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**SECOND AMENDMENT TO
VISION 2050: A REGIONAL LAND USE
AND TRANSPORTATION PLAN FOR
SOUTHEASTERN WISCONSIN**

**LAND USE CHANGES AND
TRANSPORTATION IMPROVEMENTS
RELATED TO THE PLANNED FOXCONN
MANUFACTURING CAMPUS**



SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

**VISION
2050**
One Region, Focusing on Our Future

Revised 8/27/18

AMENDMENT TO VISION 2050 INCORPORATING LAND USE CHANGES AND TRANSPORTATION IMPROVEMENTS RELATED TO THE PLANNED FOXCONN MANUFACTURING CAMPUS

EXECUTIVE SUMMARY

VISION 2050, the regional land use and transportation plan for the seven-county Southeastern Wisconsin Region, was adopted by the Southeastern Wisconsin Regional Planning Commission in July 2016, prior to any knowledge of the Foxconn development that is being constructed in the Village of Mount Pleasant. Given the size and significance of this development, it is necessary to amend VISION 2050 to incorporate land use changes to accommodate additional residents and jobs directly or indirectly related to the Foxconn manufacturing campus. In addition to land use changes, the plan amendment incorporates transportation improvements to serve the Foxconn manufacturing campus area. As part of the plan amendment, based on intervening changes in State funding for transportation projects, staff also revisited the analysis of existing and reasonably expected costs and revenues associated with the transportation system recommended in VISION 2050.

PERTINENT VISION 2050 RECOMMENDATIONS

Local planning will necessarily continue for many years around the Foxconn manufacturing campus. Much of this local planning is not expected to require amending VISION 2050. In anticipation of this planning, the initial section of the amendment document highlights key VISION 2050 recommendations already included in the plan that provide guidance to implementing agencies and units of government working on the Foxconn project or related activities. These recommendations support efficiently and responsibly developing land, providing the right mix of housing for workers near their jobs, and achieving a multimodal transportation system that serves the needs of all potential workers and residents in the area. As the affected communities and Racine County conduct more detailed planning, VISION 2050 should be considered as a guide and the Commission staff as a resource.

The VISION 2050 recommendations section also aids in providing an understanding of the recommendations as originally adopted (prior to any knowledge of the planned Foxconn development). It is important to understand the original recommendations of VISION 2050 before identifying the changes occurring under the plan amendment.

REVISIONS TO VISION 2050 LAND USE COMPONENT

Based on the most current information available to the Commission staff, VISION 2050 has been revised to accommodate an additional 32,400 residents and 17,000 jobs related to development associated with Foxconn. While various sources have estimated the total employment impact of development associated with Foxconn at about 30,000 jobs, staff estimates that approximately half of the total jobs could be absorbed by the employment growth originally envisioned under VISION 2050.

The amendment accommodates the additional residents and jobs through revisions to the regional land use development pattern. Much of the new development is anticipated to be industrial and commercial in nature with related residential development occurring with a range of lot sizes and housing types. New housing units near the Foxconn campus are recommended to be single-family homes on lots of 1/4 acre or less and multifamily housing, and are allocated to the Small Lot Traditional Neighborhood land use category.

The amendment also reflects revisions to the planned public sanitary sewer service areas in VISION 2050, which incorporate requested amendments to the adopted sewer service areas for the City of Racine and environs and the City of Kenosha and environs. The changes in public sanitary sewer service

areas would result in additional population served by public sanitary sewer and public water. The amendment also adds a new major economic activity center encompassing the area in and around the Foxconn campus. This is the 62nd existing or recommended center located in the Region.

REVISIONS TO VISION 2050 TRANSPORTATION COMPONENT

The Wisconsin Department of Transportation (WisDOT) is designing and constructing several surface arterial improvements in the vicinity of the Foxconn manufacturing campus. The VISION 2050 amendment reflects WisDOT's planned surface arterial improvements, referred to as the Foxconn development roads, which include the following new and reconstructed roadway segments:

- Widening STH 11 (Durand Avenue) from two to four travel lanes between 56th Road and IH 94 and from four to six travel lanes between IH 94 and CTH H
- Widening CTH KR from two to six travel lanes between IH 94 and CTH H and from two to four travel lanes between CTH H and STH 32¹
- Widening Braun Road from two to six travel lanes between IH 94 and CTH H
- Widening CTH H from two to four travel lanes between CTH KR and Venice Avenue
- Extending International Drive as a new four-lane facility from its current terminus just south of STH 20 (Washington Avenue) to STH 11 (Durand Avenue)
- Adding Wisconn Valley Way as a new four-lane facility between STH 11 (Durand Avenue) and CTH KR

The recommended public transit element and bicycle and pedestrian element have also been amended to meet the multimodal transportation needs in the area of the potential new development. The recommended public transit services, which are in addition to significantly expanded and improved services already recommended in VISION 2050, include:

- Adding a commuter bus route from the Corinne Reid-Owens Transit Center in downtown Racine along Sheridan Road (STH 32) and CTH KR to the Foxconn campus
- Adding a commuter bus route from Burlington and Union Grove along STH 11 to the Foxconn campus
- Adding a commuter bus route connecting downtown Milwaukee and southern Milwaukee County along IH 94 to the Foxconn campus and businesses further south in Kenosha County
- Improving local transit service in the impacted area, including extending RYDE Route 1 along Braun Road to the Foxconn campus and establishing a shuttle service along CTH H between the Sturtevant Amtrak Station and the Foxconn campus

The bicycle network has been revised to show additional on-street bicycle accommodations along the new surface arterials being added to the arterial system. The amendment also extends an enhanced bicycle facility corridor along STH 11, CTH H, and Braun Road, connecting to the Foxconn campus.

¹ WisDOT currently intends to reconstruct CTH KR with six travel lanes between IH 94 and CTH H and with four travel lanes between CTH H and Old Green Bay Road. However, based on local support, the amendment to VISION 2050 recommends reconstructing CTH KR with four travel lanes further east to STH 32 at a future date.

UPDATED FINANCIAL ANALYSIS FOR VISION 2050 TRANSPORTATION SYSTEM

When VISION 2050 was initially prepared, the financial analysis identified a funding gap, which required identifying the funded portion of the recommended transportation system. This funded portion is referred to as the “Fiscally Constrained Transportation Plan (FCTP)” and is presented in Chapter 2 of Volume III of the VISION 2050 plan report. The original FCTP included all transportation elements of VISION 2050 except for portions of the public transit element. Specifically, most of the major transit improvement and expansion components in VISION 2050 were not included in the FCTP, and also reductions in current transit service were expected to continue. However, the analysis noted that the recommended arterial system improvements, particularly reconstructing the regional freeway system, would require funding levels from State budgets of the last decade to be maintained.

In revisiting this analysis of existing and reasonably expected costs and revenues associated with the transportation system recommended in VISION 2050, staff confirmed that without additional revenue the Region will not be able to achieve the public transit system recommended in VISION 2050. The updated analysis also shows that expected revenues will be insufficient to complete the recommended reconstruction of several portions of the Region’s arterial street and highway system by 2050. This will result predominately in a reduction in the amount of freeway that can be reconstructed by 2050, but will also result in a reduction in the amount of surface arterials that can be reconstructed with additional lanes or can be newly constructed by 2050.

INTRODUCTION

VISION 2050, the regional land use and transportation plan for the seven-county Southeastern Wisconsin Region, was adopted by the Southeastern Wisconsin Regional Planning Commission in July 2016, prior to any knowledge of the Foxconn development that is being constructed in the Village of Mount Pleasant. Given the size and significance of this development, it is necessary to amend VISION 2050 to incorporate land use changes to accommodate additional residents and jobs directly or indirectly related to the Foxconn manufacturing campus. In addition to land use changes, the plan amendment incorporates transportation improvements to serve the Foxconn manufacturing campus area.

The amendment document first highlights key VISION 2050 recommendations already included in the plan that provide guidance to implementing agencies and units of government working on the Foxconn project or related activities. It is important to establish an understanding of the recommendations as originally adopted (prior to any knowledge of the planned Foxconn development) before identifying the changes occurring under the plan amendment.

The VISION 2050 land use component has been revised under the plan amendment to accommodate an additional 32,400 residents and 17,000 jobs related to development associated with Foxconn. The amendment documents revisions to the regional land use development pattern to accommodate the additional residents and jobs. It also documents revisions to the planned public sanitary sewer service areas in the Racine and Kenosha urban areas, and adds a new major economic activity center encompassing the area in and around the Foxconn campus.

The amendment also makes changes to the VISION 2050 transportation component. It adds several surface arterial improvements being designed and constructed by the Wisconsin Department of Transportation (WisDOT) in the vicinity of the Foxconn manufacturing campus. It also makes changes to the recommended public transit element and bicycle and pedestrian element to meet the multimodal transportation needs in the area of the potential new development.

In addition to incorporating land use changes and transportation improvements related to the Foxconn campus, the Commission staff also reviewed and updated the analysis of existing and reasonably expected costs and revenues associated with the transportation system recommended in VISION 2050. When VISION 2050 was initially prepared, this financial analysis identified a funding gap for the recommended regional transportation system, particularly for the transit element. The funded portion of the recommended transportation system, which is referred to as the "Fiscally Constrained Transportation Plan (FCTP)," originally included all transportation elements of VISION 2050 except for portions of the public transit element. In revisiting this financial analysis, staff confirmed that without additional revenue the Region will not be able to achieve the public transit system recommended in VISION 2050. The updated analysis also found that, based on changes in expected WisDOT funding levels, expected revenues will be insufficient to complete the recommended reconstruction of several portions of the Region's arterial street and highway system by 2050. This will result predominately in a reduction in the amount of freeway that can be reconstructed by 2050, but will also result in a reduction in the amount of surface arterials that can be reconstructed with additional lanes or can be newly constructed by 2050.

PERTINENT VISION 2050 RECOMMENDATIONS

Local planning will necessarily continue for many years around the Foxconn manufacturing campus. Much of this local planning is not expected to require amending VISION 2050. In anticipation of this planning, this section highlights key VISION 2050 recommendations that provide guidance to implementing agencies and units of government working on the Foxconn project or related activities. These recommendations support efficiently and responsibly developing land, providing the right mix of housing for workers near their jobs, and achieving a multimodal transportation system that serves the needs of all potential workers and residents in the area. As the affected communities and Racine County conduct more detailed planning, VISION 2050 should be considered as a guide and the Commission staff as a resource.

This section also aids in providing an understanding of the recommendations included in VISION 2050 as originally adopted (prior to any knowledge of the planned Foxconn development). It is important to understand the original recommendations of VISION 2050 prior to identifying the changes that would occur under the plan amendment.

Pertinent Land Use Recommendations

VISION 2050 is intended to provide a guide, or overall framework, for future land use within the Region. Implementation of the land use recommendations ultimately relies on planning decisions made at the community level. Incorporating key VISION 2050 land use recommendations in future community planning decisions regarding the primary impact area of the main Foxconn campus would have several benefits to the communities and those who may seek to work and live within the communities. Key VISION 2050 land use recommendations that should be considered and incorporated into community land use planning decisions follow.

► Recommendation 1.1: Develop urban service areas with a mix of housing types and land uses

Allowing a mix of housing types, including multifamily housing and single-family housing on smaller lots (1/4 acre or less), would help provide affordable housing choices for workers with a wide range of salaries that may be employed by Foxconn and other future businesses in the primary impact area. Along with a mix of housing types, allowing a mix of land uses would encourage the development of walkable neighborhoods with housing near neighborhood amenities, such as parks, schools, and businesses. This combination would not only provide living options that are affordable, but also desirable to those who may be employed in the primary impact area. This type of development would be consistent with the VISION 2050 Small Lot Traditional Neighborhood land use category. It is recommended that primary impact area communities with public sewer service ensure that their comprehensive plans include at least one land use category that is consistent with the Small Lot Traditional Neighborhood category. In addition, these communities should ensure there is consistency between their comprehensive plans and zoning and land division ordinances.

VISION 2050 is a systems-level plan, under which new residential development envisioned in the primary impact area for this amendment was allocated to the Small Lot Traditional Neighborhood land use category. Given the size of the main Foxconn campus and potential for ancillary development, primary impact area communities with public sewer service may need to accommodate even higher density residential development proposals. This could be done through land use plan categories/zoning districts that are compatible with high-density housing, or through flexible zoning regulations such as planned unit development (PUD).

► Recommendation 1.3: Focus new urban development in areas that can be efficiently and effectively served by essential municipal facilities and services

Studies have shown, including analyses conducted for VISION 2050, that urban services can be extended and provided to compact development in a more efficient and cost-effective manner than to lower-density development. As such, VISION 2050 recommends a compact development pattern that can be provided with urban services such as public sewer, water, and transit in an efficient and cost-effective manner. Primary impact area communities with public sewer service should allow development as described under Recommendation 1.1 to facilitate efficient and cost-effective provision of urban services.

► Recommendation 1.6: Provide a mix of housing types near employment-supporting land uses

While unemployment rates are currently low regionwide, there are concerns regarding concentrated areas of low-income households and unemployment in certain areas of the Region. In addition, there are concerns regarding underemployment of workers that may have a job, but are working only part time and seeking full-time work or are not being paid a living wage. Along with these concerns, analyses conducted for VISION 2050 show strong economic and educational disparities between white and minority populations in the Region. Access to the thousands of jobs that will be created by development associated with Foxconn may be a step in reducing these disparities.

Providing a mix of housing types, along with a multimodal transportation system, will be a key to promoting accessibility to job opportunities within the primary impact area. Accessibility to these jobs will benefit those in the Region who are seeking job opportunities, and also benefit employers in the primary impact area. Because of the relatively low overall unemployment rate, employers will need to attract workers from across the Region, including those workers that may have transportation barriers. VISION 2050 recommends that primary impact area communities with public sewer service consider and implement Recommendation 1.1 to provide a mix of housing types in the primary impact area to promote accessibility to job opportunities.

► **Recommendations 1.10, 1.11, and 1.12: Preserve primary environmental corridors, Preserve secondary environmental corridors and isolated natural resource areas, Preserve natural areas and critical species habitat sites**

VISION 2050 recommends minimizing the impacts of new development on environmentally significant lands. New urban development should avoid environmentally significant lands, particularly primary environmental corridors. To the extent possible, new urban development should also avoid secondary environmental corridors and isolated natural resource areas. In addition, to the extent possible, new development should attempt to preserve wetlands, woodlands, natural areas, critical species habitat sites, and park and open space sites outside of environmental corridors. Primary impact area communities should ensure their comprehensive plans and land use regulations are consistent with the development guidelines for environmental corridors and isolated natural resource areas set forth in Table K.1 of the VISION 2050 plan report.

► **Recommendation 1.13: Preserve productive agricultural land**

Agricultural areas contribute to the economy and ecological balance of the Region. Preserving agricultural land also contributes to the scenic beauty and cultural heritage of the Region. The recommended VISION 2050 land use development pattern, if implemented through local planning decisions, would minimize the conversion of productive agricultural land by redeveloping existing urban areas and using compact development designs when agricultural land is converted to urban uses at the edge of existing urban areas. VISION 2050 also recommends limiting low-density residential development beyond urban service areas. If very-low-density residential development does occur beyond urban service areas, VISION 2050 recommends using cluster subdivision design to minimize impacts to agricultural lands. Cluster subdivision design should allow no more than one acre of residential land (house and yard area) for each dwelling while maintaining an overall density of one home per five acres.

Pertinent Transportation Recommendations

The transportation component of VISION 2050 includes the following six elements: public transit, bicycle and pedestrian, transportation systems management, travel demand management, arterial streets and highways, and freight transportation. Some of these elements are more directly affected by the plan amendment than others, but there are recommendations from each of these elements that should be considered in the ongoing decision-making regarding transportation improvements to serve the Foxconn campus.

Public Transit

The public transit element of VISION 2050 recommends a significant improvement and expansion of public transit in Southeastern Wisconsin, including four commuter rail lines; eight rapid transit lines; and significantly expanded local bus, express bus, commuter bus, and shared-ride taxi and other flexible transit services. Key public transit recommendations related to serving the Foxconn campus follow.

► **Recommendation 2.2: Develop commuter rail corridors and improve and expand commuter bus services**

VISION 2050 recommends four commuter rail lines and a significant improvement and expansion of existing commuter bus services. One of the four commuter rail lines would connect Kenosha, Racine, Milwaukee, and communities in between by upgrading the existing freight rail owned by Union Pacific Railroad. As recommended in the plan, this Kenosha-Racine-Milwaukee (KRM) commuter rail line would have stations in downtown Racine and the Village of Somers, both of which could be connected to the Foxconn campus via public transit.

- **Recommendation 2.3: Improve existing express bus service and add service in new corridors**
VISION 2050 recommends additional express bus services and improvements to existing express bus services. The plan recommends two new express routes in the vicinity of the Foxconn campus, one traveling along STH 20 between the Ives Groves park-ride lot and downtown Racine, and one traveling along CTH 31 connecting the western part of the City of Racine, UW-Parkside, and the western part of the City of Kenosha.
- **Recommendation 2.4: Increase the frequency and expand the service area of local transit**
VISION 2050 recommends an expansion of local transit service, including improving the frequency and expanding the service area of local bus services. Recommended Racine-area improvements include increasing frequencies on several higher-performing local bus routes and extending local bus or flexible transit services to several additional locations, including an extension along STH 11 from just west of STH 31 to IH 94.
- **Recommendation 2.5: Improve intercity transit services and expand the destinations served**
Consistent with WisDOT's long-range plans, VISION 2050 recommends improving the existing Amtrak Hiawatha service between Milwaukee and Chicago and implementing two extensions to this service, one connecting Chicago to Minneapolis and St. Paul via Milwaukee and Madison, and another connecting Chicago to Green Bay via Milwaukee and the Fox Valley. WisDOT is currently working with partners to increase daily service frequencies from seven roundtrips to 10 roundtrips on the existing Amtrak Hiawatha service. The Hiawatha service has an existing station about three miles north of the Foxconn campus in the Village of Sturtevant. Within the context of this recommendation, service between Milwaukee and Sturtevant could be further expanded beyond 10 roundtrips per day to provide more robust service to connect workers in Milwaukee to Foxconn and surrounding development.

Bicycle and Pedestrian

Bicycle recommendations for VISION 2050 include providing on-street bicycle accommodations on the surface arterial street and highway system (non-freeways), expanding the off-street bicycle path system, implementing enhanced bicycle facilities in key regional corridors, and expanding bike share program implementation. The plan also recommends providing pedestrian facilities that facilitate safe, efficient, and accessible pedestrian travel. Key bicycle and pedestrian recommendations related to serving the Foxconn campus follow.

- **Recommendation 3.1: Expand the on-street bicycle network as the surface arterial system is resurfaced and reconstructed**
VISION 2050 recommends that as the existing surface (non-freeway) arterial street system of about 3,300 miles is resurfaced and reconstructed segment-by-segment, bicycle accommodation be considered and implemented, if feasible, through bicycle lanes, paved shoulders, widened outside travel lanes, or enhanced bicycle facilities (defined in Recommendation 3.3). It also recommends that bicycle accommodation be considered and implemented on newly constructed surface arterials. These recommendations are relevant to all existing and planned surface arterials in the Foxconn area.
- **Recommendation 3.2: Expand the off-street bicycle path system to provide a well-connected regional network**
VISION 2050 recommends an over 700-mile system of off-street bicycle paths between the Kenosha, Milwaukee, Racine, Round Lake Beach, and West Bend urbanized areas and the cities and villages within the Region with a population of 5,000 or more located outside these five urbanized areas. One bicycle path recommended in VISION 2050 would run along the northern edge of the Foxconn campus within a former rail corridor referred to as the Waxdale Spur. The path would provide a direct connection between Racine and Burlington, addressing a sizeable gap in the regional network.
- **Recommendation 3.3: Implement enhanced bicycle facilities in key regional corridors**
VISION 2050 recommends a 363-mile network of enhanced bicycle facility corridors through the Kenosha, Milwaukee, and Racine urbanized areas that would connect multiple communities, serve important regional destinations, and link segments of the off-street bicycle path system. Enhanced

bicycle facilities—such as protected, buffered, and raised bicycle lanes and separate paths within a road right-of-way—are bicycle facilities on or along an arterial that go beyond the standard bicycle lane, paved shoulder, or widened outside travel lane. Several enhanced bicycle facility corridors are recommended in the Racine area, although none extend far enough west to reach the Foxconn campus.

► **Recommendation 3.4: Expand bike share program implementation**

VISION 2050 recommends expanding bike share program implementation to encourage bicycling as a viable mode of travel for short distance trips. Bike sharing can reduce the number of vehicle trips, and is often most effective in high-density areas with a mix of residential and commercial uses. Bike sharing can attract people who would not typically consider riding a bicycle as well as those who prefer to commute via bicycle without maintaining and securing their own bicycle. Provided that sufficient bicycle facilities exist, bike sharing could be a suitable option for shorter-distance commuting to and from the Foxconn campus.

► **Recommendation 3.5: Provide pedestrian facilities that facilitate safe, efficient, and accessible pedestrian travel**

VISION 2050 makes several recommendations for providing sidewalks and enhancing the pedestrian environment, including maximizing pedestrian safety at street crossings. The plan also emphasizes that all pedestrian facilities be designed and constructed in accordance with the Federal Americans with Disabilities Act (ADA). Combining suitable facilities with the development of walkable neighborhoods—particularly through compact development patterns with a number of destinations within walking distance—will aid in achieving healthy, vibrant communities in the Foxconn area.

Transportation Systems Management

The transportation systems management (TSM) element for VISION 2050 identifies ways to manage and operate existing transportation facilities to maximize their carrying capacity and travel efficiency. A key TSM recommendation related to Foxconn follows.

► **Recommendations 4.2 and 4.8: Implement advisory information measures for the freeway system, Enhance advisory information for surface arterial streets and highways**

VISION 2050 recommends expanding and enhancing advisory information measures that provide real-time advisory information on current travel conditions to motorists. This can be accomplished in a variety of ways and should make use of the latest technologies (e.g., infrastructure-to-vehicle (I2V), crowd-sourced traffic data, and Bluetooth travel time sensors).

► **Recommendation 4.4: Improve and expand coordinated traffic signal systems**

Coordinated traffic signal systems provide efficient progression of traffic along arterial streets and highways by allowing motorists to travel through multiple signalized intersections without stopping. These systems may be particularly beneficial in helping to reduce travel time delay and increase reliability along the arterial corridors connecting the City of Racine to IH 94 in corridors where they have not yet been implemented.

Travel Demand Management

VISION 2050 recommends a series of measures or strategies, referred to as travel demand management (TDM), intended to reduce personal and vehicular travel or to shift such travel to alternative times and routes, allowing for more efficient use of the existing capacity of the transportation system. Key TDM recommendations related to Foxconn follow.

► **Recommendation 5.1: Enhance the preferential treatment for high-occupancy vehicles**

VISION 2050 recommends continuing and enhancing the preferential treatment for transit vehicles, vanpools, and carpools on the existing arterial street and highway system. One specific measure to give preference to HOVs would be providing preferential carpool and vanpool parking. This measure involves employers providing free/subsidized parking or preferential parking for employees who carpool or vanpool to their employment site. By encouraging ridesharing among employees, Foxconn and other nearby employers can reduce vehicle trips to and from the area.

► **Recommendation 5.3: Price personal vehicle travel at its true cost**

VISION 2050 recommends that a larger percentage of the full costs of construction, maintenance, and operation of street and highway facilities and services and parking facilities and services be borne by the users of the system. Under a strategy referred to as cash-out of employer-paid parking, Foxconn and other employers could charge their employees the market value of parking—rather than providing free/subsidized parking—then offset the additional cost of parking by providing employees with cash payments or salary increases. Some employees would choose to “pocket” the cash payment or salary increase and get to work via transit, ridesharing, walking, and bicycling, which would reduce vehicle trips. To further encourage ridesharing, Foxconn and other employers could also subsidize parking costs for employees who carpool or vanpool to the employment site.

► **Recommendation 5.4: Promote travel demand management**

VISION 2050 recommends aggressively promoting TDM measures and further recommends expanding programs and services that provide residents in Southeastern Wisconsin the opportunity to reduce personal vehicle ownership and vehicular travel. One such program is referred to as a “live near your work” program, which involves providing down payment assistance, location-efficient mortgages, and rent subsidies for people who buy or rent a home near their employer. Foxconn and other employers could establish housing programs that assist employees who seek home ownership, and design their programs to encourage homeownership close to work.

Arterial Streets and Highways

VISION 2050 recommends keeping the Region’s arterial street and highway system in a state of good repair, incorporating complete streets concepts, and expanding capacity to address residual congestion. The plan also recommends avoiding, minimizing, or mitigating environmental impacts of arterial capacity expansion. Key arterial street and highway recommendations related to Foxconn follow.

► **Recommendation 6.1: Keep the Region’s arterial street and highway system in a state of good repair**

VISION 2050 recommends that the condition of all 3,600 miles of the roadways that are part of the Region’s existing arterial street and highway system be preserved to maintain their ability to effectively carry higher levels of people and goods. Like the rest of the arterial system, this can be accomplished on the arterials near the Foxconn campus through routine maintenance, periodic rehabilitation, and reconstruction of pavement, bridges, and other infrastructure in the roadway right-of-way.

► **Recommendation 6.2: Incorporate “complete streets” concepts for arterial streets and highways**

A “complete street” is designed to allow safe and convenient travel for all roadway users (of all ages and abilities) traveling by various modes (walking, bicycling, transit, or automobile) within the roadway right-of-way. VISION 2050 recommends that complete street concepts be considered as part of the reconstruction of existing surface arterial roadways and the construction of new surface arterial roadways. In the Foxconn area, many of the roadways being reconstructed or newly constructed by WisDOT are planned to include shared-use paths for pedestrians and bicyclists. Along arterials serving Foxconn where transit service is to be provided, complete street features should also be considered, such as safe and accessible transit stops and sidewalks to nearby destinations for transit users.

► **Recommendation 6.3: Expand arterial capacity to address residual congestion**

VISION 2050 recommends widening approximately 268.8 route-miles to provide additional through traffic lanes, representing about 7 percent of the total VISION 2050 arterial street and highway system mileage. The plan also recommends constructing 75.1 route-miles of new arterial facilities, representing about 2 percent of the total year 2050 arterial street mileage. These highway improvements are recommended to address the residual congestion that may not be alleviated by recommended land use, systems management, demand management, bicycle and pedestrian facilities, and public transit measures. Consistent with VISION 2050, WisDOT is currently reconstructing and modernizing IH 94 North/South between Rawson Avenue in Milwaukee County and STH 142 in Kenosha County, including widening the freeway from six to eight travel lanes. Due to the significant concentration of jobs associated with the Foxconn development—beyond what

was originally envisioned for the project site and surrounding area under VISION 2050—WisDOT is planning to widen several existing surface arterial roadways and construct two new roadways to accommodate additional traffic volumes expected in the area. These surface roadway improvements are incorporated into VISION 2050 as part of this amendment.

► **Recommendation 6.4: Avoid, minimize, or mitigate environmental impacts of arterial capacity expansion**

VISION 2050 recommends that transportation system improvement impacts to natural resource areas (such as primary environmental corridors and wetlands) be avoided. Like the rest of the Region, should impacts to these areas be found to be unavoidable when pursuing transportation improvements near the Foxconn campus, impacts to such areas should be minimized and, if necessary, mitigated.

Freight Transportation

The movement of freight is essential for maintaining and growing Southeastern Wisconsin's economy. Truck, rail, water, and air modes of transportation bring raw materials to the Region's manufacturers, and they carry finished goods to domestic and international markets. VISION 2050 recommends a multimodal freight transportation system designed to provide for the efficient and safe movement of raw materials and finished products to, from, and within Southeastern Wisconsin.

► **Recommendation 7.1: Accommodate truck traffic on the regional highway freight network**

Freight shipments in Southeastern Wisconsin rely heavily on trucks using the regional highway freight network—arterial streets and highways intended to carry a higher percentage of truck traffic. Higher levels of congestion and the presence of bottlenecks on the network can result in increased shipping delays and higher shipping costs, negatively impacting businesses and manufacturers in the Region. VISION 2050 recommends implementing the capacity expansion improvements in the arterial streets and highways element, which would address existing and forecast future traffic congestion on the regional highway freight network. Foxconn and other nearby businesses may have substantial needs related to using the regional freight highway network, which should also be considered in designing improvements to the network.

► **Recommendation 7.2: Accommodate oversize/overweight shipments to, from, and within Southeastern Wisconsin**

Unusually large or heavy goods shipped within or through the Region require that specific oversize/overweight (OSOW) truck routes be used. VISION 2050 recommends that State and local governments work with the Commission and local manufacturers, shippers, and utilities to improve the accommodation of OSOW shipments on the Region's arterial street and highway network. There is a potential for OSOW shipments to and from Foxconn so it will be important to maintain appropriate clearances.

► **Recommendation 7.3: Pursue development of a new truck-rail intermodal facility in or near Southeastern Wisconsin**

Freight shipments are most effectively transported using more than one mode of transportation (e.g., trucks and rail). The closest truck-rail intermodal facilities—where containerized shipments are interchanged between trucks and freight trains—are located in the highly congested Chicago area. The presence of Foxconn and its shipping needs would increase the likelihood that a new truck-rail intermodal facility would be feasible in or near Southeastern Wisconsin, which VISION 2050 recommends be pursued. A new intermodal facility could provide transportation benefits to Foxconn and other manufacturers and shippers in the Region, including lower shipping costs.

REVISIONS TO VISION 2050

The VISION 2050 amendment incorporates land use changes to accommodate additional residents and jobs related to the Foxconn manufacturing campus and associated new development in the immediate vicinity of the campus and in other parts of the Region. This growth would be beyond what was originally envisioned under VISION 2050, which was completed prior to any knowledge of the Foxconn development.

The VISION 2050 amendment also incorporates transportation improvements to serve the Foxconn manufacturing campus. The Wisconsin Department of Transportation (WisDOT) is constructing several surface arterial improvements—widening and new facilities—to arterial roadways in the vicinity of the Foxconn manufacturing campus, which is being developed in the Village of Mount Pleasant east of IH 94 between CTH KR and Braun Road. WisDOT, along with Racine County and the Village of Mount Pleasant, requested that VISION 2050 be amended to reflect WisDOT’s planned surface arterial improvements, referred to as the Foxconn development roads. In addition to amending the plan for the Foxconn development roads, the recommended public transit element and bicycle and pedestrian element have been amended to meet the multimodal transportation needs in the area of the potential new development.

Revisions to Land Use Component

Based on the most current information available to the Commission staff, VISION 2050 has been revised to accommodate an additional 32,400 residents and 17,000 jobs related to development associated with Foxconn. It should be noted that various sources have estimated the total employment impact of development associated with Foxconn at about 30,000 jobs. This includes jobs associated directly with Foxconn as well as indirect jobs created by Foxconn suppliers and induced jobs created by other businesses that would provide goods and services to those who work for Foxconn and its suppliers. It is estimated that approximately half of the total jobs that may be created by development associated with Foxconn could be absorbed by the employment growth originally envisioned under VISION 2050.

