

Environmental Document Statement

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

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

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

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ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS

Wisconsin Department of Transportation

Basic Sheet 1

Project ID 5992-09-81 (Design) 5992-09-82 (Const.) South Phase 5992-09-85 (Const.) North Phase		Project Termini From: Cross Country Road To: Prairie Hill Road	Funding Sources - Check all that apply <input checked="" type="checkbox"/> Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Local									
Route Designation (if applicable) County M National Highway System (NHS) Route <input checked="" type="checkbox"/> Yes (MAP-21 Principal Arterial) <input type="checkbox"/> No		Nearest Community Cities of: Madison and Verona Towns of: Middleton and Verona	Estimated Project Cost: \$46.9 million* Construction: \$40.8 million* (includes delivery) Real Estate Acquisition: \$3.6 million* *2017 Year of Expenditure (YOE), included compensable utility relocation and design engineering Funding Source: Federal and State									
Project Title South Pleasant View Road												
County Dane	Section-Township-Range Section 34-T7N-R8E Section 3-T6N-R8E Section 10-T6N-R8E		Right of way Acquisition <table border="1"> <thead> <tr> <th></th> <th>South Phase (Acres) includes Raymond Rd.</th> <th>North Phase (Acres)</th> </tr> </thead> <tbody> <tr> <td>Fee</td> <td>14.8</td> <td>10.0</td> </tr> <tr> <td>TLE and PLE</td> <td>16.9</td> <td>10.6</td> </tr> </tbody> </table>		South Phase (Acres) includes Raymond Rd.	North Phase (Acres)	Fee	14.8	10.0	TLE and PLE	16.9	10.6
	South Phase (Acres) includes Raymond Rd.	North Phase (Acres)										
Fee	14.8	10.0										
TLE and PLE	16.9	10.6										
Bridge Number(s), if applicable Bridges: 1 (New at PD) - bridge number TBD Retaining Walls: 16 Culverts (drainage and underpass): 7		Scheduled start date (Operational Planning Meeting (OPM), or Scoping Meeting) OPM: June 13 th , 2011										

Functional Classification of Existing Route (FDM 3-5-2)	Urban	Rural
Freeway/Expressway	<input type="checkbox"/>	<input type="checkbox"/>
Principal Arterial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minor Arterial	<input type="checkbox"/>	<input type="checkbox"/>
Major Collector	<input type="checkbox"/>	<input type="checkbox"/>
Minor Collector	<input type="checkbox"/>	<input type="checkbox"/>
Collector	<input type="checkbox"/>	<input type="checkbox"/>
Local	<input type="checkbox"/>	<input type="checkbox"/>
No Functional Class	<input type="checkbox"/>	<input type="checkbox"/>

WisDOT Project Classification (FDM 3-5-2)	
Resurfacing	<input type="checkbox"/>
Pavement Replacement	<input type="checkbox"/>
Reconditioning	<input type="checkbox"/>
Expansion	<input checked="" type="checkbox"/>
Bridge Rehabilitation	<input type="checkbox"/>
Bridge Replacement	<input type="checkbox"/>
A "Majors" Project	<input type="checkbox"/>
SHRM	<input type="checkbox"/>
Preventive Maintenance	<input type="checkbox"/>
Safety	<input type="checkbox"/>

☐ FHWA Categorical Exclusion, Type 2c

☒ FHWA/WisDOT Draft Environmental Assessment (EA). No significant impacts indicated by initial assessment.

[Signature]
 (Signature - Name, Title, MSA Professional Services)

7-5-16
 (Date - m/d/yy)

[Signature]
 (Signature - Director, Bureau of Technical Services) 7/20/16
 (Date - m/d/yy)

[Signature]
 (Signature - Name, SWR Management Consultant, KL Engineers) 7/7/16
 (Date - m/d/yy)

[Signature]
 (Signature, Title) 7/7/16
 (Date - m/d/yy)

(☒ Region ☐ Aeronautics ☐ Rails & Harbors)

[Signature]
 (Signature, Title) 9/20/16
 (Date - m/d/yy)

(☒ FHWA ☐ FAA ☐ FTA ☐ FRA)

After reviewing and addressing substantive public comments, updating the Draft CE/ER or Draft EA and coordinating with other agencies, it is determined that this action:

☐ WILL NOT significantly affect the quality of the human environment. This document is a Final CE/Final ER

☐ WILL NOT significantly affect the quality of the human environment. This document is a Final EA/Finding of No Significant Impact

☐ Has potential to significantly affect the quality of the human environment. Draft Environmental Impact Statement (EIS) required.

(Signature - Name, Title, MSA Professional Services) (Date - m/d/yy)

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

(Signature - Name, SWR Management Consultant, KL Engineers) (Date - m/d/yy)

(Signature, Title) (Date - m/d/yy)

(☒ Region ☐ Aeronautics ☐ Rails & Harbors)

(Signature, Title) (Date - m/d/yy)

(☒ FHWA ☐ FAA ☐ FTA ☐ FRA)

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Basic Sheet 2

1. Purpose and need of proposed action:

Purpose Statement

The overall purpose of the proposed action is to address the safety and operational deficiencies of County M (also known as South Pleasant View Road within the city limits of Madison and North Main Street within the city limits of Verona, but referred to only as County M hereafter), while minimizing the impact to physical, natural, and human environment.

County M is a National Highway System (NHS) route. NHS routes are critical to the nation's economy, defense, and mobility providing a primary network for movement of goods and services throughout the nation. The NHS supplements the national interstate system. In this case, County M serves as an important route for the City of Madison, City of Verona and western Dane County.

Intersections and other access points along County M are failing on an operational level due to high traffic volumes which has created an unsafe corridor. There are vehicle crashes, near misses, severe traffic backups, and conflicts with vehicles, pedestrians, and bicyclists. This situation worsens during peak travel hours. The needs of the proposed action include:

- Alleviate congestion along the County M corridor
- Provide a safe and serviceable corridor that is convenient for area businesses, residents, and the traveling public. This includes motor vehicles, bicyclists, and pedestrians.
- Address current and future projected traffic and disconnected and non-existent bicycle/pedestrian facilities which has made the existing facility functionally obsolete.

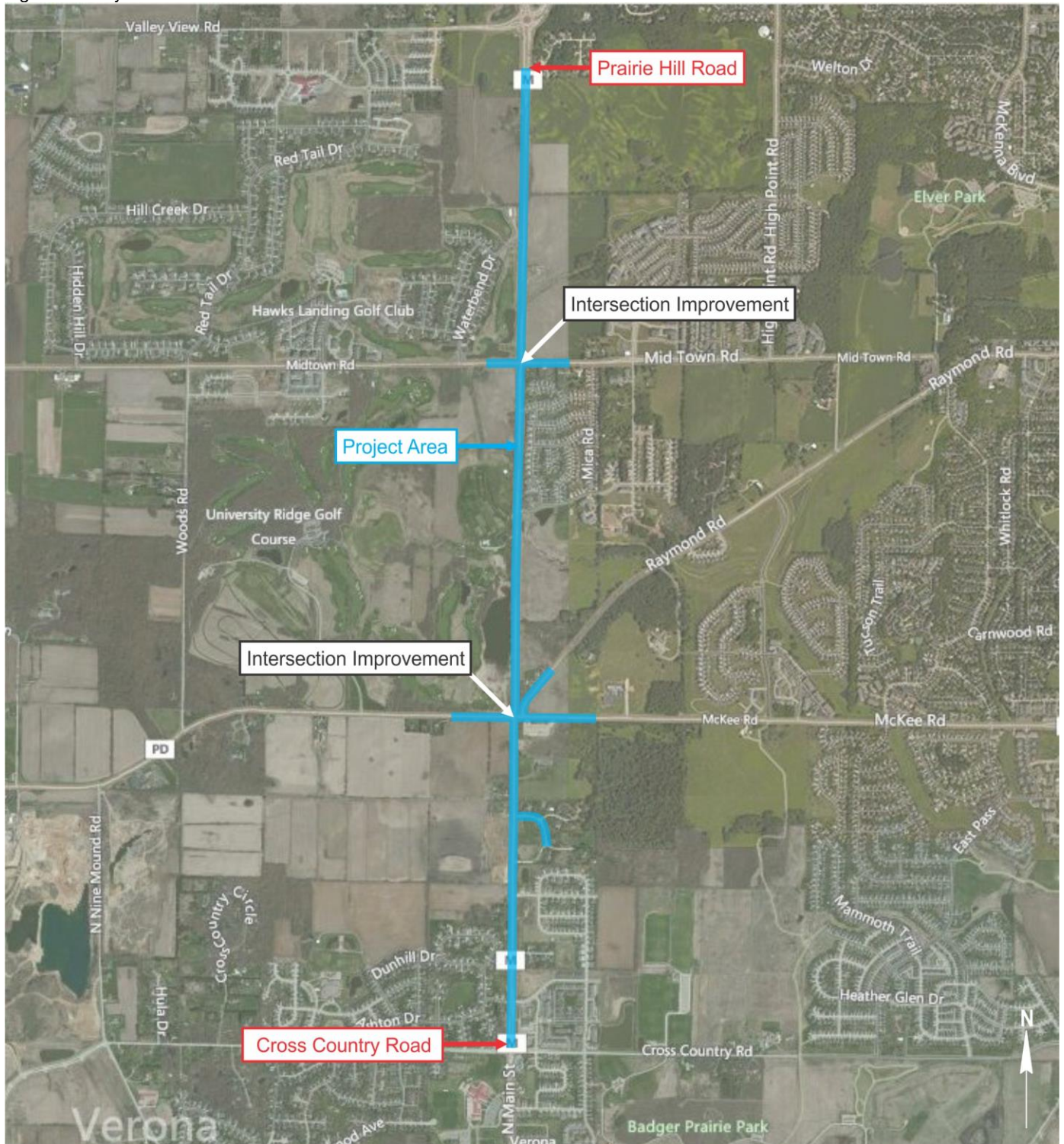
The project goals also include tying into existing facilities to the north and south of the project to create a consistent continuous corridor that meets driver expectation, providing facilities to accommodate the planned future growth and urban development in the surrounding area, and incorporating the desired access as outlined in regional, city, and local plans.

Project Status

The City of Madison, in conjunction the City of Verona and Dane County, and in cooperation with the Towns of Verona and Middleton, is proposing roadway improvements to County M from Cross Country Road to Prairie Hill Road.

The County M corridor is a critical north/south roadway connecting the City of Madison, the City of Verona, the Town of Middleton, and the Town of Verona. The proposed project is located in Dane County, Wisconsin in the Cities of Madison and Verona and the Towns of Verona and Middleton. The project limits are Cross Country Road to the south and Prairie Hill Road to the north. See *Figure 1 - Project Location* for a map of the project. A larger project location map can be found in *Exhibit 1: Project Location Overview*. Intersection improvements are proposed for the County M & Midtown Road and County M & County PD (also known as McKee Road, but referred to only as County PD hereafter) intersections. The total length of the project is 2.86 miles.

Figure 1 - Project Location



This project is identified in the Madison Area Transportation Planning Board 2016-2020 Transportation Improvement Program (TIP)¹ – Major Projects. The TIP proposes complete reconstruction of County M from Cross Country Road to County S (also known as Mineral Point Road) in four separate phases. Two phases have already been designed and constructed. *Figure 2 - County M Transportation Improvement Program (TIP) Approved Construction Projects* shows the approved construction projects for the County M corridor.

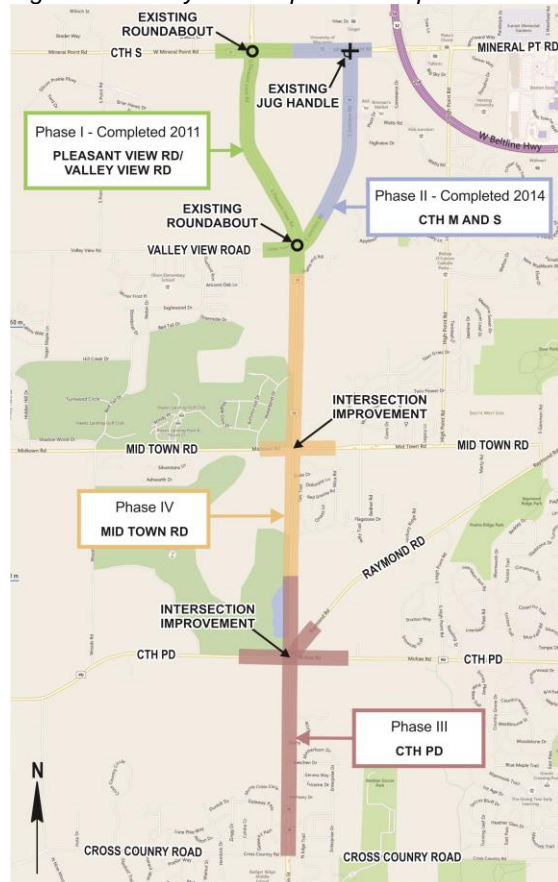
Phase I (Project ID 5992-08-06) as shown in green on *Figure 2* below, is the construction of South Pleasant View Road from Valley View Road to County S that was completed in September 2011. The arterial roadway, which includes one travel lane in each direction, features multi-lane roundabouts at each end (County S & Pleasant View Road and County M & Valley View Road).

Phase II (Project ID 5992-08-07), as shown in blue on *Figure 2* below, is the expansion of County M from Valley View Road to County S that was completed in 2014 and included a reconstruction of the County S & County M intersection as a modified split-grade jug-handle. Two lanes of travel in each direction tie into the existing roundabout at County M & Valley View Road.

This project describes Phase III (Project ID 5992-09-82, called south phase hereafter) and Phase IV (Project ID 5992-09-85, called north phase hereafter) construction. The two phases are similar in length and comprise the 2.86-mile project. The south phase includes the 1.39-mile section from Cross Country Road to 2,500 feet north of County PD (red section). The north phase includes the Midtown Road intersection in this 1.47-mile section from 2,500 feet north of County PD intersection to Prairie Hill Road (yellow section). This northern section will connect to the existing roundabout and facilities located at County M/Valley View Road. The original plan was to construct in two phases; however, both phases will be let together as one construction project. Construction is planned to begin in 2017 and extend into 2019. This Environmental Assessment encompasses Phase III and Phase IV only.

A Value Engineering Study for this project is scheduled for October 2017. The goal of the study is to improve quality, reduce ownership, construction and time costs, simplify construction, increase safety, and enhance operations while meeting the project's environmental and ecological commitments. A Value Engineering analysis is accomplished through a workshop, during which a multidisciplinary panel of peers led by an independent and qualified team reviews a project according to a prescribed job plan and evaluates changes to increase the overall value of the proposed improvements.

Figure 2 - County M Transportation Improvement Program (TIP) Approved Construction Projects



Source: Madison Area Transportation Planning Board

¹, <http://madisonareamtpo.org/planning/improvementprogram.cfm>

Need Factors:

Transportation Demand and Improving Roadway Operational Capacity

County M between Prairie Oaks Drive and Prairie Hill Road is a rural, two-lane facility categorized as a principal arterial. A short section of County M between Cross Country Road and Prairie Oaks Drive has an existing urban cross-section with curb and gutter and sidewalks. Traffic signals are located at the County M & County PD intersection and at the County M & Midtown Road intersection.

The Functional Class system (2011) Map of Dane County, WI identifies County M as a principal arterial. Roadways with this classification serve major economic activity centers and provide interregional traffic mobility. Additionally, this corridor is part of the National Highway System (NHS) and is of great importance to the area's roadway system. This portion of County M provides a connection between two other NHS Principal Arterial Routes – Mineral Point Road to the north, and County PD (McKee Road) to the south. County M is a critical north/south roadway that connects the City of Middleton, City of Madison, City of Verona and surrounding townships. County M is vitally important to local and regional economies because of these attributes. Many users choose this roadway for regional, commuting, and local travel. It is also used as an alternate route for US 12 (Beltline) during crashes and other emergencies that may cause delays or closures on the west side of Madison. The varied and widespread use of the project corridor is expected to continue to increase as development occurs in this area.

The design criteria for county trunk arterial roadways, including National Highway System Routes, is outlined in both Chapter 4 of the Wisconsin Department of Transportation Facilities Development Manual (FDM) and Wisconsin Administrative Code Trans 205.03. The Transportation Research Board's Highway Capacity Manual (HCM) 2000 indicate 15,000 average annual daily traffic (AADT) as the threshold volume that can be safely handled at an acceptable service level on a 2-lane rural/suburban highway that meets applicable/current design standards. Once traffic volumes reach counts over 15,000 average annual daily vehicles per day, the roadway should be evaluated for possible facility expansion. *Table A - Current and Projected Traffic Counts, County M Project Corridor* below lists the traffic volumes along County M. Based on these counts completed as part of the planning process for this potential action, a minimum of two lanes of through traffic in each direction are needed to accommodate both current and projected traffic.

The Madison Area Transportation Planning Board determined the Year 2037 traffic projection estimates based on the countywide travel demand (Madison Metropolitan Planning Organization (MPO)) model. Additional traffic information can be found in *Exhibit 2: Traffic Forecast Report*.

Table A - Current and Projected Traffic Counts, County M Project Corridor

	Current Traffic Count	2037 Traffic Projection Estimate ^{\$}
Valley View Road to Midtown Road	19,650 [#]	36,000
Midtown Road to County PD	20,500 [†]	34,250
County PD to Cross Country Drive	14,300 [*]	20,300

[†] 2015 Count

[#] 2013 Count

^{*} 2012 Count

^{\$} Traffic Projection Estimates determined by Madison Area Transportation Planning Board, November 16, 2015

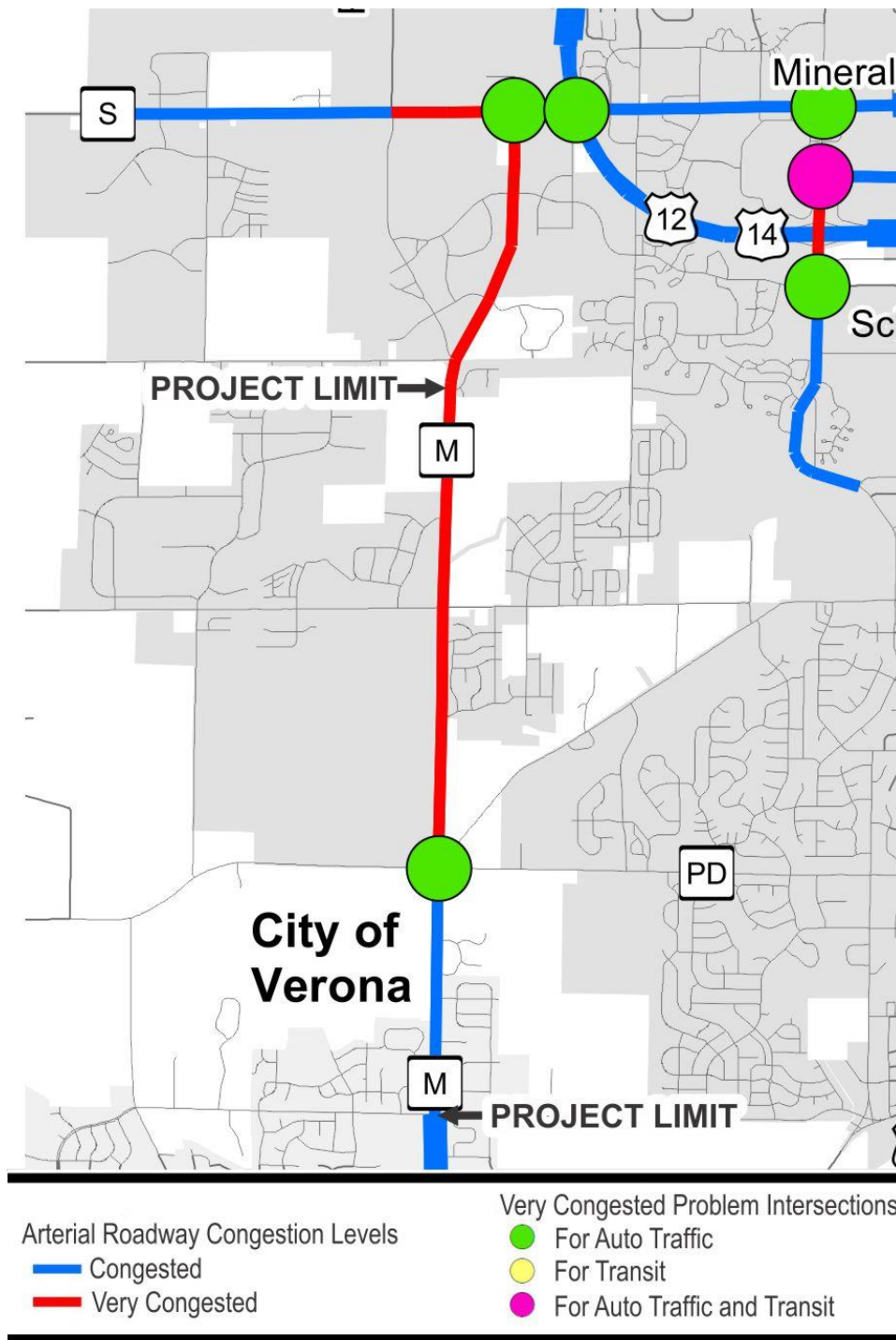
All future numbers displayed are projected Average Annual Daily Traffic (AADT)

As outlined in the Congestion Management Process for the Madison Metropolitan Planning Area, the Madison MPO has identified volume-to-capacity (v/c) ratios of the regional arterial roadway system based on 2006 average weekday or daily traffic count data and 24-hour planning level capacities for the different roadways used in the MPO's regional travel forecast model. Those roadways operating at a v/c ratio of 0.65 to 0.89 have been identified as "congested," and those operating with a v/c ratio of 0.90 or greater have been identified as "very congested".

The [Madison Area Transportation Planning Board – Regional Transportation Plan 2035](#) indicates there are 229 center lane miles of arterial roadways that are congested and 74 miles that are very congested. The project portion of County M from County PD to Prairie Hill Road is classified in the "very congested" category. The project portion from County PD to Cross Country road is classified as "congested". See *Figure 3 – 2006 Congestion Levels, Madison Area, Dane County* below. A full size map can be found in *Exhibit 3: 2006 Congestion Levels, Madison Area, Dane County*. In addition, the County M & County PD intersection is classified as a "very congested problematic intersection" for auto traffic.

County M is identified as a local truck route. There are no existing transit routes on this section of County M, but given the growth of the area, it is anticipated that transit routes will become desirable and viable on this section County M in the future.

Figure 3 - 2006 Congestion Levels, Madison Area, Dane County



Source: Transportation Planning Board, revised 8/12/11

Congestion in this area has been an on-going issue for over 15 years as identified by the Madison MPO. Several planning and congestion studies have been completed in the area including:

- [“Regional Trends 2010 Dane County, Wisconsin”](#) – Published 2011
- [“Congestion Management Process for the Madison Metropolitan Planning Area”](#) – October 2011
- The [City of Verona's Comprehensive Plan](#) which establishes a vision and serves as a long-term guide for future growth.
- The [City of Madison's Comprehensive Plan](#) which provides general goals, objectives, policies and implementation recommendations to guide the future growth and development of the City.

Capacity improvements are one component of the congestion management strategies identified in the Madison Metropolitan and Dane County Regional Transportation Plan. These strategies include:

- Construct additional through-traffic lanes
- Eliminate at-grade intersection
- Construct new roadways

Additionally, the “Congestion Management Process for the Madison Metropolitan Planning Area” provides “recommended actions” that include:

- Include additional suburban commuter and express services.
- Continue to create a continuous bicycle facility network and implement the MPO’s regional bikeway plan with an emphasis on congested corridors.

Improving Intersection Safety and Operational Capacity

According to the 2010 version of the Highway Capacity Manual, intersection operations are typically expressed in terms of level of service (LOS), which is a measure of traffic flow and delay conditions. LOS ratings of A, B, and C indicate that an intersection is operating below capacity with minor delays. At LOS D, the intersection is operating near capacity and drivers experience longer delays. LOS E indicates the intersection is operating at or above capacity and drivers typically experience lengthy delays and backups. LOS F indicates the intersection is failing, is operating over capacity, and drivers are experiencing excessive delays and backups.

Level of service (LOS) is determined by the average delay time by vehicle in seconds. A vehicle’s delay time (control delay) is calculated based on the type of intersection. *Table B - Signalized At-Grade Intersection Level of Service* below lists the control delay for all levels of service.

Table B - Signalized At-Grade Intersection Level of Service²

LOS	Control Delay per Vehicle (in seconds)
A	<10
B	10-20
C	20-35
D	35-55
E	55-80
F	>80

The current levels of service at the two corridor intersections (County M & County PD and County M & Midtown Road) are at **LOS F** during peak hours.

Traffic is projected to increase through 2037 (as determined by Madison Area Transportation Planning Board, November 16, 2015) indicating improvements are necessary to improve roadway operations. If improvements are not implemented, the delay will worsen and the level of service will remain LOS F with even longer delays. Because congestion will continue to increase, it is likely that nearby routes will be adversely affected as traffic is diverted to parallel streets in the system.

This existing level of congestion is a safety deficiency and is a contributing factor of vehicle crashes at the County M corridor’s intersections. The incidence of crashes is likely to increase when there is increased traffic congestion because there are more vehicles using the roadway leading to more instances of potential conflict points. Traffic congestion and long queues may limit the gaps available for vehicles entering the roadway at access points along the corridor.

². *Transportation Research Board Highway Capacity Manual 2010 LOS scale of A (best) to F (severe congestion)*
Project # 5992-09-81

Crashes that occurred on the corridor in a seven-year period between 2009 and 2015 (the most recent full-year crash data available) were identified and evaluated in *Table C - Crash Rates 2009 - 2015, County M Project Section and Statewide Average for County Trunk Highways* below. The table shows a comparison of the County M project section to the Wisconsin statewide average for County Trunk Highways. While County M is below the statewide average for overall crashes and crash rates causing injury, if no action is taken the incidence of crashes is likely to increase with more traffic.

Table C - Crash Rates 2009 - 2015, County M Project Section and Statewide Average for County Trunk Highways³

	County M Project Section	Statewide*
Overall Crash Rate (excludes deer)	92 per 100 MVM	102 per 100 MVM
Crash Rate with Injury	23 per 100 MVM	35 per 100 MVM
Crash Rate with Fatality	0 per 100 MVM	1.2 per 100 MVM

Source: WisDOT 2012 Statewide

Average Crash Rates, November 2013

*Rural County Trunk Highways

In the seven-year period (2009-2015) of crash data, 142 crashes were reported on the County M corridor. Nineteen of these crashes were deer collisions. Thirty-one crashes resulted in 42 total injuries. Of the 123 crashes excluding deer, 46 occurred at the intersections on the corridor.

The intersection of County M & County PD recorded 24 crashes, and the intersection of County M & Midtown Road recorded 20 crashes. The statewide average for intersection crash rate is 1.5 crashes per million entering vehicles (MEV). The intersection crash rate for the two project intersections is nearly a third of the statewide average (0.54 crashes per MEV for the County M & County PD intersection and 0.41 crashes per MEV for the County M & Midtown Road intersection.)

There were no reported bicyclist or pedestrian crashes between the years of 2009 and 2013. This, in part, is likely due to low usage of the roadway by bicycles and pedestrians due to the lack of dedicated bicycle and pedestrian facilities or accommodations along the corridor.

There are no substantial roadway deficiencies contributing to safety concerns in the project area.

Bicycle and Pedestrian Facilities and Accommodations

County M Facilities & Accommodations (Bike and Ped)

The project corridor has on-street bicycle accommodation by way of 4-foot wide paved shoulders. Bicycle accommodations are underutilized because of the high traffic volume and narrow lane and shoulder widths. Pedestrian facilities are available via sidewalks from north of Waterbend Drive to Flagstone Drive, however, most of the corridor lacks these facilities. The lack of pedestrian connections make these facilities ineffective in any useable form along County M from Flagstone Drive to Prairie Oaks Drive.

According to the Dane County Map for Bicyclist (2015), County M rates as a "least suitable roadway with paved shoulders" among all Dane County streets. The rankings of bicycle suitability on rural roads are outlined in the [Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County 2015](#). Factors that go into the analysis include traffic volume, lane width, width of paved shoulder, proportion of road with solid yellow centerline, heavy vehicle use, and local knowledge. High traffic volumes along the roadway make it unsafe for pedestrians and bicyclists to utilize either the travel lanes or the shoulder. Accommodations for alternate mode users of all abilities are needed along this corridor.

Currently there are very limited sidewalk facilities along this portion of the County M corridor. Sidewalks exist along the County M corridor:

- On both the east and west sides from Cross County Road to Bering Drive & Prairie Oaks Drive (approximately 670 feet)
- On the east side from Flagstone Drive to a point approximately 200 feet south of Midtown Road (approximately 2,060 feet)
- On the west side from Midtown Road to a point approximately 500 feet north of Waterbend Drive (approximately 2,390 feet)
- On the west side from Valley View road to a point approximately 800 feet south (approximately 850 feet)

The network of bicycle and pedestrian facilities is disconnected. Pedestrians and bicyclists are forced to use other routes through adjacent neighborhoods or walk along the shoulder of County M.

Ice Age National Scenic Trail

The Ice Age National Scenic Trail (IANST) is located entirely within Wisconsin winding more than 1,000 miles through the edge of the last continental glacier in Wisconsin. The IANST is one of only eleven National Scenic Trails and is known as a premiere hiking trail.

The IANST crosses the proposed project in two locations, once across County M near Flagstone Drive and once across Raymond Road where the Badger Mill Creek crosses Raymond Road. See *Figure 4 – Area Trails and Multi-Use Paths*. IANST users must cross County M at-grade at the Flagstone Drive intersection to continue east or west on the trail. Additionally, a short section of the IANST then runs concurrently along the toe of the County M embankment. Most trail users choose to walk along the narrow shoulder of County M, south from the Flagstone Drive intersection approximately 500 feet to near the driveway to the OJ Noer Turf Research Education Facility. This route provides users with a crossing of the Badger Mill Creek drainage swale. The route creates an unsafe scenario for IANST users by forcing the trail users to walk within the clear zone of an important NHS route.

Regional Multi-Use Path System Connectivity

An existing portion of the paved Ice Age Junction Multi-Use Path extends from Flagstone Drive south and east to Raymond Road. See *Figure 10 Area Trails and Multi-Use Paths*. The City of Madison Bicycle Plan includes a portion of the Ice Age Junction Path extending along County M that will ultimately connect the Military Ridge State Trail in the City of Verona and to the multi-use path network in both the cities of Madison and Middleton. Portions of this path have previously been constructed including two path sections near the County M corridor. One path section is located north of the project corridor between Valley View Road and County S. The second path section currently extends from south of County PD to the County M & Flagstone Drive intersection. This portion is located off-road east of the County M corridor.

There is a desire by the participating communities to connect these two path sections as well as extend a paved path connection from the City of Verona along County M to the Ice Age Junction Path, connecting at Flagstone Drive.

Another paved path exists along the south side of Ineichen Drive extending from County M east to and through Harmony Hills Park linking the neighborhoods in this area. There is a desire to construct a paved path connection from this path to the Ice Age Junction Path at Flagstone Drive.

These proposed trail and path connections will link the existing non-motorized facility network, providing a continuous route between the City of Verona and the City of Madison. The routes were identified through various transportation (bicycle and pedestrian) studies and public involvement. There is overall public support for constructing a multi-use trail connection along this corridor.

System Linkage and Route Importance

The Functional Class system (2011) Map of Dane County, WI identifies County M as a principal arterial. Roadways with this classification serve major economic activity centers and provide interregional traffic mobility.

