Environmental Report (ER) and Environmental Assessment (EA) Template

2-08-2023 Wisconsin Department of Transportation

Project Summary

Project ID 5410-08-01	**Project Termini** WIS 30 (south end) to I-39/90/94 (north end), approximately 5.5 miles	**Funding Sources (check all that apply)** ☒ Federal ☒ State ☐ Local
Construction ID Not yet assigned		**Estimated Total Project Cost (design, construction, real estate, etc.)** **Include delivery cost in Year of Expenditure (YOE).** $218,000,000
Route Designation *(if applicable)* US 51	**Township and/or Nearest Municipality** City of Madison; Town of Burke	
National Highway System (NHS) Route ☒ Yes ☐ No		**Real Estate Acquisition Portion of Estimated Cost (YOE)** $10,500,000
County Dane	**Section / Township / Range** T07N R10E S04 T08N R10E S08, 09, 16, 17, 20, 21, 28, 29, 32, 33	**Utility Relocation Portion of Estimated Cost (YOE)** $6,800,000
Project Title US 51 (Stoughton Road) North Study		**Number of Relocations:** Residential 0 Business 3 Other 3 (billboards)
Bridge Number(s) *(if applicable)* B-31-389	**Environmental process Start Date:** For an ER, indicate the date of the first tribal notification letter. For an EA, indicate the date the Process Initiation Letter (PIL) was accepted by FHWA: June 3, 2024 See **Appendix A: Process Initiation Letter**	

Right of Way Acquisition	**Acres**
Fee	9.27
Temporary Limited Easement (TLE)	10.65
Permanent Limited Easement (PLE)	0
Highway Easement (HE)	0

Functional Classification of Existing Route (FDM 4-1-10 & 4-1-15)	**Urban**	**Rural**
Freeway/Expressway	☐	☐
Principal Arterial	☒	☐
Minor Arterial	☐	☐
Major Collector	☐	☐
Minor Collector	☐	☐
Local	☐	☐
No Functional Class	☐	☐
Other	☐	☐

WisDOT Project Improvement Strategy and Type (FDM 3-5 & FDM 11-1 attachment 10.1) **Improvement Strategy – Improvement Type**	
Perpetuation – Preservation/Restoration	☐
Perpetuation – Resurfacing	☐
Perpetuation – Pavement Replacement	☐
Perpetuation – Bridge Rehabilitation	☐
Perpetuation – Bridge Preventative	☐
Rehabilitation – Preservation/Restoration	☐
Rehabilitation – Resurfacing	☐
Rehabilitation – Pavement Replacement	☐
Rehabilitation – Reconstruction	☐
Rehabilitation – Bridge Rehabilitation	☐
Rehabilitation – Bridge Replacement	☐
Modernization - Expansion	☐
Preventative Maintenance	☐
State Majors	☒
Other – Describe:	☐

☐ FHWA Draft Categorical Exclusion (CE)/WisDOT Draft Environmental Report (ER). **No significant impacts indicated by initial assessment.**
☒ FHWA/WisDOT Environmental Assessment (EA). **No significant impacts indicated by initial assessment.**

Signed by: Dan Schrum, Project Manager 2E26F0F27AD84CB... — 12/6/2024
(Signature – Dan Schrum, Project Manager, SRF Consulting Group) (Date – m/d/yy)

Signed by: Barry Paye, Director, Bureau of Technical Service 3F13953827A84D7...
(Signature – Barry Paye, Director, Bureau of Technical Services) (Date – m/d/yy)

Signed by: Jeff Berens, Project Manager WisDOT 42311AD883044CD... — 12/6/2024
(Signature, Jeff Berens, Project Manager WisDOT) (Date – m/d/yy)
☒ Region ☐ Aeronautics ☐ Railroads & Harbors

Signed by: Lisa Hemesath, Environmental Protection Specialist, FHW 350B49535D004A1...
(Signature – Lisa Hemesath, Environmental Protection Specialist, FHWA) (Date – m/d/yy)
☒ FHWA ☐ FAA ☐ FTA ☐ FRA

A Public Hearing was not required. After reviewing and addressing substantive public comments and coordinating with other agencies, it is determined this action:
☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final CE/Final ER.
☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final EA/Finding of No Significant Impact (FONSI).
☐ **Has potential to significantly affect** the quality of the human environment. Draft Environmental Impact Statement (EIS) required.

A Public Hearing was held, and after reviewing and addressing substantive public comments, updating the Draft CE/ER or EA and coordinating with other agencies, it is determined this action*:
☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final CE/Final ER.
☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final EA/Finding of No Significant Impact (FONSI).
☐ **Has potential to significantly affect** the quality of the human environment. Draft Environmental Impact Statement (EIS) required.

(Print – Preparer Name, Title, Company/Organization) (Date – m/d/yy)

(Signature – Director, Bureau of Technical Services) (Date – m/d/yy)

(Signature, Title) (Date – m/d/yy)
☐ Region ☐ Aeronautics ☐ Railroads & Harbors

(Signature, Title) (Date – m/d/yy)
☐ FHWA ☐ FAA ☐ FTA ☐ FRA

*Include Environmental Document Availability and Hearing Summary following this page.

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FACTOR SHEETS

MAPS

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2. ABBREVIATIONS AND ACRONYMS

AADT – Annual average daily traffic
AASHTO - American Association of State Highway and Transportation Officials
ACM – Asbestos-containing material
ACS – American Community Survey
ACHP – Advisory Council on Historic Preservation
ADA – Americans with Disabilities Act
AIS – Agricultural impact statement
APE – Area of potential effect
AWDT – Average weekday daily traffic
BAPP – Backlog Advanceable Pilot Program
BIPOC – Black, Indigenous and Persons of Color
BMP – Best management practices
BOA – WisDOT Bureau of Aeronautics
BOD – Biological oxygen demand
BRP – Business Replacement Payment
BRT – Bus rapid transit
BTS – WisDOT Bureau of Technical Services
CAC — Citizens Advisory Committee
CDMCT – Corridor Design Management and Controls Team
CE – Categorical exclusion
CFR – Code of Federal Regulations
C/L – Centerline
CO – Central office
CRP – Conceptual Relocation Plan
CSD – Community Sensitive Design
DATCP – Department of Agriculture, Trade and Consumer Protection
dBA – Decibels (unit of measure)
DCRA – Dane County Regional Airport
DDI – Diverging diamond interchange
DHV – Design hourly volume
DMV – Department of Motor Vehicles
DO – Dissolved oxygen
EA - Environmental assessment
EB – Eastbound
ECP – Erosion Control Plan
ECIP – Erosion Control Implementation Plan
EIS - Environmental Impact Statement
EJ – Environmental justice
EMCC – East Madison Community Center
EPA – United States Environmental Protection Agency
EPA – Equity Priority Areas
EPDS – WisDOT Environmental Process and Documentation Section
EPFO – Eastern Prairie Fringed Orchid
ER – Environmental Report
ERR – Environmental Resources Review
ERW – Exceptional resource water
ESA – Endangered Species Act
FAA – Federal Aviation Administration
FCPC – Forest County Potawatomi Community
FDM – WisDOT Facilities Development Manual
FEMA – Federal Emergency Management Agency
FHWA – Federal Highway Administration
FIRM – Flood Insurance Rate Map
FIS – Flood Insurance Study
FONSI – Finding of no significant impact
FRA – Federal Railroad Administration
FTA – Federal Transit Administration
GHG – Greenhouse gas
GP – General Permit
HHS - U.S. Department of Health and Human Services
HCM – Highway Capacity Manual
HE – Highway Easement
HPZ – High Potential Zone
ICE – Infrastructure Carbon Estimator
I – Interstate Highway
IPaC – Information for Planning and Conservation
ITA – Incidental Take Authorizations
LAST – Leaking Aboveground Storage Tank
Leq – Equivalent sound level (unit of measure)
LOAC — Local Officials Advisory Committee
LOP – Letter of Permission
LOS – Level of service
MEP – Maximum extent practicable
MGO – City of Madison General Ordinance
MLS – Multiple Listing Service
MOA – Memorandum of agreement
MPH – miles per hour
MPO – Metropolitan planning organization
MSA – Metropolitan statistical area
MS4 – Municipal Separate Storm Sewer System
NB – Northbound
NE – Northeast
NEPA – National Environmental Policy Act
NFIP – National Flood Insurance Program
NHI – Natural Heritage Inventory
NHS – National Highway System
NLC – Noise level criteria
NLEB – Northern Long-eared Bat
NPS – National Park Service
NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
NRT – Neighborhood Resource Team
NW – Northwest
NWP – Nationwide General Permit
ORW – Outstanding resource water
OSOW – Oversize-overweight
PCI – Pavement Condition Index
PCN – Pre-construction notification
PFAS – Perfluoroalkyl or polyfluoroalkyl substances
PIL – Process Initiation Letter
PIM – Public involvement meeting
PIP – Public involvement plan
PLE – Permanent limited easement
POSP – Parks and Open Space Plan
PBC – Prairie Bush Clover
PS&E – Plans, Specifications and Estimates
RAB – Roundabout
RCUT – Restricted Crossing U-Turn
REC – Region environmental coordinator
RI/RO – Right-in/right-out
ROW – Right of way
RPBB – Rusty Patch Bumble Bee
RPC – Regional planning commission
RPC – Reasonable Project Costs
RPZ – Runway protection zone
RRFB – Rectangular Rapid Flashing Beacons
RTP – Regional Transportation Plan
SB – Southbound
SE – Southeast
Section 106 – Section 106 of the National Historic Preservation Act
Section 4(f) – Section 4(f) of the U.S. Department of Transportation Act of 1966
Section 6(f) – Section 6(f) of the Land and Water Conservation Fund Act
SFHA – Special Flood Hazard Area
SHPO – Wisconsin State Historic Preservation Office
SPUI – Single Point Urban Interchange
STIP – Statewide Transportation Improvement Program
SW – Southwest
TAC – Technical Advisory Committee
TCGP – Transportation Construction General Permit
THPO – Tribal Historic Preservation Officer
TIP – Transportation Improvement Program
Title VI – Title VI of the Civil Rights Act of 1964
TLE – Temporary limited easement
TMDL – Total Maximum Daily Load
TMP – Transportation Management Plan
TNM – Traffic Noise Model
TOPS – Traffic Operations and Safety (Lab)
TRGP – Transportation Regional General Permit
TS4 – Transportation Separate Storm Sewer System
TSM – Transportation Systems Management
TSS – Total suspended solids
US – United States Highway
USACE – United States Army Corps of Engineers
USCG – United States Coast Guard
USFS – United States Forest Service
USFWS – United States Fish and Wildlife Service
UW – University of Wisconsin
WB – Westbound
WBIC – WDNR Waterbody Identification Code
WDNR – Wisconsin Department of Natural Resources
WEPA – Wisconsin Environmental Policy Act
WisDOT - Wisconsin Department of Transportation
WIS – Wisconsin state highway
WPDES – Wisconsin Pollutant Discharge Elimination System
WQC – Water Quality Certification
WSOR – Wisconsin and Southern Railroad
YOE – Year of expenditure

3. Document Type and Template Use Criteria

3a. Document Type: Environmental Assessment (EA)

3b. Project is a Complete FHWA Action

Check all boxes that apply to the proposed project. To process your project with this template, you must be able to check either boxes 1-3 or the last box. If you are unable to check either boxes 1-3 or the last box in this section, you cannot complete this template and must reassess the project scope to meet the criteria. Proposed projects being developed under WEPA must also meet these criteria.

23 CFR 771.111(f) To ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated shall:

- ☒ (1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope
- ☒ (2) Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made
- ☒ (3) Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements
- ☐ Project is not an action resulting in construction and does not require compliance with (1-3) above

3c. ER and EA Template Applicability

When preparing an EA, if at any point in the environmental documentation process it becomes apparent that the project will not result in the preparation of a FONSI, you must coordinate with the Region Environmental Coordinator (REC) and Bureau of Technical Services-Environmental Process and Documentation Section (BTS-EPDS) to determine the appropriate type of environmental document. Proceed to Question 4.

When preparing an ER, check all boxes that apply to the proposed project. If you are unable to check a box in this section, coordinate with the REC and BTS-EPDS to determine the appropriate type of environmental document. Proposed projects being developed under WEPA must also meet these criteria. 23 CFR 771.117(a) Categorical exclusions (CEs) are actions which, based on experience with similar actions, do not involve significant environmental impacts. They are actions which:

- ☐ Do not induce significant impacts to planned growth or land use for the area
- ☐ Do not require the relocation of significant numbers of people
- ☐ Do not have a significant impact on any natural, cultural, recreational, historic or other resource
- ☐ Do not involve significant air, noise, or water quality impacts
- ☐ Do not have significant impacts on travel patterns
- ☐ Do not otherwise, either individually or cumulatively, have any significant environmental impacts

3d. Unusual Circumstances that may preclude approval at the ER level.

Check all boxes that apply to the proposed project. If any boxes in this section are checked, consultation with the REC, BTS-EPDS and FHWA is required prior to making a final CE determination. 23 CFR 771.117(b) Any action which normally would be classified as a CE but could involve unusual circumstances may require the FHWA, in cooperation with the applicant, to conduct additional environmental studies to determine if the CE classification is proper. Proposed projects being developed under WEPA must also meet these criteria.

Such unusual circumstances include:

- ☐ Significant environmental impacts
- ☐ Substantial controversy on environmental grounds
- ☐ Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act (not required for WEPA document, consult with REC or EPDS for requirements)
- ☐ Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action
- ☐ Project includes auxiliary lanes or capacity expansion

Describe any coordination with the REC, BTS-EPDS and FHWA related to any unusual circumstances: none

4. Environmental Document Statement

This environmental document is an essential component of the National Environmental Policy Act (NEPA) and/or Wisconsin Environmental Policy Act (WEPA) project development process, which supports and complements public involvement and interagency coordination.

The environmental document is a full-disclosure document which provides a description of the purpose and need for the proposed action, the existing environment, analysis of the anticipated beneficial or adverse environmental effects resulting from the proposed action and potential mitigation measures to address identified effects. This document also allows others the opportunity to provide input and comment on the proposed action, alternatives and environmental impacts. Finally, it provides the decision maker with appropriate information to make a reasoned choice when identifying a preferred alternative.

This environmental document must be read entirely so the reader understands the reasons that one alternative is identified as the preferred alternative over other alternatives considered.

5. Fiscal Constraint

Projects identified in the WisDOT Statewide Transportation Improvement Program (STIP) per 23 CFR 450.218(g), which are typically FHWA or Federal Transit Administration (FTA) funded projects, must demonstrate fiscal constraint. In addition, and regardless of funding source, projects defined as regionally significant per 23 CFR 450.104 and 23 CFR 450.218(h), must also demonstrate fiscal constraint.

Indicate whether a project ID for a subsequent phase following design (either a project ID for substantial right of way acquisition or a project ID for construction) is included in the most recent version, or a previous version of the STIP, included in a STIP amendment, or listed in the STIP with a Backlog Advanceable Pilot Program (BAPP) STIP label. One of the boxes must be checked to demonstrate fiscal constraint.

If the proposed project is within a metropolitan planning area, it also must be in the metropolitan planning organization (MPO) Transportation Improvement Program (TIP).

☐	The proposed action is not federally funded with FHWA or FTA funds per 23 CFR 450.218(g), does not require federal approval, and is not considered a regionally significant project. Federal fiscal constraint requirements do not apply.
☒	The proposed action is federally funded with FHWA or FTA funds per 23 CFR 450.218(g), requires federal approval, or is considered a regionally significant project. The proposed action is approved in the most recent version of the STIP label or included in a STIP amendment label. Indicate the name of the STIP or STIP amendment, the portion of the proposed project funded and the page number on which the project can be found. If the proposed project is within a metropolitan planning area, it also must be in the metropolitan planning organization (MPO) Transportation Improvement Program (TIP). For projects in metropolitan planning areas, indicate the name of the TIP or TIP amendment, the portion of the proposed project funded and the page number on which the project can be found. The study is listed in the Madison Metropolitan Area and Dane County 2024-2028 Transportation Improvement Program (TIP) - USH 51/Stoughton Road (WIS 30 to WIS 19) for Preliminary Engineering through completion of the Environmental Document. Project ID 5410-08-01 was authorized in 2022 for $4 million in state design funds for Planning and Administration and can be found on page 33 of the document. The study has not yet been assigned a TIP number because only state dollars are anticipated to be used through Preliminary Engineering and the Environmental Documentation Process. The north limit of the study has changed from WIS 19 to just south of the I-39/90/94 interchange with US 51. The Madison Metropolitan Area and Dane County 2024-2028 TIP can be found on the Greater Madison MPO website: https://greatermadisonmpo.org/planning/documents/TIPfinal24_WebVersion.pdf and in **Appendix B: Transportation Improvement Program Documents**. The study is expected to be listed in the 2025-2028 WisDOT Statewide Transportation Improvement Program (STIP). Anticipated timeline for the release of this STIP is January 2025.
☐	The proposed action is federally funded with FHWA or FTA funds per 23 CFR 450.218(g), requires federal approval, or is considered a regionally significant project. The proposed action was approved in a previous STIP but is no longer included in the most recent STIP because initial project funding authorization has occurred. Indicate the STIP label or STIP amendment label, the portion of the project funded and the page number on which the project can be found. For projects in metropolitan planning areas, indicate the name of the TIP or TIP amendment, the portion of the proposed project funded and the page number on which the project can be found.

6. Purpose and Need

6.1 Project Description and Status

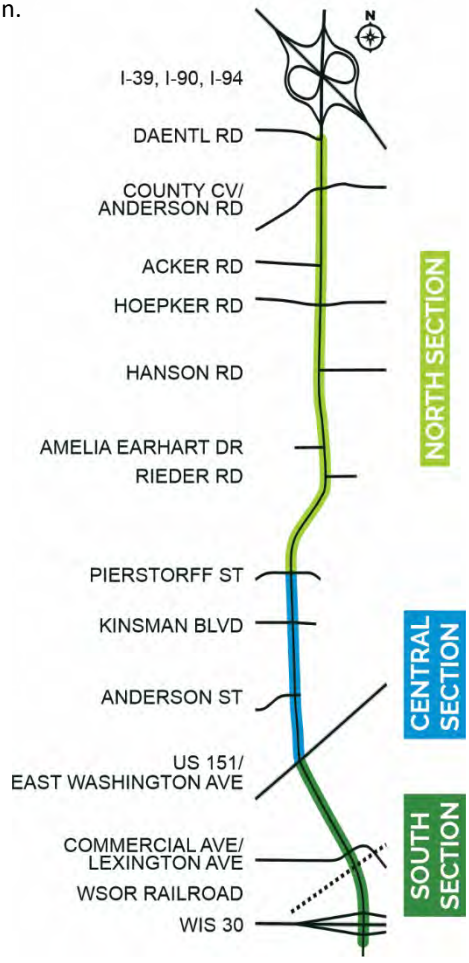
The Wisconsin Department of Transportation (WisDOT) is evaluating the reconstruction of US Highway (US) 51/Stoughton Road, referred to as US 51 hereafter, located in central Dane County. See **Project Location Map**, page M-1 of the Maps section of this document.

US 51 is one of the busiest north-south routes in the city of Madison, serving as a vital arterial highway on the city's east side, providing links to Interstate 39/90/94 (I-39/90/94), US 151 (East Washington Avenue), Wisconsin State Highway (WIS) 30 and US 12/18. US 51 provides access to numerous industrial, residential, and commercial business developments along with schools, medical facilities and recreational areas. US 51 is a National Highway System (NHS) route and is identified as a principal arterial. The oversize-overweight (OSOW) truck route includes US 51 south of the US 151 intersection to WIS 30 and includes US 151 east of the US 51 intersection.

The US 51 (Stoughton Road) North Study, referred to as the US 51 North Study hereafter, is part of the broader US 51 corridor being evaluated from US 12/18 (the Beltline) to I-39/90/94. The US 51 North Study limits span from WIS 30 in the city of Madison to I-39/90/94 in the town of Burke, approximately 5.5 miles. Interchanges are located at both ends of the study, WIS 30 to the south and I-39/90/94 to the north. There are 14 at-grade intersections on US 51 in the study area, including the two WIS 30 ramp terminals. The I-39/90/94 ramp terminals and Daentl Road are being studied as part of the I-39/90/94 Corridor Study (US 12/18 Madison to US 12/WIS 16 Wisconsin Dells). See **Adjacent Studies and Projects Map**, page M-2 of the Maps section.

The study corridor has three distinct sections, each with its own characteristics shown in Figure 6-1: Corridor Sections and the **Corridor Sections Map**, page M-3 of the Maps section.

Figure 6-1: Corridor Sections



South Section: South of WIS 30 to US 151
The south section extends from just south of the WIS 30 interchange to just south of the US 151 intersection. It transitions from an urban typical section with curb and gutter on the south end to a more rural section with outside shoulders north of Commercial Avenue until US 151 where it transitions back to an urban section. This section has three travel lanes in each direction and has the highest traffic volumes along the corridor. There is bicycle and pedestrian use in the area, primarily crossing US 51 at the Commercial Avenue intersection. Land use in the area includes commercial and manufacturing businesses as well as residential. The speed limit is 45 mph in this section.

Central Section: US 151 to Pierstorff Street
The central section extends from just south of the US 151 intersection through Pierstorff Street. It has an urban typical section with curb and gutter and 2-to-3 travel lanes in each direction. There is considerable bicycle and pedestrian use due to nearby neighborhoods and Madison College in the area. Land uses are primarily commercial business and the Truax campus of Madison College. The speed limit for this section is 35 mph from US 151 through Anderson Street, where it transitions to 45 mph.

North Section: Pierstorff Street to south of I-39/90/94
The north section extends from north of Pierstorff Street to the study limits just south of the I-39/90/94 interchange. It has a rural typical section with two travel lanes in each direction separated by a grassy median. Land use in the area is dominated by the Dane County Regional Airport (DCRA). Other land uses present include industrial and commercial uses, open space, farmland and a roughly 50-acre solar farm. The speed limit in this section is 45 mph except from north of Pierstorff Street to south of Hoepker Road where it increases to 55 mph.

6.2 Purpose Statement

The purpose of the study is to accommodate existing and future travel demand with a focus on safety issues that affect travel on US 51.

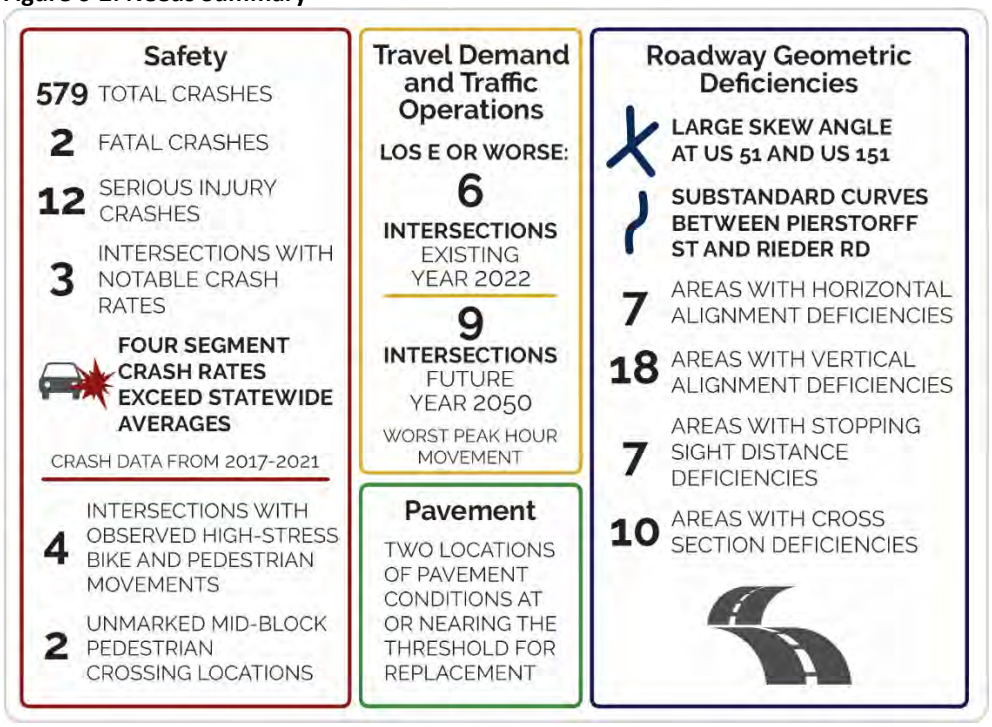
6.3 Project Needs

The need for transportation improvements throughout the US 51 North Study corridor is demonstrated through the following:

- **Safety:** high crash rates and limited facilities for bicycles and pedestrians
- **Travel Demand and Traffic Operations:** poor operations for existing and future traffic
- **Roadway and Geometric Deficiencies:** deteriorating pavement conditions and roadway design deficiencies

A summary of these study needs can be found in Figure 6-2: Needs Summary. Each of the factors will be reviewed in its respective sections below. A detailed purpose and need report can be found in **Appendix C: Purpose and Need Report**.

Figure 6-2: Needs Summary



6.3.1 Safety

Over the 5-year safety analysis period, from 2017 to 2021, there were 579 crashes on the corridor, which is over two crashes per week. Frequent crashes in the corridor contribute to congestion and unexpected delays, leading to uncertainty about travel time. In addition, there were three reported bicycle and pedestrian crashes.

A total of 152 crashes involved an injury, and there were two fatalities. Fatal crashes are often a result of multiple failed conditions, but they are important to note and understand. The two fatal crashes occurred between 2017 through 2021:

- County CV and US 51: one fatal crash at an intersection caused by a driver who fell asleep while driving
- North of Pierstorff Street: one fatal motorcycle crash caused by a driver failing to negotiate the northbound roadway curve

Of the overall crashes, over 91% (532) were associated with intersections. The intersections with the highest crash rates are US 151, the WIS 30 ramp terminals, Hoepker Road, Kinsman Boulevard and County CV. The US 151 intersection was the third-highest crash intersection in the city of Madison based on the 2019, 2020 and 2021 city of Madison Crash Fact reports[1]. While most crashes were associated with intersections, there was a cluster of 15 crashes at a pair of horizontal curves on the roadway corridor between Pierstorff Street and Rieder Road.

The three sections summarized in Section 6.1 above were split by direction (northbound and southbound) and crash rates along the roadway corridor were determined. Traffic exceeded the statewide average crash rates for similar facilities in the south and central sections, as shown in Table 6-1: Corridor Crash Rates. The section limits span to the middle of the listed intersection. Variations in the Wisconsin statewide average listed in the table is due to the difference in facility type and posted speed limit. Crash rates are expressed in crashes per 100 million vehicle-miles traveled.

[1] City of Madison Crash Fact Reports can be found on the city of Madison's safety data webpage: https://www.cityofmadison.com/transportation/initiatives/vision-zero/safety-data

Table 6-1: Corridor Crash Rates

Corridor Section		Crash Rate	Wis. Statewide Average	Notes
South Section	US 51 Northbound: (WIS 30 to US 151)	835.04	204.68	4.1 times greater than statewide average
	US 51 Southbound: (WIS 30 to US 151)	564.49	204.68	2.8 times greater than statewide average
Central Section	US 51 Northbound: (US 151 to Pierstorff St)	599.27	432.91	1.4 times greater than statewide average
	US 51 Southbound: (US 151 to Pierstorff St)	641.48	432.91	1.5 times greater than statewide average
North Section	US 51 Northbound: (Pierstorff St to I-39/90/94)	123.22	204.68	Below statewide average
	US 51 Southbound: (Pierstorff St to I-39/90/94)	154.86	204.68	Below statewide average

Bicycle and Pedestrian Safety:

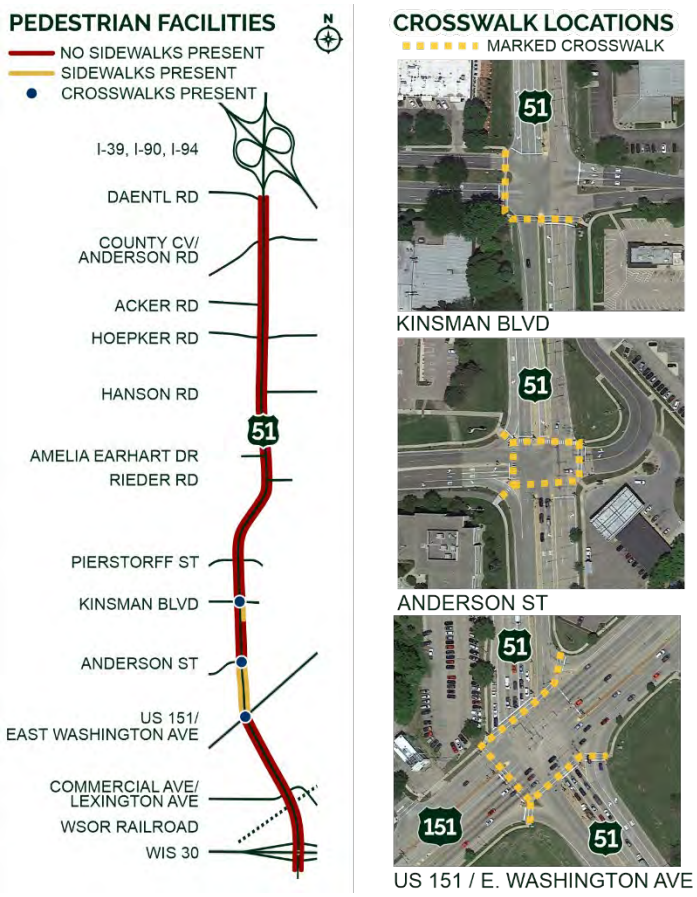
No sidewalks are present along the corridor, except for the area between US 151 and Anderson Street. There are marked crosswalk locations at three intersections. Anderson Street has crosswalks along all four legs of the intersection. US 151 has crosswalks on three legs of the intersection, and Kinsman Boulevard has crosswalks on two legs of the intersection. See Figure 6-3: Existing Pedestrian Facilities for the location of these facilities.

The 2021 Dane County Bicycle Map identifies the southernmost section of the corridor from WIS 30 to US 151 as "bicycles prohibited or not recommended." The rest of the study area (US 151 to I-39/90/94) is identified as "least suitable for bicycles." However, data collection and observed video indicate that there are people walking and biking along the corridor. Existing pedestrian and bicyclist usage in the corridor includes crossings at both intersections and mid-block locations. There are four primary intersections in the study area that have the highest pedestrian and bicycle usage. These include:

- Commercial Avenue/Lexington Avenue
- US 151
- Anderson Street
- Kinsman Boulevard

From 2017-2021, there were three documented pedestrian or bicycle crashes within the study area. One of the crashes occurred between US 151 and Anderson Street, another crash occurred at the intersection of US 151 (bicycle crossing the westbound right-turn lane to get to the porkchop island) and one crash occurred at the north leg of the Anderson Street intersection.

Figure 6-3: Existing Pedestrian Facilities



The Hawthorne-Truax Neighborhood Plan (adopted March 21, 2023), suggests the need for bicycle and pedestrian intersection improvements along US 51 at Commercial Avenue/Lexington Avenue, US 151 and Anderson Street.

The Metropolitan Planning Organization (MPO) Regional Transportation Plan 2050 identifies Tier 2 (second priority) sidewalk needs along US 51 between US 151 and Pierstorff Street and along Kinsman Boulevard (east of US 51) and Bartillon Drive. Tier 1 (first priority) sidewalk needs are identified along Lexington and Commercial Avenue.

A future planned primary shared-use path is identified in the Future Bicycle Functional Class Madison Area map which is part of the city of Madison's Bicycle Transportation Plan. Tentative plans show the path running north-south along County CV, crossing the area between DCRA and the quarry and connecting with Hanson Road at US 51. The path would then continue east along Hanson Road to join an existing off-road facility connecting to Hoepker Road. The path would cross I-39/90/94 and proceed north to the intersection of Anderson Road and Token Creek Lane. From there, it continues through the Token Creek County Park before crossing back to the west side of US 51 at Williamsburg Way and Metro Drive, and then proceeds north. See Figure 6-4 for a map illustrating the future planned path near the US 51 North Study location.

Figure 6-4: Future Planned Shared-Use Path Location Near US 51

6.3.2 Travel Demand

Level of service (LOS) is a qualitative measure used to indicate the quality of motor vehicle traffic service. The Highway Capacity Manual (HCM) and the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets ("Green Book") use letters A through F to indicate the level of service, with A being the best (free-flow condition) and F being the worst (breakdown of flow). LOS D is considered acceptable for NHS routes. LOS designations of E or F are considered poor operations.

There are 14 intersections along US 51 in the study area and eight of the 14 intersections are signalized. Currently, six of those signalized intersections have poor operations (LOS E or F) during either the morning or evening peak hours. Figure 6-5: Year 2022 and Year 2050 Worst Peak Hour Movement Level of Service illustrates the intersections with concerning operations for the existing and future analysis years.

Poor operations identified in year 2022 conditions are anticipated to further degrade by year 2050 as traffic volumes are anticipated to increase. See Table 6-2 for a summary of traffic volumes along the corridor for year 2022 and 2050.

