

CITY OF VERONA 2010 COMPREHENSIVE PLAN
CHAPTER THREE—TRANSPORTATION

Adopted by the City of Verona Common Council
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Prepared by the City of Verona Comprehensive Plan Committee

City of Verona Comprehensive Plan—2010

Table of Contents—Chapter 3: Transportation

Section One—Introduction

Comprehensive Plan Survey Results

Section Two—Existing Transportation Network

Functional Classification System

Arterials

Collectors

Local Streets

Traffic Volumes and Flow

North Main Street

Main Street and Verona Avenue Intersection

Bicycle and Pedestrian Facilities

Public Transit

Park and Ride Facilities

On-going Local, Regional, and State Transportation Plans

Section Three—Proposed Future Transportation Network

Transportation Planning Barriers

City of Verona ‘Official Map’

Future Traffic Volumes and Flow

Main Street and Verona Avenue Intersection

Section Three-A—Proposed New Streets

New North-South Routes

New East-West Routes

New Freeway Crossings

Section Three-B—Proposed Improvements to Existing Streets

North Main Street Improvements

Planned Upgrades to the Functional Classification System

Section Three-C—Proposed Transportation System Improvements

Planned Bicycle and Pedestrian Facilities

Planned Public Transit

Planned Park and Ride Facilities

Section Four—Typical Roadway Sections

Section Five—Land Use and Transportation Planning

Access Management

Section Six—Goals, Objectives and Policies for Chapter 2—Transportation

Appendices and References

Section One—Introduction

The City of Verona retained Earth Tech to evaluate area transportation issues and recommend improvements for inclusion in the transportation element of the City’s Comprehensive Plan. The final report is called the “Long Range Comprehensive Transportation Plan,” and is the basis of this chapter.

The purpose of this chapter is to assist the City in the planning, design and maintenance of various modes of transportation over a 20-year planning time period—through 2030. This chapter also documents existing transportation conditions in the City and provides recommendations for future improvements to the transportation network. This chapter includes a series of maps—see Appendix 3—that illustrate existing and future transportation corridors as they relate to the City’s geography.

Comprehensive Plan Survey Results

When surveyed as part of the process to create this comprehensive plan, Verona citizens ranked ‘Improving Roads and Traffic’ as the third-highest priority for future planning, behind ‘decreasing taxes’ and ‘managing growth’. When asked to rank various transportation goals in order of priority, survey respondents provided the following ranking:

1. Creating additional capacity on County Trunk Highway ‘M’ north of Cross Country;
2. Creating improvements to move traffic more quickly through the intersection of Main Street and Verona Avenue;
3. Providing for safe and convenient bicycle and pedestrian travel (such as more sidewalks/improved crosswalks);
4. Providing local transit services for persons with disabilities, such as para-transit;
5. Providing expanded hours of service for the Verona Avenue bus line (Route 55);
6. Creating shared-ride taxi service (a multiple-passenger/multiple destination taxi service) in the city.

When asked whether on-street parking on North Main Street between Verona Avenue and the high-school should be removed during rush-hour to ease traffic congestion—even if it makes North main ‘more like a highway’, or if on-street parking should continue to be allowed—even if it creates congestion—61% of survey respondents preferred removing on-street parking while 39% preferred allowing on-street parking to continue.

When asked whether *new* residential subdivisions should have more narrow streets (A ‘new urbanism’ idea that recommends narrow streets to a) calm traffic and b) reduce impervious surface areas...) 79% stated “New streets in residential areas should continue to be wide to allow parking and insure emergency vehicle access” while only 21% stated “New streets should be more narrow to calm traffic and create less storm water run-off, even if parking or emergency vehicle access is diminished.”

More information about the surveys that were conducted as part of this comprehensive planning process—include survey results and copies of the survey instruments—is available in [Appendix 1-F](#).

Section Two—Existing Transportation Network

Functional Classification System

All local, county, state and federal transportation corridors are grouped using the roadway functional classification system. The functional classification system groups streets and highways according to the type of service they intend to provide. The type of service is based on a hierarchy of roadways, each designed for their specific function.

The two major considerations in classifying highways and streets are access and mobility. The primary function of arterials is to provide mobility that will enable community growth through planned land use development. The primary function of local roads is to distribute traffic from arterial routes and provide direct access to developments. Collector roadways provide a more balanced function between access and mobility.

Public streets and highways within the City of Verona fall under one of the following five functional classifications: Principal Arterials, Minor Arterials, Major Collectors, Minor Collectors and Local roads. These functional classifications are based on existing land use, intended trip lengths and the overall function of the existing transportation network.

Arterials

Currently, there are approximately 20 miles of principal arterial routes in the City of Verona.

USH 18/151 is one of four roadways in the City classified as a principal arterial route. Throughout the City limits, USH 18/151 is a four-lane limited access freeway that serves local, regional and national traffic. USH 18/151 serves as a vital link for Verona residents to the City of Madison. USH 18/151 has been classified as a Wisconsin Corridors 2020 Backbone route signifying its importance to through traffic and freight transportation throughout Wisconsin. The USH 18/151 corridor between Madison and Dubuque is a critical tourist corridor linking several population centers in Iowa to major recreation areas in Wisconsin thus providing an important economic link to southwestern Wisconsin.

CTH M alternates between a two-lane and four-lane facility as it traverses through the cities of Middleton, Madison and Verona. CTH M serves as Verona's primary connection to Madison's growing west side and is a critical component to the growth of Verona. Throughout the City, CTH M is called Main Street and is classified as a principal arterial north of Verona Avenue and a minor arterial south of Verona Avenue. On-street parking exists on Main Street to serve adjacent businesses throughout downtown Verona.

CTH PD is a two-lane rural facility throughout Verona that serves as the primary east-west arterial connecting Verona to the Cities of Madison and Fitchburg. CTH PD changes to a four-lane urban facility east of Verona. Both Madison and Fitchburg have identified CTH PD as an important east-west corridor and plan to upgrade the roadway within the plans horizon.

CTH PB is a two-lane rural facility that runs north-south from USH 18/151 to the southern end of the City. CTH PB ends at Old PB to the north. Old PB is classified as a collector roadway.

There are approximately 16 miles of existing minor arterial routes in the City.

South of Verona Avenue, **CTH M** is classified as a minor arterial as it traverses to the southeast corner of Verona. Commuter traffic from several communities south of Verona travels CTH M through Verona to employment in Madison. These commuting patterns are expected to continue as employment grows in Madison and Middleton.