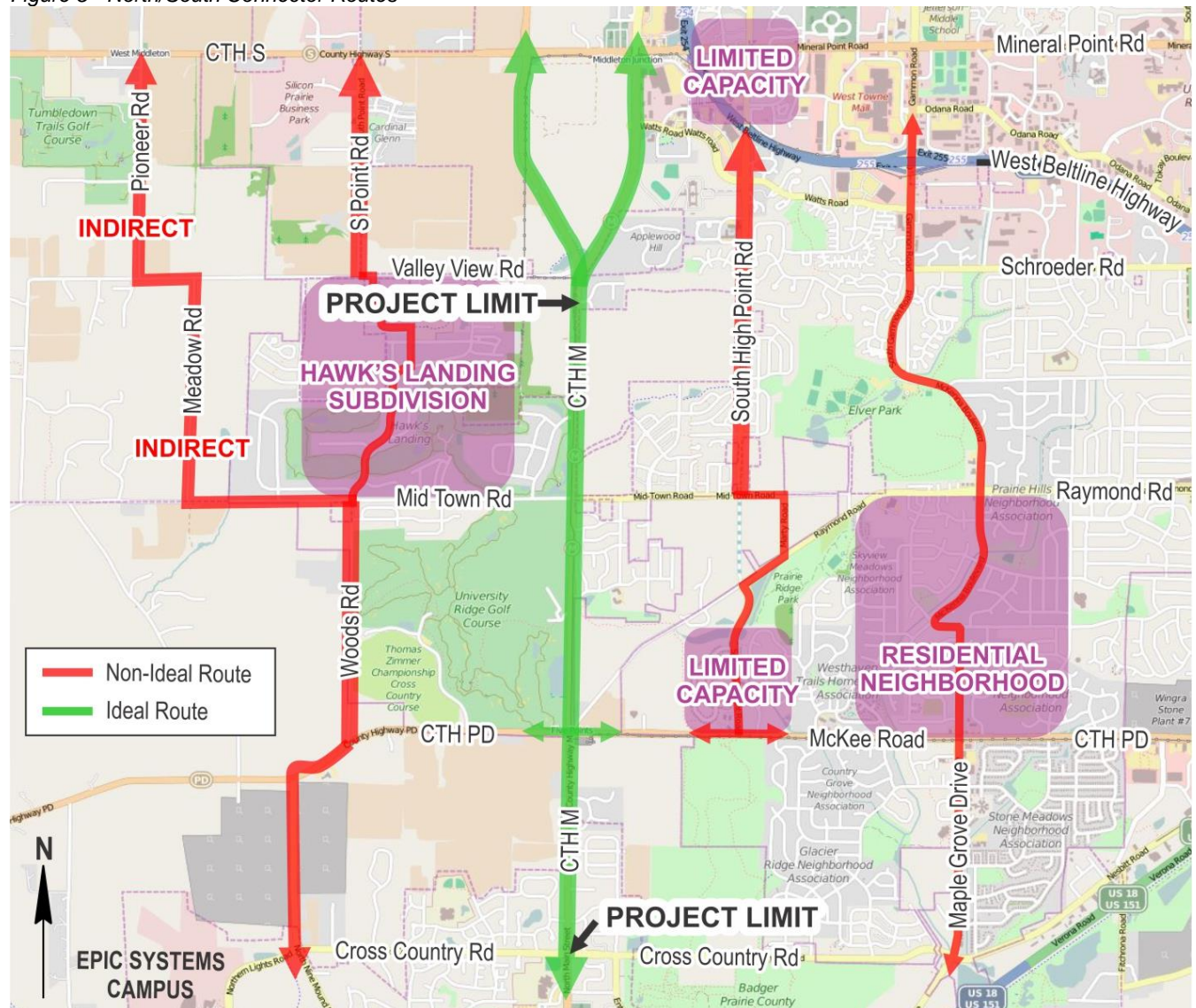
The County M corridor is classified as a principal arterial and identified as a MAP-21 National Highway System (NHS) Principal Arterial Route. The linkage and route importance of this corridor is highlighted in the City of Madison and the City of Verona Comprehensive Plans. Links to these planning documents can be found on page 2:4.

The County M corridor is a major regional and local commuter route connecting the City of Madison to the City of Verona and other neighboring communities to the south and west. With the corridor location and the growth of large regional employers, such as Epic Systems Corporation, the number of people using this route for commuting purposes is expected to increase.

County M is located on the west side of the Madison urbanized area and runs parallel to a portion of US 12. As a National Highway System (NHS) route, County M is of great importance to the area's system linkage and as its role as an alternate route for US 12 (Beltline) during crashes and other emergencies that may cause major delays or closures on the west side of Madison. This portion of County M provides a connection between two other NHS Principal Arterial Routes – Mineral Point Road to the north, and County PD (McKee Road) to the south. County M is a critical north/south roadway that provides connectivity between City of Middleton, City of Madison, City of Verona and surrounding townships. County M is vitally important to local and regional economies because of these positive attributes.

Figure 5 - North/South Connector Routes below shows the various north/south corridors in the area and the constraints of each route. In the project area, the existing County M alignment provides the most direct north-south connection available. The non-ideal routes include constraints such as indirection, distance from County M, residential land use, access concerns, noise, pavement design, and limited roadway capacity.

Figure 5 - North/South Connector Routes



Source: Created by City of Madison Engineering Department and Presented at Public Involvement Meeting – December 8, 2011

The project limit at the south terminus connects to a four-lane urban facility at the intersection of Cross Country Road. The project limit at the north terminus (Prairie Hill Road) connects to a four-lane urban facility just south of the Valley View Road intersection. By expanding to a four-lane facility between the two sections, safety will be improved on County M by:

- providing a continuous and consistent four-lane corridor and cross section
- reducing conflicts caused by merging vehicles
- tying into existing facilities including medians, bike lanes, and sidewalks
- meeting drivers expectations with a consistent cross section

Modal Interrelationships

The lack of bus routes, disconnected sidewalks and paths, and inconsistent shoulders result in unsafe conditions for bicyclists and pedestrians.

There are no permanent current bus routes on the corridor; however, supplemental school bus service is provided through Madison Metro Transit. On weekdays, many area middle and high school students use Metro Transit buses to get to and from school. To avoid overcrowding, Metro Transit provides weekday service. These routes operate on days that the Madison School District classes are in session.

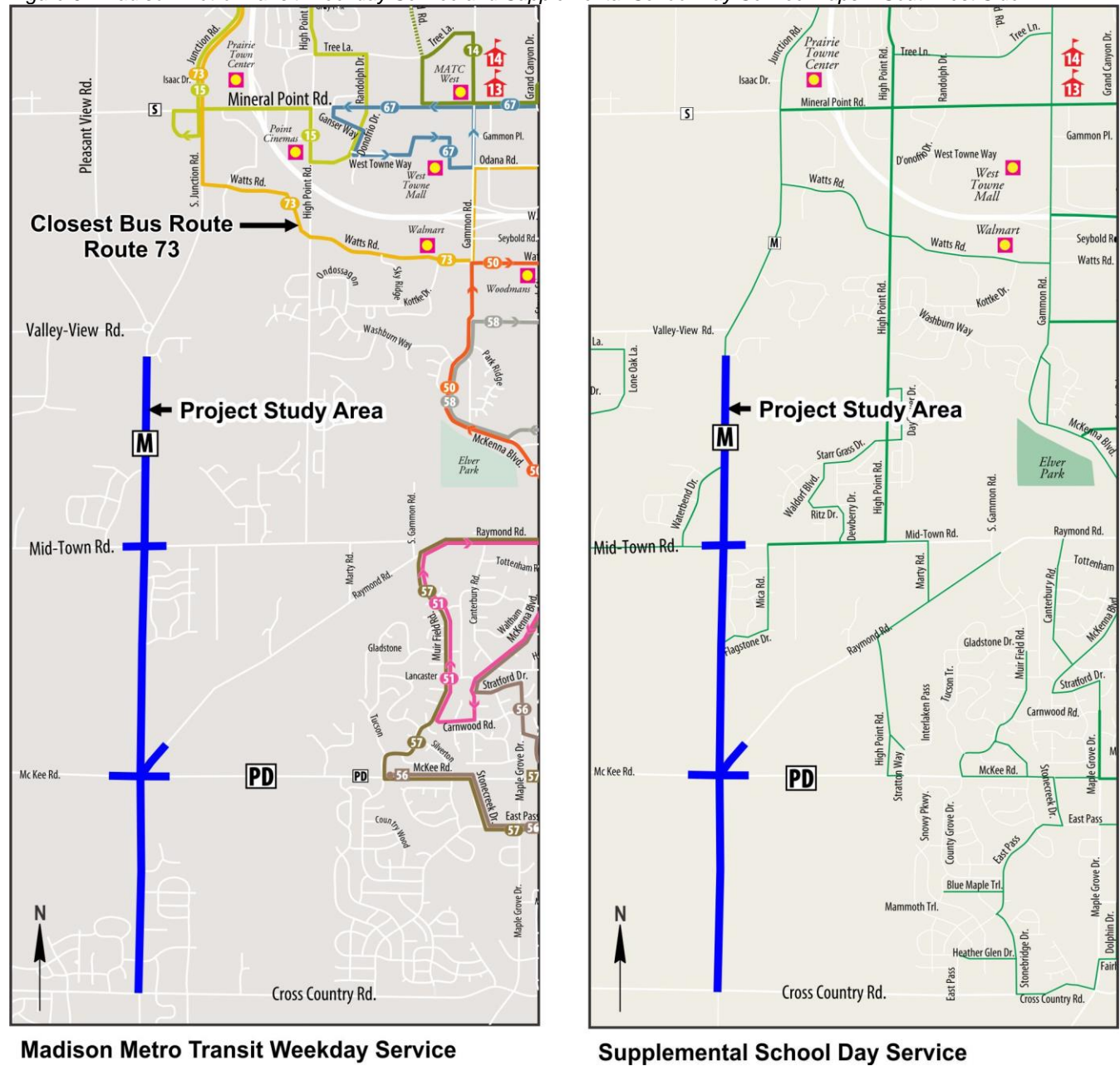
Additional bus routes are anticipated in the future. Metro Transit route planners will provide locations to the project team to include paved sidewalk terraces and bus pull outs for transit stops within the corridor.

Epic Systems Corporation is a large regional employer located in City of Verona. The growth of this company has initiated discussions with the City of Madison, City of Verona, and Metro Transit to improve the commuter express service for employees to the Epic System corporate campus (employed 9,400+ people in 2015). The service provides transportation between downtown Madison residential apartments and the Epic Systems Campus. The campus is 1.5 miles west of the project on Cross Country Road. The nearest current Madison Metro Route (Route 73) serves County M north of Watts Road, approximately 1.5 miles north of the project area. See *Figure 5 – Madison Metro Transit Weekday Service and Supplemental School Day Service Maps – Southwest Side* below. Full versions of these maps can be found in *Exhibit 4 – Madison Metro Transit Weekday Service Map and Supplemental School Day Service Map*.

As noted above, several school bus routes utilize the County M corridor, but because of high traffic volumes and the unsafe conditions, there are no scheduled stopping points along County M.

The MPO's Regional Transportation Plan 2035 identifies the project area of County M as an Express Commuter Bus Route.

Figure 6 - Madison Metro Transit Weekday Service and Supplemental School Day Service Maps – Southwest Side



Legislation and Funding

County M is identified as part of the National Highway System as a MAP-21 principal arterial. Roadways added as part of this network are considered important to the nation's economy, defense, and mobility. All highways on the NHS, including those

sections added by MAP-21, must comply with applicable federal regulations. These requirements include design standards, contract administration, State-FHWA oversight procedures, Highway Performance Monitoring System reporting, National Bridge Inventory reporting, national performance measures data collection, and outdoor advertisement/junkyard control.

The Surface Transportation Program – Urban (STP-U) allocates federal funds to complete a variety of roadway projects classified as major collectors (low to moderate capacity roads which serves to move traffic from local streets to arterial roads) or higher. STP-U funding, along with funds from Dane County, City of Madison, City of Verona, and other municipality monies will be used to construct this project. This project is one of several planning and construction projects along County M that has received or will receive federal funding.

Social Demands and Economic Development

Since this project is sponsored by the City of Madison, in conjunction with Dane County and the City of Verona, and in cooperation with the Towns of Verona and Middleton, the goals outlined in the regional, city, and local plans are the guiding objectives for this project.

The current land uses within the project area include agricultural, residential, and institutional with both rural and urban landscapes. The area has a wide variety of residences comprising of four neighborhood organizations, rural residential neighborhoods, multi-family homes, and apartment buildings. Facilities along the corridor include two golf courses, a research facility, parkland, an electrical substation, a church, and vacant open space.

Urban service areas are those areas in and around existing communities which are most suitable for urban development and capable of being provided with a full range of urban services. The urban service area boundaries represent the outer limits of planned urban growth over a long-term planning period. The project corridor is within this urban service area. Because of the amount of vacant and agricultural land in the project area, substantial development is planned and outlined in the various plans listed on page 2:54.

The project area is located on the urban edge of Madison. Long-range plans for this area include planned urban development for the vacant and agricultural land in the area. Four neighborhood development plans (NDP) predict considerable growth including additional single family and multi-family housing, parks, mixed use and commercial development, and research centers. Especially with increased commercial land use, improvements to the County M project area are needed to accommodate this anticipated growth.

The University Research Park Phase II development at Junction Road and County M is a University of Wisconsin project promotes the new urbanist design, which strives for environmentally friendly, walkable neighborhoods with small lot sizes. The planned site is approximately 270 acres bordered by Mineral Point and South Pleasant View Roads and County M. The expansion will include 64-sites for science and technology buildings and a mix of commercial and residential land uses. (Exhibit 7: Pioneer Neighborhood Development Plan and University Research Park). The development will support approximately 8,000 jobs at full build-out.

The City of Verona is home to the Epic Systems Corporation world headquarters, which is the third largest employer in Dane County. Epic Systems Corporation is a privately held healthcare software company that has grown exponentially within the last decade, and currently has over 9,400+ employees sited on nearly 1,000 acres across five campuses. It is predicted that this company will continue to grow at a fast pace. Full built-out is expected to reach 11,000 employees. Conceptual plans show a proposed sixth campus expansion in the future. The primary access to the campus area from the north is off County PD, approximately 1.5 miles west of County M. Another entrance to one of the campuses is located 1.5 miles west of County M on Cross Country Road. Many employees use the County M corridor as a primary commuter route.

The Middleton Municipal Airport is located 5 miles north of the project. As mentioned in the system linkage section, this is one of the only regional routes to connect the southwest side of Madison, City of Verona, and other communities in this area to this airport.

Roadway Deficiencies

The [Asphalt Roads Pavement Surface Evaluation and Rating \(PASER\) Manual](#) rates pavement surface condition and distress and assigns each roadway link a score of 1-10. A score of 1 requires total reconstruction and a score of 10 indicates new condition or no maintenance required. The Wisconsin local roads inventory (WISLR) maintained by WisDOT shows a PASER score of 5-7 along the County M corridor in 2009. The score indicates routine maintenance is required to fill cracks, and seal coat the roadway.

Based on the traffic data outlined in Improving Intersection Safety and Operational Capacity section (page 2:6), the current geometry of one lane in each travel direction with signalized intersections does not function adequately due to traffic volumes. Turn lanes are not provided in some areas. Where auxiliary lanes are provided, they are not long enough to accommodate the

demand. The existing cross section has acceptable travel lane widths for vehicles, but does not provide dedicated bicycle or pedestrian accommodations. No issues with the existing horizontal or current alignments were identified. No existing numbered structures are within the project limits.

2. Summary of Alternatives

A range of alternatives was considered for the County M project. Discussion for the project included both corridor-wide improvements and intersection specific designs. Corridor-wide alternatives included a no build option, reconstruction with two lanes, and reconstruction with four to five lanes. The preferred alternative was analyzed in two sections, the north phase (Project ID 5992-09-85) and south phase (Project ID 5992-09-82).

There are two intersections in this project:

- **County M & County PD**
- **County M & Midtown Road**

Seven alternatives were developed for the County M & County PD intersection:

- **Option A-1: No Build**
- **Option A-2: Signalized At-Grade Signalized Alternative**
- **Option A-3: Continuous Flow Intersection (CFI)**
- **Option A-4: Jug-Handle Intersection (jug-handle alternatives at each quadrant were considered)**
- **Option A-5: Multi-Lane Roundabout Alternative**
- **Option A-6: Tight Diamond**
- **Option A-7: Westbound Underpass**

Four alternatives were developed for the County M & Midtown Road intersection:

- **Option B-1: No Build**
- **Option B-2: Continuous Flow Intersection (CFI)**
- **Option B-3: Roundabout**
- **Option B-4: At-Grade Signalized Intersection**

Corridor-Wide Alternatives

Prior to selecting a preferred alternative, three corridor wide alternatives were analyzed:

- **Corridor 1: No Build**
- **Corridor 2: Reconstruct with Two Lanes (including spot improvements)**
- **Corridor 3: Expansion with Four to Five-Lanes (with future six-lane accommodations)**

These three alternatives were presented at a public information meeting on December 8, 2011. The general public, city officials, and representatives from various agencies attended and provided comments. Based on the project purpose and need and positive reactions and comments received from interested parties and the public, a preferred alternative (Corridor 3: Reconstruct with Four to Five-Lanes – Future Six-Lane Accommodations) was selected. This preferred alternative was refined throughout the design process and presented again to the public at the second and third public information meetings on May 24, 2012 and March 12, 2014 respectively. Substantial changes were not made during the revision process. Reaction to this alternative was positive.

A summary of each alternative is provided below.

Corridor 1: No Build

This alternative does not include any action except scheduled pavement maintenance. No capacity or intersection improvements would be planned. Any future improvements would consist only of those that attempt to maintain the current service levels and to keep the driving surface in good condition. The existing two-lane facility and at-grade signalized intersections would remain and would not improve capacity.

This alternative would not improve the corridor functionality and would not address the operational or safety concerns within the corridor. The intersections would continue to operate at LOS F, with increased congestion as traffic increases in future years. As traffic volumes increase, users would typically take more risks when entering the traffic stream. There would continue to be substandard bike and pedestrian facilities, and merging from four-lanes to two-lanes at each terminus may cause operational problems.

This option requires no right of way acquisition. The fiscal consideration of this alternative includes no construction costs.

The No Build Alternative would not address key purpose and need factors such as poor traffic operations and lack of bicycle and pedestrian facilities. While the No Build Alternative does not meet the purpose and need for the project, it does serve as a baseline for a comparison.

Corridor 2: Reconstruct with Two Lanes

This alternative would involve a reconstruction of the existing roadway without additional travel lane expansion. Improved facilities for bikes and pedestrians (sidewalks, on-road bicycle lanes, and/or multi-use paths) would be added.

This option would not wholly address the operational or safety concerns within the corridor. The corridor would not increase capacity, which would result in the roadway experiencing heavier delays as traffic increases. Entry onto/off County M from local roads would become more difficult. Since vehicle traffic capacity issues would not be addressed, the intersections would continue to operate at LOS F, with increased congestion as traffic increases in future years. Without expanding the roadway, the amount of traffic this route carries would not allow the LOS to reach an acceptable design year standard and therefore, would not meet the needs of the project. The construction cost would be minimal compared to other four to five-lane expansion alternative.

Because of the factors listed above, the reconstruct with two-lane alternative does not meet the project need and was dismissed from further consideration.

Corridor 3: Expansion with Four to Five-Lanes (Future Six-Lane Accommodations) – PREFERRED ALTERNATIVE

This alternative includes the expansion of County M to a four to five-lane urban roadway. The divided urban roadway will have curb and gutter, street lighting, and a raised median throughout the corridor. Bike lanes and a multi-use path will be constructed along the entire corridor. Sidewalks with crosswalks will be constructed within developed areas and graded for areas that are undeveloped.

The design year traffic volume forecast used in the analysis of the proposed intersection alternatives requires three northbound and three southbound lanes at the signalized intersection of County M & County PD and three northbound and two southbound lanes at the intersection of County M & Midtown Road. Northbound and southbound lanes will continue between the two intersections in order to provide lane continuity and achieve full utilization of all three lanes at the intersections. The traffic volume threshold at which the third northbound and southbound lane will be required is anticipated to be reached within the next twenty years for the northbound lanes and shortly thereafter for the southbound lanes. Thus, the preferred alternative includes constructing both of the third lanes with the initial construction. The third southbound lane will be marked as an auxiliary lane for turning movements and buses

This alternative will increase capacity while addressing the operational and safety concerns within the corridor. Traffic operations will improve throughout the corridor and will allow for future planned local roads. Strategic median breaks will provide limited access where needed. This alternative will provide improved facilities for bikes and pedestrians as well as provide a continuous four to five-lane facility from the City of Verona to the City of Madison, connecting to similar typical sections at both termini.

The additional lanes will provide the needed capacity to accommodate the future traffic projections outlined in the purpose and need section. Restricted use lanes for buses and right-turns on County M between County PD Valley View Road allow for capacity expansion to six-lanes in the future, if needed.

The intersection improvements keep motorist delay at each intersection at or below acceptable levels and provides sufficient capacity for the forecast traffic volumes.

As mentioned in Project Status section and illustrated in *Figure 2 - County M Transportation Improvement Program (TIP) Approved Construction Projects*, the corridor was split into two sections, described as “south phase” (Phase III, ID 5992-09-82) and “north phase” (Phase IV, ID 5992-09-85). *Figure 7 – Corridor Phases* shows the two sections on the project location map. The intersections of County M & County PD and County M & Midtown Road are not discussed in this section because they required separate analysis with additional alternative possibilities.

Corridor 3: Reconstruct with Four to Five-Lanes (Future Six-Lane Accommodations) was selected as the preferred alternative because it is the only option that fully addresses the project’s purpose and need.

Figure 7 – Corridor Phases

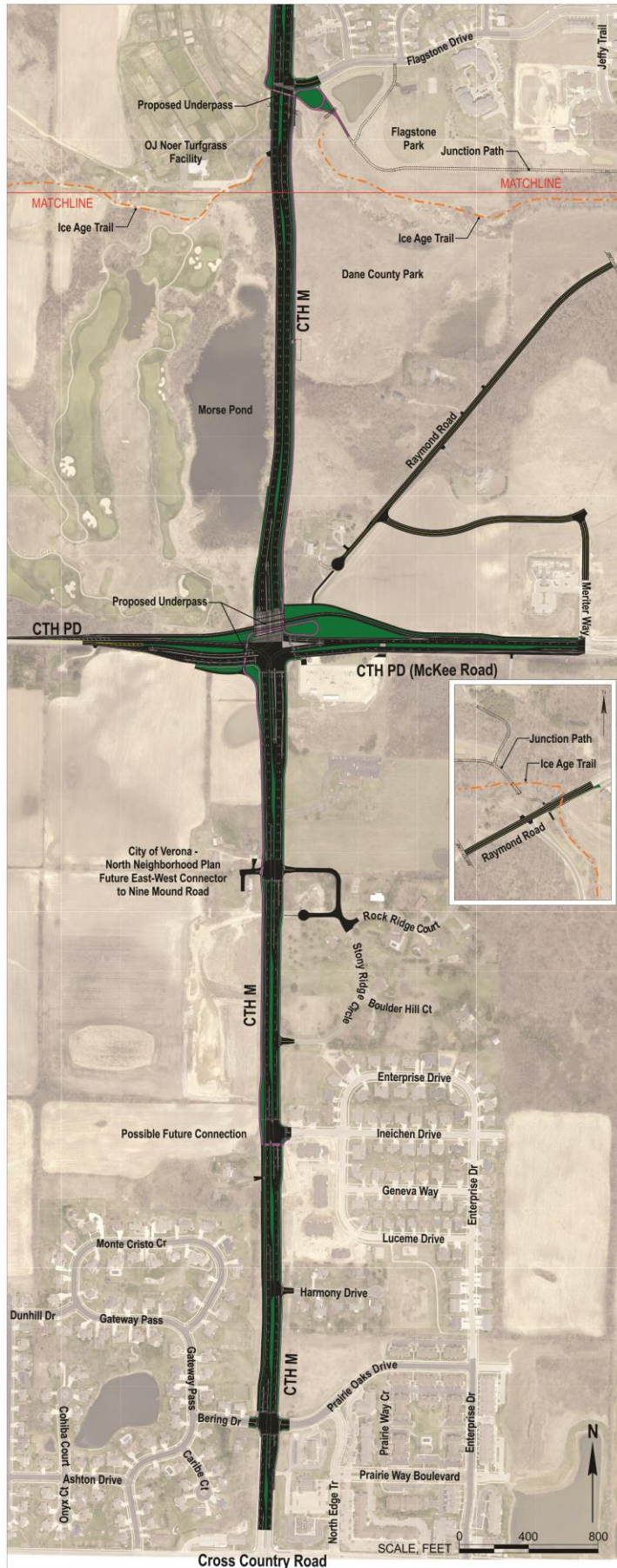


South Phase (Project ID 5992-09-82)

The south phase begins at Cross Country Road and extends north to 2,500 feet (approximately ½ mile) north of County M & County PD intersection (a distance of 1.39 miles). The preferred alternative will provide four travel lanes (two lanes in each direction) from Prairie Oaks Drive to County PD. Four travel lanes and one restricted lane in each direction are proposed from County PD to Flagstone Drive.

Figure 8 - Preferred Alternative, South Phase shows the proposed design for the south phase. Larger scale versions of all figures can be found in the appendix.

Figure 8 - Preferred Alternative, South Phase



North Phase (Project ID 5992-09-85)

The north phase begins 2,500 feet (approximately ½ mile) north of County M & County PD intersection and extends to Prairie Hill Road (a distance of 1.47 miles). Five travel lanes (three northbound, and two southbound) and one restricted southbound lane are proposed from Flagstone Drive to Prairie Hill Road.

Figure 9 - Preferred Alternative, North shows the proposed design for the north phase. A larger scale version of the figure can be found in the appendix.

Figure 9 - Preferred Alternative, North Phase



Intersections

Intersections throughout the corridor, especially at County M and County PD and County M and Midtown Road are failing at an operational level causing long delays and traffic backups. This congestion likely leads to more accidents as drivers perform risky maneuvers to access the roadway. In order to reduce this congestion, capacity needs to be increased.

An expanded roadway will require reconfigured intersections. Intersection functionality, safety and road geometry will be addressed and will improve as a result of this alternative. The *Intersection Alternatives* section describes the various alternatives considered for the two intersections within this project.

Access

Several access changes are anticipated as a part of the proposed alternative. *Figure 9 – Access Changes* identifies the access location and changes.

- Full access maintained at Bering Drive & Prairie Oaks Drive with a left-turn lane and right-turn lane provided in each direction.
- Full access maintained at Harmony Drive with a left-turn lane provided (southbound).
- Full access maintained at Ineichen Drive with a left-turn lane provided (northbound and southbound) and a right-turn lane (northbound).
- Northbound right-in/right-out access provided at the south access of Stony Ridge Circle. Existing north access of Stony Ridge Circle will be constructed as a cul-de-sac and a connection (located approximately 300 feet north) will be constructed as full access with a left-turn lane (northbound and southbound) and a right-turn lane (northbound). The relocated intersection will tie into the City of Verona's future east/west collector. Existing County M access into West Madison Bible Church will be removed and relocated.
- Raymond Road connection to County PD at County M will be removed and relocated approximately 1,800 feet east on County PD at Meriter Way. A new connection between Meriter Way and Raymond Road will be constructed.
- Full access maintained at OJ Noer Turf Grass Research Facility with a left-turn lane provided (northbound)
- Full access maintained and a left-turn lane provided (southbound) at Flagstone Drive
- Right-in/Right-out maintained at Shale Drive
- Full access maintained for Waterbend Drive with a left-turn lane provided in each direction to accommodate future connection (east of County M) as identified in the High Point-Raymond Neighborhood Development Plan.
- New Full access for University Research Park expansion and a left-turn lane provided (northbound)
- Full access for Prairie Hill Road maintained and left-turn lane provided (southbound)
- Private driveways typically will be right-in/right-out
- The Ineichen Drive, Stony Ridge Circle, Waterbend Drive, and future University Research Park intersections will be wired with conduit beneath the roadway surface in preparation of these intersections becoming signalized in the future.

These access changes were presented at the public information meetings and available at the project website. The feedback was generally positive, as the project team maintained full or partial access at the majority of locations.

Figure 10 - Access Changes

South Phase



North Phase



Future Streets

The City of Verona's [North Neighborhood Plan](#) identifies a proposed east/west collector road, connecting County M across from existing Stony Ridge Circle. The city has identified a desire to locate this future road approximately 300 feet north of the existing Stony Ridge Circle intersection with County M. The location matches the realigned Stony Ridge Circle. The new east/west collector road to the west of County M will be constructed in the future to accommodate planned residential and commercial development. The realigned road east of County M will provide access to West Madison Bible Church and the neighborhood. Existing Stony Ridge Circle (north intersection) will be constructed as a cul-de-sac. Traffic volumes on this new east/west collector may require the intersection with County M to be signalized. The North Neighborhood Plan also includes a north/south collector west and parallel to County M that will intersect with County PD. The City of Verona anticipates that the intersection of this collector with County PD may also need to be signalized due to traffic volumes. The potential for signals at both of these intersections was considered in the design of the County M and County PD roadway and intersection.

The City of Madison's [High Point-Raymond Neighborhood Development Plan](#) (amended last in 2006) identifies several new roads to be constructed east of County M between Valley View Road and Midtown Road to accommodate future (predominantly residential) developments. An access road to County M located approximately 500 feet south of Valley View Road will be right-in/right-out access. A southern roadway will connect to Waterbend Drive to the east of County M,

provide full access, and may require future signalization.

According to the University Research Park Plan, which is a subset of the Midtown Neighborhood Development Plan, two new roads to the west of County M will serve the neighborhood development needs, provide a direct connection to County M, and align with the new roadways proposed for The High Point-Raymond Neighborhood Development Plan.

The expansion of County M will allow these desired access points to be included in the design. The future intersections will create additional access points along County M. With the increased lane capacity and designated turn lanes in certain areas, the future intersections should not have a substantial effect on the LOS.

No future planned improvements are being foreclosed by this project and no secondary impacts as a result of this project are anticipated.

Raymond Road

Currently Raymond Road intersects County PD 50 feet from the County PD/County M intersection. In order to improve safety and maneuverability, Raymond Road will be reconstructed to a cul-de-sac near the driveways of the Schroeder-Stickelberg-Thompson Farmstead north of County PD. A new "T" intersection with a new unnamed road will connect Raymond Road to Meriter Way, which intersects with County PD 1,800 feet east of the County M & County PD intersection. The Meriter Way intersection has full access to County PD and thus will provide full access to County PD for Raymond Road users. See *Figure 7 – Preferred Alternative, South Phase*.

The proposed improvements include storm sewer and sanitary sewer utilities within the Raymond Road right-of-way. The construction of these utilities will require the reconstruction of Raymond Road, which will be reconstructed as a rural street, matching existing conditions. The adopted High Point-Raymond neighborhood plan shows considerable lengths of Raymond Road to be removed. Plan amendments are under consideration by City of Madison planning staff and the plan commission and will take into consideration that Raymond Road will remain as part of the design in the preferred alternative discussed here. Neighborhood street networks, sidewalks, and other improvements will be developed with the neighborhood and are not included with this project. Improvements to Raymond Road including curb and gutter and sidewalk will be included as part of the development of this neighborhood. At this time, Raymond Road will remain in the Town of Verona and a rural road without sidewalk.

Sidewalks and Bicycle Facilities:

Bicycle and pedestrian facilities will be construed to comply with the Americans with Disabilities Act (ADA) standards throughout the corridor. The new facility includes pedestrian ramps, sidewalks, cross-walk markings, median areas, and pedestrian-actuated traffic controls which will allow for the safe and efficient movement of pedestrians.

Bicycles will be accommodated both on the roadway with 5-foot bicycle lanes and off the roadway with a 10-foot paved multi-use path. Pedestrians will be accommodated with sidewalks or multi-use path on at least one side of the roadway. *Figure 10 – Area Trails and Multi-Use Paths* shows the non-motorized facilities in the area and along the project corridor.

For a detailed explanation of all existing and proposed facilities, see Description of Proposed Action, Bicycle and Pedestrian facilities.

