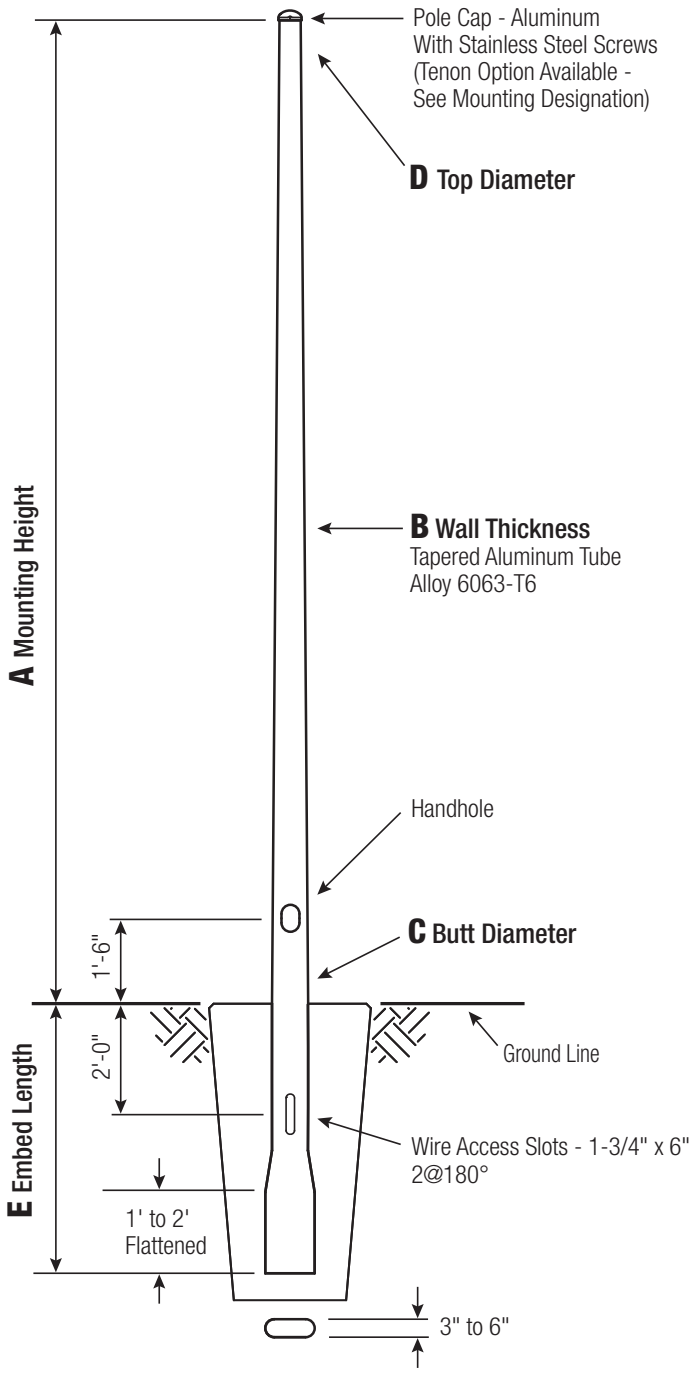
RTA

Round Tapered Aluminum Pole
No Arm — Direct Buried



Satin Aluminum or Powder Coated Finish per Customer Specification.

C Butt Dia.	D Top Dia.
5	3
6	4.5
7	4.5
8	4.5
9	4.5
10	6

C and D Dimensions in Inches

Pole

The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated to produce a T6 temper.

Handhole

5" Butt Diameter - *2-1/2" x 5" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision is provided as part of the handhole.*

6" Butt Diameter - *Reinforced, 3" x 5" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. A Grounding Provision incorporating a 3/8" diameter hole is provided opposite the Handhole.*

7"+ Butt Diameters - *Reinforced, 4" x 6" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. Reinforced Frame will contain a tapped 3/8"-16NC Grounding Provision.*

Embed Detail

Direct Buried Pole bottom section on 6"+ butt diameter poles will be partially flattened into an anti-rotational, oval cross section. Wire access will be provided 24" below ground line. Soil conditions vary by site. Foundation requirements should be determined by a qualified Structural Engineer with knowledge of jobsite soil conditions.

