

**Title: Hwy 16:20 EB Overlay – Hwy 824:02 EB on-ramp width**

Memorandum (or Approval) Date: November 18<sup>th</sup>, 2014

Design Exception Request Date: October 20<sup>th</sup>, 2014

Region: North Central

Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
16	20		0.513	10.000	22080
824	02				3260

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

Summary
<p>This project involves overlaying Hwy 16:20 eastbound (EB) from 0.5km east of Hwy 21 to 1km west of Hwy 830. Portions of Hwy 824's on and off ramps are also included in this paving project and in particular, the EB on-ramp; which its width is the subject of this design exemption. The existing condition on the EB is 6.4m wide, which does not meet the current new construction minimum standard of 8.30m</p>

Rationale for Approval/Rejection
<ul style="list-style-type: none"> <li>Based on collision history at this location, it is found that the existing geometry does not appear to be causing operational problems or contributing to collisions.</li> <li>Based on TAC Geometric Design Guide for Canadian Roads (1999) Table 2.3.7.1, Design Widths for Turning Roadways at Intersections, this ramp performs as a one lane, one way operating road, and should have the ability for vehicles to pass a stalled vehicle. As milling and inlaying will be completed at this ramp, it will be within the recommended minimum widths.</li> <li>The design vehicle used for this ramp is a tractor trailer as a worst case scenario even though the tractor trailer traffic is low.</li> <li>Grade widening at this location was considered, however, the existing right of way on the right side of the ramp restricts the ability to increase the existing 3:1 sideslope to a minimum 4:1 sideslope, which would require purchasing additional right of way.</li> </ul>

Additional Mitigation Required
None.

Key Words

Interchanges, ramp, width, turning roadway widths

Photograph/Diagram

**Existing Condition Photo: (2014)**



Photo 1- Hwy 824 EB On ramp looking east

