

Madison Urban Area and Dane County

September 2000



Introduction

Bicycling is an important mode of transportation in the Madison urban area and countywide that is available to people of all ages and socioeconomic levels. Bicycling is a particularly efficient and convenient form of transportation in urban areas. Like the automobile, bicycling provides a high degree of independence, flexibility, and freedom of choice relative to schedule and destination.

Recreational bicycling also continues to be very popular. The Madison urban area has 50 miles of shared-use paths, which are popular for recreational bicyclists as well as commuters. Rural town roads and many county roadways provide excellent routes for bicycling in the county. Two major state bicycle trails—the Military Ridge Trail and Glacial Drumlin Trail—run through the county. The newly built Capital City Trail connects to the Military Ridge Trail and the John Nolen Drive/Isthmus Bicycle Paths.

Bicycle Plan Purposes

- ❑ Refine the Bicycle Plan Element of the adopted Vision 2020 *Dane County Land Use & Transportation Plan* (1997), which provides the overall policy framework for development and transportation improvements within the county.
- ❑ Serve as a blueprint for continuing to improve bicycling conditions and safety and increase bicycling levels.
- ❑ Identify desirable bicycle routes within Dane County, including routes into and out of the Madison area and connections between cities and villages.
- ❑ Serve as a framework for cooperation between state agencies, the county, and local governments in planning for and developing bicycle facilities.
- ❑ Educate citizens and policy makers on bicycle transportation and the needs of bicyclists.
- ❑ Provide guidelines for planning, designing, and maintaining bicycle facilities.

Bicycle Plan Scope and Planning Process

This plan serves to update and supersede the 1991 *Bicycle Transportation Plan for Madison and Dane County*. The plan follows the recommended comprehensive approach to bicycle transportation planning, covering the “Four Es” of engineering (facility improvements), education, encouragement, and enforcement.

The plan identifies on-street bicycle facility (generally bike lane/paved shoulder) needs and recommends off-street paths/trails and bicycle routes for the Madison urban area and Dane County. An analysis was done of the suitability for bicycling of existing roadways in the Madison urban area and rural Dane County. This information was used to identify on-street bicycle facility needs, and in particular, travel corridors that serve as barriers to bicyclist mobility due to their low compatibility for bicycling and the lack of reasonably direct alternative routes.

Existing land use, transportation and parks and open space plans have been integrated into the bicycle plan. Recommended bicycle facilities in these plans have been included in the bicycle plan to the extent they fit within the regional scope of the plan.

Along with facility improvements, education and encouragement are important elements in increasing bicycling while also improving safety. Together, they can improve the skills and confidence of bicyclists to ride safely in traffic, which is critical for increasing their effective mobility. The plan makes recommendations for building upon current education and encouragement activities.

Existing Bicycle Travel and Safety

The Madison urban area is recognized as one of the most “bicycle-friendly” in the U.S. due to its extensive network of bicycle facilities, relatively high levels of bicycling, and strong institutional and public support for bicycling. Recreational bicycling is very popular throughout the county. Bicyclist safety has improved since the 1980s. Turning, merging, and crossing movements at intersections, driveways, and other junctions continue to account for around 3/4s of all bicyclist-motorist crashes. Speed plays a major factor in the seriousness of crashes. Local and national studies on bicyclist-motorist crashes show that bicyclist training in how to properly ride in traffic and motorist education and training in riding with and being attentive to bicyclists are most important to efforts at continuing to improve bicyclist safety.

There are numerous existing bicycle safety and promotion activities and programs in the region. The Wisconsin Department of Transportation Bureau of Transportation Safety offers a variety of bicycle safety education courses and resources. The City of Madison Traffic Engineering Division employs a full-time Pedestrian/Bicycle Coordinator, partially funded by Dane County, and a Pedestrian/Bicycle Safety Coordinator, who works primarily with elementary schools. UW-Madison recently hired a full-time Pedestrian/Bicycle Coordinator. The Bicycle Federation of Wisconsin offers Effective Cycling™ courses and conducts promotional activities, including organization of the Bike-to-Work Week event. Numerous other bicycle organizations and clubs and agencies contribute to the wealth of available education and promotional activities and programs.

