# **Chapter V**

# TRANSIT SERVICE ALTERNATIVES FOR THE WASHINGTON COUNTY TRANSIT SYSTEM

#### INTRODUCTION AND SUMMARY

This chapter discusses potential service alternatives for Washington County to consider implementing as part of the Washington County Transit System, in an effort to improve services for County residents and increase accessibility to a number of locations in counties adjacent to Washington County. These alternatives also seek to improve the performance of the Washington County Transit System in response to the evaluation completed in Chapter IV of this report, and in response to comments and ideas received from the Advisory Committee for this planning effort.

Future expenses, revenues, and ridership on the two existing services provided by the County Transit System were analyzed to provide a "no-change" alternative and to provide a base scenario to which potential service changes could be compared. The section on each potential service alternative includes a description of the alternative, a discussion of the advantages or disadvantages of a particular alternative, and a table containing the expected operating expenses, revenues, and ridership for the alternative for the year 2015, the year 2019, and an average over the five-year plan timeframe. Alternatives for the County Shared-Ride Taxi service also include the impact of the alternative on the County's capital assets and costs, if applicable. Fixed-route service alternatives are discussed in the first half of the chapter, followed by alternatives that affect the County Shared-Ride Taxi service.

#### Summary of the Fixed-Route Service Alternatives for the Washington County Transit System

A number of fixed-route service alternatives, either suggested by the Advisory Committee or in response to known unmet transportation needs and the evaluation of existing services (see Chapter IV of this report), are considered in this chapter.

#### No Changes to the Washington County Commuter Express

The no-change alternative projects a relatively stable budget for the Washington County Commuter Express with County funding expected to be flat between 2015 and 2019. Ridership is expected to fall slightly over the study period, with projected fare increases in 2016 and 2019 being the main cause. County expenses are expected to increase when compared to 2012, but this is due to the estimated loss of 9,000 riders between 2012 and 2013. Southeastern Wisconsin Regional Planning Commission staff believes this is a conservative budget, as ridership will likely grow as congestion increases due to the Zoo Interchange reconstruction.

#### Reduce Service on the Washington County Commuter Express

Should the County need to reduce its level of funding for the Commuter Express for the 2015-2019 plan timeframe, it could consider a \$0.25 fare increase. This fare increase would reduce the required County assistance by approximately \$16,000, but it would also reduce ridership. The County could also consider reducing service, either by eliminating the Medical Center Route, or by eliminating the lowest performing runs from both the Medical Center Route and the Downtown Route. Eliminating the Medical Center Route is expected to reduce the required amount of annual County assistance by \$73,000, and decrease ridership by 27,500 annual revenue passengers by 2019. Under this alternative, the amount of County funding would never be greater than \$150,000 during the plan timeframe.

No longer operating the eight lowest-performing runs—all of which average 10 or fewer revenue passengers each day—would save the County \$91,000 each year by 2019, and reduce annual revenue passengers by 21,000. This alternative would reduce schedule flexibility for passengers of both routes, as the Downtown Route would no longer provide northbound service before 3:30 p.m., and the Medical Center Route would only have two runs in each direction. County assistance for the Commuter Express would be less than \$135,000 between 2015-2019 under this alternative.

#### Increase Service Frequency

The County is encouraged to continue to increase service frequency to meet demand, as it has done in the past. Following schedule changes for the Commuter Express at the beginning of 2014, both routes of the Commuter Express met the Service Frequency and Availability Standard under Objective No. 2 in Chapter III of this report, which encourages service to be provided at least every 30 minutes during the peak.

#### Washington County Commuter Express Service to Additional Destinations

Additional destinations for the Commuter Express to serve are also analyzed, with service to Mayfair Mall and nearby office buildings holding the most promise. Estimated ridership and revenue projections for this service would result in improved efficiency for the Medical Center Route, with an increased percentage of operating expenses recovered through passenger revenues. Annual County funding is estimated to average \$6,500 and the service is projected to result in an additional 15-20 daily revenue passenger trips by 2019 on the Medical Center Route. Another destination for service on the Medical Center Route could be the Park Place office complex, but this location is not expected to generate much ridership due to the lack of pedestrian accommodations within the development. Service to the University of Wisconsin-Milwaukee (UWM) could be provided by extending certain runs of the existing Downtown Route. This service is expected to generate 4,000 additional revenue passengers annually and require the County to increase funding for the Commuter Express by \$6,200 by 2019.

Other destinations that could warrant fixed-route service include Kohl's Department Stores' Corporate Headquarters, and General Mitchell International Airport. Both would require dedicated routes, as they are not adjacent to any existing fixed-route service provided by the County. Service to Kohl's would likely generate limited ridership, as the journey from much of the County to Kohl's is relatively short and uncongested, with free parking available at the destination. This service is estimated to cost the County \$50,800 a year to operate, but would only attract about 13 passenger trips each day. In contrast, service to Mitchell Airport would require a significant commitment of financial resources by the County. In order to be useful to airport passengers, the service would need to operate every one to two hours, seven days a week. This service is expected to have 20,800 passenger trips annually by 2019 and require the County to provide \$403,600 in local funding.

# Washington County Commuter Express Service Originating in the City of Hartford

Providing service from two leased park and ride lots along STH 60 in the City of Hartford and the Village of Slinger would be anticipated to generate between 90 and 110 additional passenger trips each day. The service could be provided in two ways: either direct service to Downtown Milwaukee with four morning trips and four evening trips returning to Hartford, or shuttle service that connects the proposed Hartford park and ride lot and the proposed Slinger park and ride lot to existing services at the Richfield Park and Ride using a timed transfer. The latter option would allow Hartford-area residents to transfer to nearly every run on the existing Downtown and

Medical Center Routes, and is expected to be the higher ridership option of the two. The shuttle option is also estimated to require only \$39,400 in County funds in 2019, compared to \$128,900 for the direct service to Downtown Milwaukee.

# Reverse Commute Service from Milwaukee County to Employers in Washington County

Two alternatives were considered to provide service to Washington County businesses from Milwaukee County. A local shuttle service leaving from the terminus of the Milwaukee County Transit System BlueLine could provide access to the 4,600 jobs located in the Germantown Industrial Park, and could be expected to have about 45 daily passenger trips by 2019. Providing an express route along W. Fond du Lac Avenue to the Germantown Industrial Park and the City of West Bend would generate more ridership, and would allow for some interlining with the existing Commuter Express Downtown Route, so that its costs would not be significantly more than the local shuttle, at \$106,400 annually by 2019.

# Fixed-Route Service between the City of West Bend and the City of Fond du Lac

This alternative discusses providing service from Washington County to the City of Fond du Lac's transit system, as well as numerous educational institutions located in the City of Fond du Lac. The service would leave from a leased park and ride lot in the center of the City of West Bend, stop in Kewaskum, and then provide service to the Fond du Lac Transit transfer zone and the City of Fond du Lac, with one morning trip and two evening return trips. This service is estimated to serve 20 daily revenue passengers and to require \$52,400 in County funds in 2019.

# Summary of the Shared-Ride Taxi Service Alternatives for the Washington County Transit System

Alternatives for the Shared-Ride Taxi service include merging the municipal taxi systems in the County with the County Shared-Ride Taxi, merging the Ozaukee County and Washington County Shared-Ride Taxi services, utilizing a second taxi dispatching depot in or near the Village of Germantown, and extending the service hours of the Shared-Ride Taxi to serve late-night ridership requests. One additional alternative projects the future operating expenses and revenues, capital expenses, and ridership for the Shared-Ride Taxi service if no changes are made to the existing service, and another additional alternative discusses increasing fares for the service in an effort to keep County funding constant over the plan timeframe. The "no change" alternative assumes flat taxi ridership, estimated from an average of taxi ridership between 2007 and 2012, and predicts that the County will have to contribute \$85,800 more in local tax levy to the Shared-Ride Taxi in 2019 than it did in 2012. Capital expenses are predicted to be manageable, assuming the County is able to continue utilizing Federal Section 5307 funds to provide an 80 percent match for vehicle purchases. An average of \$43,000 in County levy is expected to be needed annually to replace existing vehicles as they age.

# Increase Fares at a Rate Greater than Inflation on the County Shared-Ride Taxi Service

If the County needs to reduce its level of assistance to the Shared-Ride Taxi service, it is limited to finding operational efficiencies and increasing fares. Because of the nature of a shared-ride taxi service, in which increased ridership results in a roughly proportional increase in service miles and hours, the County would need to either discourage ridership, find operational efficiencies, or increase the percentage of overall expenses paid by the passenger in order to lower the County's costs. To keep the level of County assistance at or below the level provided in 2012 (\$548,800), the County would need to increase fares an average of \$1.25 over the timeframe of the plan—by \$0.50 in 2015, and \$0.25 in 2017, 2018, and 2019. These fare increases would reduce ridership by 7,400 annual revenue passengers in 2019.

#### Merging with the Municipal Taxi Systems

This section of the chapter provides an update to the discussion of merging the Hartford City Taxi and West Bend Taxi with the County Shared-Ride Taxi. This discussion has been ongoing as State and Federal transit funding have become more uncertain. Two alternatives are analyzed, one that keeps the existing higher level of service within West Bend and Hartford—requiring \$155,700 more County levy in 2019 than operating the existing system—and one that proposes an advanced-reservation service across the County—requiring an additional \$104,200 in County levy in 2019 compared to operating the existing system. Neither service is expected to initially affect the County's capital requirements, as it is expected that the two municipalities would transfer ownership of their vehicles to the County if this option were pursued, but as the vehicles age replacing these vehicles could be expected to increase the County's capital expenses as well.

