FACTOR SHEETS

F1 Business and Economics
F2 Community
F3 Relocations
F4 Environmental Justice
F5 Section 4(f)
F6 Wetlands
F7 Surface Waters Resources
- F7a Starkweather Creek East Branch
- F7b Unnamed WBIC 5034868
- F7c Starkweather Creek West Branch

F8 Floodplains
- F8a Starkweather Creek East Branch
- F8b Unnamed WBIC 5034868
- F8c Starkweather Creek West Branch

F9 Threatened and Endangered and Protected Resources
F10 Construction Sound
F11 Traffic Noise
F12 Hazardous Substances Contamination and Asbestos
F13 Stormwater
F14 Erosion Control

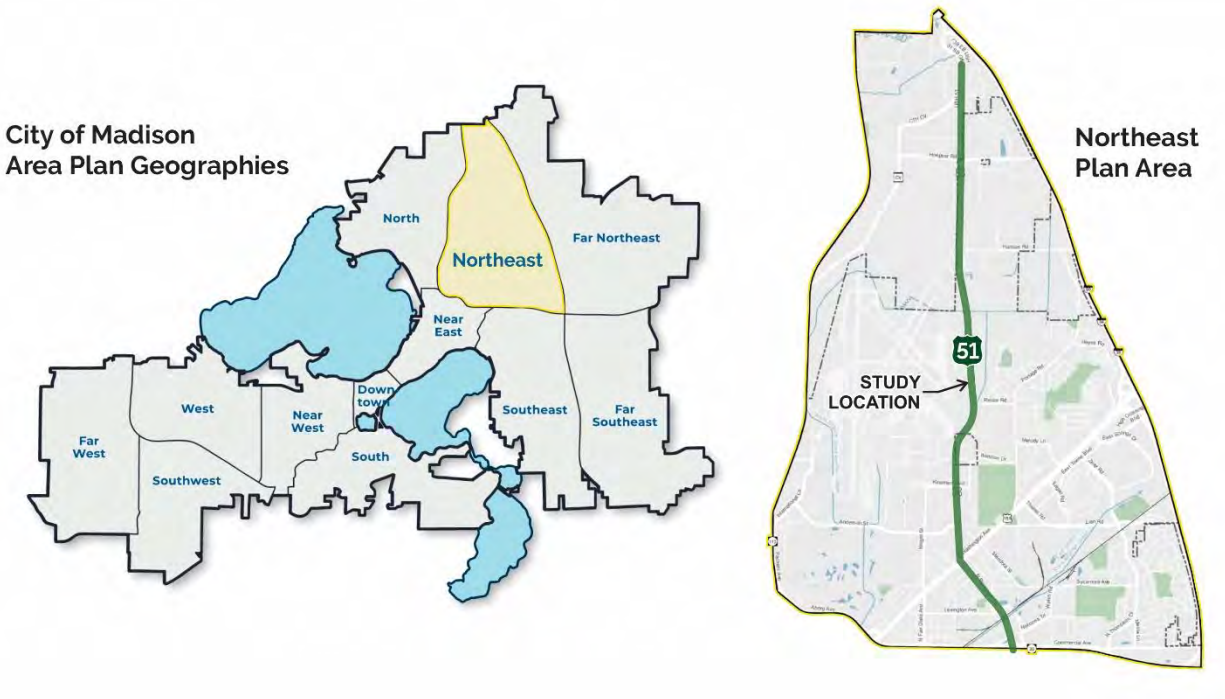
BUSINESS AND ECONOMICS Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Describe the existing business and/or economic development areas affected by the proposed action:**
The future project is located in Dane County in south central Wisconsin. Dane County has an estimated population of 568,203 people as of January 1, 2022 (U.S. Census Bureau). The future project is within the city of Madison (pop. 272,903 people) and the town of Burke (pop. 3,196 people) per the U.S. Census Bureau (2022).

The city of Madison's *Northeast Area Plan*, was adopted on September 10, 2024, simplifies and standardizes sub-area planning into 12 discrete Area Plan geographies. The Northeast Area, as defined in the plan, is bound by I-39/90/94 to the east, WIS 30 to the south and Packers Avenue and the Canadian Pacific rail corridor to the west. The Northeast Area covers 7,666 acres and contains the Dane County Regional Airport (DCRA), Madison College and East Towne Mall. Within the Northeast Area are 14,790 permanent residents, 6,800 housing units, 20,798 jobs and a population composed of 43.7% Black, Indigenous and Persons of Color (BIPOC).



The city's *Comprehensive Plan* anticipates that redevelopment will likely be the primary way the Northeast Area grows and changes. The *Comprehensive Plan* identifies "growth priority areas" and locations best suited to accommodate growth. Within the northeast area, the US 151 corridor and the industrial area along US 51 are identified as growth priority areas where development and redevelopment should be promoted, including strip commercial buildings along US 151.

The table below describes impacts on existing businesses for the preferred alternative. Impacts include business acquisitions, access modification, and strip right of way taking. Potential strip right of way impacts for individual businesses are listed in the table below. The total estimated non-residential relocation costs are approximately $9.1 million (2024 dollars). Full descriptions, details and map can be found in **Appendix N: Conceptual Relocation Plan**.

Address	Parcel ID	Impact
Eastgreen Sub LLC (Subway)	081033203192	Business acquisition
Laurie Industries (AutoZone)	081032401044	Business acquisition
Schoepp Land Holding Company LLC (Schoepp Motors)	081032107080	Business acquisition
CMC Madison LLC (County Materials Corporation)	081033300849	Access modification – potential driveway closure, however, other existing access points remain; strip ROW – storage area and fencing
Survivor's Trust Under White Rev Trust & Bypass Trust (Valvoline Instant Oil Change)	081032102098	Access modification – potential driveway closure, however, other existing access points remain; strip ROW - parking
CRR of Reedsburg LLC (Cousins Subs)	081033204372	Access modification – potential driveway closure, however, other existing access points remain; strip ROW- parking
Brumm Bro's Properties LLC (East Wash Radiator and Tire)	081032102080	Access modification – proposed shared driveway; strip ROW - sign
Denruiter Family Trust (Jerry's Garage)	081032102072	Access modification – proposed shared driveway; strip ROW - sign
Jane Street Holdings LLC (Wonder Motors LLC)	081032102064	Access modification – proposed shared driveway; strip ROW
Jane Street Holdings LLC (Ace Automotives)	081032102030	Access modification – proposed shared driveway; strip ROW
Madison Cellular Tele Co	081032107056	Access modification – potential driveway closure, however, other existing access points remain; strip ROW
Skillrud LLC	081032401060	Access modification – potential driveway closure, however, other existing access points remain
Carl J Welter, Nanni R. Welter	081032401052	Access modification – proposed shared driveway and driveway closure
Kwik Trip Inc	081033203069	Access modification – proposed shared driveway; strip ROW
Star Investments LLC	081033203051	Access modification – proposed shared driveway; strip ROW
SAO Enterprises LLC	081033203027	Access modification – proposed shared driveway and driveway closure
SAO Enterprises LLC	081033203019	Access modification – proposed shared driveway and driveway closure
Eastgreen LLC (Walgreens)	081033203184	Access modification – potential driveway closure however, other existing access points remain; strip ROW
Dupaco Community Credit Union	081033203168	Access modification – potential driveway closure, however, other existing access points remain
Current Owner (Yahara Materials- Quarry)	081017185006	Access modification – potential driveway closure, however, other existing access points remain
Paragon Development Systems LLC	071004201027	Strip ROW
F Street 313 LLC	071004201035	Strip ROW
Current Owner (Formerly housed American Family Insurance)	071004104015	Strip ROW - trees
UW Credit Union	081033408015	Strip ROW – sign, tree
Wal-Mart	081033404071	Strip ROW
Wal-Mart	081033404112	Strip ROW
Wal-Mart	081033404120	Strip ROW
County Materials Corporation Madison LLC	081033306243	Strip ROW– storage area and fencing
Johnson Properties	081033306235	Strip ROW
Safety-Kleen Systems Inc	081033309023	Strip ROW
S M E Investment	081032402042	Strip ROW – parking, light pole

TMP V LLP (Zimbrick Volkswagen of Madison)	081032403149	Strip ROW
Construction and General Laborer's Union Local 464	081032401086	Strip ROW
Current Owner (Gooh Grocery)	081032102014	Strip ROW
MDCone LLC (Rufus DuMonde Pet Salon)	081033208118	Strip ROW - tree
Realty Income Corp (Tires Plus)	081033208100	Strip ROW – shed, dumpster pad
Wagdag LLC (NAPA Auto Parts)	081033204421	Strip ROW – parking, sign
Current Owner (Discount Tire)	081033204463	Strip ROW - sign
Map Holdings LLC (Midas)	081033204439	Strip ROW
Gagen Land & Cedar Co LLC	081033204405	Strip ROW- sign
F S Mattioli Estate (Goodyear Tire and Service)	081033204413	Strip ROW
JOT Properties LLC & Sub Properties LLC (Klein's Floral and Greenhouses)	081033203176	Strip ROW- sign
Harold E Newton Trust (FedEx Ship Center)	081028306018	Strip ROW - tree
DLZ2X LLC (Zeier Plastic)	081028291906	Strip ROW
Kwik Trip	081009245500	Strip ROW

2. **Identify and discuss existing modes of transportation within the existing business and/or economic development area and how they serve businesses or other economic interests:**
The existing US 51 corridor is almost exclusively automobile dependent. There are no connected shared-use paths that connect directly to businesses or other destinations in this area. Paved shoulders for pedestrians and bicycles exist; however, the roadway is rated as "bicycles prohibited or not recommended" between WIS 30 and US 151 according to the Dane County Bicycle Map. Between US 151 and Anderson Street, US 51 is rated as a "roadway without shoulders and least suitable". Between Anderson Street and I-39/90/94, US 51 is designated as "least suitable".

   Metro Transit's Route A serves existing businesses along the corridor and is scheduled to be upgraded as part of the East-West Bus Rapid Transit (BRT) Line across the Madison urban area. BRT stations were recently constructed at the intersections of US 151 and Wright Street, at Wright Street and Anderson Street and at Mendota Street and US 151. The proposed shared-use path would provide direct access to Anderson Street BRT stations and increase multimodal connectivity in the area. Improvements at the Hanson Road intersection accommodate bus access to and from the Metro Transit Hanson Road Satellite Bus Facility. Prior to construction starting, coordination will occur with Madison Metro Transit to maintain traffic operations throughout construction.

3. **Identify and discuss effects of the proposed action on the existing businesses and the economic development potential in the area:**
For the US 51 and US 151 intersection, the preferred alternative improves intersection operations in an area that experiences heavy through and turning movement delays in the morning and afternoon peak hours. Access improvements, including driveway consolidations and relocations, would be made at existing businesses to allow vehicles to enter and exit the stream of traffic more safely during busy times.

   Pedestrian and bicycle accommodations, as part of the preferred alternative, would allow multimodal options to access businesses and travel the corridor safely separated from vehicular traffic and incorporate future BRT service to begin in late fall 2024. These improvements for pedestrian, bicycle and transit users will make it easier to access existing businesses through preferred modes of travel and may be a factor in attracting new businesses in the future. The preferred alternative would not impact the current Wisconsin and Southern Railroad (WSOR) crossing at Commercial Avenue.

Individual impacts to businesses due to right of way acquisition as identified in the table above may be reduced or potentially eliminated in final design. Design modifications to potentially reduce or eliminate impacts may include reduced terrace width, steeper slopes that meet design standards, or retaining walls. WisDOT Real Estate would negotiate with business owners to provide financial compensation for appropriate adverse impacts.

4. **Identify and discuss any issues or concerns related to business and economics identified by business people, elected officials, community members, or other stakeholders that they believe are important or controversial.**

☐ None identified

☒ Issues identified, describe:

- There were concerns about removing the US 51 SB left-turn access to Walgreens (Parcel 081033203184). The study team developed a few options to retain access at this location. However, the preferred alternative provides US 51 SB to US 151 EB turn lanes that make retaining access infeasible.
- There were concerns about closing the median and restricting full access at Schmedeman Avenue. The study team developed a few options to accommodate this concern, and the preferred alternative includes an US 151 EB left-in access to Schmedeman Avenue.
- There were concerns about maintaining easy access to businesses within the study corridor. Businesses around the US 51 and US 151 intersection were deemed particularly important to the community for groceries and prescription drugs. The preferred alternative maintains access to all remaining businesses.

5. **Identify the estimated number of businesses and jobs that would be created or displaced because of the project. If no businesses will be displaced, Items 7 through 12 do not need to be addressed or included in the environmental document. If no jobs will be displaced, Item 6 does not need to be answered either.**

Three businesses would be acquired due to the preferred alternative. Two business relocations are required to address the deficient intersection angle for the north leg of US 51 and US 151 and the larger footprint of the intersection. One business relocation is required to add a new local road connection south of Schmedeman Avenue to Prairie Avenue due to the proposed cul-de-sac of the North Stoughton Service Road. According to employment data (Dun & Bradstreet 2022), these businesses include an auto sales and repair facilities business (30 employees), an auto parts sales business (10 employees) and a restaurant (10 employees). Each of the businesses has a two-digit North American Industry Classification System (NAICS) code 44, indicating retail trade jobs.

There is potential for development of excess land from the acquisitions that could generate additional businesses and jobs.

Business/Job Type*	Businesses			Jobs	
	Created	Displaced	Value	Created	Displaced
☐ Temp ☒ Perm Retail		3			50
☐ Temp ☐ Perm Service					
☐ Temp ☐ Perm Wholesale					
☐ Temp ☐ Perm Manufacturing					
☐ Temp ☐ Perm Project Design and Construction					
Other ( )					
*Indicate if these are temporary or permanent					

6. **Are any owners or employees of created or displaced businesses low-income or minority? If yes, these answers must be consistent with the information on the Environmental Justice (EJ) Factor Sheet.**

☐ No

☒ Yes, those being displaced constitute an environmental justice population (low-income population or minority population), briefly describe:

Three businesses would be acquired due to the preferred alternative. Two business relocations are required to address the deficient intersection angle for the north leg of US 51 and US 151 and the larger footprint of the intersection. One business relocation is required to add a new local road connection south of Schmedeman Avenue to Prairie Avenue due to the proposed cul-de-sac of the North Stoughton Service Road.

According to employment data (Dun & Bradstreet 2022), these businesses include an auto sales and repair facilities business (30 employees), an auto parts sales business (10 employees) and a restaurant (10 employees), however the number of on-site employees is not currently known.

In-person reconnaissance visits to attempt to determine the number of employees and demographics of owners and employees were conducted. A member of the study team spoke with a manager at each of the business locations and each was asked to complete a demographics survey.

None of the managers completed the survey while the study team member was present. Each manager was given a copy of the survey accompanied by a postage-paid envelope as an additional attempt to obtain information on employees from business owners or management. The surveys also contained the email and contact information of the WisDOT Project Manager as another means of supplying the requested information.

A follow-up visit was made to businesses in October 2024 to attempt to obtain demographic information for employees, however, each of these attempts was unsuccessful in generating any pertinent information.

Due to the businesses employing individuals, the study team assessed job availability to determine if there would be opportunity for individuals that may lose jobs due to the business relocation to find alternative employment.

Three job board websites were used to assess current job availability on October 10, 2024: Job Center of Wisconsin, Urban League of Greater Madison and Indeed. These sites allowed the jobs search to be filtered to the boundaries of the city of Madison. As such, all available jobs would be accessible by public transit.

Table 1: Current Job Availability from Job Board Websites in the City of Madison

Job Board Website	Food Preparation Jobs Available	Automotive Sales Jobs Available	Automotive Parts Jobs Available	Sales Jobs Available
Job Center of Wisconsin	517	37	27	512+
Indeed	200+	21	22	300+

The study team checked the Urban League of Greater Madison website and it didn't have any job availability listed for the types of jobs listed in the table above.

The study team also assessed future job availability in these fields by calling the Department of Workforce Development (DWD). A representative from the DWD provided the most recent long term occupational projections (2020-2030) for the South Central Workforce Development Area (Columbia, Dane, Dodge, Jefferson, Marquette and Sauk counties). The projections indicate an expected 24.6% growth in food preparation and serving related occupations, a 5% increase in sales and related occupations, a 5.5% increase in vehicles/mobile equipment mechanic, installer and repair jobs and a 7.3% increase in parts salespersons.

Table 2: Future Projected Job Availability in the South Central Workforce Development Area

Occupation Title	2020 Employment	2030 Projected Employment	Employment Change (2020-2030)	Percent Change (2020-2030)
Food Preparation and Serving Related Occupations	32,669	40,688	8,019	24.6
Sales and Related Occupations	41,898	43,987	2,089	5
Vehicle and Mobile Equipment Mechanics, Installers and Repairers	4,176	4,405	229	5.5
Parts Salespersons	645	692	47	7.3

These projections also included an estimate for total openings (includes labor force exits, occupational transfers and growth). The total projected occupational openings are 7,282 food preparation and serving related occupations, 5,765 sales and related occupations, 443 vehicle and mobile equipment mechanics, installers and repairers and 84 parts salespersons.

Table 3: Total Openings in the South Central Workforce Development Area

Occupation Title	Labor Force Exits	Occupational Transfers	Annual Growth	Occupational Openings
Food Preparation and Serving Related Occupations	2,687	3,793	802	7,282
Sales and Related Occupations	2,175	3,381	209	5,765
Vehicle and Mobile Equipment Mechanics, Installers and Repairers	132	288	23	443
Parts Salespersons	28	51	5	84

The workers at the three potentially relocated businesses are all in occupations with strong projected annual growth in the area. In addition to growth, labor force exits and occupational transfers are expected to create a large number of openings in those occupations. Subsequently, employment opportunities in these occupations are projected to be available in the area, and the potential impact to the workers of these relocated businesses is not projected to require mitigation.

7. Is a Conceptual Stage Plan (CSP) attached to this document?

☒ Yes, describe where the document it can be found: The Conceptual Relocation Plan (CRP) can be found in **Appendix N: Conceptual Relocation Plan**

☐ No, it is in the project file

8. Describe the business relocation potential in the area:

A. Total number of available business buildings in the area: 12

B. Number of available and comparable business buildings by type and price (include business buildings in price ranges comparable to those being dislocated, if any)

5 available and comparable type business buildings in the price range of $0.00 to $9.99 per sq ft.

3 available and comparable type business buildings in the price range of $10.00 to $14.99 per sq ft.

4 available and comparable type business buildings in the price range of $15.00 to $19.99 per sq ft.

Identify all sources of information used to obtain data in item 8:

☒ WisDOT Real Estate Conceptual Stage Plan	☐ Multiple Listing Service (MLS)
☐ Newspaper listing(s) – List:	☐ Other - Identify:

9. Describe how relocation assistance will be provided in compliance with the WisDOT Real Estate Program Manual or FHWA regulation 49 CFR Part 24. Check all that apply:

☒ Business acquisitions and relocations will be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended.

In addition to providing for payment of "just compensation" for property acquired, additional benefits are available to eligible displaced persons forced to relocate from their businesses. Some available benefits include relocation advisory services, reimbursement of moving expenses and replacement of business payments. Under state law, no person would be displaced unless a comparable business location or other compensation (when a suitable business location replacement is not practical) is provided. Compensation is available to all displaced businesses without discrimination.

Before initiating property acquisition activities, property owners would be contacted and explained the details of the acquisition process and Wisconsin's Eminent Domain Law under Section 32.05, Wisconsin Statutes. One or more professional appraisers would inspect any property to be acquired. The property owner would be invited to accompany the appraiser during the inspection to ensure the appraiser is informed of every aspect of the property. Property owners would be given the opportunity to obtain an appraisal by a qualified appraiser, who WisDOT would consider in establishing just compensation. The reasonable cost of an owner's appraisal would be reimbursed to the owner if received within 60 days of initiation of negotiations. Based on the appraisal(s) made, the value of the property would be determined, and that amount would be offered to the owner.

The CRP can be found in **Appendix N: Conceptual Relocation Plan.**

☐ Other relocation assistance requirements, not identified above, describe:

10. **Identify any difficulties relocating a business displaced by the proposed action and describe any special services needed to remedy identified unusual conditions**:
N/A

11. **Briefly describe any additional measures which will be used to minimize adverse effects or provide benefits to those relocated. Also discuss accommodations made to minimize adverse effects to businesses that may be affected by the project, but not relocated:**

For businesses that will be relocated, relocation personnel assigned to the project would provide the necessary and appropriate services. Business acquisitions and relocations would be completed in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended; 49 CFR Part 24; Wisconsin Statutes s. 32.19 – 32.27 and Wisconsin Administrative Code Adm 92.

Relocation benefits are available to eligible displaced persons required to relocate from their business. They include advisory services, reimbursement of moving expenses and pricing differentials. Under state law, no person would be displaced unless a comparable business location or other compensation (when a suitable business location replacement is not practical) is provided. Compensation is available to all displaced businesses without discrimination.

For businesses that are not relocated but have proposed access modifications, reasonable access to the properties will remain. 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.

The Transportation Management Plan (TMP) will be developed during design and will be followed during construction. Access to homes, businesses and institutions will be maintained during construction. Construction of individual driveways will require coordination with property owners during construction. Additional public involvement meetings will be held as the study transitions to final design, allowing businesses, the public, and the community to be informed about traffic staging plans and to provide input. An alternative route (I-39/90/94) exists and runs parallel to the study area. No additional roadway improvements are anticipated due to traffic control during construction.

WisDOT's In This Together program is a guide that includes tips, tools, and resources to help businesses plan for highway construction impacts. It will be utilized to assist area businesses during construction.

COMMUNITY Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Give a brief description of the community, neighborhood or area affected by the proposed alternative:**

Name of community/neighborhood/area:

US 51 Study Area

Includes: Northeast Area of Madison, WI (https://www.cityofmadison.com/dpced/planning/northeast-area-plan/3893/), City of Madison, and Town of Burke.

Figure 1 shows the study location, area of potential effect (APE), boundary of the Northeast Area Plan, limits of the city of Madison and limits of the town of Burke.

Figure 1. Study Map and Municipal Limits

Is the community an incorporated municipality or part of an incorporated municipality?

☒ Yes ☐ No

Name of incorporated municipality(ies), if applicable: City of Madison, Town of Burke

Total population (include year and source): 4,396 (2020 Census block data that are part of the US 51 North Study APE)

Demographic characteristics:

Census data was used to determine this area's demographic characteristics. Specifically, the American Community Survey 2022 5-Year Estimates were used at the Census block group and Census tract geography levels. The 2020 Census data was used for the block geography level. Census data is not tied to municipal boundaries, and due to privacy concerns, only certain information is reported for the smallest geography levels. The Census block data provides housing and population information only. Census block group data includes additional information on population, household income, and race and ethnicity. Tract data also provides information on disability and means of transportation to work. Figures 2 and 3 show the Census block groups and Census tracts that are within the US 51 Study APE. The boundaries of the census block groups and census tracts are distinguished by different colors.

Figure 2. Census Block Groups within the APE Boundary

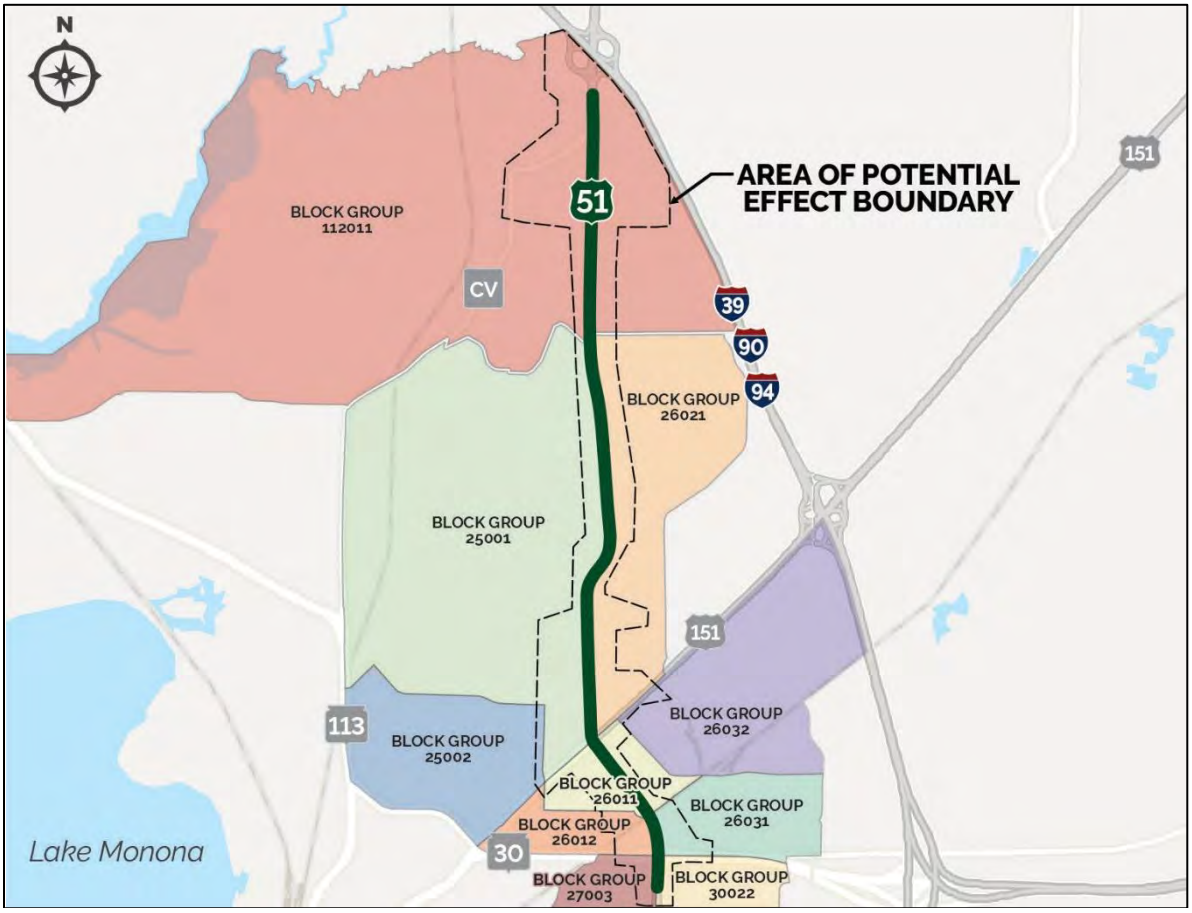
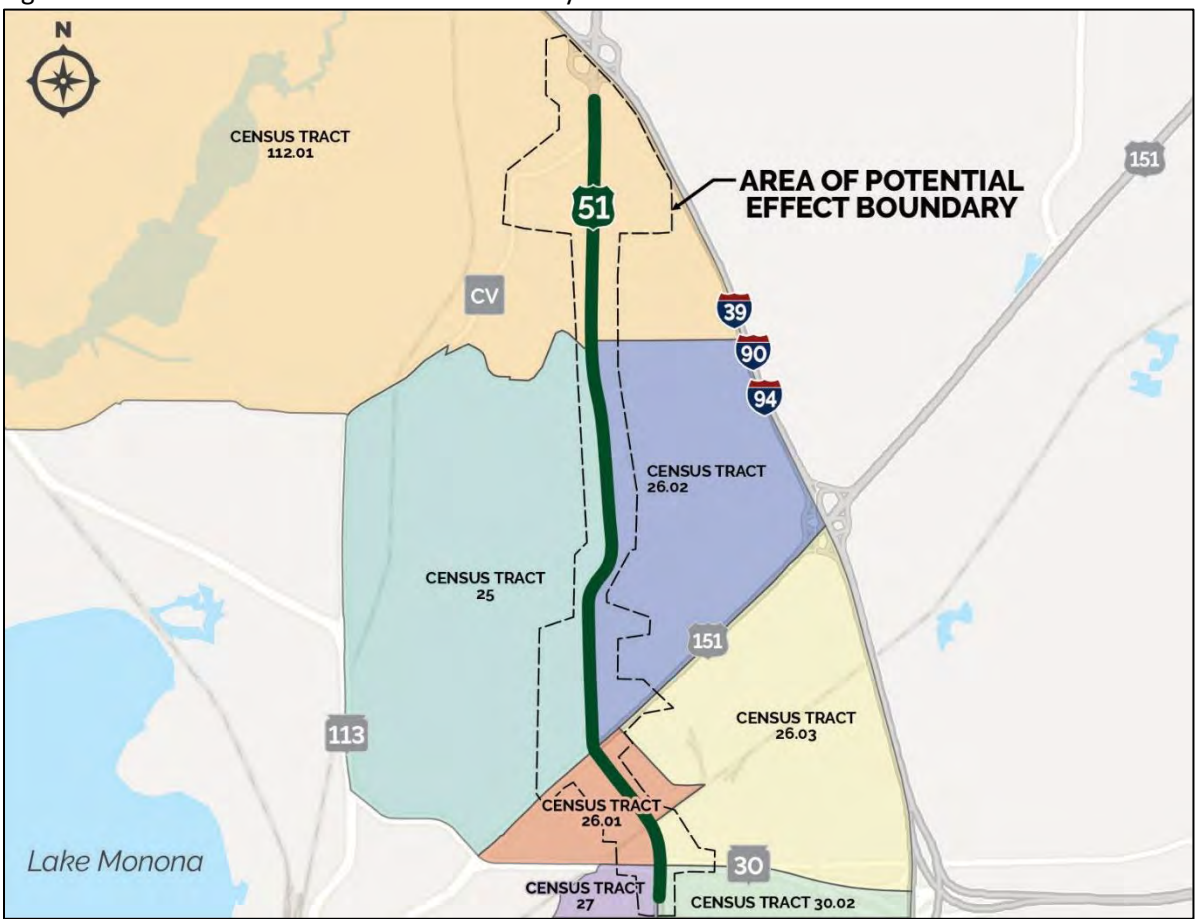


Figure 3. Census Tracts within the APE Boundary



Tables 1, 2 and 3 list the demographic information for the Census block, Census block group, and Census tract, respectively. If any portion of the Census geography level was within the US 51 Study's APE boundary, it was included in the tables below. The totals represent all of the land area in the Census geography, not just the area within the APE, as displayed in Figures 2 and 3.

