

SUMMARY OF PROJECT PURPOSE AND NEED

The Wisconsin Department of Transportation (WisDOT) proposes to study the need for improvements to regional mobility of the US 14/WIS 11 highway system in and around the Janesville area. Transportation needs brought forward by the public, local government and the Department will be compiled and investigated during the course of the study. A technical committee and an advisory committee are representing these groups. These groups will assist WisDOT in formulating project concepts and alternatives. Methods to avoid and minimize effects to natural and man-made resources identified during the study will be investigated and compared. Impacts to resources that cannot be avoided will be mitigated when possible.

A broad range of alternatives will be developed and presented to the public. From this, a range of alternatives will be carried forward for detailed study. Potential improvement alternatives may range from doing nothing, improving the existing alignment, building roadways on new alignments, mapping future corridors, or some combination of these.

The approximate study area is from County H west of Janesville to the US 14/I-43 interchange near Darien (See Figure 1 on page 5 for a map of the study area). WIS 11 and the combined portions of US 14 and WIS 11 are designated a connector route in the State's Corridors 2020 highway plan. The connector routes are a system of two- and four-lane highways that connect key communities and regional economic centers to the backbone routes. The backbone routes are key multi-lane routes that connect major population and economic centers and provide economic links to national and international markets. WIS 11 and the combined portions of US 14 and WIS 11 are also part of the National Highway System.

PROJECT PURPOSE

The city of Janesville is aggressively pursuing both commercial/industrial and residential growth. Commercial development is continuing on the northeast side of Janesville, off of US 14, while most industrial development is planned for the city's south side. Most of the residential growth is occurring on the northeast side of the city. However, there is also some residential development planned for the city's west side. Rising traffic volumes due to this recent and planned future growth threaten the ability of the existing local and regional transportation network to safely and efficiently provide for both local and regional traffic needs. The study of long range improvements is an appropriate way to determine the best methods to maintain the functionality of the network and protect the large public investment in the existing infrastructure. The city's long range transportation plan recommends studying the potential for a 4-lane connection east to I-43, as well as a connection between US 14 and WIS 11 on the city's west side.

The US 14/WIS 11 corridor is designated as a "connector" route under WisDOT's *Corridors 2020 Plan*, which was developed to provide a network of high quality highways linking the state's economic centers. Connector highways are intended to be high-quality highways directly linking significant economic and tourism centers to the Corridors 2020 backbone system.

The purpose of the study is to evaluate alternatives that will:

- **Provide improved system linkage.** WIS 11 is an important east-west route across southern Wisconsin, linking the Mississippi River port city of Dubuque, Iowa to southeastern Wisconsin. It is heavily used by trucks transporting agricultural commodities and supplies. To the east of Janesville US 14/WIS 11 extends to I-43 and beyond – ending in Racine and Milwaukee, which are heavy industrial ports on Lake Michigan.

The US 14/WIS 11 corridor must accommodate both local and regional traffic. US 14 is a national route extending from Yellowstone National Park to Chicago. In the study area, US 14 is an important regional connection between northern Illinois, Janesville, Madison, and Wisconsin Dells. In addition, US 14 serves as a reliever route for I-39/90 from Janesville to Madison (See Figure 2 on page 6 and Figure 3 on page 7 for regional and statewide overviews).

Improving this segment of US 14/WIS 11 is important to the economy of the study area. The corridor in the study area serves many local trips and is becoming congested. Several multi-lane, signalized intersections are present

slowing traffic to below posted speeds. Crash rates are also on the rise. Improving system linkage would improve mobility for regional traffic, while increasing efficiency and safety for local traffic.

