-G3	ERL2_19C340	.IES		ERL2_19C330	.IES	
	D3					B2-U0-G3	B2-U0-G3	ERL2_19D340	.IES		ERL2_19D330	.IES	
	E3					B3-U0-G3	B3-U0-G3	ERL2_19E340	.IES		ERL2_19E330	.IES	
21	A3	21000	20100	174	177	B3-U0-G3	B3-U0-G3	ERL2_21A340	.IES	ERL2_21A340_-347-480VIES	ERL2_21A330_-120-277VIES	ERL2_21A330_-347-480VIES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_21B340	.IES	ERL2_21B340_-347-480VIES	ERL2_21B330_-120-277VIES	ERL2_21B330_-347-480VIES	
	C3					B3-U0-G4	B3-U0-G3	ERL2_21C340	.IES	ERL2_21C340_-347-480VIES	ERL2_21C330_-120-277VIES	ERL2_21C330_-347-480VIES	
	D3					B2-U0-G3	B2-U0-G3	ERL2_21D340	.IES	ERL2_21D340_-347-480VIES	ERL2_21D330_-120-277VIES	ERL2_21D330_-347-480VIES	
	E3					B3-U0-G3	B3-U0-G3	ERL2_21E340	.IES	ERL2_21E340_-347-480VIES	ERL2_21E330_-120-277VIES	ERL2_21E330_-347-480VIES	
23	A3	23000	22100	194	196	B3-U0-G3	B3-U0-G3	ERL2_23A340	.IES	ERL2_23A340_-347-480VIES	ERL2_23A330_-120-277VIES	ERL2_23A330_-347-480VIES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_23B340	.IES	ERL2_23B340_-347-480VIES	ERL2_23B330_-120-277VIES	ERL2_23B330_-347-480VIES	
	C3					B3-U0-G4	B3-U0-G4	ERL2_23C340	.IES	ERL2_23C340_-347-480VIES	ERL2_23C330_-120-277VIES	ERL2_23C330_-347-480VIES	
	D3					B2-U0-G4	B2-U0-G4	ERL2_23D340	.IES	ERL2_23D340_-347-480VIES	ERL2_23D330_-120-277VIES	ERL2_23D330_-347-480VIES	
	E3					B4-U0-G4	B3-U0-G3	ERL2_23E340	.IES	ERL2_23E340_-347-480VIES	ERL2_23E330_-120-277VIES	ERL2_23E330_-347-480VIES	
25	A3	25000	24000	214	214	B3-U0-G3	B3-U0-G3	ERL2_25A340	.IES		ERL2_25A330	.IES	
	B3					B3-U0-G3	B3-U0-G3	ERL2_25B340	.IES		ERL2_25B330	.IES	
	C3					B3-U0-G4	B3-U0-G4	ERL2_25C340	.IES		ERL2_25C330	.IES	
	D3					B2-U0-G4	B2-U0-G4	ERL2_25D340	.IES		ERL2_25D330	.IES	
	E3					B4-U0-G4	B4-U0-G4	ERL2_25E340	.IES		ERL2_25E330	.IES	
27	A3	27000	25900	237	237	B3-U0-G3	B3-U0-G3	ERL2_27A340	.IES		ERL2_27A330	.IES	
	B3					B3-U0-G4	B3-U0-G4	ERL2_27B340	.IES		ERL2_27B330	.IES	
	C3					B3-U0-G4	B3-U0-G4	ERL2_27C340	.IES		ERL2_27C330	.IES	
	D3					B2-U0-G4	B2-U0-G4	ERL2_27D340	.IES		ERL2_27D330	.IES	
	E3					B4-U0-G4	B4-U0-G4	ERL2_27E340	.IES		ERL2_27E330	.IES	
28	A3	28000	26900	251	251	B3-U0-G3	B3-U0-G3	ERL2_28A340	.IES		ERL2_28A330	.IES	
	B3					B3-U0-G4	B3-U0-G4	ERL2_28B340	.IES		ERL2_28B330	.IES	
	C3					B3-U0-G4	B3-U0-G4	ERL2_28C340	.IES		ERL2_28C330	.IES	
	D3					B2-U0-G4	B2-U0-G4	ERL2_28D340	.IES		ERL2_28D330	.IES	
	E3					B4-U0-G4	B4-U0-G4	ERL2_28E340	.IES		ERL2_28E330	.IES	
30	A3	30000	28800	278	278	B4-U0-G4	B4-U0-G4	ERL2_30A340	.IES		ERL2_30A330	.IES	
	B3					B3-U0-G4	B3-U0-G4	ERL2_30B340	.IES		ERL2_30B330	.IES	
	C3					B3-U0-G4	B3-U0-G4	ERL2_30C340	.IES		ERL2_30C330	.IES	
	D3					B2-U0-G4	B2-U0-G4	ERL2_30D340	.IES		ERL2_30D330	.IES	
	E3					B4-U0-G4	B4-U0-G4	ERL2_30E340	.IES		ERL2_30E330	.IES	

**Job Name:**

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
Municipality: Indian River County (Vero Beach)

Catalog Number:

ERL2030D340DGRAYGIT

Notes: Qty-4

Type:

INDIAN RIVER COUNTY
SHOP DRAWING REVIEW
DOT19-13292

☒ **APPROVED**☐ **APPROVED AS NOTED**☐ **NOT APPROVED - RESUBMIT**

REVIEWER:

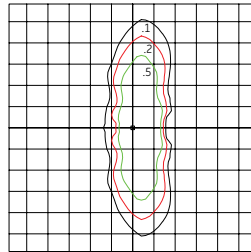
DATE: 6/28/2019**Photometrics:****Evolve™ LED Streetlight (ERL2)****ERL2**

Type II Narrow
(23A340)

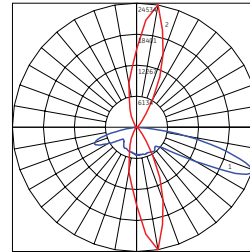
23,000 Lumens

4000K

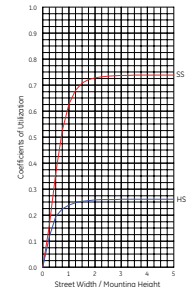
ERL2_23A340__IES



Grid Distance in Units of Mounting Height at 30'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 80°
— Horizontal cone through vertical angle of Max. Cd at 69°

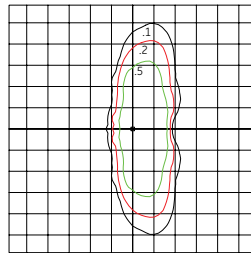
**ERL2**

Type II Wide
(23B340)

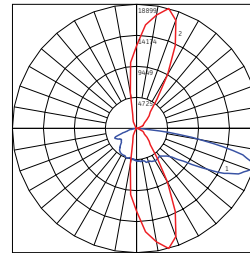
23,000 Lumens

4000K

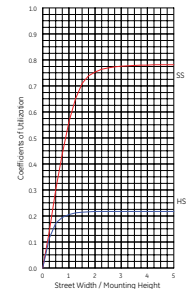
ERL2_23B340__IES



Grid Distance in Units of Mounting Height at 30'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 72°

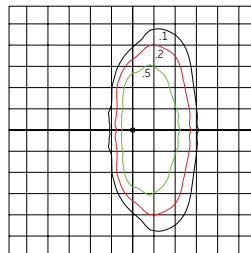
**ERL2**

Type III
(23C340)

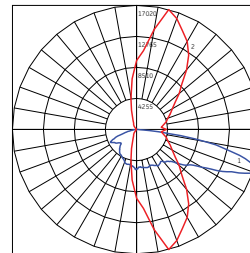
23,000 Lumens

4000K

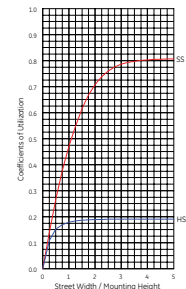
ERL2_23C340__IES



Grid Distance in Units of Mounting Height at 30'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 71°

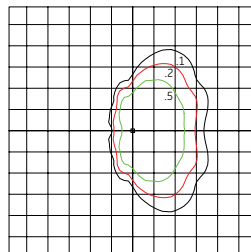
**ERL2**

Type IV
(23D340)

