Scoping Meeting Agenda

5090-05-30/60 (Proj. ID stays the same even when the project concept changed. Proj. ID have been authorized.)
Reedsburg- Baraboo
(W Mulberry St to E V Limits)
STH 33
Sauk County

Wednesday, July 25, 2018.
9 AM, Room B-19/20

Attendees: Jaime Boado, Dennis Parsley, Noah Belling – Scoping; Vicki Romenesko – Programming; Steve Vetsch – TSS Env.; Corey Schlegel – Real Estate; Steve Flottmeyer – Planning; Francis Schelfhout – Planning; Joe Schneider – Traffic; Tim McCarthy – TSS Pvt.; Brenda Schoenfeld – PDS (Madison).

On Phone: Greg Brecka – PDS; Mike Hoelker-PDS; Michelle Ellias – Planning; Suzan Nast-Traffic.

Purpose & Need

The purpose of this project is to replace the existing pavement of STH 33 from Mulberry St. to East Village Limits in the Village of West Baraboo. This section of STH 33 is a Principal Arterial roadway that serves as a thoroughfare/access to expanding business area on Mulberry St. and downtown Baraboo. It's also the roadway that leads to the interstate and connecting to other cities. This proposed project will provide a safer and more efficient roadway for the City of Baraboo and the roadway users by 2024.

This section of STH 33 that runs thru the Village of West Baraboo was last reconstructed/reconditioned in 1990. This section of roadway has been patched in numerous areas. The existing concrete pavement has extensive failed joints, corner breaks, spalls and loose panels. The sidewalks are in good condition. The proposed work is to reconstruct the roadway and replaced the curb and gutter. No sidewalk included in the project except at curb ramps as needed to meet ADA requirements.

This project will treat the short gap between project 1674-01-72 and project 5090-05-71.

Basic Project Information

Project ID:	**5090-05-30/60**
Limits:	W Mulberry St to E V Limits
Program Level Estimate:	$900,000.00 * Estimate may be low with the concept change. Concept change will be factored in the Scoping Estimate.
PS&E Date:	5/1/2023
Let Date:	8/8/2023
Roadway	**STH 33**
Current ADT (year):	12300 (2017)
Design ADT (year):	14000 (2044)

Truck Percentage:	5.5%
Posted Speed Limit(s):	25 MPH
Design Speed	30 MPH
Classification:	Principal Arterial
Design Class:	3RA2
Project Length:	0.41 miles
Structure Work:	NA
Project Directory:	\\lax31fp2\p3projects\State\s33\50900501\Planning\Scope\50900530 Village of West Baraboo

Existing Conditions (Facility)

Project Location, Typical Existing Roadway Cross-Sections, Alignment, Profile, and Controlling Criteria Review: See appendix

DESIGN

- Four- Lane urban highway
  - 2.5' type "A" concrete curb and gutter
  - 2-12' inside lanes
  - 2- 8' outside lanes

SAFETY SCREENING

- There is a flagged section.
  - Waived, controlling criteria not a contributing factor.

PAVEMENT AND SOILS

- Pavement Surface Type: JPCP W/O D
- Existing pavement structure
  - 8" Non-reinforced concrete
  - 6" Crushed aggregate base course w/ transverse tie steel for longitudinal joints

MAINTENANCE

- This section of STH 33 is a non-connecting highway.

TRAFFIC

- Posted Speed Limit 25 MPH
- Four-lane highway
- Pedestrian Crossing signs present
- School zone 15 MPH speed signs present on both sides of Willow St
- School Speed Limit (15 mph) located at West side of curve
- Cross walks at W Mulberry St, Connie Rd, Willow St, and Hill St

UTILITIES

- Utility type and company name are as follows: (as seen in PMP)
- Overhead power lines adjacent to highway and crossing
- Buried utilities are present along highway
- PMP indicates 12 different utility companies present along the highway