# Merging with the Ozaukee County Shared-Ride Taxi Service

Merging the two county shared-ride taxi systems would provide improved service to the residents of each county, but would require creating a uniform fare policy and uniform service hours, as well as signing intergovernmental agreements detailing the funding and management of the system. Based on existing travel on all modes between Washington and Ozaukee County, an estimate of 7,100 additional annual passenger trips on the merged shared-ride taxi service was calculated. The cost of this service expansion would be relatively minimal, with an additional \$46,500 in local support that would need to be divided between the two counties. Merging the two systems may result in longer average trips, which would increase the estimated cost of this alternative slightly.

#### Providing a Secondary Taxi Depot in the Village of Germantown

Operating a secondary depot in or near Germantown is estimated to save the County approximately \$8,100 each year between 2015 and 2019, by reducing vehicle hours by 700. However, a number of potential additional capital and operating costs could offset much of these savings, and further discussions between the County and its Shared-Ride Taxi operator would need to be conducted to determine where vehicles would be fueled, how maintenance would be managed, and how staffing would need to change.

#### Extending the Service Hours of the Shared-Ride Taxi

Providing longer service hours, until 1 a.m. on Saturday and Sunday mornings, would offer an alternative to unsafe driving to patrons of dining and entertainment establishments and would provide County residents with more flexibility in their travel schedules. Requests for late-night service do not lend themselves to an advanced reservation service, so this alternative proposes that the County operate a demand-response service between 10 p.m. and 1 a.m. on those two days, with drivers available to respond to requests for service on short notice. This type of service is estimated to require \$12,300 in County funding by 2019.

#### FIXED-ROUTE SERVICE ALTERNATIVES AND IMPROVEMENTS

Based on the evaluation of existing services in Chapter IV and the discussions of the Advisory Committee at a number of meetings, the following fixed-routes alternatives were analyzed as potential service alternatives and improvements for the Advisory Committee to consider including in the recommended transit system development plan. These alternatives include modifications or enhancements of the current Commuter Express service and additional fixed-route service that could be provided by Washington County.

A number of the fixed-route service alternatives are entirely new services, rather than minor changes to existing routes. New services could be eligible for Federal Highway Administration Congestion Mitigation and Air Quality (CMAQ) funds, which were used by Washington County to start its original fixed-route service in 1998. These funds cover up to 80 percent of the first three years of operating expenses associated with a new service that is expected to reduce congestion or improve air quality by reducing vehicle miles traveled by private automobile. Utilizing these funds to initiate new services would significantly reduce the risk to the County, and allow experimentation with new fixed-route services. However, a statewide application process for CMAQ funds for 2014-2018 has just been completed, meaning that CMAQ funds would likely not be available to the County until 2019.

# No Changes to the Washington County Commuter Express

With the relatively favorable evaluation of the Commuter Express service, the County could choose to continue the existing service for the time period considered under this plan. The current system is the result of significant experimentation and refinement by the County, and, given the current financial resources available at all levels of government, it may be the most appropriate service to provide unless more resources become available. This alternative also serves as the base against which the remaining fixed-route service alternatives can be compared.

Table 31 shows the expected operating expenses, revenues, and ridership on the Commuter Express if no additional revenue hours of service are provided and the schedule and routes are not modified. Unless otherwise noted, this table and similar tables for each of the other fixed-route alternatives assume that operating expenses

Table 31

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY COMMUTER EXPRESS SERVICE: 2015-2019

	Actual		Projected	
Characteristics	2012	2015	2019	Average
Services Provided				
Revenue Vehicle Miles	248,900	248,900	248,900	248,900
Revenue Vehicle Hours	9,300	9,300	9,300	9,300
Revenue Passengers				
Total	127,500	119,200	116,400	117,700
Passengers per Revenue Vehicle Mile	0.51	0.48	0.47	0.47
Passengers per Revenue Vehicle Hour	13.71	12.82	12.52	12.66
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$1,276,700	\$1,354,800	\$1,466,500	\$1,410,100
Farebox Revenues <sup>a</sup>	423,800	397,800	440,300	419,000
Percent of Expenses				
Recovered through Revenues	33.2	29.4	30.0	29.7
Operating Assistance				
Federal <sup>a</sup>	\$266,600	\$260,800	\$ 282,300	\$271,400
State <sup>a</sup>	426,900	484,300	524,300	504,100
County <sup>a</sup>	159,400	211,900	219,600	215,600
Total <sup>a</sup>	852,900	957,000	1,026,200	991,100
Per Trip Data				
Operating Expenses <sup>a</sup>	\$10.01	\$11.37	\$12.60	\$11.98
Farebox Revenue <sup>a</sup>	3.32	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	6.69	8.03	8.82	8.42

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

per service hour will grow at a rate of 2 percent each year, and that the percentage of operating expenses covered by a combination of Federal and State funds will remain approximately 55 percent. So that the fare stays constant in 2012 dollars, fare increases of \$0.25 are assumed to occur at the beginning of 2016 and again at the beginning of 2019. If these fare increases are implemented, the County can expect its level of funding in year-of-expenditure dollars to be about the same in 2019 as it is in 2015, meaning a decrease in funding in constant dollars. The County level of assistance jumps from 2012 to 2015 due to the loss of revenue from the decreased ridership the Commuter Express experienced in 2013.

#### **Reduce Service on the Washington County Commuter Express**

Although continuing to provide the same level of service should result in a constant level of County assistance from 2015 through 2019, the County may need to reduce its level of assistance in the future. In order to do this, the County could consider raising fares, reducing service, or some combination of the two. Increasing fares an additional \$0.25 would reduce the required County assistance by approximately \$16,000, but cause a reduction in annual revenue passengers of about 2,000 trips. This section includes two alternatives for the County to reduce service, based on the year 2013 Commuter Express schedule, as information on the success of the year 2014 schedule modifications was unavailable. Should the County decide to reduce service, it is important to consider that reductions beyond those described in this section shouldn't go below the amount required by the County's current contract with GoRiteway. Additionally, any reduction of service hours may cause the County's cost per revenue hour of providing service to increase beyond the rate of inflation in 2016 when the current contract expires.

Table 32

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY COMMUTER EXPRESS SERVICE IF THE MEDICAL CENTER ROUTE IS ELIMINATED: 2015-2019

	Actual Service	Project	hedule	
Characteristics	2012	2015	2019	Average
Services Provided				
Revenue Vehicle Miles	248,900	169,800	169,800	169,800
Revenue Vehicle Hours	9,300	6,800	6,800	6,800
Revenue Passengers				
Total	127,500	91,400	88,900	90,200
Passengers per Revenue Vehicle Mile	0.51	0.54	0.52	0.53
Passengers per Revenue Vehicle Hour	13.71	13.44	13.07	13.26
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$1,276,700	\$990,600	\$1,072,300	\$1,031,100
Farebox Revenues <sup>a</sup>	423,800	305,000	336,300	321,100
Percent of Expenses				
Recovered through Revenues	33.2	30.8	31.4	31.1
Operating Assistance				
Federal <sup>a</sup>	\$266,600	\$190,700	\$206,400	\$198,500
State <sup>a</sup>	426,900	354,100	383,300	368,600
County <sup>a</sup>	159,400	140,800	146,300	142,900
Total <sup>a</sup>	852,900	685,600	736,000	710,000
Per Trip Data				
Operating Expenses <sup>a</sup>	\$10.01	\$10.84	\$12.06	\$11.43
Farebox Revenue <sup>a</sup>	3.32	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	6.69	7.50	8.28	7.87

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### Eliminate the Medical Center Route

The Medical Center Route has never performed as well as the service to Downtown Milwaukee, due to the unusual shifts scheduled by the facilities at the Milwaukee Regional Medical Center, free parking at the destinations on the route, and the shorter, less-congested travel times between Washington County and the Medical Center. Unless this lower performance is remedied by the changes made in the year 2014 Commuter Express schedule, the County could consider eliminating this route if it needs to reduce its level of assistance.

Eliminating the Medical Center Route would reduce the required amount of County assistance by approximately \$73,000 in 2019, when compared to continuing to operate the year 2013 Commuter Express schedule. Under this alternative, the Commuter Express is estimated to have 27,500 fewer revenue passengers in 2019 than it would if the year 2013 schedule continued without modification. Table 32 shows the expected operating expenses, revenues, and ridership on the Commuter Express for 2015-2019 under this alternative, compared to the existing operating expenses, revenues, and ridership on the Commuter Express in 2012 for the existing service. This alternative would decrease the required County assistance slightly from 2012, with the amount of County funding never greater than \$150,000 during the plan timeframe.

#### Eliminate Low-Performing Runs from Both Routes

Similar to eliminating the Medical Center Route, this alternative would remove eight runs from the 2013 Commuter Express service. However, this alternative would eliminate the runs with the least revenue passengers, which average 10 or fewer passengers. These runs are Runs 13, 15, 16, and 26 from the Downtown Route, and Runs 10, 12, 14, and 23 from the Medical Center Route. Eliminating Runs 13, 15, 16, and 26 from the Downtown Route would result in significantly less schedule flexibility for riders, as the earliest afternoon run from Downtown Milwaukee would start at 3:35 p.m. under this alternative. Similarly, passengers on the Medical Center Route would also have much less flexibility, with only two runs in the morning, and two in the afternoon.

