

**Design Criteria for Resurfacing, Restoration and Rehabilitation (3R) Projects on Rural State Trunk Highways Functionally Classified as Arterials**

TRAFFIC		DESIGN SPEED <sup>3</sup> (mph)	ROADWAY WIDTH DIMENSIONS <sup>1</sup> [Desirable values are in <b>bold</b> and minimum values are in (parentheses)]						Roadway Width (feet)
Design Class	Design AADT		Traveled Way Width <sup>2</sup> (feet)				Shoulder Width <sup>4</sup> (feet)		
			PES Does Not Apply		PES Applies		PES Does Not Apply	PES Applies	
			>= 10% Trucks	< 10% Trucks	>= 10% Trucks	< 10% Trucks			
3RA1-1	0 - 750	All	<b>22</b> (NHS: 22) (non-NHS: 20)	<b>22</b> (NHS: 22) (non-NHS: 20)	<b>22</b> (NHS: 22) (non-NHS: existing)	<b>22</b> (NHS: 22); (non-NHS: existing)	<b>3</b> (2)	<b>3</b> (existing)	<b>Desirable =</b> <b>Des. traveled Way width +</b> <b>2 x Desirable shoulder Width</b>  (Minimum = Min. traveled Way width + 2 x Min. shoulder Width)
3RA1-2	751 – 2,000	< 50	<b>24</b> (22)	<b>24</b> (NHS: 22) (non-NHS: 20)	<b>24</b> (NHS: 22) (non-NHS: existing)	<b>24</b> (NHS: 22); (non-NHS: existing)	<b>4</b> (2)	<b>4</b> (existing)	
		>= 50	<b>24</b>	<b>24</b> (22)	<b>24</b> (NHS: 22) (non-NHS: existing)	<b>24</b> (NHS: 22); (non-NHS: existing)	<b>4</b> (3)	<b>4</b> (existing)	
3RA1-3	2,001- 3,499	All	<b>24</b>	<b>24</b> (22)	<b>24</b> (NHS: 22) (non-NHS: existing)	<b>24</b> (NHS: 22); (non-NHS: existing)	<b>6</b>	<b>6</b> (existing)	
3RA2-1	>=3,500	All	<b>24</b>	<b>24</b>	<b>24</b> (NHS: 22) (non-NHS: existing)	<b>24</b> (NHS: 22); (non-NHS: existing)	<b>8</b> (6)	<b>8</b> (existing)	

<sup>1</sup> **Don't use a value less than existing.**

Use minimum values only when desirable values are not practical or feasible. Justification for the use of minimum values shall be documented and approved through the Design Study Report. The use of any values outside this table require approval through the exception to standards process.

<sup>2</sup> Use a traveled way width of 24 feet on federally designated long truck routes (i.e. the “National Network” as defined in 23 CFR Part 658). This requirement is not eligible for a PES.

A traveled way width of 24 feet is desirable on state designated long truck routes and other highways having current heavy vehicle (six or more tires) traffic volumes exceeding 10% of design AADT. WI Admin. Rule Trans 276 combines the “National Network” and state designated long truck routes in a single list.

<sup>3</sup> Desirable design speed is 5 mph greater than the posted speed. A minimum design speed equal to the posted speed limit is acceptable.

<sup>4</sup> See [FDM 11-15-1.4.1](#) and [FDM 11-15 Attachment 1.5](#) for Shoulder Paving Policy. Provide adequate shy distance at bridge railings and roadside safety barriers.

**Design Criteria for 3R Projects on Rural State Trunk Highways Functionally Classified as Collectors and Locals**

TRAFFIC		DESIGN SPEED <sup>3</sup> (mph)	ROADWAY WIDTH DIMENSIONS <sup>1</sup> [Desirable values are in <b>bold</b> and minimum values are in (parentheses)]						Roadway Width (feet)
Design Class	Design ADT		Traveled Way Width <sup>2</sup> (feet)				Shoulder Width <sup>4</sup> (feet)		
			PES Does Not Apply		PES Applies		PES Does Not Apply	PES Applies	
			>= 10% Trucks	< 10% Trucks	>= 10% Trucks	< 10% Trucks			
3RC1	0 - 750	< 50	<b>20</b>	<b>20</b> (18)	<b>20</b> (existing)	<b>20</b> (existing)	<b>3</b> (2)	<b>3</b> (existing)	<b>Desirable =</b> <b>Des. traveled Way width +</b> <b>2 x Desirable shoulder Width</b>  (Minimum = Min. traveled Way width + 2 x Min. shoulder Width)
		>= 50	<b>20</b>	<b>20</b>	<b>20</b> (existing)	<b>20</b> (existing)	<b>3</b> (2)	<b>4</b> (existing)	
3RC2	751 – 2,000	< 50	<b>22</b>	<b>22</b> (20)	<b>22</b> (existing)	<b>22</b> (existing)	<b>4</b> (2)	<b>4</b> (existing)	
		>= 50	<b>24</b>	<b>22</b>	<b>24</b> (existing)	<b>22</b> (existing)	<b>4</b> (3)	<b>4</b> (existing)	
3RC3	Over 2000	All	<b>24</b>	<b>22</b>	<b>24</b> (existing)	<b>22</b> (existing)	<b>6</b>	<b>6</b> (existing)	

