

PROPRIETARY

ITEM	DESCRIPTION
1	POLE SKIN
2	TOP PLATE
3	BOTTOM PLATE
4	DOOR SUPPORT FRAME
5	REAR DUCT LINING
6	DUCT END CAPS
7	DUCT SEPARATOR
8	ION MOUNTING PLATE
9	ION TOP HOLDING ASSEMBLY
10	STRUCTURAL MEMBERS/ WIREWAY
11	DUCT WIREWAY LINING
12	M-ION
13	FILLER BLOCK
14	FRONT DUCT LINING
15	DOOR LINING
16	DOOR

NOTES:
1. STEEL COMPONENTS SHOWN IN GREEN, NOISE ATTENUATING FOAM SHOWN IN GRAY
2. DESIGN NOT YET STRUCTURALLY VERIFIED, SMALL CHANGES TO THICKNESS AND MATERIAL SPECIFICATION OF STEEL COMPONENTS MAY BE REQUIRED TO MEET REQUIRED LOADING.

ConcealFab Corporation

3265 FILLMORE RIDGE HEIGHTS
COLORADO SPRINGS, CO 80907
PHONE :719-599-3400
FAX: 719-599-0057

PROPRIETARY INFORMATION
USE, REPRODUCTION, OR
DISCLOSURE IS SUBJECT TO
RESTRICTIONS SET FORTH IN
NON-DISCLOSURE AGREEMENT
AND OTHER CONTRACT
DOCUMENTS PERTAINING TO THIS
PROJECT

Project Information:

PROJECT
**12" DIAMETER ION
UTILITY POLE**

Rev: Date: Description: By:

A	07/10/13	NEW RELEASE	OBC
B	08/21/13	REVISED DESIGN	OBC

DO NOT
SCALE DWG

DIMENSIONS ARE IN INCHES

DECIMAL	ANGLE	FRACTION
X.XX ± 0.020	±1°	±1/16"
X.XXX ± 0.010		

Consultant:

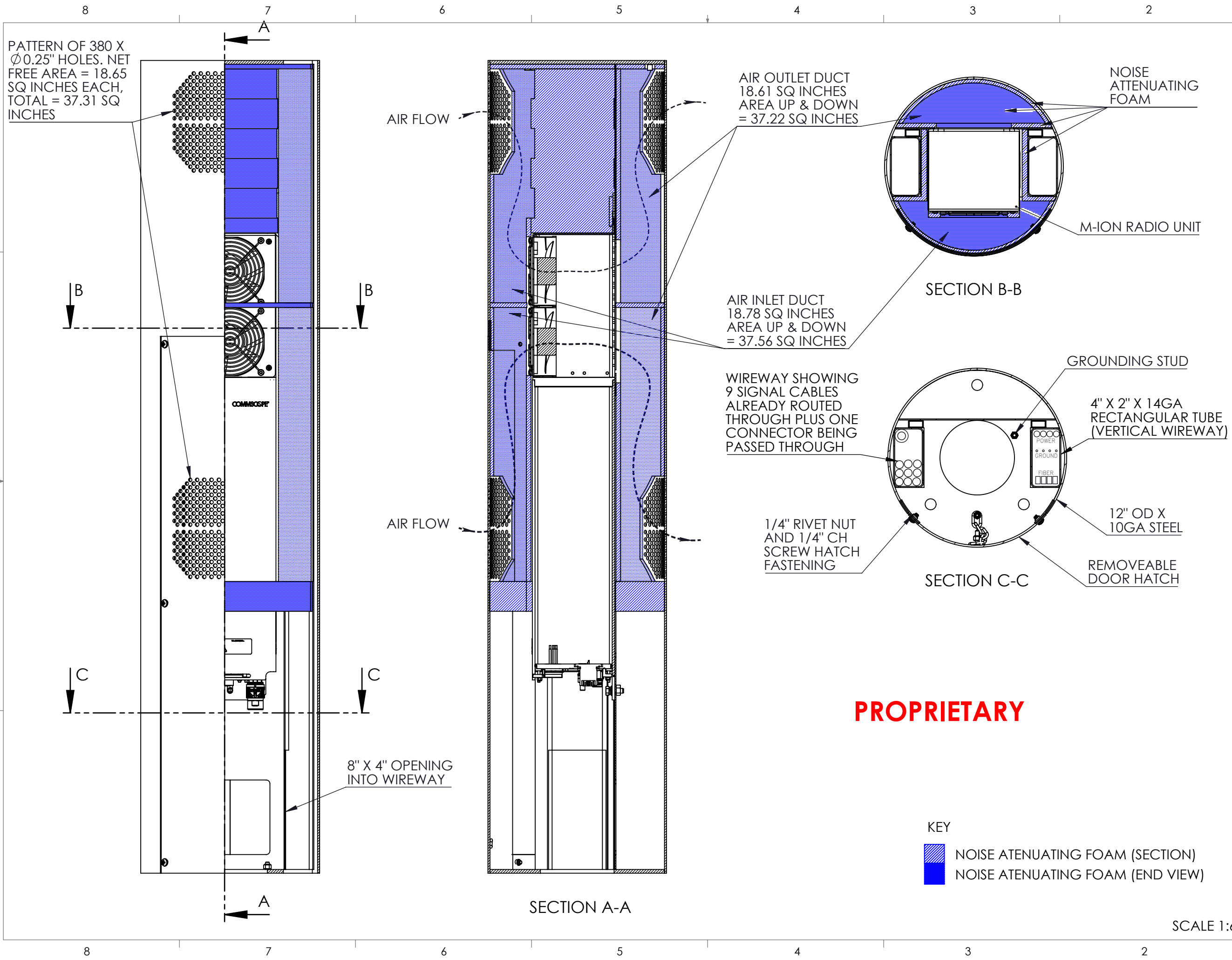
Consultant:

Sheet Title:

**12" ION
UTILITY POLE
BOM**

Part Number:

001485



PATTERN OF 380 X
Ø0.25" HOLES. NET
FREE AREA = 18.65
SQ INCHES EACH,
TOTAL = 37.31 SQ
INCHES

AIR FLOW

AIR OUTLET DUCT
18.61 SQ INCHES
AREA UP & DOWN
= 37.22 SQ INCHES

NOISE
ATTENUATING
FOAM

M-ION RADIO UNIT

SECTION B-B

AIR INLET DUCT
18.78 SQ INCHES
AREA UP & DOWN
= 37.56 SQ INCHES

WIREWAY SHOWING
9 SIGNAL CABLES
ALREADY ROUTED
THROUGH PLUS ONE
CONNECTOR BEING
PASSED THROUGH

GROUNDING STUD

4" X 2" X 14GA
RECTANGULAR TUBE
(VERTICAL WIREWAY)

1/4" RIVET NUT
AND 1/4" CH
SCREW HATCH
FASTENING

SECTION C-C

12" OD X
10GA STEEL

REMOVEABLE
DOOR HATCH

8" X 4" OPENING
INTO WIREWAY

SECTION A-A

PROPRIETARY

KEY
[Hatched Box] NOISE ATTENUATING FOAM (SECTION)
[Solid Blue Box] NOISE ATTENUATING FOAM (END VIEW)

SCALE 1:6

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PROJECT
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UTILITY POLE**

