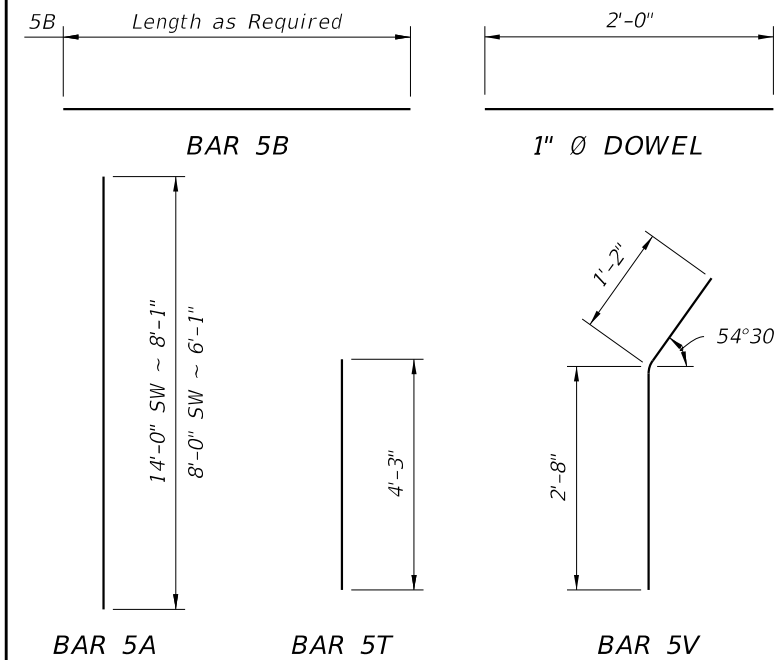


REINFORCING STEEL BENDING DIAGRAMS

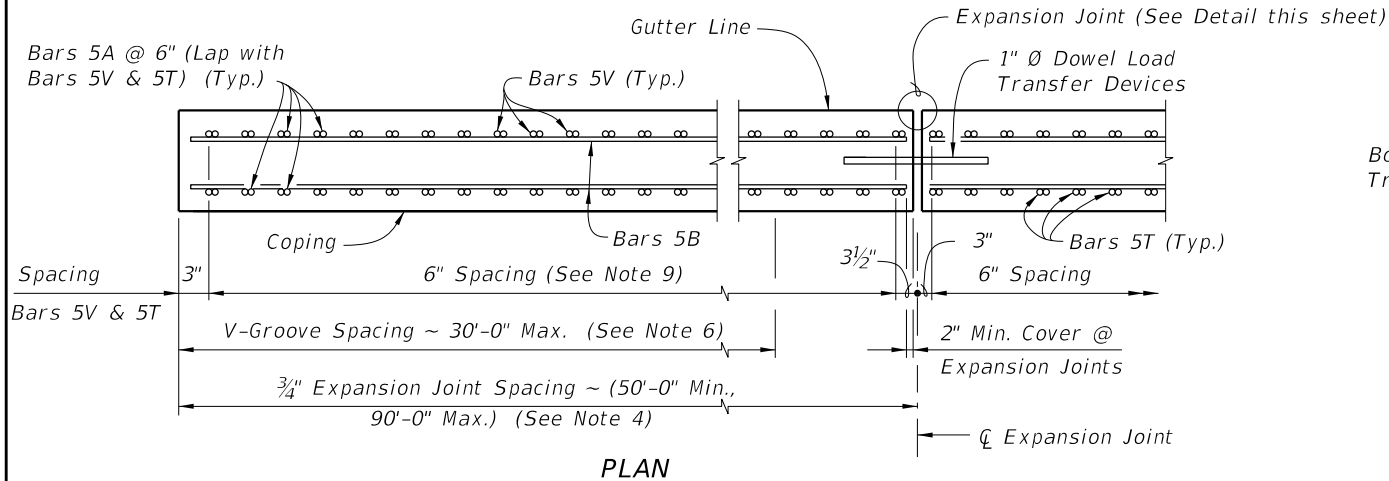
BILL OF REINFORCING STEEL

MARK	SIZE	LENGTH
A (8'-0" SW)	5	6'-1"
A (14'-0" SW)	5	8'-1"
B	5	AS REQD.
T	5	4'-3"
V	5	3'-10"
DOWEL	1" Ø Smooth Bar	2'-0"



REINFORCING STEEL NOTES:

- All bar dimensions in the bending diagrams are out to out.
- All reinforcing steel at the open joints will have a 2" minimum cover.
- Lap splices for Bars 5B will be a minimum of 2'-2".
- Lap splices Bars 5T and 5V with 5U1 will be a minimum of 2'-2".
- The Contractor may use Welded Wire Reinforcement when approved by the Engineer. Welded Wire Reinforcement will conform to ASTM A 497.