Verona Avenue is the previous route location of USH 18/151 before WisDOT built a bypass around the City in the early 1990's. Verona Avenue is currently signed and identified as CTH MV. East Verona Avenue alternates between a two-lane and four-lane facility that runs east-west through Verona's downtown and central business district. On-street parking exists throughout a majority of the two-lane section serving several small businesses with direct access. East Verona Avenue has direct access to northbound USH 18/151 through a directional interchange. West Verona Avenue begins west of Main Street and continues as an east-west route until it meets up with USH 18/151 on the west side of the City. West Verona Avenue has direct access to USH 18/151 through a directional interchange.

Paoli Street is a two-lane urban facility that runs northeast and southwest from Main Street to USH 18/151. Residential developments have direct access on the northern section of Paoli Street. Paoli Street serves an important role in connecting Verona's central business district with the land south of the STH 69 & USH 18/151 interchange. Land use surrounding the interchange is mostly agricultural and has a high potential for commercial development similar to the adjacent interchanges. Through the interchange, Paoli Street is a four-lane divided facility. South of the interchange, Paoli Street turns into STH 69 which is currently classified as a collector roadway.

Collectors

There are approximately 28 miles of collector routes in the Verona Area that include:

- Raymond Road
- Cross Country Road
- Nine Mound Road
- STH 69
- Nesbitt Road
- Old PB
- Whalen Road
- Forest View Drive
- Harvest Lane
- Valley View Road
- Lincoln Street
- Legion Street
- Aspen Avenue
- Basswood Avenue
- Hemlock Drive

Collector routes in the Verona Area vary between rural and urban sections and two and four lane facilities. Upgrades to Verona's functional classification system are discussed later in this report.

Local Roads

The remaining roadways within the City of Verona are considered local routes. These routes are generally designed and constructed to handle lower volumes of residential and commercial traffic with direct access to adjacent developments.

Traffic Volumes and Flow

Dane County's population grew almost 47% from 1970 to 2000 and it is expected to grow another 36% by 2030. Almost half of this future growth is expected to occur in the communities surrounding Madison. Dane County's Metropolitan Planning Organization (MPO) expects historic automobile trends to continue resulting in increased traffic volumes on the roadway system.

Most of the intersections and roadways throughout the City are operating within typical design capacity thresholds. Roadways and intersections throughout the City should operate at a "Level of Service" (LOS) 'D' or better depending on their function. Several ongoing studies have identified specific areas in the City that operate below acceptable levels of service:

- CTH M (Main Street) from Verona Avenue north to the City border (City of Madison CTH M Corridor Study)
- CTH M & Mid Town Road intersection (City of Madison CTH M Corridor Study)
- CTH M & CTH PD intersection (Intersection Operational Analysis prepared by Earth Tech in March of 2006)
- Main Street (CTH M) & Verona Avenue intersection (Operational Analysis provided by West End Traffic Impact Analysis of 2006)

CTH M currently operates at unacceptable levels of service throughout the morning and evening weekday peak hours causing unnecessary delay for Verona residents and disruption to regional traffic patterns. Queues at each of the signalized intersections between Verona and Mineral Point Road in Madison extend several hundred feet causing drivers to wait through multiple signal cycles. Conditions throughout the CTH M corridor have generated significant traffic diversion resulting in unsafe conditions on local roadways.

Existing average daily traffic (ADT) volumes throughout the City were documented from WisDOT's coverage count program. Existing traffic volumes can be found on the Transportation Network Maps in [Appendix 3-A2](#).

North Main Street

CTH M is called Main Street throughout the Verona City limits. North of Verona Avenue, Main Street has 57-feet of right-of-way to carry two lanes of automobile traffic with on street parking on both sides. North Main Street alternates between a 3-foot terrace with 5-foot sidewalk and no terrace with 6-foot sidewalk. Adjacent businesses and residences have direct access to Main Street through a large number of commercial driveways. The City anticipates several properties on North Main Street will redevelop with more intense commercial uses which is consistent with the City Zoning Map. North Main Street currently operates 'at capacity' and will likely need additional capacity within this plan's time frame (2030). Existing queues from the Main Street and Verona Avenue intersection often block the driveways on North Main Street creating safety concerns for auto and pedestrian traffic. See the "Downtown Plan" portion of the Land Use Chapter ([Appendix 8-A](#)) for information about future plans for North Main Street and access for adjacent properties.

Main Street & Verona Avenue Intersection

The intersection of Main Street & Verona Avenue is located in the center of the City and facilitates an important role in the Verona transportation system. Over 23,000 vehicles pass through the intersection in an average day making it the busiest location in the City. Semi-trucks pass through the intersection carrying freight to local businesses. Pedestrians and bicyclists cross every approach creating additional traffic and conflicts. With an increase in population and commercial developments throughout Verona, traffic volumes have increased significantly at this intersection since the by-pass was built in the early 1990s, and this trend is expected to continue for the foreseeable future.

The intersection of Main Street and Verona Avenue currently operates at LOS 'D' during weekday peak hours. Queues on all four approaches extend past commercial driveways creating safety concerns and driver frustration. Drivers occasionally have to wait up to three signal cycles before passing through the signals.

Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities serve an important role in the quality of life for Verona residents. Developing and maintaining these facilities is a high priority for the City. Most of the City's bicycle and pedestrian facilities have been constructed in conjunction with residential developments and park and recreation plans. As part of the 2006 Park, Recreation and Open Space Plan, the City of Verona adopted a bicycle plan that identifies existing and proposed on-road and off-road bicycle facilities to promote bicycling throughout the community (See Appendix 4-A). This transportation chapter is consistent with the adopted bicycle plan as shown in Chapter 4 and provides additional recommendations to improve the City's bicycle and pedestrian network. The goals of the bicycle plan are similar to the transportation plan: locate and preserve lands throughout the City to assist in the future development of facilities to provide connectivity for bicycles, pedestrians and other non-motorized travel.

Verona recognizes there are many different levels of bicyclists in the City so typical roadway sections were designed to accommodate these different groups. When new public streets are constructed, the City requires installation of sidewalks. This plan recommends sidewalks be constructed on both sides of all residential streets. In some instances, the sidewalk on one side of the street is replaced by a 10-foot multi-use path. The 10-foot multi-use path provides more space for recreation and improves the level of service for bi-directional traffic. The City developed a sidewalk map that is discussed in more detail in the Utilities and Community Facilities chapter of the City's Comprehensive Plan. The Bicycle and Pedestrian Facilities map is located in Appendix 3-A4.

There are several existing trail corridors that continue to receive state and federal funding for maintenance and further development. The Military Ridge State Trail and the Ice Age National Scenic Trail are two regional trails that pass through the City of Verona.