Rev:	Date:	Description:	By:
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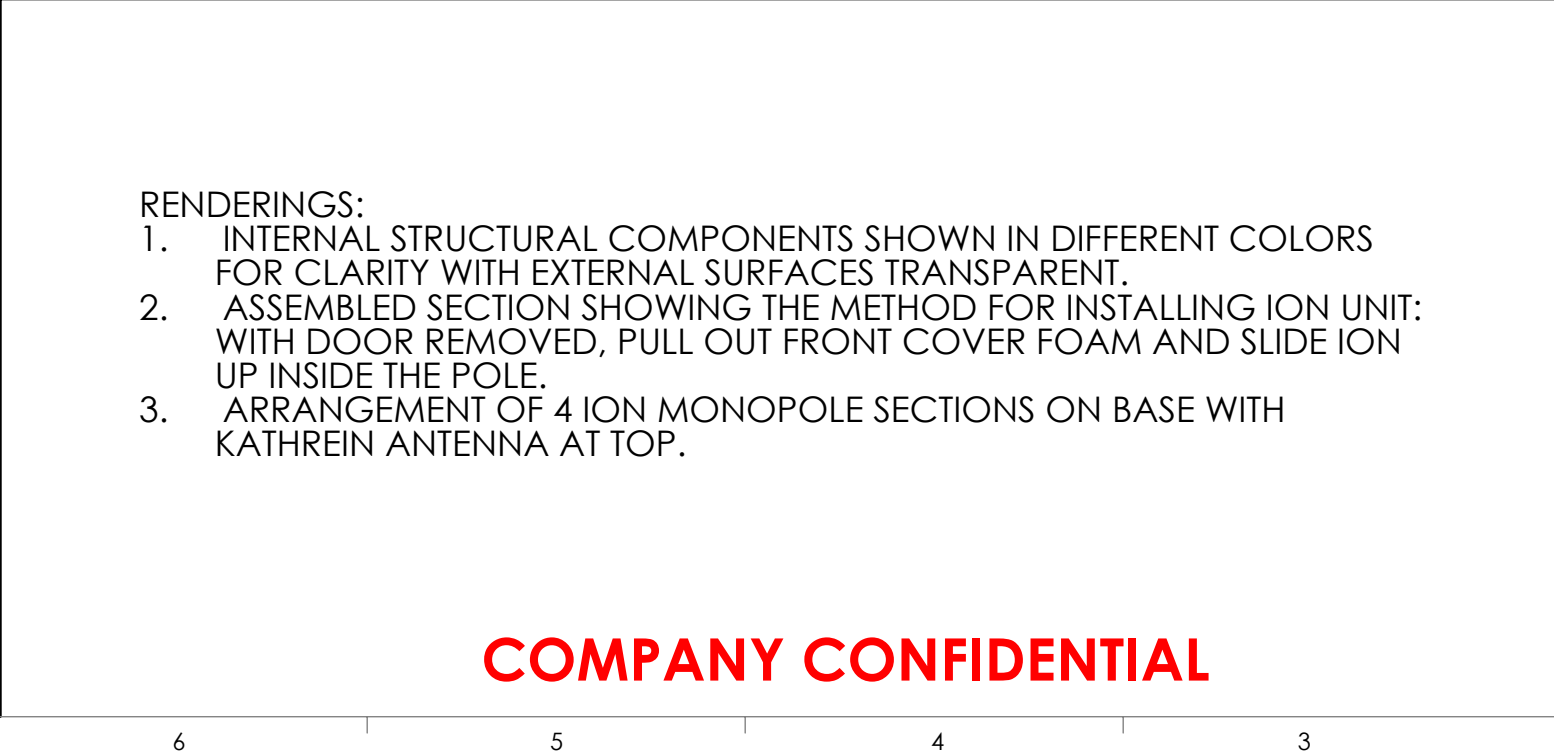
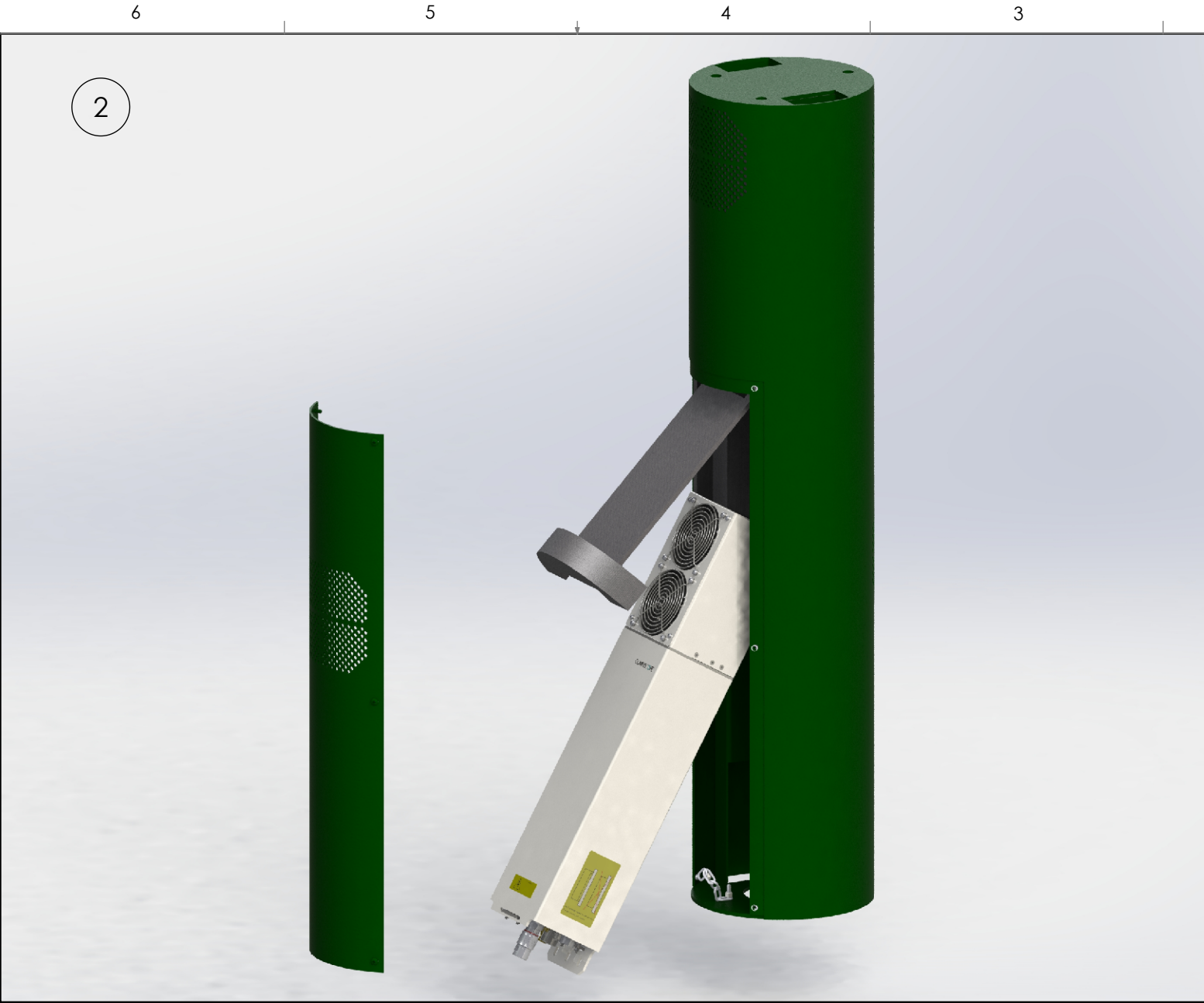
