Index 18113 Concrete CCTV Pole (Rev. 07/13)

Design Criteria


Design Assumptions and Limitations


The concrete CCTV poles are designed for:

1. 150 mph wind speed with a 50 year structure design life,
2. A one inch maximum deflection in a 40 mph wind speed (3 second gust), and
3. A maximum camera effective projected area (EPA) of 5.6 square feet total with a maximum camera weight of 240 pounds total.

Wind load is calculated assuming a maximum fill height of 5 feet. Do not use the design tables for fill heights more than 5 feet.

Foundations are designed based on the following soil criteria:

Classification: Cohesionless (Fine Sand)
Friction Angle: 30 Degrees
Unit Weight: 50 lbs/cubic foot (assumed saturated)

When the designer considers soil types at the specific site location to be of lesser strength properties than shown above, an analysis is required. Auger borings, SPT borings, or CPT soundings may be used as needed to verify the assumed soil properties, and at sites confirmed to be uniform, a single boring or sounding may cover several foundations. 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 1, Chapters 7 and 29.

Payment

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<th>Item number</th>
<th>Item description</th>
<th>Unit Measure</th>
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<td>785-1-13</td>
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