

# 2004-2008 Transit Development Program for the Madison Urban Area Summary

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## Introduction

The Transit Development Program (TDP) is a five-year strategic plan designed to identify the near-term future direction of the transit system. It is intended to guide the planning activities, service and facility improvements, and budgets of Metro Transit and other transit providers. Issues covered include: vehicle and other capital needs; service improvements and extensions; marketing and customer information programs; and the coordination of transit and land use planning. Madison Area Metropolitan Planning Organization (MPO) staff prepares the TDP with assistance from Metro Transit staff. The TDP recommendations are approved by the City of Madison, as the major transit operator, and the MPO Policy Board. This TDP updates and replaces the previous one prepared in 1998.

One of the major challenges for the transit system continues to be how to effectively serve the developing activity/employment centers and neighborhoods on the urban fringe, particularly those located beyond the Interstate and Beltline System. Most of the growing activity/employment centers have not been designed for efficient transit service, and parking is generally plentiful and free. Travel times from peripheral neighborhoods to the downtown/UW campus area are long relative to driving. Funding is another major challenge, given the lack of a dedicated funding source for transit and a very tight budget situation at the state and local levels. Identification of new sources of funding and a new governance structure for transit are critical tasks for the final phase of the Transport 2020 Study, which is underway.

## Transit Goals

The following three goal statements were developed as part of the prior TDP effort and reaffirmed as part of this TDP update.

- *Service:* Transit service must be a viable transportation alternative. High quality transit service will be provided linking residential areas to as many destinations as is economically feasible in terms of cost and ridership generated. To support transit as a viable alternative, transit supportive policies will be used.
- *Financial Performance:* Transit service shall be operated as efficiently as possible in light of area land use patterns and the markets that it must serve. Predictable funding sources will be developed to allow effective short- and long-range decision-making. Fares will be used as a tool to develop and encourage ridership, while, at the same time, contributing to the financial well-being of the transit operation.
- *Modal Integration:* In support of a unified and integrated transportation system, transit will maximize its connections to other transportation modes and be accessible to all.



Metro Transit has developed the following similar goals to guide development of its annual strategic plan: (1) increase ridership; (2) reduce costs; (3) increase revenue sources; and (4) make capital improvements to maximize efficiency and improve customer service delivery, amenities, and security.

## Important Transit Planning Considerations

The following are important land use, demographic, and travel trends that must be considered in planning for the future direction of the transit system:

- The majority of employment growth is on the periphery of the Madison area, but the highest

employment density—a principal factor influencing transit demand—is still in the downtown/UW campus area and upper Park Street corridor (where Meriter and St. Mary’s Hospitals are located). The Mineral Point Road corridor also has a high concentration of employment.

- The population in the metropolitan area continues to become more dispersed as suburban communities grow at a faster rate. As a result, commuting into the City of Madison and the greater Madison area continues to grow.
- While there are concentrations of more transit-dependent population groups (e.g., low-income and autoless households, students, persons with a mobility limitation) in some areas, such as on Madison’s North and South sides, large numbers of these groups are located throughout the metro area.
- Travel trends continue to favor driving. The percentage share of City of Madison commuters driving alone to work increased from 61% to 66% from 1990 to 2000. The number taking transit increased, however the percentage share dropped from 7.7% to 7.2%. Auto ownership remained about the same, despite reduced household size and a drop in workers per household.

### **Current Transit Services in the Madison Metropolitan Area**

The major transit operator in the metro area is Metro Transit, which is owned by the City of Madison and operates within the oversight of the Mayor, Common Council, and the City’s Transit & Parking Commission. Metro contracts with other communities and public institutions (including UW-Madison and the Madison Metropolitan School District) to provide service.

Most transit service is provided by Metro on regular fixed-routes using large buses. Other transit services include Metro paratransit service, other demand-responsive services, special event shuttles, state vanpools, and ridesharing services.

#### Metro Fixed-Route Service

Metro Transit provides bus service on regular routes and schedules, providing local, commuter, and circulator service. Metro utilizes a timed transfer point system. “Core” routes operate in high-volume corridors through the downtown/UW campus area between the transfer points, and provide all day service. “Commuter” routes provide direct weekday peak-hour service from residential areas to central and peripheral employment centers, overlapping with significant portions of the core routes. Some provide faster, limited-stop service. “Peripheral” routes connect outlying residential neighborhoods with the transfer points for access to the



core and connecting routes. Some operate only during off-peak and weekend times when direct commuter service is not available. “Connecting” routes connect the transfer points and major peripheral activity centers, providing direct cross-town service (e.g., south to west side). “Circulator” routes operate within the UW campus, downtown, and central neighborhoods.