However, eliminating runs as proposed under this alternative should result in the Commuter Express retaining more revenue passengers than under the alternative that eliminates the Medical Center Route entirely. By eliminating the lowest performing runs, County assistance for the Commuter Express would be approximately \$91,000 less in 2019 than if the County continued to operate the year 2013 Commuter Express service. The Commuter Express is estimated to have 21,000 fewer revenue passengers in 2019 under this alternative. If this alternative is implemented, it is estimated that County operating assistance for the Commuter Express would never be greater than \$135,000 from 2015 to 2019.

Table 33 shows the expected operating expenses, revenues, and ridership on the Commuter Express for 2015-2019 under this alternative, compared to the existing operating expenses, revenues, and ridership on the Commuter Express for 2012 for the existing service. Table 34 compares the average expected operating expenses, revenues, and ridership for 2015-2019 for the "no change" alternative, the alternative that eliminates the Medical Center Route, and the alternative eliminating some runs on both routes.

# Increase Frequency and Service Hours of the Washington County Commuter Express Service

As demand for the Commuter Express has increased in recent years, the County has responded by adding additional trips. This could continue in the future, and County staff will need to work with the operator to ensure that there are available seats on each run of the Commuter Express. Aside from increased frequency due to crowding concerns, the County could also increase frequency to provide riders with greater flexibility (and thereby improve the quality of the service and attract new riders).

In order to meet the Service Frequency and Availability Standard under Objective No. 2 in Chapter III of this report, service should be provided at least every 30 minutes during the peak on both Commuter Express routes. During the performance evaluation of the Washington County Transit System in Chapter IV of this report, it was noted that while the Downtown Route meets this standard, the Medical Center Route had less frequent service than the standard recommends. The County has remedied this with its modified service for 2014, so no additional runs need to be added for the Commuter Express to meet this standard.

# **Washington County Commuter Express Service to Additional Destinations**

The County could consider serving a number of additional destinations in the Region with the Commuter Express. The following destinations are major regional activity centers currently unserved by the Commuter Express, or are significant employment destinations near the path of the existing Medical Center Route, which has spare capacity for additional riders. Serving these employment destinations with the existing Medical Center route would result in longer travel times for current passengers, which may discourage some of them from using the Commuter Express for their commutes. The estimates of additional ridership for each alternative account for any loss of existing passengers due to additional travel time.

#### University of Wisconsin - Milwaukee

The University of Wisconsin-Milwaukee (UWM) has over 29,000 students, and nearly all of its students take classes on its campus on the east side of the City of Milwaukee. An estimated 300 Washington County residents currently commute to UWM to attend classes, some of whom may be interested in taking the Commuter Express. Additionally, the 130 employees of UWM who live in Washington County may also be interested in this service. Adding service to UWM would require an additional 11 minutes of revenue service on each run of the Downtown Route, but not all runs should be extended given the UWM class schedule. Table 35 shows estimates of the

Table 33

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY COMMUTER EXPRESS SERVICE IF THE LOWEST PERFORMING RUNS ARE ELIMINATED: 2015-2019

	Actual Service	Projected Alternative Schedule		
Characteristics	2012	2015	2019	Average
Services Provided				
Revenue Vehicle Miles	248,900	171,800	171,800	171,800
Revenue Vehicle Hours	9,300	6,900	6,900	6,900
Revenue Passengers				
Total	127,500	98,000	95,400	96,800
Passengers per Revenue Vehicle Mile	0.51	0.57	0.56	0.56
Passengers per Revenue Vehicle Hour	13.71	14.20	13.83	14.03
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$1,276,700	\$1,005,200	\$1,088,100	\$1,046,200
Farebox Revenues <sup>a</sup>	423,800	327,100	360,900	344,400
Percent of Expenses				
Recovered through Revenues	33.2	32.5	33.2	32.9
Operating Assistance				
Federal <sup>a</sup>	\$266,600	\$193,500	\$209,500	\$201,400
State <sup>a</sup>	426,900	359,400	389,000	374,000
County <sup>a</sup>	159,400	125,200	128,700	126,400
Total <sup>a</sup>	852,900	678,100	727,200	701,900
Per Trip Data				
Operating Expenses <sup>a</sup>	\$10.01	\$10.26	\$11.41	\$10.81
Farebox Revenue <sup>a</sup>	3.32	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	6.69	6.92	7.62	7.26

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

operational expenses, revenues, and ridership associated with an extension to UWM. It does not assume any additional vehicles would be needed to add this extension to the existing route, as the vehicles assigned to the runs selected for this extension are completing their morning blocks, are just starting their afternoon blocks, or have additional room in their schedules. Table 36 displays the runs selected for this estimate, the time the Commuter Express would arrive or depart from UWM while classes are in session, and the current time the vehicle arrives or departs from the corner of E. Kilbourn Avenue and N. Milwaukee Street.

It is important to note that UWM is currently accessible via transit from Washington County by transferring to Milwaukee County Transit System's (MCTS) Route 30, which stops at the Commuter Express stop on E. Wisconsin Avenue and N. Jackson Street every four to eight minutes during the morning and evening peaks and then takes 16 minutes to reach UWM. Survey results from fall 2012 indicate that no current Commuter Express riders are traveling to UWM. The removal of a transfer—a nine- to 13-minute reduction in travel time—and targeted marketing to those students could attract them to the Commuter Express. UWM representatives have indicated they would be interested in working with the County on this issue to reduce the demand for student parking on and near the campus.

Table 34

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY COMMUTER EXPRESS SERVICE FOR THREE ALTERNATIVES: 2015-2019

	2012	Projected Average for 2015-2019		
		No Change		
Characteristics	Actual Service	Alternative	Actual Service	Alternative
Services Provided				
Revenue Vehicle Miles	248,900	248,900	169,800	171,800
Revenue Vehicle Hours	9,300	9,300	6,800	6,900
Revenue Passengers				
Total	127,500	117,700	90,200	96,800
Passengers per Revenue Vehicle Mile	0.51	0.47	0.53	0.56
Passengers per Revenue Vehicle Hour	13.71	12.66	13.26	14.03
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$1,276,700	\$1,410,100	\$1,031,100	\$1,046,200
Farebox Revenues <sup>a</sup>	423,800	419,000	321,100	344,400
Percent of Expenses				
Recovered through Revenues	33.2	29.7	31.1	32.9
Operating Assistance				
Federal <sup>a</sup>	\$266,600	\$271,400	\$198,500	\$201,400
State <sup>a</sup>	426,900	504,100	368,600	374,000
County <sup>a</sup>	159,400	215,600	142,900	126,400
Total <sup>a</sup>	852,900	991,100	710,000	701,900
Per Trip Data				
Operating Expenses <sup>a</sup>	\$10.01	\$11.98	\$11.43	\$10.81
Farebox Revenue <sup>a</sup>	3.32	3.56	3.56	3.56
Total Operating Assistance <sup>a</sup>	6.69	8.42	7.87	7.26

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Like other alternatives considered in this chapter for the Commuter Express, the data shown in this table assume that this is the only change made to the Commuter Express. Table 35 shows fewer revenue passengers in 2015 than are estimated to use the service in the four remaining years in this plan's timeframe. The ridership in 2015 is estimated to be about 45 percent of the total ridership projected for the route, as the awareness of the service grows and potential riders switch to the new service. A similar growth rate in revenue passengers is included in all other applicable expansion alternatives in this chapter.

#### General Mitchell International Airport

General Mitchell International Airport (GMIA) is the dominant passenger airport in the Region, and members of the Advisory Committee indicated an interest in analyzing the potential of the Commuter Express to provide service to the airport. Approximately 80,000 of the airport's passengers in 2011 were residents of Washington County, making the potential market for any airport service quite large. However, serving the airport would require significant additional funding from the County, as any service to the airport would likely need to be direct in order to compete for passengers.

Table 35

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR EXTENDING THE WASHINGTON COUNTY COMMUTER EXPRESS DOWNTOWN ROUTE TO THE UNIVERSITY OF WISCONSIN-MILWAUKEE: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	6,900	6,900	6,900
Revenue Vehicle Hours	300	300	300
Revenue Passengers			
Total	1,900	4,000	3,600
Passengers per Revenue Vehicle Mile	N/A	N/A	N/A
Passengers per Revenue Vehicle Hour	N/A	N/A	N/A
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$43,700	\$47,300	\$45,500
Farebox Revenues <sup>a</sup>	6,300	15,100	12,900
Percent of Expenses			
Recovered through Revenues	14.4	31.9	28.0
Operating Assistance			
Federal <sup>a</sup>	\$ 8,400	\$ 9,100	\$ 8,800
State <sup>a</sup>	15,600	16,900	16,300
County <sup>a</sup>	13,400	6,200	7,600
Total <sup>a</sup>	37,400	32,200	32,600
Per Trip Data			
Operating Expenses <sup>a</sup>	\$23.00	\$11.83	\$13.73
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	19.68	8.05	10.18

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Table 36

WASHINGTON COUNTY COMMUTER EXPRESS DOWNTOWN ROUTE
RUNS EXTENDED TO THE UNIVERSITY OF WISCONSIN-MILWAUKEE: 2015-2019

#### MORNING RUNS

Run Number	5	7	8	9	11
Scheduled Arrival Time at E. Kilbourn Ave. and N. Milwaukee St	7:38 a.m.	7:58 a.m.	8:25 a.m.	9:00 a.m.	9:40 a.m.
Scheduled Arrival Time at the University of Wisconsin-Milwaukee	7:49 a.m.	8:09 a.m.	8:36 a.m.	9:11 a.m.	9:51 a.m.

