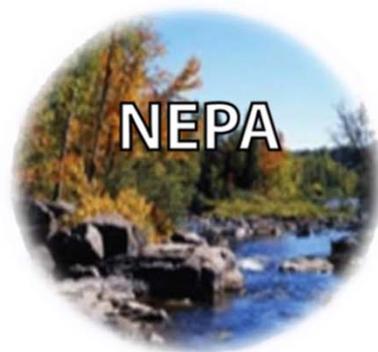


WISDOT PROJECT ENVIRONMENTAL DOCUMENTATION



U.S. Department
of Transportation
**Federal Highway
Administration**



Project Purpose and Need

- What is it?

A broad statement of overall intended objective(s) to be achieved and can be defined in a few sentences or bullets.

*Purpose = Problem or Opportunity
Need = Data to Support the Problem Exists*

- What should it Provide:

- Justification on why improvement should be implemented.
- Details that are comprehensive and specific.
- Reexamine and update as appropriate throughout the project development process.



Project Purpose and Need

■ Example

Purpose

The primary purpose of this project is to improve roadway safety and operational characteristics by:

- *Replacing the deteriorated pavement*
- *Providing bicycle accommodations.*

Need

The existing roadway asphaltic pavement is in poor condition and has reached the end of its service life. The extensive rutting, cracking, settling, and settling has resulted in a rough ride and ponding of water during rain events and snow melt. The pavement deficiencies expose the traveling public to unnecessary safety hazards especially during the aforementioned weather events. Existing shoulders are narrow, unpaved, and substandard in width and does not provide accommodations for bicyclists.



Project Purpose and Need

■ Example

Purpose

The purpose of the proposed project is to:

- Rectify a substandard structurally deficient bridge while retaining the existing grade separated crossing.
- Correct substandard roadway geometrics on Eagle Point Road at the bridge
- Provide continued access and road service to:
 - Private and public landowners
 - USCOE dam
 - Upper Mississippi River Wildlife and Fish Refuge
 - Grant County park boat landings on the Mississippi River

Need

The need for this project is to eliminate the bridge's structural deficiencies and enhance roadway safety while maintaining a grade separated railroad crossing.

(See handout for remainder of the need discussion on this project)



Project Purpose and Need

- **Items to discuss**
 - Project Status
 - Need Factors
 - Capacity
 - System Linkage
 - Transportation Demand
 - Legislation
 - Social Demands or Economic Development
 - Modal Interrelationships
 - Safety
 - Roadway Deficiencies

- **Helpful Things to Include**
 - Maps
 - Pictures



Project Purpose and Need

- **Trans 75 Examples**

- Following information has been included in recent Environmental Documents

WisDOT policy is to incorporate safe and convenient walking and bicycling accommodations and/or facilities into transportation projects when prudent and feasible.

Department policy(Complete Streets), in conformance with Federal Highway Administration (FHWA) policy, Section 84.01(35), Wis. Stats., Trans 75, Wis. Admin. Code and Connections 2030, requires evaluating all new construction and reconstruction highway projects, funded in whole or in part from state or federal funds, to determine if including bicycle and pedestrian accommodations or facilities is prudent and feasible.

If said evaluation shows that bicycle or pedestrian accommodations or facilities to be neither prudent nor feasible, the Department must document an appropriate exception to its “Complete Streets” policy.

Department policy for other project actions, such as pavement resurfacing or reconditioning projects, requires an evaluation to include bicycle and pedestrian accommodations or facilities where possible/practical within the scope of the project. In addition, certain bicycle and pedestrian design practices are required when applicable, e.g., American with Disabilities Act (ADA) compliant curb ramps and bicycle-acceptable landscaping or storm drainage grates.



Project Purpose and Need

■ Trans 75 Examples

Due to the low volume rural nature of this roadway, it is assumed that the roadway will provide sufficient bicycle and pedestrian accommodations. A TRANS 75 Complete Streets Compliance Checklist has been completed for the project.

WisDOT is required to provide oversight of the proposed action because Federal or State transportation program dollars are being incorporated into this local project through WisDOT's Local Bridge program.