The **Military Ridge State Trail** is a 40-mile trail that connects Dodgeville and Madison passing through the communities of Ridgeway, Barneveld, Blue Mounds, Mount Horeb, Riley, Klevenville and Verona. Most of the trail follows the former Chicago and North Western Railroad corridor and borders both Governor Dodge and Blue Mound state parks. Most of the trail is limestone-surfaced and is open to walkers and bicyclists during the spring, summer and fall and snowmobiles in the winter. The segment between Verona and Madison is paved allowing in-line skaters the opportunity to use the path as well. Military Ridge State Trail is an important part of the existing bicycle and pedestrian path network in the City of Verona.

The **Ice Age National Scenic Trail** is a 1,200-mile trail that runs throughout Wisconsin displaying the history of glacial geography. Approximately 7 miles of the 1,200-mile trail pass through the Verona Area. The existing trail is unpaved and traverses through several Verona Area parks including the Reddan Soccer Fields, Badger Prairie County Park, Community Park, East View Heights Nature Sanctuary, South Main Park, Tower Park and Prairie Moraine County Park. Access points are located every few miles with trail maps and information. The City has been active in the preservation of the existing corridor and surrounding wildlife habitat and will continue to do so in the future.

Public Transit

Metro Transit serves the City of Verona and surrounding communities with weekday fixed-route bus service. The primary route (route 55) in Verona runs from the West Transfer point in Madison to the Epic Systems Campus and back. Metro bus stops are located approximately every ¼ mile on Verona Avenue and at entrances to the Epic Systems campus on Epic Lane. See the Transit & Airport Facilities Map in [Appendix 3-A5](#).

Route 55 had a total of 2383 boardings during January of 2008 and 2792 boardings during July of 2008. The average daily ridership in January and July was 108 and 127 respectively. Most of the boardings took place at the Epic Systems campus and at the West Transfer point. A smaller percentage of the boardings occurred along Verona Avenue. Several other existing Metro Bus routes serve the far southwest corner of Madison where it borders the City of Verona. The existing Metro Bus routes in Verona are summarized on the Transit & Airport Facilities Map in [Appendix 3-A5](#).

Para-transit

Para-transit is a demand responsive transit service that typically does not follow a fixed route or schedule. Vans, taxis or small buses are operated by public agencies, community groups, non-profit organizations or corporations to transport people on an as-needed basis. Most often, para-transit operations exist as a service to elderly residents or people with disabilities. The objective of para-transit is to provide mobility for persons unable to access fixed-route bus service and specialized transportation services. In the City of Verona, the Verona Senior Center operates an 8-passenger van with a mechanical lift five days a week between approximately 10 am - 2 pm. The van includes 2 wheelchair tie-downs and service is primarily limited to residents 60 and older but can take any age with physical disabilities. Trips are centered around services and programs at the Senior Center but the service can provide local rides for other destinations as time allows. Trips for shopping at Miller's are offered every Wednesday; for Farm & Fleet one Tuesday per month; and for shopping in Madison twice each month. No other rides into Madison are currently permitted with few exceptions. Trips to the Senior Center cost \$1 round trip. Other Verona destinations cost \$2.00 round trip, and trips to Madison for shopping cost \$4 round trip. Contracted use of this vehicle is also available for special trips like the 'Dining Out with Friends Group' and events at Overture. Fees are about \$5 for those trips, subsidized by the City of Verona.

The Senior Center also owns and operates an electric two-passenger car to transport goods for older people. A volunteer runs small errands on request, and the Senior Center will transport a person who is able to get into the vehicle when a volunteer driver is available. The vehicle has no heater, so use is limited to warmer weather. There is currently no fee for use of this vehicle.

Lastly, the Senior Center coordinates "Volunteer Driver Escorts", who use their own standard vehicles to transport senior citizens (and others on a case by case basis...) to medical, dental, and rehabilitation appointments in Madison within two days of a request. Drivers stay with the individual for the appointment unless it is lengthy (3+ hrs), in which case the client will call the driver when they are ready to be picked-up. Donations are requested but there is no fixed charge. Passengers must be able to walk with little or no assistance. Walkers can be used but not wheelchairs. This is the same service that delivers meals.

The Verona Senior Center does not expect any reductions in the above services but also does not anticipate any increases in van time or new services. Seniors have discussed but dismissed purchasing a station wagon. Senior use of the Madison Metro Route 55 is very limited primarily because of the limited hours of operation and concerns about transfer sites and concerns about making connections once in Madison.

Park & Ride Facilities

Park and ride facilities help to maximize transportation system efficiency by providing users convenient access to multi-modal transportation. The City of Verona has one existing park & ride facility (Lot 13-02) located south of East Verona Avenue at Old CTH 'PB'. The asphalt lot is located at the Military Ridge trailhead and has parking for 77 vehicles. The lot is wheelchair accessible and provides an excellent location for carpoolers. The park & ride facility has a bicycle rack, picnic area, state trail permits, free parking and multi-modal transportation options. In 2009, the City is working with the Department of Transportation (DOT) and the Department of Natural Resources (DNR)—which owns the land—to expand this park and ride facility and to also have a bus-stop for Route 55.

ONGOING LOCAL, REGIONAL AND STATE TRANSPORTATION PLANS

This chapter of the City of Verona Comprehensive Plan was developed to be consistent with local, regional and state transportation plans including the following:

- WisDOT 6-Year Highway Improvement Program
- WisDOT Bicycle Transportation Plan 2020
- WisDOT - USH 18/151 Highway Access Study
- Wisconsin State Highway Plan 2020
- Madison Area Metropolitan Planning Organization’s Regional Transportation Plan 2030
- Madison Area Metropolitan Planning Organization’s Transportation Improvement Plan 2006-2010
- City of Madison High Point – Raymond Neighborhood Development Plan
- City of Madison CTH M Reconstruction Study

WisDOT did not have any transportation improvement projects in the City of Verona for the six-year Highway Improvement Program (2006-2011).

The USH 18/151 Access Study is in the second of three phases to create an “Official Map” as required by Wisconsin State statute for freeways and expressways. The State of Wisconsin requires an “Official Map” to preserve lands for converting USH 18/151 to a freeway/expressway including interchange locations, grade separations, removal of existing public road and private driveway access points, and alterations, removals, or additions to the local road system. There are currently no changes to USH 18/151 in the City of Verona. A map of the changes west of the City of Verona is provided in [Appendix 3-D3](#).

The Wisconsin State Highway Plan 2020 (SHP 2020) identifies USH 18/151 through Verona as a Corridors 2020 Backbone Route. The plan states, “Because the mobility and economic development of the entire state are dependent on Corridors 2020 routes, congestion on those routes should be minimized.” SHP 2020 has lower congestion thresholds before triggering improvements on Corridors 2020 Backbone Routes. The plan went further and forecasted congestion on these Backbone facilities in year 2020. SHP 2020 forecasts that there will be no congestion on USH 18/151 through Verona during average weekday commuting up to the year 2020.

