8820.9951 MINIMUM DESIGN STANDARDS, ON-ROAD BICYCLE FACILITIES FOR URBAN; RECONDITIONING PROJECTS.

The bicycle facility design standard in this part applies when the road authority has determined that the roadway will be specifically designed to include an on-road bicycle facility, and only if the roadway surface is paved.

Reconditioning projects for urban roadways must meet or exceed the minimum dimensions indicated in the following design chart.

Number of Through Lanes, Functional Class, and Present Traffic Volume	Design Speed	Lane Width	Parking Lane Width (e)	Proposed Structural Design Strength	Bikeway Design	
	(mph)	(feet)	(feet)	(tons)	(ADT)	(feet)
Two-Lane Collectors or Locals with ADT <10,000	25-30	10-12 (d)	7-10	9 (b)	<1,000	SL
					1,000-5,000	WOL 14-16 or BL 5-6
					5,000-10,000	BL 5-6
	35-40	11-12	8-10	9 (b)	<500	SL or BL 5-6
					500-10,000	BL 5-6
	over 40	11-12	10	9 (b)	<10,000	BL 5-6
Two-Lane Collectors or Locals With ADT >10,000 or Two-Lane Arterials (a)	25-30	10-12 (d)	7-10	9	>10,000	BL 5-6
	35-40	11-12	8-10	9	>10,000	BL 5-6 or PS 8
	over 40	11-12	10	9	>10,000	PS 8 or SUP

Four-Lane Collectors or Locals with ADT <10,000	25-30	10-12 (d)	7-10	9 (b)	<10,000	WOL 14-16 or BL 5-6
	35-40	11-12	8-10	9 (b)	<10,000	BL 5-6
	over 40	11-12	10	9 (b)	<10,000	BL 6
Four-Lane Collectors or Locals with ADT >10,000	30-40	11-12	10	9	>10,000	BL 6 or PS 8 or SUP
	over 40	11-12	10	9	>10,000	BL 6 or PS 8 or SUP
Six-Lane Collectors or Arterials		12	(c)	9	Not Allowed	SUP

(SL = shared lane; BL = bicycle lane; WOL = wide outside lane; PS = paved shoulder; SUP = shared use path)

Engineering judgment should be used to choose a lane-width, on-road bicycle facility, or shoulder width dimension other than the widths indicated in the chart. Factors to consider include safety, speed, population/land use, benefit/cost analysis, traffic mix, peak hourly traffic, farm equipment, environmental impacts, terrain limitations, bicycle traffic, pedestrian traffic, on-street parking, intersection and driveway spacing, rights-of-way constraints, vehicle turn lane configuration, sight distance, sight lines, bus routes, other nonmotorized uses, functional classification, or other factors. Dimensions less than those indicated in the chart require a variance in accordance with parts 8820.3300 and 8820.3400.

(a) A road may be reconditioned under this part if present traffic volumes are less than 15,000 ADT.

(b) When ADT is less than 5,000, seven-ton axle load structural design strength is allowable.

(c) No parking is allowed for six-lane collectors or arterials.

(d) When creating a multimodal design with a combination of vehicle lane, parking lane, and bikeway lane widths, if a vehicle lane width of less than 11 feet is used, the parking and bikeway lanes shall be at least one foot wider than the minimum widths. Engineering judgment should be used to choose a vehicle lane width of less than 11 feet. Additional factors to consider include the types of vehicles (buses, trucks, etc.), peak hour counts,

turning movements, population/land use, crash history/analysis, terrain limitations, bicycle traffic, pedestrian traffic, other nonmotorized uses, and snow storage.

(e) In determining the parking lane width, the roadway ADT and the vehicle mix shall be taken into consideration for residential, commercial and/or industrial areas, or for a mixed use thereof.

A minimum curb reaction of one foot shall be provided unless on-street parking, a bicycle facility, or a wide outside lane are provided adjacent to the curb. The dimensions for wide outside lanes include the curb reaction distance. When a raised median is included in the design of the two-way roadway, a one-foot reaction distance to the median is required on either side of the median. Minimum median width is four feet.

For ADT less than 150, the widths of bridges to remain must be at least the sum of the lanes. For ADT greater than or equal to 150, the widths of bridges to remain must be at least the sum of the lanes plus one-half the sum of the shoulders, parking lane, and curb reaction distance.

Statutory Authority: *MS s 14.386*

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