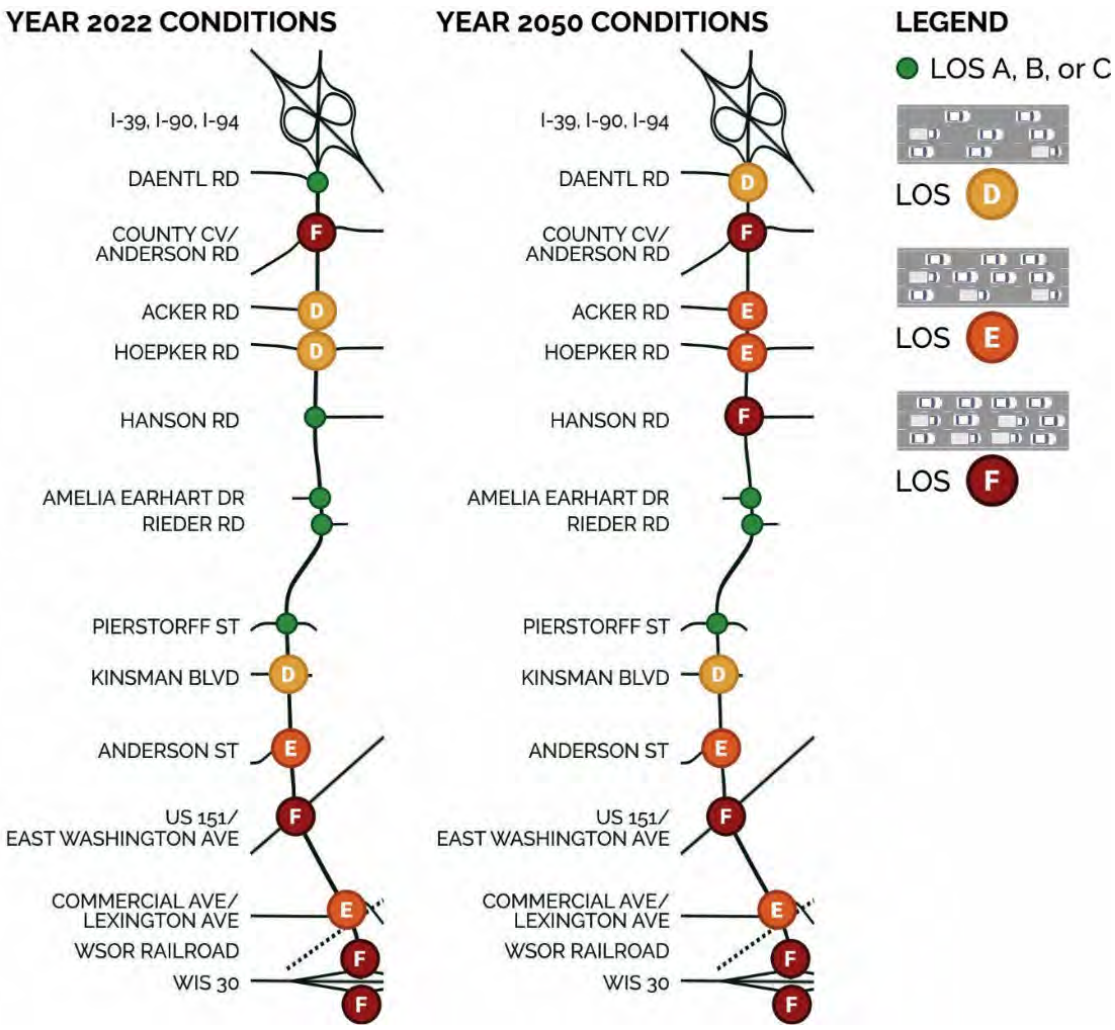
Table 6-2: Traffic Volumes in Study Area (Year 2022 and 2050)

Corridor Section	Year 2022 AADT	Year 2050 Forecasted AADT	Growth Rate (% per year)
South Section – South of WIS 30 to south of US 151	24,790 – 47,280	27,600 – 56,950	0.40 – 0.38
Central Section – South of US 151 to Pierstorff Street	13,300 – 24,050	18,400 – 27,880	0.57 – 1.37
North Section - Pierstorff Street to south of I-39/90/94	13,360 – 24,160	17,700 – 32,420	1.16 – 1.22

It's predicted that in 2050, nine intersections will operate poorly without improvements or changes in travel patterns and all intersections in the corridor will experience more vehicle delays and longer traffic queues.

These existing and future operational deficiencies cause long vehicle delays and traffic queues, which can result in safety concerns and a higher frequency of crashes.

Figure 6-5: Year 2022 and Year 2050 Worst Peak Hour Movement Level of Service



6.3.3 Roadway and Geometric Deficiencies

Within the US 51 North Study area, there are roadway and geometric deficiencies. Those roadway and geometric deficiencies include both horizontal and vertical alignment elements. A detailed discussion of roadway and geometric deficiencies with maps and graphics can be found in Section 3.3 of **Appendix C: Purpose and Need Report**.

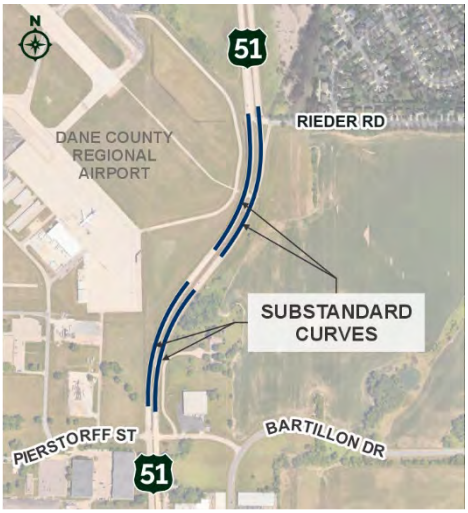
Horizontal Alignment Deficiencies

Horizontal alignment refers to the roadway's curvature at a given design speed. A greater design speed requires a flatter curve, a curve with a larger radius. For roadway alignments without a curve between two straight sections, the smallest angle possible is desired.

Horizontal Alignment deficiencies include:

- Non-standard horizontal "S-curve" on US 51 between Pierstorff Street and Rieder Road (See Figure 6-6: Substandard Horizontal Curves)
- Non-standard intersection skew angle on the north leg of the US 151 intersection (See Figure 6-7: Substandard Skew Angle)
- Four substandard horizontal deflection points (locations along the roadway without a curve and an angle greater than current design standards)

Figure 6-6: Substandard Horizontal Curves



The first two deficiencies listed above are associated with historical crash trends.

Figure 6-7: Substandard Skew Angle

Vertical Alignment Deficiencies

Vertical Alignment deficiencies include substandard minimum vertical curve lengths, non-desirable grades and substandard grades. There are substandard stopping sight distances and decision sight distances along the corridor.

These deficiencies contribute to the referenced crashes throughout the US 51 North Study corridor as the deficiencies affect driver experience, headlight function and sight distance.

See Figure 6-8: Vertical Alignment Deficiencies on the next page for a map of the vertical and sight distance deficiencies on the study corridor.

Cross Section Deficiencies

The AASHTO "Green Book" defines a roadway cross section as a vertical section of the ground and roadway at right angles to the centerline of the roadway, including all elements of a highway or street from right of way line. A cross section includes the features of a roadway including travel lanes and their widths, shoulders, curb and gutters, medians, ditches and other drainage elements.

Cross Section deficiencies include:

- Some of the guardrail along US 51 does not meet current design standards and needs to be replaced.
- The vertical curb face does not meet standards for roadway speed. A sloped face curb or rural shoulder is preferred for the existing roadway speeds. At high speeds, out-of-control vehicles may overturn or become airborne as a result of an impact with a vertical face curb.
- The sign structure between Commercial Avenue/Lexington Avenue and US 151 does not meet minimum vertical clearance.
- The box culverts at Starkweather Creek near Commercial Avenue do not meet minimum horizontal clearance. Roadway hazards should be set back from the edge of the travel lanes as far as possible to help minimize the chance of collisions should an errant vehicle leave the roadway.

These cross section deficiencies do not have any associated historical crash trends but would improve the overall safety of the corridor if addressed.

Pavement Condition

The majority of the roadway pavement was reconstructed in the early 1990s. The pavement was replaced at the US 51 and US 151 intersection in 2006. Pavement replacement projects on US 51 from US 151 to Pierstorff were completed in 2010 for southbound lanes and 2023 for northbound lanes.

To evaluate the condition of existing pavement, WisDOT uses the pavement condition index (PCI). This is a numerical index between 0 and 100 used to indicate the general condition of a pavement section. US 151 intersection pavement has a PCI rating of 36 (very poor) and an anticipated PCI rating of 20 (serious) in 2029. US 51 southbound between County CV and Hoepker Road has an anticipated PCI rating of 49 (poor) in 2029. These poor pavement conditions are not currently scheduled to be addressed under any future pavement replacement projects.

Figure 6-8: Vertical Alignment Deficiencies

7. Summary of Alternatives

A range of alternatives was developed for the US 51 North Study to address the study's purpose and need factors. The study team developed alternatives specific to the mainline for the corridor that were based on the purpose and need for the mainline. The study team also developed a series of concepts for intersections along the corridor, which were further developed as part of a five-step alternative screening process. The alternatives developed were screened based on how well each met the purpose and need of the study while considering impacts, costs and stakeholder feedback received. This section of this EA includes a summary of the alternative development process. The detailed alternative development and screening process is included in **Appendix D: Alternatives Screening Technical Report**.

7.1 No Build Alternative

The No Build alternative would consist of pavement maintenance along the corridor in order to keep the pavement in an acceptable condition. US 51 would have no new marked bicycle facilities and no new pedestrian facilities.

This alternative would not address the operational or safety issues identified in the study's purpose and need. Many intersections would continue to operate at a substandard level of service, with traffic conditions continuing to deteriorate into the future. There would continue to be discontinuous bike and pedestrian facilities, as well as geometric deficiencies.

The No Build alternative would not address the purpose and need for the study; however, it will be retained to serve as a baseline for comparison.

7.2 Mainline and Screening Process

Mainline alternatives to address the study's purpose and need were developed independently of the intersection alternatives, which are discussed in Section 7.5. The typical sections for the mainline (shown in **Appendix E: Proposed Corridor Typical Sections**) were driven by considerations throughout the corridor, including:

- Addressing substandard horizontal curves
- Addressing inconsistent mainline cross-sections
- Locations of Dane County Regional Airport (DCRA) runway protection zones (RPZs)
- Accommodating bicycles and pedestrians

The study needs did not identify a need for capacity expansion. Traffic analysis indicates traffic volumes will gradually increase over time at 0.8% per year in this section of US 51. This is based on the Dane County regional travel demand model, which uses population and economic development trends identified by the Greater Madison MPO in its Connect Greater Madison 2050 Regional Transportation Plan. The forecasted traffic along the US 51 mainline does not identify the need for additional travel lanes. Instead, the study will address safety and operational needs along the corridor by focusing on improvements at the intersections.

7.3 Mainline Alternatives

WisDOT began identifying mainline alternatives by first developing conceptual-level intersection alternatives; this process is detailed in Section 7.6. Mainline alternatives consistent with the study's purpose and need were then developed to effectively connect the conceptual intersection alternatives in a way that would address the inconsistent cross-sections. To minimize impacts, WisDOT generally maintained all alternatives on existing alignment.

This section will first discuss corridor wide bicycle and pedestrian accommodations that were considered. These bicycle and pedestrian accommodations could be included in any of the mainline alternatives. Following the bicycle and pedestrian accommodations descriptions, the alternatives considered for the mainline will then be described. Mainline alternatives are described using typical sections in the document to aid reader understanding of the mainline lane configurations.

7.3.1 Bicycle and Pedestrian Accommodations

Addressing the safety for bicyclists and pedestrians along and across US 51 is one of this study's stated needs. This is tied to a lack of accommodations on the corridor. The study team analyzed three alternatives that would improve bicycle and pedestrian safety and access on the US 51 corridor:

No Additional Facilities

US 51 would have no new marked bicycle facilities and no new pedestrian facilities. Any existing facilities would be replaced in kind. This alternative would provide wide paved shoulders in some areas that could accommodate bicyclists.

Corridor-Wide Shared-Use Path

This alternative would construct a 10-foot shared-use path along the east side of US 51 for the entire length of the study corridor from WIS 30 through the County CV/Anderson Road intersection. The east side was determined to be the best location based on feedback obtained during a Bicycle and Pedestrian Workshop held to identify bicycle and pedestrian needs on the corridor and brainstorm potential solutions to address those needs. The east side was identified because it would allow for connections to be made to neighborhoods directly adjacent to the corridor.

The shared-use path would begin at the southern end of the study corridor, where it would connect to a new bicycle and pedestrian bridge that would be constructed over US 51 just south of the WIS 30 interchange. The bicycle and pedestrian bridge would connect to the city of Madison's Marsh View Path on the west side of US 51 providing connectivity into the existing network and to the new 10-foot shared-use path that would be constructed on the east side of US 51. From the bicycle and pedestrian bridge just south of WIS 30, the path would continue north to US 151. At US 151, a second bicycle and pedestrian bridge would be constructed on the east side of the intersection. The path would then continue north along the east side of US 51 through the County CV/Anderson Road intersection where it would connect to a shared-use path proposed as part of the I-39/90/94 Corridor Study.

This alternative was not identified as the preferred alternative because it was not supported by the DCRA and the Federal Aviation Administration (FAA).

Shared-Use Path excluding the area adjacent to Dane County Regional Airport Property

This alternative would construct a 10-foot shared-use path along the east side of the US 51 North Study corridor except for the section from Kinsman Boulevard to Hoepker Road. This section was gapped based on comments/coordination with DCRA and FAA.

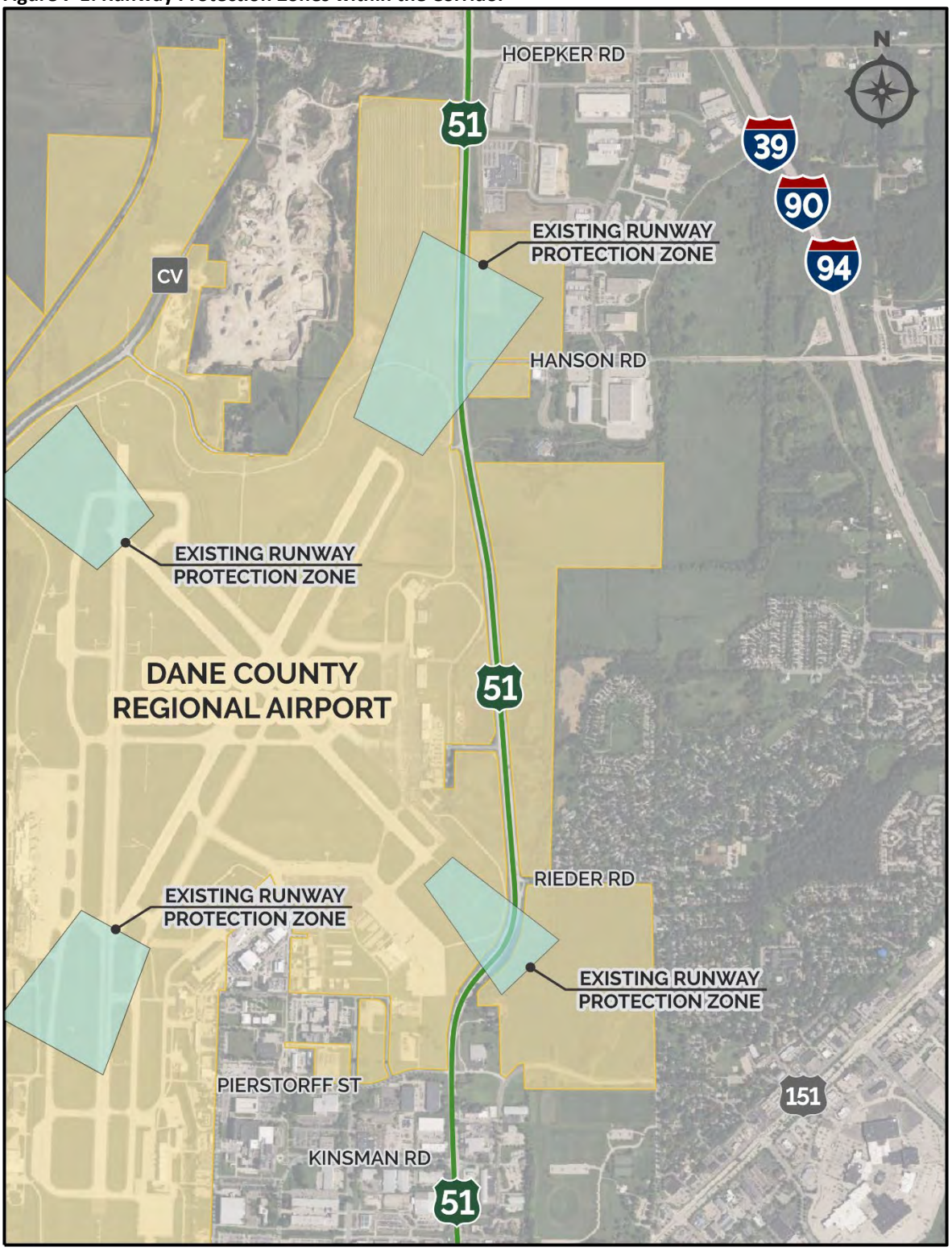
DCRA owns the majority of the land on both sides of US 51 between Pierstorff Street and Hoepker Road. This property contains two Runway Protection Zones (RPZs) that cross this section of US 51 (See Figure 7-1 below). RPZ's are a trapezoidal area off the end of an airport runway that serve to protect people and property on the ground. According to the FAA, it is desirable to clear the entire RPZ of all above-ground objects and avoid introducing any new land uses. DCRA and the FAA consider the introduction of a shared-use path to be a new land use and have indicated they will not support construction of a shared-use path within an RPZ or releasing property for the construction a shared-use path in this area.

The east side of US 51 was determined to be the best location for the shared-use path based on feedback obtained during a Bicycle and Pedestrian Workshop held to identify bicycle and pedestrian needs on the corridor and brainstorm potential solutions to address those needs. The east side was identified because it would allow for connections to be made to neighborhoods directly adjacent to the corridor.

The shared-use path would begin at the southern end of the study corridor where it would connect to a new bicycle and pedestrian bridge that would be constructed over US 51 just south of the WIS 30 interchange. The bicycle and pedestrian bridge would connect to the city of Madison's Marsh View Path on the west side of US 51 providing connectivity into the existing network and to the new 10-foot shared-use path that would be constructed on the east side of US 51. From the bicycle and pedestrian bridge just south of WIS 30, the path would continue north to US 151. At US 151, a second bicycle and pedestrian bridge would be constructed on the east side of the intersection. The path would then continue north to Kinsman Boulevard before transitioning to on-street bicycle accommodations. This section would have 5-foot paved shoulders with no marked bicycle lanes. The shared-path was not extended from Kinsman Boulevard to Pierstorff Street because Pierstorff Street does not have any bicycle and pedestrian facilities while Kinsman Boulevard has sidewalk and on-street bike lanes that connect to the city of Madison's existing bicycle and pedestrian network. North of Pierstorff Street to Hoepker Road an 8-foot paved shoulder would provide bicycle accommodations. A shared-use path would also be constructed from Hoepker Road through the County CV/Anderson Road intersection on the east side of US 51 where it would connect to a shared-use path proposed as part of the I-39/90/94 Corridor Study.

WisDOT identified this alternative as the preferred alternative because it would add the desired bicycle and pedestrian accommodations to over half of the corridor, did not affect RPZ areas or property owned by DCRA and was supported by DCRA and FAA. Paved shoulders would accommodate bicycles in these areas. Additional information specific to coordination with DCRA is included in Section 16. Exhibits showing the bicycle and pedestrian accommodations for the preferred alternative can be found in Attachment D – Study Overview of **Appendix D – Alternative Screening Technical Report**.

Figure 7-1: Runway Protection Zones within the Corridor



7.3.2 South Section: South of WIS 30 to US 151

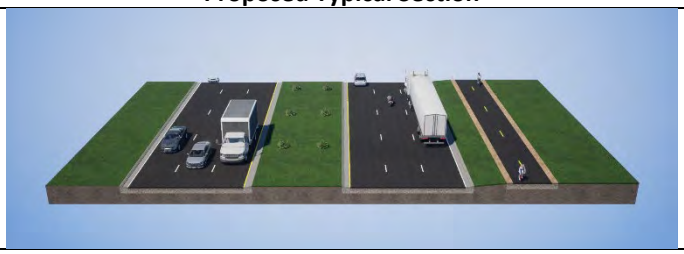
This section of US 51 has the highest vehicle traffic volumes along the corridor, with annual average daily traffic (AADT) volumes ranging between 24,790 – 47,280 in 2022. The existing roadway in this area transitions from an urban typical section with curb and gutter on the south end to a more rural section with outside gravel shoulders north of Commercial Avenue until US 151 where it transitions back to an urban section. This section has three 12-foot travel lanes in each direction. There is notable bicycle and pedestrian use in the area, primarily crossing US 51 at the Commercial Avenue intersection.

The table below contains a description of the proposed typical section for the mainline section of US 51 from south of WIS 30 to US 151. These typical sections have been included in the preferred alternative.

Note the reader should assume north is up in the typical section. Maps showing the preferred alternative for these sections are included on page M-4 of the Maps Section - **Preferred Alternative Map**. More detailed typical sections can be found in **Appendix E: Proposed Corridor Typical Sections**.

Section of US 51	Preferred Alternative	Proposed Typical Section
South Section: South of WIS 30 to Commercial Avenue	Urban cross-section with 6 total lanes (3 in each direction); 12-foot lanes; 12-foot northbound auxiliary lane; 10-foot shared-use path on east side	

- This alternative would reconstruct the US 51 mainline; it would maintain the existing number of mainline travel lanes and provide a consistent urban cross-section. An auxiliary lane would be added on northbound US 51 from WIS 30 to Commercial Avenue to improve traffic operations. The speed limit in this section would be reduced with this alternative from 45 mph to 40 mph to potentially increase safety and comfort level for bicycles and pedestrians crossing US 51 at the Commercial Avenue/Lexington Avenue and US 151 intersections.
- A shared-use path would be constructed on the east side of US 51. A bicycle and pedestrian bridge would be constructed just south of the US 51 and WIS 30 interchange. This bridge would connect to the city of Madison's Marsh View Path on the west side of US 51 and the new shared-use path on the east side.
- A shared-use path would be constructed along the east side of Commercial Avenue east of US 51 to Nakoosa Trail.
- No on-street bike lanes would be provided.

Section of US 51	Preferred Alternative	Proposed Typical Section
South Section: Commercial Avenue to US 151	Urban cross-section with 6 total lanes (3 in each direction); 12-foot lanes; 10-foot shared-use path on east side	

- This alternative would reconstruct the US 51 mainline; it would maintain the existing number of mainline travel lanes and provide a consistent urban cross-section. The speed limit in this section would be reduced with this alternative from 45 mph to 40 mph to potentially increase safety and comfort level for bicycles and pedestrians crossing US 51 at the Commercial Avenue/Lexington Avenue and US 151 intersections.
- A shared-use path would be constructed on the east side of US 51.
- The shared-use path would connect into the Mayfair neighborhood just north of Commercial Avenue.
- No on-street bike lanes would be provided.

7.3.3 Central Section: US 151 to Pierstorff Street

This section of US 51 has traffic volumes ranging between 13,300 – 24,050 AADT (2022). Bicycle and pedestrian activity occur in this area due in part to its proximity to nearby neighborhoods and Madison College. The existing roadway in this area consists of an urban section with two 12-foot travel lanes in the northbound direction. In the southbound direction there are two 12-foot travel lanes from Pierstorff Street to Anderson Street there are three 12-foot travel lanes from Anderson Street to US 151.

The tables below contain a description of the preferred alternative typical sections for the mainline sections of US 51 from US 151 to Pierstorff Street.

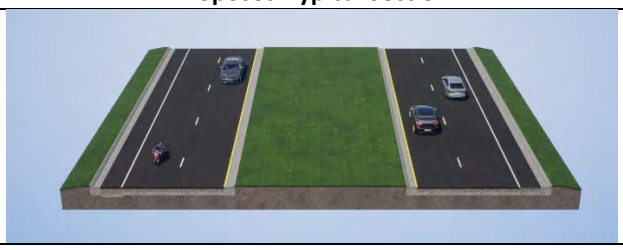
Note the reader should assume north is up in the typical section. Maps showing the preferred alternative for these sections are included on page M-4 of the Maps Section - **Preferred Alternative Map**. More detailed typical sections can be found in **Appendix E: Proposed Corridor Typical Sections**.

Section of US 51	Preferred Alternative	Proposed Typical Section
Central Section: US 151 to Anderson Street	Urban cross-section with 5 - 6 total lanes (3 southbound, 2 - 3 northbound); 12-foot lanes; 10-foot shared-use path on both sides	

- This alternative would reconstruct the US 51 mainline; it would maintain the existing urban cross-section and the existing number of mainline travel lanes on southbound US 51; a third northbound lane north of US 151 would be added that would transition into a turn lane at Anderson Street.
- Due to the bicycle and pedestrian activities that occur in this area, a shared-use path would be provided on both the east and west sides of US 51. The shared-use path on the west side of US 51 in this area is provided due to the high volume of bicycles and pedestrians in this area.
- A bicycle and pedestrian bridge would be constructed on the east side of the US 51 and US 151 intersection, connecting to the shared-use path.
- No on-street bike lanes would be provided on US 51, but the existing bike lanes on US 151 and Anderson Street would remain in this area.

Section of US 51	Preferred Alternative	Proposed Typical Section
Central Section: Anderson Street to Kinsman Boulevard	Urban cross-section with 4 total lanes (2 in each direction); 12-foot lanes; 10-foot shared-use path on east side	

- This alternative would reconstruct the US 51 mainline and would maintain the existing number of mainline travel lanes and the existing urban cross-section.
- A shared-use path would be constructed on the east side of US 51.
- No on-street bike lanes would be provided on US 51, but the existing bike lanes on Kinsman Boulevard would be maintained through the intersection.
- An enhanced mid-block bicycle/pedestrian crossing of US 51 north of Anderson Street near Orin Road that connects to Madison College. High visibility crosswalks and flashing beacons are examples of enhanced crossings that could be provided. The specific type of enhancement would be determined during final design.

Section of US 51	Preferred Alternative	Proposed Typical Section
Central Section: Kinsman Boulevard to Pierstorff Street	Urban cross-section with 4 total lanes (2 in each direction); 12-foot lanes with 5-foot paved shoulders to accommodate bikes	

- This alternative would reconstruct this section of US 51. It would maintain the existing number of mainline travel lanes and the existing urban cross-section.
- The median opening just south of existing Pierstorff Street would be closed with this alternative to improve safety.
- The 5-foot paved shoulders would accommodate bicyclists. The shared-path was not extended to Pierstorff Street because Pierstorff Street does not have any bicycle and pedestrian facilities while Kinsman Boulevard has sidewalk and on-street bike lanes that connect to the city of Madison's existing bicycle and pedestrian network.

7.3.4 North Section: Pierstorff Street to south of I-39/90/94

The north section of the US 51 corridor has traffic volumes ranging between 13,360 – 24,160 AADT (2022). The existing roadway in this area includes a rural typical section, with two 12-foot lanes in each direction and 8-foot paved outside shoulders. DCRA owns the majority of land on both sides of US 51 from north of Pierstorff Street to Hoepker Road.

This section of the corridor passes through two RPZs, one located between Pierstorff Street and Rieder Road and the other located further north near Hanson Road (see Figure 7-1). Any improvements that would change the roadway configuration within an RPZ may require an RPZ Analysis be completed.

An RPZ analysis is a process overseen by the FAA for identifying, evaluating and documenting potential changes within RPZ. For roadway projects, it involves developing a range of alternatives and identifying a preferred alternative that is acceptable to the airport sponsor that attempts to minimize impacts of land use within an RPZ, avoid introducing new land uses and mitigates risk to people and property on the ground. As part of the mainline alternative development process, WisDOT coordinated with the airport to initiate an RPZ analysis for the two RPZs on the corridor.

RPZ between Pierstorff Street and Rieder Road

WisDOT developed three alignment alternatives for the RPZ between Pierstorff Street and Rieder Road. Due to the location of US 51 in this area and the proximity to neighborhoods it was determined that the range of alternatives developed would remain close to the existing alignment. This section of the US 51 corridor includes a substandard horizontal “s-curve” between Pierstorff Street and Rieder Road that is associated with a historical crash trend. Between 2017 – 2021, there were fifteen crashes along this stretch of curved highway. One of the crashes was a fatal motorcycle crash caused by the driver failing to negotiate the northbound US 51 roadway curve. Correcting this geometric deficiency would improve safety on the US 51 corridor.

The three different alignment alternatives included maintaining the existing alignment, flattening the horizontal curve to meet standards and shifting the alignment further from the airport runway and flattening the horizontal curve to meet standards while keeping the alignment close to the existing alignment as possible. Leo Circle is a stop-controlled local road located less than 150 feet east of the existing Pierstorff Street intersection and is parallel to US 51 in the area. It provides access to Pierstorff Street for three properties that would otherwise be landlocked.

Maintain the Existing Alignment
This alternative would not address the safety issues related to the substandard curve need factors but would not require any changes within the RPZs.

Flatten Horizontal Curve and Shift Alignment Further from Airport Runway

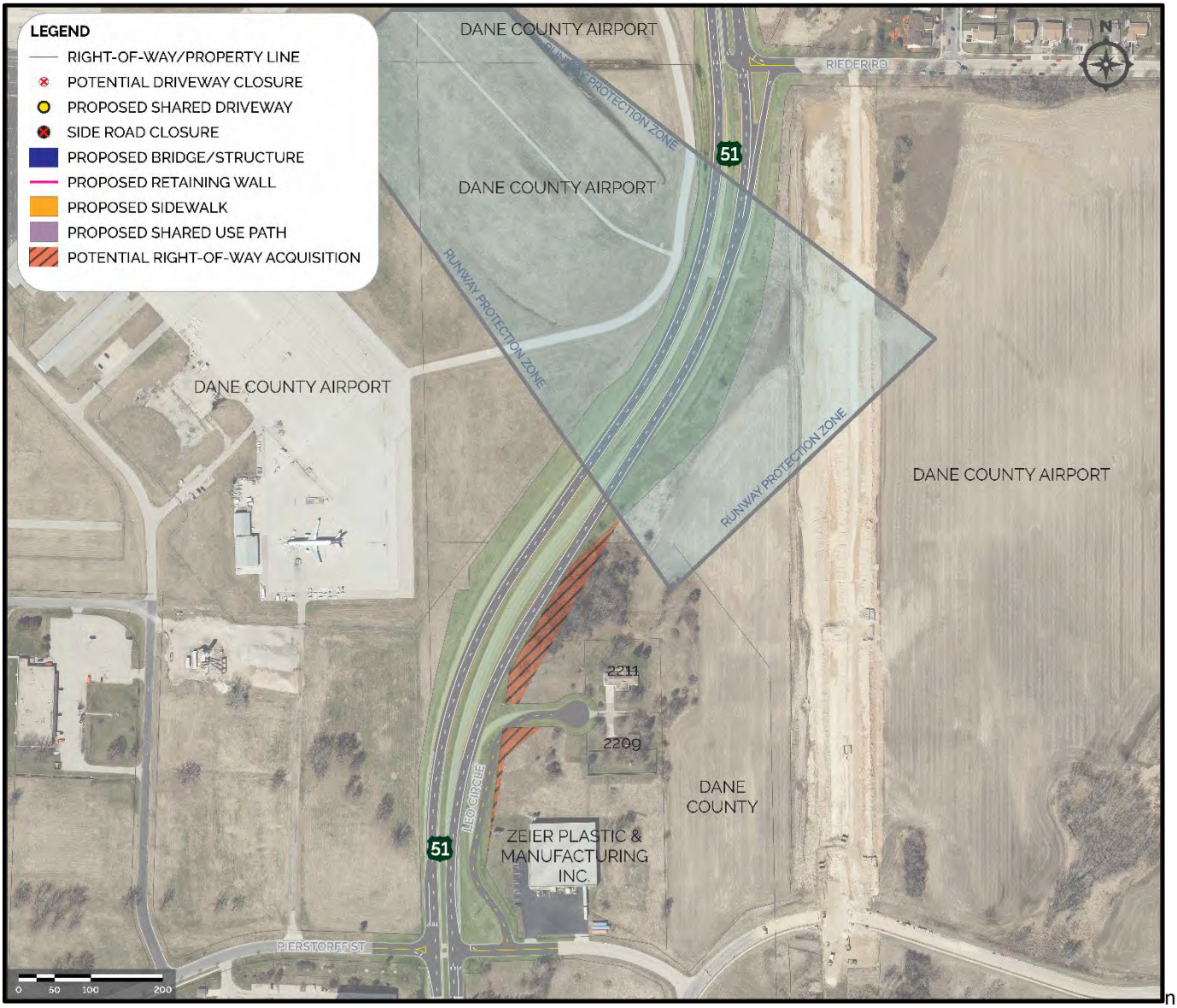
This alternative would flatten the horizontal curves to meet desirable standards and shift the US 51 alignment east, further away from the end of the airport runway. This alternative would require the largest amount of right of way from the airport to construct and would require right of way acquisition within the RPZ. In addition, Leo Circle would need to be relocated approximately 300 feet east on a new alignment.

Flatten the Horizontal Curve and Keep Alignment Close to Existing

This alternative would flatten the horizontal curves to desirable standards while keeping the mainline alignment as close to existing as possible. This alternative would require right of way from the airport, but not from within the existing RPZ. In addition, it would impact but maintain Leo Circle near its current location, see Figure 7-2.

Figure 7-2: RPZ and Preferred Alternative for S-Curve Alignment

After coordinating with DCRA and other stakeholders, WisDOT identified this alternative as the preferred alternative because it would address the safety concerns associated with the substa



ndard curve while minimizing environmental and right of way impacts. DCRA provided feedback supporting the WisDOT-identified preferred alternative in this section of the corridor. WisDOT then coordinated with FAA to determine if the preferred alternative would require any additional analysis for the minimal roadway changes within the RPZ. FAA responded that no additional RPZ analysis was necessary to move forward with the alternative.

RPZ near Hanson Road

WisDOT developed several alignment alternatives for the RPZ near Hanson Road, including alternatives ranged from minor alignment adjustments to substantial shifts of nearly 700 feet to the east at Hanson Road to extend the distance between US 51 the airport runway end. A tunnel alternative was also investigated for US 51 that would run from 1,200 feet south of Hanson Road to 1,500 feet north of Hanson Road to minimize RPZ impacts; however, the tunnel alternative is cost prohibitive, requires right of way acquisition and eliminates Hanson Road access to US 51.

After evaluation and coordination with DCRA and other stakeholders, WisDOT identified an alternative that would maintain the existing US 51 alignment as the preferred alternative in this location. This alternative would have minimal changes to the roadway configuration and have no property acquisition or new land uses introduced within the RPZ. DCRA provided feedback supporting the WisDOT-identified preferred alternative in this section of the corridor. WisDOT then coordinated with FAA to determine if the preferred alternative would require any additional analysis for the minimal roadway changes within the RPZ. FAA responded that no additional RPZ analysis was necessary to move forward with the alternative.

The tables below contain a description of the preferred alternative typical section for the mainline sections of US 51 from Pierstorff Street to south of I-39/90/94. Note, the reader should assume north is up in the typical section. Maps showing the preferred alternative for these sections are included on page M-4 of the Maps Section - **Preferred Alternative Map**. More detailed typical

sections can be found in **Appendix E: Proposed Corridor Typical Sections**.

Section of US 51	Preferred Alternative	Proposed Typical Section
North Section: Pierstorff Street to Hoepker Road	Rural cross-section with 4 total lanes (2 in each direction); 12-foot lanes with 10-foot outside shoulders (8-foot paved) to accommodate bikes	

- This alternative would reconstruct this section of US 51, it would maintain the existing number of mainline travel lanes and the existing rural cross-section.
- The 8-foot outside paved shoulders would accommodate bicyclists. A shared-use path was not included in this section because it was not supported by DCRA or FAA.

Section of US 51	Preferred Alternative	Proposed Typical Section
North Section: Hoepker Road to County CV/Anderson Road	Rural cross-section with 4 total lanes (2 in each direction); 12-foot lanes with 10-foot outside shoulders (8-foot paved); 10-foot shared-use path on the east side	

- This alternative would reconstruct this section of US 51, it would maintain the existing number of mainline travel lanes and the existing rural cross-section.
- A shared-use path would be constructed on the east side of US 51.
- Sidewalk would be constructed to connect to existing sidewalk on Hoepker Road east of US 51.

Section of US 51	Preferred Alternative	Proposed Typical Section
North Section: County CV/Anderson Road to south of I-39/90/94	Rural cross-section with 4 total lanes (2 in each direction); 12-foot lanes with 10-foot outside shoulders (8-foot paved); 12-foot northbound and southbound auxiliary lanes; 10-foot shared-use path on the east side	

- This alternative would reconstruct this section of US 51, it would maintain the existing number of mainline travel lanes, the southbound auxiliary lane and the existing rural cross-section. An auxiliary lane would be added on northbound US 51 from Anderson Road that would match into the preferred alternative identified for the I-39/90/94 and US 51 interchange in WisDOT's I-39/90/94 Corridor Study.
- A shared-use path would be constructed on the east side of US 51 that would connect to a future shared-use path being considered as part of WisDOT's I-39/90/94 Corridor Study.