The City of Madison Department of Planning and Development adopted the High Point – Raymond Neighborhood Development Plan in November of 1997. The plan illustrates the proposed roadway network in the area north of CTH PD and east of CTH M. The City of Madison has plans to reconfigure Raymond Road to connect with Midtown Road. Raymond Road will no longer access CTH PD near the intersection with CTH M. A map of the proposed changes is provided in [Appendix 3-D1](#).

The City of Madison is currently studying the CTH M corridor from Mineral Point Road to Bering Drive with the intent to reconstruct the roadway to provide a four lane urban cross section with bicycle and pedestrian facilities. The planned typical section consists of two 11-foot lanes and a 4-foot bike lane in each direction. A 42-foot wide median is planned to accommodate additional through capacity in the future. Off-road bicycle facilities will run parallel to the CTH M corridor and connect with the Ice Age Trailhead east of the CTH M & CTH PD intersection.

The CTH M corridor study includes six individual projects:

- Pleasant View Road realignment – 2010 construction
- Mineral Point Road & Junction Road intersection improvements – 2011-2012 construction
- CTH M from Watts Road to Valley View Road – 2012 construction
- CTH M & Valley View Road intersection improvements – 2011 construction
- CTH M & Midtown Road intersection and approach improvements – 2014 construction
- CTH M & CTH PD intersection and approach improvements – 2013 construction

Reconstruction of the CTH M corridor is planned to start in 2010 and finish in 2014. A map illustrating the CTH M project segments is provided in [Appendix 3-D2](#).

Section Three—Proposed Future Transportation Network

Transportation Planning Barriers

Several barriers exist throughout the City that constrain the location of existing and future transportation infrastructure. There are environmental barriers such as rivers and wetlands, transportation barriers such as freeways and trails, topographic barriers such as the Prairie Moraine and real estate barriers such as established business and residential communities. See [Appendix 3-A6](#) for a map showing many of these barriers for providing new street facilities to serve the Verona area.

Environmental barriers located throughout the Verona Area include the Sugar River and surrounding wetlands, the Badger Prairie County Park, the Ice Age Trail, the Prairie Moraine County Park, the Badger Mill Creek and many other parks and protected lands. Residents and local authorities in Verona and the surrounding communities have expressed a strong desire to protect these natural resources.

The major transportation barriers that exist in the City are the USH 18/151 corridor and the Military Ridge State Trail. The USH 18/151 freeway has five interchanges that are located in the Verona Area. The freeway provides excellent mobility from Verona to the City of Madison but crossing routes must be created or expanded to support development south of the freeway.

Military Ridge State Trail is a transportation barrier that exists throughout the Verona Area. The trail provides an excellent means for bicycle transportation around the City of Verona and for commuters to the City of Madison. At-grade trail crossings are required to be a minimum of ½ mile apart for safety and continuity which may act as a barrier to future north-south arterials on the west side of Verona.

Southwestern Wisconsin was home to some of the last continental glaciers. The Ice Age left behind several geologic features that provide opportunity for recreation and education but also act as barriers for land use planning. The main topographic barrier in Verona is the Prairie Moraine. The Prairie Moraine is a large ridge located to the northwest and the southeast of the City.

Epic Systems is one of Dane County's largest employers. Epic established their business in Verona several years ago and has continued to grow and develop new property on the west side of the City. The Epic Systems' campus provides additional constraints to providing a north-south arterial on the west side of Verona.

These barriers drove many of the development and infrastructure decisions in the past and will continue to do so in the future.

City of Verona Official Map

The City of Verona adopted an Official Map in April of 2007. The Official Map illustrates the City limits at the time it was adopted, existing roadways and conceptual locations for future collector and arterial roadways. This chapter of the Comprehensive Plan was developed to be consistent with the City's Official Map. The proposed roadway locations in this plan have been refined since the Official Map was adopted based on current development plans and discussions with the City of Verona Planning and Development Department. The City of Verona Official Map is provided in [Appendix 3-A7](#).

Future Traffic Volumes and Flow

Traffic volumes are expected to grow at a steady rate past this plan's 20-year time frame (2030). As traffic volumes grow, corridors approaching capacity will begin to see increased congestion resulting in driver delays. Area roadways that currently operate below acceptable levels of service include:

- CTH 'M' (Main Street) from Verona Avenue north to City border
- CTH 'M' & Mid Town Road intersection
- CTH 'M' & CTH 'PD' intersection
- Main Street & Verona Avenue intersection

Operations are beginning to deteriorate at some other Verona intersections as development continues to add traffic to the system. The following intersections should be monitored for operational and safety problems because they are approaching capacity:

- CTH 'PB' & CTH 'M'
- Nine Mound & West Verona Avenue
- Paoli Street & South Main Street

Future development will put additional stress on those roadways approaching capacity. Coordinating land use planning with transportation improvements will be imperative as the City continues to grow.

Main Street and Verona Avenue Intersection

With new development and redevelopment planned in and around Verona’s downtown area, traffic volumes are expected to increase on all approaches of the Main Street & Verona Avenue intersection. Future conditions were evaluated at this intersection and confirmed that traffic operations will deteriorate by 2015—causing significant congestion and driver delay. Queues on three of the four approaches will extend up to 1500 feet causing safety problems at adjacent access points and throughout the downtown area. Congestion is expected to continue on all approaches of the intersection lasting several hours beyond existing peak commuting times.

A summary of the 2015 delay and LOS at the Main Street & Verona Avenue intersection with the existing “no-build” geometry is provided in [Appendix 3B-6](#).

The City recognizes the importance of this intersection to the overall transportation network. Several improvement alternatives were evaluated that provide additional capacity to meet future traffic demands. Because of the existing development footprints, every alternative has impacts to the adjacent properties. Three alternatives were modeled to analyze their feasibility and operational benefits.

The three alternatives are as follows:

- Reconstruct the intersection with a **traffic signal** to accommodate four lanes on Main Street and four lanes on Verona Avenue. Provide right and left turn lanes on Main Street and dual left-turn lanes on Verona Avenue.
- Reconstruct the intersection with a two-lane **roundabout** to accommodate four lanes on Main Street and four lanes on Verona Avenue.
- Reconfigure Main Street and Shuman Street to operate as a **pair of one-way streets**. Reconstruct the intersections of Main Street & Verona Avenue and Shuman Street & West Verona Avenue to handle the new traffic patterns.