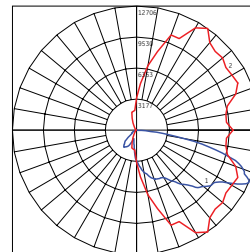
23,000 Lumens

4000K

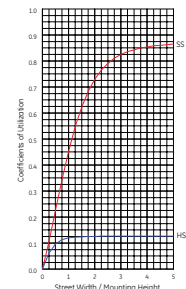
ERL2_23D340__IES



Grid Distance in Units of Mounting Height at 30'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 65°

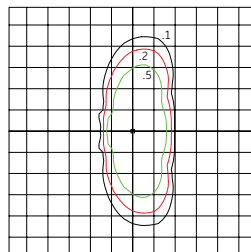
**ERL2**

Type II Enhanced Back Light
(23E340)

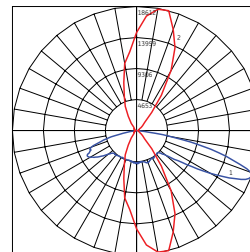
23,000 Lumens

4000K

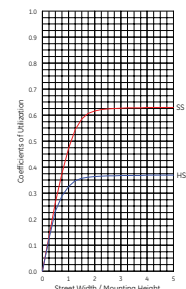
ERL2_23E340__IES



Grid Distance in Units of Mounting Height at 30'
Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 69°



**Job Name:**

Indian River Blvd and Grand Harbor Blvd - Traffic
Distributor: Dot Lighting, Inc. (New Port Richey)
Municipality: Indian River County (Vero Beach)

Catalog Number:

ERL2030D340DGRAYGIT

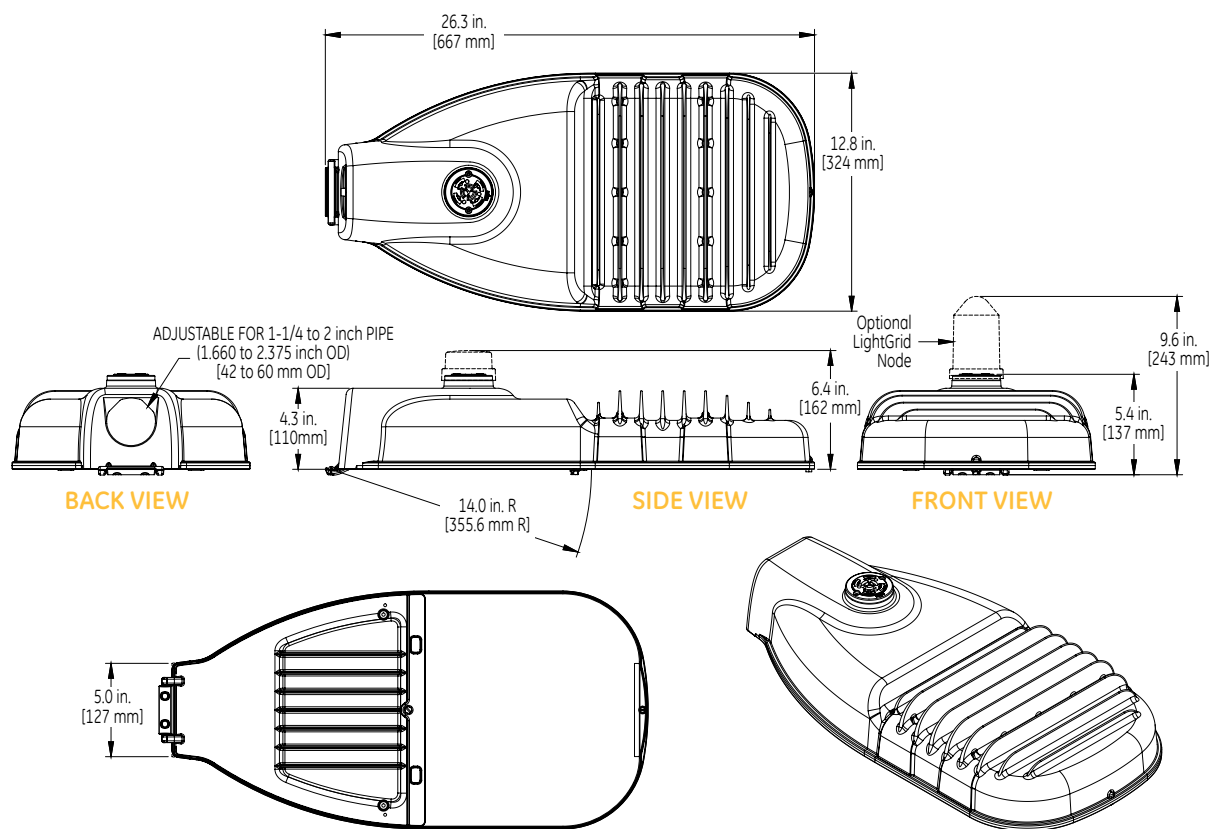
Notes: Qty-4

Type:**715-5-31**

DOT19-13292

GE Evolve™**LED Roadway Lighting**

ERL1-ERLH-ERL2

Product Dimensions:**Evolve™ LED Streetlight (ERL2)****INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**☒ **APPROVED**☐ **APPROVED AS NOTED**☐ **NOT APPROVED - RESUBMIT**REVIEWER: E. ViendaDATE: 6/28/2019**DATA**



- Approximate net weight: 24.0 lbs (10.9 kgs)
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA): 0.57 sq ft max (0.053 sq m)

current
powered by GE

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www.currentbyge.com | OLP3128 (Rev 12/21/18)

Submitted by Dot Lighting, Inc.		Catalog Number: ERL2030D340DGRAYGIT	Type: 715-5-31
  Job Name: Indian River Blvd and Grand Harbor Blvd - Traffic Distributor: Dot Lighting, Inc. (New Port Richey) Municipality: Indian River County (Vero Beach)		Notes: Qty-4 DOT19-13292	

1/23/2019

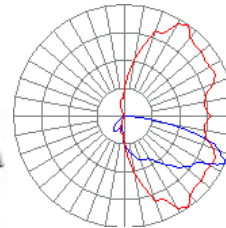
Photometric File Details

Photometric File Details

Filename: ERL2_30D340__IES

More Information:

Classification: Luminaire Lumens	30000
Efficiency	N.A.
IES Classification	Type IV
Longitudinal Classification	Short
Cutoff Classification (deprecated)	N.A.
Upward Waste Light Ratio	0.00
CIE Type	Direct
Luminaire Efficacy Rating (LER)	108
NEMA Horizontal Beam	N.A.
NEMA Vertical Beam	N.A.
Bug Rating	B2-U0-G4



Contents:

IESNA:LM-63-2002
 [TEST]17072611 17072711 17072712 17072816 17072817 17072818
 [TESTLAB] GE LIGHTING SOLUTIONS-HENDERSONVILLE NC USA
 [ISSUEDATE] 8/07/2017
 [MANUFAC] GE LIGHTING SOLUTIONS
 [LUMCAT] ERL2_30D340__
 [LUMINAIRE] Evolve LED Roadway Streetlight-ERL2
 [DISTRIBUTION] TYPE IV
 [LAMPCAT] LEDs E21A
 [LAMP] LED
 [OTHER]
 [MORE]
 [_DRIVE_CURRENT]
 [_CCT] 4000K
 [_CRI] 70
 [_ABSOLUTELUMENS] 30000
 [_SYSTEM_WATTS] 278W
 [_ACCESSORIES]
 [_SEARCH_SOURCECTYPE] LED
 [_SEARCH_CRI] 70
 [_SEARCH_COLORTEMP] 4000
 [_SEARCH_APPLICATION] Outdoor, Area, Automotive, Commercial, Educational, Government, Healthcare, Hospitality, Hotel, Industrial, Institutional, Landscape
 [MORE] Retail, Roadway, Sidewalk, Street, Substation, Utility, Walkway, Direct, Security, Wet Location
 [_SEARCH_MOUNTING] Arm, Pole
 [_SEARCH_CERTIFICATION] UL
 [_SEARCH_CLASSIFICATION] IP65
 TILT=NONE

INDIAN RIVER COUNTY SHOP DRAWING REVIEW

- ☒ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED - RESUBMIT

REVIEWER: E. Wiender
 DATE: 6/28/2019

[illegible]

PLEASE SUPPLY PAINT
SAMPLE. THIS IS
REQUIRED AT TIME OF
RELEASE.