Project ID	Utility Type	Utility Company Name	Utility Company Legal Name	1077 Start	1077 End	1078 Start	1078 End
5090-05-60	COMMUNICATION LINE	CenturyLink	CenturyTel of the Midwest-Kendall, LLC				
5090-05-60	COMMUNICATION LINE	Charter Com	Charter Communications				
5090-05-60	COMMUNICATION LINE	Reedsburg Util Comm	Reedsburg Utility Commission				
5090-05-60	COMMUNICATION LINE	Sauk Cnty Bldg Serv	Sauk County Building Services				
5090-05-60	COMMUNICATION LINE	Sprint Com Co LP	Sprint Communications Company LP				
5090-05-60	COMMUNICATION TOWER	Sauk Cnty Bldg Serv	Sauk County Building Services				
5090-05-60	ELECTRICITY	Alliant Energy	Wisconsin Power and Light Company, a Wisconsin corporation				
5090-05-60	ELECTRICITY-TRANSMISSION	ATC Mgmt Inc	American Transmission Company, LLC, a Wisconsin Limited Liability Company				
5090-05-60	GAS/PETROLEUM	Alliant Energy	Wisconsin Power and Light Company, a Wisconsin corporation				
5090-05-60	SEWER	Baraboo SD 1	Baraboo Sanitary District #1				
5090-05-60	WATER	City of Baraboo	City of Baraboo				
5090-05-60	WATER	Vlg of West Baraboo	Village of West Baraboo				

RIGHT OF WAY

- Common distance for R/W is 33’ from centerline to far side of sidewalk.

RAILROAD/AERONAUTICAL

- There’s not a railroad line that crosses this project segment of STH 33.
- The project falls within the 5-mile radius of the Baraboo-Wisconsin Dells Airport. The airport is located approximately 3.5 miles north of the project site.

ENVIRONMENTAL

- Houses and stores adjacent to the roadway
- Baraboo River adjacent to small portion of roadway

PLANNING

- Connecting highway – No
- Designated NHS Route(s) – Yes
- State OSOW Route(s) –No
- State OSOW High Clearance Route – Yes
- Long Truck Route:
    - Wisconsin Long Truck Route – Yes
    - US Long Truck Route - No
- Bicycle Route – Not a designated bicycle route. (Undesirable Major Urban Street)

Projects IN THE AREA:

- ID 5090-05-30/60 scheduled for the 2024 construction year.

2019 Construction	
5573-05-60 Reedsburg – Baraboo (STH 23 to STH 154) STH 136 Sauk County	Resurfacing
2020 Construction	
5630-06-61 Sauk City – IH 39 (CTH DL to Arco Dr.) STH 78 Columbia County	Resurfacing
2021 Construction	
5050-02-72 Reedsburg – Baraboo (N Jct. STH 23 to USH 12) STH 33 Sauk County	Resurfacing
5050-02-71 Reedsburg – Wisconsin Dells (Copper Springs Rd. to N. Jct. STH 33) STH 23 Sauk County	Rerurfacing
2023 Construction	
5030-01-73 Hillsboro – Reedsburg (La Valle Street to Preston Ave.) STH 33 Sauk County	Resurfacing

5630-06-72 Sauk City – IH 39 (Eagle View Ct. to Weynand Rd.) STH 78 Sauk County	Pavement Replacement

Proposed Improvements (Work):

DESIGN:

- Type of Work Proposed:
  - Revised Work Concept: PVRPLA – Pavement Replacement.
    - Includes all curb & gutter
    - Proposed roadway width:
      - Existing roadway width of 45' face to face.
      - Proposed roadway width of 48' face to face.
        - Extra width will take some of the boulevard away.
    - Sidewalk not included.
      - Curb ramps updated to meet ADA compliance.
    - Existing Storm Sewer to be replaced.
    - Replace storm sewer.
      - Storm sewer trunk lines drains into the box culvert.
  - The Village of West Baraboo, as part of this project, will replace sanitary and water line.
  - Proposed Roadway is a 3-lane roadway with a TWLTL in the middle.
    - 2- 12' travel lanes
    - 14' TWLTL in the middle
    - 5' Bike lanes on the outside of the travel lanes.
  - No work on the Box Culvert(?).
    - Attaching new storm sewer(?)

