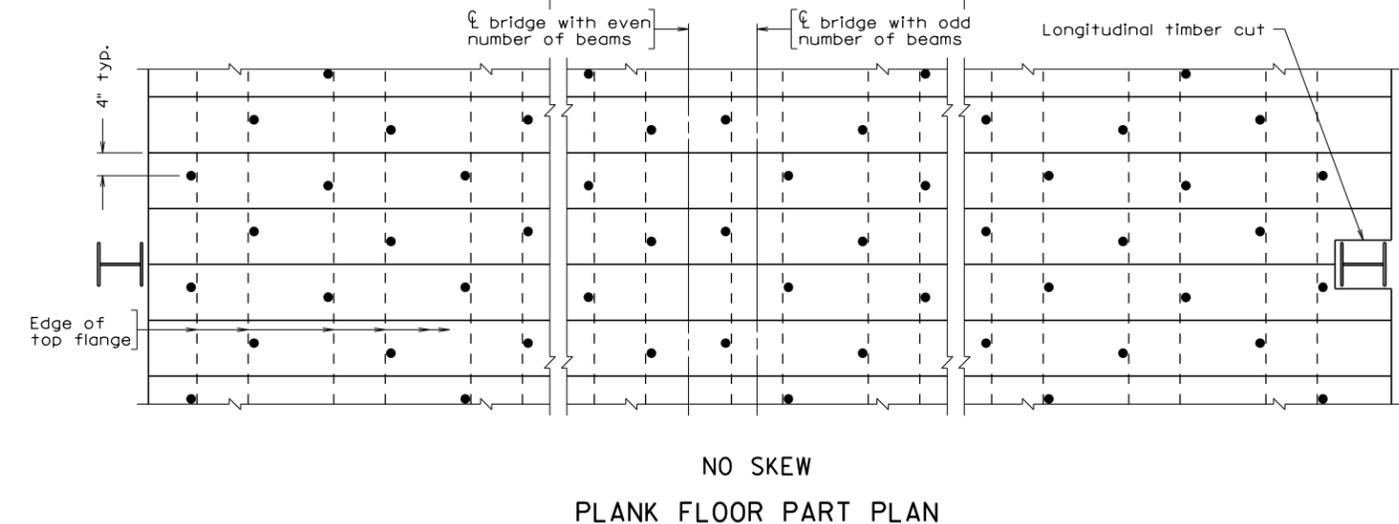
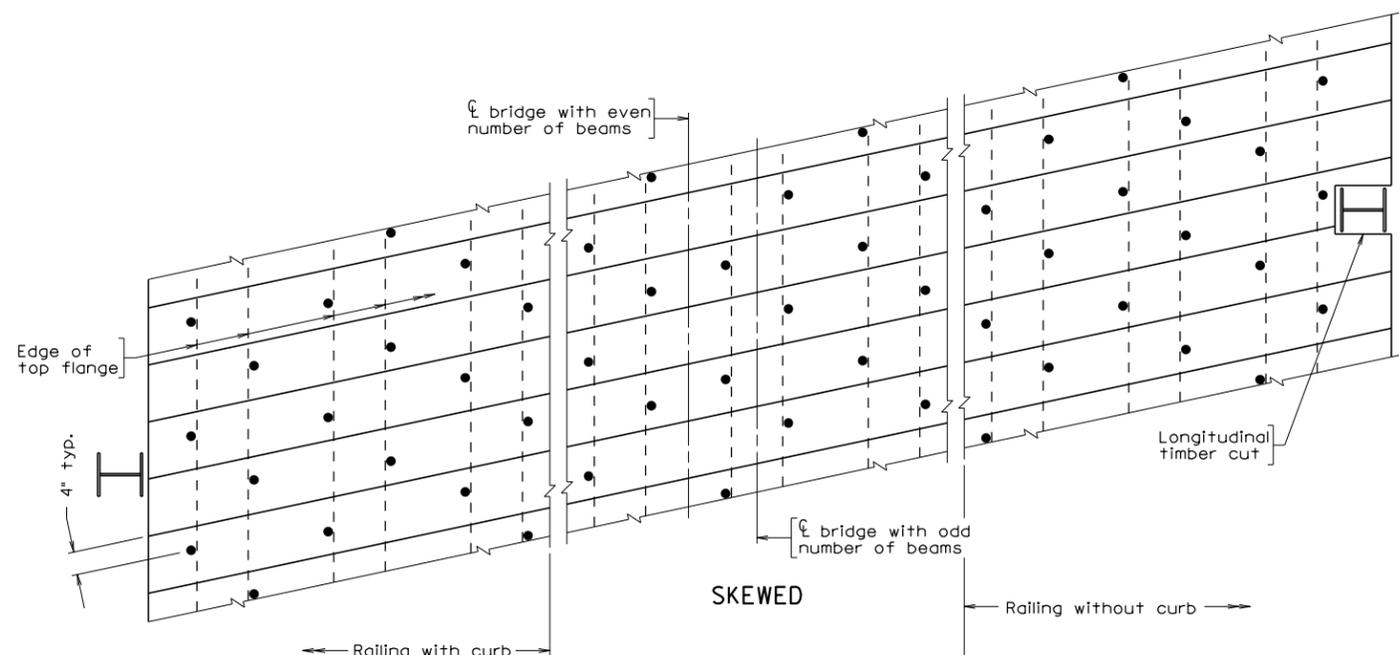
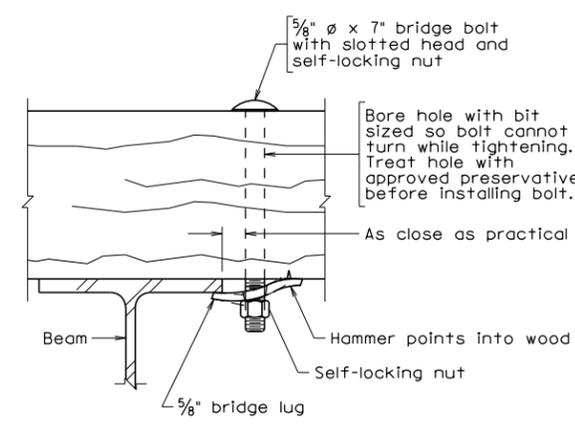


