Chapter Trans 205

COUNTY TRUNK HIGHWAY STANDARDS

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Note: Chapter Hy 34 as it existed on December 31, 1986 was repealed and a new chapter Trans 205 was created effective January 1, 1987.

Trans 205.01 Purpose. (1) Pursuant to s. 84.01 (9) (b), Stats., the department of transportation adopts these rules relating to projects for constructing or reconstructing and relating to processes incidental to building, fabricating or bettering a county trunk highway, but not relating to maintenance of a county trunk highway. Maintenance includes all those measures and activities necessary to preserve a highway, as nearly as possible, in the condition of its construction. Maintenance generally involves no change in horizontal alignment, roadway widths or grade.

(2) Any county trunk highway improvement project, on which construction is started after January 1, 1987, shall follow this chapter.

History: Cr. Register, December, 1986, No. 372, eff. 1−1−87.

Trans 205.02 Definitions. As used in this chapter:

(1) "Average daily traffic" or "ADT" means the average 24−hour traffic volume during a stated period divided by the number of days in that stated period; unless otherwise specified, the stated period is one year.

(2) "Bridge design load" means the maximum vehicle loading that a bridge is designed to accommodate without exceeding the allowable working capacity of any structural member or group or system of structural members.

(3) "Design speed" means the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the design features of the highway govern.

(4) "District director" means a Wisconsin department of transportation, division of highways and transportation services, district office director.

Note: The department of transportation district offices and addresses are as follows:

District 1 . .	2101 Wright Street	Madison 53704
District 2 . .	141 N.W. Barstow Street	Waukesha 53187
District 3 . .	944 Vanderperren Way	Green Bay 54304
District 4 . .	1681 2nd Avenue South	Wisconsin Rapids 54494
District 5 . .	3550 Mormon Coulee Road	LaCrosse 54601
District 6 . .	718 W. Clairemont Avenue	Eau Claire 54701
District 7 . .	Hanson Lake Road	Rhinelander 54501
District 8 . .	1701 N. Fourth Street	Superior 54880

(5) "Functional classification" has the meaning set forth in ch. Trans 76.

(6) "HS20" has the meaning set forth in the American association of state highway and transportation officials (AASHTO) standard specifications for highway bridges, 13th edition 1983, as amended by interim specifications−bridges 1984 and 1985, published by AASHTO.

Note: The AASHTO standard specifications for highway bridges are available from AASHTO, 444 North Capitol Street, N.W., Washington, D.C. 20001. Copies of the relevant portion of the AASHTO standard are on file at the offices of the department of transportation, secretary of state and legislative reference bureau.

(7) "Regional engineer" means a Wisconsin department of transportation division of highways central office design chief road design engineer.

(8) "Rehabilitation" means replacing a major structural element of an existing highway to extend its service life for a substantial period of years and to enhance safety.

(9) "Restoration" means returning an existing highway to an acceptable condition to extend its service life for a substantial period of years and to enhance safety.

(10) "Resurfacing" means installing new or additional layers of surfacing on existing highway pavement to extend its service life for a substantial period of years and to enhance safety.

(11) "Roadway" means the portion of a highway, including shoulders, for vehicular use.

Note: Under this definition, a divided highway has 2 or more roadways.

(12) "Shoulder" means that portion of a roadway that is contiguous to the traveled way and is used primarily for vehicle stopping in an emergency.

(13) "Traveled way" means the portion of the roadway designed for movement of vehicles, exclusive of the shoulders.

History: Cr. Register, December, 1986, No. 372, eff. 1−1−87; renum. (7) to (9) to be (11) to (13), cr. (7) to (10), Register, February, 1992, No. 434, eff. 3−1−92.

Trans 205.03 County trunk highway standards. (1) The design standards for urban county trunk highway improvement projects shall conform with the applicable department of transportation criteria, and, if applicable, with the federal criteria for the class of highway involved. The minimum design standards for rural county trunk highway improvement projects shall be as set forth below for each of the rural county trunk highway functional classifications. The functional classification for a particular rural county trunk highway segment shall be that shown for the segment on the most current department of transportation rural functional system map prepared under ch. Trans 76 for local transportation aids purposes or, if applicable, on the most current federal aid system map.