Sidewalk Facilities

South Phase

There are existing sidewalks on both sides of the roadway between Cross County Road and Prairie Oaks Drive, which will be maintained. A proposed sidewalk on the east side of County M will tie into the existing sidewalk at Prairie Oaks Drive and extend north to County PD. A proposed 10-foot multi-use path on the west side of County M will tie into the existing sidewalk at Prairie Oaks Drive and extend north to County PD. A crossing for this multi-use path will be provided at Ineichen Drive to connect to an existing multi-use path. At the County M & County PD intersection an underpass is provided for the paved multi-use path to cross under the intersection to the east side of County M. The multi-use path then continues north to Flagstone Drive. No sidewalk facilities will be provided on the west side of County M along the west side of County M between County PD and Flagstone Drive, however pedestrians are accommodated via the multi-use path located on the east side of County M. Sidewalk is not included on the west side of County M in an effort to reduce the overall width of the roadway corridor and the resulting impacts to Morse Pond and the Dane County Park. There are no pedestrian traffic generators along County M in this section and there aren't any plans to due to the location and grade of Morse Pond. Appropriate crosswalks will be provided at intersections.

Along County PD, a paved multi-use path will extend along the south side of County PD to the western project limits. The City of Verona's North Neighborhood Plan includes plans for a path to continue along County PD that will tie into the path proposed with this project. East of County M, a paved multi-use path will connect from the intersection of County M and County PD along the north side of County PD to the Meriter Way intersection. This path will intersect with a path proposed along the north side of County PD that is proposed for construction by the City of Madison in 2017.

North Phase

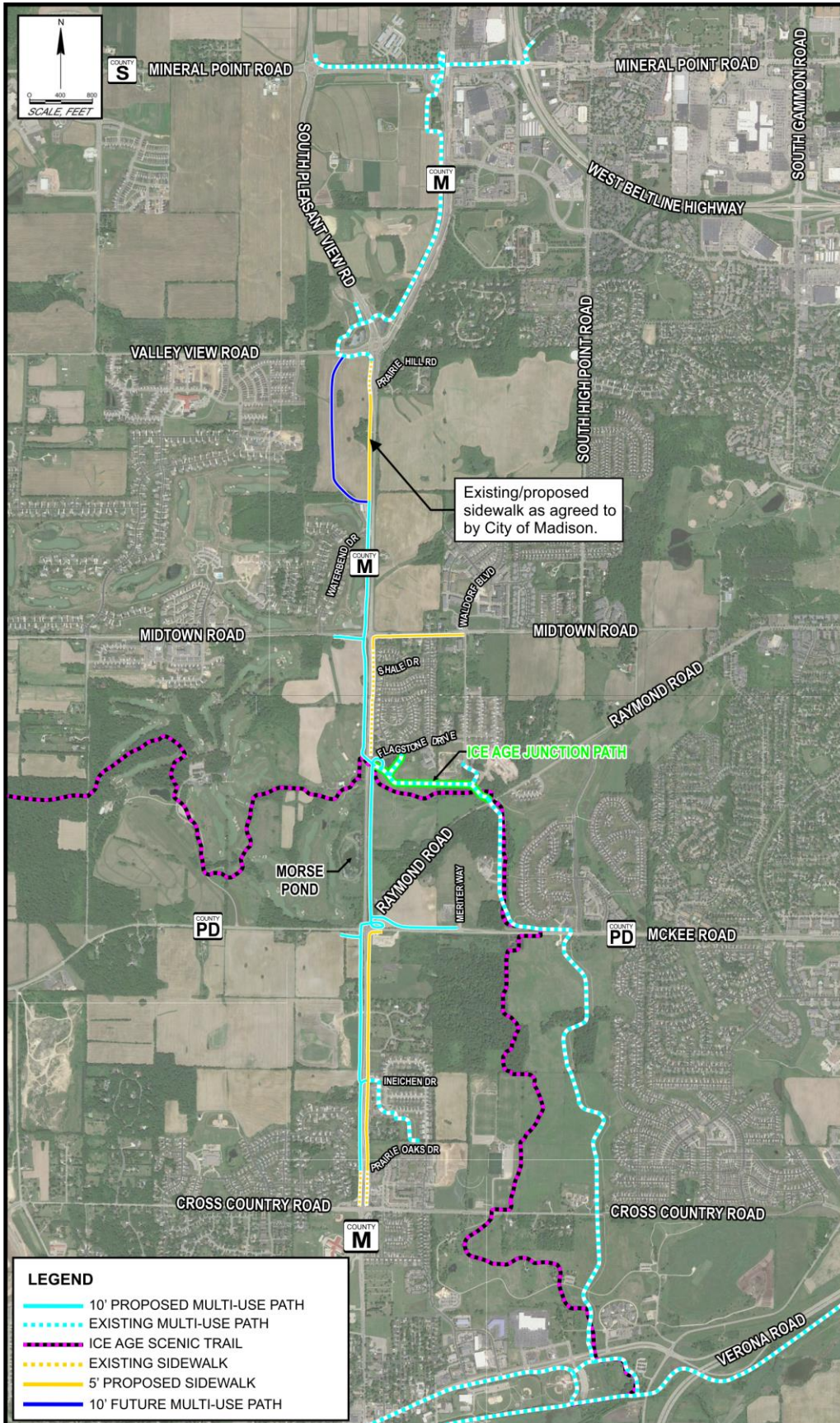
As mentioned in the south phase, the proposed multi-use path on the east side of County M extends north from the County M & County PD intersection to Flagstone Drive and meets the Ice Age National Scenic Trail and the paved Ice Age Junction Path. At the County M & Flagstone Drive intersection, the paved Ice Age Junction Path crosses under the intersection in order to provide connectivity to the Ice Age National Scenic Trail and the Ice Age Junction Path across County M. The multi-use path will continue north on the west side of County M below the County M & Midtown Road intersection and extends about 500 feet past Waterbend Drive at the proposed future connection to the University Research Park. A proposed 5-foot sidewalk will continue from the end of this path and extend north to meet the existing sidewalk at the Valley View Road roundabout. The existing sidewalk on the east side of County M that extends from Flagstone Drive to 500 feet north of Shale Drive will remain. A sidewalk will be constructed to continue the existing sidewalk north of Shale Drive and continue east on Midtown Road to Waldorf Boulevard. Intermittent sidewalks already exist in the area. The east side of County M between Midtown Road and Prairie Hill Road will be graded for future sidewalks, to be constructed with planned development.

Bicycle Facilities

The proposed multi-use path will connect County S to the Military Ridge State Trail and the west side of the City of Madison. A Verona connection will tie the multi-use path to the existing bike path at Ineichen Drive connecting to the City of Verona. Grade separated crossings will be constructed at County M & County PD, County M & Flagstone Drive and County M & Midtown Road. A 5-foot on-street bike lane in both directions will also be provided on all arterials throughout the corridor.

The City of Madison has directed the project team to include a paved shoulder on Raymond Road for bicycle accommodation and to design Raymond Road without sidewalks, but with consideration for future sidewalks once development occurs.

Figure 11 – Area Trails and Multi-Use Paths



Intersection Alternatives

Intersection A: County M & County PD Intersection

The County M & County PD intersection is located in the south phase of the corridor. County PD, is an important east-west arterial that connects the City of Verona to the City of Fitchburg through the City of Madison.

The County M & PD intersection is located in the south phase of the corridor. County PD runs east-west and connects numerous residential areas and neighborhoods to the important County M arterial. A large pond (Morse Pond) sits in the northwest quadrant and is surrounded by University Ridge Golf Course. A substation is located in the southeast quadrant, and a National Register of Historical Places (NRHP) eligible farmstead is located in the northeast quadrant constraining the ability to shift the intersection alignment in any direction in order to minimize impacts.

Raymond Road intersects County PD directly east (approximately 50 feet) from the County M & County PD intersection. This existing access does not meet current WisDOT minimum access spacing guidelines of 1,000 feet between a principal arterial and a local road, and this access point needs to be taken into consideration with each alternative. Additional discussion regarding this geometric need is included at the end of this section.

In order to meet the purpose and need, the preferred alternative must be able to alleviate congestion, address roadway deficiencies, substandard bicycle and pedestrian features, and provide a safe and serviceable corridor that is convenient for area businesses, residents, and the traveling public (which includes motor vehicles, transit, bicyclists, and pedestrians). The alternative must also tie into existing facilities, provide connections for the path and trail network, and accommodate the urban development planned for the area.

Prior to selecting a preferred alternative at County PD, seven intersection alternatives were considered. They were:

- **Option A-1:** No Build
- **Option A-2:** At-Grade Signalized Alternative
- **Option A-3:** Continuous Flow Intersection (CFI) (discussed at a conceptual level early in the planning process)
- **Option A-4:** Jug-Handle Intersection (Northeast, Southeast, Southwest Alternatives discussed at a conceptual level early in the planning process)
- **Option A-5:** Multi-Lane Roundabout Alternative
- **Option A-6:** Tight Diamond
- **Option A-7:** Westbound Underpass

Option A-1: No Build

County PD is currently a signalized intersection. County M northbound and southbound lanes have three lanes, one lane for a dedicated through movement as well as exclusive left-turn and right-turn only lanes. County PD eastbound has two lanes including an exclusive left-turn lane as well as a shared through/right-turn lane. County PD westbound has two lanes including an exclusive right-turn lane and a shared through/left-turn lane. There are no pedestrian or bicycle facilities at the County PD intersection.

Both County PD and County M are NHS Routes. In part because these roads are a National Highway System facility, this alternative would not meet the purpose and need and would be neither prudent nor feasible. This alternative would not address safety, congestion, operational needs, system connectivity (including the lack of connected bicycle and pedestrian facilities), or corridor functionality. Any future improvements would be limited to those that attempt to maintain the current service levels, driving surface, and address safety concerns at spot locations. No other action except normal maintenance would take place.

The existing 2-lane NHS facility and associated at-grade signalized intersections would remain and there would be no improvement to safety or correction of congestion. The intersection configurations, road pavement, and roadway section would bear future traffic volumes, resulting in worsening congestion, mobility, and operational characteristics. The intersections would continue to operate at LOS F, with increased congestion and crashes as traffic increases in future years. As traffic volumes increase, users would typically take more risks when entering the traffic stream. There would continue to be limited bike and pedestrian facilities along the corridor. Driver's expectations for a consistent corridor will not be met resulting in safety and operational concerns related to merging from 4-lanes to 2-lanes at each terminus.

While the No Build Alternative is neither prudent nor feasible and does not meet the purpose and need for the project, it does serve as a baseline for comparison.

When evaluating alternatives, all build intersection alternatives meet the need factors for system linkage, transportation demand, legislation and funding, social and economic needs, and roadway deficiencies. The capacity, modal interrelationships, and safety need factors are addressed in each alternative discussion.

Option A-2: At-Grade Signalized Alternative

The At-Grade Signalized Intersection for County PD is shown in *Figure 11 – Option A-2: Signalized Intersection*. The intersection would follow the current at-grade signalized layout, but would be widened to improve capacity and shifted to the west to avoid the historic farmhouse and electrical substation.

Northbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and dual right-turn lanes. Southbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Eastbound County PD would consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and dual right-turn lanes. Westbound County PD would consist of dual left-turn lanes, a raised median two through lanes, a bike lane, and an exclusive right-turn lane. Raymond Road would be converted to a cul-de-sac.

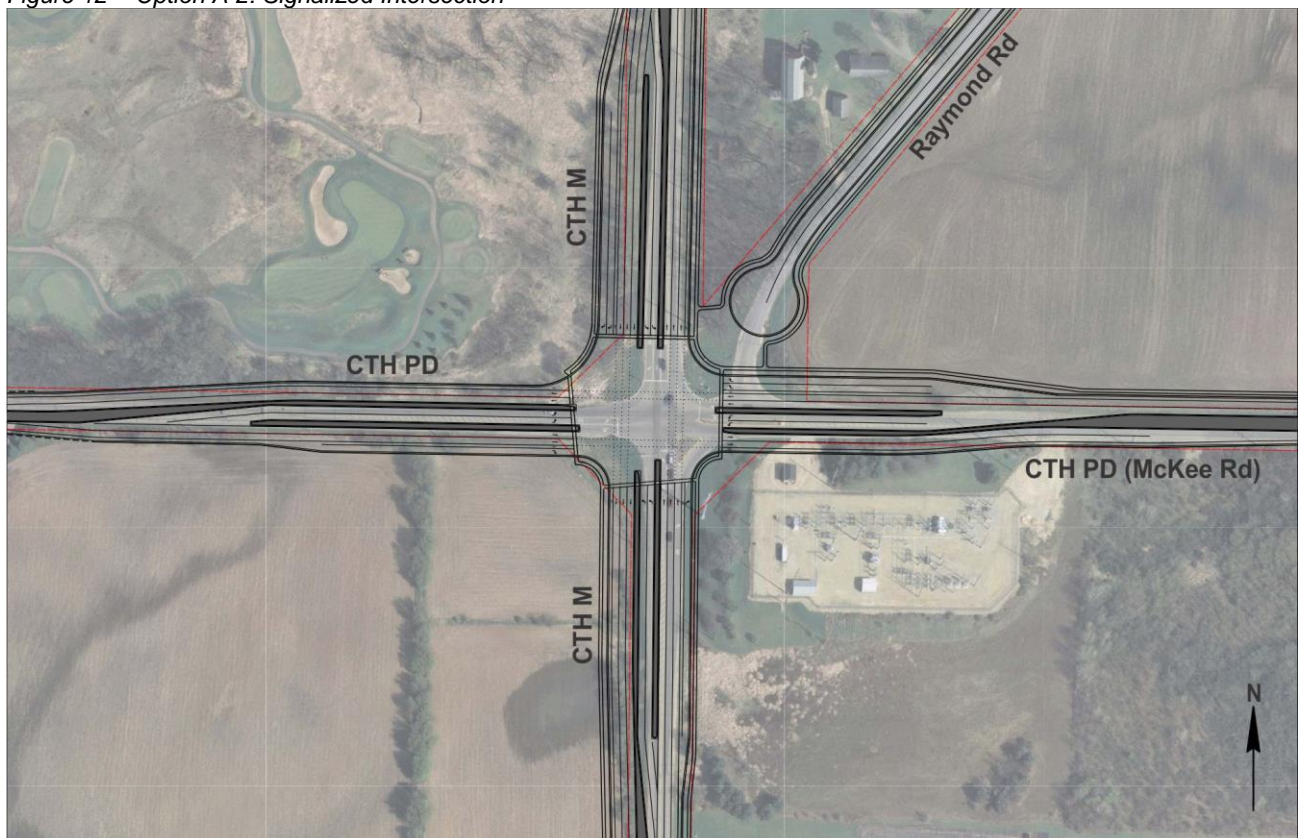
Sidewalks, multi-use paths, and a multi-use underpass below the intersection could be included, however *Figure 11* was created at the conceptual phase and does not include the underpass or multi-use path layouts. These elements were introduced after this alternative was determined to be not prudent due to traffic capacity.

The At-Grade Signalized Alternative was studied prior to the first public information meeting and several disadvantages were identified with the At-Grade Signalized Intersection. Planning level right of way acreage and construction costs were calculated, but because this alternative was dismissed before the Public Information Meeting, refined estimates were not calculated. It was not presented at the Public Information Meeting.

The At-Grade Signalized Alternative was not chosen because:

- Requires a large footprint with multiple turn lanes in all directions.
- Requires ten lanes at its widest point on the north and south phases.
- Pedestrians and bicyclist would have to navigate a large number of lanes and safety would not be satisfactory.
- Crashes would likely increase and substantial signing would be needed to alleviate potential driver confusion.
- Does not address the operational and safety concerns within the corridor.
- Upon completion, the intersection would operate at a LOS E, still resulting in long delays.
- This alternative would not meet the goals of the project. The full-build out design would reach capacity in 2029.
- This alternative does not meet the project need, was not considered prudent, and was dismissed from further consideration.

Figure 12 – Option A-2: Signalized Intersection



Option A-3: Continuous Flow Intersection (CFI)

The Continuous Flow Intersection (CFI) is a hybrid intersection that utilizes signals in advance of the primary intersection. At these signals, left-turning vehicles cross over the opposing through-moving traffic so that when left-turning vehicles reach the primary intersection, they can turn left at the same time the opposing through-moving traffic is passing through the intersection. This combination of two movements at the primary intersection improves the efficiency of the intersection, resulting in greater capacity. The CFI (*Figure 13 – Option A-3: Continuous Flow Intersection*) was designed with a curved alignment that shifted County M to the west to avoid the historic farmhouse and electrical substation. The shifting of the intersection to avoid the farmhouse and substation would affect numerous wetlands in the southwest quadrant as well as increase property acquisition of another protected Section 4(f) property (University Ridge Golf Course) in the northwest quadrant.

Northbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Southbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Eastbound County PD would consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and two right-turn lanes. Westbound County PD would consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and an exclusive right-turn lane. A cul-de-sac at Raymond Road would result from this alternative.

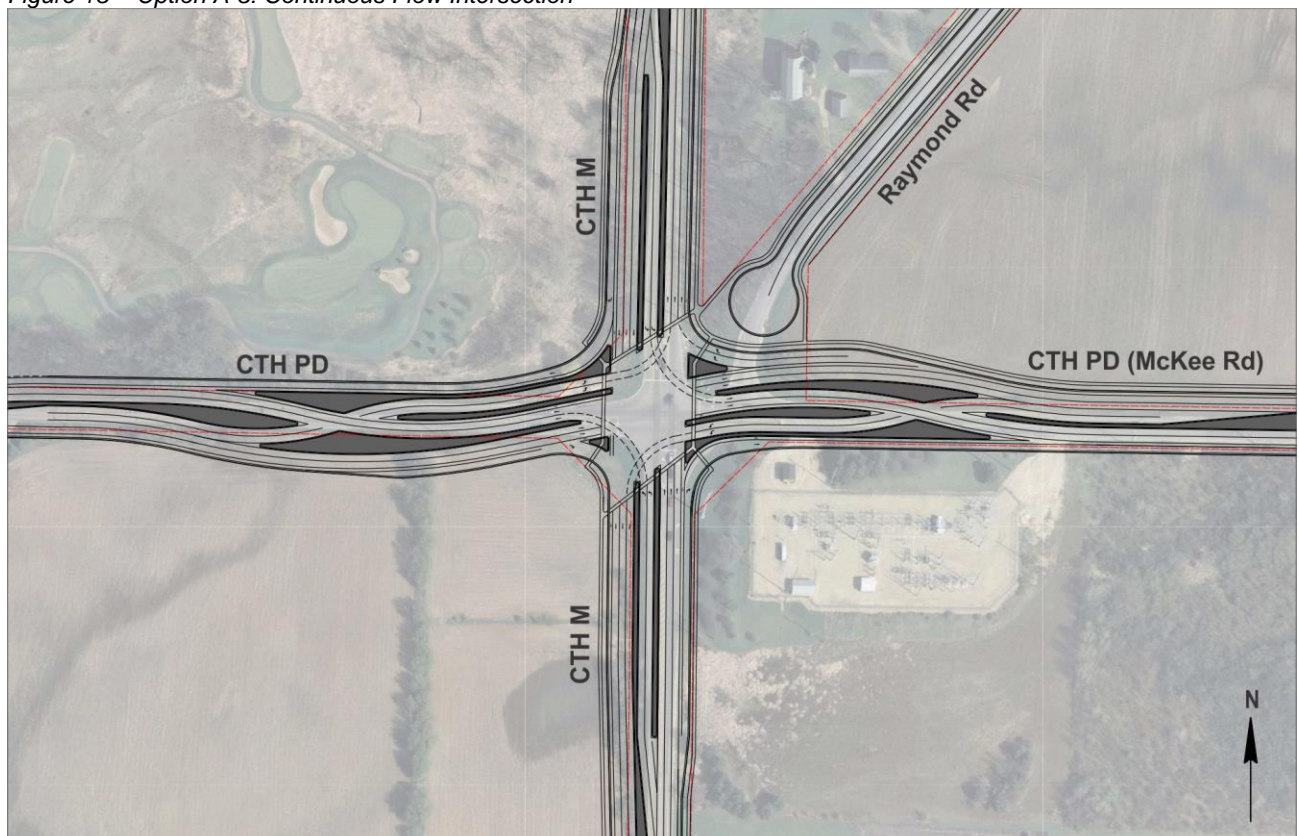
Although this alternative meets the capacity needs of the project, actual cost and right of way acreage was not calculated since the alternative was discussed at a conceptual level and eliminated early in the planning process.

The Continuous Flow Intersection (CFI) was not chosen because:

- Cost of the intersection is anticipated to be higher than a traditional signalized intersection since it requires more pavement and traffic signal equipment.
- Complicated design and possible driver confusion. Extensive signing required. Would be the first CFI in the Midwest.
- Inability to meet safety concerns for pedestrians and bicyclists – it does not provide sufficient pedestrian crossing time. Grade separated crossings could be included for similar costs, however the other alternatives include at-grade pedestrian crossings that supplement the grade-separated crossings and have sufficient pedestrian crossing time.
- This alternative was not considered prudent, and was dismissed from further consideration.

This alternative was not presented to the public as a possible alternative.

Figure 13 – Option A-3: Continuous Flow Intersection



Option A-4: Jug Handle Intersection

Split-grade jug-handle alternatives were considered for the County M & County PD intersection. Split-grade jug-handle intersections are designed to carry the high-volume traffic over a bridge while a secondary road, the jug-handle, provides access to the intersecting street. Separating the highest volume movement from the primary intersection allows the intersection to operate more efficiently. Four versions of the Grade Separated Jug-Handle were named after the quadrant in which the jug-handle secondary road is located: Northeast, Northwest, Southeast, and Southwest.

A-4.1 Northeast Jug-Handle Intersection:

The Northeast Jug-Handle Intersection (*Figure 14 – Option A-4.1: Northeast Jug-Handle Intersection*) would be constructed with northbound County M being grade-separated over County PD while all other movements would occur via at-grade intersections. The southbound, eastbound and westbound traffic would be controlled by a traffic signal. The jug-handle would occupy the northeast quadrant of the intersection. The intersection where the jug-handle intersects with County M and County PD would be signalized.

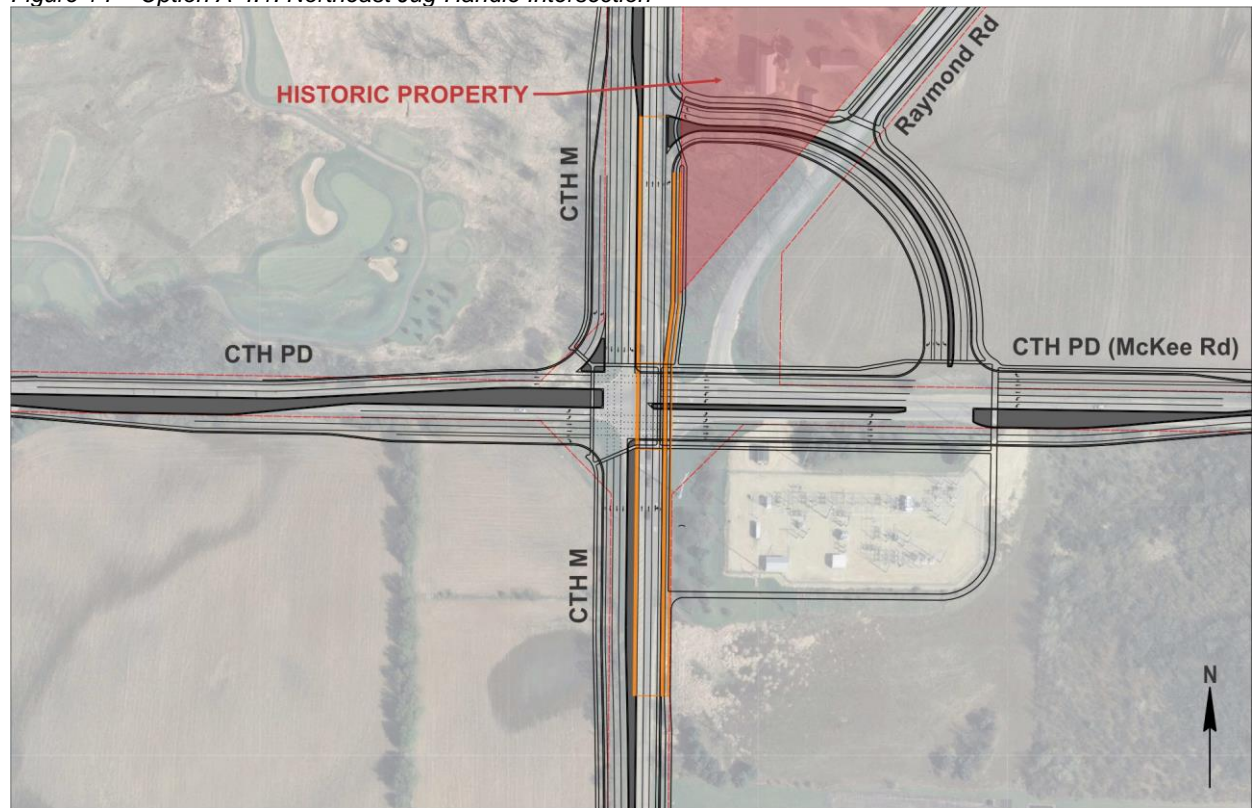
Southbound County M would consist of a left-turn lane, three through lanes, a bike lane, and dual right-turn lanes. Northbound County M would consist of two through lanes, a bike lane, and an exclusive right-turn lane into the jug-handle. Eastbound County PD would consist of dual left-turn lanes, two through lanes, a bike lane, and right turn lane. Eastbound traffic wanting to go north on County M would enter a traffic signal at the jug-handle, approximately 400 feet east of the existing intersection. Westbound County PD would consist of dual left-turn lanes, two through lanes, a bike lane, and an exclusive right-turn lane. Raymond Road would be realigned to tie into the jug-handle of the intersection however, would only provide access from westbound County PD and access to northbound County M, which is a reduced access condition from the existing conditions.

A full relocation of the historic parcel would be required. The estimated total cost of constructing this alternative was not calculated.

Although the Northeast Jug-Handle Intersection provides an adequate level of service for traffic (LOS C), the alternative was not chosen because it requires the acquisition of structures and historical property.

This alternative was eliminated early in the planning process and dismissed from further consideration. It was not presented to the public.

Figure 14 – Option A-4.1: Northeast Jug-Handle Intersection



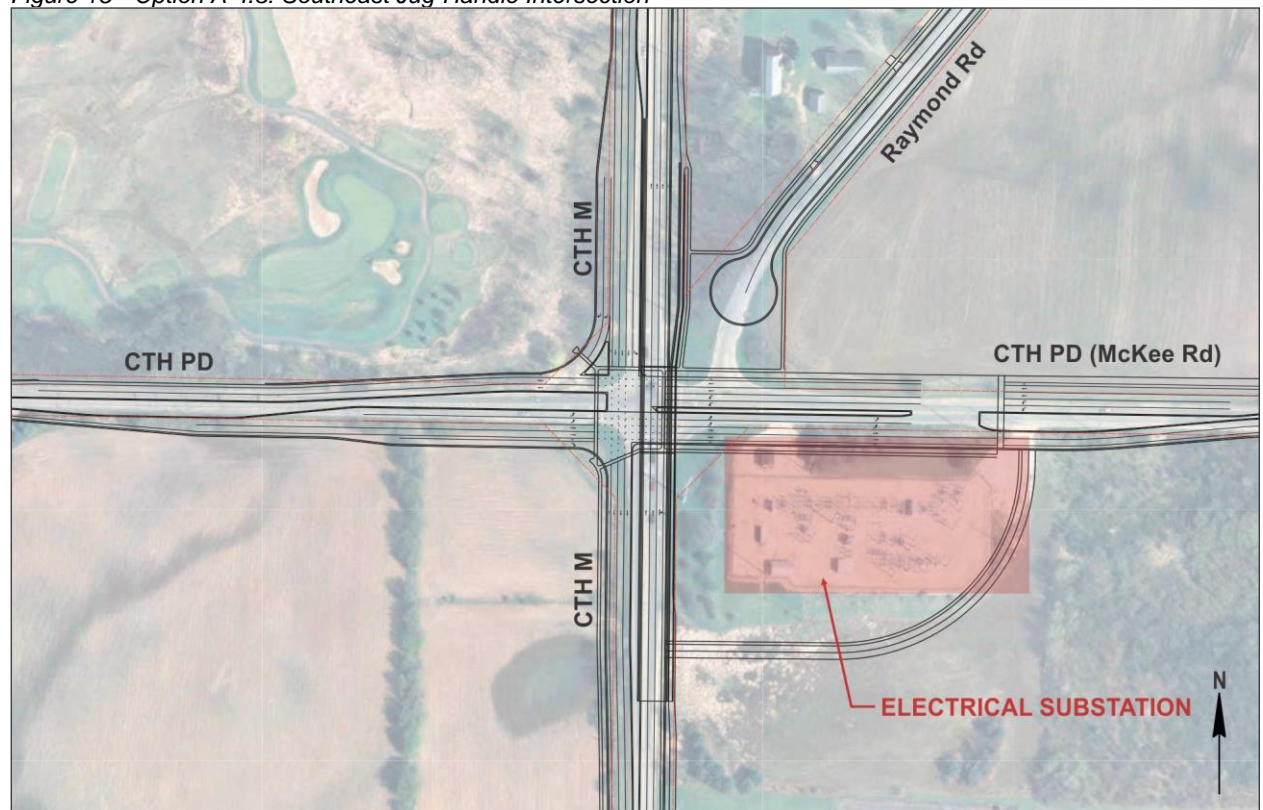
A-4.2 Northwest Jug-Handle Intersection:

A grade-separated jug handle in the northwest quadrant of the intersection was not considered due to the location of the golf course, Morse Pond, and wetlands. No figures were developed for this jug-handle location. This alternative was not considered prudent and not presented to the public.

A-4.3 Southeast Jug-Handle Intersection:

The Southeast version (*Figure 15 - Option A-4.3: Southeast Jug-Handle Intersection*) would have resulted in an active electrical substation in the middle of the jug-handle portion of the intersection, creating access issues for the facility. The Alliant Energy substation is located adjacent to the County M & County PD intersection. Roadway expansion within the fenced area of this facility would result in the need to relocate the entire substation. This substation serves approximately 11,000 residential and commercial customers in Verona and Madison and is expected to increase by 400 to 500 customers annually. This substation also serves Epic Systems Corporation, which has 9,400+ employees and whose electric usage is equivalent to approximately 2,800 homes. Relocation of this substation is neither feasible nor prudent due to the extensive costs (estimated upwards of \$50 million). Thus the design would require pushing the jug handle roadway further south and east of the optimal signal timing location, reducing the efficiency of traffic operations, and increasing the footprint of the intersection. The jug handle roadway would also entirely fill in the wetland south of the electrical substation. This alternative was not considered prudent and was dismissed as a viable alternative. It was not presented at the Public Information Meetings.

Figure 15 - Option A-4.3: Southeast Jug-Handle Intersection



A-4.4 Southwest Split-Grade Jug-Handle Intersection:

The Southwest version (*Figure 16 - Option A-4.4 Southwest Jug Handle*) was considered the most feasible jug handle option and would provide acceptable levels of service for traffic operations (LOS C).

Northbound County M would consist of dual left-turn lanes, two free-flow through lanes, and an exclusive right-turn lane. Left-turning and right-turning vehicles would veer left from the through lanes and utilize a traffic signal at the jug-handle's southern terminus. Left-turning vehicles would be directed to use the jug-handle and access westbound County PD via another traffic signal at the jug-handle's western terminus. Right-turning traffic would not use the jug-handle but continue northbound and access County PD via a second traffic signal at the southbound County M & County PD intersection. Northbound County M through movements would be uninterrupted.

Southbound County M would consist of an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. All southbound lanes would remain at-grade and intersect County PD via traffic signal. Southbound through

movements and southbound right-turning movement would then encounter a second traffic signal with the jug-handle before exiting the area.

Eastbound County PD would consist of two through lanes and an exclusive right-turn lane. At the jug-handle's western terminus, left-turning and right-turning traffic from County PD would be directed to use the jug-handle via exclusive right-turn lane. This traffic would then use the jug-handle and access County M at the jug-handle's southern terminus. Dual left-turn lanes and an exclusive right-turn lane would be provided. Eastbound through movement would then intersect southbound County M via traffic signal before exiting the area.