INDIAN RIVER COUNTY SHOP DRAWING REVIEW	
<input checked="" type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	NOT APPROVED - RESUBMIT
REVIEWER: <u>K. Winder</u>	
DATE: <u>6/28/2019</u>	

FINISH NOTES:

BASE COAT: HOT DIP GALVANIZED TO ASTM: A123
PRIME COAT: NEW HIGH BUILD EPOXY POWDER
FINISH COAT: SUPER DURABLE POWDER
COLOR: F.S. 595C #14066 HIGHWAY GREEN
VALMONT SPEC: F578?? (5) YEAR WARRANTY

ASSEMBLIES SHALL HAVE EITHER A CIRCULAR CROSS SECTION OR MULTISIDED FOR THE POLES AND ARMS.

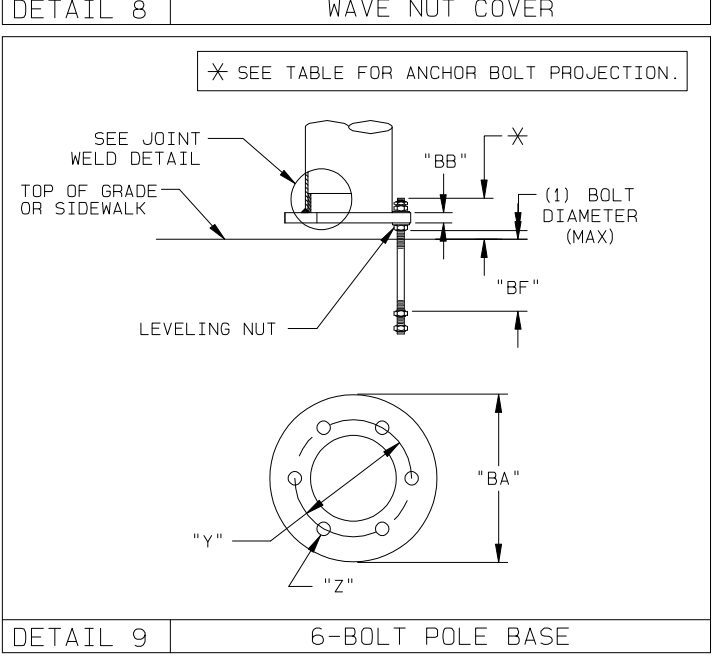
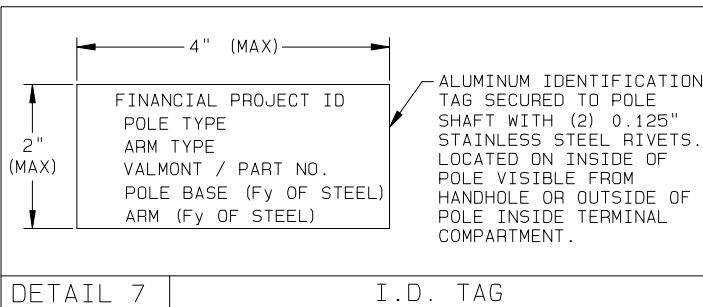
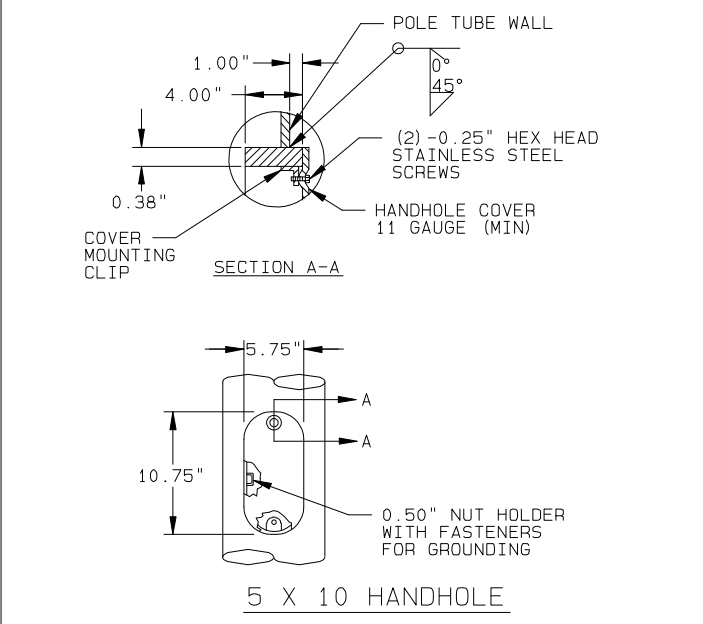
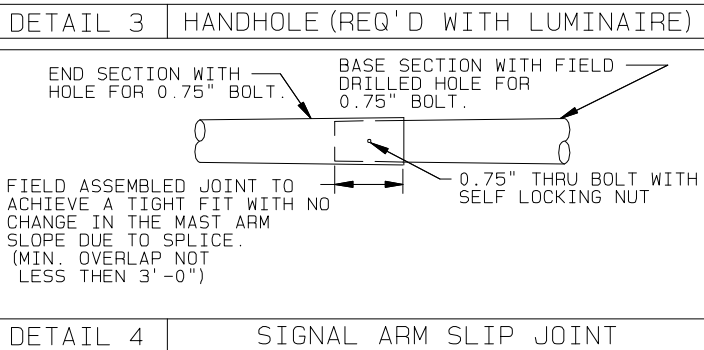
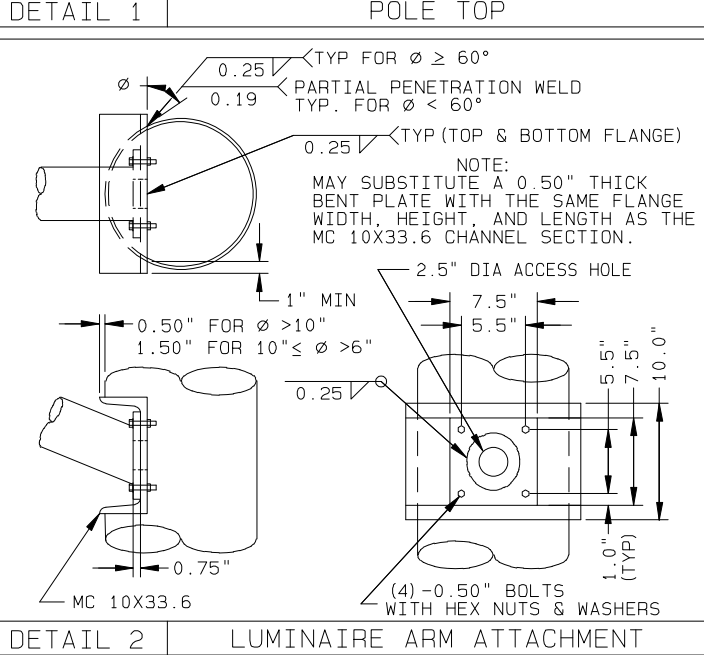
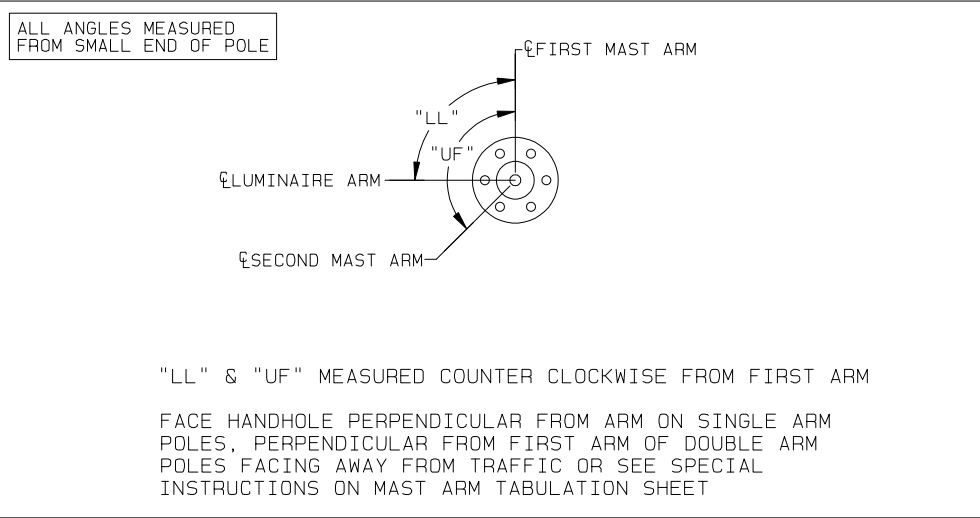
Diagram illustrating three cross-sectional shapes:

