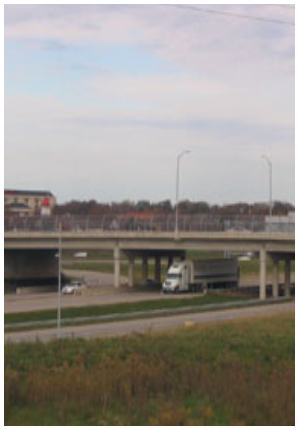



Goals, Policy Objectives, Key Plan Concepts, and Recommendations/Implementation Strategies

Goals and Policy Objectives, Key Plan Concepts, and Recommendations/Implementation Strategies

The plan goals and policy objectives outlined below guided the design and preparation of the plan, and will continue to provide a policy framework for decision-making for the overall transportation system following plan adoption.

The goals and policy objectives are organized into three sections. The first section covers the overall transportation system. It includes the plan's overall goal of an integrated and balanced land use and transportation system (see Goal #1 below) and a second goal describing the desired characteristics of the transportation system. The second section addresses land use and transportation coordination. The third section includes the different elements of the transportation system. Policy objectives describing strategies for achieving the goals follow in each section. Key plan concepts are also discussed.

Recommendations/implementation actions follow the goals and policy objectives for land use and transportation coordination and each element of the transportation system. They include facility recommendations and planning and program actions for carrying out the goals and policy objectives. The primary implementing agencies and/or organizations are noted for each recommendation.

Overall Transportation System

Goals

#1 Integrated Transportation and Land Use System

Develop an integrated and balanced land use and transportation system which provides for the efficient, effective and safe movement of people and goods, promotes the regional economy, supports transportation-efficient development patterns and the regional land use plan, and provides mode choice wherever possible while enhancing and, where relevant, preserving the character and livability of the neighborhoods where transportation facilities are located.

#2 Transportation System Characteristics

Achieve a transportation system that is:

Balanced – provides a range of transportation options and takes advantage of the inherent efficiencies of each mode.

Accessible – serves all areas of the region and all residents and visitors.

Efficient – maximizes mobility provided by existing and new facilities through systems and demand management strategies.

Safe – designed, built, and operated to minimize risk of harm to persons and property, and allows persons to feel confident and secure in and around all modes of travel.

Reliable – minimizes and alerts persons to unexpected travel delays.

Equitable – provides an equitable level of service and benefits among demographic and user groups, including low-income, minority, the elderly, and persons with disabilities.

Interconnected – provides for ease of transfer between the different modes of travel.

Environmentally responsible – minimizes negative environmental impacts and energy consumption to the extent feasible.

Supportive of compact and efficient patterns of development – integrates transportation and land use planning in support of transportation efficient development (e.g., walkable neighborhoods, transit-oriented activity centers) that maximizes travel, housing, and employment choices.

Supportive of the social and economic activity of the region – provides convenient travel for all persons and efficient movement of goods.

Responsive to community needs and neighborhood impacts – is flexible and adaptable and addresses negative impacts, particularly in residential areas.

Economically viable and financially stable – is cost efficient and financially feasible with sufficient ongoing financial support for operations and maintenance.

Policy Objectives

#1 Public Involvement

Attain an area-wide transportation planning process responsive to the needs and interests of area-wide residents, groups, units of government and affected agencies, with sufficient opportunity for all to participate in policy and implementation decisions.

#2 System Preservation

Maintain the region's transportation infrastructure and preserve transportation corridors, particularly rail corridors, for possible future travel uses by other modes.

#3 Accessibility and Mobility

Improve regional mobility and accessibility for all persons while maintaining a balance between the two sometimes competing concerns.

#4 Safety

Improve transportation safety through design, operations and maintenance, system improvements, support facilities, public information, and law enforcement efforts.

#5 Balanced System

Achieve a balanced transportation system through investment in improvements across all modes of travel.

#6 Management/Operations

Apply Intelligent Transportation Systems (ITS) technologies and utilize Travel Demand Management and Transportation Systems Management (TSM) strategies to respond to traffic congestion, make efficient use of existing roadway capacity, and make the transportation system more reliable, convenient, and safe.

#7 Land Use/Transportation Connection

Use public decisions on the provision of publicly financed transportation facilities and services as a tool for creating compact, well-designed and balanced communities.

#8 Timing of Improvements

Stage the extension and expansion of urban transportation services within urban service areas, to encourage compact urban growth in accord with regional and local development plans and policies.

#9 Congestion Management

Consider all mobility options and operational strategies (ITS, TDM, TSM) in congested corridors before adding capacity for general purpose travel lanes or building new facilities.

#10 Interconnected System

Encourage and facilitate connections between various modes of travel, including connections with inter-city bus and rail.

#11 Design

Encourage attention to aesthetics in the design of transportation improvements to fully integrate improvements into the environment, including consideration of scenic views and vistas, landscaping (with use of native species where possible) along roadsides and boulevards, and the location of signing.

#12 Intergovernmental Coordination

Continue to enhance intergovernmental coordination in land use and transportation planning, project development, and operations and maintenance to ensure protection of transportation investments and make efficient use of limited resources.

#13 Basic Services

Support and maintain basic transportation services such as maintenance, snow removal, traffic control, street sweeping, and other services.

#14 Freight
Enhance mobility and safety for goods movement to support the local economy while maintaining community livability.

#15 Financial Feasibility
Ensure that existing and future financial resources are realistic, reliable, and equitable.

Land Use and Transportation System Coordination

There is a close inter-relationship between land use development and the transportation system. The location, type, and intensity of development determine the need for transportation facilities and services. The region's land use development pattern plays an important role in determining the viability of mode choice options and the safety and efficiency of the transportation system. At the same time, transportation strategies can support the regional land use plan, the preservation of neighborhoods, and minimize undesirable impacts from the transportation system on the environment. The following goal, policy objectives, and recommendations/implementation strategies address this land use – transportation connection.

Goal: Coordinate land use and transportation planning and decision-making in a manner that fosters compact urban development patterns that support and are supported by a balanced, safe, and efficient transportation system.

Policy Objectives
#1 Promote the development of balanced communities with sufficient commercial, industrial, residential, and open space land to meet the needs of existing and future residents.

#2 Support and maintain downtown Madison as the region's major activity center and seek greater diversity and vitality in that area.

#3 Encourage the concentration of higher density, mixed-use, pedestrian-friendly employment/activity centers at nodes and along transit corridors to maximize the efficiency of the existing and future transportation system.

#4 Encourage the redevelopment of established employment/activity centers, transit corridors, and other areas, where appropriate, in order to make efficient use of existing transportation infrastructure, expand job-housing choices, improve pedestrian and bicyclist safety and accessibility, and support transit service.

#5 Encourage mixed-use neighborhoods with pedestrian-friendly centers or focal points (e.g., shopping district, community center, park, etc.) and higher density residential uses closest to these centers and transit routes, thus facilitating shorter trips that make walking, bicycling, and public transit to be more convenient and effective transportation alternatives.

#6 Encourage land use development patterns and site designs that maximize the safety and efficiency of the transportation system.

#7 Provide non-interchange crossings of limited access roadways to improve mobility and access for motorists, transit users, bicyclists, and pedestrians in coordination with local land use development planning.

#8 Encourage intergovernmental cooperation concerning land use and transportation issues.

Recommendations/Implementation Strategies
#1 Continue undertaking a reform or modernizing of land use development ordinances and engineering standards (e.g., street design) to remove regulatory barriers that prevent the design of compact, mixed-use, pedestrian-friendly development. [Local governments]

The City of Madison is planning to undertake a comprehensive revision of its existing zoning ordinance. Special emphasis will be placed on creating new mixed-use zoning districts, a traditional neighborhood development (TND) district, and zoning standards for transit-oriented development (TOD). Many other area communities have begun the process of reforming their land use ordinances to remove barriers to mixed use, pedestrian-friendly development.

#2 Consider requiring or using incentives for providing transit, bicycle, and pedestrian improvements in new commercial, public, mixed-use, and multi-family residential developments. [Local governments]

#3 Work with Metro Transit staff to ensure that new developments are planned and designed to be transit-supportive and include transit support facilities, wherever appropriate and feasible. [Local governments, Metro Transit]

#4 Adopt transit-oriented development (TOD) zoning, where appropriate, such as in areas identified as likely rail transit station sites in the Transport 2020 and Streetcar studies and other key transit corridors. [City of Madison and other local governments]

Key Plan Concepts

The following are key plan concepts designed to achieve the overall transportation system and land use – transportation system coordination goals and policy objectives. The concepts address the transportation system in a multi-modal manner and inform the mode-specific goals, policy objectives, and recommendations/implementation strategies that follow.

Growth Area and Activity Center Linkage

The plan seeks to maintain mobility and accessibility options throughout the region. Figure 40, on the next page, illustrates how the major employment/activity centers and cities/villages in the Madison Area are interconnected by the present system of arterial and collector roadways, and how these centers and communities can be served with a potential rail and express bus system with park-and-ride lots. As the outlying communities continue to grow, rail service could be extended in the future.

Balanced Transportation

The plan strives to increase use of travel alternatives to driving alone and to minimize demand on the transportation system during peak travel periods. This is especially the case for work trips to central Madison and for school trips. This makes more efficient use of roadway capacity and provides mobility choices for those who wish to use other modes rather than an automobile or who do not have access to an automobile. This plan also recognizes that the majority of trips within the region will still be made by automobile for shopping and business, and that modifications to the roadway system will be needed.

Traffic Accommodation

The plan continues to accept somewhat higher traffic congestion levels (Level of Service D), particularly during peak hours. This is intended as a means of encouraging travel during off-peak periods, greater use of transit and carpooling, and lessening the need for expanding streets and roadways. Travel on circumferential routes (such as the South Beltline) is accommodated as a means to draw travel to these corridors wherever possible. Techniques of traffic engineering and safety improvements are made to make existing streets and roadways more efficient in moving traffic. Higher mobility levels are also maintained on the Interstate System and other key circumferential routes to ensure efficient movement of people and goods throughout the region.