7.4 Mainline Summary

The proposed alignment and typical sections for the preferred alternative, described in Section 7.3 above, meet the purpose and need of the study. Changes to the S-curve between Pierstorff Street and Rieder Road to meet standards would improve safety. The proposed typical sections would accommodate the existing and future traffic volumes. Additional facilities would be provided for bicycles and pedestrians while balancing the needs and requirements of the airport. Impacts from the mainline preferred alternative include:

- 1.11 acres of right of way
- 1.02 acres of wetland impacts
- No relocations

7.5 Intersection Alternatives

The US 51 North Study evaluated 13 intersections including one interchange within the study limits. Concepts were developed for the interchange and intersections to address the study's purpose and need. Concepts for each location varied in number to accommodate the size and complexity of the intersecting and adjacent roadways. The US 51/Daentl Road intersection is located on the north end of the study limits, however due to proximity to the I-39/90/94 interchange, the intersection is being evaluated as part of the separate WisDOT I-39/90/94 Corridor Study.

7.6 Intersection Alternatives Development and Screening Process

To foster informed decision-making, WisDOT objectively evaluated a reasonable range of alternatives that would meet the study's purpose and need. The alternative development and screening process for the study corridor intersections was completed in five phases. The purpose of the development and screening process was to narrow down the broad range of intersection alternatives and identify a preferred alternative in each location, which is the alternative that best addressed the study's purpose and need while considering the impacts, costs and stakeholder feedback received.

The five-phase process included the following:

- Phase I: Early stakeholder outreach included a public involvement meeting (PIM) and committee meetings to help identify corridor needs. A broad range of high-level alternative concepts that could potentially address the study's purpose and need components that focus on intersection safety and operations were developed. A total of 44 initial concepts developed, and 36 advanced to Phase II. The detailed purpose and need report can be found in **Appendix C: Purpose and Need Report**.
- Phase II: An initial engineering evaluation of the remaining conceptual alternatives and stakeholder feedback was gathered to refine and narrow down which concepts to carry forward. There were 28 concepts that advanced to Phase III.
- Phase III: Further refined the alternative concepts. Screening criteria based on the study's purpose and need were developed and applied to intersections that had either several or more complex concepts to help determine which concepts warranted further investigation. Feedback received from committee meetings and the second public involvement meeting (PIM 2) was also used to narrow down the concepts. There were 22 concepts that advanced to Phase IV.
- Phase IV: Development of detailed alternatives and impacts based on the remaining concepts. Detailed screening criteria were developed and applied to intersections with more complex alternatives to help identify the most promising options. There were 18 concepts that advanced to Phase V.
- Phase V: Identified a preferred alternative for each location based on detailed criteria and feedback from stakeholders and the third public involvement meeting (PIM 3).

Figure 7-3 shows the five-phase intersection development process and illustrates how the 44 original concepts were narrowed down, or screened, within each phase until only the preferred intersection alternatives remained. The timeline for concept and alternative screening can be seen in Figure 7-4.

Table 7-1 lists the intersection concepts and alternatives that were considered for the study, denoting what phase each alternative was eliminated from further consideration.

Figure 7-3: Intersection Alternative Development Process

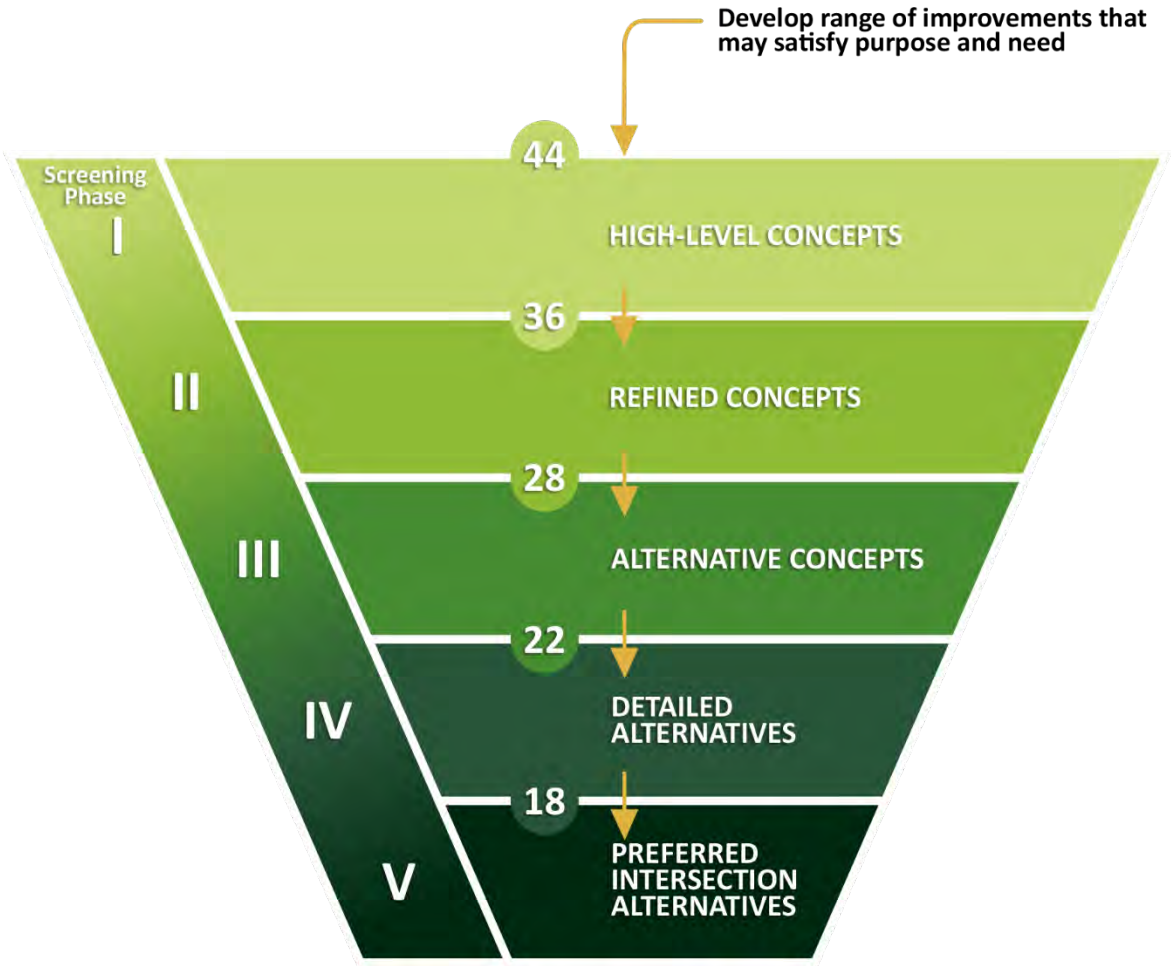


Figure 7-4: Intersection Alternative Development Timeline

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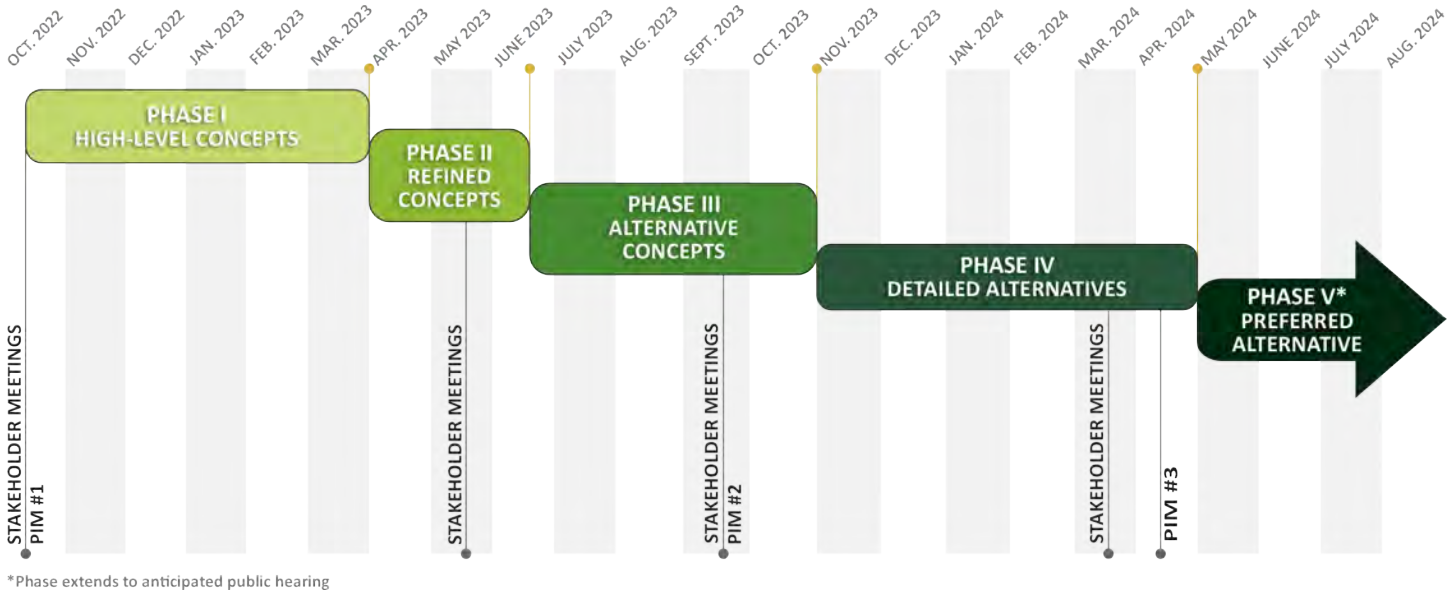


Table 7-1: Summary of Intersection Alternatives

INTERSECTION	*High-Level Concepts* PHASE I	*Refined Concepts* PHASE II	*Alternative Concepts* PHASE III	*Detailed Alternatives* PHASE IV	*Preferred Alternative* PHASE V
	Oct. 2022 Mar. 2023	*April 2023 Mid-June 2023*	*Mid-June 2023 Oct. 2023*	*Nov. 2023 May 2024*	*June 2024 Dec. 2024*
COUNTY CV	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Roundabout				
ACKER ROAD	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Right-In/Right-Out				
	Restricted Left				
	Remove Access				
HOEPKER ROAD	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond Improved	**Ex. Cond. Improved**
	Roundabout	Roundabout	Roundabout	Roundabout	Roundabout
	Interchange				
HANSON ROAD	Ex. Cond. Improved				
	Signalized				
	Roundabout	Roundabout	Roundabout		
	Full Access	Full Access	Full Access	Full Access	**Full Access**
	Right-In/Right-Out	Right-In/Right-Out			
	Restricted Left	Restricted Left	Restricted Left	Restricted Left	
AMELIA EARHART DR	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
RIEDER ROAD	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Ex. Cond. Imp. RCUT	Ex. Cond. Imp. RCUT	Ex. Cond. Imp. RCUT	Ex. Cond. Imp RCUT	Ex. Cond. Imp RCUT
PIERSTORFF STREET	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
KINSMAN BOULEVARD	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Roundabout	Roundabout	Roundabout	Roundabout	Roundabout
ANDERSON STREET	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Roundabout				
US 151 (EAST WASHINGTON AVENUE)	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Quadrant (NE-1)	Quadrant (NE-1)			
	Quadrant (NE-2)	Quadrant (NE-2)			
	Quadrant (NW)	Quadrant (NW)			
	Quadrant (SE-1)	Quadrant (SE-1)			
	Quadrant (SE-2)	Quadrant (SE-2)			
	Quadrant (SW)	Quadrant (SW)	Quadrant (SW)	Quadrant (SW)	
	Displaced Left	Displaced Left			
	Jughandle	Jughandle	Jughandle	Jughandle	Jughandle
	Tight Diamond	Tight Diamond	Tight Diamond	Tight Diamond	
	DDI	DDI			
	RAB with EWA Over	RAB with EWA Over	RAB with EWA Over		
	SPUI	SPUI	SPUI		
	Grade Sep. RAB	Grade Sep. RAB	Grade Sep. RAB		
	Squareabout	Squareabout	Squareabout		
LEXINGTON/ COMMERCIAL AVENUE	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	Ex. Cond. Improved	**Ex. Cond. Improved**
	Partial Cloverleaf	Partial Cloverleaf	Partial Cloverleaf		
	Right-In/Right-Out	Right-In/Right-Out	Right-In/Right-Out	Right-In/Right-Out	
	Three-Legged	Three-Legged	Three-Legged	Three-Legged	Three-Legged
WIS 30 INTERCHANGE	Ex. Cond. Improved Interchange	Ex. Cond. Improved Interchange	Ex. Cond. Improved Interchange	Ex. Cond. Improved Interchange	**Ex. Cond. Improved Interchange**
	DDI	DDI	DDI	DDI	DDI

Text shown in **bold green** identifies the preferred alternative.

Information on the development of the intersection alternatives for Phase I through Phase IV can be found in **Appendix D: Alternatives Screening Technical Report**.

7.7 Phase V Intersection Preferred Alternatives

Phase V identified a preferred alternative for all intersections within the corridor by thoroughly evaluating all anticipated impacts and considering feedback from the public and stakeholders throughout the alternative development process. For locations that advanced more than one alternative to Phase V, the feedback received during the outreach associated with PIM 3 was a key factor in the identification of the preferred alternative. WisDOT considers the preferred alternative the alternative that best address the study's purpose and need, considering the potential impacts, costs and feedback received.

Impacts for the preferred alternative were updated based on refinements that occurred as the result of stakeholder feedback received during and after PIM 3. A summary of the impacts of the preferred alternative can be found in Section 20 – Alternatives Comparison. Maps showing the preferred alternative are included on page M-4 of the Maps Section – **Preferred Alternative Map**.

7.7.1 WIS 30 Interchange

The Existing Conditions Improved and the DDI alternatives were carried forward to Phase V for the WIS 30 interchange. After reviewing feedback during outreach for PIM 3, the recommended alternative, Existing Conditions Improved, was identified as the preferred alternative.

The Existing Conditions Improved alternative at WIS 30 was modified from what was presented at PIM 3. The detailed traffic analysis was further refined for the preferred alternative, and the analysis determined that the northbound US 51 right turn lane to eastbound WIS 30 would need to be converted from a signalized movement to a free-flow movement in order to meet acceptable traffic operations.

After the preferred alternative was identified, WisDOT met with the city of Madison to revisit bicycle and pedestrian accommodations at this interchange. The city requested that a bicycle and pedestrian bridge be constructed to cross US 51 just south of WIS 30. The bicycle and pedestrian bridge would connect to the city of Madison's Marsh View Path on the west side of US 51 providing connectivity into the existing network and to the new 10-foot shared-use path that would be constructed on the east side of US 51. The bicycle and pedestrian bridge has been included in the preferred alternative at this location, however, construction of the bridge would be dependent on a funding agreement with the city of Madison. If a funding agreement does not occur, WisDOT would not construct the bridge and an at-grade crosswalk would be included.

The Existing Conditions Improved alternative would maintain a similar configuration to the existing diamond interchange and bicycle and pedestrian accommodations would be added. The ramp intersections would remain signalized and the WIS 30 bridges over US 51 would not be impacted. Additional lanes are proposed to address interchange safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations. Protected bicycle/pedestrian crossings would be added to free-flow right-turn lanes on the east side of the interchange. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.1.

The Existing Conditions Improved alternative was identified as the preferred alternative because it addresses the interchange needs and provides similar traffic operations to the DDI but has improved safety for bicycles and pedestrians due to less travel lanes crossed and provides more familiar movements for vehicles, bicycles and pedestrians. Stakeholder feedback supported this alternative.

7.7.2 Commercial Avenue/Lexington Avenue Intersection

The Existing Conditions Improved and 3-Legged alternatives were carried forward to Phase V for the Commercial Avenue/Lexington Avenue intersection. After reviewing feedback during outreach received from PIM 3, the recommended alternative, Existing Conditions Improved, was identified as the preferred alternative.

The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection. Bicycle and pedestrian accommodations would be added to the intersection. The intersection would remain signalized and additional lanes are proposed to address intersection safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations. The railroad crossing located approximately 400 feet south of the intersection would remain at-grade and new crossing signals and gates will be added. The roadway profile on Lexington Avenue and Commercial Avenue would be raised to help mitigate flooding issues on these two roadways. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.2

The Existing Conditions Improved was identified as the preferred alternative because it addresses the intersection needs, provides similar safety and traffic operations to the 3-Legged Intersection but has substantially lower impacts and costs. Traffic analysis determined there were no operational concerns with the at-grade crossing of the railroad tracks if passenger rail did utilize the rail

line in the future. Stakeholder feedback generally favored this alternative.

7.7.3 US 151 Intersection

The Existing Conditions Improved and Jughandle alternatives were carried forward to Phase V for the US 151 intersection. After reviewing feedback during outreach for PIM 3 the Existing Conditions Improved was identified as the preferred alternative.

The Phase IV analysis identified the Jughandle alternative as the recommended alternative. The Jughandle provided better safety and operations at the intersection, but also had larger impacts, including more potential relocations and access changes. Feedback received from PIM 3 was not supportive of the Jughandle alternative. Further, the city of Madison identified a partial grade separated intersection was not consistent with the local vision for this portion of the city. The city's future vision for the area includes re-developing the area into mixed use with all roadway crossings at grade. Due to feedback received during and following the PIM 3, the Existing Conditions Improved alternative has been identified as the preferred alternative.

The Existing Conditions Improved alternative at US 151 was modified from what was presented at PIM 3 held in April 2024. Based on the feedback received and additional discussions regarding safety, operations and impacts, the proposed access closures at MacArthur Road and Rowland Avenue were changed to right in/right out access, the same as currently exists today. There are no existing safety or operational concerns at these intersections, and keeping these access points open would result in three fewer relocations (one commercial business and two residential). In addition, the city of Madison strongly supported maintaining access at these locations.

In addition, the Schmedeman Avenue intersection was modified from right in/right out access to allow for vehicles traveling eastbound on US 51 to make a left-in to Schmedeman Avenue. There are no operational concerns with allowing the left-in access and the city of Madison strongly supported allowing access to the businesses on Schmedeman Avenue.

Finally, after the preferred alternative was identified, WisDOT met with the city of Madison to revisit bicycle and pedestrian accommodations included with the Existing Conditions Improved alternative at this intersection. To better accommodate the shared-use path included on the east side of US 51, the city of Madison requested that a bicycle and pedestrian bridge be constructed to cross the east leg of US 151, connecting the shared-use path north and south of US 151. WisDOT agreed to include the bicycle and pedestrian bridge in the preferred alternative at this location; however, construction of the bridge would be dependent on a funding agreement with the city of Madison. If a funding agreement does not occur, WisDOT would not construct the bridge. The already planned at-grade crosswalk would be included.

The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations will be added. The intersection would remain signalized and additional mainline travel lanes and intersection turn lanes are proposed to address safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.3.

The Existing Conditions Improved has been identified as the preferred alternative because stakeholder feedback strongly favored this alternative. It addresses operations needs and improves vehicle safety by eliminating the deficient intersection skew angle. It also improves bicycle and pedestrian safety by providing crosswalks on all four legs of the intersection and a bicycle and pedestrian overpass east of US 51. It also has substantially lower impacts and costs than the Jughandle alternative. Additional modifications to the Existing Conditions Improved alternative were made as noted above based on feedback received during and follstudyowing PIM 3.

7.7.4 Anderson Street Intersection

The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, the number of mainline travel lanes and intersection turn lanes will remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.4.

The Existing Conditions Improved alternative was identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns that could not be addressed with the minor improvements proposed. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

7.7.5 Kinsman Boulevard Intersection

The Existing Conditions Improved and Roundabout alternatives were carried forward to Phase V for the Kinsman Boulevard intersection. After reviewing feedback during outreach for PIM 3, the recommended alternative, Existing Conditions Improved, was identified as the preferred alternative.

The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations will be added. The intersection would remain signalized, and the number of mainline travel lanes and intersection turn lanes would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders would be added to accommodate bicycles on US 51 north of Kinsman Boulevard. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.5.

The Existing Conditions Improved has been identified as the preferred alternative because it would address the intersection needs, is anticipated to result in lower overall crashes than the Roundabout Intersection and would provide controlled crossings for bicycles and pedestrians. Stakeholder feedback supported this alternative.

7.7.6 Pierstorff Street Intersection

The preferred alternative identified in Phase V at Pierstorff Street is the Existing Conditions Improved alternative. The Existing Conditions Improved alternative will maintain a similar configuration to the existing right-in/right-out intersection. The intersection will remain unsignalized and the number of mainline travel lanes will remain the same. A northbound US 51 right-turn lane would be added to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles and the paved median cut-outs for bicycles will be maintained. A description of improvements and a figure showing the preferred alternative is included in Section 8.1.6.

The Existing Conditions Improved has been identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

7.7.7 Rieder Road Intersection

The Existing Conditions Improved and the Existing Conditions Improved RCUT were carried forward to Phase V for the Rieder Road intersection. After reviewing feedback during outreach for PIM 3 and having additional discussions regarding safety and traffic operations, the Existing Conditions Improved alternative has been identified as the preferred alternative.

The Existing Conditions Improved alternative would maintain the configuration of the existing unsignalized left-turn restricted intersection. The number of mainline travel lanes and intersection turns lanes would remain the same and paved shoulders on US 51 would accommodate bicycles. A description of improvements and a figure showing the preferred alternative is included in Section 8.1.7.

The Existing Conditions Improved was identified as the preferred alternative because it was determined that the RCUT was not needed due to no existing or anticipated future safety or operational concerns identified at this intersection or at Amelia Earhart Drive.

7.7.8 Amelia Earhart Drive Intersection

The preferred alternative identified in Phase V at Amelia Earhart Drive is the Existing Conditions Improved alternative. The Existing Conditions Improved alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes would remain the same. A southbound US 51 right-turn lane would be added, and the northbound US 51 left-turn lane would be lengthened to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles. A description of improvements and a figure showing the preferred alternative is included in Section 8.1.8.

The Existing Conditions Improved has been identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

7.7.9 Hanson Road Intersection

The preferred alternative identified in Phase V at Hanson Road is the Full Access alternative. The Full Access alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes would remain the same. Acceleration, deceleration and turn lanes would be added and existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.9.

The Full Access alternative has been identified as the preferred alternative because it would address the intersection needs and there is no anticipated right of way, environmental or access impacts. This is the alternative that received the most stakeholder support throughout the alternatives development process and was the only alternative carried forward from the Phase IV analysis.

7.7.10 Hoepker Road Intersection

The Existing Conditions Improved and Roundabout alternatives were carried forward to Phase V for the Hoepker Road intersection. After reviewing feedback during outreach for PIM 3, the recommended alternative, Existing Conditions Improved, was identified as the preferred alternative.

The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, and the number of mainline travel lanes would remain the same. Turn lanes would be added and existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders would accommodate bicycles on US 51 south of Hoepker Road. A detailed description of improvements and a figure showing the preferred alternative is included in Section 8.1.10.

The Existing Conditions Improved has been identified as the preferred alternative because it would address the intersection needs, is anticipated to result in lower overall crashes than the Roundabout Intersection and would provide controlled crossings for bicycles and pedestrians. Stakeholder feedback supported this alternative.

7.7.11 Acker Road Intersection

The preferred alternative identified in Phase V at Acker Road is the Existing Conditions Improved alternative. The Existing Conditions Improved alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes and intersection turn lanes would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations. A shared-use path would be added on the east side of US 51. A description of improvements and a figure showing the preferred alternative is included in Section 8.1.11.

The Existing Conditions Improved has been identified as the preferred alternative because there would be no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

7.7.12 County CV/Anderson Road Intersection

The preferred alternative identified in Phase V at County CV/Anderson Road is the Existing Conditions Improved alternative. The Existing Conditions Improved alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, and the number of mainline travel lanes and intersection turn lanes and the southbound US 51 auxiliary lane would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations and traffic signals would be optimized. An auxiliary lane would be added to northbound US 51 from Anderson Road that would match into the preferred alternative identified for the I-39/90/94 and US 51 interchange in WisDOT's I-39/90/94 Corridor Study. The vertical profile would be adjusted to meet standards for improved visibility. Bicycle accommodations include a crosswalk added on the east leg of the intersection and a shared-use path added along the east side of US 51 that would tie into the shared-use path proposed as part of WisDOT's I-39/90/94 Corridor Study. A description of improvements and a figure showing the preferred alternative is included in Section 8.1.12.

The Existing Conditions Improved was identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns that could not be addressed by the minor improvements proposed. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

8. Description of Preferred Alternative

The preferred alternative is to reconstruct approximately 5.5 miles, one interchange, and improve 11 intersections between WIS 30 and I-39/90/94. See Section 20 – Alternatives Comparison for a summary of the impacts of the preferred alternative. The **Preferred Alternative Map** (page M-4 of the Maps Section) is a series of maps that illustrate the proposed action.

Corridor Summary

- South Section
  - South of WIS 30 to US 151: Reconstruction to a 6-lane urban section with a shared-use path on the east side of US 51
- Central Section
  - US 151 to Anderson Street: Reconstruction to a 5- to 6-lane urban section with a shared-use path on both sides of US 51
  - Anderson Street to Kinsman Boulevard: Reconstruction to a 4-lane urban section with a shared-use path on the east side of US 51
  - Kinsman Boulevard to Pierstorff Street: Reconstruction to a 4-lane urban section
- North Section
  - Pierstorff Street to Hoepker Road: Reconstruction to a 4-lane rural section and horizontal curve correction
  - Hoepker Road to south of I-39/90/94: Reconstruction to a 4-lane rural section with a shared-use path on the east side of US 51

Real Estate Impacts Summary

The preferred alternative requires 9.27 acres of fee right of way from 65 different parcels.

- 0.03 acres are needed for the culvert extension at the DCRA
- 0.22 acres are needed for the culvert extension at Commercial Avenue
- 3.43 acres are needed at the locations that require relocation
- 0.84 acres are needed for the roadway and Leo Circle realignment
- 1.38 acres are needed for roadway changes and include industrial, employment and general commercial land use
- 3.28 acres are needed to install sidewalk and shared-use paths and include employment, general commercial, industrial, regional mixed-use, neighborhood mixed-use, and parks and open space land uses
- 0.09 acres are needed for the noise wall

Table 8-1 shows the impacts to property tax revenues from the fee right of way needs.

Table 8-1: Impacts to Property Tax Revenues

Location	Total Tax Base (2023)	Total Property Tax (2023)	Potential Total Tax Base Loss	Potential Property Tax Loss	Potential Reduction in Property Tax Revenue (%)
City of Madison	$42,648,777,000	$850,856,235	$4,470,116.96	$89,180.21	0.010%
Town of Burke	$759,446,900	$11,049,393	$84,806.67	$1,233.87	0.011%

Intersection Summary

8.1.1 WIS 30 Interchange

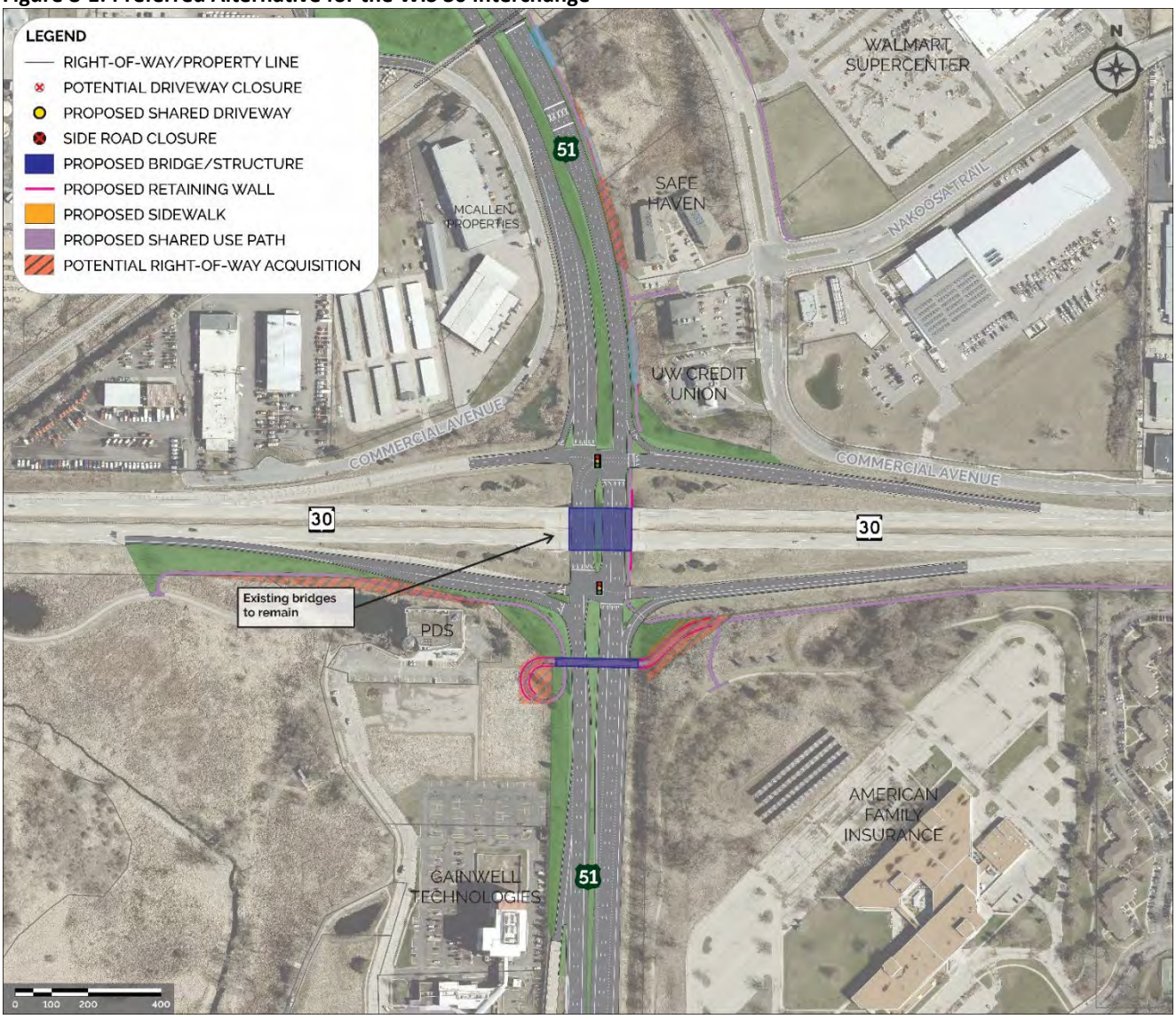
The Existing Conditions Improved was identified as the preferred alternative. The alternative would maintain a similar configuration to the existing diamond interchange and bicycle and pedestrian accommodations will be added. The ramp intersections would remain signalized and the WIS 30 bridges over US 51 would not be impacted. Additional lanes are proposed to address interchange safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations.

Proposed changes include:

- Interchange Layout
    - Additional third westbound WIS 30 left-turn lane to southbound US 51
    - Additional second eastbound WIS 30 left-turn lane to northbound US 51
    - Additional second eastbound right-turn lane to southbound US 51
    - Convert northbound US 51 right turn lane to eastbound WIS 30 to a free-flow movement (currently signalized)
    - Signalized eastbound WIS 30 to southbound US 51 right-turn (currently free-flow movement)
    - Northbound auxiliary lane on US 51 added between westbound WIS 30 exit ramp and Commercial Avenue
    - Optimized traffic signal timings
- Bicycle and Pedestrian Accommodations
    - Bicycle/pedestrian structure over US 51 south of WIS 30 – connection into Marsh View Path on west side of US 51
    - Shared-use path added along east side of US 51
    - Protected bicycle/pedestrian crossings of free-flow right turn lanes on the east side of the interchange.

Figure 8-1 shows the preferred alternative for the WIS 30 interchange.

Figure 8-1: Preferred Alternative for the WIS 30 Interchange



The Existing Conditions Improved alternative was identified as the preferred alternative because it addresses the interchange needs provides similar traffic operations to the DDI but had improved safety for bicycles and pedestrians due to less travel lanes crossed and provides more familiar movements for vehicles, bicycles and pedestrians. Stakeholder feedback supported this alternative.

8.1.2 Commercial Avenue/Lexington Avenue Intersection

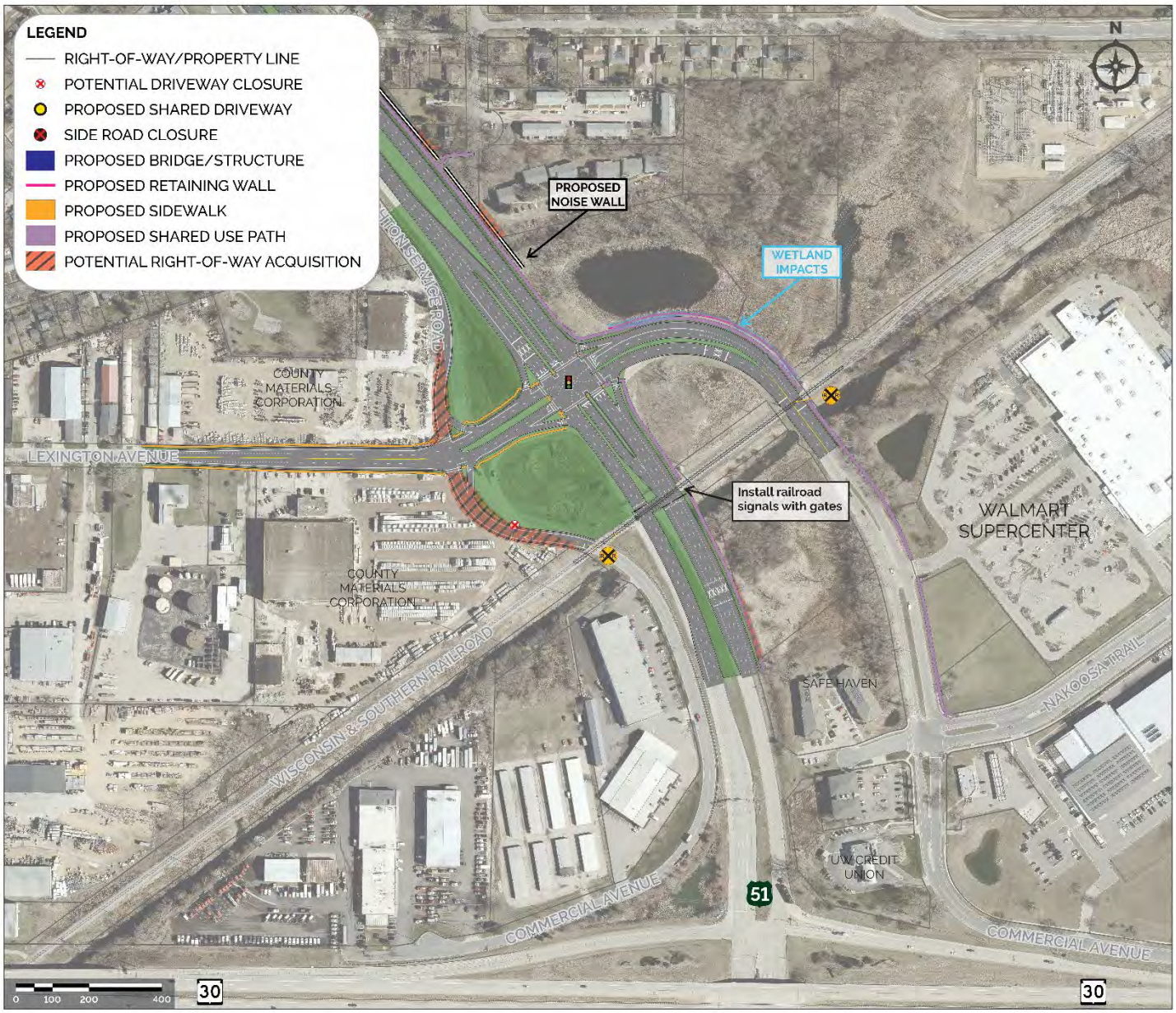
The Existing Conditions Improved was identified as the preferred alternative. The alternative would maintain a similar configuration to the existing intersection. Bicycle and pedestrian accommodations will be added to the intersection. The intersection would remain signalized and additional lanes are proposed to address intersection safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations. The railroad crossing located approximately 400 feet south of the intersection would remain at-grade and new crossing signals and gates will be added. The roadway profile on Commercial Avenue/Lexington Avenue would be raised to help mitigate flooding issues on these two roadways.