The additional residents and jobs included in this amendment are largely allocated in the immediate vicinity of the Foxconn campus, with a portion allocated in other parts of the Region. VISION 2050 has also been revised to incorporate amendments to the adopted sewer service areas for the Racine and Kenosha urban areas.

The following describes the revisions to Chapter 1 of Volume III of the VISION 2050 plan report to accommodate the expected additional residents and jobs and the associated sewer service area amendments.

Land Use Development Pattern Changes

Revisions to the recommended regional land use development pattern are based on comprehensive plan updates adopted by the Village of Mount Pleasant (intended to accommodate development associated with Foxconn) and the Village of Somers, related site plans provided to Commission staff, and recommendations set forth in the VISION 2050 land use component. Much of the new development is anticipated to be industrial and commercial in nature with related residential development occurring with a range of lot sizes and housing types at an overall density of 4.4 to 6.9 dwelling units per net residential acre. This type of residential development is consistent with the VISION 2050 Small Lot Traditional Neighborhood land use category. Housing types in Small Lot Traditional Neighborhood areas are expected to include single-family homes on lots of 1/4 acre or less and multifamily housing. New housing units in the primary impact area would be allocated to the Small Lot Traditional Neighborhood land use category. Figure 1 presents illustrations and brief descriptions of the VISION 2050 land use categories.

Additional industrial, commercial, and residential development outside the primary impact area is also anticipated. It is anticipated that this new development will be disbursed over several communities within the Region.

Almost eight square miles of undeveloped land would be converted to urban uses to accommodate the anticipated growth related to development associated with Foxconn. These changes are displayed on Figure 2, comparing the original map included in VISION 2050 to the revised map included in the plan amendment. A portion of the new employment and population related to development associated with Foxconn would occur as infill and redevelopment in existing urban areas and would not require converting undeveloped land to urban uses. A revised Map 1.1 in Appendix A replaces the original Map 1.1 in the VISION 2050 plan report. Revised Tables 1.1 and 1.2 in Appendix A, which present data regarding planned land uses by square mile, replace the original Tables 1.1 and 1.2 in the VISION 2050 report.

Figure 1
VISION 2050 Land Use Categories

The recommended VISION 2050 land use pattern was developed by allocating new households and employment envisioned for the Region under the Commission's year 2050 growth projections to a series of seven land use categories that represent a variety of development densities and mixes of uses.



MIXED-USE CITY CENTER

Mix of very high-density offices, businesses, and housing found in the most densely populated areas of the Region



MEDIUM LOT NEIGHBORHOOD
(showing lots of about 15,000 square feet)

Primarily single-family homes on 1/4- to 1/2-acre lots found at the edges of cities and villages



LARGE LOT NEIGHBORHOOD (showing lots of about 1/2 acre)

Primarily single-family homes on 1/2-acre to one-acre lots found at the edges of cities and villages and scattered outside cities and villages



MIXED-USE TRADITIONAL NEIGHBORHOOD

Mix of high-density housing, businesses, and offices found in densely populated areas



LARGE LOT EXURBAN (showing lots of about 1.5 acres)

Single-family homes at an overall density of one home per 1.5 to five acres scattered outside cities and villages



SMALL LOT TRADITIONAL NEIGHBORHOOD
(showing lots of about 7,000 square feet)

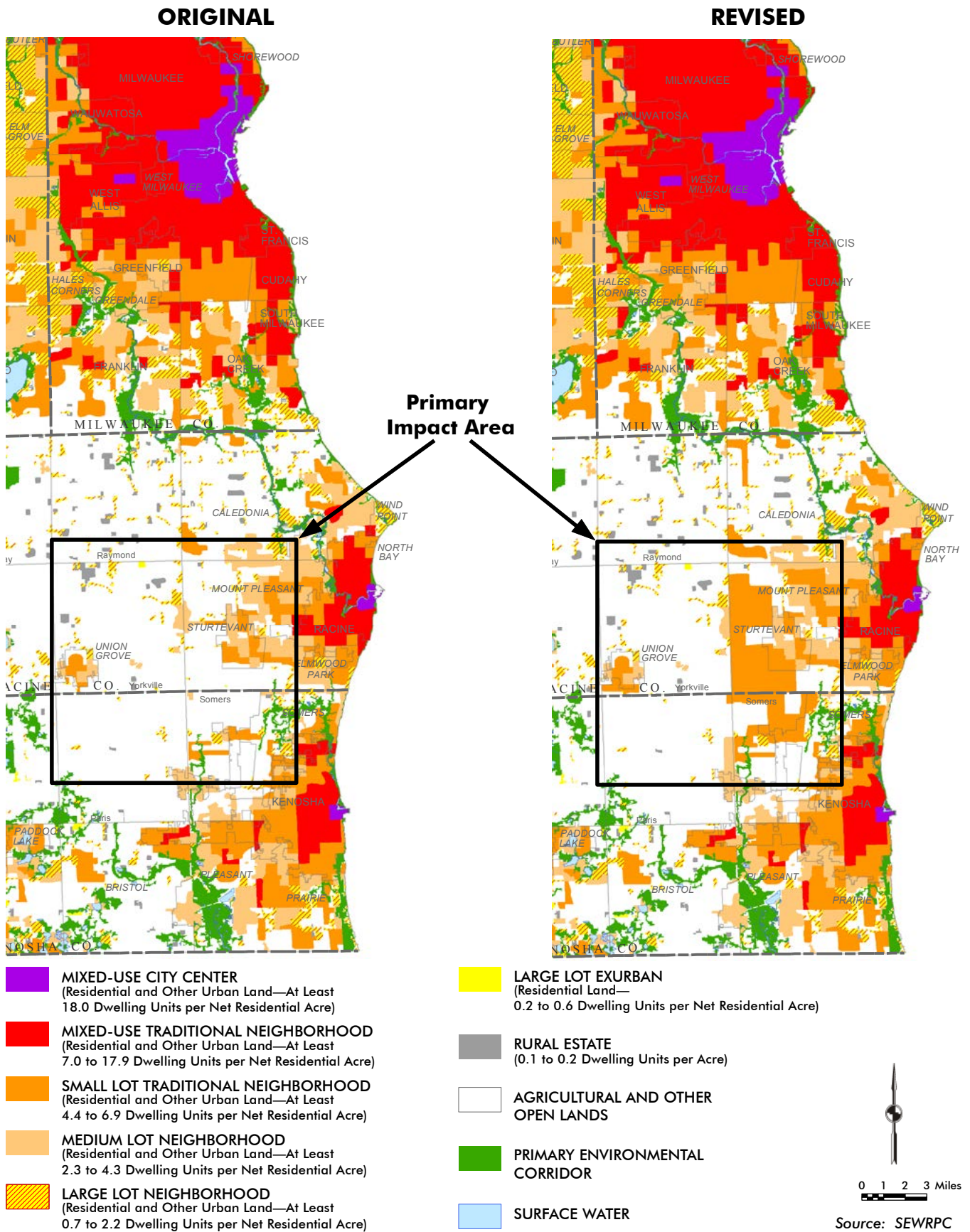
Mix of housing types and businesses with single-family homes on lots of 1/4-acre or less and multifamily housing found within and at the edges of cities and villages



RURAL ESTATE
(showing a cluster subdivision with one-acre lots)

Single-family homes at an overall density of one home per five acres scattered outside cities and villages

Figure 2
Revisions to Land Use Development Pattern: VISION 2050



Revised Table 1.3 reflects the additional population (32,400 residents), households (13,700 households), and employment (17,000 jobs) related to development associated with Foxconn by planning analysis area (PAA). There are a total of 44 PAAs in the Region, as shown on Map 1. PAAs 36 (includes the Village of Mt. Pleasant) and 40 (includes the Village of Somers) are anticipated to experience the most additional growth because of their proximity to the main Foxconn campus. Other PAAs that would experience additional growth due to development associated with Foxconn are shaded in blue in Table 1.3. As previously discussed, it is estimated that approximately half of the total jobs that may be created by development associated with Foxconn can be absorbed by the employment growth originally envisioned under VISION 2050. A revised Table 1.4 in Appendix A presents population, household, and employment growth by county and replaces the original Table 1.4 in the VISION 2050 report.

Planned Public Sanitary Sewer Service Area Changes

The changes to the planned public sanitary sewer service areas incorporate an amendment to the adopted sewer service area for the City of Racine and environs, which was requested by the Racine Wastewater and Water Utility Commission in response to a request from the Village of Mount Pleasant. This amendment helps to accommodate the main Foxconn campus and ancillary development in the primary impact area as described under the Land Use Development Pattern Changes section. The changes also incorporate an amendment to the adopted sewer service area for the Greater Kenosha Sanitary Sewer Service Area, which was requested by the Kenosha Water Utility in response to a request from the City of Kenosha and Village of Somers. These changes are displayed on Figure 3, comparing the original map included in VISION 2050 to the revised map included in the plan amendment. A revised Map 1.3 in Appendix A replaces the original Map 1.3 in the VISION 2050 report.

The changes in public sanitary sewer service areas would result in additional population served by public sanitary sewer and public water. The population served would experience the most growth in Kenosha County because of proximity to the main Foxconn campus and the availability of an expanded area for development with urban services as described in the amendment to the Village of Somers comprehensive plan. The recommended plan and high-growth scenario populations by sewer service area have also been revised to reflect the additional population allocated to sewer service areas that is related to development associated with Foxconn. The Kenosha sewer service area would experience the most population growth due to the main Foxconn campus. A revised Table 1.6 in Appendix A presents area and population served by public sanitary sewer and water by county and replaces the original Table 1.6 in the VISION 2050 report. A revised Table O.1 in Appendix A presents recommended plan and high-growth scenario populations by sewer service area and replaces the original Table O.1 in the VISION 2050 report.

Major Economic Activity Center Changes

The plan amendment adds a new recommended major economic activity center located in the primary impact area as a result of development of the main Foxconn campus and anticipated development in the direct vicinity of the campus. Major economic activity centers are defined as areas with concentrations of commercial and/or industrial land with at least 3,500 employees, or 2,000 retail employees. Many of the 17,000 jobs associated with the Foxconn development are anticipated to be added in the primary impact area, which easily exceeds the major center threshold. The new major center has been named "IH 94/STH 11" and is the 62nd existing or recommended center located in the Region. In addition, the IH 94/STH 142 major center in Kenosha County has been expanded as a result of anticipated ancillary job growth related to the Foxconn development. These changes are displayed on Figure 4, comparing the original map included in VISION 2050 to the revised map included in the plan amendment. A revised Map 1.4 in Appendix A replaces the original Map 1.4 in the VISION 2050 report.

Revisions to the Transportation Component

The following sections identify the recommended changes to the transportation component of VISION 2050. The original plan maps and tables can be accessed in Volume III of the VISION 2050 plan report available at www.vision2050sewis.org. All revised plan maps and tables from Chapter 1 (Recommended Land Use and Transportation Plan) and Chapter 2 (Fiscally Constrained Transportation Plan) of the report are provided in Appendix A of this amendment.

Revisions to Table 1.3
Existing and Planned 2050 Population, Households, and Employment

County	Planning Analysis Area (See Map 1.2)	Population		Households		Employment	
		Existing 2010	Planned 2050	Existing 2010	Planned 2050	Existing 2010	Planned 2050
Ozaukee	1	7,990	9,880	3,000	3,810	2,840	5,300
	2	18,680	23,040	7,650	9,680	11,350	17,140
	3	32,870	42,820	13,170	17,790	16,560	21,700
	4	26,860	33,360	10,400	13,220	21,750	25,160
	Subtotal	86,400	109,100	34,200	44,500	52,500	69,300
Washington	5	9,070	11,550	3,440	4,620	2,370	2,590
	6	44,380	63,550	17,750	26,710	21,670	28,760
	7	5,660	6,950	2,080	2,710	2,550	2,720
	8	10,830	14,880	4,320	6,220	3,640	5,050
	9	26,890	35,760	10,580	14,710	15,830	22,970
	10	20,000	31,700	7,860	13,050	14,230	21,320
	11	15,050	16,120	5,580	6,280	3,610	3,990
	Subtotal	131,900	180,500	51,600	74,300	63,900	87,400
Milwaukee	12	65,460	66,180	28,430	29,690	43,700	44,780
	13	58,540	60,630	22,350	24,120	38,460	40,080
	14	228,370	229,130	84,810	88,560	68,860	75,100
	15	76,170	86,870	34,660	40,030	44,550	49,140
	16	11,230	19,870	4,940	8,700	72,980	82,510
	17	91,110	94,890	31,200	34,240	54,310	59,700
	18	118,120	116,980	47,710	49,070	53,280	57,070
	19	48,360	58,280	21,340	26,230	56,910	60,980
	20	69,990	70,910	31,180	32,640	48,530	51,490
	21	59,930	62,990	26,850	29,040	28,850	30,520
	22	49,070	51,530	21,760	23,580	22,420	23,870
	23	34,820	49,800	14,200	21,100	23,310	29,480
	24	36,580	51,040	14,180	20,780	19,240	23,850
	Subtotal	947,700	1,019,100	383,600	427,800	575,400	628,600
Waukesha	25	38,580	49,430	15,940	20,850	41,250	46,350
	26	49,620	57,120	19,610	23,390	55,690	65,780
	27	39,590	44,080	16,290	18,890	27,150	34,040
	28	24,140	35,860	9,070	14,060	7,730	13,970
	29	23,020	34,500	8,520	13,630	9,420	14,930
	30	20,160	28,040	8,790	12,580	29,030	34,760
	31	80,000	93,380	31,750	38,290	48,480	57,070
	32	67,440	84,460	25,450	33,450	35,050	47,350
	33	35,800	41,800	13,120	16,050	12,160	20,830
	34	11,550	12,730	4,120	4,710	2,930	3,320
	Subtotal	389,900	481,400	152,700	195,900	268,900	338,400
Racine	35	74,170	74,900	28,620	30,720	37,510	39,520
	36	65,010	98,050	25,790	41,340	25,100	54,930
	37	39,260	46,630	14,490	18,340	15,120	19,370
	38	16,970	20,170	6,750	8,550	10,570	13,180
	Subtotal	195,400	239,800	75,700	98,900	88,300	127,000
Kenosha	39	97,410	108,590	36,710	43,380	45,160	51,490
	40	30,520	70,980	11,420	28,670	17,950	31,170
	41	38,500	71,540	14,520	28,820	11,790	20,070
	Subtotal	166,400	251,100	62,600	100,900	74,900	102,700
Walworth	42	15,040	21,960	5,840	9,130	4,600	6,890
	43	22,170	26,580	8,460	10,910	10,660	12,390
	44	65,020	92,060	25,400	38,860	37,450	50,020
	Subtotal	102,200	140,600	39,700	58,900	52,700	69,300
Region	Total	2,019,900	2,421,600	800,100	1,001,200	1,176,600	1,422,700

Notes: Cells highlighted in blue denote a change from the original Table 1.3 in the VISION 2050 report.

It is estimated that approximately half of the total jobs that may be created by development associated with Foxconn could be absorbed by the employment growth originally envisioned under VISION 2050. This is why some PAAs where new Foxconn jobs are anticipated, such as PAA 16 (downtown Milwaukee), are not highlighted.

Source: SEWRPC

Map 1 VISION 2050 Planning Analysis Areas

44 PLANNING ANALYSIS AREA

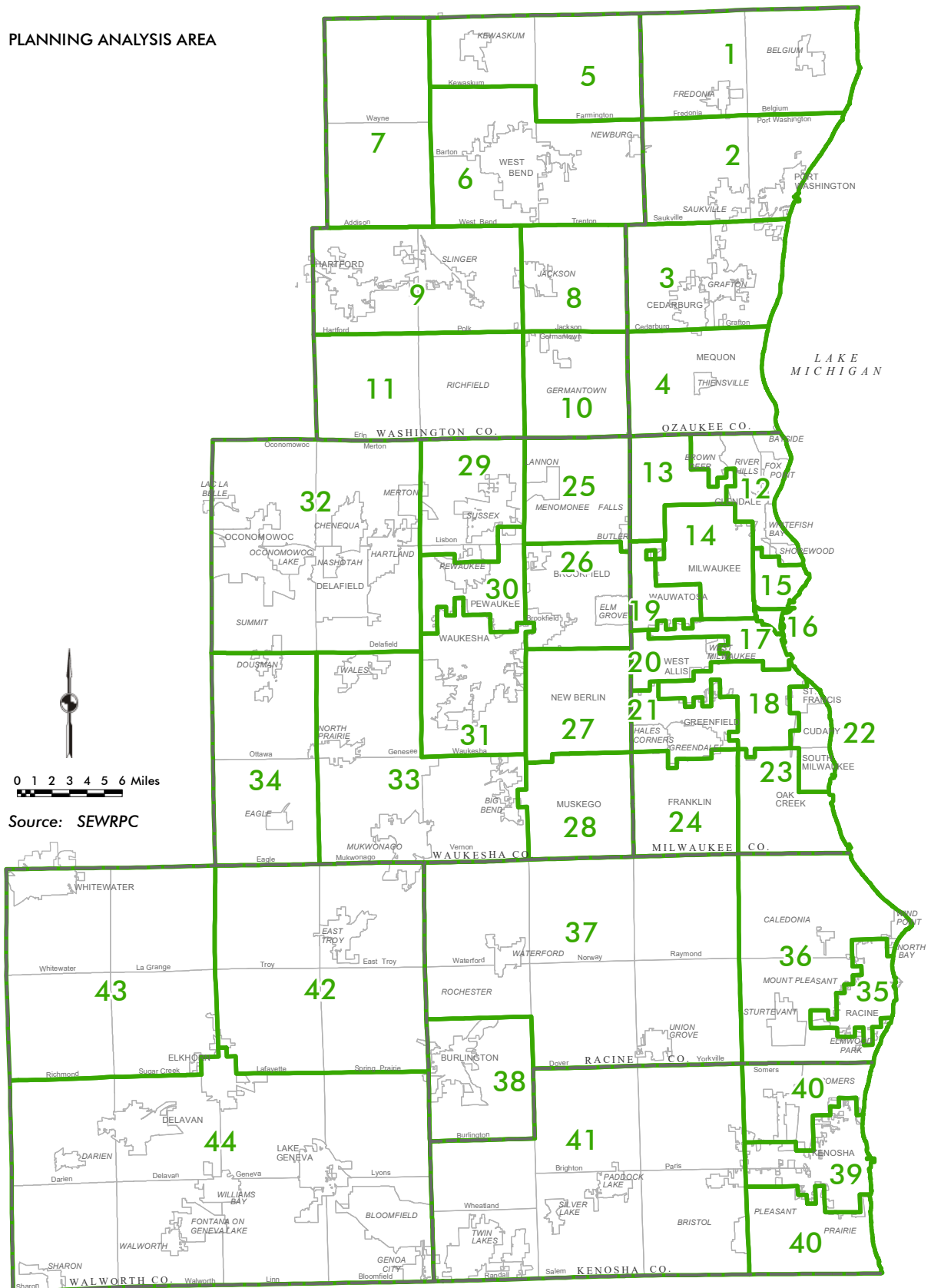


Figure 3
Revisions to Planned Public Sanitary Sewer and Water Supply Service Areas: VISION 2050

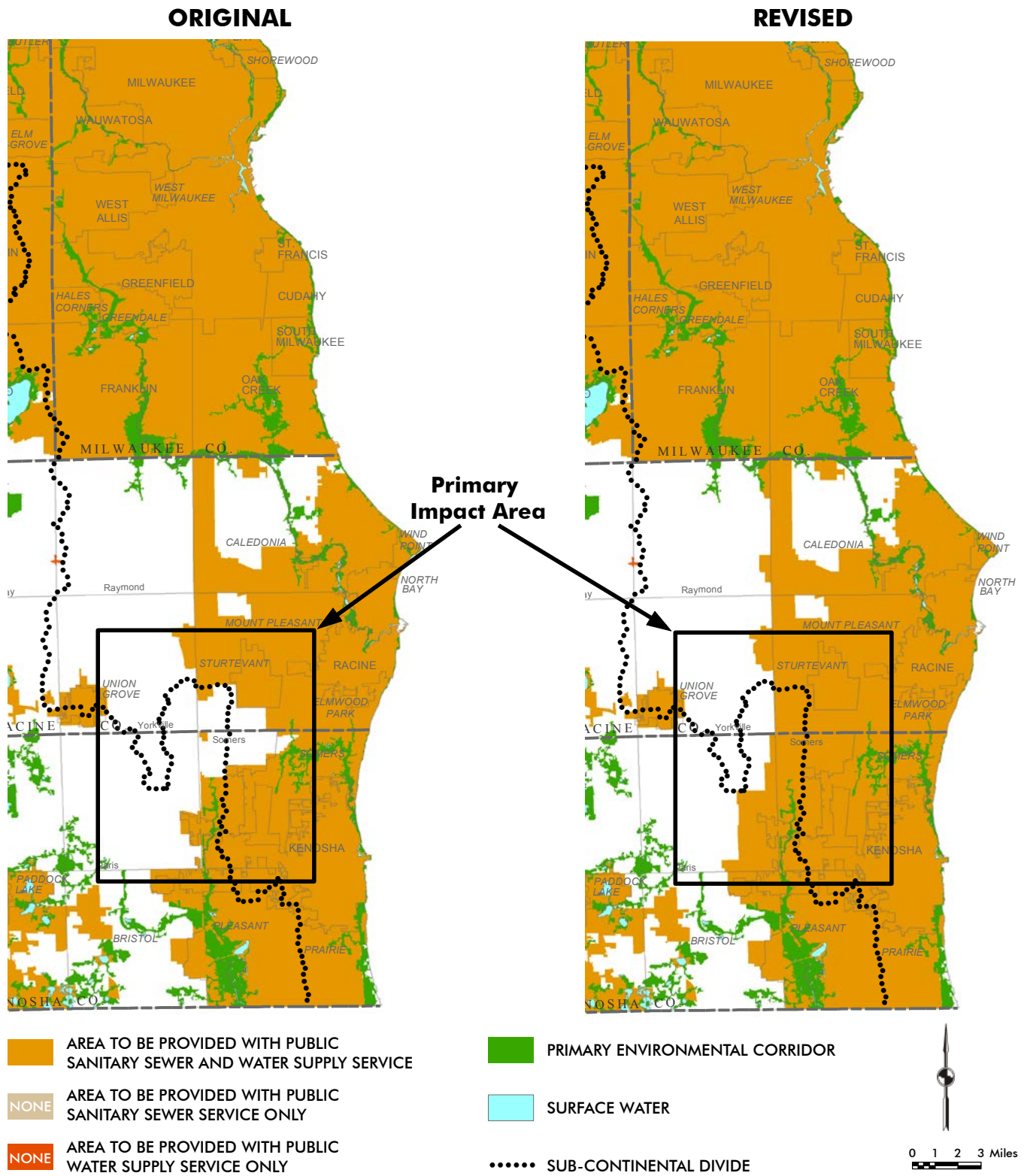
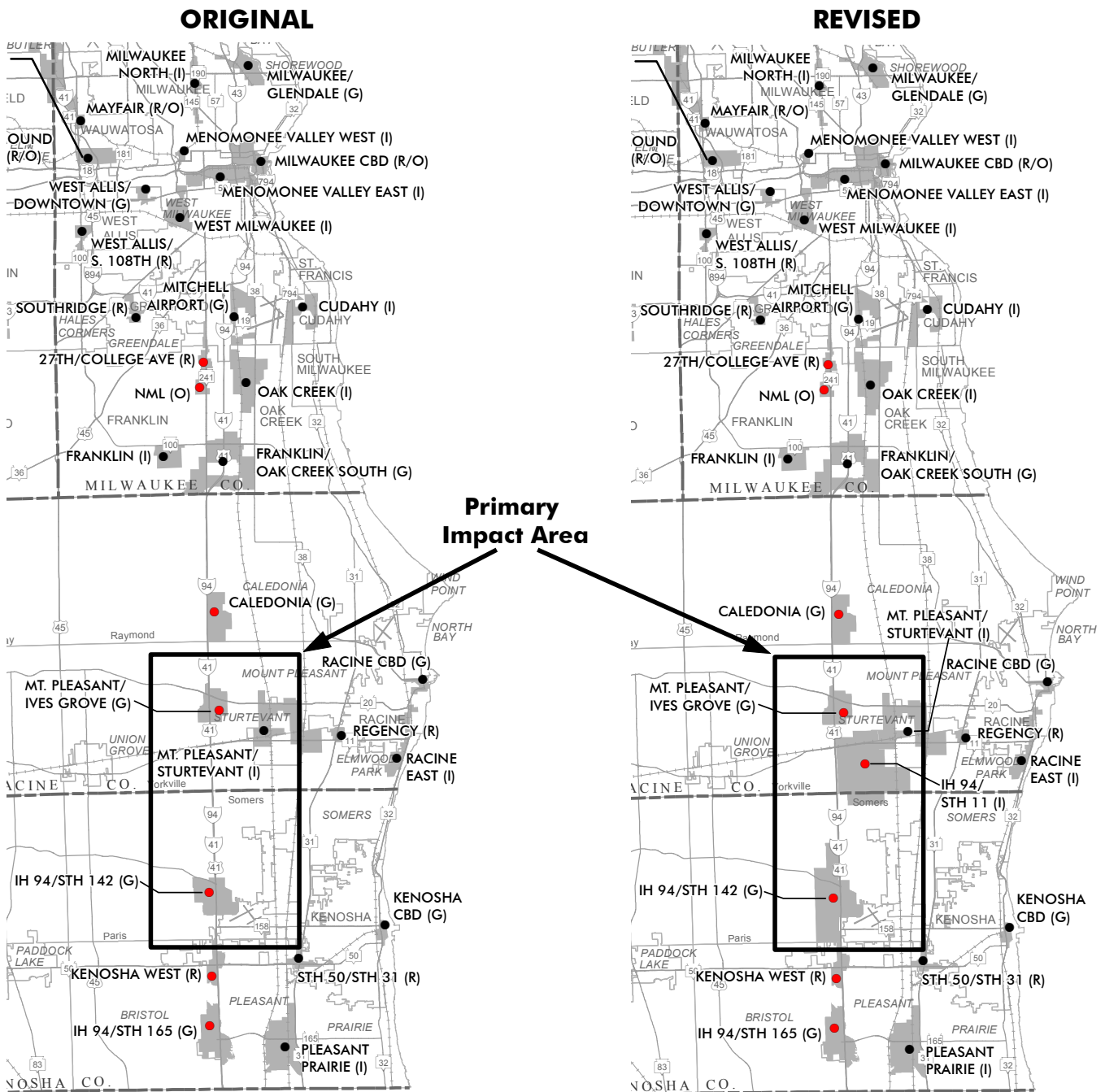


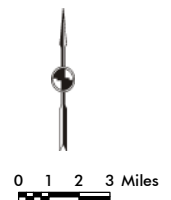
Figure 4
Revisions to Major Economic Activity Centers: VISION 2050



- EXISTING MAJOR ECONOMIC ACTIVITY CENTER IN 2010 TO BE RETAINED
- RECOMMENDED MAJOR ECONOMIC ACTIVITY CENTER: 2050
- MAJOR ECONOMIC ACTIVITY AREA

MAJOR ECONOMIC ACTIVITY CENTER TYPE

- G GENERAL PURPOSE CENTER
- I INDUSTRIAL CENTER
- R RETAIL CENTER
- O OFFICE CENTER
- I/O INDUSTRIAL/OFFICE CENTER
- R/O RETAIL/OFFICE CENTER



Source: SEWRPC

Public Transit Service Changes

The amendment revises the public transit services presented in the recommended plan to provide additional transit services connecting workers to the main Foxconn campus and vicinity. The services include:

- A commuter bus route from the Corinne Reid-Owens Transit Center in downtown Racine along Sheridan Road (STH 32) and CTH KR to the Foxconn campus
- A commuter bus route from Burlington and Union Grove along STH 11 to the Foxconn campus
- A commuter bus route connecting downtown Milwaukee and southern Milwaukee County along IH 94 to the Foxconn campus and businesses further south in Kenosha County
- Improvements to local transit service in the impacted area, including extending RYDE Route 1 along Braun Road to the Foxconn campus and establishing a shuttle service along CTH H between the Sturtevant Amtrak Station and the Foxconn campus

Figure 5 provides a comparison of the changes to the transit services recommended in VISION 2050. A revised Map 1.8 and revised Table 1.8, which replace the original map and table in the VISION 2050 plan report, are included in Appendix A.

Bicycle Network Changes

The revisions to the bicycle network include additional on-street bicycle accommodations and two enhanced bicycle facility corridor extensions in the Foxconn development area. The additional on-street accommodations are along the new surface arterials being added to the arterial system. The enhanced bicycle facility corridor extensions both connect to the Foxconn campus. One extension is along STH 11, CTH H, and Braun Road. The other extension is along CTH KR and CTH H.

Figure 6 provides a comparison of the changes to the bicycle network recommended in VISION 2050. A revised Map 1.11 and revised Table 1.10, which replace the original map and table in the VISION 2050 plan report, are included in Appendix A.

Arterial Street and Highway Changes

VISION 2050 recognizes that each arterial street and highway project identified in the plan needs to undergo preliminary engineering by the responsible State, county, or local government prior to implementation. The plan states that final decisions as to whether and how a planned project will proceed to implementation will be made by the responsible State, county, or local government at the conclusion of preliminary engineering. WisDOT is completing this preliminary engineering work in an expedited manner for the Foxconn development roads through its design and traffic impact assessment work.

