

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

Stage 3 will upgrade the four-lane WIS 64 corridor by modifying the at-grade intersections. Some will provide right-in/right-out access only while others will be grade-separated providing connections to parallel local roadways and enhancing local mobility. In some locations these two features will work together to provide access via a jug-handle interchange, as shown in Figure 3.03-2. Direct private and commercial access will be fully removed, and local residents and businesses will be served off of adjacent local facilities or relocated if alternate access cannot be provided.

WisDOT is working with local municipalities to encourage construction of a supporting system of parallel local roads north and south of WIS 64 to enhance local access and mobility. As land use adjacent to the study corridor changes, land developers must be asked to design these facilities so that they can be extended from parcel to parcel as the community continues to grow.

On the east side of New Richmond, access at 142nd Street would be removed. Access to the homes on 142nd Street would be provided from the south via a proposed local road. A jug-handle interchange would be provided at 145th Street consisting of an overpass on the existing 145th Street alignment and two right-in/right-out accesses (one for eastbound traffic and one for westbound traffic) located just west of the overpass.

Approximately 1.4 miles east of 145th Street is the location of another jug-handle interchange. This interchange would tie into the New Richmond local street system on a proposed north-south arterial road. Another north-south arterial is proposed just west of 170th Street. An overpass on this arterial combined with right-in/right-out access at the existing 170th Street intersection would create the third jug-handle interchange in Section 1.

The County T intersection would become an underpass in Stage 3. Right-in/Right-out accesses would be provided just west of County T to form the fourth and final jug-handle interchange in Section 1. Access would be removed at the 180th and 190th Street intersections.

The WIS 64/US 63 South/WIS 46 intersection would remain a multilane roundabout. Interchange configurations were also considered at the intersection. Two Corridors 2020 Connectors converge at this location, so ideally it would be served by a system interchange allowing free-flow movements on each of the Connector Routes. The traffic volumes, while expected to drive the need for four-lane facilities on WIS 64 and US 63, do not justify the extreme impacts anticipated as a result of the construction of a system interchange. There are large, contiguous wetlands in the northwest, southwest, and southeast quadrants of the intersection, riparian habitat to the south associated with the South Fork of the Willow River, a cemetery on the east side of the intersection, and potential hazardous material sites in each quadrant.

Since a system interchange is not feasible, a standard diamond interchange was also considered. Figure 3.03-3 shows the locations investigated:

1. Directly over the intersection.
2. On US 63 South south of the intersection.
3. On WIS 46 north of the intersection.
4. On WIS 64/US 63 east of the intersection.
5. Off-alignment southeast of the intersection.

Location 1 proposed a diamond interchange directly over the existing intersection. The advantage to this placement is that no realignment is required of WIS 64, US 63, or WIS 46. There would be impacts to wetland habitat in the northwest and southwest quadrants, impacts to all four hazardous material sites, and three commercial relocations.

Location 2 proposed a diamond interchange on US 63 South just south of the existing intersection. This location reduces the commercial relocations required from three to one, but it does require realignment of WIS 64. There would be impacts to wetland and riparian habitat in the southwest and southeast quadrants, impacts to two hazardous material sites, and access to the remaining commercial properties north of the existing intersection would need to be relocated to provide adequate spacing from the westbound ramp terminal.

Location 3 proposed a diamond interchange on WIS 46 north of the existing intersection. This location avoids commercial relocations and hazardous material sites, but it requires a significant realignment of WIS 64. There would also be impacts to wetland habitat in the northwest quadrant and access to the existing commercial properties would

need to be altered to provide adequate spacing from the eastbound ramp's terminal.

Location 4 proposed a diamond interchange on WIS 64 east of the existing intersection. This location avoids commercial relocations and hazardous material sites, but it does require realignment of US 63 South and WIS 46. There would be impacts to wetland and riparian habitat in the southeast quadrant because of a new railroad and river crossing to the south on US 63. Access to the existing commercial properties would be from local roads rather than directly from WIS 64 and would therefore be less direct.

Location 5 proposed an off-alignment diamond interchange southeast of the existing intersection. This location avoids commercial relocations and hazardous material sites, but it does require realignment of US 63 South and WIS 46. There would be impacts to wetland and riparian habitat in the southeast quadrant because of the interchange and the new railroad and river crossing to the south on US 63. Access to the existing commercial properties would be from local roads rather than directly from WIS 64 and would therefore be less direct.