Proposed changes would include:

- Intersection Layout
    - Additional second northbound US 51 left-turn lane to westbound Lexington Avenue
    - Additional second southbound US 51 left-turn lane to eastbound Commercial Avenue
    - Northbound auxiliary lane on US 51 added between westbound WIS 30 exit ramp and Commercial Avenue
    - Optimized traffic signal timings
- Side Roads
    - Realigns Lexington Avenue/North Stoughton Service Road to the west to meet intersection spacing standards
    - Adds second eastbound and westbound travel lane on Lexington Avenue
- Bicycle and Pedestrian Accommodations
    - Crosswalks added to all four legs of intersection (currently none)
    - Shared-use path added along east side of US 51
    - Shared-use path added along east side of Commercial Avenue to Nakoosa Trail
    - Sidewalk added on both sides of Lexington Avenue to construction limits

Figure 8-2 shows the preferred alternative for the Commercial Avenue/Lexington Avenue intersection.

Figure 8-2: Preferred Alternative for the Commercial Avenue/Lexington Avenue Intersection



The Existing Conditions Improved was identified as the preferred alternative because addresses the intersection needs, provides similar safety and traffic operations to the 3-Legged Intersection but has substantially lower impacts and costs. Traffic analysis determined that no operational concerns with the at-grade crossing of the railroad tracks if passenger rail did utilize the tail line in the future. Stakeholder feedback generally favored this alternative.

8.1.3 US 151 Intersection

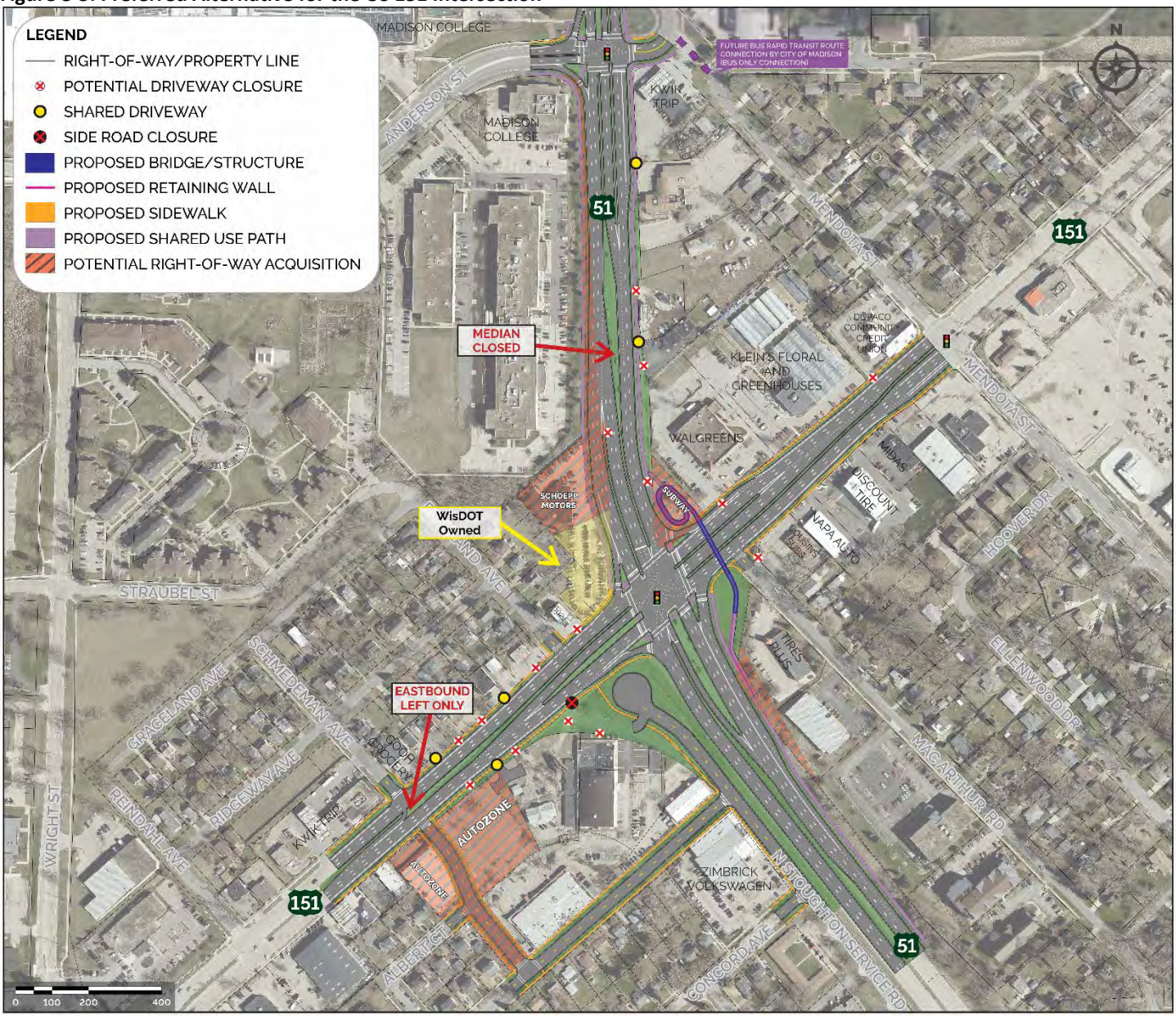
The Existing Conditions Improved has been identified as the preferred alternative. This alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations will be added. The intersection would remain signalized and additional mainline travel lanes and intersection turn lanes are proposed to address safety and operations concerns. Existing turn lanes would also be lengthened as needed to improve traffic safety and operations.

Proposed changes would include:

- Intersection Layout
    - Improved intersection angle (skew) to meet standards to improve visibility
    - Additional third northbound US 51 travel lane north of US 151
    - Additional third southbound US 51 left-turn lane to eastbound US 151
    - Additional third westbound US 151 left-turn lane to southbound US 51
    - Optimized traffic signal timings
    - US 51 median north of US 151 would be closed; no left turns allowed
- Side Road Access
    - North Stoughton Service Road access to US 151 closed; access rerouted west along Prairie Avenue to new local roadway connection across from Schmedeman Avenue
    - Access at Schmedeman Avenue restricted; southbound left-turn from Schmedeman Avenue to eastbound US 151 or from westbound US 151 to new local road not allowed
- Bicycle and Pedestrian Accommodations
    - Crosswalks added to all four legs of intersection (currently no crosswalk on east leg)
    - Shared-use path added along east side of US 51
    - Shared-use path added on west side of US 51 north of US 151
    - Bicycle/pedestrian structure over US 151 east of US 51 connecting shared-use path

Figure 8-3 shows the preferred alternative for the US 151 intersection.

Figure 8-3: Preferred Alternative for the US 151 Intersection



The Existing Conditions Improved has been identified as the preferred alternative because stakeholder feedback strongly favored this alternative. It addresses operations needs and improves vehicle safety by eliminating the deficient intersection skew angle, and it improves bicycle and pedestrian safety with the addition of the bicycle and pedestrian overpass east of US 51. It also has substantially lower impacts and costs less than the Jughandle alternative. Additional modifications to the Existing Conditions Improved alternative were made as noted above based on feedback received during and following PIM 3.

8.1.4 Anderson Street Intersection

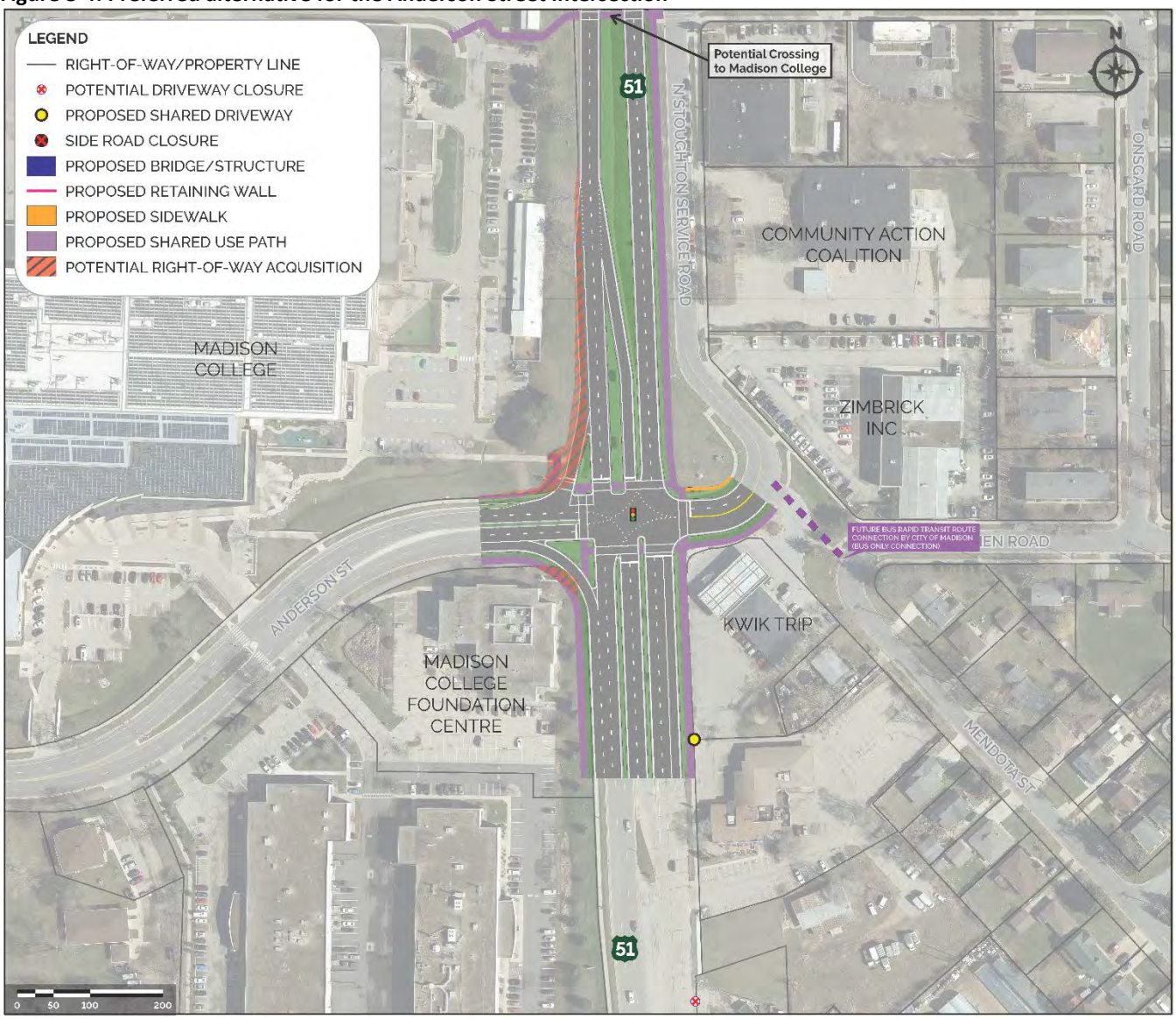
The Existing Conditions Improved was identified as the preferred alternative. This alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, and the number of mainline travel lanes and intersection turn lanes will remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations.

Proposed changes include:

- Intersection
    - Optimized traffic signal timings
- Bicycle and Pedestrian Accommodations
    - Shared-use path added along east side of US 51
    - Shared-use path added along west side of US 51 south of Anderson Street

Figure 8-4 shows the preferred alternative for the Anderson Street intersection.

Figure 8-4: Preferred alternative for the Anderson Street Intersection



The Existing Conditions Improved alternative was identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns that could not be addressed with the minor improvements proposed. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional analysis and outreach conducted in subsequent Phases.

8.1.5 Kinsman Boulevard Intersection

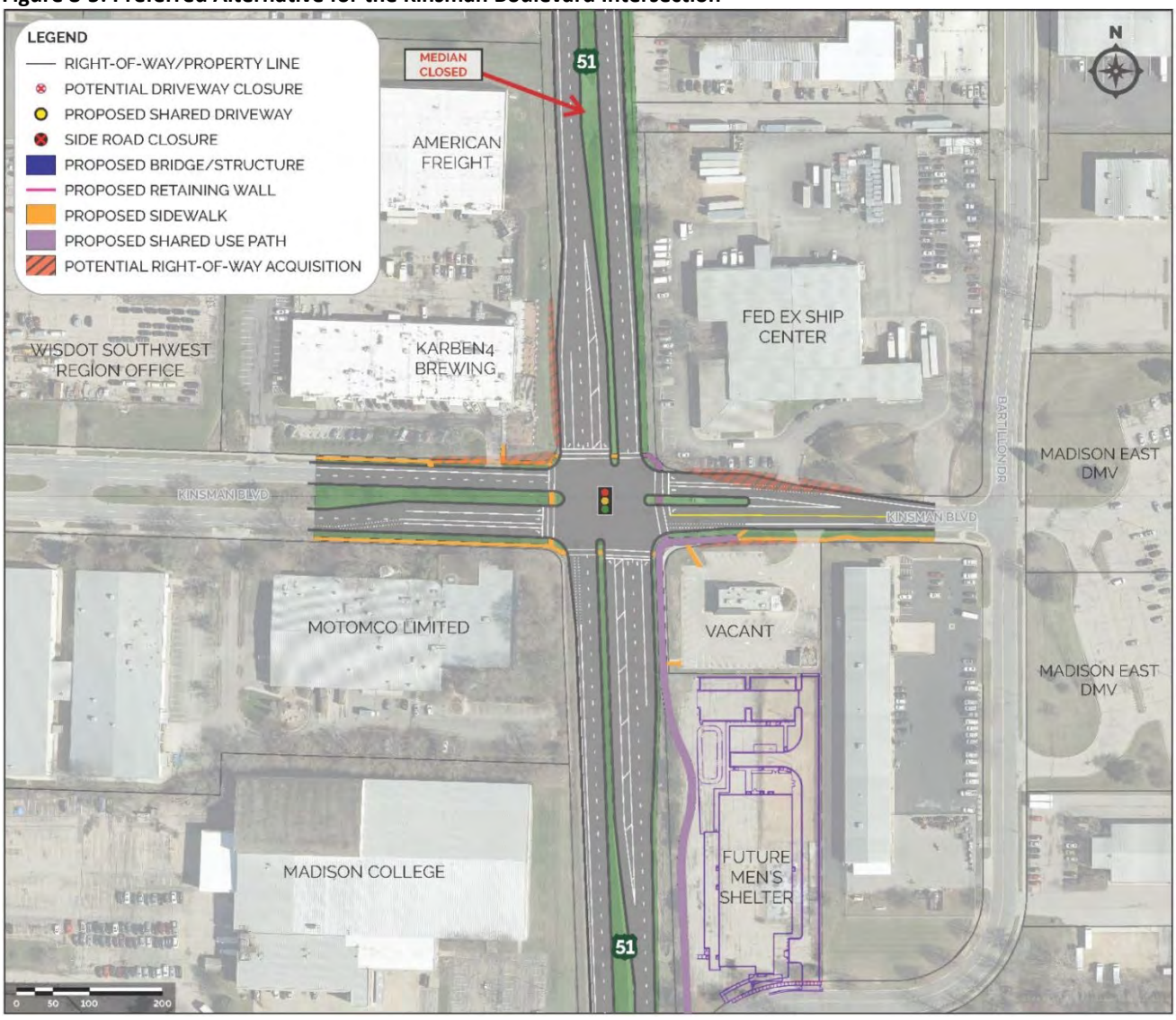
The Existing Conditions Improved was identified as the preferred alternative. This alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations will be added. The intersection would remain signalized, and the number of mainline travel lanes and intersection turn lanes would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders would be added to accommodate bicycles on US 51 north of Kinsman Boulevard.

Proposed changes include:

- Intersection Layout
    - Offset left-turn lanes on US 51 and Kinsman Boulevard to improve visibility for left-turning vehicles
    - Optimized traffic signal timings
- Bicycle and Pedestrian Accommodations
    - Crosswalks added on all four legs of intersection (currently only on two legs)
    - Shared-use path added along east side of US 51 south of Kinsman Boulevard
    - Bike lanes on Kinsman Boulevard extended through the US 51 intersection

Figure 8-5 shows the preferred alternative for the Kinsman Boulevard intersection.

Figure 8-5: Preferred Alternative for the Kinsman Boulevard Intersection



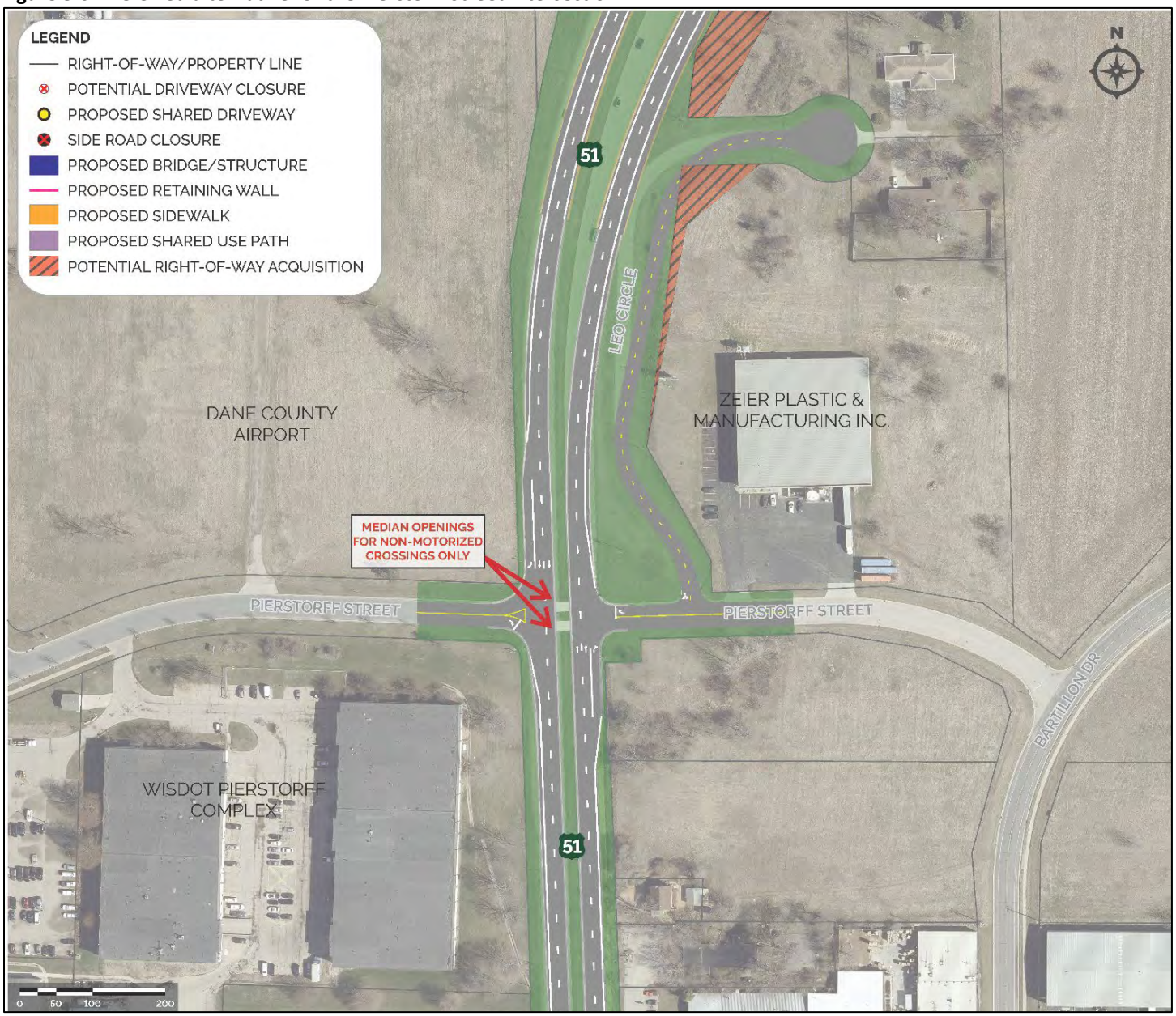
The Existing Conditions Improved has been identified as the preferred alternative because it would address the intersection needs, is anticipated to result in lower overall crashes than the Roundabout Intersection and would provide controlled crossings for bicycles and pedestrians. Stakeholder feedback supported this alternative.

8.1.6 Pierstorff Street Intersection

The preferred alternative identified at Pierstorff Street is the Existing Conditions Improved alternative. This alternative would maintain a similar configuration to the existing right-in/right-out intersection. The intersection will remain unsignalized and the number of mainline travel lanes will remain the same. A northbound US 51 right-turn lane would be added to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles and the paved median cut-outs for bicycles will be maintained.

Figure 8-6 shows the preferred alternative for Pierstorff Street.

Figure 8-6: Preferred alternative for the Pierstorff Street Intersection



The Existing Conditions Improved was identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional analysis and outreach conducted in subsequent Phases.

8.1.7 Rieder Road Intersection

The Existing Conditions Improved alternative was identified as the preferred alternative. This alternative would maintain the configuration of the existing unsignalized left-turn restricted intersection. The number of mainline travel lanes and intersection turns lanes would remain the same and paved shoulders on US 51 would accommodate bicycles.

Figure 8-7 shows the preferred alternative for the Rieder Road intersection.

Figure 8-7: Preferred Alternative for the Rieder Road Intersection

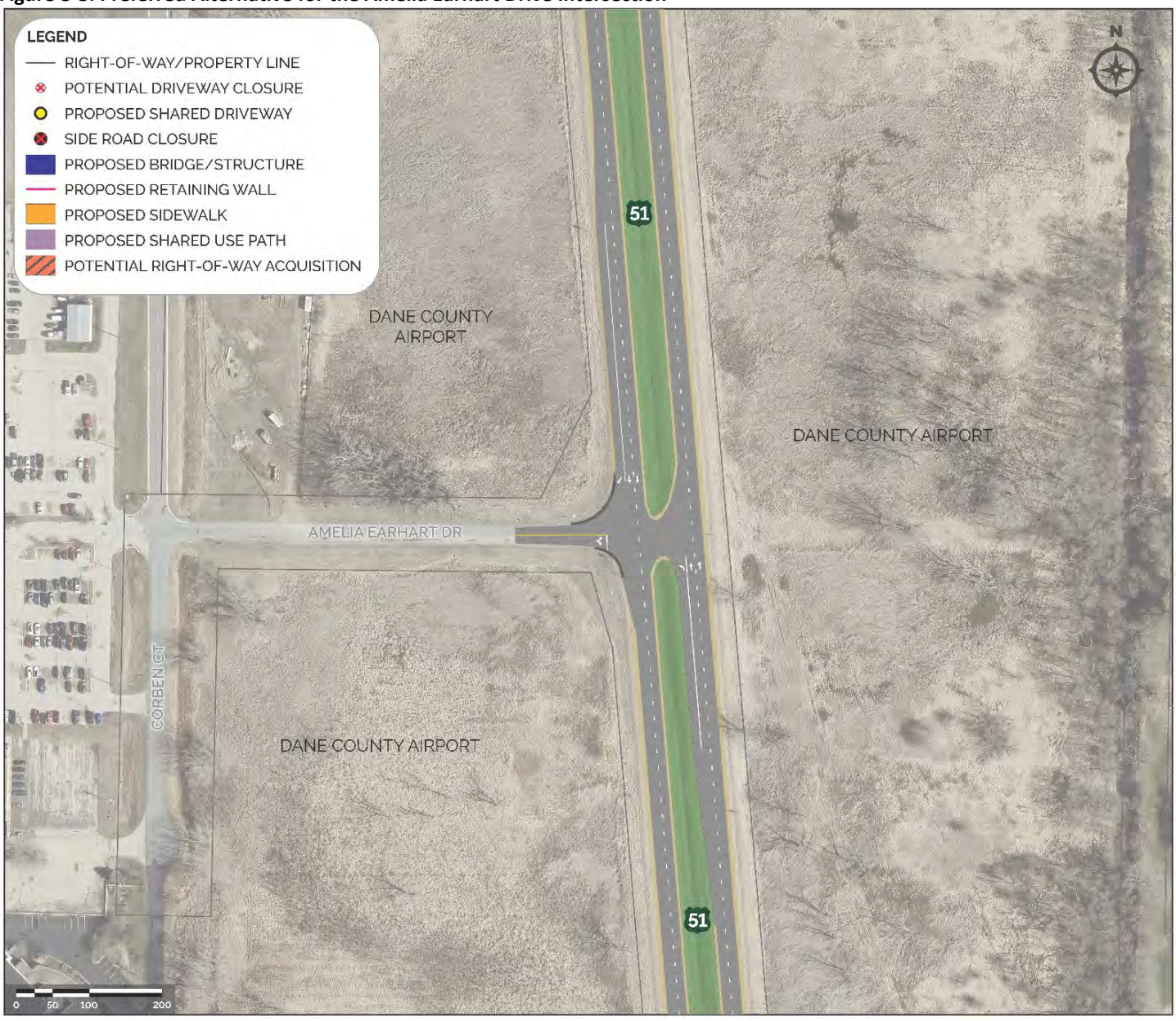
The Existing Conditions Improved was identified as the preferred alternative because it was determined that the RCUT was not needed due to no existing or anticipated future safety or operational concerns at this intersection and at Amelia Earhart Drive.

8.1.8 Amelia Earhart Drive Intersection

The preferred alternative identified at Amelia Earhart Drive is the Existing Conditions Improved alternative. This alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes would remain the same. A southbound US 51 right-turn lane would be added, and the northbound US 51 left-turn lane would be lengthened to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles.

Figure 8-8 shows the preferred alternative for the Amelia Earhart Drive intersection.

Figure 8-8: Preferred Alternative for the Amelia Earhart Drive Intersection



The Existing Conditions Improved has been identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional analysis and outreach conducted in subsequent Phases.

8.1.9 Hanson Road Intersection

The preferred alternative identified at Hanson Road is the Full Access alternative. This alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes would remain the same. Acceleration, deceleration and turn lanes would be added and existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders on US 51 would accommodate bicycles.

Proposed changes would include:

- Intersection
    - Adds a median protected deceleration lane for southbound US 51 left-turns to Hanson Road
    - Adds a median protected acceleration lane for vehicles turning left from Hanson Road to southbound US 51
    - Adds a northbound US 51 right-turn lane to Hanson Road
    - Adds dedicated left- and right-turn lanes on Hanson Road

Figure 8-9 shows the preferred alternative for the Hanson Road intersection.

Figure 8-9: Preferred Alternative for the Hanson Road Intersection

The Full Access alternative has been identified as the preferred alternative because it would address the intersection needs and there is no anticipated right of way, environmental or access impacts. This is the alternative that received the most stakeholder support and was the only alternative carried forward from the Phase IV analysis.

8.1.10 Hoepker Road Intersection

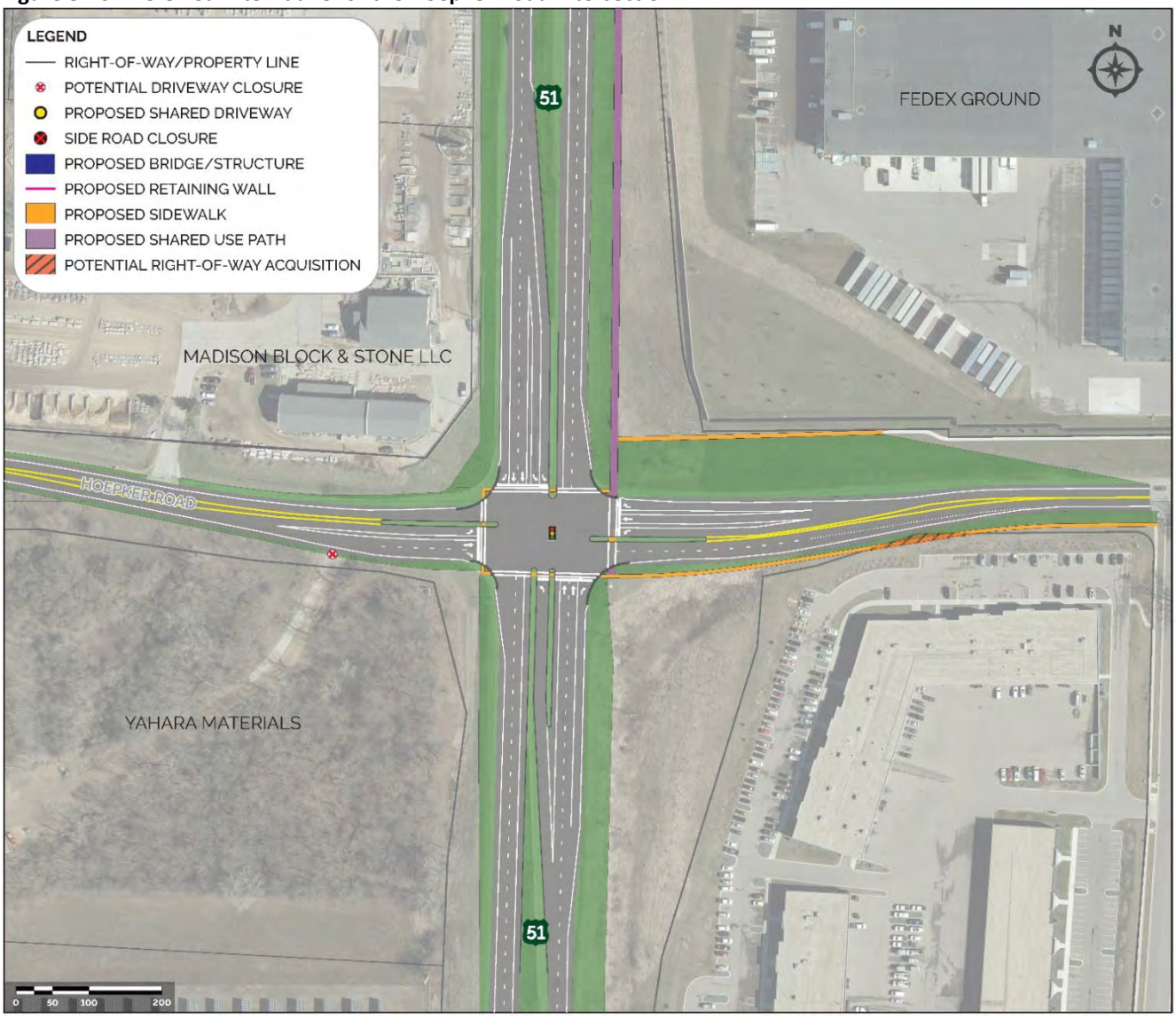
The Existing Conditions Improved was identified as the preferred alternative. This alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, and the number of mainline travel lanes would remain the same. Turn lanes would be added and existing turn lanes would be lengthened as needed to improve traffic safety and operations. Paved shoulders would accommodate bicycles on US 51 south of Hoepker Road.

Proposed changes would include:

- Intersection
    - Adds a second left-turn lane from southbound US 51 to eastbound Hoepker Road
    - Optimized signal timings
- Bicycle and Pedestrian Accommodations
    - Provides crosswalks on all four legs of intersection (currently none)
    - Shared-use path added along east side of US 51 north of Hoepker Road
    - Adds sidewalk on east side of US 51 to connect into existing network on Hoepker Road

Figure 8-10 shows the preferred alternative for the Hoepker Road intersection.

Figure 8-10: Preferred Alternative for the Hoepker Road Intersection



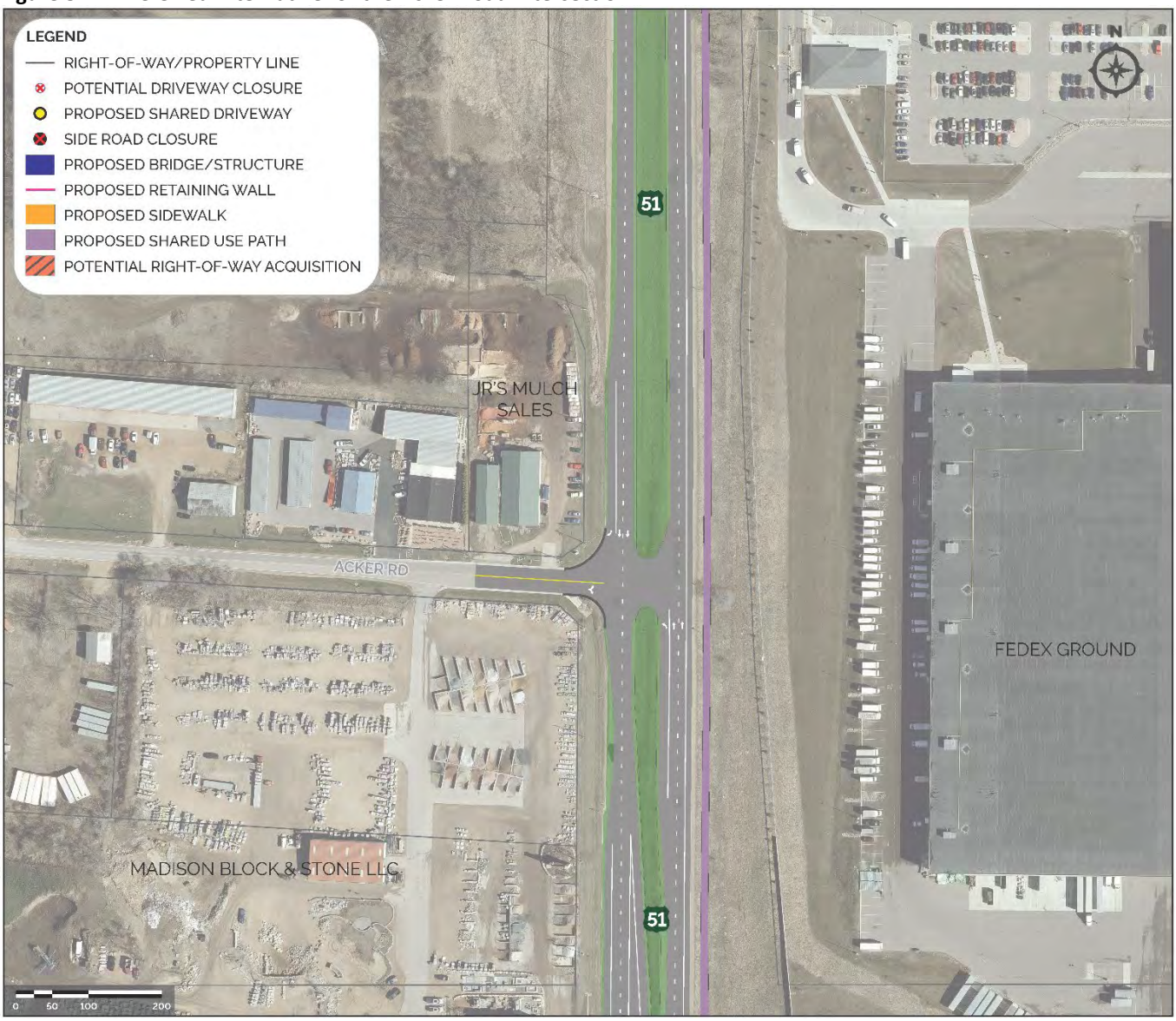
The Existing Conditions Improved has been identified as the preferred alternative because it would address the intersection needs, is anticipated to result in lower overall crashes than the Roundabout Intersection and would provide controlled crossings for bicycles and pedestrians. Stakeholder feedback supported this alternative.