The following describes the Foxconn development road improvements being amended into the VISION 2050 arterial street and highway element:

- Widening STH 11 (Durand Avenue) from two to four travel lanes between 56th Road and IH 94 and from four to six travel lanes between IH 94 and CTH H
 - o VISION 2050 currently recommends reserving right-of-way to accommodate four travel lanes as a future improvement between 56th Road and IH 94, reserving right-of-way to accommodate six travel lanes as a future improvement between IH 94 and essentially International Drive, and preserving existing capacity as a four-lane facility between International Drive and CTH H
- Widening CTH KR from two to six travel lanes between IH 94 and CTH H and from two to four travel lanes between CTH H and STH 32
 - o VISION 2050 currently recommends reserving right-of-way to accommodate four travel lanes as a future improvement

Figure 5
Revisions to Transit Services: VISION 2050

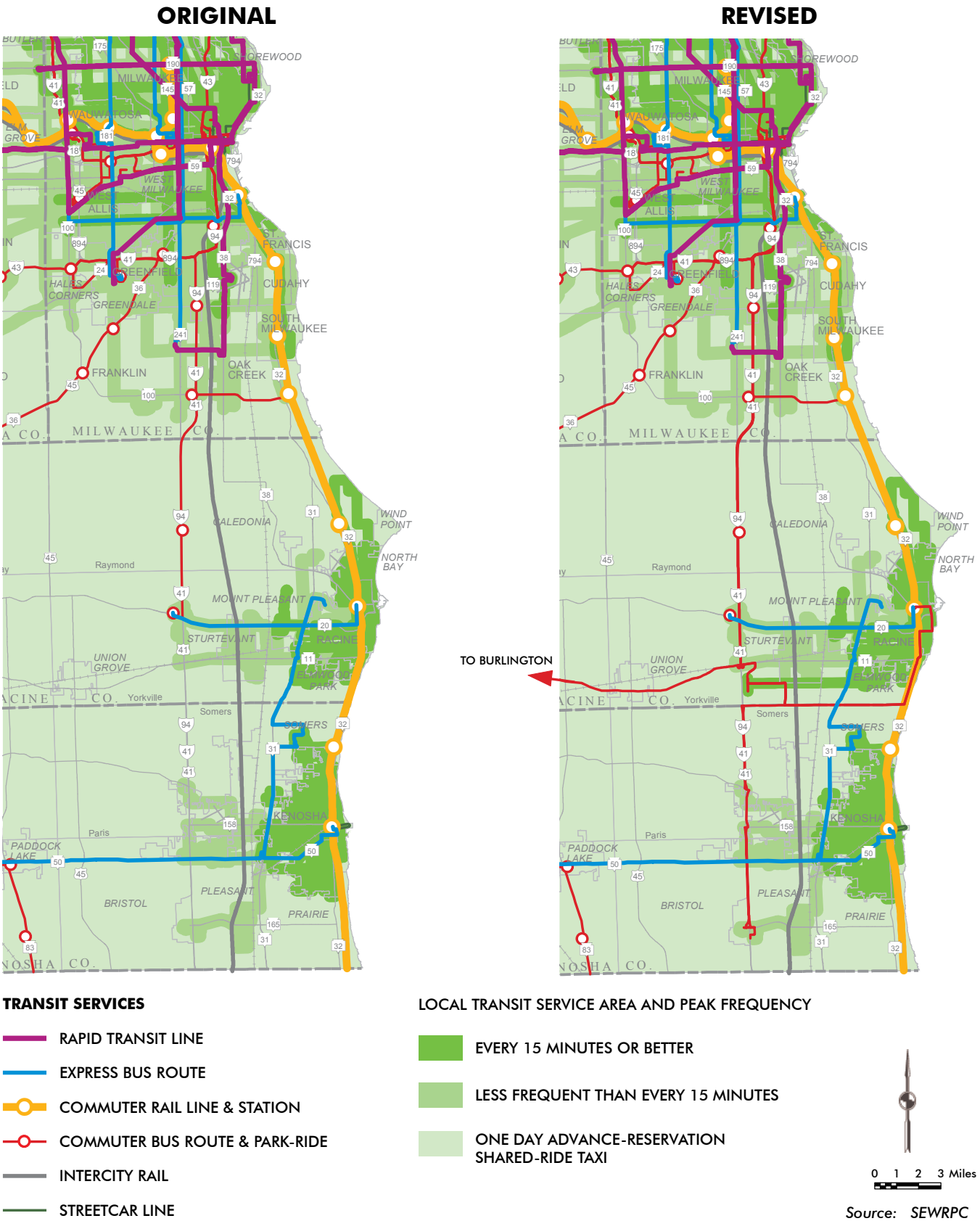
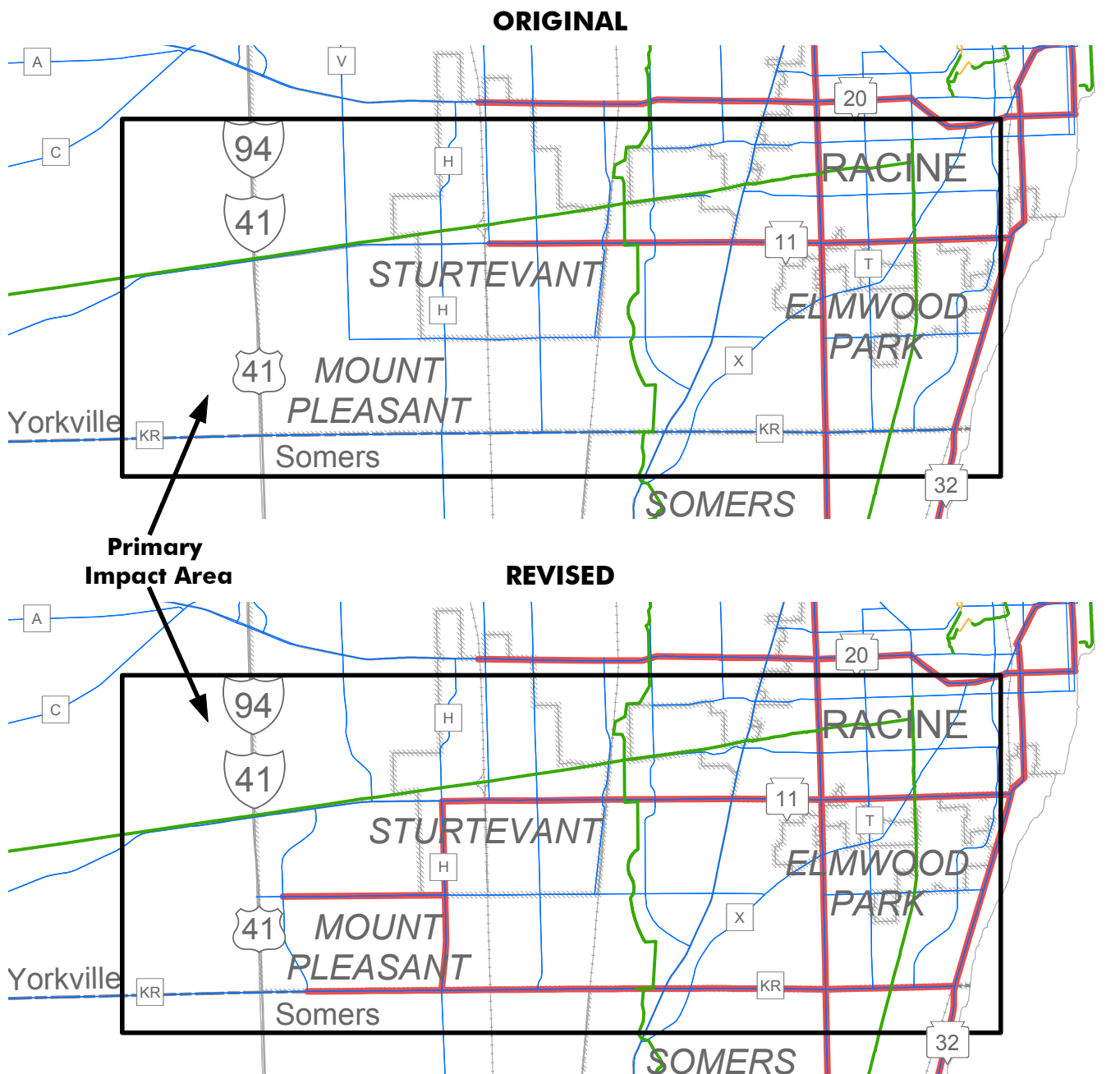


Figure 6
Revisions to Bicycle Network: VISION 2050

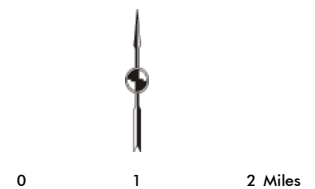


BICYCLE FACILITIES

- OFF-STREET BICYCLE PATH
- ARTERIAL STREET OR HIGHWAY WITH BICYCLE ACCOMMODATION (IF FEASIBLE)
- NONARTERIAL STREET CONNECTION TO OFF-STREET BICYCLE NETWORK

- RECOMMENDED CORRIDOR FOR ENHANCED BICYCLE FACILITY^a

^a Corridor would include an enhanced bicycle facility—such as a protected bike lane, a separate path within the road right-of-way, or a buffered bike lane—located on or along an arterial or, alternatively, a neighborhood greenway on a nearby parallel nonarterial.



Source: SEWRPC

- Widening Braun Road from two to six travel lanes between IH 94 and CTH H, including adding the western portion of this segment of roadway as a planned arterial
 - o VISION 2050 currently recommends preserving the existing capacity as a two-lane arterial facility for the eastern portion of this segment of Braun Road (east of the planned extension of International Drive) and recommends that the western portion of this segment of Braun Road remain as a two-lane non-arterial roadway.
- Widening CTH H from two to four travel lanes between CTH KR and Venice Avenue
 - o VISION 2050 currently recommends preserving existing capacity as a two-lane facility
- Extending International Drive (CTH V) as a new four-lane facility from its current terminus just south of STH 20 (Washington Avenue) to STH 11 (Durand Avenue)
 - o VISION 2050 currently recommends extending as a new two-lane facility and reserving right-of-way to accommodate four travel lanes as a future improvement
- Adding Wisconn Valley Way as a new four-lane facility between STH 11 (Durand Avenue) and CTH KR
 - o VISION 2050 recommends extending International Drive (CTH V) as a new two-lane facility between STH 11 and Braun Road and reserving right-of-way to accommodate a new two-lane facility as a future improvement between Braun Road and CTH KR (Wisconn Valley Way essentially provides this recommended extension with four lanes rather than two on an alignment west of the alignment originally shown in VISION 2050)

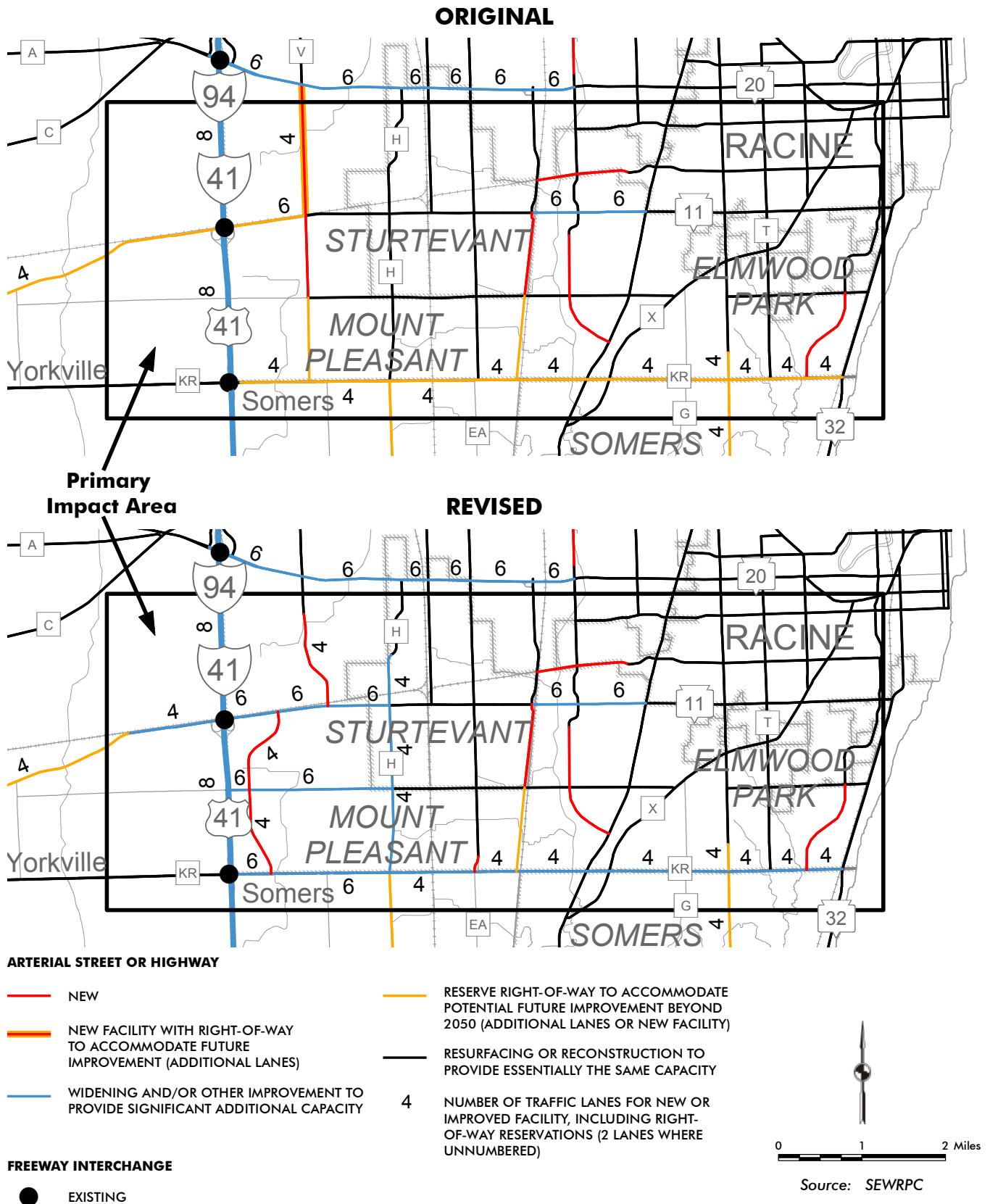
Figure 7 provides a comparison of the changes to the arterial improvements recommended in VISION 2050. Revised Maps 1.15 and 1.18 and a revised Table 1.12, which replace the original maps and table in the VISION 2050 plan report, are included in Appendix A. Revised Maps 1.16 and 1.21 are also included in Appendix A, replacing the original maps in the plan report, to reflect the following arterial capacity expansion and improvement projects expected to be completed through 2018. Revised Table 1.12 also reflects the completion of these projects.

- Zoo Interchange (excluding the north leg)
- IH 894 between Lincoln Avenue and the Hale Interchange
- IH 94 between 124th Street and Moorland Road (CTH O)
- West Waukesha Bypass between Rolling Ridge Drive and Summit Avenue

UPDATED FINANCIAL ANALYSIS FOR VISION 2050 TRANSPORTATION SYSTEM

As part of this amendment, the Commission staff also reviewed and updated the analysis of existing and reasonably expected costs and revenues associated with the transportation system recommended in VISION 2050. When VISION 2050 was initially prepared, this financial analysis resulted in identification of a gap between the funds needed to construct, operate, and maintain the recommended regional transportation system and the available revenues, with this gap particularly affecting the recommended transit element. The funded portion of the recommended transportation system is referred to as the “Fiscally Constrained Transportation Plan (FCTP)” and is presented in Chapter 2 of Volume III of the VISION 2050 plan report. The original FCTP included all transportation elements of VISION 2050 except for portions of the public transit element. Specifically, most of the major transit improvement and expansion components in VISION 2050 were not included in the FCTP, and also reductions in current transit service were expected to continue. However, the analysis noted that the recommended arterial system improvements, particularly reconstructing the regional freeway system, would require State funding levels from State budgets of the last decade to be maintained.

Figure 7
Revisions to Functional Improvements to the Arterial Street and
Highway System in Kenosha and Racine County: VISION 2050



The updated financial analysis prepared as part of this amendment is presented in revised Tables 1.13 and 1.14. The results of the updated financial analysis show that without additional revenue the Region will not be able to achieve the public transit system recommended in VISION 2050. The analysis also shows that expected revenues will be insufficient to complete the recommended reconstruction of several portions of the Region's arterial street and highway system by 2050. WisDOT has indicated that future funding levels for freeway reconstruction in the Region are expected to be similar to the levels in the State's 2017-2019 biennial budget, passed in 2017, of about \$50 million annually. The differences between the estimated costs of implementing the recommended VISION 2050 component and the expected available revenues are shown in a revised Table 1.20. Revised Tables 1.13 through 1.20, which replace the original tables in the VISION 2050 plan report, are included in Appendix A.

The estimated costs and revenues associated with the revised FCTP are compared in constant 2017 dollars in revised Table 2.1 and in year of expenditure dollars in revised Table 2.2. Revised Tables 2.1 through 2.4, which replace the original tables in VISION 2050 plan report, are included in Appendix A.

Under the revised FCTP, service levels on the regional transit system would decline from service levels existing in 2014 by about 10 percent measured in terms of revenue transit vehicle-hours of service provided (a modest change from the original FCTP), from about 4,750 vehicle-hours of service on an average weekday in the year 2014 to 4,270 vehicle-hours of service in the year 2050. In terms of the recommended expansion and improvement of transit in VISION 2050, the revised FCTP only includes the recommended east-west rapid transit line between downtown Milwaukee and the Milwaukee Regional Medical Center and the lakefront and 4th Street extensions of the Milwaukee Streetcar. Revised Table 2.5 and Map 2.1, which show transit service levels in 2050 and replace the originals in the VISION 2050 plan report, are included in Appendix A.

The bicycle and pedestrian element, which was originally the same in both VISION 2050 and the FCTP, did not change as part of the updated financial analysis. However, revised Table 2.7 and Map 2.2, which replace the originals in the VISION 2050 plan report, are included in Appendix A to reflect changes to the recommended bicycle network in the area of the Foxconn campus, which were made as part of this amendment.

The difference between the costs to implement the arterial street and highway element recommended in VISION 2050 and expected revenues will result predominately in a reduction in the amount of freeway that can be reconstructed by the year 2050, but also a reduction in the amount of surface arterials that can be reconstructed with additional lanes or can be newly constructed by the year 2050.

Specifically, 35 miles, including completion of the Zoo Interchange project, of the total 233 miles of remaining freeway reconstruction in the Region recommended in VISION 2050, would be expected to be implemented by the year 2050 under the revised FCTP, as shown on Map 2. Additionally, the revised FCTP does not include the planned USH 12 freeway extension between Cities of Elkhorn and Whitewater in Walworth County. With respect to surface arterials, all of the surface arterial capacity expansion recommended in VISION 2050 is included in the revised FCTP, with the exception of the planned extension of the Lake Parkway between Edgerton Avenue and STH 100 in Milwaukee County and the extension of Cold Springs Road between CTH O and IH 43 (along with the associated reconstruction of the IH 43/STH 57 interchange) in Ozaukee County. The estimated schedule for reconstruction of the surface arterials recommended for capacity expansion under the revised FCTP is shown on Map 3.

The arterial reductions included in the revised FCTP would result in approximately 93 percent, or 3,390 of the total 3,653 miles, of the planned arterial street and highway system being resurfaced or reconstructed to their same capacity under the revised FCTP. Under the revised FCTP, approximately 209 miles, or 6 percent of the total year 2050 arterial street and highway system would be widened to provide additional through traffic lanes as part of their reconstruction. The remaining 54 miles, or about 1 percent of the total planned arterial system, would be new arterial roadways under the revised FCTP. The arterial street and highway capacity improvements—both freeway and surface arterial—under the revised FCTP are shown on Map 4. Revised Table 2.8 and Maps 2.3 through 2.9, which replace the original table and maps in the VISION 2050 plan report, are included in Appendix A.

Revisions to Table 1.13
Average Annual Costs and Revenues Associated with the VISION 2050
Transportation System in 2017 Constant Dollars: 2019-2050

Cost or Revenue Item	2017 Constant Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars)^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$296
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	423
Subtotal	\$719
Operating	90
Highway Subtotal	\$809
Transit System	
Capital	\$129
Operating ^c	\$253
Transit Subtotal	\$382
Total	\$1,191
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars)^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	318
Local	78
Subtotal	\$459
Highway Operating	
State	\$41
Local	38
Subtotal	\$79
Highway Subtotal	\$538
Transit Capital	
Federal	\$96
Local	3
Subtotal	\$99
Transit Operating	
Federal	\$--
State	76
Local	35
Subtotal	\$111
Transit Subtotal	\$210
Total	\$748

Note: Cells highlighted in blue denote a change from the original Table 1.13 in the VISION 2050 report.

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion recommended under VISION 2050. The freeway system capital costs include the cost to resurface the existing freeway system, as needed, estimated at \$1.2 billion or \$37 million per year; the cost to rebuild those segments of the existing freeway system that have not yet been rebuilt to modern design standards, estimated at \$8.5 billion or \$266 million per year; the incremental cost to rebuild 94 miles of the freeway system with additional lanes, estimated at \$578 million or \$18 million per year; the cost of two new freeway interchanges, estimated at \$78 million; and the cost of the extension of the USH 12 freeway from Elkhorn to Whitewater, estimated at \$469 million. These freeway capital costs include the cost to reconstruct IH 43 between Howard Avenue and Silver Spring Drive to modern design standards. Should it be determined that this segment of IH 43 be widened, the project cost would incrementally increase by \$179 million. With respect to freeway resurfacing, it was assumed that segments of freeway that were reconstructed before 2018 would be resurfaced on average two times by 2050 and segments of freeway that are recommended to be reconstructed in 2018 and beyond would be resurfaced on average one time by 2050. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,149 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 62 miles of surface arterials. The estimated costs of resurfacing and reconstruction are based on the estimated lifecycle of existing surface arterials, and include reconstruction of about 52 percent of surface arterials with approximately 66 percent resurfaced once, and 66 percent of the remaining 48 percent resurfaced twice and 33 percent resurfaced three times. Unit costs for surface arterial resurfacing, reconstruction, widening, and new construction vary by cross-section from \$0.4 to \$14.3 million per mile (rural or urban, divided or undivided, and number of traffic lanes) and are based upon actual project costs over the past several years. The estimated capital cost of surface arterials is \$348 million per year, including \$301 million for preservation (resurfacing and reconstruction) and \$47 million for new arterials and arterials reconstructed with additional traffic lanes. Transit system capital costs include preservation of the existing transit system, including bus replacement on a 12-year schedule and replacement of fixed facilities, and costs of system improvement and expansion, including needed additional buses and facility expansion.

Highway system operating (and maintenance) costs are based on estimated actual State and local highway system operating costs and verified by application of estimated unit lane-mile costs. Planned highway system operating costs are increased from estimated existing costs based on the proposed increase in VISION 2050 in arterial highway system lane-miles. Transit system operating (and maintenance) costs are based on existing estimated actual costs and unit costs based on service vehicle-miles and vehicle-hours.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of VISION 2050.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) significantly over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Revisions to Table 1.14
Average Annual Costs and Revenues Associated with the VISION 2050
Transportation System Based on Year of Expenditure: 2019-2050

Cost or Revenue Item	YOE Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars) ^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$432
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	644
Subtotal	\$1,076
Operating	137
Highway Subtotal	\$1,213
Transit System	
Capital	\$204
Operating ^c	\$350
Transit Subtotal	\$554
Total	\$1,767
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars) ^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$85
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	480
Local	107
Subtotal	\$672
Highway Operating	
State	\$59
Local	54
Subtotal	\$113
Highway Subtotal	\$785
Transit Capital	
Federal	\$130
Local	6
Subtotal	\$136
Transit Operating	
Federal	\$--
State	104
Local	46
Subtotal	\$150
Transit Subtotal	\$286
Total	\$1,071

Note: Cells highlighted in blue denote a change from the original Table 1.14 in the VISION 2050 report.

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion recommended under VISION 2050. The freeway system capital costs include the estimated cost to rebuild those segments of the existing freeway system that have not yet been rebuilt to modern design standards, the estimated incremental cost to rebuild 94 miles of the freeway system with additional lanes, the estimated cost of two new freeway interchanges, and the estimated cost of the extension of the USH 12 freeway from Elkhorn to Whitewater. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,149 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 62 miles of surface arterials.

The conversion of year 2017 constant dollar cost to year of expenditure cost utilizes inflation rates based upon historical trends. The rate of inflation used for highway costs and transit construction costs of 2.3 percent was provided by WisDOT. The inflation rate of 2.5 percent used for transit vehicle costs is based on the historical increase in the purchase price of transit vehicles as experienced by the transit operators of the Region. With regard to transit operating costs, the inflation rate of 2.0 percent is based on the historical inflation from the Consumer Price Index for the Milwaukee area and discussions with Milwaukee County Transit System staff. The average annual capital and operating costs were calculated by evenly distributing the total year of expenditure costs over 32 years.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of VISION 2050.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) significantly over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Revisions to Table 1.20
Estimated Gap Between VISION 2050 Costs and
Existing and Reasonably Expected Revenues

Constant Year 2017 Dollars (Average Annual Through Year 2050)	
Highway	
Capital	\$260 million
Operating	\$11 million
Public Transit	
Capital	\$30 million
Operating	\$142 million
Year of Expenditure Dollars (Average Annual Through Year 2050)	
Highway	
Capital	\$404 million
Operating	\$24 million
Public Transit	
Capital	\$68 million
Operating	\$200 million

Note: Cells highlighted in blue denote a change from the original Table 1.20 in the VISION 2050 report.

Source: SEWRPC

Revisions to Table 2.1

Average Annual Costs and Revenues Associated with the Fiscally Constrained Transportation System in 2017 Constant Dollars: 2019-2050

Cost or Revenue Item	2017 Constant Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars) ^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	416
Subtotal	\$479
Operating	90
Highway Subtotal	\$569
Transit System	
Capital	\$25
Operating ^c	\$134
Transit Subtotal	\$159
Total	\$728
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars) ^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	318
Local	78
Subtotal	\$459
Highway Operating	
State	\$41
Local	38
Subtotal	\$79
Highway Subtotal	\$538
Transit Capital	
Federal	\$16
Local	7
Subtotal	\$23
Transit Operating	
Federal	\$22
State	76
Local	36
Subtotal	\$134
Transit Subtotal	\$157
Total	\$695

Note: Cells highlighted in blue denote a change from the original Table 2.1 in the VISION 2050 report.

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion under the Fiscally Constrained Transportation Plan. The freeway system capital costs include the cost to resurface the existing freeway system, as needed, estimated at \$1.2 billion or \$37 million per year; and the cost to rebuild 35 miles of the freeway system with additional lanes, estimated at \$2.0 billion or \$62.7 million per year. With respect to freeway resurfacing, it was assumed that segments of freeway that were reconstructed before 2019 would be resurfaced on average two times by 2050 and segments of freeway that are recommended to be reconstructed in 2016 and beyond would be resurfaced on average one time by 2050. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,154 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 54 miles of surface arterials. The estimated costs of resurfacing and reconstruction are based on the estimated lifecycle of existing surface arterials, and include reconstruction of about 52 percent of surface arterials with approximately 66 percent resurfaced once, and 66 percent of the remaining 48 percent resurfaced twice and 33 percent resurfaced three times. Unit costs for surface arterial resurfacing, reconstruction, widening, and new construction vary by cross-section from \$0.4 to \$14.3 million per mile (rural or urban, divided or undivided, and number of traffic lanes) and are based upon actual project costs over the past several years. The estimated capital cost of surface arterials is \$368 million per year, including \$330 million for preservation (resurfacing and reconstruction) and \$38 million for new arterials and arterials reconstructed with additional traffic lanes. Transit system capital costs include preservation of the existing transit system, including bus replacement on a 15-year schedule and replacement of fixed facilities, and costs associated with the initial phases of the Milwaukee Streetcar and Milwaukee County's BRT line between downtown Milwaukee and the Milwaukee Regional Medical Center, including needed additional vehicles and facilities.

Highway system operating (and maintenance) costs are based on estimated actual State and local highway system operating costs and verified by application of estimated unit lane-mile costs. Planned highway system operating costs are increased from estimated existing costs based on the proposed increase in the Fiscally Constrained Transportation Plan in arterial highway system lane-miles. Transit system operating (and maintenance) costs are based on existing estimated actual costs and unit costs based on service vehicle-miles and vehicle-hours. Planned transit system operating costs have been decreased from existing system operating costs based on the requisite decrease in transit service vehicle-miles and vehicle-hours to match reasonably expected revenues available.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15 of Chapter 1 of this volume. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of the Fiscally Constrained Transportation Plan.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Revisions to Table 2.2
Average Annual Costs and Revenues Associated with the Fiscally Constrained
Transportation System Based on Year of Expenditure: 2019-2050

Cost or Revenue Item	YOE Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars) ^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$91
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	633
Subtotal	\$724
Operating	137
Highway Subtotal	\$861
Transit System	
Capital	\$36
Operating ^c	\$183
Transit Subtotal	\$219
Total	\$1,080
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars) ^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$85
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	480
Local	107
Subtotal	\$672
Highway Operating	
State	\$59
Local	54
Subtotal	\$113
Highway Subtotal	\$785
Transit Capital	
Federal	\$17
Local	8
Subtotal	\$25
Transit Operating	
Federal	\$27
State	104
Local	52
Subtotal	\$183
Transit Subtotal	\$208
Total	\$993

Note: Cells highlighted in blue denote a change from the original Table 2.2 in the VISION 2050 report.

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion under the Fiscally Constrained Transportation Plan. The freeway system capital costs include the estimated cost to rebuild 35 miles of the freeway system with additional lanes. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,154 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 54 miles of surface arterials.

