

PARK ROAD ACCOUNT PROJECTS

Minimum Geometric Design Standards ⁽¹⁾

Minimum Geometric Design Standards For New / Reconstruction							
Park Road Account Projects							
Not On The State Aid System ⁽¹⁾							
Surface Type / ADT(existing)	Design Speed MPH (2)	Lane Width Feet	Shoulder Width Feet (3)	In-Slope Rise: Run (4)	Clear Zone Feet	Design Strength Tons	Bridge to Remain Width Feet (5)
Aggregate ADT < 100	30	11	1	1:3	3	--	22
Paved ADT < 100	30	11	2	1:3	6	7	22
Aggregate ADT < 300	30	11	2	1:3	9	--	22
Paved ADT < 300	40	11	3	1:4	9	7	22
Aggregate ADT < 750	30	12	3	1:4	10	--	24
Paved ADT < 750	30	12	4	1:4	10	7	24
Paved ADT < 750	40	12	4	1:4	15	7	24

Engineering judgment may be used to choose dimensions other than the widths indicated in the chart for roadways. Factors to consider may be safety, speed, population, land use, benefit/cost analysis, traffic mix, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, other non-motorized uses, functional classification, or other factors. Widths less than those indicated in the chart require a variance from the Commissioners of Department of Transportation and Natural Resources.

- (1) Rural design sections with ADT greater than 750 must meet the minimum requirements for state aid highways (8820.9920). Urban design sections must meet the minimum requirements for state aid streets (8820.9936).
- (2) Based on stopping sight distance.
- (3) The designer will provide a four-foot minimum paved shoulder if the route is a popular bicycle route.
- (4) Applies to slope within clear zone area only. Obstacle-free area measured from edge of traffic lane. Guardrail is required at all bridges where the design speed exceeds 40 mph, and either the ADT exceeds 400 or the bridge width is less than the sum of the lane and shoulder widths. Mailbox supports must be in accordance with 8818.
- (5) Inventory rating of HS 15 is required. A bridge narrower than these widths may remain in place if the bridge does not qualify for federal-aid bridge funds. HS 25 loading with AASHTO Standard Specifications or HL-93 loading with load and resistance factor design (LRFD) is required for new or reconstructed bridges. HS 18 loading is required for all rehabilitated bridges. The curb-to-curb minimum width for new or reconstructed bridges must be no less than either the minimum required lane plus shoulder width or the proposed lane plus shoulder width, whichever is greater, but in no case less than the minimum lane widths plus four feet, and in no case less than required per Minnesota Statutes, section [165.04](#).