Table 1. Census Block Data

	Study Location APE (2020 Census Data)	Northeast Area Plan (ACS 2022 5-Year Estimates)	City of Madison (ACS 2022 5-Year Estimates)	Town of Burke (ACS 2022 5-Year Estimates)
Population	4,396	14,649	268,516	3,256
Households	2,017	6,800	120,509	1,059

Table 2. Census Block Group Data

	TOTAL	Percentage of Population	Census Block Group Number (ACS 2022 5-Year Estimates)									
			25001	**25002**	**26011**	**26012**	**26021**	**26031**	**26032**	**27003**	**30022**	**112011**
Population	12,882		1,302	843	1,058	893	1,323	1,666	769	952	2,240	1,836
65 years of age and older	1,958	15.2%	269	77	92	122	56	159	39	192	236	716
Households W Under 18yo	1,424	11.1%	186	67	92	107	143	138	126	81	285	199
Median Household Income	$61,515		$39,116	$53,750	$60,000	$44,444	$84,063	$44,165	$70,403	$60,441	$67,976	$90,795
Race and Ethnicity												
White	8,490	65.9%	550	498	772	573	1,269	857	407	865	1,236	1,463
Hispanic/Latino	1,307	10.1%	292	41	64	32	280	110	-	18	333	137
Black/African American	2,457	19.1%	301	311	60	235	14	553	342	46	574	21
Asian	377	2.9%	135	10	124	33	-	-	20	-	55	-

Table 3. Census Tract Data

	TOTAL	Percentage of Population	Census Tract Number (ACS 2022 5-Year Estimates)						
			25	**26.01**	**26.02**	**26.03**	**27**	**30.02**	**112.01**
Population	25,274		2145	1951	5134	5366	3170	3619	3889
65 years of age and older	3,530	14.0%	346	214	328	624	598	424	996
Households W Under 18yo	2,816	11.1%	253	199	530	629	273	347	585
Disability	3,265	12.9%	296	396	379	785	437	632	340
Median Household Income	$64,876		$40,854	$51,250	$70,606	$70,253	$60,609	$55,482	$105,077
Race and Ethnicity									
White	17,925	70.9%	1048	1345	3646	3493	2878	2328	3187
Hispanic/Latino	2,571	10.2%	333	96	773	483	72	581	233
Black/African American	3,504	13.9%	612	295	560	1212	153	651	21
Asian	1,109	4.4%	145	157	277	254	0	92	184
Means of Transportation to Work									
Drove Alone	9,994	39.5%	646	731	2395	2029	1445	1697	1051
Work from Home	1,618	6.4%	68	49	324	416	248	167	346
Carpool	983	3.9%	102	104	263	116	86	158	154
Walking	229	0.9%	51	10	64	19	29	33	23
Public Transportation	437	1.7%	3	79	50	149	117	39	0

2. **Are there groups or individuals in the community, neighborhood or area that use or depend on transit, bicycle or pedestrian facilities?**
   ☐ None identified
   ☒ Groups or individuals identified – Discuss:
   14.3% of households in the US 51 study area have no access to a personal vehicle.

3. **Identify and discuss existing modes of transportation and their importance in the community, neighborhood or area:**
   Driving alone and carpooling are the predominant modes of transportation in the US 51 Study area. However, portions of the population travel by walking or riding a bicycle. Many, particularly people with disabilities, rely on public transit such as Metro Transit and its complementary paratransit services.

4. **Identify and discuss the probable changes that could result from the proposed alternative to the existing modes of transportation and their function within the community, neighborhood or area:**
   It is anticipated that the automobile will continue to be the primary mode of transportation for residents; however, the future project would increase options and connections for pedestrians and bicyclists by way of a shared-use path along the east side of US 51. A grade-separated, Americans with Disabilities Act (ADA) accessible crossing would be provided over the east leg of the US 51 and US 151 intersection.

5. **Address any changes to emergency services or other public services during and after construction of the proposed alternative:**
   The only changes that will occur to emergency services or other public services are modified access during staged construction and new traffic patterns of the preferred alternatives. Coordination with emergency services, law enforcement, school bus companies and Metro Transit has occurred and will continue throughout final design and construction. Access to homes and businesses would be maintained during construction.

6. **Describe any physical or access changes that would result:**
   <u>Cross section changes:</u>
   - WIS 30 to US 151:
     - A 10-foot asphalt shared-use path will run along the east side of the roadway for over half of the study limits with the exception between Kinsman Boulevard and Hoepker Road
     - The rural section of US 51 will be converted to an urban cross section (curb and gutter)
     - An additional auxiliary lane northbound between WIS 30 and Commercial Avenue/Lexington Avenue
   - US 151 to Anderson Street
     - 6-lane divided (three NB lanes, three SB lanes) north of US 151 (urban)
     - Two 10-foot asphalt shared-use paths on either side of the roadway
   - Anderson Street to Kinsman Boulevard
     - 4-lane divided highway with a 10-foot asphalt shared-use path on the east side of the highway (urban)
   - Pierstorff Street to County CV:
     - US 51 shifted to the east to address substandard geometric deficiencies
     - US 51 alignment shift to the east requires changes to Leo Circle alignment

   <u>Intersection changes:</u>
   - WIS 30 – additional turn lanes, shared-use path, pedestrian and bicycle bridge over US 51 south of WIS 30, pavement improvements
   - Commercial Avenue/Lexington Avenue – additional turn lanes, shared-use path, realignment of North Stoughton Service Road, railroad signal and gates, crosswalks, pavement improvements
   - US 151 – improved intersection skew angle, larger intersection footprint due to one additional NB through lane, one additional SB left-turn lane and one additional WB left-turn lane, pedestrian and bicycle bridge along the east side of US 51 over US 151, crosswalks, pavement improvements

- Anderson Street – shared-use path, crosswalks, pavement improvements
- Kinsman Boulevard – east-west on-street bicycle lanes, shared-use path, crosswalks, pavement improvements
- Pierstorff Steet – pavement improvements
- Amelia Earhart Drive – additional right-turn lane, pavement improvements
- Hanson Road – median-protected acceleration and deceleration lanes, additional NB right-turn lane, dedicated right and left turn lanes on Hanson Road, pavement improvements
- Hoepker Road – additional left-turn lane, crosswalks, pavement improvements
- Acker Road – pavement improvements
- County CV – pavement improvements, crosswalk on the east leg for the shared-use path

Access changes:

- Commercial Avenue
    - One potential driveway closure
- US 151
    - One side road closure (cul-de-sac) at North Stoughton Service Road
    - Five proposed shared driveways
    - 15 potential driveway closures
    - New local road connection with right-in/right-out access to US 151 WB across from Schmedeman Avenue
    - Right-in/right-out left-in US 151 EB access to Schmedeman Avenue on the north side of US 151
- Hoepker Road
    - One potential driveway closure

7. **Indicate whether a community or neighborhood facility (such as parks, recreation facilities, community centers, libraries, food pantries, DMV offices, clinics, hospitals, schools, child care centers, churches, etc.) could be affected by the proposed alternative and indicate what effect(s) this could have on the community or neighborhood**:
   The mainline would likely be able to be constructed under traffic with lane closures. Access would likely be limited, but not completely restricted throughout the duration of construction. Madison College, Dane County Regional Airport (DCRA), East Madison Community Center (EMCC) and the Madison East Department of Motor Vehicles (DMV) are immediately accessible from US 51 and would require construction staging or detouring to accommodate access during construction. WisDOT's In This Together program will be utilized to assist area businesses during construction.

8. **Identify and discuss community, neighborhood or area issues that residents, local units of government or community stakeholders have indicated to be important or controversial**:
   Residents engaged in the process expressed concerns that the US 51 corridor is a high-stress and hazardous environment for bicyclists and pedestrians. From 2017-2021, there were three documented pedestrian or bicycle crashes within the study area on Anderson Street, between US 151 and Anderson Street and US 151 intersection. Residents also expressed concerns that rerouting North Stoughton Service Road to Prairie Avenue would lead to increased traffic in their neighborhood. Multiple intersections and road segments also suffer insufficient performance from an operations standpoint. Other issues along the corridor include poor sightlines at key intersections, deteriorating pavement past its useful life, substandard curves and horizontal alignment deficiencies.

9. **List any community or neighborhood design considerations and potential mitigation measures identified during public involvement or agency coordination (as well as local government coordination) and indicate whether they will be included in the proposed alternative:**
The city of Madison and neighborhood groups have participated in meetings and provided input throughout the study process. The town of Burke has provided input throughout the process.

A shared-use path would be constructed on the east side of US 51, running along nearly the entire roadway except between Kinsman Boulevard and Hoepker Road. The construction of the shared-use path would help address the community's request for additional amenities for bicyclists and pedestrians, as would a bicycle and pedestrian bridge over US 51 just south of WIS 30 and over the east leg of the US 151 intersection. Crosswalks for all four legs of the intersection would be implemented at the Commercial Avenue/Lexington Avenue, US 151, Anderson Street and Kinsman Boulevard intersections. Near the US 51 and Orin Road location an enhanced crossing of US 51, like a Rectangular Rapid Flashing Beacon (RRFB), will be implemented.

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.

10. **Describe any additional measures that will be used to minimize impacts or provide benefits to the community, neighborhood or area:**
The Transportation Management Plan (TMP) will be developed during design and will be followed during construction. Coordination with emergency services, local officials, school bus companies and Metro Transit will be necessary throughout construction. Access to homes, businesses and institutions will be maintained during construction. Construction of individual driveways will require coordination with property owners during construction. The construction project manager will ensure fulfillment of the commitment. An alternate route (I-39/90/94) exists and runs parallel to the study area. No additional roadway improvements are anticipated due to traffic control during construction.

Additional public involvement meetings will be held as the study transitions to final design, allowing businesses, the public, and the community to be informed about traffic staging plans and to provide input.

WisDOT's In This Together program is a guide that includes tips, tools, and resources to help businesses plan for highway construction impacts. It will be utilized to assist area businesses during construction.

RELOCATIONS Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Indicate the number and type of any residential buildings, businesses or other buildings/structures that will be acquired because of the alternative. If a., b. and c. are checked below, this Factor Sheet is not needed. If d. or e. is checked, complete this Factor Sheet.**
   a. ☐ No occupied buildings have been identified. Provide the number and description of non-occupied buildings and/or acreages to be acquired:
   b. ☒ No occupied residential building will be acquired because of this project.
   c. ☐ No occupied business buildings will be acquired because of this project.
   d. ☐ Occupied residential building(s) will be acquired. Provide number and description of buildings, e.g., residential buildings that are built or zoned as a single-family dwelling unit, multi-unit residential buildings such as condominiums, duplexes, and apartments, etc.
   e. ☒ Occupied business building(s) will be acquired. Provide number and description of businesses, e.g., single offices, grocery stores, farming operations, mixed-use commercial buildings, etc. If a residential home contains a business, please note that in the description:
      Three businesses would be acquired due to the proposed action. These businesses include an auto sales and repair facilities business, an auto parts sales business and a restaurant.

2. **Residential Relocations:**
   a. Indicate the number of estimated households in the occupied buildings that will be relocated identified in item 1d, above: 0

4. **Business Relocations:**
   a. Indicate the number of estimated businesses that will be relocated from the business buildings identified in item 1e., above: Three business relocations
      1. Estimated number by owner/tenant status:

Number of businesses in owner-occupied buildings: 1	Number of businesses in tenant-occupied buildings: 2

      2. Estimated number of relocated businesses by type and price range. All cost values listed as Reestablishment, Business Replacement Payment (BRP)/Reasonable Project Cost (RPC) + Move Payment Cost.

Type of business	Price range (value)
Schoepp Motors Northeast, Auto Dealership	$4,450,000
AutoZone, Auto Service	$2,430,000
Subway, Fast Food Restaurant	$767,000

   b. Describe the estimated available and comparable options for potential business relocations:
      1. Number of available and comparable buildings by type and price, indicate if for sale or rent (include buildings in price ranges comparable to those being displaced):
      There are sufficient available properties for the displaced businesses. Based on April 2024 data using LoopNet (online resource for commercial real estate information), Multiple Listing Service (MLS) (database created by collaborating real estate agents containing properties for sale) and CoStar (online

real estate data platform), there were 16 manufacturing/commercial properties available for purchase within 17 miles of the project.

The value range, size (available square footage) and distance are shown in the table below. All properties displayed are located in Dane County.

Value – Range	Square Footage Available	Distance (miles)
$400,000 - $499,999	1,581	3
$500,000 - $599,999	N/A	N/A
$600,000 - $699,999	1,581 2,667 3,000	3 3 5
$700,000 - $799,999	N/A	N/A
$800,000 - $899,999	7,200	6
$900,000 - $999,999	9,435	17
$1,000,000 - $1,999,999	12,005 29,400 8,000 2,541 22,880	6 12 2 16 <1
$2,000,000 - $2,999,999	6,158 14,400 40,000	3 6 1
$3,000,000 - $3,999,999	55,614	12
$4,000,000 - $4,999,999	N/A	N/A
$5,000,000 - $5999,999	36,778	3

Based on April 2024 data using LoopNet, MLS and CoStar, there were 12 manufacturing/commercial properties available for rent within 11 miles of the project. The value range, size (available square footage) and distance are shown in the table below. All properties displayed are located in Dane County.

Value – Range (per sq ft)	Square Footage Available	Distance (miles)
$0.00 - $4.99	24,816 121,532	8 5
$5.00 - $9.99	2,500 7,020 8,000	3 11 2
$10.00 - $14.99	5,846 7,807 14,000	5 3 5
$15.00 - $19.99	1,000 2,400 – 12,060 10,000 16,244	5 1 4 3

c. Describe the estimated number of businesses with individuals with demographic characteristics that may require special consideration:
Multiple businesses would have driveway access removed or modified; however, no property would be left without access. Three businesses would be acquired due to the proposed action. None of these three businesses have been identified as minority-owned businesses. None provide services that could not be obtained elsewhere, nor do they provide goods or services that are unique to an ethnic group, such as an ethnic grocery store or store that serves as a community gathering spot.

According to employment data (Dun & Bradstreet 2022, a database that collects and manages information about companies and people, including employment data), these businesses include an auto sales and repair facilities business (30 employees), an auto parts sales business (10 employees) and a restaurant (10 employees).

Since it is not known from which census tracts employees are coming from to attend work, the Dane County demographic datasets were used. According to 2022 ACS Table SO103, 22% of the population is minority and 9.2% of the population is handicapped. As part of the three business acquisitions, this equates to an estimated 11 employees of the 50 total employees that may be minorities and four or five individuals that may be handicapped. The US 51 North Study Environmental Justice Plan and Preliminary Analysis indicates 10% of Dane County population is low-income; therefore, for this analysis, five employees are estimated with these characteristics. 2022 ACS 5-Year Estimates indicate Dane County has 15.3% of its population aged 65 and older; therefore, it is estimated that seven or eight employees of the 50 total employees may fall within this demographic. According to 2022 ACS Table S0801, 3.5% of Dane County's population uses public transit for work, 5.4% walk to work, and 2.0% bike to work. Based on this information, there may be one or two employees of the 50 total employees that use public transit or non-motorized modes to get to work. It is important to note that totals in the table below are estimates, and one employee may fall within one or more of these demographic categories outlined in the table. See **Appendix G: Environmental Justice Plan and Preliminary Analysis** and the Environmental Justice Factor Sheet for additional information.

Demographic characteristics	Estimated number of individuals with the listed demographic characteristics
Minority	11
Handicapped	4-5
Elderly	7-8
Low-income	5
Businesses having special composition, please explain:	0
Numbers in this table are based on the Dane County demographic percentages applied to the 50 employees who work at the three relocated businesses. Business occupant letters were sent out to businesses that were identified as potential relocations prior to PIM #3. Business occupant letters were then sent to the three businesses that would be acquired with the proposed action on 9/25/24. Correspondence with each of the three businesses was held with the study team. Further coordination with the WisDOT Relocation Specialists will occur as the project progresses.	

d. Indicate the source of information that was used to fill out the above questions in 3b and c. Please include the date on which this information was generated:
LoopNet, MLS and CoStar, generated in April 2024

e. Describe any special considerations: None

5. **Other Relocations (community centers, food pantries, churches, schools, non-profits, etc.):**
   a. Indicate the estimated number of other relocations: 3
   b. Indicate the type of other relocations:
      Commercial billboards. See **Preferred Alternative Map** (pages M-5, M-6 and M-7 in the Maps section) for locations.
   c. Indicate the market value or rent of each of the other relocations:
      Estimated at $50,000 to $70,000 to purchase and $40,000 to $50,000 to relocate, if feasible. WisDOT Real Estate will determine during final design if the billboard can be relocated or must be purchased. If a billboard is relocated, it would be relocated in the same general area as the existing location.
   d. Describe the estimated available and comparable options for potential other relocations:
      1. Estimated number of available and comparable units by type and location:
         N/A.
      2. Estimated number of available and comparable units by type and price (include units in price ranges comparable to those being relocated, if any):
         N/A.
   e. Indicate the source of information that was used to fill out the above questions in 5a - 5d. Please include the date on which this information was generated:
      WisDOT real estate provided the estimate on 9/20/24 based on a similar purchased billboard for a project in La Crosse, WI.
   f. Describe any special considerations:
      None

6. **Identify any difficulties or unusual conditions for households, businesses or other relocations impacted by the proposed alternatives:**
   According to the Phase I Hazardous Materials Assessment, dated February 2024, two of the relocations are within an area where either a Phase 2.5 or Phase 3 Subsurface Investigation is recommended.

7. **Indicate whether special relocation assistance service will be needed. Describe any special services or housing programs needed to remedy identified difficulties or unusual conditions noted in questions 6 and question 3c above:**
   ☒ None identified ☐ Yes, describe services that will be required:

8. **Describe any additional measures that will be used to minimize adverse effects or provide benefits to those relocated, those remaining or to community facilities affected:**
   WisDOT's real estate specialist will guide and facilitate the discussions for the business relocations. Outreach will continue throughout the design and construction of the project. WisDOT's In This Together program can be utilized to assist area businesses during construction.

9 **Describe any measures taken where the existing housing inventory is insufficient, does not meet relocation standards or is not within the financial capability of those being relocated:**
   N/A

10. **Discuss any contact with local governments, organizations, groups or individuals regarding residential and business relocation impacts. Include any measures or coordination needed to reduce general or specific impacts:**
    Coordination has occurred with all three business relocations. Where relocations were necessary, letters were sent to business and property owners. In addition, emails have been exchanged between the project manager and the restaurant property owner, a representative of the auto parts business, and the general manager of the auto sales and repair facilities business. The study team shared the study website, intersection alternatives, preferred alternative, study schedule and impacted properties identified for potential relocation with these businesses. The project manager also met with the owner of the auto sales and repair facilities business. The owner indicated their preference to be acquired prior to any construction activities taking place in the corridor.

Cooperation with these businesses will continue during final design, throughout the real estate process and during construction.

Letters were sent to property owners and businesses with proposed access changes. The project manager has communicated with some affected property/business owners or representatives to discuss the reasons for these changes. Properties with minor real estate impacts, such as strip right of way, will be coordinated with once the design has progressed to determine the specific needs of each property.

ENVIRONMENTAL JUSTICE Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Identify and give a brief description of minority populations and low-income populations that may be affected by the alternative. For each population identified, include the pertinent demographic characteristics and relative size. If the minority populations identified are also low-income populations, indicate so in the description**.

   Appendix G: Environmental Justice Plan and Preliminary Analysis, is a standalone document that was prepared with all documentation, outreach and further analysis of the environmental justice component of the study. This plan was completed in August of 2023 and used 2021 data, the most recent data available at the time. The plan defines criteria to identify and communicate with minority and low-income persons located within the study area. To meet the requirements outlined in Executive Order 12898, WisDOT analyzed the various demographic groups located near the study corridor and included focused communication through outreach in the following general demographic groups, as listed below. To determine the presence of minority and low-income populations in the study area, WisDOT used localized census block group data supplemented by the study team's Public Involvement Plan (PIP), which included demographic surveys provided at the East Madison Community Center (EMCC) meeting and on the project website, and other relevant data sources.

   The analysis in this factor sheet uses US Census data American Community Survey (ACS) 2022 Five-Year Estimates, which is the most recent data available at the time (December 2024).

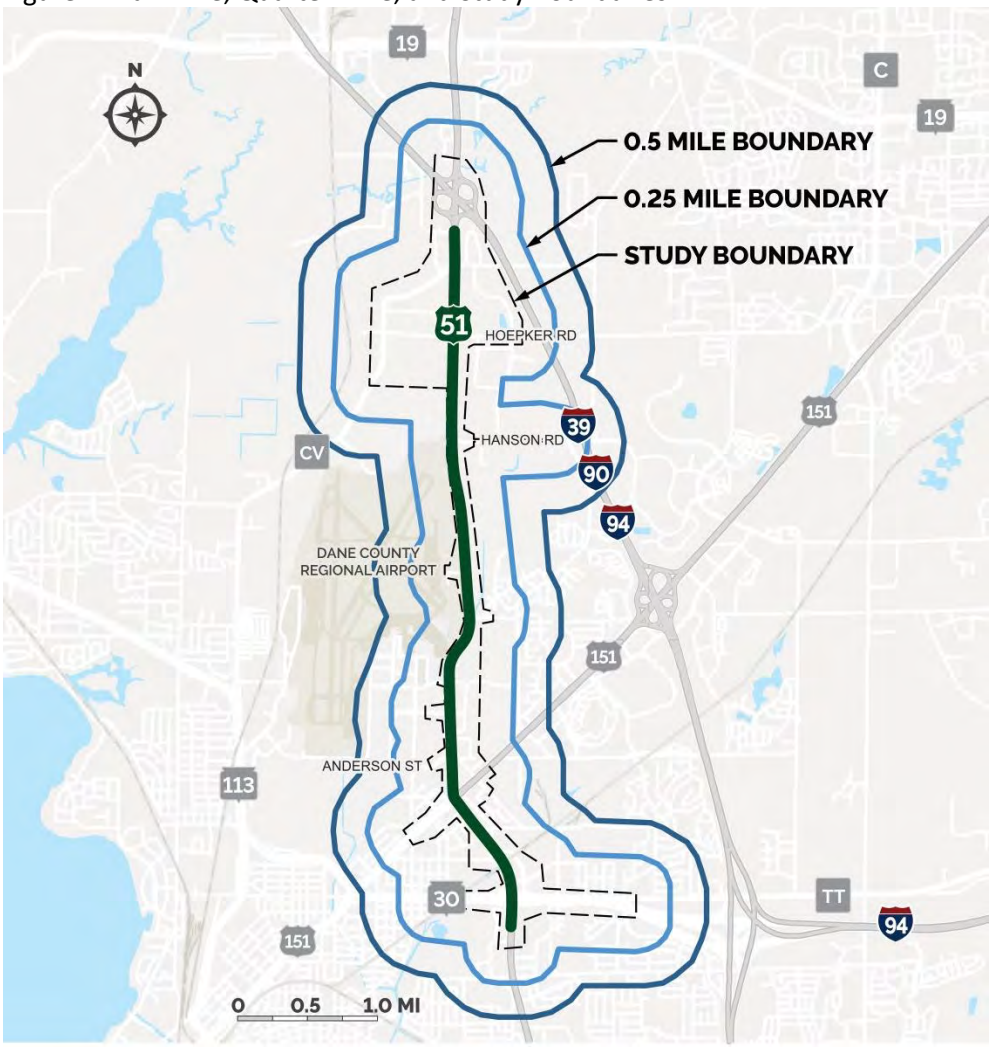
   Minority is defined as a person who is:
   - African American (having origins in any of the black racial groups of Africa)
   - Hispanic or Latino (of Mexican, Puerto Rican, Cuban, North American or other Spanish culture or origin, regardless of race)
   - Asian American (having origins in any of the original peoples of East or Southeast Asia, the Indian subcontinent or the Pacific Islands)
   - American Indian (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition)
   - Hawaiian Native or other Pacific Islander (people having origin in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islanders)
   - Caucasian and any combination of the above

   Low income is defined as a household income at or below the poverty threshold. According to the U.S. Census Bureau, a family is considered in poverty if their income is lower than the poverty threshold for that family. For example, in 2023, the U.S. Census Bureau set the poverty threshold for a family of four with two children under the age of 18 to a total family income of less than $30,900 (U.S. Census Bureau 2023).

   Other population groups potentially affected by the proposed action but not protected under the Executive Order on Environmental Justice include:
   - Persons with disabilities (Americans with Disabilities Act Amendment Act)
   - Elderly (Age Discrimination Act)
   - Limited English Proficiency (Executive Order 13166)
   - Children
   - Persons with no access to a personal vehicle

For this factor sheet, 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 1.

