**GENERAL NOTES**

1. FIELD VERIFY CONTROLLER CABINET BOLT PATTERN AND LOCATION PRIOR TO FABRICATION.
2. GROOVE SIZE AND FILLET SIZE ARE EQUAL TO MATERIAL THICKNESS.
3. ALL HARDWARE SHALL BE STAINLESS STEEL.
4. ALL WELDING SHALL BE GTAW.
5. EQUIPMENT BONDING JUMPER SHALL BE NO AVG MIN \( \frac{3}{8} \) (IN) OF TINNED, BRAIDED COPPER.
6. PLACE A \( \frac{1}{2} \) (IN) BEAD OF SILICONE BETWEEN CABINET RISER AND FOUNDATION, A \( \frac{1}{2} \) (IN) BEAD OF SILICONE BETWEEN CABINET RISER AND CABINET.

**MATERIAL**: 1/8" SHEET ALUMINUM (5052-H32), MINIMUM THICKNESS. EXTRUDED CHANNEL OR FORMED CHANNEL MAY BE SUBSTITUTED FOR WELDED PLATE.

**TOLERANCES**

<table>
<thead>
<tr>
<th>TOLERANCE</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANGLE</td>
<td>+/- 1 DEGREE</td>
</tr>
<tr>
<td>HOLES</td>
<td>+/- 0.002 / 0.011</td>
</tr>
</tbody>
</table>

GTAW = GAS TUNGSTEN ARC WELDING

**KEY NOTES**

1. EQUIPMENT BONDING JUMPER
2. EQUIPMENT BONDING JUMPER (SEE NOTE 5)
3. SINGLE BONDING JUMPER CONNECTION - SEE SINGLE BONDING JUMPER CONNECTION DETAIL
4. DOUBLE BONDING JUMPER CONNECTION - SEE DOUBLE BONDING JUMPER CONNECTION DETAIL

**TIGHTENING**

| BOLT | NUT | WASHER |...
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 - 20 NC x 1.50 (IN) FULLY THREADED BOLT FOR GROUND LUG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLAT WASHERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DUAL RATED AL &amp; Cu FULL CIRCLE CRIMP CONNECTOR (TYP)</td>
<td></td>
<td></td>
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</tbody>
</table>

**ASSEMBLY INSTALLATION STEPS**

1. LIBERALLY COAT THREADS WITH ANTI-OXIDANT COMPOUND
2. SNUG NUT 1 AGAINST BACK WALL
3. INSTALL FLAT WASHERS AND FULL CIRCLE CRIMP CONNECTOR(S)
4. WITH WRENCH ON NUT 1 AND NUT 2 SNUG NUT 2 TO NUT 1 - TIGHTEN UNTIL THE BELLEVILLE SPRING WASHER IS FULLY COMPRESSED AND NO FURTHER
5. WITH WRENCH ON NUT 2 AND NUT 3 SNUG NUT 3 TO NUT 2
6. LIBERALLY COAT THIS ASSEMBLY WITH ANTI-OXIDANT COMPOUND

**BOLT HOLE SLOT DETAIL**

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>TYP.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; (IN)</td>
<td>RADIUS</td>
</tr>
</tbody>
</table>

**BOLTS, NUTS, AND WASHERS**

<table>
<thead>
<tr>
<th>BOLT OR NUT</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 - 20 NC x 1.50 (IN) FULLY THREADED BOLT FOR GROUND LUG</td>
<td>FULLY THREADED BOLT</td>
</tr>
<tr>
<td>NUT</td>
<td>FLAT WASHERS</td>
</tr>
<tr>
<td>DUAL RATED AL &amp; Cu FULL CIRCLE CRIMP CONNECTOR (TYP)</td>
<td>DUAL RATED AL &amp; Cu FULL CIRCLE CRIMP CONNECTOR (TYP)</td>
</tr>
</tbody>
</table>

**AA = ALUMINUM ALLOY**

<table>
<thead>
<tr>
<th>BOLT</th>
<th>NUT</th>
<th>WASHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOLT - AA2024-T4 OR AA 2024-T351</td>
<td></td>
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<tr>
<td>NUT - AA6061-T6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASHER - AA7075-T6</td>
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</tbody>
</table>

**ASSY & DETAIL**

<table>
<thead>
<tr>
<th>DETAIL</th>
<th>TYP.</th>
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<tbody>
<tr>
<td>TOP VIEW</td>
<td>PLOTTED BY</td>
</tr>
<tr>
<td>BOTTOM VIEW</td>
<td>DESIGNED BY</td>
</tr>
<tr>
<td>END VIEW</td>
<td>CHECKED BY</td>
</tr>
<tr>
<td>DETAIL</td>
<td>REVISED</td>
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</tbody>
</table>

**FILE NAME**

- Design R P4 - 4-Standards 2-Pan Sheet Library Working folder/60/Item & Sign/51/WW-16-16 Plan Controller Cabinet Riser Details/51-16.dgn

**DRAWING NO**

- 06-111um & Signal (IS)IW(IS-19) P44 Controller Cabinet Riser Details/51-16.dgn

**DATE**

- 8/14/2014

**PLOTTER**

- TecniCo

**DESIGNER**

- P.E. STAMP BOX

**CHECKER**

- P.E. STAMP BOX

**REGIONAL AUD**

- P.E. STAMP BOX

**CONTRACT NO.**

- Department of Transportation

**LOCATION NO.**

- Washington State Department of Transportation

**P44 CONTROLLER CABINET RISER DETAILS**
P44 RISER ADAPTOR SPLIT BASE

DETAIL 1

EXPLDED VIEW

SECTION A

SECTION B

BOLT, NUTS, AND WASHERS (TYP.)

FLAT WASHERS

BOLT

RELIEF 1" (IN) x 1" (IN)

1 1/2" (IN) DAM HOLE

3/8 - 16 x 1" (IN) BOLT (TYP.)

3/16" (IN) DAM HOLE (TYP.)

BOLT HOLE SLOT (TYP.)

SEE BOLT HOLE SLOT DETAIL.

BOLT HOLE SLOT (TYP.)

(4 PLACES)

GTAW

1/8" 3"

GTAW

1/8" 3"

GTAW

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