A-02 Tri Co (Cheese Country) Bridge #40

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Due Date: April 15

Motorized Recreation Grant Application

For: (choose all that apply)
☒ ATV/UTV Trail Aid
☒ Snowmobile Trail Aid

Form 8700-159 (R 02/2024)

Notice: Completion of this form is required under Wisconsin Statutes 23.09(26) and 23.33. Failure to complete this form will result in denial of financial assistance. Personally identifiable information found on this form is not intended to be used for any other purpose. The Department of Natural Resources (DNR) may provide this information to requesters as required by Wisconsin's Public Records law {ss. 19.31 – 19.39, Wis. Stats.}.

Instructions: Applications may combine more than one source of funds. They may be submitted for consideration of traditional ATV, UTV, Snowmobile and Motorized Stewardship funding. Submit one copy of all forms and attachments. See Page 2 for necessary attachments. Send applications to your Community Services Specialist.

DNR Use Only	
Category	Number

Section 1: Applicant Information

Applicant / Organization Name			Check Recipient: Individual other than authorized individual to act on behalf of the applicant. ☒ Select if the same as applicant.		
Tri-County Trail Commission					
Individual Authorized to Act on Behalf of Applicant per Resolution			**Check Recipient Name** (Name to Appear on Check)		
Max Blackbourn			Max Blackbourn		
Title			Title		
Tri-County Trail Coordiantor			Tri-County Trail Coordiantor		
Address			Address		
700 Main Street			700 Main Street		
City	State	ZIP Code	City	State	ZIP Code
Darlington	WI	53530	Darlington	WI	53530
Telephone Number	Email Address				
(608) 776-4893	trails@lafayettecountywi.org				

Section 2: Project Information Required for all Projects

Project Title	**Current Funded Miles**	New Miles (if applicable)
Cheese Country Trail Bridge #40 Replacement		

County	Township	Range		Section	¼ ¼	¼	GPS Coordinates:
Green	01 N	6	◉ E ○ W	5	SE	SW	Lat. 42.580256 Long. -89.809841

Project Description Summary

Proposed project is the complete replacement of Bridge #40 on the Cheese Country Trail over the Pecatonica River in Green County. Project scope is to include removing deteriorated components and replacement with a new structure.

During a routine bridge inspection, major deficiencies were found in the bridge structure requiring closing the structure to any use and continues to be closed.

Currently here is the breakdown of the request from all grant programs:

RTP = $100,000.00 (8%)
ATV/UTV = $753,316.00 (46%)
Snowmobile = $753,316.00 (46%)

☒ I certify that all maintenance land use agreements are on file.

Estimated Cost

Maintenance	Acquisition	Insurance	Development	Bridge Rehab.	Trail Rehab.	Total Estimated Cost
				$1,506,632.00		$1,506,632.00

Leave Blank – DNR Use Only

Applicant Certification

Printed Name of Authorized Official	Official's Title
Max Blackbourn	Tri-County Trail Coordinator

As the applicant's authorized official, I certify that, to the best of my knowledge, the information in this application is true and correct.

Max Blackbourn
Signature of Authorized Official

2/26/2026
Date Prepared

Checklist for Maintenance and Projects		
Snowmobile	**ATV/UTV**	
☒	☒	
☒	☒	Project is on public land and I will be applying for RTP funds for this project. $ 100,000
☐	☐	Land Acquisition – consult your Regional Grant Specialist for required procedures
Maintenance		
☐	☐	Current trail map identifying funded/unfunded miles.
☐	☐	Troutes – identify gas tax or no gas tax
Bridge Rehab/Replace/New, Re-Route w/bridge – Must complete Appendix A		
☒	☒	Quality photos showing need for rehabilitation (no snow photos)
☒	☒	County wide trail map showing bridge location on the funded trail
☒	☒	Aerial, wetland, topo, and plat maps showing bridge location with trails overlaid
☐	☐	Detailed construction plans (show length, width, rail height and approaches)
☐	☐	
☐	☐	Reroute - trail map showing old trail and proposed new trail with bridge location
☒		
☐		
	☐	Identify season - Summer, Winter, Year-Round (Winter include rules)
Trail Rehab/Qualified Troute – Must complete Appendix B		
☐	☐	Quality photos showing need for rehabilitation
☐	☐	County wide trail map showing the segment proposed for rehabilitation on the funded trail
☐	☐	Aerial, wetland, topo, and plat maps with the trails overlaid
☐	☐	
	☐	Depth and location of gravel to be used
	☐	Identify season - Summer, Winter, Year-Round (Winter include rules)
New Miles – Must complete Appendix B if development funds are requested		
☐	☐	Current county trail map identifying all requested segments.
☐	☐	Aerial and topo site maps for each segment requested. Include Town-Range-Section.
☐	☐	
☐	☐	Construction plans for bridges or other structures. Include Appendix A
☐		
	☐	Troutes – identify gas tax or no gas tax
	☐	Identify season - Summer, Winter, Year-Round (Winter include rules)
Intensive Use Area		
	☐	County, plat, wetland, topo maps showing project boundaries, trails, and elements
	☐	Site plans showing any existing facilities along with proposed new construction including trails, riding courses, bridges, culverts, shelters, parking lots and toilets
	☐	Preliminary construction plans for new trails, major grading, buildings, bridges, etc.
	☐	
New Support		
☐	☐	Campgrounds, shelter, etc. Please provide detailed information.
☐	☐	

Appendix A – Required for Bridge Rehab/Replace, New, or Reroute with New Bridge

☒ Bridge Rehab/Replace ☐ New Bridge ☐ Reroute with new bridge

County	Township	Range	Section	¼ ¼	¼	GPS Coordinates:
Green	01 N	6 ◉E ○W	5	SE	SW	Lat. 42.580256 Long. -89.809841

Water Body Name	Bridge Name	County Inventory Number
Pecatonica River	Bridge #40	#40

Funded Trail Name or Number (SNARS if applicable): Cheese Country Trail

Has this bridge site ever received development or rehabilitation funds in the past? ○ Yes ◉ No Year:_____ $_____

Bridge is located on: ◉ Private property ○ Public property

Old Bridge/Culvert Size: 12' X 451.5'

New Bridge/Culvert Size: 12' X 451.5'

Landowner Where Bridge is Located	Telephone Number	Length of Trail Use Agreement (5 year minimum)
Pecatonica Rail Transit Commission		Non-Expiring

Current maximum load	Proposed maximum load	Age of Bridge	Bridge Material
25,000 lbs.	25,000 lbs.	100+ yr.	Concrete & wood foundations, metal superstructure

Sponsoring Club Name	Club Contact	Telephone Number
Tri-County Trail Commission	Max Blackbourn	(608) 776-4983

Do you have your trail bridges posted as to maximum load? ○ Yes ◉ No

What is the maximum load of the other bridges on the system if groomed with this bridge?
At this time, maximum loads allowed on trail system are variable due to varying conditions of bridges.

What is the weight of your puller & drag/grading equipment?
~25,000

What other recreational trail uses are planned for this bridge?
Pedestrian, bicycle and e-bicycle

If there are other Recreational uses planned, how much of the bridge cost will be paid for by non-snowmobile or non-ATV users?
None

○ Yes ◉ No Have you contacted your local DNR Water Management Specialist (WMS) regarding a permit?
◉ Yes ○ No Is a permit needed? (Please provide any written correspondence from WMS.)
○ Yes ◉ No Have you contacted your County Zoning Dept. regarding a floodplain determination?
◉ Yes ○ No Will an H & H (hydrologic and hydraulic) study be required?

