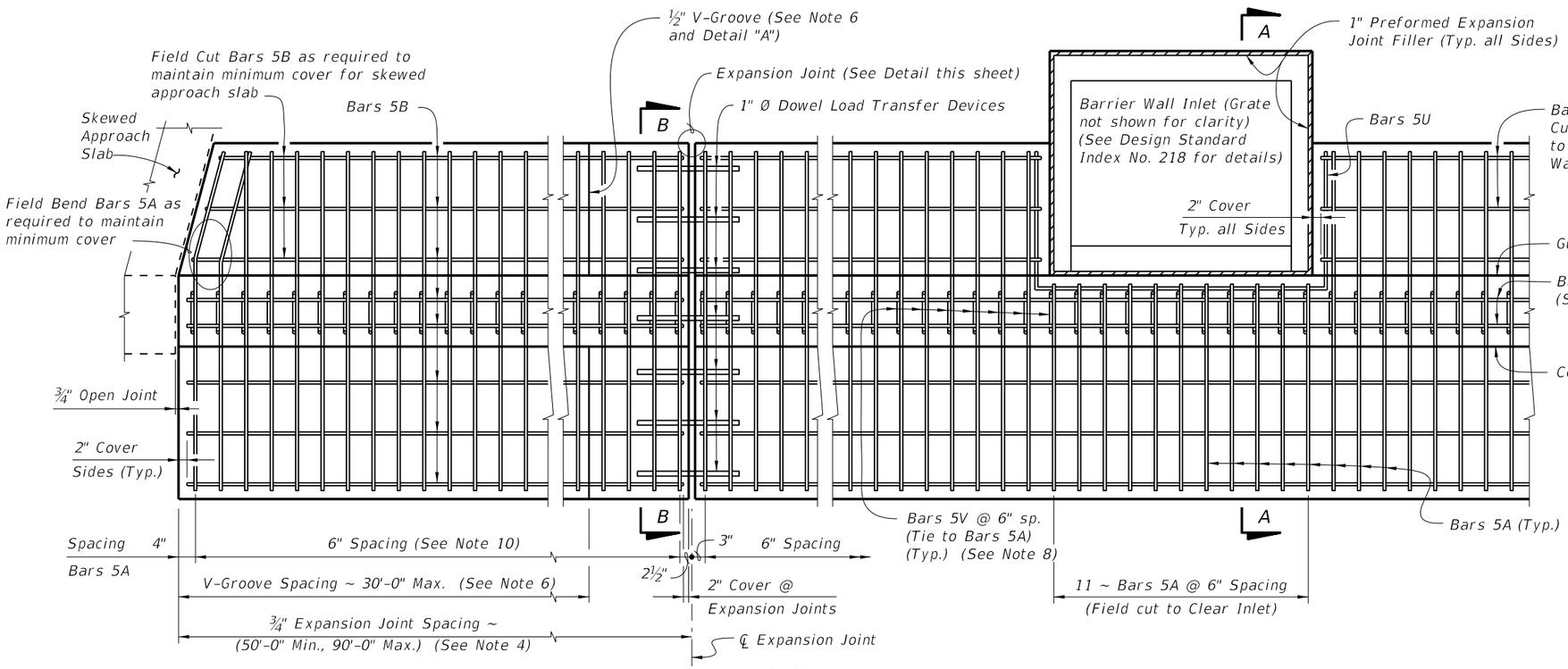
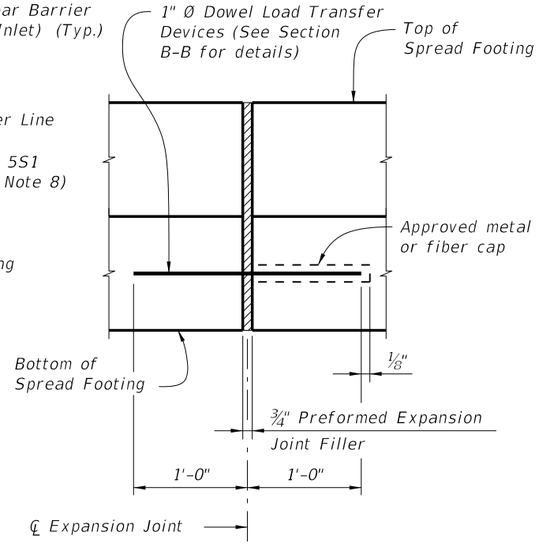