Two additional alternatives were considered for the pair of one-way streets option:

- Reconfigure Main Street and Franklin Street to operate as a pair of one-way streets. Reconstruct the intersections of Main Street & Verona Avenue and Franklin Street & East Verona Avenue to handle the new traffic patterns.
- Reconfigure Shuman Street and Franklin Street to operate as a pair of one-way streets. Close Main Street to automobile traffic and reconstruct as a pedestrian mall from Harriet Street to Church Avenue. Reconstruct the Shuman and Franklin intersections with Verona Avenue to handle the new traffic patterns.

Conceptual drawings for each alternative with potential lane layouts are provided in [Appendix B](#).

The roundabout alternative has the least impacts outside of the immediate intersection location and provides the best operations at the intersection. Other benefits of the roundabout include:

- Less vehicle delay
- Reduced travel speeds improving traffic safety and crash severity
- Shorter crosswalk length improving pedestrian levels of service

One of the challenges for the roundabout alternative is the continuous movement of traffic and the inability of some pedestrians to choose gaps in oncoming traffic. While traffic speeds are slower at roundabouts, choosing gaps in traffic can be a complicated task and poses challenges to children, elderly and the disabled. These types of pedestrians generally walk at slower speeds and prefer larger gaps in traffic.

Standardized pavement markings and signage is important for pedestrian safety. If visually impaired pedestrians will utilize the downtown intersection, pedestrian hybrid signals should be considered to assist such pedestrians in crossing at the roundabout. Pedestrian hybrid signals or HAWK (high intensity activated crosswalk) signals use traditional pedestrian signal heads but in a different configuration. The HAWK signal is activated using a standard pedestrian push button. The HAWK signal has been used to improve pedestrian safety by improving driver behavior at crossings. The display sequence for the HAWK signal is provided in [Appendix 3B](#).

Bicycle safety is an important aspect of the Main Street & Verona Avenue intersection. Under the traffic signal alternatives, bicyclists can cross the intersection in the bike lane by obeying vehicular traffic signals or by using designated crosswalks and pedestrian signals. Under the roundabout alternative, bicyclists can enter the traffic flow and travel through the roundabout as a vehicle or they can leave the street prior to the intersection, cross at designated crosswalks and re-enter the street on the other side of the intersection.

All three alternatives operate at acceptable levels-of-service in 2015. The improved traffic signal alternative will operate at LOS D or better with up to 50% more demand than is forecasted in 2015. The roundabout alternative will operate at LOS D or better with up to 30% more demand than is forecasted in 2015. The one-way pair of streets alternative will operate at LOS D or better with up to 60% more demand than is forecasted in 2015. Historic average growth rates have varied dramatically at this intersection. Future demand will rely heavily on densities of planned commercial developments along West Verona Avenue—such as at the approved but-as-yet not constructed ‘West End’ development and at planned commercial development on the Erbach property. LOS and delay for each alternative is summarized in [Appendix 3B-7](#). More detailed analysis and design is needed to evaluate the overall benefits and impacts of each alternative.

Section Three-A—Proposed New Streets

New North-South Routes

Many Verona residents commute to the City of Madison for work and this travel pattern is expected to continue in the future. CTH M and USH 18/151 are the two principal arterial routes that carry traffic between the cities of Verona and Madison.

CTH M between Verona and Madison experiences traffic congestion during weekday peak hours causing traffic to divert and find alternate routes that bypass the congestion. Because of the lack of alternative arterial north-south routes, diverted traffic is finding its way onto local neighborhood streets not intended for through traffic. This creates safety concerns and decreases neighborhood livability and functionality.

USH 18/151 is a vital link between Madison, Verona and beyond. Throughout Verona, USH 18/151 is not expected to have traffic congestion in the next 20 years but there is congestion today on the section of USH 18/151 connecting Verona to Madison. This section of roadway is currently being studied to develop alternatives that relieve traffic congestion at the interchange with the Madison Beltline and the roadway segment between Verona and Madison. Improvements at the Verona Road interchange will improve mobility between the two cities.

Other than these two principal arterial routes, there are very few other direct north-south routes to travel between Verona and Madison. This plan shows several possible new north-south routes to provide additional mobility as Verona and Madison continue to grow:

- Dairy Ridge Road extension to a new road (...on the town line between the towns of Verona and Springdale...);
- Dairy Ridge Road extension to Timber Lane;
- Country View Road extension to Ticker’s Trail extension;
- Nine Mound Road realignment to Woods Road;
- Prairie Oaks Drive extension to CTH ‘PD’;
- Hemlock Drive extension to CTH ‘PD’;
- New road connecting Paoli Street to West Verona Avenue;
- New road connecting CTH ‘M’ to Grandview Road and Whalen Road extension

These streets are shown on the ‘Future Proposed Functional Classification Network’ map, provided in [Appendix 3-A2](#).

The connection of Dairy Ridge Road to Timber Lane facilitates an important role in moving traffic to and from Verona to Madison’s growing west side. The plan shows this new route to be classified as a minor arterial with 120 feet of right-of-way. Approximately 2500 feet of this connection will take place on new right-of-way while the remaining improvements will be made on existing right-of-way. The new route crosses the Military Ridge State Trail at the existing White Crossing Road intersection. A grade separation structure will be needed to carry this planned minor arterial across the Military Ridge Trail.

The extension of Country View Road to connect with the Ticker’s Trail extension will provide another north-south route between Verona and the Cities of Madison and Middleton. Country View Road should intersect the new east-west road and CTH PD at 90 degrees before heading north toward Ticker’s Trail. Approximately 2 miles of new roadway right of way are required to make this connection.

The Plan realigns Nine Mound Road to the east to connect with Woods Road. This route will serve as an additional north-south route connecting Verona to Madison and Middleton. Realignment of Nine Mound

Road to the east will require filling in the quarry adjacent to the existing alignment. Woods Road might need to be realigned at the intersection with CTH PD to minimize intersection skew.

The extension of Prairie Oaks Drive to CTH PD will facilitate another important north-south connection. This route will divert traffic around the congested intersection of CTH M & CTH PD and provide access to the Gammon Road area through High Point Road.

Hemlock Drive is upgraded to a collector in the Plan and extends north to CTH PD where it intersects with the University Ridge golf course access. This connection will link the planned residential developments on the north side of the City to CTH PD.

Thousand Oaks Trail serves as one of two primary entrances to the Verona Technology Park in the southeast corner of the City. The Plan shows Thousand Oaks Trail extended to the north to intersect with a planned extension of Verona Avenue east of the Verona Avenue & USH 18/151 interchange. Creating this parallel route to USH 18/151 will allow local north-south mobility without entering the freeway.

The Plan shows another street running parallel to the freeway connecting Paoli Street and W. Verona Avenue. This route will allow better mobility from the planned West End development and future development on the Erbach property.

