MAST ARM FOUNDATION DESIGN SCHEDULE

<table>
<thead>
<tr>
<th>MAST ARM LENGTH (ft)</th>
<th>FOUNDATION DIAMETER (in)</th>
<th>FOUNDATION LENGTH (ft)</th>
<th>VERTICAL REINFORCEMENT</th>
<th>TIE REINFORCEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>36</td>
<td>12</td>
<td>(14) #8 @ 8&quot;OC</td>
<td>#4 @ 8&quot;OC</td>
</tr>
<tr>
<td>35-50</td>
<td>42</td>
<td>13</td>
<td>(18) #8 @ 8&quot;OC</td>
<td>#4 @ 8&quot;OC</td>
</tr>
<tr>
<td>55-65</td>
<td>48</td>
<td>14</td>
<td>(24) #8 @ 8&quot;OC</td>
<td>#4 @ 8&quot;OC</td>
</tr>
</tbody>
</table>

FOUNDATION LENGTH IS MEASURED AS THE LENGTH OF FOUNDATION IN SOIL.

DESIGN NOTES:
1. CONCRETE TO BE #30 3000 PSI @ 28 DAYS.
2. STEEL REINFORCEMENT ASTM A500 Grade B. DIMENSIONS REFER TO THE CENTERLINE UNLESS NOTED OTHERWISE.
3. SEE DESIGN DRAWINGS AND SCHEDULES FOR ANCHOR BOLT GRADE. PROVIDE LEVELING NUT AS REQUIRED.
4. CONCRETE IS TO BE PLACED IN DRILLED HOLES. DUE TO SOIL CONDITIONS, THE USE OF CORE CAVING MAY BE REQUIRED. THE CAVING SHALL BE PULLED AS THE CONCRETE IS PLACED WITH A 6" MINIMUM DISPLAY.
5. FOUNDATION DESIGN IS FOR MAST ARM STANDARD DIAMETERS SHOWN AND A ROUND SHAFT. IF A LARGER DIAMETER IS FURNISHED, THE CONSTRUCTOR SHALL BUILD A LARGER FOUNDATION AS DETERMINED NECESSARY BY THE CITY ENGINEER AND NO ADDITIONAL PAYMENT OF COMPENSATION SHALL BE MADE.
6. ALTERNATE DESIGN FOR FOUNDATIONS TO BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
7. THE FOLLOWING SOIL DESIGN PARAMETERS WERE ASSUMED FOR THE MAST ARM FOUNDATION DESIGN:
   - SOIL CONDENSATION IS SILT, POORLY GRADED SAND SP.
   - SOIL UNIT WEIGHT = 115 lb/ft³
   - SOIL INTERNAL ANGLE OF FRICTION = 30°
   - SOIL EFFECTIVE INTERNAL ANGLE OF FRICTION = 23°
   - SHOULDER SOIL CONDITIONS VARY SIGNIFICANTLY, TO WHAT IS DESCRIBED ABOVE, THE CITY ENGINEER SHALL BE CONSULTED FOR APPROVAL OF ANY REQUIRED RESEARCH MEASURES BEFORE FOUNDATION PLACEMENT.
8. ALL HOLES FOR FOUNDATION SHAFTS SHALL BE POURED AGAINST UNSTURBED EARTH IF SHAFT IS NOT LOCATED IN UNSTURBED SOIL THEN CONTACT SOIL TO SOIL MINIMUM.
9. FOUNDATION SPACE FOR ALL FOUNDATION TO BE DETERMINED BY THE PROJECT ENGINEER. THE TOP OF STANDARD FOUNDATIONS SHALL BE FLUSH WITH ADJACENT SIDEWALK OR PAIRED AREAS WHEN PRESENT AND SHALL COMFORM TO THE AMERICANS WITH DISABILITIES ACT.
10. PVC CONDUIT SHALL BE CALLED OUT IN SHOP DRAWINGS USING A MINIMUM 3" CONDUIT PIPE OR AS REQUIRED BY THE MAST ARM MANUFACTURER.
11. FOUNDATIONS SHALL INCLUDE COPPERFIELD GROUND ROADS AS REQUIRED BY THE MAST ARM MANUFACTURER. PLACEMENT AND INSTALLATION OF GROUND ROADS SHALL BE SHOWN WITH SHOP DRAWINGS.

City of Rio Rancho
Department of Public Works

TRAFFIC SIGNAL MASTARM STANDARD DRAWINGS

DATE MODIFIED: OCTOBER 2017

DWG. NO. TSSL-02

METHODEE M. MAST
NEW MEXICO

2017

DATE: OCTOBER 2017