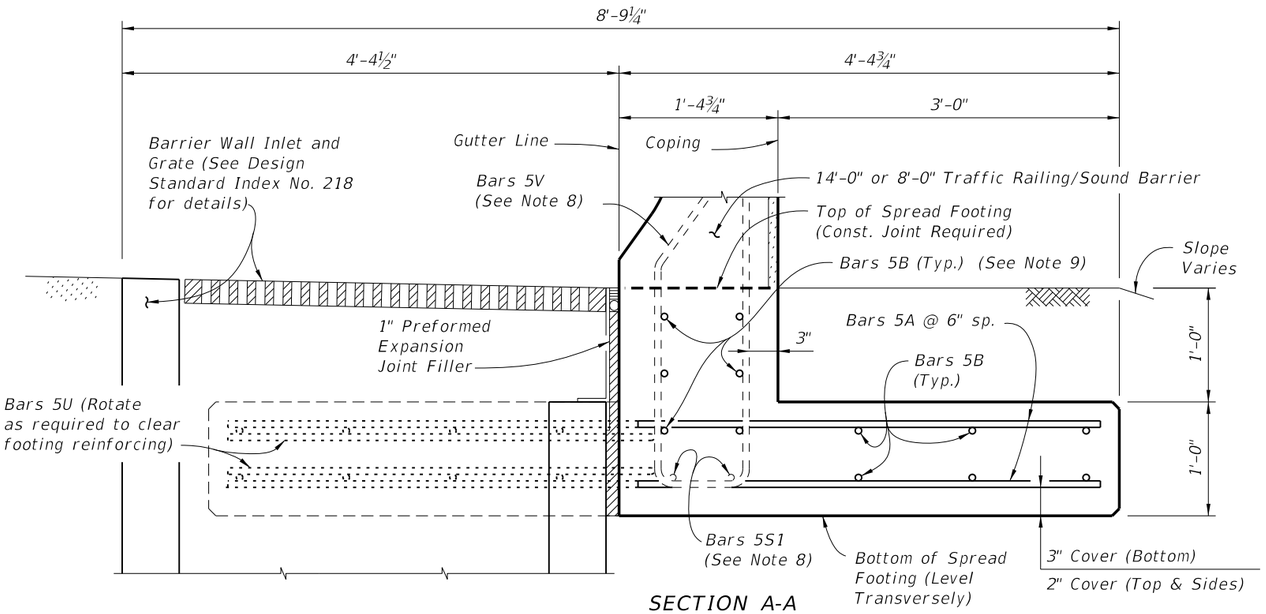
PLAN

SPREAD FOOTING ADJACENT TO SKEWED APPROACH SLAB AND WITH BARRIER WALL INLET



EXPANSION JOINT DETAIL

(Spread Footing expansion joints are required at ¾" open joints in Traffic Railing/Sound Barrier)



SECTION A-A

SECTION THRU SPREAD FOOTING AND BARRIER WALL INLET

(Bars 5P, 5R and 5S1 in Traffic Railing/Sound Barrier not shown for clarity)

