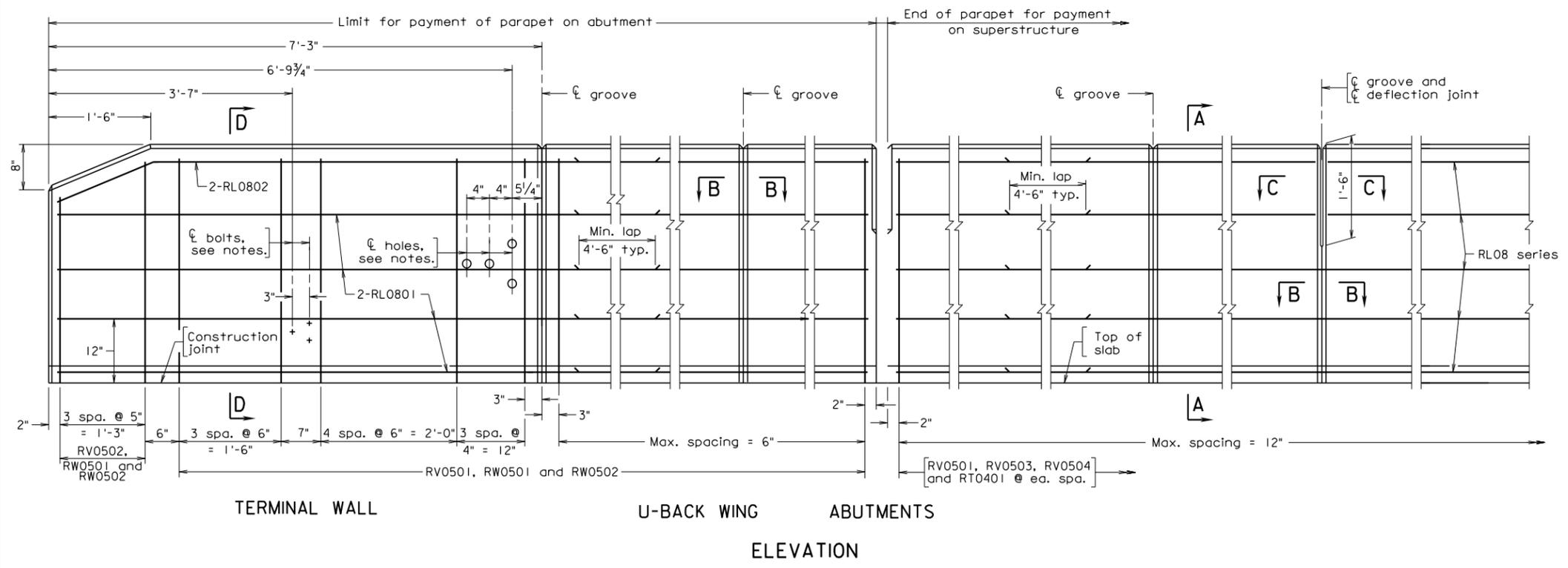


STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.	
VA.					



Notes:

Plan dimensions shown are measured in the respective horizontal and vertical planes.

The Contractor shall determine all dimensions and details necessary for installation.

All concrete shall be Low Shrinkage Class A4 Modified.

All levels for concrete shall be 3/4".

The reinforcing steel shown has been detailed based on a standard 1/4" per foot cross slope and for an 8/2" slab depth. The Contractor shall adjust the reinforcing steel as required for other cross slopes and slab depths.

All reinforcing steel shall be Corrosion Resistant Reinforcing Steel, Class ...

Use groove and deflection joint over pier.

Spacing of grooves is to be approximately 8'-0". If lighting standard is used (see bridge conduit system), groove shall be located approximately 4'-0" from centerline of light standard. Spacing of deflection joints shall not exceed three groove spaces.

Barrier delineator size, color and spacing shall be in accordance with the Specifications.

Each terminal wall shall be cast as one piece.

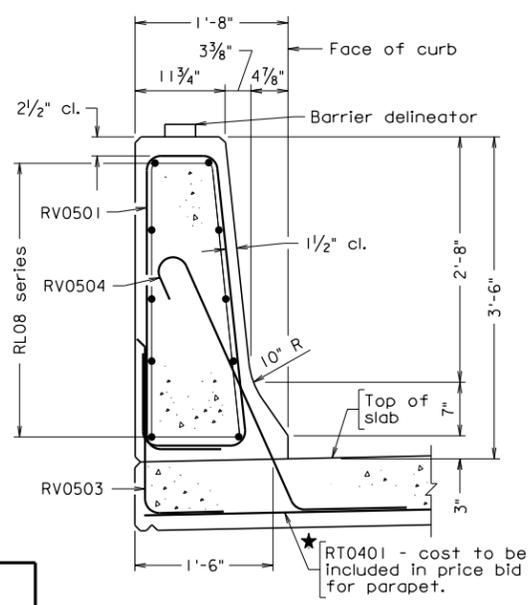
Terminal walls are detailed to take guardrail attachment GR-F0A-2.