8.1.11 Acker Road Intersection

The preferred alternative identified at Acker Road is the Existing Conditions Improved alternative. This alternative would maintain a similar configuration to the existing full access intersection. The intersection would remain unsignalized and the number of mainline travel lanes and intersection turn lanes would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations. A shared-use path would be added on the east side of US 51.

Figure 8-11 shows the preferred alternative for the Acker Road intersection.

Figure 8-11: Preferred Alternative for the Acker Road Intersection



The Existing Conditions Improved has been identified as the preferred alternative because there would be no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional development, analysis and outreach conducted in subsequent Phases.

8.1.12 County CV/Anderson Road Intersection

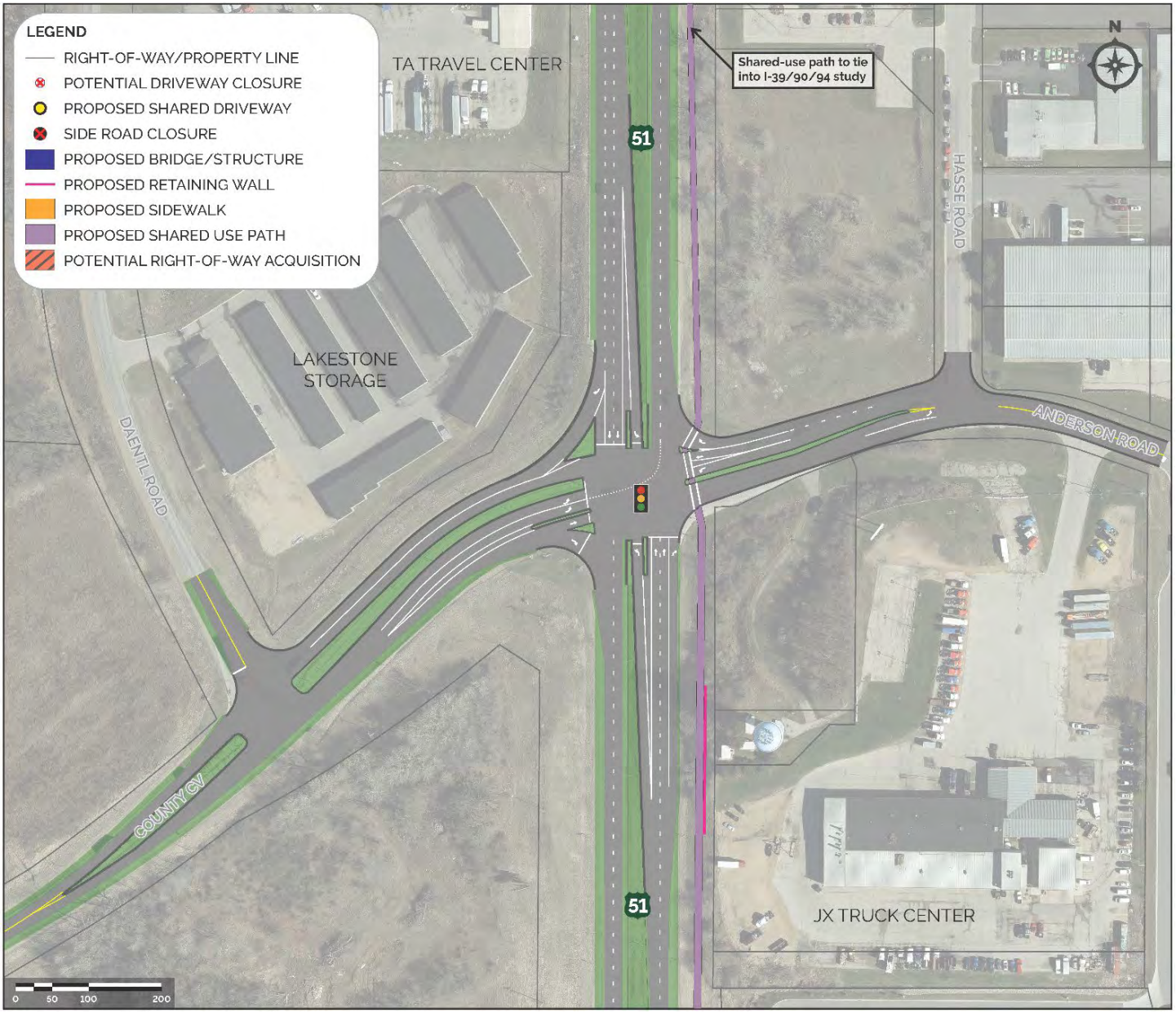
The preferred alternative identified in Phase V at County CV/Anderson Road is the Existing Conditions Improved alternative. This alternative would maintain a similar configuration to the existing intersection and bicycle and pedestrian accommodations would be added. The intersection would remain signalized, and the number of mainline travel lanes, intersection turn lanes and the southbound US 51 auxiliary lane would remain the same. Existing turn lanes would be lengthened as needed to improve traffic safety and operations and traffic signals would be optimized. An auxiliary lane would be added to northbound US 51 from Anderson Road that would match into the preferred alternative identified for the I-39/90/94 and US 51 interchange in WisDOT's I-39/90/94 Corridor Study. The vertical profile would be adjusted to meet standards for improved visibility. Bicycle accommodations include a crosswalk added on the east leg of the intersection and a shared-use path added along the east side of US 51 that would tie into the shared-use path proposed as part of WisDOT's I-39/90/94 Corridor Study.

Proposed changes would include:

- Intersection
    - Optimized traffic signal timings
- Bicycle/pedestrian Accommodations
    - Adds a crosswalk on east leg of intersection (currently none)
    - Shared-use path added along east side of US 51 that would tie into shared-use path proposed as part of WisDOT's I-39/90/94 Corridor Study

Figure 8-12 shows the preferred alternative for the County CV/Anderson Road intersection.

Figure 8-12: Preferred Alternative for the County CV/Anderson Road Intersection



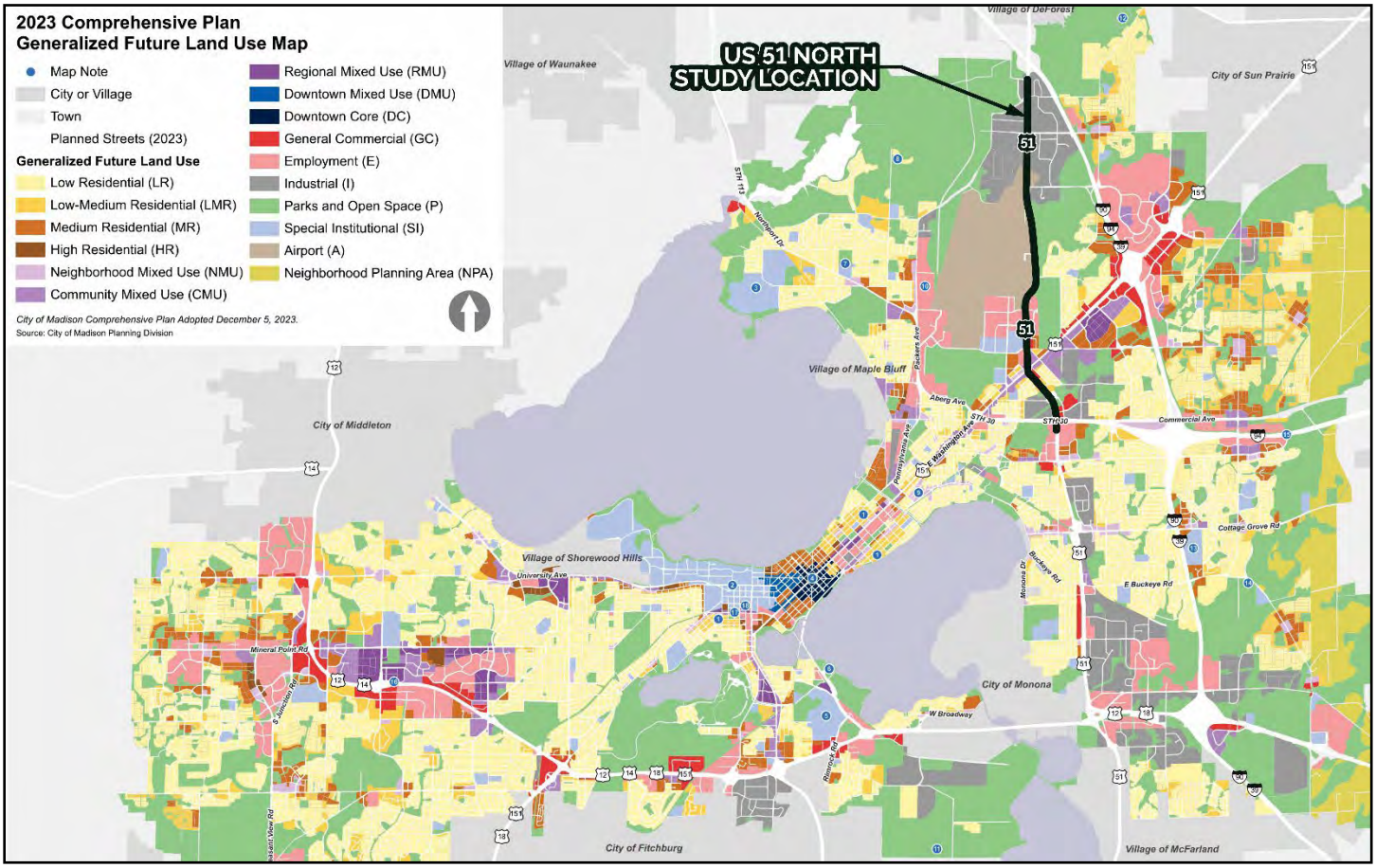
The Existing Conditions Improved was identified as the preferred alternative because there is no anticipated right of way, environmental or access impacts and no existing or anticipated future safety or operational concerns. This was the only alternative carried forward from the Phase I analysis and there were no issues or concerns identified during the additional analysis and outreach conducted in subsequent Phases.

9. Land Use Adjoining the Project and Surrounding Area

Land use of properties that adjoin the project

The US 51 North Study corridor extends south-north on the eastern side of the city of Madison from WIS 30 to I-39/90/94 in the town of Burke. According to the city of Madison Comprehensive Plan, existing land uses surrounding the study location includes a mix of park and open space, various residential, commercial, employment, industrial and airport uses. Airport, industrial uses, and open space dominate the north half of the corridor. The southern half has more varied land use including commercial, institutional, and residential uses. The city of Madison's Generalized Future Land Use Map indicates the study area would continue to include these land uses. The largest land use is Airport (A), where the DCRA is located, see Figure 9-1.

Figure 9-1: City of Madison's Generalized Future Land Use Map



DCRA serves 2.2 million passengers annually and continues to grow. The Truax Campus of Madison College (the largest of the College's campus locations) is located on the western edge of the study area and hosts most of the College's programs and services and facilitates hundreds of classes. The campus is served by free surface parking lots and is a stop on the city of Madison's upcoming East-West Bus Rapid Transit (BRT) Line. In addition to the airport and college, several residential neighborhoods directly border the study corridor, shown in Figure 9-2. These neighborhoods include:

- Greater Sandburg
- Hawthorne
- Mayfair Park
- Burke Heights

Land use surrounding the project area:

The land uses surrounding the study area are both urban and rural and are comprised of neighborhoods, shopping destinations, small businesses and agricultural fields. Reindahl Park is a sprawling 90+ acre park located near the intersection of Portage Road and US 151, about one block to the east of the study area. The park features reservable athletic fields, tennis courts, a shelter, ample parking and a splash park. A community garden is also centrally located within the park. The Imagination Center at Reindahl Park

(1818 Portage Road, Madison, WI 5704) is a community facility that will include a new library and park pavilion and is currently in the design stages.

The study corridor is within the Madison Metropolitan Statistical Area (MSA). The Madison MSA is a geographical region that includes the city of Madison and the surrounding areas. The Madison MSA consists of six counties: Dane, Columbia, Green, Iowa, Rock and Sauk. As of the 2020 Census, the population of the Madison MSA was approximately 741,952 people, making it the second-largest metropolitan area in Wisconsin after the Milwaukee MSA. The city of Madison itself has a population of 269,840 people. According to the Wisconsin Department of Administration, the population of the traffic analysis zones within one-half mile of the study corridor is projected to increase by 22,500 by 2050, bringing new transportation challenges to the area.

Figure 9-2: Established Neighborhoods in the City of Madison Adjacent to the US 51 Corridor

10. Planning and Zoning

Adjacent studies and projects in the area require close coordination. Two ongoing studies impact the US 51 North Study. See **Adjacent Studies and Projects Map**, page M-2 of the Maps section. The studies include:

- US 51 (Stoughton Road) South Study (Voges Road in McFarland to WIS 30 in Madison)
- I-39/90/94 Corridor Study (US 12/18 Madison to US 12/WIS 16 Wisconsin Dells)

In addition to these ongoing studies, there are several planning documents, including regional plans, neighborhood development plans and special area plans, that have been reviewed to maintain consistency and document planned improvements in and around the US 51 North Study area. The preferred alternative of this study is consistent with the plans unless otherwise noted. These documents include:

- Madison Metropolitan Area and Dane County 2024-2028 Transportation Improvement Program*
- City of Madison Comprehensive Plan
- Connect Greater Madison – Regional Transportation Plan 2050 (2022)*
- Vision Zero Madison Action Plan 2020-2035
- City of Madison – Complete Green Streets Guide (2022)
- Village of DeForest Comprehensive Plan
- Dane County Parks and Open Space Plan – Regional Trails Map
- Dane County Bicycle Map
- City of Madison – Passenger Rail Station Study (2024 draft)
- Metro Transit Network Redesign (2022)
- Madison Area Bus Rapid Transit Studies (2013, 2017, 2019)
- Dane County Noise Compatibility Plan for Dane County Regional Airport

City of Madison Area Plans:

- Northeast Area Plan (2024) adopted Sept. 10, 2024 *
- Greater East Towne Area Plan (2022)
- East Towne-Burke Heights Neighborhood Plan (1987)
- Hiestand Neighborhood Plan (2006)
- Milwaukee Street Special Area Plan (2018)
- Hanson Road Neighborhood Plan (2021)
- Hawthorne-Truax Neighborhood Plan (2023) *

* denotes that the US 51 North Study is explicitly included within the planning document.

Madison Metropolitan Area and Dane County 2024-2028 Transportation Improvement Program

The Transportation Improvement Program (TIP) lists major anticipated 2024-2028 projects. The city of Madison's Autumn Ridge Path is listed in the plan as also impacting the study area. The Autumn Ridge Path (currently under construction) will include a pedestrian and bicycle bridge over WIS 30. The new path and bridge would allow access across WIS 30 for 15,306 people, most of whom live in low-income or minority areas. The US 51 North Study itself is included within the TIP.

City of Madison Comprehensive Plan

One area, identified as a "transitioning community center," is located at the intersection of US 51 and US 151 within the study area, according to the city of Madison's Comprehensive Plan. These community activity centers are considered by the Comprehensive Plan to be areas that have access to transit and major streets but are expected to develop at a lower intensity than regional centers and serve a smaller area. These activity centers are prioritized for mixed-use infill development. Transitioning centers such as the one located at the intersection of US 51 and US 151 may take 20 or more years to become established centers. While creating established centers is a major focus of the Comprehensive Plan, there is no specific timetable for building out these types of centers. In addition to the transitioning activity center, the Comprehensive Plan also shows a Peripheral Growth Area located along the northern edge of the study corridor. The Comprehensive Plan defines these Growth Areas as being within priority areas where the city has an "opportunity to capture the high regional demand for walkable living as part of newly developed Traditional Neighborhood Developments."

Connect Greater Madison – Regional Transportation Plan 2050 (2022)

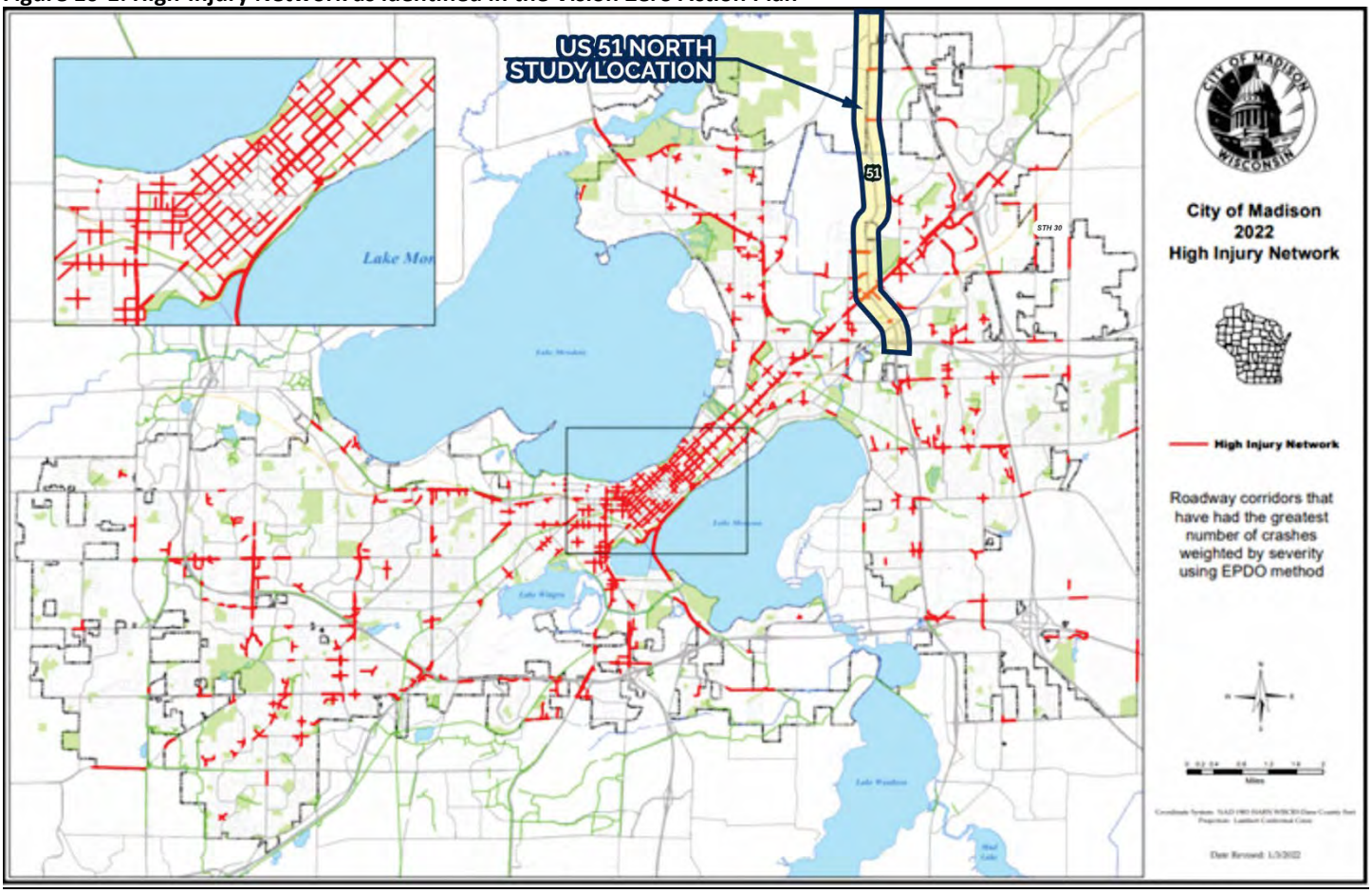
The Connect Greater Madison Regional Transportation Plan 2050 (RTP) builds the framework for future transportation projects in the Madison region. It identifies potential investments in infrastructure and the transportation system to accommodate current travel demands and future growth. The RTP addresses strategies relating to trends such as teleworking and rapidly changing transportation technologies (electric vehicles and autonomous vehicles), as well as strategies to act on issues such as equity and climate change. References to US 51 are made regarding regional intersections that have higher than average rates of car crashes. According to a crash analysis by the University of Wisconsin (UW)-Madison Traffic Operations and Safety (TOPS) Lab, four of the top ten intersections in the Metropolitan Planning Area with the highest frequency of crashes are located on US 51. Out of these four intersections, only one – US 151 and US 51 – is located within the study area. This intersection is also the top intersection for car crashes ranked by severity.

To expand the regional roadway system capacity to address "critical bottlenecks and accommodate future planned growth," the RTP prioritizes US 51. The RTP recommends that upon completion of environmental documentation, local and regional transportation officials should seek enumeration of the corridor as a Major Highway Program project and advance preferred alternatives while continuing to implement short-term transportation systems management (TSM), safety and multimodal improvements in the interim until Major Highway Program funding is secured. Additionally, the RTP recommends that officials work with rail companies to grade separate future high-use rail crossings where feasible, such as the crossing located on US 51 just to the north of WIS 30.

Vision Zero Madison Action Plan 2020-2035

The Vision Zero Madison Action Plan aims to eliminate all fatalities and severe injuries that occur because of traffic collisions on city streets by 2035. The Plan outlines strategies and action steps needed to respond to data trends. According to the Plan, 16% of Madison streets are at the highest risk for serious and fatal crashes. Several areas along US 51 are identified as being at the highest risk of severe incidents, including the intersection of US 151 and US 51. During an engagement project called "Let's Talk Streets," which was used to gather data for the plan, residents in the area supported a potential plan to build pedestrian overpasses on high-traffic streets such as US 151. One of the key findings from the Plan included data collected from the Wisconsin Department of Health Services, which showed that there are "substantial racial and ethnic disparities in both the rates of injury and death across all forms of transportation." According to the Plan, Black, Indigenous and Persons of Color (BIPOC) were more than three times more likely to report difficulties in "getting around." Recommendations from the Plan include the reduction of speed, closing gaps in pedestrian and bicycle safety, securing increased funding for long-term maintenance improvements, and expanding support for alternatives to driving/decreasing motor vehicle miles traveled, see Figure 10-1.

Figure 10-1: High-Injury Network as identified in the Vision Zero Action Plan



City of Madison – Complete Green Streets Guide (2022)

City and regional transportation officials created the Complete Green Streets Guide to create a document that would provide a consistent process for planning and designing streets that are focused on people traveling via all modes of transportation. The Guide complements other local transportation planning programs and plans, including Vision Zero and Safe Streets Madison, by reinforcing the need for people-centered transportation design and deemphasizing the traditional prioritization of automobiles. Recommendations from the Guide include lowering speed limits, creating wider and safer shared-use paths and sidewalks for people who are walking and biking and prioritizing locations of Green Infrastructure (terraces for trees and other plants) for stormwater management and water quality improvement.

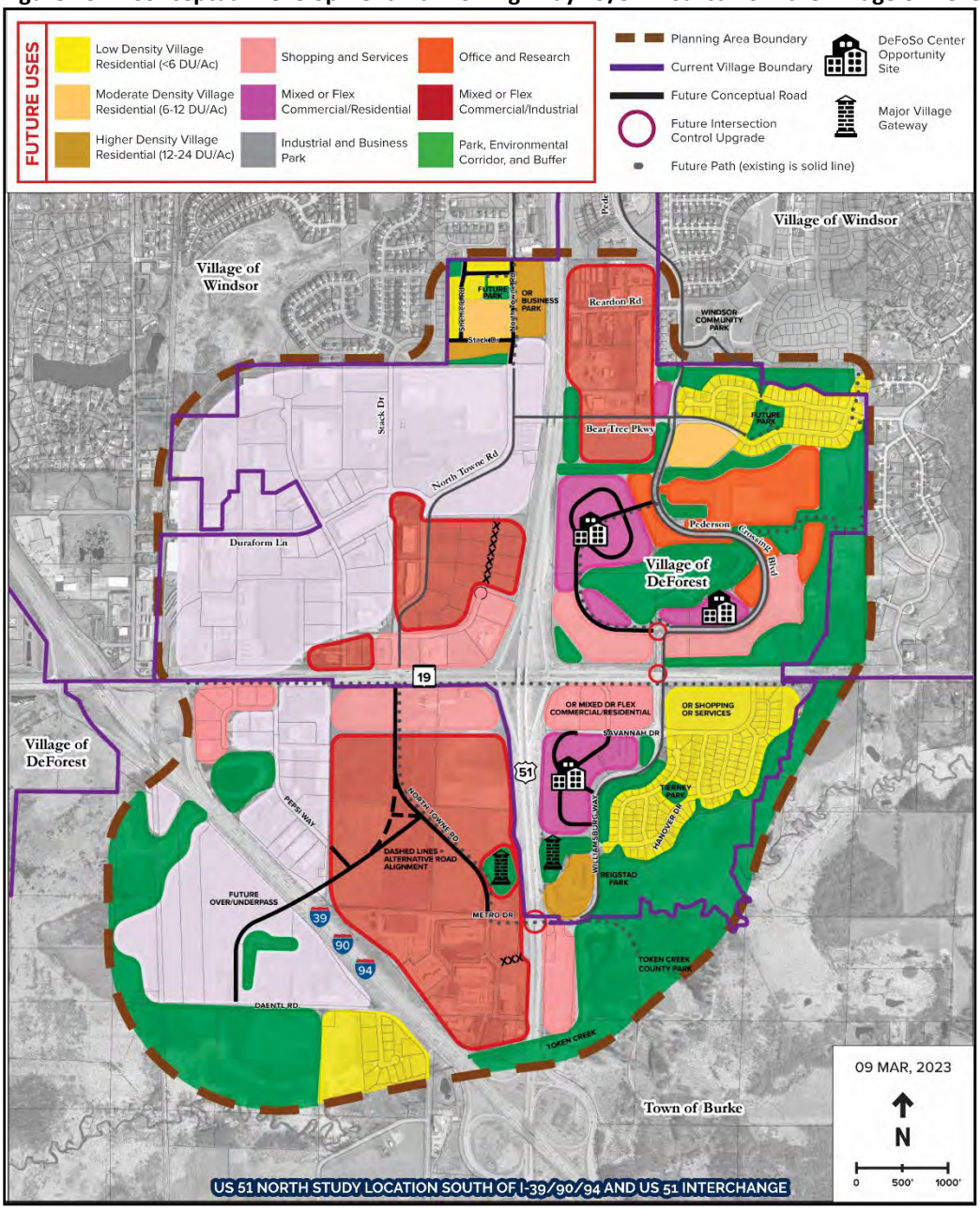
Within the Guide, various Equity Priority Areas (EPAs) are also highlighted, one of which is located just to the south of WIS 30. EPAs are neighborhoods that usually have populations from traditionally marginalized communities who are at greater risk of inequities than other populations. The Complete Green Streets Equity Framework establishes a holistic approach to addressing inequities that intersect in these neighborhoods. Transportation/street projects that take place within or near an EPA trigger additional project process steps that city staff must take, which include engaging with the appropriate Neighborhood Resource Team (NRT), engaging directly with the community itself, a comprehensive review of past public input and completion of the EPA sections of the Complete Greens Streets Project Checklist included within the Guide.

Village of DeForest Comprehensive Plan

The Village of DeForest Comprehensive Plan is meant to guide the growth and change in the Village over the next 10 to 20+ years. Within the Comprehensive Plan, references are made to the US 51 and WIS 19 District, which is a mix of developed and undeveloped properties that extend about 0.5 to one mile in all directions from the US 51 and WIS 19 interchange (less than one mile from the study area) and encompass about 1,800 acres. A conceptual development plan for the district shows that the area is developing to include a mix of uses including shopping and services, industrial and business park and low-density housing. Major village gateways and signage are positioned to be located on either side of US 51, and a new gathering place for southern DeForest (the DeFOSo Center) is proposed to be located east of the US 51 and WIS 19 interchange for easy access to the metropolitan/regional transportation network.

In addition to planned areas of growth, the Comprehensive Plan also prioritizes the upgrading of preexisting arterial and collector roads to meet modern needs as well as expanding bicycle, pedestrian and transit alternatives to improve the safety and efficiency of the local transportation system, which feeds into US 51. See Figure 10-2. Note that the study limits are outside the view of the figure. The north limits of the US 51 North Study are just south of the I-39/90/94 and US 51 interchange.

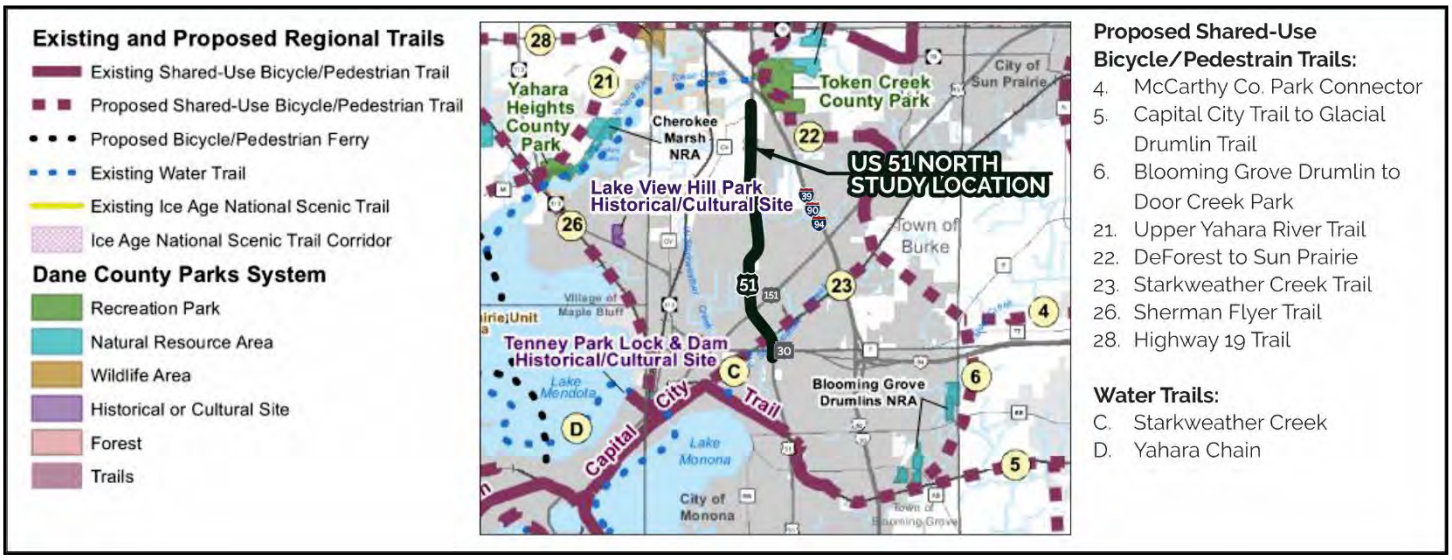
Figure 10-2: Conceptual Development Plan for Highway 19/51 District from the Village of DeForest's Comprehensive Plan



Dane County Parks and Open Space Plan – Regional Trails Map

The Dane County Parks and Open Space Plan (POSP) is a countywide comprehensive outdoor recreation and natural resource plan that is updated every five years to maintain eligibility for Wisconsin State Stewardship grant funds. The most recently adopted plan is the 2018-2023 POSP which seeks to provide recommendations for an inclusive parks system for all county residents while also preserving large tracts of natural and agricultural rural landscapes at urban fringe areas that provide regional resource protection and recreation benefits. The Regional Trails Map included in the POSP refers to a proposed shared-use path just inside the southern edge of the US 51 North Study corridor that connects into the Capital City Trail to the west and follows the Starkweather Creek into the town of Burke. The proposed trail would cross US 51 following the same path as Starkweather Creek and the nearby rail tracks. See Figure 10-3.

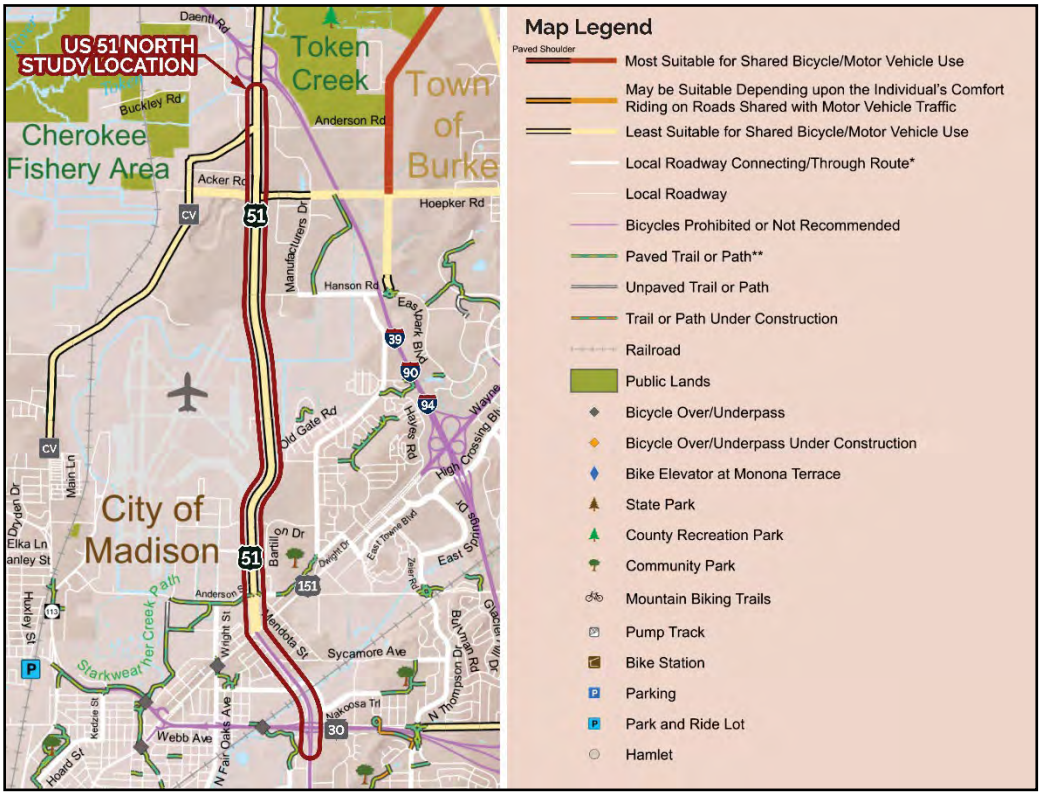
Figure 10-3: Regional Trails Map from the Dane County Parks and Open Space Plan 2018-2023



Dane County Bicycle Map

The Dane County Bicycle Map shows all pre-existing trails whether those trails are along paved shoulders or high-volume roads, as well as bicycle routes. There are limited bicycle facilities located within the study corridor. Wider paved shoulders do exist along a section of US 51 bordering the DCRA, but no dedicated paths exist, see Figure 10-4.