In addition to the significant impacts associated with each of the diamond interchange locations considered, traffic patterns at the intersection do not lend themselves to being served by a diamond interchange. There are nearly as many vehicles using US 63 South as there are using WIS 64 to the west of the intersection. The diamond interchange configuration would favor WIS 64 through traffic at the expense of US 63 through traffic. The multilane roundabout serves the traffic patterns more equally and serves existing land use better than a grade-separated interchange. Traffic operations modeling indicates that the roundabout at this location can serve the projected traffic volumes through 2032 and beyond with minimal impacts at a fraction of the cost to construct and maintain an interchange.

Stage 3 is expected to provide adequate traffic operations and safety throughout Section 1 for the foreseeable future.

Stage 3 is the ultimate proposed stage in Section 1.

B. Section 2–WIS 64/US 63 from US 63 South/WIS 46 to US 63 North

▪ Stage 1: Short-Term Improvements

Stage 1 adds passing lanes at two locations, one eastbound and one westbound. The eastbound passing lane begins approximately 2,400 feet east of County O and extends about 5,700 feet. The westbound passing lane begins approximately 2,200 feet west of US 63 North and extends about 4,500 feet.

Intersection improvements are also proposed in Section 2 at the WIS 64/US 63 North intersection. About 75 percent of the vehicles that travel through this intersection are using US 63 and, therefore, are heading eastbound to northbound or southbound to westbound. These traffic patterns indicate the need to consider serving the majority of the traffic by reconfiguring the intersection. Stage 1 would realign the highway with a sweeping curve to do so. Figure 3.03-4 shows this realignment.

The study team considered two design speeds when designing the sweeping curve realignment, 60 mph and 70 mph. Impacts of the two alternatives were comparable. Discussion with the owner of the property located in the northwest quadrant of the intersection indicated that he would prefer the 70 mph design so more land was available after construction that could be split from his existing property. Additionally, WisDOT preferred the 70 mph design speed because it provides better stopping sight distance at the intersection and will have fewer run-off-the-road crashes. For these reasons, WisDOT's preferred intersection design uses the 70 mph design speed.

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 US 63 North intersection under two-way stop sign control will function acceptably through 2032 (with LOS C or better operations on the east WIS 64 approach). Operations under traffic volumes forecasted using historic trends, however, fall to LOS F for the westbound left-turn movement by 2032.

Stage 1 improvements may not adequately address safety concerns in Section 2. While reconfiguring the US 63 North intersection should reduce some types of crashes, unsafe maneuvers tend to increase as traffic operations deteriorate. Additionally, head-on collisions tend to increase on two-lane highways as traffic volumes increase.

Finally, traffic forecasts exceed the typical upper limit of 12,000 AADT used when planning for passing lanes. The