Comments:

- Keep consistent roadway width of 44' face-to-face. There are some roadway sections that may be wider. Place the 44' face-to-face width and have wider boulevard.
  - Proposed cross-section of 14' TWLTL, with 2-11' driving lane and 4' "URBAN SHOULDER" on the outside.
  - \\lax31fp2\p3projects\State\s33\50900501\Planning\Scope\Scoping Material 072518\Typical Sections.xlsx
- Storm Sewer work will increase cost for this project. (concept change)
- Have Bridge Maintenance check box culvert.
  - Does it need work or is it due for replacement?
  - Will contact Steve Katzner to request possible inspection and/or opinion regarding the box culvert.
    - Contacted Steve by email (7/25/18) and by phone (7/26/18) and he indicated that they will stop by and inspect the box culvert and give their assessment.
  - Should take a look at the slope behind the beam guard. (location is the south side of the roadway, between the box culvert and the stone fence of Ochsner Park.)
    - Sent Bob Hanifl a not to take a look at the slopes and the condition of the beamguard (between the box culvert and Ochsner Park; email sent 7/26/18).

PAVEMENT AND SOILS:

- Soils:
  - Need soil borings to confirm existing pavement structure.
    - Latter half of the project with the asphaltic pavement, not sure of the existing thickness because of various time of maintenance overlay.
- Proposed Pavement Structure:
  - HMA Pavement:
    - 7" HMA Pavement, over
    - 12" Base Aggregate Dense 1 ¼-inch, over
    - 16" of Select Crushed Material or 12" Select Crushed Material on Geogrid (subgrade improvement)

  - Concrete Pavement:
    - 9" Concrete Pavement, over
    - 6" Base Aggregate Dense 1 ¼-inch, over
    - 16" of Select Crushed Material or 12" Select Crushed Material on Geogrid (subgrade improvement)
- **Recommendation is Concrete Pavement alternative which typically has the lower total Life Cycle Cost based on past experiences.**

Comments:

- Tim McCarthy (Pavt. Engineer) questioned the truck counts of the Traffic Forecast. East end had 16% truck count and drops to 5% after broadway street. Felt the the 5% was standard truck percentage and that a recount to assess the truck count would be necessary before giving final recommendation.
- Francis Schelfhout showed a traffic Forecast from the Wis33 Corridor Study (study can be found in the project folder), which shows an average of 10% truck traffic. Which seems more accurate.
- Tim M. will re-run the life-cycle analysis for both options with the new truck percentage count and will make his recommendations when done.

From Tim McCarthy's email (7/26/18):

- I reran the pavement calculations using the 10.8% trucks from the 5/5/2016 Traffic Forecast Report (STH 33 Corridor Report, 5090-04-09) versus the 16.8% shown in the 5/10/2018 report. The 10.8% trucks was determined from a special count that was taken in 2016 between Mulberry and Connie Streets. The preliminary pavement alternatives have be revised based on the change in truck percentages.

  - HMA Pavement
  - ~~7"~~ 6.25" HMA Pavement, over
  - 12" Base Aggregate Dense 1 ¼-Inch, over
  - 16" of Select Crushed Material or 12" SCM on Geogrid (subgrade improvement)

  - Concrete Pavement
  - ~~9"~~ 8" Concrete Pavement, over
  - 6" Base Aggregate Dense 1 ¼-Inch, over
  - 16" of Select Crushed Material or 12" SCM on Geogrid (subgrade improvement)

- These revised pavement alternatives will likely make the total Life Cycle Cost similar. The concrete alternatives typically have a higher initial cost so you may want to use that to base your estimates on.
- Will do the scoping estimate base on using concrete pavement alternative.