# **EVENING RUNS**

Run Number	13	15	16	20	21	22
Scheduled Departure Time from the University of Wisconsin-Milwaukee	11:49 a.m.	1:22 p.m.	2:20 p.m.	3:40 p.m.	3:52 p.m.	4:20 p.m.
Scheduled Departure Time from E. Kilbourn Ave. and N. Milwaukee St	12:00 p.m.	1:33 p.m.	2:31 p.m.	3:51 p.m.	4:03 p.m.	4:31 p.m.

Source: SEWRPC.

Table 37

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING THE WASHINGTON COUNTY COMMUTER EXPRESS TO GENERAL MITCHELL INTERNATIONAL AIRPORT: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	281,200	281,200	281,200
Revenue Vehicle Hours	6,900	6,900	6,900
Revenue Passengers			
Total	9,900	20,800	18,700
Passengers per Revenue Vehicle Mile	0.04	0.07	0.07
Passengers per Revenue Vehicle Hour	1.43	3.01	2.71
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$1,005,200	\$1,088,100	\$1,046,200
Farebox Revenues <sup>a</sup>	33,000	78,700	67,200
Percent of Expenses			
Recovered through Revenues	3.3	7.2	6.4
Operating Assistance			
Federal <sup>a</sup>	\$193,500	\$ 209,500	\$201,400
State <sup>a</sup>	359,400	389,000	374,000
County <sup>a</sup>	419,300	410,900	403,600
Total <sup>a</sup>	972,200	1,009,400	979,000
Per Trip Data			
Operating Expenses <sup>a</sup>	\$101.54	\$52.31	\$60.65
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	98.20	48.53	57.09

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Source: General Mitchell International Airport and SEWRPC.

Wisconsin Coach Lines, Inc. currently provides service to GMIA from the Chicago Region, and Amtrak provides train service from downtown Chicago and the northern suburbs of Chicago. Both companies run service approximately every one to two hours from 6 a.m. to 10 p.m. every day. A similar level of service would be required in order for the Commuter Express to adequately attract passengers and assure them that they would not be stranded at the airport should their return flight be delayed. Providing this level of service would require 10-14 round trips each weekday, and 8-12 round trips on the weekends. Table 37 displays estimated operating expenses, revenues, and ridership for a service that would travel between the three currently served Washington County park and ride lots and GMIA 10 times each weekday and eight times each weekend day. Lamers Bus Lines currently provides one round trip each day between Wausau and GMIA, which could provide some access to the airport for Washington County residents if the service served a park and ride lot in Washington County as part of its Wausau-to-Milwaukee service.

#### Kohl's Department Stores' Corporate Headquarters

Kohl's Department Stores is a major regional employer, with more than 5,000 employees at its headquarters location in the Village of Menomonee Falls. Serving Kohl's would provide a transit option for many of the Washington County residents who work there, and would increase the number of jobs accessible via the Commuter Express. Should the County decide to serve Kohl's using the Commuter Express, it would likely need to be a new service, as modifying the Medical Center Route to serve Kohl's would add approximately 15 to 18 minutes to current travel time. Map 11 displays the suggested route, which would travel along USH 45 and

Map 11
PROPOSED WASHINGTON COUNTY COMMUTER EXPRESS ROUTE TO KOHL'S HEADQUARTERS

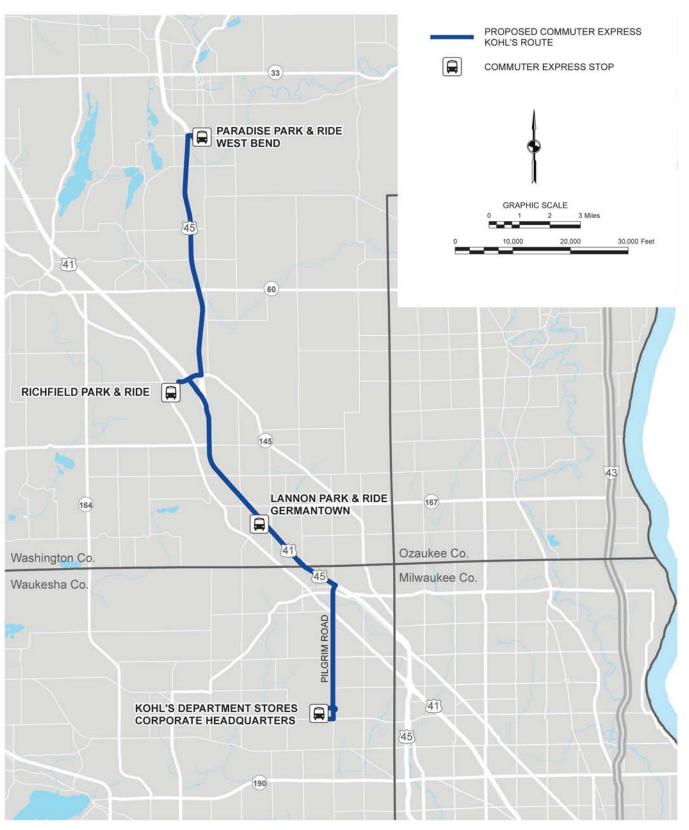


Table 38

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING THE WASHINGTON COUNTY COMMUTER EXPRESS TO KOHL'S DEPARTMENT STORES CORPORATE HEADQUARTERS: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	30,900	30,900	30,900
Revenue Vehicle Hours	900	900	900
Revenue Passengers			
Total	1,600	3,300	3,000
Passengers per Revenue Vehicle Mile	0.05	0.11	0.10
Passengers per Revenue Vehicle Hour	1.78	3.67	3.33
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$131,100	\$141,900	\$136,400
Farebox Revenues <sup>a</sup>	5,300	12,500	10,600
Percent of Expenses			
Recovered through Revenues	4.0	8.8	7.7
Operating Assistance			
Federal <sup>a</sup>	\$ 25,200	\$ 27,300	\$ 26,300
State <sup>a</sup>	46,900	50,700	48,800
County <sup>a</sup>	53,700	51,400	50,800
Total <sup>a</sup>	125,800	129,400	125,900
Per Trip Data			
Operating Expenses <sup>a</sup>	\$81.94	\$43.00	\$49.79
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	78.63	39.21	46.24

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Pilgrim Road. This alternative assumes two southbound trips in the morning and three northbound trips in the evening, each of which would take approximately 40 to 45 minutes. Providing this level of service would fully utilize one motorcoach, but less service would be needed to serve the Kohl's employees, as most employees at the corporate offices work from 8 a.m. to 5 p.m. every day. Table 38 shows estimated operating expenses, revenues, and ridership for this service.

Predicting ridership for this service is difficult, as the relatively uncongested trip and free parking at Kohl's Corporate Headquarters reduce the incentives for drivers to consider using transit. However, Kohl's is currently experiencing a parking shortage, and is requiring a number of employees to park off-site and be shuttled to the corporate office. The estimate in this table conservatively assumes limited ridership on this potential service, despite the service providing access to over 5,000 jobs previously inaccessible by transit.

#### Park Place Office Complex

Similar to a service to Kohl's Corporate Headquarters, a stop at the Park Place office complex along W. Good Hope Road and USH 41 would make additional jobs accessible by transit for Washington County residents, with about 3,100 jobs located in the office complex. These jobs could be served by adding a stop to the Medical Center Route, with exiting and reentering the freeway estimated to add approximately five minutes to each run.

Table 39

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR MODIFYING THE WASHINGTON COUNTY COMMUTER EXPRESS MEDICAL CENTER ROUTE
TO SERVE THE PARK PLACE OFFICE COMPLEX: 2015-2019

		Projected	
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	3,600	3,600	3,600
Revenue Vehicle Hours	200	200	200
Revenue Passengers			
Total	700	1,500	1,300
Passengers per Revenue Vehicle Mile	N/A	N/A	N/A
Passengers per Revenue Vehicle Hour	N/A	N/A	N/A
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$29,100	\$31,500	\$30,300
Farebox Revenues <sup>a</sup>	2,300	5,700	4,800
Percent of Expenses			
Recovered through Revenues	7.9	18.1	15.7
Operating Assistance			
Federal <sup>a</sup>	\$ 5,600	\$ 6,100	\$ 5,800
State <sup>a</sup>	10,400	11,300	10,800
County <sup>a</sup>	10,800	8,400	8,900
Total <sup>a</sup>	26,800	25,800	25,500
Per Trip Data			
Operating Expenses <sup>a</sup>	\$41.57	\$21.00	\$24.63
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	38.29	17.20	21.10

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

The additional cost of providing this service (shown in Table 39) would be minimal, but ridership may be limited by the lack of pedestrian accommodations in the complex, which would make accessing the office buildings difficult for potential riders. If the County were able to coordinate the timing of this stop and an appropriately discounted transfer fare to allow passengers to use the Milwaukee County Transit System's Route 223—which provides shuttle circulator service in this office park—more ridership might be generated by this service.