(2) The rural county trunk highway minimum design standards for each of the rural county trunk highway functional classifications are as shown in the following tables:

TABLE (a) – ARTERIALS*

TRAFFIC VOLUME		ROADWAY WIDTH DIMENSIONS IN FEET				BRIDGES***	
Design Class	Design ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway	Design Load	Clear Roadway Width in Feet
A1	Under 3500	60**	24	6	36	HS20	36
A2	3500–7000	60	24	10	44	HS20	44
A3	Over 7000	65	24(2)	6 Left / 10 Right	40(2)	HS20	40

*Minimum design standards for sight distance, horizontal alignment and vertical alignment shall conform with applicable department of transportation criteria.

**For design class A1 the desirable design speed is 60 mph, but a minimum design speed of 55 mph is acceptable.

***The full width of bridge approach roadways shall continue across all new bridges, except when a bridge is a major structure on which design dimensions are subject to individual economic studies because of high unit cost.

TABLE (b) – COLLECTOR*

TRAFFIC VOLUME		ROADWAY WIDTH DIMENSIONS IN FEET**					BRIDGES	
Design Class	Current ADT	Design ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway	Design Load	Clear Roadway Width in Feet
C1	0–400		40	22–24	2–4	26–32	HS20	26–30
C2	400–750	Under 1500	50	22–24	6	34–36	HS20	28–30
C3		1500–3500	55	24	6	36	HS20	32–34***
C4		Over 3500	60	24	8	40	HS20	40***

*Minimum design standards for sight distance, horizontal alignment, and vertical alignment shall conform to the applicable department of transportation criteria.

**Where a range of widths is shown, the smaller number is the minimum width and the larger number is the maximum width eligible for federal or state project paticipation.

***Bridges in design classes C3 or C4 having a total length over 100 feet may be designed with a clear roadway width of 30 feet.

TABLE (c) – LOCAL*

TRAFFIC VOLUME		ROADWAY WIDTH DIMENSIONS IN FEET**					BRIDGES	
Design Class	Current ADT	Design ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway	Design Load	Clear Roadway Width in Feet
L1	0–250		40	20–22	2–4	24–30	HS20	24–28
L2	250–400		40	22	2–4	26–30	HS20	26–30
L3	400–750	Under 1500	50	22–24	6	34–36	HS20	28–30
L4		1500–3500	55	24	6	36	HS20	30–34***
L5		Over 3500	60	24	8	40	HS20	40***

**Minimum design standards for sight distance, horizontal alignment and vertical alignment shall conform with applicable department of transportation criteria.

**Where a range of widths is shown, the smaller number is the minimum width and the larger number is the maximum width eligible for federal or state project participation.

***Bridges in design class L4 or L5 having a total length over 100 feet may be designed with a clear width of 30 feet.

History: Cr. Register, December, 1986, No. 372, eff. 1–1–87.

Trans 205.035 Use of alternative "3R" standards. **(1)** The standards in s. Trans 205.03 shall be used for all county trunk highway improvement projects, unless a district director expressly authorizes, in writing, the use of the department's "Design Criteria for Resurfacing, Restoration, and Rehabilitation Projects," also known as "3R" standards, for a resurfacing, restoration, or rehabilitation project on an existing highway located in his or her district.

Note: Examples of improvement projects which may be appropriate for "3R" standards include resurfacing highway pavement; grinding and repairing pavement joints; replacing or recycling pavement; widening lanes and shoulders; replacing bridge elements to correct structural deficiencies; bridge deck overlays; and other related improvements such as minor incidental subgrade work and correction of minor drainage problems.

(2) A district director may not authorize or approve the use of the department's "3R" standards for the construction of a new highway or for the complete reconstruction of an existing highway.

(3) A request to use the department's "3R" standards in lieu of the standards in s. Trans 205.03 may be submitted to a district director only by a county highway commissioner, or by a county highway commissioner's designee.

(4) A district director shall grant or deny a request to use the department's "3R" standards within 90 days after receiving a request.

(5) In determining whether to grant or deny a request to use the department's "3R" standards in lieu of the standards in s. Trans 205.03, a district director shall consider all of the following:

(a) Adequacy of design.

(b) Cost effectiveness.

