## Title: Hwy 47:06, South Robb Intersection, Km. 6.94, Intersection Sight Distance

Memorandum (or Approval) Date: July 5, 2013
Design Exception Request Date: June 5, 2013
Region: North Central
Approval Status: Approved

| Project Location |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Highway | Control Section | At km | From km | To km | Existing AADT |
| 47 | 6 |  | 0 | 45.78 | 460 |


| Project Type (Mark all that apply with an X) |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Functional <br> Planning: | New <br> Construction: | Reconstruction: | Paving/Surfacing: $\quad$ X |  |
| Bridge: | Operations: | Geotechnical: | Environmental: |  |
| Other: | Detailed Design | X |  |  |

## Summary

Current intersection sight distance (ISD) and stopping sight distance (SDD) are not adequate for a design speed of $110 \mathrm{~km} / \mathrm{h}$. However, reconstruction of the road profile to meet a $110 \mathrm{~km} / \mathrm{h}$ design speed would be difficult due to existing site constraints. Thus, it is recommended to maintain the road profile and its $100 \mathrm{~km} / \mathrm{h}$ posted speed.

## Rationale for Approval/Rejection

- Due to the topography and site constraints in the area, the consultant estimated that improving the ISD and SDD would cost 5 million dollars. Thus, improving the vertical alignment is not considered as cost effective.
- The collision history from 2006 to 2010 for this intersection is considered good. There were 9 reported collisions. Within that, 2 were non-animal collisions, and both were PDO.
- The existing Type 3a intersection treatment exceeds the warranted Type 1a intersection treatment.

| Additional Mitigation Required |
| :--- |
| Concealed intersection sign (WA-13) will be installed in advance of the intersection along <br> Highway 47. <br> Key Words <br> Vertical curve, minimum K value, sag curve, intersection, intersection sight distance |

## Photograph/Diagram

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