PLAN

NOTES

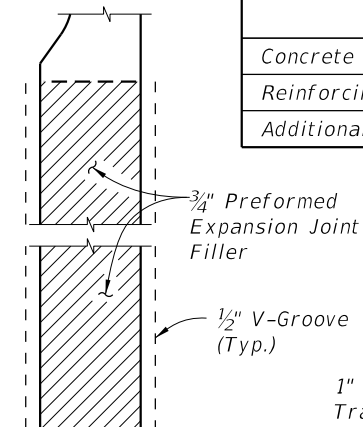
- CONSTRUCTION REQUIREMENTS:** Construct the Trench Footing and expansion joints plumb; do not construct the Trench Footing perpendicular to the roadway surface. Slip forming is not permitted.
- CONCRETE:** Use Class II concrete for slightly aggressive environments. Use Class VI concrete for moderately or extremely aggressive environments. Concrete will be in accordance with Specification Section 346.
- 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. Provide at 90'-0" maximum intervals as shown.
- Construct 3/4" Expansion Joints plumb and perpendicular or radial to Gutter Line.
- Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.
- Construct 1/2" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between 3/4" Expansion Joints and/or Begin or End Trench Footing. V-Groove locations are to coincide with V-Groove locations in the Railing/Sound Barrier.
- FILL REQUIREMENTS:** Fill is required a distance of 4'-0" on both sides for the entire depth of the trench footing. See Typical Section for details.
- Match Cross Slope of Travel Lane or Shoulder.
- Spacing shown is along the Gutter Line.
- Work this Standard Drawing with one or both of the following:
 - Index No. 5210 - Traffic Railing/Sound Barrier (8'-0").
 - Index No. 5211 - Traffic Railing/Sound Barrier (14'-0").

LEGEND: SW = Traffic Railing Barrier/Soundwall

ESTIMATED TRENCH FOOTING QUANTITIES

ITEM	UNIT	QUANTITY	
		8'-0" SW	14'-0" SW
Concrete (Footing)	CY/FT	0.336	0.439
Reinforcing Steel (Typical)	LB/FT	56.84	69.36
Additional Reinf. @ Expansion Joint	LB	32.04	42.72

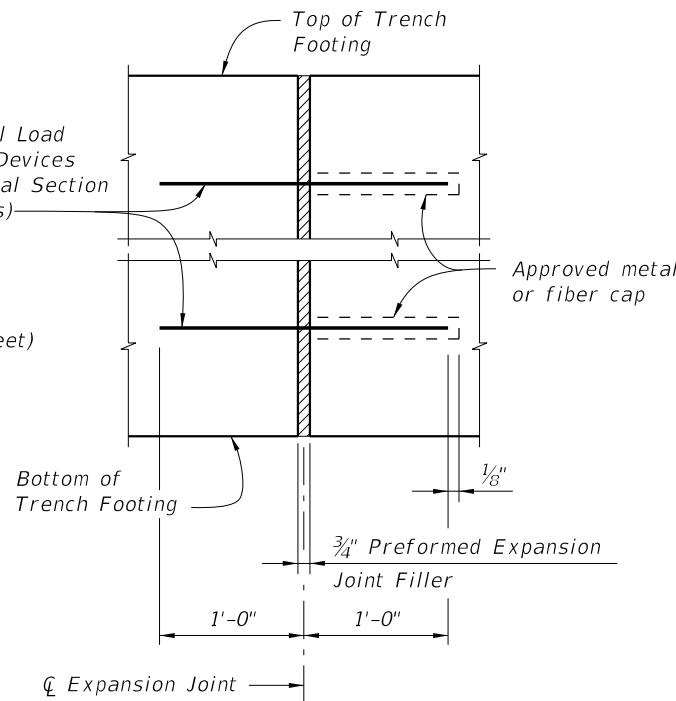
(Subtract 12.69 lb/ft from typical reinforcing steel quantity shown on Index No. 5210 to account for the absence of Stirrup Bars 5V and 5S1 in Trench Footings.)