Westbound County PD would consist of an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. All westbound lanes would remain at-grade and intersect southbound County PD via traffic signal. Right-turning vehicles would travel northbound and perform a left-veering merge with northbound County M traffic. Left turning and through movements would then intersect the jug-handle's southern and western terminus, respectively, before exiting the area.

With this alternative, Raymond Road access to County PD will be removed and restored via a new roadway connection to Meriter Way, east of the County M & County PD intersection. Raymond Road will be reconstructed as a two lane rural roadway as a result of the proposed Madison Metropolitan Sewerage District (MMSD) sanitary sewer addition and to provide storm sewer pipe to send roadway stormwater to a regional stormwater pond. The paved shoulders along Raymond Road will be wide enough for bicycle accommodation. A proposed short multi-use path connection will connect the end of Raymond Road with the multi-use paved path along County M and along County PD. There aren't any existing pedestrian facilities on Raymond Road nor a need to include them due to widespread, limited development.

The bicycle / pedestrian trail along County M would cross County M at-grade at the jug-handle's southern terminus, then follow northbound County M on the overpass over County PD. Just north of County PD, a pedestrian loop ramp would be provided for access to paths along County PD and Raymond Road.

This alternative would address the operational and safety concerns within this area. Upon completed construction of this alternative, the intersections would operate at level of service (LOS C) during peak periods. The use of multiple traffic signals and the jug-handle reduces the number of conflict points for left-turning traffic when compared to traditional, four-legged intersections. This alternative provides acceptable levels of service for future traffic operations and was considered feasible and prudent.

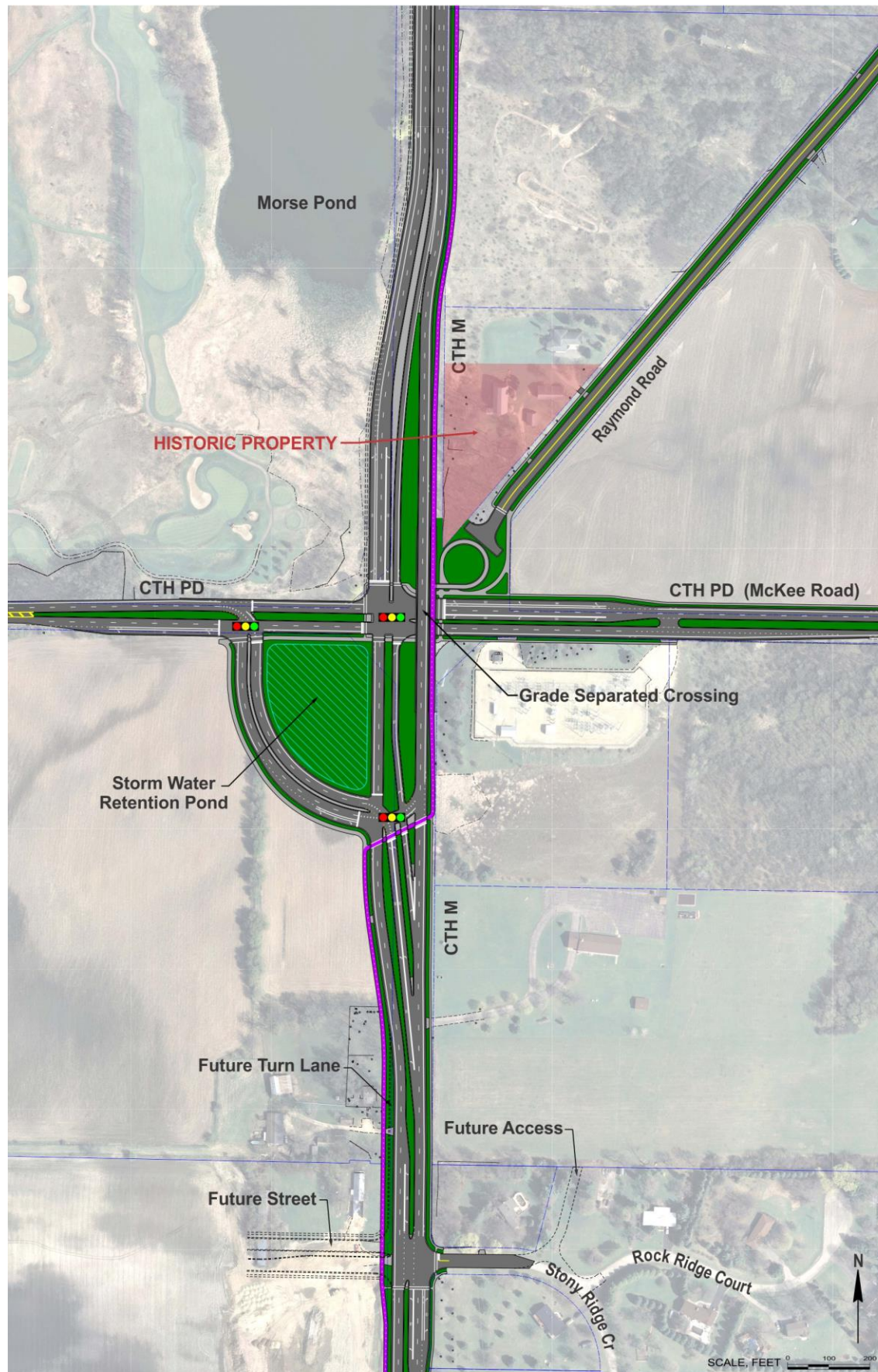
This alternative for Intersection A - (County PD & County M) requires approximately 31.8 acres of land acquisition and is expected to cost approximately \$21.3 million. These figures are for the southern half of the project and do not include land acquisition and construction costs for the north half of the project, including Intersection B – (County M & Midtown Road).

This alternative was presented at a public information meeting on December 8, 2011. City officials, along with representatives from various public agencies attended and provided comments. Several factors were taken into consideration. This alternative did not receive strong support from the public due to the non-standard traffic flow configuration and potential driver confusion that this may cause.

The Southwest Grade Separated Jug-Handle Alternative was not chosen because:

- Driver confusion due to unexpected movements (i.e. perform a left hand turn when the intended direction of travel is north to east, which is a right hand turn).
- It has the greatest real estate needs.
- High construction costs due to long spanning bridge structure.
- Greater impacts to the human physical and natural environment.
- It affects the view shed of historic property
- As compared to the preferred alternative, adding an additional at-grade crossing for the multi-use path over or under County M in order to match the grade separation available for the roundabout design was not desirable due to high construction costs and property impacts.

Figure 16 - Option A-4.4 Southwest Jug Handle



Option A-5: Multi-Lane Roundabout Alternative

The roundabout alternative (*Figure 17 - Option A-5: Multi-Lane Roundabout*) would be constructed as a two-lane feature with bypass lanes in all directions and a proposed underpass for bicycles and pedestrians. The roundabout would allow traffic to enter into a one-way stream around a central island. The intersection limits at County PD & County M extend from 1,000 feet west of County M to Meriter Way (east).

The Multi-Lane Roundabout Alternative was designed with a curved alignment of County M to shift the road west to reduce impacts to the historic Schroeder-Stickelberg-Thompson Farmstead and avoid Morse Pond on the Section 4(f) protected University Ridge Golf Course property. Six travel lanes were included to carry the forecasted design year traffic volumes.

The Multi-Lane Roundabout Alternative also includes an underpass below the roundabout for the Ice Age Junction Path connection to Verona. This would provide a grade separated crossing of both County M and County PD at the intersection. The path would be designed with maximum grades and minimum radii on the northeast quadrant to minimize the impacts to the property. The acquisition of highway right of way (Fee) would be limited to the northwest corner of the property (which is outside the historic boundary) and the southwest corner of the property (within the historic boundary). Some temporary easements would be necessary for grading and landscaping purposes.

Raymond Road would be realigned to the east at County PD and right-in/right-out access (westbound) would be provided. This is the same access as existing. Raymond Road will be reconstructed as a two lane rural roadway as a result of the proposed MMSD sanitary sewer addition and to provide storm sewer pipe to send roadway stormwater to a regional stormwater pond. The paved shoulders along Raymond Road will be wide enough for bicycle accommodation. There aren't any existing pedestrian facilities nor a need to include them due to widespread, limited development on Raymond Road.

This roundabout alternative for Intersection A - (County PD & County M) requires approximately 27.6 acres of right of way and is expected to cost approximately \$16.2 million. These figures are for the southern half of the project and do not include land acquisition and construction costs for the north half of the project, including Intersection B - (County M & Midtown Road).

Severe angle and head-on crashes that are more common at conventional signalized four-leg intersections are typically reduced at roundabout intersections.

The level of service for a roundabout is determined by the computed or measured average control delay (in seconds), and is defined for each lane. LOS is not defined for the intersection as a whole. The initial roundabout intersection analysis projected a life expectancy (year that projected traffic volume exceeds capacity of the intersection) of 2036, and would operate at LOS C.

This alternative was presented at the public information meeting on December 8, 2011. City officials, along with representatives from various public agencies attended and provided comments. Several factors were taken into consideration, including the safety of roundabouts and vehicle/pedestrian conflict points.

Initially the Multi-lane Roundabout Alternative was considered a viable alternative and garnered support during early public involvement. However, it was later eliminated because it was not considered prudent.

The initial traffic modeling software used to analyze the intersection indicated that the roundabout had the capacity to accommodate the design year traffic volumes. Since the time the intersection was initially modeled, WisDOT completed studies comparing roundabout traffic modeling software with existing roundabouts in operation throughout Wisconsin and found that other modeling software better matched roundabout operations. The updated traffic modeling software indicated that the traffic volumes forecast for this intersection would exceed the capacity of the roundabout, resulting in excessive delay and long vehicle queues. If this alternative were constructed, the LOS at the intersection would NOT be improved for design year traffic volumes and would operate at level of service (LOS) F. This modeled roundabout LOS F equals the existing LOS F.

With the high volumes of traffic forecasted for this intersection, and the resulting lack of improvement to the overall level of service (LOS F), the project stakeholders no longer fully supported this alternative. Representatives from the cities of Verona and Madison expressed concern that if the roundabout intersection reached and exceeded capacity, traffic would continue to utilize streets through the adjacent neighborhoods which are not designed to accommodate high traffic volumes.

Increasing the footprint of the roundabout to address level of service concerns is not feasible. The multi-lane roundabout alternative was designed for three circulating lanes. Roundabouts with more circulating lanes are not common and the

operational efficiency and safety aspects of a roundabout with more than three circulating lanes have not been studied. A larger footprint would also not be prudent as it would require more right of way and have greater impacts to human, physical, and natural environment. An expanded footprint of the roundabout would potentially necessitate relocation of the Alliant Energy substation and would have greater impacts to the University Ridge Golf Course and historic farmstead property.

The Multi-Lane Roundabout Alternative was not chosen because:

- Because of the high forecasted traffic volume for this intersection, the project stakeholders did not fully support this alternative.
- Representatives from the City of Madison and the City of Verona expressed concern that if the roundabout intersection reached and exceeded capacity, traffic would utilize local streets through adjacent neighborhoods that are not designed to accommodate high traffic volumes.
- This alternative does not meet the project need and was dismissed from further consideration.

Figure 17 - Option A-5: Multi-Lane Roundabout



Due to the rejection of the previous preferred alternative, the multi-lane roundabout, two additional alternatives were developed. These alternatives were presented at a public information meeting on March 12, 2014

Option A-6: Tight Diamond Interchange

The Tight Diamond Interchange (*Figure 18 - Option A-6: Tight Diamond*) is a grade separated interchange design. Four lanes of County M traffic (two northbound, two southbound) are carried over an at-grade signalized intersection via a 4-lane bridge. The County M alignment was chosen to include the 4-lane highway bridge based on having the highest through movement volumes (northbound and southbound) at the intersection. This would maximize the number of vehicles that avoid intersection control, reducing the average intersection delay for the intersection. Access to County M and County PD is via ramps that intersect County PD, similar to a freeway interchange. This intersection design has the greatest traffic capacity (LOS C) of all the intersection alternatives proposed. With this alternative, the two primary travel directions, northbound and southbound, are not interrupted by a traffic signal or other type of intersection control (i.e., roundabout).

As part of this alternative, the County M alignment, bridge location, and ramp alignments were laid out to avoid and minimize impacts to the historic farmstead property. The design also avoided the electrical substation. While impacts to the Schroeder-Stickelberg-Thompson Farmstead property were minimized, right of way within the historic boundary is required. The Tight Diamond Interchange was designed with a curved alignment of County M to shift the road west to avoid the historic Schroeder-Stickelberg-Thompson Farmstead and electrical power substation. The shifting of the intersection to avoid the farmhouse and substation would affect numerous wetlands in the southwest quadrant as well as increase property acquisition of another protected Section 4(f) property (University Ridge Golf Course) in the northwest quadrant. The paved path connection from Verona to the Ice Age Junction Path would cross the intersection at-grade. No grade separation for this path crossing is feasible without building a secondary structure.

With this alternative, Raymond Road access to County PD will be removed and restored via a new roadway connection to Meriter Way, east of the County M & County PD intersection. Raymond Road will be reconstructed as a two lane rural roadway as a result of the proposed MMSD sanitary sewer addition and to provide storm sewer pipe to send roadway stormwater to a regional stormwater pond. The paved shoulders along Raymond Road will be wide enough for bicycle accommodation. A proposed short multi-use path connection will connect the end of Raymond Road with the multi-use paved path along County M and County PD. There aren't any existing pedestrian facilities nor a need to include them due to widespread, limited development on Raymond Road.

Factors that contribute to the cost of the intersection include the size of the bridge required to carry four lanes of traffic over a large signalized intersection. This alternative also requires a substantial length of retaining wall to limit the overall footprint of the intersection. The walls increase the visual impact of this design. Because of the high volume of traffic forecasted to be turning onto and off County M, turn lanes and ramps needed to be dual lane designs. The dual lane on-ramps require merging lanes, which increased the footprint of the intersection and would affect access to properties due to the design spacing requirements.

Although this alternative meets the capacity requirements for the project and is considered feasible and prudent, this alternative was not able to accommodate a grade separated crossing of both County M and County PD for pedestrians and bicyclists.

This alternative for Intersection A - (County PD & County M) requires approximately 29.1 acres of land acquisition and is expected to cost approximately \$21.2 million. These figures are for the southern half of the project and do not include land acquisition and construction costs for the north half of the project, including Intersection B – (County M & Midtown Road).

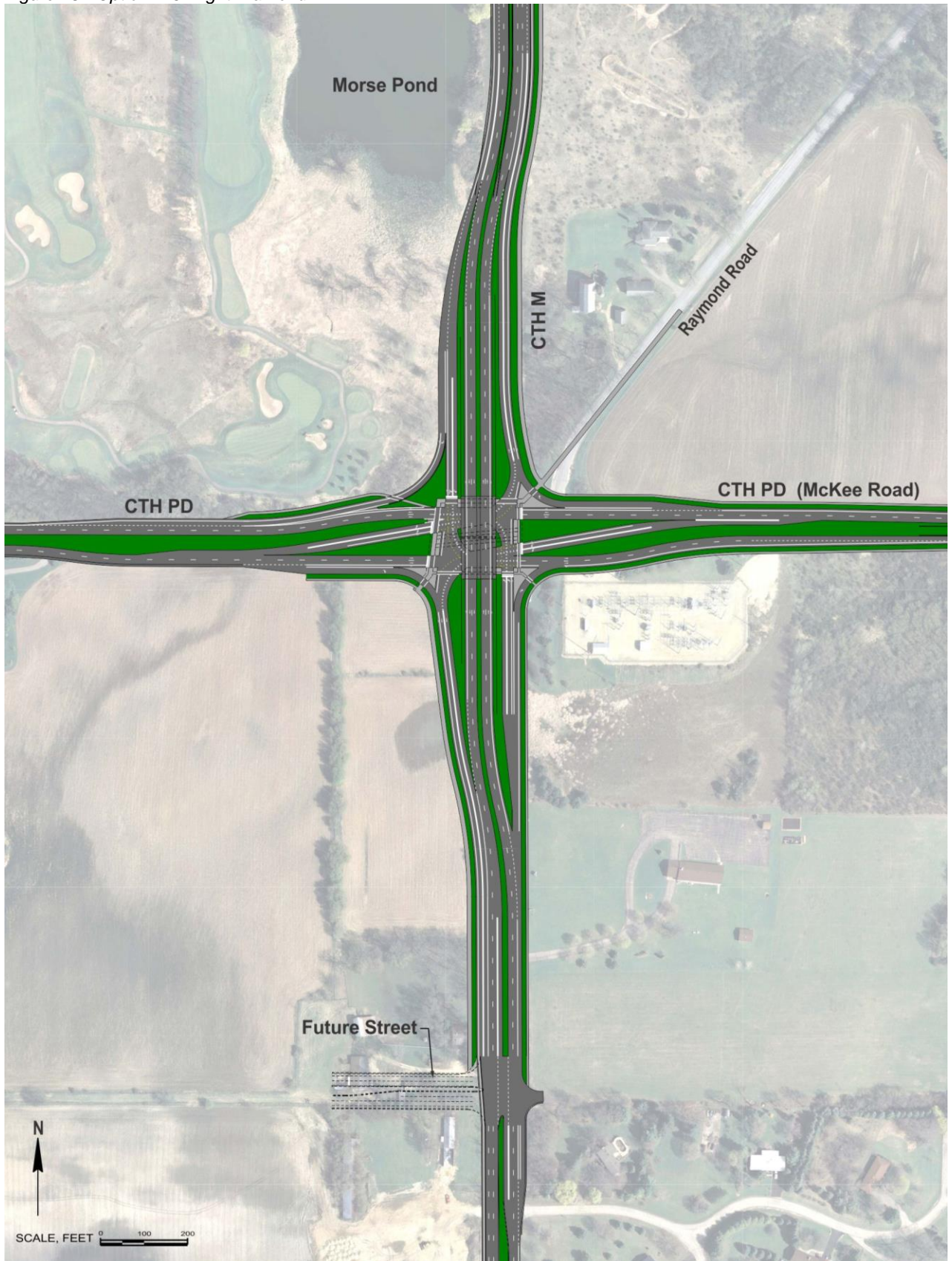
This alternative would result in the greatest improvement to overall level of service at this intersection and was presented to the public. However, this alternative does have substantial impacts to the human, physical and natural environment.

This alternative was dismissed from consideration due to:

- High structure costs due to the size of the bridge required to carry four lanes of traffic over a large signalized intersection.
- Substantial impacts to viewshed in the area (including the historic farmstead) due to the need for retaining walls to limit the overall footprint of the intersection.
- Because of the high volume of traffic forecast to be turning on to and off of County M, turn lanes and ramps needed to be dual lane designs. The dual lane entrance-ramps required merging lanes which would increase the footprint of County M north and south of the County PD intersection affecting numerous wetlands and restrict access off County M to planned development in Verona south of the intersection
- The Tight Diamond alternative was not able to accommodate a grade separated crossing of both County M and County PD for pedestrians and bicyclists accessing both sides of either roadway.

Because of the number of drawbacks, the Tight Diamond alternative did not have full support from the City of Madison or the City of Verona. This option does not provide grade separated bicycle and pedestrian facilities across both County M and County PD. Because of this and the issues with merging traffic, this alternative is not considered prudent.

Figure 18 - Option A-6: Tight Diamond



Option A-7: Westbound Underpass – PREFERRED ALTERNATIVE

The County PD Westbound Underpass (*Figure 18 – Option A-7: Westbound Underpass*) alternative is similar to a traditional signalized intersection, except one of the traffic flows is removed. In this case, the County PD westbound flow was removed from the intersection utilizing an underpass. The paved path connection between Verona and the Ice Age Junction Path crosses the intersection below County M alongside the westbound County PD traffic flow, then crosses below County PD in a box culvert underpass. Full grade separated crossings are provided for the multi-use path at the intersection.

A traditional traffic signalized intersection would not have the traffic capacity to address all of the conflicting traffic flows. However, by removing the westbound County PD through movement from the intersection, more time can be allotted to other movements that would normally conflict with the westbound County PD movement. The proposed westbound underpass alternative functions by pulling the westbound traffic out of the at-grade intersection traffic stream and sending it under County M.

County M will cross a wide, short-span bridge with the westbound through traffic below. The rest of the intersection, including westbound traffic turning right or left onto County PD, will operate as it normally would at a typical traffic signalized intersection.

With this proposed traffic configuration, the level of service at this intersection will be improved from LOS F to LOS D. The County PD Westbound Underpass Alternative was designed with a curved alignment of County M to shift the road west to reduce impacts to the historic Schroeder-Stickelberg-Thompson farmstead and Morse Pond. The intersection design was developed to limit impacts to the adjacent electric utility substation and to adjacent properties.

Bicyclists and pedestrians are provided grade separated crossings of both County M and County PD. The intersection will be raised in order to accommodate passing westbound traffic below the intersection.

With this alternative, Raymond Road access to County PD will be removed and restored via a new roadway connection to Meriter Way, east of the County M & County PD intersection. Raymond Road will be reconstructed as a two lane rural roadway as a result of the proposed MMSD sanitary sewer addition and to provide storm sewer pipe to send roadway stormwater to a regional stormwater pond. The paved shoulders along Raymond Road will be wide enough for bicycle accommodation. A proposed short multi-use path connection will connect the end of Raymond Road with the multi-use paved path along County M and along County PD. There aren't any existing pedestrian facilities nor a need to include them due to widespread, limited development on Raymond Road.

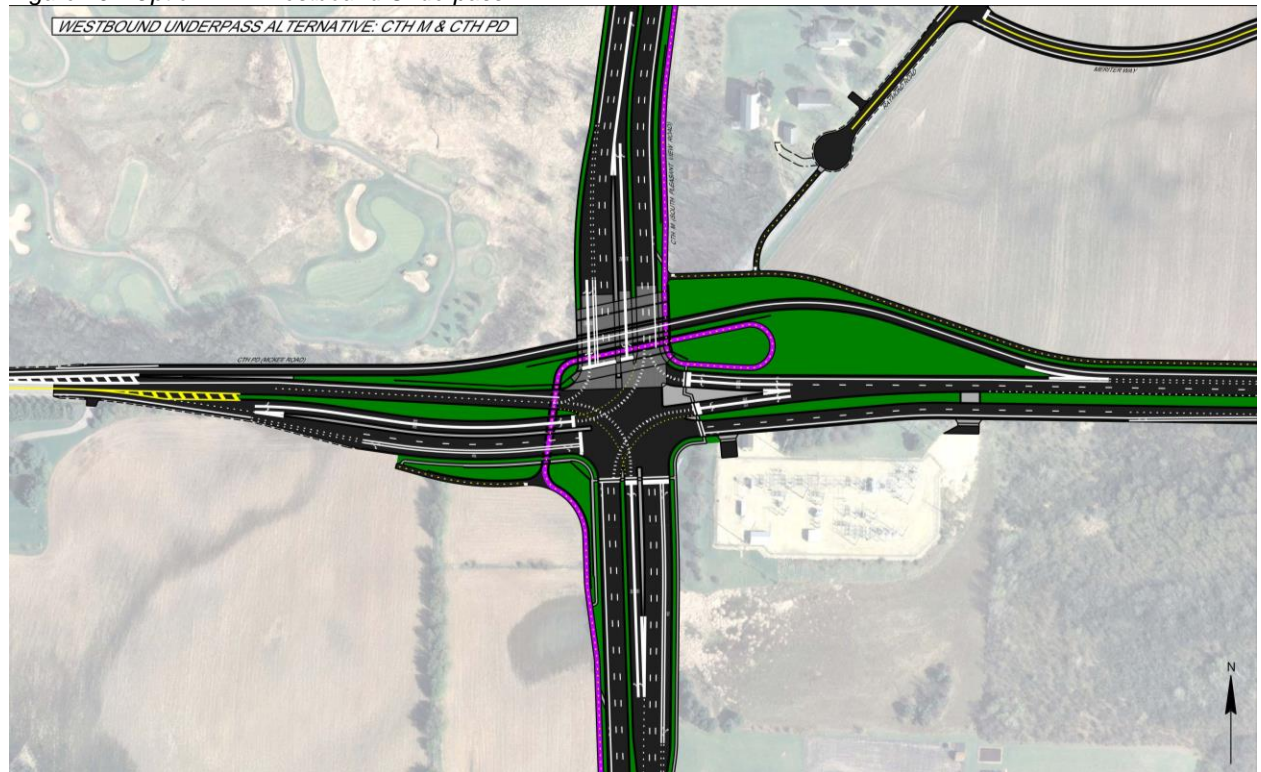
The County PD Westbound Underpass Alternative received support from the City of Madison, the City of Verona, and Dane County as a viable solution. It was also supported by the general public once presented at the Public Involvement meetings.

The westbound underpass intersection alternative for Intersection A - (County M & County PD) requires approximately 31.7 acres of right of way and is expected to cost approximately \$24 million. These figures are for the southern half of the project and do not include land acquisition and construction costs for the north half of the project, including Intersection B – (County M & Midtown Road).

This option was presented to the public at the third public information meeting as the preferred alternative. This alternative was chosen because:

- The public did not indicate any concerns regarding changing the recommendation from a roundabout to a grade separated structure.
- Positive comments were received for the bike and pedestrian accommodations.
- The County PD Westbound Underpass Alternative received support from the Cities of Madison and Verona and Dane County.
- This alternative addresses the purpose and need by providing grade-separated facilities for pedestrians and bicycles while delivering acceptable operation conditions for future traffic volumes.
- This alternative had the smallest highway structure with more of an underpass condition than an overpass condition.
- It will also have the least visual impact to the farmstead.
- This alternative was concluded to have the least overall harm to each Section 4(f) property.

Figure 19 - Option A-7: Westbound Underpass



County PD & Raymond Road Intersection:

Raymond Road is an important rural connector route between County PD and Gammon Road in the City of Madison. Existing Raymond Road connects into County PD very close to County M and needs to be realigned during the intersection improvements at County PD.

During the public meetings, the various proposed access conditions for Raymond Road as a part of the County M & County PD intersection all received public support. The options included a cul-de-sac, right-in/right-out at County PD, and realignment to intersect at Meriter Way.

At the time of this submittal, the neighborhood plan is still under review by City of Madison Planning staff and the plan commission and no changes have been finalized. A High Point-Raymond Neighborhood Development Plan Amendment is under review, and planned revisions and additional neighborhood connections to County M may be considered. The preferred alternative does not preclude any future street layouts or connectivity to this neighborhood.

The proposed Raymond Road design is a rural section with paved shoulders. The horizontal and vertical alignments will closely match existing conditions to minimize impacts to adjacent land. The design speed will be reduced to 35 mph with a posted speed of 30 mph. The proposed action will cul-de-sac Raymond Road at the historic farm property and a new roadway connection will provide access from Raymond Road to Meriter Way and County PD. This connection is illustrated in *Figure 18 – Option A-7: Westbound Underpass*.

Intersection B: County M & Midtown Road Intersection

The County M & Midtown Road intersection is located in the north phase of the corridor. Midtown Road runs east-west and connects numerous residential areas and neighborhoods to the important County M arterial. A large pond sits in the northwest quadrant and is surrounded by Hawks Landing Golf Course. A residential neighborhood is located in the southeast quadrant and agricultural farmland encompasses the northeast and southwest quadrants. These constraints limit the ability for the intersection to be shifted in any direction in order to minimize impacts.

Prior to selecting a preferred alternative at Midtown Road, four alternatives were considered. They include:

- **Option B-1: No Build**
- **Option B-2: Continuous Flow Intersection (CFI)**
- **Option B-3: Roundabout**
- **Option B-4: At-Grade Signalized Intersection**

Option B-1: No Build

The intersection at County M & Midtown Road is experiencing a large increase in vehicular traffic in recent years as southwest Madison and the Verona area continues to grow. This alternative would not address the operational or safety concerns within the corridor. The intersection would continue to operate at LOS F, with increased congestion as traffic increases in future years.

The County M & Midtown Road is currently a signalized intersection. County M northbound and southbound lanes have one lane for a dedicated through movement, an exclusive left-turn lane, and a right-turn only lane. Bike lanes are in place between the through lane and right-turn only lanes. County M & Midtown Road westbound has two lanes including an exclusive left-turn lane as well as a shared through/right-turn lane. County M & Midtown Road eastbound has two lanes including an exclusive right-turn lane and a shared through/left-turn lane. There are paved shoulders for pedestrians and bicycles in each direction and sidewalks along the northwest quadrant of the County M & Midtown Road intersection.

While the No Build Alternative does not meet the purpose and need for the project, it does serve as a baseline for a comparison.

When evaluating alternatives, all build intersection alternatives meet the need factors for system linkage, transportation demand, legislation and funding, social and economic needs, and roadway deficiencies. The capacity, modal interrelationships, and safety need factors will be addressed in each alternative discussion.

Option B-2: Continuous Flow Intersection

The Continuous Flow Intersection (CFI) (

Figure 20 - Option B-2: Continuous Flow Intersection) can handle high traffic volumes because the design allows opposing left-turns and opposing through movements to occur at the same time using one traffic signal and up to four interconnected mid-block signals.

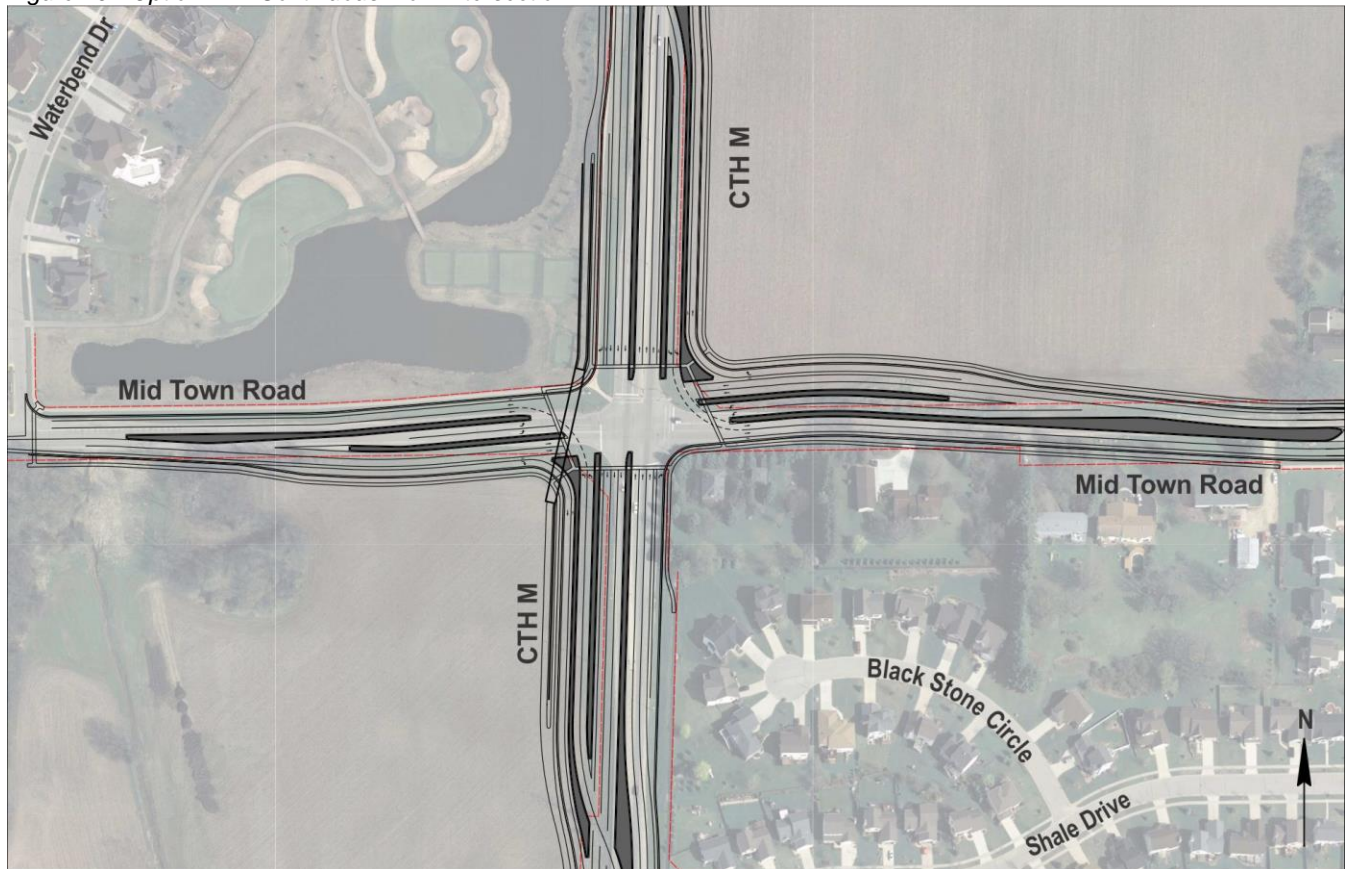
Northbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Southbound County M would consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Eastbound Midtown Road would consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and an exclusive right-turn lane. Westbound Midtown Road would consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and an exclusive right-turn lane.