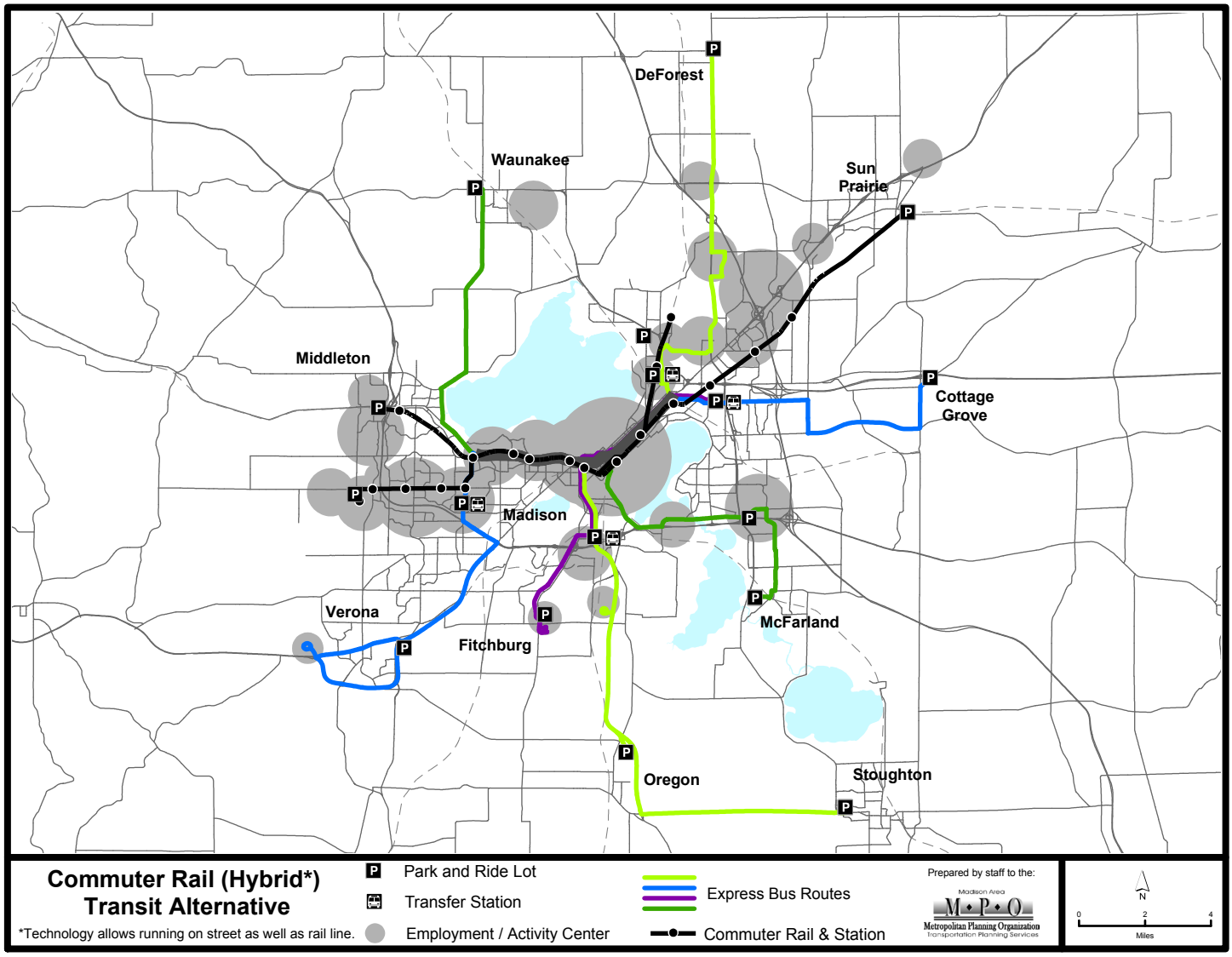
Traffic Direction

The plan seeks to draw local auto through-traffic to local arterial major travel corridors as a way to reduce the amount of through-traffic penetrating central Madison neighborhoods and other neighborhoods in the region. Maintaining mobility on key regional routes like the Interstate System and the Beltline is also important in order to direct inter-regional through-traffic to these corridors to reduce the potential of inter-regional travel on the local arterial system. Traffic calming and other transportation system management (TSM) techniques are encouraged to reduce and/or redirect traffic from local neighborhood streets and other sensitive areas. Bypasses around outlying cities and villages are also considered, while at the same time making sure that such facilities do not have negative land use impacts.

Other Plan Concepts

The plan seeks to broaden the understanding of the other modes of transportation and to recognize and encourage: pedestrian and bicycle travel; specialized travel needs of the elderly and persons with disabilities; taxi and paratransit services; and integration of travel into multi-modal corridors. In addition, the plan seeks to highlight the importance of preserving corridor lands, particularly rail corridors, for possible future travel uses.

FIGURE 40



Transportation System Elements

The following goals, policy objectives, and recommendations/implementation strategies address the different modes of transportation, travel demand management (TDM), inter-regional travel, freight, parking, and corridor preservation.

Streets/Roadways

The street and roadway system improvements needed to serve forecast growth over the next 25 years is dependent on the number of person trips generated by future land use development, the distribution of those trips, and the number of those trips that can be accommodated by alternatives to single-occupant vehicle driving or shifted to off-peak time periods.

Currently, around 80% of person trips by City of Madison residents and 90% of trips by other county residents are taken by automobile. The average vehicle occupancy for person trips by all county residents ranges from 1.13 for work trips to 2.21 for social/recreational trips with an overall average of 1.94. The majority of the remaining trips are made by walking, accounting for 14% of trips by Madison residents and 7% of trips by other county residents. Public transit and bicycling together account for 6% of trips by Madison residents and 3% of trips by other county residents. Travel characteristics and trends presented in Part 1 of this plan such as average trip lengths, the increasingly dispersed travel pattern, and increased solo occupant vehicle commuting, demonstrate the challenge of increasing the percentage share of trips made by alternative transportation modes.

The process for developing the growth forecasts and land use assumptions and forecasting future travel using the regional travel simulation model was described in the previous section of the plan starting on page 117. The forecast countywide increases in population (153,500 or 36%), households (71,500 or 41%), and employment (97,600 or 34%), coupled with the assumptions concerning the distribution and density of this growth, are expected to result in a 43% increase in trip-making by the Year 2030.

Roadway capacity expansion projects were only considered after modeling the impacts of implementation of an aggressive expansion and improvement of the transit system, including a hybrid rail system (see discussion of transit improvements in the Transit section on page 144). The modeling also accounts for non-motorized trips (walking and bicycling) and assumes that the current levels of bicycling and walking would continue to expand proportionately with future growth. The regional travel model is unable to account for the impacts of travel demand management (TDM) and transportation system management (TSM) measures, but the potential impacts of these strategies were also considered.

To address the remaining roadway congestion after implementation of transit system improvements, a series of roadway improvements were tested starting with construction of new two-lane collector street connections and extensions to complete the "grid" street network and progressing to major arterial capacity expansion projects. More information on these scenarios is provided on pages 123-124.

Based upon this modeling, a financial capacity analysis, and consultation with WisDOT and local officials, roadways were identified for potential capacity expansion by 2030. These recommended capacity expansion projects are listed in Table 24 on page 135 and illustrated in Figure 41 on page 134. In almost all cases, these roadways are forecasted to become congested or very congested by the Year 2030. There are some roadway segments (e.g., CTH AB from Cottage Grove Road to USH 12/18) that are included for connectivity purposes. There are also some roadways identified for official mapping rather than a capacity change on Figure 41 that are nonetheless included in the table (e.g., Pioneer Road) as potential projects in the last time period of the plan. These are projects that might be needed should development occur in those areas faster than anticipated at this time. Projects already programmed are listed in Section 1 of Table 24 and the additional potential projects are listed in Section 2, on page 136.

Section 1 of Table 24 also includes a list of studies on state roadways. State roadway studies listed include the two USH 51 corridor studies and the USH 18/151/West Beltline Study, which are looking at potential capacity expansion projects (addition of general purpose travel lanes and/or new or reconfigured interchanges) as well as shorter term TSM/safety improvements. Because the specific type of capacity expansion project, if any, is unknown at this time for these state roadways, they are not included in the list of potential capacity improvement projects in Table 24. Once those studies are completed, specific capacity improvement project(s) are identified, regional agreement is reached on the projects, and funding is identified, the plan will be amended to add the project(s). Another study listed is the environmental study of the western end of the proposed North Mendota Parkway, which would run in a new corridor from CTH M to USH 12. Because of the uncertainty over the routing and the fact that funding has not been identified for this project, it is not included in the "financially constrained" plan, except for the segment from Willow Road west to CTH K.

Section 5 of Table 24 also (page 138) includes a short list of "illustrative" capacity expansion projects needed based upon the traffic forecasting, but without identified funding. These projects are therefore not part of the "financially constrained" plan. The North Mendota Parkway is included in this list. A plan amendment would be required in the future for these projects to proceed if federal funding is involved. They could still proceed with local funding.

Implementation of the recommended capacity expansion projects will result in a significant reduction in the system-wide levels of current and projected future congestion. However, even with these local arterial projects and any potential state roadway projects that come out of the current corridor studies, traffic congestion will still remain on numerous roadways. This includes in particular the arterials leading into the Isthmus area. Figure 41, on page 134, shows these remaining areas of congestion. Congestion on these and other roadways will need to be addressed with congestion management strategies (TDM, TSM, transit service and bicycle facility improvements) as part of the Congestion Management System (CMS) process. See page 49 of the plan for a description of the CMS process and strategies.

In addition to capacity expansion projects, Table 24 also lists roadways recommended for "system preservation" (reconstruction or resurfacing without a capacity expansion). Those already programmed are included in Section 3 (page 137) and the additional projects are included in Section 4 (page 138). The system preservation project list is not a complete one and doesn't include any projects in the last time period (2021-2030) due to insufficient data. The MPO plans to work with FHWA, WisDOT, and local units of government to attempt to develop the data for a more comprehensive, longer term list of system preservation needs as part of the next plan update.

The streets/roadways goal, policy objectives, and recommendations/implementation strategies follow below. The recommendations are grouped by the following general categories: capacity expansion projects/studies; system preservation; TSM; and safety.

Goal: Develop and maintain a safe, effective, and efficient street and roadway system that meets the combined needs of all users for travel within and through the region, and enhances community and economic vitality.

Policy Objectives

#1 Maintain and reconstruct existing roadways and bridges in a manner that promotes safety, increases efficiency, and minimizes lifetime costs.

#2 Apply Intelligent Transportation Systems (ITS) technologies and utilize Transportation Systems Management (TSM) strategies to increase the efficiency, reliability, and safety of the roadway network, where appropriate.

#3 Address the mobility and safety needs of all users (motorists, transit users, bicyclists, pedestrians, emergency vehicles) and consider the community context when planning, designing, and constructing roadway system improvements.

#4 Provide for a continuous, interconnected roadway system (avoiding use of cul-de-sacs whenever possible) with proper spacing of arterial and collector roadways that efficiently collects and distributes traffic within and through the region, minimizing travel delays and preserving mobility of regional facilities, while also minimizing negative impacts on adjacent land uses and neighborhoods.

#5 Alleviate traffic congestion through increased roadway capacity, but only when TSM and TDM strategies have been exhausted, consistent with the goals of compact urban development and modal choice.

#6 Draw motor vehicle traffic away from local neighborhood streets and environmentally sensitive areas (traffic redirection), where possible.

#7 Manage access to the regional roadway system to preserve safety and operational efficiency.

#8 Reduce traffic crashes through a comprehensive "3-E" approach that includes education, enforcement, and implementation of cost-effective engineering counter-measures (i.e., roadway reconfiguration, new or modified traffic control devices, etc.).

#9 Provide bicycle and pedestrian accommodations along and across all streets in conjunction with street construction and reconstruction where feasible and appropriate in accordance with the U.S. Department of Transportation Policy on Integrating Bicycling and Walking into Transportation Infrastructure.

Recommendations/Implementation Strategies

Capacity Expansion Projects and Studies

#1 Continue or initiate detailed planning and construction of the arterial roadway capacity expansion, bridge, and potential future interchange projects shown in Figure 41, Major Transportation Improvements and Studies, on the next page, and listed in Table 24, Potential Arterial and Collector Street and Roadway Improvements, 2007-2030, on page 135, with consideration given to staging construction of improvements where appropriate. Table 24 shows the current projected general timing of the projects (2007-2010, 2011-2020, and 2020-2030). The timing of the projects may change due to the timing