In 2003, Metro had 45 regular weekday routes with 167 buses operated in maximum peak-period service. There were 17 weekend routes. On weekdays while school was in session, Metro provided a total of 1,200 scheduled revenue hours of service on regular routes. A total of 487 scheduled hours of service were provided on Saturdays and 431 on Sundays. The City of Monona contracts with a private provider for its own weekday commuter service, providing four a.m. and p.m. trips to the downtown/UW campus area. The City plans to begin contracting with Metro for service beginning in 2005.

Metro’s service area is 63 square miles. The Monona transit service area covers another 1.6 square miles not served by Metro. Approximately 95% of the City of Madison’s 2000 population was served by a Metro route, while 81% of the City of Middleton population was served. Around one-half of Fitchburg residents were served. Figure 1 illustrates the fixed-route transit network and the weekday service area.

#### Metro Paratransit and Monona E/D Service

Metro provides paratransit service on a demand responsive, advance reservation basis for persons who are unable to use Metro’s regular fixed-route service. Persons must be certified as eligible to receive the service in accordance with guidelines established by the Americans with Disabilities Act (ADA). Service is provided within three-quarters of a mile on each side of



regular routes, excluding commuter routes, and is provided during the same hours that the fixed-routes operate. The service is provided door-to-door or curb-to-curb, depending upon the passenger's needs. Metro provides directly operated service on weekdays, but subcontracts with private providers for weeknight and weekend service and other service that it does not have the capacity to handle.

The City of Monona contracts with a private provider for a service, called Monona Lift, which is designed for the elderly and persons with disabilities, but is also available to the general public. The service is a point deviation system with scheduled stops at fixed checkpoints along a general route. Buses deviate up to three-quarters of a mile from the general route between the checkpoints to pick up/drop off elderly and disabled passengers with an advance reservation.

Shared-Ride Taxi Service

The Cities of Sun Prairie and Stoughton contract with private providers for shared-ride taxi service. Shared-ride taxi service is a form of door-to-door, demand-responsive transit (i.e., no set routes or schedules) similar to the familiar taxicab service. The difference is that with shared-ride service, passengers with different origins and/or destinations may be transported simultaneously. Shared-ride taxi systems operate with scheduled service hours and days of operation. Requests for service may be made upon demand or up to 24 hours in advance. Subscription trips are accepted, but are purposely limited to ensure on-demand service.

Three private taxicab operators provide individually arranged transportation services for the general public throughout the metro area. One of the operators, Badger Cab, provides shared-ride service, while the others are metered cab operations. They operate without public funding, and the fares reflect this.

Specialized Transportation Services

The Adult Community Services Division of the Dane County Department of Human Services (DCHS) administers several accessible routed group ride and demand-responsive services for the elderly and persons with physical or developmental disabilities in the metro area and countywide. DCHS contracts with private providers for these services. The services are generally provided as a supplement to Metro's service for persons residing or traveling outside Metro's service area, and transport people to necessary support and medical services, jobs, and training.

Using volunteer drivers in private vehicles, the Retired Senior Volunteer Driver Escort Program (RSVP) provides individual, and in a few cases, small group rides for the elderly when other options are not available. Most trips are for medical purposes, which is the highest priority. The City of Madison, Dane County, UW-Madison, and various non-profit organizations provide program-specific

transportation services, which are targeted primarily at low-income persons.

Ridesharing/Vanpool Services

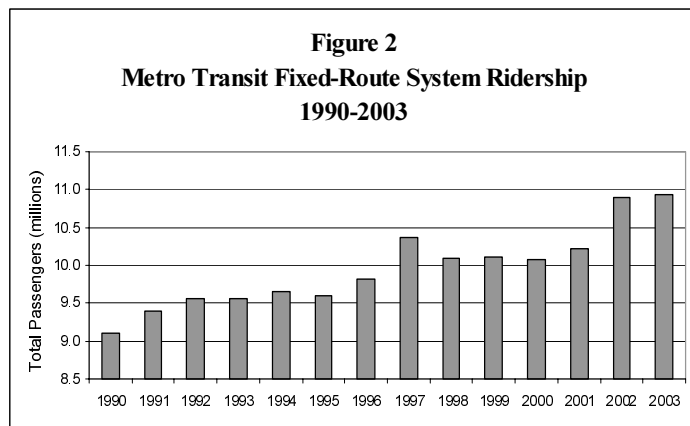
The Madison Area MPO provides name-matching services for persons interested in carpooling and implements employer-sponsored programs to promote commute alternatives. The Wisconsin Department of Administration administers a State Vanpool Program to provide vanpool services to major employment sites. The UW-Madison Medical School provides shuttle van service between the hospital, clinics, and remote parking locations. Transit and ridesharing promotion activities of the various governmental agencies are coordinated through a committee staffed by the MPO Rideshare Coordinator.

