

At the WIS 64/US 63 North intersection, none of the five warrants analyzed are currently being met. The low traffic projections do not show that any warrants would be met through the year 2032. The high projections indicate that 3 warrants would be met in 2022 and four would be met in 2032.

5. Existing Deficiencies

The study team analyzed the corridor to determine whether it meets horizontal and vertical alignment criteria. WIS 64 and US 63 generally follow straight alignments, so the horizontal alignment meets criteria. eighteen vertical curves on WIS 64 and two on US 63 have design speeds of 50 mph or less.

6. Corridor Preservation

While the first five needs are more fundamental to the project, the sixth need, corridor preservation, is derived from the initial five fundamental needs. Once the best improvement alternative is selected that meets the needs for system linkage, area growth, safety, traffic operations, and existing deficiencies, then corridor preservation will be needed to effectively carry out the transportation plan and minimize the construction impacts to property owners, wetlands, waterfowl production areas, agricultural lands, and archeological sites.

3. Summary of the alternatives considered and if they are not proposed for adoption, why not. (Identify which, if any, of the alternatives is the preferred alternative.)

3.01 INTRODUCTION

The corridor spans two highways, WIS 64 and US 63. The WIS 64 section is 12.2 miles long with varying traffic volumes. The US 63 section is 4.0 miles long. The study team divided the corridors it into three sections. Figure 3.01-1 illustrates the sections along WIS 64 and US 63.

- Section 1 runs for 7.2 miles from WIS 65 to US 63 South/WIS 46.
- Section 2 runs for 5.0 miles from US 63 South/WIS 46 to US 63 North.
- Section 3 travels for another 4.0 miles on US 63 from WIS 64 to County Q.

Note that no needs were identified on WIS 64 from US 63 to County D. No improvements were considered for this portion of the study corridor.

In Section 1, at the westernmost end of the corridor, a portion of WIS 64 is within the City of New Richmond. Approximately 800 feet east of WIS 65, the highway transitions from an urban four-lane to a rural two-lane roadway. Throughout the remainder of Sections 1, 2, and 3, the corridor is a rural two-lane roadway with a 55 mph speed limit.

3.02 ALTERNATIVE IMPROVEMENT TYPES AND PREFERRED ALTERNATIVE

The study team considered multiple types of improvements in each of the three corridor sections. The following sections summarize these different improvement types.

A. No Action

The No Action alternative would not provide improvements to the WIS 64/US 63 corridor other than those associated with routine maintenance. This alternative will not meet existing and anticipated corridor needs.

The No Action Alternative is not the preferred alternative.

B. Transportation Demand Management

Transportation Demand Management (TDM) strategies were considered as an individual alternative, although they could benefit the No Action and Corridor Preservation alternatives as well. TDM seeks more efficient use of transportation systems, typically through one or more of the following:

- Reducing single-occupant vehicle trips through car pooling, ride share services, etc.
- Increasing use of alternate modes of transportation such as bicycle, bus, and rail.