# Mayfair Mall and Offices

As with the addition of a potential stop at the Park Place Office Complex, serving Mayfair Mall and the office buildings on mall property could be accomplished using a slight modification to the existing Medical Center Route, which would add three stops on and adjacent to mall property, and make an additional 9,000 jobs transit-accessible to Washington County residents. This modification would add five to 10 minutes to the travel time of the Route, depending on the congestion level on USH 45 during each trip. Table 40 displays the estimated operating expenses, revenues, and ridership for this route modification, which could result in noticeable ridership increases on the Medical Center Route.

Table 40

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR MODIFYING THE WASHINGTON COUNTY COMMUTER EXPRESS MEDICAL CENTER ROUTE
TO SERVE MAYFAIR MALL AND NEARBY OFFICES: 2015-2019

		Projected	
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	3,200	3,200	3,200
Revenue Vehicle Hours	300	300	300
Revenue Passengers			
Total	2,100	4,300	3,900
Passengers per Revenue Vehicle Mile	N/A	N/A	N/A
Passengers per Revenue Vehicle Hour	N/A	N/A	N/A
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$43,700	\$47,300	\$45,500
Farebox Revenues <sup>a</sup>	7,000	16,300	14,000
Percent of Expenses			
Recovered through Revenues	16.0	34.5	30.6
Operating Assistance			
Federal <sup>a</sup>	\$ 8,400	\$ 9,100	\$ 8,800
State <sup>a</sup>	15,600	16,900	16,300
County <sup>a</sup>	12,700	5,000	6,500
Total <sup>a</sup>	36,700	31,000	31,500
Per Trip Data			
Operating Expenses <sup>a</sup>	\$20.81	\$11.00	\$12.61
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	17.48	7.21	9.05

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### Washington County Commuter Express Service Originating in the City of Hartford

As the evaluation of the Commuter Express under the Population Standard of Objective 1 in Chapter IV indicated, the County's rapid transit service covers many of the major population centers within the County. However, the largest population center this standard considers unserved is the City of Hartford and the surrounding area. Providing a Commuter Express-served park and ride lot in the City of Hartford and another lot in the Village of Slinger would place an additional 25,200 County residents within a three-mile drive of rapid transit service. Two alternatives presented below discuss various ways the County could consider providing this service, and include estimates of operating expenses, revenues, and ridership associated with each service. Both alternatives assume that the County could lease spare parking capacity at the shopping center anchored by Kmart off of E. Sumner Street in the City of Hartford and at Kettle Moraine Bowl off of E. Commerce Boulevard in the Village of Slinger.

#### Provide Direct Service to Downtown Milwaukee

Map 12 displays the proposed route for this service, originating at the Kmart shopping center on E. Sumner Street, stopping at Kettle Moraine Bowl on E. Commerce Boulevard, and then traveling south on USH 41. The route is proposed to stop at the Richfield Park and Ride and the Lannon Park and Ride, before traveling to Downtown Milwaukee. Under this service alternative, additional runs would be added to the Commuter Express, with four

Map 12

PROPOSED WASHINGTON COUNTY COMMUTER EXPRESS ROUTE
CONNECTING HARTFORD AND SLINGER TO DOWNTOWN MILWAUKEE



Table 41

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING WASHINGTON COUNTY COMMUTER EXPRESS SERVICE FROM HARTFORD TO DOWNTOWN MILWAUKEE: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	77,800	77,800	77,800
Revenue Vehicle Hours	3,000	3,000	3,000
Revenue Passengers			
Total	10,600	22,200	20,000
Passengers per Revenue Vehicle Mile	N/A	N/A	N/A
Passengers per Revenue Vehicle Hour	N/A	N/A	N/A
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$437,000	\$473,100	\$454,900
Farebox Revenues <sup>a</sup>	35,400	84,000	71,800
Percent of Expenses			
Recovered through Revenues	8.1	17.8	15.7
Operating Assistance			
Federal <sup>a</sup>	\$ 84,100	\$ 91,100	\$ 87,600
State <sup>a</sup>	156,200	169,100	162,600
County <sup>a</sup>	161,300	128,900	132,900
Total <sup>a</sup>	401,600	389,100	383,100
Per Trip Data			
Operating Expenses <sup>a</sup>	\$41.23	\$21.31	\$24.67
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	37.89	17.53	21.11

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

morning trips into the City of Milwaukee and four evening trips returning to Slinger and Hartford. Table 41 shows estimated operating expenses, revenues, and ridership for this service, which would require three additional vehicles to operate. This table does not include estimates of the cost of leasing parking spots from the owners of the Kmart shopping center or Kettle Moraine Bowl.

Providing this route could lead to a number of changes to the existing Commuter Express services. The 90 daily revenue passengers estimated for this route are the *additional* daily riders added to the Commuter Express service as a whole, and do not include the approximately 60 daily revenue passengers who would be expected to shift from the existing Downtown Route to this route. Therefore, providing this route will likely reduce the utilization of the West Bend to Downtown Route. With the expected reduction in ridership on the West Bend to Downtown Route, the County could consider reducing the number of trips originating in West Bend, therefore reducing the additional cost required to provide this service. In addition, this route may also allow the County to reduce service at the Richfield Park and Ride lot, redirecting some of the existing West Bend to Downtown runs to serve the new Jackson Park and Ride lot. Finally, providing additional service to the Lannon Park and Ride lot could generate additional demand for parking spaces at that lot, which is currently near capacity. The County may need to consider not providing additional service to the Lannon Park and Ride lot if it is determined that additional parking spaces would be needed.

Table 42

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING WASHINGTON COUNTY COMMUTER EXPRESS SERVICE FROM HARTFORD TO THE RICHFIELD PARK & RIDE LOT: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	60,000	60,000	60,000
Revenue Vehicle Hours	2,000	2,000	2,000
Revenue Passengers			
Total	13,000	27,100	24,500
Passengers per Revenue Vehicle Mile	N/A	N/A	N/A
Passengers per Revenue Vehicle Hour	N/A	N/A	N/A
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$291,400	\$315,400	\$303,300
Farebox Revenues <sup>a</sup>	43,400	102,500	87,800
Percent of Expenses			
Recovered through Revenues	14.9	32.5	28.8
Operating Assistance			
Federal <sup>a</sup>	\$ 56,100	\$ 60,700	\$ 58,400
State <sup>a</sup>	104,200	112,800	108,400
County <sup>a</sup>	87,700	39,400	48,700
Total <sup>a</sup>	248,000	212,900	215,500
Per Trip Data			
Operating Expenses <sup>a</sup>	\$22.42	\$11.64	\$13.44
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	19.08	7.53	9.88

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### Provide a Shuttle to Serve as a Feeder to Existing Washington County Commuter Express Services

In order to avoid reducing the efficiency of the existing Commuter Express Downtown Route, and provide residents of the City of Hartford and Village of Slinger with more frequent service and easier access to the Medical Center Route, the County could consider providing a local shuttle service serving the two proposed park and ride lots along STH 60 that would be timed to meet the two existing routes at the Richfield Park and Ride. Although this would require passengers to transfer from one vehicle to another, it should generate a greater number of daily revenue passengers than providing a direct service to downtown, because of the additional frequency it would provide residents within its service area. Two vehicles operating this short route should be able to provide a connection to 22 of 26 runs to and from Milwaukee County. Table 42 shows the operating expenses, revenues, and ridership estimated for this service, and, similar to the other Hartford service alternative, the 110 estimated daily revenue passengers do not include the passengers who currently use the Commuter Express but might be expected to take advantage of this service.

#### Reverse Commute Service from Milwaukee County to Employers in Washington County

The fixed-route element of the Washington County Transit System was originally focused on providing commute services for individuals living in Milwaukee County and working in Washington County, but the services were canceled due to low ridership as the early 2000's economic downturn reduced businesses' demand for labor from

outside the County. The County could consider restoring some form of reverse commute service if businesses in the County indicate that they need a larger labor pool. In addition, the County could work with businesses to determine if several have existing employees who would have an interest in using any potential reverse commute service. If the County discovers that there would be a demand for such a service, these two alternatives represent examples of the service patterns it could consider.

#### Service to the Germantown Industrial Park

This alternative would utilize the Milwaukee County Transit System's BlueLine Express to bring Milwaukee County residents to its terminus in the Park Place complex, where riders could transfer to this service and travel northwest on USH 45, exiting at Lannon Road. This service would provide access to the Germantown Industrial Park, with stops scattered throughout the park. This industrial park was last served in 2005 by a shuttle operated by Washington County from Milwaukee County's Mill Road Transit Center on the corner of W. Mill Road and N. 76th Street. A similar level of service to that which was previously provided is proposed, with four morning trips and eight evening trips. It may make sense to operate this service with a smaller vehicle not currently in GoRiteway's fleet, so the County would need to include that in any consideration of this alternative. Map 13 provides an illustration of a potential routing for this service, and Table 43 for estimates of the operating expenses, revenues, and ridership associated with this alternative. It should be noted that because a transfer is required to use this service, it is assumed that the fare would be \$1.00 per ride. Since the writing of this chapter of the report, Milwaukee County has implemented a service very similar to that which is described here.