The conversion of year 2017 constant dollar cost to year of expenditure cost utilizes inflation rates based upon historical trends. The rate of inflation used for highway costs and transit construction costs of 2.3 percent was provided by WisDOT. The inflation rate of 2.5 percent used for transit vehicle costs is based on the historical increase in the purchase price of transit vehicles as experienced by the transit operators of the Region. With regard to transit operating costs, the inflation rate of 2.0 percent is based on the historical inflation from the Consumer Price Index for the Milwaukee area and discussions with Milwaukee County Transit System staff. The average annual capital and operating costs were calculated by evenly distributing the total year of expenditure costs over 32 years.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15 of Chapter 1 of this volume. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of the Fiscally Constrained Transportation Plan.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

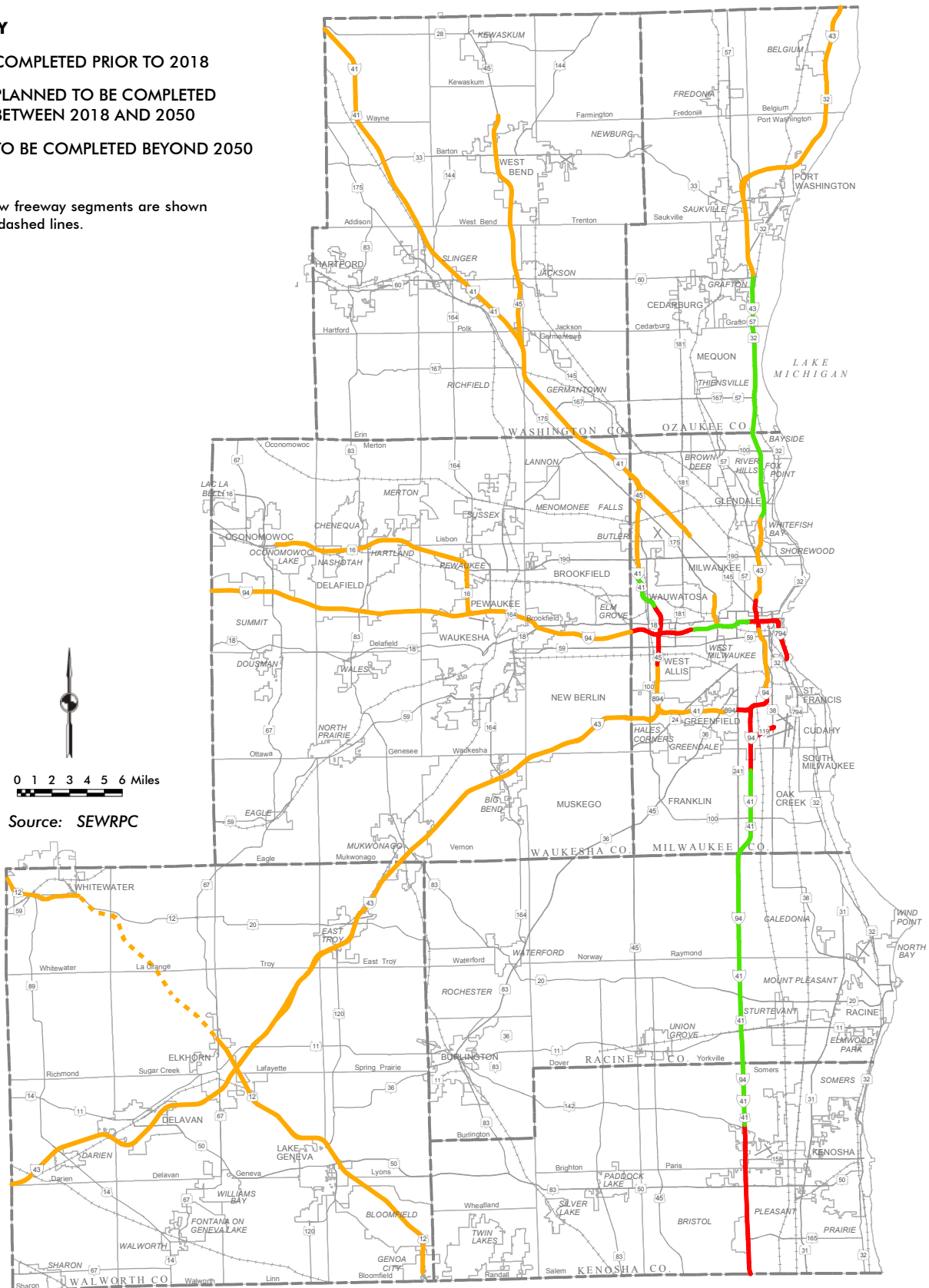
Source: SEWRPC

Map 2 Schedule for Reconstructing the Freeway System Under the Revised FCTP

FREEWAY

- COMPLETED PRIOR TO 2018
- PLANNED TO BE COMPLETED BETWEEN 2018 AND 2050
- TO BE COMPLETED BEYOND 2050

Note: New freeway segments are shown as dashed lines.



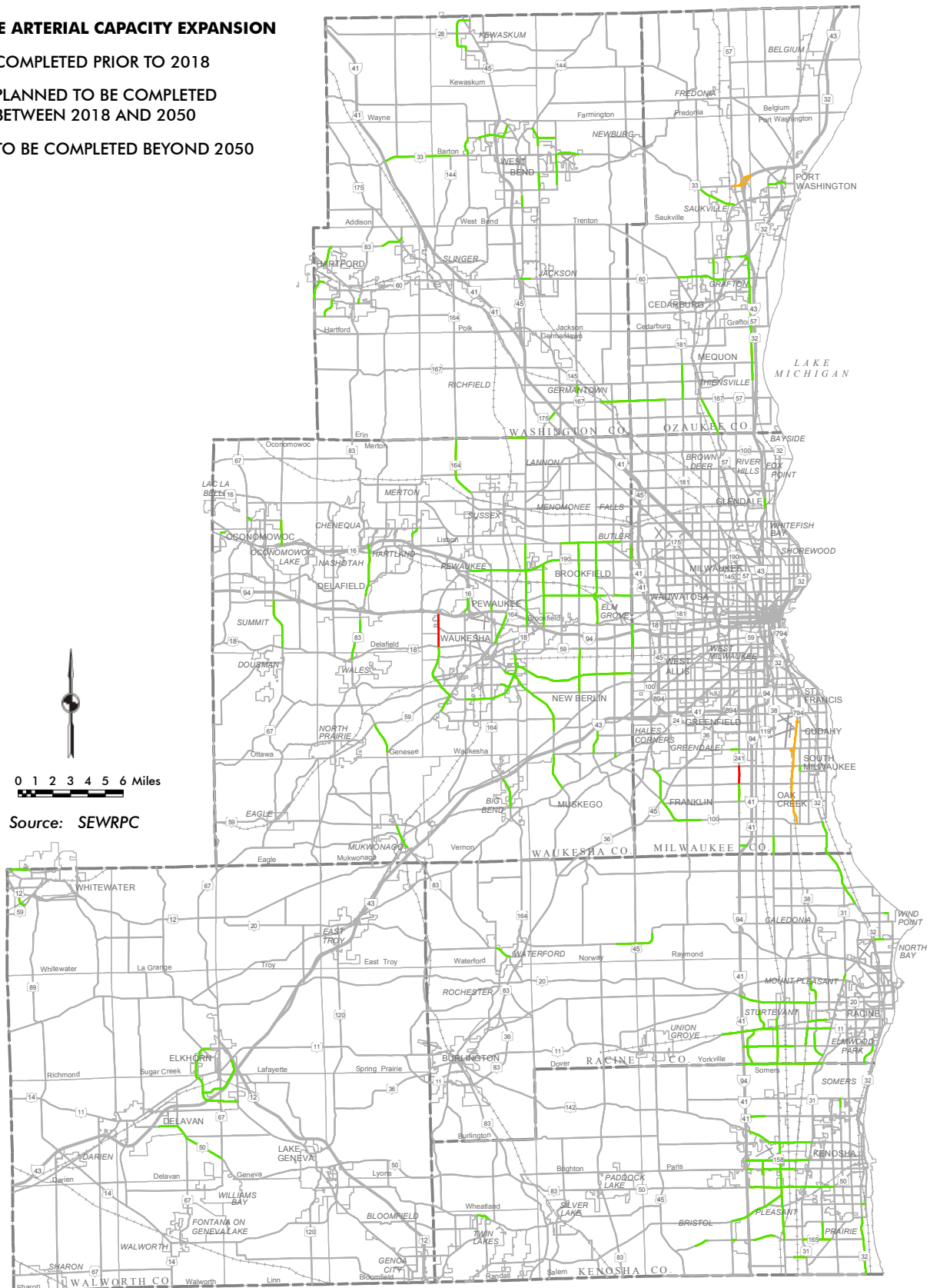
Source: SEWRPC

Map 3

Schedule for Reconstructing Surface Arterials with Capacity Expansion Under the Revised FCTP

SURFACE ARTERIAL CAPACITY EXPANSION

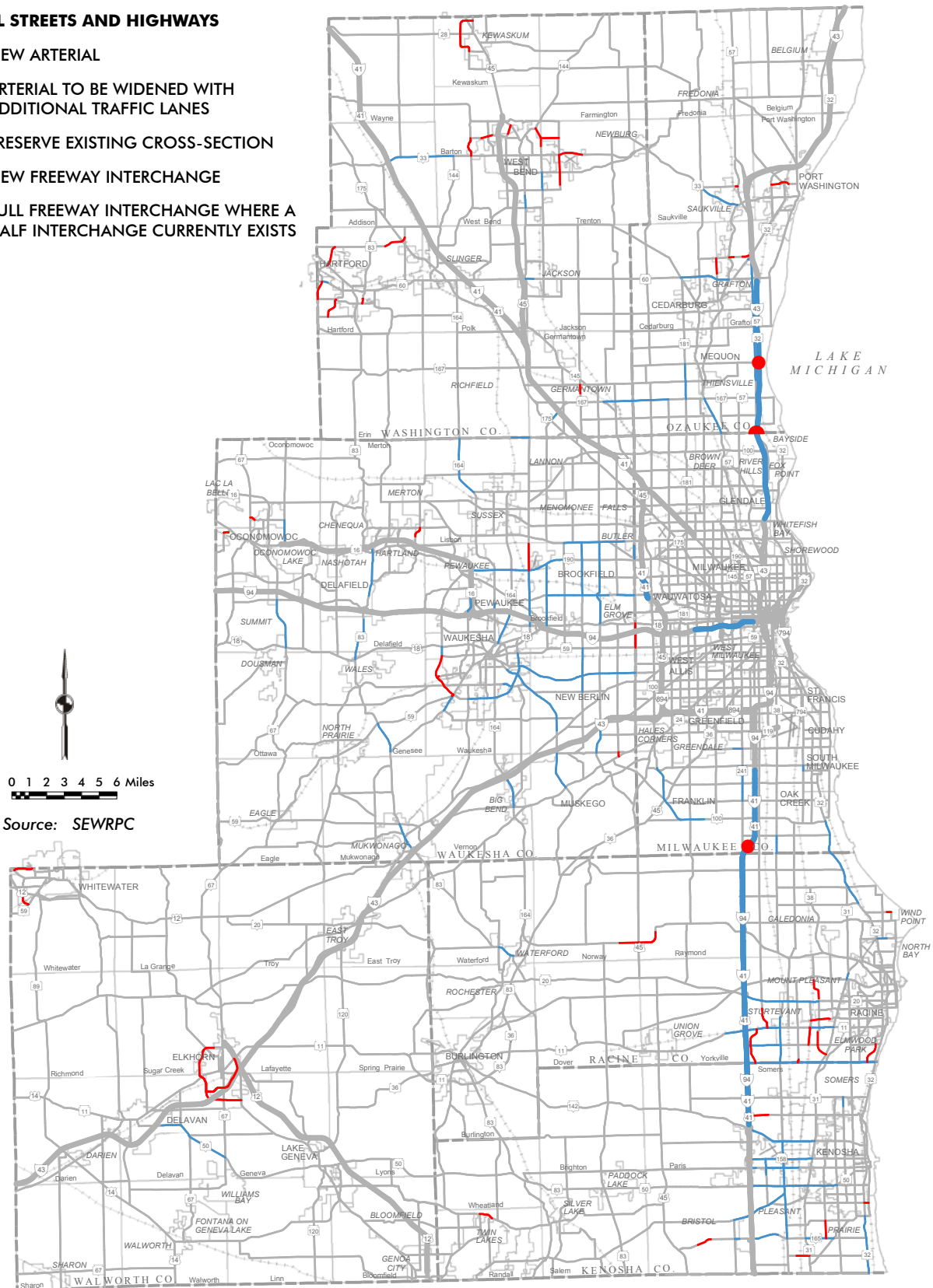
- COMPLETED PRIOR TO 2018
- PLANNED TO BE COMPLETED BETWEEN 2018 AND 2050
- TO BE COMPLETED BEYOND 2050



Map 4 Fiscally Constrained Arterial Street and Highway System as Revised

ARTERIAL STREETS AND HIGHWAYS

- NEW ARTERIAL
- ARTERIAL TO BE WIDENED WITH ADDITIONAL TRAFFIC LANES
- PRESERVE EXISTING CROSS-SECTION
- NEW FREEWAY INTERCHANGE
- ◐ FULL FREEWAY INTERCHANGE WHERE A HALF INTERCHANGE CURRENTLY EXISTS

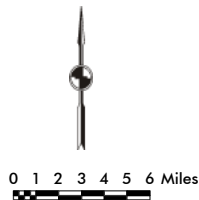


VISION 2050 PLAN REPORT TABLES AND MAPS AS AMENDED APPENDIX A

Map 1.1 as Amended

Land Use Development Pattern: VISION 2050

- MIXED-USE CITY CENTER**
(Residential and Other Urban Land—At Least 18.0 Dwelling Units per Net Residential Acre)
- MIXED-USE TRADITIONAL NEIGHBORHOOD**
(Residential and Other Urban Land—At Least 7.0 to 17.9 Dwelling Units per Net Residential Acre)
- SMALL LOT TRADITIONAL NEIGHBORHOOD**
(Residential and Other Urban Land—At Least 4.4 to 6.9 Dwelling Units per Net Residential Acre)
- MEDIUM LOT NEIGHBORHOOD**
(Residential and Other Urban Land—At Least 2.3 to 4.3 Dwelling Units per Net Residential Acre)
- LARGE LOT NEIGHBORHOOD**
(Residential and Other Urban Land—At Least 0.7 to 2.2 Dwelling Units per Net Residential Acre)
- LARGE LOT EXURBAN**
(Residential Land—0.2 to 0.6 Dwelling Units per Net Residential Acre)
- RURAL ESTATE**
(0.1 to 0.2 Dwelling Units per Acre)
- AGRICULTURAL AND OTHER OPEN LANDS**
- PRIMARY ENVIRONMENTAL CORRIDOR**
- SURFACE WATER**



Source: SEWRPC

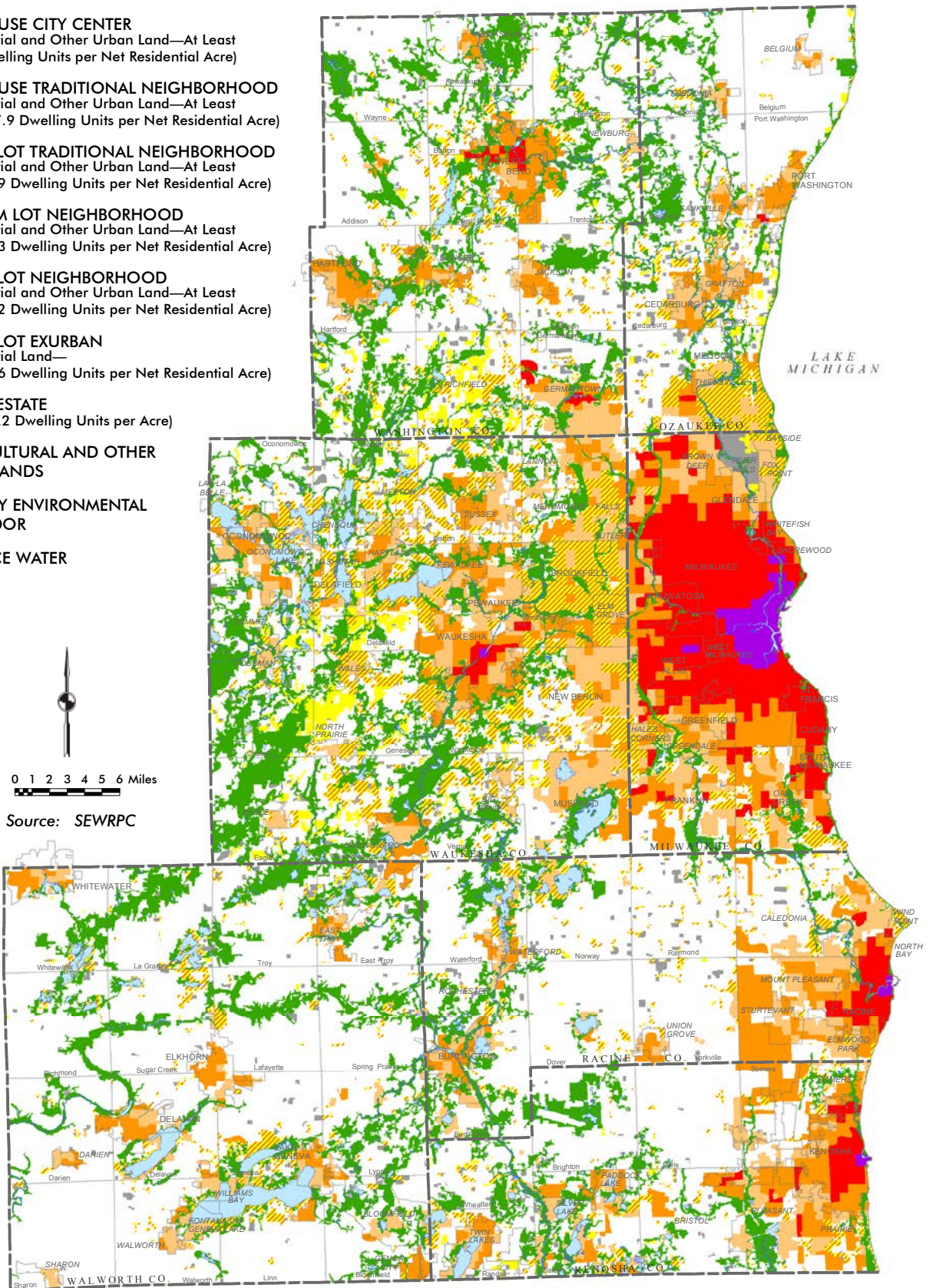


Table 1.1 as Amended
Existing and Planned Land Use in the Region: 2010 and 2050

Land Use	Existing 2010		Planned Increment		Planned 2050	
	Square Miles	Percent of Total	Square Miles	Percent of Total	Square Miles	Percent of Total
Developed Land						
Residential						
Mixed-Use City Center ^a	3.1	0.1	0.3	9.7	3.4	0.1
Mixed-Use Traditional Neighborhood ^b	45.8	1.7	3.2	7.0	49.0	1.8
Small Lot Traditional Neighborhood ^c	41.6	1.5	38.2	91.8	79.8	3.0
Medium Lot Neighborhood ^d	88.2	3.3	6.4	7.3	94.6	3.5
Large Lot Neighborhood ^e	160.5	6.0	4.7	2.9	165.2	6.1
Large Lot Exurban ^f	31.9	1.2	2.7	8.5	34.6	1.3
Rural Estate ^g	29.9	1.1	7.5	25.1	37.4	1.4
Residential Subtotal	400.9	14.9	63.1	15.7	464.0	17.2
Commercial	35.6	1.3	13.9	39.0	49.5	1.8
Industrial	35.2	1.3	9.4	26.7	44.6	1.7
Transportation, Communication, and Utilities	213.8	8.0	13.9	6.5	227.7	8.5
Governmental and Institutional	37.0	1.4	1.9	5.1	38.9	1.4
Recreational ^h	56.0	2.1	6.9	12.3	62.9	2.3
Unused Urban	46.0	1.7	-21.3	-46.3	24.7	0.9
Developed Land Subtotal	824.5	30.7	87.8	10.6	912.3	33.9
Undeveloped Land						
Agricultural ⁱ	1,155.5	43.0	-65.9	-5.7	1,089.6	40.6
Natural Resource Areas						
Surface Water	84.7	3.1	0.0	0.0	84.7	3.1
Wetlands	315.2	11.7	0.0	0.0	315.2	11.7
Woodlands	191.4	7.1	0.0	0.0	191.4	7.1
Natural Resource Areas Subtotal	591.3	21.9	0.0	0.0	591.3	21.9
Unused and Other Open Land ^j	118.5	4.4	-22.0	-18.6	96.5	3.6
Undeveloped Land Subtotal	1,865.2	69.3	-87.8	-4.7	1,777.4	66.1
Total	2,689.7	100.0	0.0	0.0	2,689.7	100.0

Note: Off-street parking area is included with the associated use.

^a 18.0 or more dwelling units per net residential acre.

^b 7.0 to 17.9 dwelling units per net residential acre.

^c 4.4 to 6.9 dwelling units per net residential acre.

^d 2.3 to 4.3 dwelling units per net residential acre.

^e 0.7 to 2.2 dwelling units per net residential acre.

^f 0.2 to 0.6 dwelling units per net residential acre.

^g No more than 0.2 dwelling units per acre. The Rural Estate category assumes there would be one acre of developed homesite area per dwelling, the remainder of the area being retained in open space.

^h Includes only intensive use recreational land.

ⁱ Includes farmed wetlands.

^j Includes landfills and mineral extraction sites.

Source: SEWRPC

Table 1.2 as Amended
Existing and Planned Land Use in the Region by County: 2010 and 2050

Land Use	Kenosha County (square miles)			Milwaukee County (square miles)			Ozaukee County (square miles)			Racine County (square miles)		
	2010	Increment	2050	2010	Increment	2050	2010	Increment	2050	2010	Increment	2050
Developed Land												
Residential												
Mixed-Use City Center ^a	0.1	0.0	0.1	2.8	0.2	3.0	0.0	0.0	0.0	0.2	0.0 ^b	0.2
Mixed-Use Traditional Neighborhood ^c	2.8	1.1	3.9	37.7	1.2	38.9	0.0	0.1	0.1	3.8	0.2	4.0
Small Lot Traditional Neighborhood ^d	4.8	9.3	14.1	12.8	3.0	15.8	2.2	2.2	4.4	4.4	5.8	10.2
Medium Lot Neighborhood ^e	10.1	0.7	10.7	16.3	0.2	16.6	6.9	0.2	7.0	12.9	0.4	13.2
Large Lot Neighborhood ^f	10.4	0.4	10.8	9.0	0.1	9.1	16.2	0.9	17.1	15.7	0.4	16.1
Large Lot Exurban ^g	1.0	0.3	1.3	1.0	0.0	1.0	2.6	0.5	3.1	0.2	0.2	0.4
Rural Estate ^h	3.2	0.6	3.9	1.4	0.0	1.4	3.6	0.8	4.3	4.6	1.2	5.8
Residential Subtotal	32.4	12.4	44.8	81.0	4.8	85.8	31.5	4.6	36.0	41.8	8.1	49.9
Commercial	2.7	1.5	4.2	12.3	1.9	14.2	1.8	1.0	2.9	3.6	1.7	5.3
Industrial	2.9	1.5	4.5	11.2	0.7	11.9	2.0	1.2	3.1	4.3	2.8	7.1
Transportation, Communication, and Utilities	19.4	3.4	22.8	53.2	0.7	53.9	15.9	0.9	16.9	22.7	2.4	25.1
Governmental and Institutional	3.2	0.6	3.8	13.4	0.0	13.4	2.1	0.1	2.2	3.9	0.3	4.2
Recreational ⁱ	5.9	1.5	7.4	12.3	0.2	12.5	4.1	0.4	4.5	5.3	1.0	6.3
Unused Urban	4.5	-3.1	1.4	14.7	-4.5	10.2	3.0	-1.6	1.4	5.8	-2.7	3.1
Developed Land Subtotal	71.1	17.8	88.9	198.1	3.8	201.9	60.4	6.6	67.0	87.4	13.6	101.0
Undeveloped Land												
Agricultural ^j	136.6	-14.1	122.5	15.6	-2.4	13.2	118.2	-4.6	113.6	180.7	-10.9	169.7
Natural Resource Areas												
Surface Water	8.8	0.0	8.8	2.4	0.0	2.4	4.1	0.0	4.1	9.4	0.0	9.4
Wetlands	28.9	0.0	28.9	11.6	0.0	11.6	30.8	0.0	30.8	29.8	0.0	29.8
Woodlands	15.9	0.0	15.9	7.4	0.0	7.4	11.4	0.0	11.4	19.6	0.0	19.6
Natural Resource Areas Subtotal	53.7	0.0	53.7	21.4	0.0	21.4	46.3	0.0	46.3	58.7	0.0	58.7
Unused and Other Open Land ^k	17.1	-3.7	13.4	7.5	-1.4	6.1	10.6	-2.0	8.6	13.8	-2.6	11.2
Undeveloped Land Subtotal	207.4	-17.8	189.6	44.6	-3.8	40.7	175.1	-6.6	168.4	253.2	-13.6	239.6
Total	278.4	0.0	278.4	242.7	0.0	242.7	235.4	0.0	235.4	340.6	0.0	340.6

Table 1.2 as Amended (Continued)

Land Use	Walworths County (square miles)			Washington County (square miles)			Waukesha County (square miles)			Region (square miles)		
	2010	Increment	2050	2010	Increment	2050	2010	Increment	2050	2010	Increment	2050
Developed Land												
Residential												
Mixed-Use City Center ^a	0.0	0.0	0.0	0.0	0.0	0.0	0.0 ^b	0.0 ^b	0.1	3.1	0.3	3.4
Mixed-Use Traditional Neighborhood ^c	0.0	0.0	0.0	0.6	0.5	1.1	0.9	0.1	1.0	45.8	3.2	49.0
Small Lot Traditional Neighborhood ^d	2.9	4.6	7.4	4.6	5.2	9.7	10.0	8.2	18.1	41.6	38.2	79.8
Medium Lot Neighborhood ^e	9.0	1.2	10.2	7.1	0.5	7.6	25.9	3.3	29.3	88.2	6.4	94.6
Large Lot Neighborhood ^f	16.3	0.6	16.9	19.9	0.2	20.2	72.9	2.1	75.0	160.5	4.7	165.2
Large Lot Exurban ^g	0.9	0.0	0.9	8.3	1.1	9.4	18.0	0.6	18.6	31.9	2.7	34.6
Rural Estate ^h	7.2	1.2	8.4	6.6	2.0	8.6	3.3	1.7	5.0	29.9	7.5	37.4
Residential Subtotal	36.3	7.6	43.9	47.0	9.5	56.5	131.0	16.0	147.0	400.9	63.1	464.0
Commercial	2.4	1.5	3.9	2.7	1.6	4.3	10.2	4.6	14.7	35.6	13.9	49.5
Industrial	2.5	0.5	3.0	2.9	1.1	4.1	9.3	1.6	11.0	35.2	9.4	44.6
Transportation, Communication, and Utilities												
Governmental and Institutional	26.1	1.6	27.7	26.3	1.8	28.0	50.4	3.1	53.5	213.8	13.9	227.7
Recreational ⁱ	2.9	0.2	3.1	2.7	0.2	3.0	8.8	0.7	9.5	37.0	1.9	38.9
Unused Urban	7.3	1.1	8.4	6.5	0.4	6.9	14.7	2.2	16.9	56.0	6.9	62.9
	3.4	-1.7	1.7	3.1	-1.8	1.3	11.1	-5.8	5.3	46.0	-21.3	24.7
Developed Land Subtotal	80.9	10.7	91.6	91.2	12.9	104.1	235.4	22.5	257.9	824.5	87.8	912.3
Undeveloped Land												
Agricultural ^j	352.6	-8.2	344.4	203.0	-8.8	194.2	148.8	-16.7	132.1	1,155.5	-65.9	1,089.6
Natural Resource Areas												
Surface Water	23.7	0.0	23.7	8.0	0.0	8.0	28.2	0.0	28.2	84.7	0.0	84.7
Wetlands	51.4	0.0	51.4	72.7	0.0	72.7	89.9	0.0	89.9	315.2	0.0	315.2
Woodlands	51.8	0.0	51.8	37.6	0.0	37.6	47.7	0.0	47.7	191.4	0.0	191.4
Natural Resource Areas Subtotal	127.0	0.0	127.0	118.3	0.0	118.3	165.8	0.0	165.8	591.3	0.0	591.3
Unused and Other Open Land ^k	16.0	-2.5	13.5	23.0	-4.0	19.0	30.5	-5.8	24.7	118.5	-22.0	96.5
Undeveloped Land Subtotal	495.5	-10.7	484.9	344.3	-12.9	331.4	345.1	-22.5	322.6	1,865.2	-87.8	1,777.4
Total	576.5	0.0	576.5	435.6	0.0	435.6	580.5	0.0	580.5	2,689.7	0.0	2,689.7

Note: Off-street parking area is included with the associated use.

^a 18.0 or more dwelling units per net residential acre.

^b Less than 0.05 square miles.

^c 7.0 to 17.9 dwelling units per net residential acre.

^d 4.4 to 6.9 dwelling units per net residential acre.

^e 2.3 to 4.3 dwelling units per net residential acre.

^f 0.7 to 2.2 dwelling units per net residential acre.

^g 0.2 to 0.6 dwelling units per net residential acre.

^h No more than 0.2 dwelling units per acre. The Rural Estate category assumes there would be one acre of developed homestead area per dwelling, the remainder of the area being retained in open space.

ⁱ Includes only intensive use recreational land.

^j Includes farmed wetlands.

^k Includes landfills and mineral extraction sites.

Source: SEWRPC

Table 1.3 as Amended
Existing and Planned 2050 Population, Households, and Employment

County	Planning Analysis Area (See Map 1.2)	Population		Households		Employment	
		Existing 2010	Planned 2050	Existing 2010	Planned 2050	Existing 2010	Planned 2050
Ozaukee	1	7,990	9,880	3,000	3,810	2,840	5,300
	2	18,680	23,040	7,650	9,680	11,350	17,140
	3	32,870	42,820	13,170	17,790	16,560	21,700
	4	26,860	33,360	10,400	13,220	21,750	25,160
	Subtotal	86,400	109,100	34,200	44,500	52,500	69,300
Washington	5	9,070	11,550	3,440	4,620	2,370	2,590
	6	44,380	63,550	17,750	26,710	21,670	28,760
	7	5,660	6,950	2,080	2,710	2,550	2,720
	8	10,830	14,880	4,320	6,220	3,640	5,050
	9	26,890	35,760	10,580	14,710	15,830	22,970
	10	20,000	31,700	7,860	13,050	14,230	21,320
	11	15,050	16,120	5,580	6,280	3,610	3,990
	Subtotal	131,900	180,500	51,600	74,300	63,900	87,400
Milwaukee	12	65,460	66,180	28,430	29,690	43,700	44,780
	13	58,540	60,630	22,350	24,120	38,460	40,080
	14	228,370	229,130	84,810	88,560	68,860	75,100
	15	76,170	86,870	34,660	40,030	44,550	49,140
	16	11,230	19,870	4,940	8,700	72,980	82,510
	17	91,110	94,890	31,200	34,240	54,310	59,700
	18	118,120	116,980	47,710	49,070	53,280	57,070
	19	48,360	58,280	21,340	26,230	56,910	60,980
	20	69,990	70,910	31,180	32,640	48,530	51,490
	21	59,930	62,990	26,850	29,040	28,850	30,520
	22	49,070	51,530	21,760	23,580	22,420	23,870
	23	34,820	49,800	14,200	21,100	23,310	29,480
	24	36,580	51,040	14,180	20,780	19,240	23,850
	Subtotal	947,700	1,019,100	383,600	427,800	575,400	628,600
Waukesha	25	38,580	49,430	15,940	20,850	41,250	46,350
	26	49,620	57,120	19,610	23,390	55,690	65,780
	27	39,590	44,080	16,290	18,890	27,150	34,040
	28	24,140	35,860	9,070	14,060	7,730	13,970
	29	23,020	34,500	8,520	13,630	9,420	14,930
	30	20,160	28,040	8,790	12,580	29,030	34,760
	31	80,000	93,380	31,750	38,290	48,480	57,070
	32	67,440	84,460	25,450	33,450	35,050	47,350
	33	35,800	41,800	13,120	16,050	12,160	20,830
	34	11,550	12,730	4,120	4,710	2,930	3,320
	Subtotal	389,900	481,400	152,700	195,900	268,900	338,400
Racine	35	74,170	74,900	28,620	30,720	37,510	39,520
	36	65,010	98,050	25,790	41,340	25,100	54,930
	37	39,260	46,630	14,490	18,340	15,120	19,370
	38	16,970	20,170	6,750	8,550	10,570	13,180
	Subtotal	195,400	239,800	75,700	98,900	88,300	127,000
Kenosha	39	97,410	108,590	36,710	43,380	45,160	51,490
	40	30,520	70,980	11,420	28,670	17,950	31,170
	41	38,500	71,540	14,520	28,820	11,790	20,070
	Subtotal	166,400	251,100	62,600	100,900	74,900	102,700
Walworth	42	15,040	21,960	5,840	9,130	4,600	6,890
	43	22,170	26,580	8,460	10,910	10,660	12,390
	44	65,020	92,060	25,400	38,860	37,450	50,020
	Subtotal	102,200	140,600	39,700	58,900	52,700	69,300
Region	Total	2,019,900	2,421,600	800,100	1,001,200	1,176,600	1,422,700

Note: It is estimated that approximately half of the total jobs that may be created by development associated with Foxconn could be absorbed by the employment growth originally envisioned under VISION 2050.