Bridge Project Detailed Description

Proposed project is the complete replacement of Bridge #40 on the Cheese Country Trail.

In a routine bridge inspection completed by NBI Engineering, critical deficiencies were found in the foundation of the bridge resulting in the closure of this bridge.

Currently we are looking at proposing a new 12' X 451.5' new bridge structure. Existing stone/concrete piers will have to be evaluated for suitability for reuse or replacement. Other degraded wooden components will have to be replaced. Since the structure is so old, changes will have to be evaluated for floodplain compliance.

A pre-application meeting will be scheduled in the immediate future with DNR WMS for permitting requirements and with county zoning to work through floodplain permitting and H&H work that will be needed.

Appendix A (continued)

Summarize Costs in Appropriate Categories:

Bridge Structure

		Quote 1	Quote 2
		◉ Steel ○ Wooden	○ Steel ○ Wooden
Bridge Dimensions:		12' X 451.5'	
Bridge Manufacturer:		TBD	
Design Weight Load		25,000 lbs.	lbs.
Cost of Structure:	1. Engineering	$ 204,653	$
	2. Structure	$ 1,203,840	$
	Subtotal	$ 1,408,493	$

Installation Costs:	Quote 1 ◉ Contractor or ○ Sponsor Estimate	Quote 2 ○ Contractor or ○ Sponsor Estimate
1. Engineering (includes construction labor too see attached cost estimate)	$ 172,139	$
2. Site Preparation	$	$
3. Abutments	$	$
4. Pilings/Piers	$	$
5. Approaches	$	$
6. Riprap	$	$
7. Labor	$	$
8. Equipment Rental	$	$
9. Culverts	$	$
10. H & H Study	$	$
11. Wetland Delineation	$	$
12. Other Soil Borings	$ 26,000	$
Subtotal	$ 198,139	$
Total Cost	$ 1,606,632	$

For the application grant, you must take the lowest of the two quotes.

Entire Deck and Railing Projects ○ Contractor ○ Sponsor ○ Club

Bridge Dimensions:	
Design Weight Load	lbs.
1. Materials	$
2. Labor	$
Total	$

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Recreation Grant Project Cost Estimate Worksheet

Form 8700-014 (R 02/23)

For use with Recreation Grant Application Forms

Recieved estimates from Craig Hardy Iowa Co. Hwy. Commissioner

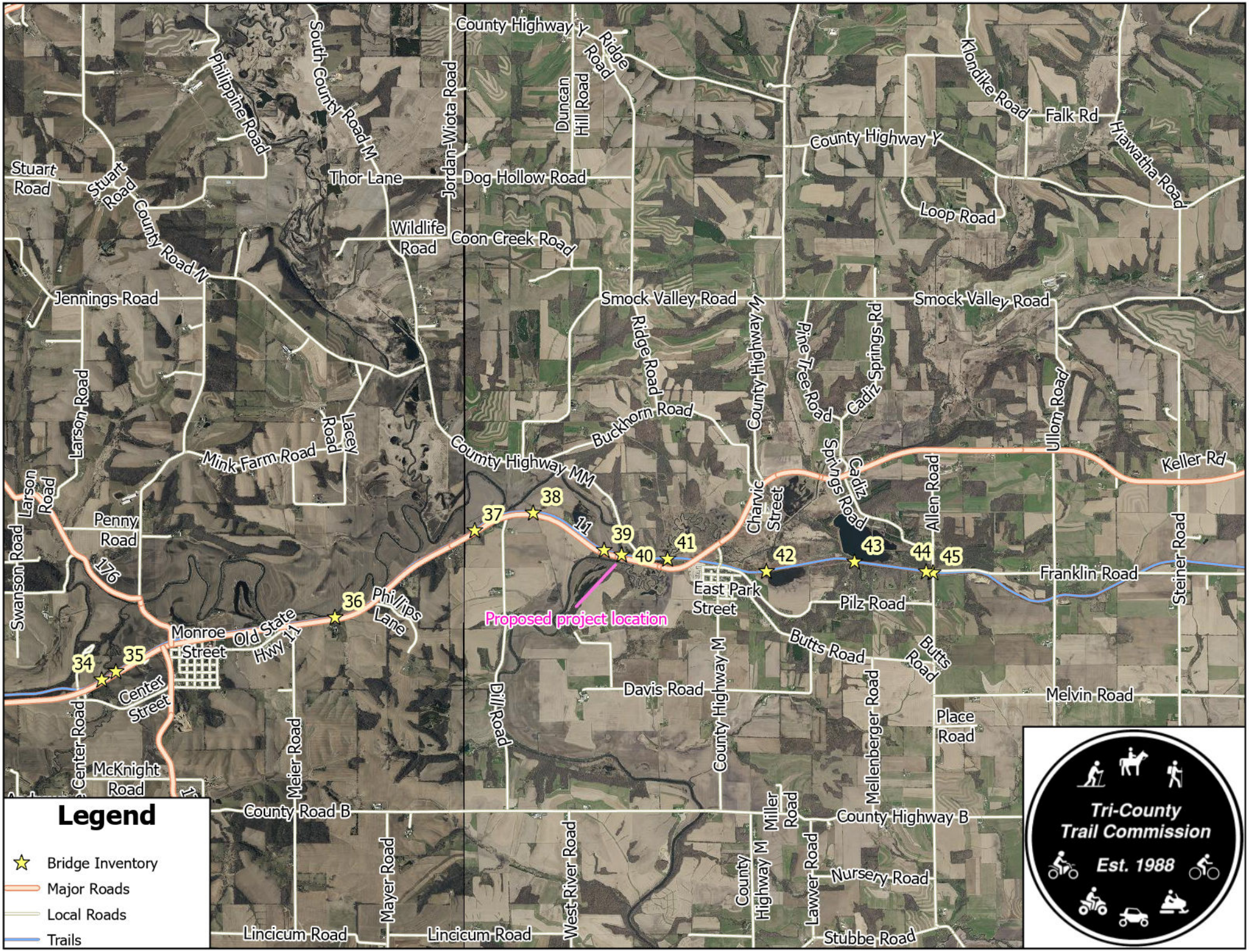
Project Name:		Prepared By:	Date
BRIDGE #40 REPLACEMENT		Max Blackbourn	02/26/2026
County	Project Applicant:	Landowner Name	
Green	Tri-County Trail Commission	Pecatonica Rail Transit Commission	○ Public ◉ Private

Indicate - (C) Contract , (F) Force Acct., (D) Donated

(C/F/D)	DEVELOPMENT PROJECT ITEMS *List by individual item or break down by Use Areas* (See Item List On Back Of This Form)	Quantity	Unit of Measure	Component Costs	Estimated Total Item Cost
	Bridge Materials	1		$1,203,840.00	1,203,840.00
	Design	1		$204,653.00	204,653.00
	Soil Borings	1		$26,000.00	26,000.00
	Engineering and Construction	1		$172,139.00	172,139.00
				TOTAL $	$1,606,632.00

NOTE:

- **For development projects, contingency and indirect costs are not eligible expenses.**
- **For acquisition projects, complete the Acquisition Project Cost Estimate Section of this form.**