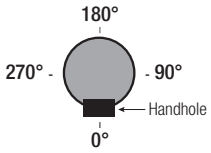
Vibration Damper

When determined necessary, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

Mounting Designation

Side Drill Mount

For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.



Tenon Mount - Welded or Spun

For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.


Welded Tenon


Spun Tenon

WARNING: *Do not install light pole without luminaire.*

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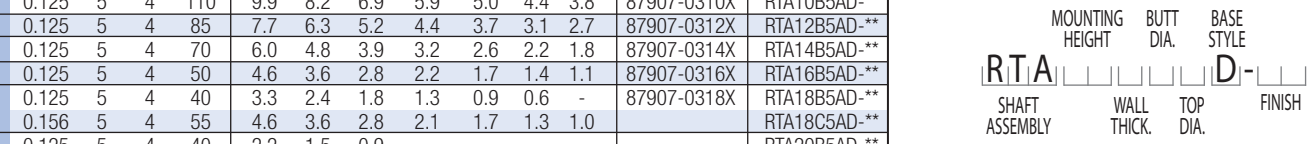
Florida Building Code Guide
2017 FBC EPA's

A Mtg. Hgt.	B Wall Thk.	C Butt Dia.	E Embed Depth	Total Lum. Wt.	Maximum EPA 120	130	140	150	160	170	180	Old Catalog Number	Catalog Number
10	0.125	5	4	110	9.9	8.2	6.9	5.9	5.0	4.4	3.8	87907-0310X	RTA10B5AD-**
12	0.125	5	4	85	7.7	6.3	5.2	4.4	3.7	3.1	2.7	87907-0312X	RTA12B5AD-**
14	0.125	5	4	70	6.0	4.8	3.9	3.2	2.6	2.2	1.8	87907-0314X	RTA14B5AD-**
16	0.125	5	4	50	4.6	3.6	2.8	2.2	1.7	1.4	1.1	87907-0316X	RTA16B5AD-**
18	0.125	5	4	40	3.3	2.4	1.8	1.3	0.9	0.6	-	87907-0318X	RTA18B5AD-**
18	0.156	5	4	55	4.6	3.6	2.8	2.1	1.7	1.3	1.0		RTA18C5AD-**
20	0.125	5	4	40	2.2	1.5	0.9	-	-	-	-		RTA20B5AD-**
20	0.125	6	5	100	8.6	7.0	5.8	4.9	4.2	3.6	3.1	50-001	RTA20B6BD-**
20	0.156	6	6	135	11.5	9.4	7.9	6.8	5.8	5.0	4.4	50-002	RTA20C6BD-**
20	0.188	6	6	170	14.3	11.9	10.0	8.6	7.4	6.5	5.7	50-003	RTA20D6BD-**
20	0.156	7	6	210	17.3	14.4	12.2	10.5	9.1	8.0	7.0	50-004	RTA20C7BD-**
20	0.188	7	7	260	21.4	17.8	15.2	13.1	11.4	9.9	8.8	50-005	RTA20D7BD-**
20	0.156	8	7	295	24.1	20.2	17.2	14.9	12.9	11.3	10.0	50-006	RTA20C8BD-**
20	0.188	8	8	300	29.7	25.0	21.3	18.4	16.1	14.1	12.5	50-007	RTA20D8BD-**
25	0.156	6	6	85	7.0	5.5	4.5	3.8	3.2	2.7	2.2	50-062	RTA25C6BD-**
25	0.188	6	6	110	9.2	7.4	6.2	5.2	4.4	3.7	3.2	50-063	RTA25D6BD-**
25	0.156	7	6	140	11.6	9.4	7.9	6.7	5.7	4.9	4.3	50-064	RTA25C7BD-**
25	0.188	7	7	175	14.7	12.1	10.2	8.7	7.5	6.5	5.6	50-065	RTA25D7BD-**
25	0.156	8	7	205	16.9	14.0	11.8	10.1	8.7	7.6	6.6	50-066	RTA25C8BD-**
25	0.188	8	7	255	21.0	17.5	14.8	12.7	11.0	9.6	8.4	50-067	RTA25D8BD-**
25	0.219	8	8	300	24.9	20.8	17.7	15.2	13.2	11.6	10.2	50-068	RTA25E8BD-**