- **Provide alternate routes.** Alternate routes for other roadways provide other ways to go when the highway does not function as it's supposed to. WisDOT's incident management plan for Rock County currently utilizes portions of both US 14 and WIS 11. They provide alternate routes in the event an incident causes delays on the interstate. Alternate routes are also needed in the event of a mass evacuation. The Department of Military Affairs prepared a Review of Wisconsin's Emergency Preparedness Plans in October 2005. This report recommends identifying main evacuation routes and alternate routes for major population centers throughout the state, including Janesville.
- **Accommodate existing and future traffic volumes in a safe and efficient manner.** Traffic volumes are expected to increase by an average of 122% along the study corridor by the year 2035. In addition, crash rates along the urban segments of US 14 exceed statewide averages by an average of 42%.
- **Provide a safe transportation facility for all users including oversize and slow-moving vehicles.** The route serves as a major regional connector with a high volume of truck traffic. Trucks make up 13% of the traffic, while an average rural state trunk highway only has 5% trucks. Because of the close proximity of intensive farming operations to the highly urbanized area around Janesville, a high volume of over-sized and slow moving farm equipment uses US 14/WIS 11 to access fields and move supplies and products to and from markets.
- **Identify and enhance nodes of multi-modal opportunities.** Bike paths, intercity bus service, regional bus service, and railroads are located within the project boundaries. WisDOT's "Park and Ride System Plan" also suggests two park and ride lots for the Janesville area. Transportation System Management (TSM) techniques can be applied once transportation choices contained in future plans are identified and located. The purpose of the work is to provide seamless access to transportation choices to a wider segment of the general public. Transportation alternatives for those unable to own or operate their own vehicles, for a variety of financial, health, or other reasons, will be investigated. Improving and managing connections between different transportation services makes them convenient and encourages their use. Economic factors and urban congestion are beginning to increase public interest in alternate transportation choices within the study area.
- **Provide a transportation facility that is compatible with local land use and community planning objectives.** Most of the communities in the study area have land use plans. For the townships, these plans focus on the preservation of agricultural lands, and very limited development. A good transportation network facilitates access to fields, and provides for the movement of goods and services vital to the agricultural economy of the study area.

PROJECT NEED

The project has two distinct segments which have different needs for improvement.

The east segment of the study area is seeing increasing traffic volumes and congestion, which are reducing the level of service on the highway. This problem is compounded by the large volume of trucks using the highway, as well as the need for the highway to serve agricultural needs in the area.

The west project segment has inadequate system linkage for a state and federal highway. Currently, regional traffic must travel through areas of heavy commercial development along US 14 on the north side of Janesville. Local plans call for the expansion of commercial and residential development along the corridor in this area. Incident management plans also call for using this section of roadway as a detour for heavy interstate traffic through the Janesville area. The large volume of local traffic using the roadway has a negative impact on the operations and safety of US 14 as a regional route. In addition, traffic using WIS 11 must currently use a portion of I-39/90 in the city of Janesville, which decreases the operational capabilities and safety of both WIS 11 and I-39/90.

The segment of WIS 11 from US 51 to I-39/90 was recently reconstructed as a four-lane segment. However, numerous at grade access points remain, which reduce the level of service on the roadway, and lead to increased safety concerns. This document will evaluate potential alternatives for reducing access on this portion of the highway.

While the needs differ between the east and west segment, the overall need for this corridor study is based on a combination of factors:

- **System linkage and route importance.** There are inadequate system connections to disperse local traffic congestion and provide alternate routes for highway construction, local or regional emergencies, incident management, and evacuation planning. Driver expectations of the designation and use of the highways as a part of the National Highway System and a Corridors 2020 Connector route are not being met. In addition, portions of US 14 and WIS 11 serve as alternate routes in the event of a closure or incident which causes significant delays on I-39/90.
- **Existing and future travel demand.** Higher traffic volumes and accompanying slower speeds and lengthening signal times lead to longer travel times in the study area. Higher traffic volumes and slower speeds also degrade the local air quality.
- **Safety.** System safety is degrading and crash rates are increasing. There is also inadequate access control through the study area, which contributes to decreased safety. Several segments currently have crash rates that exceed the statewide average.
- **Highway Capacity.** Increased traffic volumes and congestion are decreasing Level of Service below operational standards.
- **Socio Economic Demands.** Increases in population and development in the study area are contributing to increased traffic volumes and congestion. Multi-modal nodes of transportation can be enhanced, encouraging use of alternative forms of transportation and providing opportunities for those unable to operate motor vehicles on their own. The public and local governments have requested improvements to the highway system in the study area.

Conclusion

The existing conditions, system linkage, and future travel demand and traffic operations will impact US 14/WIS 11 in the study area. US 14/WIS 11 in the study area does not serve the purposes of the State and National Highway System for which it is intended.

US 14 and WIS 11 are important links in the State and National Highway Systems. Their primary purpose is to facilitate commercial, recreational and business travel for the entire region and accommodate the movement of goods and people through the region. WIS 11 and the combined portions of US 14/WIS 11 are classified as a Corridors 2020 “connector” route. Connector routes need to facilitate the mobility of through-traveling traffic. Poor system linkage, traffic congestion, existing and planned land use, and safety concerns prevent the highway from functioning as needed.

