

## **SUPERSEDED APR 2018 BY HIGHWAY GEOMETRIC DESIGN GUIDE CHAPTER A – APR 2018**

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### **Painted Lane Width for Alberta Highways**

**Background:** The department adopted a policy document on lane widths in 1989. The title of the document was “Basic Lane Width and Shoulder Width for Rural Roads in Alberta”. This document was compiled following a comprehensive review of practices followed by other North American highway agencies. The basic lane widths adopted at that time were 3.7 m for all divided highways and all undivided highways wider than 40m and 3.5m for all other highways. Standard design designations and road sizing guidelines were set-up based on the lane and shoulder dimensions adopted in the above report.

#### **Recent Developments**

- In 1999, the department adopted a policy of overbuilding all roadways to accommodate two future overlays (using flatter side slopes and a road surface width equal to the final design designation width).
- In 2003, the department adopted new road sizing guidelines to eliminate the problem of overbuilding design designations which were originally set-up as “over-build” strategies e.g. the RAS 11.8-11.0 designation.
- In 2005, the department adopted a policy of overbuilding the surface width of all roadways such that the surface width will be wider than the designated width initially and will still meet the designated width after two future overlays. This is achieved by building all highways approximately 1.6m wider than the designated width initially.

A review of current practices by other agencies indicates that most Canadian agencies are using similar practices to Alberta’s. Normally 3.7m is used for all high speed divided highways. 3.5m may be used for undivided highways with design speeds of 100 km/h or less particularly where the traffic volume is in a lower range and/or there is a lower functional classification. Some agencies also use the 3.5 m lane on divided highways where the design speed is less than 100 km/h.

AASHTO has adopted the 3.6 m lane width as the “standard” value for high speed high volume facilities. Smaller lanes are permitted for lower speeds, volumes and/or functions.

Regarding shoulder widths, AASHTO recommends 3 m (minimum) and 3.6 m (preferably) for heavily traveled high speed highways carrying large volumes of trucks. A minimum shoulder width of 0.6m should be considered for the lowest type highway and 1.8m to 2.4m is preferable. Where bicyclists and pedestrians are to be accommodated, a minimum usable shoulder width (i.e. clear of rumble strips) of 1.2 m should be used.

#### **Key Changes**

- **Undivided Highways.** Based on the above, it is recommended that the choice of lane width be based on the surface width at the time of line painting after construction (rather than being based on the design designation width). Consequently a 3.7m lane would be used for all undivided roadways where the surface width exceeds 10m. A 3.5 m basic lane width should be used on all other undivided highways.
- **Divided Highways.** For divided highways (both rural and urban), regardless of posted speed, if the Highway is under Provincial jurisdiction the basic lane width should remain at 3.7 m. Under special circumstances a wider lane width may be used if required to accommodate cyclist and/or special vehicles.

### **Implementation**

This Bulletin is effective immediately (5 January 2007).

### **Contact**

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