TABLE 24
POTENTIAL ARTERIAL AND COLLECTOR STREET AND ROADWAY IMPROVEMENTS 2007-2030

1. Potential Capacity Improvements & Studies Already Programmed

FACILITY	SEGMENT	ASSUMED POTENTIAL IMPROVEMENT (1)	EST. MILES	ESTIMATED TIMETABLE (2) AND PRELIMINARY COSTS (000s)			COMMENTS
				2007 TO 2010	2011 TO 2020	2021 TO 2030	
Roadway Segments (3)							
Femrite Dr	Marsh Rd. - I39/90	4-lane facility & bike lanes	0.6	1,960			Local Funds
Fish Hatchery Rd	Byrneland St. - Lacy Rd.	4-lane divided facility & bike lanes	0.6	2,600			Local Funds
Hoepker Rd	Rattman Rd. - Providence Plat	4-lane divided facility & bike lanes	0.5	1,580			Local Funds
High Point Rd	Mid-Town Rd to Twinflower Dr.	4-lane facility & bike lanes	0.28	920			Local Funds
	Welton Dr. - Starr Grass Dr.	4-lane facility & bike lanes	0.4	560			Local Funds
I94	I39/90 - CTH N	6-lane divided freeway	4.4	25,000			IM Funds
Lien Rd	N. Thompson Dr. - City View Dr.	4-lane divided facility & bike lanes	0.75	2,510			Local Funds
	City View Dr. - Felland Rd.	4-lane divided facility & bike lanes	0.48	1,520			Local Funds
	Felland Rd. - Reiner Rd.	4-lane divided facility & bike lanes	0.49	1,560			Local Funds
W Main St	CTH C to Plat line	4-lane divided facility & bike lanes	0.49	1,225			Local Funds
Old Sauk Rd	Prairie Smoke Rd. to Cricket Lane	4-lane facility & bike lanes	0.7	1,630			Local Funds
Pleasant View Rd Ext	Mineral Pt. Rd. - Valley View Rd.	4-lane divided facility & bike lanes	0.8	6,440			Local Funds
Siggelkow Rd	Marsh Rd – Catalina Pkwy	4-lane facility & bike lanes	0.90	2,480			Local Funds
Sprecher Rd	I94 - Buckeye Rd.	4-lane divided facility & bike lanes	2.4	5,240			Local Funds
Valley View Rd / CTH M	Intersection	4-lane expansion		1,680			STP Urban funds
		Subtotal Roadway Segments	**13.79**	**56,905**	**0**	**0**	
Bridges							
High Point Rd. Bridge	High Point Rd. & W. Beltline	4-lane bridge & bike lanes		795			NHS/Bridge Funds
I39/90/94 Bridge	Portage Rd	4-lane bridge & bike lanes		2,875			IM Funds
I39/90/94 Bridge	Lien Rd. Underpass & I90/94 Bridge	Bridge Expansion for underpass		1,395			IM Funds
		Subtotal Bridges		**5,065**	**0**	**0**	
Studies							
STH 19	C. of Sun Prairie - V. of Waunakee	Safety & TSM Corridor Study		140			State Flex Funds
USH 12	Parmenter St – STH 19	Freeway Conversion Study		100			State Flex Funds
USH 12/18/14	CTH N - USH 14 (Middleton)	Safety & TSM Corridor Study		2,500			State Flex Funds
USH 51	USH 12/18 to I90/94	Corridor Study (EIS)		1,200			State Flex Funds
USH 51	V. of McFarland - C. of Stoughton	Corridor Study (EIS)		1,000			State Flex Funds
USH 18/151/W.Beltline	Verona Rd. - W. Beltline - Min. Pt. Rd.	Corridor Study (EIS)		2,400			State Flex Funds
USH 14	C. of Middleton - V. of Mazomanie	Safety & TSM Corridor Study		600			State Flex Funds
North Mendota Pky	CTH K/CTH M - USH 12	Environmental Study		100			Local Funds
I39/90	USH 12/18 - WI/IL Border	Corridor Study (EIS)		2,300			State Flex Funds
		Subtotal Studies		**10,340**	**0**	**0**	
		Total	**13.79**	**72,310**	**0**	**0**	

(1) For cost estimating purposes only. Design and magnitude of improvement is subject to more detailed levels of planning and approval by unit of government with jurisdiction.
(2) Considering the fiscal constraints on the plan, some projects may not be funded, and all roadway projects may have their priorities and scheduling modified.
(3) Projects outside of the MPO Planning Area, not included in the financial constraint requirement are as follows:
(a) USH 14, CTH MM to STH 138, as a 4-lane divided freeway facility, 1.6 miles, $4,000, State Flex Funds (2006 to 2010 time period)
(b) River Rd, CTH V to Innovation Drive, 4-lane facility & bike lanes, 2.1 miles, $2,380, Local funds (2007 to 2010 time period)

TABLE 24
POTENTIAL ARTERIAL AND COLLECTOR STREET AND ROADWAY IMPROVEMENTS 2007-2030 (CONTINUED)

2. Potential Capacity Improvements

FACILITY	SEGMENT	ASSUMED POTENTIAL IMPROVEMENT (1)	EST. MILES	ESTIMATED TIMETABLE (2) AND PRELIMINARY COSTS (000s)			COMMENTS
				2007 TO 2010	2011 TO 2020	2021 TO 2030	
Roadway Segments (3)							
Cottage Grove Rd.	S. Thompson - Sprecher Rd.	4-lane divided facility & bike lanes	1.20		2,860		Local Funds
CTH N	CTH TT – Gaston Rd	4-lane facility & bike lanes	0.38		2,052		Local Funds
CTH PD (McKee Rd.)	CTH M - South High Pt. Rd.	4-lane divided facility & bike lanes	0.57		1,800		Local or STP U Funds
	South High Pt. Rd. - Maple Grove Rd.	4-lane divided facility & bike lanes	1.1		4,390		Local or STP U Funds
CTH M	Cross Country Rd. - CTH PD	4-lane divided facility & bike lanes	1.00		3,168		Local or STP U Funds
	CTH PD - Valley View Rd.	4-lane divided facility & bike lanes	2.02		6,420		Local or STP U Funds
	Valley View Rd. - Watts Rd.	4-lane divided facility & bike lanes	0.75		2,400		Local or STP U Funds
	Watts Rd. - Mineral Pt. Rd.	6-lane divided facility & bike lanes	0.34		1,260		Local or STP U Funds
CTH M	CTH K - Willow Rd	4-lane divided facility & bike lanes	1.07		3,390		Local or STP U Funds
Hoepker Rd.	USH 51 - CTH C	4-lane divided facility & bike lanes	2.94			9,300	Local or STP U Funds
Midtown Rd.	CTH M - Meadows Rd.	4-lane facility & bike lanes	1.7			4,500	Local or STP U Funds
	CTH M - Muir Field Rd.	4-lane divided facility & bike lanes	1.33			4,200	Local or STP U Funds
Mineral Pt. Rd. (CTH S)	Beltline Hwy - Junction Rd	8-lane divided facility & bike lanes	0.25		2,600		Local or STP U Funds
	Junction Rd. - Pleasant View Rd.	6-lane divided facility & bike lanes	0.51		2,700		Local or STP U Funds
	Pleasant View Rd. - Pioneer Rd.	4-lane divided facility & bike lanes	1.7		5,400		Local or STP U Funds
Nelson Rd	Felland Rd. - Reiner Rd.	4-lane divided facility & bike lanes	0.49		1,560		Local or STP U Funds
Old Sauk Rd.	Pioneer Rd. - Bear Claw Way	4-lane facility & bike lanes	1.13			2,400	Local or STP U Funds
Pioneer Rd.	Midtown Rd. - Old Sauk Rd.	4-lane facility & bike lanes	3.03			8,000	Local or STP U Funds
Pleasant View Rd.	Mineral Point Rd. - USH 14	4-lane divided facility & bike lanes	2.14		6,780		Local or STP U Funds
Reiner/Sprecher Rd.	USH 151 - CTH T	4-lane divided facility & bike lanes	3.78		12,000		Local or STP U Funds
	Buckeye Road to USH 12/18	4-lane divided facility & bike lanes	2.70			8,553	Local or STP U Funds
Valley View Rd.	CTH M - Pioneer Rd.	4-lane facility & bike lanes	2.01			5,500	Local or STP U Funds
		Subtotal Roadway Segments	**32.14**	**0**	**58,780**	**42,453**	
Interchanges							
Mineral Pt. Rd. (CTH S)	Junction Rd/CTH M intersection	Urban interchange & bike lanes			16,210		STP Urban & Local Funds
USH 14	Relocated Lacy Rd.	New Interchange		6,000			Local funds; needs access permit
USH 12/18	CTH AB	New Interchange				6,000	Funding undetermined
Verona Rd	CTH PD	New Interchange				6,000	Local Funds
I39/90/94	Hoepker Rd	Interchange Study					Funding undetermined
		Subtotal Interchanges		**6,000**	**16,210**	**12,000**	
		Total	**32.14**	**6,000**	**74,990**	**54,453**	

(1) For cost estimating purposes only. Design and magnitude of improvement is subject to more detailed levels of planning and approval by unit of government with jurisdiction.
(2) Considering the fiscal constraints on the plan, some projects may not be funded, and all roadway projects may have their priorities and scheduling modified.
(3) Projects outside of the MPO Planning Area, not included in the financial constraint requirement are as follows:
(a) USH 51, STH 19 to CTH V, 4-lane expressway, 4.3 miles, $13,000, State Flex Funds (2011 to 2020 time period)
(b) I39/90, USH 12/18 to County Line, 6-lane freeway, 20.1 miles, IM funds (2021 to 2030 time period); part of larger project to WI/IL boundary.

TABLE 24
POTENTIAL ARTERIAL AND COLLECTOR STREET AND ROADWAY IMPROVEMENTS 2007-2030 (CONTINUED)

3. Potential Arterial System Preservation Improvements Already Programmed (Projects >$1.0 mil.)

FACILITY	SEGMENT	ASSUMED POTENTIAL IMPROVEMENT (1)	EST. MILES	ESTIMATED TIMETABLE (2) AND PRELIMINARY COSTS (000s)			COMMENTS
				2007 TO 2010	2011 TO 2020	2021 TO 2030	
Roadway Segments (3)							
Campus Drive	Univ. Bay Dr. - 4,600 feet east	Resurface	0.87	1,660			Local funds
CTH CV	Tennyson Ln – USH 51	Reconstruction	3.30	1,550			STP Urban & Rural
CTH M	West Point Rd - Signature Drive	Rehab & bike lanes	0.74	1,000			STP Urban
Gammon Rd.	Beltline - Tree Ln.	Resurface	0.90	1,000			Local funds
W. Main St.	N. Bird St. - Clamar Dr.	Reconstruction	0.81	2,405			Local funds
Mineral Point Rd.	Beltline - Grand Canyon	Resurface	1.00	1,000			Local funds
Monona Drive	Broadway - Pflaum Rd.	Reconstruction & bike lanes	1.00	6,285			STP Urban funds
	Winnequah Dr. - Cottage Grove Rd.	Reconstruction & bike lanes	0.57	2,586			STP Urban funds
STH 19	I39/90 - USH 51	Repair/replace pavement	1.00	3,163			State Flex funds
State St.	500 & 600 Blocks	Reconstruction	0.21	5,500			Earmarks
University Ave.	Campus Dr. - Shorewood Blvd.	Resurface	0.50	1,010			Local funds
	W. Johnson St. - N. Broom St.	Repair/replace pavement	1.00	1,400			Local funds
	Allen Blvd. - Segoe	Reconstruction & bike lanes	1.58	4,920			STP Urban
USH 14	Madison - Oregon	Resurface	7.30	5,300			State Flex funds
E. Washington Ave.	Third St. - Marquette St.	Reconstruction & bike lanes	1.04	10,112			STP-U, State, Local funds
	Marquette St. - Melvin Ct. & Interch.	Reconstruction & bike lanes	0.47	16,460			STP-U, State, Local funds
		Subtotal Roadway Segments	**22.29**	**65,351**	**0**	**0**	
Bridges							
Buckeye Rd.	Interstate 39/90 & Buckeye Rd.	Bridge replacement & bike ln.		2,530			IM funds
Milwaukee St.	Interstate 39/90 & Milwaukee St.	Bridge replacement & bike ln.		1,680			IM funds
E. Washington Ave.	Third St. - Marquette St.	Bike overpass/streetscape		3,864			Earmarks, Enhancement funds
		Subtotal Bridges	**0**	**8,074**	**0**	**0**	
		Total	**22.29**	**73,425**	**0**	**0**	

(1) For cost estimating purposes only. Design and magnitude of improvement is subject to more detailed levels of planning and approval by unit of government with jurisdiction.
(2) Considering the fiscal constraints on the plan, some projects may not be funded, and all roadway projects may have their priorities and scheduling modified.
(3) Projects outside of the MPO Planning Area, not included in the financial constraint requirement are as follows:
(a) I39/90, USH 51/STH 73 to USH 12/18, Asphalt overlay, 17.97 miles, $8,022, IM funds, (2007 to 2010 time period)
(b) I94, CTH N to STH 73, Joint repair/patch and overlay, 7.47 miles, $15,345, IM funds (2007 to 2010 time period)
(c) USH 14, Cross Plains to W. County line, Mill & overlay, 10.3 miles, $4,028, NHS/SAF funds (2007 to 2010 time period)
(d) USH 18/151, STH 78 to W. County line, Patch & overlay, 4.12 miles, $6419, NHS funds (2007 to 2010 time period)
(e) STH 19, STH 78 to USH 12, Recondition, 9.6 miles, $3,107, State Flex funds, (2011-2020 time period)
(f) STH 78, CTH H to S. County Line, Reconstruction, 0.90 miles, $4,159, State Flex funds (2007 to 2010 time period)
(g) STH 92, Park St. to Hill Rd., Reconstruct & structures, 1.1 miles, $5,566, State Flex funds (2011 to 2020 time period)
(h) CTH ID, STH 78 to W. County line, Resurface, 4.21 miles, $1,100, Ru & local funds (2007 to 2010 time period)
(I) CTH S, CTH P to Pine Bluff, Resurface, 2.1 miles, $1500, RU & local funds (2007 to 2010 time period)
(j) Vinburn Rd., CTH CV to USH 51, Reconstruct, $1,650, Local funds (2007 to 2010 time period)