Source: SEWRPC

Table 1.4 as Amended
Forecast Growth in the Region: 2050

	County	Existing (2010)	Intermediate Forecast (2050)	Plan (2050)
Population	Kenosha	166,400	238,000	251,100
	Milwaukee	947,700	976,700	1,019,100
	Ozaukee	86,400	109,100	109,100
	Racine	195,400	227,700	239,800
	Walworth	102,200	140,600	140,600
	Washington	131,900	180,500	180,500
	Waukesha	389,900	481,400	481,400
	Region	2,019,900	2,354,000	2,421,600
Households	Kenosha	62,600	95,400	100,900
	Milwaukee	383,600	409,600	427,800
	Ozaukee	34,200	44,500	44,500
	Racine	75,700	93,800	98,900
	Walworth	39,700	58,900	58,900
	Washington	51,600	74,300	74,300
	Waukesha	152,700	195,900	195,900
	Region	800,100	972,400	1,001,200
Employment	Kenosha	74,900	101,300	102,700
	Milwaukee	575,400	608,900	628,600
	Ozaukee	52,500	69,300	69,300
	Racine	88,300	112,300	127,000
	Walworth	52,700	69,300	69,300
	Washington	63,900	87,400	87,400
	Waukesha	268,900	338,400	338,400
	Region	1,176,600	1,386,900	1,422,700

Source: U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, and SEWRPC

Planned Public Sanitary Sewer and Water Supply Service Areas: VISION 2050

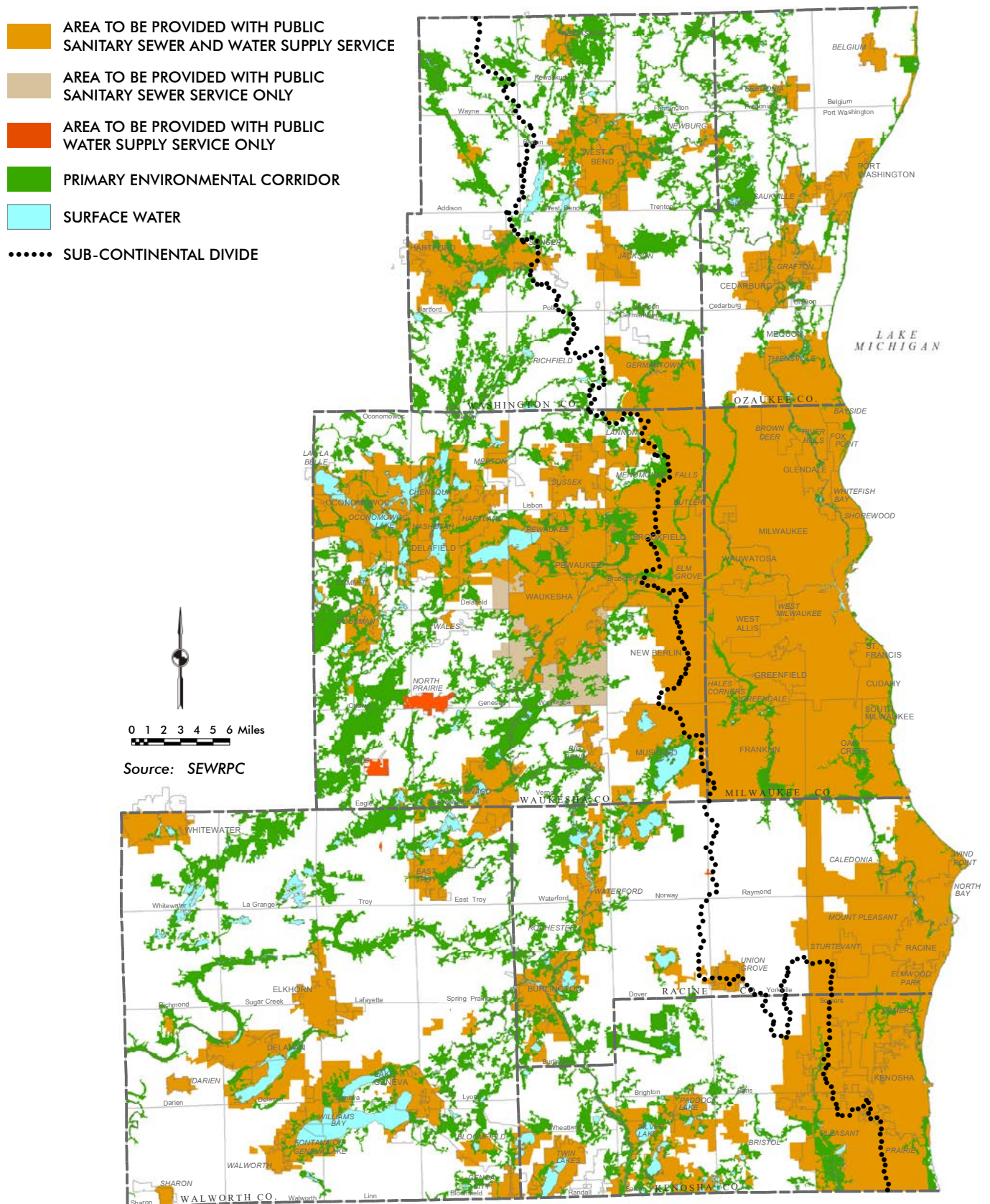


Table 1.6 as Amended
Area and Population Served by Public Sanitary Sewer and Public Water: 2010 and 2050

	County	Area				Population			
		2010		2050		2010		2050	
		Square Miles	Percent	Square Miles	Percent	Population	Percent	Population	Percent
Public Sanitary Sewer	Kenosha	45.8	16.5	65.0	22.7	150,200	90.3	241,300	96.1
	Milwaukee	198.7	81.9	206.1	84.9	947,000	99.9	1,019,100	100.0
	Ozaukee	33.3	14.1	40.2	17.1	67,800	78.5	94,800	86.9
	Racine	57.0	16.7	69.2	20.3	176,100	90.1	222,900	93.0
	Walworth	30.3	5.3	40.8	7.1	70,500	69.0	113,100	80.4
	Washington	29.1	6.7	40.4	9.3	84,300	63.9	135,000	74.8
	Waukesha	130.3	22.4	154.1	26.5	301,100	77.2	425,600	88.4
	Region	524.5	19.5	615.6	22.9	1,797,000	89.0	2,251,800	93.0
Public Water	Kenosha	34.7	12.5	54.0	19.4	125,800	75.6	202,700	80.7
	Milwaukee	187.3	77.2	194.7	80.2	938,400	99.0	1,019,100	100.0
	Ozaukee	23.4	9.9	30.3	12.9	55,800	64.6	80,400	73.7
	Racine	44.3	13.0	56.6	16.6	154,900	79.3	195,700	81.6
	Walworth	24.4	4.2	34.9	6.1	63,400	62.0	103,000	73.3
	Washington	27.1	6.2	38.4	8.8	80,100	60.7	129,200	71.6
	Waukesha	102.6	17.7	124.9	21.5	261,500	67.1	365,400	75.9
	Region	443.8	16.5	533.6	19.8	1,679,900	83.2	2,095,500	86.5

Source: SEWRPC

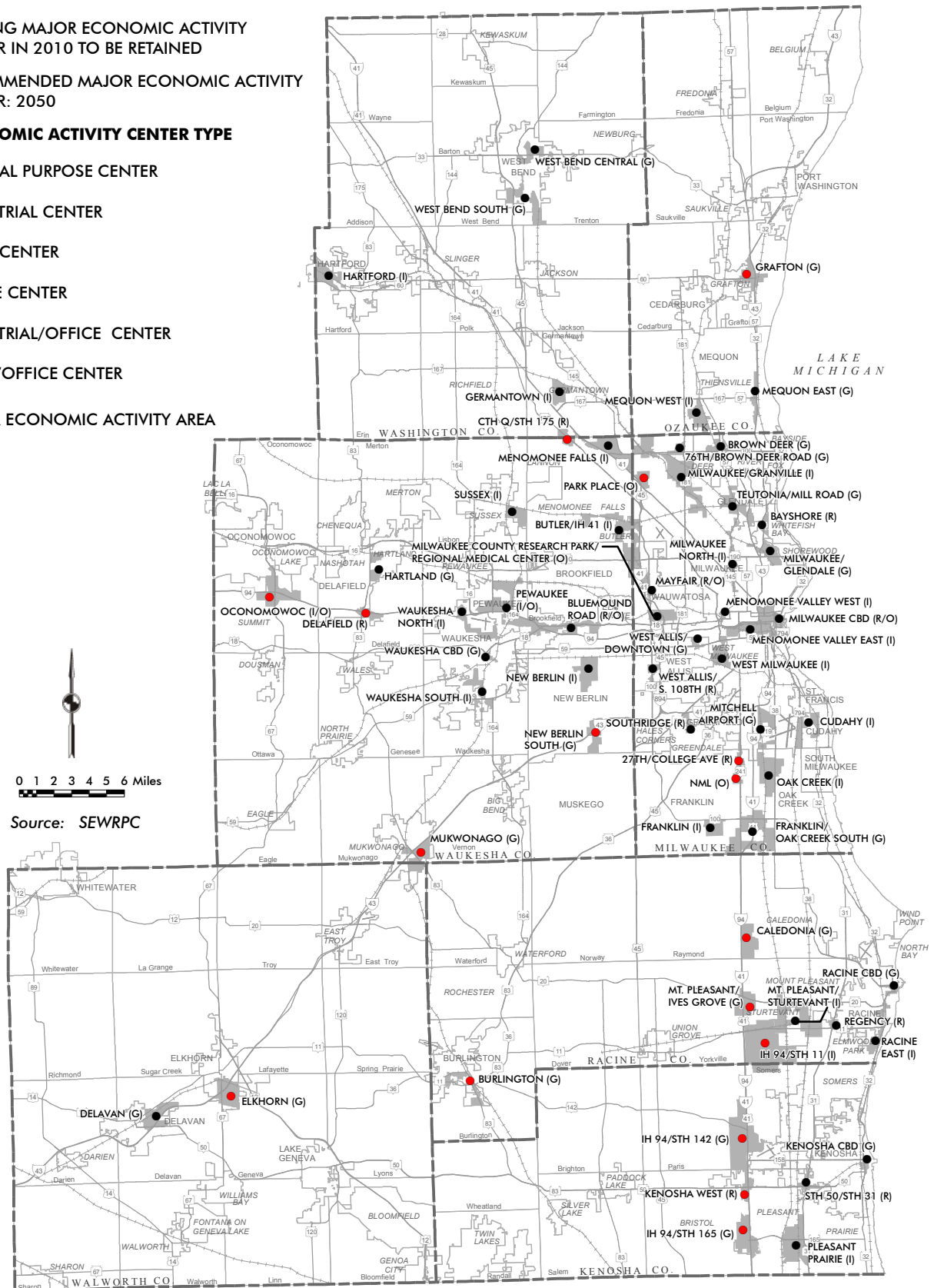
Map 1.4 as Amended Major Economic Activity Centers: VISION 2050

- EXISTING MAJOR ECONOMIC ACTIVITY CENTER IN 2010 TO BE RETAINED
- RECOMMENDED MAJOR ECONOMIC ACTIVITY CENTER: 2050

MAJOR ECONOMIC ACTIVITY CENTER TYPE

- G GENERAL PURPOSE CENTER
- I INDUSTRIAL CENTER
- R RETAIL CENTER
- O OFFICE CENTER
- I/O INDUSTRIAL/OFFICE CENTER
- R/O RETAIL/OFFICE CENTER

MAJOR ECONOMIC ACTIVITY AREA



Map 1.8 as Amended Transit Services: VISION 2050

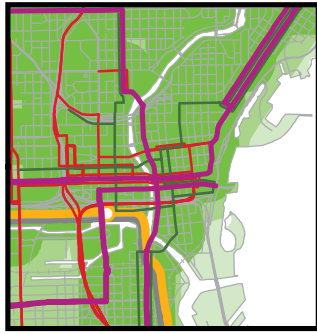
TRANSIT SERVICES

- RAPID TRANSIT LINE
- EXPRESS BUS ROUTE
- COMMUTER RAIL LINE & STATION
- COMMUTER BUS ROUTE & PARK-RIDE
- INTERCITY RAIL
- STREETCAR LINE

LOCAL TRANSIT SERVICE AREA AND PEAK FREQUENCY

- EVERY 15 MINUTES OR BETTER
- LESS FREQUENT THAN EVERY 15 MINUTES
- ONE DAY ADVANCE-RESERVATION
SHARED-RIDE TAXI

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



0 1 2 3 4 5 6 Miles

Source: SEWRPC

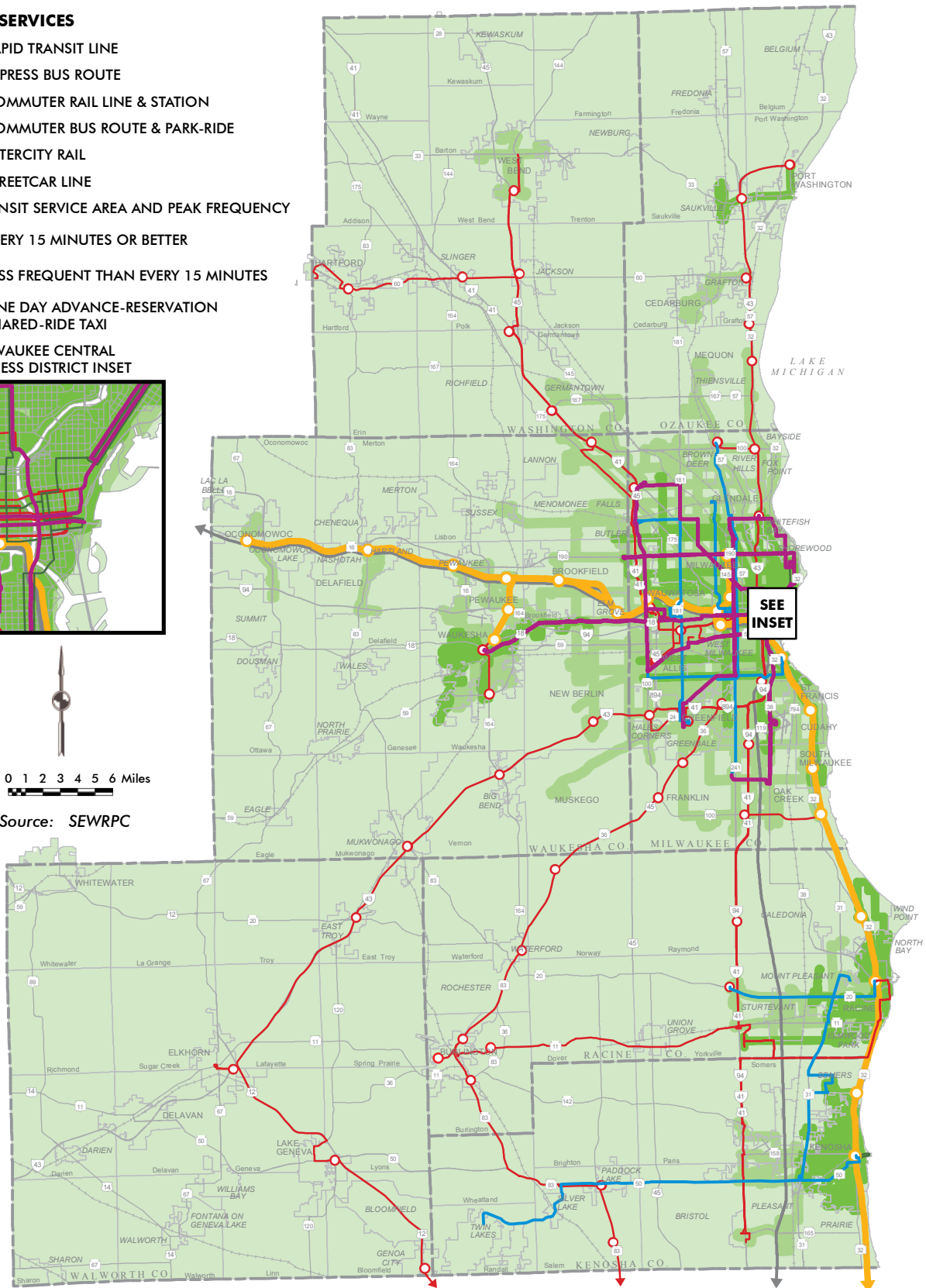


Table 1.8 as Amended
Fixed-Route Public Transit Service Levels: VISION 2050

Average Weekday Transit Service Characteristics	Existing (2014)	Plan (2050)
Revenue Vehicle-Hours		
Rapid Transit	--	1,170
Commuter Rail	<10	190
Commuter Bus	270	1,020
Express Bus	500	890
Local Transit	3,980	7,140
Total	4,750	10,410
Revenue Vehicle-Miles		
Rapid Transit	--	23,500
Commuter Rail	100	8,200
Commuter Bus	5,800	25,100
Express Bus	6,300	13,200
Local Transit	48,200	84,500
Total	60,400	154,500

Source: SEWRPC

Table 1.10 as Amended
Miles of Bicycle Facilities: VISION 2050

Bicycle Facility	Estimated Mileages	
	Existing (2015)	Plan (2050)
On-street Accommodations		
Standard	814.7	3,029.0
Enhanced	71.8	374.2
Off-Street Paths	299.2	708.8

Source: SEWRPC

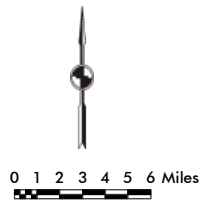
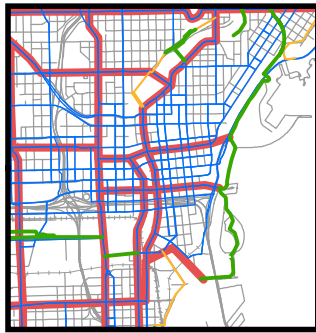
Map 1.11 as Amended Bicycle Network: VISION 2050

BICYCLE FACILITIES

- OFF-STREET BICYCLE PATH
- ARTERIAL STREET OR HIGHWAY WITH BICYCLE ACCOMMODATION (IF FEASIBLE)
- NONARTERIAL STREET CONNECTION TO OFF-STREET BICYCLE NETWORK
- RECOMMENDED CORRIDOR FOR ENHANCED BICYCLE FACILITY^a

^a Corridor would include an enhanced bicycle facility—such as a protected bike lane, a separate path within the road right-of-way, or a buffered bike lane—located on or along an arterial or, alternatively, a neighborhood greenway on a nearby parallel nonarterial.

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



Source: SEWRPC

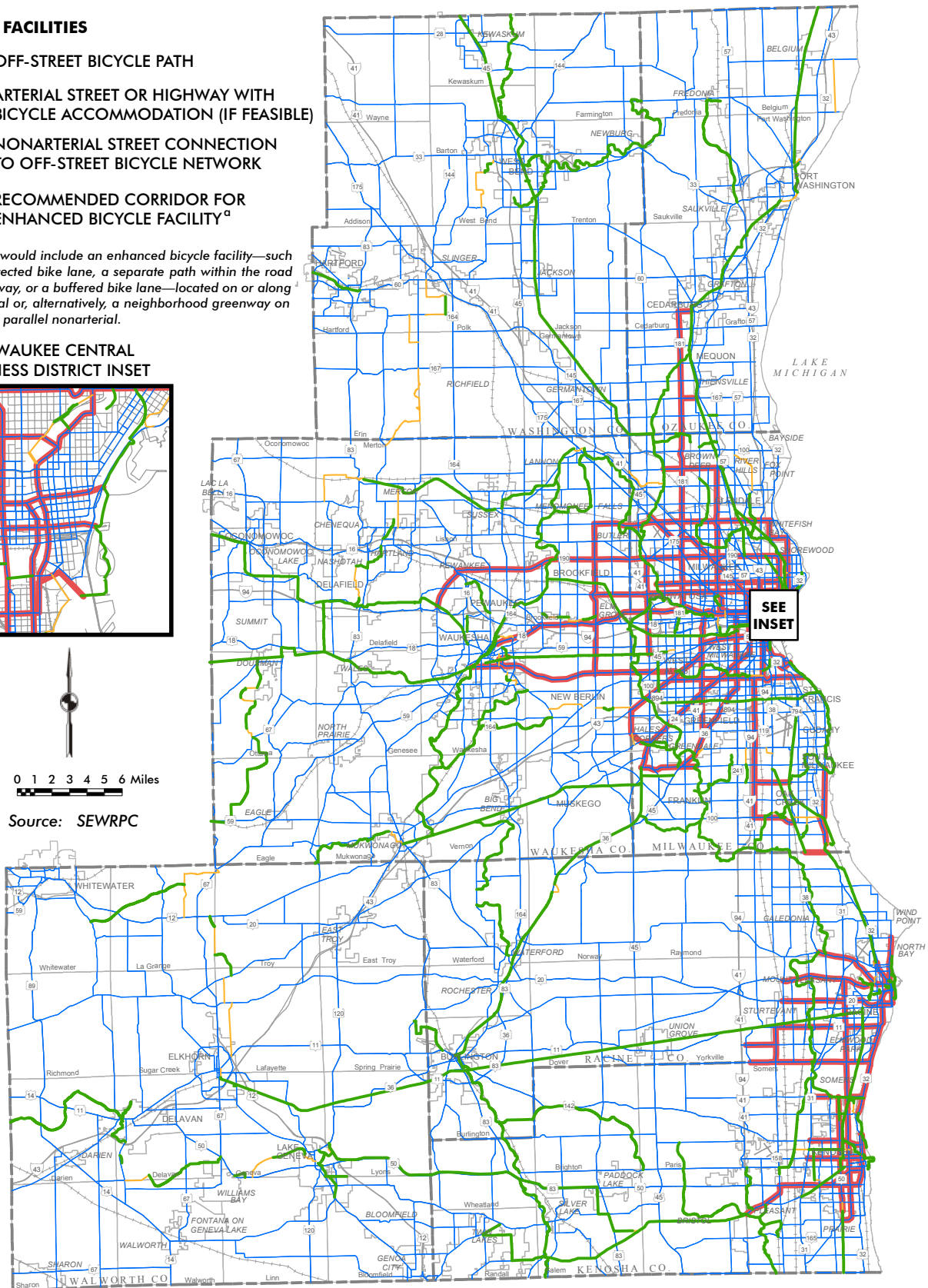


Table 1.12 as Amended
Arterial Street and Highway System Preservation, Improvement, and
Expansion by Arterial Facility Type by County: VISION 2050

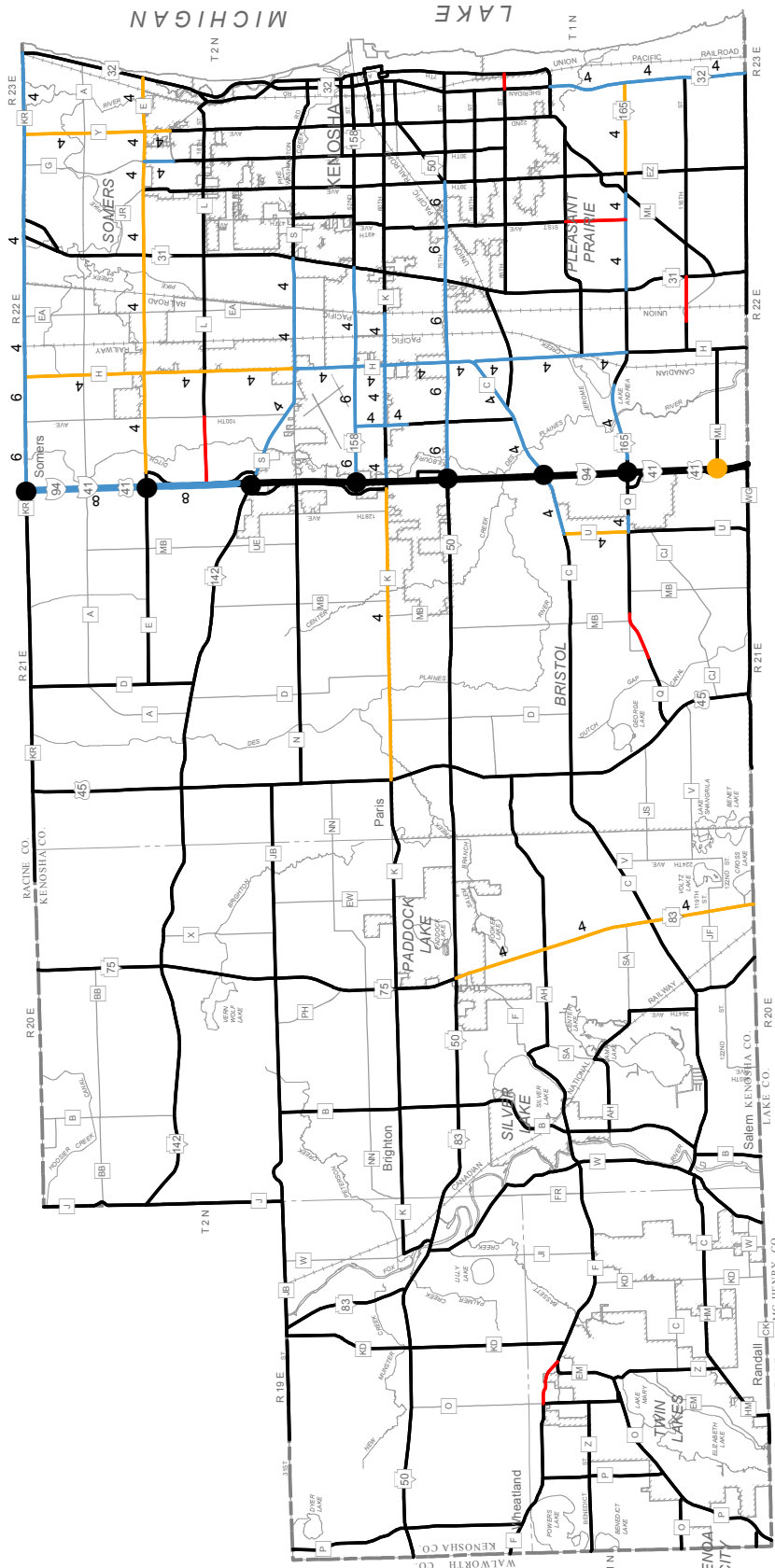
County	Arterial Facility Type	System Preservation (miles)	System Improvement (miles)	System Expansion (miles)	Total Miles
Kenosha	Freeway	8.5	3.5	0.0	12.0
	Surface Arterial	315.8	33.4	4.7	353.9
	Subtotal	324.3	36.9	4.7	365.9
Milwaukee	Freeway	39.4	28.4	0.0	67.8
	Surface Arterial	719.3	11.3	7.0	737.6
	Subtotal	758.7	39.7	7.0	805.4
Ozaukee	Freeway	13.3	14.2	0.0	27.5
	Surface Arterial	262.4	18.5	4.0	284.9
	Subtotal	275.7	32.7	4.0	312.4
Racine	Freeway	0.0	12.0	0.0	12.0
	Surface Arterial	405.6	22.2	12.1	439.9
	Subtotal	405.6	34.2	12.1	451.9
Walworth	Freeway	49.8	4.8 ^a	12.4	67.0 ^a
	Surface Arterial	409.2	4.3	10.3	423.8
	Subtotal	459.0	9.1	22.7	490.8
Washington	Freeway	35.8	6.4	0.0	42.2
	Surface Arterial	388.8	8.7	16.9	414.4
	Subtotal	424.6	15.1	16.9	456.6
Waukesha	Freeway	34.4	24.4	0.0	58.8
	Surface Arterial	647.7	76.3	7.2	731.2
	Subtotal	682.1	100.7	7.2	790.0
Region	Freeway	181.2	93.7 ^b	12.4	287.3 ^b
	Surface Arterial	3,148.8	174.7	62.2	3,385.7
	Total	3,330.0	268.4	74.6	3,673.0

^a Represents the conversion of approximately 4.8 miles of the USH 12 Whitewater bypass, currently a two traffic lane surface arterial to a four traffic lane freeway.

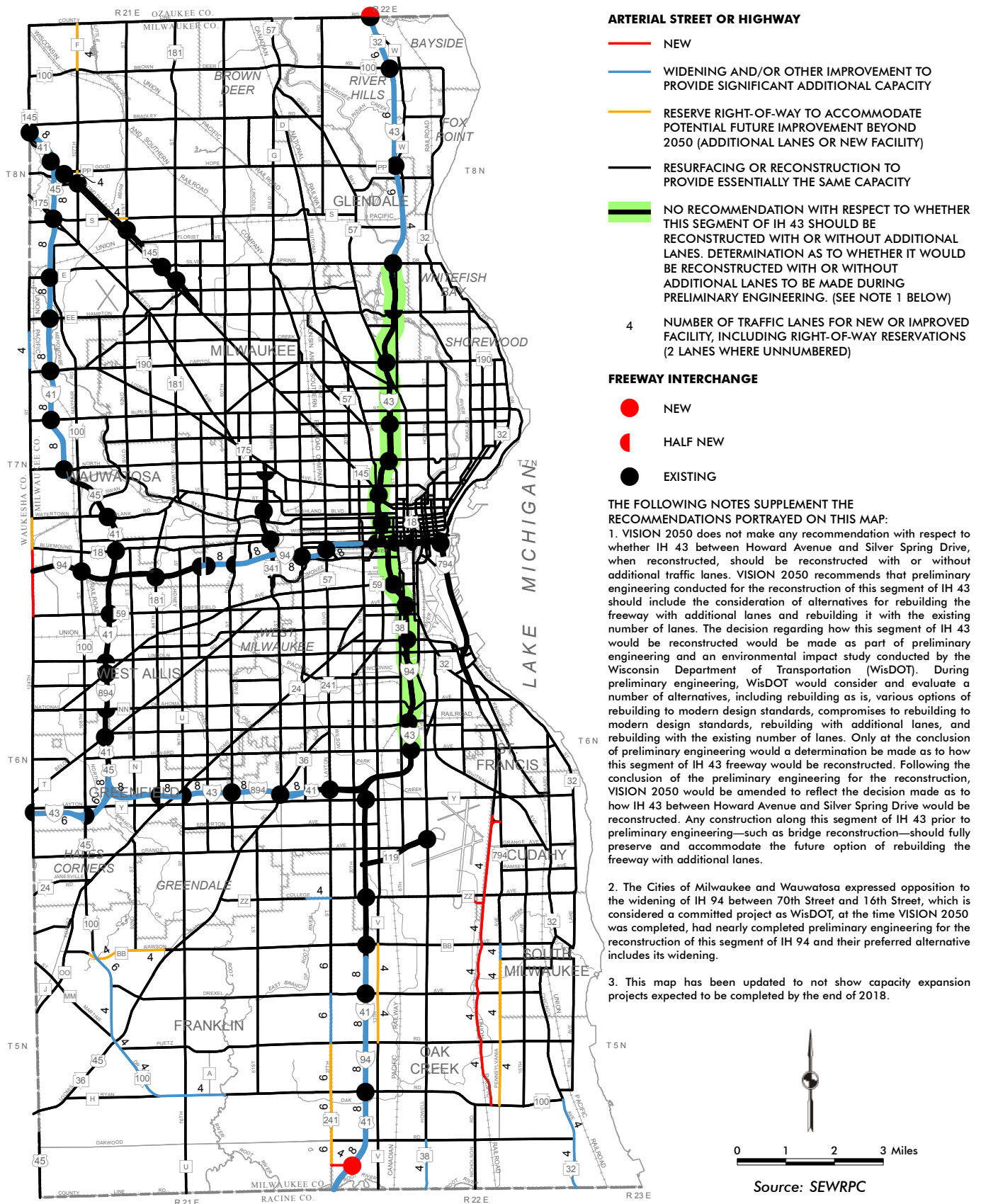
^b Includes the widening of approximately 100.7 miles of the existing 2015 regional freeway system, and the conversion of about 4.8 miles of the USH 12 Whitewater bypass, currently a two traffic lane surface arterial to a four traffic lane freeway.