Figure 10-4: Dane County Bicycle Map in the Study Area



City of Madison – Passenger Rail Station Study (2024 draft)

The city of Madison is working to bring Amtrak services to connect the city to the rest of the Midwest regional rail system for easy access from the Madison metropolitan area to the Twin Cities, Chicago and other major metropolitan areas/hubs. The closest potential location for a passenger rail station in relation to the US 51 North Study corridor is along Aberg Avenue, near the Aberg Avenue/WIS 113 interchange.

Metro Transit Network Redesign (2022)

The city of Madison's Metro Transit undertook an extensive process to condense routes and stops across its service area to increase the frequency of buses along its most condensed routes and reduce travel times across the system overall. US 51 carries Metro Transit's Route L, which provides transit service to the northside and southeast sides of Madison, as well as to the Dutch Mill Park and Ride. The redesign also integrates BRT, summarized below.

Madison Area Bus Rapid Transit Studies (2013, 2017, 2019)

BRT is a frequent, high-capacity, limited-stop transit service that offers improved rider experience on busy travel corridors. The Greater Madison MPO completed a Transit Corridor Study in 2013 to develop and evaluate system-level and corridor-level concept plans for BRT along four primary transit corridors in the Madison area. In 2017, the city of Madison, Metro Transit and Greater Madison MPO staff conducted a Phase I BRT Corridor Feasibility Analysis to identify the corridor that made the most sense for an initial BRT route that could be implemented in the near term. The East-West BRT Planning Study began in late fall 2018 and continued through fall 2019. Two BRT lines are currently under construction and will be completed in the fall of 2024, with the first route opening in September 2024. The BRT Route A crosses the US 51 corridor at Anderson Street. There will be two BRT stations along Anderson Street near Madison College Truax campus. A small driveway connection was constructed between the North Stoughton Service Road and Mendota Street to the east of US 51 for bus access only.

Dane County Regional Airport – Noise Compatibility Plan "Part 150" Study

Dane County is updating the Noise Compatibility Plan for DCRA in accordance with the Federal Aviation Administration's (FAA) voluntary process. Two elements make up the "Part 150" Study: The Noise Exposure Map and Noise Compatibility Program. Phase I of the "Part 150" Study focused on updating and completing the Noise Exposure Map. This inventories and documents noise exposure from the annual-average daily aircraft operations for existing and forecast conditions. Phase II of the "Part 150" Study focused on the Noise Compatibility Program. This evaluates and recommends measures to address the land uses not compatible with the documented aircraft noise exposure. Noise abatement measures for this plan include converting US 51 to a tunnel or relocating the highway to reduce the amount of roadway located within the RPZ. These measures were investigated and are summarized in **Appendix D: Alternatives Screening Technical Report** but are not part of the preferred alternative for the US 51 North Study.

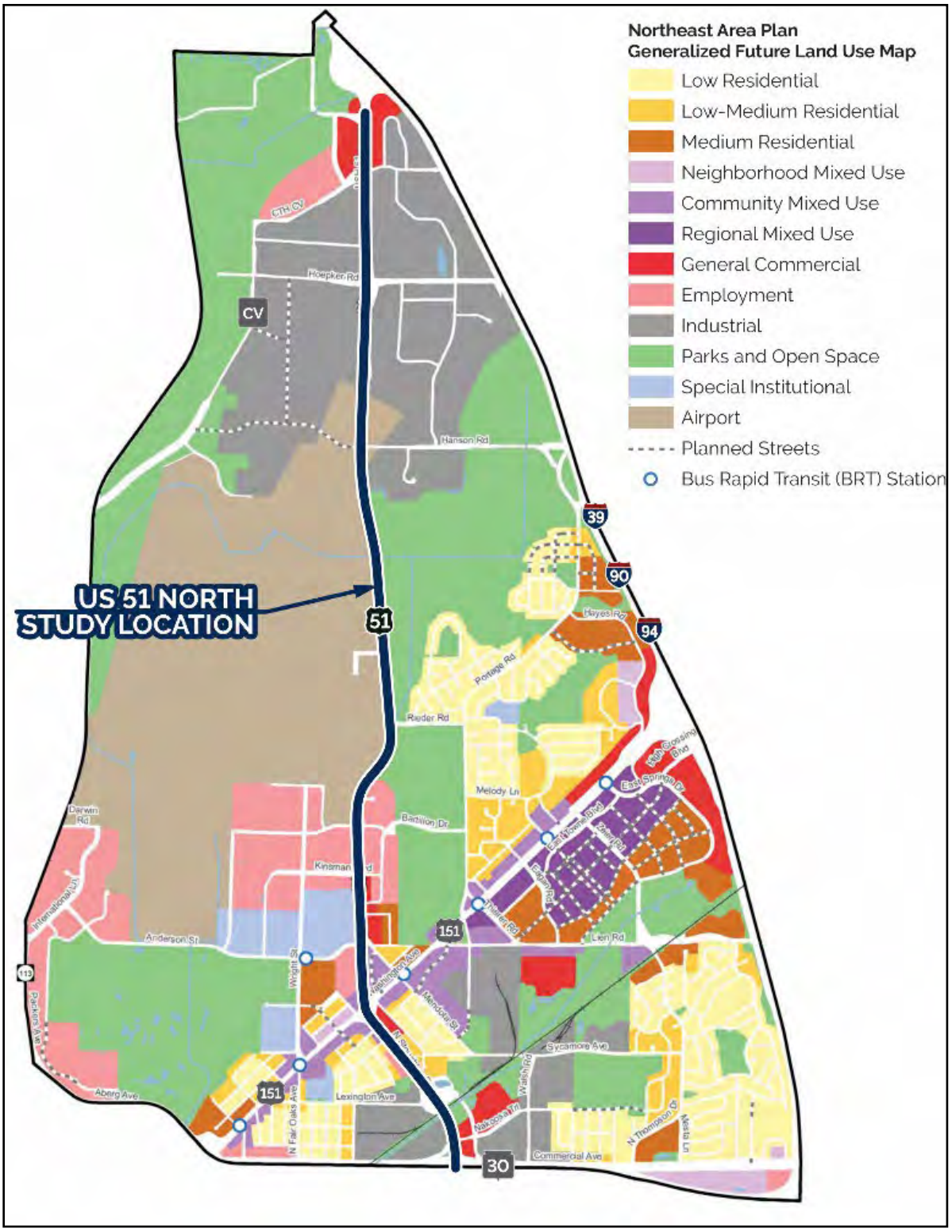
City of Madison Area Plans:

Northeast Area Plan (2024) adopted Sept. 10, 2024

The Northeast Area Plan would be among the first plans to follow the city of Madison's new planning framework, which simplifies and standardizes the city's sub-area planning efforts. The US 51 North Study is located within the Northeast Area Planning boundary, and spans from WIS 30 in the south to I-90/94 in the north and from I-90 in the east to County CV/Aberg Avenue in the west. The Plan addresses a wide variety of topics, including land use, transportation, parks and open space, community facilities and utilities. See Figure 10-5 for the future land use map. A series of public project kickoff meetings were held in March 2023, and draft recommendations were presented at a December 2023 Open House. Adoption of the Plan occurred on Sept. 10, 2024. Draft recommendations include adding future commercial and employment near US 51 and County CV in the Generalized Future Land Use Map and make a list of specific recommendations relating to US 51. The Plan recommends the following items that relate to the US 51 North Study:

- Utilize post-pandemic travel forecasts to avoid over-building and adding excess capacity.
- Design for human-scaled urban connections that minimize pedestrian crossing distances and motor vehicle speeds.
- Ensure the intersection designs are comfortable, safe and convenient for bicyclists and pedestrians.
- Do not further divide communities and should maintain a strong visual connection across the corridor. If grade separation is needed, US 151 should remain at its current elevation, and US 51 should be constructed as an underpass.
- Maintain local street connections and property access from US 151. If the design removes access from US 51 for properties between US 151 and Anderson Street/Mendota Street, add a local street between Mendota Street and US 151 to facilitate redevelopment on a connected street network. (Note: The study team has been coordinating with the city of Madison throughout the Northeast Area planning process.)
- Support existing and future redevelopment by limiting right of way expansion. If additional right of way is needed, the city should work with WisDOT to acquire surplus parcel remnants and facilitate redevelopment through a request for proposal process.

Figure 10-5: Future Land Use Map from the Northeast Area Plan (City of Madison)



Greater East Towne Area Plan (2022)

While not directly bordering the US 51 North Study, the Greater East Towne Area is located within 1.5 miles of US 51 and encompasses the city's Central Business District (see Figure 10-6). The area is bound by US 151 on the north, I-39/90/94 to the east, the WSOR corridor to the south and Mendota Street to the west. The study area is primarily comprised of single-use retail developments with large parking lots. The Greater East Towne Area Plan envisions redeveloping the area into a complete neighborhood and activity center that has a mix of housing types, retail, service, employment, civic, institutional, and parks or public space. Recommendations from the Plan include increasing connectivity, walkability and bikeability by ensuring new streets are more pedestrian focused with lower speeds and more sidewalks.

East Towne-Burke Heights Neighborhood Plan (1987)

The East Towne-Burke Heights Neighborhood is located on the very southern edge of US 51 North Study and is bordered by US 151 to the north, the Interstate to the east, US 51 to the west and WIS 30 to the south (see Figure 10-6). The last neighborhood plan was created in 1986 and showed the area developing into a district with retail shops and professional and business offices. Recommendations from the Plan include allocating more acres of land to commercial and professional uses and widening existing streets to accommodate automobile traffic, which reflects the planning trends of the time when the Plan was adopted. Upon its adoption, the Northeast Area Plan will supersede the East Towne-Burke Heights Neighborhood Development Plan.

Hiestand Neighborhood Plan (2006)

A far east-side neighborhood, Hiestand is located just to the south of US 51 North Study and is bounded by WIS 30 to the north, I-90 to the east, Milwaukee Street to the south and US 51 to the west (see Figure 10-6). The neighborhood includes a variety of single-family and multifamily housing units. The Hiestand Neighborhood Plan envisions a diverse neighborhood that preserves its residential character while slowing vehicular speed and accommodating bicyclists and pedestrians. Recommendations from the Plan prioritize creating new bicycle routes that connect to the rest of the metropolitan area and preserving Heistand Park and Woods, a 58-acre recreational space that is the cornerstone of the neighborhood. This project's proposed shared-use path will make progress toward fulfilling a multimodal connection between the Hiestand neighborhood and commercial destinations in the study area.

Milwaukee Street Special Area Plan (2018)

The study area for the Milwaukee Street Special Area Plan is comprised of the area on the opposite side of US 51 from the Hiestand Neighborhood (see Figure 10-6). It includes the Milwaukee Street corridor between Fair Oaks Avenue and US 51 south of WIS 30. The Plan calls for examination of the current neighborhood while providing detailed, site-specific recommendations regarding land uses, building scale and design, street network, street design and parks and open spaces. According to the Plan, all properties located in this area that are a part of the Town of Blooming Grove would be attached to the city of Madison no later than 2027. Additionally, the Plan calls for a shared-use path connection crossing US 51 just south of WIS 30.

Hanson Road Neighborhood Plan (2021)

The Hanson Road Neighborhood is located on the northern edge of the city of Madison, north and east of the DCRA and west of I-90/94 (see Figure 10-6). Most of the land in the planning area consists of unplatted land, which is dedicated to agricultural uses, quarry activities and natural open space. The Hanson Road Neighborhood Plan recommends the development of the area east of US 51 as a cohesive industrial park and the area west of US 51 as an extension to the industrial park once eastern parcels of land are developed. Additionally, the Plan recommends that special attention be given to the streetscape and building/site design along US 51 and I-90/94 to create a welcoming and attractive entrance to the city of Madison. Preserving the integrity of the Cherokee Marsh area is also prioritized within the Plan.

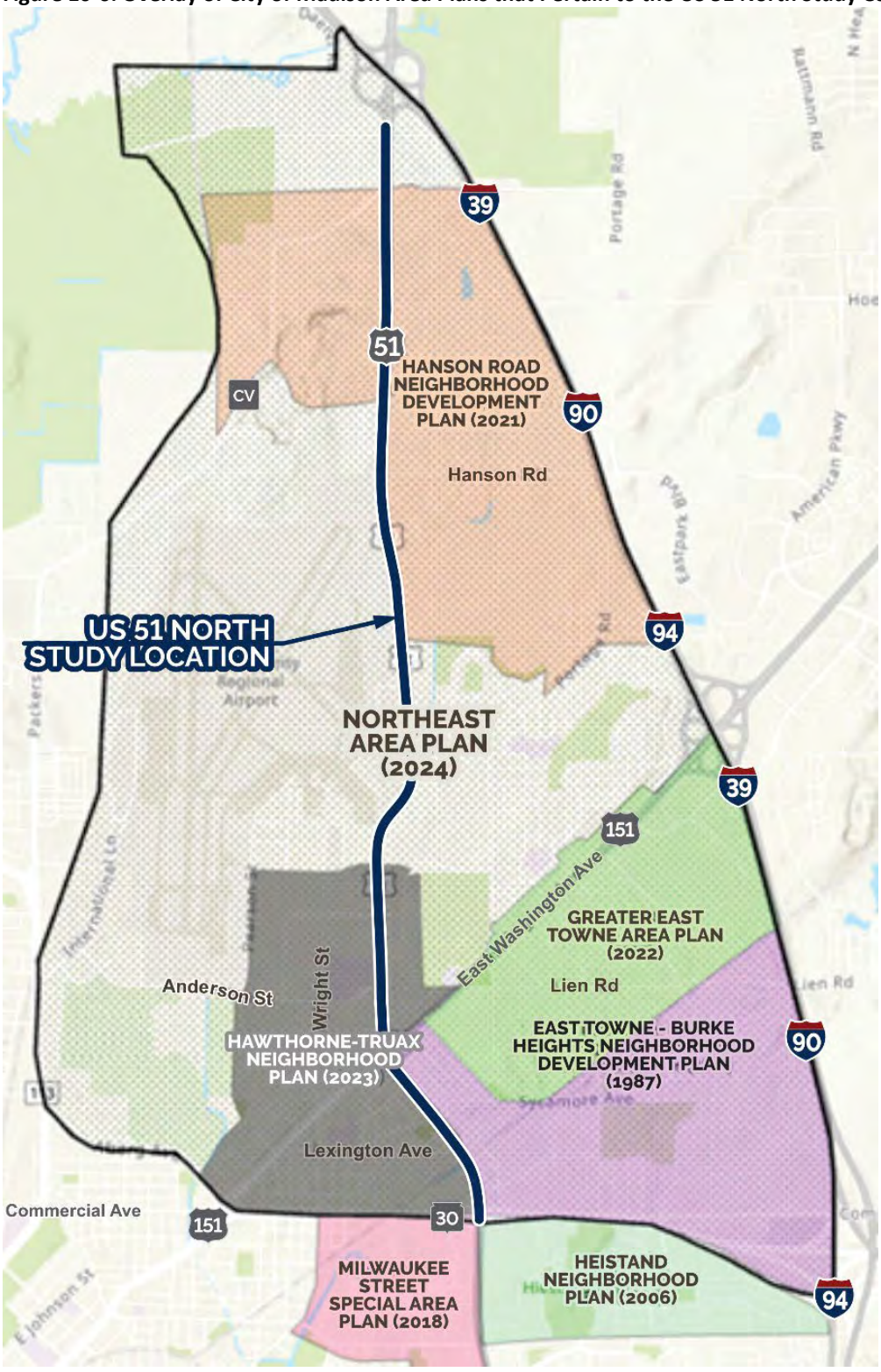
Hawthorne-Truax Neighborhood Plan (2023)

One of the more central neighborhoods that the US 51 North Study would impact, the Hawthorne-Truax Neighborhood is comprised of several eastside neighborhoods that straddle US 51 and is centered on US 151 between WIS 30 and Mendota Street (see Figure 10-6). Single-family and multifamily homes built between the late 1930s and 1960s offer living space for those who work at the various commercial and industrial properties in the southeastern portion of the neighborhood. The neighborhood is one of the more affordable areas in the metropolitan area. Still, many renters who reside within the area are cost-burdened (72%), spending more than 30% of their income on housing. About 43% of the population in the neighborhood are BIPOC, which is far above the citywide average of 29%. The Hawthorne-Truax Neighborhood Plan identifies US 51 and WIS 30 as barriers that physically separate the neighborhood and cause great difficulties for pedestrians and bicyclists who wish to navigate safely and comfortably. In addition to these barriers, the Plan also identifies the lack of identity for the neighborhood and noise impacts from the nearby DCRA as areas of concern for residents.

Recommendations from the Plan, which relate to US 51, include working with WisDOT to ensure reconstruction does not further divide communities and minimizes pedestrian crossing distances and motor vehicle speeds. Additionally, the Plan recommends that any reconstruction of US 51 maintains local street connections and property access from US 151. If the design removes access from US 51 for properties between US 151 and Anderson Street/Mendota Street, the addition of a local street between Mendota Street and US 151 would be preferred to facilitate redevelopment on a connected street network. Finally, the plan envisions zoning for the area to shift away from general commercial use to mixed-use or employment categories to allow for greater flexibility to incorporate needed residential units when sites are redeveloped.

Figure 10-6 shows the limits of the city of Madison area plans that pertain to the US 51 North Study corridor.

Figure 10-6: Overlay of City of Madison Area Plans that Pertain to the US 51 North Study Corridor



11. Indirect Impacts

If any of the following boxes are checked, the Pre-Screening Worksheet for EA and ER Projects for Determining the Need to Conduct a Detailed Indirect Effects Analysis must be completed and attached to this environmental document.

An alternative being carried forward for detailed analysis includes:

- ☐ Economic development as an element of the purpose and need
- ☐ Construction of one or more new or additional through lanes
- ☐ Construction of a new interchange or elimination of an existing interchange
- ☐ Construction of one or more additional ramps or relocation of a ramp lane to a new quadrant on an existing interchange
- ☐ Relocation of an existing roadway to a new alignment (this does not include minor modifications to the existing roadway alignment)
- ☐ Changing an at-grade intersection to a grade-separated intersection with no access or a grade-separated intersection to an at-grade intersection.
- ☐ Construction of one or more additional intersections along the mainline created by a new side road access.
- ☐ One or more new access points along a side road within 500' of the mainline.

☐ None of the above boxes have been checked, it has therefore been concluded that the proposed action will not result in indirect effects.

☒ The proposed action may result in indirect effects. The Pre-Screening Worksheet for EA and ER Projects for Determining the Need to Conduct a Detailed Indirect Effects Analysis attached here: **Appendix F: Indirect and Cumulative Impacts Pre-screening Worksheet** indicates a detailed indirect effects analysis is not required.

☐ The proposed action may result in indirect effects. It has been determined that a detailed indirect effects analysis is required. A summary of the detailed analysis is located here:

12. Environmental Justice (EJ)

How was information obtained about the presence of populations covered by Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (EO 12898)? *(check all that apply)*	
☒ Public Involvement Plan (PIP)	☒ EJ plan for the project
☒ U.S. Census data	☒ Survey/questionnaire
☐ Local government	☒ U.S. EPA EJ Screen
☐ Real estate company	☐ WisDOT Real Estate
☒ Public involvement meeting(s)	☒ Windshield survey*
☒ Official plan (such as a comprehensive plan or MPO plan)	
☐ Health and human services agencies or organizations Identify agency or organization:	
☒ Other – identify: American Community Survey (ACS), outreach to local community centers	

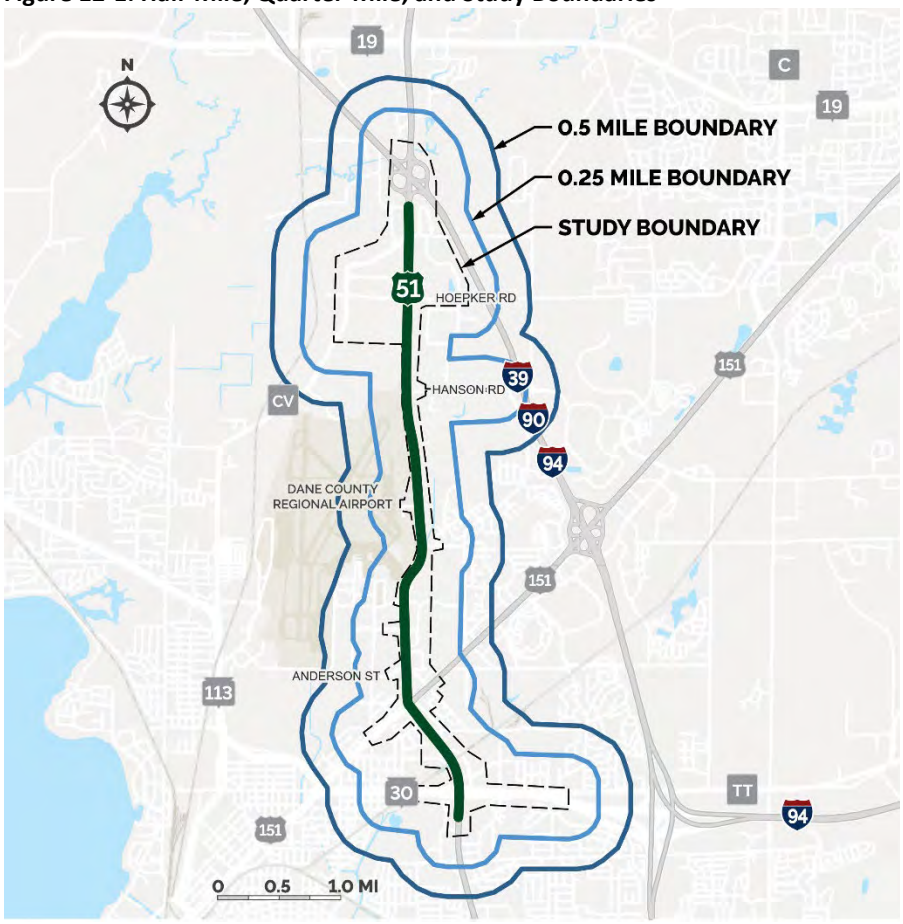
*Conducting only a windshield survey is not sufficient to decide if populations are present.

A. Based on data obtained from the methods above, are minority populations or low-income populations present in the project area?

- ☐ No
- ☒ Yes, describe:

Census data was compiled for the half-mile, quarter-mile, and study boundaries using the EPA's environmental justice (EJ) screening and mapping tool using the latest data available, which was 2022. The boundaries for this study are shown in Figure 12-1. Minority and low-income populations are present in the study area.

Figure 12-1: Half-Mile, Quarter-Mile, and Study Boundaries



Within the 0.5-mile corridor boundary of US 51, people of color made up about 39% of the population in 2022. The greatest population of minorities identified as African American (17.3%), Two or More Races (10.4%) and Asian (3.9%). Approximately 12.6% of the population identified as Hispanic, which can be of any race. Table 12-1 summarizes the population percentages at the listed boundary areas.

The population living west of the corridor between US 151 and Hanson Road and east of the corridor between the WIS 30 and US 151 intersections included a higher percentage of African Americans compared to the Dane County and statewide averages. Less than 2% of the population north of the Dane County Regional Airport (DCRA) was African American.

The population living east of the corridor between US 151 and Hanson Road included a higher percentage of Hispanics compared to the Dane County and statewide averages. Additionally, the census block located west of US 51, between US 151 and Anderson Street, also had a higher percentage of Hispanics than the Dane County and statewide averages.

Table 12-1: Population Demographics, Race and Ethnicity[2]

	Study Boundary	0.25-Mile Boundary	0.5-Mile Boundary	Dane County	State of Wisconsin
	%	%	%	%	%
White	74.6%	65.3%	66.6%	80.5%	79.9%
African American	7.7%	18.6%	17.3%	5.0%	6.1%
American Indian	0.1%	0.1%	0.2%	0.2%	0.6%
Asian	7.9%	3.9%	3.9%	5.9%	2.8%
Native Hawaiian Pacific	0%	<0.1%	<0.1%	0.1%	<0.1%
Other	1.4%	1.6%	1.5%	1.5%	0.2%
Two or More	8.4%	10.4%	10.4%	6.7%	3.0%
Hispanic	9.2%	12.6%	12.6%	6.8%	7.3%

[2] Data from EJ Screen Environmental Justice Screening and Mapping Tool referencing American Community Survey (ACS) 2022 Five-Year Estimates Table DP05

Within the 0.5-mile corridor boundary of US 51, 35% of the population in 2022 was considered low-income. Additionally, 14 percent of the population within the 0.5-mile corridor boundary were persons with disabilities. See Table 12-2.

The population living west of the corridor between US 151 and Hanson Road has the highest percentage of persons in poverty in the corridor area, which is higher than the Dane County and Statewide averages. The population living east of the corridor south of WIS 30 is the next highest percentage of person in poverty in the study area.

Per capita income within the study boundary of the corridor is $39,561. Table 12-3 depicts per capita income levels for the study boundary, 0.25-mile boundary, 0.5-mile boundary, Dane County and the State of Wisconsin. Per capita income within the study boundary is less than per capita income for the State of Wisconsin (by approximately $569) and Dane County (by approximately $9,719).

The U.S. Department of Health and Human Services (HHS) federal poverty guideline for 2022 lists $13,590 for individuals plus $4,720 for each additional person in the household. Although HHS federal poverty guideline has been updated for 2023 ($14,580) and 2024 ($15,060), the 2022 guideline is used here for comparison.

Table 12-2: EJ Population Percentages[3]

	Study Boundary	0.25-Mile Boundary	0.5-Mile Boundary	Dane County	State of Wisconsin
People of Color	31%	41%	39%	22%	21%
Low Income	32%	37%	35%	22%	27%
Persons with disabilities	17%	16%	14%	9%	12%

Table 12-3: Table 12 3: Per Capita Income[4]

	Study Boundary	0.25-Mile Boundary	0.5-Mile Boundary	Dane County	State of Wisconsin
Per Capita Income	$39,561	$40,229	$41,383	$49,280	$40,130

Table 12-4: Environmental Justice-Focused Events summarizes the EJ outreach public input that took place during the study. Please refer to Section 14 for a complete synthesis of public outreach and input.

Table 12-4: Environmental Justice-Focused Events

Date	Meeting Sponsor	Type of Meeting	Location	Approx. Number of Attendees
Nov. 10, 2022	Wisconsin Department of Transportation	Neighborhood Meeting	East Madison Community Center	15
May 16, 2023	East Madison Community Center Food Drive	Pop-up Event	East Madison Community Center	6

At the Hawthorne-Truax Neighborhood meeting in November 2022, the study team provided study information in English, Spanish and Hmong. Both Hmong and Spanish interpreters were present at the meeting. The study team received numerous comments specific to a need for safe pedestrian crossings as part of the study – particularly the US 51 and US 151 intersection area including crossing US 51 to reach Walgreens. Comments were received via sticky notes on a study map as well as dedicated hand-written comment sheets.

The study team also attended 15 events in the study area to provide information about the study. A list of these events can be found in the Environmental Justice Factor Sheet.

B. Will there be potential impacts of any kind to minority populations or low-income populations identified above?
☐ No
☒ Yes, describe:

[3] Data from EJ Screen Environmental Justice Screening and Mapping Tool referencing American Community Survey (ACS) 2022 Five-Year Estimates Table DP05

[4] Data from EJ Screen Environmental Justice Screening and Mapping Tool referencing American Community Survey (ACS) 2022 Five-Year Estimates Table DP05

Minority and low-income populations form a larger percentage of the overall population near the study corridor, as compared to county and statewide demographics. Potential disproportionately high and adverse effects on minority populations could result from business relocations, access changes, right of way acquisition, temporary construction impacts, noise impacts, and air quality impacts. Due to safety improvements along the corridor that will benefit all users including vehicles, pedestrians and bicyclists, and the application of mitigation measures, there is no disproportionate high and adverse effects to EJ populations. Impacts and mitigation measures are detailed in the Business and Economics, Community, Relocation, and Environmental Justice Factor Sheets.

Impacts include:

- Three business relocations, access changes, and right of way acquisition
    - Providing a north-south pedestrian and bicycle bridge over the east leg of the US 51 and US 151 intersection results in the relocation of one restaurant.
    - Correcting the intersection skew angle on the north leg of the US 51 and US 151 intersection results in the relocation of two businesses.
- Temporary traffic pattern changes and other disruptions during construction for vehicles, bicycles, pedestrians, and businesses
- Permanent traffic noise impacts
- Greenhouse gas emissions and other air quality impacts

Mitigation includes:

- Complete business acquisitions and relocations in accordance with all applicable federal laws, state statutes and administrative codes and provide relocation benefits
- Ensure reasonable access for businesses that are not relocated but have proposed access modifications. Reasonable access includes maintaining access required for business operations. Reasonable access must meet design standards for access type, for example width. Reasonable access allows a parcel to, at a minimum, serve the same number and type of vehicles with ingress and egress.
- Avoided acquisition of businesses that were identified as having vital importance to EJ communities
- Minimized strip right of way take to avoid adverse impacts on businesses
- Utilize WisDOT's In This Together program to assist businesses plan for highway construction impacts.
- Ensure appropriate traffic management for all modes of transportation during construction via the TMP and provide public outreach during final design so the public is made aware of temporary traffic construction impacts.
- A noise wall was considered reasonable and feasible for one location in the study, noise wall E, located north of the US 51 Commercial Avenue intersection on the east side of the roadway. Based on the studies thus far accomplished, WisDOT is likely to incorporate noise wall E, pending final design and public involvement. WisDOT will initiate a separate public involvement process to determine whether or not the benefited owners and tenants support the noise wall construction. The noise wall is located in the Census block group 55025002601, the percentage of people of color is 34.1% and percentage of persons in poverty is 18.2% for this Census geography.
- A greenhouse gas (GHG) analysis was conducted for the corridor. WisDOT will follow its Standard Specifications to address pollution reduction/containment measures for the contractor and also implement mitigation measures, which are listed in the environmental commitments, to help reduce GHG emissions.
- Provide dedicated crosswalks for all four legs of the US 51 and US 151 intersection, however, crossings will be longer and may include multi-phase crossings
- Provide a shared-use path along the east side of US 51 and along the west side of US 51 between US 151 and Anderson Street
- Improve pedestrian safety by updating signal timings

The preferred alternative would provide sidewalks and multiple shared use paths for pedestrians and bicyclists. Traffic safety and operations would be improved. These improvements along the US 51 North Study corridor would benefit the general population as well as minority and low-income populations. Mitigation measures identified through consultation and public involvement have addressed all effects. With mitigation, the preferred alternative will not cause disproportionately high and adverse effects on environmental justice populations in accordance with the provisions of Executive Order 12898, USDOT order 5610.2C and FHWA Order 6640.23A.

Appendix G: Environmental Justice Plan and Preliminary Analysis was completed in August of 2023 and used 2021 data, the most recent data available at the time. The plan identified environmental justice populations based on demographic data, provided an assessment methodology of impacts on existing environmental justice populations in the study boundary and defined a public engagement plan for environmental justice populations in the study area. Percentage differences between this appendix and the basic and factor sheets of this document are due to different source year data.

13. Title VI of the Civil Rights Act of 1964 and Additional Nondiscrimination Requirements

A. Indicate if issues have been identified or concerns have been expressed related to Title VI of the Civil Rights Act of 1964 or other nondiscrimination laws, regulations, executive orders and policies under the Title VI umbrella.

☒ No. Issues related to the above laws, regulations, executive orders and policies were not identified and concerns were not expressed.

☐ Yes. Issues related to the above laws, regulations, executive orders and policies were identified and/or concerns were expressed, describe:

14. Public Involvement

A. Briefly describe the Public Involvement Plan (PIP):

The PIP was developed in August 2022. The PIP includes a purpose and need overview, conceptual solutions to potentially address the purpose and need, public outreach approach, identification of stakeholders and target audience, messaging objectives, public involvement techniques to be used, and a schedule overview. Outreach efforts included social media posts, outreach and meetings with community groups and businesses and communication and coordination with local officials. A complete list of community events can be found in the Environmental Justice Factor Sheet. Study messaging included corridor needs and alternative development. Public involvement techniques included various in-person stakeholder and public meetings along with virtual participation options. Three stakeholder committees were formed to provide updates and get feedback throughout the study. See Section 16 of the EA for more information.

B. Public Meeting

Date (mm/dd/yyyy)	**Meeting Sponsor** (WisDOT, RPC, MPO, etc.)	**Type of Meeting** (PIM, Public Hearings, etc.)	**Location**	**Approximate Number of Attendees**
10/13/2022	WisDOT	Public Involvement Meeting #1	WisDOT Southwest Region Office	42
11/10/2022	WisDOT	Truax Neighborhood Meeting	East Madison Community Center (EMCC)	15
9/27/2023	WisDOT	Public Involvement Meeting #2	Madison College – Truax Building Conference Room D1630	34
12/18/2023	City of Madison/WisDOT Joint Meeting	Joint Public Involvement Meeting	Madison College – Gateway Atrium	51
12/19/2023	City of Madison/WisDOT Joint Meeting	Joint Public Involvement Meeting	Virtual	40
4/18/2024	WisDOT/City of Madison Joint Meeting	Public Involvement Meeting #3	Madison College – Truax Building Conference Room D1630	53

The joint public meetings provided an opportunity for the public to attend a single meeting on multiple topics related to the city of Madison and WisDOT studies.

C. Other methods such as those identified in the Public Involvement Plan and Environmental Justice Plan (if applicable):

Public involvement meetings (PIMs) #1, #2 and #3 were held in handicapped-accessible locations on or near bus routes with interpreters in an open house format, allowing one-on-one interaction with the study team. A Spanish interpreter was available for all three meetings, and a Hmong interpreter was available for the first two.

A study website (https://wisconsindot.gov/Pages/projects/by-region/sw/us51-corridor/northstudy.aspx) was created by WisDOT and updated throughout the study duration. Upcoming meeting announcements, handouts, comment forms, exhibits, study schedule and recorded presentations are available. Public comments could be submitted at any time via the study website.

Prior to PIM #1, postcard invitations were mailed to 2,878 residents (residents within a one-quarter mile of the study area), property owners and businesses located along the study corridor, along with 300 meeting invitations via a literature drop to nearby neighborhoods. PIM #1 provided an overview of the study, preliminary purpose and need, a schedule with milestones and plans for future public involvement efforts.