TABLE 24
POTENTIAL ARTERIAL AND COLLECTOR STREET AND ROADWAY IMPROVEMENTS 2007-2030 (CONTINUED)

4. Potential Arterial System Preservation Improvements (Projects >$1.0 mil.)

FACILITY	SEGMENT	ASSUMED POTENTIAL IMPROVEMENT (1)	EST. MILES	ESTIMATED TIMETABLE (2) AND PRELIMINARY COSTS (000s)			COMMENTS
				2007 TO 2010	2011 TO 2020	2021 TO 2030	
Roadway Segments							
E. Johnson St.	Butler St. - Baldwin St.	Reconstruction	1.04		5,850		Local or STP U funds
Monona Dr	Pflaum - Winnequah	Reconstruction	0.94		1,800		Local or STP U funds
Old Middleton Rd.	Capital Ave. - Countryside Ln.	Reconstruction	0.70		1,610		Local funds
STH 19	Klein Dr. – Division St.	Reconstruction	0.75		2,014		State Flex funds
STH 113	E. Johnson - Debs Rd.	Resurface/Repair	4.50		10,000		State & Local funds
N. Thompson Dr.	Lien Rd/Zeier Rd. Intersection	Reconstruction			1,530		Local funds
E. Washington Ave.	Thierer Rd. – East Springs Dr.	Reconstruction & bike lanes	0.80		9,940		Local funds
		Total	**8.73**	**0**	**32,744**	**0**	

(1) For cost estimating purposes only. Design and magnitude of improvement is subject to more detailed levels of planning and approval by unit of government with jurisdiction.
(2) Considering the fiscal constraints on the plan, some projects may not be funded, and all roadway projects may have their priorities and scheduling modified.

5. Illustrative Capacity Improvement Projects (No identified funding)

FACILITY	SEGMENT	ASSUMED POTENTIAL IMPROVEMENT (1)	EST. MILES	ESTIMATED TIMETABLE (2) AND PRELIMINARY COSTS (000s)			COMMENTS
				2007 TO 2010	2011 TO 2020	2021 TO 2030	
Roadway Segments							
Anderson St	International Ln to Wright St	4-lane facility & bike lanes	1.14			3,000	
CTH CV	Tennyson Ln – USH 51	4-lane facility & bike lanes	3.30			8,712	
CTH N	Gaston Rd – Cottage Grove Rd	4-lane facility & bike lanes	1.24			3,273	
CTH Q	Century Ave – Balzar Rd	4-lane facility & bike lanes	1.50			4,600	
	Balzar Rd – Village of Waunakee	4-lane divided facility & bike lanes	3.18			10,074	
North Mendota Pkwy	CTH K / CTH M / STH 113 / STH 19	4-lane divided expressway	12.03			28,000	Official map corridor; candidate
		(45-55mph speed facility)					EIS study in later time periods
		Total	**22.39**	**0**	**0**	**57,659**	

(1) For cost estimating purposes only. Design and magnitude of improvement is subject to more detailed levels of planning and approval by unit of government with jurisdiction.
(2) Considering the fiscal constraints on the plan, some projects may not be funded, and all roadway projects may have their priorities and scheduling modified.

and location of future land use development, the impacts of congestion management system (CMS) strategies (which are implemented prior to addition of general purpose travel lanes), safety analyses, future pavement conditions, available funding, and other factors. [WisDOT, Dane County, local governments]

#2 Consider potential Beltline (USH 12/14/18/151) and Interstate interchange design changes to improve capacity and/or safety as part of ongoing and planned studies, including the Beltline interchanges at Mineral Point Road, Verona Road, Fish Hatchery Road, Park Street/USH 14, and Stoughton Road (USH 51) and the Interstate 39/90 interchanges at STH 19 and USH 12/18. [WisDOT]

#3 Complete the Alternatives Analysis Studies and Environmental Impact Statements (EISs) for the central and southern segments of USH 51 (Interstate to Terminal Drive south of the Beltline and McFarland to Stoughton) that are looking at long-term solutions to the congestion, safety, and multi-modal access issues in the corridor. Upon completion of accepted Final EISs, begin planning to advance recommended improvements with the timing dependent upon ongoing needs assessment and available funding. Also, continue to implement short-term TSM, safety, and pedestrian/bicycle improvements in the corridor. [WisDOT, City of Madison]

Currently planned short-term TSM and safety improvements in the central segment of the USH 51 corridor include:

- Improvements to the signal timing along the roadway;
- Extension of Bartillon Drive connecting Portage Road to USH 51 via Kinsman Boulevard;
- Addition of a southbound transition lane between Buckeye Road and Cottage Grove Road;
- Improvements to address safety concerns at the Hoepker Road intersection; and
- Increasing the capacity of the ramps and approaches at the USH 51 and Beltline interchange.

#4 Complete the Final EIS for the Verona Road/West Beltline Study looking at long-term solutions to the congestion, safety, and multi-modal access issues in the corridor. Upon completion of an accepted Final EIS, begin planning to advance recommended improvements with the timing dependent upon ongoing needs assessment and available funding. Continue to pursue and implement interim or short-term TSM, safety, and pedestrian/bicycle improvements in the corridor. Also continue to pursue extending Raymond Road access to the Allied Drive neighborhood and adding additional grade-separated crossings of the Beltline to relieve congestion from the interchanges. [WisDOT, City of Madison]

#5 Complete the recently initiated Safety/TSM Study in the STH 19/STH 113 corridor between Sun Prairie and Waunakee. Advance short-term improvement recommendations that come out of the study, while taking into consideration and continuing to plan for potential future capacity expansion of the roadway. [WisDOT, local governments in corridor]

#6 Conduct a Freeway Conversion Study for USH 12 from Parmenter Street in the City of Middleton north to STH 19. Upon completion, begin planning to advance interchanges and other recommendations generated from the study. [WisDOT]

#7 Conduct a Safety/TSM Study in the USH 14 corridor between the City of Middleton and the Village of Cross Plains. Advance short-term TSM and safety improvement recommendations that come out of the study. [WisDOT, local governments in corridor]

#8 Conduct a needs assessment of a potential new interchange on USH 12/18 at CTH AB. [WisDOT]

#9 Conduct a needs assessment of a potential new interchange on Interstate 39/90 at Hoepker Road. [City of Madison]

#10 Continue to plan for and utilize official mapping, right-of-way dedications, and other programs to preserve existing and planned future arterial and collector roadway corridors for potential improvements such as Pioneer/Meadow Road (USH 14 to Mid-Town), Mid-Town Road (CTH M to Meadow), Old Sauk Road (west to Pioneer Rd.), Valley View Road (CTH M to Pioneer), Hoepker Road (CTH C to CTH CV), and Siggelkow Road (USH 51 to CTH AB). See Figure 41, Major Transportation Improvements and Studies on page 134. Also, see Figure 42, Future Planned Roadway Functional Classification System, on the next page, which includes planned new collector roadways. [Dane County, local governments]

#11 Continue or initiate detailed planning and construction of collector street connections and extensions that help complete the "grid" street network, thereby efficiently distributing traffic on the regional system. [Local governments, WisDOT]

Examples of currently planned or proposed such connections include the following:

- New crossing of Interstate 94 between Sprecher Road and Gaston Road;
- Milwaukee Street extension to Gaston Road;
- Extension of Eastpark Blvd. in the American Center to Portage Road;
- Extension of Thompson Road across USH 151 to O'Keefe Avenue in Sun Prairie;
- Extension of West Main Street in Sun Prairie from CTH C to Rattman Road;
- Extension of Watts Road across the Beltline to Odana Road at Research Park Blvd.;
- New street across Beltline west of Gammon Road interchange connecting West Towne Mall and Watts Rd.;
- Extension of S. High Point Road from Mid-Town Rd. to Raymond Rd., connecting to the southern segment of street;
- Extension of Fitchrona Road from Nesbitt to McKee Road (CTH PD);
- Extension of Post Road from Fish Hatchery Road to existing Post Road;
- Mid-Town Road realignment to connect directly to Raymond Road; and
- Extension of Elderberry Road from existing terminus to Pleasant View Road.

#12 Work with the City of Verona to identify the potential for future official mapping of a north-south roadway west of the City from USH 18/151 north to CTH PD and possibly to Mid-Town Road as part of the future arterial/collector roadway system on the West side of the metro area. [City of Verona, Madison Area MPO]

#13 Work with the City of Sun Prairie to conduct a study of the Egre Road corridor as a potential long-term future arterial roadway. [City of Sun Prairie, Madison Area MPO]

System Preservation

#14 Continue to implement pavement management programs to assist in making cost-effective decisions concerning the maintenance and rehabilitation of roadways in a systematic way. It is also recommended that Dane County and local governments prepare annual street condition reports similar to the report prepared by the City of Madison that provide information on the pavement condition of roadways and maintenance and reconstruction work. [WisDOT, Dane County, local governments]

#15 Continue enforcement of truck weight regulations to reduce premature deterioration of roadways and bridges. [WisDOT]

Enforcement activities are conducted at State Patrol safety and weight inspection facilities as well as through mobile enforcement using portable scales.

Transportation System Management (TSM)

#16 Continue to implement access management standards and plans for existing and future arterial roadways as development and street reconstruction (curb replacement) occur. [Local governments]

Access management plans include consideration of: (a) combining driveways, moving them away from intersections, or aligning them with other driveways or streets; (b) addition of a median or other median treatments such as pedestrian refugee areas at intersections; and (c) providing for protected left-turn movements. Access management plans for existing roadways would in many cases need to be implemented incrementally over time as (re)development occurs.

#17 Continue to monitor congestion and crash data for arterial and collector roadway intersections, and implement intersection improvements (e.g., adding turn lanes, signalization, etc.) to address major problem areas, where feasible. [Local governments]

#18 Consider restricting curb-lane parking during peak traffic periods on arterial roadways, where appropriate, as a means to improve traffic flow and local bus service without expanding roadway capacity. [Local governments]

#19 Continue to expand and improve current traffic signal coordination efforts. Implement a coordinated system for those arterials that currently don't have coordinated signals. [City of Madison Traffic Engineering and other local public works departments, WisDOT]

#20 Continue to monitor improvements in technology (e.g., video cameras for traffic detection, traffic responsive signal systems) and implement where cost effective. [City of Madison Traffic Engineering, other local public works departments, WisDOT]

#21 Expand use of ramp meters (with HOV bypass) to other locations on the Beltline and other locations where appropriate and cost effective. [WisDOT]

#22 Expand the current incident management program to include additional roadways (e.g., USH 12, Verona Road/USH 18/151), additional coverage of service patrols to peak non-work related travel periods, and additional strategies (e.g., motorist information systems). [WisDOT]

#23 Establish an inter-agency Intelligent Transportation Systems (ITS) staff work group/committee with the following purposes and responsibilities:

- Provide a forum for continued dialogue and coordination on all ITS related issues;
- Monitor and provide input to the ITS project conformity process;
- Coordinate the development of procedures or agreements in support of ITS activities;
- Oversee the maintenance and updating of the regional ITS architecture plan and priority list of projects;
- Monitor ITS standards development and identify approaches to regional application of standards;
- Coordinate specific regional ITS projects and the interface between local projects and regional ITS systems;
- Monitor and evaluate evolving technologies for potential implementation;
- Coordinate the collection, sharing, and use of ITS-generated data (e.g., from traffic sensors); and
- Facilitate liason with ITS activities in other areas (e.g., Southeast Wisconsin).