The cost of the intersection was not calculated since the alternative was discussed at a conceptual level and eliminated early in the planning process because of the complicated design, driver confusion, requirements for signing, and inability to meet safety concerns for pedestrians and bicyclists. The CFI alternatives are generally more expensive than the roundabout and signal alternatives as the approaching lane development extends further from the intersection and more signal equipment is required.

The Continuous Flow Intersection was dismissed early in the planning process because:

- Potential driver confusion
- Inability to meet safety concerns for pedestrians and bicyclists
- Alternative is not considered prudent

Figure 20 - Option B-2: Continuous Flow Intersection



Two remaining alternatives were evaluated and compared in the Alternatives Comparison Matrix (Basic Sheet 5).

Option B-3: Roundabout

The roundabout alternative at County M & Midtown Road would be constructed as a two-lane facility with bypass lanes in all directions and a proposed underpass for bicycles and pedestrians. The roundabout would allow traffic to enter into a one-way stream around a central island. (Figure 21 - Option B-3: Roundabout).

This alternative would address the operational and safety concerns within the corridor. Traffic would move effectively and efficiently through the intersection and severe angle crashes that are typical at conventional signalized intersections would be expected to decline.

The roundabout would be designed to accommodate a four-lane divided arterial roadway with the capability to expand to a three-lane roundabout and a six-lane arterial in the future, when traffic volumes increase.

A new sidewalk and a multi-use path network would be constructed serving the pedestrian and bicycle needs through the intersection. An underpass located on the west side of the intersection under Midtown Road would provide safe and efficient crossing of roundabout intersection.

The initial analysis for the roundabout intersection indicated a life expectancy reaching the year 2043 and would operate at LOS C. However, WisDOT completed studies comparing traffic modeling with roundabouts in operation in Wisconsin and found that other modeling software better matched in-place operations. The updated traffic modeling software for the County M & County PD intersection indicated that the traffic volumes forecast for that intersection would exceed the capacity of the roundabout before 2036. Although analysis was not completed on the County M & Midtown Road intersection, it is reasonable to assume that reevaluation would find a LOS less than C.

This roundabout alternative for Intersection B - (County M & Midtown Road) requires approximately 19.9 acres of right of way and is expected to cost approximately \$18.8 million. These figures are for the northern half of the project and do not include land acquisition and construction costs for the southern half of the project, including Intersection A – (County M & County PD). The alternative would require the acquisition of one single-family home located in the southeast quadrant of this intersection.

Although the initial traffic modeling for the roundabout alternative provided an adequate level of service for traffic operations at County M & Midtown Road, it was not selected as the preferred alternative because of:

- The concern of excessive queueing in the approaches
- The desire by the City of Verona residents to not have a corridor of continuous roundabouts *Note – this desire/concern was raised at the time that the roundabout at County PD was also a viable alternative

Figure 21 - Option B-3: Roundabout



Option B-4: At-Grade Signalized Intersection – PREFERRED ALTERNATIVE

The At-Grade Signalized Intersection (*Figure 22 - Option B-4: At-Grade Signalized Intersection*) will be constructed at County M & Midtown Road. The intersection will follow the current at-grade signalized layout, but will be widened to improve capacity and allow for future expansion. To accommodate the design year volumes of vehicles travelling through this intersection, the alternative will require a large footprint with multiple turn-lanes in each direction.

Northbound County M will consist of dual left-turn lanes, a raised median, three through lanes, a bike lane, and an exclusive right-turn lane. Southbound County M will consist of dual left-turn lanes, a raised median, two through lanes, a restricted-use lane (bus lane), bike lane, and an exclusive right-turn lane. Eastbound Midtown Road will consist of and a single left-turn lane (expandable to two left-turn lanes), a raised median two through lanes, a bike lane, and an exclusive right-turn lane. Westbound Midtown Road will consist of a single left-turn lane (expandable to two left-turn lanes), a raised median two through lanes, a bike lane, and an exclusive right-turn lane (expandable to two lanes).

A multi-use underpass will be constructed below Midtown Road on the west leg, connecting the sections of the multi-use path. This connection will provide safe and efficient crossing of the signalized intersection without having to cross the intersection at-grade. Crosswalks will be installed at the intersection to provide at-grade crossings and full access to the underpass and path network well as all other sections of County M.

The at-grade signalized intersection alternative for Intersection B - (County M & Midtown Road) requires approximately 20.6 acres of right of way and is expected to cost approximately \$19 million. These figures are for the northern half of the project and do not include land acquisition and construction costs for the southern half of the project, including Intersection A – (County M & County PD).

Due to the large footprint of this intersection alternative, full avoidance of properties and buildings could not be avoided. This intersection requires the relocation of a single-family residence in the southeast quadrant of the intersection. Relocation costs have been estimated at \$31,000 with moving, incidental, and closing costs estimated at \$5,000. The fact that relocation was necessary was not a deciding factor because the roundabout alternative would also require this relocation.

This alternative addresses the operational and safety concerns within the corridor. The signalized intersection allows for a further build out in the future. The signalized intersection has a life expectancy reaching the year 2037. Upon completed construction of this alternative in 2017-2019, the intersection will operate at a LOS D.

This option was identified as the preferred alternative because:

- It addresses the purpose and need satisfactorily
- Local Officials' original input indicated a preference to not have continuous roundabouts on the County M corridor
- The signalized intersection requires a similar amount right of way acquisition as the other alternatives
- Costs for this alternative and the roundabout were comparable, so construction costs were not a deciding factor

Figure 22 - Option B-4: At-Grade Signalized Intersection



3. Description of proposed action

The Functional Class system (2011) Map of Dane County, WI identifies County M as a principal arterial. Additionally, this corridor is part of the National Highway System (NHS).

The proposed action has been selected because it fully addresses the project's purpose and need as outlined in the summary of alternatives. The proposed action consist of expanding County M from an existing two lane rural highway to a multi-lane urban arterial with bike lanes, a multi-use path and sidewalks. Raymond Road will be reconstructed as a rural street with a cul-de-sac. Traffic staging during construction would The proposed project includes reconstruction of two major intersections:

- County M & County PD (grade separation)
- County M & Midtown Road

The expanded roadway cross section and intersections will require approximately 52.3 total acres of real estate including:

- 24.8 acres of FEE
- 1.4 acres of Permanent Limited Easement (PLE)
- 26.1 acres of Temporary Limited Easement (TLE)

See *Figure 1 - Project Location* for a map of a project. See *Exhibit 5 - Right of Way – Cross Country Road to Flagstone Drive* and *Right of Way – Flagstone Drive Prairie Hill Road* for all right of way requirements estimated for this project.

Intersections:

The project proposes to replace the existing at-grade signalized intersections at County PD with a new westbound underpass alternative. The County M & Midtown Road intersection will remain a signalized intersection, but will be expanded and improved.

County PD Intersection:

The County PD Westbound Underpass Alternative expands the existing traffic signal layout to include grade separation (bridge) for the westbound through movement. Removing this movement from the signal timing allows the intersection to accommodate the predicted future capacity needs. The intersection functions by pulling the westbound through traffic away from the westbound traffic stream and sending this traffic below County M. County M traffic will cross a wide, short-span bridge with the westbound County PD through traffic below. The rest of the intersection, including westbound County PD traffic turning right or left onto County M, will operate as it normally would at a traffic signalized intersection. See *Figure 19 - Option A-7: Westbound Underpass* for the full intersection layout.

A new multi-use path will be constructed to accommodate pedestrians and bicyclists. To the north of County PD, the path will be on the east side of County M. South of the intersection; the path will run along the west side of County M. An underpass below the west and north legs of the intersection will provide connectivity to the two path sections. The path system will also extend west and east of County M, connecting to path systems planned for future construction.

Currently Raymond Road intersects County PD approximately 50 feet from the County M intersection. In order to improve safety and maneuverability, Raymond Road will be reconstructed to a cul-de-sac near the driveways of the Schroeder-Stickelberg-Thompson Farmstead, north of County PD. A new "T" intersection with a new unnamed road will connect Raymond Road to Meriter Way, which intersects with County PD 1,800 feet east of the County M & County PD intersection. The Meriter Way intersection with County PD is a full access intersection, which will improve access for the Raymond Road corridor.

The proposed action addresses the operational and safety concerns within the corridor. Traffic will move effectively and efficiently through the intersection and one less conflicting traffic movement (three fewer conflict points) will exist due to the westbound underpass.

Midtown Road Intersection:

An at-grade signalized intersection will be constructed at County M & Midtown Road. The intersection will follow the current at-grade signalized layout, but will be widened to improve capacity and allow for future expansion. To accommodate the design year volumes of vehicles travelling through this intersection, the alternative will require a large footprint with multiple turn-lanes in each direction. See *Figure 22 - Option B-4: At-Grade Signalized Intersection* for the full intersection layout.

Northbound County M will consist of dual left-turn lanes, a raised median, two through lanes, a bike lane, and an exclusive right-turn lane. Southbound County M will consist of dual left-turn lanes, a raised median, two through lanes, a restricted-use lane (bus lane), bike lane, and an exclusive right-turn lane. Eastbound Midtown Road will consist of an exclusive left-turn lane,

a raised median two through lanes, a bike lane, and an exclusive right-turn lane. Westbound Midtown Road will consist of an exclusive left-turn lane, a raised median two through lanes, a bike lane, and an exclusive right-turn lane. A multi-use underpass will be constructed on the east side of the Midtown Road intersection.

Because of the turn lane geometrics of the intersection, a residential relocation will be necessary in the southeast quadrant of the intersection. The estimated relocation payments total approximately \$36,000 including incidental and closing costs.

This proposed action for this intersection will address the operational and safety concerns within the corridor and align with the needs and wants of the Cities of Madison and Verona.

Cross Sections:

The proposed project will expand County M from two lanes to four travel lanes from Cross Country Road to Stony Ridge Circle and to six lanes from Stony Ridge Circle to Prairie Hill Road. A restricted-use lane is provided for southbound traffic between Flagstone Drive and Prairie Hill Road, and for the northbound traffic between County PD and Shale Drive.

The design year traffic volume forecast used in the analysis of the proposed intersection alternatives requires three northbound and three southbound lanes at the signalized intersection of County M & County PD and three northbound and two southbound lanes at the intersection of County M & Midtown Road. This keeps motorist delay at each intersection at or below acceptable levels and provides sufficient capacity for the forecast traffic volumes. Third northbound and southbound lanes will continue between the two intersections in order to provide lane continuity and achieve full utilization of all three lanes at the intersections. The traffic volume threshold at which the third northbound and southbound lane will be required is anticipated to be reached within the next twenty years for the northbound lanes and shortly thereafter for the southbound lanes. Thus, the proposed action includes constructing both of the third lanes with the initial construction. The third southbound lane will be marked as an auxiliary lane for turning movements and buses until the time it is needed to accommodate growing traffic volumes. The third northbound lane between County PD and Shale Drive will be marked as an auxiliary lane for turning movements and buses until the time it is needed to accommodate growing traffic volumes.

The proposed typical roadway sections design details include an urban cross section with curb and gutter throughout, design speed of 45 miles-per-hour (mph), and a posted speed of 35 to 40 mph. *Figure 8 - Preferred Alternative, South Phase* and *Figure 8 – Preferred Alternative, North Phase*.

The urban cross-section includes at least two 11-foot travel lanes in each direction with a median varying between 8 and 22 feet separating traffic. 11-foot travel lanes were used instead of 12-foot lanes to minimize the amount of right of way needed. 11-foot lanes are also consistent with the rest of the County M corridor. This median provides room for dedicated turn lanes at major intersections. The project also includes an 11-foot restricted travel lane throughout a majority of the corridor. Five-foot bike lanes are provided in each direction. Other cross-section elements include 8-foot terraces, 5-foot sidewalk, and 10-foot paved off-road multi-use path. Six typical sections were developed for this project. *Figure 22 – Typical Section Location Overview* identifies the location of each of the six typical sections. *Figure 23 – Typical Sections (South and North Phases)* illustrates each of the six cross sections developed for this project.

Figure 23 - Typical Section Location Overview

South Phase

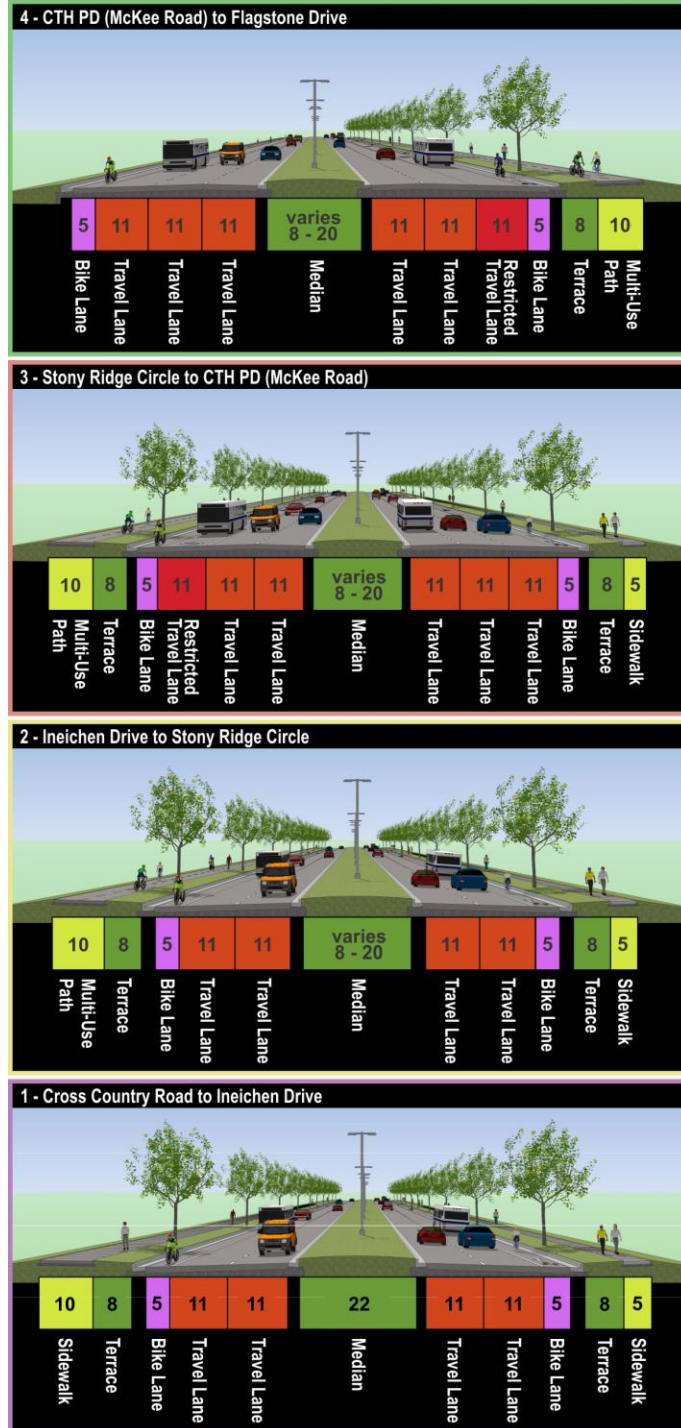


North Phase

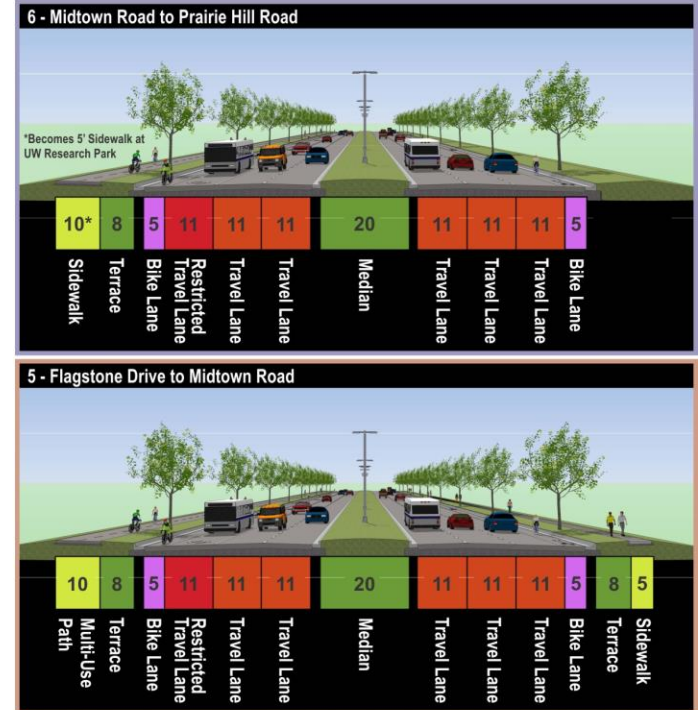


Figure 24 – Typical Sections (South and North Phases)

South Phase



North Phase



Access:

Access at intersecting side roads will be modified with the proposed action as follows:

- Stony Ridge Circle (south intersection): The raised median on County M will be extended through this intersection, changing the existing full access condition to right-in, right-out access to the northbound lanes of County M.
- Stony Ridge Circle (north intersection): The existing roadway will be cut-off at County M and the intersection access will be moved north on County M by approximately 300 feet. This new intersection location will line up with a planned collector street on the west side of County M that will connect County M with Nine Mound Road, parallel to County PD. This new collector street is part of the adopted City of Verona North Neighborhood Plan. This new intersection location will provide full access to northbound and southbound County M for the residents on the east side of County M in this residential neighborhood.
- Raymond Road: The connection of Raymond Road to County PD at the County M intersection is removed and a new roadway connection between Raymond Road and Meriter Way will provide full access to eastbound and westbound County PD from Raymond Road. The current Raymond Road connection to County PD only has right-in, right-out access to westbound County PD.

Access at the remainder of the existing side road intersections will be maintained in their current condition. Full access intersections will remain full access intersections and restricted access intersections (i.e. right-in, right-out) will remain restricted. Reconstruction work on these side roads will be limited to a length necessary to tie the existing streets into the County M (or County PD / Midtown Road design). The reconstruction lengths for each will vary, but will generally be less than 300 feet.

These intersections are listed as follows:

- Bering Drive/Prairie Oaks Drive (full access)
- Harmony Drive (full access)
- Ineichen Drive (full access)
- Flagstone Drive (full access)
- Shale Drive (right-in, right-out to northbound County M)
- Waterbend Drive (full access)
- Prairie Hill Road (full access)

Accommodations will be provided for future connections as outlined in area neighborhood plans. Two connections are provided in the future University Research Park Pioneer Addition on County M between Waterbend Drive and Prairie Hill Road. See *Figure 10 - Access Changes*.

Right of Way

The expanded roadway cross section and intersections will require approximately 52.3 acres of real estate acquisition including 27.5 acres of temporary or permanent easement. The proposed action will require one residential relocation and no business relocations or acquisitions. Temporary limited easements will be required for grading purposes. Excavation will be necessary for traffic signals, culverts, storm sewer, sanitary sewer, water main construction, and multi-use underpasses.

Roadway Facility Upgrades:

Upgraded lighting, storm sewer, sanitary sewer, and new water mains will be provided along the project.

Water Main

City of Verona:

The city plans to construct a new water main along County M between Prairie Oaks Drive/Bering Drive and County PD (4,500 feet). The water main will also be extended west from County M along County PD to the west project limits.

City of Madison:

The proposed action includes construction of a new water main along County M between County PD and Flagstone Drive (3,200 feet) and between Shale Drive and Prairie Hill Road (5,300 feet).

The proposed action includes new water main along County PD from County M to Meriter Way (1,800 feet).

Existing water main on Midtown Road is anticipated to be reconstructed due to conflicts with proposed roadway improvements.

Sanitary Sewer

Madison Metropolitan Sewer District (MMSD) (serves both city of Madison & Verona):

The proposed action includes construction of a new sanitary sewer from the intersection of County M & County PD along Raymond Road, connecting to an existing sewer below Dane County Park land north and west of Raymond Road.

City of Verona:

The city of Verona plans to construct a new sanitary sewer along County M from Prairie Oaks Drive/Bering Drive to County PD (4,500 feet). This sewer will connect with MMSD's sewer collector proposed for Raymond Road

Bicycle and Pedestrian Facilities:

See *Figure 11 – Area Trails and Multi-Use Paths* for a map that shows all existing and proposed bicycle and pedestrian facilities.

Bike Lanes

Existing:

County M, County PD and Midtown Road all have paved shoulders that vary in width from three to four feet to accommodate bicycles. The paved shoulders are not marked as bike lanes.

Proposed:

The proposed action includes proposed signed and marked bike lanes on all collector and arterial streets reconstructed with this project. This includes:

- County M from Cross County Road to Prairie Hill Road
- County PD from the west project limits to Meriter Way
- Midtown Road from Waterbend Drive to Waldorf Boulevard
- Raymond Road from Meriter Way to Oak View Drive

Bike/Multi-use Paths

Existing

Currently there are no multi-use paths parallel to County M within the corridor. However, there are several paved paths that exist in the area that will be connected or improved as part of this project. *Figure 10 – Area Trails and Multi-Use Paths* shows where existing multi-use paths exist within the project area.

Paved paths for the Ice Age Junction Path (City of Madison) currently exist east of the project limits near the intersection of Flagstone Drive and County M. This existing portion of the Ice Age Junction path extends from Flagstone Drive south and east to County PD, crossing Raymond Road. The Ice Age Junction Path connects to several other paths in the area including the Military Ridge State Trail. See *Figure 10 – Area Trails and Multi-Use Paths*.

A paved path exists along the south side of Ineichen Drive extending from County M east to and through Harmony Hills Park.

Proposed

As part of the proposed action, improvements to the following multi-use paths are proposed:

- New construction and extensions of the City of Madison's planned Ice Age Junction Path are proposed as part of this project (10-foot paved)

A 10-foot wide paved multi-use path will be constructed in the following areas:

- Along the west side of County M from Ineichen Drive north to County PD (maintained by the City of Verona)
- Along the east side of County M from County PD to Flagstone Drive (maintained by the City of Madison)
- Along the west side of County M from Flagstone Drive to approximately 500 feet north of Waterbend Drive at a planned future cross street location. At the end of the path, a 5-foot sidewalk will continue north to meet the existing sidewalk. In the future, the 10-foot path will be extended north through the UW research park and will tie into the existing path at Valley View Road, which continues on the west side of County M. A bicycle crossing will be provided at the end of the path to allow northbound cyclists to access the bicycle lanes until this future path is constructed (maintained by the City of Madison).
- Along the south side of County PD from County M to the west limits of County PD. The path will end and tie into the existing paved shoulders on County PD until a future project can continue the path (maintained by the City of Verona)
- Along the north side of County PD from County M to Meriter Way (maintained by the City of Madison)

NOTE: The towns of Verona and Middleton will not be responsible for maintaining paths through their jurisdictions along the County M corridor.

To provide safe crossings where the proposed route crosses major roadways grade separated structures will be added. This includes:

- An approximate 150-foot long underpass structure below the west leg of the County M & County PD intersection.
- A three span bridge on the north leg of the County M & County PD intersection. The multi-use path will pass below County M under the south span of the bridge.
- An approximate 150-foot long underpass structure is proposed near the Flagstone Drive intersection. This underpass will carry both the Ice Age Junction path and the IANST below County M.
- An approximate 190-foot long underpass structure is proposed below the west leg of the Midtown Road intersection.

The Ice Age Junction Path and Verona connector paths between County PD and Waterbend Drive will be maintained by the City of Madison as part of their city-wide system of multi-use paved paths. The City of Verona will maintain paved multi-use paths constructed south of County PD. Side paths will be maintained by their respective jurisdictions.

Future Planned Bicycle Improvements

The proposed action has considered these planned improvements and are compatible with the following planned facilities.

Ice Age Junction Path – University Research Park Area

A future 10-foot paved multi-use path will be constructed along the future Boyer Street in this area between the County M – Valley View Roundabout and Waterbend Drive.

This facility is outlined as part of the University Research Park area of the [Pioneer Neighborhood Development Plan](#) and will provide connectivity between this project's shared use path and the existing shared use path north of the project area.

County PD Path

The path along the south side of County PD will be continued west concurrently with anticipated reconstruction of County PD west of County M (no scheduled construction year).

The path along the north side of County PD will extend east from Meriter Way, eventually reconnecting with the Ice Age Junction Path where it crosses County PD (planned for construction in 2017)

The County PD path is included based on direction provided by City of Madison and Verona staff who are participating in developing the scope and design plans for reconstruction of County PD east and west of the project limits.

The proposed action including its multi-use path, is an independent utility, and does not preclude or foreclose future improvements or projects with respect to any future-abutting multi-use paths or other transportation project.

Consistency with Regional Bicycle Transportation Plans

City of Madison – These improvements are consistent with the [Bicycle Transportation Plan for the Madison Metropolitan Area and Dane County](#). This plan outlines the priority regional shared use paths as revised in March of 2015.

City of Verona – These improvements are consistent with transportation component (Chapter 3) of the [City of Verona's Comprehensive Plan](#) showing bicycle related improvements in the area which establishes a vision and serves as a long-term guide for future growth. Links to this plan can be found at the link below:

Sidewalks

Existing:

Currently there are very limited sidewalk facilities along this portion of the County M corridor. Sidewalks exist along the County M corridor:

- On both the east and west sides from Cross County Road to Bering Drive/Prairie Oaks Drive
- On the east side from Flagstone Drive to a point approximately 200 feet south of Midtown Road.
- On the west side from Midtown Road to a point approximately 500 feet north of Waterbend Drive
- On the west side from Valley View road to a point approximately 800 feet south.

Proposed:

Pedestrians are permitted to use the paved multi-use path system described above. ADA compliant sidewalks are also proposed along sections of the project to supplement the path system at the following locations:

County M:

Both sides of County M between Bering Drive/Prairie Oaks Drive and Ineichen Drive. The proposed ADA compliant sidewalk will serve as an extension of existing sidewalk along County M to connect the north neighborhoods with schools and city center to the south.

East side of County M from Ineichen Drive to County PD. The multi-use path system is on the west side of County M in this area.

No proposed sidewalk from County PD to Flagstone Drive, pedestrians will be served by the multi-use path on the east side of County M. Due to steep grades and limited space between Morse Pond and County M, construction of a sidewalk on the west side of County M north of County PD is neither prudent nor feasible as it would require adding considerable fill to Morse Pond.

From Flagstone Drive to Midtown Road, existing sidewalk on the east side will be maintained with spot replacement and improvement as needed due to utility construction and grade changes. The multi-use path system is on the west side of County M in this area. New sidewalk will be constructed from the end of the existing sidewalk to Midtown Road.

From Midtown Road to approximately 500 feet north of Waterbend Drive, pedestrians will be served by the multi-use path. Sidewalk will be constructed between the end of the multi-use path north of Waterbend Drive and connect with existing sidewalk along the west side of County M that extends south from Valley View Road. Sidewalk along the east side of County M is planned for when development and demand require it. Constructing the sidewalk on the east side of County M with the project would not be prudent due to limited and widespread development.

County PD

Pedestrian accommodation will be provided along County PD with the proposed action via the multi-use paved paths on the south side of County PD, west of the County M intersection and along the north side of County PD, east of the County M intersection. Sidewalks would not be prudent and are not proposed along County PD due to limited and widespread development.

Midtown Road

Pedestrian accommodation along Midtown Road will be provided by existing sidewalk that will be maintained on the north side of Midtown Road, west of the intersection with County M. New sidewalk construction is proposed on the south side of Midtown Road through the project limits. New sidewalk construction will be planned for on the north side of Midtown Road east of the County M intersection, however construction of the sidewalk will be completed with planned development of the area north and east of the intersection. Constructing the sidewalk on the north side of Midtown Road, east of County M, would not be prudent due the limited and widespread development.

Future Planned Pedestrian Improvements

The proposed action has considered these planned improvements and are compatible with the following planned facilities.

North of Midtown Road, sidewalk is planned and grading will be completed, however sidewalk is not warranted to be constructed along the east side of County M and north side of Midtown Road. This sidewalk will be constructed with future development (not part of this project). Pedestrians in this section of County M will be served by the multi-use path on the west side of County M. Pedestrians on Midtown Road will be served by sidewalk on the south side of Midtown Road.

WisDOT is required to provide oversight of the proposed action because Federal or State transportation program dollars are being incorporated into this local project through WisDOT's STP-urban program.

Because of this oversight role, WisDOT invokes its policy to incorporate safe and convenient walking and bicycling accommodations and/or facilities into transportation projects when prudent and feasible.

If said evaluation shows bicycle or pedestrian accommodations or facilities to be neither prudent nor feasible, the Department must document an appropriate exception to its "Complete Streets" policy.

Department policy for other project actions, such as pavement resurfacing or reconditioning projects, requires an evaluation to include bicycle and pedestrian accommodations or facilities where possible/practical within the scope of the project. In addition, certain bicycle and pedestrian design practices are required when applicable, e.g., American with Disabilities Act (ADA) compliant curb ramps and bicycle-acceptable landscaping or storm drainage grates.

Pedestrian/Recreational Trails

The IANST crosses County M and Raymond Road within the limits of the proposed action. This trail's primary purpose is recreational and its use is restricted to foot traffic only. The proposed action includes a grade separated crossing at the trail crossing location on County M to improve safety. A small portion of the existing trail will be realigned to accommodate the roadway improvements. This realigned portion will provide added safety benefits by providing a grade separated crossing of County M at Flagstone Drive and a bridge crossing of Badger Mill Creek via easement from the University of Wisconsin OJ Noer Turf Research Facility. On Raymond Road, IANST users will have use of a sidewalk along Raymond Road where the trail crosses Raymond Road and Badger Mill Creek.

Transportation Management Plans:

No detour routes or temporary roadways will be required, except for short duration during off-peak travel periods (i.e. overnight or on weekends). Two lanes of traffic (one in each direction) will be open at all times during construction. Businesses will be able to remain open throughout construction. Access to business and residential driveways will be maintained throughout the construction process.

The project meets the overall purpose and needs of the proposed action and is consistent with local, city and regional planning efforts. This includes:

- Madison Metropolitan Area and Dane County Regional Transportation Plan Update 2035
- Dane County Regional Transportation Plan 2030
- Madison Metropolitan Area & Dane County Transportation Improvement Program (TIP) (2012-2016)
- High Point-Raymond Neighborhood Development Plan (Internal neighborhood street network is planned for further review, see page 2-18) (city of Madison)
- Midtown Neighborhood Development Plan (city of Madison)
- Pioneer Neighborhood Development Plan
- University of Wisconsin – Madison Research Park (within the Pioneer Neighborhood)
- North Neighborhood Development Plan (city of Verona)
- Wisconsin Department of Transportation's Statewide Transportation Improvement Program (STIP)
- Madison Area Transportation Improvement Program (TIP)

The proposed action will not preclude, foreclose, or restrict consideration of alternatives for any abutting transportation facilities (i.e. bicycle, pedestrian, or roadway).