SAFETY SCREENING:

- With the amount of rear end crashes in this section of roadway, propose to have a 3-lane roadway with the TWLTL middle lane.
  - By taking the left-turn traffic off the main travel lane, will reduce the number of rear-end crashes at this section of roadway.
- Village requested placing rapid flashing beacon lighting at school crossings.

Comments:

- The Village made a request for maybe and island refuge at one of the designated school crossing, Shaw Street. Along with the Rapid Flashing Beacon lighting, makes the crossing safer, since the intersection has limited sight distance looking east. The crossing is close to the end of a curve (200').
- Installation of Rapid Flashing Beacon lighting, will be the Village of West Baraboo's responsibility.

MAINTENANCE:

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Comments:

- Since the concept of the project has changed. Request bridge maintenance to look at the condition of the Box Culvert?
- See note(s) above regarding contacting Steve Katzner with inspecting the box culvert.
- See note(s) above regarding contacting roadway maintenance to take a look at the slope behind the beamguard and the condition of the beamguard.

Email report sent by Steve Katzner (7/26/18):

- All,
- I looked at this today and it's quite the structure. There is no plate which a 'C' number on it that I could find. The north end is a 5(h)x6 box about 24LF. It transitions into a 6x6 which is roughly 70LF. Then transitions again (extension) into a 3.5x10 box. That being roughly 26LF. All of the lengths, especially the middle 6x6 were estimated.
- About 10 vertical cracks were noted. A few pics were taken. One had leaching at the original SW wing (pic). Overall, I would rate this culvert a 7 on the NBI scale. In my opinion, no work would be needed. It was clean and debris free and the cracking was at a minimum.
- Let me know if you need anything else.
- Ps. I removed that branch from the barrel.

- Enjoy!
- The scoping estimate will not include work on the box culvert.

TRAFFIC:

- Traffic control plan is anticipated for construction.
- Keep traffic flows in both directions, perform maintenance repairs one half at a time.
  - May be ok at times, but because of narrower lanes, trucks would have a hard time making turns.
  - Dependent of how deep the sanitary and water lines are, which would dictate the width of the trench. (Trench box may be used for shallower locations?)
  - May be ok when sanitary and water line work are done. But, truck traffic may have to be detoured.
- Options:
  - Close roadway during construction and detour traffic.?
  - Close half of roadway during construction and maintain counter directional traffic, but detour trucks. (feasible??)
  - Use Local Street for parallel detour route?

Comments:

- Traffic Control during construction options:
  - Close roadway and detour traffic via USH 12 and IH90/94.
  - Split construction in two halves, Broadway St. being the half-point.
    - Close the west-half roadway to traffic.
    - Use STH 113/South Blvd. to access downtown Baraboo and the east half of the project.
    - Do the West half first, due to possible Box Culvert replacement and the High School access is in this section.
    - Then close the east-half roadway, would still use STH 113/South Blvd, to access downtown.
    - Traffic when the east-half is closed may be detoured.
  - Doing work "half-at-a-time" Traffic may be open for WB direction only. EB traffic will get detoured.
- Need for Bike/Ped accommodations during construction.
- One of the biggest hurdle is giving access to property owners when the roadway is removed in front of their propeprty.

UTILITIES:

- Utility coordination and Plan will be needed.
  - There are 12 different utility companies present on the project location.
- Possible utility relocation?
- Coordinate with City of Baraboo and/or its consultant with Sanitary Line and Water Line work.

Comments:

- Coordinate with the Village of West Baraboo consultant regarding Sanitary Line and Water Line work.

- Cost for placing new Sanitary and Water lines are the responsibility of the Village of West Baraboo.

RIGHT OF WAY:

- No "major" R/W conflicts anticipated.
- Will need R/W (TLE & Fee) for curb ramps to meet current ADA standards.

Comments:
- Real Estate project ID created.
- Approximately 16 parcels identified to be affected for TLE's for an estimated total of $27,000.
- Contact Gregg Messling for R/E questions.