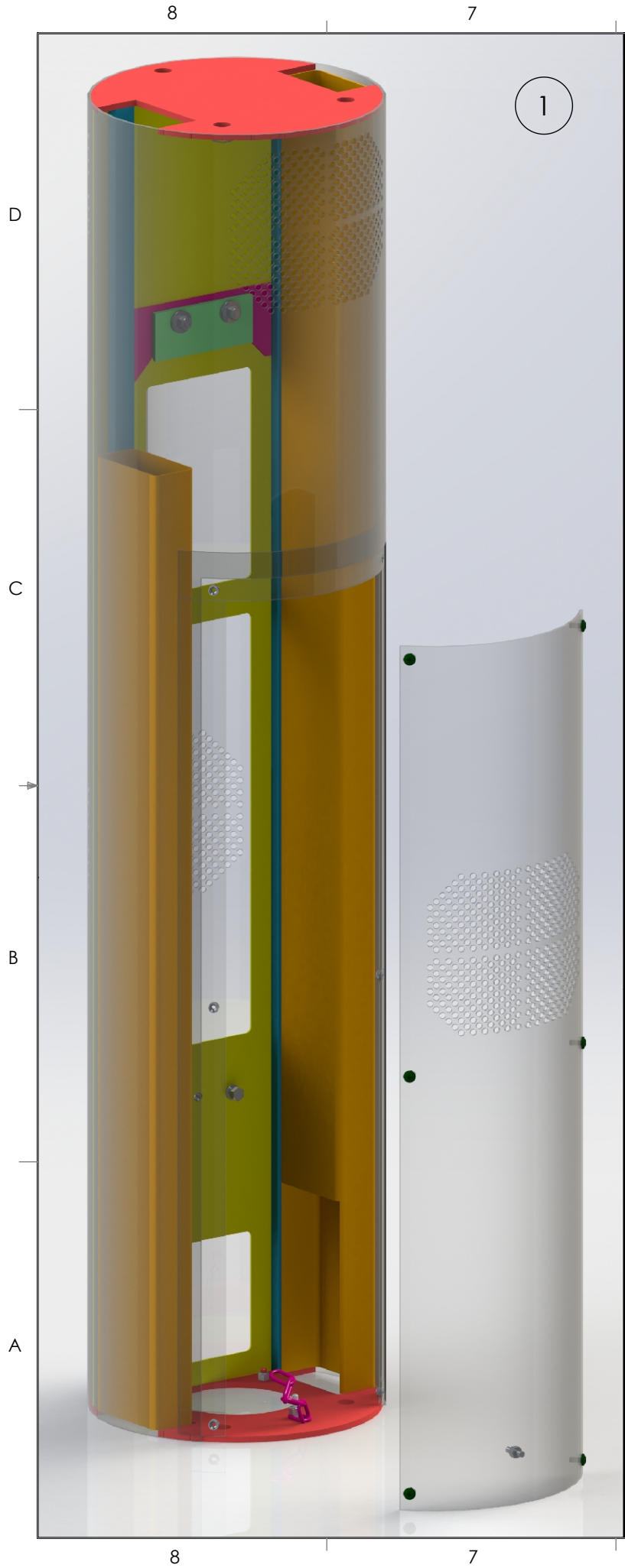
DO NOT SCALE DWG		
DIMENSIONS ARE IN INCHES		
DECIMAL X.XX ± 0.020 X.XXX ± 0.010	ANGLE ±1°	FRACTION ±1/16"