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



Within the 0.5-mile boundary of the US 51 North Study corridor, people of color made up about 39% of the population in 2022. The greatest population of minorities identify as African American (17.3%), followed by 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. It should be noted that 'Hispanic' is an ethnic group and not a race category and is expressed separately from race in the data. Thus, those who identify as Hispanic have a racial identity (White, African American, etc.) in addition to an ethnic identity as Hispanic.

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

Demographics within the three bands – study boundary, 0.25-mile buffer boundary and 0.5-mile buffer boundary, have been identified and compared to the demographics of Dane County and the State of Wisconsin. The data depicted in Table 1 below represent various sub-groups of the population. The data depicted in Table 2 show the percentages for people of color, low-income populations and persons with disabilities.

Figures 2 and 3 show maps of census geographies for percent of people of identified as white alone and percent minority population including Hispanic or Latino respectively. They also show the study boundary, quarter mile buffer and half mile buffer.

Table 1: Population Demographics, Race and Ethnicity

	Study Boundary	0.25-Mile Boundary	0.5-Mile Boundary	Dane County	State of Wisconsin
White alone	74.6%	65.3%	66.6%	80.5%	79.9%
African American alone	7.7%	18.6%	17.3%	5.0%	6.1%
American Indian alone	0.1%	0.1%	0.2%	0.2%	0.6%
Asian alone	7.9%	3.9%	3.9%	5.9%	2.8%
Pacific Islander alone	0%	<0.1%	<0.1%	0.1%	<0.1%
Other Race (non-Hispanic)	1.4%	1.6%	1.5%	1.5%	0.2%
Two or More Races (Non-Hispanic)	8.4%	10.4%	10.4%	6.7%	3%
Hispanic (of any race)	9.2%	12.6%	12.6%	6.8%	7.3%

Table 2: Population Percentages

	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%

Figure 2: Percent of Population that is White Alone

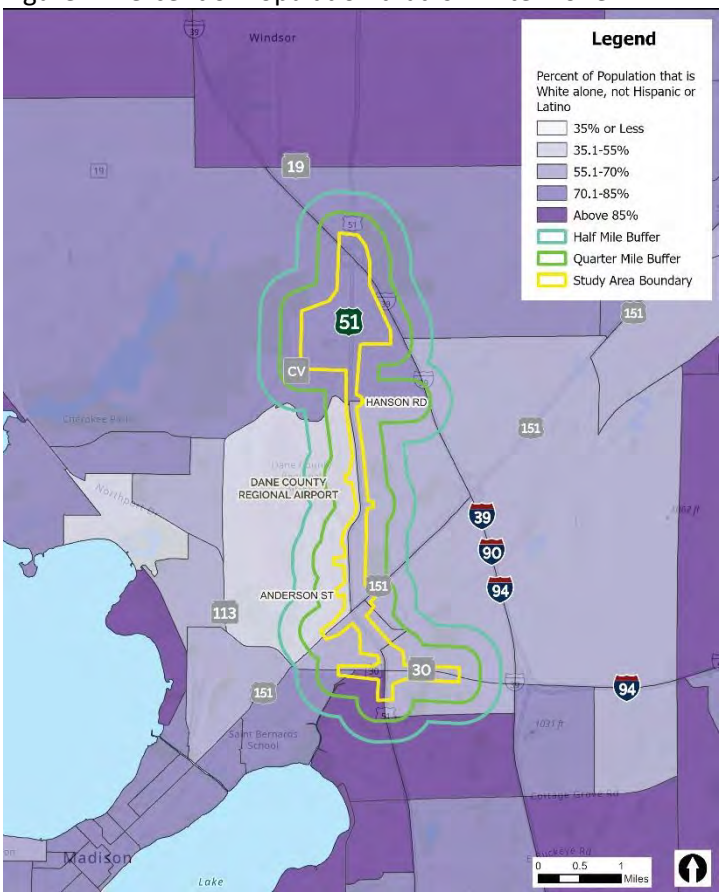
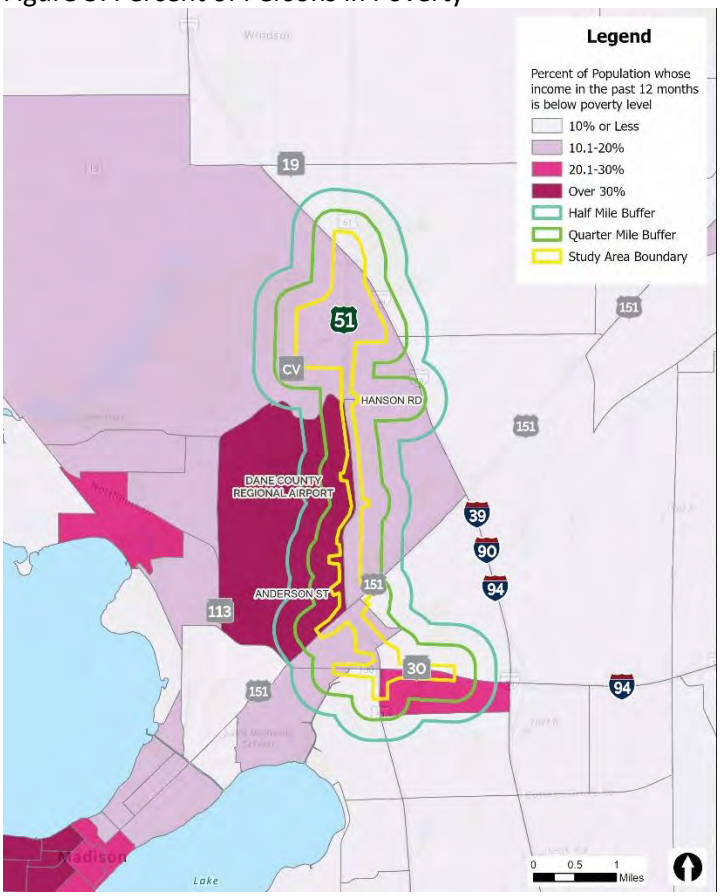


Figure 3: Percent of Persons in Poverty



Population Groups

☒ Black (origins in any of the black racial groups of Africa)
Describe: There is a high percentage of African American populations compared to the Dane County and statewide averages living west of the corridor between US 151 and Hanson Road and east of the corridor between WIS 30 and US 151 intersections. Less than 2% of the population is African American north of the Dane County Regional Airport (DCRA).

☒ Hispanic or Latino (of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race)
Describe: A higher percentage of Hispanic populations live east of the corridor between US 151 and Hanson Road compared to the Dane County and statewide averages. There is also a higher percentage of Hispanic population in the census block between US 151 and Anderson Street, west of US 51 compared to the Dane County and statewide averages.

☒ Asian American (origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent)
Describe: The highest percentage of the Asian American population in the study area is located east of the project corridor, south of Hoepker Road and east of I-39 and north of County T and east of Thompson Road.

☐ American Indian and Alaska Natives (origins in any of the original people of North America or South America (including Central America), and who maintain cultural identification through tribal affiliation or community recognition)
Describe: N/A

☐ Native Hawaiian and Other Pacific Islander (origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands)
Describe: N/A

☒ 2 or more races, including any of the above categories, as defined by U.S. Census
Describe: The highest percentage of the multiracial population in the study area is located west of the project and north of US 151, roughly surrounding DCRA, as well as east of the WIS 30 interchange.

☒ Minority and low-income
Describe: Generally speaking, the highest percentage of the minority population in the study area lives between Madison College and the DCRA, west of the project and east of WIS 113. This closely correlates with the distribution of the lowest median household income in the 0.5-mile buffer.

☒ Low-income and non-minority
Describe: In some census block groups, particularly those surrounding US 51 south of US 151, the highest percentage of the population experiencing poverty in the study area does not entirely correlate with the block groups with the highest percentage of minority populations. 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.

2. Describe how information on the alternative was communicated to minority populations and low-income populations:

The PIP and Environmental Justice (EJ) Plan and Preliminary Analysis served as guiding documents for contacting and coordinating with the public. The PIP documents outreach for communities, agency and local officials, businesses and social media. It lists key target audiences, including state and local officials, Tribes, schools, faith-based organizations and other agencies. The PIP also lists traditional and virtual public involvement techniques that were used throughout the duration of the study.

Demographic surveys were conducted as part of the East Madison Community Center (EMCC) meeting. EMCC is a multi-service community center providing social, educational, recreational and cultural programming. These surveys were made available in print and digital form in English and Hmong. PIM surveys and materials were translated into Spanish and Hmong in print and digital form. Examples of these surveys can be found in **Appendix H: Public Surveys**. The following community organizations, neighborhood associations and businesses were consulted regularly throughout this process:

Community Organization Outreach

Organization	Address
Greater Madison Chamber of Commerce	1 S Pinckney St., Suite 330, Madison, WI 53701
Madison Black Chamber of Commerce	2222 S. Park St., Madison, WI 53713
Wisconsin Latino Chamber of Commerce	PO Box 259851, Madison, WI 53725-9851
Hispanic Chamber of Commerce	1021 W. National Ave., Milwaukee, WI 53204
NAACP	PO BOX 44366, Madison, WI 53744
Latino Health Coalition	PO BOX 731, Madison, WI 53701
Hmong Chamber of Commerce	2881 Commerce Park Dr., Fitchburg, WI 53719
Hmong Institute	4402 Femrite Drive, Madison, WI 53716
Wisconsin Tibetan Association	1502 Parkside Drive, Madison, WI 53714
Victory Hmong Alliance Church	602 Acewood Boulevard, Madison, WI 53714
Madison Housing Authority	215 Martin Luther King Jr Blvd #161, Madison, WI 53703
Dane County Housing Authority	6000 Gisholt Dr #203, Monona, WI 53713
Access To Independence, Inc.	3810 Milwaukee Street, Madison, WI 53714
Catholic Charities	702 South High Point Road, Madison, WI 53719
Catholic Multicultural Center	1862 Beld Street, Madison, WI 53713
Centro Hispano-Madison	810 West Badger Road, Madison, WI 53713
Area Agency on Aging - Dane County Human Services	2865 N. Sherman Ave., Madison, WI 53704
African Association of Madison	P.O. Box 1016, Madison, WI 53701-1016
Northside Planning Council	1219 North Sherman Avenue, Madison, WI 53704

Organization	Address
Outreach LGBTQ+ Community Center	2701 International Lane, Madison, WI 53704
Asian Wisconzine	303 Whispering Pines Way, Fitchburg, WI 53713
African Center for Community Development	6314 Odana Road, Madison, WI 53719
Community Action Coalition	4101 E Towne Blvd, Madison, WI 53704
Joining Forces for Families – Dane County	9 Straubel Court, Madison, WI 53704
Senegambia Women's Association	1921 Northport Dr #5, Madison, WI 53704
Harambee Village Doulas	2423 American Lane, Madison, WI 53704
Families Back to the Table	2001 Zeier Road, Madison, WI 53704
City of Madison Community Development Office	214 MLK Jr Blvd. 3rd Floor Madison, WI 53703
City of Madison Department of Civil Rights	210 MLK Jr Blvd. #523 Madison, WI 53703
Coalition of Wisconsin Aging Groups	210 MLK Jr Blvd., Madison, WI 53703
Community Support Network, Inc.	1137 N. Sherman Ave., Madison, WI 53704
Dane County Veterans Service	1709 Aberg Ave. Suite 2 Madison, WI 53704
East Madison Community Center	8 Stauble Ct., Madison, WI 52704
Elder Care of Dane County, Inc.	2865 N. Sherman Ave., Madison, WI 53704
Family Support Resource Center	101 Nob Hill Rd. Suite 201, Madison, WI 53713
Goodman Community Center	149 Waubesa St., Madison, WI 53704
Jewish Social Services	6434 Enterprise Ln., Madison, WI 53719

Organization	Address
Latino Academy of Workforce Development	1917 Lake Point Dr., Madison, WI 53713
Madison Asian American Business Association	5130 Door Dr., Madison, WI 53705
Madison Area Chinese Community Organization	23 Ellis Potter Court, Madison, WI 53713
Madison Asian American Business Association	5130 Door Dr., Madison, WI 53705
Madison Area Chinese Community Organization	23 Ellis Potter Court, Madison, WI 53713
Madison Disability Rights & Services Program	210 MLK Jr. Blvd., Madison, WI 53703
Madison Senior Center	330 W. Mifflin St., Madison, WI 53703
Meister Special Care Transporter	2330 Vondron Rd., Madison, WI 53718

Organization	Address
Philippine-American Association of Madison	PO Box 5013, Madison, WI 53705
Project Home – Madison	1966 S. Stoughton Rd., Madison, WI 53705
REM Wisconsin III, Inc.	2005 W Beltline Hwy Suite 100, Madison, WI 53713
Teamwork Associates Inc.	822 Gannon Ave, Madison, WI 53714
The Salvation Army	630 East Washington Ave., Madison, WI 53701
United Refugee Services of Wisconsin, Inc.	2132 Fordem Ave., Madison, WI 53704
Urban League of Greater Madison (ULCM)	2222 S Park St STE 200, Madison, WI 53713
Wisconsin Council of the Blind and Visually Impaired	754 Williamson St., Madison, WI 53703
YMCA Madison	101 E. Mifflin St., Madison, WI 53703

Neighborhood Association/Municipal Outreach

Neighborhood Association	Location
Eastmorland Community Association	South of WIS-30, west of corridor
Burke Heights Neighborhood Association	North of WIS-30, east of corridor
Mayfair Park Neighborhood	Between Burke Heights Neighborhood and US 151, east of corridor
Carpenter-Ridgeway Neighborhood Association	North of US 151, west of corridor
Truax Neighborhood Association	Between Straubel St and Anderson St, west of corridor
City of Madison	South of Hoepker Road (area around Leo Circle is not part of the city)
Town of Burke	North of Hoepker Road and area around Leo Circle
Village of DeForest	Just north of the study limits

Business Outreach

Organization	Address
JX Truck Center	4205 Anderson Rd., Madison, WI 53704
Lakeside International	7243 Manufacturers Dr., Madison, WI 53704
Skillrud LLC	3585 E. Washington Ave., Madison, WI 53704
Wisconsin Aviation	3606 Corben Ct., Madison, WI 53704
Fed Ex Ground	3700 Kinsman Blvd., Madison, WI 53704
TA Travel Center	5901 US 51, DeForest, WI 53532

Organization	Address
Madison Block and Stone	5813 US Hwy 51, Madison, WI 53704
Labcorp Drug Development - Madison	3402 Kinsman Blvd., Madison, WI 53704
Kwik Trip Corporate	1626 Oak St PO Box 2107, La Crosse, WI 54601
Zimbrick of Madison	1601 W Beltline Hwy., Madison, WI 53714
Bell Laboratories	3699 Kinsman Blvd., Madison, WI 53704
Walmart Supercenter	4198 Nakoosa Trail, Madison, WI 53714
County Materials Corporation	3275 Lexington Ave., Madison, WI 53714

The lists of above were used for the CAC, TAC, and LOAC meetings. Additional outreach and in-person meetings were held with businesses that would be impacted by relocation or access changes.

There were several outreach events that were held as part of the project. A detailed list can be found below.

Outreach Events

Event	Date	Estimated People Contacted
EMCC Neighborhood Meeting	Nov. 10, 2022	19
EMCC Food Drive	May 16, 2023	6
EMCC Food Drive	May 19, 2023	
Warner Park Family Night Juneteenth Celebration	June 16,2023	flyers
Northside Farmer's Market	June 18, 2023	35
Madison Children's Museum	July 28, 2023	
Dane County Farmer's Market	July 22, 2023	
Disability Pride Festival	July 29, 2023	50
Warner Park Family Night	April 12, 2024	35
Eastmorland Outdoor Market	May 18, 2024	47
WORTStock	May 19, 2024	200
Madison Night Market	June 13, 2024	100-150
Juneteenth Celebration	June 15, 2024	75
Monona Community Festival	July 3, 2024	80
Bodega at Breese Stevens	July 21, 2024	50

Some methods that could be used to communicate project information to minority populations and low-income populations include:

- ☒ Public involvement meetings (PIMs)
- ☒ Newsletters
- ☐ Utility bill inserts
- ☐ Advertisements
- ☐ Brochures
- ☒ Notices
- ☒ Emails
- ☒ Others, identify: Outreach events
- ☐ Public service announcements
- ☒ Key persons
- ☒ Direct mailings

3. **How was input from minority populations or low-income populations obtained? Check all that apply:**

☒ Public Information Meeting
☒ Door-to-door interviews
☐ Focus group research
☒ Public hearings
☒ Focused small group information meetings
☒ Focused workshop/conferences
☐ Mailed surveys
☐ Key person interviews

Other, identify:

4. **If there is a project advisory committee, identify which minority populations or low-income populations are represented and by whom.**

☒ Yes, there was a project advisory committee. Indicate if any of the individuals participating self-identify as representing a minority population or low-income population. Describe:

The Citizens Advisory Committee (CAC) had representation from the Madison Black Chamber of Commerce, Madison College and the Wisconsin Latino Chamber of Commerce.

☐ No project advisory committee was formed, explain:

5. **Will there be potential impacts of any kind to minority populations or low-income populations identified above?**

☐ No

☒ Yes, describe:

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, and Relocation Factor Sheets.

Impacts include:

- Three business relocations, access changes, and right of way acquisition
- 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

Mitigations include:

- 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 during construction for all modes of transportation via the TMP and provide public involvement 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 percent of persons in poverty is 18.2% for this Census geography.
- A greenhouse gas (GHG) analysis was conducted for the corridor. See **Appendix Q: Greenhouse Gases and Climate Change Impacts**. 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.

Some of the minority and low-income populations use the US 51 corridor by walking, bicycle or transit. Attendees at the EMCC Neighborhood Meeting in November 2022 were asked to complete a public survey; see **Appendix H: Public Surveys**. A majority of the 19 survey respondents reported using US 151 (14) and Anderson Street (11) intersections. Respondents also reported traveling by car (14), walking (8), and riding the bus (6) as the primary methods of travel. The US 51/US 151 intersection is particularly important to EJ populations in the project area, as demonstrated by comments received at the EMCC Neighborhood Meeting.

Issues and comments made by the public	
a.	Most community center traffic is on foot or by bus with few bicycles.
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.
c.	Crossing US 51 east-west by foot is challenging.
d.	Concerns with the potential design of pedestrian tunnels for safety reasons.

These comments were important in developing the preferred alternative. At the US 51 and US 151 intersection, the preferred alternative will:

- Provide dedicated crosswalks for all four legs of the intersection, however, crossings will be longer and may include multi-phase crossings
- Provide a north-south pedestrian and bicycle bridge over the east leg of the intersection which results in the relocation of one restaurant (10 total jobs)
- 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
- Correct intersection skew angle on the north leg of the intersection which results in the relocation of two additional businesses

Both the general population and environmental justice populations would experience both beneficial and negative effects as a result of implementation of any of the build alternatives.

6. Have issues been identified concerning effects on minority populations or low-income populations related to the alternative been identified?

☐ No issues or concerns related to effects have been raised.

☒ Yes, issues or concerns related to effects have been identified. Describe what the issues or concerns are, who identified the issues or concerns (for example, identify if the issues were raised by the project team, through public involvement, through interagency coordination or by other means), and how the issues or concerns will be addressed:

Feedback received during the public involvement process included crossing streets safely and expressing the desire to maintain access to stores and businesses to access everyday essentials in and around the US 151 intersection. The preferred alternative addresses these concerns in the following ways:

- Businesses deemed particularly important to the community for groceries and prescription drugs will not be relocated with the preferred alternative
- Provides a north-south crossing of the east leg of the intersection, which is not in place today
- Provides a 10-foot shared-use path along the east side of the study limits between WIS 30 and Kinsman Boulevard creating easier pedestrian access to area businesses
- Provides a north-south pedestrian and bicycle overpass at the east leg of the intersection which creates a safer crossing. This overpass supports neighborhood feedback of not wanting an underpass at this intersection.
- Provides a 10-foot shared-use path along the west side of US 51 between US 151 and Anderson Street to accommodate neighborhood access to nearby businesses

7. **Would this alternative result in disproportionately high and adverse effects on minority populations or low-income populations? If the alternative will not result in disproportionately high and adverse effects, as indicated by checking the first or second box below, the remainder of this Factor Sheet does not need to be completed.**

☒ No disproportionately high and adverse effects on minority populations or low-income populations have been identified, explain:

Minority and low-income populations form a larger percentage of the overall population near the study corridor, as compared to county and statewide demographics. 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.

The general population within the impacted radius including minority and low-income populations would experience changes in some property access, noise and temporary construction impacts. Implementation of the preferred alternative would not result in any adverse impacts that are considered disproportionately high and adverse.

The Preferred Alternative would provide benefits that would positively affect the study area population, including minority and low-income populations. These benefits include improved traffic operations and safety. While the majority of the study area population is still dependent on automobiles, improved operations also improve transit performance and reliability. Improved pedestrian facilities will improve access and safety for the demographic of people without access to vehicles.

☐ Potential disproportionately high and adverse effects on minority populations or low-income populations could result from this alternative. Mitigation measures identified through consultation and public involvement have addressed all effects, explain:

☐ Some or all disproportionately high and adverse effects on minority populations or low-income populations remain for this alternative.
Mitigation measures identified through consultation and public involvement have addressed some effects, describe:
Identify and describe the disproportionately high and adverse effects that remain:

8. **Will the alternative be carried forward with the remaining disproportionately high and adverse effects on minority populations and low-income populations? Approval of this document indicates concurrence with this determination.**
Not applicable.

SECTION 4(f) Factor Sheet

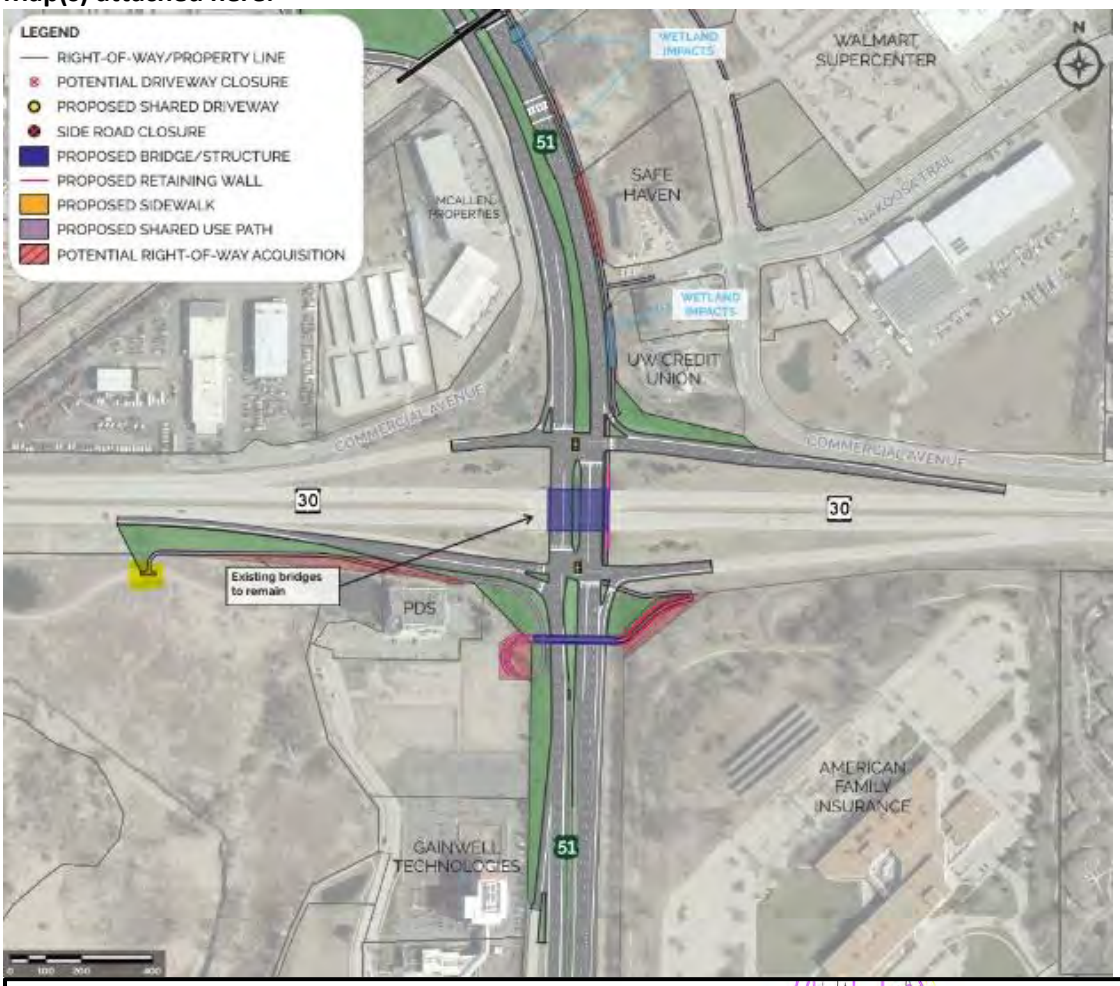
06-11-2019 Wisconsin Department of Transportation

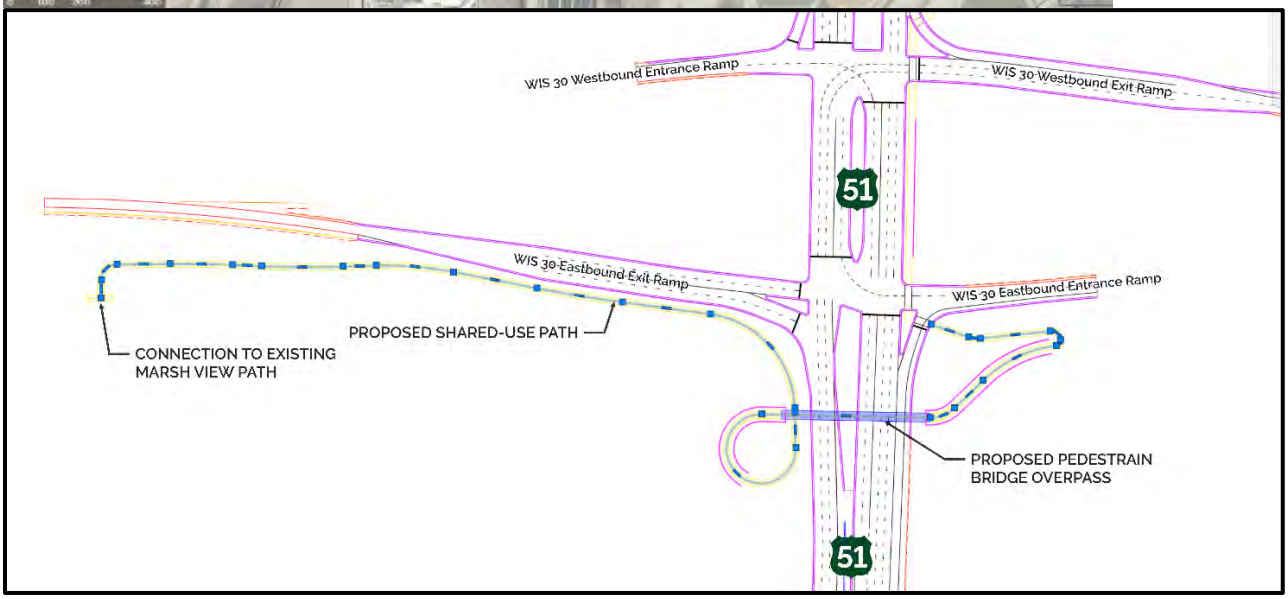
Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Resource Name:** Marsh View Path – Temporary Occupancy

2. **Location:** South of the WIS 30 EB ramps crossing US 51 in the city of Madison

Map(s) attached here:





3. **Ownership and/or Agency with Jurisdictional Authority:** City of Madison

4. **Type of Resource:**
   - ☐ Park
   - ☒ Recreational lands - Path
   - ☐ Wildlife Refuge
   - ☐ Waterfowl Refuge
   - ☐ Historic/Archaeological site eligible for the National Register of Historic Places (NRHP)
   - ☐ Other – Identify:

5. **Briefly describe use of the resource:** As part of the proposed action, approximately 2,300 feet of new shared-use path will be installed, including a 235-foot pedestrian overpass structure over US 51 south of the WIS 30 eastbound ramps in the city of Madison. The extension will provide pedestrian and bicycle connectivity for those users accessing the southwest and southeast quadrants near the WIS 30 interchange. The new extension will tie into the existing Marsh View Path west of US 51, ascend to cross US 51 and descend to meet grade at the southeast corner of the interchange to connect to the proposed path north along US 51.