- ROUND
- MULTISIDED 16 SIDED
- MULTISIDED 12 SIDED

FLORIDA APL COVER SHEET

SIZES NOTED ON THIS SHEET AND DB01192 HAVE BEEN APPROVED BY THE
STATE OF FLORIDA. SIZING TO INDEX 649-030 (2018-2019)

			SOLD TO: DOT LIGHTING, INC.	JOB	INIDAN RIVEER COUNTY, FL	VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.		ORDER NUMBER: 447652-P1
			SHIP TO: INDIAN RIVER COUNTY		INDIAN RIVER & GRAND HARBOR			PAGE NUMBER: 1 OF 1
			P.O. #: 83638-00					DRAWING NUMBER
—	NKL 06/24/19	NKL 06/24/19	— — — — —	AGENT: DOT LIGHTING, INC.	TITLE	TRAFFIC SIGNAL STRUCTURES	Valley, NE 68064 (402) 359-2201	FL447652P1
REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION					



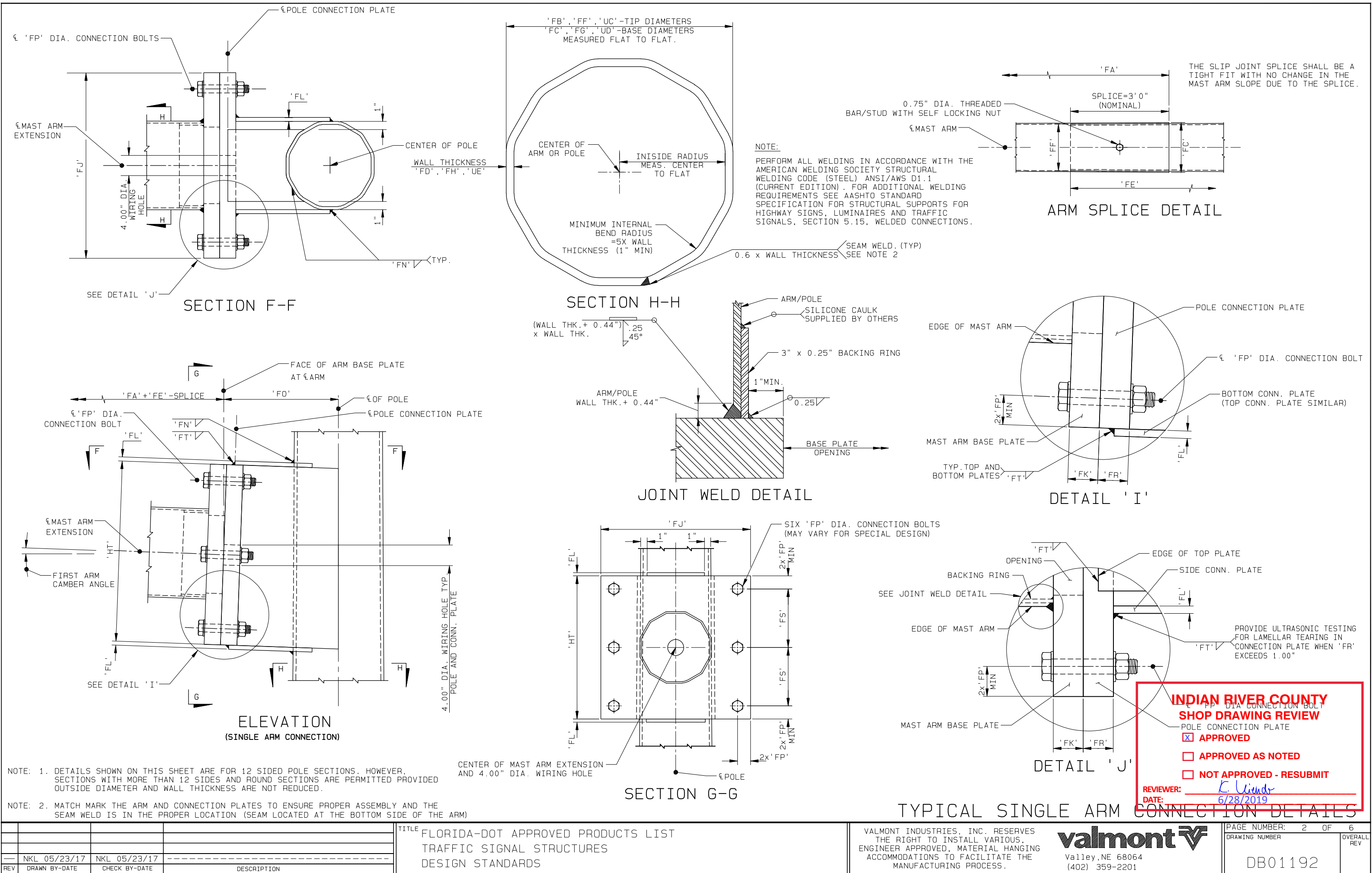
—	NKL 05/23/17	NKL 05/23/17	— — — — — — — — — —
REV	DRAWN BY-DATE	CHECK BY-DATE	DESCRIPTION

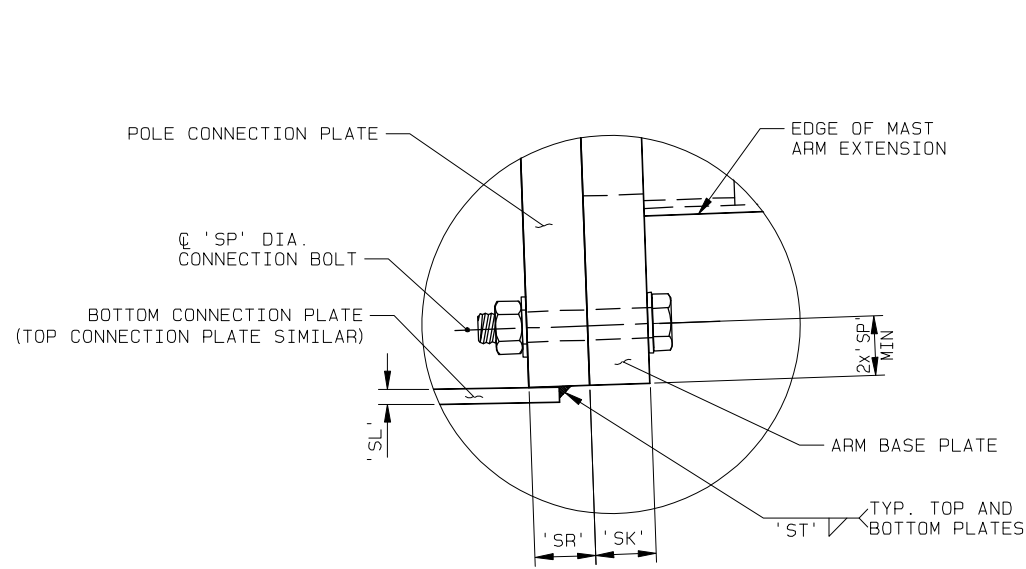
TITLE	FLORIDA-DOT APPROVED PRODUCTS LIST TRAFFIC SIGNAL STRUCTURES DESIGN STANDARDS	VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.
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VALMONT INDUSTRIES, INC. RESERVES
THE RIGHT TO INSTALL VARIOUS,
ENGINEER APPROVED, MATERIAL HANGING
ACCOMMODATIONS TO FACILITATE THE
MANUFACTURING PROCESS.