Prior to PIM #2, postcard invitations were mailed to 2,880 residents, property owners and businesses located along the study corridor. An email blast was sent to 390 stakeholders on study contact lists, along with a Hmong version of the invite that was distributed at various locations along the corridor. PIM #2 provided an update on the study's progress, the purpose and need, alternative concepts, a schedule update with milestones and plans for future public involvement efforts.

Prior to PIM #3, postcard invitations were mailed to about 2,900 residents, property owners and businesses located along the study corridor. An email blast was sent to 396 stakeholders on study contact lists, along with a Hmong version of the invite that was distributed at various locations along the corridor. PIM #3 provided an update on the study's progress, detailed alternatives, anticipated impacts, the WisDOT recommended alternative, a schedule update with milestones and plans for future public involvement efforts.

As the study progressed, additional names were added to contact lists through sign-in sheets and online opt-in options for the public.

News releases announcing PIMs were published in the local newspapers and emailed to local chambers of commerce along with social media announcements through WisDOT's social media accounts.

A demographic survey was conducted at the Truax Neighborhood meeting, and 19 surveys were received. Surveys were made available for PIM #2 and PIM #3 in English, Spanish and Hmong. Five surveys were received from PIM #2, and 33 surveys were received from PIM #3. **Appendix H: Public Surveys** includes an example of the surveys and the summarized responses**.**

The study team also attended community events, provided study information and requested feedback. In 2023 and 2024, the study team identified and attended 15 community outreach events in conjunction with the US 51 (Stoughton Road) South Study and the I-39/90/94 Corridor Study. The Environmental Justice Factor Sheet provides a complete list of these meetings and events.

See **Appendix I: Public Involvement Documentation** for PIMs #1, #2 and #3 meeting debriefs.

D. Indicate any accommodations that were requested by the public or provided to comply with Title VI, EJ, or nondiscrimination laws.

- ☒ Interpreters
- ☐ Transportation provided
- ☐ Childcare provided
- ☒ Bilingual materials provided
- ☐ Other, describe
- ☐ Listening aids
- ☒ Accessibility for elderly populations or individuals
- ☒ Accessibility for disabled populations or individuals
- ☐ Sign language provided

E. Describe populations, groups, and individuals who participated in the public involvement process. Include any organizations and special interest groups:

During the public involvement meetings, most attendees represented themselves and did not sign in or inform the study team of being part of any organization or special interest group.

Wisconsin Center for the Blind and Visually Impaired, Madison Bikes and Madison College participated in the US 51 North Study Bicycle and Pedestrian Workshop.

East Madison Community Center hosted a study booth during their food pantry hours. See Section 12 for public meetings focused on EJ populations.

A Citizens Advisory Committee (CAC) was formed to share study information and obtain feedback from businesses along the corridor. The CAC includes large employers and business groups who can easily share study information with their employees and members.

F. Indicate plans for additional public involvement, if applicable:

A notice of a public hearing is anticipated to be published in the winter of 2024/2025. During the final design and construction of the preferred alternative, website updates and public and individual business and residential property owner meetings will be conducted.

15. Summarize the Results of Public Involvement

A. Describe the issues, if any, identified by individuals or groups during the public involvement process:
B. Briefly describe how the issues identified above were addressed:

The tables below summarize the issues and comments made by the public on the left side and how the study team addressed the issue on the right side. Each table summarizes a different public meeting.

Oct. 13, 2022, PIM #1 and in the 30-day post-PIM comment period:

Issues and comments made by the public		How the study team addressed the issues identified
a.	Deflection angle issues at the US 151 intersection, leading to southbound traffic crossing lanes.	The study team will analyze concepts that address the known geometric deficiency at this intersection.
b.	Flooding concerns at Lexington Avenue and US 51.	Comment acknowledged. Drainage improvements will be considered with concept development.
c.	Traffic and safety issues at Lexington Avenue.	Comment acknowledged. An intersection control evaluation will be completed at this intersection to review and address any traffic and safety concerns at this location with concept development.
d.	Problems at the Rieder Road intersection causing northbound travel on US 51 to turn into U-turns. Need for southbound access from Rieder Road.	The study team will develop concepts at this intersection location based on traffic and safety concerns.
e.	Difficulty accessing US 51 from Hanson Road, especially during peak hours.	Comment acknowledged. An intersection control evaluation will be completed at this intersection to review and address any traffic and safety concerns at this location with concept development.
f.	Bicyclists avoiding Kinsman Boulevard due to visibility issues.	Concepts will be developed to address any traffic and safety concerns, including bicycle and pedestrian safety, at this intersection.
g.	Challenges navigating between Lexington Avenue and WIS 30 during peak hours.	Comment acknowledged. An intersection control evaluation will be completed at this intersection to review and address any traffic and safety concerns at this location with concept development.
h.	Proposal to rebuild Stoughton Road as an urban boulevard.	The concept development will include improvements to satisfy the study's purpose and need.
i.	Suggestions for improvements at Anderson Street for bike/pedestrian crossings.	Concepts will be developed to address any traffic and safety concerns, including bicycle and pedestrian safety, at this intersection.
j.	Concerns from Wisconsin Aviation regarding roadway improvements near Dane County Regional Airport to facilitate quick access for customers.	Comment acknowledged. This comment pertains to maintaining the existing intersection of US 51 and Amelia Earhart Drive. The study team will develop concepts at this intersection location based on traffic and safety concerns.
k.	Request for bike path connections between Sun Prairie, Windsor and Waunakee.	Comment acknowledged. The north limit of this study ends just south of the Interstate.
l.	Concerns about congestion at the intersection of Hoepker and Ronald Reagan.	Comment acknowledged. An intersection control evaluation will be completed at this intersection to review and address any traffic and safety concerns at this location with concept development.
m.	Desire to connect bike paths over/under US 51 to the Walmart area. Lack of easy walking access to Walmart for residents of nearby apartments.	Concepts will be developed to address any traffic and safety concerns, including bicycle and pedestrian safety, at this intersection. A separated shared-use path is a consideration.
n.	Importance of maintaining easy access to Zimbrick Volkswagen and related businesses.	Business access will be reviewed with concepts that satisfy the study's purpose and need.
o.	Difficulty for pedestrians and bicyclists traveling east from the Mayfair Park neighborhood.	Bicycle and pedestrian accommodations will be considered along the study limits to the maximum extent feasible and practical.
p.	Safety concerns at the intersection of US 51 and US 151 for pedestrians.	An intersection control evaluation will be completed at this intersection to review and address any traffic and safety concerns at this location with concept development, including improvements to pedestrian accommodations.
q.	Suggestions for improving pedestrian and bicyclist access at various intersections. Calls for improved pedestrian and bicyclist crossings away from major roads.	Concepts will be developed to address any traffic and safety concerns, including bicycle and pedestrian safety, at all intersections within the study limits. A separated shared-use path is a consideration.
r.	Opposition to right-turn slip lanes at intersections, citing safety concerns.	Concepts at intersections will be evaluated for traffic and safety, including bicycle and pedestrian improvements.
s.	Suggestions for smoother traffic flow, including the need for under/overpasses.	Concepts will be developed to satisfy the study's purpose and need, which may include grade-separated crossings at major intersections with over/underpasses.
t.	Concerns about impacts on bike path easements due to development projects.	Bicycle and pedestrian accommodations will be considered along the study limits to the maximum extent feasible and practical and may include a separated shared-use path.

Nov. 10, 2022 East Madison Community Center (EMCC) Truax Neighborhood Meeting:

Issues and comments made by the public		How the study team addressed the issues identified
a.	Most community center traffic is on foot or by bus with few bicycles.	One of the priorities of our WisDOT study is to improve bicycle and pedestrian accommodations along the corridor. A shared-use path for all ages and abilities is proposed on the east side of US 51. Bicycle and pedestrian accommodations are also being proposed at all the signalized intersections between WIS 30 and Hoepker Road.
b.	Walgreens and Kwik Trip are the nearest businesses for groceries and prescriptions. Walgreens is very important to the community and predominantly access this destination by foot. To access Walgreens and Kwik Trip, most residents utilize the sidewalk just south of Schoepp Motors and then cross Stoughton Road mid-block.	Comment acknowledged. Concepts to be developed will consider the importance of these businesses to the community and the ability to access them safely.
c.	Crossing US 51 east-west by foot is challenging.	Comment acknowledged. Concepts to be developed will consider the importance of safely crossing pedestrians at the US 51/US 151 intersection.
d.	Concerns with the potential design of pedestrian tunnels for safety reasons.	Comment acknowledged. Concepts to be developed will consider the importance of safely crossing pedestrians at the US 51/US 151 intersection.

Sept. 27, 2023 PIM #2 and in the 30-day post-PIM comment period:

Issues and comments made by the public		How the study team addressed the issues identified
a.	The footprint of the road should be maintained or shrunk. It is untenable to continue creating costly, unfunded liabilities for maintenance and repair long into the future as well as incongruent with the need to pivot away from driving due to the climate crisis.	The study team will analyze concepts that address the study's purpose and need.
b.	Make sure to prioritize pedestrians and bicyclists. Do not divide our neighborhoods, especially at US 151 and US 51 (option one or two would be ideal...less impactful. Vehicular bridges tend to be harmful to ped/bikes).	Concepts at intersections will be evaluated for traffic and safety, including bicycle and pedestrian improvements.
c.	WIS 30 interchange concepts: general support for the Diverging Diamond Interchange.	Comment acknowledged.
d.	Commercial Avenue concepts: general support for a grade-separated crossing of the railroad and Commercial Avenue.	Comment acknowledged.
e.	[US 151] concepts: comments pertaining to bicycle and pedestrian movements with the concepts. The Quadrant or conventional would be more friendly to pedestrians. The Jughandle would have the highest net positive impact on pedestrians and bicyclists. Mixed positive and negative comments for the Tight Diamond Interchange.	Comments acknowledged.
f.	Kinsman concepts: support for both the existing conditions improved and the roundabout.	Comments acknowledged.
g.	Rieder Restricted Crossing U-Turn (RCUT) concept: the distance to the U-turn is too short.	Comment acknowledged. The RCUT design is based on current WisDOT design guidance.
h.	Hanson: support to keep the full access intersection.	Comment acknowledged.
i.	Hoepker: consider pedestrian refuge areas for the existing conditions improved concept. The roundabout concept had some support and some opposition.	Comments acknowledged.
j.	County CV: the concept included a triple left in the eastbound to northbound movement. The comment supported this addition.	Comment acknowledged.

April 18, 2024, PIM #3 and in the 30-day post-PIM comment period:

Issues and comments made by the public		How the study team addressed the issues identified
a.	Two business owners, located between [US 151] and Anderson Street on the east side of the roadway, prefer not to close the median in front of their business due to potential issues with customer access and delivery truck access.	The alternative concepts in this area will be reviewed to address this concern and attempt to include a southbound left-in at this median location based on the preferred alternative selection.
b.	One business owner near County CV is content with full access at 51/CV intersection.	Comment acknowledged.
c.	One individual is relieved that there will not be a roundabout at Hoepker.	Comment acknowledged.
d.	One business owner located in the southwest quadrant of [US 151] is unsupportive of the Jughandle alternative as it displaced his business.	The study team will take this concern into consideration and can investigate ways to reduce impacts on this property.
e.	One comment regarding current and future traffic on US 51 and questions the need for additional vehicle capacity. Also interested in providing more non-vehicle improvements to the corridor.	Traffic analysis indicates traffic volumes will gradually increase over time at 0.8% per year in this section of US 51. This is based on the Dane County regional travel demand model, which uses population and economic development trends identified by the Greater Madison MPO in its Connect Greater Madison 2050 RTP. The forecasted traffic along the US 51 mainline does not identify the need for additional travel lanes. Instead, our study is looking to address safety and operational needs along the corridor by focusing on the improvements on the intersections. Additionally, the Greater Madison MPO 2050 plan aims to foster an integrated multimodal transportation system. One of the priorities of our WisDOT study is to improve bicycle and pedestrian accommodations along the corridor. A shared-use path for all ages and abilities is proposed on the east side of US 51. Bicycle and pedestrian accommodations are also being proposed at all the signalized intersections between WIS 30 and Hoepker Road. As an additional safety feature, we are also considering introducing an urban cross section and reducing the speed limit for the southern section of this corridor between WIS 30 and US 151.
f.	The alternative between WIS 30 and [US 151] should prioritize bicycle and pedestrian safety. Can the path in this area be located on the west side of US 51 instead of the east side to limit the impact on trees and natural areas?	One of the priorities of our WisDOT study is to improve bicycle and pedestrian accommodations along the corridor. A shared-use path for all ages and abilities is proposed on the east side of US 51. The study team will explore the possibility of locating the shared-use path on the west side of US 51 in this area, but corridor continuity, safety and the preferred alternative, along with right of way considerations, need to be considered.
g.	Please consider reducing the footprint and vehicular capacity of this corridor as it passes through Madison. Giving remaining lanes to transit and bike facilities and adding housing/retail/office development close to the corridor would knit back together the communities currently bisected by this scar of a highway. Please consider an urban boulevard. Through traffic already has the interstate and parallel highways. This route is one of the things that makes east Madison less attractive, but this route could be so much more. Please don't make it worse.	Our detailed traffic analysis indicates traffic volumes will gradually increase over time in this section of US 51. This is based on the Dane County regional travel demand model, which uses population and economic development trends identified by the Greater Madison MPO in its Connect Greater Madison 2050 RTP. The forecasted traffic along the US 51 mainline does not identify the need for additional travel lanes throughout the corridor. Instead, our study is looking to address safety and operational needs along the corridor by focusing the improvements primarily on the intersections. Additionally, the Greater Madison MPO 2050 RTP aims to foster an integrated multimodal transportation system. One of the priorities of our WisDOT study is to improve bicycle and pedestrian accommodations along the corridor. A shared-use path for all ages and abilities is proposed on the east side of US 51. Bicycle and pedestrian accommodations are also being proposed at all the signalized intersections between WIS 30 and Hoepker Road. We are also considering introducing an urban cross section and reducing the speed limit for the southern section of this corridor between WIS 30 and US 151. As part of this study, we also consider projected economic development and adjacent land use, in addition to coordinating with our partners at the city of Madison, who are developing a Northeast Area Plan.

h.	One resident lives on Leo Circle and is concerned about the proposed changes in this area and the impact of traffic noise, lights from traffic towards their house, property value and jurisdiction. They also mentioned that a special needs child lives in this area and is concerned about their safety.	The reason that we are evaluating flattening the curves near your property is that they do not meet current design standards, and there is a history of run-off-the-road crashes in that area. Flattening those curves will help address this safety issue. We will consider the concerns and can investigate ways to potentially reduce impacts on your property as the study moves forward. If you are interested, I can put you in touch with one of our WisDOT Real Estate representatives, who can discuss what factors are taken into consideration when WisDOT determines compensation for real estate acquisition as part of a transportation project. Specific to your question as to whether your property would remain in the Town of Burke, your parcel should stay with that municipality. WisDOT projects do not result in changes to local jurisdictional boundaries.
i.	Support to eliminate business access points around [US 151].	Comment acknowledged. The study team continues to discuss business and residential access within the area of US 151.
j.	Another individual deems an interchange at I-39 and Hoepker unnecessary and in conflict with transit encouragement efforts.	The interchange at I-39 and Hoepker Road is not a consideration as part of this study but is instead being investigated with the I-39/90/94 Corridor Study.
k.	One city of Madison committee member favors the jughandle alternative at US 151 for its improved bike/ped safety.	Comment acknowledged.
l.	One member from city of Madison planning expresses visual displeasure with cul-de-sac roadways and updates on area plans.	Comment acknowledged. Side road access within the area of US 151 will continue to be investigated, and safety will be prioritized.
m.	Concerns from an elderly couple about navigational difficulties and wildlife crossings at WIS 30 interchange.	Comment acknowledged.
n.	Various residents express concerns or preferences regarding bike paths, roadway designs and intersection alternatives.	The study team will analyze concepts that address the study's purpose and need.
o.	Property owners and businesses voice concerns about driveway access, property acquisition and impacts on business operations due to proposed roadway changes near [US 151].	The study team will analyze concepts that address the study's purpose and need in this intersection area.
p.	Citizens highlight flooding issues, traffic safety, wildlife crossings and overall infrastructure investment concerns.	The study team will analyze concepts that address the study's purpose and need.
q.	Conversations at the PIM touched on various aspects of roadway design, safety, bike/pedestrian accommodations and the potential impacts of proposed alternatives on the community and environment.	The study team will analyze concepts that address the study's purpose and need.
r.	Excessive speeding/racing a problem.	The study is considering introducing an urban cross section and reducing the speed limit for the southern section of this corridor between WIS 30 and US 151.
s.	Slip lanes are dangerous for bikes/pedestrians.	Comment acknowledged.
t.	I like grade separation of RR for future Amtrak line; also keeps Lexington smaller.	Comment acknowledged.
u.	North Stoughton Service Road/Lexington Ave. intersection – get adequate intersection sight distance.	Comment acknowledged. The location of this intersection will adhere to WisDOT standards.

v.	Add signalized ped crossing at Schmedeman.	Comment acknowledged. Dedicated bicycle and pedestrian crossings at this intersection will be evaluated.
w.	Anderson Street: consider signalized ped crossing.	Dedicated signalized bicycle and pedestrian crossings will be included at this intersection.
x.	Kinsman existing conditions improved: left turns to the left of the median seems counterintuitive.	The geometry at the east leg of this intersection will be evaluated prior to the selection of a preferred alternative.
y.	Kinsman roundabout: support for the roundabout alternative.	Comment acknowledged.
z.	Pierstorff: make this a roundabout to serve as a "gateway" to slow traffic.	A roundabout at this location is not recommended based on safety and traffic evaluation.
aa.	Rieder Road RCUT: this is too close to Rieder. Getting to Amelia Earhart is hard enough.	Comment acknowledged. The RCUT design is based on current WisDOT design guidance.
bb.	Hanson: preference for alternative with acceleration and deceleration lanes.	Comment acknowledged.
cc.	Hoepker: support for the roundabout.	Comment acknowledged.

16. Local, County, State, Tribal, Federal Government Coordination

A. Identify units of government contacted and provide the date coordination was initiated.

Stakeholder committees have been formed to provide updates and get feedback throughout the study. A Citizens Advisory Committee (CAC) was formed to share study information and obtain feedback from businesses along the corridor. The CAC includes large employers and business groups who can easily share study information with their employees and members. A Technical Advisory Committee (TAC) was formed and includes local and regional transportation professionals. This committee provides technical input on study aspects, including needs, alternative development and screening and information specific to the jurisdictions that members represent. A Local Official Advisory Committee (LOAC) was formed and includes local and elected officials from state, counties, cities, villages, other municipalities, and government agencies within the corridor. This committee provides valuable information about the study that local officials can share with their constituents and stakeholders. Separate CAC and combined TAC/LOAC meetings took place prior to the public involvement meetings. See table below for more information. Tribal letters were sent describing the study's purpose and need, alternative analysis and opportunity to participate in the process.

The table below summarizes the comments and questions that were received during the TAC, CAC, and LOAC meetings, and how the study team addressed the comment or question.

Committee	Meeting Date (mm/dd/yyyy)	Number of Attendees	Comments/Questions	How the study team addressed the comment or question
LOAC #1	9/27/2022	30	Of the known two fatalities in the study area, were they bicycle or pedestrian related?	One fatality was related to bicycles or pedestrians.
TAC #1	9/29/2022	20	Who handles the study area between Daentl Road and WIS 19?	WisDOT determined that the I-39/90/94 study would include this area.
			How is the study team handling traffic volumes post-COVID?	Traffic forecasts utilized post-COVID traffic volumes (2022) and the study team utilized pre-COVID volumes (2018) to perform sensitivity and excess capacity analysis. In general, post-COVID traffic volumes have rebounded closely to pre-COVID traffic volumes.
			DCRA asked about alternatives and cited concerns with multi-modal options within the Runway Protection Zones.	The study team set up meetings with DCRA to understand their concerns. The preferred alternative does not include multi-modal options within the Runway Protection Zones.
CAC #1	10/5/2022	10	General questions about how long the construction would take and how the project would potentially get built.	Construction would take several years. The earliest construction of the preferred alternative would occur in the late 2020s and would occur once funding is in place and final design is completed. The project would be built in stages and would be further defined with final design.
Combined LOAC and TAC #2	5/24/2023	29	No comments received.	
CAC #2	5/31/23	16	Comment about the Lexington/Commercial intersection concepts and the presence of trucks using the North Stoughton Service Road and accessing businesses.	Future concepts and alternatives would take this access into consideration.
Combined LOAC and TAC #3	9/12/2023	24	No comments received.	
CAC #3	9/13/2023	9	No comments received.	
Combined LOAC and TAC #4	4/3/2024	26	How will drainage issues be addressed at Lexington/Commercial?	The study team has investigated the known drainage issues and alternatives would attempt to improve the issues in this area to the maximum extent practical.
			General comments and questions about pedestrian and bicycle crossings at intersections with the alternatives presented.	The study team will incorporate safe bicycle and pedestrian crossings at the intersections and will explore separated crossings with the study.
			Preference to keep Rowland Avenue and MacArthur Avenue as right-in/right-out with US 151.	Many options were considered. The preferred alternative keeps these side road connections as right-in/right-out.
			Will the BRT stop near Anderson Street remain?	Yes, Anderson Street will remain a signalized intersection with the preferred alternative and the BRT route will not change.

CAC #4	4/3/2024	13	How many trains cross near Lexington/Commercial today?	Less than one per week currently.
			Concerns for pedestrian safety at Lexington/Commercial.	The preferred alternative will include dedicated crosswalks for this intersection.
			How is the study taking into consideration new housing developments in the area of the Hawthorne neighborhood?	The study team is working with the city of Madison and their plans for future development.
			Why is the bike path on the east side of the road between WIS 30 and East Washington Avenue?	The study team conducted a bike/ped workshop in 2023 with area experts and the consensus was to place the shared-use path on the east side of US 51.
			One property owner expressed concern over the potential loss of his business.	The study team met with the property owner and has considered options that address the project's purpose and need while minimizing impacts. The preferred alternative does not include a relocation of this property.
			Safety concern over the westbound WIS 30 off-ramp movement to southbound US 51.	The preferred alternative proposes to signalize this movement to improve safety.
Combined LOAC and TAC #5	8/14/2024	15	Comment in support of the Hanson Road preferred alternative.	Noted.
			A suggestion to include a grade separation of the railroad near Lexington/Commercial.	A range of alternatives was developed and included a grade separation of the railroad at this location. The Existing Conditions Improved alternative was selected as the preferred alternative since it has similar safety and operational benefits but has considerably less cost and impacts.
CAC #5	8/14/2024	11	For the preferred alternative, how will people access the North Stoughton Service Road from East Washington Avenue?	The preferred alternative includes a south leg to the US 151/Schmedeman Avenue intersection and connection to Prairie Avenue to access this road.
			Are the relocations known to the public?	Yes, the proposed relocations with the preferred alternative were included with the PIM #3 graphics and are available on the project website.

The table below summarizes the coordination and comments provided by local government organizations during the study.

Unit of Government (Village, Town, MPO, RPC, City, County, Tribe, Federal, etc.)	**Coordination** Correspondence Attached	**Coordination Initiation Date** (mm/dd/yyyy)	**Comments**
City of Madison	☒ Yes ☐ No **Appendix J: City of Madison Coordination**	6/28/2022 (ongoing)	Monthly design meetings were held throughout the study starting in June 2022. The general agenda for the meetings was to discuss, present and gather feedback on the concepts and alternatives developed throughout the study process. Attendees were asked to present on the city plans and goals. Regular city attendees included the Director of Transportation, Traffic Engineering Director, Deputy City Engineer and planning staff.
		7/28/2023	A memo was received from the mayor's office and city transportation staff with comments at ten intersection locations in the study corridor. In addition to the comments, recommendations were made at the following US 51 intersection locations: US 151 and Commercial Avenue/Lexington Avenue. General comments about bicycle and pedestrian accommodations were provided, along with specific comments from Madison's Transportation Commission.
		1/18/2024	City transportation staff provided comments and recommendations for concept dismissals for the following US 51 intersection locations: US 151, Commercial Avenue/Lexington Avenue, WIS 30 and Hanson Road.
		2/29/2024	City transportation staff support the dismissal of the diamond interchange alternative at US 51/US 151 intersection.
		3/29/2024	City transportation staff provided a memo with alternative recommendations for the following US 51 intersection locations: US 151, Commercial Avenue/Lexington Avenue and WIS 30.
		8/9/2024	City email requesting that WisDOT evaluate and install a grade-separated pedestrian and bicycle crossing in the north-south direction on the east side of the US 151 intersection.
		11/24/2024	City sent a letter to the study team summarizing their preference for Community Sensitive Design features and cost sharing.
Village of DeForest, City of Madison, Dane County, MPO, FHWA	☒ Yes ☐ No **Appendix K: Bicycle and Pedestrian Workshop Documentation**	2/13/2023	Bicycle and Pedestrian workshop to identify issues and opportunities for improvement throughout the study corridor
Dane County Regional Airport (DCRA)	☒ Yes ☐ No **Appendix L: Dane County Regional Airport Coordination**	12/14/2022	Meeting to present the study purpose and overview related to adjacent Dane County Regional Airport property.
		6/26/2023	Meeting to discuss potential improvements to roadway alignment, intersections and bicycle and pedestrian facilities adjacent to/within DCRA property and RPZs.
		10/5/2023	DCRA email response to initial intersection concepts and bicycle and pedestrian facilities within RPZs.
		11/9/2023	DCRA email response to potential alignment shift of US 51, intersection concepts and bicycle and pedestrian facilities within RPZs.
		2/2/2024	DCRA email response to support the study's proposed alternative including the absence of a separated shared-use path adjacent to the east side of US 51.

Dane County Regional Airport (DCRA) and Federal Aviation Administration (FAA) Coordination

The US 51 North Study is adjacent to property owned by DCRA between Pierstorff Street and Hoepker Road. This property was purchased with FAA funds and WisDOT is not able to use eminent domain to condemn the property for transportation improvements.

Portions of the US 51 North Study corridor also pass through two RPZs, including the Hanson Road intersection, which lies within an RPZ. The FAA defines an RPZ as a trapezoidal area off the edge of a runway's end that serves to protect people and property on the ground. These are shown in blue on Figure 7-1: Runway Protection Zones within the Corridor. It is desirable to clear the entire RPZ of all above-ground objects. Where impracticable, the airport should maintain the RPZ clear of all facilities supporting incompatible activities. Potential transportation improvements to the US 51 corridor that change the roadway configuration within an RPZ may require completion of an RPZ Analysis. This includes changing the horizontal or vertical alignment of the roadway, introducing objects such as roadway lighting, traffic signals, shared-use paths or median barrier/guardrail or acquiring property from the airport.

An RPZ analysis is a process overseen by the FAA for identifying, evaluating and documenting potential changes within RPZ. For roadway projects, it involves developing a range of alternatives and identifying a preferred alternative within the RPZ analysis that is acceptable to the airport sponsor within the RPZ that:

- Avoids introducing any new land use within an RPZ
- Minimizes impacts of land use within RPZ
- Mitigates risk to people and property on the ground.

The FAA reviews the final RPZ analysis report, and either approves or denies the proposed changes.

For the reasons outlined above, close coordination with DCRA was necessary during the alternative development process. DCRA representatives attended TAC meetings to receive updates and provide feedback as the study progressed. Individual meetings were held with the study team, DCRA representatives and the WisDOT Bureau of Aeronautics (BOA) to discuss the RPZ analysis requirements and get feedback on alternatives developed in the DCRA area of the corridor, as well the potential impacts of those alternatives within the RPZs and to DCRA property. In addition, email correspondence occurred regularly as the alternatives were developed. Several alignment and intersection alternatives were developed and evaluated, through coordination with DCRA a mostly on-alignment alternative was developed that addressed the majority of corridor needs, had minimal changes to the roadway configuration and no property acquisition or new objects within the RPZs. This alternative was supported by DCRA. In addition, DCRA coordination helped determine the preferred intersection alternatives at Rieder Road, Amelia Earhart Drive and Hanson Road. See the **Appendix D: Alternatives Screening Technical Report** and Section 7 of this EA for additional information on the alternatives developed. See **Appendix L: Dane County Regional Airport Coordination.**

WisDOT then coordinated with FAA on the to determine if the alternative supported by the DCRA would require any additional analysis for the minimal impacts within the RPZs. FAA responded that no additional RPZ analysis was necessary to move forward with the alternative. See **Appendix M1: FAA Coordination**

B. Describe the issues, if any, identified by units of government during the public involvement process:
Issues are identified in the first (left) column of the table below question C.

C. Briefly describe how the issues identified above were addressed:
The summary of how issues were addressed is in the second (right) column of the table below.

Bicycle and Pedestrian workshop, held on Feb. 16,2023:

Issues and comments made during the Bicycle/Pedestrian Workshop		How the study team addressed the issues identified
a.	The general feedback from the Bicycle and Pedestrian workshop, held on Feb. 16, 2023, focused on increased safety at intersections and north-south connectivity connecting neighborhoods and businesses.	A separated shared-use path has been incorporated into the study plans along the east side of US 51. The preferred alternative includes a shared-use path from the south study limits to Kinsman Boulevard, with a gap between Kinsman Boulevard and Hoepker Road, and continues from Hoepker Road north to the northern study limits. Dedicated crossings have been incorporated at intersections where crossings do not exist today to assist with bicyclist and pedestrian safety. Since this meeting, the design advanced to include grade-separated pedestrian crossings over US 51 at WIS 30 south of the interchange and a grade-separated crossing of the proposed shared-use path over US 151 at the east leg of the US 51 and US 151 intersection in the preferred alternative.

Madison provided a letter on July 28, 2023, which stated the following:

City of Madison Comments		How the study team addressed the issues identified
a.	"Existing and future land uses along US 151 will support community members without access to motor vehicles, as well as those who chose to use active transportation options. It is imperative that all intersection concepts be designed to support users of all ages and abilities. A young student, a mobility challenged person, or a visually disabled person should all be able to comfortably navigate intersections safely. Everyone should experience the 151/51 intersection as a place that is not just safe but also desirable to navigate."	The preferred alternative adds crosswalks at all four legs of the US 151 intersection. The standard signalized intersection matches driver, bicycle and pedestrian expectations. As the study progressed, a grade-separated crossing of the proposed shared-use path over US 151 at the east leg of the US 51 and US 151 intersection was added to the preferred alternative.
b.	"Hoepker Rd – Hoepker Road provides access to businesses in this area and is a key route between Madison's northside and Madison's northeast side/Sun Prairie, and may be the site of a future interchange with I-39/90/94. Consequently, alternatives with full access to all movements on Stoughton Road are recommended."	The preferred alternative at Hoepker Road maintains full access to all movements and is compatible with the I-39/90/94 Hoepker interchange alternative.
c.	"Hanson Road provides access to businesses in the City's Center for Industry & Commerce, is as a primary entrance to the American Center. Metro Transit's satellite facility is also on Hanson Rd, and will be used to house electric BRT buses. Therefore, staff recommends intersection alternatives that preserve all movements."	The preferred alternative at Hanson Road maintains full access to all movements.
d.	"Amelia Earhart Dr is used as a primary entrance to commercial air functions. The preservation of all intersection movements is recommended."	The preferred alternative at Amelia Earhart Drive maintains full access to all movements.
e.	"Rieder Rd is already access restricted, with the Westbound to Southbound movement prohibited. Staff recommends preservation of all remaining movements."	The preferred alternative at Rieder Road maintains the existing restricted access movements.
f.	"Pierstorff St, Kinsman Blvd, and Anderson St – These streets all serve the Madison College area. At least one of the Pierstorff and Kinsman Blvd intersections should maintain all movements. Anderson St is used by Bus Rapid Transit to cross to Mendota St. Without this cross access, BRT would need to be rerouted. Preservation of this movement is critical."	The preferred alternative at Pierstorff Road maintains the existing restricted access movements. The preferred alternative at Kinsman Boulevard and Anderson Street maintains full access to all movements, including the east-west BRT movement across Anderson Street.
g.	"Highway 30 Interchange – This existing interchange is the beginning of an expressway section of US 51 that spans south of the project through the Milwaukee St and Cottage Grove Rd interchanges. The interchange functions reasonably well and staff are unsure if further improvements are needed."	The preferred alternative at WIS 30 maintains the existing diamond interchange with improvements to accommodate future traffic.

h.	US 151. Madison recommended further investigation to the following concepts: • "At-grade intersection. While crossing distances are long, this is one of the few intersections that does not involve a grade separation and provides appropriate scale. Crossings are straight forward in all four quadrants." • "Quadrant Intersection – Also a creative intersection design that does not require a grade separation. While introducing another intersection, the actual crossing distance at US 51 and US 151 is reduced. And pedestrian conflicts with left-turn conflicts are removed. Non-compliance with left-turn prohibitions could be a problem." • "Jughandle Intersection. Initially this concept seems impactful. Yet on further evaluation, most pedestrian crossings are short, direct, with less conflicting traffic volume. Impacts are constrained primarily to one quadrant. And both US 151 and US 51 maintain one signal through the intersection – helping to keep speeds moderate. All pedestrian crossings are straightforward. Staff do recommend a north-south crosswalk be included at the west ramp of the jug-handle to accommodate pedestrian/bicycle movements not using the grade separated."	The study team moved forward with these three concepts. Two of these concepts, the at-grade intersection (existing conditions improved) and the jughandle, were further developed into alternatives and presented at PIM #3. The existing conditions improved (signalized intersection) was identified as the preferred alternative.
i.	Commercial Avenue/Lexington Avenue. Madison recommended grade separated crossing at this intersection to provide a less stressful crossing for pedestrians and bicyclists and to provide a separation of the WSOR crossing, if passenger rail is brought to the Madison area.	The preferred alternative includes improvements to the at-grade crossing at this location. The improvements satisfy the purpose and need and include the addition of dedicated crosswalks for all four legs of the intersection, improving the safety of bicycle and pedestrian movements. Crossing gates will be constructed with this alternative, which will improve the safety of the WSOR crossing.

Madison provided a letter on March 29, 2024, which stated the following:

City of Madison Comments		**How the study team addressed the issues identified**
a.	US 151. "For the remaining alternatives, Madison prefers the at-grade intersection alternative over the jug-handle intersection alternative. While providing better ped/bike crossing, the jug-handle only removes 15% to 20% of the traffic from the intersection yet requires over 20 driveway closures and 11 relocations. The impacts are large and permanently preclude investment/development of almost 10 acres of land. Madison requests that the driveway closures be reduced to the extent possible. These driveways have operated as right-in/right-out for decades with little effect on injury crashes. We believe maintaining these driveways does not pose a substantial safety risk and will prevent at least 5 relocations."	The preferred alternative at this location is the existing conditions improved signalized intersection.
b.	Commercial Avenue/Lexington Avenue. "Staff support the partial jughandle over the existing conditions alternative. It provides a local road connection across Stoughton Road with an "All Ages and Abilities" crossing for bicycles and pedestrians. The jughandle restores the grade separated crossing of the railroad that existed prior to 1990, aiding in the restoration of passenger rail. If restored, the grade separation would eliminate crossing exposure and substantially decrease crossing risk. Discussions with Amtrak representatives also indicate that they strongly prefer an alternative that includes a grade separation of the railroad."	The preferred alternative includes improvements to the at-grade crossing at this location. The improvements satisfy the purpose and need and include the addition of dedicated crosswalks for all four legs of the intersection, thus improving the safety of bicycle and pedestrian movements. Crossing gates will be constructed with this alternative, which will improve safety at the WSOR crossing.
c.	WIS 30 Interchange. "Madison prefers the conventional diamond interchange over the diverging diamond interchange. While north-south pedestrian/bicycle volumes are not anticipated to be large, the crossings of a diverging diamond are not "All Ages and Abilities". The diverging diamond requires pedestrians and bicyclist to cross and walk along the median of the roadway through the interchange. Consequently, the contextual clues used by the visually impaired do not exist. Also crossing to and walking/biking in the unprotected median would be challenging for younger users. The conventional diamond does not decrease operations substantially and we believe provides a more intuitive and safer facility for vulnerable users."	The preferred alternative at WIS 30 maintains the existing diamond interchange with improvements to accommodate future traffic.