   The Section 4(f) use would occur when the new path is tied into the existing path, causing a short-term closure of the Marsh View Path.

6. **Type of Section 4(f) Documentation**
   - ☒ Section 4(f) Exception or questions of Section 4(f) Applicability (Proceed to Questions 7, then 11)
   - ☐ *De minimis* (Proceed to Questions 8, then 11)
   - ☐ Programmatic Section 4(f) (Proceed to Questions 9, then 11)
   - ☐ Individual Section 4(f) (Proceed to Questions 10, then 11)

7. **23 CFR 774.11 applicability and 23 CFR 774.13 exceptions to Section 4(f) approvals:**

FHWA has identified various instances when a Section 4(f) analysis might not be necessary for a potential Section 4(f) resource. These instances are listed below: (check the exception to Section 4(f) that applies to the resource AND check the conditions to ensure that they are met). Supporting documentation for use of the exception checked below is attached here:

WisDOT received concurrence from the city of Madison on Aug. 29, 2024, for a temporary occupancy exception determination for temporary construction impacts to the Marsh View Path based on the following:

1) Project duration will be temporary; temporary easements would be obtained for construction of the proposed improvements, and the city of Madison would retain ownership of the path throughout construction and upon completion. The easements would not be for any longer duration than what is required to construct the proposed improvements.
2) The scope of work will be minor. Some grading may occur; however, no activities, features or attributes that qualify for protection under Section 4(f) would be affected.
3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the activities or purpose of the resource on either a temporary or permanent basis.
4) The land being used will be fully restored to at least as good a condition as it was prior to construction. In consultation with the city of Madison, WisDOT will restore habitat with seed mixes and vegetation that the city of Madison specifies.
5) **Appendix P: Temporary Occupancy Letter** serves as documentation of the city of Madison's agreement to these points.

   - ☐ The resource, in its entirety, is not significant per 23 CFR 774.11(c). The officials with jurisdiction have provided information to support this indication.
   - ☐ Multiple Use. Where Federal lands or other public land holdings (e.g., State forests) are administered/managed for multiple uses per 23 CFR 774.11(d). Section 4(f) only applies to the portions of the resource that function as, or as designated as significant park, recreation, or wildlife and waterfowl purposes. The officials with jurisdiction have provided information to support this indication.

☐ Section 4 (f) does not apply per 23 CFR 774.11 (h). The resource is formally reserved for a future transportation facility and temporarily functions for park, recreation, or wildlife and waterfowl refuge purposes in the interim, and, as a result, the interim activity, regardless of duration, will not subject the resource to Section 4(f).

☐ Joint Planning. When a resource is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established, and concurrent or joint planning occurs, then any resulting impacts will not be considered a Section 4(f) use. Formal reservation of a Section 4(f) resource for future transportation use can be demonstrated by any of the documents described at 23 CFR 774.11(i).

☐ Section 4(f) does not apply to the use of historic transportation facilities in certain circumstances per 23 CFR 774.13(a) Any of the following criteria must be met:

- ☐ (1) Common post-1945 concrete or steel bridges and culverts that are exempt from individual review under 54 U.S.C. 306108 (Section 106).
- ☐ (2) Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements, except for:
  - (i) Stations;
  - (ii) Bridges or tunnels on railroad lines that have been abandoned, or transit lines not in use, over which regular service has never operated, and that have not been railbanked or otherwise reserved for the transportation of goods or passengers; and
  - (iii) Historic sites unrelated to the railroad or rail transit lines.
- ☐ (3) Maintenance, preservation, rehabilitation, operation, modernization, reconstruction, or replacement of historic transportation facilities. Include necessary documentation to support this determination based on consultation under 36 CFR 800.5, that:
  - (i) Such work will not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National Register, or this work achieves compliance with Section 106 through a program alternative under 36 CFR 800.14; and
  - (ii) The official(s) with jurisdiction over the Section 4(f) resource have not objected to the Administration conclusion that the proposed work does not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National Register, or the Administration concludes this work achieves compliance with 54 U.S.C. 306108 (Section 106) through a program alternative under 36 CFR 800.14.

☐ Section 4(f) does not apply per 23 CFR 774.13(b). Archeological sites that are listed in or determined eligible for the National Register when (both conditions must be satisfied):

- ☐ (1) The archeological resource is important primarily because of what can be learned by data recovery and has minimal value for preservation in place. This exception applies both to situations where data recovery is undertaken and where it is decided in agreement with the official(s) with jurisdiction, not to recover the resource; and
- ☐ (2) The official(s) with jurisdiction over the Section 4(f) resource have been consulted and have not objected to the finding in paragraph (b)(1) above.

☐ Section 4(f) does not apply per 23 CFR 774.13(c). Designations of park and recreation lands, wildlife and waterfowl refuges, and historic sites that are made, or determinations of significance that are changed, late in the development of a proposed action. With the exception of the treatment of archeological resources in § 774.9(e), the Administration may permit a project to proceed without consideration under Section 4(f) if the property interest in the Section 4(f) land was acquired for transportation purposes prior to the designation or change in the determination of significance and if an adequate effort was made to identify properties protected by Section 4(f) prior to acquisition. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section.

☒ Section 4(f) does not apply per 23 CFR 774.13(d). Temporary occupancies of land that are so minimal as to not constitute a use. All the following conditions must be satisfied:

- ☒ (1) Duration must be temporary, *i.e.*, less than the time needed for construction of the project, and

there should be no change in ownership of the land;

☒ (2) Scope of the work must be minor, *i.e.*, both the nature and the magnitude of the changes to the Section 4(f) property are minimal;

☒ (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;

☒ (4) The land being used must be fully restored, *i.e.*, the property must be returned to a condition which is at least as good as that which existed prior to the project; and

☒ (5) There must be documented agreement from the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions. See **Appendix P: Temporary Occupancy Letter.**

☐ Section 4(f) does not apply per 23 CFR 774.13(e)**.** Projects for the Federal lands transportation facilities described in 23 U.S.C. 101(a)(8).

☐ Section 4(f) does not apply per 23 CFR 774.13(f). Certain trails, paths, bikeways, and sidewalks, in the following circumstances:

☐ (1) Trail-related projects funded under the Recreational Trails Program, 23 U.S.C. 206(h)(2);

☐ (2) National Historic Trails and the Continental Divide National Scenic Trail, designated under the National Trails System Act, 16 U.S.C. 1241- 1251, with the exception of those trail segments that are historic sites as defined in § 774.17;

☐ (3) Trails, paths, bikeways, and sidewalks that occupy a transportation facility right-of-way without limitation to any specific location within that right-of-way, so long as the continuity of the trail, path, bikeway, or sidewalk is maintained; and

☐ (4) Trails, paths, bikeways, and sidewalks that are part of the local transportation system and which function primarily for transportation.

☐ Section 4(f) does not apply per 23 CFR 774.13(g). Transportation enhancement activities, transportation alternatives projects and mitigation activities, where (both must be checked):

☐ (1) The use of the Section 4(f) property is solely for the purpose of preserving or enhancing an activity, feature, or attribute that qualifies the property for Section 4(f) protection; and

☐ (2) The official(s) with jurisdiction over the Section 4(f) resource agrees in writing to paragraph (g)(1) of this section.

8. 23 CFR 774.7(b) Finding of *de minimis* Impact

Indicate which Finding of *de minimis* impact applies (attached here:)

☐ Finding of *de minimis* impact on a Historic Property

☐ Finding of de minimis impact on Parks, Recreation Areas and Wildlife and Waterfowl Refuges

9. 23 CFR 774.3(d) Programmatic Section 4(f) Evaluation

Indicate which Section 4(f) Programmatic Evaluation(s) applies (attached here:)

☐ Independent bikeway or walkway construction projects

☐ Historic Bridges

☐ Park minor involvement

☐ Historic site minor involvement.

☐ Net Benefit to Section 4(f) Property

10. 23 CFR 774.3 Individual Section 4(f) Evaluation

☐ Draft Individual Section 4(f) evaluation approved on . (Attached here)

☐ Final Individual Section 4(f) evaluation approved on . (Attached here)

11. Was special funding (Federal funds such as Land and Water Conservation Fund Act, Dingell Johnson Act, Pittman-Robertson Act or State funding sources) used to acquire the land or to make improvements on the property?

☐ No, special funding was not used for the acquisition or enhancement of this property.

☐ Yes, complete the Section 6(f) and Other Unique Properties Factor Sheet.

WETLANDS Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

Describe Wetlands

1. **Describe Wetlands Along the Project (a map may be helpful):**

	Name (if known) [1]	**County**	**Section Township Range**	**Location Map**	**Wetland Type(s)**[2]	**Total Wetland Loss**	**Is the wetland contiguous with a stream, lake or other?**	**Name the contiguous waterbody (ies)**
Wetland *W11*		Dane	S-8, T-8-N, R-10-E	*Exhibit: Preferred Alternative Maps in the Map Section Page M-4 to M-14*	Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W12*		Dane	S-8, T-8-N, R-10-E		Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W17b*		Dane	S-18 & 21, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.02 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W18*		Dane	S-21, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.03 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W19b*		Dane	S-21 & 28, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh/ Shrub Swamp	0.07 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W20*		Dane	S-28, T-8-N, R-10-E		Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W21*		Dane	S-28, T-8-N, R-10-E		Degraded Meadow	0.13 acres	☐ Yes ☒ No	
Wetland *W22*		Dane	S-21, T-8-N, R-10-E		Shallow Marsh	0.07 acres	☐ Yes ☒ No	
Wetland *W23*		Dane	S-21, T-8-N, R-10-E		Shallow Marsh	0.09 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W24*		Dane	S-21, T-8-N, R-10-E		Shallow Marsh	0.04 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W29b*		Dane	S-28, T-8-N, R-10-E		Shallow Marsh	0.01 acres	☒ Yes ☐ No	Starkweather Creek
Wetland *W30*		Dane	S-33, T-8-N, R-10-E		Shallow Marsh	0.21 acres	☒ Yes ☐ No	Starkweather Creek
Wetland *W32*		Dane	S-33, T-8-N, R-10-E		Detention Basin	0.03 acres	☒ Yes ☐ No	Starkweather Creek

Wetland *W33*		Dane	S-33, T-8-N, R-10-E	*Exhibit: Preferred Alternative Maps in the Map Section Page M-4 to M-14*	Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W34*		Dane	S-4, T-7-N, R-10-E		Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W35*		Dane	S-4, T-7-N, R-10-E		Shallow Marsh	0.06 acres	☐ Yes ☒ No	
Wetland *W36*		Dane	S-4, T-7-N, R-10-E		Shallow Marsh	0.36 acres	☐ Yes ☒ No	
Wetland *W58*		Dane	S-4, T-7-N, R-10-E		Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W59*		Dane	S-4, T-7-N, R-10-E		Shallow Marsh	0.05 acres	☐ Yes ☒ No	
Wetland *W100a*		Dane	S-28, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.01 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W100b*		Dane	S-28, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.30 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W100b*		Dane	S-28, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.01 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W101c*		Dane	S-21, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.04 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W102*		Dane	S-16, T-8-N, R-10-E		Degraded Meadow	0.02 acres	☒ Yes ☐ No	West Branch Starkweather Creek (Airport Road Creek)
Wetland *W103*		Dane	S-16, T-8-N, R-10-E		Shallow Marsh	0.01 acres	☐ Yes ☒ No	
Wetland *W105*		Dane	S-9, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.17 acres	☐ Yes ☒ No	
Wetland *W106*		Dane	S-9, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.05 acres	☐ Yes ☒ No	
Wetland *W152*		Dane	S-33, T-8-N, R-10-E		Detention Basin	0.11 acres	☐ Yes ☒ No	
Wetland *W153*		Dane	S-33, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh/ Degraded Wooded Swamp/ Wet and Sedge Meadows, Wet Prairie	0.32 acres	☒ Yes ☐ No	Starkweather Creek

Wetland *W154*		Dane	S-33, T-8-N, R-10-E	*Exhibit: Preferred Alternative Maps in the Map Section Page M-4 to M-14*	Wet and Sedge Meadows, Wet Prairie, Degraded Meadow	0.08 acres	☒ Yes ☐ No	Starkweather Creak and Unnamed Tributary to Starkweather Creek
Wetland *W156*		Dane	S-33, T-8-N, R-10-E		Degraded Meadow/ Shallow Marsh	0.01 acres	☒ Yes ☐ No	Starkweather Creek
Wetland *W157*		Dane	S-33, T-8-N, R-10-E		Aquatic Bed/ Degraded Wooded Swamp/ Shallow Marsh	0.18 acres	☒ Yes ☐ No	Unnamed Waterway
Wetland *W159*		Dane	S-28, T-8-N, R-10-E		Shallow Marsh	0.10 acres	☒ Yes ☐ No	Starkweather Creek

[1] Examples of named wetlands include: Cherokee Marsh, Horicon Marsh, Tiffany Bottoms, etc.
[2] Use wetland types specified in the WisDOT Wetland Mitigation Banking Technical Guidelines, Table 1-C
[3] If wetland is contiguous to a stream, lake or other water body, and impacts to the resource are expected, complete the Surface Water Factor Sheet.

2. **Describe method for evaluating wetlands along project.**
   - ☒ Wetland delineation. Date completed: Oct. 25, 2021 through May 5, 2022
   - ☐ Interagency wetland determination. Date completed:
   - ☐ Other. Describe and indicate date completed:
   - ☐ Evaluation not necessary or not completed. Explain:

3. **Are any impacted wetlands considered "wetlands of special status," "red flag wetlands," or "rare and high-quality wetlands"? Refer to WisDOT Wetland Mitigation Banking Technical Guideline, page 10 for additional information.**
   - ☒ No
   - ☐ Yes:
     - ☐ Advanced Identification Program (ADID) Wetlands
     - ☐ Other – Describe:

4. **List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland (List should include both permanent, migratory and seasonal residents):**
   Wildlife such as amphibians, reptiles, small mammals and common waterfowl would be expected to inhabit or depend on wetlands. Some of the wetlands delineated are isolated to fabricated ditches and small depression features. Affected wetlands are small and lack vegetation diversity. These wetlands will have limited wildlife use including songbirds, small mammals, reptiles and amphibians when standing water is present. The larger wetland areas with more vegetation diversity and/or connections to other habitat areas will support waterfowl, larger mammals such as deer and furbearers, a variety of songbirds and other wildlife habitat typically found in Dane County.

<u>Describe Work and Anticipated Impacts</u>

5. **Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, temporary impacts, other:**
   To implement the proposed improvements, work in the wetlands is anticipated to include excavation to construction of the roadway, placement of fill for roadway embankments, culvert construction and temporary fill for construction equipment and access.

6. **Wetland Avoidance and Impact Minimization:** [Note: Consideration of avoidance and minimization strategies is required before evaluating compensatory mitigation needs.]
   A. Wetlands avoided:
      1. Describe methods used to avoid the use of wetlands, such as tightening slopes, using a lower level of improvement or placing the roadway on new location, etc.:
         Original design assumed 4:1 slope to the clear zone. An avoidance option is to increase the slopes to a 3:1 slope because there is clear runout at the bottom of the slope.
      2. Indicate the total area of wetlands avoided: 0.30 acres

   B. Wetlands impacts minimized:
      1. Describe methods used to minimize the use of wetlands, such as increasing side slopes, use of retaining walls, equalizer pipes, upland disposal of hydric soils, etc.:
         Original design assumed 4:1 slope to the clear zone. A minimization option is to increase the slopes to a 3:1 slope because there is clear runout at the bottom of the slope.
      2. Indicate the total area of wetlands saved through minimization: 0.92 acres

7. **Erosion control or stormwater management practices which will be used to protect the wetland are described on Factor Sheets, check all that apply:**
   ☒ Erosion Control Factor Sheet
   ☒ Stormwater Factor Sheet
   ☐ Neither Factor Sheet will be used, briefly describe measures to be used:

Coordination and Permitting

8. **US Army Corps of Engineers (USACE) Jurisdiction and Section 404 Permit (Clean Water Act):**
   ☐ Not applicable, no impacts anticipated to waters under USACE jurisdiction.
   Date of approved jurisdictional determination:
   ☒ Applicable, impacts anticipated to wetlands under USACE jurisdiction.
   Indicate acres of wetlands filled: 2.05 acres and acres temporarily impacted: 0 acres
   Type of 404 permit anticipated:
   ☒ Individual Section 404 Permit required.
   ☐ General Permit (GP) or Letter of Permission (LOP) required.
   Indicate which GP or LOP is required:
   ☐ Transportation Regional General Permit (TRGP; expires 02/20/23). Permit category:
   ☐ Nationwide General Permit (NWP). NWP number:
   ☐ Letter of Permission (LOP-06-WI; issued 04/17/06 – or – LOP-10-R; issued 08/30/10)
   Pre-construction notification (PCN):
   ☐ Not required. Explain:
   ☒ Required. Status of PCN:
   PCN will be submitted after final design with the intent to receive the permit prior to the project being let.

9. **Wisconsin Department of Natural Resources (WDNR) Coordination and Section 401 Water Quality Certification (WQC):**
   ☒ WDNR provided concurrence on the project's wetland delineation. Date received or anticipated:
   May 5, 2022
   ☒ 401 WQC anticipated:
   A 401 WQC will be prepared with the Individual Section 404.

10. **Federal Highway Administration (FHWA) Wetland Policy:**
    - ☒ Individual wetland finding required. Summarize all practicable measures included in the project to minimize harm to wetlands and explain why there are no practicable alternatives to the proposed action and wetland use:
      Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to the wetlands which may result from such use (per FHWA Technical Advisory T6640.8A and Executive Order 11990).
    - ☐ Not applicable, explain:

11. **Section 10 Waters (Rivers and Harbors Act). For navigable waters of the United States (Section 10) indicate which 404 Permit is required:**
    - ☒ No Section 10 waters. Section 10 permit not required.
    - ☐ Section 10 waters present.
      - ☐ Individual Permit
      - ☐ Nationwide Permit, NWP number:
      - ☐ Transportation Regional General Permit, TRGP category:

    Pre-construction notification (PCN):
      - ☐ Not required, explain:
      - ☐ Required, status of PCN:

Compensation

12. **Describe compensation for unavoidable wetland loss including wetland type, acres of loss, the mitigation ratio to be used, the type and acres of compensation and the Wetland Mitigation Site (if known) where mitigation will occur:**
    According to Section 404(b)(1) of the Clean Water Act, wetland compensatory mitigation procedures and sequencing will conform to the USACE and U.S. Environmental Protection Agency (EPA) joint rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332; and 40 CFR Part 230; dated April 10, 2008). Compensatory mitigation will be consistent with amendments to the Cooperative Agreement between WDNR and WisDOT on compensatory mitigation for unavoidable losses (July 2012) and WisDOT Wetland Mitigation Banking Technical Guideline (March 2002). Wetland mitigation will be carried out in accordance with state and federal requirements in consultation with WDNR and USACE per signed Interagency Coordination Agreements.

13. **Summarize the coordination to date and that still needs to be completed with USACE, WDNR and other agencies or organizations regarding compensation for unavoidable wetland losses below and indicate where the documentation is located:**
    WisDOT initiated coordination with WDNR using the WDNR/WisDOT Project Review process and has communicated regularly through email and committee meetings. WisDOT will identify a mitigation bank for compensation for wetland impacts, and coordinate with WDNR and USACE to determine mitigation ratios to identify the credits needed and obtain the Section 401/404 permit.

SURFACE WATERS Factor Sheet

06-10-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Waterbody name:** Starkweather Creek – East Branch

2. **Location of waterbody:**
   Section-Township-Range: Section 33, T-8-N, R-10-E Municipality Name: City of Madison

3. **Waterbody type (check all that apply):**
   - ☐ Lake
   - ☐ Pond
   - ☐ Impoundment or flowage
   - ☒ River or Stream
     - ☒ Warm water
     - ☐ Cold water, if trout stream, identify trout stream classification:
     - ☐ Wild and scenic river
     - ☐ Outstanding resource water (ORW), per NR 102.10, describe:
     - ☐ Exceptional resource water (ERW), per NR 102.11, describe:
   - ☐ Other, describe:

4. **Watershed name:** Lake Monona – Yahara River
   Size: 93.7 (square miles)

5. **Hydrologic characteristics:**
   - ☒ Permanent (year-round)
   - ☐ Temporary (wet part of year**)**

6. **Waterbody characteristics:**
   A. **Substrate:**
      - ☒ Sand
      - ☒ Silt
      - ☐ Clay
      - ☐ Cobbles
      - ☐ Other, describe:

   B. **Area of water body (for lakes):** acres

   C. **Average water depth:** 2 feet

   D. **Vegetation in waterbody:**
      - ☒ Absent
      - ☐ Present, if known, describe:

   E. **Identify aquatic organisms or water-dependent species observed or expected:**
   Fish species include golden shiner, fathead minnow and brook stickleback. Other types of possible aquatic organisms or water-dependent species are expected to include frogs, turtles, insects and macro-invertebrates.

   F. **Summarize water quality data, if available:**
   The East Branch of Starkweather Creek has been extensively altered through channelization, with most of its wetlands drained, filled and developed. The water quality of Starkweather Creek is considered “poor” and designated as “impaired” due to high chloride levels, unspecified metals, degraded habitat due to sediment/total suspended solids and low dissolved oxygen due to high biological demand. The quality of fish and aquatic life is “poor,” and the recreational usage of the creek is also “poor.”

G. **Is this waterbody on the DNR's "Impaired Waters" list?**

☐ No

☒ Yes, describe:

A 1998 assessment of Starkweather Creek (miles 0-3.65) showed impairment for biological oxygen demand (BOD), low dissolved oxygen (DO), sediment, degraded habitat and unspecified metals causing toxicity. In 2016, another assessment added chloride. In 2020, perfluoroalkyl or polyfluoroalkyl substances (PFAS) were found in fish tissue.

7. **Describe land adjacent to waterbody**:
   Surrounding areas include urban, suburban and industrial.

8. **Describe proposed work in, over, or adjacent to the waterbody:**
   Improvements will be made to both US 51 and Commercial Avenue to improve safety and traffic operations. Box culverts that convey Starkweather Creek under US 51 and Commercial Avenue will be extended.

9. **Discuss physical impacts to the waterbody during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the lake or water body:**
   Construction plans indicate that the impacts to the creek will be limited to the extension of the box culverts that convey the Starkweather Creek under US 51 and Commercial Avenue.

10. **Discuss probable impacts to water quality during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the waterbody:**
    Construction activities may temporarily disturb water quality but will be mitigated to the maximum extent practicable with terrestrial and in-water erosion control measures. Even though the flow of the creek will be maintained, temporary loss of access within the construction limits will be expected.

11. **Describe coordination with the public, municipalities and state and federal agencies concerning waterbodies:**
    Coordination with the public is ongoing. Coordination with the city of Madison concerning design elements near Starkweather Creek is ongoing.

12. **Are measures proposed to avoid, minimize, or compensate for impacts:**

    ☐ No

    ☒ Yes, describe:

    The East Branch of Starkweather Creek is considered a warm-water fishery. No in-stream work will be performed between March 1 and June 15 to avoid the fish spawning period. It is not anticipated that stream mitigation will be required in accordance with guidance in the USACE St. Paul District Stream Mitigation Procedures Version 1.0.

13. **Are measures proposed to enhance beneficial effects:**

    ☒ No

    ☐ Yes, describe:

SURFACE WATERS Factor Sheet

06-10-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Waterbody name:** S-1 (Unnamed tributary to West Branch Starkweather Creek)

2. **Location of waterbody:**
   Section-Township-Range: Section 21, T-8-N, R-10-E Municipality Name: City of Madison

3. **Waterbody type (check all that apply):**
   - ☐ Lake
   - ☐ Pond
   - ☐ Impoundment or flowage
   - ☒ River or Stream
     - ☒ Warm water
     - ☐ Cold water, if trout stream, identify trout stream classification:
     - ☐ Wild and scenic river
     - ☐ Outstanding resource water (ORW), per NR 102.10, describe:
     - ☐ Exceptional resource water (ERW), per NR 102.11, describe:
   - ☐ Other, describe:

4. **Watershed name:** Lake Monona – Yahara River
   Size: 93.7 (square miles)

5. **Hydrologic characteristics:**
   - ☒ Permanent (year-round)
   - ☐ Temporary (wet part of year**)**

6. **Waterbody characteristics:**
   A. **Substrate:**
      - ☐ Sand
      - ☒ Silt
      - ☐ Clay
      - ☐ Cobbles
      - ☐ Other, describe:

   B. **Area of water body (for lakes):** acres

   C. **Average water depth:** unknown feet

   D. **Vegetation in waterbody:**
      - ☒ Absent
      - ☐ Present, if known, describe:

   E. **Identify aquatic organisms or water-dependent species observed or expected:**
   Aquatic species are expected to include warm-water forage species of fish, turtles, frogs, insects and macro-invertebrates.

   F. **Summarize water quality data, if available:**
   There is no water quality data available for this creek. An examination of aerial imagery shows the creek as heavily altered through channelization, and it is anticipated to be of "poor" quality.

   G. **Is this waterbody on the DNR's "Impaired Waters" list?**
      - ☒ No
      - ☐ Yes, describe:

7. **Describe land adjacent to waterbody**:
   Surrounding areas include wetlands, suburbs and the Dane County Regional Airport (DCRA).
8. **Describe proposed work in, over, or adjacent to the waterbody:**
   The proposed US 51 and Rieder Road intersection reconstruction will have the same footprint as existing condition.

9. **Discuss physical impacts to the waterbody during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the lake or water body:**
   Construction plans indicate that the impacts to the stream will be limited to disturbance associated with the reconstruction of the roadway at the US 51 and Rieder Road intersection. It is anticipated that the existing culvert that carries this unnamed tributary at this intersection will remain.

10. **Discuss probable impacts to water quality during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the waterbody:**
    Construction activities may temporarily disturb water quality but will be mitigated to the greatest extent possible with terrestrial and in-water erosion control measures.

11. **Describe coordination with the public, municipalities and state and federal agencies concerning waterbodies:**
    Coordination with the public is still ongoing.