Legend
Bridge Inventory
Major Roads
Local Roads
Trails
Proposed project location
Tri-County Trail Commission
Est. 1988
County Highway Y
Ridge Road
Duncan Hill Road
Klondike Road
Falk Rd
Hiawatha Road
Philippine Road
South County Road M
Jordan-Wiota Road
Stuart Road
Thor Lane
Dog Hollow Road
Loop Road
Wildlife Road
Coon Creek Road
County Road N
Jennings Road
Smock Valley Road
Larson Road
Mink Farm Road
Lacey Road
Buckhorn Road
County Highway MM
County Highway M
Pine Tree Road
Cadiz Springs Rd
Ullom Road
Keller Rd
Penny Road
Swanson Road
176
Charvic Street
Allen Road
Steiner Road
Franklin Road
East Park Street
Pilz Road
Phillips Lane
Old State Hwy 11
Monroe Street
Center Street
Center Road
McKnight Road
Meier Road
Butts Road
Davis Road
Melvin Road
Place Road
Mellenberger Road
Dill Road
Miller Road
County Road B
County Highway B
Mayer Road
West River Road
Lawler Road
Nursery Road
Lincicum Road
Stubbe Road
34
35
36
37
38
39
40
41
42
43
44
45

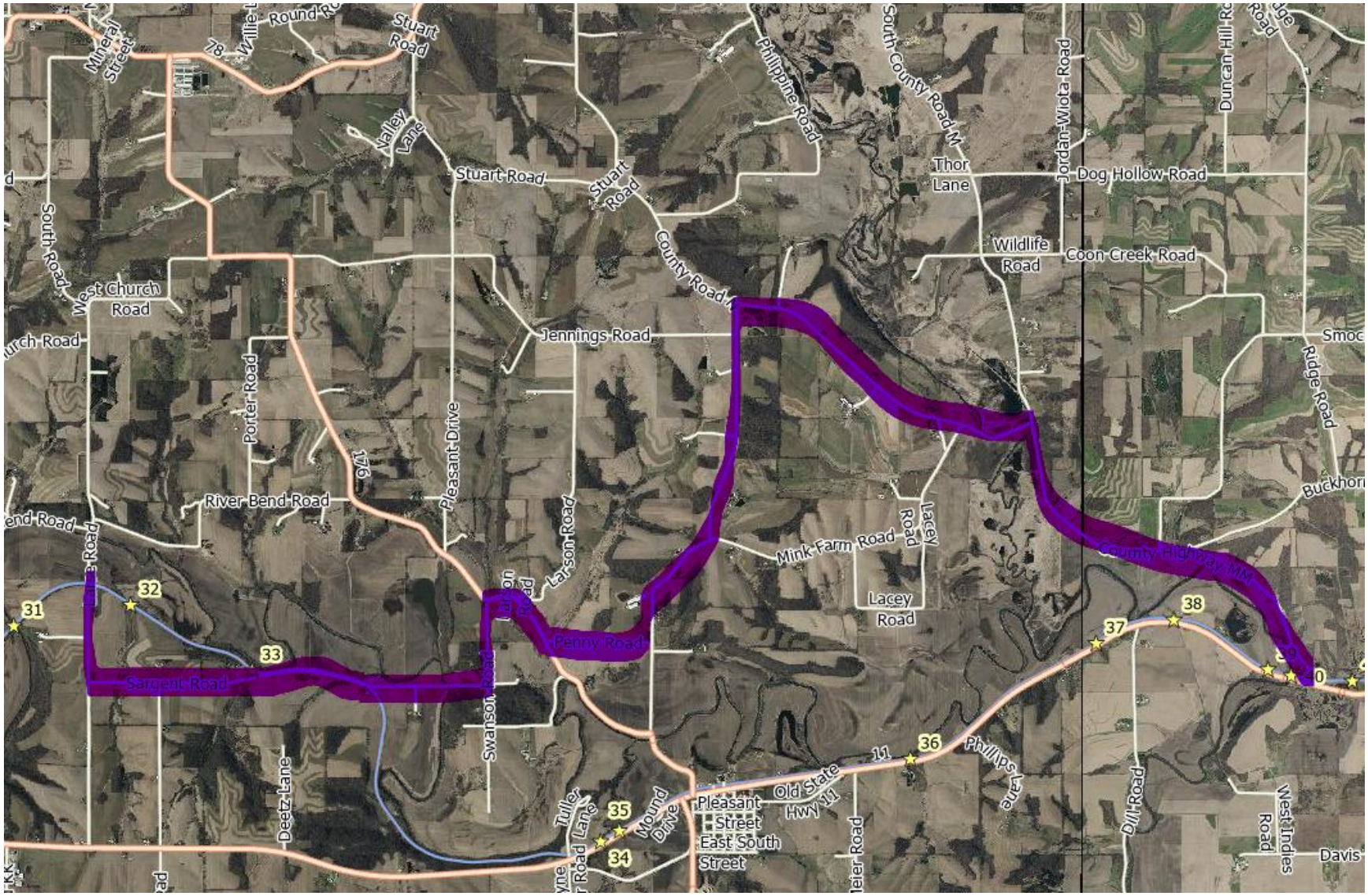
Bridge #40

Guidelines for Applicant

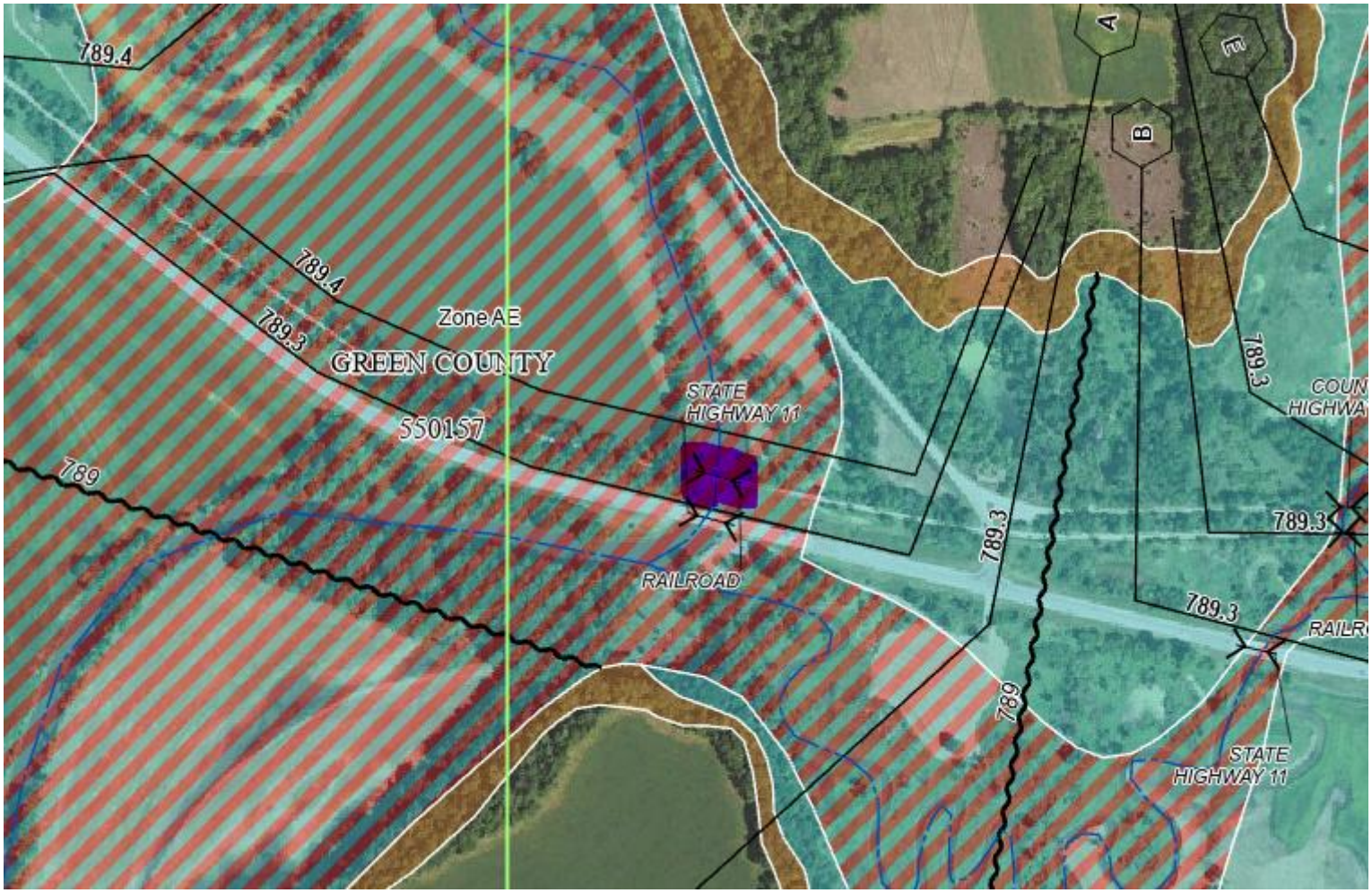
Complete this form for each bridge structure you are submitting a grant application for. Provide any additional documents not requested on application checklist to substantiate your points, including actual deeded easements.