Making the Region an Even Better Place to Bicycle: Goals and Objectives and Recommended Actions

Overall, the bicycling environment in the Madison urban area and Dane County is excellent. However, there is room for improvement. Major gaps and barriers still exist in the Madison urban area and Dane County bicycle facility networks. Many newer neighborhoods, schools, and employment/commercial centers have been located and/or designed without consideration of safe and convenient bicyclist and pedestrian access. Adult participation in bicycle education and training programs is low, and motorists’ understanding of bicyclists’ rights needs to be improved.

The bicycle plan includes three broad goals and detailed objectives and recommended actions for continuing to improve the bicycling environment. The objectives and recommended actions are grouped according to the following categories: (1) bicycle facilities planning and development; (2) bicycle facilities maintenance; (3) bicycle parking and other end-of-trip facilities; (4) education and encouragement; and (5) enforcement.

Bicycling Vision for the Region

An interconnected bicycle way network with supportive development patterns will provide people with safe, convenient, and enjoyable access and mobility throughout the county. Bicycling will be encouraged and will become a common and even safer mode of transportation for everyday trips, contributing to the quality of life in Dane County communities and the health, safety, and welfare of all residents.

Goals

- ❑ Provide for the safe, convenient and enjoyable travel by bicyclists in the Madison urban area and throughout the county.
- ❑ Increase levels of bicycling throughout Dane County, doubling the number of trips made by bicycles.
- ❑ Reduce crashes involving bicyclists and motor vehicles by at least 10%.

Key Objectives

Bicycle Facilities Planning and Development

- ❑ Fully integrate the consideration of bicyclists’ needs into the community and neighborhood planning and site design processes and local and state agencies’ planning, design, and operation of transportation projects and programs.
- ❑ Consider the needs of all bicyclists—experienced and novice, commuter and recreational—when planning and designing bicycle facilities and programs.
- ❑ Accommodate bicyclists on roadways by providing appropriate on-street bicycle facilities on arterial and collector roadways, where possible.
- ❑ Create and improve continuous bicycle through routes on local connector streets that provide mobility alternatives in addition to use of arterial roadways.
- ❑ Eliminate bicycling barriers and hazards through the accommodation of bicyclists’ needs in the design of bridges and under/overpasses, street intersections, railroad crossings, and traffic control devices, where possible.

- ❑ Utilize opportunities for providing multi-use paths when planning for and developing parks and other recreational/open space areas, railroad rights-of-way, utility corridors, and other linear corridors.
- ❑ Fund on-street bicycle facility improvements in conjunction with roadway projects as a routine part of the cost of the project.

Bicycle Facilities Maintenance

- ❑ Maintain roadways and bicycle paths to a reasonable level of safety and rideability, giving consideration to pavement surface and clearance conditions in all seasons. Also maintain traffic control devices and bicycle parking facilities.
- ❑ Address the needs of bicyclists during roadway construction or resurfacing projects.
- ❑ Design new bicycle facilities so as to reduce potential long-term maintenance problems.



Support Facilities and Transit Connections

- ❑ Provide secure, appropriately designed, and conveniently located bicycle parking facilities in business districts and other public areas where needed (e.g., at public institutions, parks, etc.).
- ❑ Ensure the provision of adequate short- and long-term bicycle parking at employment and shopping centers and multi-family residential developments.
- ❑ Support the provision of showers and changing facilities for commuting bicyclists by developers, building owners, and employers.

- ❑ Improve bicycle connections and accessibility to the transit system.
- ❑ Provide adequate rest stop facilities, information, signing, parking, and lighting along shared-use paths and recreational bicycle trails.