NOTES

1. CONSTRUCTION REQUIREMENTS: Construct the Spread Footing level transversely and expansion joints plumb; do not construct the spread footing perpendicular to the roadway surface. Slip forming is not permitted.
2. CONCRETE: Use Class II 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. REINFORCING STEEL: Provide Grade 60 reinforcing steel in accordance with Specification Section 931. Dowel Load Transfer Devices will be ASTM A 36 smooth round bar and hot-dip galvanized in accordance with Specification Section 962. Install Dowel Load Transfer Devices in accordance with Specification Section 350.
4. Construct ¾" Expansion Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown.
5. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.
6. Construct ½" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between ¾" Expansion Joints and/or Begin or End Spread Footing. V-Groove locations are to coincide with V-Groove locations in the Railing/Sound Barrier.
7. FILL REQUIREMENTS: Shoulder or Roadway Pavement or Fill is required on top (1'-0" minimum depth) for the entire length of the spread footing on both sides of the Railing/Sound Barrier. See Section B-B for details.
8. See Index No. 5210 for Bars 5V and 5S1.
9. Place 6 ~ Bars 5B inside Stirrup Bars 5V as shown.
10. Spacing shown is along the Gutter Line.
11. Work this Standard Drawing with one or both of the following:
    a. Index No. 5210 – Traffic Railing/Sound Barrier (8'-0").
    b. Index No. 5211 – Traffic Railing/Sound Barrier (14'-0").

CROSS REFERENCE:
For Section B-B and Detail "A", see Sheet No. 2.

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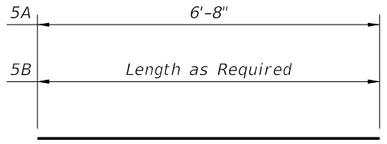
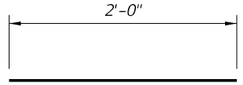
REINFORCING STEEL BENDING DIAGRAMS

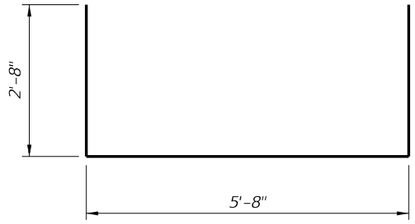
BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
A	5	6'-8"
B	5	AS REQD.
U	5	11'-0"
DOWEL	1" Ø Smooth Bar	2'-0"



