**SECTION A-A**

**SECTION THRU JUNCTION SLAB, BARRIER WALL INLET AND RETAINING WALL**

**CONCRETE BARRIER/NOISE WALL (8'-0") JUNCTION SLAB**

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**NOTES**

1. **CONSTRUCTION REQUIREMENTS:** Construct the expansion joints and face of coping plumb.

2. **CONCRETE:** Use Class I concrete for slightly aggressive environments. Use Class IV concrete for moderately or extremely aggressive environments. Concrete will be in accordance with Specification Section 346.

3. **DOWELS:** Dowel Load Transfer Devices will be hot-dip galvanized ASTM A36 smooth round bars or GFRP smooth round bars with a minimum shear strength of 22 ksi in accordance with ASTM D6867. Install Dowel Load Transfer Devices in accordance with Specification Section 350.

4. **EXPANSION JOINTS:** Construct ½" Expansion Joints plumb, and either perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown.

5. **Shear Keys in Junction Slab are required when GFRP bars are used for Dowel Transfer Devices and are optional with steel dowel bars. Tongue Slope on Shear Key must be constant and between 5° to 45° from horizontal.**

6. **Provide Organic Felt bond breaker on top and Expanded Polysytrene (½" thick) on sides.**

7. **V-GROOVES:** Construct ½" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Place V-Grooves equally between ½" Expansion Joints and/or Begin or End Expansion Joint. V-Groove locations are to coincide with V-Groove locations in the Railing/Noise Wall. See Section 6-B for details.

8. **FILL REQUIREMENTS:** Shoulder or Roadway Pavement or Fill is required on top of the Junction Slab for its entire length on the traffic side of the Railing/Noise Wall. See Section 6-B for details.

9. **Actual location & width vary depending on type of Retaining Wall used.**

10. **Field cut Bars 5A and 5B2 as required to maintain minimum cover for skewed Approach Slab.**

11. **Spacing shown is along the Gutter Line.**

12. **See Index 521-510 for Bars 5V and 2 ~ Bars 5S1. See Plans for Junction Slab skewed Approach Slab.**

13. **Work this Index with Index 521-510 - Concrete Barrier/Noise Wall.**

**INDEX**

1. FY 2018-19
2. STANDARD PLANS
3. CONCRETE BARRIER/NOISE WALL (8'-0") JUNCTION SLAB
4. 521-512

**REV**

1. LAST REVISION 01/01/17
2. DESCRIPTION:

**PLAN**

**JUNCTION SLAB ADJACENT TO SKewed APPROACH SLAB AND WITH BARRIER WALL INLET**

**EXPANSION JOINT DETAIL**

(Junction Slab expansion joints are required at ½ open joints in Concrete Barrier/Noise Wall)

**NOTES**

- Bars 5V
- Bars 5A
- Bars 5B2
- Bars 5S1
- Bars 5U1
- Bars 5U2

**SECTION A-A**

**SECTION THRU JUNCTION SLAB, BARRIER WALL INLET AND RETAINING WALL**

- Type 1 Junction Slab Shown
- Type 2 Junction Slab Shown

**CONCRETE BARRIER/NOISE WALL (8'-0") JUNCTION SLAB**

**INDEX**

**521-512**
**SECTION B-B**

**TYPICAL SECTION THRU JUNCTION SLAB AND RETAINING WALL**

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**BILL OF REINFORCING STEEL**

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
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<td>9'-0&quot;</td>
</tr>
<tr>
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<td>5</td>
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<td>AS REQ</td>
</tr>
<tr>
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<td>O1</td>
<td>5</td>
<td>5'-6&quot;</td>
<td>4'-6&quot;</td>
</tr>
<tr>
<td>U2</td>
<td>5</td>
<td>17'-10&quot;</td>
<td>17'-10&quot;</td>
</tr>
</tbody>
</table>

**DOVELO** 1" Ø Smooth Bar

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**REINFORCING STEEL BENDING DIAGRAMS**

**REINFORCING STEEL NOTES:**

1. All bar dimensions in the bending diagrams are out to out.
2. All reinforcing steel at the open joints will have a 2" minimum cover.
3. Lap splice for Bars 5B will be a minimum of 2'-2".
4. The Contractor may use Deformed WWR when approved by the Engineer. Deformed WWR must meet the requirements of Specification Section 931.

---

**ESTIMATED JUNCTION SLAB QUANTITIES**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>Concrete (Junction Slab)</td>
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</tr>
<tr>
<td>Steel (Reinforcing)</td>
<td>LB/FT</td>
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</tr>
<tr>
<td>Additional Rein. @ Exp. Jnt</td>
<td>LB</td>
<td>21.36</td>
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</tbody>
</table>

**NOTES:**

1. Match Cross Slope of Travel Lane or Shoulder.
2. Vary Junction Slab slope based on roadway cross slope to maintain a minimum 6" asphalt depth at the edge of the slab as shown.
3. Actual width varies depending on type of Retaining Wall used.
4. See Index 521-510 for Bars 5V and Bars 5S1.
5. For Rigid Pavement (Concrete), Junction Slab may be thickened to match finished grade.
6. If slip forming is used, submit shop drawings for approval showing Expansion Joint support details and 2" side cover with adjusted typical section dimensions.

**CROSS REFERENCE:**
For location of Section B-B, see Sheet 1.

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**DETAIL "A"**

(Showing Locations of ½ V-Groves and ⅓ Preformed Expansion Joint Fillers)

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**PARTIAL END VIEW OF RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT**

(Showing Bars 5V and Bars 5B1)

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**NOTES:**

1. Match Cross Slope of Travel Lane or Shoulder.
2. Vary Junction Slab slope based on roadway cross slope to maintain a minimum 6" asphalt depth at the edge of the slab as shown.
3. Actual width varies depending on type of Retaining Wall used.
4. See Index 521-510 for Bars 5V and Bars 5S1.
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**CROSS REFERENCE:**
For location of Section B-B, see Sheet 1.