The functionality of the western segment of the study area is negatively impacted by poor system linkage. Vehicles traveling through the study area on US 14 must pass through an area of heavy commercial development on the north side of Janesville. Large volumes of local traffic in this area lead to increased congestion, reduced levels of service, and increased safety concerns. An origin-destination study shows that approximately 25% of the traffic on this segment of US 14 goes through Janesville, but does not have a destination in Janesville. In addition, traffic on WIS 11 must currently use I-39/90 to pass through the area. Merging and diverging STH 11 traffic reduces the safety on this segment of the interstate, while the added traffic volume increases congestion.

The eastern segment of the study area already has issues with congestions and decreasing levels of service. Traffic projections show this situation will worsen. US 14/WIS 11 will experience increasing levels of traffic, lower levels of service, and safety problems, indicating the need for improvements.

While the needs differ between the east and west segment, the overall need for this corridor study is based on a combination of factors:

- System linkage and route importance
- Existing and future travel demand
- Safety

- Highway Capacity
- Socio Economic Demands

Figure 1: Study Area Overview

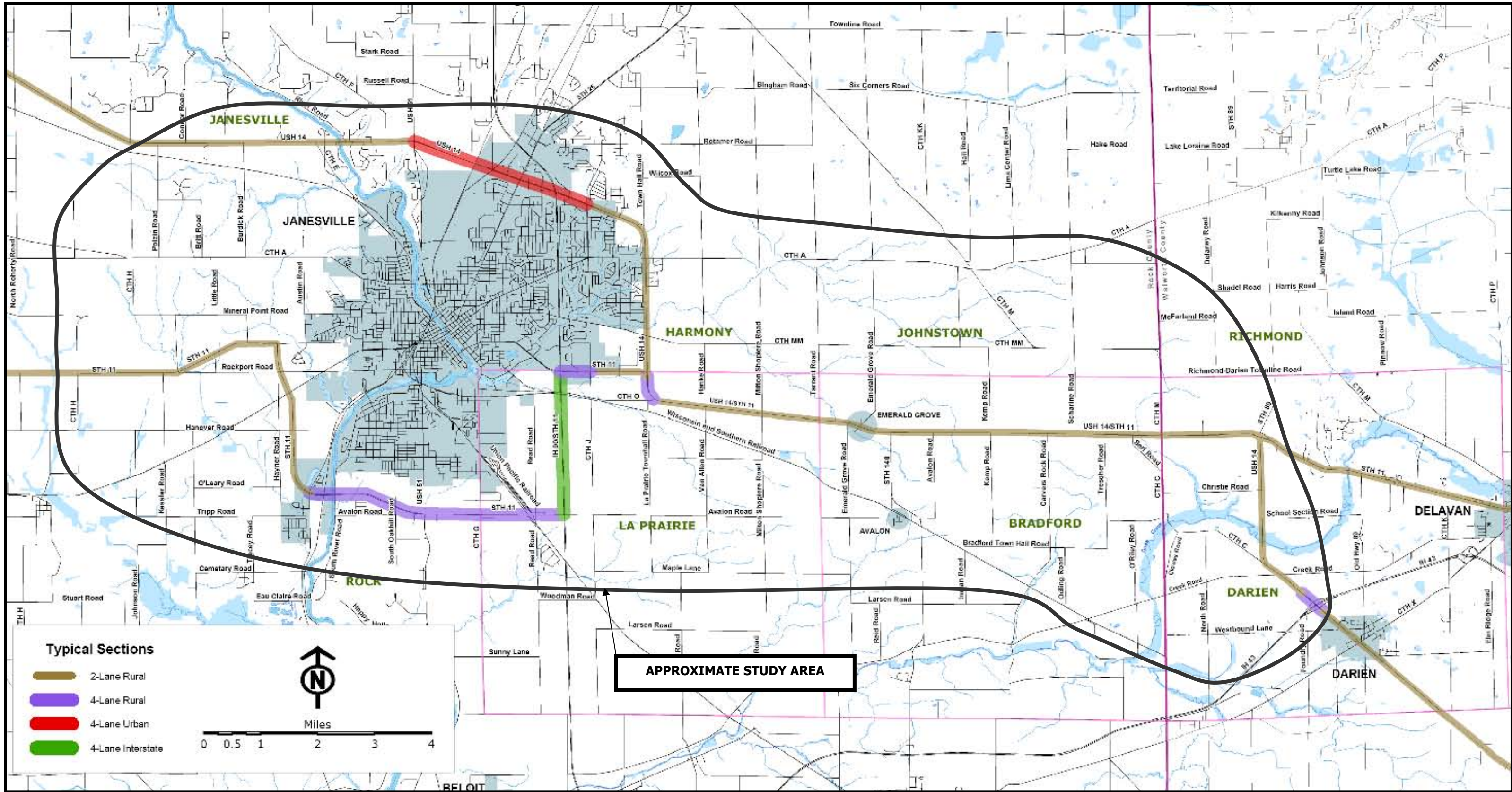


Figure 2: Regional Overview

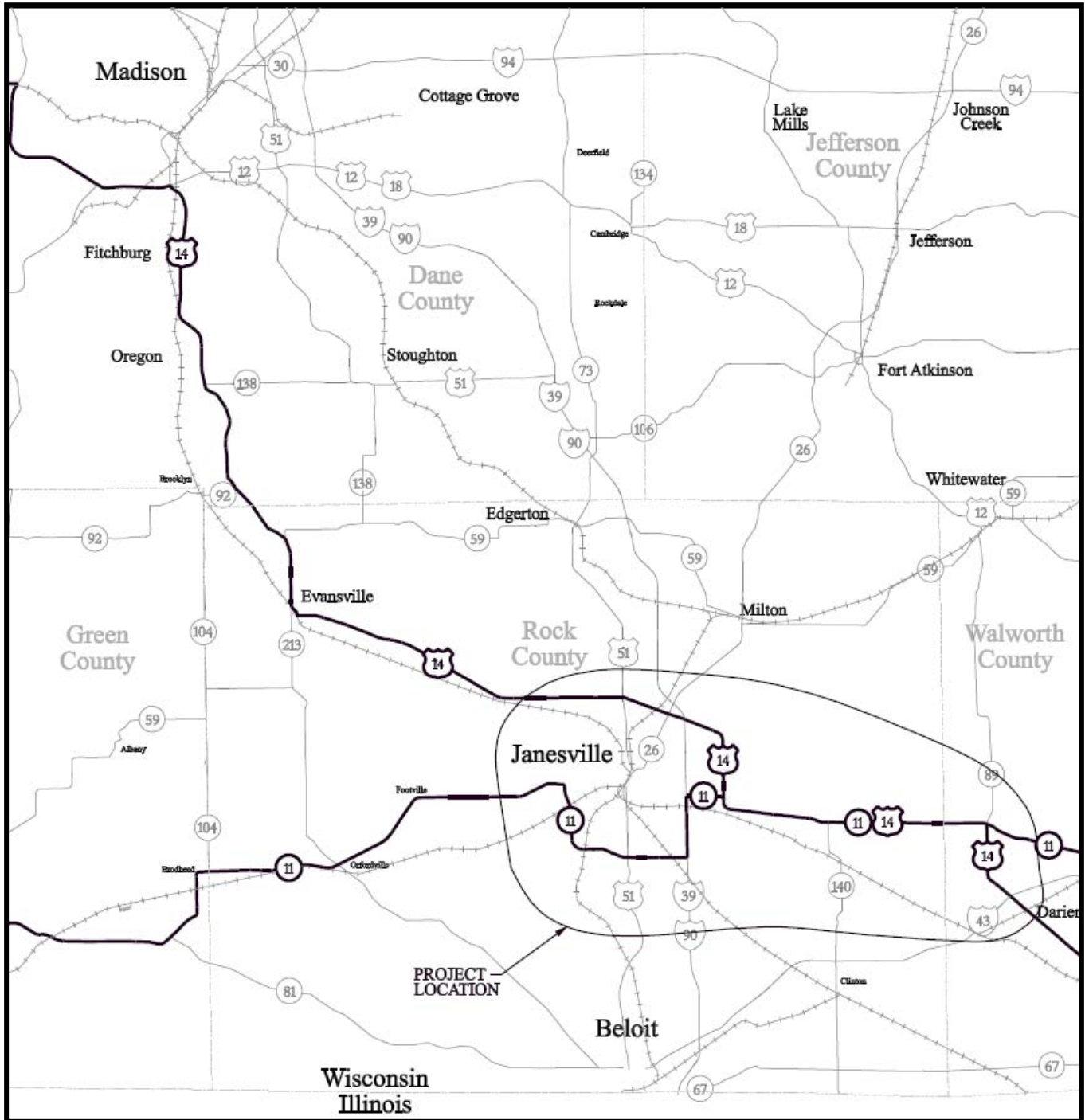


Figure 3: Statewide Overview