BARS 5A & 5B



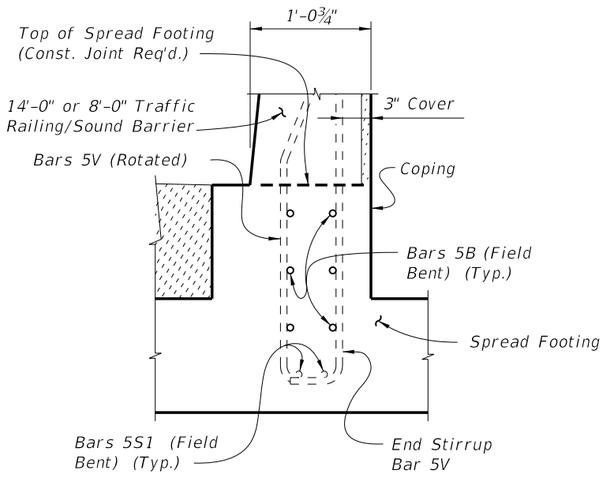
1" Ø DOWEL



BAR 5U

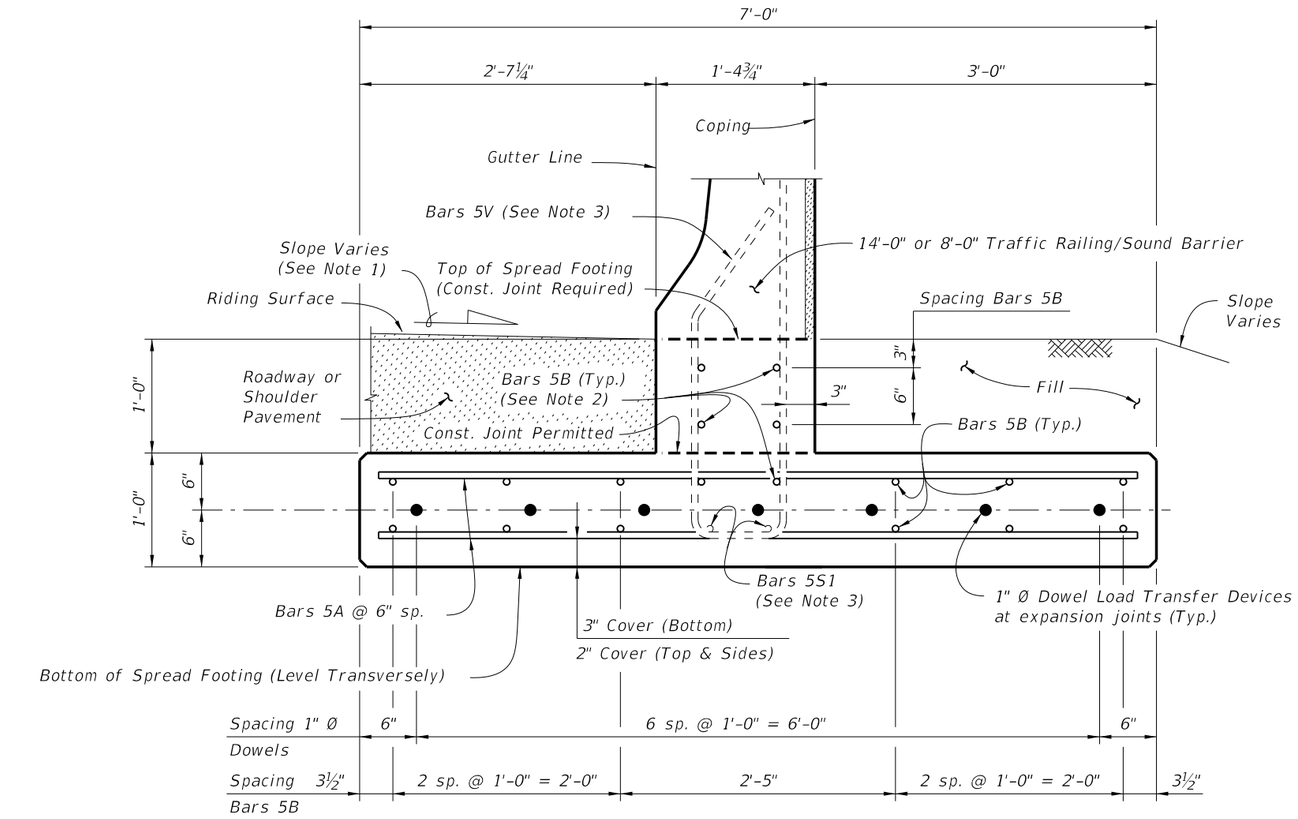
REINFORCING STEEL NOTES:

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 splices for Bars 5B will be a minimum of 2'-2".
4. The Contractor may use Welded Wire Reinforcement when approved by the Engineer. Welded Wire Reinforcement will conform to ASTM A 497.



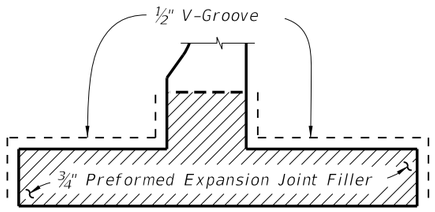
PARTIAL END VIEW OF RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT
(Showing Bars 5V, Bars 5S1 and Bars 5B inside of Stirrup Bars 5V)

NOTE: See Index No. 5210, Detail "A" for details.



SECTION B-B
TYPICAL SECTION THRU SPREAD FOOTING
(Bars 5P, 5R and 5S1 in Traffic Railing/Sound Barrier not shown for clarity)

NOTES:
1. Match Cross Slope of Travel Lane or Shoulder.
2. Place 6 ~ Bars 5B inside Stirrup Bars 5V as shown.
3. See Index No. 5210 for Bars 5V and Bars 5S1.



DETAIL "A"

(Showing Locations of ½" V-Grooves and ¾" Preformed Expansion Joint Filler)

ESTIMATED T-SHAPED SPREAD FOOTING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete (Footing)	CY/FT	0.311
Reinforcing Steel (Typical)	LB/FT	51.80
Additional Reinf. @ Expansion Joint	LB	37.38

Note: The reinforcing steel quantity accounts for the difference between the shorter Stirrup Bars 5V for junction slabs or bridges and the longer Stirrup Bars 5V for spread footings.

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

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