D. Indicate any unresolved issues or ongoing discussions:
Coordination with Madison is ongoing.

17. Public Hearing Requirement

A. ☒ This document is an Environmental Assessment.
- ☐ A Notice of Opportunity to Request a Public Hearing **will be** published, or,
- ☒ A Public Hearing **will be** held.

B. ☐ This document is a Categorical Exclusion / Environmental Report.
- ☐ 1. A substantial amount of right of way **will** be acquired.
- ☐ 2. The proposed action **will** substantially change the layout or functions of connecting roadways or of the facility being improved.
- ☐ 3. The proposed action **will** have a substantial adverse impact on abutting property.
- ☐ 4. The proposed action **will** have other substantial social, economic, or environmental effects.
- ☐ 5. The department has determined that a public hearing is in the public interest.

If one or more of boxes 1-5 above have been checked, you must check one the of the next 2 boxes
- ☐ A Notice of Opportunity to Request a Public Hearing **will be** published, or,
- ☐ A Public Hearing **will be** held.

If none of boxes 1-5 above have been checked then check the box below.
- ☐ Notice of Opportunity to Request a Public Hearing **will not** be published, and a Public Hearing **is not** required

When a Notice of Opportunity to Request a Public Hearing is published, and/or a Public Hearing is held, the final EA or CE / ER will include the Environmental Document Availability and Hearing Summary sheet at the beginning of the document, after the signature page.

When a Public Hearing is held, the project sponsor must submit a hearing record and certification to FHWA that complies with 23 U.S.C. 128(b) and 23 CFR 771.111(h). FHWA approval of this environmental document indicates concurrence with the department's Public Hearing requirement determination.

18. Traffic Summary

☐ Traffic Forecast is not required, explain: and skip to Question 19.

Traffic Summary Matrix	ALTERNATIVES/SECTIONS					
	No Build			Build – Preferred Alternatives		
	WIS 30 to Anderson Street	Anderson Street to Pierstorff Street	Pierstorff Street to north of County CV	WIS 30 to Anderson Street	Anderson Street to Pierstorff Street	Pierstorff Street to County CV
TRAFFIC VOLUMES						
Base Yr. AADT Yr. 2022	25,873	16,952	13,532	25,873	16,952	13,532
Const. Yr. AADT Yr. 2029	26,681	17,996	14,686	26,681	17,996	14,686
Const. Plus 10 Yr. AADT Yr. 2039	27,834	19,487	16,334	27,834	19,487	16,334
Design Yr. AADT Yr. 2050	29,102	21,127	18,147	29,102	21,127	18,147
DHV Yr. 2050	2,707	1,899	1,795	2,707	1,899	1,795
TRAFFIC FACTORS						
K:250 (%)	9.3%	9.0%	9.9%	9.3%	9.0%	9.9%
D (%)	51.8%	61.2%	59.4%	51.8%	61.2%	59.4%
Design Year T (% of AADT)	2.21%	1.55%	4.13%	2.21%	1.55%	4.13%
T (% of DHV)	2.21%	1.55%	4.13%	2.21%	1.55%	4.13%
Level of Service*	F	C	F	D	C	C
SPEEDS (more than one listed if speeds within segment vary)						
Existing Posted (mph)	35 / 45	35 / 45	55	35 / 45	35 / 45	45 / 55
Future Posted (mph)	35 / 45	35 / 45	55	35 / 40	35 / 45	45 / 55
Design Year Project Design Speed (mph)	40 / 50	40 / 50	60	40 / 45	40 / 50	50 / 60
OTHER						
P (% of AADT)	Not used in analysis					
K_8 (% OF AADT)	Not used in analysis					

AADT = Annual Average Daily Traffic
DHV = Design Hourly Volume
K [$_{30/100/200}$] : K_{30} = Interstate, K_{100} = Rural, K_{250} = Urban, % = AADT in DHV
D = % DHV in predominate direction of travel
T = Trucks
P = % AADT in peak hour
K_8 = % AADT occurring in the average of the 8 highest consecutive hours of traffic on an average day (required only if CO analysis is required).
*Worst approach LOS on northbound/southbound US 51 during the design hour (evening peak hour) for the design year (2050).

A. Identify the agency that generated the data included in the Traffic Summary Matrix: The Corridor Design Management and Controls Team (CDMCT) generated the traffic volume data referenced in the Traffic Summary Matrix. The study team completed the operational analysis.

B. Identify the date (month/year) that the traffic forecast data included in the Traffic Summary Matrix was developed: A project-level traffic forecast request (DT1601) was submitted in February 2022 by the study team. The CDMCT initially supplied existing year (2022) and forecast year (2050) balanced traffic volumes to the study team in October 2022 and December 2022, respectively. These 2022 delivery dates mark the initial date where data was supplied, the CDMCT supplies ongoing updates to the traffic forecast data as necessary with the most recent finalized update being April 2023.

C. Identify the methodology and/or computer program(s) used to develop the data included in the Traffic Summary Matrix: Operational outputs for US 51 mainline between WIS 30 and Anderson Street were produced from the Synchro 11 modeling software with HCM6 and HCM2000 methodologies. This section of US 51 also considered microsimulation model results from PTV Vissim 2020, specifically for the preferred alternatives at the intersection of US 51 and US 151 and the US 51 and WIS 30 interchange. US 51 operational outputs for Anderson Street to Pierstorff Street were produced using Synchro11 with HCM6 methodology. US 51 operational outputs between Pierstorff Street and County CV were produced with Synchro11 HCM6 and HCM2000 methodologies as well as HCS2023 and HCS2024 for merge and diverge analyses.

D. If a metric other than Annual Average Daily Traffic (AADT) is used for describing traffic volumes such as Average Annual Weekday Traffic (AWDT), explain why a different metric was used and how it compares to AADT:Not applicable, AADT used.

19. Agency and Tribal Coordination

Agency	Coordination Required?	Correspondence Attached?	Comments
WisDOT			
Region Real Estate Section	☐ No	N/A	Coordination is not required because there are no Fee, PLE or TLE acquisitions.
	☒ Yes	☒ Yes ☐ No	Coordination is being done by WisDOT Real Estate including discussion of project effects and relocation assistance, Explain: Coordination is ongoing. The executive summary of the Conceptual Relocation Plan is attached as **Appendix N: Conceptual Relocation Plan**.
Bureau of Aeronautics (BOA)	☐ No	N/A	Coordination is not required. The study is not located within 5 miles of a public or military use airport.
	☒ Yes	☐ Yes ☒ No	Coordination has been completed and study effects have been addressed. Explain: BOA staff were present at the meetings with Dane County Regional Airport and were part of the review for the Runway Protection Zone (RPZ) memo and overall coordination.
Railroads and Harbors Section	☐ No	N/A	Coordination is not required because no railways or harbors are in or planned for the study area.
	☒ Yes	☒ Yes ☐ No	Coordination has been completed and study effects have been addressed. Explain: Coordination has occurred with regard to the existing at-grade railroad crossing just south of the US 51 and Commercial Avenue/Lexington Avenue intersection. Railroads and Harbors Section supports the addition of crossing gates with the preferred alternative. See **Appendix M2: Railroads and Harbors Coordination**
STATE AGENCIES			
Wisconsin Department of Natural Resources (WDNR)	☒ Yes	☒ Yes ☐ No	June 6, 2023 – WDNR provided initial review and comment. Throughout the study process, WDNR was invited and attended Technical Advisory Committee (TAC) meetings. July 22, 2024 – Study team provided an email update including the preferred alternative. Sept. 18, 2024 – Study team coordinated with WDNR for concurrence regarding conducting surveys for the state threatened and endangered species described in the Environmental Resources Review (ERR). See **Appendix M3: WDNR Coordination**
State Historic Preservation Office (SHPO)	☒ Yes	☒ Yes ☐ No	An archaeological survey was completed on May 17, 2024. An architecture/history survey was completed on May 8, 2024. The Section 106 submittal was approved on Aug. 28, 2024. See **Appendix M4: Section 106 Coordination**
Department of Agriculture, Trade and Consumer Protection (DATCP)	☐ Yes ☒ No	☐ Yes ☒ No	None
FEDERAL AGENCIES			
U.S. Army Corps of Engineers (USACE)	☒ Yes ☐ No	☐ Yes ☒ No	Unavoidable wetland impacts would be evaluated by the USACE under a Section 404 permit. Coordination will be completed during final design.

U.S. Fish and Wildlife Service (USFWS)	☒ Yes ☐ No	☒ Yes ☐ No	A consistency letter for specified threatened and endangered species consistent with the Minnesota-Wisconsin Endangered Species Determination Key was generated on Aug. 9, 2024. Informal consultation concluded with a concurrence of a "May Affect Not Likely to Adversely Effect" for the Rusty Patched Bumble Bee (RPBB) and "No Effect" for other listed species. USFWS concurred with "may affect, not likely to adversely effect" for the RPBB in correspondence dated Sept. 4, 2024. See **Appendix M5: USFWS Coordination**
U.S. Forest Service (USFS)	☐ Yes ☒ No	☐ Yes ☒ No	None
Natural Resources Conservation Service (NRCS)	☐ Yes ☒ No	☐ Yes ☒ No	None
U.S. National Park Service (NPS)	☐ Yes ☒ No	☐ Yes ☒ No	None
U.S. Coast Guard (USCG)	☐ Yes ☒ No	☐ Yes ☒ No	None
U.S. Environmental Protection Agency (EPA)	☒ Yes ☐ No	☒ Yes ☐ No	June 3, 2024 – WisDOT letter sent to inform EPA of the study with links to review study specifics and schedule. See **Appendix M6: EPA Coordination**
Advisory Council on Historic Preservation (ACHP)	☐ Yes ☒ No	☐ Yes ☒ No	None
Federal Aviation Administration (FAA)	☒ Yes ☐ No	☒ Yes ☐ No	Feb. 16, 2024 - WisDOT sent a letter to FAA to seek review and decision on whether additional RPZ analysis would be required for the proposed alternatives provided. April 16, 2024 - FAA responded that the review of the memo was complete and no further RPZ analysis is required. See **Appendix M1: FAA Coordination** and **Appendix O: Runway Protection Zone Analysis Memo**
Amtrak	☒ Yes ☐ No	☒ Yes ☐ No	July 3, 2024 – Letter received acknowledging receipt and review of the railroad grade separation analysis for the WSOR at-grade crossing of US 51 between WIS 30 and Commercial Avenue. Amtrak favors a grade separation at this location. See **Appendix M7: Amtrack Coordination**
SOVEREIGN NATIONS			
American Indian Tribes	☒ Yes	Standard Letters have been sent and an example is attached ☒ Yes	March 16, 2023 - Invitations to Participating Agency were submitted to the American Indian Tribes. One response was received from Forest County Potawatomi Community (FCPC) Tribal Historic Preservation Officer (THPO) citing No Historic Properties affected. The FCPC requested to be a consulting party. See **Appendix M8: American Indian Tribes Coordination**
Project Involves American Indian Tribal Lands or Reservation Lands	☒ No	N/A	
	☐ Yes	☐ Yes	

20. Alternatives Comparison

All estimates including costs are based on conditions described in this document at the time of preparation; costs are provided in the year of expenditure (YOE). Additional agency or public involvement may change these estimates in the future. The no build alternative consist of pavement maintenance along the corridor in order to keep the pavement in an acceptable condition.

Preferred Alternative:

PROJECT PARAMETERS	Unit of Measure	Alternatives	
		No Build	Preferred Alternative[5]
Project length	Miles	5.5	5.5
Preliminary Cost Estimate (YOE)			
Construction	Million $	$6.5	$207.5
Real Estate	Million $	0	$10.5
TOTAL	Million $	$6.5	$218
Land Conversion			
Total area converted to Right of Way (ROW)	Acres	0	9.27
Real Estate			
Number of farms affected	Number	0	0
Total area required from farm operations	Acres	0	0
Agricultural Impact Statement (AIS) required		☐ Yes ☒ No	☐ Yes ☒ No
Farmland rating	Score	N/A	N/A
Total buildings required	Number	0	3
Housing units required	Number	0	0
Commercial units required	Number	0	3
Other buildings or structures required	Number & Type	0	3 (Billboards)
Environmental Factors			
Indirect impacts		☐ Yes ☒ No	☒ Yes ☐ No
Cumulative impacts		☐ Yes ☒ No	☐ Yes ☒ No
Environmental justice (EJ) population(s) affected		☐ Yes ☒ No	☒ Yes ☐ No
Number of historic properties affected	Number	0	0
Burial site protection *(authorization required)*		☐ Yes ☒ No	☐ Yes ☒ No
Section 106 Memorandum of Agreement (MOA) required		☐ Yes ☒ No	☐ Yes ☒ No
Section 4(f) evaluation or determination required	Number	0	0
Section 6(f) or other unique properties impacted	Number	0	0
Floodplain impacts	Number	2	2
Unique upland habitat impacted	Acres	0	0
Threatened/Endangered species with "may effect" determinations and/or requiring state Incidental Take Authorization (ITA)	Number	0	1
Total wetlands permanently impacted	Acres	0	2.64
Surface waters impacted	Number	3	3
Groundwater, wells, and springs impacted	Number	0	0
Noise analysis required Receptors impacted	Number	☒ Yes ☐ No 19	☒ Yes ☐ No 19
Contaminated sites impacted	Number	0	4

[5] The preferred alternative includes the US 51 mainline and intersections.

21. Environmental Factors Matrix

If the effects on the environmental factor can't be adequately summarized in several sentences, the Factor Sheet for the environmental factor must be included. If the Factor Sheet is completed also include a brief summary here in the effects box. Factor sheets should be attached in the order the shown below.

Factors	Adverse Impact	Beneficial Impact	No Impacts Identified	Factor Sheet Attached	Effects
Business and Economic	☒	☒	☐	☒	The proposed action would support the area's economic activities and planned development. It would also improve operations, lessen congestion and improve safety. The improved roadway intersections and new bicycle and pedestrian accommodations would provide an enhanced transportation network for commuters and patrons. Multiple businesses would have driveway access removed or modified; however, no property would be left without access. Three business displacements are required at the US 151 intersection. There are sufficient available properties for the displaced businesses. The workers at the three potentially relocated businesses are all in occupations with strong projected annual growth in the area. Short-term inconvenience is anticipated during construction for local traffic and commuters traveling to and from businesses in the proposed action, but access to all businesses would be maintained during construction.
Community	☒	☒	☐	☒	In general, the proposed action would improve safety and mobility and benefit residents, communities and neighborhoods. There would be minor short-term travel delays during construction for US 51 users. Full access would be maintained during construction. Upon completion of construction, reduced congestion and improved safety for would be realized. The proposed action provides improved bicycle and pedestrian facilities for the 14.3% of people that do not have access to a vehicle. Public transit options also exist along the corridor. There are concerns with the pedestrian crossings at US 51 and US 151. The proposed crossings are longer than the existing crossings. A grade separated crossing of US 151 is proposed over the east leg of the intersection that will provide an alternative to crossing at-grade. The shared-use path would utilize this grade separation. Median refuge areas would be provided along pedestrian crossings of the US 51 and US 151 intersection. The city of Madison requested that community-sensitive design elements, including treatments to grade-separated structures, fencing types and tree planting, be incorporated into the design. See **Appendix J City of Madison Coordination**. The study team will continue coordination with the city of Madison to determine what community sensitive design elements will be included with the project.
Aesthetics	☐	☐	☒	☐	The proposed action would result in minimal changes to the height of the roadway. The viewshed along the corridor would not change substantially based on intersection improvements, sidewalks and shared-use paths. Trees would be removed along the corridor to accommodate improvements as needed. At US 151, a grade separated pedestrian crossing is proposed over the east leg of the intersection. Another grade-separated pedestrian crossing is proposed over the south leg of the US 51 and WIS 30 interchange. Substantial changes to aesthetics are not anticipated. Roadway design features would blend existing vegetation into the new cut and fill slopes. Plantings would be determined during the final design to preserve the existing landscape quality.

Agriculture	☐	☐	☒	☐	Limited agricultural land use exists on the corridor. There are no agricultural impacts to properties in the study area.
Relocations	☒	☐	☐	☒	Three businesses would be acquired. These businesses include auto sales, auto part sales and one restaurant. There are sufficient available properties for the displaced businesses. The workers at the three potentially relocated businesses are all in occupations with strong projected annual growth in the area.
Indirect Impacts	☐	☐	☒		Through screening analysis using WisDOT's pre-screening for indirect effects procedure and WisDOT's Facility Design Manual (FDM) guidance on indirect effects, it is concluded that the factors of the project, its location and other conditions do not warrant further detailed analysis of the potential for indirect effects. See **Appendix F: Indirect and Cumulative Impacts Pre-Screening Worksheet**.
Cumulative Impacts	☐	☐	☒		The preferred alternative is not expected to result in cumulative impacts.
Environmental Justice	☒	☒	☐	☒	The study would not result in disproportionately high and adverse effect on any environmental justice (EJ) populations. While environmental justice populations are present within the study area, adverse effects from the preferred alternative would affect the entire corridor population, not just the EJ populations. Similarly, all populations in the corridor would benefit equally from the study. The preferred alternative would provide sidewalks and multiple shared use paths for pedestrians and bicyclists. Traffic safety and operations would also improve. These improvements along the US 51 North Study corridor would benefit the general population as well as minority and low-income populations. The preferred alternative would improve travel along the corridor and reduce crashes. Strip acquisition is required in several areas along the study area. There are no known EJ-owned businesses that are impacted by relocation within this study.
Historic Properties	☐	☐	☒	☐	No properties listed on, or determined eligible for listing on, the National Register of Historic Places (NRHP) were identified within the study area. One building in the Area of Potential Effects (APE) was recommended as potentially eligible, the Madison Municipal Airport Hangar at 3400 North Stoughton Road. SHPO concurs that there are no effects on the potentially eligible hangar. It was determined that no historic properties are affected by the proposed improvements along the US 51 corridor.
Burial Sites	☐	☐	☒		Two uncatalogued burial sites were identified along the US 51 corridor. Archaeological investigations that consisted of visual inspection of disturbed, sloped and wetland areas, shovel testing of undisturbed areas and pedestrian surveys within agricultural fields were conducted in late 2023 and early 2024. Surveys located north of Leo Circle and south of Rieder Road to the east of US 51 resulted in no indications of burials, human remains or mounds. Investigations located to the south of Hanson Road and east of US 51 resulted in no indications of cemetery, gravestones or human remains. Based on this survey, it can be concluded that the surveyed areas hold little potential to harbor intact human burials, and no construction monitoring is recommended.
Tribal	☐	☐	☒		Tribal notification letters were sent to American Indian Tribes on Feb. 23, 2024. A response was received from one tribe. The Forest County Potawatomi Community (FCPC) reviewed and conferred a finding that "No Historic Properties affected of significance to FCPC." The FCPC requested to be included as a consulting party for this study.
Section 4(f)	☒	☐	☐	☒	There are four Section 4(f) park and recreation resources located near the study corridor. Bringham Park is a 3.37-acre park located west of US 51 and west of North Stoughton Service Road between Lexington Avenue and US 151. The city of Madison classifies the park as a mini park type and includes a basketball court, open field and playground. There are no restrooms or water facilities. This park is not impacted by the US 51 preferred alternative. Reindahl Park is a 90.74-acre park located east of US 51 and north of US 151. The Park features reservable athletic fields, tennis courts, shelter, community garden, parking and a splash park. The park will also be home to the Imagination Center which includes a library and park pavilion. This park is not impacted by the US 51 preferred alternative.

					The Madison Municipal Airport Hangar at 3400 North Stoughton Road was recommended as potentially eligible for listing on the NHRP, which would be considered a Section 4(f) resource. This hangar is not impacted by the US 51 preferred alternative. The city of Madison's Marsh View Path is located south of the study limits. This shared-use path will be impacted during construction of the proposed shared-use path that connects to this existing path. Temporary occupancy is the only impact to this recreation resource. The city of Madison has concurred with the temporary occupancy exception. See **Appendix P: Temporary Occupancy Letter**.
Section 6(f) and other Unique Properties	☐	☐	☒	☐	There are no Section 6(f) properties within the study area.
Wetlands	☒	☐	☐	☒	The Preferred Alternative would permanently affect approximately 2.64 acres of US 51 wetlands. Wetland mitigation will be carried out in accordance with state and federal requirements in consultation with WDNR and USACE per signed Interagency Coordination Agreements.
Surface Water Resources	☒	☐	☐	☒	Starkweather Creek (WBIC 805100), Unnamed River of Stream (WBIC 5034868) and Unnamed Creek (WBIC 805200) are located within the study area. The preferred alternative would result in limited, temporary disturbance to surface waters at some roadway crossings. The preferred alternative includes box culvert extensions for the East Branch of Starkweather Creek under US 51 and Commercial Avenue. A box culvert that conveys the West Branch of Starkweather Creek under US 51 between Rieder Road and Hanson Road would be replaced. There are no anticipated changes to the culvert carrying the unnamed tributary to the West Branch of Starkweather Creek at Rieder Road. The preferred alternative would result in no other physical impacts to the remainder of the surface waters.
Groundwater, Wells, and Springs	☐	☐	☒	☐	There are no known groundwater recharge or discharge areas, wellhead protection areas or spring features within the study limits.
Coastal Zones	☐	☐	☒		There are no coastal zones present in the study area.
Floodplains	☒	☐	☐	☒	Three of the surface waters along the study have floodplains. The preferred alternative would result in 3.3 acres of increased encroachment in the 100 YR and 500 YR floodplains. Final design of the improvements in the floodplains would be consistent with WDNR Floodplain Management NR 116 criteria and would include coordination with the local floodplain zoning authorities. See **Floodplain Map** on page M-28 of the Maps Section.
Unique Wildlife and Habitat	☐	☐	☒		No impacts to unique wildlife and habitat are anticipated.
Threatened, Endangered or Protected Resources	☐	☐	☒	☒	Consultation with WDNR identified 17 state-threatened or endangered species known to occur in the study area. The presence of the state-listed species will be determined by conducting surveys as design progresses through final design in accordance with the WisDOT/WDNR Cooperative Agreement. WDNR has agreed that it would be appropriate to conduct surveys after NEPA is completed for the threatened and endangered species listed in the Environmental Resource Review (ERR). The design team will work with WDNR to avoid or mitigate any impacts as a result of those surveys if a species is identified. See **Appendix M3: WDNR Coordination.** Consultation with the USFWS on federally listed species in the study area occurred through USFWS's Information for Planning and Consultation (IPaC) system. Six species were identified. Informal consultation was initiated with the USFWS and concurrence with the "may affect, not likely to adversely effect" determination for RPBB was issued on Sept. 4, 2024. See **Appendix M5: USFWS Coordination**. A No Effect Determination was made for all species on the Official Species List, apart from the RPBB. On November 26, 2024, the U.S. Fish and Wildlife Service (USFWS) announced a proposal to designate critical habitat for the rusty patched bumble bee (Bombus affinis) under the Endangered Species Act (ESA). The preferred alternative overlaps with proposed critical habitat in Dane County. If designated, WisDOT will resolve ESA compliance prior to let, as appropriate. Construction activities for this project will not take place until WisDOT, in coordination with our lead federal agency, satisfies Endangered Species Act compliance for the rusty patched bumble bee critical habitat.

Air Quality	☒	☐	☐	☐	The study is not located in an area designated as being in nonattainment for national ambient air quality standards; therefore, the Air Quality Factor Sheet was not completed. A greenhouse gas (GHG) analysis was conducted for the corridor, is included as **Appendix Q: Greenhouse Gases and Climate Change Impacts**. The GHG analysis evaluated the impacts from GHG impacts generated by the construction and operation of the study corridor between the opening year (2030) and design year (2050). GHG emissions were estimated using FHWA's Infrastructure Carbon Estimator (ICE), Version 2.2.8. The GHG analysis determined that 95% to 99% of GHG emissions would be generated from vehicle operation through the study corridor depending on the Build and No Build alternatives, respectively. Annualized and cumulative GHG emissions from vehicle operation under the Build and No Build alternatives were identical. Nonetheless, annualized and cumulative GHG emissions from the Build alternative would be about 5% higher than the No Build alternative due to intersection and corridor construction activities. WisDOT will follow its Standard Specifications to address pollution reduction/containment measures for the contractor and also implement mitigation measures to help reduce GHG emissions. Mitigation measures that will be followed are included in environmental commitments.
Construction Sound	☒	☐	☐	☒	Construction sound impacts may occur. WisDOT Standard Specifications 107.8(6) and 108.7.1 would apply.
Traffic Noise	☒	☐	☐	☒	Traffic noise impacts occur when the predicted equivalent sound level (Leq) approaches or exceeds the noise level criteria (NLC) established for a type of land use or when predicted sound levels substantially exceed existing levels. See **Traffic Noise Receptors Map** on page M-15 of the Maps section. Noise walls were reviewed to see if they were feasible and reasonable. Factors including safety, noise reduction, wall height, topography, drainage, utilities, right of way cost, existing infrastructure and maintenance were considered to determine whether a noise wall is feasible. A cost-benefit analysis was completed to determine whether a noise wall is reasonable. A noise wall was considered reasonable and feasible for one location in the study, noise wall E, located north of the US 51 Commercial Avenue intersection on the east side of the roadway. Based on the studies thus far accomplished, WisDOT is likely to incorporate noise wall E, pending final design and public involvement. WisDOT will initiate a separate public involvement process to determine whether or not the benefited owners and tenants support the noise wall construction.
Hazardous Substances, Contamination and Asbestos		☐	☒	☒	A Phase I Hazardous Materials Assessment was conducted for parcels immediately adjacent to the study area. The assessment identified seven adjacent parcels with reported spills and further environmental subsurface investigation (phase 2.5 or 3) is recommended at these locations.
Stormwater	☒	☐	☐	☒	The Preferred Alternative would increase impervious surface and contribute to increased stormwater runoff. New storm sewer networks between the WIS 30 interchange and US 51/Commercial Avenue intersection (rural to urban cross section changes) would require 80% TSS reduction, or to the maximum extent practicable (MEP), in this area to meet Trans 401 and MS4 requirements. Grassed swales and existing detention ponds would be utilized throughout the US 51/Commercial Avenue intersection area for rate control and to match existing conditions in the vicinity of the East Branch Starkweather Creek. Filter strips and swale treatments would be utilized in the northern section of the US 51 North Study limits in the vicinity of West Branch Starkweather Creek and Unnamed Creek to aid in TSS reduction. WisDOT would follow TRANS 401 and the WisDOT/WDNR Cooperative Agreement amendment regarding stormwater management to minimize the potential for adverse effects.
Erosion and Sediment Control	☐	☐	☒	☒	WisDOT would employ standard erosion control measures (best management practices) to avoid adverse effects on the surrounding areas during and after construction. Construction site erosion and sediment control would be part of the project's design and construction, as set forth in TRANS 401 Wisconsin Administrative Code and the WisDOT/WDNR Cooperative Agreement. The project plans would include best management practices (BMPs) for temporary and permanent erosion control.

22. Environmental Commitments

Identify and describe any avoidance, minimization or compensation measures (commitments) in detail. Be specific on what needs to happen and specifically where on the project. Indicate when the commitment should be implemented and who in WisDOT is responsible for fulfilling each commitment (Project Manager, Environmental Coordinator, etc.). Please note if the commitment will be indicated on the final plan, recorded in the Plans, Specifications and Estimates (PS&E), under special provisions in the final plan set, in construction notes, or some other written format. Attach a copy of this completed matrix to the design study report and the PS&E submittal package. Be sure to update it if further commitments are made after the Environmental Document is signed.

Factor	Commitment
Business and Economics	• Access to businesses would be maintained during construction. • Local and emergency access would be provided throughout the corridor. • Driveways and access points will be provided for reasonable access to affected properties. Reasonable access includes maintaining access required for business operations. Reasonable access must meet design standards for access type, for example width. Reasonable access allows a parcel to, at a minimum, serve the same number and type of vehicles with ingress and egress. • WisDOT's "In This Together: Road Construction Guide for Business" would be available for businesses to assist in coordination during construction. The WisDOT construction engineer will ensure fulfillment of the commitments during construction.
Community	• The Transportation Management Plan (TMP) would be developed and followed. • Coordination with emergency services, local officials and school bus companies would be necessary throughout construction. • Access to homes and businesses would be maintained during construction. Construction of individual driveways may require temporary closures. The construction project manager would ensure fulfillment of the commitments above. • The design engineer will coordinate with city of Madison Metro transit to maintain transit operations during construction. • The design engineer will coordinate with the city of Madison on community sensitive design elements.
Aesthetics	No special or supplemental commitments required.
Agriculture	No special or supplemental commitments required.
Relocations	Three commercial properties require relocation. The Conceptual Relocation Plan (CRP) would be followed. WisDOT Relocation Specialist would ensure fulfillment of this commitment.
Indirect Impacts	No special or supplemental commitments required.
Cumulative Impacts	No special or supplemental commitments required.
Environmental Justice	No special or supplemental commitments required.
Historic Properties	No special or supplemental commitments required.
Burial Sites	If artifacts or human remains are discovered during construction, immediately stop construction and notify WisDOT Bureau of Equity and Environmental Services. This commitment would be fulfilled by the construction project manager.
Tribal Lands	No special or supplemental commitments required.
Section 4(f)	No special or supplemental commitments required.
Section 6(f) or Other Specially Funded Lands	No special or supplemental commitments required.
Wetlands	Coordination is ongoing regarding the evaluation of impacted wetlands. • Wetland impacts of 2.64 acres would be mitigated in accordance with WisDOT's Wetland Mitigation Banking Technical Guidelines. • Coordination is needed with WDNR and USACE regarding the need for Section 401 and Section 404 permits. WisDOT SW Region Environmental Coordinator (REC) would ensure fulfillment of the commitment.
Surface Water Resources	No in-stream work will occur within the Starkweather Creek between March 1 and June 15. The WisDOT construction project manager would ensure fulfillment of the commitment.
Floodplains	During final design, impacts to the floodplains would be consistent with WDNR Floodplain Management NR 116 criteria and would include coordination with the local floodplain zoning authorities. The WisDOT design project manager would ensure fulfillment of the commitment.
Groundwater, Wells and Springs	No special or supplemental commitments required.
Coastal Zones	No special or supplemental commitments required.

Unique Wildlife and Habitat Concerns	No special or supplemental commitments required.
Threatened and/or Endangered Species	• Vegetation/trees/brush will be removed by April 1, prior to any flowering forb growth. WisDOT will utilize a special salt tolerant seed (#30 mix) in graded areas in contact with salt contaminated snow (fore slope and ditch bottom). In graded areas on the back slope and other areas where applicable, WisDOT will use a flowering forb mix (WisDOT 70A mix) as well as plant flowering shrubs in areas outside of the clear zone and where applicable. WisDOT will restore approximately 1.87 acres with flowering forb mix and 208 locations of flowering shrub species. The construction project manager would ensure fulfillment of the commitment. • State species habitat surveys will be conducted as the design progresses to determine their presence. WDNR understands WisDOT's commitment to completing the required surveys for the study as described in the ERR and that WisDOT will work to avoid or mitigate any impacts as a result of those surveys if the species is identified. See the Threatened and Endangered Factor Sheet. The design engineer will implement the required avoidance, minimization or mitigation measures required by state resource agencies, including but not limited to, Incidental Take Authorizations (ITA) and be responsible for the fulfillment of the commitment. • On November 26, 2024, the U.S. Fish and Wildlife Service (USFWS) announced a proposal to designate critical habitat for the rusty patched bumble bee (Bombus affinis) under the Endangered Species Act (ESA). The preferred alternative overlaps with proposed critical habitat in Dane County. If designated, WisDOT will resolve ESA compliance prior to let, as appropriate. Construction activities for this project will not take place until WisDOT, in coordination with our lead federal agency, satisfies Endangered Species Act compliance for the rusty patched bumble bee critical habitat. The design engineering would ensure fulfillment of the commitment.
Air Quality	Mitigation measures recommended in the Greenhouse Gases and Climate Change Impacts Memorandum include: • Implement strategic construction timing to reduce construction delays, including vehicle idling from backups. • Work with contractors and subcontractors to reduce idling times. • Work with municipalities and groups to minimize the impacts of staging areas and material transfer sites. • Encourage construction contractors to use ridesharing and other commute trip reduction efforts. • Evaluate areas in proximity to the jobsite where construction staff and equipment parking could occur. • Post signs to encourage construction staff to use public transport or rideshare. • Implement traffic demand management and transportation systems management and operations planning measures into plans and construction staging, including freeway monitoring and advisory information, crash investigation sites and law enforcement pads, traffic detectors and enhanced mile-marker posts. • Encourage contractors to recycle construction and demolition materials to the extent possible. • Use LED bulbs in new lighting installed along the study corridor. • Maintain public vehicle access to and from the study corridor during construction to the extent possible. • Support transit service implementation to avoid and minimize transit service disruption during construction. Construction of the study corridor will follow WisDOT project site air quality specifications. WisDOT design and construction engineers would be responsible for this commitment.
Construction Sound	WisDOT Standard Specification 107.8(6) and 108.7.1 would apply. The design engineer would incorporate this commitment into the project plans and the WisDOT construction engineer would be responsible for this commitment.
Traffic Noise	No special or supplemental commitments required.
Hazardous Substances, Contamination and Asbestos	Seven sites were identified for further investigation with the area of potential impact. Of the seven sites, four were within the impact area of the preferred alternative. Those four sites included recommendation for a Phase 2.5 or Phase 3 subsurface investigation. If impacted in final design, additional investigations would be required. The design project manager would ensure fulfillment of the commitment.
Stormwater	• WisDOT would follow TRANS 401 and the WisDOT/WDNR Cooperative Agreement amendment regarding stormwater management to minimize the potential for adverse effects. • Permanent post-construction storm water treatment devices and practices would be incorporated into the storm sewer system. The commitment would be recorded in the project plans and the WisDOT construction project manager would ensure fulfillment of the commitment.
Erosion Control	• WisDOT would follow TRANS 401 and the WisDOT/WDNR Cooperative Agreement amendment regarding erosion control to minimize the potential for adverse effects. • An Erosion Control Implementation Plan (ECIP) for the project must be developed by the contractor and submitted to the WDNR at least 14 days prior to the preconstruction conference. The commitment would be recorded in the project plans and the WisDOT construction engineer would be responsible for this commitment.