**RAISED SIDEWALK NOTES:**

1. When a 42" Vertical Shape is used with a precast coping, increase Bars 4C to Bars 5C or provide Bars 4C @ 4" spacing within 6'-0" of Expansion Joints.
2. Construct the expansion joints, V-Grooves and face of coping plumb.
3. Provide Class III concrete for slightly aggressive environments or Class IV for moderately or extremely aggressive environments.
4. Dowel Load Transfer Devices will be hot-dip galvanized ASTM A 36 smooth round bar, or GFRP smooth round bars with a minimum shear strength of 22 ksi in accordance with ASTM D7617. Install Dowel Load Transfer Devices in accordance with Specification Section 350.
5. Construct 2" Expansion Joints in raised sidewalk and C-I-P copings perpendicular or radial to the Gutter Line. Provide at 90'-0" maximum intervals as shown.
6. 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 or varied as required to maintain 2" minimum cover to the top of the MSE wall panels. Field cut reinforcing as required to maintain minimum cover (Typ.).
7. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 350.
8. Spacing shown is along the Gutter Line.
9. For Precast Coping only, provide Dowel Bars 4D embedded 1'-0" and extend 9" above the top of MSE wall panels. Field cut as necessary to maintain 2" minimum cover to the top of the build up concrete. See Wall Company Drawings for number and spacing of Dowel Bars 4D.
10. Finish Sidewalks in accordance with Specification Section 522.
11. The following Indexes contain details of the intersection of the retaining wall at approach slabs:
   - Index 400-090 - Approach Slabs (Flexible Pavement Approaches)
   - Index 400-091 - Approach Slabs (Rigid Pavement Approaches)

**EXPANSION JOINT DETAIL**

(Raised Sidewalk expansion joints are to coincide with ½" open joints in Concrete Barrier)

**PARTIAL PLAN VIEW**

(Precast Coping Shown, C-I-P Coping Similar) (Concrete Barrier Not Shown for Clarity)

**PARTIAL ELEVATION VIEW**

(Precast Coping & Raised Sidewalk Reinforcement Not Shown for Clarity) (Precast Coping Shown, C-I-P Coping Similar)
**End View of 32" Vertical Shape End Transition for Guardrail Attachment**

*Showing Bars 5S, Bars ST and Bars SX*  
*(Precast Coping Shown, C-I-P Coping Similar)*

**Note:** See Sheet 4 for End Transition Elevation.

---

**Estimated Quantities for Precast Coping**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete (Precast Coping)</td>
<td>CY/LF</td>
<td>0.095</td>
</tr>
<tr>
<td>Concrete (C-I-P Raised Sidewalk)</td>
<td>CY/LF</td>
<td>0.232</td>
</tr>
<tr>
<td>Reinforcing Steel (Precast Coping) excluding Bars ST, 5X and 5A (Typ.)</td>
<td>LB/LF</td>
<td>23.90</td>
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<tr>
<td>Reinforcing Steel (C-I-P Raised Sidewalk) (Typ.)</td>
<td>LB/LF</td>
<td>13.50</td>
</tr>
<tr>
<td>Additional Rein. @ Expansion Joints (Steel Dowels)</td>
<td>LB</td>
<td>32.04</td>
</tr>
</tbody>
</table>

The above concrete quantities are based on a Type D Concrete Curb (See Note 2).

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**Typical Section thru Precast Coping with C-I-P Raised Sidewalk and Retaining Wall at Expansion Joints**

*(32" Vertical Shape Shown, 42" Vertical Shape Similar)*

**Notes:**

1. Actual width varies depending on type of Retaining Wall used.
2. Match roadway curb shape (Type) and height. See Roadway Plans and Index 520-001. 5'-11" dimension is based on a 32" Vertical Shape with a Type D curb adjacent to a 6'-0" wide sidewalk. Adjust this dimension as required for other curb types or transitions at Begin or End Retaining Wall.
3. Trim end of Bars ST and SX to clear construction joint for 42" Vertical Shape.
4. At the Contractor's option, mechanical couplers may be used to splice reinforcing. Complete details, including reinforcement lengths are required in the Shop Drawings. Mechanical couplers shall develop 125% of the bar yield strength.
5. Contractor to maintain stability of precast coping prior to junction slab completion.
6. When the air gap between the precast coping extension and retaining wall exceeds 2\(^\frac{3}{4}\)", fill gap with full depth Expanded Polystyrene to provide a maximum 2" air gap.
7. For Bullet Railings, see Index 515-021 and 515-022.
8. Begin placing Railing Bars ST and SX at the railing end and proceed toward Retaining Wall to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars ST and SX shall be made immediately adjacent to Begin or End Bridge Cut, shift and rotate Bars ST and SX as required to maintain cover in End Transition.
Concrete Reinforcing Steel (Typical) excluding Bars 5T, 5X and 5S (Typ.)

35.38

32.04

UNIT QUANTITY

ESTIMATED QUANTITIES FOR C-I-P COPING

ITEM
Concrete
Reinforcing Steel (Typical) excluding Bars 5T, 5X and 5S (Typ.)
Additional Rein. @ Expansion Joints (Steel Shoewax)

UNIT
CT/EL
LB/EL
LB

QUANTITY
0.326
35.38
32.04

NOTES:
1. Match roadway curb shape (Type) and height. See Roadway Plans and Index 530-001. 6'-6" dimension is based on a 42" Vertical Shape with a Type D curb adjacent to a 6'-0" wide sidewalk. Adjust this dimension as required for other curb types or transitions at Begin or End Retaining Wall.
2. If slip forming is used, submit shop drawings for approval showing 3" side cover with the Typical Section dimensions adjusted.
3. Begin placing Railing Bars ST and 5X at the railing end and proceed toward Retaining Wall to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars ST and 5X shall be made immediately adjacent to Begin or End Retaining Wall. Cut, shift and rotate Bars ST and 5X as required to maintain cover in End Transition.

BUILDUP FOR STEPPED MSE WALL PANELS AND C-I-P COPING

NOTES:

1. Match roadway curb shape (Type) and height. See Roadway Plans and Index 530-001. 6'-6" dimension is based on a 42" Vertical Shape with a Type D curb adjacent to a 6'-0" wide sidewalk. Adjust this dimension as required for other curb types or transitions at Begin or End Retaining Wall.
2. If slip forming is used, submit shop drawings for approval showing 3" side cover with the Typical Section dimensions adjusted.
3. Begin placing Railing Bars ST and 5X at the railing end and proceed toward Retaining Wall to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars ST and 5X shall be made immediately adjacent to Begin or End Retaining Wall. Cut, shift and rotate Bars ST and 5X as required to maintain cover in End Transition.

TYPICAL SECTION THRU C-I-P COPING AND RAISED SIDEWALK AND RETAINING WALL AT EXPANSION JOINTS

(42" Vertical Face Shown, 32" Vertical Face Similar)