**Metro Fixed-Route Service, Ridership, and Performance Trends**

Metro Transit provides a much higher level of service and has much higher ridership than similarly sized communities around the country. Metro provides 2.5 times more hours of service and has four times as many riders per capita than other urban areas with a similar population.

Service frequencies are highest (5- to 15-minute peak, 15- to 30-minute off-peak headways) in the greater Isthmus area where many routes converge in transit corridors leading to the downtown/UW campus area. The weekday span of service for most areas with all-day service is excellent, with routes running 17-19 hours a day.

Since an inevitable period of adjustments with the new transfer point system in 1998-'99, ridership has increased and service efficiency has improved. As illustrated by Figure 2, the overall ridership trend has been positive since 1990. In 2003, total ridership was 10.93 million, the highest total since 1986. Metro carried 30.7 passengers per revenue service hour. Most of the increase in ridership the past few years has been on the commuter routes and the UW-Madison campus route, which was made free in 2002.



**Table 1**  
**Metro Fixed-Route Transit System**  
**Annual Service Levels and Ridership: 1998 - 2003**

Transit System Characteristics	Year					
	1998	1999	2000	2001	2002	2003
Transit Service Area Population <sup>1</sup>	233,400	233,400	233,400	233,400	233,400	233,400
Transit Service Levels						
Revenue Vehicle Hours Operated	344,204	393,883	385,072	373,331	363,095	356,137
Revenue Vehicle Miles Operated	4,239,437	4,738,493	4,792,120	4,654,434	4,560,152	4,515,478
Number of Vehicles Operated in Maximum Service	141/157 <sup>2</sup>	159	166	166	167	167
Transit Ridership and Service Utilization						
Total Passengers	10,097,867	10,110,441	10,065,495	10,210,834	10,895,089	10,934,125
Passengers per Capita	43.26	43.32	43.13	43.75	46.68	46.85
Passengers per						
Revenue Vehicle Hour	29.3	25.7	26.1	27.4	30.0	30.7
Revenue Vehicle Mile	2.38	2.13	2.10	2.19	2.39	2.42

<sup>1</sup> Based upon 2000 Census data. Updated population figures by small area not available.

<sup>2</sup> First number is prior to and second number is after implementation of the transfer point system in August 1998.

Source: Metro FTA National Transit Database (NTD) Reports and Madison Area MPO

From 2000-2003, the number of overall service hours was reduced each year to improve efficiency and achieve a more financially sustainable level of service. The 2003 total still represented a 13% increase over 1997 prior to implementation of the transfer point system. Service hours increased again 2% with the implementation of East side service improvements in January 2004. Prior to this, service improvements had still been made through strategic reallocation of service hours.

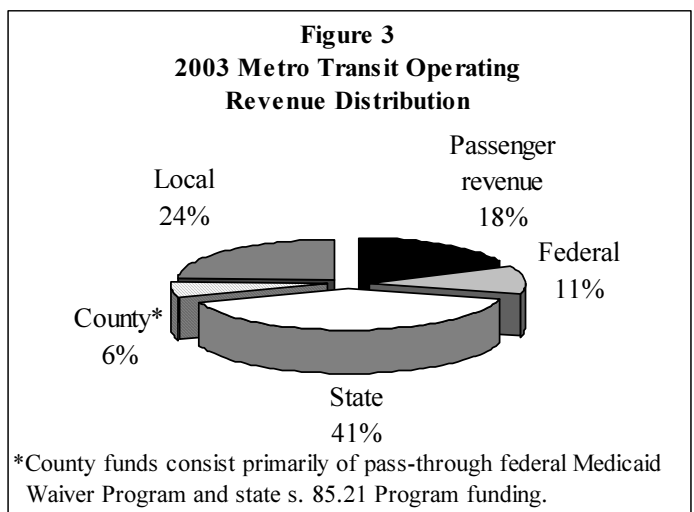
Table 1 provides service level and ridership statistics for 1998-2003.

### Transit Service Operating Costs and Revenues

As with all modes of transportation, the cost of public transit service is not paid for by transit users alone, but is supplemented by public funding. In addition to transit passenger fares, Metro relies on federal, state, and local funding to cover the costs of operating the transit system. Since 1997, local funding increases have not kept pace with the increase in operating costs due to the implementation of the transfer point system and inflationary cost increases. Federal funding (including pass-through Medicaid funds from the county) and state funding increases have made up the difference. Passenger revenue has actually declined slightly since 1997. Consequently, discounted fares—which account for the bulk of revenue and haven't increased as much as cash fares—were raised in January 2004. Figure 3 illustrates the 2003 percentage distribution of operating revenue for the Metro transit system.