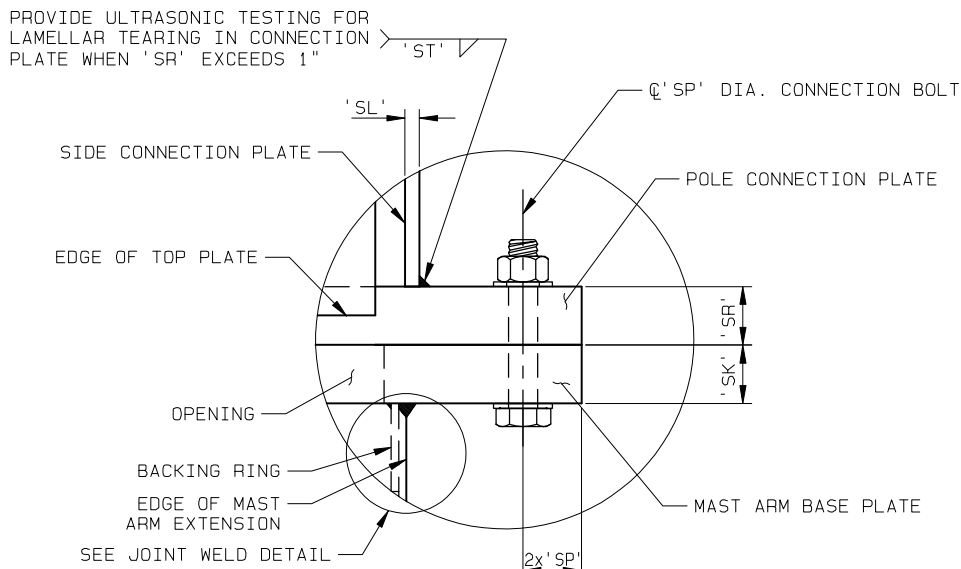
valmont 

Valley, NE 68064
(402) 359-2201

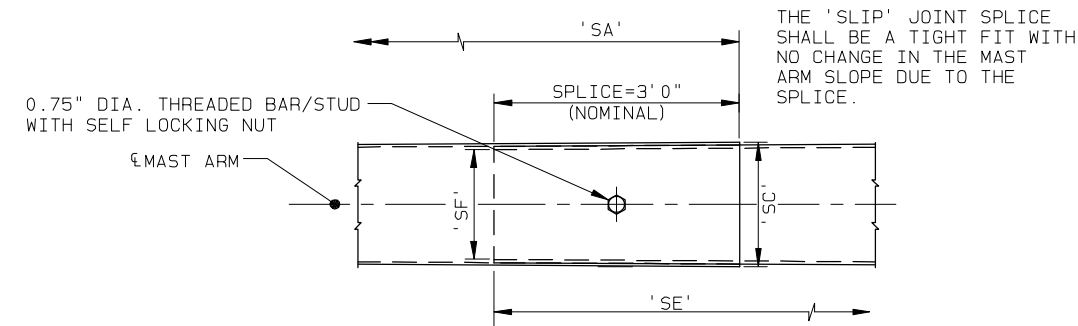




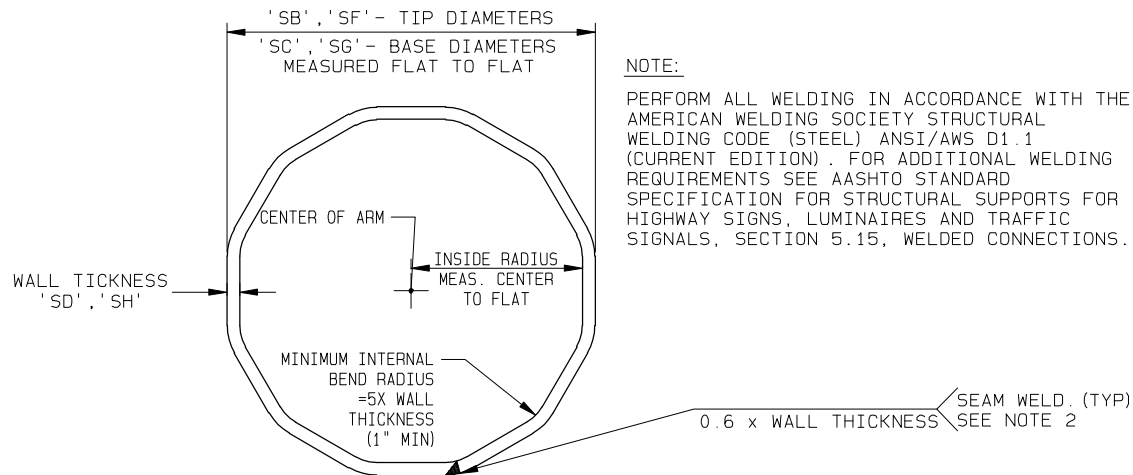
DETAIL 'N'



DETAIL 'O'



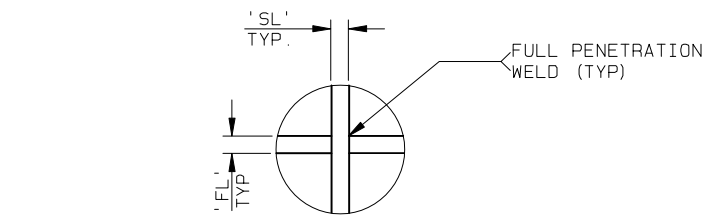
ARM SPLICE DETAIL



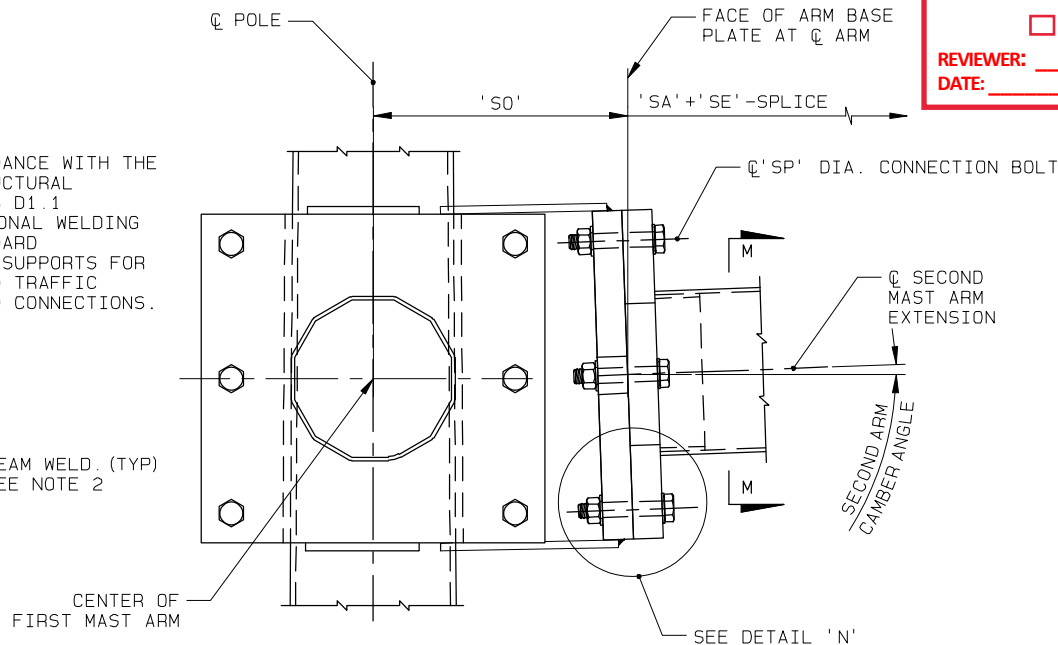
SECTION 'M-M'

NOTE: 1. DETAILS SHOWN ON THIS SHEET ARE FOR 12 SIDED POLE SECTIONS. HOWEVER, SECTIONS WITH MORE THAN 12 SIDES AND ROUND SECTIONS ARE PERMITTED PROVIDED OUTSIDE DIAMETER AND WALL THICKNESS ARE NOT REDUCED.