For details of wingwall below construction joint, see abutment details.

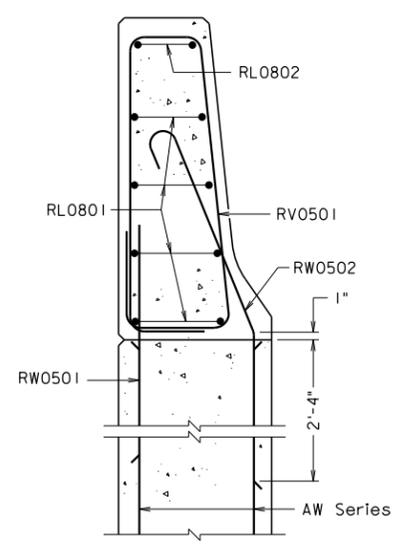
Holes, where shown, shall be formed with sleeves of 1/2" diameter nominal pipe.

Bolts for guardrail attachment, where shown, shall be 5/8" diameter expansion anchor bolts, 6" long and shall be drilled and installed when rub rail is attached.

Bid item for parapet shall include bolts, sleeves, barrier delineators, grounding materials and other associated metal parts as shown on the plans. Also included are concrete noted in the plans and reinforcing steel indicated in the reinforcing steel schedule.

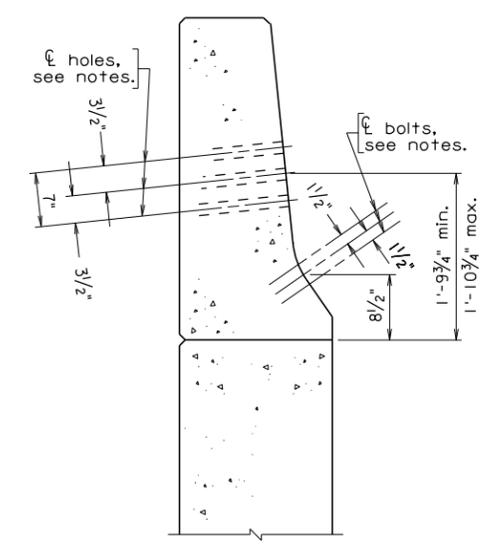


SECTION A-A



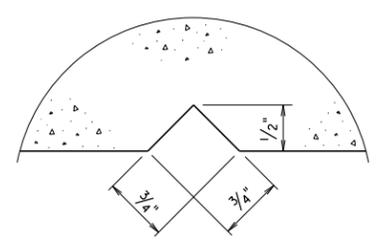
SECTION D-D

For dimensions and details not shown, see Section A-A.



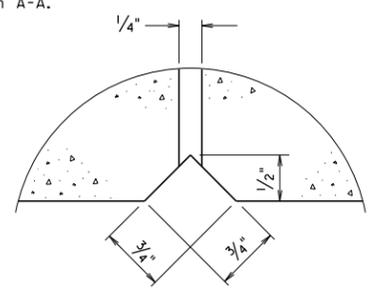
SECTION D-D

Reinforcing steel not shown.



SECTION B-B

Full scale
Groove detail for both sides of parapet



SECTION C-C

Full scale
Deflection joint detail for both sides of parapet

Mark	No.	Size	Pin ø	Length	Location
★RT0401		#4	—	3'-0"	Slab
RV0501		#5	3 3/4"	9'-3"	Parapet and terminal wall
RV0502		#5	3 3/4"	from 8'-1 to 9'-2'	Terminal wall (4 per terminal wall)
RV0503		#5	3 3/4"	2'-6 1/2"	Parapet
RV0504		#5	3 3/4"	5'-0"	Parapet
RW0501		#5	—	3'-0"	Terminal wall and wingwall
RW0502		#5	3 3/4"	5'-3"	Terminal wall and wingwall
RL0801		#8	—	—	Terminal wall and U-back wing
RL0802		#8	6"	—	Terminal wall
RL08		#8	—	—	Parapet

