

DESIGN STANDARDS/PRACTICE EXCEPTION REQUEST SUMMARY

Title: Highway 56:14 Improvement

Memorandum (or Approval) Date: May 7th, 2014 Design Exception Request Date: April 15th, 2014

Region: Central

Approval Status: Approved

Project Location							
Highway	Control Section	At km	From km	To km	Existing AADT		
56	14		2.70	30.175	1470		

Project Type (Mark all that apply with an X)							
Functional	New	Reconstruction:	Paving/Surfacing:	х			
Planning:	Construction:	TCCOHStruction.	r aving/ourlacing.				
Bridge:	Operations:	Geotechnical:	Environmental:				
Shoulder	Other: Highway S	Other: Highway Safety Improvements X					
Widening:							

Summary

AT Design Bulletin #18/2013 for two-lane undivided highways require rumble strips to be installed on a minimum shoulder width of 1.4m. The design exception request is for rumble strips to be installed on a 1.1 m wide shoulder.

Rationale for Approval/Rejection

- The rumble strips on the shoulder will result in high safety benefit along the highway.
- According to the benefit-cost analysis, rumble strips on the shoulder is a cost effective and
 proactive stage to improve highway safety. It is also an interim stage to grade widening and
 slopes improvements expected to be done in the future.
- The adjacent land observed rare bicycle and pedestrian usage or none at all. Therefore, cyclist and pedestrian usage are considered to be minor issues compared to the added safety benefits for vehicles.
- Collision history shows that over a recent 5 year span (2007-2011), a total of 195 collisions
 were reported with 70% of all the reported collisions occurred in the darkness and 89% of
 the total collisions occurred in dry conditions. The collision data also shows that "Off Road
 Left or Right" represents 38% of all non-animal collisions and most of the off road collisions
 occurred during dry conditions in daylight which could possibly be attributed to driver
 distractions.

Key words

Rumble strips, shoulder width, cross-section



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Sharp Edge and Steep Sideslope near Pond (Source: WebMap; km 13.921 looking South)



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Hwy 56:14 Typical Road Cross-Section and Pavement Markings (Source: WebMap; km 20.343 looking North)