

Title: Hwy 2:15, 212 Ave (Cranston Gate) Interchange, Loop Ramp

Memorandum (or Approval) Date: July 18, 2013

Design Exception Request Date: June 6, 2013

Region: Southern

Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
2	15		7.125	9.725	

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

Summary
The current design speed on Deerfoot Trail for this section is 130km/h, which according to the Alberta Highway Geometric Design Guide, requires a minimum loop ramp radius of 90m. However, it has been proposed to reduce the loop ramp radius from 90m to 70m.

Rationale for Approval/Rejection
<ul style="list-style-type: none"> A Benefit-Cost Analysis between the two options shows that a 70m loop ramp radius is more cost effective than the 90m. By constructing a 90m radius loop ramp, it will involve additional land acquisition; which would require an extra \$3.1 million dollars to cover. The Road Safety Analysis done for the interchange shows a 70m radius loop ramp would be adequate with respect to operations and would not pose any safety issues with respect to the entry speed to the mainline.

Additional Mitigation Required
None

Key Words
Interchange, loop ramp, radius