  [Madison Area MPO, WisDOT]

#24 More fully incorporate ITS applications into future roadway corridor studies, where appropriate. [WisDOT]

#25 Encourage integration of ITS infrastructure into preliminary engineering and design of major reconstruction projects on arterial roadways. [WisDOT, Dane County, local governments]

#26 Continue to improve the area-wide communication network for sharing information among state, county, and local agencies and making such information available to the general public on planned and unplanned road/lane closures, detour and alternative route information, construction zones, major traffic crashes and other incidents, special events, etc. [WisDOT, Dane County, local governments]

#27 Explore the implementation of a 311 telephone system to report non-emergency incidents such as vehicle breakdowns, debris in the roadway, and traffic signal problems, as well as other non-transportation related issues. [WisDOT, Dane County, local governments]

Besides the 911 emergency number, America's telephone companies and the Federal Communication Commission (FCC) have adopted other three-digit number, including 311. The 311 number was approved for nationwide use by the FCC in 1997. While implementation has been relatively slow, there are now numerous cities around the country that have implemented the system. Calls to 311 can either be routed to a separate center staffed by non-public safety personnel or to the same center where 911 and other public safety calls are handled. In either case, the information is entered into a computer and routed to the proper city/county agency for handling.

#28 Update Isthmus Traffic Redirection Study. [Madison Traffic Engineering, Madison Area MPO]

#29 Continue to improve the area wide traffic count program (e.g., adding turning movement counts at high volume intersections/interchanges) to assist with the regional congestion management system process. [WisDOT, City of Madison Traffic Engineering, Madison Area MPO]

Safety

#30 Continue to improve on state and local efforts to identify high crash locations, conduct more detailed study of these areas, and implement remedial design improvements as part of the ongoing transportation planning and programming process. [WisDOT, Dane County, local governments, Madison Area MPO]

There is a need for improved quantitative analysis for prioritizing safety needs and determining the benefits of safety improvements. There is a new focus on looking at crashes for different types of facilities versus use of crash rates. Improving the design and operation of intersections is one of the high priority issue areas of WisDOT's 2006-2008 Wisconsin Strategic Highway Safety Plan (see recommendation #30).

#31 Improve the statewide Safety Information Management System, particularly in regards to developing better location-specific crash data and improving access to and dissemination of this data. [WisDOT]

This is also one of the highest priority issue areas of 2006-2008 Wisconsin Strategic Highway Safety Plan (see recommendation #30).

#32 Continue to implement cost-effective changes to traffic signals and signs that are found to reduce crashes (e.g., use of brighter, light emitting diode (LED) lighting, de-activation of unwarranted existing signals, overhead lighted street signs on arterials, etc.). [Local public works/traffic engineering agencies]

#33 Support efforts of the Wisconsin Department of Transportation (WisDOT) to implement the 2006-2008 Wisconsin Strategic Highway Safety Plan and future updates to the plan. [WisDOT, Dane County, local governments, state agencies, law enforcement agencies, private organizations, others]

The 2006-2008 Wisconsin Strategic Highway Safety Plan was prepared by WisDOT's Traffic Safety Council, a multi-disciplinary team that works with a wide range of safety professionals and advocates. Such plans are required by SAFETEA-LU. The 2006 plan is the second strategic highway plan prepared. One of the primary functions of the plan is to coordinate statewide goals and safety programs, helping WisDOT's safety partners (federal, state and local planners/engineers, law enforcement agencies, MPOs, health care organizations, non-profit organizations, UW-Madison, media) better leverage limited resources and work together. The plan prioritizes 26 identified issue areas based upon the issue's importance relative to the number of traffic crashes, injuries, and deaths and the ability of WisDOT and its safety partners to influence the issue. The top ten issue areas identified are:

- Increase safety belt use/air bag effectiveness.
- Improve the design/operation of intersections.
- Improve the safety data/decision support system.
- Reduce speed-related crashes.
- Reduce impaired driving.
- Minimize the consequences of leaving the roadway.
- Design safer work zones.
- Reduce head-on and cross-median crashes.
- Keep vehicles on the roadway.
- Increase driver safety awareness.

Other issue areas include: sustaining proficiency in older drivers; curbing aggressive driving, improving traffic incident management, making truck travel safer, making walking and bicycling safer, and reducing deer crashes.

#34 Expand membership and activities of the Dane County Traffic Safety Commission. [Dane County Highway & Transportation Dept.]

#35 Study and implement cost-effective measures to reduce motor vehicle/deer crashes in the county (e.g., deer fences). [WisDOT, Dane County, local governments]

A state study on this issue is in progress. Dane County has had the most such crashes statewide (1,007 in 2004).

#36 Continue to expand safety education efforts, including neighborhood-based initiatives. [WisDOT, local governments, non-profit organizations]

#37 Continue to support and expand traffic enforcement activities, including using local traffic teams such as the City of Madison's TEST unit and Dane County Sheriff's Office Traffic Team and undertaking special enforcement initiatives such as the one targeting aggressive driving on the Beltline using helicopters by the Beltline Task Force. [Dane County and local law enforcement agencies]

Other
#38 Work with WisDOT, Dane County, and local governments to review potential jurisdictional transfers of roadways, where appropriate.

Public Transit

Metro Transit provides a much higher level of service and has much higher ridership than similarly sized urban areas around the country. Metro provides 2.5 times more hours of service and has four times as many riders per capita than other areas with a similar population. Weekday peak-period service frequencies are generally less than five minutes to 10 minutes in the greater Isthmus area where routes converge in the arterial corridors leading to the downtown/UW campus area. Beyond this core area, peak service frequencies are 15-30 minutes. Off-peak frequencies are generally 10-15 minutes (5-7 minutes between the UW campus and downtown) in the core area and 30-60 minutes elsewhwere. The weekday span of service for most areas with all-day service is excellent with routes running 17-19 hours a day.

A major weakness of the system is the lack of express service. Travel times from suburban communities and peripheral Madison neighborhoods to the downtown/UW campus area are long relative to driving. Other needs include: (a) improved service to some peripheral employment centers; (b) downtown/UW campus commuter service from suburban communities such as Sun Prairie, Oregon, and Stoughton; and (c) new or improved off-peak and weekend service to some areas (e.g., south side) and communities (e.g., Middleton, Monona). Express service and other improvements to the system are unlikely to be implemented without a new dedicated funding source for transit and a new governance structure that regionalizes the system.

This plan continues a Madison Metropolitan Area transit expansion emphasis, and carries forward the recommendation from the previous plan to establish high capacity, fixed-guideway transit service in the identified East-West Transit Corridor. The details of such a system, including the technology to be used and the routing of an initial start-up system, are being addressed in the currently ongoing Transport 2020 Study. This study, which is in the final preliminary engineering/EIS phase, will also be making recommendations for a new finance/governance structure for the transit system.

As part of development of the plan, the ridership and traffic impacts of implementation of an aggressive expansion and improvement of the transit system were analyzed using the MPO's travel simulation model. The transit improvements modeled included a "hybrid" rail system (which allows running on-street as well as in the rail corridor) with two segments on each end connecting Greenway Center and the new UW Research Park on the west side with the airport and Sun Prairie on the east side. They also included new express bus service from outlying communities running through the bus transfer points as well as local bus service extensions and improvements. Figure 40 on page 131 shows the hybrid rail and express bus system that was modeled. The modeling showed that transit ridership could be expected to increase 30-40% by 2030 with these improvements. Additional refinements to the transit model are being made as part of the Transport 2020 Study. In addition, changes to the existing bus system are being planned to better integrate it with the fixed guideway system—something that wasn't done as part of this planning process. Thus, the potential increase in transit ridership could perhaps be even higher.

The public transit goal, policy objectives, and recommendations/implementation strategies to achieve these objectives follow below.

<u>Goal</u>: Develop and maintain a safe, effective, and efficient transit system that provides a viable transportation alternative to the auto for trips within and between urban areas.

Policy Objectives

#1 Maintain and operate transit facilities and service as safely and efficiently as possible.

#2 Improve transit service and facilities to increase the system's accessibility, attractiveness, and competitiveness with the auto in a manner to achieve an increasing proportion of total transit trips, particularly in congested or constrained corridors serving the central Madison area and other major employment/activity centers.

#3 Increase accessibility to employment opportunities and medical and other services for persons having less or no access to automobiles and those with disabilities.

#4 Focus transit service improvements and extensions in existing, redeveloping, and developing urban areas with supportive land use patterns and population and employment characteristics.

#5 Develop commuter transit and/or expand vanpool services to the central Madison area and to other major employment/activity centers from outlying cities and villages.

#6 Expand the Park-and-Ride system within the Madison area and outlying cities and villages.

Recommendations/Implementation Strategies

#1 Work to reach regional agreement on and implement the service improvement and finance/governance recommendations from the current final phase (PE/EIS) of the Transport 2020 (East-West Transit Corridor) Study. [Transport 2020 Implementation Task Force, City of Madison and other local governments, Dane County, WisDOT, Madison Area MPO]

The Transport 2020 Study is looking at the establishment of high capacity, fixed-guideway transit service with complementary express bus and connecting local service in a general East-West Transit Corridor extending from the greater East Towne area and the airport on the East and North sides to the greater West Towne area and the City of Middleton's Greenway Center on the West side. Express bus service from outlying communities and peripheral Madison neighborhoods and connecting local service is envisioned to complement the fixed guideway system, which might be extended in the future (e.g., to Sun Prairie). Federal funding, which is necessary for the project to proceed, will be sought through the Federal Transit Administration's (FTA) New Starts process.

The Transport 2020 Study will also be making recommendations regarding a finance and governance structure for the enhanced regional transit system. Among the alternatives being studied by the study's Finance/Governance Sub-Committee is the creation of a countywide Regional Transit Authority (RTA) funded through a sales tax. There are still many issues that need to be worked out, however. Most people would agree that creation of some form of an RTA will be necessary at some point in order to develop a regional transit system. The current structure of a city-owned transit system that contracts with other jurisdictions for service makes service planning difficult and leads to route inefficiencies.

Figure 40, on page 131, shows one of the fixed-guideway transit alternatives being considered as part of the Transport 2020 Study—a hybrid rail technology that allows running on-street as well as in the rail line. The rail system would be complemented by express bus service from outlying communities and peripheral Madison area neighborhoods. The system shown in Figure 40 is a long-term vision, and shows how the system connects the urban areas and employment/activity centers. The Transport 2020 Study is looking at a starter system that would include only part of the fixed-guideway transit system and some of the express bus routes shown.

#2 Complete the current Streetcar Study, and advance to the next phase of planning if found to be feasible. Consider moving forward with short-term improvements in downtown/UW campus circulator service for residents, students, employees, and visitors using some type of bus (e.g., smaller 30-foot, hybrid-electric, trolley bus). Also explore the potential for circulator service (possibly using a trolley bus) between downtown Middleton and Greenway Center.

#3 Continue efforts to improve and expand local bus service through service extensions, increased frequency of service, improved bus phasing, reduced travel time, enhanced transfer opportunities, route schedule changes/simplification, and improved on-time performance. [Metro Transit]

#4 Add "express" or "limited stop" bus services to the extent feasible from peripheral neighborhoods and outlying communities. [Metro Transit]

Metro Transit staff have had service planning discussions with a number of communities that have shown interest in implementing commuter-oriented service, including the Cities of Sun Prairie and Stoughton and the Villages of Oregon and Cross Plains. Surveys conducted show significant ridership potential.

#5 Continue efforts to implement traffic management strategies and other actions (exclusive bus lanes, transit signal priority, bus queue jumpers), where appropriate and practical, that give priority to transit. [Local governments, Metro Transit]

Metro Transit and City of Madison Traffic Engineering staff have begun to explore potential applications of traffic signal prioritization. Opportunities to expand the existing network of bus lanes should be considered and planned where feasible and practicable. Examples of arterial streets where bus lanes should be considered in the future include: Johnson Street (Randall St. to Bassett St.); Campus Drive; Whitney Way (University Ave. to Mineral Point Rd.); and Cottage Grove Road (if the transit system is restructured to a more east-west orientation in the future). Extensions of the Fish Hatchery Road and Mineral Point Road bus lanes should also be planned.

#6 Continue efforts to improve the amenities at bus stops (pads, benches, shelters, shelter heating at transfer points and other major stops, schedule information, etc.), utilizing boarding/alighting, land use, demographic, and other data to prioritize bus stop improvements. [Metro Transit]

Metro continues to work with the City of Madison and other communities on expanding the number of bus stops with boarding pads, benches, and shelters through the sidewalk replacement program, incorporating requirements in development plans, and working with land owners. Metro is pursuing a bus shelter advertising program to provide new, attractive back-lit shelters. Metro is also considering a pilot program to test the addition of heating elements in shelters at some transfer points.