Source: SEWRPC

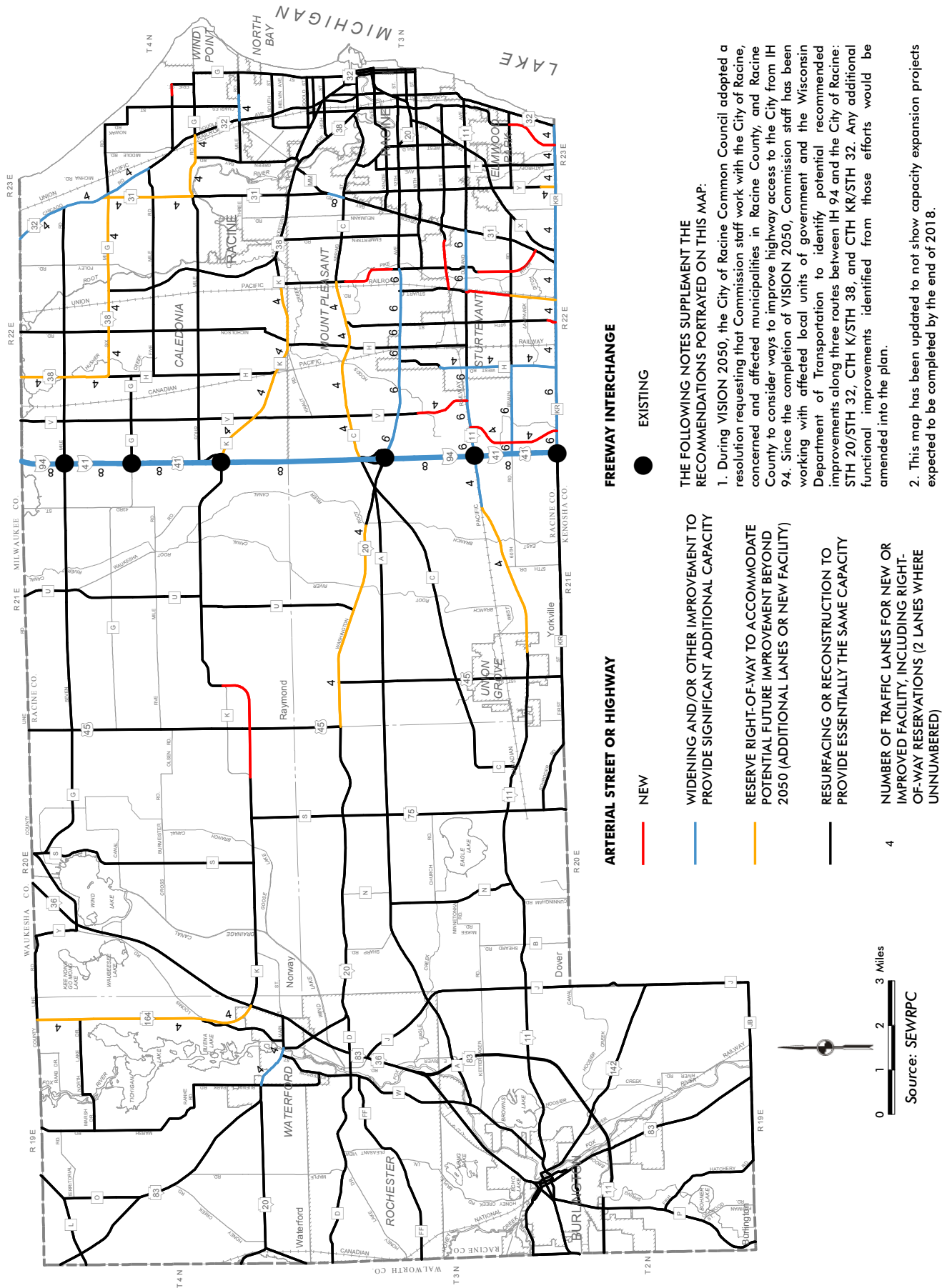
Map 1.15 as Amended



Map 1.16 as Amended
Functional Improvements to the Arterial Street and Highway
System in Milwaukee County: VISION 2050



Map 1.18 as Amended Functional Improvements to the Arterial Street and Highway System in Racine County: VISION 2050



Map 1.21 as Amended
Functional Improvements to the Arterial Street and Highway
System in Waukesha County: VISION 2050

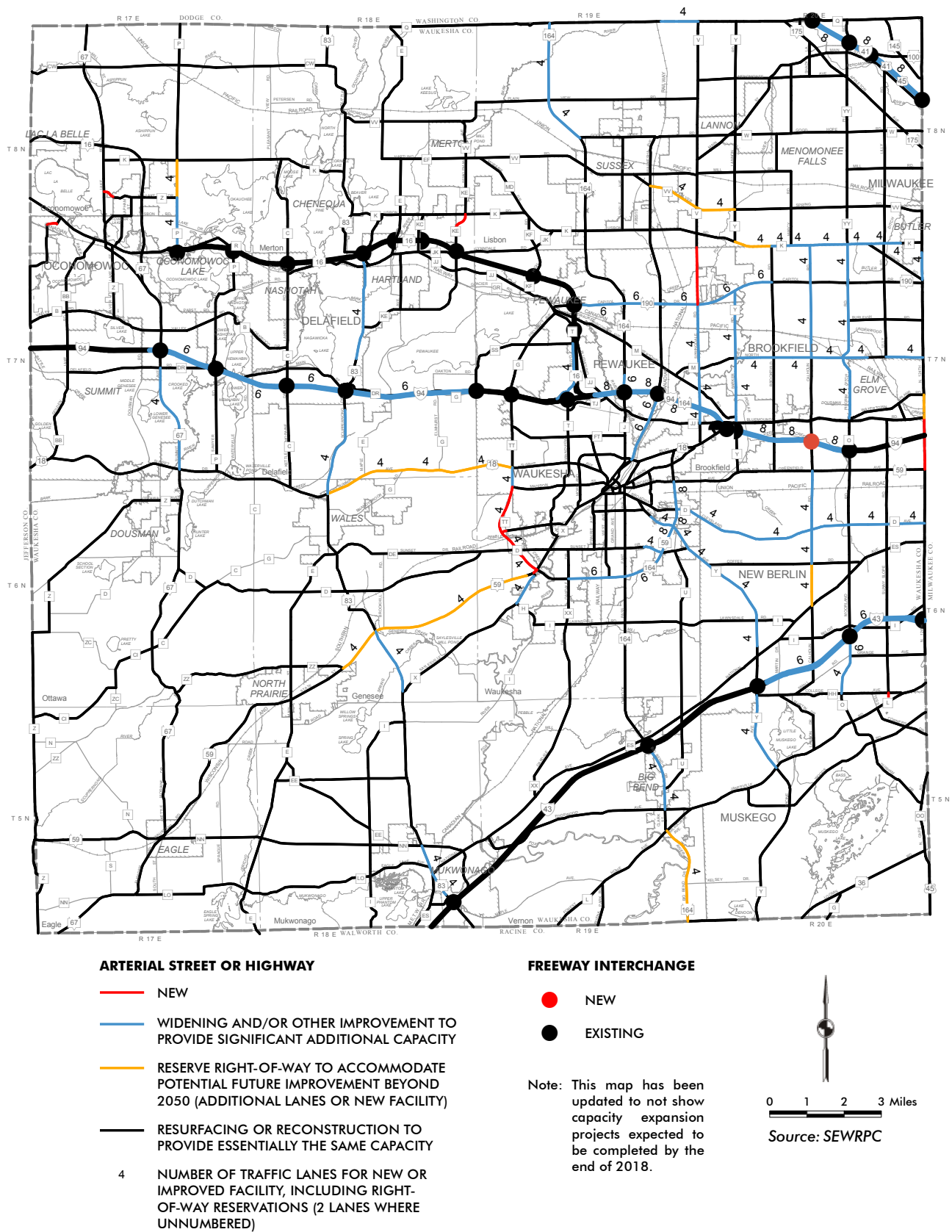


Table 1.13 as Amended
Average Annual Costs and Revenues Associated with the VISION 2050
Transportation System in 2017 Constant Dollars: 2019-2050

Cost or Revenue Item	2017 Constant Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars)^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$296
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	423
Subtotal	\$719
Operating	90
Highway Subtotal	\$809
Transit System	
Capital	\$129
Operating ^c	\$253
Transit Subtotal	\$382
Total	\$1,191
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars)^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	318
Local	78
Subtotal	\$459
Highway Operating	
State	\$41
Local	38
Subtotal	\$79
Highway Subtotal	\$538
Transit Capital	
Federal	\$96
Local	3
Subtotal	\$99
Transit Operating	
Federal	\$--
State	76
Local	35
Subtotal	\$111
Transit Subtotal	\$210
Total	\$748

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion recommended under VISION 2050. The freeway system capital costs include the cost to resurface the existing freeway system, as needed, estimated at \$1.2 billion or \$37 million per year; the cost to rebuild those segments of the existing freeway system that have not yet been rebuilt to modern design standards, estimated at \$8.5 billion or \$266 million per year; the incremental cost to rebuild 94 miles of the freeway system with additional lanes, estimated at \$578 million or \$18 million per year; the cost of two new freeway interchanges, estimated at \$78 million; and the cost of the extension of the USH 12 freeway from Elkhorn to Whitewater, estimated at \$469 million. These freeway capital costs include the cost to reconstruct IH 43 between Howard Avenue and Silver Spring Drive to modern design standards. Should it be determined that this segment of IH 43 be widened, the project cost would incrementally increase by \$179 million. With respect to freeway resurfacing, it was assumed that segments of freeway that were reconstructed before 2018 would be resurfaced on average two times by 2050 and segments of freeway that are recommended to be reconstructed in 2018 and beyond would be resurfaced on average one time by 2050. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,149 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 62 miles of surface arterials. The estimated costs of resurfacing and reconstruction are based on the estimated lifecycle of existing surface arterials, and include reconstruction of about 52 percent of surface arterials with approximately 66 percent resurfaced once, and 66 percent of the remaining 48 percent resurfaced twice and 33 percent resurfaced three times. Unit costs for surface arterial resurfacing, reconstruction, widening, and new construction vary by cross-section from \$0.4 to \$14.3 million per mile (rural or urban, divided or undivided, and number of traffic lanes) and are based upon actual project costs over the past several years. The estimated capital cost of surface arterials is \$348 million per year, including \$301 million for preservation (resurfacing and reconstruction) and \$47 million for new arterials and arterials reconstructed with additional traffic lanes. Transit system capital costs include preservation of the existing transit system, including bus replacement on a 12-year schedule and replacement of fixed facilities, and costs of system improvement and expansion, including needed additional buses and facility expansion.

Highway system operating (and maintenance) costs are based on estimated actual State and local highway system operating costs and verified by application of estimated unit lane-mile costs. Planned highway system operating costs are increased from estimated existing costs based on the proposed increase in VISION 2050 in arterial highway system lane-miles. Transit system operating (and maintenance) costs are based on existing estimated actual costs and unit costs based on service vehicle-miles and vehicle-hours.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of VISION 2050.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) significantly over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Table 1.14 as Amended
Average Annual Costs and Revenues Associated with the VISION 2050
Transportation System Based on Year of Expenditure: 2019-2050

Cost or Revenue Item	YOE Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars)^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$432
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	644
Subtotal	\$1,076
Operating	137
Highway Subtotal	\$1,213
Transit System	
Capital	\$204
Operating ^c	\$350
Transit Subtotal	\$554
Total	\$1,767
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars)^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$85
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	480
Local	107
Subtotal	\$672
Highway Operating	
State	\$59
Local	54
Subtotal	\$113
Highway Subtotal	\$785
Transit Capital	
Federal	\$130
Local	6
Subtotal	\$136
Transit Operating	
Federal	\$--
State	104
Local	46
Subtotal	\$150
Transit Subtotal	\$286
Total	\$1,071

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion recommended under VISION 2050. The freeway system capital costs include the estimated cost to rebuild those segments of the existing freeway system that have not yet been rebuilt to modern design standards, the estimated incremental cost to rebuild 94 miles of the freeway system with additional lanes, the estimated cost of two new freeway interchanges, and the estimated cost of the extension of the USH 12 freeway from Elkhorn to Whitewater. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,149 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 62 miles of surface arterials.

The conversion of year 2017 constant dollar cost to year of expenditure cost utilizes inflation rates based upon historical trends. The rate of inflation used for highway costs and transit construction costs of 2.3 percent was provided by WisDOT. The inflation rate of 2.5 percent used for transit vehicle costs is based on the historical increase in the purchase price of transit vehicles as experienced by the transit operators of the Region. With regard to transit operating costs, the inflation rate of 2.0 percent is based on the historical inflation from the Consumer Price Index for the Milwaukee area and discussions with Milwaukee County Transit System staff. The average annual capital and operating costs were calculated by evenly distributing the total year of expenditure costs over 32 years.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of VISION 2050.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) significantly over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Table 1.15 as Amended
Estimate of Existing and Reasonably Expected Arterial Street and Highway Revenues

Federal and State Capital Funding		
Assessment of Historical Statewide Funding		
Major Highway Development		
2017 – \$282 million		
2011-2015 – 0.6 percent annual increase		
2006-2015 – 4.7 percent annual increase		
State Highway Rehabilitation		
2017 – \$810 million		
2011-2015 – 3.0 percent annual increase		
2006-2015 – 3.5 percent annual increase		
Local Roads and Bridges		
2017 – \$181 million		
2011-2015 – 0.6 percent annual increase		
2006-2015 – 0.5 percent annual increase		
Southeastern Wisconsin Freeway Megaproject		
2017-2019 State budget provides an annual \$51 million		
2015-2017 State budget provides an annual \$208 million		
2013-2015 State budget provided an annual \$275 million		
2015-2019 – \$212 million annual average (2017 constant dollars)		
2006-2015 – \$311 million average annual funding (2017 constant dollars)		
The 2011 Wisconsin Act 32 eliminated the Southeastern Wisconsin freeway rehabilitation program and initiated the Southeast Wisconsin Freeway Megaproject program.		
Conclusion		
	2017 Constant Dollar Funding (millions)	Year of Expenditure Average Annual Increase (Percent)
Major Highway Development	\$280	2.5
State Highway Rehabilitation	810	2.5
Local Roads and Bridges	180	0.5
Southeastern Wisconsin Freeway Megaproject	50	2.0
Total	\$1,320	
The average annual increase is based on Wisconsin Department of Transportation assumptions of future transportation revenues.		
Southeastern Wisconsin Share of State Revenues		
Southeastern Wisconsin represents approximately 35 percent of the State in population, employment, income, and assessed value, and about 30 percent of vehicle-miles of travel. In the years after freeway system construction, and before freeway system reconstruction, Southeastern Wisconsin received about 25 to 30 percent of all State highway system revenues. To estimate Southeastern Wisconsin's share of State revenues, Option 1 allocates all Southeast Freeway Rehabilitation funds to Southeast Wisconsin and 25 percent of all other funds to Southeastern Wisconsin. Option 2 allocates 30 percent of all funds to Southeastern Wisconsin.		
Option 1		
$\$50 + 0.25(\$1,270) = \$368$ million		
Option 2		
$\$1,320 \times 0.30 = \396 million		
Conclusion		
\$396 million Federal and State annual highway revenue in 2017 constant dollars (2.0 percent annual increase year of expenditure)		
Local Capital		
Estimate of annual revenue based upon local arterial highway annual expenditure – \$63 million (2.0 percent annual increase year of expenditure)		
Local Transportation Aids (Capital)		
Estimate of annual general transportation aids attendant to estimated local highway capital expenditure – \$15 million (0.5 percent annual increase year of expenditure)		
Operating and Maintenance Funding		
State		
Assessment of Historical Funding		
\$44 million annually		
Conclusion – 2050 Plan		
\$44 million annually (2.0 percent annual increase year of expenditure)		
Local		
Assessment of Historical Funding		
\$41 million annually		
Conclusion – 2050 Plan		
\$41 million annually (2.0 percent annual increase year of expenditure)		

Source: Transportation Budget Trends – 2014-2015 (Wisconsin Department of Transportation) and SEWRPC

Table 1.16 as Amended
Estimate of Existing and Reasonably Expected Transit Revenues

Estimate of Year 2017 Constant Dollar Annual Funding	
Federal	
Assessment of Historical Funding	
Operating – \$32 million (2004-2016)	
Capital – \$7.1 million (2013-2016)	
Assessment of Funding Sources	
Milwaukee Urbanized Area Section 5307 formula funds – \$21.1 million (2004-2016)	
Racine, Kenosha, and West Bend Urbanized Area 5307 operating funds – \$5.8 million (2004-2016)	
Other:	
FTA 5311 – \$0.3 million (2013-2016)	
FTA 5337 – \$0.4 million (2013-2016)	
FTA 5339 – \$3.2 million (2013-2016)	
FTA 5339b – \$2.4 million (2016)	
FHWA CMAQ – \$1.3 million	
FHWA STP-M – \$1.7 million	
City of Milwaukee Streetcar	
Capital	
\$54.9 million Federal Interstate Cost Estimate funding (\$1.4 million average annual)	
\$34.2 million TIGER grant (\$877,200 million average annual)	
FTA 5337 – \$263,800 beginning in 2025, 2026, and 2027 (\$191,100 average annual)	
Operating	
CMAQ – \$6.2 million (\$160,500 average annual)	
FTA 5307 – \$547,300 beginning in 2020, 2021, and 2022 (\$474,600 average annual)	
Milwaukee County Bus Rapid Transit	
Capital	
FTA 5309 Small Starts – \$30 million (\$767,100 average annual)	
FTA 5337 – \$860,000 beginning in 2026 (\$623,000 average annual)	
Operating	
FTA 5307 – \$1 million beginning in 2021 (\$857,100 average annual)	
Conclusion^a	
\$23.6 million operating	
\$18.0 million capital	
Transit service levels envisioned in VISION 2050 would be expected to generate an additional \$57.2 million in Federal capital and operating funding annually on average	
State	
Assessment of Historical Operating Funding	
43.7 percent of operating cost – \$76.3 million (2014)	
41.4 percent of total operating cost (average 2004-2014) – \$83.2 million	
Conclusion^a	
\$76 million operating annually	
Local	
Assessment of Operating Funding	
\$20.7 million (2014)	
\$26.8 million (average 2004-2014)	
\$2.9 million average annual parking revenue – City of Milwaukee Streetcar	
Conclusion^a	
\$26 million operating	
Assessment of Capital Funding	
\$3.2 million (2014)	
\$3.4 million (average 2004-2015)	
\$12.1 million (2016) for the Milwaukee County Transit System, which represents approximately 90 percent of the transit service in the Region	
\$79 million tax incremental finance funds (\$2.1 million average annual) – City of Milwaukee Streetcar	
Conclusion^a	
Up to \$12 million capital	

Table 1.16 as Amended (Continued)

Estimate of Annual Increase in Funding for Year of Expenditure Revenues	
Federal	
Assessment of Historical Funding and Conclusion^a	
FTA Section 5307 Milwaukee Area	0.4 percent annual increase (2004-2014)
FTA Section 5307 Kenosha, Racine, and West Bend	3.3 percent annual increase (2004-2014)
FTA 5311	-3.1 percent annually (2013-2016)
FTA 5337	5.1 percent annually (2013-2016)
FTA 5339	-2.0 percent annually (2013-2016)
FTA 5339b	Approximately \$2.5 million (2016)
FHWA CMAQ	Assume no funding beyond 2022
FHWA STP-M	Assume no growth
State	
Assessment of Historical Operating Funding	
1.7 percent annual increase (average 2004-2014)	
Conclusion^a	
1.7 percent annual increase	
Local	
Assessment of Historical Funding	
1.2 percent annual decrease (2004-2014 operating) in recent years due primarily to reductions in operating costs attributable to contract restructuring	
10 percent annual increase (2015-2016) for the Milwaukee County Transit System, which represents approximately 90 percent of the transit service in the Region	
Conclusion^a	
1.5 percent annual increase	
Average Fares	
2.4 percent annual increase (2004-2014)	
Conclusion^a	
2.4 percent increase	

^a Conclusions are based on the assessments of historic funding presented in this table along with consideration of recent or expected changes in funding at the local, State, and Federal levels.

Source: SEWRPC

Table 1.17 as Amended

Estimated Cost and Potential Schedule of Freeway Construction and Reconstruction: 2019-2050^a

Period Completed and Open to Traffic	Facility	Limits of Project	Estimated Cost		Estimated Funding-Year of Expenditure Dollars (millions)
			Year 2017 Constant Dollars (millions) ^b	Year of Expenditure Dollars (millions) ^b	
2019 to 2025	IH 94 ^c	Illinois to Mitchell Interchange	411.2	450.4	
	Zoo IC ^c	Zoo Interchange (North Leg)	179.5	179.5	
	IH 43	Silver Spring Drive to STH 60	474.3	543.9	
		Subtotal	1,065.0	1,173.8	798.7
2026 to 2030	IH 94	70th Street to 16th Street (including Stadium Interchange)	911.6	1069.4	
	IH 43, IH 43/894, & IH 894 ^e	Lincoln Avenue to 27th Street (STH 241), Racine Avenue (CTH Y) to Hale Interchange (including Hale Interchange)	1021.6	1264.1	
		Subtotal	1,933.2	2,333.5	311.0
2031 to 2035	IH 94 ^e	Jefferson County to 124th Street	1,021.2	1,335.7	
	IH 43 ^d	Howard Avenue to Silver Spring Drive (including Marquette Interchange)	817.9	1,160.0	
		Subtotal	1,839.1	2,495.7	343.3
2036 to 2040	IH 43 ^e	STH 83 to Moorland Road	326.7	492.8	
	IH 41 ^e	Burleigh Street to Richfield Interchange	874.5	1,341.1	
	STH 175 ^e	Stadium Interchange to Lisbon Avenue	150.3	251.5	
	USH 41 ^e	Richfield Interchange to Dodge County	421.8	703.7	
		Subtotal	1,773.3	2,789.1	379.1
2041 to 2045	IH 43 ^e	IH 43 and USH 12 Interchange	73.6	128.8	
	IH 43 ^e	STH 60 to Sheboygan County	418.7	740.5	
	USH 12	Illinois to Rock County ^f	780.6	1,426.3	
		Subtotal	1,272.9	2,295.6	418.5
2046 to 2050	IH 43 ^e	Rock County to STH 83	626.4	1,182.2	
	STH 145 ^e	Hampton Avenue to Good Hope Road	198.7	398.8	
	STH 16 ^e	STH 67 to IH 94	447.8	907.7	
	USH 45 ^e	Richfield Interchange to CTH D	330.9	686.2	
		Subtotal	1,608.3	3,175.1	462.1
Total			9,487.5	14,262.9	2,712.7

^a The schedule shown in this table represents an estimate of the timing of construction and reconstruction for the purposes of comparison of costs and revenues, and is not a recommendation for the schedule of construction and reconstruction. Such a schedule can only be developed by the responsible implementing agency and will necessarily entail frequent updating, for example, due to pavement and structure condition.

^b Constant dollar and year of expenditure cost estimates for projects are reported in the period that the project is expected to be completed and open to traffic. Actual project expenditures will occur over multiple years and could extend over multiple periods dependent on the scope and complexity attendant to each project.

^c Project is currently underway. Only those construction costs programmed for years 2019 through 2050 are included.

^d VISION 2050 does not make a recommendation with respect to whether IH 43 between Howard Avenue and Silver Spring Drive, when reconstructed, should be reconstructed with or without additional traffic lanes. The decision regarding how this segment of IH 43 would be reconstructed would be determined as part of preliminary engineering. Following the conclusion of the preliminary engineering for the reconstruction, VISION 2050 would be amended to reflect the decision made as to how this segment of IH 43 would be reconstructed. The estimated cost shown in this table reflects the cost to reconstruct this segment of IH 43 to modern design standards without additional traffic lanes. Providing the additional traffic lanes along this segment of IH 43 is estimated to have an incremental cost of \$180 million.

^e Current Majors Program budget levels will not provide funding for these projects before 2050; therefore, this project schedule assumes additional funding availability in the years shown. Projects listed for completion after 2036 will have to compete for Majors funding with other large projects statewide, on the basis of economic impact, traffic flow, safety, and environmental considerations.

^f Includes costs associated with the reconstruction of the USH 12 freeway between the Illinois State line and STH 67 and the construction of a new freeway facility between STH 67 and Rock County.

Source: Wisconsin Department of Transportation and SEWRPC

Table 1.18 as Amended
Estimated Cost and Potential Schedule of Larger
Surface Arterial Construction and Reconstruction Projects^{a, b}

Period Completed and Open to Traffic	County	Facility	Limits of Project	Cost (Millions 2017 Dollars)^c	Cost (Millions Year of Expenditure Dollars)	Mileage
2019 to 2020	Kenosha	CTH S (part)	CTH H to STH 31	9.6		1.9
	Waukesha	CTH M (part)	CTH YY to Highland Drive and Lilly Road to 124th Street	14.0		1.7
	Waukesha	Waukesha West Bypass	Summit Avenue to STH 59	37.3		3.3
			Subtotal	60.9	64.5	6.9
2021 to 2025	Kenosha	CTH S (part)	E. Frontage Road to CTH H	8.1		1.9
	Kenosha	STH 50	IH 94 to 39th Avenue	65.3		4.8
	Racine/Kenosha	CTH KR (part)	IH 94 to Old Green Bay Road	48.3		4.4
	Waukesha	CTH M (part)	CTH Y to CTH YY	23.9		2.9
			Subtotal	145.6	167.0	14.0
2026 to 2030	Kenosha	CTH H (Part)	CTH S to STH 50	18.7		2.6
	Ozaukee	CTH W (part)	Highland Road to W. Glen Oaks Lane	7.2		1.0
	Milwaukee and Racine	STH 32	STH 100 to Five Mile Road	31.6		5.1
	Racine/Kenosha	CTH KR (part)	Old Green Bay Road to STH 32	20.7		2.8
	Walworth	STH 50	IH 43 to STH 67	24.9		4.3
	Waukesha	STH 83	USH 18 to Phylis Parkway	33.7		2.4
	Waukesha	STH 83	Mariner Drive to STH 16	33.7		3.6
	Waukesha	CTH D (part)	Milwaukee County line to Calhoun Road	12.7		3.0
	Waukesha	CTH Y (part)	Hickory Trail to Downing Drive	16.9		4.0
			Subtotal	200.1	257.1	28.8
2031 to 2035	Kenosha	CTH H (Part)	STH 50 to STH 165	13.9		3.0
	Milwaukee	USH 45/STH 100	Rawson Avenue to 60th Street	23.5		4.8
	Racine	STH 20	IH 94 to Oaks Road	43.9		4.5
	Waukesha	Pilgrim Road	USH 18 to Lisbon Road	34.6		4.8
	Waukesha	CTH SR/Town Line	CTH JJ to STH 190	23.1		3.2
	Waukesha	Road extension (part)				
	Waukesha	CTH Y (part)	CTH L to College Avenue	12.1		2.1
			Subtotal	151.1	174.0	22.4
2036 to 2040	Ozaukee	CTH W (part)	CTH V to Lakeland Road	22.4		3.1
	Waukesha	STH 67 (part)	CTH DR to USH 18	14.1		2.9
	Waukesha	STH 190	STH 16 to Brookfield Road	52.4		5.4
	Waukesha	CTH D (part)	Calhoun Road to STH 59/164	16.3		3.8
			Subtotal	105.2	169.7	15.2
2041 to 2045	Ozaukee	CTH W (part)	Lakeland Road to Highland Road	22.2		3.1
	Waukesha	STH 59/164	CTH XX to Arcadian Avenue	55.3		4.8
	Waukesha	CTH SR/Town Line	STH 190 to Weyer Road	7.8		1.5
		Road extension (part)				
			Subtotal	85.3	154.1	9.4
2046 to 2050	Milwaukee	Lake Pkwy Extension	E. Edgerton Avenue to STH 100	235.1		6.0
			Subtotal	235.1	476.0	6.0
			Total	983.3	1,462.4	102.7

^a The projects included in this table involve new construction or widening with a cumulative length of four or more miles.

^b The schedule shown in this table represents an estimate of the timing of construction and reconstruction for the purposes of comparison of costs and revenues, and is not a recommendation for the schedule of construction and reconstruction. Such a schedule can only be developed by the responsible implementing agency and will necessarily entail frequent updating, for example, due to pavement and structure condition.

^c Cost of construction does not include the cost of right-of-way required for the project.

Source: SEWRPC

Table 1.19 as Amended
Average Annual Costs by County Associated with the VISION 2050
Public Transit Element in 2017 Constant Dollars: 2019-2050

County	Operating Cost^a (millions)	Capital Cost (millions)	Total (millions)
Kenosha	\$26.0	\$9.0	\$34.9
Milwaukee	147.3	88.9	236.2
Ozaukee	5.8	1.0	6.8
Racine	27.7	9.4	37.0
Walworth	2.8	0.2	3.0
Washington	5.5	0.9	6.4
Waukesha	38.3	19.2	57.5
Region	\$253.3	\$128.6	\$381.9

^a Net operating cost (total operating costs less fare-box revenue).