DETAIL "A"

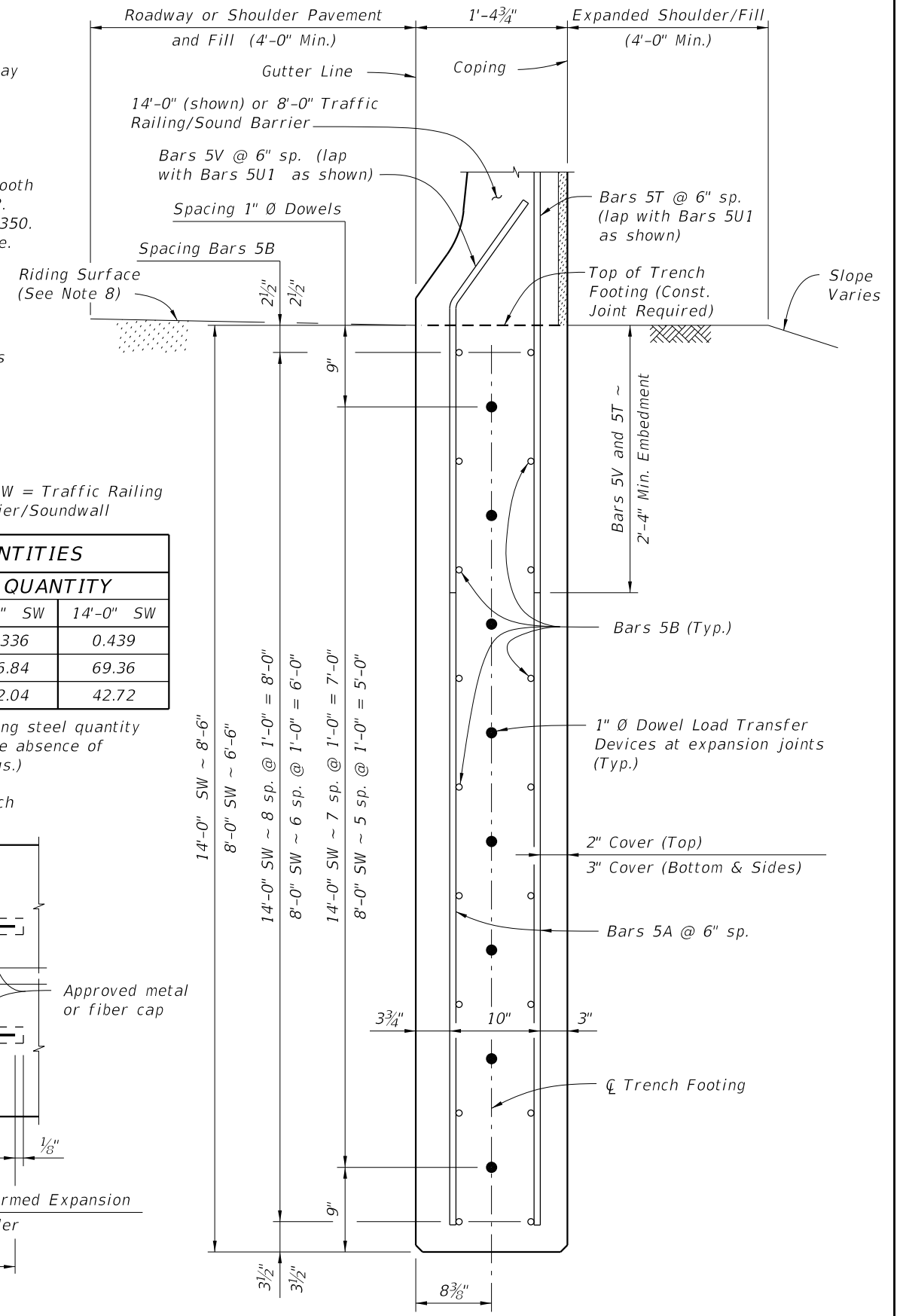
(Showing Locations of 1/2" V-Grooves and 3/4" Preformed Expansion Joint Filler)

1" Ø Dowel Load Transfer Devices (See Typical Section for details)



EXPANSION JOINT DETAIL

(Trench Footing expansion joints are required at 3/4" open joints in Traffic Railing/Sound Barrier)



TYPICAL SECTION THRU TRENCH FOOTING

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

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