Because of this oversight role, WisDOT invokes its policy to incorporate safe and convenient walking and bicycling accommodations and/or facilities into transportation projects when prudent and feasible.

Department policy (Complete Streets), in conformance with Federal Highway Administration (FHWA) policy, Section 84.01(35), Wis. Stats., Trans 75, Wis. Admin. Code and Connections 2030, requires evaluating all new construction and reconstruction highway projects, funded in whole or in part from state or federal funds, to determine if including bicycle and pedestrian accommodations or facilities is prudent and feasible.

If said evaluation shows that bicycle or pedestrian accommodations or facilities to be neither prudent nor feasible, the Department must document an appropriate exception to its "Complete Streets" policy.

Department policy for other project actions, such as pavement resurfacing or reconditioning projects, requires an evaluation to include bicycle and pedestrian accommodations or facilities where possible/practical within the scope of the project. In addition, certain bicycle and pedestrian design practices are required when applicable, e.g., American with Disabilities Act (ADA) compliant curb ramps and bicycle-acceptable landscaping or storm drainage grates.



Project Purpose and Need

- Things to Consider
 - Explain Engineering Terms

A structurally deficient with a bridge sufficiency rating of 25.0 as of the latest bridge inspection performed in 2014.

The bridge sufficiency rating is a computed numerical value between zero and 100 used to help determine a bridge's priority for rehabilitation or replacement and eligibility for state or federal funding. The rating considers structural factors noted during a bridge inspection, a bridge's geometry and the amount of traffic the bridge handles. A bridge with a sufficiency rating of 80 or less is eligible for bridge rehabilitation funding. A bridge with a sufficiency rating of 50 or less is eligible for replacement funding.



Example Alternatives

■ No Build

This alternative, not chosen, consists of the existing facility with no improvements other than routine maintenance.

This alternative would result in continued high structure and roadway maintenance costs as well as not mitigating the poor operational characteristics of the existing bridge and approaches. The deficient bridge will eventually require weight restrictions which would affect the delivery of heavy equipment to the USCOE dam and also emergency vehicle access to all facilities and properties west of the bridge.

Allowing the existing aging structure to remain increases the risk of eventual bridge failure, which would sever a significant rail line and interrupt regional rail operations. This potential bridge failure would interrupt rail traffic on a major railroad line, which is the only BNSF Railway Company main line between St. Paul, Minnesota and St. Louis, Missouri or Chicago, Illinois.

The No Build Alternative is neither prudent nor feasible and does not meet the purpose and need for the project. However this alternative does serve as a baseline for a comparison of impacts related to the Preferred Alternative.



Example Alternatives

■ Rehabilitation

This alternative, though not chosen, would consist of removing and replacing the existing bridge deck and adding crash walls to the existing bridge piers.

While this alternative would address some of the specific deteriorated elements of the structure, it would not remove all deficiencies and the inconsistent roadway cross-section found on the bridge and its associated approaches would remain. Extensive work to the existing substructure and piers would be required in order for the improved structure to meet current vertical clearance guidelines above the railroad tracts.

While this alternative would have minimal environmental impacts, construction would need to be staged which is not feasible due to the necessary improvements to the vertical clearance.

The Rehabilitation alternative is neither feasible nor prudent and is not cost effective as a long term improvement alternative for this structure given the structures significance.



Example Alternatives

■ Reconstruction/Replacement

This alternative was selected as the preferred alternative as it fully meets the purpose and need of the project while improving safety, addressing the specific needs outlined along the corridor including minimizing duration of construction adjacent to the BNSF railway tracks. The proposed project and its preferred alternative is feasible and prudent and will not foreclose, preclude, or restrict consideration of any alternatives of future plans of the BNSF Railway, Grant County or the Town of Jamestown.