25	0.250	8	8	300	28.9	24.2	20.6	17.8	15.5	13.5	11.9	50-069	RTA25F8BD-**
30	0.156	7	6	90	7.5	5.9	4.8	3.9	3.3	2.7	2.3	50-124	RTA30C7BD-**
30	0.188	7	7	120	10.0	8.0	6.6	5.5	4.6	3.9	3.4	50-125	RTA30D7BD-**
30	0.156	8	7	140	11.8	9.5	7.9	6.7	5.7	4.9	4.2	50-126	RTA30C8BD-**
30	0.188	8	7	180	15.1	12.4	10.4	8.8	7.6	6.5	5.6	50-127	RTA30D8BD-**
30	0.219	8	8	220	18.2	15.0	12.7	10.8	9.3	8.1	7.0	50-128	RTA30E8BD-**
30	0.250	8	8	260	21.3	17.6	14.9	12.8	11.0	9.6	8.4	50-129	RTA30F8BD-**
30	0.188	9	8	255	20.9	17.4	14.7	12.6	10.9	9.4	8.2	50-131	RTA30D9BD-**
30	0.250	9	9	300	29.1	24.4	20.8	17.9	15.5	13.5	11.9	50-133	RTA30F9BD-**
30	0.188	10	9	300	27.7	23.3	19.8	17.0	14.7	12.8	11.1	50-139	RTA30D1CD-**
35	0.156	8	7	95	7.9	6.2	5.0	4.1	3.4	2.8	2.3	50-186	RTA35C8BD-**
35	0.188	8	7	130	10.6	8.5	7.0	5.8	4.9	4.1	3.5	50-187	RTA35D8BD-**
35	0.219	8	8	160	13.2	10.7	8.9	7.5	6.4	5.4	4.7	50-188	RTA35E8BD-**
35	0.250	8	8	190	15.8	12.9	10.8	9.1	7.8	6.7	5.8	50-189	RTA35F8BD-**
35	0.188	9	8	190	15.5	12.7	10.7	9.0	7.7	6.6	5.6	50-191	RTA35D9BD-**
35	0.250	9	9	270	22.2	18.4	15.6	13.3	11.4	9.9	8.6	50-193	RTA35F9BD-**
35	0.188	10	9	255	21.1	17.7	14.9	12.7	10.9	9.3	8.0	50-199	RTA35D1CD-**
35	0.219	10	9	300	25.4	21.3	18.1	15.4	13.3	11.5	9.9	50-200	RTA35E1CD-**
35	0.250	10	9	300	29.7	25.0	21.2	18.2	15.7	13.6	11.9	50-201	RTA35F1CD-**
35	0.312	10	10	300	38.1	32.2	27.4	23.6	20.5	17.8	15.6	50-202	RTA35G1CD-**
40	0.188	8	7	90	7.1	5.4	4.3	3.4	2.8	2.2	1.8	50-247	RTA40D8BD-**
40	0.219	8	8	115	9.3	7.3	5.9	4.8	4.0	3.3	2.7	50-248	RTA40E8BD-**
40	0.250	8	8	140	11.5	9.1	7.5	6.2	5.2	4.4	3.7	50-249	RTA40F8BD-**
40	0.188	9	8	135	11.3	9.1	7.5	6.2	5.2	4.3	3.6	50-251	RTA40D9BD-**
40	0.250	9	9	205	16.9	13.9	11.6	9.8	8.3	7.1	6.1	50-253	RTA40F9BD-**
40	0.188	10	9	190	16.1	13.4	11.2	9.4	7.9	6.7	5.6	50-259	RTA40D1CD-**
40	0.219	10	9	240	19.7	16.4	13.8	11.7	10.0	8.5	7.2	50-260	RTA40E1CD-**
40	0.250	10	9	280	23.3	19.4	16.4	14.0	12.0	10.3	8.8	50-261	RTA40F1CD-**
40	0.312	10	10	300	30.4	25.5	21.6	18.5	15.9	13.8	12.0	50-262	RTA40G1CD-**

Catalog Number System

The catalog number for SLI's poles utilizes the following identification system.