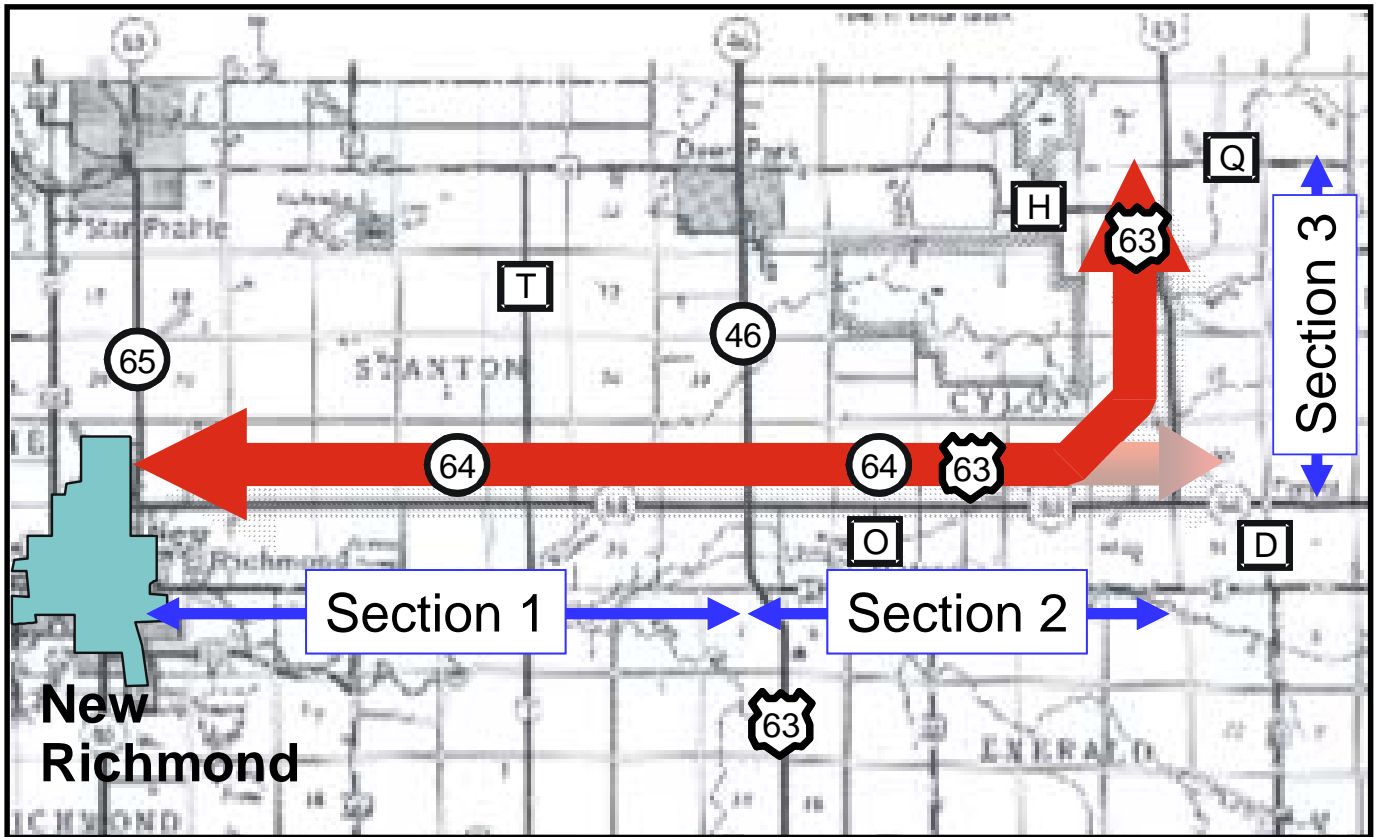


Figure 3.01-1 Study Corridor Sections

- Encouraging travel outside of peak periods.
- Promoting diversity in transportation options available to users.

Specific strategies that are most appropriate for the study corridor include the following:

- Increasing the number of bicycle and pedestrian friendly facilities
- Supporting ride sharing services (car pooling, van pooling, etc.)
- Encouraging teleworking
- Developing regional bus service

WisDOT encourages communities to increase consideration of TDM strategies for existing and future development where appropriate. The study team anticipates, however, that the rural nature of the WIS 64/US 63 corridor combined with the dominance of regional and recreational traffic will limit the feasibility and effectiveness of TDM measures. The dispersed origins and destinations of the corridor's traffic will make it difficult to provide cost-effective transit options. TDM measures are typically less effective for regional traffic and probably are not feasible for most local farm operations. While TDM strategies could extend the two-lane corridor's useful life, the TDM Alternative is not expected to alleviate the operational and safety concerns that will arise in the next 30 years.

The TDM Alternative is not the preferred alternative.

C. Corridor Preservation

The Corridor Preservation alternative would involve cooperation between WisDOT and local agencies in planning for and preserving the corridor needed for staged improvements to address existing and anticipated needs. A description of the improvement stages follows.

▪ Stage 1: Short-Term Improvements

The short-term improvements considered for the project are intended to have minimal impacts while improving safety and driver comfort on WIS 64 and US 63 North. These improvements try to extend the useful life of the corridor as a two-lane facility. The improvements include intersection treatments and the addition of passing lanes. Figure 3.02-1 shows the locations considered for the addition of passing lanes.

Intersection treatments would include adding lanes so through traffic could bypass turning vehicles or conversion to a roundabout. Passing lanes would be added along the corridor to relieve vehicle platooning. Figure 3.02-2 shows the typical cross section of a highway passing lane. According to WisDOT's Facilities Development Manual (FDM), passing lanes are typically a good alternative on corridors that are anticipated to carry 3,500 to 12,000 vehicles per day on average during the design year. While passing lanes can increase driver comfort by relieving vehicle platoons, they do not increase the capacity of a two-lane road.

