RADIUS, RADIUS, RADIUS, RADIUS, RADIUS

The radius of a pipe is 9 inches. The radius of a bicycle is 24 inches. The radius of a bicycle is 24 inches. The radius of a bicycle is 24 inches. The radius of a bicycle is 24 inches.

RAILING MEMBER DIMENSIONS TABLE

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>DESIGNATION</th>
<th>OUTSIDE DIMENSION</th>
<th>KNOT THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posts</td>
<td>2&quot; x 4&quot; Rectangular Tube</td>
<td>2.000&quot; x 4.000&quot;</td>
<td>0.250&quot;</td>
</tr>
<tr>
<td>Rails</td>
<td>2&quot; NPS (Sch. 40)</td>
<td>2.375&quot;</td>
<td>0.154&quot;</td>
</tr>
<tr>
<td>Rail Joint/Splice Sleeves</td>
<td>2.000&quot; NPS (Sch. 40)</td>
<td>2.000&quot;</td>
<td>0.154&quot;</td>
</tr>
<tr>
<td>Handrail Joint/Splice Sleeves</td>
<td>1.000&quot; NPS (Sch. 40)</td>
<td>1.000&quot;</td>
<td>0.154&quot;</td>
</tr>
<tr>
<td>Handrails</td>
<td>1.000&quot; NPS (Sch. 40)</td>
<td>1.000&quot;</td>
<td>0.154&quot;</td>
</tr>
<tr>
<td>Handrail Support Bar</td>
<td>1.00&quot; Round Bar</td>
<td>1.00&quot;</td>
<td>N/A</td>
</tr>
<tr>
<td>Pickets</td>
<td>2.50&quot; NPS (Sch. 40)</td>
<td>2.50&quot;</td>
<td>0.154&quot;</td>
</tr>
</tbody>
</table>

BASE PLATES & POST CAPS

The radius of a pipe is 9 inches. The radius of a pipe is 9 inches. The radius of a pipe is 9 inches. The radius of a pipe is 9 inches. The radius of a pipe is 9 inches.

ANCHOR BOLTS:

Anchor bolts shall be in accordance with FDOT FS 1594 Grade 36. Helical anchor bolts for adhesive anchors shall be threaded full length. Cutting of reinforcing steel permitted for drilled hole installation. Expansion anchors are not permitted. All anchor bolts shall have single self-locking hex nuts. Tack welding at the bolt seat to the anchor bolt may be used in lieu of self-locking nuts. Tack welds shall be in accordance with FDOT FS 1593 and FDOT FS 194. Post Washers shall be in accordance with FDOT FS 142. The radius of the anchor bolt threads shall be distorted to prevent removal of the nuts. Unthreaded and tack welded bolts shall be coated with a galvanizing compound in accordance with the Specifications.

RESIST AND NONSPHERE PADS:

Resistant and nonspHERE pads shall be in accordance with Specification Section 932 except that testing of the finished pads shall not be required. Neoprene pads shall be diametrical hardness 60 or 70.

JOINTS:

All joints are to be welded all around and ground smooth. Expansion joints shall be spaced at a maximum of 10 feet. Field splices similar to expansion joints may be approved by the Engineer to facilitate handling, but rolling must be continuous across a minimum of two pads. Only use the Continuity Field Splice (details) to make the rolling continuous for unforeseen field adjustments.

WELDING:

Welding shall be in accordance with the American Welding Society Structural Welding Code (Aluminum). AWMA1400 (1988). Other metal shall be either D1826, D1826 or D1826. Nondestructive testing of welds is not required.

SHOPE DRAWINGS:

Complete details addressing project specific geometry (line & grooves) showing post and expansion joint locations must be submitted by the Contractor for the Engineer’s approval prior to fabrication of the railing. Shop drawings shall be in accordance with the Specifications.

PAYMENT:

Railing shall be paid for per linear foot (item No. 0140-2-2wab). Payment will be plan quantity measured as the length along the center line of the top rail, and includes rails, posts, pickets, rail splice assembly, base plates, anchor bolts, nuts, washers, resilient or neoprene pads and all incidental materials and labor required to complete installation of the railing.
ELEVATION
(Showing Outside Face of Railing)

TYPICAL RAILING DETAILS & RAILINGS ON GRADES 0% TO 5%

ELEVATION
(Showing Inside Face of Railing)

RAILINGS ON GRADES STEEPER THAN 5% TO 8.33%

RAMP REQUIREMENTS

LANDING REQUIREMENTS

NOTES:
* Picket Spacing of 4 1/2" centers is based on a 3/4" NPS. If an alternate design is used maintain a maximum clear opening of 3 1/2".
** End Rail/Handrail varies for Railings on grades steeper than 2 1/4%.
NPS = Nominal Pipe Size

STRUCTURES EXPANSION JOINTS NOTE:
- Keyed construction joints in Index No. 520 Gravity Wall are not considered to be expansion joints.

CROSS REFERENCE:
- For Details "C", "O" and "E", see Sheet 4 of 5.

Handrail required for ramps (handrail continuous at landings between runs) Handrail = 1/2" NPS Sch. 40.
TYPICAL SECTION ON CONCRETE SIDEWALK (Case I)

TYPICAL SECTION ON RETAINING WALL (Case II)

ANCHOR BOLT TABLE

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Unreinforced Concrete</td>
<td>6&quot;</td>
<td>1-2&quot;</td>
<td>9&quot;</td>
<td>10-5/16&quot;</td>
<td>11&quot;</td>
<td>5/8&quot;</td>
</tr>
<tr>
<td>II</td>
<td>Reinforced Concrete</td>
<td>4&quot;</td>
<td>4&quot;</td>
<td>9&quot;</td>
<td>10-5/16&quot;</td>
<td>11&quot;</td>
<td>5/8&quot;</td>
</tr>
<tr>
<td>III</td>
<td>Gravity Wall Excl. No. 920</td>
<td>45°</td>
<td>45°</td>
<td>9&quot;</td>
<td>10-5/16&quot;</td>
<td>11&quot;</td>
<td>5/8&quot;</td>
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<tr>
<td>III</td>
<td>Step Cheekwall</td>
<td>45°</td>
<td>45°</td>
<td>9&quot;</td>
<td>10-5/16&quot;</td>
<td>11&quot;</td>
<td>5/8&quot;</td>
</tr>
</tbody>
</table>

DETAIL "A" (Cast-In-Place Anchor Bolts shown, Adhesive Anchors similar)