Consultant:

Consultant:

Sheet Title:
**12" ION
UTILITY POLE
SECTION VIEWS**

Part Number:
001486



- RENDERINGS:
1. INTERNAL STRUCTURAL COMPONENTS SHOWN IN DIFFERENT COLORS FOR CLARITY WITH EXTERNAL SURFACES TRANSPARENT.
 2. ASSEMBLED SECTION SHOWING THE METHOD FOR INSTALLING ION UNIT: WITH DOOR REMOVED, PULL OUT FRONT COVER FOAM AND SLIDE ION UP INSIDE THE POLE.
 3. ARRANGEMENT OF 4 ION MONOPOLE SECTIONS ON BASE WITH KATHREIN ANTENNA AT TOP.

COMPANY CONFIDENTIAL

ConcealFab Corporation

3265 FILLMORE RIDGE HEIGHTS
COLORADO SPRINGS, CO 80907
PHONE : 719-599-3400
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DECIMAL	ANGLE	FRACTION
X.XX ± 0.020	±1°	±1/16"
X.XXX ± 0.010		

Consultant:



Consultant:



Sheet Title:

**12" ION
UTILITY POLE
RENDERINGS**

Part Number:

001487



C241-GR484

Dark Gray Fine Texture Semi-Gloss



C241-GR07

Gray Fine Texture Semi-Gloss



C241-GR305

Bay Gray Fine Texture Semi-Gloss



T243-GR522

Flint Gray Fine Texture Semi-Gloss



T241-GR11

Platinum Gray Fine Texture Semi-Gloss



T031-WH06

Pearl White Fine Texture Semi-Gloss



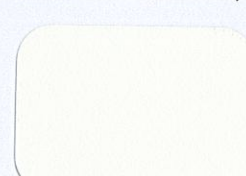
T243-GR301

Quartz Gray Fine Texture Semi-Gloss



T241-GR142

Light Gray Fine Texture Semi-Gloss



T241-BG137

Beige Fine Texture Semi-Gloss



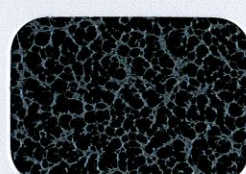
T375-BK07

Copper Vein Semi-Gloss*



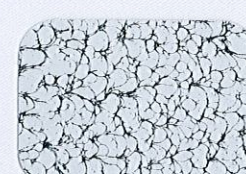
T375-BK10

Gold Vein Semi-Gloss*



T375-BK26

Silver Vein Semi-Gloss*



T075-WH34

Black/White Vein Semi-Gloss



T064-BR24

Bronze Hammertone Semi-Gloss



T064-GR660

Gray Hammertone Semi-Gloss



T064-GR05

Silver Hammertone Semi-Gloss



T064-BL95

Blue Hammertone Semi-Gloss



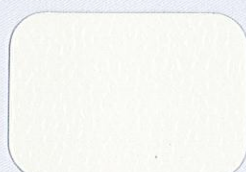
T064-GN81

Green Hammertone Semi-Gloss



C013-GR08

Gray Hammer Semi-Gloss



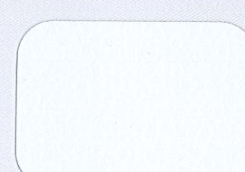
T013-BG38

Beige Hammer Semi-Gloss



T012-WH260

White Hammer Semi-Gloss



T013-WH09

White Hammer Semi-Gloss



T025-BR01

Bronze Pearlescent 50% Gloss



T028-GR02

Steel Gray Pearlescent 80% Gloss



T353-YL02

Brass 30% Gloss*



T357-GR105

Silver Metallic 70% Gloss*



T353-GR06

Silver Metallic 30% Gloss*



T358-GR539

Chrome 80% Gloss*



T391-BG290

Metallic Bronze Semi-Gloss Texture*



T091-GR309

Mock Rock Texture Semi-Gloss



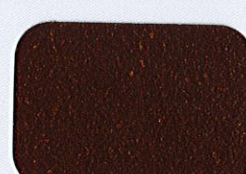
C291-GN20

Patina Texture Semi-Gloss



T091-GN57

Verdigris Texture Semi-Gloss

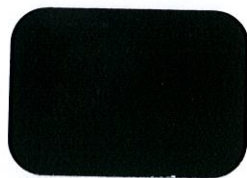


T091-BR47

Rust Texture Semi-Gloss

Computer Colors

Specialty Coatings



C241-BK303
Black Fine Texture Low-Gloss



C081-BK176
Black Wrinkle Semi-Gloss



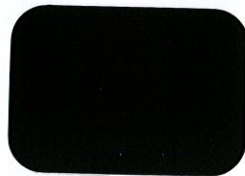
E311-BK04
Black Hammer Low-Gloss**



T013-BK62
Black Hammer Semi-Gloss



T032-BR62
Brown Fine Texture Semi-Gloss



P004-BR23
Bronze 40% Gloss



P004-GR09
ANSI #49 Gray 40% Gloss



P004-GR16
ANSI #61 Gray 40% Gloss



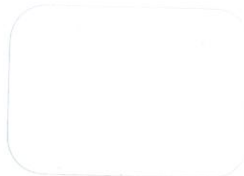
H305-GR10
Light Gunmetal Gray 50% Gloss**



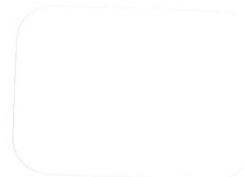
P003-GR01
Gray #26307 30% Gloss



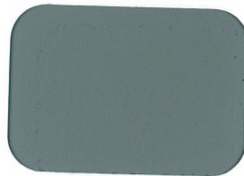
H303-WH16
Antique White 30% Gloss**



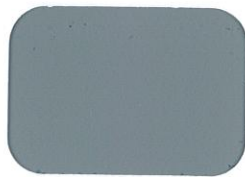
P005-WH01
White #27875 50% Gloss



T002-WH08
White 20% Gloss



T008-GR736
Gray ANSI 61 80% Gloss



P008-GR21
RAL 7042 Gray 80% Gloss



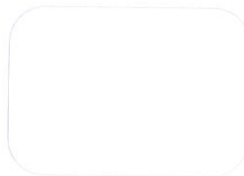
T009-GR230
RAL 7035 Gray 90% Gloss



T009-WH13
White 90% Gloss



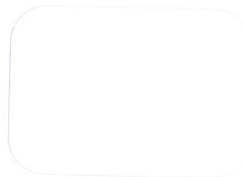
P009-WH14
White 90% Gloss



H309-WH27
Frost White 90% Gloss**



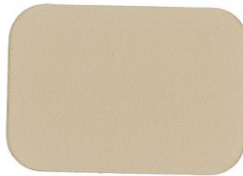
T032-BG03
Beige Texture Semi-Gloss



T032-WH15
White Texture Semi-Gloss



C031-WH120
White Texture Semi-Gloss



T009-BG16
Designer Beige 90% Gloss



P009-BG02
Beige 90% Gloss



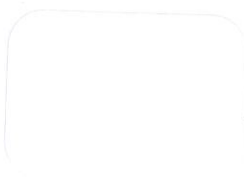
T009-BG01
Almond 90% Gloss



H308-WH25
White 80% Gloss**



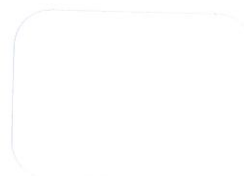
P009-WH04
White 90% Gloss



T009-WH11
White 90% Gloss



T009-WH12
Hi-Reflective White 90% Gloss



T007-WH121
White 70% Gloss



E305-GR533
Gray Primer 50% Gloss**



E305-WH243
White Primer 50% Gloss**



H304-GR312
Anti-Gassing Primer 40% Gloss**



E396-GR1372
Zinc Rich Primer

If a clear topcoat finish is preferred
T209-CL01 90% Gloss Clear TGIC Polyester
T002-CL02 20% Gloss Clear TGIC Polyester

The samples on this card are representative only and vary slightly from actual gloss, color and texture.

GE

(General Electric)

Ordering Number Logic

Scalable Specification Grade Cobrahead (ERS2)

LED Cobra Head Lights

(Spec's)



ERS2

PROD. ID	VOLTAGE	OPTICAL CODE	PHOTOMETRIC TYPE	DRIVE CURRENT	LED COLOR TEMP	PE FUNCTION	COLOR	OPTIONS
E = Evolve	0 = 120-277	Product Tier	A1 = Extra Narrow Asymmetric	5 = 525mA	40 = 4000K	1 = None	BLCK = Black	S = Internal Bubble Level
R = Roadway	1 = 120	*3 = Specification Grade	B1 = Narrow Asymmetric (Medium)	7 = 700mA	50 = 5000K	2 = PE Rec	GRAY = Gray	D = Dimming*
S = Scalable	2 = 208	See Charts for all levels	C1 = Asymmetric (Short)	1 = 1050mA	NOTE: For 1050mA drive current, nominal color temperature (CCT) = 5300K	4 = PE Rec with Shorting Cap		F = Fusing
2 = Double Module Optical Assembly	3 = 240		D1 = Asymmetric Forward			5 = PE Rec with Control		G = External Bubble Level
	4 = 277		E1 = Asymmetric (Medium)			7 = GE Dimming 5-Pin PE Receptacle **		L = Tool-Less Entry
	H = 347-480					9 = GE Dimming 5-Pin PE Receptacle with Shorting Cap **		R = Additional Secondary Surge Protection Device
	D = 347							T = GE Energy Extreme Surge Protection per IEEE/ANSI C82.41.2-2002
	S = 480							- Rating 1 - 10kV/5kA Location Category (120 events)
								- Rating 2 - 6kV/3kA Location Category C-Low (5000 events)

NOTE: ** When ordering PE function socket 7 or 9, a dimming driver add after dimming driver (D=Dimming) must also be ordered under the "OPTIONS" column

* Order dimming control PE as a separate item

NOTE: As of 1/15/13 41 7-Pin dimming receptacle, contact manufacturer

XXX = Special Options

* When ordering Dimming PE Receptacle 7, 9 or A, D=Dimming driver must be selected under "OPTIONS" column

NOTE: If no dimming receptacle under PE Function is selected and D=Dimming is selected under OPTIONS, 0-10V dimming leads will be provided with access through splitter opening in unit