From 1998-2003, the average annual increase in the operating expense per vehicle hour for Metro's fixed-route system was 2.7% compared to an annual average inflation rate of 2.5%. In 2003, the expense per vehicle hour was \$75.90, higher than average for peer systems with comparable service levels. The cost per passenger was \$2.77, which represented a 25% increase from 1997. Revenue per passenger has dropped from \$0.68 in 1997 to \$0.54 in 2003 due to increasing use of discounted fares, expansion of the university unlimited ride pass programs, and making the UW campus route free in 2002. At the same time, the pass programs and free campus bus service have boosted ridership.

Table 2 shows operating costs, revenues, and deficits for Metro's fixed-route system from 1998-2003.



**Table 2**  
**Metro Fixed-Route Transit System**  
**Operating Costs, Revenue, and Deficits: 1998 - 2003**

System Characteristics	Year					
	1998	1999	2000	2001	2002	2003
Service Expenses and Revenue						
Operating Expenses <sup>1</sup>						
Total Expenses	\$25,548,528	\$27,576,045	\$28,232,128	\$28,637,012	\$30,029,568	\$30,283,752
Cost per Total Vehicle Hour	\$66.87	\$63.51	\$65.96	\$68.60	\$73.63	\$75.90
Cost per Total Vehicle Mile	\$5.15	\$5.01	\$5.09	\$5.23	\$5.59	\$5.77
Cost per Passenger	\$2.53	\$2.73	\$2.80	\$2.80	\$2.76	\$2.77
Passenger Revenue <sup>2</sup>	\$5,862,692	\$5,621,793	\$5,821,511	\$6,308,430	\$6,172,079	\$5,910,084
Revenue per Passenger	\$0.58	\$0.56	\$0.58	\$0.62	\$0.57	\$0.54
Percent of Expenses Recovered Through Passenger Passenger Revenue	22.9%	20.4%	20.6%	22.0%	20.6%	19.5%
Operating Deficit						
Total Deficit	\$19,685,836	\$21,954,252	\$22,410,617	\$22,328,582	\$23,857,489	\$24,373,668
Deficit per Passenger	\$1.95	\$2.17	\$2.23	\$2.19	\$2.19	\$2.23

<sup>1</sup>Excludes interest and depreciation.

<sup>2</sup>Excludes miscellaneous operating revenue (e.g., advertising).

Source: Metro FTA National Transit Database (NTD) Reports and Madison Area MPO

## Transit Service Needs

The Madison area has an excellent and well-used transit system, comparing very favorably to systems in similarly sized areas as well as peer transit systems with similar service levels. However, there are still unmet needs, particularly in some of Madison's peripheral areas and in suburban communities. These include:

- Improved UW campus service, including direct service from the South and West Transfer Points and a better connection between the campus route and regular city routes
- Additional limited-stop commuter service to downtown/UW campus from peripheral neighborhoods and suburban communities
- Additional park-and-ride facilities/service
- New/improved service to peripheral employment centers in Middleton, Fitchburg, the American Center on Madison's Northeast side, and Epic System's new headquarters in Verona
- New/improved off-peak and weekend service in some neighborhoods and communities (e.g., South side, Middleton, Monona)

- Improved off-peak service frequency in some corridors leading to the downtown/UW campus area
- Improved pedestrian and bicyclist access to the transit system
- Local shared-ride taxi service in more suburban communities (e.g., Verona, McFarland)

## Metro's Major Transit Capital Needs

- Replacement and expansion of the fixed-route and paratransit bus fleets
- Acquisition of Intelligent Transit System (ITS) hardware and software and fare collection equipment
- Renovation and expansion of Metro's administration, operations, bus storage, and maintenance facility
- Renovation of the State Street Transit Mall
- Bus shelters and other bus stop amenities

## Key Recommendations

The following are some of the key recommendations. Metro Transit is the lead implementing agency, unless otherwise noted.

### Transit Corridors

- Continue to map potential future bus routes and promote transit-supportive development in these corridors as well as existing transit corridors.
- Identify potential solutions for increasing bus travel speeds through major transit corridors with transit priority treatments. Conduct a pilot study to test a transit signal priority system in one corridor.