▪ Stage 2: Expansion to a Four-Lane Facility with At-grade Intersections and Direct Access

The Corridors 2020 Connector classification and Connections 2030 identification of WIS 64 and US 63 North indicates the need to preserve and enhance mobility and safety. If traffic volumes continue to grow as anticipated, this will most likely mean expansion to a four-lane facility for at least part of the study corridor in the long-term. In general, the expansion to a four-lane facility considered by this study uses an on-alignment design for several reasons. There are significant environmental resources within the general area including the Willow River watershed, numerous lakes and ponds, large contiguous wetland habitat, as well as significant prairie habitat remnants and pine plantations. It is clear that creating a new highway corridor off of the existing alignments will have higher environmental impacts than on-alignment expansion. In addition to area resources, continued rural development and key highway connections suggest that off-alignment improvements are less desirable than on-alignment expansion. For these reasons, this study proposes that the existing highway serve as one pair of travel lanes and a second pair would be constructed adjacent to it. The new roadbed would generally be constructed on the side of the existing roadway that produces the fewest impacts.

Figure 3.02-3 shows existing state and federal highway connections and some of the local environmental resources adjacent to the study corridor. On-alignment improvements minimize the need for land acquisition and

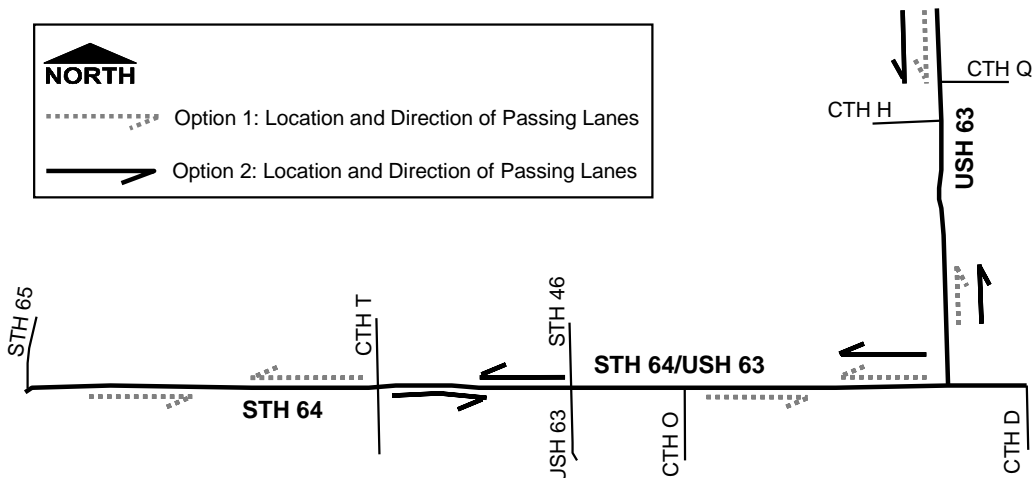
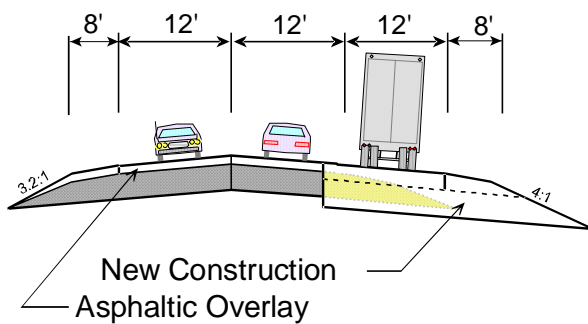


Figure 3.02-1 Passing Lane Locations Considered



- 12' Wide Passing Lane w/ 8' shoulder
- 700' Merge and Approach Taper
- >2500' long Passing Lane
- 7.5" of Asphalt over 15" of Base Course on New Construction portion
- 3.5" Asphaltic Overlay

