TAPERED WASHER DETAILS

- Bend radius measured to the % of each U-bolt. Increase radius as needed to accommodate out-of-roundness, galvanizing thickness, and seam weld profiles.
- U-bolts shall be tightened by using (36 in. & 3") fast snug tightening. Peen threads after tightening. U-bolts and faceplate shall be mounted on base section prior to shipment.
- Match fit stop bar to side plate using tack welds to ensure uniform bearing.
- Stop all welds % short of plate edges and bolt holes.
- Bend stop bar to match pole curvature.

1. **FACEPLATE**: Side plate (Typ.)
   - Upper handhole
   - Chamfer side plate
   - Stop bar (Typ.)
   - Side plate (Typ.)
   - Holes for mast arm bolts
   - Top saddle
   - Side plate to faceplate weld
   - Holes for mast arm bolts
   - Side plate to faceplate weld

2. **SECTION**: Side plate (Typ.)
   - Access hole
   - Access hole
   - Side plate to side plate weld
   - Bottom saddle
   - Access hole
   - Bottom saddle

3. **FACEPLATE**: Side plate (Typ.)
   - Upper handhole
   - Chamfer side plate
   - Stop bar (Typ.)
   - Side plate (Typ.)
   - Holes for mast arm bolts
   - Top saddle
   - Side plate to faceplate weld
   - Holes for mast arm bolts
   - Side plate to faceplate weld

4. **SECTION**: Side plate (Typ.)
   - Access hole
   - Access hole
   - Side plate to side plate weld
   - Bottom saddle
   - Access hole
   - Bottom saddle

5. **ELEVATION**: Top saddle
   - Side plate
   - Work point
   - Access hole
   - Access hole
   - U-bolt with two heavy hex nuts and hardened washers
   - Bend radius = 6.68"
### Socket Weld Data

<table>
<thead>
<tr>
<th>Arm Length (ft)</th>
<th>M1 (in)</th>
<th>M2 (in)</th>
<th>E (in)</th>
<th>θ (deg)</th>
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<tbody>
<tr>
<td>25</td>
<td>0.2381</td>
<td>0.285</td>
<td>0.183</td>
<td>40</td>
</tr>
<tr>
<td>35</td>
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<td>0.285</td>
<td>0.183</td>
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<tr>
<td>45</td>
<td>0.3126</td>
<td>0.372</td>
<td>0.239</td>
<td>40</td>
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<tr>
<td>Pole</td>
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### Backing Ring Weld Data

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<th>θ (deg)</th>
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<tbody>
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<td>25</td>
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<tr>
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<td>0.1198</td>
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<tr>
<td>45</td>
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<td>0.365</td>
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<td>0.429</td>
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</tbody>
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**Construction Requirements**

- The tip of the mast arm must be above the base of the mast arm in the final adjusted position.
- Adjustments during construction to achieve this.

**Base Plate Detail**

- Ø10" for socket weld detail.
- Ø8" for backing ring weld detail.

**Traffic Signal Pole Cassion**

- Ø4" spiral drilled cassin.

**ALTERNATE TRAFFIC SIGNAL INSTALLATION DETAILS**

**STANDARD PLAN NO.**

S-614-40A

**Issued By:** Traffic Engineering Unit, July 4, 2006

**Sheet No. 4 of 5**