Source: SEWRPC

Table 1.20 as Amended
Estimated Gap Between VISION 2050 Costs and
Existing and Reasonably Expected Revenues

Constant Year 2017 Dollars (Average Annual Through Year 2050)	
Highway	
Capital	\$260 million
Operating	\$11 million
Public Transit	
Capital	\$30 million
Operating	\$142 million
Year of Expenditure Dollars (Average Annual Through Year 2050)	
Highway	
Capital	\$404 million
Operating	\$24 million
Public Transit	
Capital	\$68 million
Operating	\$200 million

Source: SEWRPC

Table 2.1 as Amended
Average Annual Costs and Revenues Associated with the Fiscally Constrained
Transportation System in 2017 Constant Dollars: 2019-2050

Cost or Revenue Item	2017 Constant Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars) ^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	416
Subtotal	\$479
Operating	90
Highway Subtotal	\$569
Transit System	
Capital	\$25
Operating ^c	\$134
Transit Subtotal	\$159
Total	\$728
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars) ^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$63
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	318
Local	78
Subtotal	\$459
Highway Operating	
State	\$41
Local	38
Subtotal	\$79
Highway Subtotal	\$538
Transit Capital	
Federal	\$16
Local	7
Subtotal	\$23
Transit Operating	
Federal	\$22
State	76
Local	36
Subtotal	\$134
Transit Subtotal	\$157
Total	\$695

o The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion under the Fiscally Constrained Transportation Plan. The freeway system capital costs include the cost to resurface the existing freeway system, as needed, estimated at \$1.2 billion or \$37 million per year; and the cost to rebuild 35 miles of the freeway system with additional lanes, estimated at \$2.0 billion or \$62.7 million per year. With respect to freeway resurfacing, it was assumed that segments of freeway that were reconstructed before 2019 would be resurfaced on average two times by 2050 and segments of freeway that are recommended to be reconstructed in 2016 and beyond would be resurfaced on average one time by 2050. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,154 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 54 miles of surface arterials. The estimated costs of resurfacing and reconstruction are based on the estimated lifecycle of existing surface arterials, and include reconstruction of about 52 percent of surface arterials with approximately 66 percent resurfaced once, and 66 percent of the remaining 48 percent resurfaced twice and 33 percent resurfaced three times. Unit costs for surface arterial resurfacing, reconstruction, widening, and new construction vary by cross-section from \$0.4 to \$14.3 million per mile (rural or urban, divided or undivided, and number of traffic lanes) and are based upon actual project costs over the past several years. The estimated capital cost of surface arterials is \$368 million per year, including \$330 million for preservation (resurfacing and reconstruction) and \$38 million for new arterials and arterials reconstructed with additional traffic lanes. Transit system capital costs include preservation of the existing transit system, including bus replacement on a 15-year schedule and replacement of fixed facilities, and costs associated with the initial phases of the Milwaukee Streetcar and Milwaukee County's BRT line between downtown Milwaukee and the Milwaukee Regional Medical Center, including needed additional vehicles and facilities.

Highway system operating (and maintenance) costs are based on estimated actual State and local highway system operating costs and verified by application of estimated unit lane-mile costs. Planned highway system operating costs are increased from estimated existing costs based on the proposed increase in the Fiscally Constrained Transportation Plan in arterial highway system lane-miles. Transit system operating (and maintenance) costs are based on existing estimated actual costs and unit costs based on service vehicle-miles and vehicle-hours. Planned transit system operating costs have been decreased from existing system operating costs based on the requisite decrease in transit service vehicle-miles and vehicle-hours to match reasonably expected revenues available.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15 of Chapter 1 of this volume. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of the Fiscally Constrained Transportation Plan.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Table 2.2 as Amended
Average Annual Costs and Revenues Associated with the Fiscally Constrained
Transportation System Based on Year of Expenditure: 2019-2050

Cost or Revenue Item	YOE Dollars
Transportation System Cost (average annual 2019-2050 expressed as millions of dollars) ^a	
Arterial Street and Highway System	
Capital	
Freeway Reconstruction	\$91
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing ^b	633
Subtotal	\$724
Operating	137
Highway Subtotal	\$861
Transit System	
Capital	\$36
Operating ^c	\$183
Transit Subtotal	\$219
Total	\$1,080
Transportation System Revenues (average annual 2019-2050 expressed as millions of dollars) ^a	
Highway Capital	
Freeway Reconstruction (Federal/State)	\$85
Surface Arterial Reconstruction/Resurfacing and Freeway Resurfacing	
Federal/State	480
Local	107
Subtotal	\$672
Highway Operating	
State	\$59
Local	54
Subtotal	\$113
Highway Subtotal	\$785
Transit Capital	
Federal	\$17
Local	8
Subtotal	\$25
Transit Operating	
Federal	\$27
State	104
Local	52
Subtotal	\$183
Transit Subtotal	\$208
Total	\$993

^a The estimated arterial street and highway system and transit system costs include all capital costs and operating and maintenance costs. The estimated costs include the necessary costs to preserve the existing transportation system, such as arterial street resurfacing and reconstruction and transit system bus replacement, and the estimated costs of the transportation system improvement and expansion under the Fiscally Constrained Transportation Plan. The freeway system capital costs include the estimated cost to rebuild 35 miles of the freeway system with additional lanes. Surface arterial capital costs include the estimated costs of the necessary resurfacing and reconstruction of the 3,154 miles of surface arterials that will require preservation of capacity over the plan design period, the estimated costs of reconstruction and widening with additional traffic lanes of about 175 miles of surface arterials, and the estimated costs of new construction of 54 miles of surface arterials.

The conversion of year 2017 constant dollar cost to year of expenditure cost utilizes inflation rates based upon historical trends. The rate of inflation used for highway costs and transit construction costs of 2.3 percent was provided by WisDOT. The inflation rate of 2.5 percent used for transit vehicle costs is based on the historical increase in the purchase price of transit vehicles as experienced by the transit operators of the Region. With regard to transit operating costs, the inflation rate of 2.0 percent is based on the historical inflation from the Consumer Price Index for the Milwaukee area and discussions with Milwaukee County Transit System staff. The average annual capital and operating costs were calculated by evenly distributing the total year of expenditure costs over 32 years.

Federal, State, and local highway capital and operating revenues are based on historical expenditures over the last several years and are documented in Table 1.15 of Chapter 1 of this volume. Federal, State, and local transit capital and operating revenues are based on historical expenditures over the last several years and assessment of available Federal formula and program funds and are documented in Table 1.16.

^b Also includes the costs associated with the bicycle and pedestrian, TSM, and TDM elements of the Fiscally Constrained Transportation Plan.

^c Net operating cost (total operating costs less fare-box revenue). Like all amounts in this table, transit system operating costs represent the average annual costs for the transit system during the plan design period (2019-2050). Because the transit system changes in size (and therefore cost) over the life of the plan, the amounts in this table do not represent the operating costs of the full transit system in the year 2050.

Source: SEWRPC

Table 2.3 as Amended**Estimated Cost and Potential Schedule of Freeway Construction and Reconstruction: 2019-2050^a**

Period Completed and Open to Traffic	Facility	Limits of Project	Estimated Cost		Estimated Funding-Year of Expenditure Dollars (millions)
			Year 2017 Constant Dollars (millions) ^b	Year of Expenditure Dollars (millions) ^b	
2019 to 2025	IH 94 ^c	Illinois to Mitchell Interchange	411.2	450.4	
	Zoo IC ^c	Zoo Interchange (North Leg)	179.5	210.5	
		Subtotal	590.7	660.9	798.7
2026 to 2030	IH 43	Silver Spring Drive to STH 60	504.6	655.5	311.0
2046 to 2050	IH 94	70th Street to 16th Street (including Stadium Interchange)	911.6	1,685.3	1,603.0
Total			2,006.9	3,001.7	2,712.7

^a The schedule shown in this table represents an estimate of the timing of construction and reconstruction for the purposes of comparison of costs and revenues, and is not a recommendation for the schedule of construction and reconstruction. Such a schedule can only be developed by the responsible implementing agency and will necessarily entail frequent updating, for example, due to pavement and structure condition.

^b Constant dollar and year of expenditure cost estimates for projects are reported in the period that the project is expected to be completed and open to traffic. Actual project expenditures will occur over multiple years and could extend over multiple periods dependent on the scope and complexity attendant to each project.

^c Project is currently underway. Only those construction costs programmed for years 2019 through 2050 are included.

Source: Wisconsin Department of Transportation and SEWRPC

Table 2.4 as Amended
Estimated Cost and Potential Schedule of Larger
Surface Arterial Construction and Reconstruction Projects^{a, b}

Period Completed and Open to Traffic	County	Facility	Limits of Project	Cost (Millions 2017 Dollars) ^c	Cost (Millions Year of Expenditure Dollars)	Mileage
2019 to 2020	Kenosha	CTH S (part)	CTH H to STH 31	9.6		1.9
	Waukesha	CTH M (part)	CTH YY to Highland Drive and Lilly Road to 124th Street	14.0		1.7
	Waukesha	Waukesha West Bypass	Summit Avenue to STH 59	37.3		3.3
	Subtotal			60.9	64.5	6.9
2021 to 2025	Kenosha	CTH S (part)	E. Frontage Road to CTH H	8.1		1.9
	Kenosha	STH 50	IH 94 to 39th Avenue	65.3		4.8
	Kenosha/Racine	CTH KR	IH 94 to Old Green Bay Road	74.1		4.4
	Waukesha	CTH M (part)	CTH Y to CTH YY	23.9		2.9
Subtotal			171.4	496.6	14.0	
2026 to 2030	Kenosha	CTH H (Part)	CTH S to STH 50	18.7		2.6
	Ozaukee	CTH W (part)	Highland Road to W. Glen Oaks Lane	7.2		1.0
	Milwaukee and Racine	STH 32	STH 100 to Five Mile Road	31.6		5.1
	Kenosha/Racine	CTH KR	Old Green Bay Road to STH 32	20.7		2.8
	Walworth	STH 50	IH 43 to STH 67	24.9		4.3
	Waukesha	STH 83	USH 18 to Phyllis Parkway	33.7		2.4
	Waukesha	STH 83	Mariner Drive to STH 16	33.7		3.6
	Waukesha	CTH D (part)	Milwaukee County line to Calhoun Road	12.7		3.0
	Waukesha	CTH Y (part)	Hickory Trail to Downing Drive	16.9		4.0
	Subtotal			200.1	257.1	28.8
2031 to 2035	Kenosha	CTH H (Part)	STH 50 to STH 165	13.9		3.0
	Milwaukee	USH 45/STH 100	Rawson Avenue to 60th Street	23.5		4.8
	Racine	STH 20	IH 94 to Oaks Road	43.9		4.5
	Waukesha	Pilgrim Road	USH 18 to Lisbon Road	34.6		4.8
	Waukesha	CTH SR/Town Line	CTH JJ to STH 190	23.1		3.2
	Waukesha	Road extension (part)				
2036 to 2040	Waukesha	CTH Y (part)	CTH L to College Avenue	12.1		2.1
	Subtotal			151.1	174.0	22.4
	Ozaukee	CTH W (part)	CTH V to Lakeland Road	22.4		3.1
	Waukesha	STH 67 (part)	CTH DR to USH 18	14.1		2.9
	Waukesha	STH 190	STH 16 to Brookfield Road	52.4		5.4
2041 to 2045	Waukesha	CTH D (part)	Calhoun Road to STH 59/164	16.3		3.8
	Subtotal			105.2	169.7	15.2
	Ozaukee	CTH W (part)	Lakeland Road to Highland Road	22.2		3.1
	Waukesha	STH 59/164	CTH XX to Arcadian Avenue	55.3		4.8
2046 to 2050	Waukesha	CTH SR/Town Line	STH 190 to Weyer Road	7.8		1.5
	Subtotal			85.3	154.1	9.4
Total				774.0	1,016.0	96.7

^a The projects included in this table involve new construction or widening with a cumulative length of four or more miles.

^b The schedule shown in this table represents an estimate of the timing of construction and reconstruction for the purposes of comparison of costs and revenues, and is not a recommendation for the schedule of construction and reconstruction. Such a schedule can only be developed by the responsible implementing agency and will necessarily entail frequent updating, for example, due to pavement and structure condition.

^c Cost of construction does not include the cost of right-of-way required for the project.

Source: SEWRPC

Table 2.5 as Amended
Fixed-Route Public Transit Service Levels: Fiscally Constrained Transportation Plan

Average Weekday Transit Service Characteristics	Existing (2014)	Fiscally Constrained Transportation Plan (2050)
Revenue Vehicle-Hours		
Rapid Transit	--	90
Commuter Rail	<10	<10
Commuter Bus	270	80
Express Bus	500	--
Local Transit	3,980	4,100
Total	4,750	4,270
Revenue Vehicle-Miles		
Rapid Transit	--	2,200
Commuter Rail	100	100
Commuter Bus	5,800	2,300
Express Bus	6,300	--
Local Transit	48,200	48,600
Total	60,400	53,200

Source: SEWRPC

Map 2.1 as Amended

Transit Services: Fiscally Constrained Transportation Plan

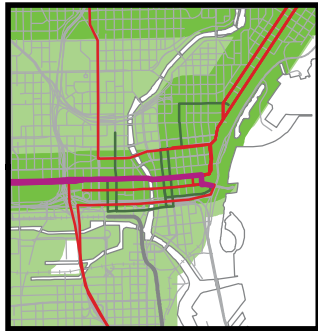
TRANSIT SERVICES

- RAPID TRANSIT LINE
- COMMUTER RAIL LINE & STATION
- COMMUTER BUS ROUTE & PARK-RIDE
- INTERCITY RAIL
- STREETCAR LINE

LOCAL TRANSIT SERVICE AREA AND PEAK FREQUENCY

- EVERY 15 MINUTES OR BETTER
- LESS FREQUENT THAN EVERY 15 MINUTES
- ONE DAY ADVANCE-RESERVATION
SHARED-RIDE TAXI

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



0 1 2 3 4 5 6 Miles

Source: SEWRPC

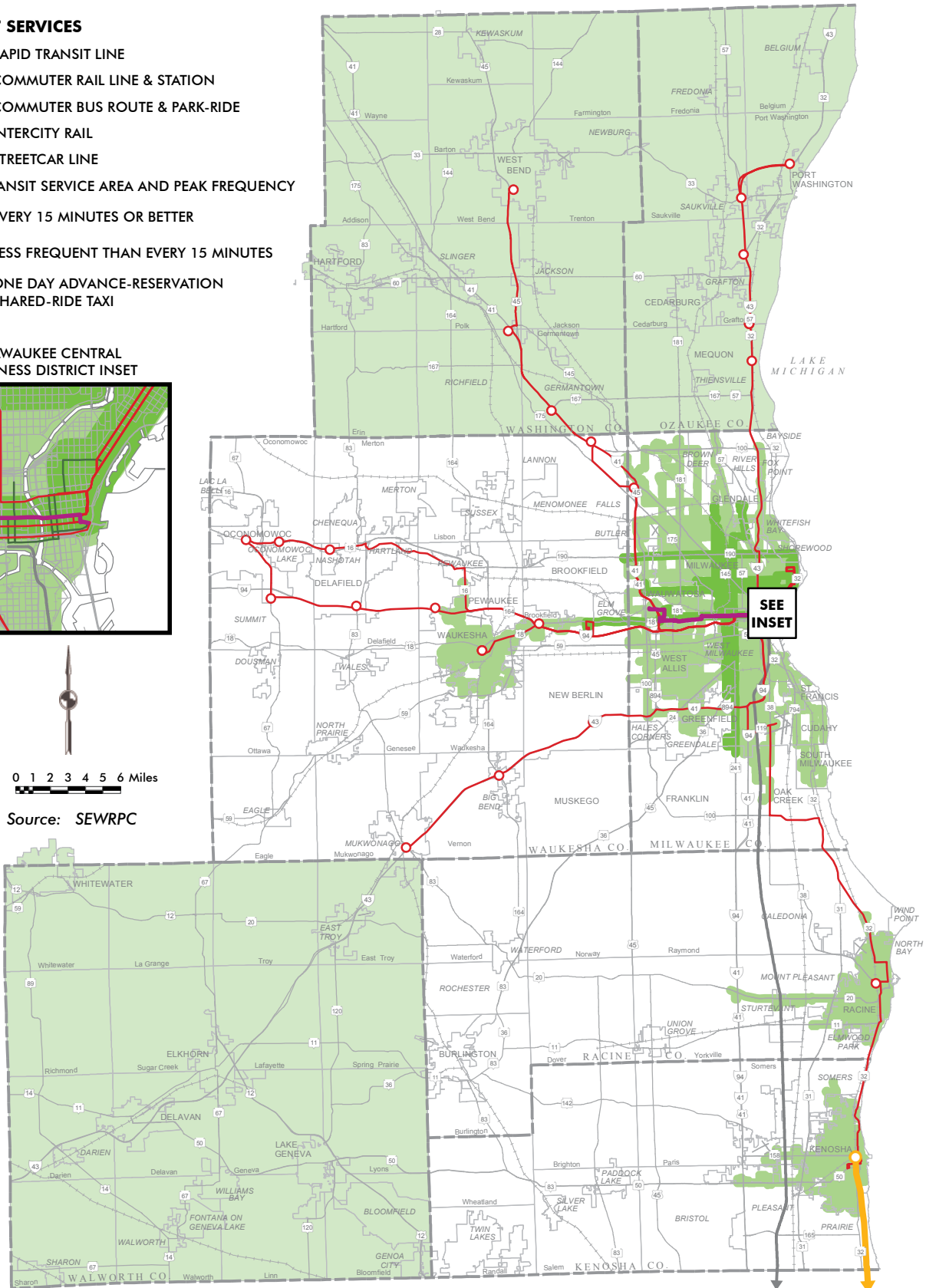


Table 2.7 as Amended
Miles of Bicycle Facilities: Fiscally Constrained Transportation Plan

Bicycle Facility	Estimated Mileages	
	Existing (2015)	Fiscally Constrained Transportation Plan (2050)
On-street Accommodations		
Standard	814.7	3,029.0
Enhanced	71.8	374.2
Off-Street Paths	299.2	708.8

Source: SEWRPC

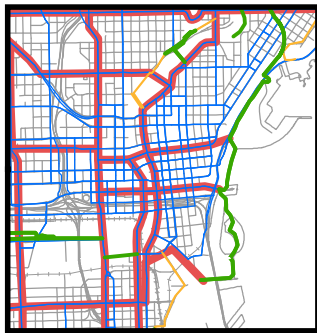
Map 2.2 as Amended Bicycle Network: Fiscally Constrained Transportation Plan

BICYCLE FACILITIES

- OFF-STREET BICYCLE PATH
- ARTERIAL STREET OR HIGHWAY WITH BICYCLE ACCOMMODATION (IF FEASIBLE)
- NONARTERIAL STREET CONNECTION TO OFF-STREET BICYCLE NETWORK
- POTENTIAL CORRIDOR FOR ENHANCED BICYCLE FACILITY^a

^a Corridor would include an enhanced bicycle facility—such as a protected bike lane, a separate path within the road right-of-way, or a buffered bike lane—located on or along an arterial or, alternatively, a neighborhood greenway on a nearby parallel nonarterial.

MILWAUKEE CENTRAL BUSINESS DISTRICT INSET



0 1 2 3 4 5 6 Miles

Source: SEWRPC

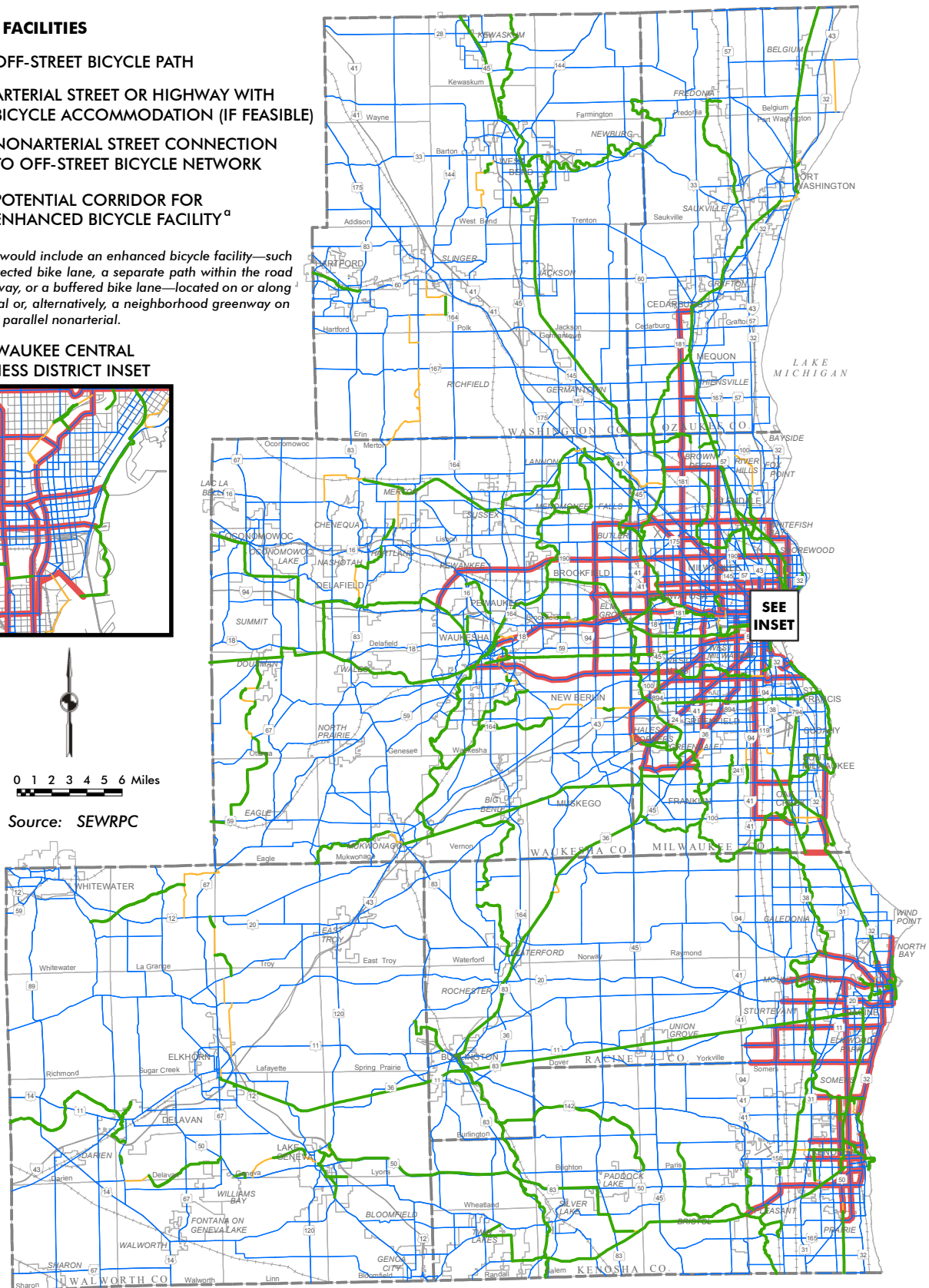
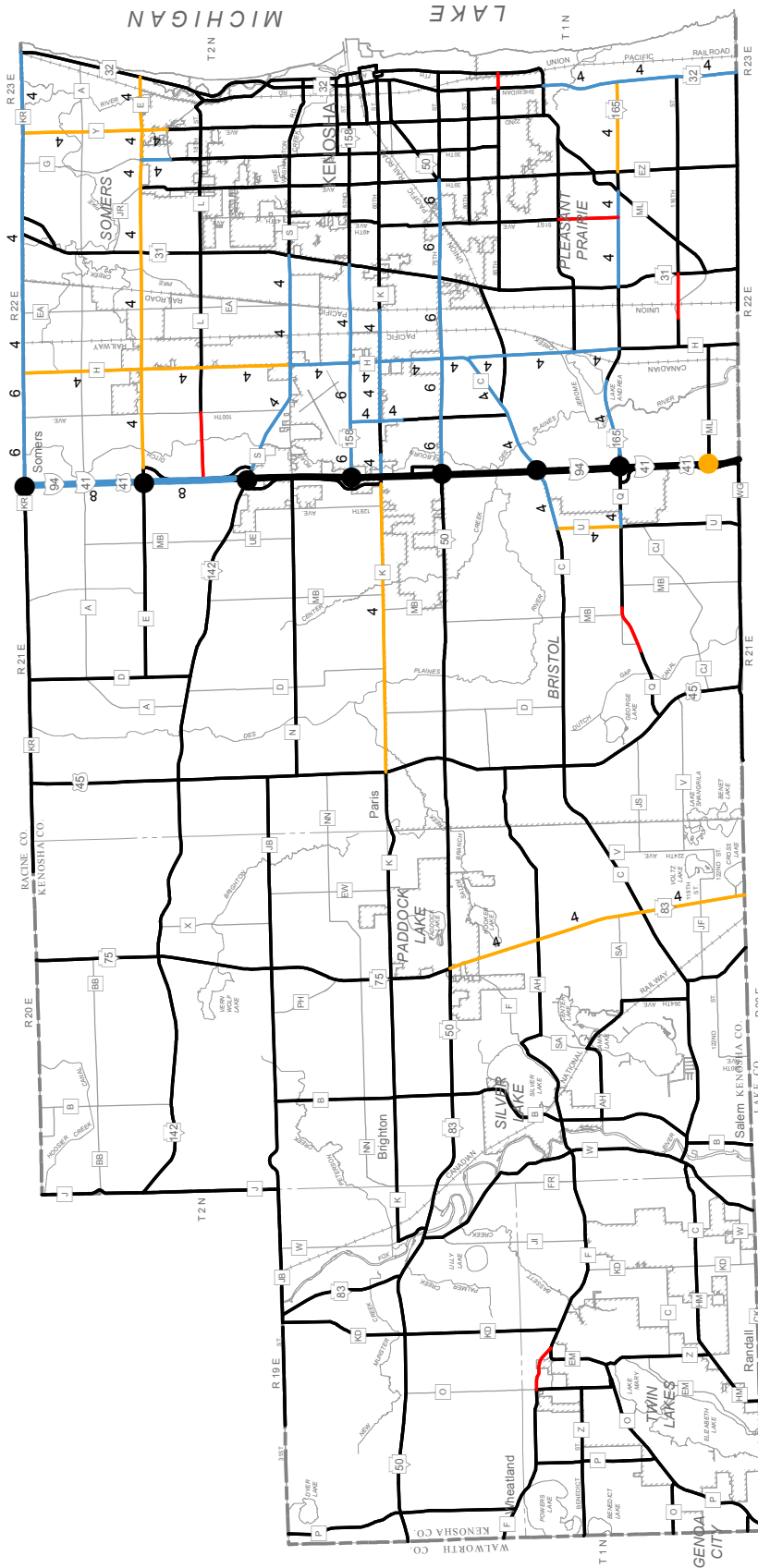


Table 2.8 as Amended
Arterial Street and Highway System Preservation, Improvement, and Expansion
by Arterial Facility Type by County: Fiscally Constrained Transportation Plan

County	Arterial Facility Type	System Preservation (miles)	System Improvement (miles)	System Expansion (miles)	Total Miles
Kenosha	Freeway	8.5	3.5	0.0	12.0
	Surface Arterial	315.8	33.4	4.7	353.9
	Subtotal	324.3	36.9	4.7	365.9
Milwaukee	Freeway	57.5	10.3	0.0	67.8
	Surface Arterial	719.3	11.3	0.5	731.1
	Subtotal	776.8	21.6	0.5	798.9
Ozaukee	Freeway	18.8	8.7	0.0	27.5
	Surface Arterial	262.4	18.5	2.7	283.6
	Subtotal	281.2	27.2	2.7	311.1
Racine	Freeway	0.0	12.0	0.0	12.0
	Surface Arterial	405.6	22.2	12.1	436.9
	Subtotal	405.6	34.2	12.1	448.9
Walworth	Freeway	49.8	0.0	0.0	49.8
	Surface Arterial	414.3	4.3	10.3	428.9
	Subtotal	464.1	4.3	10.3	478.7
Washington	Freeway	42.2	0.0	0.0	42.2
	Surface Arterial	388.8	8.7	16.9	414.4
	Subtotal	431.0	8.7	16.9	456.6
Waukesha	Freeway	58.8	0.0	0.0	58.8
	Surface Arterial	647.7	76.3	7.2	731.2
	Subtotal	706.5	76.3	7.2	790.0
Region	Freeway	235.6	34.5	0.0	270.1
	Surface Arterial	3,153.9	174.7	54.4	3,383.0
	Total	3,389.5	209.2	54.4	3,653.1

Source: SEWRPC

Map 2.3 as Amended Functional Improvements to the Arterial Street and Highway System in Kenosha County: Fiscally Constrained Transportation Plan



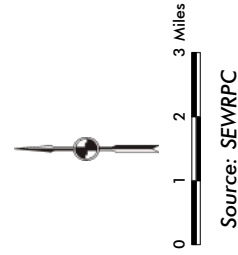
ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE POTENTIAL FUTURE IMPROVEMENT BEYOND 2050 (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- NUMBER OF TRAFFIC LANES FOR NEW OR IMPROVED FACILITY, INCLUDING RIGHT-OF-WAY RESERVATIONS (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

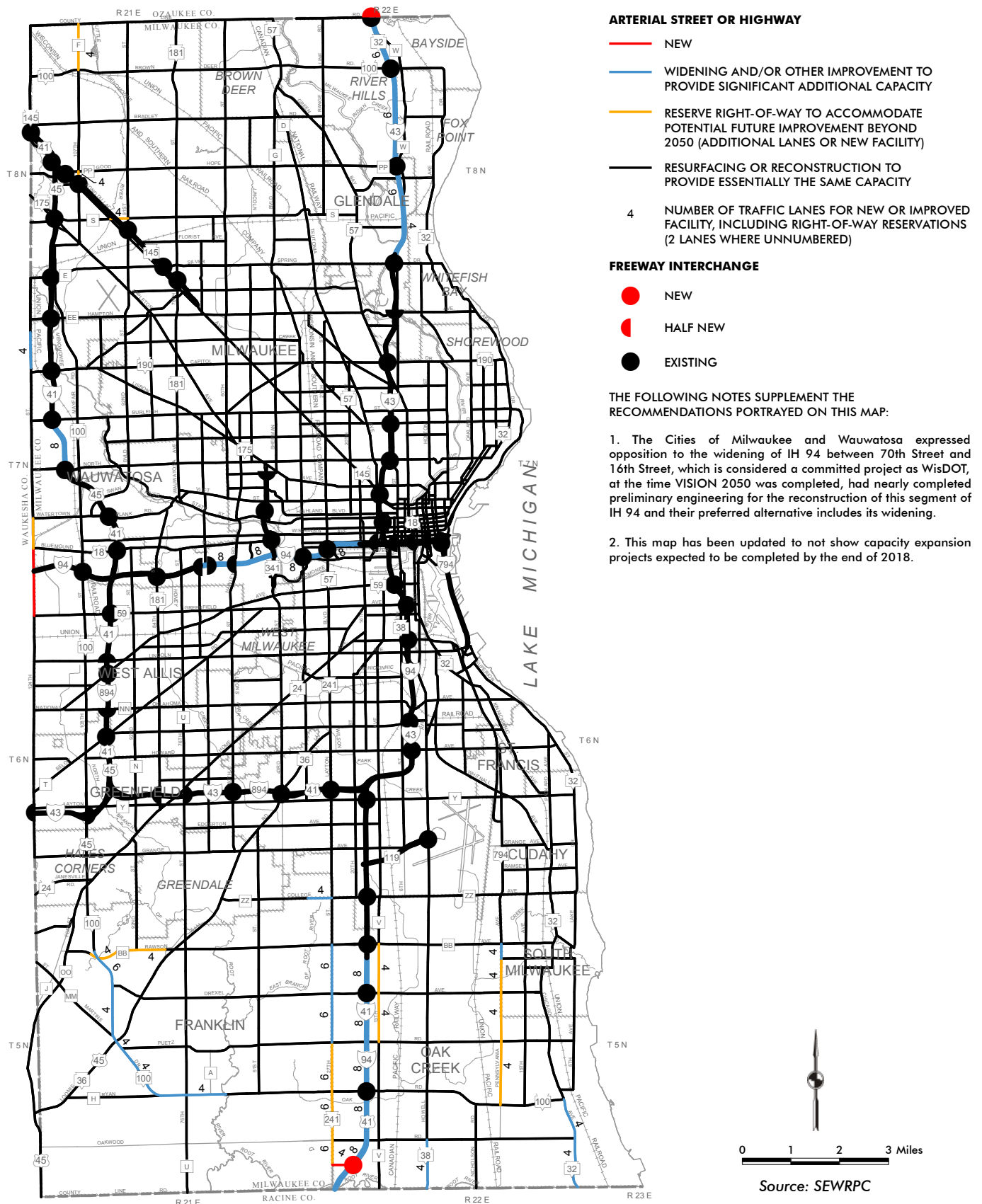
- EXISTING
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE FUTURE IMPROVEMENT (POTENTIAL NEW INTERCHANGE)

Note: This map has been updated to not show capacity expansion projects expected to be completed by the end of 2018.