The Plan shows an additional north-south route east of Thousand Oaks Trail that runs from CTH M to Whalen Road and intersects with the planned extension of E. Verona Avenue to the north. This new route will connect planned developments east of USH 18/151 to CTH M and the planned E. Verona Avenue extension.

New East-West Routes

As Fitchburg and Verona continue to grow toward Fitchrona Road, access between the two cities will become more important. The Plan shows Grandview Road upgraded to a collector roadway from Old PB to Fitchrona Road. Whalen Road is upgraded to an arterial roadway from Old PB to Fitchrona Road. Both of these routes provide access to arterial roadways that connect Fitchburg to Madison.

The Plan shows several new east-west routes to help provide mobility as Verona and Fitchburg continue to grow:

- E. Verona Avenue extension to New north-south road east of Thousand Oaks Tr.
- New road connecting the Dairy Ridge Road extension to the Prairie Oaks Drive extension
- Paulson Road extension to Woods Road *
- Silent Street extension to Main Street
- Valley Road extension to CTH G
- Chapel Royale Drive extension to Valley Road at Highway 69

* Note: Paulson road to Woods Road is located *north* of CTH 'PD', and is therefore included in the City of Madison's comprehensive plan...

To fully utilize the E. Verona Avenue & USH 18/151 interchange, the Plan includes two additional ramps to serve traffic to and from the south. E. Verona Avenue is extended east to intersect with the extension of Thousand Oaks Trail and another collector roadway approximately $\frac{3}{4}$ mile east of Thousand Oaks Trail. Several environmental constraints exist on the east side of the Verona Avenue interchange including wetlands, flood plain and the Badger Mill Creek. The local airport east of the interchange is an additional constraint to the extension of E. Verona Avenue. Development between Grandview Road and CTH M will likely drive the interchange improvements and E. Verona Avenue extension.

To connect the new north-south routes on the northwest side of the City, an east-west route is planned from Dairy Ridge Road to the Prairie Oaks Drive extension. This new route will act as a collector route for the planned residential developments on the northwest side of the City.

The Plan shows Paulson Road extended from Timber Lane to Woods Road. The Paulson Road extension will provide an east-west route when development extends north of CTH 'PD' (Note—the area north of CTH 'PD' is included in the City of Madison's comprehensive plan...)

Silent Street is a planned local road improvement that will provide a connection between Main Street and Enterprise Drive. The Silent Street extension could alleviate traffic at the Main Street & Verona Avenue intersection as delay continues to increase.

The City of Verona expects the land south of USH 18/151 between Range Trail and STH 69 to develop within the 20-year planning horizon. To support this development, Valley Road is extended to CTH G to provide access to the west at the Dairy Ridge Road interchange. Chapel Royale Drive will connect to Valley Road at Highway 69 and run parallel to USH 18/151 to Range Trail. The Valley Road to Chapel Royale Drive route is intended to provide a parallel route to the freeway to preserve its function of moving regional traffic.

New Freeway Crossings

In many areas throughout Dane County, freeways act as a barrier for growth and development because traffic is forced to cross at congested interchanges. These freeway crossing routes are important to the future development of the south and east sides of Verona so the Plan upgraded Grandview Road, Whalen Road and Locust Drive to higher functional classes recognizing the increase in traffic demand on these routes in the future. All of these crossing routes directly access arterial roadways that circulate traffic throughout the City.

As development continues southwest of the Paoli Street interchange, local traffic needs an alternate route to cross the freeway. The Plan shows a new freeway crossing between the STH 69 interchange and the Verona Avenue/Epic Lane interchange. This route will help preserve the function of the existing interchanges and facilitate development south of the freeway.

Section Three-B—Planned Improvements to Existing Streets

In order to meet future traffic demands and provide additional mobility around the City, this plan proposes to upgrade several existing streets/routes as well as to create new streets/routes.

The City plans to designate approximately 12 miles of new minor arterial routes including:

- Timber Lane
- Dairy Ridge Road (CTH G)
- STH 69 (Paoli Street) south of USH 18/151
- Verona Avenue Ramps to USH 18/151

The City plans to designate approximately 29 miles of new collector routes including:

Minor Collectors

- Country View Road
- Prairie Oaks Drive
- Grandview Road
- Thousand Oaks Trail
- American Way
- Riverside Road
- Sugar River Road
- Locust Drive
- Sunset Drive
- Range Trail
- Westridge Parkway

Major Collectors

- Tickers Trail
- Woods Road
- Valley Road
- Chapel Royale Drive
- Enterprise Drive

The new collector routes will provide a link between arterial roadways designed to move through traffic and local roads designed to provide direct access to adjacent developments. The new collector routes were planned to provide continuity within neighborhoods and should be designed for low speeds to encourage safety. Controlled access should be considered along collector roadways to prolong the useful life of the facilities.

North Main Street Improvements

North Main Street currently operates at capacity and traffic volumes are expected to increase during this Plan's time frame (2030). Queues from existing traffic volumes at the Main Street & Verona Avenue intersection block commercial access points on North Main Street creating safety concerns for auto and pedestrian traffic. To improve safety and minimize driver delays, North Main Street needs additional capacity.

The planned typical section for North Main Street requires 76-feet of right-of-way with 54-feet of pavement and 10-foot sidewalks on both sides. The 76-feet of right-of-way will include one foot behind the sidewalk for maintenance. The pavement will carry two travel lanes in each direction with bicycle accommodations and on-street parking. The outside lane will be 16-feet wide to accommodate one lane of auto traffic and one lane of bicycle traffic during peak hours (7-9 AM and 3-6 PM). During non-peak hours, on-street parking will be permitted and only one lane will be available for auto traffic. On-street bicycle traffic should travel on the inside of the parked cars during non-peak hours. "No Parking" signage will be required to notify drivers of this change and parking enforcement will be required. See the "Downtown Verona Plan" in [Appendix 8-A](#) for more information about planned improvements to North Main Street in the downtown area.

Section Three-C—Proposed Transportation System Improvements

Planned Bicycle and Pedestrian Facilities

Verona has been proactive in the development of off-road pedestrian and bicycle facilities that connect parks and activity centers around the City. Biking and walking on facilities designed to accommodate such traffic promotes healthy lifestyles and improves the overall quality of life. The City identified all of the corridors in the developed portions of the City where sidewalks do not exist—See [Map 4-8](#).

Sidewalk installation is accomplished through the street improvement program and the sidewalk installation program. The City requires new developments to provide safe connections between neighborhoods, schools and parks. Sidewalks will be required on both sides of the street for all future developments.

The 2006 Park, Recreation and Open Space Plan discusses the importance of maintaining Verona’s existing pedestrian and bicycle facilities while continuing to plan for new facilities. The 2006 Plan described two new trail corridors in the City.