- Include a replacement of the existing structure with a new bridge meeting both the minimum 23-foot vertical clearance and a minimum 62-foot clear span between piers for the main span over the tracks as requested by BNSF. The Railroad Coordinator of the Railroads and Harbors Section (WisDOT Bureau of Transit, Local Roads, Rails and Harbors) has agreed with this request. This configuration could accommodate a future third BNSF track.
- Construct a roadway meeting a 30 mph roadway design speed with maintaining the minimum 23-foot vertical clearance at the bridge to the railway tracks below.
- Construct a consistent cross section roadway width meeting minimum Town Road standards. These minimum standards, including 10-foot driving lanes and 3-foot shoulders will be utilized to reduce impacts to the adjacent Wildlife Refuge lands (Section 4(f) resource). Roadway embankments would be raised to accommodate higher profile and side slopes flattened to a normal rate of slope of 3:1 or to 2 ½:1 where shielded by beam guard.



4(f) Documentation

- Types of 4(f) Properties
 - *Public Parks, Recreational and Wildlife and Waterfowl Refuges*
 - *Historic Sites*
 - *Archeological Resources*
 - *Public Multiple-Use Land Holdings*
 - *Tribal Lands & Indian Reservations*
 - *Traditional Cultural Places*



4(f) Documentation

- Types of 4(f) Documentation
 - Temporary Occupancy – **NO** 4(f) Impact
 - De Minimis
 - Programmatic
 - *Independent Bikeway & Walkway Construction*
 - *Historic Bridges*
 - *Minor Involvement with Historic Sites*
 - *Minor Involvement with Parks, Recreational Lands, Wildlife and Waterfowl Refuges*
 - *Net Benefit*
 - Individual Section 4(f) Evaluation



Temporary Occupancy 4(f) Documentation

Temporary Occupancy

A temporary occupancy will not constitute a Section 4(f) use when all of the conditions listed in 23 CFR 774.13 (d) are satisfied.

1. Duration must be temporary.
2. Scope of work must be minor.
3. No permanent adverse physical impacts nor interference with protected activities.
4. Land being used must be restored.
5. Documented agreement of the official with jurisdiction regarding these conditions.



De Minimis 4(f) Documentation

De Minimis

Impacts may be determined to be de minimis when:

1. Transportation use and any impacts due to minimization or enhancement efforts does not adversely effect Section 4(f) facility.
2. Public has been afforded the opportunity to review and comment.
3. Written concurrence from official with jurisdiction after they have had opportunity to review public comment and FHWA's intent to make the de minimis impact finding.



Programmatic 4(f) Documentation

Independent Bikeway & Walkway Construction

<http://www.environment.fhwa.dot.gov/4f/4fbikeways.asp>

- Only applicable for independent bikeway or walkway projects which require use of recreation and park areas.
- Official with jurisdiction must approve project and use.
- Does not apply if the project would require the use of critical habitat of endangered species.
- Does not cover use of land from a publically owned refuge or from a historic site.
- Does not cover bicycle or pedestrian facilities that are incidental to a larger highway project.



Programmatic 4(f) Documentation

Historic Bridges

<http://www.environment.fhwa.dot.gov/4f/4fbridge.asp>

- Bridge is replaced or rehabilitated with Federal funds.
- Project will require use of a historic bridge structure.
- Bridge is not a National Historic Landmark.
- FHWA determines the facts of the project match those requirements forth in the sections of the historic bridge section of the policy paper.
- Agreement among the FHWA, SHPO, and ACHP has been reached through Section 106 documentation.



Programmatic 4(f) Documentation

Minor Involvement with Historic Sites

<http://www.environment.fhwa.dot.gov/4f/4fmhist.asp>

- Project will improve operational characteristics of existing highway facilities on essentially the same alignment.
- Historic site involved is located adjacent to the existing highway.
- Project does not require removal or alteration of historic buildings, structures or objects on the site.
- Project does not require disturbance or removal of archaeological resources.
- Impact on the Section 4(f) site must be considered minor.
- SHPO must agree in writing with assessment of impacts.
- Does not apply for projects for which an EIS is prepared unless the need was discovered after approval of the EIS.