(c) Safety improvement.

(d) Environmental impact.

(e) Social and economic impact, including dislocation or relocation of property owners.

(6) The rural county trunk highway minimum "3R" standards for roadway dimensions, by functional classification, and usable bridge widths are as shown in the following tables:

TABLE (A) – ARTERIALS*

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS IN FEET		
Design Class	Design ADT	Design Speed MPH	Traveled Way	Shoulder	Roadway
3RA1	Under 750	55	22**	3	28
3RA2	750–2000	55	24	4	32
3RA3	Over 2000	55	24	6	36

*Minimum design standards for sight distance, horizontal alignment and vertical alignment shall conform with applicable department of transportation criteria.

**A traveled way width of 24 feet is required on federally designated long truck routes and is desirable on state designated truck routes and non–designated routes where the current heavy vehicle (six or more tires) traffic volume is more than 10 percent of design ADT.

TABLE (B) – COLLECTORS AND LOCALS*

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS IN FEET		
Design Class	Design ADT	Design Speed MPH	Traveled Way**	Shoulder	Roadway
3RC1	Under 750	55	20	3	26
3RC2	750–2000	55	22	4	30
3RC3	Over 2000	55	22	6	34

*Minimum design standards for sight distance, horizontal alignment and vertical alignment shall conform with applicable department of transportation criteria.

**A traveled way width of 24 feet is required on federally designated long truck routes and is desirable on state designated truck routes and non–designated routes where the current heavy vehicle (six or more tires) traffic volume is more than 10 percent of design ADT.

TABLE (C) – BRIDGE WIDTH*

DESIGN ADT	USABLE BRIDGE WIDTH IN FEET**
0–750	Traveled way
751–2000	Traveled way plus 2 feet
2001 – 4000	Traveled way plus 4 feet
Over 4000	Traveled way plus 6 feet

*Bridge replacement or widening should be evaluated if the bridge is less than 100 feet long and the usable width is less than the values in the table.

**If lane widening is planned as part of the "3R" project, the usable bridge width should be compared with the planned width of the approaches after they are widened.

History: Cr. Register, February, 1992, No. 434, eff. 3–1–92.

Trans 205.04 Exceptions to design standards. (1) After a district director has decided whether to use either the design standards in s. Trans 205.03 or the alternative "3R" standards in s. Trans 205.035, he or she may expressly authorize, in writing, exceptions to either of these standards, if federal or state funds are not used for the improvement project.

(2) Exceptions to either the design standards in ss. Trans 205.03 or 205.035 for improvement projects using federal or state funds must be approved in writing by a regional engineer and, when federal funds are used, by the division administrator of the federal highway administration.

(3) In determining whether to authorize exceptions to the construction standards in s. Trans 205.03 or the alternative "3R" standards in s. Trans 205.035, a district director shall consider all of the following:

(a) Adequacy of design.

(b) Cost effectiveness.

(c) Safety improvement.

(d) Environmental impact.

(e) Social and economic impact, including dislocation or relocation of property owners.

Note: "Exceptions to Standards" is located at the department's offices, in the Facilities Development Manual, procedure number 11–1–2.

History: Cr. Register, December, 1986, No. 372, eff. 1–1–87; r. and recr. Register, February, 1992, No. 434, eff. 3–1–92.

Trans 205.05 Project review. (1) On or before December 1 of each year, each county highway commissioner shall file with the appropriate district director a report for the county certifying that any and all county trunk highway improvement projects for which funds were expended or obligated during that year conformed to the minimum standards established under s. 84.01 (9) (b), Stats. The certification shall be on forms prescribed by the department of transportation. All county trunk highway improvement projects shall be reviewed by the district director for compliance with the standards stated in s. Trans 205.03.

(2) If any county has not complied with the standards, the district director shall notify the county in writing stating the items which are noncomplying. When the noncomplying projects have subsequently been made to comply with the standards, the district director shall certify compliance on forms designated for this purpose by the department of transportation. If on July 1 of any year there are in a county any remaining non–complying projects that have not been made to comply as certified by the district director, those projects shall be reported by the department of transportation to the appropriate legislative committees.

History: Cr. Register, December, 1986, No. 372, eff. 1–1–87.