This ranking tool is used for both **Snowmobile** and **ATV/UTV** Trail Aids programs, though each program may score things differently. If you are seeking funding from BOTH programs for a dual use bridge, please score ALL questions

	Category	Possible Points	Snow Points	ATV/UTV Points
1	**Condition of the Structure** (max of 10 points)			
	Has a certified bridge inspection report that supports the project & demonstrates need. Copy of report needed. Snowmobile Funded Projects	10	10	
	Calculation: 10 minus NBI Rating Score (0-9) ATV Funded Projects *Use overall NBI # if provided, or an average of the components. Redecking projects should just use the deck NBI #*	10		9
2	**Permits** (maximum points 4)			
	Consultation with DNR Water Mgmt Specialist has occurred & permit is likely, if needed	1	–	–
	Permit in hand / Bridge already permitted	3	–	–
3	**Funding** (maximum points 2) Has an application been submitted for other funding			
	50% or greater from other funding source(s)? (includes 50/50 Snow/ATV projects)	2	2	2
	11% - 49% from other funding source(s)?	1	–	–
4	**Length of Written Easements or Land Use Agreement** (max points 5)(ch. 23.09(26)(am)1 WI Stats)			
	On public land (County, State, Federal)	5	5	5
	10 or more year **deeded easement** on private land or other public land, for all portions of that trail to the nearest road on each side of the bridge	5	–	–
	3-9 year **deeded easement** on private land or other public land, for all portions of that trail to the nearest road on each side of the bridge	4	–	–
	10 or more year **deeded easement** on private land or other public land, for just the bridge site	3	–	–
	3-9 **deeded easement** on private land or other public land, for just the bridge site	2	–	–
	10 or more year land use agreement (LUA, not deeded) on private land or other public land	1	–	–
	3-9 year land use agreement (LUA, not deeded) on private land or other public land	0	–	–
5	**Miles Impacted** – How many miles will need to rerouted if the structure is not replaced? Measured from nearest intersection on both sides of the bridge. (max 4 points)			
	Less than 20 miles Snowmobile Funded Projects	1	1	
	20 miles or more Snowmobile Funded Projects	3	–	
	No other snowmobile trails connect. Snowmobile Funded Explain:	4	–	
	For ATV/UTV projects, describe the relocation (on routes? Trail?) Include sketch/map		✓	
6	**If ATV/UTV, Seasons of Use** (max 3 points)			
	Year-Round or Summer Only ATV/UTV Trail	3		3
	Winter Only ATV/UTV Trail	1		–
	DEDUCTIONS			
7	**County Active Project Deduction** (maximum deduction 1 point) A snowmobile active project is one that has exceeded it's initial grant period.			
	Two or more active projects - deduct 1 point	-1	-1	
	GRAND TOTAL		17	19



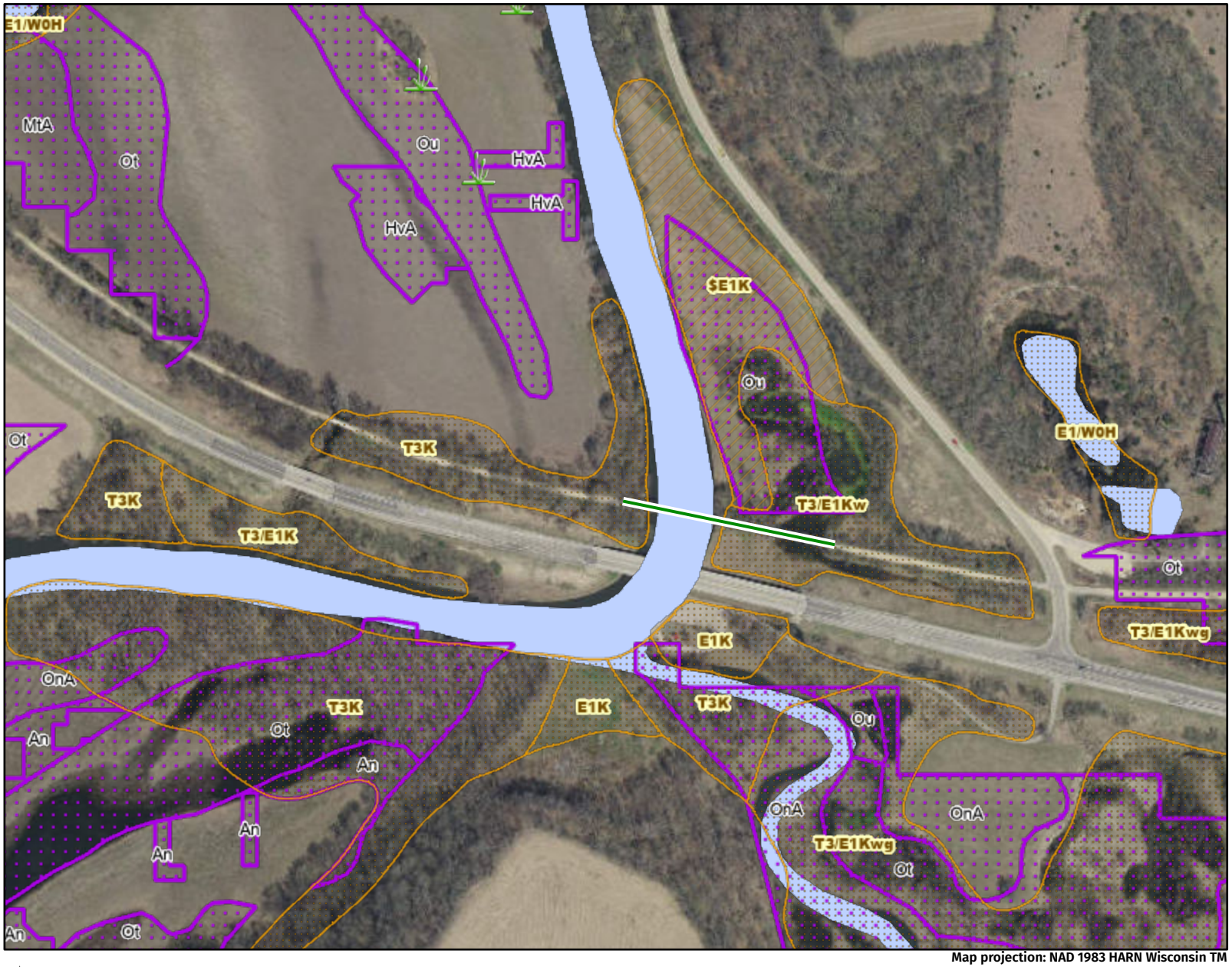
Trail re-route because of #40 closure (and #32, #35).