12. **Are measures proposed to avoid, minimize, or compensate for impacts:**
    - ☒ No
    - ☐ Yes, describe:

13. **Are measures proposed to enhance beneficial effects:**
    - ☒ No
    - ☐ Yes, describe:

SURFACE WATERS Factor Sheet

06-10-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Waterbody name:** Starkweather Creek – West Branch (Airport Creek)

2. **Location of waterbody:**
   Section-Township-Range: Section 21, T-8-N, R-10-E Municipality Name: City of Madison

3. **Waterbody type (check all that apply):**
   - ☐ Lake
   - ☐ Pond
   - ☐ Impoundment or flowage
   - ☒ River or Stream
     - ☒ Warm water
     - ☐ Cold water, if trout stream, identify trout stream classification:
     - ☐ Wild and scenic river
     - ☐ Outstanding resource water (ORW), per NR 102.10, describe:
     - ☐ Exceptional resource water (ERW), per NR 102.11, describe:
   - ☐ Other, describe:

4. **Watershed name:** Lake Monona – Yahara River
   Size: 93.7 (square miles)

5. **Hydrologic characteristics:**
   - ☒ Permanent (year-round)
   - ☐ Temporary (wet part of year**)**

6. **Waterbody characteristics:**
   A. **Substrate:**
      - ☒ Sand
      - ☒ Silt
      - ☐ Clay
      - ☐ Cobbles
      - ☐ Other, describe:

   B. **Area of water body (for lakes):** acres

   C. **Average water depth**: 2 feet

   D. **Vegetation in waterbody:**
      - ☒ Absent
      - ☐ Present, if known, describe:

   E. **Identify aquatic organisms or water-dependent species observed or expected:**
   Fish species include golden shiner, fathead minnow and brook stickleback. Other types of possible aquatic organisms or water-dependent species are expected to include frogs, turtles, insects and macro-invertebrates.

   F. **Summarize water quality data, if available:**
   The West Branch of Starkweather Creek has been extensively altered through channelization, with most of its wetlands drained, filled and developed. The water quality is considered “poor” and designated as “impaired” due to high chloride and phosphorus levels, as well as perfluoroalkyls and polyfluoroalkyls substances (PFAS) levels found in fish. The quality of fish and aquatic life is “poor,” and the recreational usage of the creek is also “poor.”

G. **Is this waterbody on the DNR's "Impaired Waters" list?**

☐ No

☒ Yes, describe:

The West Branch of Starkweather Creek (miles 0-2.60) was initially designated as "impaired" due to an excess presence of chloride in 2016. In 2022, the stream was added for phosphorus and PFAS.

7. **Describe land adjacent to waterbody**:

Surrounding areas include agricultural lands, wetlands and the Dane County Regional Airport.

8. **Describe proposed work in, over, or adjacent to the waterbody:**

US 51 will be reconstructed over the west branch of Starkweather Creek. The existing box culvert that conveys the West Branch of Starkweather Creek will be replaced, sized correctly and extended to the clear zone. Temporary easement would be required for construction.

9. **Discuss physical impacts to the waterbody during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the lake or water body:**

Construction plans indicate that the impacts to the creek will be limited to the replacement of the box culvert that conveys the West Branch of Starkweather Creek under US 51.

10. **Discuss probable impacts to water quality during and after construction. Include information regarding anticipated impacts on wildlife and plants inhabiting or dependent upon the waterbody:**

Construction activities may temporarily disturb water quality but will be mitigated to the greatest extent possible with terrestrial and in-water erosion control measures. Even though the flow of the creek will be maintained, temporary loss of access within the construction limits will be expected.

11. **Describe coordination with the public, municipalities and state and federal agencies concerning waterbodies:**

Coordination with the public is ongoing.

12. **Are measures proposed to avoid, minimize, or compensate for impacts:**

☐ No

☒ Yes, describe:

The West Branch of Starkweather Creek is considered a warm water fishery. No in-stream work will be performed between March 1 and June 15 to avoid the fish spawning period. It is not anticipated that stream mitigation will be required in accordance with guidance in the USACE St. Paul District Stream Mitigation Procedures Version 1.0.

13. **Are measures proposed to enhance beneficial effects:**

☒ No

☐ Yes, describe:

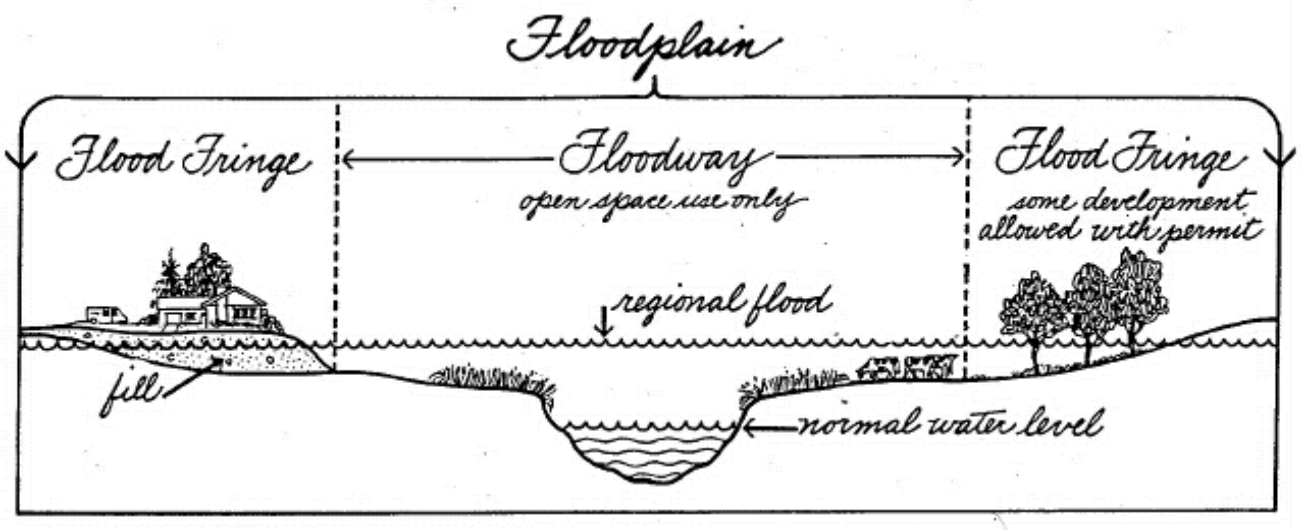
FLOODPLAIN Factor Sheet

06-12-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

When completed this Factor Sheet along with the Environmental Document acts as the Location Study consistent with 23 CFR 650.111.

1. **Name the floodplain watershed (and floodplain zoning authority), where your project is located and encroaching. Encroaching includes modification or repair of existing transportation facilities already in a floodplain. Confirm if the community participates in the Federal Emergency Management Administration (FEMA) voluntary National Flood Insurance Program (NFIP):**



A. Floodplain:
Starkweather Creek – East Branch: WBIC 805100
B. Watershed:
Starkweather Creek HUC12 070900020701
C. Municipality: City of Madison
C. NFIP Applicability: ☒ Yes ☐ No, status date: May 13, 2024
D. Attach map illustrating watershed, floodplain, and project limits. Map location: See **Floodplain Maps**

2. **Indicate watershed characteristics:**

☐ Rural Watershed
☐ Rapidly Urbanizing Watershed - NR 116.03 (40)
☒ Urban Watershed
☒ Priority watershed – NR 120.02 (30)

Provide additional description of the upstream and downstream flow characteristics and potential floodwater receptors based on the context and intensity of the alternative within the watershed:

The Starkweather Creek – East Branch (WBIC 805100) US 51 roadway crossing is located approximately 0.1 miles south of the Commercial Avenue/Lexington Avenue intersection. The site is 1.77 river miles north of the confluence of the East Branch of Starkweather Creek and Lake Monona. The land use at the project site is urban and is mostly industrial. The Q100 in the existing Flood Insurance Study (FIS) report is 776 cfs. Potential floodplain receptors are a portion of Commercial Avenue, North Stoughton Service Road, Lexington Avenue, nearby industrial areas, nearby stormwater ponds and riparian areas directly surrounding the US 51 roadway crossing.

3. **Indicate key regulatory zones the alternative encroaches upon, per Wisconsin Department of Natural Resources (DNR) Floodplain Management definitions and confirm mapping status for your location in E below:**
   - A. ☒ Floodplain
   - B. ☒ Floodway
   - C. ☒ Flood Fringe
   - D. ☒ Flood Storage
   - E. ☒ Confirmed DNR approved mapping status on this date: May 20, 2024
     1. ☒ Mapped Floodplain
     2. ☐ Unmapped Floodplain

4. **Indicate zones your alternative encroaches upon, per Floodplain Zoning Authority Zoning Map:**

   ☒ Municipal Floodplain Zoning Map approved, map date: Sept. 17, 2014 or not applicable ☐.

   Map location: See **Floodplain Maps**
   - A. ☒ Floodway district
   - B. ☒ Flood fringe district
   - C. ☐ Regional flood elevation
   - D. ☐ Shallow depth flooding district
   - E. ☒ Flood storage district
   - F. ☐ Coastal floodplain district
   - G. ☐ Floodplain Island

5. **Indicate floodplain zone(s) your alternative encroaches per FEMA NFIP Flood Insurance Rate Map (FIRM) risk identification map legend definitions.**

   ☒ Special Flood Hazard Areas (SFHAs) in Zone: X

   ☒ Floodway Areas in Zone AE

   ☐ The project footprint is outside the SFHA and Floodway Areas in Zone AE

   A copy of the FIRM Map with overlay of project encroachment must be included. Map location: See **Floodplain Maps,** page M-28 to M-30 of the Maps section.

6. **Briefly describe encroachment and proposed work in, over, or adjacent to floodplain and complete questions below**:

   The area along US 51 between WIS 30 and US 151 would be reconstructed to an urban cross section and the Commercial Avenue/Lexington Avenue intersection would remain signalized with improvements. Improvements to the existing condition would include: updated roadway geometry, additional turn lanes, additional NB auxiliary lane between WIS 30 and Commercial Avenue/Lexington Avenue, railroad signals and gates, additional at-grade pedestrian crossings, improved traffic operations to accommodate additional capacity and fluctuations in future traffic volumes and shared-use paths along the east side of US 51 and along the east side of Commercial Avenue to the Walmart property and Madison Metro bus stop. This reconstruction would also realign the intersection of Lexington Avenue and North Stoughton Service Road to the west. The existing drainage structures would be extended, and it is anticipated that the storm sewer network throughout the intersection would be moderately expanded to improve flooding issues experienced in several travel lanes. The drainage design for the reconstruction will be such that rate control will match existing conditions.

   A. Indicate type of encroachment:

   ☒ Structure, describe type: Extension of upstream end of culvert under US 51 and extension of upstream and downstream ends of culvert under Commercial Avenue.

   ☒ Drainage improvement, pipe culvert replacement or extension

   ☒ Roadway/embankment fill

   ☐ Temporary causeway expected

   ☒ Other (explain): Temporary construction access, equipment staging, grading

B. Indicate type/s of encroachment alignment, length and scale of overall footprint on floodplain for the alternative:

☐ Transverse – length ☐ ft. ☐ mile

☐ Longitudinal - length ☐ ft. ☐ miles

☐ Combined transverse and longitudinal encroachment will occur

☒ Encroachment footprint: Total Existing: 11.43 acres. Total Post-Construction: 14.47 acres. Total Proposed Increase: 3.04 acres. The table below breaks down encroachment in the Floodway, Flood Fringe, and 500 YR Floodplain limits.

East Branch Starkweather Creek Encroachment	
Encroachment Location	**Acres**
Existing Flood Fringe	6.12
Increase in Flood Fringe	2.05
Post-Construction Flood Fringe	8.17
Existing Floodway	0.70
Increase in Floodway	0.32
Post-Construction Floodway	1.02
Existing 500YR Floodplain	4.61
Increase in 500YR Floodplain	0.67
Post-Construction 500YR Floodplain	5.28

C. Will this be a new footprint encroachment or a modification to existing infrastructure resulting in encroachment or possibly a reduction in historical transportation facility footprints on the floodplain?

☐ New footprint

☒ Modification to existing footprint

☐ No change in footprint

☐ Reduction in footprint

7. What are your anticipated floodplain backwater conditions from this alternative based on the DOT approved computed Hydrology and Hydraulic Analysis methodology? Reference results to DNR Floodplain Management NR 116 criteria:

☐ Increase in regional flood height (a calculated rise equal to or > 0.01 ft)

☒ No change in regional flood height

☐ Decrease in regional flood height

Indicate methodology used and date of analysis:

8. Indicate effects of backwater change and encroachment actions on the physical, chemical and biological integrity of the floodplain ecosystem services.

A. ☒ Physical integrity (floodway flow and flood risk to property loss and hazard to life)

☐ benefit

☒ no effect

☐ adverse effect

Describe: The final design of the crossing structures will avoid increase in backwater and will pass flows within the existing 100-year floodplain.

B. ☒ Chemical integrity (surface water and groundwater quality)

☐ benefit

☒ no effect

☐ adverse effect

Describe: The final design of the roadway and intersection in the vicinity of East Branch of Starkweather Creek will include various water quality control devices. The conversion to an urban cross section to the north and south of the Commercial Avenue/Lexington Avenue intersection will allow for inclusion of sumped catch basins. These will be in addition to overland protections such as swale treatments, filter strips and

improvements on the existing detention basins and stormwater wetlands in the intersection infield areas. The 80% Temporary Suspended Solids (TSS) reduction required for reconstruction by WDNR Floodplain Management NR 151 will be met or reduced to the maximum extent practicable (MEP).

C. ☒ Biological integrity (human environment and ecological functions and services)
- ☐ benefit
- ☒ no effect
- ☐ adverse effect

Describe: Impacts to the riparian zone and areas outside of the right of way will be limited to the MEP. It is anticipated that the design will not have any adverse effect on the physical, chemical or biological integrity of the East Branch of Starkweather Creek. The final design of the roadway crossing at US 51 and Commercial Avenue/Lexington Avenue will be consistent with WDNR Floodplain Management NR 116 and 23 CFR 650 Subpart A.

9. **What avoidance, minimization or compensation measures will be considered:**
Design has been, and will continue to be, developed to minimize impacts to the floodplain associated with East Branch Starkweather Creek. Structures will be sized in compliance with design standards and will meet no rise hydraulic requirements. The need for compensatory storage will be determined once hydrology and hydraulic analyses are conducted. Coordination will occur with local floodplain zoning authorities (Dane County) if there is a change in flood elevation.

10. **Are there beneficial opportunities to develop new floodplain storage or reestablish old floodplain storage to offset or mitigate impact as part of infrastructure development? Are there other feasible ecological restoration or enhancement opportunities such as wetland restoration, stream restoration, aquatic organism passage (AOP), wildlife crossings or other:**
- ☐ yes, describe:
- ☒ no, describe: The existing right of way limits the opportunity to develop new floodplain storage.

11. **Describe and provide the results of coordination with any regulatory agency or floodplain zoning authority, and describe any public comments related to the encroachment action:**
Floodplain maps were checked to determine the location, amount and type of floodplain encroachment. Coordination has not yet occurred with regulatory agencies or floodplain zoning authorities (Dane County) to discuss potential floodplain encroachments. This will occur for the preferred alternative during final design.

12. **Is the alternative compatible with Federal, State or Local floodplain land use plans and expectations?**
- ☒ yes
- ☐ no

Describe: It is anticipated that the preferred alternative will not have any adverse effect on the physical, chemical or biological integrity of the East Branch of Starkweather Creek and will be compatible with all federal, state and local floodplain regulations would be adhered to during final design.

13. **If this project is an FHWA action, indicate if the alternative would cause any of the following SIGNIFICANT ENCROACHMENTS per FHWA Regulations (23 CFR Subpart A 650.105(q)):(If the project is not a FHWA action skip to question 14.)**
- ☐ Significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or a community's only evacuation route. Describe:
- ☐ Significant risk. Risk means the consequences associated with the probability of flooding attributable to an encroachment. It includes the potential for property loss and hazard to life during the service life of highway. Describe:
- ☐ Significant adverse impact on natural and beneficial floodplain values such as fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge. Describe:

If any of the boxes above are checked, a significant encroachment on a floodplain will occur, requiring FHWA to prepare an Only Practicable Alternative Finding (Finding). FHWA signature on the final environmental document indicates adoption of the Finding described below:

☒ No significant encroachment, explain: As shown in Figures 1 and 2 below, most of the existing US 51/Commercial Avenue intersection is currently within the Flood Fringe, Floodway, or 500YR Floodplain limits of the East Branch Starkweather Creek floodplain. Minor adjustments to the intersection layout and approach roadways, as well as the extension of culverts in the area to accommodate the upgraded roadway will require a modification to the existing encroachment footprint of the flood fringe and floodway. Compensatory storage may be required to comply with NR 116 and NFIP requirements per the DNR/DOT cooperative agreement.

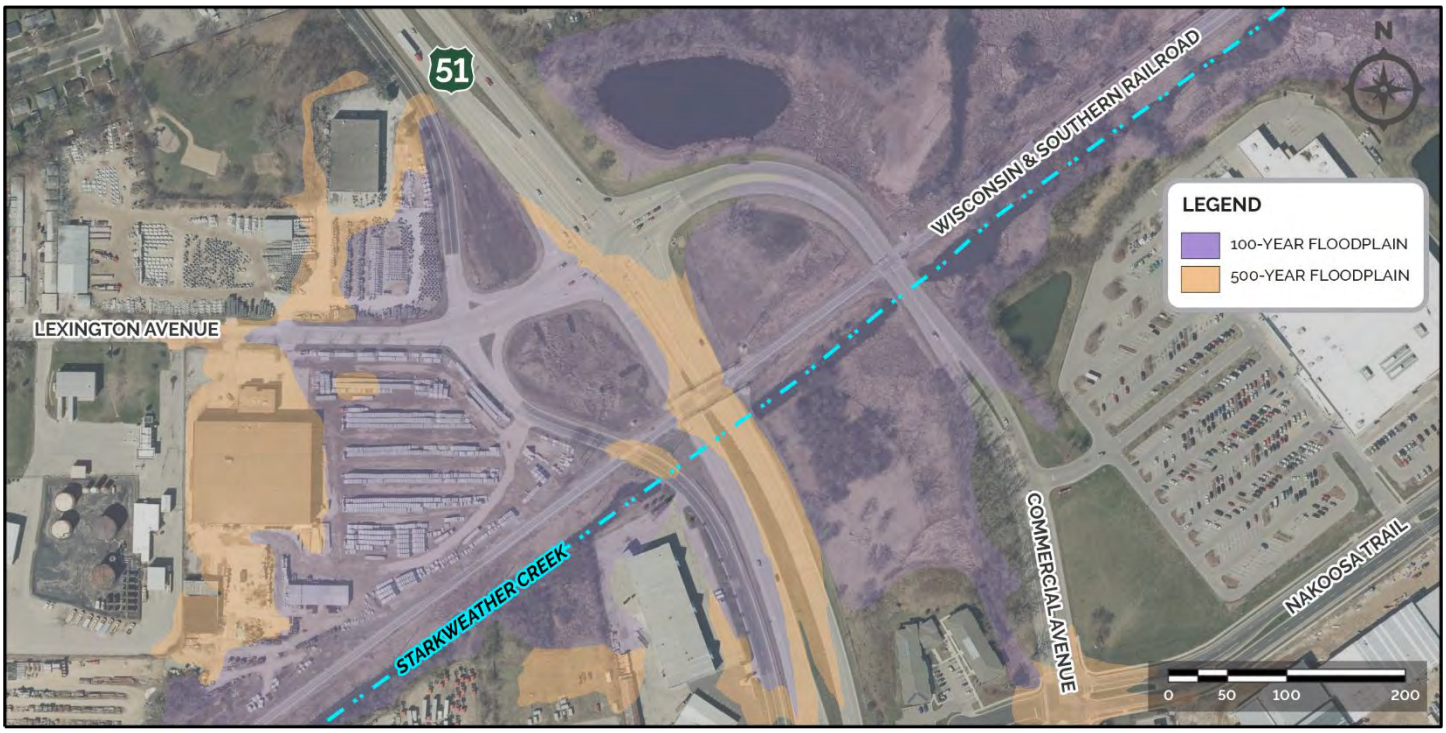


Figure 1: Existing 100-Year and 500-Year Floodplain at Commercial Avenue/ Lexington Avenue

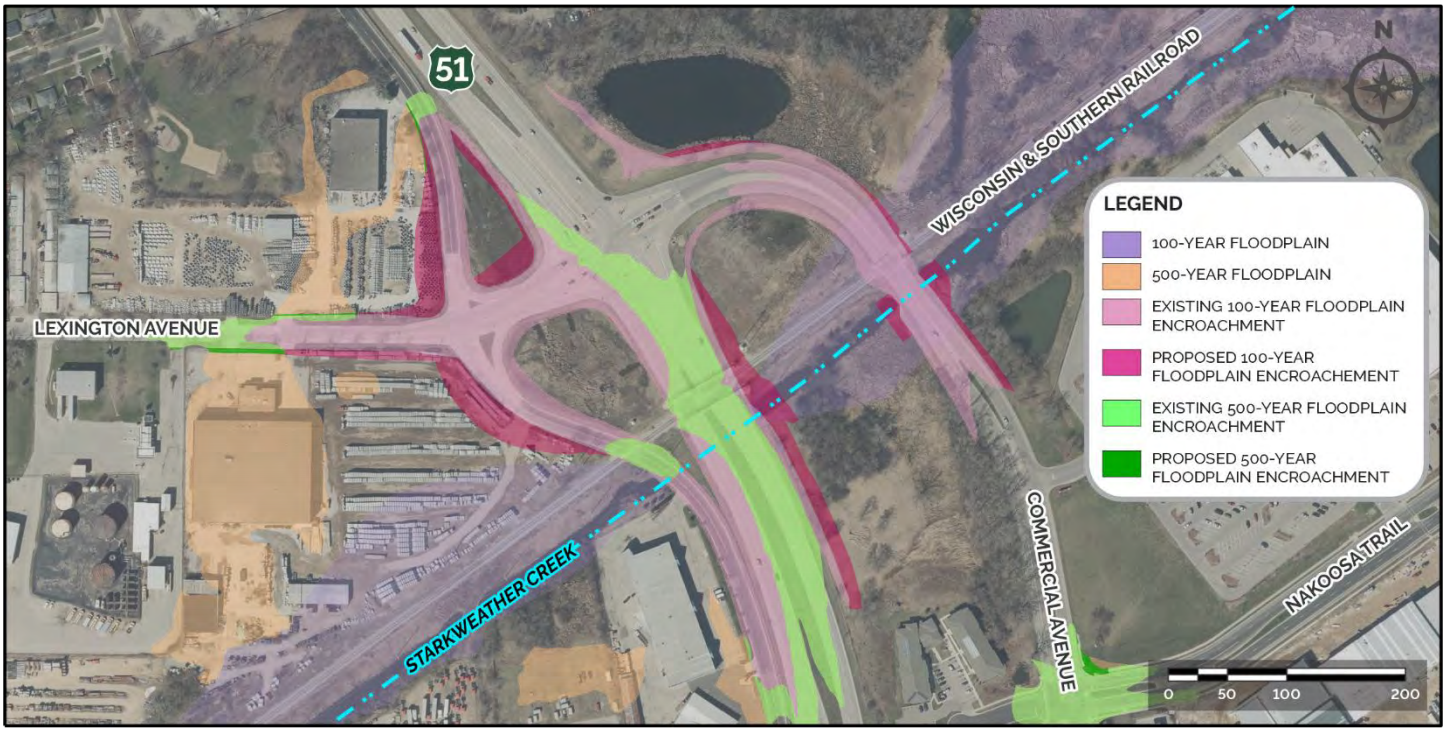


Figure 2: Existing and Proposed 100-Year and 500-Year Floodplain Encroachment at Commercial Avenue/ Lexington Avenue

Figure 1: Existing and Proposed 100-Year and 500-Year Floodplain Encroachment at Commercial Avenue / Lexington Avenue

14. **Indicate the timing of possible State or Federal Agency permits, approval and coordination for the floodplain encroachment and list the Agencies. In addition to DNR and FHWA, other possible Agency approvals may include: US Army Corp of Engineers (USACE), FEMA, United States Coast Guard (USCG), United States Environmental Protection Agency (EPA) and United States Fish and Wildlife Service (USFWS):**

☐ Prior to completion of environmental document:

☒ Post environmental document approval and included as an environmental commitment: During final design, improvements in the floodplains would be consistent with WDNR Floodplain Management NR 116 criteria and would include coordination with the local floodplain zoning authorities.

☐ Prior to Construction Let:

☐ Prior to Construction:

15. **Impacts from all proposed construction affecting hydraulic characteristics of mapped floodplains have been evaluated. Implementation procedures for data sharing, landowner notifications and legal arrangements for addressing concerns associated with waterway crossings and other floodplain encroachment as identified by NR 116 (Wisconsin's Floodplain Management Program) and NR 320 (Bridges and Culverts In or Over Navigable Waterways) have been or will be addressed prior to construction pursuant to the DOT/DNR February 11, 1988 Cooperative Agreement Implementation Memo of the DOT/DNR Cooperative Agreement, Section VII – Waterway Crossings and Other Floodplain Encroachments (March 1987):**

☐ Yes, procedure for mapped areas is complete

☐ Yes, procedure for unmapped areas is complete

☒ No, procedure for mapped areas is pending final design (add to environmental commitments), discuss: The project is not at final design and therefore the impacts of the project on the mapped floodplains are not known.

☐ No, procedure for unmapped areas are pending final design (add to environmental commitments), discuss:

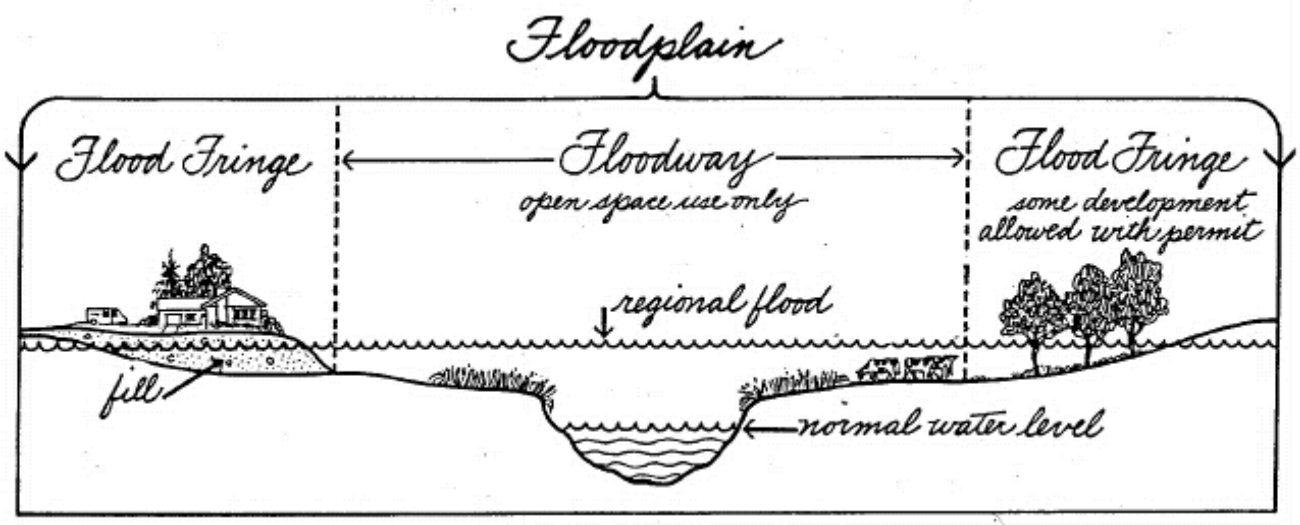
FLOODPLAIN Factor Sheet

06-12-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

When completed this Factor Sheet along with the Environmental Document acts as the Location Study consistent with 23 CFR 650.111.