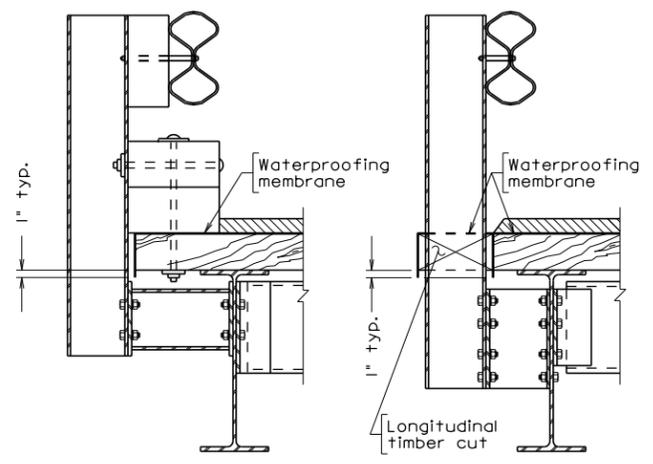
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ROUTE	PROJECT	ROUTE	PROJECT
VA.			



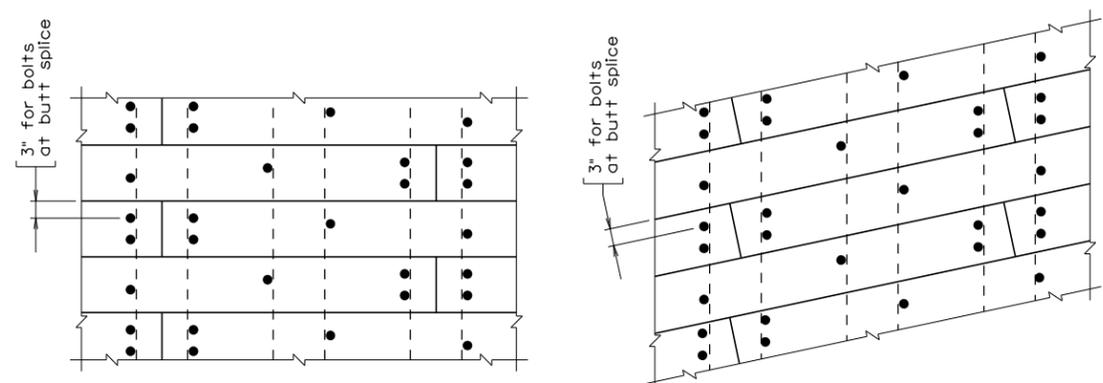
NO SKEW
PLANK FLOOR PART PLAN



TIMBER ATTACHMENT DETAIL

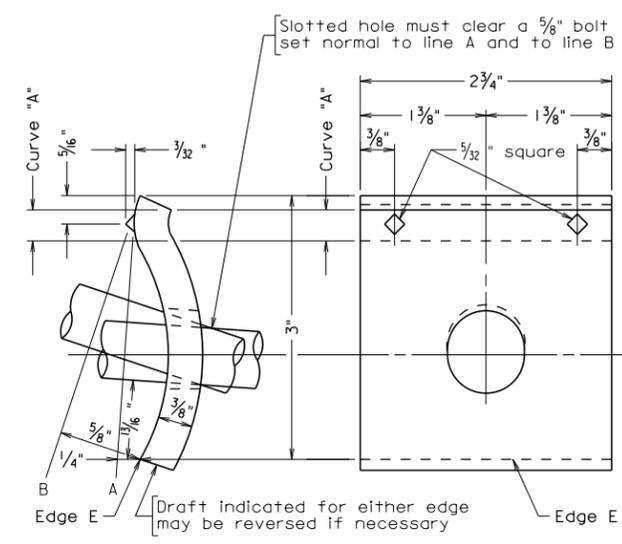


WITH CURB
WITHOUT CURB
WATERPROOFING DETAIL



NO SKEW
SKEWED

BUTT SPLICE PLAN
See Notes



BRIDGE LUG DETAIL

Not to scale

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Notes:

All timber shall be preservative treated in accordance with the Specifications.

Where bridge width results in plank lengths less than or equal to 32 feet, the planks shall not be butt spliced (i.e. shall be continuous). Where bridge width results in plank lengths greater than 32 feet, butt splicing of alternate planks will be permitted only on the centerline of beams provided each piece of timber is continuous across a minimum of five beam spaces. Butt splicing of adjacent planks on the same beam will not be permitted.

If skewed, the flooring shall be laid parallel to the substructure and the post supports shall be placed square to the beams. When the flooring is laid on skew, the ends shall be trimmed parallel to the beams and the cut ends treated with a wood preservative prior to installing waterproofing. The District Bridge Engineer may direct flooring to be placed perpendicular to the beams where the reduction in plank length from the skewed layout would eliminate the need for butt splicing.

In order to obtain the necessary stiffening of the beams, alternate the floor fasteners from the inside edge to the outside edge of the beam flange on adjacent planks.

Use the center beam (or beam space if an even number of beams) as the change over point to the opposite edge of the beam flange for the floor fasteners on any one plank.

The essential anti-rattle results can be obtained only by exercising extreme care in correctly locating the hole with respect to the edge of the beam flange and properly tightening the nut. Retightening may be necessary.

Bolts shall conform to the requirements of ASTM A307 in accordance with Section 226.02(g) of the Specifications. Bolts shall be dome head (slotted) having a head diameter of 2 1/2" and a head thickness of 3/8" with four (4) fins located directly under the head.