#7 Continue efforts to improve pedestrian and bicyclist access to the transit system, including putting bicycle racks on all buses.

#8 Continue efforts to improve safety and security of bus riders and drivers on buses and at the transfer points and other major bus boarding locations. [Metro Transit]

Metro recently developed a new safety/security plan and has placed surveillance cameras on some buses and at the South and West Transfer Points. Additional training is being provided to bus supervisors and operators in maintaining a safe environment and dealing with altercations.

#9 Continue efforts to improve the effectiveness of the ITS system and to implement additional ITS applications, including making real-time traveler information available via the Internet and telephone and adding displays at major stops. [Metro Transit]

It is anticipated that real-time schedule information will be available on Metro's Web site starting in late fall of 2006 or early 2007.

#10 Continue to explore additional short-term funding options (e.g., advertising at bus stops, application of Medicaid funding for fixed route service trips by eligible persons), support increased state funding, and pursue a longer term dedicated funding source to support regional transit system improvements. [Metro Transit, Transport 2020 Implementation Task Force]

Continued efforts of Metro to explore all possible funding options as well as the continued commitment of the State to be a strong partner in the funding of public transit are essential to making further improvements in and expanding the Metro transit system. The percent of Metro operating expenses covered by the State has dropped from 45% in 1996 to 37% in

2005. The 2003-2005 State budget provided no funding increase for public transit statewide and the 2005-2007 budget only provides a 2% annual increase. Higher percentage increases will be needed in the future.

Implementation of major transit service improvements, such as the rail and express commuter bus service proposals being evaluated as part of the Transport 2020 Study, are dependent upon attaining a dedicated source of local funding for public transit. Around 25% of Metro's 2005 budget came from local funding largely provided by property taxes. Metro must compete annually for limited property tax dollars with mandated services and projects. Metro has barely been able to secure enough funding to offset shortages in State and Federal funding, let alone fund any service improvements or expansion. Service improvements over the last six years have come through reallocation of service hours versus an increase in service levels. Most public transit systems nationwide have dedicated local funding, typically a sales tax. A sales tax provides funding that increases with inflation and area growth, providing a stable funding source.

#11 Continue to update the map of potential future bus routings and promote transit-supportive land use and site designs in these corridors. [Metro Transit, City of Madison and other local governments]

Paratransit/Specialized Transportation

Paratransit refers to demand responsive transit service provided on an advance reservation basis for persons unable to use the regular fixed-route service. The Americans with Disabilities Act (ADA) requires such service to be provided within three-quarters of a mile of all regular bus routes and sets out other requirements for the service. Metro Transit meets and in some cases exceeds these ADA requirements. Specialized transportation refers to other group ride and demand-responsive services provided for the elderly and persons with disabilities. These services supplement Metro service, generally transporting persons to support and medical services, jobs, and training.

Goal: Provide high-quality ADA paratransit service for persons unable to utilize accessible fixed-route bus service and supplementary specialized transportation services (particularly outside the Metro service area) that provide basic mobility and allow persons to access essential services.

Policy Objectives

#1 Improve the efficiency and coordination of paratransit and specialized transportation services for the elderly and persons with disabilities and expand the services available to these groups.

#2 Coordinate specialized transportation services with shared-ride taxi service and other private transportation services.

Recommendations/Implementation Strategies

#1 Continue efforts to improve the efficiency and on-time performance of Metro paratransit service through use of Metro's new automatic vehicle locator (AVL) system, information provided by contractors, use of incentives, and other means. Continue to provide paratransit service that meets and preferably exceeds ADA requirements to the extent feasible. [Metro Transit]

Metro's strategic plan for improving the efficiency of paratransit includes: (a) reducing overall service costs by attracting more providers to the provision of service, thereby increasing competitive pricing; (b) expanding the number of templates for paratransit subscription services to increase efficiency and consistency in service; and (c) improving the monitoring of on-time compliance. Metro has implemented a pilot program called Long-Term Assignment, which allows Metro to assign individual clients with recurring or standing trip requests to a contractor that is directly responsible for receiving, coordinating, scheduling, performing, and reporting their trip requests. The program provides both the incentive and opportunity to increase efficiency in scheduling trips by "templating" a substantial number of clients and allowing negotiation of pick up times. Another Metro initiative is to contract for in-person functional assessment to be done for paratransit service applicants.

#2 Continue efforts to increase funding and improve county specialized transportation services (particularly outside the Metro transit service area), and to coordinate such services and Metro paratransit service. [Dane County Human Services]

#3 Work to expand the RSVP program through recruiting of additional volunteers, increasing reimbursement rates, and better publicizing the program. [Dane County Human Services, private organizations/aging network, MPOs]

#4 Explore possible creation of a "mobility management center" for the coordination of transportation for persons with transit needs (taxis, vans, etc.), particularly those that have non-traditional hours and locations, such as rural areas. [Madison Area MPO, Metro Transit, Dane County Human Services, private taxi companies, non-profit organizations]

#5 Explore creation of a countywide specialized transportation coordinating council to assist in the planning and coordination of publicly and privately provided specialized transportation services. [Dane County Human Services, Madison Area MPO]

#6 Continue efforts to reduce duplication of paratransit and specialized transportations services provided by Metro, Dane County, and private agencies. [Dane County Human Services, Metro Transit, Madison Area MPO, private organizations]

#7 Continue efforts to increase the accessibility of private taxicab service for persons with a disability. [Madison Traffic Engineering, Madison Area MPO, others]

#8 Develop a process for regional licensing of private taxi cab operators. [Dane County, RTA (if created), others]

TDM/Ridesharing

Travel demand management (TDM) refers to strategies that seek to shift travel to higher occupancy (transit, car/vanpool) or non-motorized (bicycle, walking) transportation modes, shift travel to less congested times of the day, and/or reduce or eliminate the need to travel (e.g., through telecommuting). Current TDM programs and activities were described in Part 1 of the plan (see page 99). This plan recommends expansion of the current activities and programs, including the Madison Area MPO's employer-based program. Employer based programs are generally the most effective in reducing work trips, and work trips are the easiest to shift to alternative transportation modes. TDM strategies can be chosen to meet the specific needs of the employees based upon the worksite characteristics and the employees' demographic and travel characteristics. In addition, a corporate "culture" can be created that reinforces the TDM message. TDM goals and specific recommendations/implementation strategies are described below.

Goals:

#1 Make the most efficient use of the existing transportation system through TDM strategies.

#2 Encourage ridesharing, particularly for trips to work and school, and for trips not conveniently served by the public transit system.

Recommendations/Implementation Strategies

#1 Continue to expand the countywide park-and-ride (PnR) system to encourage carpooling and transit use. See Figure 43, on the next page, which shows the existing, planned, and other potential future park-and-ride lots supporting the transit system and ridesharing programs. [WisDOT, Metro Transit, Dane County, local governments]

PnR lots provide convenient locations for car- and vanpoolers to meet. They also can provide access to the transit system for persons who cannot conveniently access the bus system on foot. Common reasons for using PnR lots are that there is no bus service or convenient service near a person's home or a car is needed before or after the bus trip (e.g., to drop a child off at daycare). Most PnR lot users are commuters who work or go to school in the downtown/UW campus area where parking is expensive and/or in short supply. Increased use of the PnR system will help reduce traffic congestion and parking demand in the downtown area and other intensely developed areas.

#2 Continue to expand the scope of the Madison Area MPO's Rideshare Etc. program (e.g., provide assistance to more employers or groups of employers on TDM plans, work with local communities on TDM ordinances, hold promotional and PR events, possibly add a School Pool Program). [Madison Area MPO, local governments]

#3 Increase funding for TDM incentives (funding match for free or discounted bus passes, vanpool subsidies, free bicycle tune-ups, etc.), support services (e.g., guaranteed ride home program, bicycle commuting classes) and marketing (materials, advertising). [WisDOT, Dane County, local governments]

#4 Continue to encourage telecommuting/e-Work and alternative work schedules. [Madison Area MPO, state and local governments]

#5 Continue to encourage employer participation in alternative transportation incentive programs such as Commute Choice, unlimited bus passes, and "parking cash out." [Madison Area MPO, Metro Transit, state and local governments]

#6 Support selective application of mandatory TDM strategies (e.g., designation of employee transportation coordinator, Commute Choice program, etc.) for large developments and areas with significant existing or projected congestion problems. [Madison Area MPO]

#7 Support establishment of Transportation Management Associations (TMAs) in the larger employment centers and other areas with the highest traffic congestion. [Madison Area MPO, local governments]

#8 Continue and seek to expand the Smart Commute program, a loan program that gives homebuyers the opportunity to qualify for a larger mortgage if they purchase a home along a Metro route. [Metro Transit, local governments, private sector]

#9 Explore potential public-private partnerships for door-to-door or stop-to-stop demand responsive transit services to reduce single-occupant vehicle trips. [Dane County, Madison Area MPO, and others]

Bicycle Transportation

Bicycling is an important mode of transportation and a healthful recreational activity. It is a particularly efficient and convenient form of transportation in urban areas where destinations are closer together. Like the automobile, the bicycle provides a high degree of independence, flexibility, and freedom of choice relative to schedule and destination. The City of Madison is recognized as one of the most "bicycle-friendly" communities in the U.S. due to the extensive network of bicycle facilities, relatively high levels of bicycling, and strong institutional and public support for bicycling.

The Madison Area MPO prepared a comprehensive regional bicycle plan in 2000. The Bicycle Transportation Plan for the Madison Urban Area and Dane County covers the "four Es" of engineering (facility improvements), education, encouragement, and enforcement. It includes a vision statement, three broad goals, and a detailed set of objectives and recommendations within the following categories: (1) facilities planning and development; (2) facilities maintenance; (3) parking and other support facilities and transit connections; (4) education and encouragement; and (5) enforcement.

The 2000 bicycle transportation plan identified and prioritized both on-street bicycle facility needs and proposed off-street paths. On-street facility improvement needs were based on an analysis of the compatibility for bicycling of the arterial and collector roadways in the Madison area and rural Dane County. Recommended bicycle routes were also identified.

As part of this overall regional transportation plan update, an updated countywide bikeway system plan was prepared to incorporate new information and detailed neighborhood and local bicycle facility plans that have been prepared since 2000 for communities within the now expanded MPO planning area. A regional bikeway system was identified that provides important connections through the Madison urban area and between communities, thereby providing access to major destinations such as employment centers, shopping areas, schools, and parks. Figure 44 on page 152 shows the planned bikeway system. The regional system is shown in red (off-street facility) and maroon (on-street facility). This regional bikeway system serves as a core system that local communities preparing neighborhood plans and developers planning projects can tie into with connecting local bikeway facilities. Figure 44 shows additional planned local bikeways in green (off-street) and gray (on-street). The planned regional system highlights high priority projects for potential federal funding. Table 25, on page 153, lists these high priority regional projects.

The bicycle transportation goal, policy objectives, and recommendations/implementation strategies are listed below. The recommendations are grouped by the following categories: system preservation; facility planning and development; and education and enforcement.

Goal: Provide for the safe, convenient and enjoyable travel by bicyclists throughout the region.

Policy Objectives

#1 Maintain and reconstruct existing bicycle facilities in a manner that promotes safety, increases convenience, and minimizes lifetime costs.

#2 Develop a continuous, interconnected system of bikeways providing reasonably direct, enjoyable, and safe routes within and between neighborhoods and communities throughout the region.

#3 Provide on-street bicycle facilities on arterial and collector roadways where feasible and appropriate given available right of way, traffic volumes and speeds, and other factors.

#4 Eliminate bicycling hazards and barriers.

#5 Provide necessary bicycle system support facilities and improve accessibility to transit and other transportation modes.

#6 Encourage bicycle travel for transportation as well as recreational purposes.

#7 Reduce bicycle crashes through a comprehensive "3-E" approach that includes education, training, enforcement, and implementation of cost-effective engineering counter-measures (i.e., bike lanes, intersection reconfiguration, new or modified traffic control devices, etc.).