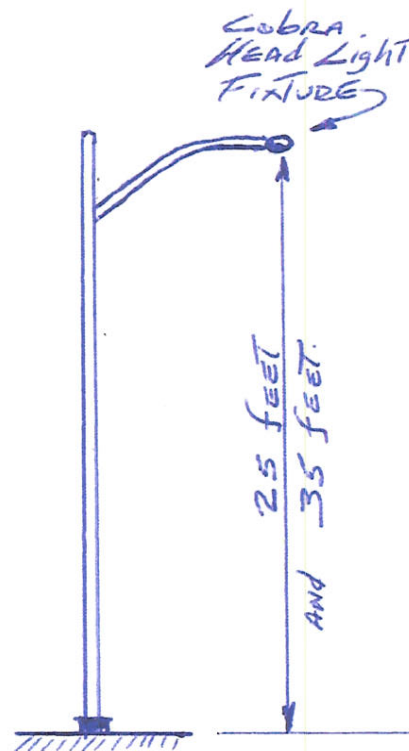
525 mA													
PRODUCT ID	OPTICAL CODE	PHOTO-METRIC TYPE	DRIVE CURRENT	TYPICAL SYSTEM WATTAGE	TYPICAL INITIAL LUMENS	B RATING	U RATING	G RATING	TYPICAL LPM	IES FILE NUMBERS	4000K	5000K	5300K
ERS2	D3	A1	525mA	88	8000	8000	2	0	2	91	91	456404	456429
ERS2	E3		525mA	99	9100	9100	3	0	2	92	92	456405	456430
ERS2	F3		525mA	112	10300	10300	3	0	2	92	92	456406	456431
ERS2	G3		525mA	125	11500	11500	3	0	2	92	92	456407	456432
ERS2	H3		525mA	138	12700	12700	3	0	3	92	92	456408	456433
ERS2	D3	B1	525mA	88	8200	8200	2	0	1	93	93	456409	456434
ERS2	E3		525mA	99	9300	9300	2	0	1	94	94	456410	456435
ERS2	F3		525mA	112	10600	10600	3	0	2	95	95	456411	456436
ERS2	G3		525mA	125	11800	11800	3	0	2	94	94	456412	456437
ERS2	H3		525mA	138	13000	13000	3	0	2	94	94	456413	456438
ERS2	D3	C1	525mA	88	8200	8200	2	0	1	93	93	456414	456439
ERS2	E3		525mA	99	9300	9300	2	0	1	94	94	456415	456440
ERS2	F3		525mA	112	10600	10600	3	0	1	95	95	456416	456441
ERS2	G3		525mA	125	11800	11800	3	0	2	94	94	456417	456442
ERS2	H3		525mA	138	13000	13000	3	0	2	94	94	456418	456443
ERS2	D3	D1	525mA	88	8000	8000	2	0	1	91	91	456419	456444
ERS2	E3		525mA	99	9100	9100	2	0	2	92	92	456420	456445
ERS2	F3		525mA	112	10300	10300	2	0	2	92	92	456421	456446
ERS2	G3		525mA	125	11500	11500	2	0	2	92	92	456422	456447
ERS2	H3		525mA	138	12700	12700	3	0	2	92	92	456423	456448
ERS2	D3	E1	525mA	88	8200	8200	2	0	3	93	93	456424	456449
ERS2	E3		525mA	99	9300	9300	2	0	2	94	94	456425	456450
ERS2	F3		525mA	112	10600	10600	3	0	2	95	95	456426	456451
ERS2	G3		525mA	125	11800	11800	3	0	2	94	94	456427	456452
ERS2	H3		525mA	138	13000	13000	3	0	2	94	94	456428	456453

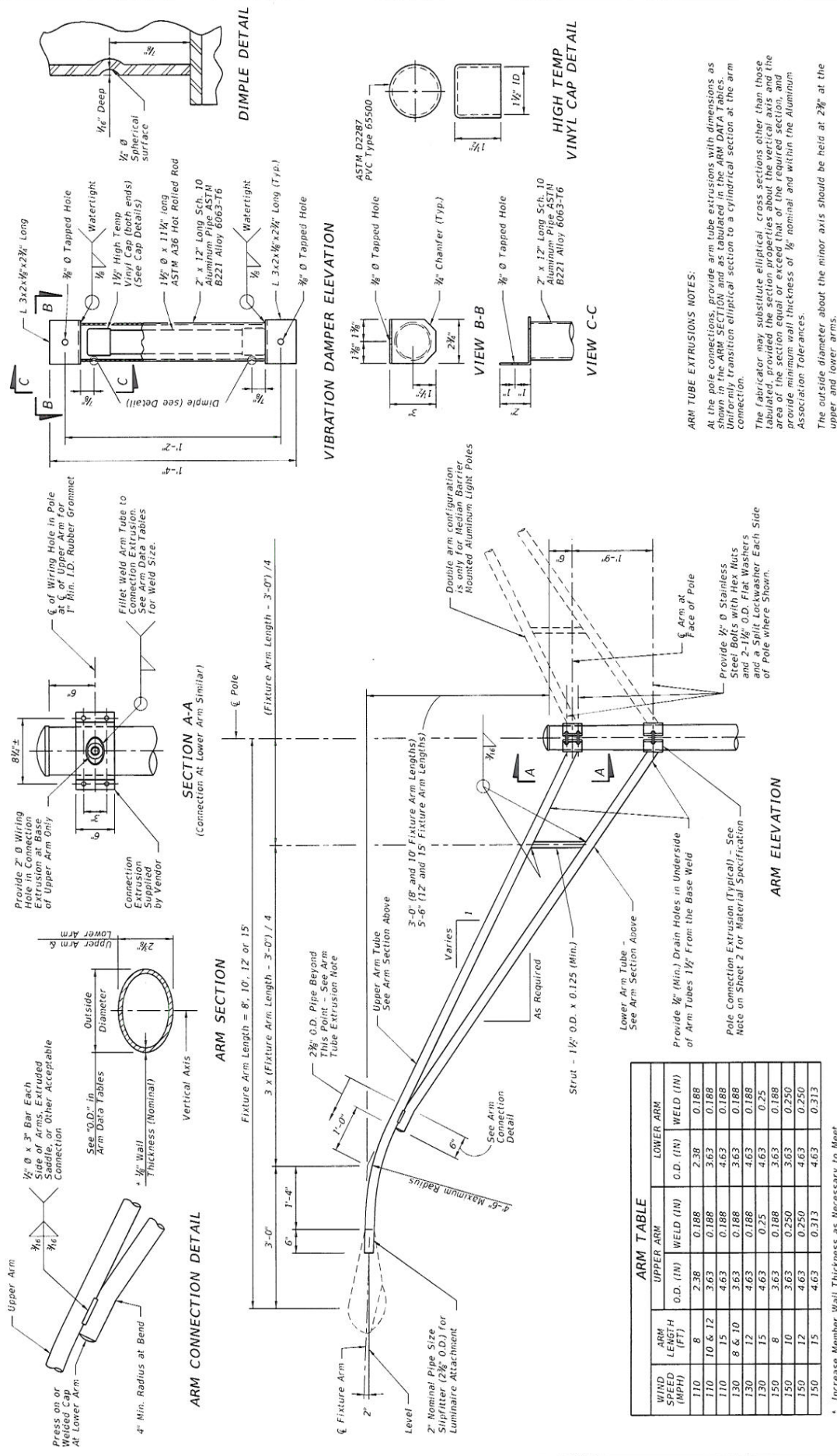
NOTES:

- Max Operating Ambient 50° C
- 347-480V Not Available
- For T Option Availability Contact Manufacturer

Lumen Maintenance

- Projected L92 (10K) ≥ 50,000 at Ta 25C
 - Projected L70 (10K) > 100,000 at Ta 25C
- Based on 10,000h LM-80 data for Nichia 219B SQUETMLH17005





ARM TABLE					
WIND SPEED (MPH)	ARM LENGTH (FT.)	UPPER ARM		LOWER ARM	
		O.D. (IN)	WELD (IN)	O.D. (IN)	WELD (IN)
110	8	2.38	0.188	2.38	0.188
110	10 & 12	3.63	0.188	3.63	0.188
110	15	4.63	0.188	4.63	0.188
130	8 & 10	3.63	0.188	3.63	0.188
130	12	4.63	0.188	4.63	0.188
130	15	4.63	0.25	4.63	0.25
150	8	3.63	0.188	3.63	0.188
150	10	3.63	0.250	3.63	0.250
150	12	4.63	0.250	4.63	0.250
150	15	4.63	0.313	4.63	0.313

ARM TUBE EXTRUSIONS NOTES:

At the pole connections, provide arm tube extrusions with dimensions as shown in the ARM SECTION and as tabulated in the ARM DATA Tables. Uniformly transition elliptical section to a cylindrical section at the arm connection.