Figure 3.02-2 Passing Lane Cross Section

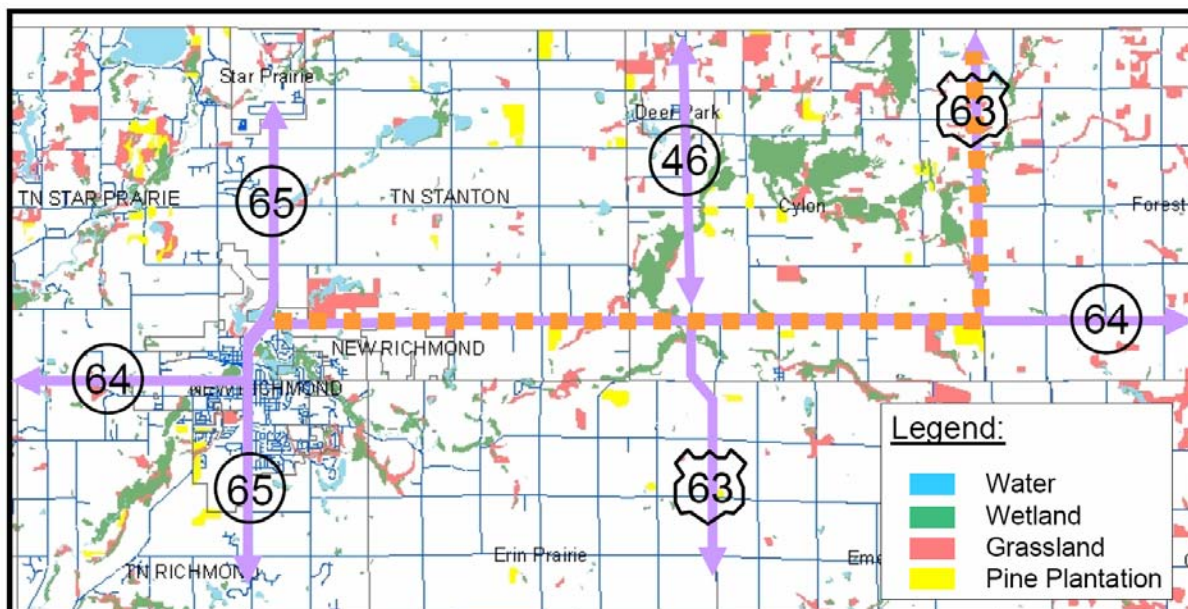


Figure 3.02-3 Local Resources Adjacent to WIS 64 and US 63

will therefore have smaller impacts on historic and archeological sites, open waterways, wetlands and other environmentally sensitive corridors, grassland and prairie habitat remnants, pine plantations, railroad corridors, public lands, and agricultural operations. They will also allow WisDOT to maximize its existing investment in real estate and road material. Some off-alignment improvements have been considered to address specific concerns. These are described in the discussion of each section of the study corridor. Complete realignment of the study corridor is not considered a feasible alternative in this EA.

An improvement to four lanes would likely start with an “expressway-type” facility. Existing intersections would remain at-grade. Driveways and field entrances would be relocated to side roads wherever possible. Private access that could not be relocated would remain as right-in/right-out intersections. Median crossovers would be provided at intersections and approximately every one-half mile between intersections.

- **Stage 3: Upgraded Four-Lane Facility with Grade Separations and No Direct Access**

Stage 3 builds upon the Stage 2 improvements. If traffic operations and safety concerns warrant it, the four-lane “expressway-type” facility would ultimately be functionally upgraded by modifying some at-grade intersections to provide right-in/right-out access only and removing others. Grade separations would be provided periodically to enhance local mobility. Private and commercial access to the highway would be fully removed. Local residences and businesses would be served by a supporting local road network. WisDOT is working with local municipalities to coordinate construction of routes parallel to WIS 64 as land use adjacent to the highway changes.

The Corridor Preservation alternative allows WisDOT to address corridor needs as they develop. Minimizing impacts to existing resources has guided the development of the proposed stages in each section of the corridor. Working with local agencies to preserve the identified future highway corridor will minimize impacts to future resources as land use in the study area changes.

The Corridor Preservation Alternative is the PREFERRED ALTERNATIVE for the study corridor.

3.03 SUMMARY OF PREFERRED ALTERNATIVE

This section of the EA reviews the development of the staged improvements as part of the Corridor Preservation Alternative. While the Corridor Preservation Alternative is the Preferred Alternative, WisDOT needs to identify what type of corridor should be preserved, and where this corridor should be located. Staged improvements allow WisDOT to implement construction as traffic growth and/or safety concerns dictate. The investment made in the early stages must be preserved as later stages are completed. The process generally works backward from the assumed “ultimate” condition (Stage 3 – upgraded four-lane facility) to the lower build options (Stage 2 – expansion to a four-lane facility and Stage 1 – short-term improvements). All three improvement stages were investigated in each section of the study corridors.

A. Section 1–WIS 64 from WIS 65 to US 63 South/WIS 46

- **Stage 1: Short-Term Improvements**

Stage 1 adds passing lanes at two locations within Section 1, one eastbound and one westbound. The eastbound passing lane begins approximately 1,500 feet east of 145th Street and extends about 5,800 feet. The westbound passing lane begins approximately 2,200 feet west of County T and extends about 6,100 feet. Two additional locations were considered between 190th Street and US 63 South/WIS 46. These two were dismissed due to the need for improving the existing bridge over the Willow River and the potential for impacts to the river habitat on the south side of WIS 64.