Recommendations/Implementation Strategies

System Preservation

#1 Budget for and provide regular maintenance (sweeping, snow plowing, repair of surface defects) of on- and off-street bicycle facilities. [Dane County, local governments]

#2 Monitor the surface condition of existing multi-use paths and trails, and provide routine maintenance (e.g., crack filling) to preserve the facilities and minimize lifetime costs. [Dane County, local governments]

Facility Planning and Development

#3 Develop the recommended regional bikeway system. See Figure 44, Regional Bicycle Way System Plan, on the next page. Prioritize for Federal Enhancement and state funding high priority projects on this system listed in the Table 25, on page 153, as well as those that provide important connections to the system. [Dane County, local governments]

The high priority bicycle projects listed in Table 25 are significant components of the regional bikeway system because they fill in gaps or missing links in the existing system, provide regional connectivity and access to neighborhoods or activity centers, improve overall system safety, and/or overcome significant barriers such as major highways.

#4 Continue to implement the recommendations in the *Bicycle Transportation Plan for the Madison Urban Area and Dane County* (2000). Update the plan within the next few years, expanding the coverage to include the new larger urban area. [Dane County, local governments, Madison Area MPO]

#5 Continue to develop and implement local bicycle plans, using the regional bicycle plan and regional bikeway system plan map as a resource and framework. [Local governments]

#6 Improve and expand upon the current signed Madison area bicycle route system, coordinating the routes with those of neighboring jurisdictions and Dane County. [Dane County, local governments]

TABLE 25
HIGH PRIORITY OFF-STREET BICYCLE FACILITY PROJECTS ON THE IDENTIFIED REGIONAL BIKEWAY SYSTEM

Path/Corridor Location	Segment	Implementer(s)	Comments
Programmed Projects with Approved or Committed Funding			
Badger State Trail	Sun Valley Pkwy. to Belleville/County Line	WisDNR	Southern, unpaved portion of trail
Campus Drive/Rail Corridor Path	University Bay Dr. to Linden @ VetMed Bldg.	UW-Madison	Removes barrier in high demand University Ave. corridor
Capital City Trail (E-Way Segment)	Bike/Ped Overpass of Fish Hatchery Rd./CTH D	C. Fitchburg	Improves safety, path continuity
Capital City Trail (East Segment)	Cottage Grove Rd. to Buckeye Rd.	C. Madison	Improves USH 51 corridor mobility.
CTH M Corridor (North) Path	CTH M Bike/Ped Underpass South of Oncken Rd.	Dane County	Connection to Gov. Nelson Park
Starkweather Creek (W Branch) Path	Existing path N of Aberg Ave. to Milwaukee St.	C. Madison	Eventual connection to East Isthmus Rail Path
	Aberg, E. Washington Ave. Bike/Ped Overpasses	C. Madison, WisDOT	Removes major barriers, provides path continuity
USH 151 Corridor Path	Capitol Ave. to Nelson Rd.	WisDOT	Includes bike/ped underpass near Capitol Ave./Terra Ct.
Yahara River Parkway Path	E. Washington Ave. Bike/Ped Underpass	WisDOT	Being constructed as part of E. Washington reconstruction
	E. Johnson to Williamson St.	C. Madison	Improves cross-isthmus mobility
Proposed Projects			
Badger State Trail	Capital City Trail to Sun Valley Pkwy.	WisDNR, C. Fitchburg	Northern section of trail to be paved
Blooming Grove Drumlin Path	Gaston Rd. to CTH AB	C. Madison, Dane Cty.	Connects Sprecher Neigh. to Capital City Trail ext.
Cannonball Trail	Fish Hatchery Rd. to Military Ridge Trail (in rail corridor), including grade-separated Beltline crossing	C. Fitchburg, Madison, WisDNR	Alt. bike-friendly route in Fish Hatchery Rd. corridor; alt. more level route to CCT through Fitchburg
Capital City Trail (CCT) (Eastern Segment)	Buckeye Rd. (C. Madison) to V Cottage Grove	C. Madison, WisDNR	Connection to the Glacial Drumlin Trail
Capital Springs Connector Path	CCT @ Lake Farm Rd. to V McFarland in Rail Corridor	Dane Cty., V McFarland	Connection to CCT, Capital Springs State Park
CTH M (North) Corridor Path	STH 113 to Woodland Dr.	T. Westport, Dane Cty.	Connection bet. Waunakee/Westport and North Madison
(North Mendota Trail)	Woodland Dr. to Gov. Nelson Park	Dane County	Provides suitable, direct bike route to Gov. Nelson Park
	Gov. Nelson Park to Pheasant Branch Trail System	Dane County	Connection bet. Middleton and Gov. Nelson Park
CTH M (West) Corridor Path	W. Beltline Corridor Path to Ice Age Junction Path, incl. potential grade-separated crossings of CTH M	C. Madison, Dane Cty.	Connects to Ice Age Junction Path; Alt. E-W rte. to Watts Rd.
Ice Age Junction Path	Elver Park Path to Military Ridge State Trail, incl. Verona Rd. (CTH MV) Bike/Ped Underpass	C. Madison, Dane Cty.	Links Elver, Badger Prairie Parks and Military Ridge Trail Major N-S route on West side
Junction Ridge Path/Overpass	W. Beltline Overpass south of Old Sauk Road	C. Madison	Alt. to Old Sauk Rd. interchange area for major E-W route
Lower Yahara River Trail	V. McFarland to C. Stoughton	Dane Cty., V. McFarland C. Stoughton	Connects communities to Lake Kegonsa State Park along river and rail corridors
NE Greenspace/West Sun Prairie Path	USH 151 to STH 19	C. Sun Prairie	Connection to Token Creek Park; N-S corridor east of I-94
Pheasant Branch Creek Trail Enhancements	USH 12 to Century Ave.	C. Middleton	Bridges, paving, etc. of trail to improve accessibility
Sherman Flyer Path	Yahara River Parkway Path to Sheridan Dr.	C. Madison	Provides bike-friendly route in Sherman Ave. corridor
S. Beltline Bike/Ped Overpass	At Perry Street	WisDOT, C. Madison	Connects resid., employment areas; removes barrier to N-S rte.
Southwest Path (UW Campus) Extension	University Ave. to existing SW Path ("Missing Link")	UW-Madison	Connects Campus Drive path to SW path and John Nolen path
Starkweather Creek (W Branch) Path	Milwaukee St. to Capital City Trail (Isthmus segment)	C. Madison	Via Devon Greenway and Worth Park
Starkweather Crk. (E. Branch) Path	Starkweather Crk. Path to Marsh View Path	C. Madison	Potential path link once quarry closed, site redeveloped
	Marsh View Path to City View Dr.	C. Madison	Might locate in RR corridor; important NE link
Wisconsin & Southern Rail Corridor Path	City View Drive to S. Bird Street in Sun Prairie	C Madison, C Sun Prairie	Direct connection bet. downtown Sun Prairie and Madison
UW Research Park Connector Path	Enterprise Ln. to Research Park/Tokay Blvd.	C. Madison	Provides alt. through route in Mineral Pt./Odana Rd. corridor
W. Beltline Corridor Path	Commerce Dr. to Beltline Underpass at Struck Street	WisDOT, C. Madison	Provides E-W route in Beltline/Mineral Point Rd. corridor
Wisconsin River Rail Corridor Path	Shorewood Blvd. to University Bay Dr.	V. Shorewood	Removes bike mobility barrier in University Ave. corridor
	Linden at MedVet Bldg. to Babcock Dr.	UW-Madison	Removes bike mobility barrier in University Ave. corridor
	Old Middleton Rd @ Eau Claire to Black Earth Crk Path	C. Madison, Middleton	Serves same corridor as Old Middleton Rd/Elmwood St.

#7 Adopt land use development ordinances and street design standards to ensure that neighborhoods are designed to provide for direct, safe bicycle and pedestrian connections within the neighborhood and to nearby activity centers and major destinations. [Local governments]

#8 Provide bicycle accommodations and safety devices (bicycle-proof drain grates, rubberized pads at rail crossings, etc.) in conjunction with (re)construction of the street system, where feasible and appropriate. [WisDOT, Dane County, local governments]

All streets in the metropolitan area and Dane County should be designed to safely accommodate bicyclists and pedestrians if at all possible. This includes provision of bike lanes or paved shoulders where traffic volumes warrant such facilities, sidewalks, and accommodations for safely crossing streets. Despite the existing and planned network of multi-use paths, the street system will always make up the bulk of the bicycle facility network. As part of development of the 2000 *Bicycle Transportation Plan for the Madison Urban Area and Dane County*, Madison Area MPO staff conducted an assessment of the need for bicycle accommodations on the regional arterial and collector roadway system. It is proposed that MPO staff update this roadway suitability analysis as part of the planned future bicycle plan update.

#9 Provide grade-seperated crossings of limited access or other major roadways in conjunction with roadway construction and reconstruction work, where feasible and appropriate. [WisDOT, Dane County, local governments]

#10 Proactively acquire land or secure dedications of land or access easements for bikeways or bikeway segments or connections in connection with utility rights-of-way, drainage ways, rivers, rail lines, and other corridors. This should be done in accordance with approved plans or as part of plat/development approval. [Local units of government]

#11 Improve the safety and convenience of major street crossings for bicyclists. [WisDOT, Dane County, local governments]

#12 Ensure that traffic signals work for bicyclists as well as motorists (e.g., detector loops are tuned to detect bicyclists). [Local governments]

Education and Enforcement
#13 Continue to update and distribute the Madison area and Dane County bicycle maps and other informational materials.

#14 Continue to support and expand upon bicycle safety education and training programs and activities for the public and professional staff.

#15 Continue to support and expand upon enforcement efforts by properly trained personnel, focusing on those violations most likely to lead to bicyclist-motorist crashes. [Local police departments and others]

Pedestrian Transportation

As with bicycling, walking forms an important part of the transportation picture and is also a healthful recreational activity, providing social and economic benefits to the region. Walking is the most feasible and economical form of transportation for many people, including those with special needs. It is the second most common mode of transportation, accounting for 14% of trips by City of Madison residents and 7% of trips by other county residents. Walking is an essential part of all trips, whether they are made by car, bus, or bicycle (e.g., walking from the parking lot to the store or from home to the bus stop).

State law defines a "pedestrian" as any person walking, standing, or in a wheelchair. Pedestrian facilities include sidewalks or other walkways, facilities in holding or queuing areas at street intersections or mid block (e.g., curb ramps, bus boarding pads, signals), and facilities for crossing streets (e.g., crosswalks, refuge islands). These facilities are necessary for safe and convenient pedestrian travel (particularly those with a mobility limitation) and should be included as part of "complete" streets. Walking for transportation as opposed to purely recreational/fitness purposes is most convenient and practical in compact urban areas with mixed land uses that put destinations closer to where people live.

The pedestrian transportation goal, policy objectives, and recommendations/implementation strategies are outlined below. The recommendations are grouped by the following categories: system preservation; facility planning and development; and education and enforcement.

Goal: Provide for safe, convenient and enjoyable pedestrian travel throughout the region.

Policy Objectives

#1 Maintain and reconstruct existing pedestrian facilities in a manner that promotes safety, increases convenience, and minimizes lifetime costs.

#2 Improve the accessibility of pedestrian facilities for persons with disabilities or special needs.

#3 Develop a continuous, interconnected pedestrian facility network providing reasonably direct and safe routes within and between neighborhoods to destination points in all directions.

#4 Promote mixed-use development, where appropriate, to provide as many destinations as possible within walking distance.

#5 Provide connections within and between developments to buildings, bus stops, and other destinations with off-street pedestrian facilities.

#6 Provide safe, convenient street crossings through intersection/crosswalk design, traffic control devices, and use of accessible facilities.

#7 Accommodate pedestrians and seek to minimize conflicts between pedestrians and other modes of travel as improvements are made to the transportation system.

#8 Encourage walking for transportation as well as recreational purposes.

#9 Reduce crashes involving pedestrians through a comprehensive "3-E" approach that includes education, enforcement, and implementation of cost-effective engineering counter-measures (i.e., intersection design, traffic calming techniques, new or modified traffic control devices, etc.).

