Fatigue: Not used
Dead Load + 0.5 (Wind Load) + Ice Load

Pole embedment depth design is based on Broms' approximate procedure as described in Article 13.6 of AASHTO LTS-5.

**FOUNDATION DESIGN NOTES:**

1. Pole embedment depth design is based on Broms' approximate procedure as described in Article 13.6 of AASHTO LTS-5.
2. Embedment depth is calculated based on following soil parameters:
   - Cohesive Soil
     - Shear strength of soil \( c = 1500 \text{ psi} \)
     - Cohesion \( c = 500 \text{ psi} \)
   - Soil assumed to be unsaturated.
   - Embedment depth is calculated based on following soil procedure as described in Article 13.6 of AASHTO LTS-5.
   - An overdepth factor of 2.0 and an underecency factor of 0.5 were used for safety factor of 2.86.
   - Allowable vertical bearing pressure at the end bearing of piles is 3000 psf at 6 feet or more embedment.
   - Guy wire anchor minimum allowable tension capacity, \( "d" = 5,400 \text{ lbs} \).

**STATE OF CALIFORNIA**
**DEPARTMENT OF TRANSPORTATION**
**DIVISION OF ENGINEERING SERVICES**

**GENERAL NOTES:**

1. The messenger wire and any combination of overhead conductors must not exceed either a self weight of 3.0 lb/ft or the maximum \( d \) in the pole selection tables.
2. The maximum vertical span is 10% of the horizontal span.
3. For poles with adjacent unbalanced horizontal spans, the shortest horizontal span must be at least 50% of the largest horizontal span.
4. The messenger wire and any combination of overhead conductors must not exceed either a self weight of 3.0 lb/ft or the maximum \( d \) in the pole selection tables.
5. Add 2'-0" for slopes above 1V:4H.
6. Do not exceed the attachments shown.

**POLE FOUNDATION**

**DAMMERS AND SELF WEIGHT OF OVERHEAD CONDUCTORS**

<table>
<thead>
<tr>
<th>CONDUCTOR OR CABLE TYPE</th>
<th>DIAMETER d (in)</th>
<th>WEIGHT w (ozf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 CONDUCTOR SIGNAL CABLE (3 CSC)</td>
<td>0.400</td>
<td>0.0980</td>
</tr>
<tr>
<td>5 CONDUCTOR SIGNAL CABLE (5 CSC)</td>
<td>0.500</td>
<td>0.1560</td>
</tr>
<tr>
<td>9 CONDUCTOR SIGNAL CABLE (9 CSC)</td>
<td>0.850</td>
<td>0.2780</td>
</tr>
<tr>
<td>12 CONDUCTOR SIGNAL CABLE (12 CSC)</td>
<td>1.000</td>
<td>0.3370</td>
</tr>
<tr>
<td>28 STRAND FIBER OPTIC CABLE (28FOC)</td>
<td>0.250</td>
<td>0.6490</td>
</tr>
<tr>
<td>50 STRAND FIBER OPTIC CABLE (50FOC)</td>
<td>0.310</td>
<td>0.8550</td>
</tr>
<tr>
<td>100 STRAND FIBER OPTIC CABLE (100FOC)</td>
<td>0.420</td>
<td>1.2640</td>
</tr>
<tr>
<td>120 STRAND FIBER OPTIC CABLE (120FOC)</td>
<td>0.530</td>
<td>2.1000</td>
</tr>
<tr>
<td>144 STRAND FIBER OPTIC CABLE (144FOC)</td>
<td>0.670</td>
<td>2.8300</td>
</tr>
</tbody>
</table>

**CONTRACT NO.:**

**FILE NO.:**

**DATE:**

**SHEETS:**

**TOTAL:**

**STANDARD DRAWING:**

**APPROVAL DATE:**

**DISREGARD PRINTS BEARING PRIOR REVISION DATES**