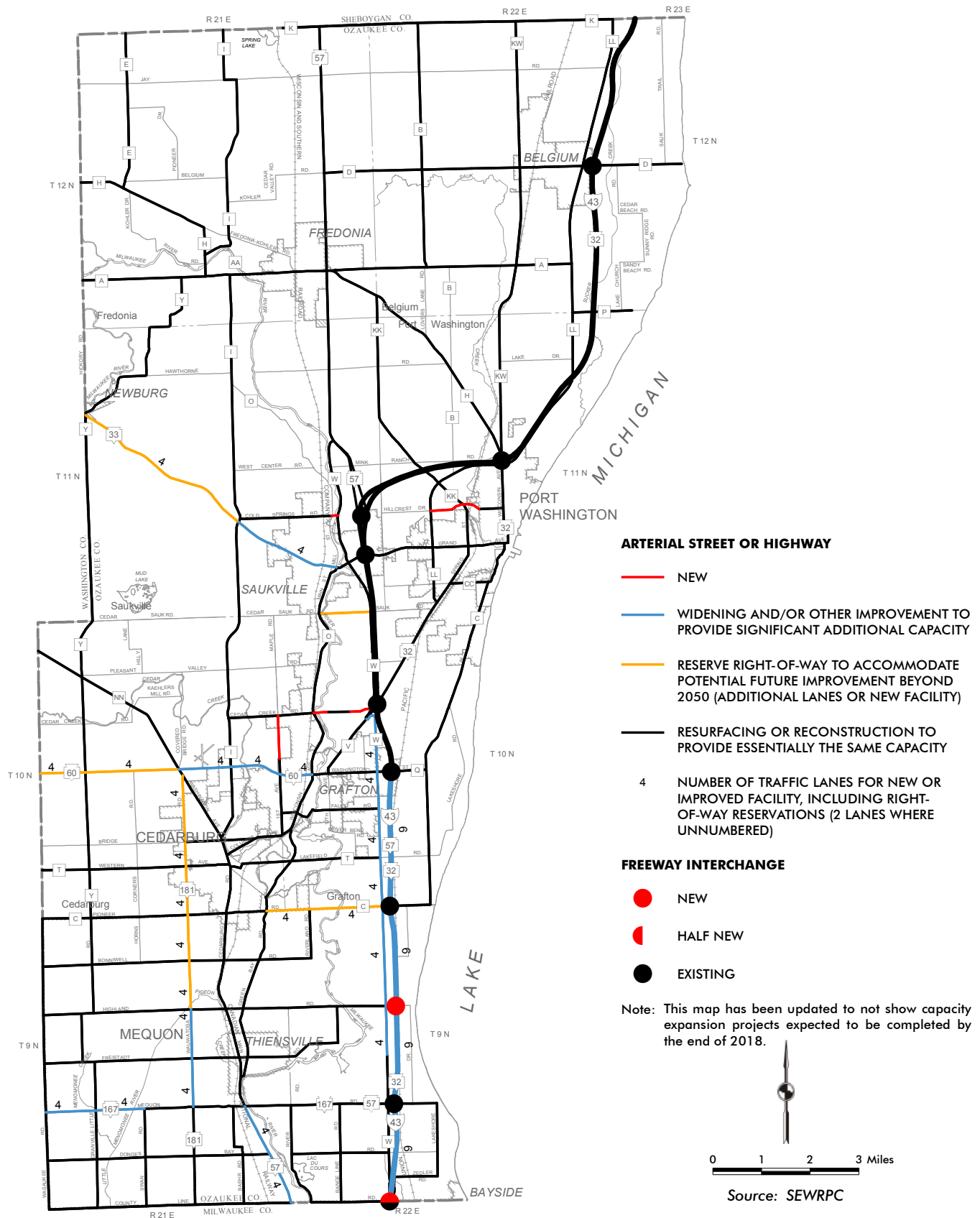
Map 2.4 as Amended

Functional Improvements to the Arterial Street and Highway System in Milwaukee County: Fiscally Constrained Transportation Plan

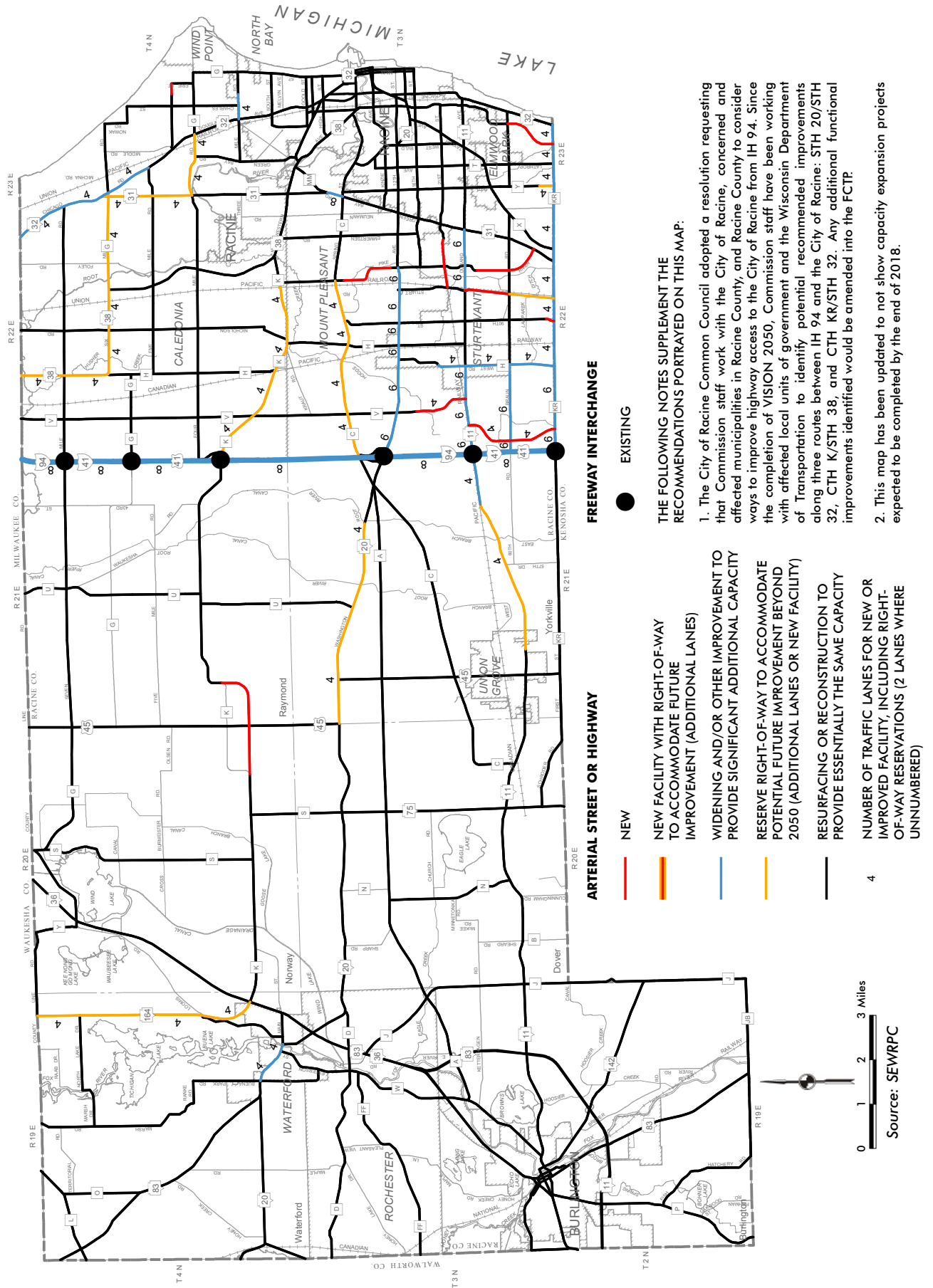


Map 2.5 as Amended

Functional Improvements to the Arterial Street and Highway System in Ozaukee County: Fiscally Constrained Transportation Plan

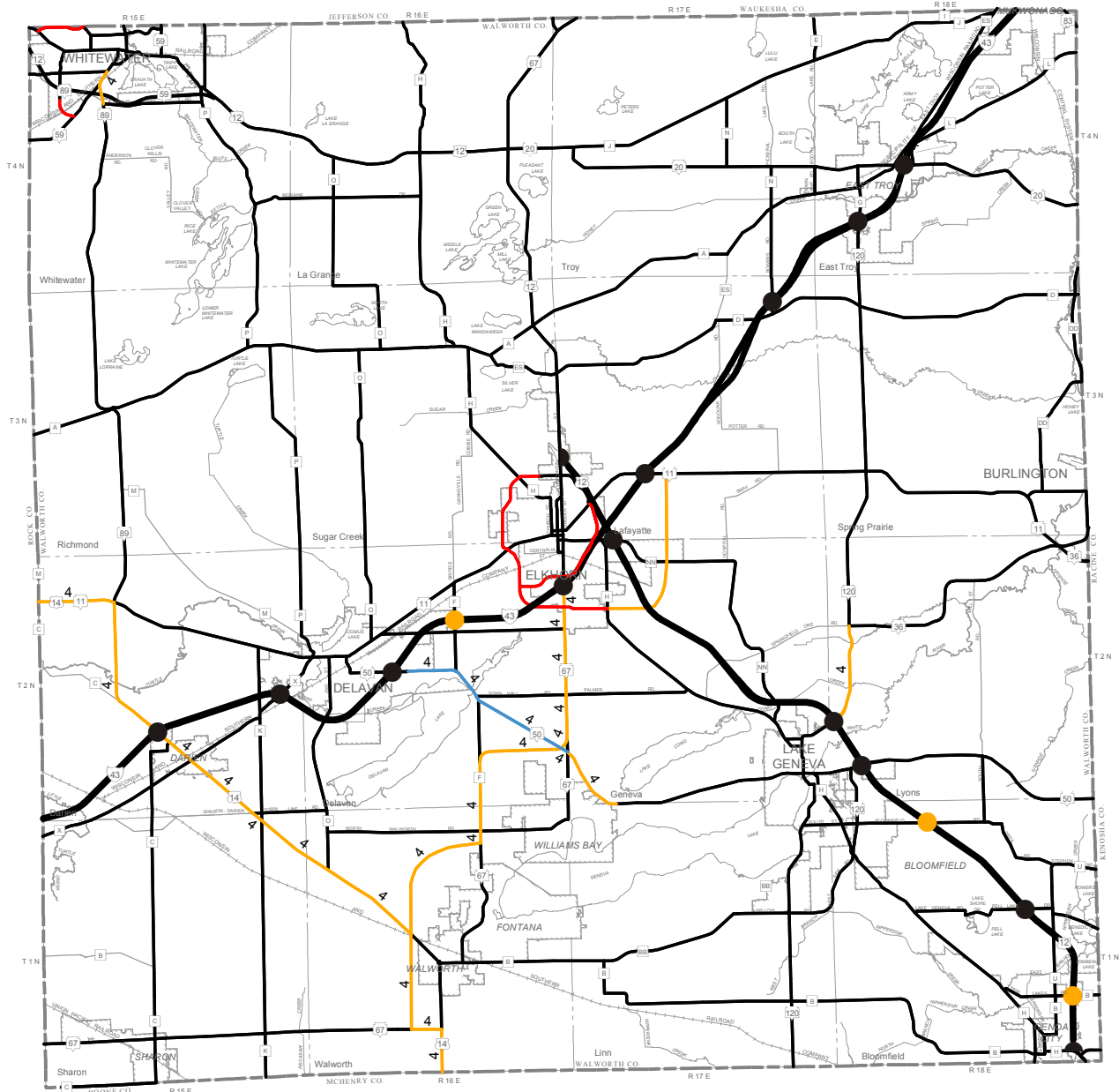


Map 2.6 as Amended Functional Improvements to the Arterial Street and Highway System in Racine County: Fiscally Constrained Transportation Plan



Map 2.7 as Amended

Functional Improvements to the Arterial Street and Highway System in Walworth County: Fiscally Constrained Transportation Plan



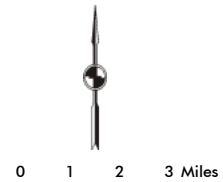
ARTERIAL STREET OR HIGHWAY

- NEW
- WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE POTENTIAL FUTURE IMPROVEMENT BEYOND 2050 (ADDITIONAL LANES OR NEW FACILITY)
- RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
- 4 NUMBER OF TRAFFIC LANES FOR NEW OR IMPROVED FACILITY, INCLUDING RIGHT-OF-WAY RESERVATIONS (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- EXISTING
- RESERVE RIGHT-OF-WAY TO ACCOMMODATE POTENTIAL FUTURE IMPROVEMENT BEYOND 2050 (POTENTIAL NEW INTERCHANGE)

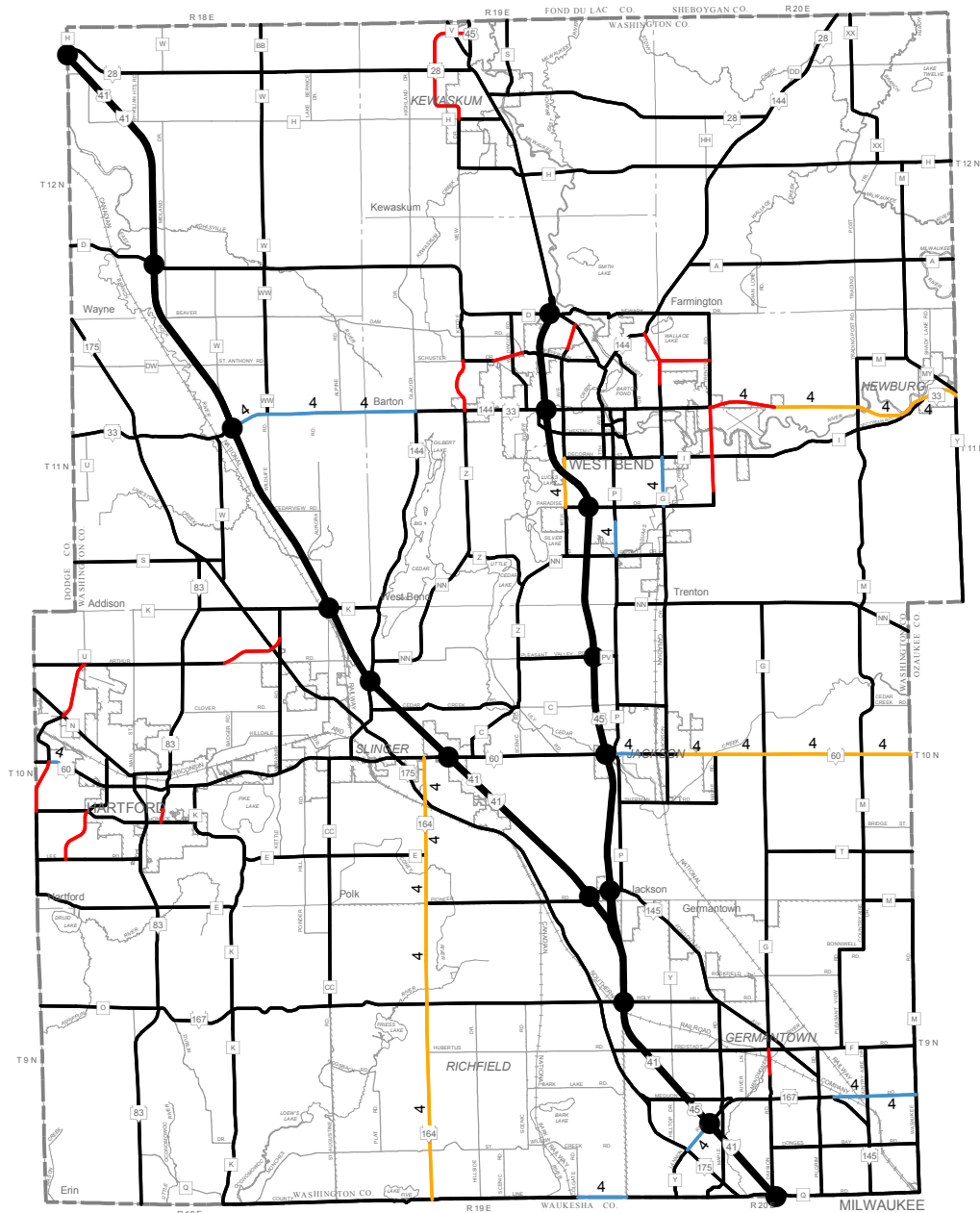
Note: This map has been updated to not show capacity expansion projects expected to be completed by the end of 2018.







Source: SEWRPC

Map 2.8 as Amended

Functional Improvements to the Arterial Street and Highway System in Washington County: Fiscally Constrained Transportation Plan

**ARTERIAL STREET OR HIGHWAY**

-  NEW
 -  WIDENING AND/OR OTHER IMPROVEMENT TO PROVIDE SIGNIFICANT ADDITIONAL CAPACITY
 -  RESERVE RIGHT-OF-WAY TO ACCOMMODATE POTENTIAL FUTURE IMPROVEMENT BEYOND 2050 (ADDITIONAL LANES OR NEW FACILITY)
 -  RESURFACING OR RECONSTRUCTION TO PROVIDE ESSENTIALLY THE SAME CAPACITY
4. NUMBER OF TRAFFIC LANES FOR NEW OR IMPROVED FACILITY, INCLUDING RIGHT-OF-WAY RESERVATIONS (2 LANES WHERE UNNUMBERED)

FREEWAY INTERCHANGE

- EXISTING

Note: This map has been updated to not show capacity expansion projects expected to be completed by the end of 2018.



0 1 2 3 Miles

Source: SEWRPC

Map 2.9 as Amended

Functional Improvements to the Arterial Street and Highway System in Waukesha County: Fiscally Constrained Transportation Plan

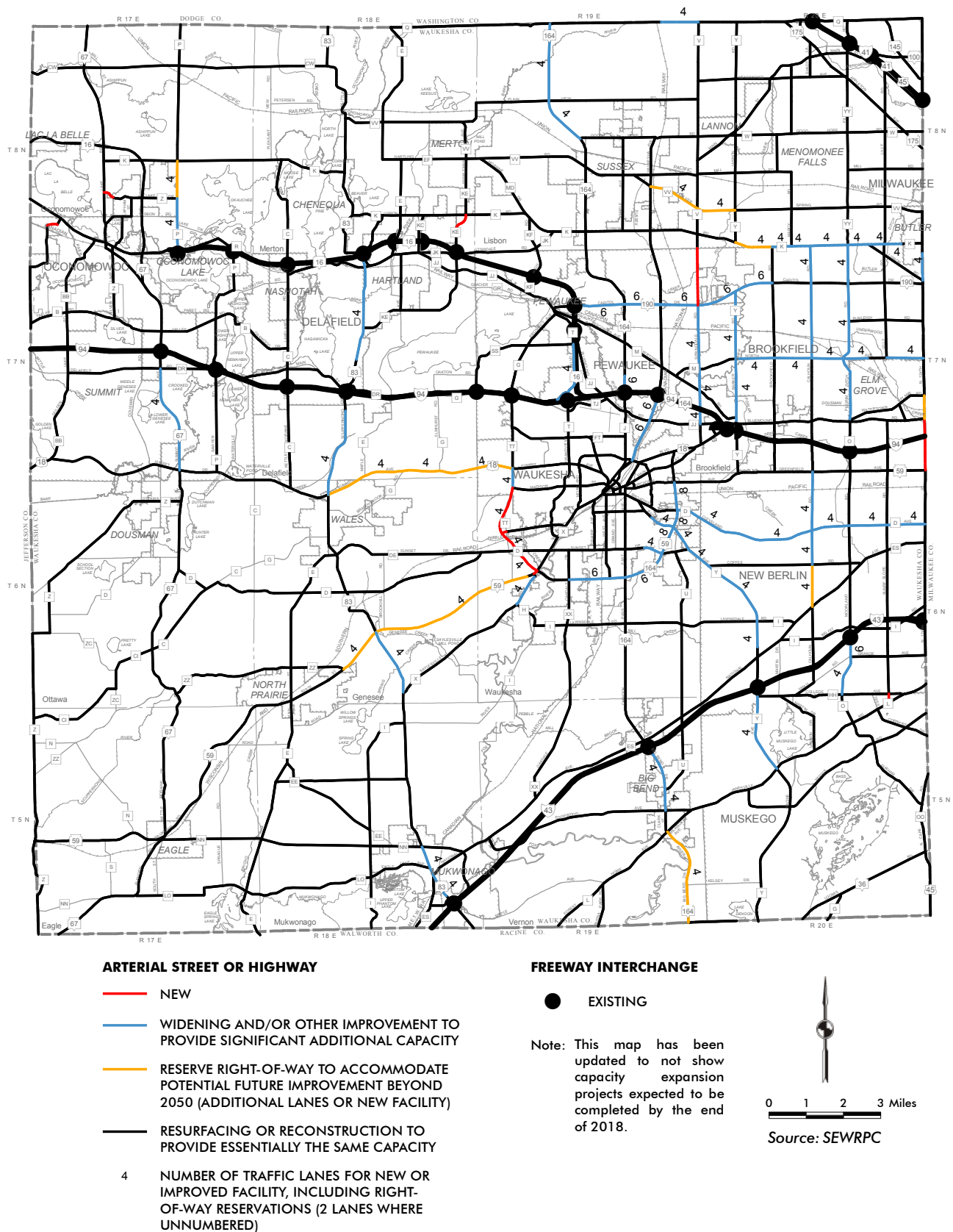


Table O.1 as Amended
Population in the Region by Sewer Service Area: Existing 2010,
2050 Recommended Plan, and 2050 High-Growth Scenario

	Sewer Service Area	Existing Population: 2010			Sewered Population: 2050	
		Sewered	Unsewered ^a	Total	Recommended Plan	High-Growth Scenario
Kenosha County	Bristol ^b	1,780	690	2,470	5,080	7,400
	Kenosha	124,870	2,870	127,740	188,510	210,550
	Paddock Lake	3,000	20	3,020	5,890	7,100
	Powers Lake (part)	--	1,600	1,600	1,730	2,610
	Racine (part)	1,010	--	1,010	1,430	1,430
	Salem	11,130	400	11,530	21,310	26,050
	Silver Lake	2,380	870	3,250	5,670	5,750
	Twin Lakes	5,980	660	6,640	11,530	12,700
Milwaukee County	Franklin	35,980	710	36,690	51,150	54,900
	Oak Creek	34,760	60	34,820	49,800	56,730
	South Milwaukee	21,130	--	21,130	21,230	21,680
	Balance of Milwaukee County	855,090	10	855,100	896,910	1,002,770
Ozaukee County	Belgium	2,260	10	2,270	3,000	5,220
	Cedarburg	11,610	1,770	13,380	16,550	24,280
	Fredonia	2,260	30	2,290	3,330	6,750
	Grafton	11,950	1,400	13,350	18,440	25,480
	Lake Church	--	520	520	550	550
	Mequon/Thiensville	23,700	200	23,900	30,040	34,930
	Newburg (part)	120	60	180	330	730
	Port Washington	11,470	510	11,980	15,640	18,230
	Saukville	4,460	540	5,000	6,310	9,490
	Waubeka	--	620	620	600	600
Racine County	Bohner Lake	2,160	200	2,360	2,330	2,790
	Burlington ^c	12,880	370	13,250	16,510	21,440
	Caddy Vista	600	70	670	1,110	1,840
	Eagle Lake	1,640	70	1,710	2,170	3,770
	Ives Grove	250	90	340	380	570
	Racine (part)	134,930	1,860	136,790	170,490	213,810
	Union Grove ^d	5,730	220	5,950	7,910	11,440
	Western Racine County Sewerage District	12,370	380	12,750	16,360	21,930
	Wind Lake	5,580	70	5,650	5,810	8,200
Walworth County	Darien	1,630	80	1,710	2,990	3,600
	Delavan/Delavan Lake	12,920	530	13,450	19,810	30,560
	East Troy ^e	5,690	750	6,440	11,320	13,620
	Elkhorn	10,120	1,050	11,170	15,840	21,790
	Fontana/Walworth	4,700	380	5,080	6,990	11,380
	Geneva National/Lake Como	3,020	170	3,190	4,120	5,630
	Genoa City	3,070	10	3,080	4,260	6,990
	Lake Geneva	8,600	670	9,270	14,520	16,010
	Lyons ^f	1,390	210	1,600	2,770	3,640
	Mukwonago (part)	50	260	310	2,280	3,080
	Pell Lake	3,670	50	3,720	5,040	5,780
	Powers Lake (part)	--	490	490	1,080	1,080
	Sharon	1,640	10	1,650	2,660	3,020
	Whitewater (part)	11,110	230	11,340	14,950	17,820
	Williams Bay	2,840	460	3,300	4,500	6,190

Table continued on next page.

Table O.1 as Amended (Continued)

	Sewer Service Area	Existing Population: 2010			Sewered Population: 2050	
		Sewered	Unsewered ^a	Total	Recommended Plan	High-Growth Scenario
Washington County	Allenton	740	130	870	1,810	3,620
	Germantown	16,670	930	17,600	29,080	34,500
	Hartford (part)	15,190	830	16,020	20,570	34,030
	Jackson	7,350	430	7,780	11,570	15,160
	Kewaskum	4,030	100	4,130	6,330	9,800
	Newburg (part)	1,170	460	1,630	2,010	3,490
	Slinger	5,530	460	5,990	9,850	13,200
	West Bend	33,630	1,570	35,200	53,770	64,210
Waukesha County	Big Bend	--	2,600	2,600	2,760	3,850
	Brookfield East ^a	17,360	--	17,360	19,160	21,320
	Brookfield West ^b	26,760	120	26,880	32,290	34,140
	Butler	1,800	--	1,800	1,830	1,830
	Delafield ^c	8,140	2,970	11,110	14,010	15,880
	Dousman ^d	2,710	2,020	4,730	5,950	10,310
	Eagle Spring Lake/Mukwonago Park/Rainbow Springs	--	600	600	570	570
	Elm Grove	5,370	--	5,370	5,670	6,960
	Golden Lake	--	170	170	180	180
	Hartland	10,070	850	10,920	12,770	14,330
	Lake Country ^k	2,650	10,960	13,610	15,060	18,040
	Lannon	1,300	90	1,390	2,360	3,930
	Menomonee Falls East ^l	31,290	540	31,830	35,810	40,780
	Menomonee Falls West ^m	2,790	300	3,090	8,940	12,030
	Mukwonago (part)	7,380	1,330	8,710	13,900	15,350
	Muskego ⁿ	21,840	210	22,050	33,510	37,740
	Muskego South ^o	1,080	170	1,250	1,460	2,240
	New Berlin ^p	33,060	920	33,980	38,240	39,420
	Oconomowoc ^q	17,790	880	18,670	26,090	41,380
	Pewaukee ^r	23,520	1,640	25,160	36,410	43,410
	Sussex/Lisbon	12,650	1,170	13,820	21,490	27,100
	Wales	--	770	770	870	2,310
	Waukesha	73,580	8,080	81,660	96,290	113,610

^a Existing 2010 unsewered population within sewer service areas envisioned under the land use component of VISION 2050—proposed to be sewer under plan conditions.

^b Includes George Lake Sewer Service Area.

^c Includes Browns Lake Sewer Service Area.

^d Includes Southern Wisconsin Center area.

^e Includes Alpine Valley and Potter Lake Sewer Service Areas.

^f Includes Country Estates Sanitary District Sewer Service Area.

^g Includes area of the City of Brookfield tributary to the Milwaukee Metropolitan Sewerage District.

^h Includes area of the City of Brookfield tributary to the Fox River Water Pollution Control Commission sewage treatment plant, along with small areas of the Village of Menomonee Falls and the City of New Berlin tributary to that treatment plant.

ⁱ Includes Village of Nashotah and Nemahbin Lakes Sewer Service Area.

^j Includes Lower Genesee Lake, Pretty Lake, and School Section Lake Sewer Service Areas.

^k Includes the following sewer service areas located generally east of the City of Oconomowoc: Ashippun Lake, Beaver Lake, Lake Keesus, North Lake, Oconomowoc Lake, Okauchee Lake, Pine Lake, and the Village of Merton.

^l Includes area of the Village of Menomonee Falls tributary to the Milwaukee Metropolitan Sewerage District.

^m Includes area of the Village of Menomonee Falls tributary to the Sussex sewage treatment plant.

ⁿ Includes area of the City of Muskego tributary to the Milwaukee Metropolitan Sewerage District.

^o Includes area of the City of Muskego tributary to the Town of Norway Sanitary District No. 1 sewage treatment plant.

^p Includes area of the City of New Berlin tributary to the Milwaukee Metropolitan Sewerage District.

^q Includes the Village of Lac La Belle Sewer Service Area.

^r Includes the City and Village of Pewaukee and Pewaukee Lake Sewer Service Areas.

Source: SEWRPC