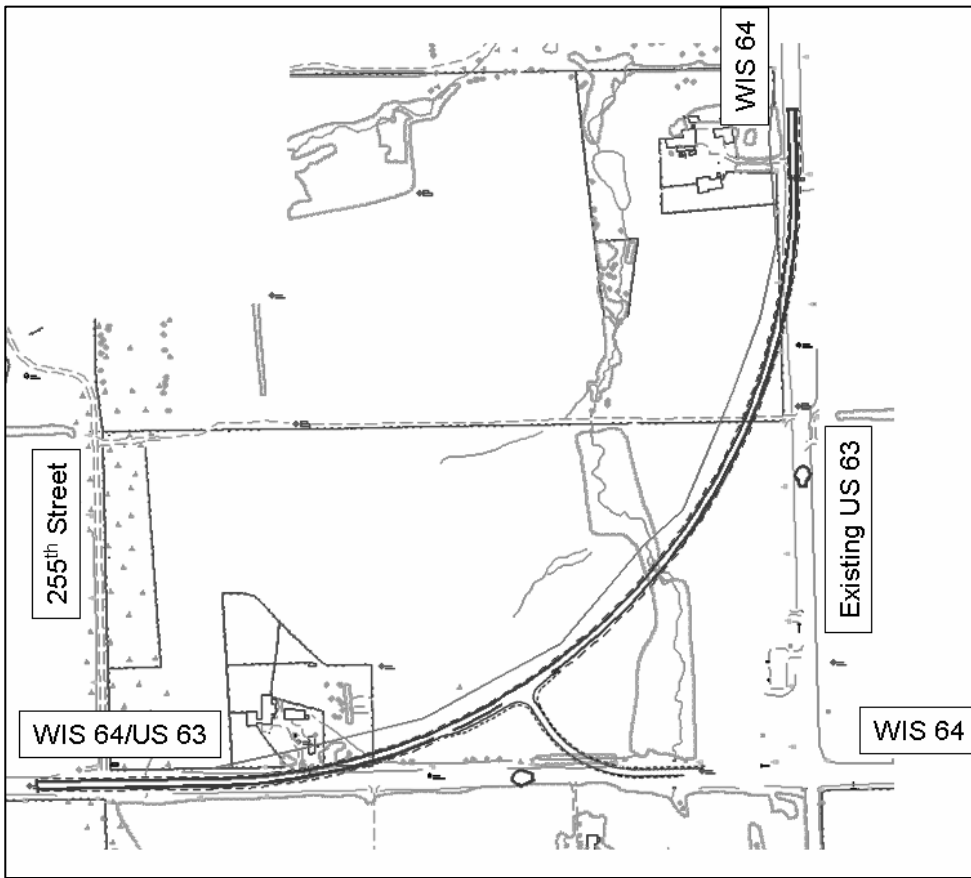


Figure 3.03-4 Sweeping Curve Realignment at US 63 North

forecasts used in this study based on historic growth trends indicate that WIS 64 may carry more than 12,000 ADT by 2032.

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/US 63 to a four-lane facility with at-grade intersections. Beginning at the multilane roundabout at the WIS 64/US 63 South/WIS 46 intersection and traveling east, the highway would begin as a four-lane section with a narrow median. Approximately 600 feet east of the roundabout, the highway would begin simultaneously shifting south and transitioning to a standard rural divided four-lane cross section with a full (60-foot) median. Adjacent to the Cylon Church property, the westbound travel lanes would lie just to the south of the existing highway to avoid impacts to the cemetery located on the west side of the church grounds. Approximately 500 feet east of the church, the westbound lanes would be centered over the existing highway with new travel lanes constructed on the south side for eastbound traffic. The additional travel lanes would remain on the south side of existing WIS 64 for the remainder of Section 2.

Stage 2 improvements are expected to alleviate operations and safety concerns through 2032, except at the US 63 North intersection. Traffic operations modeling using projections based on historic trends suggest that an at-grade US 63 North intersection under one-way stop sign control will function at LOS D for the east approach. In particular, the westbound left-turn movement is expected to operate near the LOS E threshold.

Stage 2 is the ultimate proposed stage in Section 2, except at the US 63 North intersection.

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

Stage 3 would upgrade the four-lane WIS 64 corridor by modifying the at-grade intersections and eliminating direct access. All of Section 2 was investigated for Stage 3 improvements. However, development pressure is expected to be far less in Section 2 than adjacent to New Richmond in Section 1. Additionally, existing land use policies of the Towns of Cylon and Forest favor continued rural landscapes and agricultural land uses.

At the WIS 64/US 63 North intersection, the study team investigated expanding the intersection to an interchange. A standard diamond interchange, a “trumpet”-type system interchange, and two jug-handle interchanges were considered. Figure 3.03-5 shows the interchanges. WisDOT does not believe that the projected traffic volumes warrant the additional impacts to adjacent resources and additional construction costs associated with the “trumpet” system interchange or the diamond interchange.

Of the jug-handle interchanges considered, WisDOT prefers Alternative “B” for several reasons. First, Alternative “B” uses more existing roads. Second, Alternative “B” severs less property. Finally, Alternative “B” is expected to be less expensive to construct.

WisDOT believes it is likely an interchange will be needed at the WIS 64/US 63 North intersection in the future although perhaps not until beyond this project’s planning horizon (2032). This future interchange must be considered as land uses change adjacent to the US 63 North intersection.

Stage 3 is the ultimate proposed stage in Section 2 at the US 63 North intersection.