1. **Name the floodplain watershed (and floodplain zoning authority), where your project is located and encroaching. Encroaching includes modification or repair of existing transportation facilities already in a floodplain. Confirm if the community participates in the Federal Emergency Management Administration (FEMA) voluntary National Flood Insurance Program (NFIP):**



A. Floodplain:
Unnamed Creek: WBIC 5034868
B. Watershed:
Starkweather Creek HUC12 070900020701
C. Municipality: City of Madison
C. NFIP Applicability: ☒ Yes ☐ No, status date: May 13, 2024
D. Attach map illustrating watershed, floodplain, and project limits. Map location: See **Floodplain Maps**

2. **Indicate watershed characteristics:**

☐ Rural Watershed
☐ Rapidly Urbanizing Watershed - NR 116.03 (40)
☒ Urban Watershed
☒ Priority watershed – NR 120.02 (30)

Provide additional description of the upstream and downstream flow characteristics and potential floodwater receptors based on the context and intensity of the alternative within the watershed:
The Unnamed Creek (WBIC 5034868) US 51 roadway crossing is the first and only roadway crossing along Unnamed Creek. The roadway crossing is located Rieder Road intersection and is approximately 0.77 river miles north of the confluence with the West Branch of Starkweather Creek (WBIC 805200). The land use surrounding the roadway crossing is mostly wetland with airport roads and other existing roadways. Under low flow conditions, flow through the crossing is most likely west to east. However, the culvert may also equalize water levels on the west side of US 51 with water levels on the east side of US 51. High flow conditions at this roadway crossing are not known as of June 6, 2024, since no hydraulic modeling has been performed and the Flood Insurance Study (FIS) Report for Dane County does not include details on Unnamed Creek (WBIC 5034868).

Potential floodplain receptors are airport infrastructure including a roadway, existing swales and other grassed areas, wetlands upstream and downstream of the roadway crossing and Rieder Road intersection.

3. **Indicate key regulatory zones the alternative encroaches upon, per Wisconsin Department of Natural Resources (DNR) Floodplain Management definitions and confirm mapping status for your location in E below:**
   - A. ☒ Floodplain
   - B. ☐ Floodway
   - C. ☒ Flood Fringe
   - D. ☒ Flood Storage
   - E. ☒ Confirmed DNR approved mapping status on this date: May 20, 2024
     1. ☒ Mapped Floodplain
     2. ☐ Unmapped Floodplain

4. **Indicate zones your alternative encroaches upon, per Floodplain Zoning Authority Zoning Map:**

   ☒ Municipal Floodplain Zoning Map approved, map date: Sept. 17, 2014 or not applicable ☐.

   Map location: See **Floodplain Maps**
   - A. ☒ Floodway district
   - B. ☒ Flood fringe district
   - C. ☐ Regional flood elevation
   - D. ☐ Shallow depth flooding district
   - E. ☒ Flood storage district
   - F. ☐ Coastal floodplain district
   - G. ☐ Floodplain Island

5. **Indicate floodplain zone(s) your alternative encroaches per FEMA NFIP Flood Insurance Rate Map (FIRM) risk identification map legend definitions.**

   ☒ Special Flood Hazard Areas (SFHAs) in Zone: X

   ☒ Floodway Areas in Zone AE

   ☐ The project footprint is outside the SFHA and Floodway Areas in Zone AE

   A copy of the FIRM Map with overlay of project encroachment must be included. Map location: See **Floodplain Maps**, page M-28 to M-30 of the Maps section.

6. **Briefly describe encroachment and proposed work in, over, or adjacent to floodplain and complete questions below**:

   There would be no capacity expansion with the recommended alternative, and the roadway cross section will match existing. The existing culvert that conveys the Unnamed Creek will remain.

   A. Indicate type of encroachment:
      - ☐ Structure, describe type:
      - ☐ Drainage improvement, pipe culvert replacement or extension
      - ☒ Roadway/embankment fill
      - ☐ Temporary causeway expected
      - ☒ Other (explain): Temporary construction access, equipment staging, grading

   B. Indicate type/s of encroachment alignment, length and scale of overall footprint on floodplain for the alternative:
      - ☐ Transverse – length ☐ ft. ☐ mile
      - ☐ Longitudinal - length ☐ ft. ☐ miles
      - ☐ Combined transverse and longitudinal encroachment will occur
      - ☒ Encroachment footprint: Total Existing: 12.35 acres. Total Post-Construction: 12.61 acres. Total Proposed Increase: 0.26 acres. This impact accounts for both the West Branch of Starkweather Creek and Unnamed Creek floodplain. The table below breaks down encroachment acreage within the Floodway, Flood Fringe, and 500 YR Floodplain limits.

West Branch Starkweather Creek/Unnamed Creek	
Encroachment Location	**Acres**
Existing Flood Fringe	4.20
Increase in Flood Fringe	0.23
Post-Construction Flood Fringe	4.43
Existing Floodway	0.17
Increase in Floodway	0.02
Post-Construction Floodway	0.19
Existing 500YR Floodplain	7.98
Increase in 500YR Floodplain	0.01
Post-Construction 500YR Floodplain	7.99

C. Will this be a new footprint encroachment or a modification to existing infrastructure resulting in encroachment or possibly a reduction in historical transportation facility footprints on the floodplain?

- ☐ New footprint
- ☒ Modification to existing footprint
- ☐ No change in footprint
- ☐ Reduction in footprint

7. **What are your anticipated floodplain backwater conditions from this alternative based on the DOT approved computed Hydrology and Hydraulic Analysis methodology? Reference results to DNR Floodplain Management NR 116 criteria:**
   - ☐ Increase in regional flood height (a calculated rise equal to or > 0.01 ft)
   - ☒ No change in regional flood height
   - ☐ Decrease in regional flood height

   Indicate methodology used and date of analysis:

8. **Indicate effects of backwater change and encroachment actions on the physical, chemical and biological integrity of the floodplain ecosystem services.**

   A. ☒ Physical integrity (floodway flow and flood risk to property loss and hazard to life)
   - ☐ benefit
   - ☒ no effect
   - ☐ adverse effect

   Describe: The final design of the crossing structure will avoid increase in backwater and will pass flows within the existing 100-year floodplain.

   B. ☒ Chemical integrity (surface water and groundwater quality)
   - ☐ benefit
   - ☒ no effect
   - ☐ adverse effect

   Describe: The final design of the roadway in the vicinity of Unnamed Creek will include various water quality control devices, namely swale treatments and filter strips. The 40% Total Suspended Solids (TSS) reduction required for reconstruction by WDNR Floodplain Management NR 151 will be met or reduced to the maximum extent practicable (MEP).

   C. ☒ Biological integrity (human environment and ecological functions and services)
   - ☐ benefit
   - ☒ no effect
   - ☐ adverse effect

   Describe: Impacts to the riparian zone and areas outside of the right of way will be limited to the MEP. It is anticipated that the design will not have any adverse effect on the physical, chemical or biological integrity

of the Unnamed Creek. The final design of the roadway crossing at US 51 and Rieder Road will be consistent with WDNR Floodplain Management NR 116 and 23 CFR 650 Subpart A.

9. **What avoidance, minimization or compensation measures will be considered:**
   Design has been, and will continue to be, developed to minimize impacts to the floodplain associated with the Unnamed Creek (part of the West Branch Starkweather Creek floodplain). The need for compensatory storage will be determined once hydrology and hydraulic analyses are conducted. Coordination will occur with local floodplain zoning authorities (Dane County) if there is a change in flood elevation.

10. **Are there beneficial opportunities to develop new floodplain storage or reestablish old floodplain storage to offset or mitigate impact as part of infrastructure development? Are there other feasible ecological restoration or enhancement opportunities such as wetland restoration, stream restoration, aquatic organism passage (AOP), wildlife crossings or other:**
   ☐ yes, describe:
   ☒ no, describe: The existing right of way limits the opportunity to develop new floodplain storage.
11. **Describe and provide the results of coordination with any regulatory agency or floodplain zoning authority, and describe any public comments related to the encroachment action:**
   Floodplain maps were checked to determine the location, amount and type of floodplain encroachment. Coordination has not yet occurred with regulatory agency or floodplain zoning authorities (Dane County) to discuss potential floodplain encroachments. This will occur for the preferred alternative during preliminary design.

12. **Is the alternative compatible with Federal, State or Local floodplain land use plans and expectations?**
   ☒ yes
   ☐ no
   Describe: It is anticipated that the preferred alternative will not have any adverse effect on the physical, chemical or biological integrity of the Unnamed Creek and would be compatible with all federal, state and local floodplain regulations would be adhered to during final design.

13. **If this project is an FHWA action, indicate if the alternative would cause any of the following SIGNIFICANT ENCROACHMENTS per FHWA Regulations (23 CFR Subpart A 650.105(q)):(If the project is not a FHWA action skip to question 14.)**
   ☐ Significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or a community's only evacuation route. Describe:
   ☐ Significant risk. Risk means the consequences associated with the probability of flooding attributable to an encroachment. It includes the potential for property loss and hazard to life during the service life of highway. Describe:
   ☐ Significant adverse impact on natural and beneficial floodplain values such as fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge. Describe:

   If any of the boxes above are checked, a significant encroachment on a floodplain will occur, requiring FHWA to prepare an Only Practicable Alternative Finding (Finding). FHWA signature on the final environmental document indicates adoption of the Finding described below:
   ☒ No significant encroachment, explain: A large portion of the existing US 51 shoulder, ditch, and roadway footprint between Rieder Road and Hanson Road is currently within either the Flood Fringe, Floodway, or 500YR Floodplain limits of the West Branch Starkweather Creek and Unnamed Creek floodplain. In the area around Unnamed Creek, the work proposed includes minor adjustments to the proposed US 51 cross section that will require a modification to the existing encroachment footprint of the flood fringe and floodway. Compensatory storage may be required to comply with NR 116 and NFIP requirements per the DNR/DOT cooperative agreement.

14. **Indicate the timing of possible State or Federal Agency permits, approval and coordination for the floodplain encroachment and list the Agencies. In addition to DNR and FHWA, other possible Agency approvals may include: US Army Corp of Engineers (USACE), FEMA, United States Coast Guard (USCG), United States Environmental Protection Agency (EPA) and United States Fish and Wildlife Service (USFWS):**

☐ Prior to completion of environmental document:

☒ Post environmental document approval and included as an environmental commitment: During final design, improvements in the floodplains would be consistent with WDNR Floodplain Management NR 116 criteria and would include coordination with the local floodplain zoning authorities.

☐ Prior to Construction Let:

☐ Prior to Construction:

15. **Impacts from all proposed construction affecting hydraulic characteristics of mapped floodplains have been evaluated. Implementation procedures for data sharing, landowner notifications and legal arrangements for addressing concerns associated with waterway crossings and other floodplain encroachment as identified by NR 116 (Wisconsin's Floodplain Management Program) and NR 320 (Bridges and Culverts In or Over Navigable Waterways) have been or will be addressed prior to construction pursuant to the DOT/DNR February 11, 1988 Cooperative Agreement Implementation Memo of the DOT/DNR Cooperative Agreement, Section VII – Waterway Crossings and Other Floodplain Encroachments (March 1987):**

☐ Yes, procedure for mapped areas is complete

☐ Yes, procedure for unmapped areas is complete

☒ No, procedure for mapped areas is pending final design (add to environmental commitments), discuss: The project is not at final design and therefore the impacts of the project on the mapped floodplains are not known.

☐ No, procedure for unmapped areas are pending final design (add to environmental commitments), discuss:

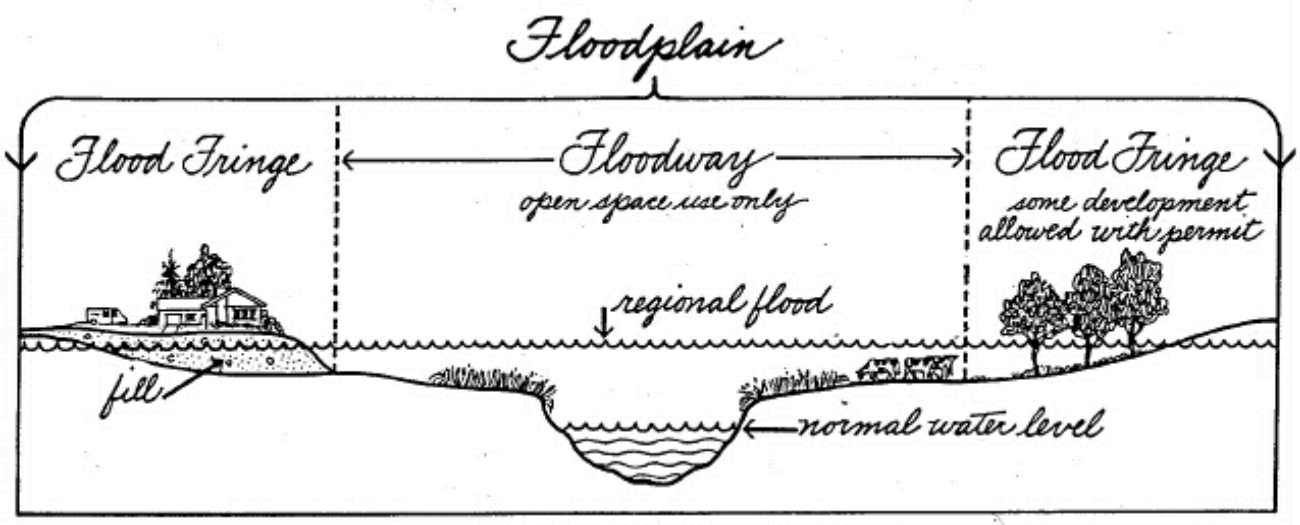
FLOODPLAIN Factor Sheet

06-12-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

When completed this Factor Sheet along with the Environmental Document acts as the Location Study consistent with 23 CFR 650.111.

1. **Name the floodplain watershed (and floodplain zoning authority), where your project is located and encroaching. Encroaching includes modification or repair of existing transportation facilities already in a floodplain. Confirm if the community participates in the Federal Emergency Management Administration (FEMA) voluntary National Flood Insurance Program (NFIP):**



A. Floodplain:
Starkweather Creek – West Branch (Airport Creek): WBIC 805200
B. Watershed:
Starkweather Creek HUC12 070900020701
C. Municipality: City of Madison
C. NFIP Applicability: ☒ Yes ☐ No, status date: May 13, 2024
D. Attach map illustrating watershed, floodplain, and project limits. Map location: See **Floodplain Maps**

2. **Indicate watershed characteristics:**
☐ Rural Watershed
☐ Rapidly Urbanizing Watershed - NR 116.03 (40)
☒ Urban Watershed
☒ Priority watershed – NR 120.02 (30)
Provide additional description of the upstream and downstream flow characteristics and potential floodwater receptors based on the context and intensity of the alternative within the watershed:

The Starkweather Creek – West Branch (WBIC 5034868) US 51 roadway crossing is located approximately 0.5 miles south of the Hanson Road intersection and 0.43 miles north of the Amelia Earhart Drive intersection. The US 51 roadway crossing is located 6.4 river miles upstream of the confluence of the West Branch of Starkweather Creek and Lake Monona. The Q100 in the existing Flood Insurance Study (FIS) Report for Dane County is 380 cfs. The land use surrounding the project site is wetlands with more urbanized areas farther away from the roadway crossing. Potential floodplain receptors are wetlands upstream and downstream of the roadway crossing.

3. **Indicate key regulatory zones the alternative encroaches upon, per Wisconsin Department of Natural Resources (DNR) Floodplain Management definitions and confirm mapping status for your location in E below:**
   - A. ☒ Floodplain
   - B. ☒ Floodway
   - C. ☒ Flood Fringe
   - D. ☒ Flood Storage
   - E. ☒ Confirmed DNR approved mapping status on this date: May 20, 2024
     1. ☒ Mapped Floodplain
     2. ☐ Unmapped Floodplain

4. **Indicate zones your alternative encroaches upon, per Floodplain Zoning Authority Zoning Map:**
   ☒ Municipal Floodplain Zoning Map approved, map date: Sept. 17, 2014 or not applicable ☐.
   Map location: See **Floodplain Maps**
   - A. ☒ Floodway district
   - B. ☒ Flood fringe district
   - C. ☐ Regional flood elevation
   - D. ☐ Shallow depth flooding district
   - E. ☒ Flood storage district
   - F. ☐ Coastal floodplain district
   - G. ☐ Floodplain Island

5. **Indicate floodplain zone(s) your alternative encroaches per FEMA NFIP Flood Insurance Rate Map (FIRM) risk identification map legend definitions.**
   ☒ Special Flood Hazard Areas (SFHAs) in Zone: X
   ☒ Floodway Areas in Zone AE
   ☐ The project footprint is outside the SFHA and Floodway Areas in Zone AE

   A copy of the FIRM Map with overlay of project encroachment must be included. Map location: See **Floodplain Maps**, page M-28 to M-30 of the Maps section.

6. **Briefly describe encroachment and proposed work in, over, or adjacent to floodplain and complete questions below**:
   There would be no capacity expansion with the recommended alternative, and the roadway cross section will match existing. There may be slight changes to the vertical profile in this area. The existing box culvert that conveys the West Branch of Starkweather Creek will be replaced, sized correctly and extended to the clear zone. The drainage design for the reconstruction would be such that rate control will match existing conditions.

   A. Indicate type of encroachment:
      - ☒ Structure, describe type: Replace and extend upstream and downstream ends of culvert under US 51.
      - ☒ Drainage improvement, pipe culvert replacement or extension
      - ☒ Roadway/embankment fill
      - ☐ Temporary causeway expected
      - ☒ Other (explain): Temporary construction access, equipment staging, grading

   B. Indicate type/s of encroachment alignment, length and scale of overall footprint on floodplain for the alternative:
      - ☐ Transverse – length ☐ ft. ☐ mile
      - ☐ Longitudinal - length ☐ ft. ☐ miles
      - ☐ Combined transverse and longitudinal encroachment will occur
      - ☒ Encroachment footprint: Total Existing: 12.35 acres. Total Post-Construction: 12.61 acres. Total Proposed Increase: 0.26 acres. This impact accounts for both the West Branch of Starkweather Creek and Unnamed Creek floodplain. The table below breaks down encroachment acreage within the Floodway, Flood Fringe, and 500 YR Floodplain limits.

West Branch Starkweather Creek/Unnamed Creek	
Encroachment Location	**Acres**
Existing Flood Fringe	4.20
Increase in Flood Fringe	0.23
Post-Construction Flood Fringe	4.43
Existing Floodway	0.17
Increase in Floodway	0.02
Post-Construction Floodway	0.19
Existing 500YR Floodplain	7.98
Increase in 500YR Floodplain	0.01
Post-Construction 500YR Floodplain	7.99

C. Will this be a new footprint encroachment or a modification to existing infrastructure resulting in encroachment or possibly a reduction in historical transportation facility footprints on the floodplain?
- ☐ New footprint
- ☒ Modification to existing footprint
- ☐ No change in footprint
- ☐ Reduction in footprint

7. What are your anticipated floodplain backwater conditions from this alternative based on the DOT approved computed Hydrology and Hydraulic Analysis methodology? Reference results to DNR Floodplain Management NR 116 criteria:
- ☐ Increase in regional flood height (a calculated rise equal to or > 0.01 ft)
- ☒ No change in regional flood height
- ☐ Decrease in regional flood height

Indicate methodology used and date of analysis:

8. Indicate effects of backwater change and encroachment actions on the physical, chemical and biological integrity of the floodplain ecosystem services.

A. ☒ Physical integrity (floodway flow and flood risk to property loss and hazard to life)
- ☐ benefit
- ☒ no effect
- ☐ adverse effect

Describe: The final design of the crossing structure will avoid increase in backwater and will pass flows within the existing 100-year floodplain.

B. ☒ Chemical integrity (surface water and groundwater quality)
- ☐ benefit
- ☒ no effect
- ☐ adverse effect

Describe: The final design of the roadway in the vicinity of the West Branch of Starkweather Creek will include various water quality control devices, namely swale treatments and filter strips. The 40% Total Suspended Solids (TSS) reduction required for reconstruction by WDNR Floodplain Management NR 151 would be met or reduced to the maximum extent practicable (MEP).

C. ☒ Biological integrity (human environment and ecological functions and services)
- ☐ benefit
- ☒ no effect
- ☐ adverse effect

Describe: Impacts to the riparian zone and areas outside of the right of way will be limited to the MEP. It is anticipated that the design will not have any adverse effect on the physical, chemical or biological integrity of the West Branch of Starkweather Creek. The final design of the roadway crossing at US 51 and Commercial

Avenue/Lexington Avenue will be consistent with WDNR Floodplain Management NR 116 and 23 CFR 650 Subpart A.

9. **What avoidance, minimization or compensation measures will be considered:**
Design has been, and will continue to be, developed to minimize impacts to the floodplain associated with West Branch Starkweather Creek. Structures will be sized in compliance with design standards and will meet no rise hydraulic requirements. The need for compensatory storage will be determined once hydrology and hydraulic analyses are conducted. Coordination will occur with local floodplain zoning authorities (Dane County) if there is a change in flood elevation.

10. **Are there beneficial opportunities to develop new floodplain storage or reestablish old floodplain storage to offset or mitigate impact as part of infrastructure development? Are there other feasible ecological restoration or enhancement opportunities such as wetland restoration, stream restoration, aquatic organism passage (AOP), wildlife crossings or other:**
☐ yes, describe:
☒ no, describe: The existing right of way limits the opportunity to develop new floodplain storage.

11. **Describe and provide the results of coordination with any regulatory agency or floodplain zoning authority, and describe any public comments related to the encroachment action:**
Floodplain maps were checked to determine the location, amount and type of floodplain encroachment. Coordination has not yet occurred with regulatory agency or floodplain zoning authorities (Dane County) to discuss potential floodplain encroachments. This will occur for the preferred alternative during preliminary design.

12. **Is the alternative compatible with Federal, State or Local floodplain land use plans and expectations?**
☒ yes
☐ no
Describe: It is anticipated that the preferred alternative will not have any adverse effect on the physical, chemical or biological integrity of the West Branch of Starkweather Creek and will be compatible with all federal, state and local floodplain regulations would be adhered to during preliminary and final design.

13. **If this project is an FHWA action, indicate if the alternative would cause any of the following SIGNIFICANT ENCROACHMENTS per FHWA Regulations (23 CFR Subpart A 650.105(q)):(If the project is not a FHWA action skip to question 14.)**
☐ Significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or a community's only evacuation route. Describe:
☐ Significant risk. Risk means the consequences associated with the probability of flooding attributable to an encroachment. It includes the potential for property loss and hazard to life during the service life of highway. Describe:
☐ Significant adverse impact on natural and beneficial floodplain values such as fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge. Describe:

If any of the boxes above are checked, a significant encroachment on a floodplain will occur, requiring FHWA to prepare an Only Practicable Alternative Finding (Finding). FHWA signature on the final environmental document indicates adoption of the Finding described below:

☒ No significant encroachment, explain:
A large portion of the existing US 51 shoulder, ditch, and roadway footprint between Rieder Road and Hanson Road is currently within either the Flood Fringe, Floodway, or 500YR Floodplain limits of the West Branch Starkweather Creek and Unnamed Creek floodplain. In the West Branch Starkweather Creek, the work proposed includes minor adjustments to the proposed US 51 cross section as well as extension of a culvert to accommodate the upgraded roadway that will require a modification to the existing

encroachment footprint of the flood fringe and floodway. Compensatory storage may be required to comply with NR 116 and NFIP requirements per the DNR/DOT cooperative agreement.

14. **Indicate the timing of possible State or Federal Agency permits, approval and coordination for the floodplain encroachment and list the Agencies. In addition to DNR and FHWA, other possible Agency approvals may include: US Army Corp of Engineers (USACE), FEMA, United States Coast Guard (USCG), United States Environmental Protection Agency (EPA) and United States Fish and Wildlife Service (USFWS):**

☐ Prior to completion of environmental document:

☒ Post environmental document approval and included as an environmental commitment: During final design, improvements in the floodplains would be consistent with WDNR Floodplain Management NR 116 criteria and would include coordination with the local floodplain zoning authorities.

☐ Prior to Construction Let:

☐ Prior to Construction:

15. **Impacts from all proposed construction affecting hydraulic characteristics of mapped floodplains have been evaluated. Implementation procedures for data sharing, landowner notifications and legal arrangements for addressing concerns associated with waterway crossings and other floodplain encroachment as identified by NR 116 (Wisconsin's Floodplain Management Program) and NR 320 (Bridges and Culverts In or Over Navigable Waterways) have been or will be addressed prior to construction pursuant to the DOT/DNR February 11, 1988 Cooperative Agreement Implementation Memo of the DOT/DNR Cooperative Agreement, Section VII – Waterway Crossings and Other Floodplain Encroachments (March 1987):**

☐ Yes, procedure for mapped areas is complete

☐ Yes, procedure for unmapped areas is complete

☒ No, procedure for mapped areas is pending final design (add to environmental commitments), discuss: The project is not at final design and therefore the impacts of the project on the mapped floodplains are not known.

☐ No, procedure for unmapped areas are pending final design (add to environmental commitments), discuss:

THREATENED, ENDANGERED and PROTECTED RESOURCES Factor Sheet

03-28-2022 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None Identified**	**Project ID: 5410-08-01**

Federal Resources

1. Complete the following table using the Official Species List from U.S. Fish and Wildlife Service (FWS):

Species Common Name	Species Scientific Name	Federal Status	Effect Determination	Justification/ Explanation
Whooping Crane	Grus americana	Experimental Population, Non-Essential	No effect	Based on coordination with WDNR and USFWS, the activity will not affect this species.
Monarch Butterfly	Danaus Plexippus	Candidate	No effect	Based on coordination with WDNR and USFWS, the activity will not affect this species.
Rusty Patched Bumble Bee (RPBB)	Bombus affinis	Endangered	May affect, not likely to adversely affect	Based on coordination with the WDNR and USFWS, the activity may affect but not likely to adversely affect the RPBB. Section 7 Informal Consultation was completed.
Western Regal Fritillary	Argynnis idalia occidentalis	Proposed Threatened	No effect	Based on coordination with WDNR and USFWS, the activity will not affect this species.
Eastern Prairie Fringed Orchid (EPFO)	Plantanthera leucophaea	Threatened	No effect	Based on coordination with WDNR and USFWS, the activity will not affect this species.
Prairie Bush Clover (PBC)	Lespedeza leptostachya	Threatened	No effect	Based on coordination with WDNR and USFWS, the activity will not affect this species.

Date of Official Species List: Aug. 21, 2024 (**Appendix M5: USFWS Coordination)**

The original Official Species list generated in April 2023 included two mammals, the Northern Long-eared Bat (NLEB) and the Tricolored Bat. These species were not included in the most recent list dated August 21, 2024. Species lists are considered valid for 90 days. If species included in the list change over the course of the study to include specific bat species, a consistency letter will be generated and Section 7 consultation will be completed along with any associated environmental commitments.

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.

