Index 17502 High Mast Lighting (Rev. 01/16)

Design Criteria

AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 6th Edition (LTS-6); ***Structures Manual*** Volume 3, FDOT Modifications to LTS-6; ***Structures Manual*** Introduction, I.6 References.

Design Assumptions and Limitations

See notes on the ***Design Standard*** and ***Structures Manual*** Volume 3.

Poles are designed for up to a 6 mil galvanization thickness.

Foundations are assumed to be in level ground. For foundation within slopes 5H:1V and greater, increase the foundation depth in accordance with the table below. For values in-between those shown in the table, use the higher value.

Additional Shaft Depth Due to Ground Slope (feet)

Ground Slope	Drilled Shaft Diameter (feet)	
	4	**5**
5H:1V	3	4
4H:1V	4	5
3H:1V	5	6
2H:1V	7	9

Foundations are based upon the following conservative soil criteria (which covers the majority of soil types found in Florida)

Classification = Cohesionless (Fine Sand)
Friction Angle = 30 degrees
Unit Weight = 50 pcf (Submerged)

Only in cases where the Designer considers the soil types at the specific site location to be of lesser strength properties should an analysis be required. Auger borings, SPT borings or CPT soundings may be utilized as needed to verify the assumed soil properties, and at relatively uniform sites, a single boring or sounding may cover several foundations. Furthermore, borings in the area that were performed for other purposes may be used to confirm the assumed soil properties.

Plan Content Requirements

See ***PPM*** Volume 2, Chapter 25.

Payment

Item number	Item description	Unit Measure
715-19-ABC	High Mast Light Pole, Complete	EA