The **Badger Mill Creek Trail** will run along Badger Mill Creek from South Main Street to Riverside Road in the Town of Verona.

The **Upper Sugar River Waterway Trail** will run along the Sugar River from the Military Ridge State Trail to Paoli.

A trail connecting the Mount Horeb Trail to the Prairie Moraine was proposed to connect several public resources throughout the City, the Town of Verona and Village of Mount Horeb. The City of Verona supports the development of these trails with Dane County and other adjacent communities.

On-street bike lanes currently exist on several key routes around the City. The Plan extends many of these routes to provide continuity between activity centers and other bicycle facilities. Planned bicycle and pedestrian routes are summarized on the Bicycle and Pedestrian Facilities Map in [Appendix 3-A4](#).

Planned/Future Public Transit

The City of Verona plans to continue Metro Transit bus service on Verona Avenue from the West Transfer point to the Epic Systems Campus with increased service on Verona Avenue. Additional service for weekends and off-peak hours could provide public transportation from Verona to Madison at all times throughout the week.

The City also plans new service on CTH 'M' from Verona to Madison. This new service will provide public transportation from Verona to Madison's growing west side and the regional commercial area near West Towne Mall. Recommended future bus stop locations along CTH M are at Cross Country Road and CTH 'PD'.

The City of Verona supports the partnership between Metro Transit, WisDOT and the Wisconsin Department of Natural Resources to provide Metro bus service to and from the existing park and ride facility south of East Verona Avenue on Old 'PB'. The existing asphalt lot is located at the Military Ridge trailhead and has parking for 77 vehicles. The planned bus service will provide another alternative to commuters traveling within the Metro Transit service area. See 'Park and Ride Facilities' on page 9 for more information.

Planned/Future Park & Ride Facilities

The City of Verona supports the development of park & ride facilities to improve the efficiency of the transportation system, reduce congestion and enhance multi-modal connectivity. There is a future need for a park & ride facility in the CTH 'M' corridor. Similar to Verona's existing park & ride facility, the proposed facility should be wheelchair accessible and provide multi-modal transportation options. If Metro bus service is added along the CTH M corridor, providing service to this proposed park & ride facility would be very beneficial. More detailed planning and design should be completed to determine the specific needs of the users in this area and to find an appropriate location for such a facility.

Section Four—Typical Street Cross Sections

Typical Roadway Sections

Typical roadway sections can affect transportation mobility, roadway capacity, safety, pedestrian use, community aesthetics, and land use considerations. The typical roadway sections provided in [Appendix 3-C](#) were based on the existing City of Verona typical sections and modified to fit the changing needs of a diverse group of roadway users.

The City of Verona typical roadway sections were developed to ensure consistency in future roadway planning and design. Each typical section has a different function intended to provide mobility for various modes of transportation including, cars, trucks, buses, emergency response vehicles, snow removal vehicles, bicycles and walking.

These typical roadway sections seek to balance the need of providing mobility with meeting the (often conflicting...) needs of adjacent home and business owners to provide livable and aesthetic roadways that create safe neighborhood surroundings.

Typical roadway sections were developed for each functional classification and should be applied using the guidelines below:

Functional Classification	Typical Capacity (vpd)	Roadway Right-of-Way (ft)
Minor Arterial	10,000 – 40,000	120'
Major Collector	5,000 – 15,000	72' -80'
Minor Collector	1,000 – 10,000	66' -72'
Local Roads	< 1,000	60' -66'

Right-of-way should be acquired for the ultimate function of the roadway as defined on the Future Proposed Roadway Right-of-Way Map provided in [Appendix 3-A3](#). Roadway planners and designers should consider narrower typical sections until traffic demand warrants the ultimate recommended roadway typical section. Intersections will often require additional right-of-way.

Roadway typical sections designed for local residential roads require 60-66 feet of right-of-way. The local street sections include two lanes for vehicular traffic, on-street parking on both sides, landscaped terrace behind the curb and sidewalks on both sides. The local street sections provide 32-34 feet of pavement width measured from the face of curb on both sides. This is narrower than the 36-foot pavement width currently used by the City. Narrower pavement widths will reduce right-of-way costs, encourage safe driving speeds, reduce impervious areas and resultant stormwater runoff, increase the buffer between vehicles and pedestrians and increase overall land use density.

There are two options for the Community Residential (CR) zoning areas in the City. The first option provides 32-feet of pavement width for two travel lanes and on-street parking on both sides. The second option provides 34-feet of pavement width for two travel lanes and on-street parking on both sides. The additional two feet of pavement for the second option is added to the travel lanes. The Verona Planning and Development and Public Works departments will decide which option works best for each situation.

Roadway typical sections designed for minor collector routes require 66-72 feet of right-of-way. The minor collector sections have wider travel lanes than local roads to allow for higher speeds and increased capacity. Dedicated bicycle lanes are provided and should be added as directed by the approved bicycle plan.

Typical roadway cross sections for major collector routes require 72-80 feet of right-of-way. Major collectors should have 12-foot travel lanes to provide sufficient right-of-way for higher volumes of vehicular traffic. A 10-foot terrace will enhance safety by increasing roadside clearance.

Roadway cross sections for minor arterial routes require 120-feet of right-of-way to carry four lanes of vehicular traffic with a 24-foot raised center median. A 24-foot median provides enough space for two left-turn lanes to be developed at intersections without changing the mainline roadway alignment. Left turn lanes should be provided at all intersections to minimize conflicts between turning and through traffic. Dedicated bike lanes are planned to provide right-of-way for commuting bicyclists and concrete sidewalks provide for more recreational bicyclists.

Detailed drawings of each typical roadway section can be found in [Appendix 3-C](#).

Section Five—Land Use and Transportation Planning

Transportation and land use decisions are directly impacted by one another. Providing alternatives to transportation users is heavily dependent on land use density, existing layout and barriers. As Madison and Verona continue to grow, parts of the regional transportation system will reach capacity creating new opportunities for transit. Mixed use developments and transit oriented developments will play a key role in planning land use and transportation infrastructure. The City of Verona understands the importance of developing land use and transportation plans to support each other and encourage smart growth of their community. More thorough discussion of land use and transportation relationships is provided in the Land Use chapter of the City's Comprehensive plan.

ACCESS MANAGEMENT

The purpose of access management is to provide access to developments in a way that preserves the safety and efficiency of the transportation system. The primary function of arterials is to provide mobility at an acceptable level-of-service. Local roadways provide access throughout the transportation network which limits mobility. The inherent conflict between the two functions establishes a need to define the amount of access recommended on each type of facility.

