

Title: BF099505 & Hwy 813:02 – New Bridge Construction & Realignment of Hwy 813

Memorandum (or Approval) Date: February 11th, 2014
 Design Exception Request Date: December 10th, 2013
 Region: North Central
 Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
813	02		0+370	2+500	2330-2730

Project Type (Mark all that apply with an X)			
Functional Planning:	New Construction: X	Reconstruction:	Paving/Surfacing:
Bridge: X	Operations:	Geotechnical:	Environmental:
Shoulder Widening:	Preliminary Design: X		

Summary
Hwy 813:02 is a Level 2 service classification as shown on Alberta Transportation Provincial Highway Service Classification Map (Draft, November 2008) which is found in Design Bulletin #27/2005. Based on Figure A-3.2i – Desirable Standards for Rural Highways in Alberta (shown in terms of design AADT) from the Alberta Transportation Highway Geometric Design Guide (September 2008) and calculated 20 year design AADT volumes ranging from 3800 vpd to 4450 vpd, a RAU-212-110 design standard is desirable for a Level 2 service classification. This corresponds to a 12m wide roadway, plus allowance for future overlays. The design exception request is for an 11m wide roadway design designation.

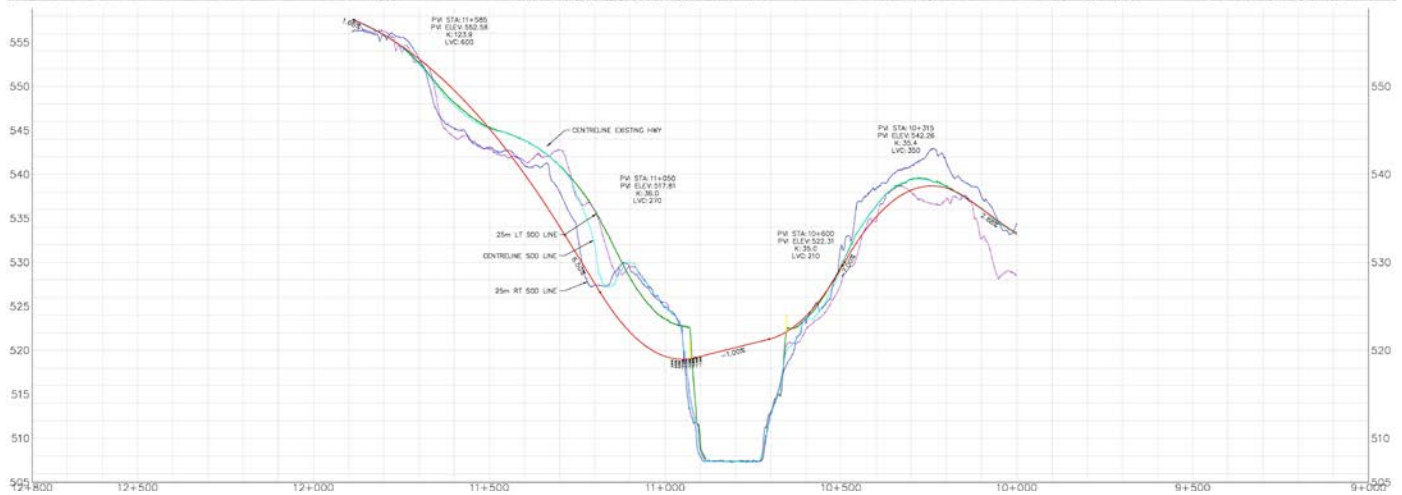
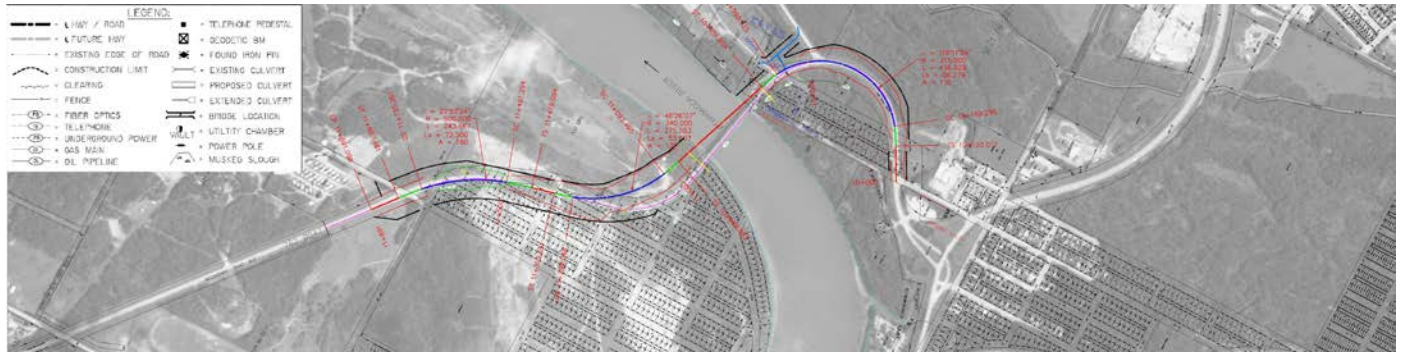
Rationale for Approval/Rejection
<ul style="list-style-type: none"> The realignment of Hwy 813:02 at the intersection with Hwy 55 was recently constructed to an 11m wide roadway. The proposed realignment for this project will tie into the recent construction. The proposed bridge width is 11m. The desirable standards shown on Figure A-3.2i are typically used for high speed rural highways. The proposed horizontal and vertical geometry is acceptable for a 70 km/h design speed east of the bridge and 80 km/h design speed west of the bridge. The 60 km/h posted speed limit and semi urban location will help to mitigate the proposed 11m roadway width.

Additional Information
On this section of Hwy 813, non-animal collision rates are higher than provincial averages; however, this is mainly attributed to bridge related collisions, which account for over 70% of the total collisions. Replacement of the bridge and the associated highway realignment are expected to lead to lower collision rates in this area.

Key Words

Road width, horizontal and vertical alignment, cross section

Photograph/Diagram





Highway 813:02 – West end of Bridge, Looking East