See **Appendix M3: WDNR Coordination** and **Appendix M5: USFWS Coordination.**

2. Is there designated or proposed critical habitat within or near the project?

☒ No

☐ Yes, describe critical habitat, proximity to project, and potential impacts to the critical habitat (you may want to complete the Other Factor Sheet to document the critical habitat):

3. **Has Section 7 consultation with FWS been completed?**
   - ☐ No, explain:
   - ☒ Yes, describe consultation efforts and conclusions and indicate location within the environmental document:
     A USFWS Official Species List was generated for the study using the USFWS Information for Planning and Conservation (IPaC) website on Aug. 21, 2024. The list identified seven threatened, endangered, candidate or experimental population non-essential species that may occur within the boundary of the study or may be affected by the future project.

     A No Effect Determination was made for all species on the Official Species List, except for the RPBB. USFWS informal Section 7 consultation for the RPBB was completed with a may affect, not likely to adversely affect determination on September 4, 2024.

4. **Are avoidance, minimization or mitigation measures included in the project to reduce or offset impacts?**
   - ☐ No, explain:
   - ☒ Yes, briefly describe here:
     Mitigation measures for impacts to RPBB are being coordinated between the Region Environmental Coordinator, USFWS, WDNR and the study team.

     As mitigation measures, vegetation will be mowed/removed by April 1, prior to any flowering forb growth to avoid impacts and deter foraging RPBB. WisDOT will also utilize a special salt-tolerant seed mix in graded areas in contact with salt contaminated show (fore slope and ditch bottom). In graded areas on the back slope and other areas where applicable, WisDOT will use a flowering forb 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 flowering shrubs. See **Appendix M5: USFWS Coordination**.

     The preferred alternative overlaps with the proposed critical habitat of the rusty patched bumble bee in Dane County. 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.

State Resources

1. **Are state threatened or endangered species known to occur in the project area?**
   - ☐ None identified.
   - ☒ Yes.

   WDNR identified seventeen state-threatened or endangered species known to occur in the study area.

   Date of Natural Heritage Inventory (NHI) database review or WDNR initial review letter:
   WDNR initial letter review June 6, 2023. See **Appendix M3: WDNR Coordination.**

2. **Are impacts to state-listed species anticipated as a result of the project?**
   - ☐ No, explain:
   - ☒ Yes, explain:
     The presence of the state-listed species will be determined through surveys conducted as the design progresses in accordance with the WisDOT/WDNR Cooperative Agreement. If any of the species are identified the project team will work with the WDNR per the ERR (Environmental Resources Review) from April 2023 and work to avoid or mitigate any impacts.

3. **Has threatened and endangered resource coordination with DNR been completed?**
   - ☒ No, explain:
     Ongoing coordination with WDNR will continue through final design in accordance with the WisDOT/WDNR Cooperative Agreement.
   - ☐ Yes, attach and reference location in this document:

4. **Are avoidance, minimization, or mitigation measures included in the project to reduce or offset impacts?**
   - ☐ No, describe:
     No avoidance, minimization or mitigation measures have been identified. As coordination with WDNR continues, measures may be identified.
   - ☒ Yes, briefly describe: No avoidance, minimization or mitigation measures have yet been identified, but as coordination with WDNR continues, the measures will be implemented.

Other Protected Resources

Bald and Golden Eagles

1. **Are bald and/or golden eagles known to occur near the project?**
   - ☒ None identified, proceed to Migratory Birds Question
   - ☐ Yes, describe here and continue to Question 2:

2. **Will there be adverse or beneficial effects on bald and/or golden eagles as a result of the project?**
   - ☐ No, explain:
   - ☐ Yes, indicate whether effects are adverse or beneficial and describe potential effects:
     - ☐ Adverse, describe:
     - ☐ Beneficial, describe:

3. **Has bald and golden eagle-related coordination with WDNR and/or FWS been completed?**
   - ☐ No, explain:
   - ☐ Yes, attach and reference location in this document:

4. **Are avoidance, minimization or mitigation measures included in the project to reduce or offset impacts?**
   - ☐ No, explain:
   - ☐ Yes, briefly describe:

Migratory Birds

1. **Are migratory birds known to occur in the vicinity of the project?**
   - ☒ None identified, remainder of questions do not need to be completed
   - ☐ Yes, describe here and continue to Question 2:

2. **Will there be adverse or beneficial effects on migratory birds because of the project?**
   - ☐ No, explain:
   - ☐ Yes, indicate whether effects are adverse or beneficial and describe potential effects:
     - ☐ Adverse, describe:
     - ☐ Beneficial, describe:

3. **Has migratory bird-related coordination with WDNR and/or FWS been completed?**
   - ☐ No, explain:
   - ☐ Yes, attach and reference location in this document:

4. **Are avoidance, minimization or mitigation measures included in the project to reduce or offset impacts?**
   - ☐ No, explain:
   - ☐ Yes, briefly describe:

CONSTRUCTION SOUND Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Identify and describe residences, schools, libraries, government or social services offices or other noise sensitive areas near the proposed project which will be in use during construction window of the proposed project. Include the number of persons potentially affected:**
   The 5.5-mile US 51 North Study has numerous adjacent land uses and, as a result, numerous noise-sensitive areas. The following sensitive receptors along US 51 between WIS 30 and County CV intersections are potentially affected by construction sound:

   - 193 noise receptors that can be classified as residential, including single-family and multi-family homes, apartment buildings, condominiums and an assisted living facility - a total of 429 residential units
   - 87 noise receptors that can be classified as commercial, including a vet clinic, office buildings, industrial parks, Restaurants, auto shops, a gas station, a quarry and a solar farm
   - Five noise receptors affiliated with medical facilities
   - Three noise receptors affiliated with Madison College

   Additional information regarding traffic noise receptors can be found in the Traffic Noise Factor Sheet and the **Traffic Noise Receptors Map** on page M-15 to M-27 in the maps section. Further details regarding Environmental Justice communities can be found in **Appendix G: Environmental Justice Plan and Preliminary Analysis** and the Environmental Justice Factor Sheet.

   The study area is immediately adjacent to the Dane County Regional Airport (DCRA) facility, which hosts private and commercial flights. Within this area is also the Wisconsin Air National Guard's Truax Field. The Wisconsin Air National Guard flies military aircraft known to produce loud noise. The neighborhoods adjacent to the airport and within the flight path of planes arriving and departing from the airport area experience high decibel noise levels.

2. **Describe the types of construction equipment to be used on the project. Discuss the expected severity of noise levels including the frequency and duration of any anticipated high noise levels:**
   Noise will be generated by construction equipment used to reconstruct US 51. Typical construction equipment includes dump trucks, graders, cranes, bulldozers, pile-driving equipment and pavement construction equipment. The noise generated by construction equipment varies depending on the equipment type, the model, mode and duration of operation, and the specific type of work. Typical noise levels may occur in the 75 to 95 dBA range at 50 feet. See *FDM 23-40 Attachment 1.1 Construction Noise/Distance Relationships* table for additional information.

3. **Describe the construction stage noise abatement measures to minimize identified adverse noise effects:**
   To reduce the potential impact of construction noise, special WisDOT provisions require the operation of motorized equipment in compliance with all applicable local, state and federal laws and regulations relating to noise levels permissible within and adjacent to the future project construction site.

   WisDOT Standard Specification 107.8(6) states that construction must comply with any local ordinances governing the hours for operation of construction equipment, and that any work performed outside of the hours of 10 p.m. and 6 a. m. requires written approval from the construction engineer. The City of Madison General Ordinance (MGO) 24.08 bans the substantial use of building equipment between 7 p.m. and 7 a.m. Monday – Saturday. On Sunday, substantial use of building equipment is banned before 10 a.m. and after 7 p.m. The town of Burke ordinance 9.2.4(6) prohibits operation of construction equipment that creates loud or “unusual” noises between the hours of 7 a.m. and 9 p.m., although there is the ability to apply for a permit for any work occurring

between 9 p.m. and 7 a.m. on weekdays or Saturdays. This ordinance is less restrictive than what MGO 24.08 states. The city of Madison noise ordinance MGO 24.08 would supersede the standard specification limits to hours of operation.

WisDOT Standard Specification 108.7.1 states that adequate equipment conforming to the specific contract requirements for work must be used in construction. All motorized construction equipment would be required to have mufflers manufactured in accordance with the equipment manufacturer's specifications or a system of equivalent noise-reducing capacity. WisDOT also requires that mufflers and exhaust systems be maintained in good operating condition and free of leaks and holes.

Check all that apply:

- ☐ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.
- ☒ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply with the exception that the hours of operation requiring the engineer's written approval for operations will be changed to 7 p.m. until 7 a.m. Monday - Saturday and before 10 a.m. and after 7 p.m. on Sunday.
- ☐ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply with the exception that the hours of operation requiring the engineer's written approval for operations will be changed to _____ p.m. until _____a.m.
- ☐ Special construction stage noise abatement measures will be required. Describe:

TRAFFIC NOISE Factor Sheet

06-11-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Need for Noise Analysis:**
   Is the proposed action considered a Type I project? (A Type I project is defined in FDM 23-10-1.1).
   ☐ No, complete the Construction Stage Sound Quality Impact Evaluation Factor Sheet.
   ☒ Yes, complete the Construction Stage Sound Quality Impact Evaluation Factor Sheet and the rest of this sheet.

2. **Traffic Data:**
   Indicate whether traffic volumes for sound prediction are different from the Design Hourly Volume (DHV) on The ER and EA Template in Question 18:
   ☒ No:
   ☐ Yes – Indicate volumes and explain why they were used:

3. **Sound Level Analysis Technique:**
   Identify and describe the noise analysis technique or program used to identify existing and future sound levels. A receptor location map must be included with this document.

   This analysis was accomplished in accordance with WisDOT's Facilities Development Manual Chapter 23, Noise. The Federal Highway Administration's Traffic Noise Model (TNM) version 2.5 was used to model existing and future sound levels along the new roadway and at intersections within the project area.

   The noise model was field validated at three locations. Outdoor readings were recorded on September 19, 2023. The table below summarizes the field validation receptors:

Receptor	Field Reading (dBA)	Noise Model Reading (dBA)	Difference
Receptor M1 – Karben 4 Brewing	69	69	0
Receptor M2 – Lazy Oaf Lounge	68	69	1
Receptor M3 – Community Living Alliance	65	67	2

   According to the FHWA Noise Analysis and Abatement Guidance, a model is validated if recorded highway traffic noise levels and the predicted highway traffic noise levels for the existing condition are within +/- 3 decibels (dBA). A sound level change of 3 dBA is a barely perceptible change to the human ear.

   The design hour volume (DHV) is the hourly volume that creates the highest sound level. Three time periods were analyzed to determine the DHV – the AM peak, midday and PM peak. The existing conditions were modeled with hourly traffic volumes for each period. An average of the decibel levels was determined and the AM peak was identified as the DHV.

   WisDOT has established criteria to define traffic noise impacts which are documented in the Facilities Development Manual (FDM). Noise impacts occur when a following condition is met:
   1. The modeled sound levels approach or exceed the noise level criteria (NLC). "Approach" is defined as 1 dBA less than the NLC for the applicable land use category.

2. When predicted future sound levels exceed existing levels by 15 dBA or more.

Receptors for the noise model were placed at properties along the corridor with an established use.

See **Traffic Noise Receptors Map** (pages M-15 through M-27 in the Maps section).

4. Sensitive Receptors:

Identify sensitive receptors, e.g., schools, libraries, churches, hospitals, residences, resources protected by Section 4(f), etc., potentially affected by traffic sound:

The 5.5-mile US 51 Corridor Study has numerous adjacent land uses, and as a result, numerous noise sensitive areas. The project area between Lexington Avenue and Commercial Avenue and Anderson Street, and at Rieder Road have the highest concentration of residential land uses. All other areas are predominantly commercial and industrial. Representative noise receptors were used for traffic noise modeling, for units of businesses/residences that are in close proximity to one another and would experience nearly the same traffic noise. Some representative noise receptors represent more than one residential or business unit, as outlined below.

The following sensitive noise receptors along US 51 between WIS 30 and County CV intersections are potentially affected by traffic noise:

- 193 representative noise receptors that can be classified as residential, including single-family and multi-family homes, apartment buildings, condominiums and an assisted living facility – the receptors represent a total of 429 residential units.
- 34 representative noise receptors that are classified as commercial including offices, bars/restaurants, motels and banks – these receptors represent a total of approximately 44 commercial units.
- 47 representative noise receptors that are classified as industrial or retail, including industrial parks, auto shops/stores, gas stations, a quarry and a solar farm – the receptors represent a total of 49 industrial or retail units. These are not considered sensitive to traffic noise because they are Land Use Category F. Land Use Category F does not have a Noise Level Criterion for considering barriers (see Table 2.1 of the WisDOT Facilities Development Manual (FDM) Chapter 23 Section 30).
- 3 receptors affiliated with churches or non-profit organizations (Receptors R34, R65, and R94)
- 5 noise receptors affiliated with medical facilities (Receptors R22, R31, R82, R125, and R141)
- 1 noise receptor affiliated with a school/college (Receptor R35)
- 1 noise receptor for a daycare facility (Receptor R101)
- 1 noise receptor for a park (Receptor R112) and 1 noise receptor for a trail (Receptor R8)

See **Traffic Noise Receptors Map** (pages M-15 through M-27 in the Maps section).

5. Noise Impacts:

If this alternative is constructed would future sound levels produce a noise impact:

☐ No
☒ Yes
  ☒ The Noise Level Criteria (NLC) is approached (1 dBA less than the NLC) or exceeded
  ☐ Existing sound levels will increase by 15 dBA or more

NLC is determined by land use type. Properties that fall under land use category B (residential) and C (day care centers, parks, picnic areas, recreation areas and trails – among others) are subject to the NLC of 67 dBA. Properties that fall under land use category E (hotels, offices, restaurants/bars and other developed lands) are subject to NLC of 72 dBA. There are no NCL sound level thresholds for undeveloped lands, agricultural, industrial and retail facilities.

FHWA Activity Category	Exceedances (# of units)		
	Existing	No Build	Build
Activity Category B (residential)	5	17	17
Activity Category C (parks, public, medical)	1	2	2
Activity Category E (hotels, motels, restaurants, bars)	0	0	0

6. Abatement:

Will traffic noise abatement measures be implemented?

☐ Not applicable, traffic noise impacts will not occur.

☐ No, traffic noise abatement is not reasonable or feasible, explain:

☒ Yes, traffic noise abatement has been determined to be feasible and reasonable, a map of likely abatement locations is included on exhibit **Traffic Noise Receptor Map** on page M-17.

Describe any traffic noise abatement measures which are proposed to be implemented and explain the process by which the implementation, or lack thereof, was determined:

FDM 23 and WisDOT's feasibility and reasonableness criteria is Wisconsin's FHWA approved traffic noise policy and is consistent with 23 CFR 772. Evaluation of abatement measures for this project follows this WisDOT guidance.

Noise abatement measures include traffic control measures, buffer zones, soundproofing and noise walls. Because of the classification and importance of this route, it is not reasonable to restrict certain vehicle types from this route. Acquisition of property to serve as a buffer zone to preempt development is not applicable to the identified impacted receptors. Similarly, sound proofing is not appropriate because all receptor locations are for exterior noise levels. Noise walls are an appropriate noise abatement measure for this project and corridor; therefore, four noise walls were modeled for receptors that were predicted to exceed federal NLC in the future build alternative.

Noise wall alignments that were analyzed took into consideration sight distance triangles for safety (no wall alignment conflicts with sight triangles), preserving existing access to adjacent properties and avoidance of existing infrastructure such as utilities. The alignments for Wall A, Wall C and Wall D were significantly affected by safety sight distance considerations. The base noise wall cost used in this analysis was $30 per square foot, which is consistent with WisDOT FDM 23-35-15.2. Real estate costs were included as needed.

Results of the noise wall analysis for the preferred alternative are summarized in the table below. Noise abatement measures (i.e., noise walls) are not feasible or reasonable at four of the five noise wall locations in the study area. Noise wall E was determined to be feasible and reasonable. 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.

Noise Wall	Impacted Receptor (future sound level, future sound level with noise wall)	Cost per benefited receptor	Note
A	R21 (71 dBA, 67 dBA) R22 (68 dBA, 67 dBA)	N/A	A noise wall of 20' height and approximately 350' total length reduced predicted noise levels by a maximum 4 dBA which is not considered feasible or reasonable. Wall alignments and the gaps for this wall were based on preserving existing driveways and access, as well as the turning sight distance requirements of those driveways which is a safety consideration. Existing access points were preserved due to land use and the nature of the commercial businesses and truck usage at this location. Receptor R21's driveway access to US 51 is the only existing access point; therefore, there is no existing alternative access to accommodate that property. Removing access to provide a longer wall would not be recommended. Additional dimensions of this noise wall were not evaluated because no adjustment of the height or length would be enough to bring the cost down to be feasible and meet the required noise reduction design goal of 9 dBA. No additional costs beyond the $30 per square foot were added to this wall because the modeled wall alignment fit within existing right of way and existing infrastructure would be avoided.
B	R31 (66 dBA, 57 dBA)	$236,384	A noise wall of 20' height and approximately 788' length reduced predicted noise levels by a maximum of 9 dBA. A 20' noise wall had a total cost of $472,769 and benefited two units (Receptor R31 and R33). The cost per benefited receptor exceeds the reasonable cost of $50,000 per benefited receptor. Barrier B is not eligible for cost averaging (exceeds 100,000 per benefited receptor). No additional costs beyond the $30 per square foot were added to this wall because the modeled wall alignment fit within existing right of way and existing infrastructure would be avoided.

Noise Wall	Impacted Receptor (future sound level, future sound level with noise wall)	Cost per benefited receptor	Note
C	R53 (66 dBA, 62 dBA) R54 (66 dBA, 62 dBA) R58 (66 dBA, 65 dBA)	N/A	A noise wall of 20’ and approximately 109’ length reduced the sound level by a maximum of 4 dBA which is not considered feasible or reasonable. Wall alignments and the gap for this wall was based on preserving existing driveways and access, as well as the turning sight distance requirements of those driveways (for safety). There is no opportunity to combine access to make a continuous wall. Additional dimensions of this noise wall were not evaluated because no adjustment of the height or length would be enough to bring the cost down to be feasible and meet the required noise reduction design goal of 9 dBA. No additional costs beyond the $30 per square foot were added to this wall because the modeled wall alignment fit within existing right of way and existing infrastructure would be avoided.
D	R264 (67 dBA, 64 dBA) R265 (67 dBA, 66 dBA) R266 (69 dBA, 69 dBA) R267 (68 dBA, 62 dBA)	N/A	A noise wall of 20’ height and approximately 35’ length reduced predicted noise levels by a maximum of 6 dBA for one receptor, which does not meet the noise reduction design goal of 9 dBA. Wall alignments and the gap for this wall were based on preserving existing driveways and access, as well as the turning sight distance requirements of those driveways (for safety). There is no opportunity to combine access to make a continuous wall at this location. Additional dimensions of this noise wall were not evaluated because no adjustment of the height or length would be enough to bring the cost down to be feasible and meet the required noise reduction design goal of 9 dBA. No additional costs beyond the $30 per square foot were added to this wall because the modeled wall alignment fit within existing right of way and existing infrastructure would be avoided.

Noise Wall	Impacted Receptor (future sound level, future sound level with noise wall)	Cost per benefited receptor	Note
E	R87 (66 dBA, 55 dBA) R88 (66 dBA, 58 dBA)	$50,360 (20' tall by 741' long) $48,546 (17' tall by 741' long)	Multiple versions of this wall were evaluated and reduced modeled noise levels by a maximum of 9 dBA in order to meet the noise reduction design goal: - 20' tall by 741' long o 9 dBA maximum reduction o 10 benefited units (R87, R88, and R89) o Base cost used was $30 per square foot of noise wall. Total cost is $503,600 and includes $59,000 of mandatory estimated cost due to real estate and billboard relocation/removal costs. - 17' tall by 741' long o 9 dBA maximum reduction o 9 benefited units (R87 and R89) Dimensions smaller than 17' tall by 741' long no longer meet the noise reduction design goal of 9 dBA; therefore, shorter heights were not evaluated. Base cost used was $30 per square foot of noise wall. Total cost is $436,910 and includes $59,000 of mandatory estimated cost due to real estate and billboard relocation/removal costs. The additional costs are due to the existing site characteristics of narrow right of way and infrastructure that conflict with the modeled wall alignment. These conflicts would be unavoidable at this location, due to the limited space along the east side of US 51. Below ground utilities that would need to be relocated includes fiber and a municipal water crossing. The cost for these utilities is not included in the noise wall estimate. An existing billboard also conflicts with this wall alignment and would need to be purchased or relocated at an estimated $50,000. Permanent right of way (ROW) acquisition would be required from two parcels (due to wall alignment being northeast of the proposed trail outside of existing ROW). ROW cost is estimated to be $9,000, based on cost per acre used on other parcels throughout the project. These costs were developed by engineering judgement/expertise on the project team, in coordination

Noise Wall	Impacted Receptor (future sound level, future sound level with noise wall)	Cost per benefited receptor	Note
			with WisDOT, and were also based on costs estimated elsewhere in the project area. The 20’ tall by 741’ long wall is not reasonable because it exceeds the reasonable cost of $50,000 per benefited receptor. The 17’ tall by 741’ long wall has a cost per benefited receptor of $48,546 , which meets the reasonable cost of $50,000 per benefited receptor. A noise wall at this location is included in the preferred alternative. Construction of the noise wall will only occur if majority of benefited receptors vote in favor of a noise wall.

In areas currently undeveloped, local units of government shall be notified of predicted sound levels for land use planning purposes.