Access management is particularly important for rapidly growing communities like Verona. Regulating the amount of access and the access spacing throughout all types of roadways will help to preserve the useful life of the facility and maintain acceptable levels of service.

Section Six—Goals, Objectives, and Policies for Chapter Three: Transportation

Based on community surveys, community open houses, comment cards received, testimony during ‘public comment’ periods during meetings of the Comprehensive Plan Committee, and a review of past trends and current conditions in the City of Verona—and in consultation with the Plan Commission and Common Council during a January, 2009 review of the draft comprehensive plan—the Comprehensive Plan Committee developed the following Goals, Objectives, Policies, and Programs for Chapter 3—Transportation:

Transportation Goal One: Improve North-South traffic between Verona and Madison.

Objective 1-A: Increase capacity on C.T.H. ‘M’ north of Cross Country Road.

Policy: Continue to work with the Madison Area Transportation Planning Board—Metropolitan Planning Organization (TPB-MPO) for necessary funding.

Objective 1-B: Explore alternative north-south routes between the City of Verona and the west side of Madison to alleviate traffic on CTH ‘M’.

Policy: Work with the Town of Verona and the City of Madison to insure that north-south streets parallel to CTH ‘M’ are planned and accommodated as the Verona Area grows.

Policy: Work with the Town of Verona to implement the city’s Official Map.

Transportation Goal Two: Provide adequate transportation systems in and around Verona to insure easy movement of people and goods.

Objective 2-A: Provide mass-transit service as an alternative to automobiles

Policy: Continue to support Route 55

Objective 2-B: Require new development to accommodate future traffic.

Policy: Continue to discourage/limit cul-de-sacs in favor of through-streets so new developments connect with existing developments.

Objective 2-C: Investigate methods for how existing development can better accommodate future traffic.

Policy: Investigate placing round-a-bouts at existing intersections.

Objective 2-D: Accommodate bicycle traffic.

Policy: Continue to create on-street bicycle lanes on new arterial and collector streets

Policy: Continue to create off-street bicycle paths according to the city’s bike path plan.

Objective 2-E: Consider accommodations for other types of vehicles as transportation alternatives.

Policy: Consider accommodations for electric vehicles, Segways, and other non-traditional transportation alternatives.

Objective 2-F: Improve pedestrian facilities.

Policy: Continue to require new commercial and residential developments to provide sidewalks

Policy: Install sidewalks in areas where they are not currently provided.

Objective 2-F: Support efforts to improve regional transportation infrastructure.

Policy: Support efforts to improve the Verona Road/Beltline intersection and support studies for a possible ‘southern reliever’ beltline highway.

Policy: Support existing and new ‘Park and Ride’ facilities in the Verona Area.

Transportation Goal Three: Protect residential areas from high volumes of traffic by preventing conflicts between traffic and residential land-uses.

Objective 3-A: Convert existing residential development along high-volume traffic corridors.

Policy: Continue to encourage conversion of residential properties to commercial uses on North Main Street.

Objective 3-B: Allow new residential development along arterial streets only after standards are created and implemented to minimize the impacts of high traffic volumes on residential development.

Policy: Create standards to regulate residential development along arterial streets.

Objective 3-C: Discourage ‘cut-through’ traffic in residential areas that are adjacent to arterial streets.

Policy: Investigate and implement traffic calming measures in residential neighborhoods that are adjacent to high-volume arterial streets.

Transportation Goal Four: Plan for additional traffic at the intersection of Main Street and Verona Avenue.

Objective 4-A: Engage residents, property owners, and businesses in the downtown area to plan for short-term *and* long-term solutions for accommodating traffic in the downtown area.

Policy: Organize a planning committee for the downtown area to address long-term solutions for transportation, parking, land-use, and storm water management.

See Also: Chapter 8—Land Use

Objective 4-B: Short term—Utilize the existing right-of-way and pavement

Policy: Eliminate on-street parking during rush-hours *before* acquiring additional right-of-way or increasing pavement widths on Main Street.

Policy: Explore creation of additional off-street parking in the downtown to accommodate parking that will be eliminated from Main Street through the creation of municipal parking areas.

Objective 4-C: Long term—Acquire additional right-of-way and increase pavement width on North Main Street and at the intersection of Main and Verona only after or if parking restrictions are not sufficient.

Policy: Recommend against using the ‘paired one-way’ options included in Chapter 3—Transportation as long-term solutions.

Policy: Conduct further analysis for a ‘long term solution’ the expanded intersection’ and ‘round-about’ options included in Chapter 3—Transportation.

Appendices

Transportation Network Maps

- 3-A1: Existing Function Class
- 3-A2: Proposed Future Functional Class
- 3-A3: Proposed Future Roadway Right of Way Widths
- 3-A4: Bicycle & Pedestrian Facilities
- 3-A5: Transit & Airport Facilities
- 3-A6: Barriers to Transportation Planning in the Verona Area
- 3-A7: Officially mapped streets for the City of Verona

Downtown Alternatives Evaluation

- 3-B1: Signalized Intersection Alternative
- 3-B2: Roundabout Alternative
- 3-B3: One-Way Pair Alternative (Shuman)
- 3-B4: One-Way Pair Alternative (Franklin)
- 3-B5: One-Way Pair Alternative (Mall)
- 3-B6: 'No-Build' Alternative Evaluation
- 3-B7: Alternative's Analysis

Typical Sections

- 3-C1: Private Streets
- 3-C2a: Local Streets—CR Zoning—Option A
- 3-C2b: Local Streets—CR Zoning—Option B
- 3-C3: Local Streets
- 3-C4a: Minor Collectors-Residential, with parking
- 3-C4b: Minor Collectors-Residential, no parking
- 3-C4c: Minor Collectors-Residential, with parking, with bike lanes
- 3-C4d: Minor Collectors-Industrial
- 3-C5a: Major Collectors
- 3-C5b: Major Collectors, with bike lanes
- 3-C6a: Minor Arterials
- 3-C6b: Minor Arterial with multi-use path
- 3-C7: North Main Street (Minor Arterial)

Local, Regional and State Transportation Studies

- 3-D1: High Point – Raymond Neighborhood Development Plan
- 3-D2: C.T.H. "M" Reconstruction Study Map
- 3-D3a: U.S.H. 18/151 Access Study Map
- 3-D3b: U.S.H. 18/151 Access Study Data

References For Chapter Three

ITE Smart Growth Task Force. Smart Growth Transportation Guidelines. Washington, DC: Institute of Transportation Engineers, 2003.

Wisconsin Department of Transportation. Transportation Planning Resource Guide. Madison, Wisconsin. 2001.

Committee on Access Management. TRB Access Management Manual. Washington, D.C. Transportation Research Board. 2003.