Recommendations/Implementation Strategies

System Preservation

#1 Budget for and provide regular maintenance (repair of surface defects, snow plowing) of sidewalks and other facilities (lighting, plantings, etc.) adjacent to pedestrian areas. [Dane County, local governments]

Facility Planning and Development

#2 Develop and implement local pedestrian policy and facility plans. [Local governments]

#3 Continue to review and improve street design/sidewalk standards to ensure that streets are not over-engineered and are designed to meet the needs of pedestrians as well as motorists. [Local governments]

#4 Provide pedestrian accommodations in conjunction with all new street construction and reconstruction projects where feasible and appropriate in accordance with the U.S. Department of Transportation Policy on Integrating Bicycling and Walking into Transportation Infrastructure. [WisDOT, Dane County, local governments]

#5 Continue to review and improve land use development ordinances to remove any barriers to developing pedestrian areas, and ensure that new developments include pedestrian circulation plans and are well integrated with adjacent land uses, providing reasonably direct routes between destination points. [Local governments]

Zoning ordinances tend to focus on ensuring that a site has adequate parking and provides for safe vehicular circulation. However, pedestrian circulation is often overlooked. In addition, because zoning focuses on sites, connections between sites are also often overlooked. Many ordinances also require buffers, separations between uses, and perimeter fencing that become barriers to pedestrian activity. These barriers should be identified and rectified. Direct routes between destination points are extremely important because out-of-direction travel discourages walking. Pedestrian overlay districts should be considered for downtown and other pedestrian destination areas.

#6 Ensure that all new or reconstructed sidewalks and other pedestrian facilities comply with the provisions of the American with Disabilities Act (ADA). [Local governments, Dane County, WisDOT]

#7 Improve the safety and convenience of major street crossings for pedestrians. [WisDOT, Dane County, local governments]

Examples of things that can be done include: adding pedestrian refuges and/or curb extensions; use of smaller curb radii; adjusting traffic signal timing; improved signage and crosswalk markings; and installation of count-down pedestrian signals. WisDOT is in the process of developing detailed planning, design, and program information for pedestrian safety and mobility that will be included in Best Practices Guide, similar to the Bicycle Facility Design Handbook published in January 2004.

#8 Continue to develop and improve neighborhood traffic management programs to address problems with speeding and cut-through traffic on local streets, and incorporate the same principles and techniques into new developments. [Local governments]

#9 Develop safe routes to school programs and consider pedestrian/bicyclist access in identifying school sites. [Local governments, school districts, WisDOT]

A new Federal funding program—Safe Routes to Schools–was established in SAFETEA-LU. WisDOT has hired a program coordinator and is in the process of implementing the new program in Wisconsin. Grants will be awarded through a statewide competitive process. A minimum of 70% of available Federal funding must be used for infrastructure projects. Grant applications are anticipated to be available by early 2007. Examples of eligible projects include: sidewalk improvements; traffic calming projects and other speed reduction initiatives; pedestrian/bicycle crossing improvements; and secure bike parking.

The following planning steps are recommended for local communities developing a safe routes to school program:

- *Involve the entire community*. Meet with teachers, parents, planners/engineers, law enforcement officers, local health officials, politicians, and others. Start a committee that includes as many of these groups as possible.
- *Collect data through surveys*. Survey the number of children walking and bicycling to school now, which will help identify problems and evaluate the program in the future.
- *Map current school routes*. Create maps of routes currently used for walking and bicycling to school, indicating unsafe areas and potential solutions and/or alternative routes.
- *Analyze problems*. Based on the survey data and school route maps, identify problems and discuss them with the community.
- *Identify needed projects*. Identify high priority infrastructure improvement projects as well as educational and law enforcement activities to address problems.

#10 Prepare and implement ADA compliance plans to retrofit existing non-conforming facilities, prioritizing those in areas with higher levels of pedestrian activity and areas with concentrations of elderly and persons with disabilities. [Local governments]

#11 Implement programs to install accessible (e.g., audio/tactile) pedestrian signal systems and other ADA accessibility treatments where a need is demonstrated. Create policy and procedure (e.g., request form) for installing accessible pedestrian traffic signals where a need is demonstrated. [Dane County, local governments]

The City of Madison is in the process of adopting a policy, creating a procedure (request form), and posting the information on its Web site.

Education and Enforcement
#12 Continue to support and expand upon pedestrian safety education and training programs and activities for the public and professional staff.

#13 Continue to support and expand upon enforcement efforts, focusing on the crosswalk law, speeding, red light running, and other violations most likely to lead to pedestrian-motorist crashes. [Local police departments and others]

The following sections include the goals, policy objectives, and recommendations/implementation strategies for inter-regional, freight, rail transportation, air transportation, parking, and corridor preservation.

Inter-regional Travel

Goal: Provide a variety of quality, safe inter-regional transportation options for the region's residents and visitors, maximizing connections to the regional transportation system.

Policy Objectives
#1 Maintain existing facilities and services and develop new and expanded ones to increase inter-regional travel options (e.g., intercity bus service, high speed passenger rail service, Interstate system and other key routes).

#2 Insure that regional attractions are easy to find using inter-regional travel facilities.

Recommendations/Implementation Strategies
#1 Support private sector efforts to improve inter-city bus service and facilities, and improve local bus service connections to the inter-city bus terminal and other existing or potential stops to the extent possible. [WisDOT, local governments]

#2 Support provision of rail-related infrastructure improvements and other activities of the Midwest High Speed Rail Initiative to promote and implement inter-city passenger rail service to Madison. [WisDOT, local governments]

#3 Continue exploring the potential for a downtown Madison high-speed rail station site in addition to the airport station. [City of Madison]

#4 As planning for both inter-city and local rail service continues, explore opportunities in the future for developing a downtown Madison intermodal transportation center for bus, rail, taxi, and other modes.

Freight

Goal: Provide for safe, efficient, and reliable movement of goods within and through the region in order to support the region's economy and residents' quality of life.

Policy Objectives
#1 Maintain and reconstruct existing roadways, bridges, and railways in a manner that promotes safety, increases efficiency, and minimizes lifetime costs.

#2 Address significant transportation issues that may negatively impact industrial parks/sites, shipping/trucking operations, and agricultural establishments.

#3 Develop and expand transportation facilities to accommodate freight movement and meet the changing needs of the regional economy.

#4 Enhance intermodal freight transportation opportunities for movement of goods into and out of the region.

#5 Reduce crashes involving heavy trucks.

#6 Minimize and/or mitigate the negative impacts of trucking on adjacent residential areas

Recommendations/Implementation Strategies
#1 Continue to incorporate freight considerations into future corridor and other planning studies and the PE/design phases of major reconstruction projects on existing or potential future truck routes. [WisDOT, local governments]

A freight committee/group was created for the USH 51 Corridor study because of the corridor's importance for freight.

#2 Continue to identify and correct existing safety deficiencies on the freight network related to roadway geometry and traffic controls; at-grade railroad crossings; traffic congestion at intersections/interchanges; truck traffic in neighborhoods; and other factors. [WisDOT, Dane County, local governments]

#3 Identify priority freight projects and others that improve the safety and efficiency of goods movement. Coordinate the scheduling of such projects with any related private projects. [WisDOT, local governments]

#4 Determine if there is interest by the freight industry in establishing a state and/or regional multi-county freight planning committee. [WisDOT, Madison Area MPO]

#5 Conduct survey and/or focus group of freight industry (rail and trucking) representatives regarding important transportation system issues and needs. [Madison Area MPO]

#6 Promote (re)development of existing and planned industrial areas along rail lines with rail freight-oriented businesses as a mechanism to enhance the region's economic development base.

Rail Transportation

Goal: Preserve rail corridors and provide safe and convenient rail facilities and service to meet rail passenger and freight transportation needs for the region.

Policy Objectives
#1 Preserve rail corridor lands throughout the county for current and future transportation and other public uses.

#2 Maintain and improve freight rail access to the region and continue rail freight service to all users where justified and needed.

#3 Work with rail companies to consolidate rail tracks, and seek to use excess rail lands for alternative transportation or scenic/recreational uses.

#4 Work with rail companies to address potential conflicts between new passenger rail service and freight rail service.

#5 Ensure safe street/railway crossings.

Recommendations/Implementation Strategies
#1 Promote (re)development of existing and planned industrial areas along rail lines with rail freight-oriented businesses as a mechanism to enhance the region's economic development base.

#2 Continue to obtain any abandoned rail right-of-way for use as multi-use paths or other future transportation purposes, while maintaining the potential for rail transportation in the future.

#3 Support provision of rail-related infrastructure improvements and other activities of the Midwest High Speed Rail Initiative to promote and implement inter-city passenger rail service to Madison. [WisDOT, local governments]

#4 Continue planning for a potential downtown Madison inter-city rail station site in addition to the airport, and make sure airport plans are coordinated with plans for rail service to the airport. [City of Madison, WisDOT]

#5 Install suitable gates at rail crossings of roadways that prevent motorist from "running around" the gates, thereby improving safety and allowing establishment of "quiet zones" within which locomotive horns are not routinely sounded.

Air Transportation

Goal: Provide safe and convenient airport facilities and service to meet air passenger and freight transportation needs for the region.

Policy Objectives
#1 Coordinate airport and local land use planning to minimize the negative impacts of air service on residential areas and prevent incompatible development within airport safety zones.

#2 Improve airport facilities to enhance usability and convenience and attract additional air services.

#3 Enhance connections to the airport by all modes of transportation.

Recommendations/Implementation Strategies
#1 Continue implementation of the Airport Master Plan. [Dane County]

#2 Continue to work together to address the impacts of current and planned future expansion of airport activities on residential areas. [Dane County, local governments]

#3 Determine the demand for improved bus service (e.g., addition of weekend service) to the airport, and implement if determined to likely be successful. [Metro Transit, Dane County]

#4 Continue to maintain and improve the Middleton Municipal Airport–Morey Field as the primary reliever airport for the Dane County Regional Airport. [City of Middleton, WisDOT]

Parking

Goal: Provide for the maintenance and construction of parking facilities as part of an integrated and balanced land use and transportation system.

Policy Objectives
#1 Promote parking management strategies that encourage the use of alternative modes of transportation, while at the same time meeting user needs.

#2 Make efficient use of parking facilities through shared parking agreements, intelligent transportation systems (ITS) technologies, and other management strategies.

#3 Encourage structured parking in major employment/activity centers.

#4 Develop alternatives to all day commuter parking in the central Madison area and other congested activity/employment centers in the metropolitan area.

Recommendations/Implementation Strategies

#1 Continue efforts to increase use of parking management strategies (e.g., incentives for structured parking, shared parking arrangements, preferential parking for carpoolers, etc.) in downtown areas and other major activity centers. [Local governments]

#2 Develop and implement a downtown Madison parking management plan that includes:

- An inventory and usage survey of all parking facilities, both public and private, in the downtown area.
- An assessment of the cost of providing parking and revenues generated in order to make a policy decision on the share of costs to assess public parking users.
- An evaluation of strategies for minimizing long-term parking demand and effectively allocating the most convenient parking to customers.
- An assessment of the viability for creating additional short-term parking on some downtown streets. [City of Madison Traffic Engineering Division]

#3 Review local minimum parking requirements to determine if they might be lowered for some uses or areas, provide exemptions or variances from these requirements, where appropriate, and consider establishing maximum parking requirements for some areas. [Local governments]

#4 Continue efforts to use new technology, where affordable and cost effective, to increase parking convenience and efficiency, improve downtown area traffic conditions (e.g., providing real-time information on parking availability), encourage adherence to parking time limits, and increase parking revenue (e.g., using electronic meters that summon parking officers when meters expire and reset to zero when cars pull away from space). [City of Madison and other local governments]

Corridor Preservation

Goal: Preserve lands that may be needed for possible future transportation uses.

Recommendations/Implementation Strategies

#1 Continue to undertake official mapping of new and/or expanded future anticipated roadway and bikeway corridors, particularly for developing areas, as soon as sufficient information is available to determine recommended right-of-way width and corridor alignment. [Local governments]

#2 Continue to preserve rail corridors as special transportation corridors for future yet-to-be-determined uses, and discourage conversion of such corridors for non-transportation related uses. [Local governments, WisDOT]