Bridge is located in the purple highlighted area. This area is within FEMA regulated floodplain.

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

Bridge #40 Map



Legend: (some map layers may not be displayed)

Wetland Class Points
- Wetland too small to delineate

Wetland Class Areas

Filled Areas
- Y
- Wetland Indicators
- Rivers and Streams
- Intermittent Streams
- Open Water
- Rivers and Streams
- Intermittent Streams
- Open Water
- 24K Lakes and Open Water

Municipalities
- Civil Town
- County Boundaries
- WI State Boundary
- Latest Leaf Off Index

Notes:

Bridge is located with Green Line

Map projection: NAD 1983 HARN Wisconsin TM

N

Map: 0 310 620 Feet
0 90 180 Meters

Service Layer Credits:
Wetland Indicators & Soils^: Surface Water Data Viewer Team, DNR Basic Feature VTL (WTM): Wisconsin Department of Natural Resources, GIS Section, Latest Leaf Off: , Surface Water: WiDNR, USGS, and other data, Wetland Inventory NWI (Dynamic): Calvin Lawrence, Dennis Weise, Nina Rihn

Date Printed: 2/26/2026 2:07 PM

Inspection Report for

Bridge #40

Cheese Country Trail over Pecatonica River

Executive Summary

Recommended Inspection Frequency:

- Not Applicable – **Recommend Immediate Closure**.

Estimated Remaining Longevity:

- The efforts required to return the bridge to service may not be economically feasible given the extent of the observed damage and complexities of the required repairs. Additional investigations would be required to fully develop a comprehensive rehabilitation plan. Preliminary recommended rehabilitation items are included later in this report.

Summary of Channel Conditions:

- Flood debris on Pier W1. 10ft vertical cut embankments throughout opening.

Summary of Structural Conditions:

- Multiple piles, pile caps, and blocking components are severely decayed and crushed in Pier W4.
- Advanced decay with initial signs of crushing timber in Pier W3.
- Rollers bearing assembles are displaced in multiple bearings.

Maintenance/Repair Recommendations: *Refer to subsequent element descriptions for detailed component specific maintenance recommendations, if appliable.*

- **Owner notified of Critical Finding: Bridge should be immediately closed to all traffic.**

Nathan W. Miller
Bridge Inspection Team Leader, Inspector Number: 9601

11.20.2025
Date

Bridge ID / Structure No.		Inspection Date:	11.20.2025
Bridge #40		Inspection TL:	Nate Miller, PE
		NBI Project No:	2503501
Facility Owner/Managing Agency: Tri-County Trails Commission		Representative: Max Blackbourn	
Email: trails@lafayettecountywi.org		Phone: 608-776-4893	

Summary of Inspection Intent, Procedures, and Limitations

- NBI Engineering Services personnel visited the above referenced structure to observe the existing conditions and collect information on behalf of The Tri-County Trail Commission. The purpose of this inspection was to determine the physical and functional condition of the bridge.
- Observations have been limited to readily available surface conditions. No destructive or invasive testing procedures, load rating, or detailed measurements have been performed as part of this inspection. NBI Engineering Services reserves the right to revise our opinions if additional evidence becomes available.
- Timber conditions were evaluated by visual inspection and acoustic sounding.
- Due to access limitations, assessment of components above 6 ft above grade was limited primarily to visual observation. Truss and pier components inspected from ground level and from deck via pole cam.
- No subsurface or underwater inspection efforts have been completed.
- The facility was open to traffic during the inspection.
- No plans or prior inspection information for the structure have been provided.

Time Log	Onsite: 8.5 Hours - Inspection started 11/19/2025 – completed 11/20/2025.

Inventory Data

Feature On:	Cheese Country Trail	Feature Under: Pecatonica River
Lat./ Long.:	42.58023, -89.8098	
Orientation:	Traffic Direction: EB/WB	Channel Flow: Upstream: North - Downstream: South

Structure Type

No. Spans:	5	Wearing Surface: Concrete Deck
Deck	Cast-In-Place Concrete over Timber Cross-Ties	
Superstructure	4 Spans -Riveted Steel Truss. 1 Span-4-Ply Timber Beam.	No. Truss Lines: 2 No. Beam Lines: 2
Substructure	Abutments: West: Masonry - East: Timber Pile with Timber Backwall Plank	
	Pier(s): W1: Masonry w/ Conc. Overbuild – W2: Masonry w/ Conc. Bearing Seat – W3/W4: Timber Pile Bent/Cribbing	

Geometric - *Dimensions are approximate.*

Width (O-O):	17.3' Deck O-O: 12.0'	Deck Length (O-O): 451.5'
Width (C-C):	11.6'	Span Length(s): 103'/103.5'/104.5'/118.0'/13.0'

Assessments Quantity in CS

Assessment	Description	UOM	Total	1	2	3	4	Comments
9001	Drainage -Ends of Structure	EA	4			2		Well Vegetated. West Approach Undermined.
9004	Drainage - Structure	EA	0					No Bridge Deck Drains.
9030	Signs – Object Markers	EA	4		4			Present at All 4 Corners.
9035	Signs – Other	EA	2		1		1	"BRIDGE XING". West Missing.
9035	Signs - Other	EA	2		1		1	"15 MPH ON BRIDGE". West Missing.
9041	Slope Protection -Bare	EA	2		2			East Backwall Plank Undermined. West Embankment 20' From W. Abutment
9324	Approach Roadway -Asphalt	EA	2		2			East Patched w/ Gravel.

SNBI Condition Ratings & Commentary

Deck (C.01) | 4 | Poor Condition – Deteriorating

1. Concrete slab (wearing surface) over timber crossties(deck).
2. Moderate wear of concrete throughout wearing surface, most pronounced along wheel lines. Multiple unsealed moderate/wide width transverse cracks throughout concrete slab.
3. Timber crossties decayed and split at ends. Signs of decay throughout all timber components. Timber preservative treatment is no longer effective.

Maintenance/Repair Recommendations

No feasible rehabilitation options to extend longevity of component. Complete replacement of deck system should be considered as part of a comprehensive rehabilitation plan.

Railings (C.05) | 5 | Fair Condition – Stable

1. (3) rows of W-beam bridge rail supported by angled timber posts.
2. Initial signs of incipient decay of timber components. Timber preservative treatment appears marginally effective.
3. Isolated areas of minor damage to w-beam curb rails.
4. Center post in south railing cracked near base anchorage.

Maintenance/Repair Recommendations

No feasible rehabilitation options to extend longevity of component. Complete replacement of railing system should be considered as part of a comprehensive rehabilitation plan.