RAILROAD\AERONAUTICAL:

- No railroad coordination is required.
- Aeronautical Coordination is Required:
    - Reedsburg-Baraboo Airport is 3.5 miles from project area and is within the 5-Mile limit as indicated in FDM 5-10-25 for coordination with the Bureau of Aeronautics.

Comments:
- Aeronautical coordination is required.

ENVIRONMENTAL:

- Anticipated Environmental Document is 2B- State documented Categorical Exclusion Checklist (CEC).

Comments:
- Use PCE type report at this moment. Depending on what is "found" during the investigation, report type may change.
- Project 5090-05-01 & 5090-05-30 should be placed into one report since the project are tied together.
- Both projects will not be screened.

PLANNING:

- Non-connecting highway
- Project within Village of West Baraboo limits
- SMFA is required for the project.

Comments:
- SMMA required for this project.
- Schedule:

	Scheduled Dates
Begin Design	March 1, 2019

Environmental Document	October 1, 2020
DSR	October 1, 2020
R/W Plat	October 1, 2020
R/E Acquisition Start	October 1, 2020
R/E Acquisition End	December 1, 2022
1078 Start	October 1, 2020
1078 End	December 1, 2022
PSE Date	May 1, 2023

Planned Schedule:

- Begin design – 6 months after scoping
- Design Timeframe of 51 months
- Preliminary Design of 20 months (DSR complete at end of preliminary design)
- Utility & Real Estate Coordination of 26 months (completed 5 months prior to PS&E)
- Final Design time of 31 months.

SURVEY AND MAPPING:

- Is project planned to be consulted out? If so, consultant will take care of survey and mapping needs.

Comments:

- Project to be consulted out. Consultant will take care of survey and mapping needs of the project.

Federal Oversight: No

Other:

- With TWLTL concept, there was a question of capacity since the projected design ADT was at 16,000.
    - As stated in the corridor study report, FHWA advises that roadways with ADT's less than 20,000 vehicles per day (VPD) or less may be good candidates for a Road Diet. (Page 92 in the report)