<sup>1</sup> **Don't use a value less than existing.**

Use minimum values only when desirable values are not practical or feasible to provide on the project. Justification for the use of minimum values shall be documented and approved through the Design Study Report. The use of any values outside this table require approval through the exception to standards process.

<sup>2</sup> Use a traveled way width of 24 feet on Federally designated long truck routes (i.e. the “National Network” as defined in 23 CFR Part 658). This requirement is not eligible for a PES.

A traveled way width of 24 feet is desirable on State designated long truck routes and other highways which have current heavy vehicle (six or more tires) traffic volumes in excess of 10% of design AADT.

<sup>3</sup> Desirable Design Speed is 5 mph greater than the posted speed. A minimum design speed equal to the posted speed limit is acceptable.

<sup>4</sup> See [FDM 11-15-1.4.1](#) and [FDM 11-15 Attachment 1.5](#) for Shoulder Paving Policy. Provide adequate shy distance at bridge railings and roadside safety barriers.

**DESIGN CRITERIA FOR RESURFACING AND RECONDITIONING OF TOWN ROADS<sup>2</sup>**

TRAFFIC		DESIGN SPEED <sup>1</sup> (mph)	ROADWAY WIDTH DIMENSIONS		
Design Class	Current AADT		Traveled Way Width (feet)	Shoulder Width (feet)	Roadway Width (feet)
TR1	0-250	<b>Less Than 50</b>	<b>18</b>	<b>2</b>	<b>22</b>
		<b>50 or greater</b>	<b>20</b>	<b>2</b>	<b>24</b>
TR2	251-400	<b>Less Than 50 (40)</b>	<b>20</b> (18)	<b>2</b>	<b>24</b> (22)
		<b>50 or greater</b>	<b>20</b>	<b>2</b>	<b>24</b>
TR3	401-750	<b>50 or greater</b>	<b>22</b> (20)	<b>2</b>	<b>26</b> (24)
TR4	Over 750	<b>50 or greater</b>	<b>22</b>	<b>4</b> (3)	<b>30</b> (28)

**Desirable values are shown in bold and minimum values are shown in (parentheses).**

Use minimum values only when desirable values are not practical or feasible to provide on the project. Don't use a value less than existing. Justification for the use of minimum values shall be documented and approved through the Design Study Report. The use of any values outside this table require approval through the exception to standards process.

<sup>1</sup> Desirable Design Speed is 5 mph greater than the posted speed. A minimum design speed equal to the posted speed limit is acceptable.

<sup>2</sup> Source: TRANS 204, Existing Town Road Improvement Standards

**Design Criteria for Resurfacing, Restoration and Rehabilitation (3R) Projects on Rural County Trunk Highways Functionally Classified As Arterials**

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS		
Design Class	Design AADT	Design Speed	Traveled Way <sup>1</sup>	Shoulder	Roadway
		mph	feet	feet	feet
3RA1	Under 750	55	22	3	28
3RA2	750 – 2000	55	24	4	32
3RA3	Over 2000	55	24	6	36

<sup>1</sup> The traveled way width shall be 24 feet on federally designated long truck routes (i.e. the “National Network” as defined in 23 CFR Part 658.) A traveled way width of 24 feet is desirable on state designated long truck routes and other highways that have current heavy vehicle (six or more tires) traffic volumes in excess of 10 percent of Design AADT. Both the “National Network” and the state designated long truck routes are combined in a single list in Wisconsin Admin. Rule TRANS 276.