Bridge Lugs are to be made by forging from steel and shall conform to the requirements of ASTM A668, Class D, in accordance with Section 225.02(a) of the Specifications. Draft as necessary in forging is permissible in the hole and on all edges of the lug. Parallel elements in curved surface "A" shall be parallel to edge "E".

Nuts shall conform to the requirements of ASTM A563 and shall be self-locking. One square nut with bridge lock nut may be used in lieu of each self locking nut.

Bolts, Bridge Lugs, and Nuts shall be galvanized in accordance with the Section 233 of the Specifications. Galvanizing for the Bolts and Nuts shall conform to the requirements of ASTM A153. Galvanizing for the Bridge Lugs shall conform to the requirements of ASTM A123.

Waterproofing membrane and overlay:

The timber deck shall be protected with a waterproofing membrane and overlay.

Prior to curb installation or surfacing the deck, sheets of Rubberoid Torch Smooth material, CertainTeed Flintlastic Modified Bitumen or similar material shall be heated slightly on the bottom side as they are rolled out using a propane torch. The flame shall be applied uniformly across the exposed back surface of the membrane and the lap area of the previously installed run until the compound exhibits a slight sheen. Each run shall lap 3" to 4" with the adjacent run and secured to the timbers using 1 1/4" roofing nails. Unless otherwise directed by the District Bridge Engineer, extend the material over the beam ends approximately 1" below the bottom edge of the deck as seen in the Waterproofing Detail and adhere additional pieces of waterproofing membrane to the sides of timber planks where longitudinal cuts are made to clear rail posts. After the material is secured, heat the top side along the lapped areas and ends. Check all seams for full and uniform adhesion. Un-adhered seams shall be lifted with a heated trowel and resealed by lightly torching the seam area except where the heat from the overlay will be sufficient to adhere the material as with a bitumen plant mix.

PETROTAC or similar self adhering products may also be used when approved by the District Bridge Engineer.

When timber lagging is used, extend the waterproofing material over the lagging as shown in the Part Side Elevation on sheet 2.

The overlay can be a bituminous concrete plant mix or a bituminous surface treatment. Exercise caution prior to the overlay placement. Whether paving with a motor grader or other equipment, drastic turns of the front wheel can cause tears in or wrinkle the material. Slight adjustments in direction will limit the possibility of damage.

SS804.dgn

03-10-2015

Sealed and Signed by:
Prasad L. Nallapareni
Lic. No. 033003
On the date of
March 10, 2015

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

SS8-4

VDOT S&B DIVISION
RICHMOND, VA
STRUCTURAL ENGINEER

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION		STRUCTURE AND BRIDGE DIVISION	
STEEL BEAM WITH TIMBER DECK SUPERSTRUCTURE TIMBER ATTACHMENT DETAILS			
No.	Description	Date	Sheet No.
	Revisions		SS8-4

**SS-8 STEEL BEAM WITH TIMBER DECK SUPERSTRUCTURE STANDARD
TIMBER ATTACHMENT DETAILS**

NOTES TO DESIGNER:

Include standards SS8-1, SS8-2, SS8-3A, SS8-5A and SS8-6A in the plans when using this standard on projects utilizing railing with curb. Substitute standard SS8-3B for SS8-3A in the plans when bolted angles are used in lieu of welded plates to connect the diaphragm channels to the beam webs. Include standard SS8-5C where skew is greater than 22° and end posts in obtuse corners would conflict with the abutment, backwall and/or lagging. Substitute standard SS8-6B for SS8-6A where beam flange width would interfere with curb attachment plates.

Include standards SS8-1, SS8-2, SS8-3C and SS8-5B in the plans when using this standard on projects utilizing railing without curb. Substitute standard SS8-3D for SS8-3C in the plans when bolted angles are used in lieu of welded plates to connect the diaphragm channels to the beam webs. Include standard SS8-5D where skew is greater than 28° and end posts in obtuse corners would conflict with the abutment, backwall and/or lagging.

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

None