Appendix

1) Project Location Map

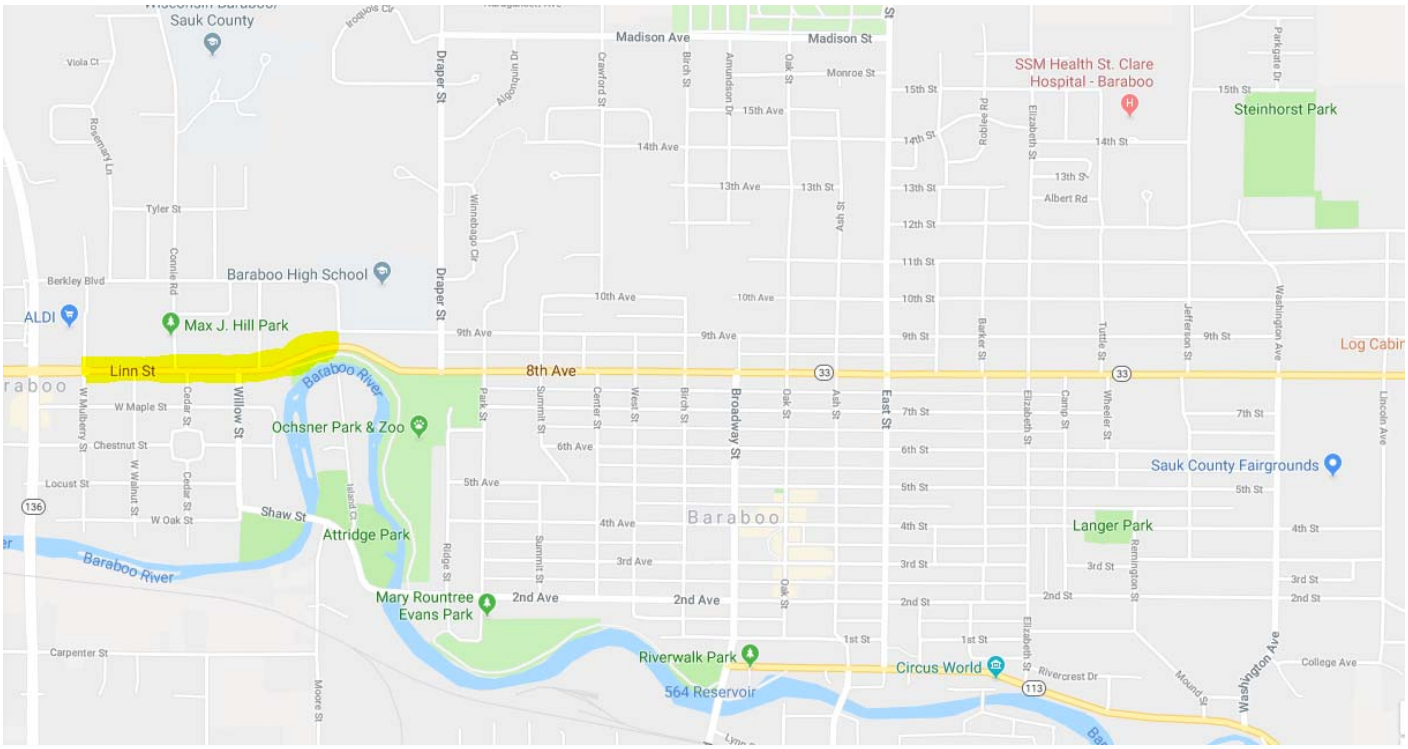
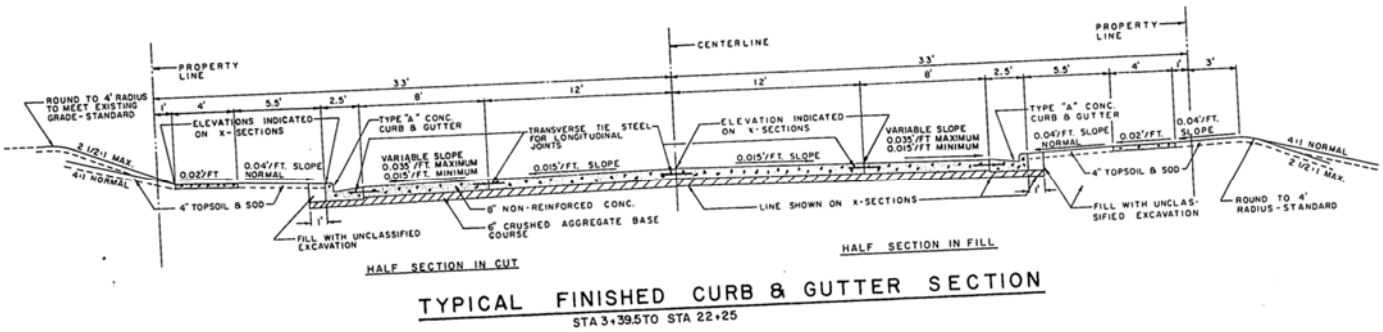


Figure 1: Project Location Map

2) Existing Cross-Section:



TYPICAL FINISHED CURB & GUTTER SECTION
STA 3+39.5 TO STA 22+25

3) Alignment & Profile (As-Built Summary)

Table 1: STH 23/33 Alignment

	STH 23/33	Comment	RP
POT	3+39.5	As-Built: 5091-01-71 (1974)	
		Proj. ID 5090-05-30	
PI	4+66.6	=0°04’ RT	
PC(1)	20+22.00		
PI	22+16.87 = 23^0 04’ 00” RT		

	D = 6^0 00' 00" R = 954.93' T = 194.87' L = 384.44' SE = NC		
	20+96.19	Hill St	145G040
PT	156+33.91		