Transition Railings (C.06) | **N/A** | Not Applicable

Joints (C.08) | **N/A** | Not Applicable

Superstructure (C.02) | 4 | Poor Condition - Deteriorating

1. Spans W1-W4: Steel Pin-Connected Through Truss.
2. Surface corrosion throughout length of truss spans with isolated areas of section loss (pitting) and pack rust.
3. Pack rust with isolated areas of deformation of built-up members.
4. Widespread areas of minor damage to various truss members and floor beams.
5. Coating system has failed and offers no effective protection to steel elements.

Superstructure (C.02) | 3 | Serious Condition - Deteriorating

1. Span W5: (2) lines of timber beams each comprised of (4) through-bolt connected laminations.
2. Beams are decayed 50%-75% throughout with widespread prominent checking and generally appear hollow when sounded. Isolated areas of more advanced decay and signs of horizontal shear cracking.
3. No readily evident signs of crushing.
4. Beams are highly susceptible to overload damage.

Maintenance/Repair Recommendations

Evaluate economic feasibility of comprehensive superstructure rehabilitation and replacement. Efforts required to return bridge to service to include at least the following (additional investigations would be required to develop a complete rehabilitation plan):

a. Removal of trees and vegetation growing through trusses-continued growth of tree around lower chord of south truss in span W2 will likely result in permanent damage to truss.
b. Complete additional NSTM/NDT inspections of truss spans.
c. Complete replacement of timber beams in span W5.

Bearings (C.07) | 2 | Critical Condition **-** Deteriorating

1. Spans W1-W4: (16) Roller baskets at truss bearings.
2. Corrosion of bearing assemblies restricts movement.
3. Decayed timber cribbing resulting in loss of bearing area.
4. Multiple roller unseated from bearing assemblies.

Maintenance/Repair Recommendations

Remove debris from all bearings.

Repair of damaged bearing assemblies and corrosion mitigation should be considered as part of a comprehensive rehabilitation plan.

Substructure (C.03) **| 1 | Imminent Failure** – Deteriorating

West Abutment:

1. Stone block masonry abutment. **Unknown bearing conditions.**
2. General masonry deterioration throughout with widespread areas of missing mortar in joints.

Pier W1:

1. Stone Block Masonry/Cast-In-Place Concrete Pier Wall. Limited Inspection Due to Access Limitations. **Unknown bearing conditions.**
2. General deterioration throughout with widespread areas of map cracking with efflorescence and missing mortar in joints.

Pier W2:

1. Stone Block Masonry Pier Wall w/ 5"-6" Cast-In-Place Concrete Leveling Course Under Span W3 Truss Bearings.
2. General deterioration throughout masonry with areas of horizontal cracking and surface spalling of blocks, and missing mortar throughout joints.
3. General deterioration throughout leveling course with widespread areas of exposed aggregate, concrete is largely free from moderate/wide width cracking

Pier W3:

1. Driven timber piles with timber cribbing/pile caps.
2. Decayed timber components throughout with initial signs of crushing.
3. Caps are decayed 75%-90% throughout with widespread cracking and splitting. Components generally appear hollow when sounded with soft/easily dented outer shells. Decay and splitting is more pronounced at the ends of cribbing.
4. Piles: Bearing piles sound hollow with an estimated 75%-90% loss of section.

Pier W4:

1. Driven timber piles with timber cribbing/pile caps.
2. **Decayed timber components throughout with readily evident signs of crushing. Multiple piles and caps are completely split/crushed. Pier is unstable**.

East Abutment:

1. Driven timber piles, timber pile caps, and timber backwall plank.
2. Decayed timber components throughout with no readily evident signs of crushing.
3. Caps are decayed 75%-90% throughout with widespread minor checking and generally appear hollow when sounded. More advanced decay throughout north half of cap with full depth vertical splitting of cap.
4. Piles: Bearing piles sound hollow with an estimated 75%-90% loss of section. Multiple piles split vertically.

Maintenance/Repair Recommendations

Evaluate hydraulic/economic feasibility of comprehensive substructure rehabilitation and replacement. Efforts required to return bridge to service to include at least the following (additional investigations would be required to develop a complete rehabilitation plan):

a. Comprehensive concrete/masonry repair of the west abutment, and piers W1 and W2.
b. Complete replacement of piers W3, W4, and the east abutment.

c. Complete additional inspections of pier W1 after removal of built-up flood debris to assess the physical and scour conditions of, and adjacent to, the pier not readily accessible during this inspection.
d. Complete an unknown foundation/scour analysis.

Unknown Foundations

Bridge has been identified as having unknown foundations, which is a classification for bridge substructures where the foundation type and bearing details are unknown and therefore cannot be appraised for scour vulnerability. Per the Wisconsin Structure Inspection Manual 5.24.1:

These bridges with unknown foundations pose a potential problem from a scour safety perspective. Since the undermining of bridge foundations poses a risk to the public safety, it is crucial to evaluate all bridges over or near water and determine their susceptibility to scour. In addition to scour concerns, unknown foundations are also a concern when a bridge is considered for improvements.

It is strongly recommended that an unknown foundation/scour analysis be completed. The results of this analysis will likely include the development and implementation of a plan of action (POA) for monitoring to reduce the risk to users from scour induced bridge failures surrounding flood events.

Channel (C.09) | 5 | Fair Condition - Deteriorating

1. Embankment Erosion: 10ft vertical cut embankments throughout opening. Top of 1:1 embankment within 20ft of west abutment. Erosion at the ear abutment has undermined the backwall/wing wall plank.
2. Drift: Large debris pile caught on the upstream (north) end of Pier W1. The northern extents of the sediment bar (or "island") surrounding Pier W1 could not readily be established due to debris, and the upstream end of the pier may be directly exposed to the channel flow.
3. Channel Change: Waterway flows through spans W1 and W2 and around Pier W1.
4. Adequacy of Opening: No readily visible signs of overtopping.

Maintenance/Repair Recommendations

See Channel Protection/Scour.

Channel Protection (C.10) | 5 | Fair Condition - Deteriorating

1. Vegetation: Channel is well vegetated.
2. Channel Protection: No channel armoring present-active erosion of unprotected embankments.

Maintenance/Repair Recommendations

Installation of channel protection would reduce likelihood of future erosion/scour issues. Erosion/scour countermeasures would likely be recommended if bridge is to be returned to service. The results of the unknown foundation/scour stability analysis will inform the design of the required channel protection.

Scour (C.11) | 5 | Fair Condition/Unknown - Deteriorating

1. Streambed Scour: Unable to verify scour conditions on upstream end of Pier W1 due to flood debris accumulation. Remaining substructure units beyond channel flow during inspection.

Maintenance/Repair Recommendations

Remove flood debris and complete additional scour investigations.

Bridge ID / Structure No.		Inspection Date:	11.20.2025
Bridge #40		Inspection TL:	Nate Miller, PE
		NBI Project No:	2503501

Deck

Deck Rating: 4

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Wearing Surface	8514		**Wearing Surface-Concrete Overlay**	**6**	SF	5418		5248	170	
			Retrofit C-I-P concrete slab over timber crossties.							
		3220	WS-Crack		SF				170	
			CS3: 14 transverse lines of moderate/wide width cracks across width of deck.							
		8911	WS-Abrasion/ Wear/ Rutting or Loss of Friction		0			5248		
			CS2: Concrete worn to large aggregate.							
Deck	31		**Deck-Timber**	**4**	SF	4515		1315	3200	
			Timber Crossties.							
		1150	TBR-Checks/ Shakes/ Cracks/ Splits/ Delamination		SF			1315	3200	
			CS2: Signs of timber decay throughout. CS3: Full depth splitting and/or decay at end 2ft of 25% of crossties. Assume 25% section loss across all crossties.							
	9004		**Drainage-Structure**	**N**	EA					
			None. No bridge deck drains.							