4. Construction and Operational Energy Requirements

In general terms, briefly discuss the construction and operational energy requirements and conservation potential of the various alternatives under consideration. Indicate whether the savings in operational energy are greater than the energy required to construct the facility:

The energy requirements in the No Build Alternative would require minor maintenance and minimal construction energy. Traffic operations would continue to deteriorate over time as volumes increase. The No Build Alternative would result in the use of an inefficient transportation system, leading to more congestion, longer travel delays, higher consumption of energy, and increased risk of crashes and safety concerns.

The proposed project will require a large amount of energy during construction, but those requirements are likely to be mostly up-front. Post-construction, operational energy requirements of the facility are expected to be less with the build alternative as opposed to the No Build Alternative because traffic congestion will be reduced. Over the design life of the facility, the savings in operational energy will outweigh the energy required for construction and result in a net savings in energy usage.

5. Describe existing land use (attach land use maps, if available):

a. Land use of properties that adjoin the project:

In the United States, a metropolitan statistical area (MSA) is a geographical region with a relatively high population density at its core and close economic ties throughout the area. Such regions are neither legally incorporated as a city or town would be, nor are they legal administrative divisions like counties or separate entities such as states. County M is located in Dane County which is part of the Madison, WI Metropolitan Statistical Area. – The MSA is made up of the counties of Columbia, Dane, Green, Rock and Iowa Counties, and had a population of 568,593 in year 2010.

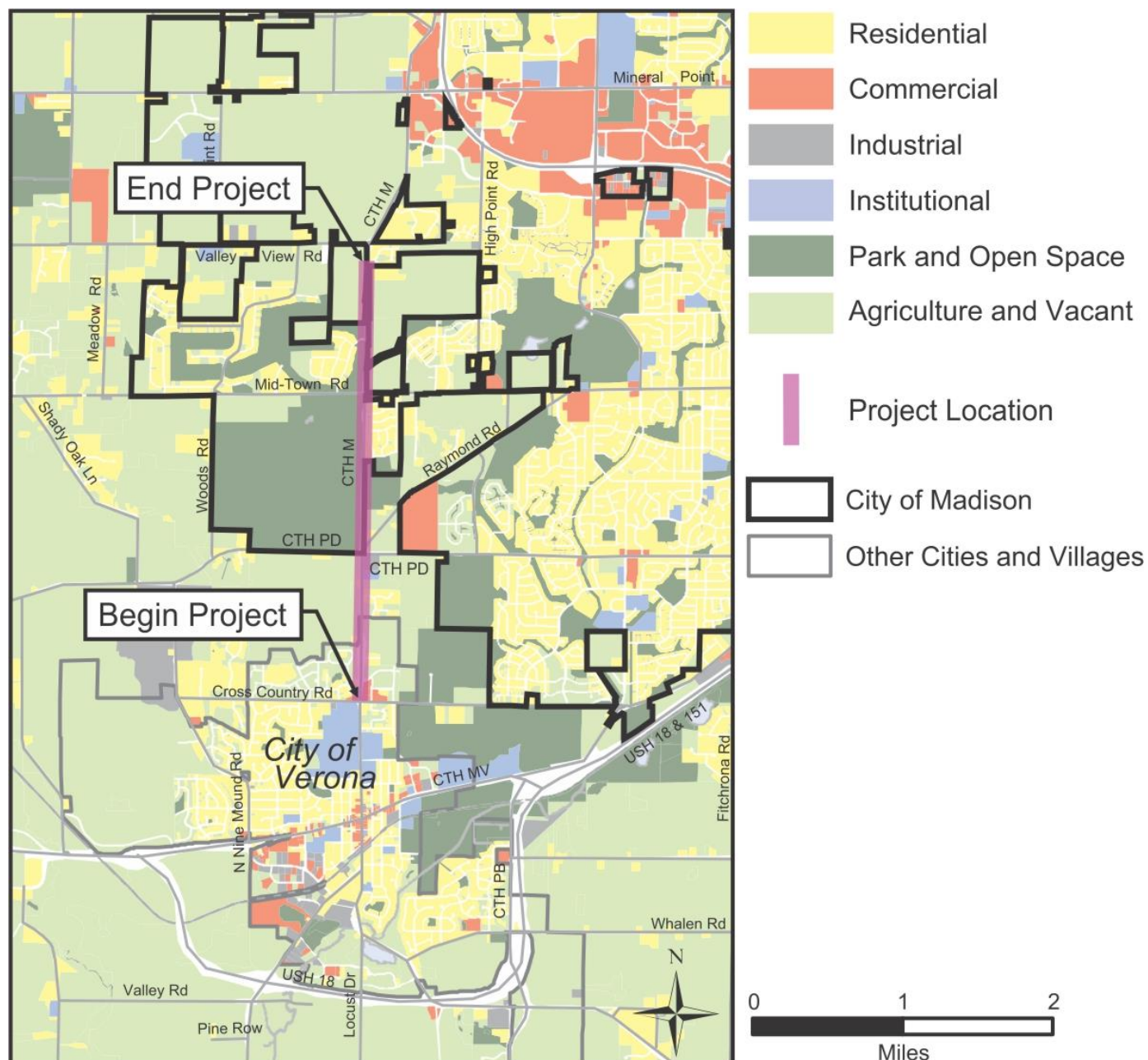
The 2.86 mile County M corridor travels south/north from Cross Country Road in the City of Verona, to Prairie Hill Road in the City of Madison. The section south of Midtown Road is predominately the Town of Verona. Areas north of Midtown Road, are a mix of the City of Madison and the Town of Middleton. Several neighborhoods border the County M corridor. *Figure 25 - Current Land Use: Madison Area January 2005* shows the existing land use for the Madison area in the project vicinity. The full map can be found in *Exhibit 6: Current Land Use – Madison Area*.

A mix of vacant open space, an electric power substation, a church, several newer residential developments, larger established single family residential, agricultural, recreational lands and a few commercial parcels are located along the southern end of the corridor between County PD and Cross Country Road.

Areas between Midtown Road and County PD are dominated by open space and recreation. University Ridge Golf Course and a large pond (Morse Pond) are located on the west side of County M. To the east of County M, a large area of county parkland with walking trails, and a 14-acre city park (Flagstone Park) dominate the landscape. A turf research facility as well as several single family and multi-family homes and apartment buildings are located to the east of County M north of Flagstone Drive. A farmstead that is eligible for the National Register of Historic Places is located in the northeast quadrant of County M and County PD west of Raymond Road. The Ice Age National Scenic Trail runs through this area.

The land use on adjacent properties north of Midtown Road is made up of park and open space, agricultural land, and residential. Hawks Landing Golf Course is located in the northwest quadrant of County M and Midtown Road. This facility is a privately owned golf course that is occasionally used by the public.

Figure 25 - Current Land Use: Madison Area January 2005



Source: City of Madison Department of Planning and Development, Planning Unit
Existing Land Use January 1, 2005
Dane County Existing Land Use January 2000

Current land cover percentages are not currently available, but estimated percentage of land use within ½ mile of the project area is:

- Recreation – 30%
- Residential – 30%
- Vacant/Agriculture/Open Lands – 25%
- Commercial – 5%
- Woodlands – 4%
- Water – 3%
- Institutional/Government – 2%
- Communication/Utilities – 1%

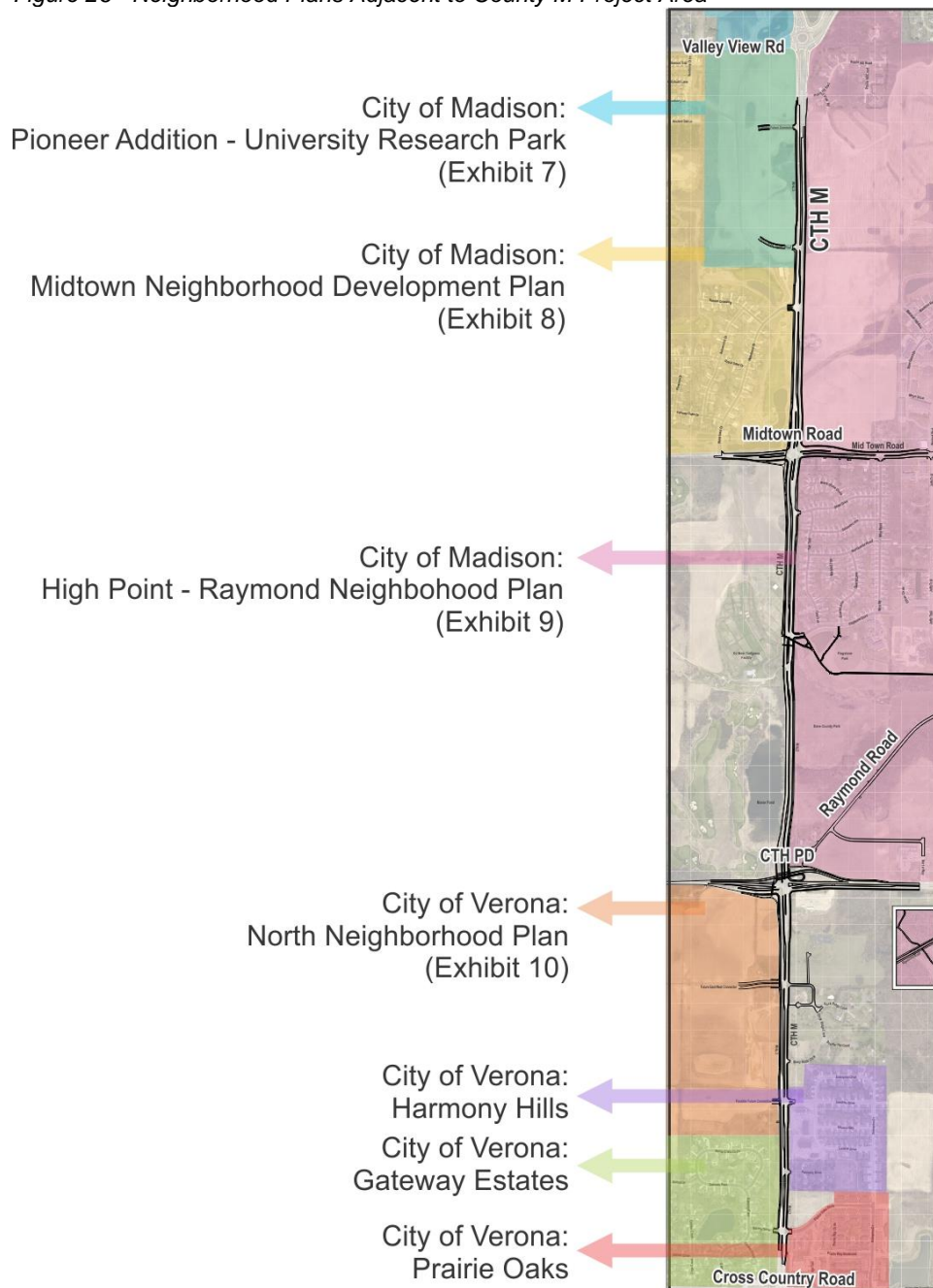
b. Land use surrounding project area:

The land uses surrounding the project area include both urban and rural uses. The area around County PD is mainly rural residential and agricultural, and park/open space. A golf course (University Ridge) is located at the northwest quadrant of the County M & /County PD intersection. The area around Midtown Road is rural residential and agricultural, with a golf course (Hawks Landing) located at the northwest quadrant of the intersection.

The project corridor is within the Madison Metropolitan Statistical Area. Wisconsin Department of Administration population projections for Dane County, the City of Madison, the City of Verona, and the Town of Verona increase through the 2040 forecast year. The total population for the area surrounding the project corridor according to the 2010 census was 13,119 people. According to the Madison Area MPO Travel Demand Model, the population is expected to increase to 21,796 people by 2050.

Neighborhood Development Plans (NDPs) are prepared with the purpose of guiding the growth and development of largely undeveloped lands at the City of Madison's urban edge. The plans are intended to provide a framework for the growth and development of the city's peripheral urban expansion areas where development is expected to occur in the near future⁴. *Figure 26 - Neighborhood Plans Adjacent to County M Project Area* lists the neighborhood plans that are adjacent to the County M project location.

Figure 26 - Neighborhood Plans Adjacent to County M Project Area



The City of Madison's Pioneer Neighborhood is located just south of Valley View Road. The neighborhood plan has identified future land for the creation of five new parks totaling 39.35 acres. Two proposed access roads to County M are included in the plan. Accommodations for these roadways are addressed in the proposed design. (See *Exhibit 7: Pioneer Development Plan with University Research Park – City of Madison.*)

The Pioneer Neighborhood is also home to the University Research Park which is University of Wisconsin – Madison affiliate and an internationally recognized research and technology park. Phase 2 of the research park is located just north of the project area, includes 64 sites, and a mixture of commercial and residential uses are planned. It is estimated to employ around 8,000 people at full build out according to the Madison Area MPO Travel Demand Model. The research park will feature new urbanist values and aim to provide walkable neighborhoods integrating work and residential developments.

The Midtown Neighborhood is located on the western edge of County M from Valley View Road to Midtown Road. This neighborhood has a City of Madison plan that had previous plan amendments in 2001 and 2004. Existing land use abutting County M within this neighborhood includes an 18-hole golf course (Hawk's Landing) and a mix of single family and multi-family housing. The neighborhood plan has identified future lands for the construction of four new parks totaling 8.76 acres. (See *Exhibit 8: Midtown Neighborhood Development Plan – City of Madison.*)

The High Point-Raymond Neighborhood is located on the eastern edge of County M from Valley View Road to County PD. This neighborhood had previous plan amendments in 2001, 2005 and 2006. Currently, the plan is scheduled for further review for the neighborhood street network around the Raymond Road/Meriter Way area. Existing land use abutting County M is primarily low density and low-medium density residential north of Flagstone Drive and Dane County Parkland between Flagstone Drive and County PD. The neighborhood plan has identified future land for the construction of one new 5.3-acre park. (See Exhibit 9: High Point – Raymond Neighborhood Development Plan – City of Madison.)

The existing land use in the area of the North Neighborhood Plan in the City of Verona is agriculture/vacant land with some development beginning. Future planned land uses along the west side of County M call for a mix of residential and multi-family housing transitioning to commercial and mixed uses in the southwest quadrant of the County M & County PD intersection. Lands to the east and south of County PD within the neighborhood will remain open space/wooded. The City is currently planning a reconstruction of Nine Mound Road, which could include a connector road that would have access on County M at the new Stony Ridge Circle intersection. This development is not currently programmed and is to be constructed when adjacent development occurs. This project has been included in their recently updated (February 2015) version of the City of Verona North Neighborhood Plan. (See Exhibit 10: North Neighborhood Plan – City of Verona.)

Neighborhood	Size of Neighborhood (ac)	Acreage/Percent in Municipality	Population of Neighborhood upon build out	Percent Build-out completed	Existing Parkland	Proposed Additional Parkland
High Point-Raymond Neighborhood	1,290 acres	60.7 acres – 4.7%	11,356	47.3%	93.1 acres	19.1 acres
Midtown Neighborhood	574 acres	550 acres - 95.7%	7,847	30.3%	18.3 acres	29.3 acres
Pioneer Neighborhood	1,403 acres	841.5 acres – 60%	10,758	1.6%	6.6 acres	39.3 acres

6. Planning and Zoning

Briefly identify adopted local or regional plans for the project area and zoning regulations. Discuss whether the proposed action is compatible with the plan or zoning:

This project is sponsored by the City of Madison, in conjunction with Dane County and the City of Verona, and in cooperation with the Towns of Verona and Middleton. The County M corridor improvements are compatible with the goals of the cities, county, and township. Project management has met with city planning staff to coordinate local and regional plans and zoning regulations.

The City of Madison has developed the neighborhood plans on the knowledge that County M will be designed and reconstructed to meet current and future traffic needs with an urban cross section. The future traffic needs were provided by the Madison Area MPO Travel Demand Model which analyzes future population, household, employment, school enrollment, and any other traffic generators (with input from the development patterns suggested by these neighborhood plans) to calculate a forecast traffic demand.

The proposed action is compatible with regional, city, and neighborhood plans recommending the need for a four-lane divided facility on County M between Cross Country Road and Mineral Point Road. Below is a list of adopted plans in Dane County identifying the recommended improvements.

- [Madison Metropolitan Area and Dane County Regional Transportation Plan Update 2035](#) (long range plan)
- [Madison Metropolitan Area & Dane County Transportation Improvement Program \(TIP\) \(2016-2020\)](#)
- [Connections 2030](#), WisDOT
- [Dane County Comprehensive Plan](#)
- [City of Madison Comprehensive Plan](#)
- [University of Wisconsin – Madison Research Park \(incorporated within the Pioneer Neighborhood\)](#) (amended last in 2014)
- [City of Verona Comprehensive Plan](#)
- [Town of Middleton Comprehensive Plan](#) (amended last in 2011)
- [Town of Verona Comprehensive Plan](#) (adopted 2006, currently in process of updating plan)
- [Bicycle Transportation Plan](#) – Madison MPO
- [Wellhead Protection Plan, Unit Well 26, City of Madison](#)

Madison Metropolitan Area and Dane County Regional Transportation Plan Update 2035 (long range plan)

This plan identifies congested and very congested roadways and intersections as a main transportation issue (pg. 31). It also County M as a future express commuter bus line (pg. 96).

Madison Metropolitan Area & Dane County Transportation Improvement Program (TIP) (2016-2020)

Project identified as a Pedestrian and Bicycle Project (i., v.), Reconstruct, and widen to 4 to-6-lane Divided Street with bike lanes (iii., vi.).

Connections 2030, WisDOT

Key elements of the plan implemented in the County M project include:

- designing and constructing safe transportation facilities
- supporting bicycle and pedestrian facilities and plans
- identifying and supporting partnerships between governmental units to achieve safety improvements

Dane County Comprehensive Plan

Policies and Programs and guidance identified in the plan and implemented in the County M project include:

- Growth Area and Activity Center Linkage by seeking to maintain mobility and accessibility options throughout the region by continuing the interconnection of major activity centers within Madison and the Dane County growth centers with a system of arterial and collector roadways that provide connection of the centers with express bus service.
- Balanced Transportation by increasing travel reliance on transit, carpooling, and other travel options such as bicycling and walking
- Encourage the inclusion of bikeway and pedestrian improvements in all developments
- Develop interconnected bikeway and pedestrian plan and promote biking as an alternative through bike lanes and a county-wide bike system.

City of Madison Comprehensive Plan

Similar to the Regional Transportation Plane (2035), this plan identifies congested and very congested roadways and intersections as a main transportation issue. Further detail can be found in the neighborhood development plans.

City of Madison High Point-Raymond Neighborhood Development Plan (amended last in 2006)

Plan indicates future access connection to County M at Waterbend Road as well as a future roadway connection approximately 500' south of Valley View Road that are consistent with the proposed action. A stated transportation goal in the plan is to create a flexible transportation system which provides several alternative modes of travel and which minimizes conflicts among different forms of transportation such as pedestrians, bicyclists, automobiles, and transit vehicles.

City of Verona Comprehensive Plan

City of Verona North Neighborhood Development Plan (Adopted February, 2015)

Collaborate with Dane County and other local units of government to help develop appropriate transportation facilities and services, including efforts to improve highways, bikeways, and area-wide public transportation services that may serve the Town.

Support the development of trails in environmental corridors, which connect areas such as the Upper Verona Sugar River Valley, Badger Mill Creek, the Ice Age Trail, the Military Ridge State Trail, and others.

Promote the Ice Age Trail - Collaborate with other government agencies, as well as private entities (e.g., the Ice Age Park and Trail Foundation) in the planning and implementation of projects such as the Ice Age National Scenic Trail.

Town of Middleton Comprehensive Plan (amended last in 2011)

Bicyclist and pedestrian safety is a common concern. Many Town residents suggest a need for more or better bike/pedestrian facilities.

Town of Verona Comprehensive Plan (adopted 2006, currently in process of updating plan)

Provide for the safe and efficient movement of people and goods throughout the Town of Verona, and simultaneously minimize impact on residents, agriculture, cultural resource areas, and natural resources.

Participate in the development of alternative transportation and recreational trails when they directly benefit the Town of Verona.

Bicycle Transportation Plan – Madison MPO

Bike level of service is deficient along the County M corridor. LOS F between Flagstone Drive and County PD, and numerous gaps in sidewalks and adequate shoulder width.

Conflicts between roadway users frequently occur at intersections and driveways. Intersection design should create space and travel paths for bicyclists that are direct, continuous, and logical.

Bike level of service is deficient along the County M corridor. LOS F between Flagstone Drive and County PD, and numerous gaps in sidewalks and adequate shoulder width.

Wellhead Protection Plan, Unit Well 26, City of Madison

The primary purposes of this plan are to define the wellhead protection area for Unit Well 26 and establish specific criteria for protection of the well and groundwater resources in the area, including management strategies to maintain a high quality water supply free of contamination. The planned storm water management practices associated with the proposed action are compatible with the purposes of the Wellhead Protection Plan.

The proposed action is compatible with the following neighborhood plans, which are discussed in the B-1 Factor Sheets.

- City of Madison [High Point-Raymond Neighborhood Development Plan](#) (amended last in 2006)
- City of Madison [Midtown Neighborhood Development Plan](#) (amended last in 2004)
- City of Madison [Pioneer Neighborhood Development Plan](#) (amended last in 2004)
- City of Verona [North Neighborhood Development Plan](#) (Adopted February, 2015)

7. Environmental Justice

Describe how the project development process complied with Executive Order 12898 on Environmental Justice. If populations of any group covered by EO 12898 are present in the project area, complete Factor Sheet B-4, Environmental Justice:

How was information obtained about the presence of populations covered by EO 12898?	
<input checked="" type="checkbox"/> Windshield Survey	<input checked="" type="checkbox"/> Official Plan
<input checked="" type="checkbox"/> US Census Data	<input type="checkbox"/> Survey Questionnaire
<input type="checkbox"/> Real Estate Company	<input type="checkbox"/> WisDOT Real Estate
<input checked="" type="checkbox"/> Public Information Meeting	<input type="checkbox"/> Local Government
<input type="checkbox"/> Human Resources Agency Identify agency Identify plan, approval authority and date of approval	
<input checked="" type="checkbox"/> Other Aerial photographs, subdivision plats, and zoning maps	

a. ☒ No - Populations covered by EO 12898 are not present in project area.

b. ☐ Yes - Populations covered by EO 12898 are present. Factor Sheet B-4 must be completed.

The proposed action is part of the Madison Metropolitan Area and Dane County Regional Transportation Plan 2035. The Regional Transportation Plan conducted an evaluation of how included transportation improvements would affect areas with concentrations of minorities and low income families based on 2010 census data. The data did not indicate any areas with concentrations of minority or low-income adjacent populations of concern on or near the County M corridor. See *Table D – Population, Households and Race (2010 Census)* and *Table E – Household Income (2010)* for a breakdown of minorities and household income represented within ½ mile of the corridor.

The Madison Metropolitan Area and Dane County Regional Transportation Plan 2035 also states that the proposed County M project will likely benefit all users of the roadway, so minority populations will not be adversely effected.

No minority or low-income populations have been identified that would be adversely impacted by the proposed project as determined above. Therefore, this project is in compliance with Executive Order 12898 on Environmental Justice.

Table D - Population, Households and Race (2010 Census)

Demographic Group	State of Wisconsin		Dane County		Corridor-1/2 Mile from C/L	
	#	% of Pop.	#	% of Pop.	#	% of Pop.
Households	2,593,073	N/A	196,383	N/A	3,147	N/A
Population	5,686,986	100%	488,073	100%	7,296	100%
• White	4,902,067	86.2%	413,631	84.7%	6,328	86.7%
• Minorities	784,919	13.8%	74,914	15.3%	968	13.3%
- Black	359,148	6.3%	25,347	5.2%	137	1.9%
- AIAN ⁽¹⁾	54,526	1.0%	1,730	0.4%	17	0.2%
- Asian	129,234	2.3%	23,035	4.7%	620	8.5%
- NHPI ⁽²⁾	1,827	0.0%	166	0.0%	2	0.0%
- Two or More Races	104,317	1.8%	12,100	2.5%	141	1.9%
• Hispanic Origin ⁽³⁾	22,715	0.4%	28,925	5.9%	176	2.4%

Source: Year 2010 U.S. Census Data SF 1 (Tables P1, 4, 8, 18)

(1) AIAN = American Indian or Alaska Native

(2) NHPI = Native Hawaiian & Other Pacific Islander

(3) Those of Hispanic Origin may consider themselves white or of another race; therefore, population totals and percentages will be greater than 100 percent

Table E - Household Income (2010 Census)

Household Income	Wisconsin		Dane County		Corridor -1/2 Mile from C/L	
	# of HHs	% of HHs	# of HHs	% of HHs	# of HHs	% of HHs
Less than \$10,000	135,106	5.9%	12,338	5.9%	408	3.1%
\$10,000 to \$14,999	120,725	5.3%	8,314	4.0%	280	2.1%
\$15,000 to \$19,999	122,495	5.3%	8,146	3.9%	231	1.8%
\$20,000 to \$24,999	126,747	5.5%	9,104	4.4%	418	3.2%
\$25,000 to \$29,999	122,814	5.4%	9,182	4.4%	227	1.7%
\$30,000 to \$34,999	123,839	5.4%	10,360	5.0%	488	3.7%
\$35,000 to \$39,999	114,450	5.0%	8,905	4.3%	309	2.4%
\$40,000 to \$44,999	114,743	5.0%	9,186	4.4%	601	4.6%
\$45,000 to \$49,999	104,599	4.6%	8,624	4.1%	523	4.0%
\$50,000 to \$59,999	198,306	8.6%	16,534	7.9%	842	6.5%
\$60,000 to \$74,999	251,133	11.0%	21,982	10.5%	1,595	12.2%
\$75,000 to \$99,999	307,679	13.4%	29,288	14.0%	1,938	14.9%
\$100,000 to \$124,999	192,308	8.4%	21,212	10.2%	2,073	15.9%
\$125,000 to \$149,999	100,555	4.4%	12,342	5.9%	922	7.1%
\$150,000 to \$199,999	86,956	3.8%	12,818	6.1%	1,129	8.7%
\$200,000 or more	70,795	3.1%	10,414	5.0%	1,055	8.1%

Household income from the U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates was gathered for area residents living within ½ mile of the County M at the census tract level. For this study area, this included census tracts 4.06, 5.04, 108, 109.01, and 109.03. The U.S Census Bureau has set a poverty threshold of \$24,036 for a family of four in 2015. Based on the latest data available and an assumed household size for four, no more than 10.2 percent of the population within ½ mile of County M reach the poverty thresholds.

8. Indicate whether individuals covered by Title VI of the 1964 Civil Rights Act, the Americans with Disabilities Act or the Age Discrimination Act were identified: *Title VI prohibits discrimination based on race, color, or country of origin.*

- a. ☒ No Individuals covered by the above laws were not identified.
b. ☐ Yes Individuals covered by the above laws were identified.
☐ Civil Rights issues were not identified.
☐ Civil Rights issues were identified. Explain:

Thirteen percent (968 persons) of the corridor population was defined as a minority. Every measure was taken to ensure all persons were allowed the right to participate throughout all phases of the project

9. Briefly summarize public involvement methods:

Interested members of the public and residents of the corridor were encouraged to participate in the project's public involvement meetings. Notices were published in local newspapers and on city and town websites. Participants were able to view maps and displays and city and project staff were available to answer questions. Each meeting had a PowerPoint presentation explaining project alternatives and design elements. Those in attendance were encouraged to record written comments.

At the draft completion of the Environmental Assessment (EA), the full EA and Section 4(f) document will be distributed to several area libraries and community center. Notices will be published to identify the dates and locations of these documents. Documents will be available for 45 days and further comment on the project can be provided during that period.

A project website was developed in order to provide project information and to allow stakeholders and the public to provide comments.

a. Meetings

Progress Meetings were held throughout the project on a monthly basis. Date	Meeting Sponsor (WisDOT, RPC, MPO, etc.)	Type of Meeting (PIM, Public Hearings, etc.)	Location	Approx. # Attendees
1/10/11		Kick Off Meeting	City County Building	10
3/14/11		Progress Meeting	City County Building	9
4/11/11		Progress Meeting	City County Building	10
5/9/11		Progress Meeting	City County Building	14
6/13/11		Operational Planning Meeting	Engineering Operations Facility	19
6/13/11		Progress Meeting	City County Building	10
7/11/11		Progress Meeting	City County Building	10
8/8/11		Progress Meeting	City County Building	10
9/12/11		Progress Meeting	City County Building	12
10/10/11		Progress Meeting	City County Building	13
11/14/11		Progress Meeting	City County Building	13
11/29/11	Town of Verona	Property Owner Meeting	Verona Town Hall	11
12/2/11	City of Verona	Elected Officials Meeting	Council Chambers – City of Verona	9
12/5/11	Town of Middleton	Town Board Meeting	Middleton Town Hall	15
12/8/11		Public Information Meeting #1	Verona Senior Center	70
12/12/11		Progress Meeting	City County Building	8
1/4/12	MPO Meeting	MPO Progress Meeting		
1/9/12		Progress Meeting	City County Building	11
2/13/12		Progress Meeting	City County Building	10
3/12/12		Progress Meeting	City County Building	10
	City of Madison	Bicycle Federation Meeting		5
4/9/12		Progress Meeting	City County Building	8
5/14/12		Progress Meeting	City County Building	11
5/24/12		Public Information Meeting #2	Verona Senior Center	35
6/11/12		Progress Meeting	City County Building	9
9/9/12		Progress Meeting	City County Building	11
10/8/12		Progress Meeting	City County Building	8
11/11/12		Progress Meeting	City County Building	7
9/9/13		Progress Meeting	City County Building	8
1/14/13		Progress Meetings	City County Building	7

2/6/14	UW Officials			5
2/11/13		Progress Meetings	City County Building	9
4/8/13		Progress Meetings	City County Building	8
7/31/13		Progress Meetings	City County Building	8
9/9/13		Progress Meetings	City County Building	7
10/13/13		Progress Meetings	City County Building	8
11/11/13		Progress Meetings	City County Building	6
12/9/13		Progress Meetings	City County Building	9
1/21/14		Progress Meetings	City County Building	10
3/4/14	City of Madison	Intersection Design Discussion	City County Building	4
3/7/14	City of Madison	Intersection Design Discussion	City County Building	6
3/12/14		Public Information Meeting #3	Verona Senior Center	51
4/30/14	City of Madison Long Range Transportation Planning Committee, Bike Ped Motor Vehicle Commission	Preliminary Plan Approval Meeting	City Municipal Building	10
5/7/14	City of Madison Public Works	Preliminary Plan Approval Meeting	City Municipal Building	10
5/12/14		Progress Meetings	City County Building	9
5/29/14	City of Verona	Discussion of West leg of County PD and impacts to property owners	City of Verona	4
6/9/14		Progress Meetings	City County Building	6
7/14/14		Progress Meetings	City County Building	7
8/11/14		Utility Coordination Meeting	Madison Public Works Conference Room	20
9/08/14		Progress Meeting	City County Building	7
9/08/14		Progress Meeting	City County Building	7
9/24/14		Meeting with Ice Age Trail Alliance and Dane County Parks officials	City County Building	8
10/05/14		Progress Meeting	City County Building	5
1/12/15		Progress Meeting	City County Building	5
3/09/15		Progress Meeting	City County Building	5
4/13/15		Progress Meeting	City County Building	5
5/11/15		Progress Meeting	City County Building	5
4/29/15		Meeting with University officials regarding OJ Noer Turf Research Facility and University Ridge Golf Course impacts	OJ Noer Turf Research Facility	10
5/13/15		Meeting with DNR & Dane County Park officials regarding Dane County Parkland	WDNR – Madison office	8
6/08/15		Progress Meeting	City County Building	5
8/17/15		Meeting with Ice Age Trail Alliance and Dane County Parks officials	City County Building	7
9/14/15		Meeting with University Ridge officials	University Ridge Golf Course	6

b. Other methods, describe:

An invitation for each public information meeting was sent to those residents with home addresses located on or abutting the project corridor inviting all interested persons to attend public information meetings on December 8, 2011, May 24, 2012, and March 12, 2014. In addition to letters, local newspapers including the Middleton Times Tribune, Wisconsin State Journal, and Verona Press ran notices regarding the public meetings and encouraged participation. For those that could not attend the meeting, email addresses and phone numbers were provided as a way to give input or receive materials regarding the project.