The fabricator may substitute elliptical cross sections other than those tabulated, provided the section properties about the vertical axis and the area of the section equal or exceed that of the required section, and provide minimum wall thickness of $\frac{1}{8}$ " nominal and within the Aluminum Association Tolerances.

The outside diameter about the minor axis should be held at $2\frac{3}{8}$ " at the upper and lower arms.

ARM & DAMPER DETAILS

STANDARD ALUMINUM LIGHTING

2015

FDOT DESIGN STANDARDS 2015

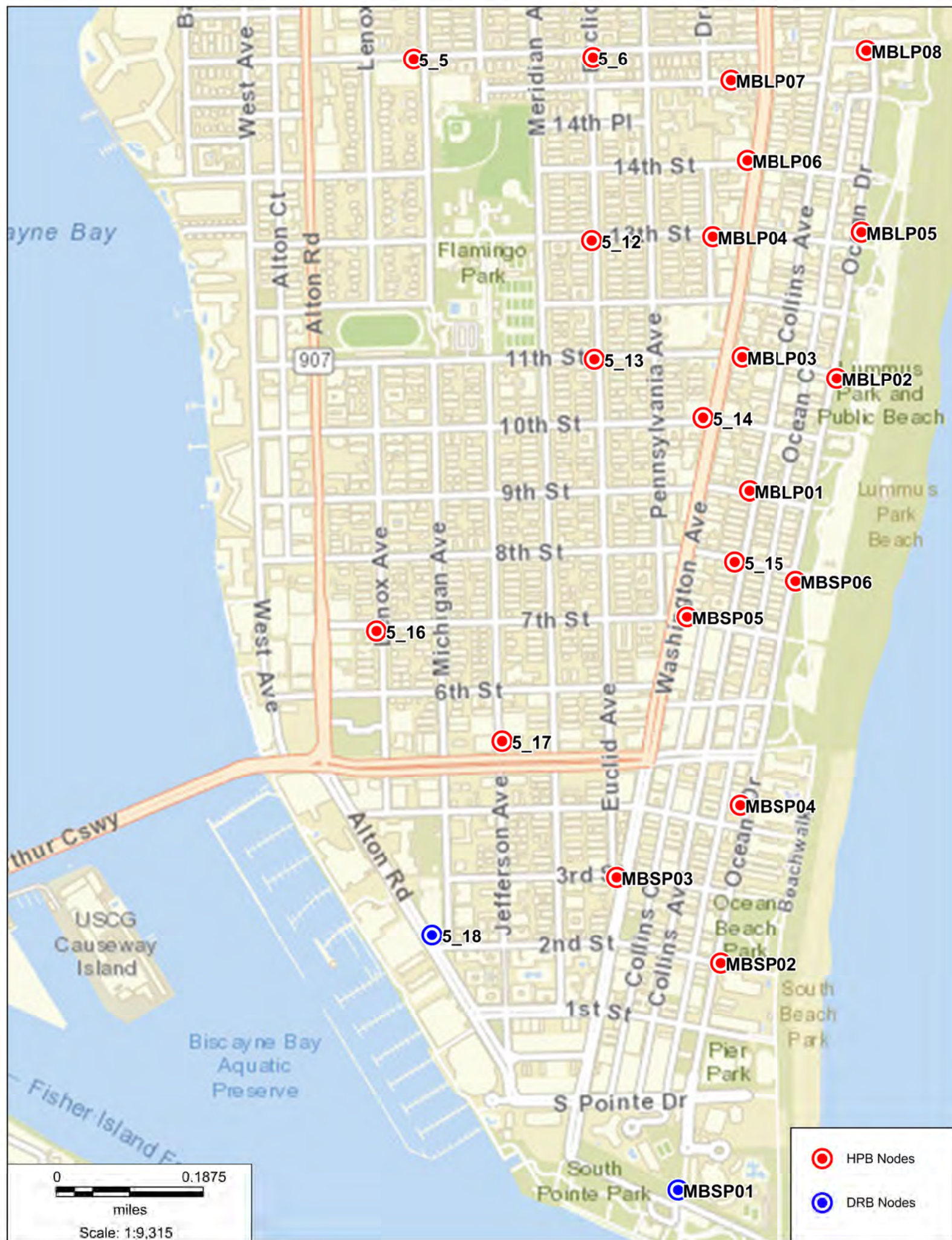
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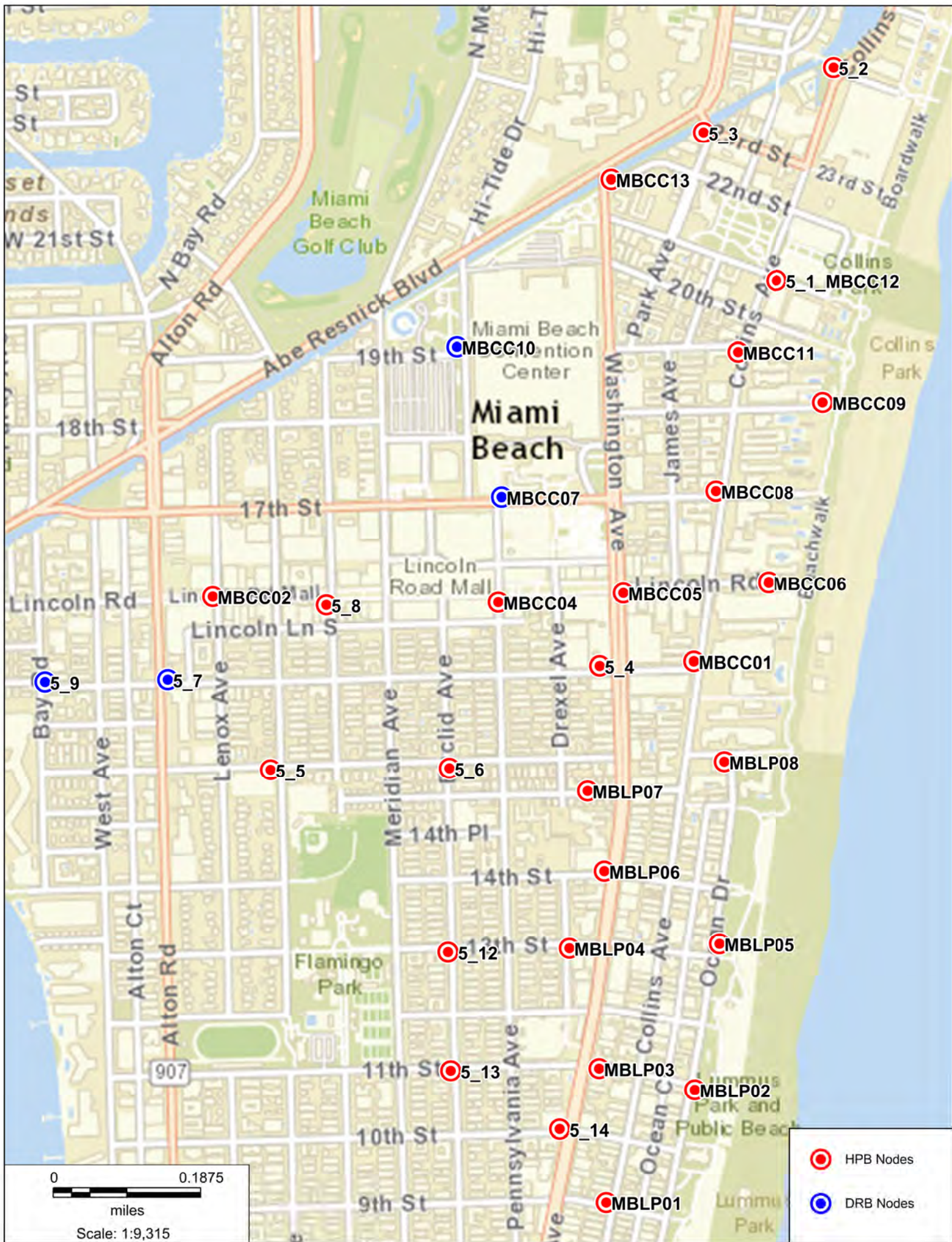
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REVISION
01/01/12