Catalog Number Example -

RTA 30 D 8 B D – 01

Round Tapered Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, 4.5" Top Diameter, FBC Direct Buried, Satin Aluminum Finish.

Wall Thickness
B = .125"
C = .156"
D = .188"
E = .219"
F = .250"
G = .312"

Butt Diameter
5 = 5"
6 = 6"
7 = 7"
8 = 8"
9 = 9"
1 = 10"

Top Diameter
A = 3"
B = 4.5"
C = 6"

Base Style
D = FBC Direct Buried

Finish
01 = Satin Aluminum
BA = Black Powder Coat
BH = White Powder Coat
BM = Dark Bronze Powder Coat
BV = Dark Green Powder Coat
GC = Gray Powder Coat
** = Specify Finish

EPA Note:

EPA's based on symmetrically placed side mounted fixture(s) not exceeding height of the pole.

Embed Note:

Embed depths shown are calculated using the weight and EPA combination corresponding to the maximum windspeed available per pole. The calculation uses the assumption of a Class 3 soil type with a 12" diameter augered hole that is to be back-filled (preferably with chloride-free concrete or high density polyurethane foam). Embed depths are subject to change if the loading changes or if the wind speed changes. Please contact Hapco for help in determining an appropriate embed depth.

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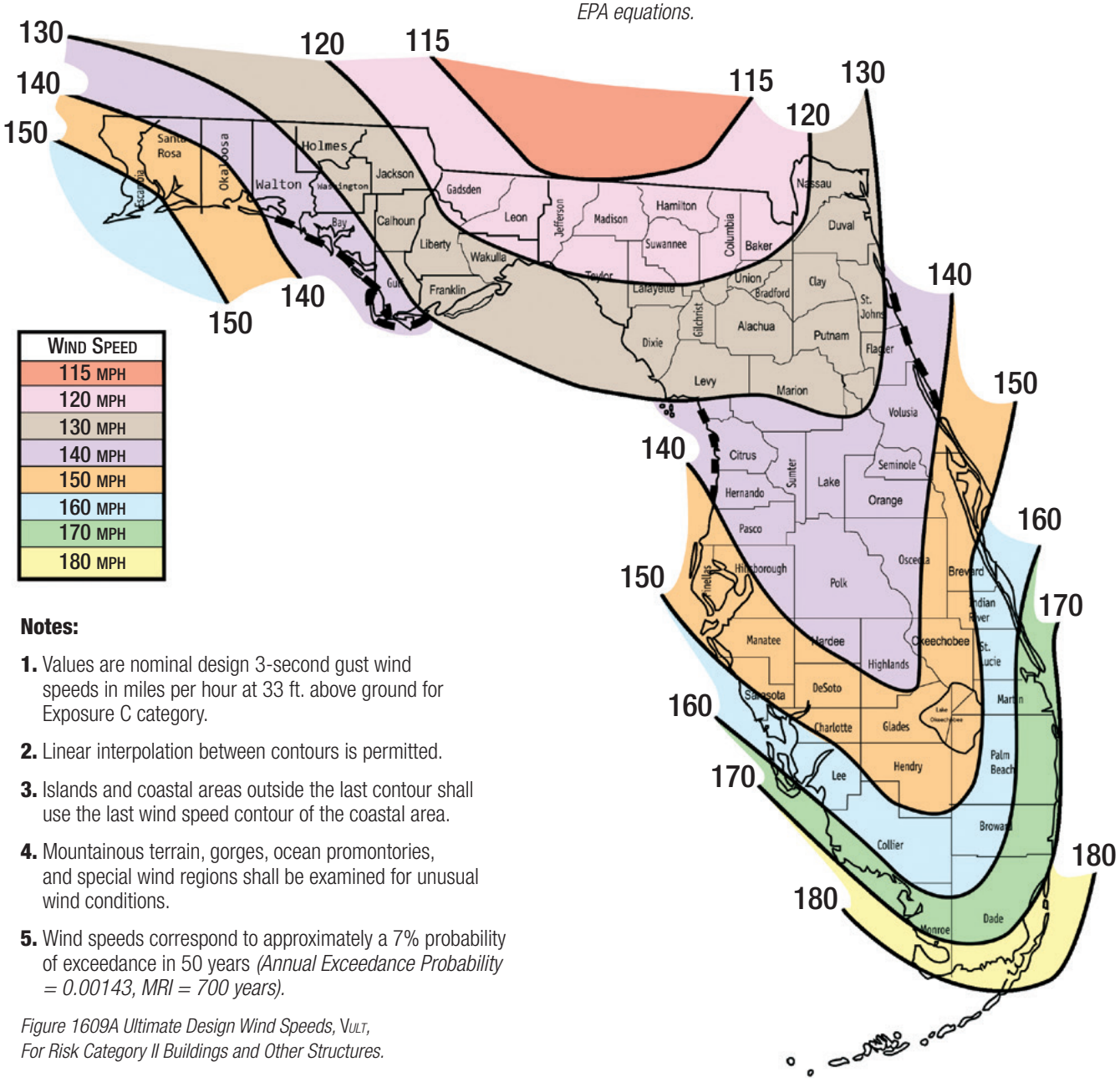
Florida Building Code Guide
2017 FBC EPA's

