

Bridge Memorandum

Job No.: JXXXXXX

Bridge No.: A1111

County: Hazzard

Route: AAA (minor) (priority 1 EQ) over BBB Railroad

Final Layout: (72'-130'-72') Prestressed Concrete NU-Girder Spans (NU 53)

Roadway Width: 36'-0" (symmetrical) plus 16" Safety Barrier Curbs

Alignment: Tangent

Profile Grade: Route AAA: VPI Sta. 73+59.00 (Elev. 890.80), +4.00% ahead, -4.00% back, L=912'

BBB Railroad: See plan, profile and cross section sheets in bridge survey.

Skew: 45° 0' 0" Left Advanced

Tie Station: Sta. 72+94.00 @ Route AAA = @ Bent 2

Loading: HL-93

Existing Bridge: LXXXX will be removed by others.

Beginning Station: Sta. 72+19.53 ± @ Route AAA at fill face of Bent 1

Fill Exception: Sta. 72+19.53 ± to Sta. 74+98.47 ±

Traffic Handling: Traffic to be maintained on existing structure during construction. See roadway plans for traffic control.

Preliminary Seismic Description: Seismic Design Category B (Complete Seismic Analysis), $S_{D1} = \#.##$, $A_s = \#.##$.

General Notes:

Profile grade and stationing for Route AAA are located along centerline Route AAA.

Stationing for BBB Railroad is located along centerline of existing track.

Vertical clearance to structure shall be 23'-0" minimum over an 18'-0" wide horizontal opening of the railroad centered on the track.

Horizontal clearance from centerline of existing track shall be 22'-0" minimum to the collision wall at Bent 2 and 22'-0" minimum from the centerline of the future track to the future collision wall at Bent 3.

Vertical clearance for rail traffic during construction shall be 21'-6" minimum over a 30'-0" wide horizontal opening of the railroad centered on the track.

Provide 20-foot long bridge approach slabs (minor road) concrete option only (bridge item).

Use integral pile cap end bents with 18'-0" wings on left side of Bent 1 and right side of Bent 4 and with 12'-0" wings on right side of Bent 1 and left side of Bent 4.

Use open round column intermediate bents on drilled shafts or spread footings.

Intermediate bents shall be designed for addition of future collision walls (top of future collision wall elevation 860.67) (Cost of \$133,000 for future collision walls is not included in cost estimate below).

Provide 2:1 slope (normal) with 2-foot Type 2 rock blanket with permanent erosion control geotextile (roadway item).

No slab drains are allowed over railroad right of way.

Relocate all utilities as required for construction (roadway item).

Provide right-of-way as required for construction (roadway item).

Present AADT (2017) = 5780; Design AADT (2038) = 6160; T = 10%; V = 55 mph

Provide 6.5-foot minimum fence on top of barrier curb (bridge item).

No conduit, fencing, lighting, utility and sign supports, or sidewalks are to be included in the final plans for this structure.

No color stain or form liners are to be included in the final plans for this structure.

Bridge Contact: John Smith, SPM, (###) ###-####

District Contact: Jane Doe, TPM, (###) ###-####

Prepared by: Eddie Punch-Clock, Bridge Loc. and Layout Designer

_____ Date

Bridge: John Smith, Structural Project Manager

_____ Date

District: Jane Doe, Transportation Project Manager

_____ Date

District: Joe P. Sector, District Bridge Engineer

_____ Date

Estimated working/calendar days: 75/115 days

FY' 18 Estimated Construction Cost*: **\$1,696,000**

* Does not include STIP Inflation from Planning (3% inflation compounded annually).

Programmed Bridge STIP Amount: \$2,161,000