DESIGN BULLETIN #5/2001 (Updated August 2004)

Design of Roadside Turnouts on Log Haul Routes

August 2004 Update to Design Bulletin #5/2001:

Attached Figure F-2.4b and Figure F-2.4b(i) referenced and issued under Design Bulletin #5/2001 have been replaced by Figures F-2.3.2 and Figure F-4.1 respectively, issued under Bulletin #20/2004. For updates to Figure F-2.4b and Figure F-2.4b(i), refer to Design Bulletin #20/2004. http://www.trans.gov.ab.ca/Content/doctype233/production/desbull.htm

This technical bulletin is being issued to clarify the design of Class IIIa Rest Areas on Log Haul Routes.

1. Background Information

Alberta Transportation's current guideline for design of Class III rest areas, also known as roadside turnouts, are described in Section F.2.4 in the Highway Geometric Design Guide (1999 Edition). For undivided highways, different layouts for roadways having various ranges of AADT and design designations are shown in Fig. F-2.4a and Fig. F-2.4b. On log haul routes, the layout shown in Figure F-2.4b, which is designed for undivided highways with AADT > 3000, is to be used.

Earlier this year, a consultant was appointed to develop a strategic guideline on the provision of roadside turnouts on undivided highway. The need to provide more stopping opportunities along two lane transportation corridors to ensure safe, efficient, long-distance movement of goods and people was reviewed. During the study, it was identified that roadside turnouts for logging trucks should be provided within first 80 km. of starting and then every 3 hours or 250 km. Also the turnouts should be large enough to accommodate long trucks up to 40 metres in length and have sufficient staging room for multiple unit parking. This has prompted the need for a revision to the current roadside turnout standards.

2. Revisions to Layout Design

In view of the findings and recommendations of the "Two Lane Highways Roadside Turnout Strategic Guideline", the layout shown in Fig. F-2.4b in the Highway Geometric Design Guide (1999 Edition) was reviewed. Bearing in mind that turnouts will likely be required on some low traffic highways also in the future and that it is not cost effective to use one standard design for all undivided highways, a new design for log haul routes with AADT =< 3000 is developed. Also, the geometric elements of the turnouts, including length of parallel parking area, deceleration lane as well as acceleration lane, are also revised to allow their usage under various traffic and physical conditions by typical log haul trucks as represented by the Alberta Log Haul Truck in Chapter D.5 of the Highway Geometric Design Guide (1999 Edition).

In addition, to standardize the layout design of roadside turnouts for high/wide oversized loads, a new Figure F-2.4b(i) was introduced at the same time.

The revised/additional layouts were subsequently approved by the department's Management Committee in November for inclusion in the Highway Geometric Design Guide.

3. Implementation of Revisions

As a result of the design revisions, Figure F-2.4b on Page F-23 in the Highway Geometric Design Guide (1999 Edition) has now been superseded by the attached Figure F-2.4b (Revision 1) which should be used for the design of roadside turnouts on undivided highways where log haul trucks are expected.

Similarly, Figure F-2.4b(i) should be used for the design of roadside turnouts on undivided highways for trucks carrying high/wide oversized loads.

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Attachment:
1. Fig. F-2.4b (Revision 1)
2. Fig. F-2.4b(i)