Bridge Railing

Bridge Railing Rating: 5

Bridge Railing Transition Rating: N

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Railing	330		**Metal Bridge Railing**	**5**	LF	903		903		
			(3) rows of W-beam bridge rail supported by angled timber posts.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF			903		
			CS2: Timber posts show initial signs of incipient decay and weather checking.							
		9001	Timber Preservative Treatment		LF					
			CS3: Timber preservative treatment marginally effective.							
		7000	Damage		LF					
			CS1: Isolated minor collision damage to rail.							

Bridge Joints

Bridge Joints Rating: N

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Joints	.		**Joint Type**	**N**	LF					
			None. Concrete bridge deck runs continuously over length of structure.							
		.	Defect		LF					
			N/A							

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

NBI ENGINEERING SERVICES, LLC

Superstructure

Superstructure Rating: 4

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Superstructure	120		**Superstructure-Steel-Truss**	**4**	LF	875		564	311	
			Spans W1-W4: Riveted Steel Through Truss							
		1000	STL-Corrosion		LF			282	220	
			CS2: Surface corrosion throughout with widespread areas of freckled rust. CS3: Areas of pack rust with deformation and pitting of built-up members, most prevalent in vertical members-Assume 25% of +/- length.							
		1020	Connection		LF			282	88	
			CS2: Widespread areas of pack rust with no distortion. Connections are in place and functioning as intended. CS3: Isolated areas of pack rust with deformation with of connections between faying surfaces of eye bars-Assume +/- 10% of length.							
		1900	Distortion		LF					
			Members generally appear properly aligned with no readily visible signs of distortion.							
		7000	Damage		LF				3	
			CS2: Widespread areas of damaged flanges and bent lattice bars throughout lower chords. CS2: Tree growing around Span W2/S. Truss L4-L5. No readily visible deformation. CS3: Span W2/S. Truss L4-L5 damaged/bent near displaced bearing							
	152		**Superstructure-Steel-Floor Beam**	**4**	LF	405		160	245	
			Spans W1-W4: [27 Rows] Transverse Steel Floor Beams-Riveted Sections							
		1000	STL-Corrosion		LF			80	200	
			CS2: Surface corrosion throughout with widespread areas of freckled rust. CS3: Widespread areas of section loss (pitting) at web stiffeners and near stringer connections and near truss connections-Assume +/-50% of length.							
		1020	Connection		LF			80	40	
			CS2: Widespread areas of pack rust with no/initial signs of distortion. Connections are in place and functioning as intended. CS3: Isolated areas of pack rust with deformation with of connections-Assume +/- 10% of length.							
		1900	Distortion		LF					
			Members appear properly aligned with no readily visible signs of distortion.							
		7000	Damage		LF				5	
			CS2: Widespread areas of damaged flanges throughout floor beams. CS3: Span W4/FB7 bottom flange bent/distorted (5-LF).							
	113		**Superstructure-Steel-Stringer**	**4**	LF	1750		875	875	
			Spans W1-W4: [4 Rows] Longitudinal Steel Stringers-Riveted Sections							
		1000	STL-Corrosion		LF			875	875	
			CS2: Surface corrosion throughout with widespread areas of freckled rust. CS3: Widespread areas of section loss (loose flaking rust) on top flange under cross ties, at ends near floor beams, and pack rust with initial signs of deformation throughout built-up members-Assume +/-50% of length.							
		1020	Connection		LF					
			CS2: Isolated areas of pack rust with no/initial signs of distortion. Connections are in place and functioning as intended.							
		1900	Distortion		LF					
			Members appear properly aligned with no readily visible signs of distortion.							
		7000	Damage		LF					
			No readily visible signs of damage.							
	3440		Steel Protective Coating - CS4: Paint system has completely failed-protective coatings are ineffective.							

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Superstructure	111		**Superstructure-Timber-Open Girder/ Beam**	**3**	LF	28			28	
			Span W5: [2] beam lines of 4-ply timber beams.							
		1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				14	
			CS3: All beams decayed and sound hollow with an estimated 75% loss of section.							
		1150	TBR-Checks/ Shakes/ Cracks/ Splits/ Delamination		LF				14	
			CS3: Prominent checking/horizontal shear cracking (+/- 3/16") throughout length of beams.							
		1020	Connection		LF					
			Through-bolts pulling through sides of beams.							
		1900	Distortion		LF					
			Beam appear properly aligned with no readily visible signs of distortion.							
		7000	Damage		LF					
			No readily evident signs of crushing.							
		Protective Coatings: CS4: Timber preservative treatment ineffective.								

Bearings

Bearing Rating: **2**

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Bearings	.		**Bearing Type**	**2**	EA	16		8		8
			Spans W1-W4: [16] Roller basket assemblies at truss bearings.							
		1000	STL-Corrosion		EA			8		
			CS2: Tightly adhered surface corrosion with areas of section loss (pitting) throughout bearings.							
		2240	BRG-Loss of Bearing Area		EA					**6**
			CS4: Decayed/crushing timber cribbing below bearings in piers W3 & W4.							
		7000	Damage		LF					**2**
			CS4: Span W1/South Bearing/West Abutment-East roller partially unseated from bearing basket.							
			CS4: Span W2/South Bearing/Pier W2-West roller completely unseated from bearing basket.							
		3440	Steel Protective Coating - CS4: Paint system has completely failed-protective coatings are ineffective.							

Substructure

Substructure Rating: **4**

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
West Abutment	216		**Substructure-Masonry-Abutment**	**4**	LF	15		5	10	
			West Abutment: Stone Block Masonry.							
		1610	MSN-Mortar Breakdown		LF			5	10	
			CS3: Widespread areas of missing mortar in joints (head joints: 75%_bed joints: 50%).							
		4000	Settlement		LF					
			No readily visible signs of settlement.							
		6000	Scour		LF					
			CS1: West abutment beyond channel flow. No signs of undermining. Top of 1:1 embankment within 20ft of west abutment.							
	220		**Pile Cap/Footing**	**U**	LF					
			Unknown Bearing Conditions.							
	8401		**Wingwall-Masonry**	**4**	EA	2			2	
			West Abutment: Integral Stone Block Masonry Wingwalls/Parapets.							
		8903	WW-Deterioration		LF				2	
			CS3: Widespread areas of missing mortar in joints. Areas split/spalling block.							
		6000	Scour		LF					
			CS1: Both wingwalls beyond channel flow. No signs of undermining.							
	Protective Coatings: N/A.									
Piers W1 & W2	210		**Substructure-RC-Pier Wall**	**4**	LF	20			20	
			Pier W1: Stone Block Masonry/Cast-In-Place Concrete Pier Wall. Limited Inspection Due to Access Limitations. *Pier W2: Stone Block Masonry Pier Wall w/ 5"-6" Cast-In-Place Concrete Leveling Course Under Span W3 Truss Bearings.*							
		1080	PSC/ RC-Delamination/ Spall/ Patched Area/ Exposed Rebar or Prestressing		LF				20	
			CS3: Widespread areas of missing mortar in joints. Pier W1: Widespread areas of map cracking with efflorescence. Pier W2: Leveling Course: Widespread areas of exposed aggregate-largely free from moderate/wide width cracking. Scaling/spalling concrete at ends-no loss of bearing area. Horizontal cracking of blocks (10-LF0. Surface spalling of blocks (3-LF).							
		4000	Settlement		LF					
			No readily visible signs of settlement.							
		6000	Scour		LF					
			Pier W1: Unknown-Removal of debris required to asses conditions on upstream end of pier. Pier W2: Pier W2 beyond channel flow. No signs of undermining.							
	Protective Coatings: N/A.									
	220		**Pile Cap/Footing**	**U**	LF					
			Unknown Bearing Conditions.							