This Hapco Florida Building Code Guide has been developed to provide a quick reference for EPAs *(Effective Projected Areas) meeting the 2017 FBC.*

The EPA's in this publication are based on the 3-second gust wind map taken from the 2017 Florida Building Code *(Figure 1609A Wind Map shown below).* These EPA's cannot be used with older or newer maps.

This Wind Map is to be used in conjunction with ASCE 7-16 Wind Pressure and 2009 AASHTO Design Equations. Wind regions from maps other than the one shown below may not represent the EPA values listed in this catalog. *Please contact Hapco for more detailed information about EPA equations.*



Wind Speed
115 MPH
120 MPH
130 MPH
140 MPH
150 MPH
160 MPH
170 MPH
180 MPH

Notes:

1. Values are nominal design 3-second gust wind speeds in miles per hour at 33 ft. above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of the coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years *(Annual Exceedance Probability = 0.00143, MRI = 700 years).*

Figure 1609A Ultimate Design Wind Speeds, V_{ULT}, For Risk Category II Buildings and Other Structures.

Shielding Factor

The table shown at right will assist you in calculating the total EPA for many of the popular luminaire configurations. Using the shielding factor to calculate total EPA prevents an over-designed pole being used, resulting in cost savings.

Luminaire Configuration	EPA		Shielding Factor		Total EPA
2 @ 180°	1.5	X	2.0	=	3.0
3 @ 180°	1.5	X	3.0	=	4.5
4 @ 180°	1.5	X	4.0	=	6.0
3 @ 120°	1.5	X	2.3	=	3.45 *(Shielded)*
4 @ 90°	1.5	X	3.2	=	4.8 *(Shielded)*

Example assumes a single luminaire EPA of 1.5.

ASCE 7-16 Wind Load Design Assumptions:

- Risk Cat. II, MRI = 700 yrs., Exp. and Surface Roughness Cat. "C"
- $K_{zt} = 1.0$, $K_d = 1.0$, $G = 1.14$, $V_{ASD} = \sqrt{0.6} * V_{ULT}$ *(FBC 2017 1609.3.1)*
- C_f= drag coefficients calculated per AASHTO LTS-6 *(ASCE 7-16 C29.4)*
- Strength Equations per AASHTO LTS-6 Allowable Stress Increase = 1.33

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