A project website has been developed and project information can be found at <http://www.cityofmadison.com/engineering/projects/county-highway-m-prairie-hill-to-cross-country>.

Numerous stakeholder and individual property owner meetings occurred throughout the process. This included coordination with, Ice Age Trail Alliance, OJ Noer Turf Research Facility, University Ridge Golf Course, Dane County Parks, Wisconsin Bike Federation, Madison Metropolitan Sewerage District, and American Transition Company.

c. Identify groups that participated in the public involvement process. Include any organizations and special interest groups:

Approximately 70 persons attended the Public Information Meeting #1 on December 8, 2011 at the Verona Senior Center. The project team along with local officials from the cities of Madison and Verona and the towns of Madison, Middleton, and Verona, as well as Dane County and interested members of the public attended this meeting. There was also representation from the Ice Age Trail Alliance, OJ Noer Turf Grass Research Facility, West Madison Bible Church and UW-Madison.

On May 24, 2012, approximately 35 persons attended public information meeting #2 at the Verona Senior Center (near the project corridor). Representatives from the City of Madison and Verona, Dane County and the project team presented preferred alternatives to the public. Representatives from the Ice Age National Scenic Trail, OJ Noer Turf Grass Research Facility, and West Madison Bible Church attended.

A third public information meeting was held to present additional intersection alternatives at County M & County PD. This meeting was held on March 12, 2014 at the Verona Senior Center. There were 51 attendees and representatives from the Ice Age Trail Alliance, West Madison Bible Church, City of Verona, Town of Verona, and the City of Madison at the meeting.

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

A 45-day public comment period will be available and a public hearing may be held.

10. Briefly summarize the results of public involvement:

a. Describe the issues, if any, identified by individuals or groups during the public involvement process:

Participants in the public information meetings (PIM) were presented intersection alternatives as well as the general typical cross sections of specific areas throughout the corridor. Participants indicated issues such as assessments, sound wall, project funding, traffic staging during construction, sidewalk location and maintenance, safety issues, Madison Metro ridership, noise, emergency response times, Ice Age National Scenic Trail, signage, maintenance of the intersections, and access.

WisDOT's policies and procedures for evaluating noise barrier feasibility and reasonableness are set forth in Chapter 23 of the Facilities Development Manual and in Wisconsin Administrative Rule TRANS 405. The factors for determining noise barrier feasibility and reasonableness indicated that sound walls were not warranted and are not being proposed in any location along the corridor because costs exceed \$30,000 per benefited receptor. To be considered a benefit, an impacted receptor location must receive a minimum of eight decibel noise reduction.

At Public Information Meeting #1, approximately 15 members of the public shared their comments and concerns at the presentation portion of the Public Information Meeting. Another 22 shared their concerns via the written comment form at the meeting. During the meeting, intersection alternatives continued to be a topic of discussion as there seemed to be an almost an even split between those in favor of roundabouts or signalized intersections at County PD and Midtown Road. The alternatives with slightly more support included the roundabout at County PD and at-grade traffic signal at Midtown Road.

At Public Information Meeting #2, one attendee voiced concern about how construction of County M would coincide with simultaneous construction of the Verona Road project. Several individual discussions were had after the presentation. Concerns included the proposed access at Raymond Road, location of future roads, utility and easement encroachment, and limited access areas. Another 15 written comments were received and recorded.

At Public Information Meeting #3, approximately 10 residents shared their comments. The property owner at 8300 Raymond Road questioned the placement of the cul-de-sac on Raymond Road and why it did not extend to the driveways for the barns on the property. There were a few questions as to why the full or tight diamond interchange alternative was not selected. Residents on Midtown Road expressed concern about the proposed median on the east leg of Midtown Road. A question was asked why bike lanes and a multi-use path are required. A question was asked about the utilities and the possibility of burying their overhead lines. There were also requests for LED street lighting.

b. Briefly describe how the issues identified above were addressed:

PIM #1:

Representatives from the City of Madison assured the audience that these alternatives were preliminary and no final decisions have been made and that there was an interest in gaining local comments and opinions before selecting a preferred alternative. The project team reviewed the comments and used them in the decision-making process to select the preferred alternative. Issues mentioned by meeting attendees were noted and taken into consideration during the design phase and selection of the preferred alternatives.

Several other design updates were addressed from the comments received at Public Information Meeting #1. They included:

- New southern limits of Verona extension to the multi-use path
- Full access to the intersections at Harmony Drive, Waterbend Drive, and University Research Park expansion

- Northbound left-in access at OJ Noer Turf Grass Research Facility

Access to Raymond Road also received a lot of feedback. The initial plans to cul-de-sac Raymond Road were revised due to public comment. There were concerns regarding emergency vehicles having access to Raymond Road.

There were several residents with residences on Harmony Drive in attendance, and all participants supported maintaining full access to this cul-de-sac. Full access will remain at this location.

PIM #2:

At Public Information Meeting #2, the City of Madison responded to the concern about the construction of County M coinciding with the construction of Verona Road by explaining that the city evaluated the impacts of construction of both projects over the same time period. County M will be able to maintain traffic flow similar to the existing levels throughout project construction by maintaining the current capacity, lane configurations, and access on County M and County PD during the County M construction.

One comment addressed concern regarding the proposed cul-de-sac location for Stony Ridge Circle. The owner has a septic tank that could be in conflict with the design. She is also concerned about drainage in the ditched section on the east side of County M between the two Stony Ridge intersections. During the design process, the design team will either avoid the septic tank or work with owner to relocate. Drainage will be thoroughly investigated and updated as necessary in the ditched section.

One property owner would like to be kept informed regarding the location of future roads because they will be on or near their property. The city assured them they would be informed.

An attendee representing the UW Turf Research group mentioned that he would like to have full access at this driveway. Preliminary design included limited access at this point. The updated proposed design now provides full access at this location.

PIM #3:

It was explained that the intersection footprint of the roundabout alternative for the County M – Midtown Road intersection would require substantial acquisition from properties on all four quadrants of the intersection. This would result in a large impact to the design and layout of the Hawks Landing golf course (removal of a tee box) on the northwest corner of the intersection and a removal/relocation of the residence on the southeast corner of the intersection. The initial layout of the signalized intersection alternative did not require either of these, but retaining wall and grading impacts to both the tee box and residence would have required impacts on the properties.

The owner of the single family home in the southeast corner of County M and Midtown Road approached the City of Madison and design team and indicated a preference to be relocated rather than continue to reside at the property after the changes to the intersection. Adjustment to the layout of the signalized intersection can be made to reduce the impacts to the golf course tee box however due to site elevations; this change would require removal/relocation of the residence. The updated preferred alternative includes this shift of the intersection to the east. A residential relocation is a more common mitigation than the impact to the golf course tee box would require. Relocation of the tee box is not feasible due to the large stormwater pond and site layout. Removal of this tee box could be a substantial impact to the function of the golf course.

There weren't any major concerns noted regarding changing the recommendation for the County M & County PD intersection from a roundabout to a grade separated structure. There was general support for the westbound underpass option, although some felt the full interchange would be worth the extra cost.

The Raymond Road cul-de-sac location was relocated to provide access to the barn and farm outbuilding structures near the location of the existing driveway.

It was explained that the full or tight diamond interchange alternatives would have greater structure and environmental costs associated with them. The attendees were informed that a noise study was undertaken with the project.

Residents on Midtown Road expressed concern about the proposed median on the east leg of Midtown Road and how that would affect their access into their property due to the loss of left turns in and out of their driveways. Residents were encouraged to discuss these details as designs progress, however nearby intersections with Midtown Road and the street network in the neighborhood south of the residences will provide alternates to direct left in and left out access.

The property owner on the southwest corner of the intersection expressed concern about the amount of land that was required for this alternative and that the improvements extended further west along his property than in the roundabout alternative. The westbound underpass alternative will be designed to minimize property impacts to all adjacent properties. This will include the use of retaining walls to separate the multi-use path that crosses below grade from the roadway elevation to minimize property

acquisition. The westbound underpass alternative does have greater impact to the property owner on the SW quadrant than the roundabout alternative, however this cannot be addressed without having further impact to the University Ridge (Section 4(f)) property.

The property owner on the northeast corner of the intersection expressed concern about the height of the roadway to accommodate a grade separation. The profile of County M is designed as low as possible while maintaining required vertical clearance over the westbound underpass lanes. The westbound underpass lane profile has been lowered to a minimum elevation that is feasible to allow for drainage. The physical structure design will be a flat slab, three span bridge which will have a lower profile than a smaller overall bridge with a longer single span. The longer single span would require a girder design which would increase the height of the bridge. A short retaining wall will be added along the front of this property to minimize impacts that result from the raised profile.

Employees at the OJ Noer Turf Research Facility expressed concern about access to their site. The roundabout alternative provided a safe U-turn location to allow an alternative to left out access from their property. They desired left out access be provided if U-Turns would not be allowed at the signalized intersection as desired by the City of Madison. The revised design provides full access at this location.

Federal policy requires consideration for bicycle and pedestrian accommodations on reconstruction projects. The desire for bicycle and pedestrian accommodations is strong supported by the City of Madison, the City of Verona, and Dane County. The bike lanes provide the bike accommodation and the multi-use path provides pedestrian accommodation. The multi-use path provides an alternative to bicyclists who are not comfortable riding adjacent to the high volume of traffic on County M. The path is also a part of the city's bicycle and pedestrian plan. Sidewalks are included in the design and provide additional pedestrian accommodations.

American Transmission Company (ATC) does not bury their overhead electric transmission lines due to the high cost associated with this work. Many of the utilities within the project corridor are and will remain buried. Some overhead utilities may be buried but that has not been determined yet. The new street lighting will be LED per City of Madison's current standards.

11. Local/regional government coordination:

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

Officials from the City of Madison and City of Verona along with the Town of Verona and Town of Middleton were included in all phases of the project and invited to participate in all meetings. Dane County and WisDOT Local Program Management representatives also were invited to the meetings and remained involved through monthly progress meetings. The Wisconsin Department of Natural Resources was invited to the meetings and was kept informed of project progress as necessary. Coordination occurred with FWHA as well.

A list of all progress meetings and other routine meetings are listed in the matrix in 9a.

County M discussion at Town Board Meetings:

- December 5, 2011 – Town of Middleton – Town Board Meeting – Presentation and update on City of Madison's County M project between Cross Country Road and Prairie Hill Road (including intersection of Midtown Road).
- December 6, 2011 – Town of Verona – Regular Monthly Board Meeting – Discussion and review of County M proposed expansion

County M discussion at city meetings:

- December 15, 2011 – City of Madison Long Range Transportation Plan – Informal Presentation on the preliminary design of the County M roadway corridor (Cross Country Road to Prairie Hill Road)

County M discussion at Dane County meetings:

- September 24, 2014 - Ice Age National Scenic Trail Meeting – Discussion of the Ice Age National Scenic Trail portion of the proposed design (specifically the crossing underneath County M south of Flagstone Drive)

Preliminary plans were presented and approved:

- Ped/bike/motor vehicle: July 24, 2012 – with a few comments
- Long Range Transportation Planning Committee (LRTCP)– August 16, 2012
- City of Madison Board of Public Works – Approved August 22, 2012
- City of Madison Common Council – September 4, 2012
- City of Verona Common Council approved plans on October 8, 2012 (with roundabout alternative at County PD)
- The City of Verona Public Works Committee has reviewed the now preferred Westbound Underpass Alternative design, however, no action has been taken.

Next steps include analysis of staging, structure design, storm sewer design, lighting, traffic signals, and municipal utilities.

Unit of Government	Coordination	Coordination Initiation Date	Coordination Completion Date	Comments
Dane County	Y	Throughout		Dane County is a project sponsor. Officials from Dane County were invited to all monthly progress, local official and public meetings throughout the project. Dane County does not need to approve official plans for transportation projects.
City of Madison	Y	Throughout		The City of Madison is a project sponsor. Officials from the City of Madison were invited to all monthly progress, local official and public meetings throughout the project. Alders are notified through the PIM invite letters. At the Bicycle and Pedestrian Meeting, the commission was in support of the traffic signal alternative and bike lane recommendations at Midtown Road. They suggested adding another slip ramp on the east leg (westbound) to provide a spot for bicyclist to access the sidewalk and cross County M with a pedestrian signal. At the LRTPC meeting, officials noted a need for safe and efficient bicycle accommodations eastbound and westbound at the Midtown Road intersection.
City of Verona	Y	Throughout		The City of Verona is a project sponsor. Officials from the City of Verona were invited to all monthly progress, local official and public meetings throughout the project. The City of Verona Public Works Committee was kept apprised of the changed design through their Department of Public Works (DPW) who attended the regular project progress meetings. The DPW did not request additional action. The project team is working with property owners discussing the new layout and connection to Stony Ridge Circle.
Town of Verona	Y	Throughout		Officials from the Town of Verona were invited to all monthly progress, local official and public meetings throughout the project. The consultant team has continually worked with the town residents and Town Board throughout the project. The Town of Verona maintains a portion of Raymond Road (plowing, mowing, maintenance etc.) and Stony Ridge Circle. Representatives of the Town Board had concerns that closing off Raymond Road at the County M and County PD would result in increased costs and reduced service to residents on Raymond Road as town equipment would have to re-route to the east and access Raymond Road from High Point Road. The Town's concern was addressed by including the proposed new roadway connection between Meriter Way and Raymond Road. The Town was also consulted on roadway design standards and locations for the realignment of Stony Ridge Circle and for locations of stormwater ponds within the Town of Verona.
Town of Middleton	Y	Throughout		Officials from the Town of Middleton were invited to all monthly progress, local official and public meetings throughout the project.
FHWA	Y	January 15, 2016		Meeting was held January 15, 2016 to provide updates and discuss EA and Section 4(f) documents.

b. Describe the issues, if any, identified by units of government during the public involvement process:

- Town of Verona had concerns about emergency and maintenance vehicle access to Raymond Road from County PD. The connection of Raymond Road to County PD was discussed in detail throughout preliminary plan development.
- The University of Wisconsin had concerns regarding the fill slopes proposed.
- Dane County expressed concern about the left-turn access to the Alliant Energy site from County PD westbound.
- Dane County Parks, Ice Age Trail Alliance, and National Park Service expressed a desire to be involved in the design of the Ice Age National Scenic Trail crossings of County M and Raymond Road.
- Dane County Parks noted the proposed loss of the wetland scrape constructed near the southeast corner of the Flagstone Drive intersection as well as the loss of restored prairie grass and prairie habitat along the western edge of the Dane County Park land between County PD and Flagstone Drive.

c. Briefly describe how the issues identified above were addressed:

- The City of Madison is in the process of updating the High Point-Raymond Neighborhood Plan. The High Point-Raymond

Neighborhood Plan continues to be developed in association with these road plans and how the internal street network will accommodate the proposed continuation of Raymond Road.

- The City of Madison has coordinated with the University on the slopes they prefer along the turf research facility. All other slopes will match existing slopes.
- Dane County Highway agreed that a median access opening was ok, but no left turn lane should be provided.
- Dane County Parks, the Ice Age Trail Alliance, and National Park Service will be involved with the details of reestablishing the Ice Age National Scenic Trail easement and crossings of both County M and Raymond Road.
- Dane County Parks will work with the design team to develop a design for the mitigation of the wetland scrape adjacent to the project and existing wetland scrape location. Dane County Parks will also be involved with design and construction observation and approval for restoration of the disturbed prairie grass and park area. The driveway access to the maintenance parking area will also be restored with the project as desired by Dane County Parks.

d. Indicate any unresolved issues or ongoing discussion:

No ongoing environmental issues or discussions. Design details are being discussed with all agencies involved.

Basic Sheet 3
Coordination

INTERNAL WisDOT	Coordination Required? Y = Yes N = No	Correspondence Attached? Y = Yes N = No	Comments Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and, if available, when coordination was completed. If coordination is not required, state why.
Bureau of Aeronautics	<input checked="" type="checkbox"/> No	No	Coordination is not required. Project is not located within 2 miles (3.22 km) of a public or military use airport nor would the project change the horizontal or vertical alignment of a transportation facility located within 4 miles (6.44 km) of a public use or military airport.
	<input type="checkbox"/> Yes		Coordination has been completed and project effects have been addressed. Explain:
Bureau of Rails & Harbors	<input checked="" type="checkbox"/> No	No	Coordination is not required because no railways or harbors are in or planned in the project area.
	<input type="checkbox"/> Yes		Coordination has been completed and project effects have been addressed. Explain:
Regional Real Estate Section	<input type="checkbox"/> No	Yes	Coordination is not required because no inhabited houses or active businesses will be acquired.
	<input checked="" type="checkbox"/> Yes		Coordination is ongoing. WisDOT's early acquisition process will be considered for the relocation at the southeast quadrant of the Midtown Road intersection after this Environmental Assessment is approved. Two parcels in the southwest quadrant of County M and County PD intersection in the City of Verona's North Neighborhood Plan are being considered for the early acquisition process. Conceptual Stage Relocation Plan (CSRP) was completed for this project. (<i>See Attachment A – Conceptual Stage Relocation Plan</i>).

STATE AGENCY	Coordination Required? Y = Yes N = No	Correspondence Attached? Y = Yes N = No	Comments Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and, if available, when coordination was completed. If coordination is not required, state why.
Agriculture (DATCP)	Y	N	<p>December 19, 2011 - DATCP was sent a letter as part of the initial agency coordination process. DATCP did not respond to this letter.</p> <p>October 20, 2014 – DATCP was sent a follow-up letter.</p> <p>December 23, 2014 – DATCP responded with a letter indicating that an AIS was not required. (<i>See Attachment B – Other Agency Coordination</i>)</p>
Natural Resources (WDNR)	Y	Y	<p>December 19, 2011 - WDNR was sent a letter as part of the initial agency coordination process.</p> <p>March 13, 2012 – WDNR response letter had the following comments:</p> <ul style="list-style-type: none"> • There are City of Madison and Dane County parks that have received WDNR grants. A taking of these lands would require coordination with WDNR. • Ice Age Trail Alliance staff have communicated with WDNR for the need to have an easement amendment in place so that the new crossing of the multi-use underpass (Ice Age National Scenic Trail and bike trail) aligns with the easement. • WDNR will be able to issue water quality certification for this project after agreement on the necessary measures to protect and/or mitigate wetland losses. <p>April 4, 2012 - WDNR has reviewed and concurred with the Wetland delineation report and field verified delineated wetlands (<i>See Attachment C - WDNR Coordination</i>).</p> <p>October 20, 2014 – WDNR was sent an update letter to introduce new alternatives at County M & County PD intersection.</p> <p>January 26, 2015 – A meeting was held with WDNR and project staff to address the funding source (Knowles-Nelson Stewardship Fund) for Dane County Parks and the conversion process required to satisfy state requirements.</p> <p>April 8, 2016 – WDNR was sent a project update package per the Northern Long-eared bat roost sites and hibernacula requirements in Wisconsin.</p> <p>April 11, 2016 – WDNR (via email) indicated receipt of the updated project information. WDNR reviewed their letter sent (March 12, 2012) and does not have any changes. WDNR understands that coordination is continuing with regard to the Dane County Parks (stewardship funds) and IANST facilities.</p>

STATE AGENCY	Coordination Required? Y = Yes N = No	Correspondence Attached? Y = Yes N = No	Comments Explain or give results. If no correspondence is attached to this document, indicate when coordination with the agency was initiated and, if available, when coordination was completed. If coordination is not required, state why.
State Historic Preservation Office (SHPO)	Y	Y	<p>December 19, 2011 - SHPO was sent a letter as part of the initial agency coordination process.</p> <p>October 5, 2012 – SHPO concurred that Gordon School (6987 Midtown Road), does not meet the National Register of Historic Places criteria.</p> <p>December 6, 2012 - SHPO concurred that Schroeder-Stickelberg-Thompson Farmstead meets the National Register of Historic Places criteria. SHPO provided concurrence with the Section 106 process and the project is moving forward with a decision that historic properties may be affected by the proposed action and the “assess affects” and begin consultation on affects is underway (<i>See Attachment D - Section 106 Coordination</i>).</p> <p>April 29, 2013 – Initial Consultation Meeting SHPO was invited to the initial consultation meeting, but declined to attend until they have reviewed the Documentation for Consultation (D for C).</p> <p>June 25, 2013 – SHPO reviewed the D for C and provided comments.</p> <p>September 17, 2013 – SHPO reviewed the Memorandum of Agreement (MOA) and provided comments.</p> <p>April 14, 2014 – Follow up Consultation Meeting – Change in preferred alternative at County PD (Multi-Lane Roundabout to Westbound Underpass). SHPO did not attend.</p> <p>July 15, 2014 – SHPO was provided an updated D for C with the Westbound underpass as the preferred alternative and an updated MOA.</p> <p>August 15, 2014 – SHPO provided comments on the updated MOA</p> <p>August 24, 2015 – SHPO signed Memorandum of Agreement</p> <p>September 25, 2015 – SHPO signed Amended Section 106 Form that included the additional Archeology Survey for the expanded Area of Potential Effect (APE). The APE was expanded to include the area of the new roadway connecting Raymond Road to Meriter Way.</p> <p>December 2015 – WisDOT completed a field survey of up to seven of the best-preserved and finest representative historic farmsteads throughout the Town of Verona. This fulfilled all stipulations in the MOA.</p>

<p>Others:</p> <p>Responded to initial letter:</p> <ul style="list-style-type: none"> • Ice Age Trail Alliance • UW-Madison Research Facility - Turf Management • Dane County Sheriff • Bike Federation of Wisconsin • Dane County Parks • Great Lakes Archaeological Research Center • UW Madison University Ridge Golf Course • UW-Madison Board of Regents • Hawks Landing Golf Course <p>Did not respond to initial letter:</p> <ul style="list-style-type: none"> • Upper Sugar River Watershed • Wisconsin State Patrol • Dane County Historical Society • Madison Trust for Historic Preservation 	<p>Y</p>	<p>Y</p>	<p>December 19, 2011 - These agencies or special interest groups were sent a letter as part of the initial agency coordination process (<i>See Attachment E – Project Initiation Letters and Attachment B - Other Agency Coordination</i>). Bullets summarize the responses received from the special interest groups to date:</p> <ul style="list-style-type: none"> • The Ice Age Trail Alliance (IATA) strongly supports the underpass crossing of County M near Flagstone Drive. IATA expressed a desire for a mechanism connecting the Ice Age National Scenic Trail with the IATA easement on the UW Turf Grass Facility. The Ice Age Trail Alliance outlined three comments and proposed mitigation measures to be considered in the review: <ul style="list-style-type: none"> ○ Dane County Parks supports the construction of the proposed bicycle pedestrian underpass at the intersection of Flagstone Drive and County M. Both trails will greatly benefit from a separated grade crossing. ○ Install a dodge way and signage on the west side of the proposed underpass at the Ice Age National Scenic Trail to deter bicycle use. Coordinate design and installation with the Ice Age Trail Alliance. ○ Amend the existing easement the Ice Age Trail Alliance has with the University of Wisconsin-Madison as necessary to insure connectivity to the proposed underpass. Related, investigate a revised alignment of the Ice Age National Scenic Trail from the proposed underpass that will utilize the existing covered bridge at the O.J. Noer Turfgrass Facility. • UW-Madison Research Facility – Turf Management – Representative attended public information meeting and discussed access with the project manager. Requested full access. • The Dane County Sheriff's Office expressed concern with emergency vehicle access during construction. Dane County sheriff was sent an update letter on October 20, 2014 to introduce new alternatives at County M & County PD intersection. • The Bicycle Federation was in support of the project as proposed and will consider writing a letter in support of the project. • Dane County Parks outlined four comments and proposed mitigation measure to be considered in the review. <ul style="list-style-type: none"> ○ Maintain and restore the existing driveway on County M for staff access to manage prairie restoration areas. Dane County Parks would prefer this driveway entrance to be gated and not paved to discourage general public use. ○ Provide financial resources that will allow the Dane County Parks Naturalist to restore and reseed prairie areas that are disturbed during County M reconstruction activities. ○ Maintain the existing water storage area immediately south of the box culvert. The pond/wetland area was created through a partnership between Dane County Highway and the Dane County Naturalist and is used extensively by frogs. If this area is unable to be avoided by the proposed County M improvement project, consider creation of a wetland scrape in the southeast corner of the parcel as a mitigation measure. ○ Dane County Parks supports the addition of the proposed bicycle/pedestrian side path along County M that will provide connectivity to the Ice Age National Scenic Trail. <p>The project will require real estate acquisition from Dane County Parks land. There will be a portion of strip right of way acquired by fee. The permanent easement estimate is for construction and maintenance of the 10-foot multi-use path along the east side of County M. The path will be constructed on a 15-foot easement along the edge of the County M highway right of way. Dane County Parks requested that the prairie area be protected/isolated from the construction by temporary fencing (orange safety fence is acceptable).</p> <ul style="list-style-type: none"> • Great Lakes Archaeological Research Center, Inc. contacted Dane County Historical Society and Madison Trust for Historic Preservation Organization. Neither group identified any additional historic resources or expressed concern about the project.
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			<ul style="list-style-type: none"> Staff from University of Wisconsin Facilities Planning and Management and staff from University Ridge golf course met with the design team to discuss alternative designs for the intersection of County M and County PD. Staff indicated the westbound underpass alternative was desirable from an aesthetic view point as the underpass structure would have less visual impact than an overpass structure. They indicated that the roadway design needs to avoid impacting the cart path adjacent to the green. They also noted a desire to work with the design team on final details of landscaping. There is a desire to provide some screening between the roadway and golf course; however trees are not desirable due to the impacts of the shade on the growing conditions of the turf on the green. University Ridge and UW Facilities Planning and Management prefer tree plantings and a split rail fence along the edge of the new roadway. Hawk's Landing Golf Course expressed concerns regarding the proximity of the proposed roadway to the existing tee boxes. Minimizing the acquisition in this area was a prime consideration when choosing from the alternatives.
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FEDERAL AGENCY	Coordination Required? Y = Yes N = No	Correspondence Attached? Y = Yes N = No	
Advisory Council on Hist. Pres. (ACHP)	Y	Y	FHWA previously notified ACHP of the determination of adverse effects and asked if they wanted to participate in 106 consultation. ACHP declined participation for this project. (See Attachment F – Documentation for Consultation).
Corps of Engineers (COE)	Y	Y	<p>December 19, 2011 – USACOE was sent a letter as part of the initial agency coordination process.</p> <p>USACOE responded to the December 19, 2011 letter (See Attachment G – US Army Corp of Engineers (COE) Coordination) noting the project would likely require a Department of Army permit for the discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA Section 404). It is recommended that a pre-application consultation meeting should be requested with the Corps during the design phase in order to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process.</p> <p>October 20, 2014 – COE was sent an update letter to introduce new alternatives at County M & County PD intersection.</p> <p>As progress continues on the roadway and structure design, a pre-application meeting will be appropriate in late 2016.</p>
Environmental Protection Agency (EPA)	N	N	Coordination with EPA is not required.
National Park Service (NPS)	Y	N	<p>December 19, 2011 - NPS was sent a letter as part of the initial agency coordination process. They did not respond.</p> <p>October 20, 2014 – NPS was sent an update letter to introduce new alternatives at County M & County PD intersection.</p> <p>National Park Service was included in all IANST discussions and correspondence.</p>

Nat. Resource Cons. Service (NRCS)	N	Y	<p>December 19, 2011 - NRCS was sent a letter as part of the initial agency coordination process.</p> <p>January 17, 2012 – NRCS responded by email indicating there are no NRCS easements involved with this corridor project.</p> <p>January 20, 2012 - The Farmland Protection Policy Act (FPPA) letter was sent to NRCS.</p> <p>February 21, 2012 – NRCS response email. Since the Farmland Impact Score is less than 60 points for all alternatives, the project is not subject to the Farmland Protection Policy Act. Coordination requirements are complete (<i>See Attachment H – Natural Resource Conservation Service (NRCS) Coordination</i>).</p> <p>October 20, 2014 – NRCS was sent an update letter to introduce new alternatives at County M & County PD intersection. Farmland ratings have been updated to include new alternatives. Updated ratings did not exceed 60 points. No additional correspondence needed.</p>
US Coast Guard (USCG)	N	N	Coordination with USCG is not required.
Fish & Wildlife Serv. (FWS)	Y	Y	<p>December 19, 2011 - USFWS was sent a letter as part of the initial agency coordination process.</p> <p>February 21, 2012 - A response was provided stating that no federally listed, proposed, or candidate species, or designated critical habitat occurs within the project area. If migratory birds are known to nest on any structures or habitat that may be disturbed by project construction, activities should begin and be completed before the initiation of the breeding season for those species or after breeding has concluded. It is recommended that any habitat disturbance occur before May 1 or after August 30 to minimize potential impacts to migratory birds.</p> <p>October 20, 2014 – USFWS was sent an update letter to introduce new alternatives at County M & County PD intersection. No response was provided.</p> <p>Effort should be made to minimize wetland impacts. If no alternative is feasible and it is clearly demonstrated that project construction resulting in wetland disturbance or loss cannot be avoided, a wetland mitigation plan should be developed that identifies measures proposed to minimize adverse impacts and replace lost wetland habitat values.</p> <p>April 20, 2016 – USFWS was sent project information to fulfill Section 7(a)(2) responsibilities pertaining to potential impacts to the northern long-eared bat (NLEB).</p> <p>April 27, 2016 – Email response from USFWS acknowledged that all NLEB commitments have been fulfilled.</p> <p>(<i>See Attachment I – Fish & Wildlife Service Coordination</i>)</p>

Federal Highways (FHWA)	Y	N	<p>October 2, 2012 - The City of Madison held a project initiation meeting with FHWA. FHWA is encouraging the use of <i>de minimis</i> findings for the four Section 4(f) properties (Schroeder-Stickelberg-Thompson Farmstead, University Ridge Golf Course, Dane County Parkland, and Ice Age National Scenic Trail). FHWA provided comments regarding the proposed design.</p> <ul style="list-style-type: none"> - FHWA was interested in the traffic counts on Raymond Road; however, the City of Madison does not have any counts on this section of Raymond Road. The only counts that are available are east of High Point Road. <p>January 15, 2016 – A meeting was held with FHWA to provide project updates and discuss EA and Section 4(f) documents.</p> <p>April 12, 2016 – Department of Interior (DOI) concurrence with FHWA and WisDOT on determination of no feasible or prudent alternative to the preferred alternative and concurrence that all measures to minimize harm have been included.</p>
Others: US Forest Service – Region 9	Y	Y	<p>December 19, 2011 - The US Forest Service Region 9 was sent a letter as part of the initial agency coordination process.</p> <p>March 7, 2012 - An email was received stating US Forest Service – Region 9 with no specific comments regarding this project (<i>See Attachment B – Other Agency Coordination</i>).</p> <p>October 20, 2014 – USFS was sent an update letter to introduce new alternatives at County M & County PD intersection.</p>

AMERICAN INDIAN TRIBES	Coordination Required? Y = Yes N = No	Correspondence Attached? Y = Yes N = No	
American Indian Tribes	Y	Y	<p>November 17, 2011 – American Indian Tribes were sent a letter in association with the Section 106 process and were invited to participate in public involvement meetings. No letters were received from any of the American Indian Tribal Historic Preservation Officers. The initial letter and list of Tribes can be found in <i>Attachment J – American Indian Tribes Coordination</i>.</p> <p>March 4, 2015 – A follow up letters were sent to American Indian Tribes providing project updates and explaining the new area of potential effects per Section 106 requirements. No responses were received.</p>

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Basic Sheet 4
Environmental Factors Matrix