Education, Encouragement, and Public Information

- ❑ Increase public awareness of bicycling facilities, resources, and programs.
- ❑ Provide and promote safety education and encouragement programs taught by qualified instructors and targeted to youth and adult bicyclists and motorists.
- ❑ Increase the participation of students and adult bicyclists in safety education programs and training courses.
- ❑ Improve the attitude and behavior of both motorists and bicyclists with respect to compliance with traffic laws, especially the responsibilities of each toward the other.
- ❑ Educate law enforcement personnel on bicycle safety.
- ❑ Support the provision of incentives for bicycling by public agencies, private employers, and other entities.

Enforcement

- ❑ Consistently enforce traffic laws that enhance bicyclist safety by citing violations (particularly those most likely to lead to crashes) by both bicyclists and motor vehicle operators.

Key Recommendations

Bicycle Facilities Planning and Development

- ❑ Prepare community bicycle transportation plans, and prioritize projects and programs.
- ❑ Strengthen the street design standards and bicycle/pedestrian facility requirements in local land use ordinances to ensure provision of a continuous bicycle/pedestrian “grid” of streets and paved paths.
- ❑ Continue to coordinate with other communities and agencies to ensure appropriate bicycle connections are planned, constructed, and maintained.
- ❑ Provide convenient bicycle/pedestrian access to and circulation within commercial and employment centers.
- ❑ Schools should work with local planning/engineering staff to develop and implement plans for safe bicycle access by students.
- ❑ Include appropriate provisions for bicyclists and pedestrians in the design of all transportation facility improvements, where feasible and desirable.
- ❑ WisDOT and the Dane County Highway & Transportation Department should develop and adopt detailed policies, procedures, and design guidelines related to the provision of wide paved shoulders on rural roadways.
- ❑ Develop a signed county bicycle route system that is integrated with the Madison area route system and other planned local community route systems.
- ❑ Consider lowering posted speed limits on some roadways, where appropriate, particularly at the developing fringes of urban areas and on roadways identified as important bicycle routes.



- ❑ Ensure that demand-actuated (vs. pre-timed) traffic signals have bicycle-sensitive loop detectors. Install detector loops in multi-use paths at signalized street crossings and in bicycle lanes on streets with signal detection.

Facilities Maintenance

- ❑ Budget for and provide regular maintenance on an established schedule of both off-street and on-street bicycle facilities, particularly sweeping and snow plowing in the winter.
- ❑ Encourage bicyclists to report maintenance problems and other bicycling hazards, and develop procedures to respond to such reports in a timely manner.



Parking and Other End-of-Trip Facilities

- ❑ Incorporate bicycle parking requirements into local zoning ordinances.
- ❑ Budget for and install parking in the public right-of-way, with priority to downtown and neighborhood business districts.
- ❑ Include bicycle parking and shower/locker room facilities in new public buildings, and encourage such facilities in private developments.

Education and Encouragement Programs

- ❑ Continue to cooperatively develop and distribute bicycle maps and other informational materials regarding bicycle facilities, safety/training programs, and contacts.
- ❑ Adopt governmental practices and policies that encourage employees to commute by bicycle, and work with private employers to promote bicycle commuting.

- ❑ Continue to support bicycle safety and training programs, such as the Effective Cycling™ course, and promote such programs to public schools, colleges/universities, law enforcement agencies, community organizations, employers, and others.
- ❑ Develop a public information and education campaign to encourage bicycling and improve the attitude and behavior of both bicyclists and motorists.
- ❑ Establish an information clearinghouse on programs aimed at bicycle safety and promotion.
- ❑ Provide regular workshops and make available other training opportunities for local planners, engineers, and parks/recreation professionals on bicycle transportation and facility design issues.

Enforcement

- ❑ Continue to educate and train law enforcement personnel in the enforcement of laws concerning bicyclists' rights and responsibilities through recruit training and in-service refresher courses.
- ❑ Encourage alternative enforcement programs such as police bicycle patrols, required training in lieu of fines, and positive reinforcement.
- ❑ Increase traffic law enforcement efforts by properly trained police officers, focusing selectively on those violations most likely to lead to bicycle-motor vehicle crashes.