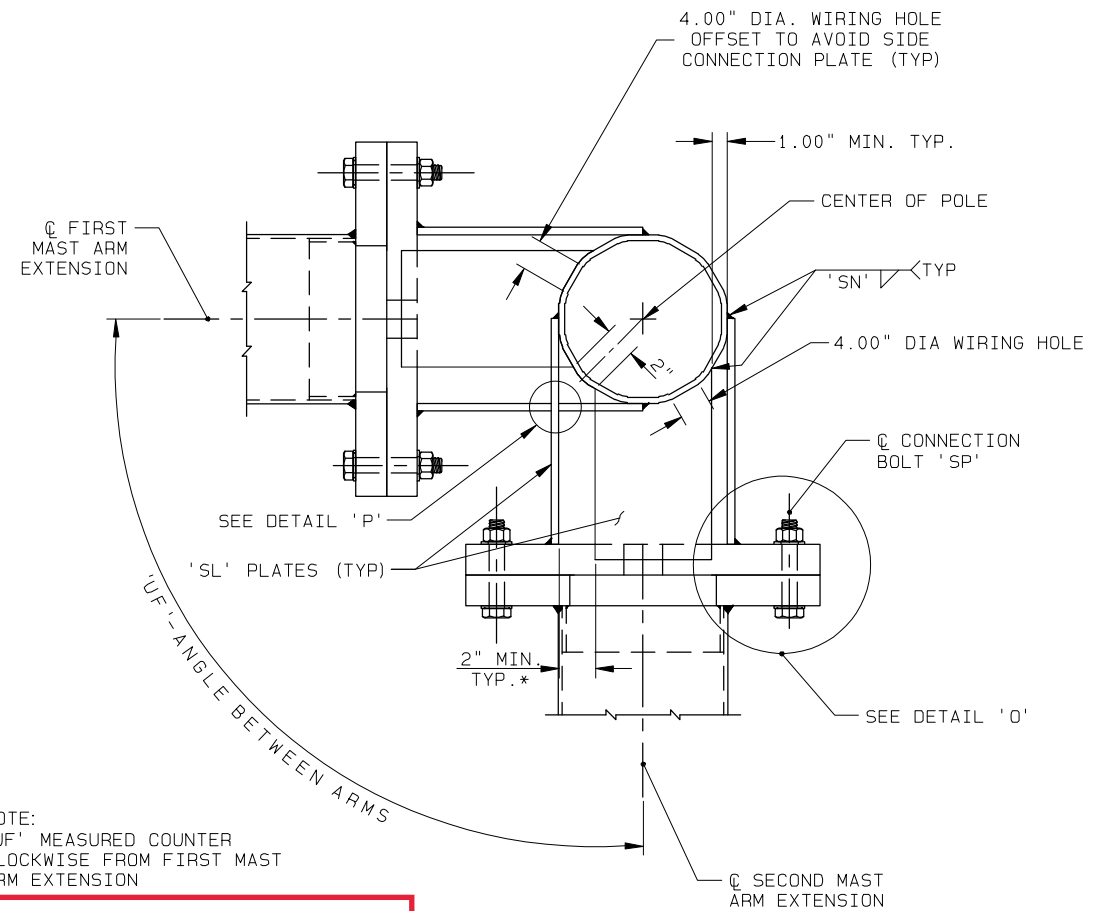
NOTE: 2. MATCH MARK THE ARM AND CONNECTION PLATES TO ENSURE PROPER ASSEMBLY AND THE SEAM WELD IS IN THE PROPER LOCATION (SEAM LOCATED AT THE BOTTOM SIDE OF THE ARM)



DETAIL 'P'



SECTION 'L-L'



SECTION 'K-K'

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

☒ APPROVED

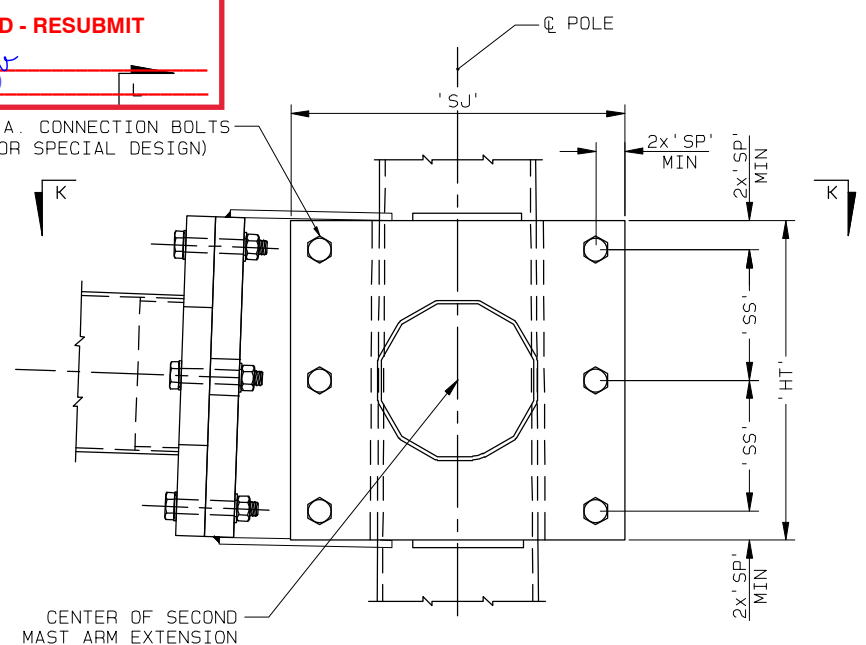
☐ APPROVED AS NOTED

☐ NOT APPROVED - RESUBMIT

REVIEWER: K. Wiender

DATE: 6/28/2019

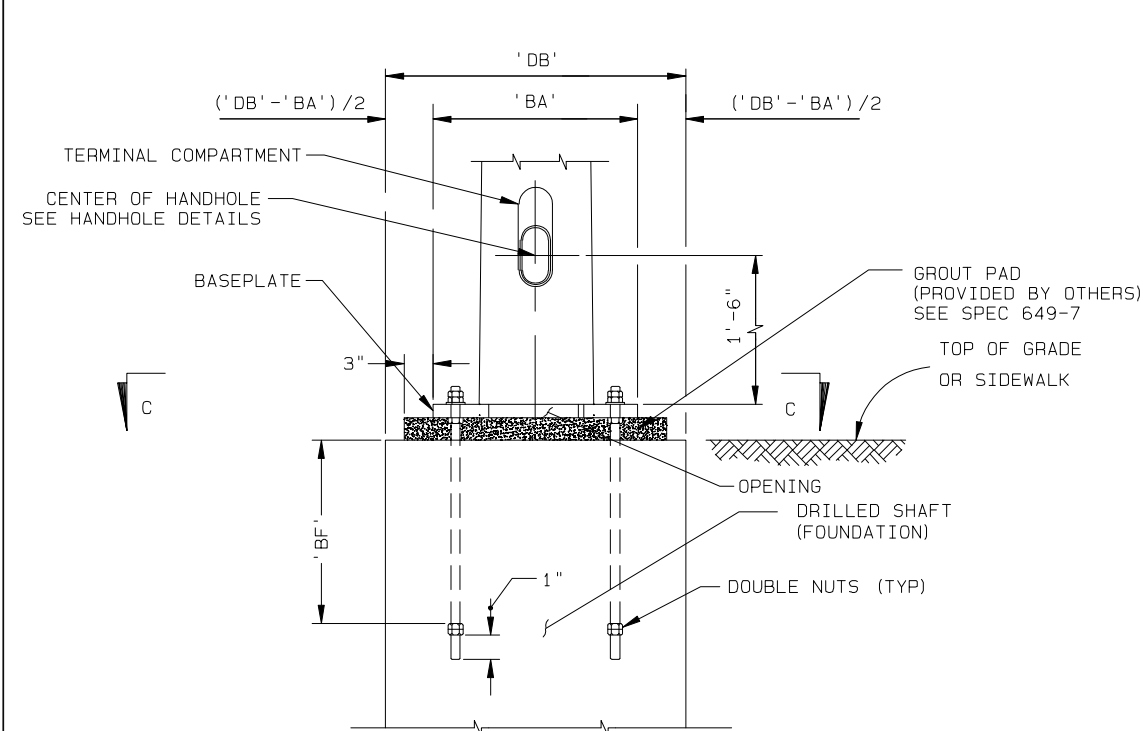
* ADJUST WIDTH OF TOP AND BOTTOM CONNECTION PLATES TO MAINTAIN MINIMUM CLEARANCE SHOWN