7. Summary of Receptor Data (complete the following table):

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	B. Distance from C/L of Near Lane to Receptor in feet (ft.)	C. Number of Families or People Typical of this Receptor Site	D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)*	E. Future Sound Level (dBA)	F. Existing Sound Level (dBA)	G. Difference in Future and Existing Sound Levels (E minus F) (dBA)	H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)	I. Impact (I) or No Impact[3] (N)
R1	278	1	--	56	54	2	--	N
R2	138	1	--	62	60	2	--	N
R3	138	1	72	64	62	2	-8	N
R4	125	1	--	60	59	1	--	N
R6	78	1	--	61	60	1	--	N
R7	142	1	72	63	61	2	-9	N
R8	119	1	67	65	63	2	-2	N
R9	198	1	--	58	57	1	--	N
R10	156	1	--	60	58	2	--	N
R11	301	1	--	55	53	2	--	N
R12	89	1	--	66	65	1	--	N
R13	115	1	--	64	62	2	--	N
R14	78	1	--	68	67	1	--	N
R15	265	6	72	60	59	1	-12	N
R16	220	1	72	59	58	1	-13	N
R17	431	1	67	58	56	1	-9	N
R18	292	1	67	60	58	2	-7	N
R19	197	1	--	62	61	1	--	N
R20	103	1	72	62	62	0	-10	N
R21	58	1	67	71	70	1	4	I
R22	99	1	67	68	68	0	1	I
R23	105	1	--	68	67	1	--	N
R24	65	1	--	68	68	0	--	N
R25	72	1	72	69	68	1	-3	N
R26	89	1	--	70	68	2	--	N
R27	98	1	72	70	67	3	-2	N
R28	71	2	--	68	67	1	--	N
R29	69	1	--	68	67	1	--	N
R30	89	1	--	69	68	2	--	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	B. Distance from C/L of Near Lane to Receptor in feet (ft.)	C. Number of Families or People Typical of this Receptor Site	D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)*	E. Future Sound Level (dBA)	F. Existing Sound Level (dBA)	G. Difference in Future and Existing Sound Levels (E minus F) (dBA)	H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)	I. Impact (I) or No Impact[3] (N)
R31	123	1	67	66	65	1	-1	I
R33	80	1	72	69	68	1	-3	N
R34	178	1	67	63	61	1	-4	N
R35	132	1	67	64	64	0	-3	N
R36	81	1	--	68	67	1	--	N
R37	83	1	72	69	68	1	-3	N
R38	281	1	--	59	57	2	--	N
R39	51	1	72	69	68	1	-3	N
R40	171	2	72	62	61	1	-10	N
R41	75	1	72	67	67	0	-5	N
R42	62	1	72	71	68	3	-1	N
R43	64	1	--	68	68	0	--	N
R44	92	1	--	66	65	1	--	N
R45	158	1	--	65	64	1	--	N
R46	96	1	--	68	67	1	--	N
R47	223	1	72	61	61	0	-11	N
R48	160	1	72	64	63	1	-8	N
R49	140	1	72	69	69	0	-3	N
R50	304	1	--	67	67	0	--	N
R51	376	1	--	66	66	0	--	N
R52	428	1	--	67	66	1	--	N
R53	477	1	67	66	66	0	-1	I
R54	532	1	67	66	65	1	-1	I
R55	735	1	--	65	65	0	--	N
R56	679	1	--	65	65	0	--	N
R57	632	1	--	66	65	1	--	N
R58	579	1	67	66	65	1	-1	I
R59	926	1	--	68	67	1	--	N
R60	1210	1	72	66	65	1	-6	N
R61	1315	1	72	66	65	1	-6	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R62	1457	1	--	64	63	1	--	N
R63	1246	1	--	65	64	1	--	N
R64	1069	1	--	65	64	1	--	N
R65	1002	1	67	65	64	1	-2	N
R66	852	2	--	65	64	1	--	N
R67	492	1	72	61	61	0	-11	N
R68	248	1	--	67	66	1	--	N
R69	374	1	72	68	67	1	-4	N
R70	438	1	--	67	67	0	--	N
R71	510	1	--	67	66	1	--	N
R72	657	1	--	68	67	1	--	N
R73	738	2	72	65	65	0	-7	N
R74	809	1	--	65	64	1	--	N
R75	673	1	72	68	68	0	-4	N
R76	457	1	72	68	67	1	-4	N
R77	119	1	--	65	65	0	--	N
R78	141	8	67	65	64	1	-2	N
R79	114	14	67	65	64	1	-2	N
R80	131	37	67	65	64	1	-2	N
R81	113	2	72	65	64	1	-7	N
R82	127	1	67	65	65	0	-2	N
R83	130	1	67	65	64	1	-2	N
R84	134	1	67	64	64	0	-3	N
R85	157	1	72	63	62	1	-9	N
R86	120	1	--	65	64	1	--	N
R87	105	8	67	66	65	1	-1	I
R87.1	220	8	67	64	63	1	-3	N
R87.2	293	8	67	61	60	1	-6	N
R87.3	380	8	67	58	57	1	-9	N
R87.4	440	8	67	57	56	1	-10	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R87.5	490	8	67	56	55	1	-11	N
R88	122	1	67	66	65	1	-1	I
R89	119	1	67	64	63	1	-3	N
R90	117	1	67	65	64	1	-2	N
R91	170	1	--	62	62	0	--	N
R92	130	1	72	65	64	1	-7	N
R93	120	2	72	66	65	1	-6	N
R94	92	1	67	61	60	1	-6	N
R95	117	1	72	67	66	1	-5	N
R96	145	1	72	67	66	1	-5	N
R97	474	1	--	65	63	2	--	N
R98	381	1	72	66	63	2	-6	N
R99	131	1	72	66	65	1	-6	N
R100	321	1	72	61	60	1	-11	N
R101	151	1	67	62	61	1	-5	N
R102	1408	8	67	60	58	2	-7	N
R103	303	1	67	58	58	0	-9	N
R104	305	1	67	58	57	1	-9	N
R105	302	1	67	58	57	1	-9	N
R106	303	1	67	58	57	1	-9	N
R107	308	1	67	58	57	1	-9	N
R108	358	1	67	58	57	1	-9	N
R109	339	1	67	58	58	0	-9	N
R110	303	1	67	58	58	0	-9	N
R111	298	1	67	58	58	0	-9	N
R112	488	1	67	55	54	1	-12	N
R113	151	1	--	62	60	2	--	N
R114	456	1	67	56	55	1	-11	N
R115	470	1	67	56	55	1	-11	N
R116	474	1	67	56	54	2	-12	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R117	497	1	67	55	54	1	-12	N
R118	500	1	67	55	54	1	-12	N
R119	348	1	67	58	56	2	-9	N
R120	426	4	67	55	54	1	-12	N
R121	506	8	67	54	52	2	-13	N
R122	486	8	67	54	53	1	-13	N
R123	483	8	67	54	53	1	-13	N
R124	508	8	67	54	52	2	-13	N
R125	330	1	67	57	56	1	-10	N
R126	486	8	67	55	53	2	-13	N
R127	475	8	67	55	53	2	-12	N
R128	481	6	67	54	52	2	-13	N
R129	323	1	67	58	57	1	-9	N
R130	387	1	67	57	56	1	-10	N
R131	456	1	67	56	55	1	-11	N
R132	192	1	67	62	61	1	-5	N
R133	306	1	67	58	58	0	-9	N
R134	337	1	67	57	57	0	-10	N
R135	388	1	67	57	56	0	-10	N
R136	431	1	67	57	56	0	-10	N
R137	188	1	67	61	61	0	-6	N
R138	227	1	67	60	60	0	-7	N
R139	263	1	67	59	60	-1	-8	N
R140	291	1	67	59	59	0	-8	N
R141	1612	1	67	64	64	0	-3	N
R142	473	1	67	57	57	0	-10	N
R143	410	1	67	58	57	1	-10	N
R144	353	1	67	58	58	0	-9	N
R145	374	1	67	60	59	1	-7	N
R146	367	1	67	59	58	1	-8	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R147	383	1	67	58	57	1	-9	N
R148	395	1	67	57	56	1	-10	N
R149	673	1	--	60	58	2	--	N
R150	979	1	--	71	68	3	--	N
R151	564	1	--	61	59	2	--	N
R152	822	1	67	54	52	1	-13	N
R153	765	1	67	54	53	2	-13	N
R154	712	1	67	55	53	2	-12	N
R155	643	1	67	55	54	1	-12	N
R156	604	1	67	55	54	1	-12	N
R157	537	1	67	55	54	1	-12	N
R158	495	1	67	56	54	2	-11	N
R159	436	1	67	56	55	1	-11	N
R160	273	28	67	59	58	1	-8	N
R161	301	1	67	58	57	1	-9	N
R162	336	1	67	57	56	1	-10	N
R163	378	1	67	56	55	1	-11	N
R164	221	1	67	58	57	1	-9	N
R165	187	1	67	59	58	1	-8	N
R166	147	1	67	62	61	1	-5	N
R167	187	1	67	60	59	1	-7	N
R168	314	1	67	56	55	1	-11	N
R169	330	1	67	56	55	1	-11	N
R170	300	1	67	57	56	1	-10	N
R171	301	1	67	57	56	1	-10	N
R172	491	1	67	54	53	1	-13	N
R173	530	1	67	55	53	2	-12	N
R174	476	1	67	55	53	2	-12	N
R175	497	1	67	54	53	1	-13	N
R176	496	1	67	54	53	1	-13	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R177	473	1	67	55	54	1	-12	N
R178	463	1	67	55	54	1	-12	N
R179	458	1	67	55	54	1	-12	N
R180	443	1	67	55	54	1	-12	N
R181	442	1	67	55	55	0	-12	N
R182	431	1	67	56	55	1	-11	N
R183	424	1	67	56	55	1	-11	N
R184	414	1	67	56	55	1	-11	N
R185	404	1	67	56	55	1	-11	N
R186	402	1	67	56	56	0	-11	N
R187	400	1	67	56	56	0	-11	N
R188	480	1	67	55	54	1	-12	N
R189	473	1	67	56	55	1	-11	N
R190	471	1	67	56	55	1	-11	N
R191	473	1	67	56	55	1	-11	N
R192	474	1	67	56	55	1	-11	N
R193	474	1	67	56	55	1	-11	N
R194	475	1	67	56	55	1	-11	N
R195	473	1	67	56	55	1	-11	N
R196	472	1	67	56	55	1	-11	N
R197	472	1	67	56	55	1	-11	N
R198	479	1	67	56	56	0	-11	N
R199	421	1	67	57	57	0	-10	N
R200	1054	1	67	58	58	0	-9	N
R201	993	1	67	58	58	0	-9	N
R202	940	1	67	58	58	0	-9	N
R203	1303	50	67	54	53	1	-13	N
R204	1044	1	67	54	54	0	-13	N
R205	964	1	67	54	54	0	-13	N
R206	886	1	67	55	54	1	-12	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R207	879	1	67	54	54	0	-13	N
R208	951	1	67	54	53	1	-13	N
R209	1033	1	67	53	53	0	-14	N
R210	657	2	72	56	56	0	-16	N
R211	1338	1	67	59	58	1	-8	N
R212	1228	1	67	59	58	1	-8	N
R213	1267	1	67	59	58	1	-8	N
R214	710	1	67	60	59	1	-7	N
R215	734	1	67	58	57	1	-9	N
R216	648	1	67	60	60	0	-7	N
R217	532	1	67	59	59	0	-8	N
R218	454	1	67	59	59	0	-8	N
R219	406	1	67	60	60	0	-7	N
R220	328	1	67	62	62	0	-5	N
R221	353	1	67	60	60	0	-7	N
R222	430	1	67	57	57	0	-10	N
R223	479	1	67	56	56	0	-11	N
R224	481	1	67	56	56	0	-11	N
R225	511	1	67	55	56	-1	-12	N
R226	544	1	67	55	55	-1	-12	N
R227	570	1	67	54	54	0	-13	N
R228	613	1	67	54	54	0	-13	N
R229	650	1	67	54	54	0	-13	N
R230	685	1	67	54	54	0	-13	N
R231	873	1	67	54	54	0	-13	N
R232	764	1	67	54	53	1	-13	N
R233	831	1	67	53	53	0	-14	N
R234	863	1	67	53	53	0	-14	N
R235	882	1	67	53	53	0	-14	N
R236	892	1	67	54	54	1	-13	N

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R237	766	1	67	55	54	1	-12	N
R238	680	1	67	55	55	0	-12	N
R239	595	1	67	56	56	0	-11	N
R240	535	1	67	56	56	0	-11	N
R241	492	1	67	56	57	-1	-11	N
R242	1355	1	67	53	52	1	-14	N
R243	1234	1	67	53	53	0	-14	N
R244	1158	1	67	54	53	1	-13	N
R245	1107	1	67	54	53	1	-13	N
R246	1073	1	67	54	53	1	-13	N
R247	1038	1	67	54	54	0	-13	N
R248	962	1	67	54	54	0	-13	N
R249	998	1	67	54	54	0	-13	N
R250	921	1	67	55	54	1	-12	N
R251	980	1	67	52	52	0	-15	N
R252	1024	1	67	52	52	0	-15	N
R253	1075	1	67	52	52	0	-15	N
R254	1136	1	67	52	51	1	-15	N
R255	1183	1	67	52	51	1	-15	N
R256	1284	1	67	52	51	1	-15	N
R257	1321	1	67	52	51	1	-15	N
R258	1413	1	67	51	50	1	-16	N
R259	1378	1	67	50	50	0	-17	N
R260	1303	1	67	53	53	0	-14	N
R261	645	1	67	58	58	0	-9	N
R262	599	1	67	57	56	1	-10	N
R263	550	1	67	56	56	0	-11	N
R264	888	1	67	67	66	1	0	I
R265	939	1	67	67	66	1	0	I
R266	1017	1	67	69	68	1	2	I

			Sound Level L_{eq} (dBA)[1]			Impact Evaluation		
A. Receptor Location or Site Identification (See maps attached after this table)	**B. Distance from C/L of Near Lane to Receptor in feet (ft.)**	**C. Number of Families or People Typical of this Receptor Site**	**D. Noise Level Criteria[2] (NLC) (dBA) *(dashed values are Land Use Category F)***	**E. Future Sound Level (dBA)**	**F. Existing Sound Level (dBA)**	**G. Difference in Future and Existing Sound Levels (E minus F) (dBA)**	**H. Difference in Future Sound Levels and Noise Level Criteria (E minus D) (dBA)**	**I. Impact (I) or No Impact[3] (N)**
R267	1071	1	67	68	67	1	1	I
R268	998	1	67	58	58	0	-9	N
R269	1033	1	67	58	57	1	-9	N
R270	944	1	67	59	58	1	-8	N
R271	914	1	67	60	60	0	-7	N
R272	867	1	67	60	59	1	-7	N
R273	709	1	67	57	57	0	-10	N
R274	754	1	67	60	59	1	-7	N
R275	683	1	67	56	55	1	-11	N
R276	754	1	67	55	55	0	-12	N
R277	800	1	67	55	54	1	-12	N
R278	852	1	67	55	54	1	-12	N
R279	1080	1	--	67	66	1	--	N
R280	982	1	72	66	66	0	-6	N
R281	567	1	67	56	55	1	-11	N
R282	701	1	67	56	56	0	-11	N
R283	786	1	67	56	56	0	-11	N
R284	854	1	67	56	55	1	-11	N
R285	922	1	67	56	55	1	-11	N
R286	977	1	67	56	55	1	-11	N
R287	1032	1	67	56	55	1	-11	N
R288	347	1	67	60	60	0	-7	N
R289	339	1	67	61	61	0	-6	N
R290	158	1	--	63	62	1	--	N

[1] Use whole numbers only.

[2] Insert the actual Noise Level Criteria from WisDOT Facilities Development Manual, Section 23-30, Table 2.1.

[3] An impact occurs when future sound levels exceed existing sound levels by 15 dB or more, **or**, future sound levels approach or exceed the Noise Level Criteria ("approach" is defined as 1 dB less than the Noise Level Criteria, therefore an impact occurs when Column (h) is –1 dB or greater). I = Impact, N = No Impact.

HAZARDOUS SUBSTANCES, CONTAMINATION and ASBESTOS Factor Sheet

06-10-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

I. HAZARDOUS SUBSTANCES and CONTAMINATION

1. **Briefly describe the results of the Phase 1 Hazardous Materials Assessment for this alternative. Do not use property identifiers including owner name, address or business name. Attach additional sheets if necessary.**
A Phase I Hazardous Materials Assessment, dated February 2024, was conducted for parcels immediately adjacent to the study area. This assessment consisted of an environmental records check, historical review, interviews, field review and completion of the WisDOT Phase I Hazardous Materials Assessment Site Summary form. The Phase I Hazardous Materials Assessment identified seven adjacent parcels with reported spills, and further environmental subsurface investigation (Phase 2.5 or 3) is recommended at these locations. Note that the Site Reference # listed in the table below corresponds to the documentation in the Phase I Hazardous Materials Assessment.

Site Reference Number	Land Use of Concern (Past or Present)	Contaminants of Concern	Phase 1 Recommendations (No further action, or is a phase 2, 2.5 or 3 recommended for this site, and why?)
C	Commercial	Petroleum	No further action.
D	Airport	Petroleum	Prepare construction contract special provision. No further action.
E	Airport	Fuel Oil	Prepare construction contract special provision. No further action.
F	Leaking Aboveground Storage Tank (LAST) at a business	Diesel Fuel	No further action.
G	Retail gasoline sales	Diesel Fuel, Unleaded and Leaded Gasoline	No further action.
H	Government facility	Unleaded and Leaded Gasoline	Prepare construction contract special provision. No further action.
I	Retail gasoline sales	Diesel Fuel	Prepare construction contract special provision. No further action.
J	Commercial/retail gasoline sales	Diesel Fuel	Prepare construction contract special provision. No further action.
K	Commercial/body shop	Petroleum	No further action.
L	Retail gasoline sales	Petroleum, Unleaded and Leaded Gasoline	Prepare construction contract special provision. No further action.
M	Retail gasoline sales	Petroleum, Unleaded and Leaded Gasoline	Phase 3 Investigation.
N	Commercial	Unleaded and Leaded Gasoline	Phase 3 Investigation.
O	Retail gasoline sales	Petroleum	Phase 3 Investigation.
P	Commercial	Petroleum	No further action.
Q	Commercial/auto repair	Petroleum	No further action.
R	Commercial	Petroleum	Phase 2.5 Investigation.
S	Commercial/licensed landfill or historic waste site	Lead, Gas Aerosol, Metals, Arsenic and Polynuclear Aromatic Hydrocarbons (PAHs)	Phase 2.5 Investigation.
T	Commercial	Unleaded and Leaded Gasoline	Prepare construction contract special provision. No further action.

U	Commercial	Petroleum	No further action.
V	Commercial	Unleaded and Leaded Gasoline, Chlorinated Solvents Trichloroethylene and Petroleum	Phase 2.5 Investigation
W	Commercial	Petroleum	Prepare construction contract special provision. No further action.
X	Commercial	Leaded Gasoline	No further action.
Y	Utility	Fuel Oil	No further action.
Z	Commercial	Chlorinated Solvents and Unleaded and Leaded Gasoline	Phase 3 Investigation.
AA	Commercial	Fuel Oil, Petroleum, Paints, Inks, Dyes, Diesel Fuel	Prepare construction contract special provision. No further action.
AB	Commercial	Chlorinated Solvents	Prepare construction contract special provision. No further action.
AC	Commercial	Petroleum	Prepare construction contract special provision. No further action.
AD	Industrial	Petroleum	Prepare construction contract special provision. No further action.

Additional comments: None

2. Were any parcels not included in the Phase 1 assessment?

☒ No

☐ Yes, how many:

Why were parcels not reviewed? Explain:

3. Are there any sites with continuing obligations or deed restrictions?

☐ No

☒ Yes, complete the table for each site closed with continuing obligations or deed restrictions:

Site Reference Number	Soil or Excavation Restrictions	Groundwater Restrictions	Cover Restrictions	Other Restrictions	DNR Notification Required?
D	No	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
E	No	Yes	No	Yes	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
H	Yes	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
I	Yes	No	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
J	No	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.

M	Yes	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
N	Yes	Yes	Yes	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
O	Yes	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
T	Yes	Yes	Yes	Yes	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
V	No	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
Z	Yes	Yes	Yes	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
AA	Yes	Yes	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
AC	Yes	Yes	Yes	Yes	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.
AD	Yes	No	No	No	☐ No ☒ Yes ☐ Yes, DNR has been notified. DNR response is attached.

4. Have Phase 2, 2.5 or 3 Assessments been completed?

No.

Discuss the results: Not applicable

Site Reference Number	Phase 2, 2.5 or 3 Recommendations	Materials Handling Plan or Remediation Recommended?		Is WisDOT a Responsible Party?	
		Yes	No	Yes	No
No Phase 2, 2.5 or 3 assessments were completed.					

5. Describe the results of any additional investigations performed by WisDOT or others (Include the number of sites investigated, the level of investigation and results for each site that relates to this project):

No additional investigations have been performed.

6. Describe any design elements that have been incorporate into this alternative to avoid any contaminated sites:

Remediation and waste management practices will be determined following the completion of additional Phase 2.5 and Phase 3 investigations, as needed. Construction impacts will be minimized or avoided to the extent possible. Attempts will be made to adjust the vertical and horizontal alignments of the roadway and utilities to avoid impacts.

7. **Describe the remediation and waste management practices to be included in the design for areas where contamination cannot be avoided (e.g., materials handling plan, remediation of contamination, design changes to minimize disturbances):**
   Where avoidance is not possible, the remediation measures would depend on the extent, magnitude and type of contamination impacting the roadway. WisDOT will work with all parties to ensure that appropriate remediation is completed to the satisfaction of the WDNR and WisDOT. The management of any waste generated during the investigation of project construction and the ultimate disposal of wastes will be completed to the satisfaction of the WDNR, WisDOT and FHWA.

8. **List any parcels with known contamination which are proposed for acquisition:**
   Not applicable.

II. ASBESTOS

1. **Have all the bridges on the project been inspected for the presence of asbestos-containing material (ACM):**
   ☒ No, explain: B-13-322 (WIS 30 WB) and B-13-323 (WIS 30 EB) were constructed in 1996 and no major maintenance has been performed, therefore an asbestos review has not been completed. These structures will not be impacted by this project.
   ☐ Yes, fill out the table below and insert additional data as needed:

Bridge Number	Results of Asbestos Sampling	Proposed Work (brief description)	List the Appropriate Special Provision

2. **Number of structures (buildings) proposed to be acquired and demolished:** 3

3. **Number of structures (buildings) proposed to be acquired and relocated:** 3
   All structures to be acquired and demolished or relocated require asbestos inspections and will be inspected once acquisition has taken place. Asbestos must be removed or abated by a licensed professional prior to relocation or demolition.

4. **Are there utilities with known transite conduit or piping located within the project limits?**
   ☒ **No** ☐ **Yes - answer 4.a. and 4.b.**
   a. **Number of linear feet of conduit expected be impacted:**
      Who will conduct the abatement during construction?
      ☐ **Utility** ☐ **Municipality** ☐ **Included in construction contract***
      * STSP 203-006 must be included as an environmental commitment.
   b. **Number of linear feet of conduit expected to be protected:**

STORMWATER Factor Sheet

06-13-2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Special consideration should be given to areas that are sensitive to water quality degradation. Indicate whether a sensitive area is present and provide specific recommendations on the level of protection needed.**
   - ☐ No, special natural resources are not affected by the alternative
   - ☒ Yes, special natural resources exist in the project area
     - ☐ DNR designated Outstanding Resource Waters (ORW)
     - ☐ DNR Designated Exceptional Resource Waters (ERW)
     - ☒ Wetland(s)
     - ☐ Lake
     - ☒ Endangered species or critical habitat
     - ☐ Cold water stream
     - ☐ Other waterways
     - ☐ Areas of groundwater recharge
     - ☐ Total Maximum Daily Load (TMDL)
     - ☐ Other, describe:

   Describe protection recommendations: Stormwater best management practices (BMPs) would be designed to maintain existing conditions of water quality and flow rates within the study boundary.

2. **Indicate whether circumstances exist in the project vicinity that require additional consideration such as an increase in peak flow, total suspended solids (TSS) or water volume.**
   - ☐ No, additional or special circumstances are not present.
   - ☒ Yes, additional or special circumstances exist. Indicate all that are present:
     - ☐ Areas of groundwater discharge
     - ☐ Stream relocations
     - ☐ Long or steep cut or fill slopes
     - ☐ Increased backwater
     - ☒ Rural to urban conversion
     - ☒ Impaired waterway
     - ☐ High velocity flows
     - ☐ Large quantity flows
     - ☐ Significant increase in impervious surface
     - ☐ Other – Describe any unique, innovative, or atypical stormwater management measures to be used:

3. **Describe the overall stormwater management strategy to minimize adverse effects and enhance beneficial effects:**

   Grassed swales and detention ponds would be utilized throughout the US 51 and Commercial Avenue/Lexington Avenue intersection design for rate control and to match existing conditions in the vicinity of the East Branch of Starkweather Creek. Filter strips and swale treatments would be utilized in the northern section of US 51 in the vicinity of West Branch of Starkweather Creek and Unnamed Creek. Existing ponds would be utilized, and no new ponds are anticipated.

4. **Indicate how the stormwater management plan will be compatible with fulfilling Trans 401 and the WDNR Transportation Separate Storm Sewer System permit (TS4) requirements:**

   Grassed swales, vegetated filter strips, and catch basins would aid in TSS reduction and to meet Trans 401 and MS4 requirements.

   New storm sewer networks between the WIS 30 interchange and Commercial Avenue/Lexington Avenue intersection (rural to urban cross section changes) would require 80% TSS reduction in this area to meet Trans 401 and MS4 requirements.

5. **Identify the stormwater management measures to be considered:**

☒ Swale treatment (parallel to flow) Trans 401.106(10)	☒ In-line storm sewer treatment, such as catch basins, non-mechanical treatment systems
☒ Vegetated filter strip (perpendicular to flow)	☐ Detention basins
☒ Distancing outfalls from waterway edge	☐ Constructed stormwater wetlands
☐ Infiltration – Trans 401.106(5)	☐ Buffer areas – Trans 401.106(6)
☐ Other – Describe:	☐ Other – Describe:

6. **Indicate whether any Drainage District may be affected by the project (**https://datcp.wi.gov/Pages/Programs_Services/DrainageDistricts.aspx**).**
   - ☒ No, Drainage District 27 is between Amelia Earhart Drive and Hanson Road within the corridor boundary. Impacts are likely negligible.
   - ☐ Yes, has initial coordination with a drainage board been completed?
     - ☐ No, explain why:
     - ☐ Yes, discuss results:

7. **Indicate whether the project is within a WDNR Municipal Separate Storm Sewer System (MS4) permitted stormwater management area or a WDNR TS4 stormwater management area.**
   - ☐ No, the project is outside of a MS4 or TS4 stormwater management area
   - ☒ Yes, the project affects one of the following and is regulated by a WPDES stormwater discharge permit, issued by the WDNR:
     - ☒ A WDNR MS4 storm sewer system (connecting highways or local roads)
     - ☐ A WDNR TS4 storm sewer system for WisDOT highways (outside of connecting highway limits)

   Describe coordination and BMPs below and indicate location of evidence of coordination here:

TS4:	Coordination: n/a	BMPs: n/a
MS4:	Coordination: The city of Madison is the MS4 Permit Holder and is an ongoing stakeholder and participant in design efforts.	BMPs: There are numerous BMPs throughout the storm management area, and those directly adjacent to the study boundary are storm sewer treatment, detention basins and swale treatments.

8. **Has the effect on downstream properties been considered?**
   - ☒ No, explain: Stormwater management measures implemented in the future project would either connect to existing stormwater infrastructure or drain to the East Branch of Starkweather Creek, the West Branch of Starkweather Creek or the Unnamed Creek. The future project would maintain existing drainage patterns and meet the existing discharge rates at the study boundary; therefore, no offsite downstream properties would be affected.
   - ☐ Yes, coordination has been completed or is in process, describe:

EROSION CONTROL Factor Sheet

06/11/2019 Wisconsin Department of Transportation

Alternative: US 51 Reconstruction	**Preferred:** ☒ **Yes** ☐ **No** ☐ **None identified**	**Project ID: 5410-08-01**

1. **Give a brief description of existing and proposed slopes in the project area, both perpendicular and longitudinal to the project. Include both existing and proposed slope length, percent slope, and soil types:**
   The existing US 51 corridor includes rolling terrain, perpendicular side slopes of 2.5:1 to 6:1 and perpendicular grades of 1.5% to 8%. The roadway has zero to 6% grades longitudinally. For the proposed alternative, perpendicular side slopes would be flattened to meet design standards. Side slopes would range from 4:1 to 6:1, perpendicular grades would be 1.5% to 6% and longitudinal grades would be 0% to 4.6%.

   Surface soils along the US 51 corridor are primarily well-drained, silty loam and silty clay loam, according to the web soil survey and previous soil borings. Existing stabilized slopes, soil and streambanks would be left undisturbed where possible.

2. **Indicate all sensitive resources to be affected by the proposal that are sensitive to erosion, sedimentation, or waters of the state quality degradation and provide specific recommendations on the level of protection needed.**
   - ☐ No – There are no sensitive resources affected by the proposal.
   - ☒ Yes – Sensitive resources exist in or adjacent to the area affected by the project.
     - ☒ River/stream
     - ☐ Lake
     - ☒ Wetland
     - ☒ Endangered species habitat: Foraging habitat for the Rusty Patched Bumblebee (RPBB)
     - ☐ Other – Describe:

   Describe protection recommendations:
   The erosion protection would follow the WisDOT/WDNR Cooperative Agreement and TRANS 401. The level of protection would include best management practices during construction use of appropriate silt fence, inlet protection and other erosion control methods would be used as necessary. After construction is completed, all slopes would be appropriately stabilized with grass, riprap, pavement or other methods to prevent future erosion. Erosion control measures would include the use of vegetated swales, distancing stormwater outfalls away from waterways and detention to prevent potential adverse effects from washed-out silt or warm water in cold water streams. To mitigate impacts to the RBPP, vegetation will be moved/removed by April 1, prior to any flowering forb growth to deter foraging RPBB. WisDOT will restore approximately 1.87 acres of temporary ground disturbance by seeding with a flowering forb mix and by planting 208 flowering shrubs at the conclusion of construction to reestablish RPBB foraging habitat.

3. **Are there circumstances requiring additional or special consideration?**
   - ☐ No – Additional or special circumstances are not present.
   - ☒ Yes – Additional or special circumstances exist. Indicate all that are present.
     - ☐ Areas of groundwater discharge
     - ☐ Overland flow/runoff
     - ☒ One acre or more of ground disturbance (construction permit required)
     - ☒ Long or steep cut or fill slopes
     - ☐ Areas of groundwater recharge (fractured bedrock, wetlands, streams)
     - ☐ Other – Describe:

4. **Describe overall erosion control strategy to minimize adverse effects and/or enhance beneficial effects:**

To the extent practicable, the proposed improvements would be planned to fit existing topography, drainage patterns and vegetation.

This future project would disturb more than an acre of land and would acquire a Wisconsin Pollutant Discharge Elimination System (WPDES) Transportation Construction General Permit (TCGP) for Storm Water Discharges before construction. All projects require an Erosion Control Plan (ECP) that describes best management practices that would be implemented before, during and after construction to minimize pollution from stormwater discharges. Once the future project contract has been awarded, the contractor would be required to outline their implementation of erosion control measures as it relates to the construction project, as well as their construction methods in the Erosion Control Implementation Plan (ECIP). WisDOT needs to approve the ECIP and obtain concurrence from the WDNR before implementation.

5. Discuss results of coordination with the appropriate authorities as indicated below:

☒ WDNR
☐ American Indian Tribe:

Note: All erosion control measures (i.e., the ECP) shall be coordinated through the WisDOT-WDNR liaison process and TRANS 401 except when Tribal Lands of Native American Indians are involved. WDNR's concurrence is not forthcoming without an ECP. In addition, TRANS 401 requires the contractor to prepare an ECIP, which identifies the timing and staging of the future project's erosion control measures. The ECIP should be submitted to the WDNR liaison and to WisDOT 14 days prior to the preconstruction conference (Trans 401.08(1)) and must be approved by WisDOT before implementation. On Tribal lands, coordination for 402 (erosion) concerns is either to be coordinated with the tribe affected or with the U.S. Environmental Protection Agency (EPA). EPA or the tribes have the 401 Water Quality responsibility on Tribal Trust lands.

Describe how the Erosion Control/Stormwater Management Plan can be compatible:

WisDOT would develop specific erosion control measures during final design and would be coordinated with WDNR. Coordination with the EPA or Tribes is not anticipated.

6. Will any special erosion control measures be implemented to manage additional or special circumstances identified in Item 3 above?

☐ No
☒ Yes – Describe:

WisDOT would develop specific erosion control measures during final design and would be coordinated with WDNR. The following erosion control measures would be considered:

- Minimize the amount of soil exposed at one time
- Temporary seeding
- Silt fence
- Ditch checks
- Erosion of turf reinforcement mat
- Ditch or slope sodding
- Soil stabilizer
- Inlet protection
- Turbidity barriers
- Mulching
- Detention basin
- Vegetative swales
- Dust abatement
- Riprap
- Dewatering
- Permanent seeding