Programmatic 4(f) Documentation

Minor Involvement with Public Parks, Recreational Lands, and Wildlife and Waterfowl Refuges

<http://www.environment.fhwa.dot.gov/4f/4fmparks.asp>

- Project will improve operational characteristics of existing highway facilities on essentially the same alignment.
- The Section 4(f) lands are publically owned adjacent to the existing highway.
- The amount and location of impacted land shall not impair the use of the Section 4(f) property.

<u>Total Size</u>	<u>Max to be Acquired</u>
<10 Acres	10% of site
10 – 100 Acres	1 Acre
> 100 Acres	1% of site



Programmatic 4(f) Documentation

Minor Involvement with Public Parks, Recreational Lands, and Wildlife and Waterfowl Refuges (cont.)

- Proximity impacts on remaining land shall not impair use of land for its intended purpose.
- Officials with jurisdiction must agree in writing.
- Coordination of potential 6(f) impacts must be completed. This programmatic evaluation does not apply if the agency objects with the land transfer.
- Does not apply for projects for which an EIS is prepared unless the need was discovered after approval of the EIS.



Programmatic 4(f) Documentation

Net Benefit

<http://www.environment.fhwa.dot.gov/4f/4fnetbenefits.asp>

- Project uses a Section 4(f) site.
- Project minimizes harm and preserves and enhances the features that qualified the property for Section 4(f).
- For historic properties, the project does not require major alteration to the characteristics that qualify the project as historic. For Archaeological properties, project does not require disturbance or removal of resource.
- For historic properties, SHPO, (and/or THPO), FHWA and the applicant must agree on measures to minimize harm.
- Official with jurisdiction must agree to the project in writing.
- FHWA determines that the project facts match those set forth in the Applicability, Alternatives, Findings, Mitigation and Measures to Minimize Harm.



6(f) Documentation

- 6(f) Properties
 - *Any related LAWCON funded improvements*
 - *Coordinate with WDNR & National Park Service*
 - *Triggers*
 - *Property interests changed*
 - *Non-outdoor recreational are made of project area*
 - *Unallowable indoor uses are developed*
 - *Public outdoor recreational use is terminated*
 - *Proposal is contrary to master plan*



6(f) Documentation

- 6(f) Properties Conversions
 - Documented loss of recreational land that can not be avoided
 - A detailed justification and request
 - Converted property must be replaced
 - Replacement property must be:
 - Equal value (today's)
 - Size
 - Recreational Utility



State vs Federal Funding

Items to Consider

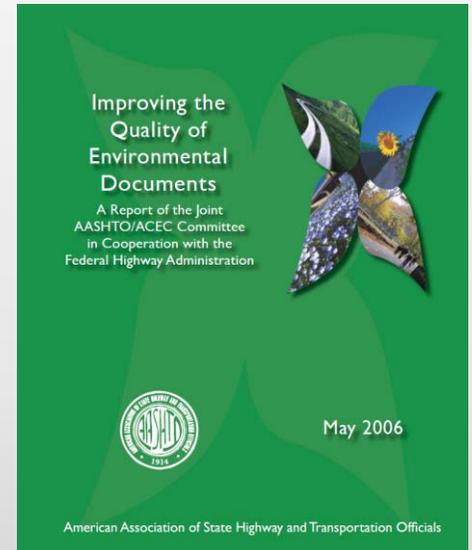
- Is a change to federal funding *ever* a possibility in the future?
- Consider if other corridor improvements are anticipated to avoid segmentation.
- Other items:
 - Federal Permits
 - NHS Routes
 - Cultural Resources
 - Section 4(f) and Section 6(f) considerations
 - Environmental Justice



Improving Quality of Environmental Documents

Document Preparation

- Easily Understood
 - *No engineering terms*
 - *Stationing*
 - *Specific type of improvement (ex: Type C Intersection)*
 - *Write out abbreviations first time they are used*
 - *Strengths and weaknesses of each alternative*
 - *Describe how each alternative meets the project needs*



Improving Quality of Environmental Documents

Document Preparation

- Consistency
 - *Brief, clear, concise writing*
 - *Effective graphics*
 - *Discuss issues and impacts in proportion to their significance*
- QA/QC
- Meet all legal requirements (legal sufficiency)