4) Stopping Sight Distance (SSD) Analysis

As-Built Data

Table 2: STH 33 Profile Mulberry Rd to West City Limit

	STH 33		Comment	RP
VPC	2+25.00	-0.550%	As-Built: 50900530 1990	
VPI(1)	3+00.00	VC= 150'	CREST	
VPT	3+75.00	-5.435%	Mullberry St	033E145G009
VPC	5+10.00	-5.600%	As-Built: 5091071 1974	
VPI(2)	7+10.00	VC = 400'	SAG	
VPT	9+10.00	-0.800%	Walnut St	033E145G018
VPC	10+75.00	-0.800%		
VPI(3)	11+75.00	VC = 200'	CREST	
VPT	12+75.00	-2.240%		
VPC	13+00.00	-2.240%	Connie Rd	033E145G025
VPI(4)	14+50.00	VC = 300'	SAG, Cedar St	
VPT	16+00.00	-0.680%		
	19+12.71		Willow St	033E145G036
VPC	19+50.00	-0.680%		
VPI(5)	20+00.00	VC = 100'	SAG	
VPT	20+50.00	-0.520%		
	20+96.19		Hill St	033E145G040
VPC	23+13.20	-0.520%		
VPI(6)	24+50.00	VC = 800'	SAG	
VPT	25+75.00	+3.000%		

5) Existing Design Controls

- Design Speed: 30 *mph*
  - Posted at 25 mph; Apply criteria in FDM 11-10-1.5
  - Additional criteria in FDM 11-40-6.1
- Lane Width: 4 Lanes: *2-12-Foot (inside), 2-8-Foot (outside)*

    - Meets criteria in FDM 11-15, Attachment 1.1, Page 1 (Level Terrain)
    - Additional guidance in FDM 11-40-6.3
- Shoulder Width: N/A
    - Minimum criteria in FDM 11-15, Attachment 1.1, Page 1 (Level Terrain)
    - Additional criteria in FDM 11-15-1.4
- Horizontal Curve Radius:
    - Proj. ID 5090-05-30
    1) Curve 1: R=954.93' (0.015; 290' – Exhibit 5.12, FDM 11-10-5.3, e_{max}=4%)

- Super-elevation Rate: *e(max) =4%*
    - FDM 11-10-5.3 – Exhibit 5.12
- Stopping Sight Distance: Applied Category 1, FDM 11-10-5.1.1.3 (See Chart)
    1) Crest, VPI 3+00, L=150', A=4.885, K=31; (S>L 295.9' - Min.) (S<L 257.4'- Min.)
    2) Sag, VPI 7+10, L=400', A=4.800, K=83; (S>L 380.3' - Min.) (S<L 379.5'- Min.)
    3) Crest, VPI 11+75, L=200', A=1.440, K=139; (S>L 849.3' - Min.) (S<L 547.4' - Min.)
    4) Sag, VPI 14+50, L=300', A=1.560, K=192; (A below 1.75%)
    5) Sag, VPI 20+00, L=100', A=0.160, K=625; (A below 1.75%)
    6) Sag, VPI 24+50, L=261.8', A=3.520, K=74; (S>L 373.3' - Min.) (S<L 346.2'- Min.)
        - FDM 11-10 Attachment 5.4, SSD min=200' desirable= 200' (Crest)
        - FDM 11-10 Attachment 5.6, SSD min=200' desirable=200' (Sag)
        - Drainage issue, K>167, FDM 11-10-5.4.2
- Maximum Grade: 4%
    - FDM 11-10-5.4.1 and FDM 11-10, Attachment 5.3 (level)
- Cross Slope: *1.5% Typical on 12ft sections, 1.5-3.5 on 8ft sections*
    - FDM 11-15-1.3
- Vertical Clearance: *NA*
    - FDM 11-10-5.4.3 and 11-35-1.5
- Design Loading Structural Capacity: *None (Identified by Bureau of Structures)*
    - WisDOT Bridge Manual
    - FDM 11-15 Attachment 1.1 (arterial)