Intersection improvements are also proposed in Section 1. At County T these include the addition of a left-turn bypass/right-turn lane for westbound WIS 64 and a right-turn flare on the north County T approach. At US 63 South/WIS 46, construction of a modern single-lane roundabout is recommended. The study team also evaluated traffic signals at this location but determined that the roundabout was more cost-effective over its design life. The single lane roundabout also fits better with the long-term plans for this intersection

Stage 1 improvements will increase driver comfort, but they will not be sufficient to eliminate traffic operations concerns. Traffic operations modeling using projections provided by WisDOT Central Office suggests that an at-grade County T intersection under two-way stop sign control will function acceptably through 2032 (with LOS D or better

operations on CTH T). However, operations under traffic volumes forecasted using historic trends fall to LOS F for the northbound and southbound through/left-turn lanes by 2022.

Additionally, Stage 1 improvements may not adequately address safety concerns in Section 1. While adding bypass lanes at key intersections should reduce some types of crashes, unsafe maneuvers tend to increase as traffic operations deteriorate. Head-on collisions also tend to increase on two-lane highways as traffic volumes increase. While Stage 1 improvements will increase driver comfort and safety in the short-term, long-term improvements also need to be considered.

Finally, traffic forecasts exceed the typical upper limit of 12,000 AADT used when planning for passing lanes. The forecasts used in this study based on historic growth trends indicate that WIS 64 may carry more than 12,000 ADT by 2022.

For these reasons, WisDOT feels it is prudent to plan for improvements in addition to those proposed as part of Stage 1.

- Stage 2: Expansion to a Four-Lane Facility with At-Grade Intersections and Direct Access

Stage 2 expands the existing WIS 64 to a four-lane facility with at-grade intersections. Beginning approximately 300 feet east of the WIS 65 intersection, the existing four-lane undivided WIS 64 will be expanded to a four-lane urban highway with a narrow median to minimize impacts to wetland areas associated with Hart Lake. The existing highway will serve as the eastbound lanes, and an additional set of travel lanes will be constructed on the north side of the highway for westbound traffic. Approximately 2000 feet east of WIS 65, the highway alignment will shift to the south to avoid United States Fish and Wildlife Service land located on the north side of the highway. At this point the narrow urban cross-section will be transitioned to a traditional rural four-lane highway section. The traditional rural divided highway section is needed to safely provide the mobility required of a Corridors 2020 Connector Route.

From approximately 400 feet west of 145th Street to 3,500 feet east of 145th Street, a new set of travel lanes will be constructed on the south side of WIS 64 for eastbound traffic. From 5,000 feet east of 145th Street to County T, a new set of travel lanes will be constructed on the north side of the highway for westbound traffic. At County T the highway alignment will shift farther to the north and two new sets of travel lanes will be constructed. This will be done to allow existing WIS 64 to serve as a frontage road providing access to the homes on the south side of the existing highway between County T and the Willow River. Figure 3.03-1 shows the proposed alignment in this area.

Comments received from the public indicated concern regarding the number of crashes involving deer and other animals on WIS 64 between County T and the US 63 South/WIS 46 intersection. It is recommended that the bridges built to cross the Willow River be designed to encourage use as a wildlife crossing. This can be best accomplished by providing a minimum clearance of 12 feet, a natural floor, forest cover within 15 feet of each end, and a level approach with clear visibility of the habitat on the other side. Ideally the end area of the underpass divided by the length will be greater than 0.25. Another crossing is recommended approximately 1000 feet west of the US 63 South/WIS 46 intersection. This could be accomplished with a bridge or box culvert structure. Fencing should be installed between the two crossings to encourage animals to cross at these locations rather than across WIS 64.

Just east of the Willow River, WIS 64 will shift back to the south, and the existing WIS 64 travel lanes will serve westbound traffic while a new set of travel lanes will be built to the south for eastbound traffic to a point 1800 feet east of US 63 South/WIS 46. At this point, the eastbound lanes will shift north and the WIS 64 cross section will narrow in anticipation of the WIS 64/US 63 South/WIS 46 intersection. This intersection will be upgraded from a single-lane roundabout (constructed during Stage 1) to a multilane roundabout.

Stage 2 improvements are expected to alleviate operations and safety concerns initially. How long Stage 2 will provide acceptable operations and safety depends on the actual traffic growth experienced and future land use along the corridor. Traffic operations modeling using projections provided by WisDOT Central Office suggests that an at-grade County T intersection under two-way stop sign control will function acceptably through 2032 (with LOS C or better operations for all opposed movements). However, operations under traffic volumes forecasted using historic trends could fall to LOS E for the northbound left turn by 2022 and are expected to be LOS F for both County T approaches by 2032.

For these reasons, WisDOT feels it is prudent to plan for improvements in addition to those proposed as part of Stage 2.