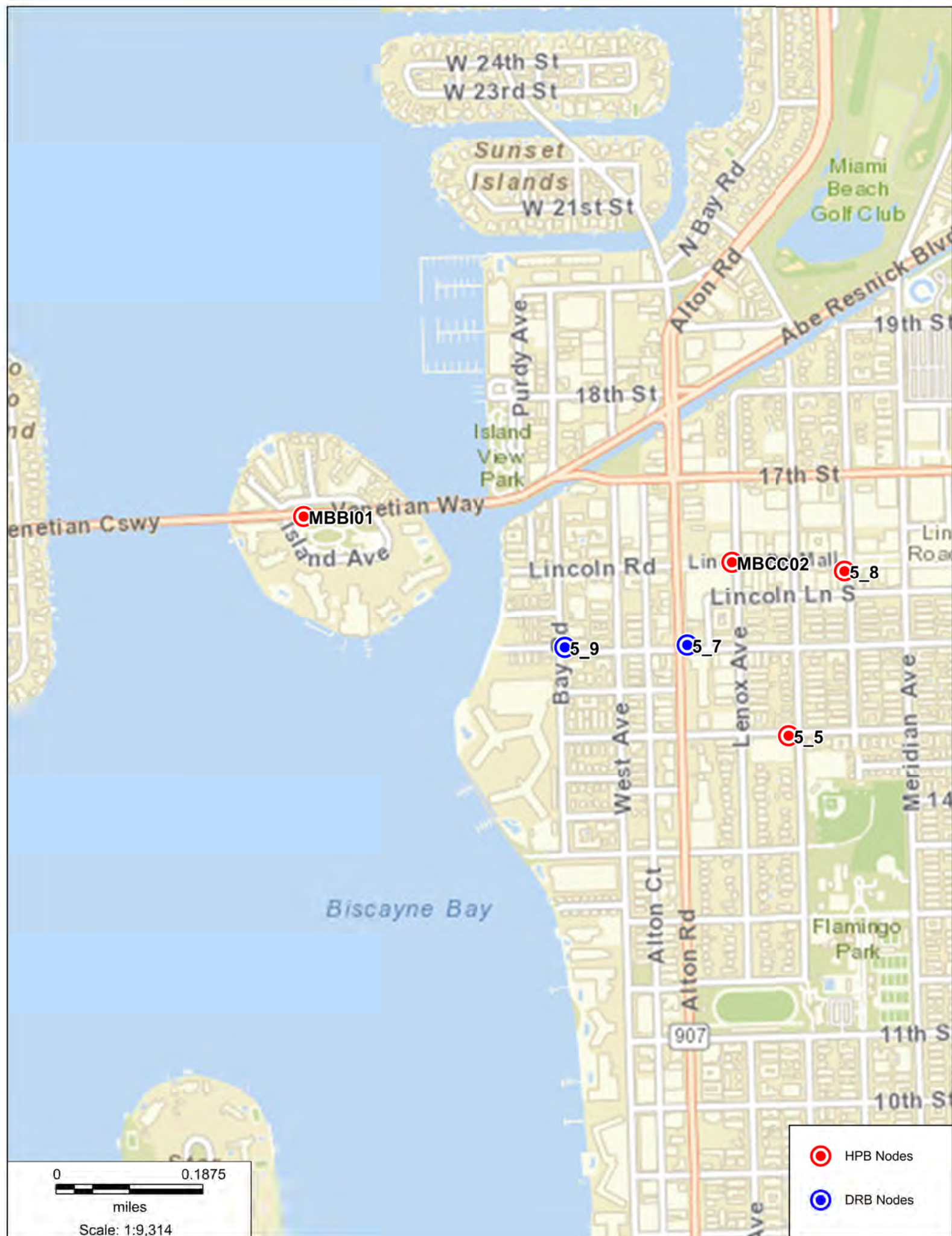
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NO.
17515

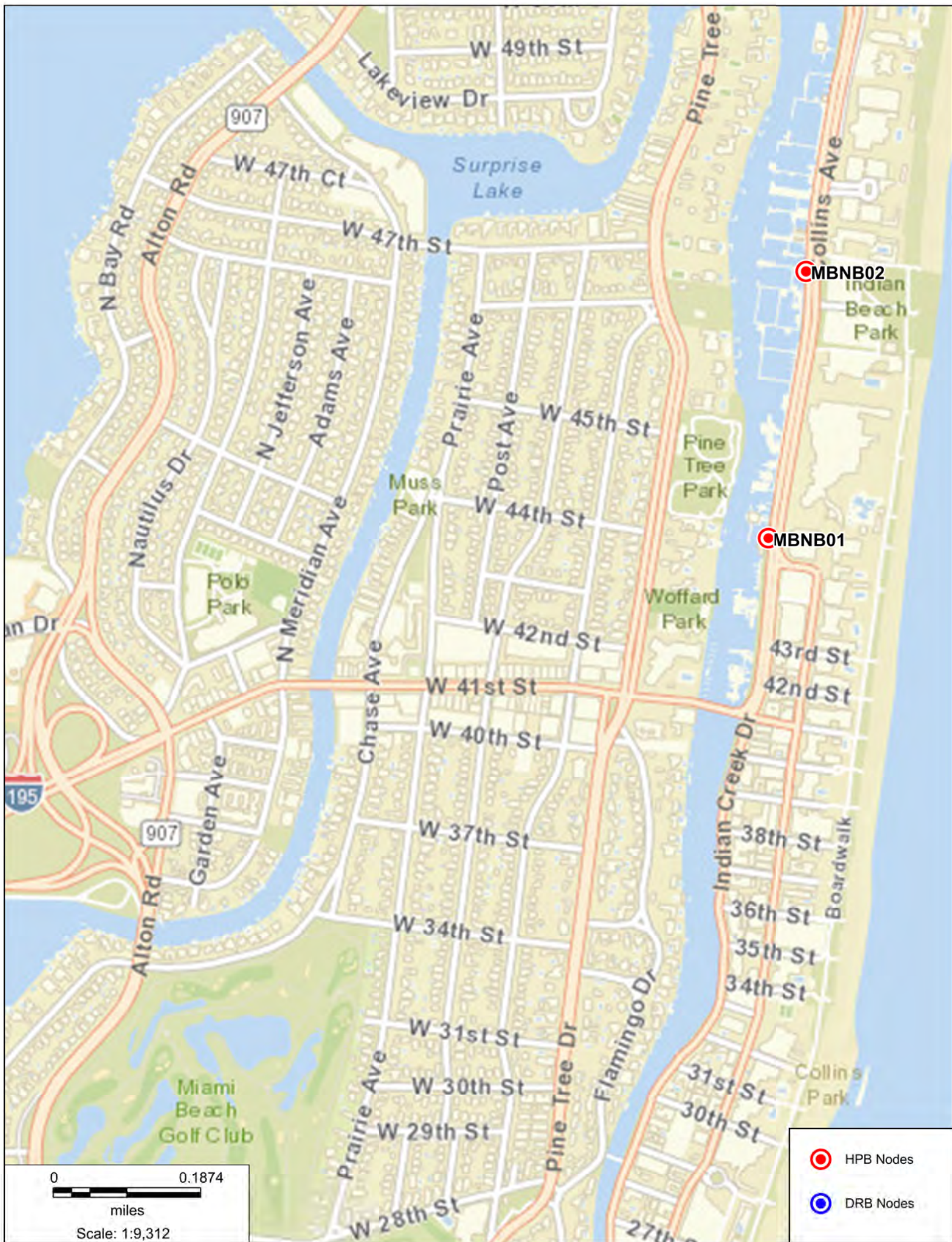
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NO. 3 of 8