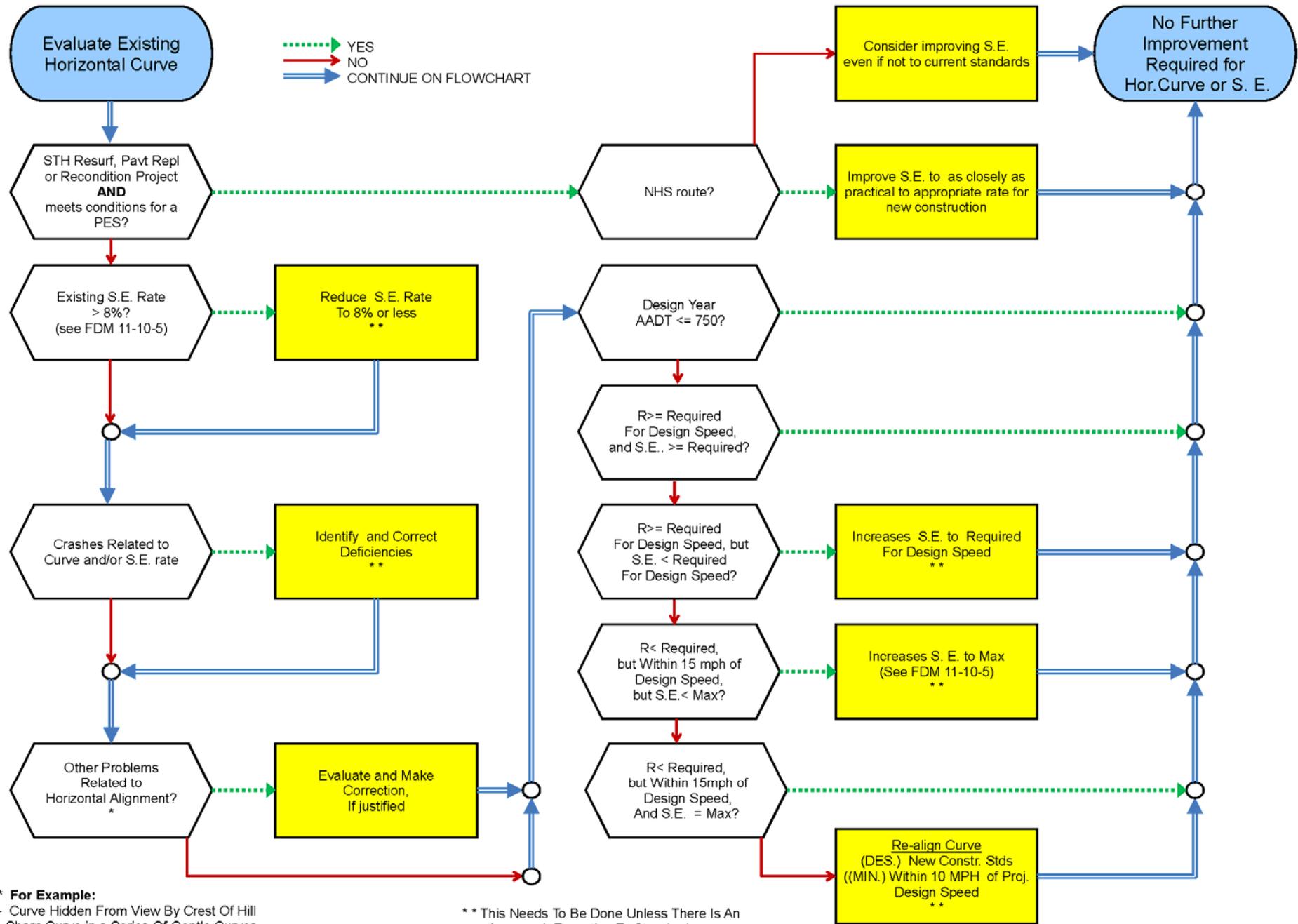
Source: TRANS 205, County Trunk Highway Standards.

**Design Criteria for Resurfacing, Restoration and Rehabilitation (3R) Projects on Rural County Trunk Highways Functionally Classified as Collectors and Locals**

TRAFFIC VOLUME			ROADWAY WIDTH DIMENSIONS		
Design Class	Design AADT	Design Speed	Traveled Way <sup>1</sup>	Shoulder	Roadway
		mph	feet	feet	feet
3RC1	Under 750	55	20	3	26
3RC2	750 – 2000	55	22	4	30
3RC3	Over 2000	55	22	6	34

<sup>1</sup> The traveled way width shall be 24 feet on federally designated long truck routes. A traveled way width of 24 feet is desirable on state designated long truck routes and other highways which have current heavy vehicle (six or more tires) traffic volumes in excess of 10 percent of Design AADT.

Source: TRANS 205, County Trunk Highway Standards.



**\* For Example:**  
 - Curve Hidden From View By Crest Of Hill  
 - Sharp Curve in a Series Of Gentle Curves  
 - Compound Curve  
 - Sight Distance Deficiency Due to Horizontal Curvature

**\*\* This Needs To Be Done Unless There Is An Approved Exception To Standards**