FACTORS	EFFECTS				<p>Note: Comments should be of a summary nature and should not extensively duplicate information contained in an attached factor sheet. If an "adverse" effect is permanent, a factor sheet must be attached. If an "adverse" effect is temporary, it must be explained on this sheet under "comments". If "None Identified" is indicated, explain why.</p> <p style="text-align: center;">Comments</p>
	Adverse	Benefit	None Identified	Factor Sheet Attached	
A. ECONOMIC FACTORS					
A-1 General Economics	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The proposed action seeks to improve traffic, transit, pedestrian, and bicycle circulation to existing and planned local businesses and companies.</p> <p>The project is expected to have a marginal effect on the overall economic health of the County. The effects of localized improvements is expected to affect businesses growth and development in the immediate vicinity, especially in the proposed University Research Park, where access to County M will be improved. In general, improving the roadway configuration will increase the potential for economic development in the area by enhancing traffic circulation and increasing accessibility for bikes and pedestrians.</p> <p>This project will require the expenditure of public funds to construct the proposed improvements.</p>
A-2 Business	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Businesses are concentrated in the City of Verona, south of the project termini. This cluster is not expected to encounter impacts to business as a result of the proposed action. Employees and patrons of the Epic Systems Corporation, which employs 9,400+ employees and attracts approximately 1,000 contractors and an additional 1,000 visitors per day, may experience travel delays if their commute uses County M. Patrons using University Ridge Golf Course and Hawks Landing Golf Course may experience slight travel delays and adverse impacts, (noise), during construction, however the effect is expected to be temporary. Once completed, the corridor will be a safer and more efficient roadway network for vehicles, pedestrians and bicycles.</p> <p>No business displacements are required.</p>
A-3 Agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Agricultural right of way property acquisition totalling 29.2 acres (fee and easement) is required from eight property owners. Four properties will have between 1-5 acres acquired, one properties will be impacted by less than one acre, and three properties will have more than 5 acres acquired. No Agricultural Impact Statement (AIS) will be done.</p>
B. SOCIAL/CULTURAL FACTORS					
B-1 Community or Residential	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>There will be minor short-term travel delays during construction for roadway users. Full access will be maintained during construction. Upon completion of the construction, reduced congestion and improved safety for those using the facility and pedestrian facilities are expected.</p> <p>A residential relocation is required in the Town of Verona. The single family residence in the southeast quadrant of the County M & Midtown Road intersection will need to be acquired. The property owner is willing to relocate.</p>
B-2 Indirect Effects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>A pre-screening indirect effects worksheet per FDM (chapter 25-5-17) was completed as a part of this project. No substantial indirect environmental effects will result from the proposed action. Roadway will remain open to traffic during construction. The existing roadway will be expanded to allow the facility to accommodate projected traffic volumes. No substantial change in traffic patterns will occur. There are no commercial businesses along the corridor that will be negatively impacted by construction. (See Attachment K – Indirect Effects Prescreening).</p>
B-3 Cumulative Effects	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>A review was conducted to determine whether resources were directly or indirectly impacted and could be subject to the cumulative effect of multiple past, present, and future actions was considered. No cumulative effects were identified. (See</p>

					<i>Attachment L – Cumulative Effects Analysis).</i>
B-4 Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The proposed project will not have a disproportionate effect on any minority or low-income populations.
B-5 Historic Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The Schroeder-Stickelberg-Thompson Farmstead located at 8300 Raymond Road in the Town of Verona (<i>See Attachment M – Determination of Eligibility Form for Schroeder-Stickelberg-Thompson Farmstead</i>) meets the National Register of Historic Places criteria. It has been determined that 7 buildings, one structure, and one contributing object (animal trough) meet the standards to fall under Criteria C: Architecture. The structures were built at different times from 1860s to 1940s</p> <p>A DOE was also prepared for the Gordon School Property on June 14, 2011 located at 6987 Midtown Road. This property does not meet the National Register of Historic Places criteria. (<i>See Attachment N – Determination of Eligibility Form for Gordon School</i>).</p>
B-6 Archaeological Sites	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Great Lakes Archaeological Research Center, Inc. (GLARC) completed a Phase I Archaeological investigation report in May and June 2011, and April 2012. This survey identified two sites Endres (site 47DA1421) and Ellefson (site 47DA1420) potentially eligible for the National Register of Historic Place (NRHP) listing. At the time of this survey, it was determined that the Endres site will be avoided and the Ellefson site will undergo a Phase II evaluation. Based on the site evaluation the Ellefson site was recommended as not eligible for listing on the National Register of Historic Places. (<i>See Attachment D - Section 106 documentation</i>).</p> <p>On May 22, 2012, Phase II archaeological investigations were carried out at the Endres site to assist in future design and construction planning. Based on the results of the Phase II evaluation, the site is not eligible for listing on the NRHP. No further work is recommended for either property. (<i>See Attachment O – Great Lakes Archaeological Research Center (GLARC) Coordination</i>).</p>
B-7 Tribal Issues	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Send initial coordination package. No Tribal responses received.
B-8 Section 4(f) and 6(f) or Other Unique Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Four properties are identified as meeting criteria for Section 4(f)</p> <ul style="list-style-type: none"> University Ridge Golf Course Dane County Parkland Ice Age National Scenic Trail Stickelberg-Schroeder-Thompson Farmstead <p>Dane County Parklands were purchased with Knowles-Nelson Stewardship funding and therefore land needed from this park needs to be converted following the WDNR process. The City of Madison will dedicate an equivalent acreage of land from a parcel adjacent to the Dane County Park to parkland to meet the replacement land requirements of the Knowles-Nelson Stewardship funding.</p> <p>The project will place the multi-use path along County M and the park on permanent easement, rather than fee acquisition. This will reduce the amount of replacement lands required for the park. This approach has been coordinated with and approved by WDNR and Dane County Parks.</p> <p>The Ice Age National Scenic Trail is a linear resource that runs through public parkland and easements on private land. In the project area, the IANST runs through Dane County Parkland to the east and easements on land owned by the University of Wisconsin Board of Regents to the west. The Dane County parkland was purchased through the Knowles-Nelson Stewardship program (State Stewardship Grant Program). This Ice Age – Payan Acquisition Stewardship Grant Property covers approximately 35 acres. No Land and Water Conservation Funds (LWCF -formerly LAWCON) funds were used on the IANST within the project study area (west of County M).</p> <p>Two properties will require a temporary occupancy</p> <ul style="list-style-type: none"> Ice Age Junction Path (paved multi-use path) City of Verona Unnamed Path (paved multi-use path) <p>The path crossings will be reconstructed and closures will be minimized or eliminated by use of a temporary path connection. All work in these areas are minor and there are no anticipated adverse impacts.</p>

					<p>One property is identified as a Unique Area:</p> <ul style="list-style-type: none"> Hawk's Landing Golf Course <p>This area is considered a "unique area" because although it is privately owned, the golf course allows some public use (limited tee times).</p>
B-9 Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The westbound underpass alternative will raise the vertical profile of County M by approximately ten feet. Larger utility poles will be installed changing the view shed slightly for adjacent landowners. Tress near the County M & County PD intersection will be removed. Architectural surface treatments will be included in design of retaining walls and parapets. A state municipal agreement is in place and includes any maintenance agreements regarding aesthetic treatments.</p>
C. NATURAL SYSTEM FACTORS					
C-1 Wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>See Wetland Delineation Report (project file).</p> <p>MSA Professional Service Inc. conducted a wetland inventory on August 19, 25-27, 2011 and authored a final Wetland Delineation Report on September 28, 2011. The proposed action requires a portion of eight wetlands ranging in size between 0.03 – 0.55 acres totaling 2.05 acres.</p>
C-2 Rivers, Streams and Floodplains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The culverts carrying Badger Mill Creek below County M north of Midtown Road, below Midtown Road west of County M, below County M south of Flagstone Drive, and below Raymond Road will be replaced with the project. The culverts will be designed to minimize impacts to the flood plain and will not raise the flood elevations upstream of each culvert crossing. The WDNR will be consulted on design of the culverts for recommendations with regards to invert elevations of the culverts to see if a sunken culvert condition will enhance the crossing for the benefit of aquatic organisms. This project does not change any existing floodplain or watershed plans.</p>
C-3 Lakes or Other Open Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>No direct impacts to Morse Pond are anticipated as a result of, or during project construction. Proper erosion control measures following Trans 401 will be followed. Beam guard will be provided so existing slopes won't be changed.</p>
C-4 Groundwater, Wells, and Springs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>No groundwater, wells, or springs concerns.</p>
C-5 Upland Wildlife and Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>No wooded upland habitat will be affected by the proposed action.</p>
C-6 Coastal Zones	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>The project is not located in a coastal zone county.</p>
C-7 Threatened and Endangered Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Section 7 coordination was conducted with USFWS. An official species list from USFW identifies the potential for six threatened or endangered species in the general project area.</p> <p>However, the list states there are no critical habitats within the proposed project area.</p> <p>Based on a WDNR review of the Natural Heritage Inventory (NHI) database, no Endangered Resources or suitable habitat that could be impacted by this project are known or likely to occur in the project area or its vicinity.</p> <p>The Northern Long-Eared Bat (a threatened species) was identified as having the potential to occur within the boundary of the proposed project. Based on a WDNR review of the NHI database on 4/11/2016 for the presence of NLEB occurrences along the project corridor, it was determined that the project is more than 1/4 mile from any known maternity roost tree AND is more than 1/4 mile from any known hibernacula. USFWS confirmed concurrence via email on 5/26/2016 indicating that the forms were updated and 30-day period have expired and may proceed with the project.</p> <p>The project is determined to have No Effect on any Endangered Resources. There are no anticipated impacts to fish or wildlife habitats.</p> <p>Appropriate consultation measures were taken with USFWS and WDNR. A copy of USFWS and WDNR concurrence with the project is presented in <i>Attachment I – Fish & Wildlife Service (FWS) Coordination</i>. There are no anticipated impacts to fish or wildlife habitats.</p>

D. PHYSICAL FACTORS					
D-1 Air Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The project is not located in a county which is designated non-attainment or maintenance for ozone, so no conformity determination is required. NR 411 exemptions do not apply. An air quality evaluation analysis was completed indicating a WDNR Construction Permit will not be required.
D-2 Construction Stage Sound Quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	To reduce the potential impact of construction noise, the operation of motorized construction equipment will be restricted to 7 AM to 7 PM, consistent with standard City of Madison ordinances. Motorized equipment will be operated in compliance with local, state and federal laws and regulation relating to noise.
D-3 Traffic Noise	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A detailed noise analysis was required for this project. Future sound levels produce a noise impact. The Noise Level Criteria (NLC) is approached or exceeded at 18 modeled report locations with the future Build Alternative. Traffic noise abatement is not reasonable or feasible.
D-4 Hazardous Substances or Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>A Phase 1 Hazardous Materials Assessment was completed in December 2011. Four parcels in the project area contained potential environmental concerns. Field reconnaissance of these sites concluded that three sites did not require additional environmental investigation. A Phase 2 Subsurface Investigation was conducted for one site and found low levels of arsenic.</p> <p>The Phase 1 Hazardous Materials Assessment was reviewed 2014. No parcels outside of the original assessment were added as a result of the expanded APE. The addition of the new roadway connection between Meriter Way and Raymond Road does not include any potential environmental concerns.</p>
D-5 Stormwater	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p>All of the proposed roadway surface north of Stony Ridge Circle (north intersection) will drain via Badger Mill Creek and existing inline stormwater ponds on Badger Mill Creek, or, via a new storm sewer system below Raymond Road to the regional stormwater ponds east of Raymond Road.</p> <p>Between Harmony Drive and the north intersection of Stony Ridge Circle, stormwater will stay within the existing closed watershed. Expansion of an existing stormwater management pond and creation of a new stormwater pond are proposed to meet flow rate and stormwater quality requirements.</p> <p>South of Harmony Drive, stormwater will be handled via the existing storm sewer and surface drainage system in the City of Verona.</p>
D-6 Erosion Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	As with any project involving excavation, erosion could be a potential problem during construction. Soil erosion during and after construction will follow best management practices. An erosion control plan will be submitted to WDNR as required under Trans. 401 and WisDOT's cooperative agreement with the WDNR.

Basic Sheet 5 – (South Phase ID: 5992-09-82)
Alternatives Comparison Matrix

(All estimates, including costs, are based on conditions described in this document at the time of preparation. Additional agency or public involvement may change these estimates in the future.) See Attachment P - Preliminary Construction Cost Estimate. Estimate is based on assignment of project ID's to represent local funding participation requirements.

ENVIRONMENTAL ISSUE	UNIT MEASURE	ALTERNATIVES/SECTIONS: South Phase: County M – Prairie Oaks Drive to (2500 feet north of County PD) and County M & County PD Intersection				
		No Action	Roundabout	Split Grade Jug-Handle	Tight Diamond Interchange	Westbound Underpass PREFERRED
Project Length	Miles	1.47 mi	1.47 mi	1.47 mi	1.47 mi	1.47 mi
Preliminary Cost Estimate						
Construction	Million \$	0	14.4	19.2	19.3	21.9
Real Estate	Million \$	0	1.8	2.1	1.9	2.1
Total	Million \$	0	16.2	21.3	21.2	24.0
Land Conversions						
Wetland Area Converted to ROW	Acres	0	0.8	1.3	1.4	1.6
Upland Habitat Area Converted to ROW	Acres	0	0	0	0	0
Other Area Converted to ROW	Acres	0	26.8	30.5	27.7	30.1
Total Area Converted to ROW	Acres	0	27.6	31.8	29.1	31.7
Real Estate						
Number of Farms Affected	Number	0	5	5	5	5
Total Area Required From Farm Operations	Acres	0	14.5	17.9	15	15.3
AIS Required	Yes/No	No	No	No	No	No
Farmland Rating	Score	N/A	54	59	52	52
Total Buildings Required	Number	0	0	0	0	0
Housing Units Required	Number	0	0	0	0	0
Commercial Units Required	Number	0	0	0	0	0
Other Buildings or Structures Required	Number (Type)	0	0	0	0	0
Environmental Issues						
Indirect Effects	Yes/No	No	No	No	No	No
Cumulative Effects	Yes/No	No	No	No	No	No
Environmental Justice Populations	Yes/No	No	No	No	No	No
Historic Properties	Number	0	1	1	1	1
Archeological Sites	Number	0	0	0	0	0
106 MOA Required	Yes/No	No	Yes	Yes	Yes	Yes
Section 4(f) Evaluation Required	Yes/No	No	Yes	Yes	Yes	Yes
Flood Plain	Yes/No	No	No	No	No	No
Total Wetlands Filled	Acres	0	1.0	1.4	1.6	1.4
Stream Crossings	Number	0	0	0	0	0
Endangered Species	Yes/No	No	No	No	No	No
Air Quality Permit Required	Yes/No	No	No	No	No	No
Design Year Noise Sensitive Receptors No Impact Impacted	Number Number	0	2	2	2	2
Contaminated Sites	Number	0	1	1	1	1

*The At-Grade Traffic Signal at County PD was eliminated as a possible alternative prior to the submittal of the Farmland Conversion Impact Rating – Form AD-1006. Therefore, no farmland rating was calculated.

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Basic Sheet 5 – (North Phase ID: 5992-09-85)
Alternatives Comparison Matrix

(All estimates, including costs, are based on conditions described in this document at the time of preparation. Additional agency or public involvement may change these estimates in the future.)

ENVIRONMENTAL ISSUE	UNIT MEASURE	INTERSECTION ALTERNATIVE – North Phase - County M (2500 feet north of County PD to Prairie Hill Road) and County M & Midtown Intersection		
		No Action	Roundabout	At-Grade Traffic Signal - PREFERRED
Project Length	Miles	1.39 mi	1.39 mi	1.39 mi
Preliminary Cost Estimate				
Construction	Million \$	0	17.4	19.0
Real Estate	Million \$	0	1.4	1.5
Total	Million \$	0	18.8	20.5
Land Conversions				
Wetland Area Converted to ROW	Acres	0	0.5	0.7
Upland Habitat Area Converted to ROW	Acres	0	0	0
Other Area Converted to ROW	Acres	0	19.4	19.9
Total Area Converted to ROW	Acres	0	19.9	20.6
Real Estate				
Number of Farms Affected	Number	0	3	3
Total Area Required From Farm Operations	Acres	0	13.5	13.9
AIS Required	Yes/No	No	No	No
Farmland Rating	Score	N/A	52	52
Total Buildings Required	Number	0	1	1
Housing Units Required	Number	0	1	1
Commercial Units Required	Number	0	0	0
Other Buildings or Structures Required	Number (Type)	0	0	0
Environmental Issues				
Indirect Effects	Yes/No	No	No	No
Cumulative Effects	Yes/No	No	No	No
Environmental Justice Populations	Yes/No	No	No	No
Historic Properties	Number	0	0	0
Archeological Sites	Number	0	0	0
106 MOA Required	Yes/No	No	No	No
Section 4(f) Evaluation Required	Yes/No	No	Yes	Yes
Flood Plain	Yes/No	No	No	No
Total Wetlands Filled	Acres	0	0.2	0.45
Stream Crossings	Number	0	0	0
Endangered Species	Yes/No	No	No	No
Air Quality Permit Required	Yes/No	No	No	No
Design Year Noise Sensitive Receptors No Impact Impacted	Number Number	0	2	2
Contaminated Sites	Number	0	0	0

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Basic Sheet 6 – (South Phase ID: 5992-09-82)
Traffic Summary Matrix

	ALTERNATIVES/SECTIONS: South Phase –County M – Prairie Oaks Drive to (2500 feet north of County PD) County M & County PD Intersection					
	No Action	Roundabout	Split-Grade Jug Handle	At-Grade Traffic Signal	Tight Diamond	Westbound Underpass PREFERRED
TRAFFIC VOLUMES						
Existing ADT Yr. 2012	14,300	14,300	14,300	14,300	14,300	14,300
Const. Yr. ADT Yr. 2017	15,500	15,500	15,500	15,500	15,500	15,500
Const. Plus 10 Yr. ADT Yr. 2027	17,900	17,900	17,900	17,900	17,900	17,900
Design Yr. ADT Yr. 2037	20,300	20,300	20,300	20,300	20,300	20,300
DHV Yr. 2037	1,830	1,830	1,830	1,830	1,830	1,830
TRAFFIC FACTORS						
K [100] (%)	10.6	10.6	10.6	10.6	10.6	10.6
D (%)	59	59	59	59	59	59
Design Year T (% of ADT)	5.4	5.4	5.4	5.4	5.4	5.4
T (% of DHV)	4.6	4.6	4.6	4.6	4.6	4.6
Level of Service	F	F	C	E	C	D
SPEEDS						
Existing Posted	35 mph					
Future Posted		40 mph (County M) north of County PD Road; 35 mph south of County PD				
Design Year Project Design Speed		45 mph (County PD)				
OTHER (Specify)						
P (% of ADT)						
K (% OF ADT)						

ADT = Average Daily Traffic

DHV = Design Hourly Volume

K_[30/100/200] : K₃₀ = Interstate, K₁₀₀ = Rural, K₂₀₀ = Urban, % = ADT in DHV

D = % DHV in predominate direction of travel

T = Trucks

P = % ADT in peak hour

K₈ = % ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day. (Only required when a carbon monoxide analysis must be performed per Wisconsin Administrative Code – Chapter NR 411.)

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Basic Sheet 6 – (North Phase ID: 5992-09-85)
Traffic Summary Matrix

	ALTERNATIVES/SECTIONS: North Phase - County M (2500 feet north of County PD to Prairie Hill Road) County M & Midtown Intersection		
	No Action	Roundabout	At-Grade Traffic Signal PREFERRED
TRAFFIC VOLUMES			
Existing ADT Yr. 2015	20,500	20,500	20,500
Const. Yr. ADT Yr. 2017	21,750	21,750	21,750
Const. Plus 10 Yr. ADT Yr. 2027	28,000	28,000	28,000
Design Yr. ADT Yr. 2037	34,250	34,250	34,250
DHV Yr. 2037	3,090	3,090	3,090
TRAFFIC FACTORS			
K [100] (%)	10.6	10.6	10.6
D (%)	59	59	59
Design Year T (% of ADT)	5.4	5.4	5.4
T (% of DHV)	4.6	4.6	4.6
Level of Service	F	C*	Mid-D
SPEEDS			
Existing Posted	35 mph		
Future Posted		40 mph	40 mph
Design Year Project Design Speed		45 mph	45 mph
OTHER (Specify)			
P (% of ADT)			
K (% OF ADT)			

ADT = Average Daily Traffic

DHV = Design Hourly Volume

K_[30/100/200] : K₃₀ = Interstate, K₁₀₀ = Rural, K₂₀₀ = Urban, % = ADT in DHV

D = % DHV in predominate direction of travel

T = Trucks

P = % ADT in peak hour

K₈ = % ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day. (Only required when a carbon monoxide analysis must be performed per Wisconsin Administrative Code – Chapter NR 411.)

*Initial analysis rated the roundabout at a LOS C. However, WisDOT completed studies comparing traffic modeling with roundabouts in operation in Wisconsin and found that other modeling software better matched in-place operations. The updated traffic modeling software for the County M & County PD intersection indicated that the traffic volumes forecast for that intersection would exceed the capacity of the roundabout before 2036. Although re-analysis was not completed on the County M & Midtown Road intersection, it is reasonable to assume that reevaluation would find a LOS less than C.

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Basic Sheet 7
EIS Significance Criteria

When the significance of impact of a transportation project proposal is uncertain, an environmental assessment (ES) is prepared to assist in making this determination. If it is found that significant impact(s) will result, the preparation of an environmental impact statement (EIS) should commence immediately. Indicate whether the issue listed below is a concern for the proposed action or alternative. If the issue is a concern, explain how it is to be addressed or where it is addressed in this environmental document.

1) Will the proposed action stimulate substantial indirect environmental effects?

- ☒ No – No substantial indirect environmental effects will result from the proposed action. Roadway will be open to traffic during construction. The existing roadway will be expanded to allow the facility to accommodate projected traffic volumes. No substantial change in traffic patterns will occur.
- ☐ Yes – Explain or indicate where addressed.

2) Will the proposed action contribute to cumulative effects of repeated actions?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

3) Will the creation of a new environmental effect result from this proposed action?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

4) Will the proposed action affect geographically scarce resources?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

5) Will the proposed action have a precedent-setting nature?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

6) Is the degree of controversy associated with the proposed action high?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

7) Will the proposed action be in conflict with official agency plans or local, state, or national policies, including conflicts resulting from potential effects of transportation on land use and land use on transportation demand?

- ☒ No
- ☐ Yes – Explain or indicate where addressed.

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Basic Sheet 8

Environmental Commitments

Identify and describe any commitments made to protect the environment. Indicate when the commitment should be implemented and who in WisDOT will have jurisdiction to assure fulfillment for each commitment. Note if the commitment will be recorded in the plans, "special provisions", "notes to construction" or some other written format. Note if the commitment is mandated by law, and therefore legally binding.

Commitments on Basic Sheet 8 supplement environmental commitments incorporated in WisDOT's Standard Specifications for Highway and Bridge Construction.

ATTACH A COPY OF THIS PAGE TO THE DESIGN STUDY REPORT AND THE PS&E SUBMITTAL PACKAGE

Factors	Commitments
A-1 General Economics	No special or supplemental commitments required.
A-2 Business	Construction will be shut down during the PGA Senior Tour held at University Ridge Golf Course in late June 2018. WisDOT Construction Supervisor will see that this commitment is fulfilled.
A-3 Agriculture	No special or supplemental commitments required.
B-1 Community or Residential	Coordination with emergency services will be necessary throughout the construction process as traffic congestion will remain at high levels through construction at peak hour times and delays due to construction equipment are possible. WisDOT Construction Supervisor will see that this commitment is fulfilled.
B-2 Indirect Effects	No special or supplemental commitments required.
B-3 Cumulative Effects	No special or supplemental commitments required.
B-4 Environmental Justice	No special or supplemental commitments required.
B-5 Historic Resources	<p>Design team is ensuring all efforts are being made to develop a bridge design and roadway profile as low as possible. Any retaining walls used along the Schroeder-Stickelberg-Thompson (SST) farmstead property will be less than 5 feet in height and the slopes along the roadway will be kept as flat as possible for continued maintenance.</p> <p>This proposed design also includes a median narrowed to a minimal width of eight feet (design minimum) in order to reduce impacts to the Section 4(f) resources.</p> <p>The driveway to the SST property on County M will be removed or relocated north due to the grade change and retaining wall. Access changes will not impact the operations of the property.</p> <p>The walnut trees on the property will not be replaced in-kind due to height restraints required by existing and overhead utilities, but other vegetation options are being considered.</p> <p>Raymond Road will be reconstructed with access to the south driveway of the SST farmstead.</p> <p>Details of these commitments are identified in <i>Attachment F – Documentation for Consultation</i> and <i>Attachment Q – Memorandum of Agreement</i>.</p> <p>WisDOT Construction Supervisor will see that these commitments are fulfilled.</p>

B-6 Archaeological Sites	No special or supplemental commitments required.
B-7 Tribal Issues	No special or supplemental commitments required.

B-8 Section 4(f) and 6(f) or Other Unique Areas

Section 4(f) Property: Schroeder-Stickelberg-Thompson Farmstead –

Comply with the commitments listed in section B-5 above. Commitments identified in *Attachment F – Documentation for Consultation* and *Attachment Q – Memorandum of Agreement*

Section 4(f) Resource: Ice Age National Scenic Trail:

Design team to:

- Restoration and landscaping of disturbed areas under the guidance and direction provided by Ice Age Trail Alliance, National Park Service, and Dane County Park officials.
- Incorporation of trail alignment and construction design features to reduce or minimize impacts to the Section 4(f) property. Including:
- Box culvert underpass to provide a grade separated crossing of County M.
- Minimize the path distance where the IANST and the Ice Age Junction Path run concurrently.
- Site grading and culvert pipe extensions to realign approximately 100 feet of the IANST to a perpendicular intersection with the paved path.
- Split rail fence system ("dodgeway") at the intersections of the IANST and paved path system to discourage bicycle and other prohibited uses of the IANST.
- Signage marking the IANST at paved path intersections.
- At Raymond Road, the trail shall cross as close to the existing alignment as possible.
- Maximum approach grade of the IANST to Raymond Road not to exceed 10% over a thirty foot distance.
- Coordinate design and installation with the Ice Age Trail Alliance.

Details of these features are included in the correspondence letter signed by the National Park Service.

- City of Madison has agreed to work with and include these design features in the project plans, thus they are funded by the project sponsors.
- Coordination is ongoing with IAT official to assist in redefining and updating the recording of their existing easement with the University of Wisconsin Board of Regents to keep the trail easement at the edge of the proposed County M right of way. The proposed easement will encompass the University owned bridge over the Badger Mill Creek drainage swale to provide IANST users a dry crossing. The University of Wisconsin has been consulted on including this bridge in the easement and is supportive of the IANST use of the structure.

Section 4(f) Property: Dane County Parks:

Design team to:

- Reduce the overall width of the roadway by using the minimum desirable lane and median widths
- Minimize grading impact to construct the roadway by adjusting roadway profile
- Replace facilities impacted by the project including a driveway and gated fence
- Restore and landscape disturbed areas using design and specification guidance provided by Dane County Parks
- Incorporate design features and habitat features where necessary to reduce or minimize impacts to the Section 4(f) property. This includes:
- Dane County Park staff indicated that the park area impacted is a restored prairie area. Park areas that are disturbed on a temporary basis for grading will be restored to the prairie condition. Dane County Park staff will provide construction specifications for this work including slope, soil, seeding, and erosion control requirements as well as a list of qualified contractors capable of completing the work. Dane County Park staff will provide construction oversight assistance during the restoration effort.
- Per request by Park staff, onsite replacement will be utilized for a wetland scrape impacted by the project. The wetland scrape is located near Flagstone Drive at the outlet of a cross culvert beneath County M. These wetland impacts will be replaced in kind and size by the project.

	<p>Section 4(f) Property: University Ridge Golf Course: Design team to:</p> <ul style="list-style-type: none"> Shift the County PD intersection south to minimize impact on the golf course and farmstead. The shift south is limited by the constraints of the electrical power substation on the southeast quadrant of the intersection. Narrow the overall roadway width using minimum desirable median and travel lane widths. Payment of the fair market value of the land and improvements taken or relocated. Compensation for cost of sign relocation, and golf ball netting if deemed necessary. <p>Unique Area: Hawk's Landing Golf Course: Design team to:</p> <ul style="list-style-type: none"> Final design to avoid impacting tee box near intersection. Coordination with Hawk's Landing staff on final design landscaping details to provide screening between the roadway and golf course. Reducing overall roadway width by using acceptable standards for cross-section elements including lane, median, and terrace widths. Payment of the fair market value of the land taken <p>Temporary Occupancy: Ice Age Junction Path</p> <ul style="list-style-type: none"> All sections of the Ice Age Junction Path will be maintained by the City of Madison as part of their city-wide system of multi-use paved paths. <p>Temporary Occupancy: City of Verona Unnamed Path</p> <ul style="list-style-type: none"> The Unnamed Path will be maintained by the City of Verona. <p>WisDOT Construction Supervisor will see that these commitments are fulfilled.</p>
B-9 Aesthetics	<p>A state municipal agreement is in place and includes any maintenance agreements regarding aesthetic treatments. WisDOT Construction Supervisor will see that this commitment is fulfilled.</p>
C-1 Wetlands	<p>Wetland impacts will be mitigated in accordance with WisDOT's Wetland Mitigation Banking Technical Guidelines.</p> <p>A wetland delineation report has been approved by WDNR. Coordination is ongoing regarding the evaluation of impacted wetlands.</p> <p>A sensitive Kettle wetland is located southwest of the intersection of County M and County PD. The design team will avoid increasing stormwater runoff volume within this feature's watershed using various stormwater control options in the stormwater design process. Total wetland impacts are approximately 2.05 acres.</p> <p>Coordination needed with WDNR regarding the need for Section 401 and/or 404 permits. WisDOT Southwest Regional Environmental Coordinator will see that these commitments are fulfilled.</p>
C-2 Rivers, Streams & Floodplains	<p>Culvert extensions or replacements should be set in a manner that does not cause fragmentation and allows aquatic organisms to migrate up- and downstream during low flow conditions. WisDOT Construction Supervisor will see that this commitment is fulfilled.</p>
C-3 Lakes or other Open Water	<p>No special or supplemental commitments required.</p>
C-4 Groundwater, Wells and springs	<p>No special or supplemental commitments required.</p>
C-5 Upland Wildlife and Habitat	<p>No special or supplemental commitments required.</p>

C-6 Coastal Zones	No special or supplemental commitments required.
C-7 Threatened and Endangered Species	Section 7 coordination was conducted with USFWS. WDNR review of NHI database was completed. All restrictions and mitigation measures required by USFW and/or WDNR will be followed. WisDOT Construction Supervisor will see that this commitment is fulfilled.
D-1 Air Quality	No special or supplemental commitments required.
D-2 Construction Stage Sound Quality	<p>Hours of construction per Madison City ordinance are 7 am to 7 pm.</p> <p>With the exception of construction hours noted above, WisDOT Standard Specification 107.8(6) and 108.7.1 will apply.</p> <p>WisDOT Construction Supervisor will see that this commitment is fulfilled.</p>
D-3 Traffic Noise	No special or supplemental commitments required.
D-4 Hazardous Substances or Contamination	If WDNR allows total arsenic levels to remain, contractor to use chemical resistant gasket seals and trench plugs to prevent any residual soil contamination from entering the utilities. WisDOT Construction Supervisor will see that this commitment is fulfilled.
D-5 Stormwater	Stormwater quality requirements as required by WDNR under the DOT/DNR cooperative agreement will be adhered to. Stormwater collected via new curb and gutter and storm sewer systems will be managed through existing and new stormwater management ponds. Sensitive kettle drainage basins will not receive additional, unmanaged stormwater due to the increase in impervious pavement areas. Stormwater planning and design will be coordinated with the maintaining municipality for consistency and adherence to each municipalities storm water permits and management planning efforts. WisDOT Construction Supervisor will see that this commitment is fulfilled.
D-6 Erosion Control	Follow TRANS 401 and the WDNR Cooperative Agreement Amendment regarding erosion control. Contractor will be required to submit an Erosion Control Implementation Plan (ECIP). The construction engineer will assure best management practices for erosion control are employed during construction. WisDOT Construction Supervisor will see that this commitment is fulfilled.

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