C. Section 3—US 63 North from WIS 64 to County Q

- Stage 1: Short-Term Improvements

The study team considered passing lanes at two locations as part of Stage 1, one northbound and one southbound. The northbound passing lane began approximately 4,400 feet north of WIS 64 and about 3,500 feet in length. The southbound passing lane actually lies north of the study limits, but was evaluated anyway to provide a fair assessment of the potential for Stage 1 improvements to address the highway’s needs. The southbound passing lane was approximately 700 feet south of Polk-St. Croix Road and about 3,300 feet in length. Because of the significant concentration of sensitive river and wetland habitat associated with the Willow River in Section 3, WisDOT dismissed

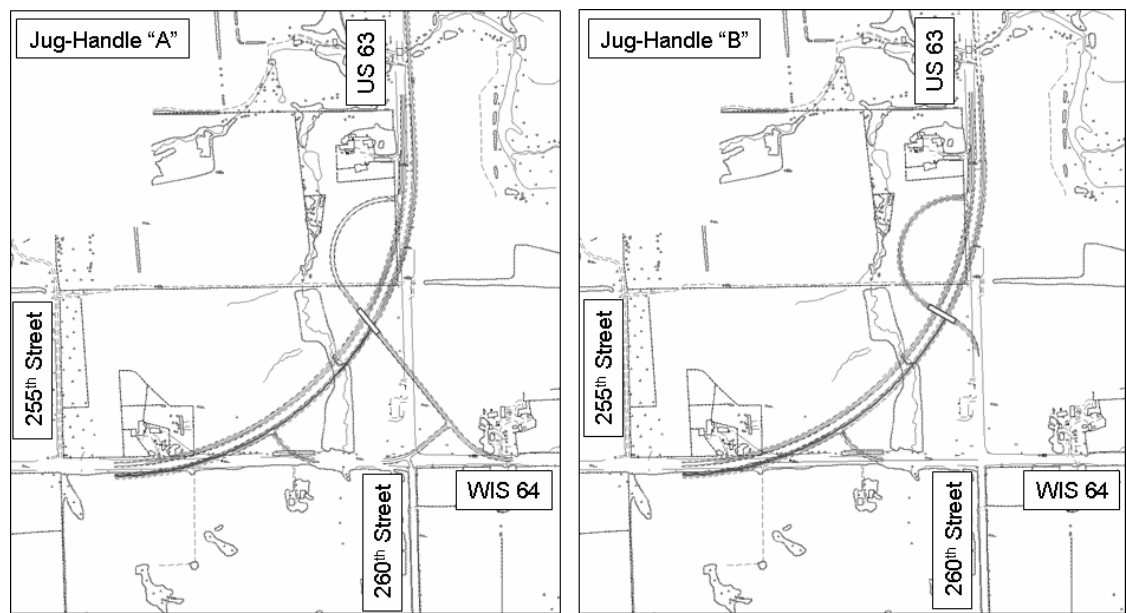
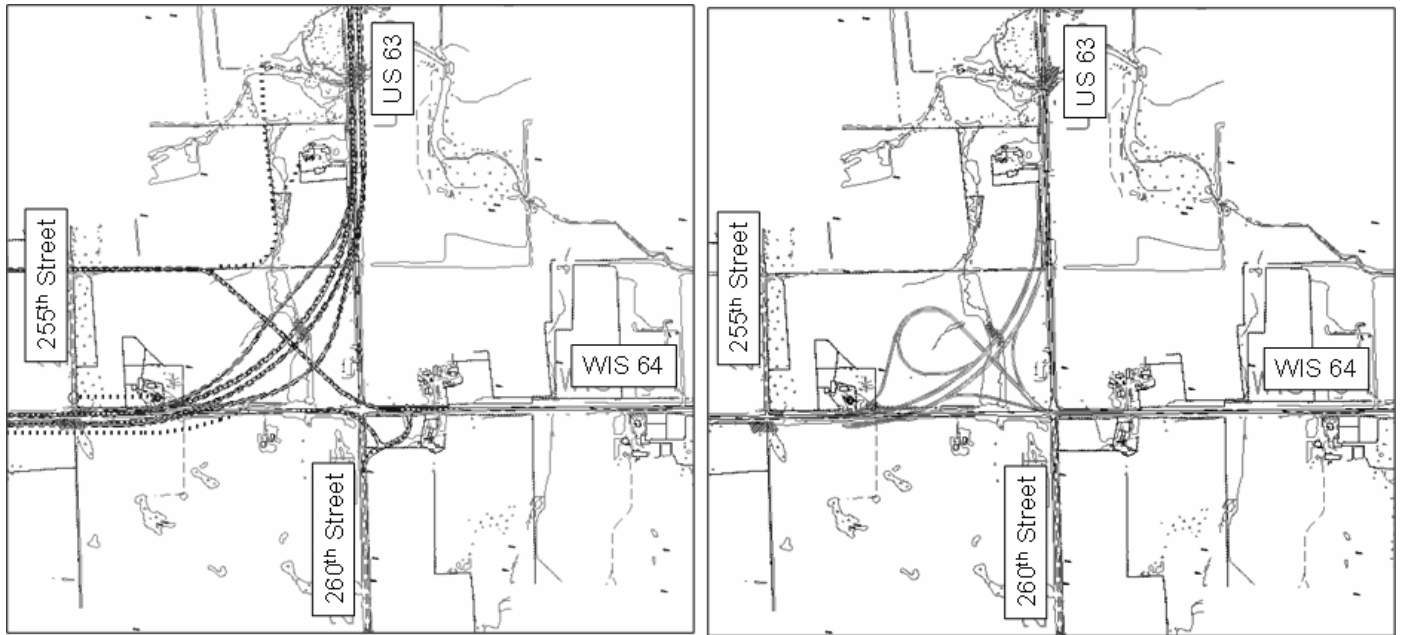