#### Service to the Germantown Industrial Park and West Bend via W. Fond du Lac Avenue

The County could also consider a more expansive reverse commute service, picking up passengers from across northwestern Milwaukee County and providing access to both the Germantown Industrial Park and employment centers in the City of West Bend. This would provide passengers with an express service, and would provide a one-seat ride from many neighborhoods in Milwaukee County between Downtown Milwaukee and the far northwest side of Milwaukee County. Map 14 shows the potential route for this service alternative, traveling from Downtown Milwaukee to STH 145 via W. Fond du Lac Avenue. This service would stop at all intersections with Milwaukee County Transit Services, with each stop and the connecting service noted on the map. This service would provide relatively easy access to businesses in Washington County for a large portion of Milwaukee County residents. In some instances, there is time in the existing Commuter Express schedule for a vehicle to make this reverse commute trip without adding an additional vehicle. This interlining of three of the 10 one-way runs proposed for this service would reduce non-revenue vehicle hours and miles on both services. Table 44 displays the estimated operating expenses, revenues, and ridership for this alternative.

Providing this service by reversing the existing Commuter Express Downtown Route (starting at the intersection of N. Milwaukee Street and E. Kilbourn Avenue, traveling west on E. Wisconsin Avenue to N. 35th Street, and then using IH 94 and USH 45 to return to Washington County), was also considered, but this would reduce ridership by requiring passengers to travel out of their way to board the route on W. Wisconsin Avenue east of N. 35th Street, and would not offer a significant savings in terms of travel times and operating expenses due to congestion on IH 94 and USH 45 between Downtown Milwaukee and W. Capitol Drive.

Should the County decide to pursue both the potential Hartford to Downtown Route and providing a reverse commute service, it may make more sense to provide the reverse commute to Hartford rather than West Bend, given the larger demand for labor the businesses in Hartford are currently experiencing. The end of the route could provide direct service to these businesses, or rely on the County Shared-Ride Taxi to provide a connecting service.

#### Fixed-Route Service between the City of West Bend and the City of Fond du Lac

As part of this transit development plan, County staff requested that an alternative be included analyzing the costs and benefits of providing a service linking the West Bend and Kewaskum areas with the City of Fond du Lac, north of the County. This potential alternative would provide a connection to Fond du Lac's transit system and numerous educational facilities in the City of Fond du Lac, allowing numerous businesses, employers, and schools to become transit-accessible to Washington County residents.

Map 13
FIXED-ROUTE SERVICE TO GERMANTOWN INDUSTRIAL PARK

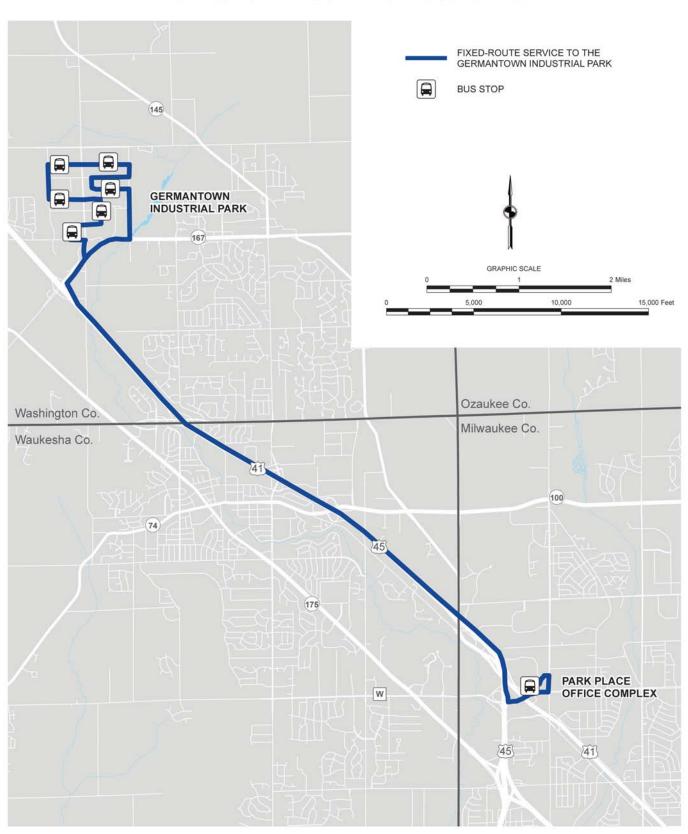


Table 43

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR PROVIDING LOCAL SHUTTLE SERVICE
TO THE GERMANTOWN INDUSTRIAL PARK: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	39,700	39,700	39,700
Revenue Vehicle Hours	1,800	1,800	1,800
Revenue Passengers			
Total	5,300	11,400	10,100
Passengers per Revenue Vehicle Mile	0.13	0.29	0.25
Passengers per Revenue Vehicle Hour	2.94	6.33	5.61
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$171,000	\$185,100	\$178,000
Farebox Revenues <sup>a</sup>	5,300	11,400	10,100
Percent of Expenses			
Recovered through Revenues	3.1	6.2	5.7
Operating Assistance			
Federal <sup>a</sup>	\$ 32,900	\$ 35,600	\$ 34,200
State <sup>a</sup>	61,100	66,200	63,600
County <sup>a</sup>	71,700	71,900	70,000
Total <sup>a</sup>	\$165,700	173,700	167,800
Per Trip Data			
Operating Expenses <sup>a</sup>	\$32.26	\$16.24	\$19.12
Farebox Revenue <sup>a</sup>	1.00	1.00	1.00
Total Operating Assistance <sup>a</sup>	31.26	15.24	18.12

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Map 15 shows the proposed route, which could be branded and operated as part of the Washington County Commuter Express, with the same fare structure and vehicles. The morning route would begin at the former Gehl facility parking lot, located on the corner of Water Street and Wisconsin Street in the City of West Bend. The County could consider leasing some or all of the lot's more than 100 spaces from its current owner. The route would head north and pick up more riders on the north side of West Bend, where the County could consider leasing parking spaces from a retail development along USH 45, such as the center anchored by Family Dollar. The proposed alternative would then travel to the City of Fond du Lac, providing a timed transfer to the Fond du Lac Transit system via their transfer zone on the corner of W. Rees Street and N. Macy Street. The route would then continue east, serving Winnebago Lutheran Academy, Moraine Park Technical College, Marian College, University of Wisconsin-Fond du Lac, and St. Mary's Springs High School. The evening route would travel in the opposite direction.

The proposed service would have three one-way trips each weekday, one in the morning and two in the afternoon and evening, utilizing one operator vehicle. If this service is pursued by the County, the County should work with the City of Fond du Lac on offering a discounted or no-fare transfer to Fond du Lac Transit services. Table 45

Map 14
WASHINGTON COUNTY COMMUTER EXPRESS REVERSE COMMUTE ROUTE ALTERNATIVE

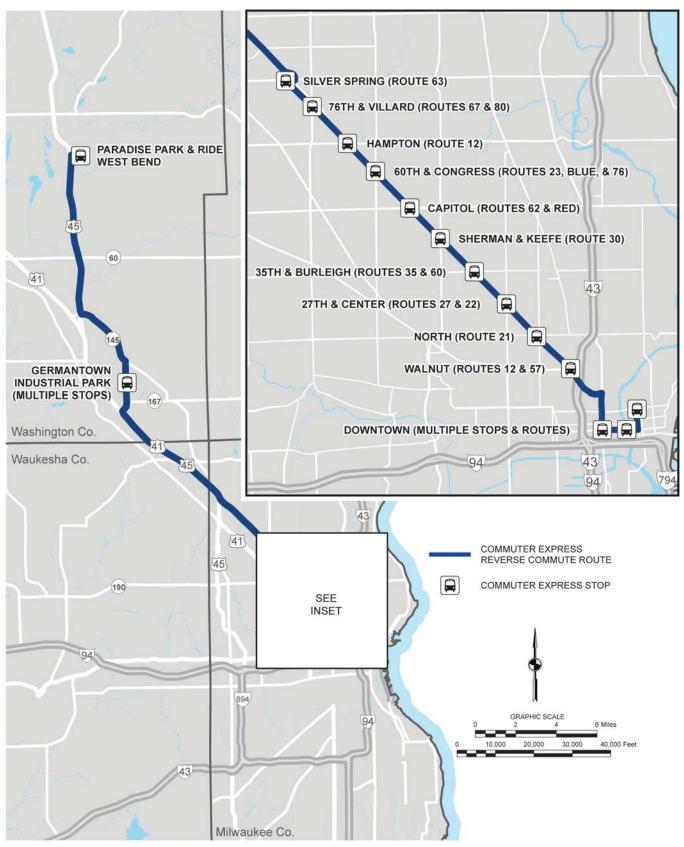


Table 44

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR PROVIDING REVERSE COMMUTE WASHINGTON COUNTY COMMUTER EXPRESS SERVICE
TO THE GERMANTOWN INDUSTRIAL PARK AND THE CITY OF WEST BEND: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	39,800	39,800	39,800
Revenue Vehicle Hours	3,800	3,800	3,800
Revenue Passengers			
Total	9,900	21,100	19,000
Passengers per Revenue Vehicle Mile	0.25	0.53	0.48
Passengers per Revenue Vehicle Hour	2.61	5.55	5.00
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$382,400	\$413,900	\$398,000
Farebox Revenues <sup>a</sup>	33,000	79,800	68,300
Percent of Expenses			
Recovered through Revenues	8.6	19.3	17.1
Operating Assistance			
Federal <sup>a</sup>	\$ 73,600	\$ 79,700	\$ 76,600
State <sup>a</sup>	136,700	148,000	142,300
County <sup>a</sup>	139,100	106,400	110,800
Total <sup>a</sup>	349,400	334,100	329,800
Per Trip Data			
Operating Expenses <sup>a</sup>	\$38.63	\$19.62	\$22.80
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	35.29	15.83	19.25

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

displays the estimated operating expenses, revenues, and ridership for this route. As the table indicates, this service is estimated to increase County levy funding by \$57,900 in 2015. It is expected that the educational institutions served by the route would provide a significant portion of the ridership, and that additional ridership could be expected if the service were properly marketed to potential users, including coordination with significant destinations in Fond du Lac. However, it is unlikely that this service will capture the same proportion of overall travel as the existing Commuter Express Downtown Route does between West Bend and Downtown Milwaukee, as the cost of parking and highway congestion associated with traveling to Downtown Milwaukee incentivize higher transit use.