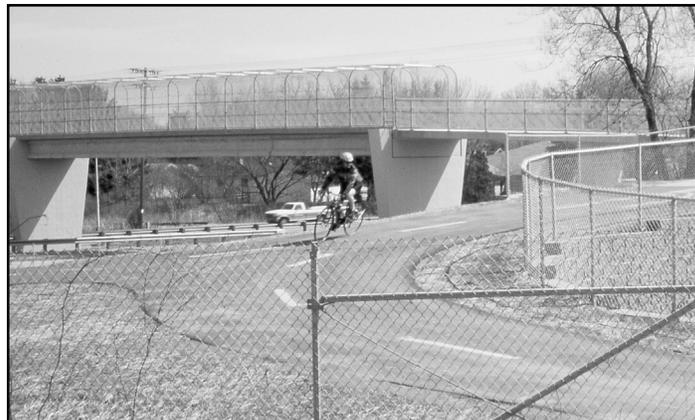
Madison Urban Area and Dane County Bicycle Facility and Route Plans

The attached Madison Area Bicycle Facilities Plan Map shows the Madison urban area roadways for which on-street bicycle facility improvements are needed and the proposed off-street bicycle facilities, while the Bicycle Route Plan Map illustrates the recommended bicycle route system. Only those roadway segments that fail to meet a minimum acceptable level of bicycle compatibility have been identified as needing facility improvements on the plan map. However, it is an objective of the plan to provide bicycle facilities on all arterial and collector roadways where feasible and desirable, given road conditions.

The recommended Madison urban area facilities are designed to:

- ❑ Improve bicyclists' mobility and access to important destinations such as employment centers, schools, government and public institutional centers, commercial areas, and recreational areas;

- ❑ Ensure a continuous bicycle facility network free of missing links or gaps and barriers; and
- ❑ Provide multi-use paths where necessary to cross barriers, provide more direct connections, and/or take advantage of available opportunities such as railway and environmental corridors.



The attached Dane County Bicycle Facilities Plan Map shows the rural roadways in Dane County for which on-street bicycle facility improvements are needed and the proposed off-street bicycle facilities, while the Bicycle Route Plan Map illustrates the recommended countywide bicycle route system. Rural roadway segments identified as in need of paved shoulders generally include all those with average daily traffic volumes greater than 1,000. This is consistent with current state and county policies.

The recommended countywide bicycle facility improvements are designed to:

- ❑ Facilitate longer distance trips between communities and to state and county parks, the two state bicycle trails, and other destinations;
- ❑ Provide a continuous network of suitable roadways for safe bicycling throughout the county; and
- ❑ Utilize linear corridors, such as railways and environmental corridors, to provide bicycle trails to enhance the bicycling environment.

With a couple of exceptions, bicycle paths parallel to rural roadways are not being recommended due to cost considerations and because of safety conflicts that occur at intersections of roadways and driveways.

Funding the Bicycle Plan

All transportation projects, including bicycle projects, are prioritized and scheduled for implementation through the multi-year capital improvement budgets of the various units of government and the five-year *Transportation Improvement Program (TIP) for the Dane County Area* prepared by the Madison Area Metropolitan Planning Organization (Madison Area MPO). Both are updated annually.

The principal sources of funding for stand-alone, off-street bicycle projects are the Wisconsin Department of Transportation's (WisDOT) Statewide Multi-Modal Improvement Program and several programs for recreational trails administered by Wisconsin Department of Natural Resources (WisDNR). Local communities and Dane County are also encouraged to establish budgets to annually implement projects identified in this plan.

Whenever possible, units of government should maximize local funding by securing matching funds from federal and state funding programs and private funding sources, such as developers, businesses, and non-profit organizations. Opportunities to implement bicycle projects can also be maximized by including them as a routine part of new development and roadway projects.



*For more information and/or a copy of the complete bicycle plan, contact:
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