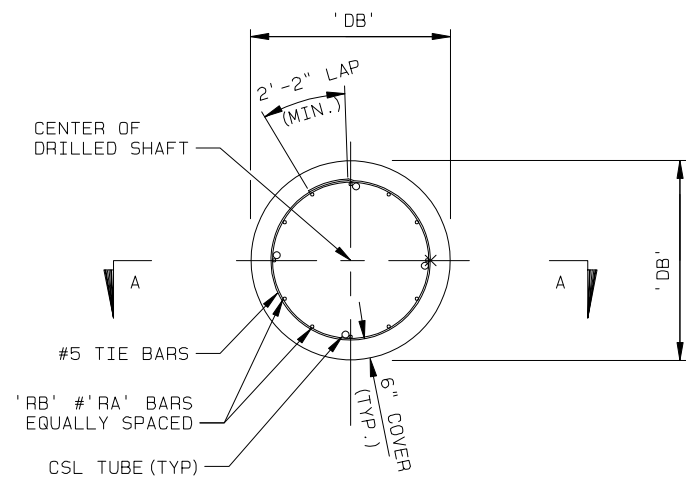
ELEVATION
(DOUBLE ARM CONNECTION)

TYPICAL DOUBLE ARM CONNECTION DETAILS

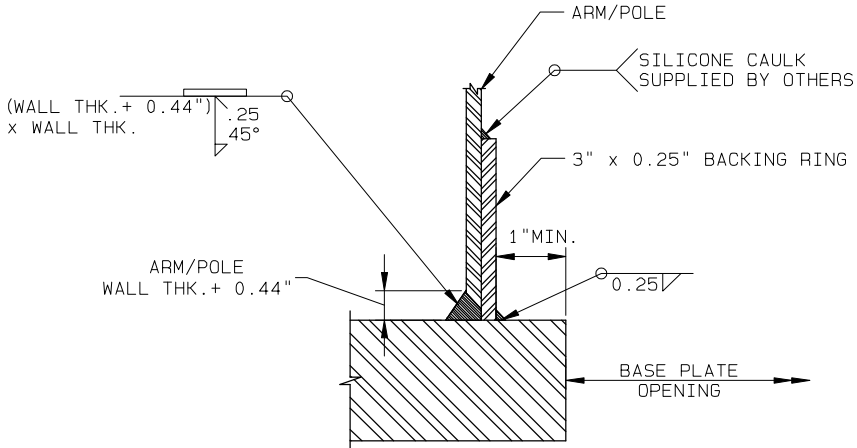
				TITLE	FLORIDA-DOT APPROVED PRODUCTS LIST TRAFFIC SIGNAL STRUCTURES DESIGN STANDARDS	VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS. ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.	 Valley, NE 68064 (402) 359-2201	PAGE NUMBER: 3 OF 6		
								DRAWING NUMBER		OVERALL REV
	NKL 05/23/17	NKL 05/23/17						DB01192		
REV	DRAWN BY-DATE	CHECK BY-DATE								



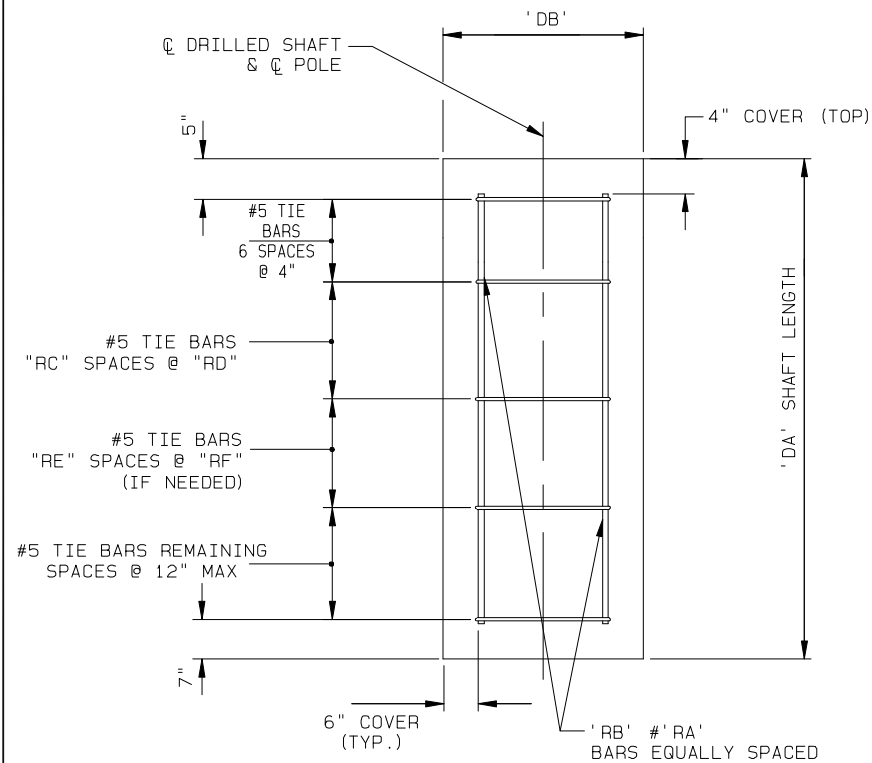
BASE PLATE AND ANCHORAGE ELEVATION
(REINFORCEMENT NOT SHOWN)



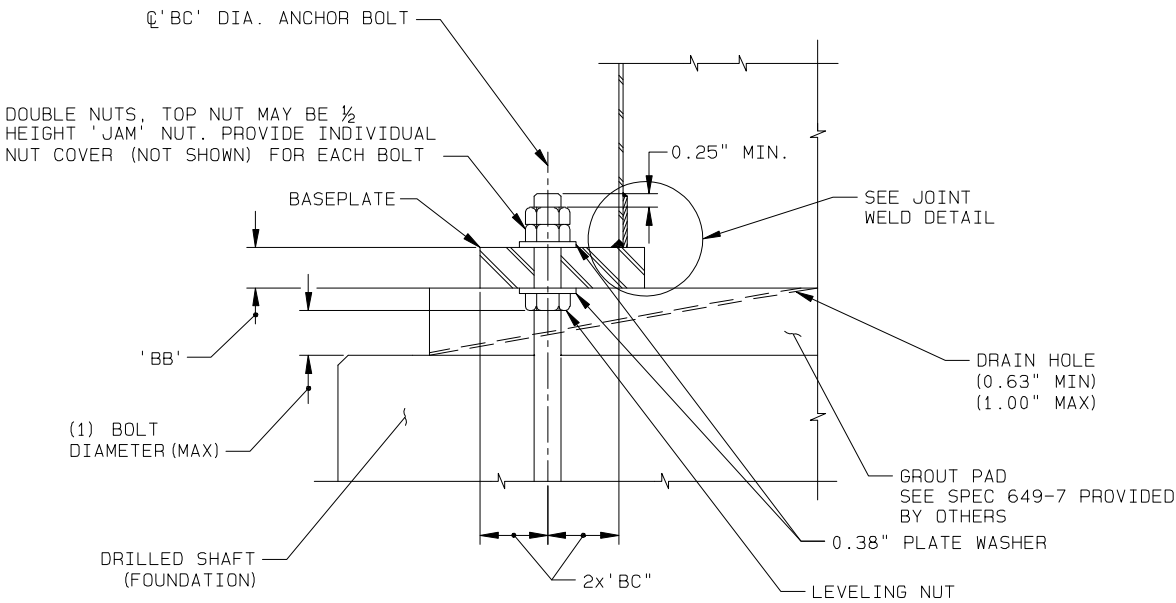
FOUNDATION PLAN



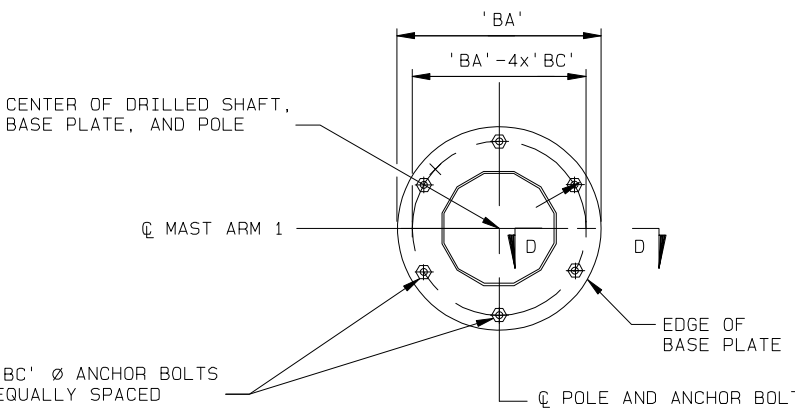
JOINT WELD DETAIL



SECTION A-A



SECTION D-D



SECTION C-C
(6 ANCHOR BOLTS)