# SHARED-RIDE TAXI SERVICE ALTERNATIVES AND IMPROVEMENTS

The following shared-ride taxi service modifications were analyzed as potential service alternatives and improvements for the Advisory Committee to consider including in the recommended transit system development plan. These alternatives are based on the evaluation of existing services in Chapter IV and the discussions of the Advisory Committee at a number of meetings, and include an analysis of a potential merger of the three shared-ride taxi systems in Washington County, a potential merger of the Washington and Ozaukee shared-ride taxi services, and other potential service modifications.

Map 15
PROPOSED WASHINGTON COUNTY COMMUTER EXPRESS ROUTE TO THE CITY OF FOND DU LAC

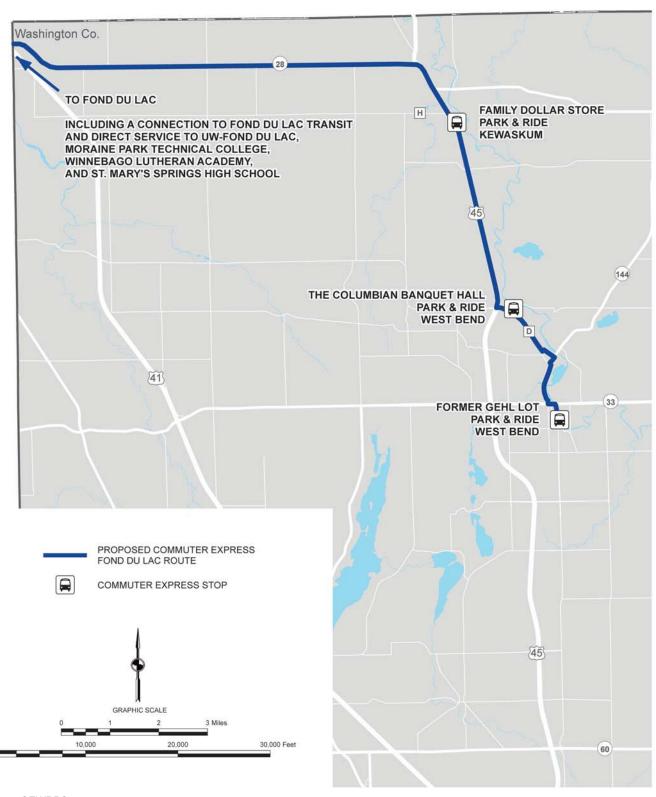


Table 45

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING WASHINGTON COUNTY COMMUTER EXPRESS SERVICE TO THE CITY OF FOND DU LAC: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	30,400	30,400	30,400
Revenue Vehicle Hours	1,000	1,000	1,000
Revenue Passengers			
Total	2,300	4,900	4,400
Passengers per Revenue Vehicle Mile	0.08	0.16	0.14
Passengers per Revenue Vehicle Hour	2.30	4.90	4.40
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$145,700	\$157,700	\$151,600
Farebox Revenues <sup>a</sup>	7,700	18,500	15,800
Percent of Expenses			
Recovered through Revenues	5.3	11.7	10.4
Operating Assistance			
Federal <sup>a</sup>	\$ 28,000	\$ 30,400	\$ 29,200
State <sup>a</sup>	52,100	56,400	54,200
County <sup>a</sup>	57,900	52,400	52,400
Total <sup>a</sup>	138,000	139,200	135,800
Per Trip Data			
Operating Expenses <sup>a</sup>	\$63.35	\$32.18	\$37.42
Farebox Revenue <sup>a</sup>	3.34	3.78	3.56
Total Operating Assistance <sup>a</sup>	60.00	28.41	33.86

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### No Changes to the Existing County Shared-Ride Taxi Services

Under this alternative, the County could choose to continue the existing Shared-Ride Taxi service for the time period considered under this plan. The current service's ridership and revenue hours of service have stabilized, although costs are projected to continue increasing. This alternative also serves as the base against which the remaining fixed-route service alternatives can be considered.

Table 46 shows the expected operating expenses, revenues, and ridership on the Shared-Ride Taxi, assuming that ridership remains stable at about the average of the past five years. Unless otherwise noted, this table and similar tables for each of the other taxi alternatives assume that operating expenses per service hour will grow at a rate of 2 percent each year, and that the percentage of operating expenses covered by Federal and State sources will remain approximately 63 percent. So that the fare stays constant in 2012 dollars, fare increases of \$0.25 are assumed to occur at the beginning of 2016 and again at the beginning of 2019. If these assumptions prove accurate, the County can expect its level of funding to increase by about \$85,000 between 2012 and 2019.

Table 47 displays expected capital expenses and sources of funding for these expenses between 2015 and 2019. With no change to the system, the County can expect to continue to replace its vehicles on a regular schedule as they age. Although it is difficult to predict changes in the Federal programs, this table assumes that the historic

Table 46

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE: 2015-2019

	Actual		Projected	
Characteristics	2012	2015	2019	Average
Services Provided				
Revenue Vehicle Miles	1,258,900	1,282,900	1,282,900	1,282,900
Revenue Vehicle Hours	60,300	61,100	61,100	61,100
Revenue Passengers				
Total	92,900	95,400	95,400	95,400
Passengers per Revenue Vehicle Mile	0.07	0.07	0.07	0.07
Passengers per Revenue Vehicle Hour	1.54	1.56	1.56	1.56
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$2,347,900	\$2,524,700	\$2,732,800	\$2,627,700
Farebox Revenues <sup>a</sup>	304,900	312,900	349,200	331,000
Percent of Expenses				
Recovered through Revenues	13.0	12.4	12.8	12.6
Operating Assistance				
Federal <sup>a</sup>	\$ 408,200	\$ 436,300	\$ 472,200	\$ 454,100
State <sup>a</sup>	1,086,000	1,179,500	1,276,800	1,227,700
County <sup>a</sup>	548,800	596,000	634,600	614,900
Total <sup>a</sup>	2,043,000	2,211,800	2,383,600	2,296,700
Per Trip Data				
Operating Expenses <sup>a</sup>	\$25.27	\$26.46	\$28.65	\$27.54
Farebox Revenue <sup>a</sup>	3.28	3.28	3.66	3.47
Total Operating Assistance <sup>a</sup>	21.99	23.18	24.99	24.07

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

match of 80 percent Federal funding for capital expenses will be continued into the future. Over the five-year plan timeframe, approximately \$1.07 million (in year-of-expenditure dollars) will be spent on new vehicles for the County Shared-Ride Taxi service, with \$213,000 of that being County funds. This represents an expenditure of approximately \$43,000 per year from 2015 to 2019.

#### Increase Fares at a Rate Greater than Inflation on the County Shared-Ride Taxi Service

Should the County need to reduce its level of assistance to the Shared-Ride Taxi service, the County would likely need to increase fares at a rate greater than inflation. Given that the operating expenses are a function of the amount of service provided, and that the amount of service provided by a shared-ride taxi service is dependent on the number of rides provided, the County would need to increase fares in order to reduce its expenses. Raising fares would decrease the amount of operating assistance per revenue passenger, and it would also slightly discourage ridership as the service becomes more expensive to its users. Without savings from changes in operating procedures or lower wages and benefits for the taxi operators, raising fares is the County's only option to reduce its level of operating assistance.

Table 48 displays expected operating expenses, revenues, and ridership under an alternative that would hold the County's level of operating assistance flat between 2012 and 2019. As discussed under the "no change" alternative, raising fares at the rate of inflation would result in an average fare increase of \$0.25 in 2016, and

Table 47

PROPOSED CAPITAL EQUIPMENT EXPENDITURES
FOR THE WASHINGTON COUNTY SHARED-RIDE TAXI SYSTEM: 2015 - 2019

Year	Equipment or Project Description	Quantity	Unit Cost <sup>a</sup>	Total Cost <sup>a</sup>
2015	Replacement of Minibus with Lift	3	\$49,900	\$149,700
	Replacement of Minivan with Ramp	2	37,100	74,200
	Subtotal			\$223,900
2016	Replacement of Minibus with Lift	3	\$50,900	\$152,700
	Replacement of Sedan	2	21,600	43,200
	Subtotal			\$195,900
2017	Replacement of Minibus with Lift	4	\$51,900	\$207,600
	Replacement of Minivan with Ramp	1	38,600	38,600
	Subtotal			\$246,200
2018	Replacement of Minibus with Lift	3	\$52,900	\$158,700
	Subtotal			\$158,700
2019	Replacement of Minibus with Lift	3	\$54,000	\$162,000
	Replacement of Minivan with Ramp	2	40,200	80,400
	Subtotal			\$242,400
Total Capital	Project Costs			\$1,067,100
Federal Capital	Assistance Funds			\$854,000
Local Share of Costs				213,100
Average Annual Costs over Planning Period				
Total Costs				\$213,000
Federal Share				170,000
Local Share				43,000

<sup>&</sup>lt;sup>a</sup>Costs are expressed in estimated year of expenditure dollars.