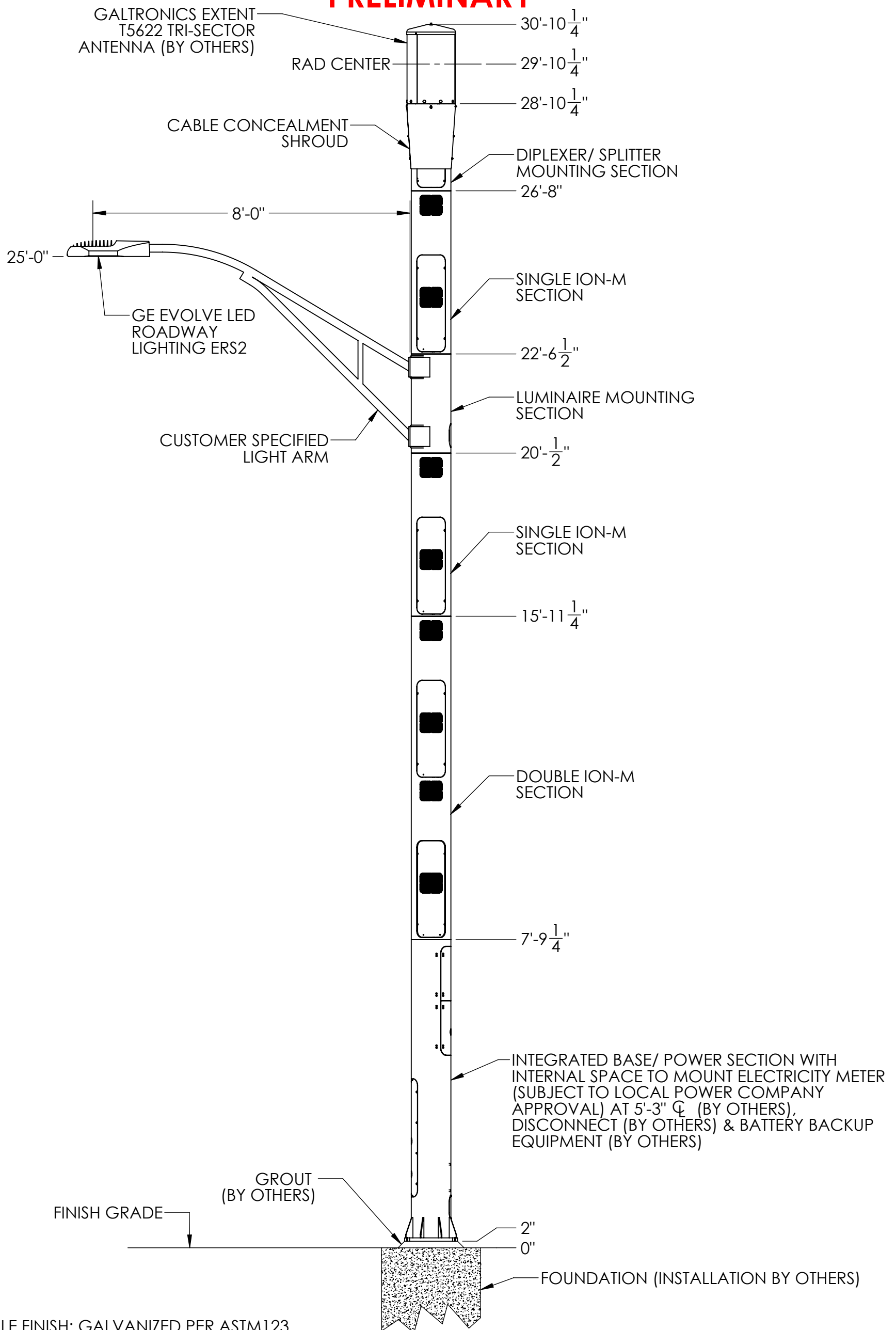






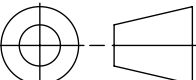
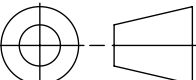
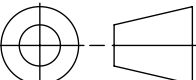


PRELIMINARY



NOTES:
1. POLE FINISH: GALVANIZED PER ASTM123
AND POWDER COATED (COLOR TBD.)

SCALE 1:30

<div><div><div>ConcealFab</div><div>Corporation</div></div><div>3265 FILLMORE RIDGE HEIGHTS COLORADO SPRINGS, CO 80907 PH: 719-599-3400 FX: 719-599-0057</div></div>				<table><tr><th>Rev:</th><th>Date:</th><th>Description:</th><th>Apvd:</th></tr><tr><td>A</td><td>03/02/15</td><td>NEW RELEASE</td><td>DOC</td></tr><tr><td>B</td><td>03/03/15</td><td>ADDED DETAIL TO LUMINAIRE ARM</td><td>DOC</td></tr><tr><td>C</td><td>04/08/15</td><td>UPDATED COBRA PER CUST' REQ', SPLIT UPPER DOUBLE ION SECTION</td><td>DOC</td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>				Rev:	Date:	Description:	Apvd:	A	03/02/15	NEW RELEASE	DOC	B	03/03/15	ADDED DETAIL TO LUMINAIRE ARM	DOC	C	04/08/15	UPDATED COBRA PER CUST' REQ', SPLIT UPPER DOUBLE ION SECTION	DOC																					<table><tr><th colspan="3">Project:</th></tr><tr><td colspan="3">DR-14-0212 MIAMI BEACH MONOPOLES</td></tr><tr><td colspan="3">DO NOT SCALE DWG </td></tr><tr><td colspan="3">DIMENSIONS ARE IN INCHES</td></tr><tr><td>DECIMAL X.XX ± 0.020 X.XXX ± 0.010</td><td>ANGLE ±1°</td><td>FRACTION ±1/16"</td></tr></table>				Project:			DR-14-0212 MIAMI BEACH MONOPOLES			DO NOT SCALE DWG 			DIMENSIONS ARE IN INCHES			DECIMAL X.XX ± 0.020 X.XXX ± 0.010	ANGLE ±1°	FRACTION ±1/16"	<table><tr><th>Consultant:</th></tr><tr><td> </td></tr></table>		Consultant:		<table><tr><th>Consultant:</th></tr><tr><td> </td></tr></table>		Consultant:	
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