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Bridge ID / Structure No.	Inspection Date:	11.20.2025
Bridge #40	Inspection TL:	Nate Miller, PE
	NBI Project No:	2503501

Quantity in Condition State

	Element	Defect	Description		OUM	Total	1	2	3	4
Piers W3 & W4	235		**Substructure-Timber-Pile Cap Pier**	**1**	LF	50				50
			Timber Pile Caps/Cribbing - Assume 25-LF Per Pier							
			TBR-Decay/ Section Loss/ Abrasion/ Wear		LF					**50**
		1140	CS4: Caps sound hollow throughout length estimated 75%-90% decay/section loss throughout length. Prominent horiz. and vert. checking (>0.08") throughout. Pier W3: Various degrees of vertical splitting throughout cribbing, more severe at ends. Initial signs of crushing of Row W1 cribbing. Pier W4: Widespread split/crushed cribbing throughout pier. Cribbing is in an active state of collapse and is unstable.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									
	228		**Substructure-Timber-Pile-Pier**	**3**	EA	48				48
			Timber Piles - [3 Rows] of [8] Bearing Piles Per Pier.							
			TBR-Decay/ Section Loss/ Abrasion/ Wear		EA					**48**
		1140	**CS4: Piles sound hollow throughout with prominent vertical checking/splitting. Estimated 75%-100% decay/section loss of piles. Pile shells soft/easily damaged. Multiple piles in Pier W4 are completely split and are unstable.**							
		4000	Settlement		EA					
			No readily visible signs of settlement.							
		6000	Scour		EA					
			Piers W3 & W4 beyond channel flow during inspection.							
	Protective Coatings: CS4: Timber preservative treatment ineffective.									

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Quantity in Condition State

East Abutment

Element	Defect	Description		OUM	Total	1	2	3	4
216		**Substructure-Timber-Abutment**	**4**	LF	28			28	
		Timber Backwall Plank - Timber pile with backwall plank abutment.							
	1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF				14	
		CS3: Timber plank showing signs of incipient decay.							
	4000	Settlement		LF					
		No readily visible signs of settlement.							
	6000	Scour		LF				14	
		Both abutments beyond channel flow. CS3: Erosion has undermined east backwall plank 1"-6" (14-LF).							
Protective Coatings: CS4: Timber preservative treatment ineffective.									
235		**Substructure-Timber-Pile Cap-Abutment**	**2**	LF	14				14
		East Abutment: Timber Pile Cap - Timber Pile with Backwall Plank Abutment.							
	1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		LF					**14**
		CS4: Cap sounds hollow throughout with soft/easily dented shell-estimated 75%-90% decay/section loss. Prominent horiz. and vert. checking throughout. No definitive signs of crushing. Full depth vertical split through north half of cap.							
Protective Coatings: CS4: Timber preservative treatment ineffective.									
228		**Substructure-Timber-Pile-Abutment**	**2**	EA	5			1	4
		East Abutment: Timber Piles - Timber Pile with Backwall Plank Abutment.							
	1140	TBR-Decay/ Section Loss/ Abrasion/ Wear		EA				1	**4**
		[5] Bearing piles. CS4: Tops of piles sound hollow with moderate to wide checking throughout. No definitive signs of crushing. (1)-1"-2" Wide Vertical Spilt in Pile. Estimated % Decay: S1-90%_S2-75%_S3-90%**(1)**_S4-90%**(1)**_S5-90%**(1)**.							
Protective Coatings: CS4: Timber preservative treatment ineffective.									
8400		**Wingwall-Timber**	**4**	EA	4			4	
		Integral timber wingwalls. Backwall plank extends beyond bearing piles-no supplemental wingwall piles.							
	8903	WW-Deterioration		EA				4	
		CS3: Wingwall plank showing signs of incipient decay.							
	6000	Scour		EA					
		CS3: Erosion has undermined east wingwall planks 1"-1'.							
Protective Coatings: CS4: Timber preservative treatment ineffective.									

NBI Engineering Services
PO Box 188
Mount Horeb, WI 53572

Numbering convention increases from west to east or south to north.
Condition codes and methodology consistent with the Specifications for the National Bridge Inventory.

Inspection Photos: All photos taken at above referenced inspection date unless noted otherwise.

Photo 1 – Trail View Looking East.

Photo 2 - Trail View Looking West.

Photo 3 – Upstream Looking North.

Photo 4 – Downstream Looking South.

Photo 5 – Side View Looking North-West Spans.

Photo 6 – Side View Looking North-East Spans.

Photo 7 – Pier W4 Looking North.

Photo 8 – Pier W4 Looking North.

Photo 9 – Pier W4 Looking North.

Photo 10 – Pier W4 Looking North-Cribbing.

Photo 11 – Pier W4 Looking North.

Photo 12 – Pier W4 Looking North-Cribbing.

Photo 13 – Pier W4 Looking North-Piles.

Photo 14 – Pier W4 Looking Nort-Front Face.

Photo 15 – Pier W4 Looking West-North Bearing.

Photo 16 – Pier W4 Looking West-North Bearing.

Photo 17 – Pier W4 Looking South.

Photo 18 – Pier W4 Looking West.

Photo 19 – West Abutment.

Photo 20 – Pier W1 – Upstream (North) End.

Photo 21 – Pier W1 Looking East.

Photo 22 – Pier W1 Looking West.

Photo 23 – Pier W2 Looking East.

Photo 24 – Pier W2 Looking West.

Photo 25 – Pier W3 Looking East.

Photo 26 – Pier W3 Looking West.

Photo 27 – Pier W3 Looking North.

Photo 28 – Pier W3 Looking West.

Photo 29 – Pier W3 Looking East.

Photo 30 – Pier W3 Looking South.

Photo 31 – Pier W3 Looking East.

Photo 32 – Pier W3 Looking West.

Photo 33 – Pier W4 Looking East.

Photo 34 – West Abutment.

Photo 35 – East Abutment-Piles S2-S1.

Photo 36 – East Abutment-North End.

Photo 37 – Span W2-SE. Bearing Over Pier W2.

Photo 38 – Span W2-SE. Bearing Over Pier W2.

Photo 39 – Span W1-S. Bearing Over W. Abutment.

Photo 40 – Span W2-South Truss L4-L5.

Photo 41 – Pier W1 Looking West.

Photo 42 – Span W4-Floor Beam 7 (East).

Photo 43 – Deck.

Photo 44 – Span W1-South Truss L3.

Photo 45 – Span W1-Floor Beam 1 Looking East.

Photo 46 – Span W3-South Truss L3.

Photo 47 – Span W3-South Truss L1.

Photo 48 – Trail View Looking East.

Additional Photos Available -End of Report-