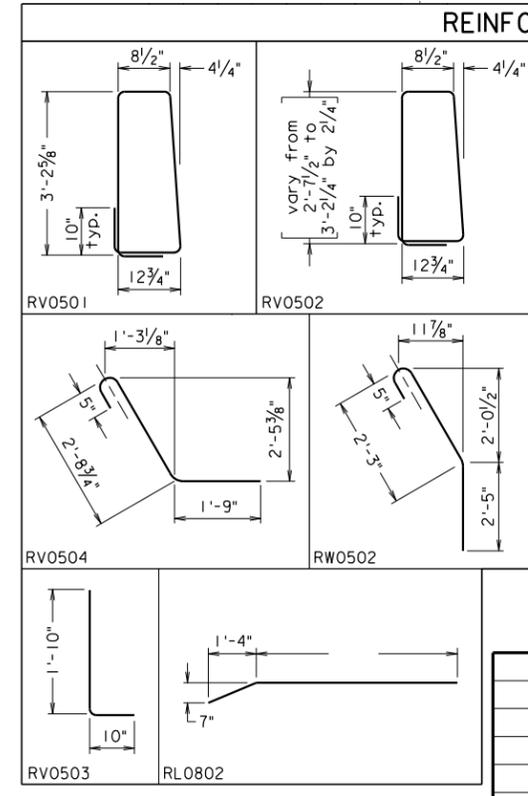
Dimensions in bending diagram are out-to-out of bars, except as shown.

Cost of all bars listed in schedule to be included in price bid for parapet.

Gross concrete quantities (C.Y.) = Lin. Ft. x 0.158

All concrete above roadway slab.

★ Used only when deck transverse reinforcement is parallel to skew of bridge.



BPB-4A 05-18-2016 bpb4a.dgn

Sealed and Signed by:
Prasad L. Nallapaneni
Lic. No. 033003
On the date of
May 18, 2016

A copy of the original sealed and signed standard drawing is on file in the Central Office.

VDOT S&B DIVISION
RICHMOND, VA
STRUCTURAL ENGINEER

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION		STRUCTURE AND BRIDGE DIVISION	
42" CAST-IN-PLACE CONCRETE PARAPET (F-SHAPE)			
No.	Description	Date	
Revisions			
Designed: S&B, DIV	Date	Plan No.	Sheet No.
Drawn: S&B, DIV		BPB-4A	
Checked: S&B, DIV			

42" CAST-IN-PLACE CONCRETE PARAPET (F-SHAPE)

TERMINAL WALL ON ABUTMENT U-BACK WING

NOTES TO DESIGNER:

The F-shape concrete parapet has a height of 3'-6" and is used for Adjusted Test Level TL-5 for MASH criteria. It is used as the normal traffic barrier unless an open rail is required. If architectural treatment is required, use standard BPB-4A-AT.

Terminal wall is detailed on abutment U-back wing.

If an initial bituminous overlay is used on the bridge at the time of construction, vertical dimensions and dimensions for reinforcing steel need to be adjusted. The dimensions shown are established from the top of the roadway surface. Therefore, for example if a 1" overlay at the curb is set, the 3" curb dimension and the overall 3'-6" height of the parapet would need to be adjusted to 4" and 3'-7" respectively (Section A-A). In addition, all height dimensions of bolt locations in relation to top of deck slab need to be adjusted by 1" (Section D-D).

It is the Contractor's responsibility to determine the number of reinforcing bars required as well as any other details or dimensions (for example, the length of the RL08-series bars) for installation. Therefore, the remainder of the Reinforcing Steel Schedule including the number of bars required is to be left blank by the designer.

ADD THE FOLLOWING NOTES, DIMENSIONS, DETAILS, ETC. TO STANDARD:

SECTION A-A:

Modify vertical dimensions (3" curb and 3'-6" parapet height) so that these dimensions will be established from top of overlay surface as noted above.

SECTION D-D:

Modify vertical dimension 8½" and the range (1'-9¾" min. – 1'-10¾" max.) for bolt locations so that these dimensions will be established from top of overlay surface as noted above.

REINFORCING STEEL SCHEDULE:

For projects with bituminous overlay, modify rebar lengths to allow for dimension changes.

Complete dimension and length of rebar RL0802.

NOTES:

Complete corrosion resistant reinforcing steel note by adding the Class I, II or III. For additional information on corrosion resistant reinforcing steels (CRR), see Structure and Bridge Division Instructional and Informational Memorandum (current IIM-S&B-81).

TITLE BLOCK:

Replace standard designation with plan number.

STANDARD BPB-4A: NOTES TO DESIGNER

PART 3
DATE: 28Dec2016
SHEET 2 of 2
FILE NO. BPB-4A-2