### Overall Metro Service/Operations

- Evaluate the feasibility of adding additional transfer point(s) (e.g., Northwest, Southeast, Campus) into the route system.
- Continue efforts to improve the phasing of buses in transit corridors approaching and running through the downtown/UW campus area.
- Evaluate the feasibility of implementing alternative types of service (flex route, point deviation, demand responsive) in lower density areas during off-peak hours and on weekends and holidays.

### Fixed-Route Service Improvements

- Evaluate route services on Madison's West side and in the City of Middleton in order to improve service and extend routes to developing areas. Service needs and issues include:
  - "Reverse commute" service to new Epic Systems headquarters in Verona and potential for associated commuter service from Verona and Southwest Madison.
  - Improved service from Madison and Middleton to West side employment centers.
  - Additional north-south service (e.g., Midvale Boulevard, West of Beltline).
  - Simplifying west end of Route 6 and possibly increasing service frequency on main part of the route.
- Evaluate improvements to and restructuring of South side service to improve travel times and off-peak and weekend service frequency.
- Work with UW-Madison to continue to improve service to campus through (a) addition of more routes that penetrate the central campus area; (b) provision of a better transfer connection; and (c) meeting capacity needs on the campus route.

- Add more limited-stop service to downtown/UW campus as opportunities arise and funding permits.
- Improve service to American Center.
- Work with Fitchburg to extend commuter service to Fitchburg Center/Technology Campus. Explore extending off-peak service to commercial areas along McKee Road.

### Metro Paratransit Service

- Continue efforts to improve the efficiency of service through development of scheduling templates, spreading out Dane County Human Services client trips, and other means.
- Utilize intelligent transportation system (ITS) technologies to continue to improve monitoring of on-time performance of Metro service.
- Continue to encourage migration of passengers from paratransit to fixed-route service, where possible, through training programs and incentives.

### Area Specialized Transportation

- Dane County Human Services, Metro, and MPO staff should continue efforts to improve coordination and avoid duplication of Metro paratransit and county specialized transportation services.

### Facilities, Vehicles, & Intermodal Connections

- Develop park-and-ride lots at the bus transfer points and other locations where opportunities arise.
- Develop comprehensive Metro bus stop inventory to assist in prioritizing bus stop and pedestrian access improvements.



- Continue to improve coordination of planning and budgeting of City of Madison Traffic and Engineering agencies and Metro to identify opportunities for incorporating transit facilities and amenities as part of street and sidewalk (re)construction projects.

#### **Funding & Fares/Transportation Demand Management (TDM)**

- Continue to look for opportunities to expand unlimited ride pass programs to additional large or large associations of employers.
- The City of Madison, Metro Transit, and MPO should work together to pursue additional funding for incentives and support services for the MPO Rideshare Etc. program and other TDM efforts.
- Pursue acquisition of "smart card" fare collection equipment for integration into new Metro ITS technology.

#### **Service Coordination & Planning**

- MPO and Metro staff should explore opportunities to coordinate other area transit services with Metro service.

- Use ITS data for route scheduling and service and bus stop amenity planning. Update service standards to incorporate additional data that will be available with the ITS.
- The Transport 2020 study implementation committee should lead efforts to reach regional agreement on a new financing and governance structure for area-wide transit service.

#### **Marketing/Customer Service & Information**

- Continue targeted marketing and efforts to increase access to Metro route maps and schedule information.

#### **Transit Service for Communities Outside Metro's Current Service Area**

- Metro and MPO staff should work with area communities to explore the feasibility of downtown Madison commuter service.
- MPO and Dane County Human Services staff should assist area communities in setting up local shared-ride taxi service.

## **Funding the Transit Development Program**

Metro budgeted for a 5.2% increase in operating expenses in 2004 to cover a 2% increase in service hours and inflationary cost increases. Farebox revenue is anticipated to increase around 10% primarily as a result of the increase in discounted fares implemented in January 2004. Passenger fares account for 40% of the budgeted increase in operating revenue.

The new federal transportation law reauthorizing TEA-21 has not yet been passed, making it difficult to estimate potential federal funding revenue over the next several years. However, it is not expected that Metro will receive more than a modest increase in funding. Federal formula program funding is based largely on service area population, and Metro has about one-half the population of peer transit systems with comparable service levels. State transit funding was frozen at 2003 levels for 2004 and 2005. Future increases in funding will likely only be sufficient to partially cover inflationary operating cost increases. Therefore, implementation of the recommended service improvements will need to be funded through an increase in local revenue, and to some extent service efficiencies discovered through the planning process.

In the longer term, an additional stable and more predictable local funding source (e.g., local gas or sales tax) is needed to support continued improvements to the transit system, particularly investment in any high-capacity, fixed-guideway facility currently being considered as part of the Transport 2020 Study.

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