Figure 3.03-5 Interchange Alternatives at US 63 North

the passing lanes from consideration. Locations for passing lanes on US 63 in Polk County will be investigated instead.

Intersection improvements are proposed as part of Stage 1 in Section 3. At the US 63/County Q intersection and the US 63/County H intersection, the improvements include the addition of a left-turn bypass lane and an exclusive right-turn lane. These improvements will make the intersections safer as traffic volumes on US 63 continue to increase.

Stage 1 improvements will increase driver comfort, but they may not be sufficient to eliminate LOS D operations on US 63 if the 2032 Historic Growth projections are fully realized. However, even the higher traffic projections forecast volumes at the low end of the two-lane to four-lane threshold.

Stage 1 improvements should improve safety on a section of the study corridor that does not exhibit existing safety concerns. At this time, WisDOT does not anticipate the need for a four-lane facility in Section 3.

Stage 1 is the ultimate proposed stage in Section 3.

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

Stage 2 improvements were evaluated in Section 3. Besides the sweeping curve realignment at the WIS 64/US 63 North/260th Street intersection, the four-lane expansion of US 63 stayed on-alignment. Section 3 contains the largest amount of environmentally sensitive habitat directly adjacent to the highway of any of the study sections. The conceptual design of the four-lane highway included a narrow cross section with a center barrier instead of a traditional median through the locations that contain the most sensitive habitat. Impacts to the riparian and wetland habitats, however, were still anticipated to be high. Additionally, the center barrier makes it more difficult to provide local access.

The scope of the probable impacts to sensitive habitat combined with forecasted volumes at the low end of the two-lane to four-lane conversion threshold were the basis for WisDOT's decision to not plan for Stage 2 or Stage 3 improvements in Section 3.

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

Stage 3 improvements were investigated in Section 3. Stage 3 would include an interchange combining the County H and County Q intersections. For similar reasons as those listed under the Stage 2 discussion, Stage 3 improvements are not anticipated at this time.

3.04 SUMMARY OF PROPOSED STAGES

Table 3.04-1 shows a summary of the preferred corridor improvement plan. Note that stages preceding the final stage proposed would likely be constructed prior to construction of the final stage. Each stage would be built as traffic volumes and operations dictate.

Location	Stage 1	Stage 2	Stage 3
Section 1	Yes	Yes	Yes
Section 2	Yes	Yes	No *
Section 3	Yes	No	No
* In Section 2, Stage 3 is the ultimate stage at the WIS 64/US 64 North/260th Street intersection			

Table 3.04-1 Proposed Corridor Improvement Plan