

## **PRAIRIE GRAIN ROADS PROGRAM (PGRP) MANITOBA**

### **PROJECT APPROVAL SPECIAL PROVISIONS**

1. Bridge design standards shall be as follows:

Loading HSS 25

Minimum Roadway Width 7.2 metres (structures)

1. For road upgrading projects where existing bridges within the limits of the Project are not proposed to be upgraded along with the adjacent road, an engineering report, including an analysis for the capacity of the bridge and a cost estimate to upgrade the bridge to an appropriate capacity, shall be carried out by a Professional Engineer as part of the Project. See 1., above, for bridge design standards. The engineering report would be considered an Eligible Cost.
2. For road upgrading projects where paving or asphalt surface treatment of the road is proposed, engineering of the paving or asphalt surface treatment shall be carried out by a Professional Engineer as part of the Project. The engineering of pavements or other surface treatments would be considered an Eligible Cost.
3. The minimum standard for road construction shall be as given on the attached "Basic Minimum Standards of Construction for Eligibility Under the Prairie Grain Roads Program for Manitoba Municipal Roads" dated March 6, 2002. Please note that the recommended minimum road top width is 8.0 metres. Lesser widths may be appropriate under certain circumstances, however, no road shall be constructed to a top width of less than 7.4 metres.
4. The minimum tender package for road construction shall include a centreline profile of both the existing and the proposed design road surface, and a design road cross-section. Additional information, including quantities, overhaul distance, number and length of culverts, borrow sites, and other relevant information is desirable.

## Basic Minimum Standards of Construction for Eligibility Under the Prairie Grain Roads Program for Manitoba Municipal Roads

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|-----|-------------------|--|
| 1.  | Right of Way      | <ul style="list-style-type: none"> <li>a) width 20 m (66 ft) minimum</li> <li>b) clear as necessary to accommodate road and intersection sight lines</li> </ul>  |
| 2.  | Road Top Width    | <ul style="list-style-type: none"> <li>a) 7.4 m (24 ft) minimum<sup>1</sup></li> <li>b) 8.0 m (26 ft) minimum for curves</li> <li>c) 0.6 m (2 ft) wider than minimum road top width for 2 to 3 m (6.5 to 10 ft) high fill, e.g., 8.0 m (26 ft) minimum for 7.4 m (24 ft) road top width</li> <li>d) 1.0 m (3.3 ft) wider than minimum road top width for 3 m (10 ft) or greater fill, e.g., 8.4 m (27.5 ft) minimum for 7.4 m (24 ft) road top width</li> <li>e) 1:500 minimum transition ratio for change in top width</li> </ul> |
| 3.  | Road Sideslope    | <ul style="list-style-type: none"> <li>a) 3:1 or flatter</li> <li>b) may flatten sideslope where necessary to dispose of unsuitable material (e.g., topsoil, silt)</li> </ul>  |
| 4.  | Ditch Backslope   | <ul style="list-style-type: none"> <li>a) 2:1 or flatter</li> </ul>  |
| 5.  | Shoulder Grade    | <ul style="list-style-type: none"> <li>a) elevate 0.6 m (2 ft) minimum above natural ground for snow clearance</li> </ul>  |
| 6.  | Horizontal Curves | <ul style="list-style-type: none"> <li>a) radius 340 m (1,100 ft) minimum for 80 kph (50 mph) design speed</li> <li>b) 6% maximum super elevation</li> </ul>   |
| 7.  | Gradient          | <ul style="list-style-type: none"> <li>a) 8% maximum</li> </ul>  |
| 8.  | Sight Distance    | <ul style="list-style-type: none"> <li>a) 140 m (450 ft) minimum stopping for 80 kph (50 mph) design speed</li> </ul>  |
| 9.  | Intersections     | <ul style="list-style-type: none"> <li>a) minimum 140 m (450 ft) clear vision</li> <li>b) regrade as necessary</li> </ul>  |
| 10. | Approaches        | <ul style="list-style-type: none"> <li>a) regrade as necessary</li> </ul>  |
| 11. | Drainage          | <ul style="list-style-type: none"> <li>a) install necessary structures and ditches, riprap where necessary to prevent erosion</li> <li>b) 400 mm (16 in) minimum culvert diameter</li> <li>c) construct road surface 1.0 m (3.3 ft) minimum above high water level of ground water table (i.e., level to which free water would rise in an excavation)</li> <li>d) top of road cross slope 4% from centreline to sideslope</li> </ul>  |
| 12. | Trim Slopes       | <ul style="list-style-type: none"> <li>a) blade road surface, sideslopes, ditch bottoms, and backslopes smooth</li> </ul>  |
| 13. | Gravel            | <ul style="list-style-type: none"> <li>a) 230 m<sup>3</sup>/km (490 yd<sup>3</sup>/mi) minimum volume for 7.4 m (24 ft) top width</li> <li>b) 330 m<sup>3</sup>/km (700 yd<sup>3</sup>/mi) minimum volume for 8.0 m (26 ft) top width</li> <li>c) 37.5 mm (1.5 in) maximum gravel dimension</li> </ul>   |

<sup>1</sup> The recommended minimum road top width is 8.0 metres (26 feet). Lesser widths may be appropriate under certain circumstances, however, no road shall be constructed to a top width of less than 7.4 metres (24 feet).