TYPICAL FOUNDATION AND BASE PLATE DETAILS

**INDIAN RIVER COUNTY
SHOP DRAWING REVIEW**

☒ **APPROVED**

☐ **APPROVED AS NOTED**

☐ **NOT APPROVED - RESUBMIT**

REVIEWER: E. Uiedo

DATE: 6/28/2019

REV	DATE	DESCRIPTION
NKL	05/23/17	05/23/17
---	---	---
---	---	---
---	---	---

TITLE FLORIDA-DOT APPROVED PRODUCTS LIST
TRAFFIC SIGNAL STRUCTURES
DESIGN STANDARDS

VALMONT INDUSTRIES, INC. RESERVES
THE RIGHT TO INSTALL VARIOUS.
ENGINEER APPROVED, MATERIAL HANGING
ACCOMMODATIONS TO FACILITATE THE
MANUFACTURING PROCESS.

valmont

Valley, NE 68064
(402) 359-2201

PAGE NUMBER: 4 OF 6	OVERALL REV
DRAWING NUMBER	DB01192

POLE , BASE PLATE AND ARM CONNECTION																												
POLE ID PX-POLE NO S-SINGLE ARM D-DOUBLE ARM H-HEAVY DUTY	UPRIGHT				BASE PLATE					ANCHOR BOLT DATA						ARM-UPRIGHT CONNECTION												
	UPRIGHT HEIGHT "UA" (FT)	BASE DIA "UD" (IN)	POLE WALL THK "UE" (IN)	LUMINAIRE ATTACHMENT "UG" (FT)	NO BOLTS	DIA. "BA" (IN)	(MIN) BOLT CIRCLE (IN)	PLATE THK "BB" (IN)	BOLT HOLE DIA (IN)	ANCHOR BOLT DIA "BC" (IN)	(MIN) LENGTH "J" (IN)	(MIN) THREAD LENGTH "U" (IN)	(MIN) THREAD LENGTH "H" (IN)	BOLT PROJECTION ABOVE GRADE (IN))	EMBEDMENT "BF " (IN)	HT (IN)	FJ/SJ (IN)	FL/SL (IN)	FN.SN (IN)	FO/SO (IN)	FP/SP (IN)	FR/SR (IN)	FS/SS (IN)	FT/ST (IN)				
P1/S	25.00	16.00	0.375		6	30.00	23.00	2.50	2.00	1.75	54.50	12.00	8.00	10.00	40.00	22.00	25.00	0.75	0.438	14.00	1.25	2.00	8.50	0.438				
P1/S/L	39.00			37.50												30.00	36.00			23.00								
P1/D	25.00															30.00	36.00	0.75	0.438	23.00	1.25	2.75	12.50	0.438				
P1/D/L	39.00			37.50																								
P2/S	25.00	18.00	0.375		6	34.00	26.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	27.00	0.75	0.438	15.00	1.25	2.00	8.50	0.438				
P2/S/L	39.00			37.50												30.00	36.00			23.00								
P2/D	25.00															30.00	36.00	0.75	0.438	23.00	1.25	2.75	12.50	0.438				
P2/D/L	39.00			37.50																								
P3/S	25.00	20.00	0.375		6	36.00	28.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	22.00	29.00	0.75	0.438	16.00	1.25	2.00	8.50	0.438				
P3/S/L	39.00			37.50												30.00	36.00			23.00								
P3/D	25.00																			2.75		12.50	0.438					
P3/D/L	39.00			37.50																								
P4/S	25.00	22.00	0.375		6	38.00	30.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	30.00	36.00	0.75	0.438	17.00	1.25	2.50	12.50	0.438				
P4/S/L	39.00			37.50																23.00								
P4/D	25.00																											
P4/D/L	39.00			37.50																								
P5/S	25.00	24.00	0.375		6	40.00	32.00	2.50	2.25	2.00	56.00	13.00	8.00	11.00	40.00	30.00	36.00	0.75	0.500	18.00	1.25	2.50	12.50	0.500				
P5/S/L	39.00			37.50																23.00								
P5/D	25.00																											
P5/D/L	39.00			37.50																								
P6/S	25.00	24.00	0.500		6	42.00	33.00	2.50	2.50	2.25	62.50	14.00	8.00	12.00	45.00	30.00	36.00	0.75	0.625	18.00	1.50	2.50	12.00	0.625				
P6/S/L	39.00			37.50																23.00								
P6/D	25.00																											
P6/D/L	39.00			37.50																								
P7/S	25.00	26.00	0.500		6	44.00	35.00	2.50	2.50	2.25	62.50	14.00	8.00	12.00	45.00	30.00	36.00	0.75	0.625	19.00	1.50	2.50	12.00	0.625				
P7/S/L	39.00			37.50																23.00								
P7/D	25.00																											
P7/D/L	39.00			37.50																								

DRILLED SHAFT								
DRILLED SHAFT ID	DA (FT)	DB (FT)	RA	RB	RC	RD (IN)	RE	RF (IN)
DS/12/4.0	12	4.0	11	14	8	12		
DS/12/4.5	12	4.5	11	16	8	12		
DS/14/4.5	14	4.5	11	16	10	8		
DS/14/5.0	14	5.0	11	18	10	8		
DS/16/4.5	16	4.5	11	16	10	8		
DS/16/5.0	16	5.0	11	18	10	8		
DS/18/5.0	18	5.0	11	18	10	8		
DS/20/5.0	20	5.0	11	18	10	6	10	9

LUMINAIRE CONNECTION DATA SHOWN IN DETAIL 2 ON SHEET 1 OF 6.

LUMINAIRE ARM DATA						
LA (FT)	LB (FT)	(MIN) LC BASE DIA (IN)	FREE END DIA (IN)	(MIN) LD GAUGE	LE	LF (FT)
40.00	10.00	3.00	2.38	10	0.500	9.00

INDIAN RIVER COUNTY
SHOP DRAWING REVIEW

☒ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED - RESUBMIT

REVIEWER: *K. Uicker*
DATE: 6/28/2019

ARM AND BASE PLATE											
ARM ID AXX-ARM LENGTH S-SINGLE ARM D-DOUBLE ARM H-HEAVY DUTY	TOTAL ARM LENGTH (FT)	ARM			ARM EXTENSION			BASE PLATE			
		FA/SA (FT)	FC/SC (IN)	FD/SD (IN)	FE/SE (FT)	FG/SG (IN)	FH/SH (IN)	HT (IN)	FJ/SJ (IN)	FK/SK (IN)	
A30/S	30.00	30.00	11.00	0.250				22.00	25.00	3.00	
A30/S/H		30.00	12.00	0.250				30.00	36.00		
A30/D		30.00	11.00	0.250							
A30/D/H		30.00	12.00	0.250							
A40/S	40.00	40.00	13.00	0.250				22.00	27.00	3.00	
A40/S/H		40.00	14.00	0.250				30.00	36.00		
A40/D		40.00	13.00	0.250							
A40/D/H		40.00	14.00	0.250							
A50/S	50.00	32.50	12.00	0.250	20.50	14.00	0.313	22.00	29.00	3.00	
A50/S/H		32.50	13.00	0.250	20.50	15.00		30.00	36.00		
A50/D		32.50	12.00	0.250	20.50	14.00					
A50/D/H		32.50	13.00	0.250	20.50	15.00					
A60/S	60.00	35.50	12.00	0.250	27.50	15.00	0.375	30.00	36.00	3.00	
A60/S/H		35.50	13.00	0.250	27.50	16.00					
A60/D		35.50	12.00	0.250	27.50	15.00					
A60/D/H		35.50	13.00	0.250	27.50	16.00					
A70/S	70.00	38.00	13.00	0.250	35.00	17.00	0.375	30.00	36.00	3.00	
A70/S/H		38.00	14.00	0.250	35.00	18.00					
A70/D		38.00	13.00	0.250	35.00	17.00					
A70/D/H		38.00	14.00	0.250	35.00	18.00					
A78/S	78.00	39.00	13.00	0.250	42.00	18.00	0.375	30.00	36.00	3.00	
A78/S/H		39.00	15.00	0.250	42.00	20.00					
A78/D		39.00	13.00	0.250	42.00	18.00					
A78/D/H		39.00	15.00	0.250	42.00	20.00					

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REVIEWER: E. Ulander
DATE: 6/28/2019