Source: Washington County Transit System and SEWRPC.

again in 2019. Holding County operating assistance under the 2012 level of \$548,800 would require the County to increase fares an average of \$0.50 in 2015, \$0.25 in 2017, \$0.25 in 2018, and \$0.25 in 2019. Rather than average fares increasing \$0.50 over the plan timeframe, this alternative would result in average fares increasing \$1.25 over the plan timeframe. Due to the increase in fares, 88,000 revenue passengers are estimated to use the service in 2019—7,400 fewer revenue passengers than under to the alternative that increases fares at the rate of inflation. Fewer service hours could also lead to an increased cost per revenue service hour at the expiration of the County's existing service contract, as the operator may need to distribute fixed costs over fewer service hours.

#### Merging the Municipal and County Shared-Ride Taxi Services

Integrating either or both the Hartford City Taxi and the West Bend Taxi with the County Shared-Ride Taxi service has been discussed in recent years as the cost of providing the services has changed and State funding has been reduced. Due to the differing levels of service between the County Shared-Ride Taxi and the two municipal taxi systems, two service alternatives are described in this section. The cost and ridership estimates included with each alternative assume that both municipalities would discontinue their taxi services, with the County expanding its service to include trips that both begin and end within the service areas of the municipal taxi systems.

Should the City of Hartford or the City of West Bend decide to discontinue their taxi systems, the County could consider a number of service levels, with two potential alternatives discussed in the remainder of this section. Any plan to merge with the Hartford City Taxi must ensure that Federal labor protection (former Section 13(c)) agreements with union members are not violated, which could jeopardize Federal funding for the County's transit system.

Table 48

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR THE WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE IF FARES ARE INCREASED AT A RATE GREATER THAN INFLATION: 2015-2019

	Actual			
Characteristics	2012	2015	2019	Average
Services Provided				
Revenue Vehicle Miles	1,258,900	1,231,500	1,183,400	1,214,400
Revenue Vehicle Hours	60,300	58,600	56,300	57,800
Revenue Passengers				
Total	92,900	91,600	88,000	90,300
Passengers per Revenue Vehicle Mile	0.07	0.07	0.07	0.07
Passengers per Revenue Vehicle Hour	1.54	1.56	1.56	1.56
Expenses and Revenues				
Operating Expenses <sup>a</sup>	\$2,347,900	\$2,421,400	\$2,518,100	\$2,484,700
Farebox Revenues <sup>a</sup>	304,900	346,100	398,600	\$ 368,000
Percent of Expenses				
Recovered through Revenues	13.0	14.3	15.8	14.8
Operating Assistance				
Federal <sup>a</sup>	\$ 408,200	\$ 418,400	\$ 435,100	\$ 429,400
State <sup>a</sup>	1,086,000	1,131,300	1,176,500	1,160,800
County <sup>a</sup>	548,800	525,600	507,900	526,500
Total <sup>a</sup>	2,043,000	2,075,300	2,119,500	2,116,700
Per Trip Data				
Operating Expenses <sup>a</sup>	\$25.27	\$26.44	\$28.61	\$27.53
Farebox Revenue <sup>a</sup>	3.28	3.78	4.53	4.08
Total Operating Assistance <sup>a</sup>	21.99	22.66	24.09	23.45

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### Existing Level of Service Alternative

This alternative would maintain the existing level of service provided by the municipal taxi systems by serving trips within the City of Hartford and within the City of West Bend as they are requested, rather than through advanced reservation. This alternative assumes that the County service would need to provide nearly the same number of rides as all three systems currently provide, with a slight drop in ridership expected due to the higher fares on the County Shared-Ride Taxi. The estimated 136,900 additional riders would require an additional 40,100 vehicle hours of service. Table 49 contains an estimate of the ridership, operating expenses, and revenues, and County funding assistance required to provide this level of service. Compared to operating the existing service, under this alternative County levy funding would need to increase by \$155,700 or 26.1 percent in 2015. Efficiency would be gained by combining the services, allowing the County Shared-Ride Taxi operator to increase its passengers per revenue vehicle mile and passengers per revenue vehicle hour slightly as more trips in a concentrated area would result in more passengers in each vehicle at a time. The additional trips are also expected to be much shorter on average than those currently made on the County Shared-Ride Taxi service, which also would contribute to increased passengers per revenue vehicle mile and passenger per revenue vehicle hour. This would result in an average 5.7 percent increase in expenses recovered through fare revenues.

Table 49

# PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR MAINTAINING THE EXISTING LEVEL OF SERVICE WITHIN THE CITIES OF HARTFORD AND WEST BEND FOLLOWING A MERGER OF THE MUNICIPAL TAXI SYSTEMS WITH THE WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE: 2015-2019

	Projected <sup>b</sup>		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	1,704,100	1,704,100	1,704,100
Revenue Vehicle Hours	101,200	101,200	101,200
Revenue Passengers			
Total	229,800	229,800	229,800
Passengers per Revenue Vehicle Mile	0.13	0.13	0.13
Passengers per Revenue Vehicle Hour	2.27	2.27	2.27
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$4,181,600	\$4,526,300	\$4,352,200
Farebox Revenues <sup>a</sup>	753,700	841,100	797,400
Percent of Expenses			
Recovered through Revenues	18.0	18.6	18.3
Operating Assistance			
Federal <sup>a</sup>	\$ 722,600	\$ 782,100	\$ 752,100
State <sup>a</sup>	1,953,600	2,114,700	2,033,400
County <sup>a</sup>	751,700	788,400	769,400
Total <sup>a</sup>	3,427,900	3,685,200	3,554,800
Per Trip Data			
Operating Expenses <sup>a</sup>	\$18.20	\$19.70	\$18.94
Farebox Revenue <sup>a</sup>	3.28	3.66	3.47
Total Operating Assistance <sup>a</sup>	14.92	16.04	15.47

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

Source: Specialized Transport Services, Inc. and SEWRPC.

It is assumed that the City of West Bend, the City of Hartford, and Washington County would come to an agreement regarding the vehicles currently owned by each municipality, so that the County does not need to make a significant capital purchase to add capacity to its taxi fleet. As it seems unlikely that either municipality, should it choose to eliminate its taxi service, would be able to contribute funding to the County taxi system, it may be appropriate for municipalities to transfer the vehicles associated with their systems to the County for the use of the County Shared-Ride Taxi service.

It is important to emphasize the difference in operations that providing demand-response service would necessitate. A small secondary taxi depot would likely need to be based in the City of Hartford, and the existing depot in the City of West Bend would need to have vehicle operators available on standby, ready to quickly respond to residents' requests for service. This would require a different staff scheduling approach than is currently used for the County's advanced-reservation service.

<sup>&</sup>lt;sup>b</sup>These projected operating expenses, revenues, and ridership can be compared to the County's 2012 annual operating expenses, revenues and ridership for the existing County Shared-Ride Taxi System in Table 46 on page 96.

Table 50

PROJECTED ADDITIONAL ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING DEMAND-RESPONSE SHARED-RIDE TAXI SERVICE WITHIN OTHER MUNICIPALITIES IN WASHINGTON COUNTY: 2015

	Operating	Farebox	Operating Assistance			
Municipality	Expenses	Revenues	Federal	State	County	Total
Addison	\$ 190,200	\$ 34,300	\$ 32,900	\$ 88,900	\$ 34,100	\$ 155,900
Barton	143,500	25,900	24,800	67,000	25,800	117,600
Erin	37,400	6,700	6,500	17,500	6,700	30,700
Farmington	75,100	13,500	13,000	35,100	13,500	61,600
Germantown (Village)	1,076,400	194,000	186,000	502,900	193,500	882,400
Germantown (Town)	13,800	2,500	2,400	6,400	2,500	11,300
Hartford (Town)	196,400	35,400	33,900	91,800	35,300	161,000
Jackson (Village)	368,200	66,400	63,600	172,000	66,200	301,800
Jackson (Town)	224,900	40,500	38,900	105,100	40,400	184,400
Kewaskum (Village)	217,900	39,300	37,700	101,800	39,100	178,600
Kewaskum (Town)	57,300	10,300	9,900	26,800	10,300	47,000
Newburg	68,200	12,300	11,800	31,900	12,200	55,900
Polk	214,200	38,600	37,000	100,100	38,500	175,600
Richfield	617,700	111,300	106,700	288,600	111,100	506,400
Slinger	278,400	50,200	48,100	130,100	50,000	228,200
Trenton	257,500	46,400	44,500	120,300	46,300	211,100
Wayne	118,000	21,300	20,400	55,100	21,200	96,700
West Bend (Town)	259,800	46,800	44,900	121,400	46,700	213,000
Total for These Municipalities	\$4,414,900	\$ 795,700	\$ 763,000	\$2,062,800	\$ 793,400	\$3,619,200
Total for Entire County	\$8,596,500	\$1,549,400	\$1,485,600	\$4,016,400	\$1,545,100	\$7,047,100

Should the County elect to continue the higher level of service within the Cities of Hartford and West Bend, it may also be necessary to consider a similar level of service within the Village of Germantown, and possibly the Villages of Jackson, Kewaskum, Richfield, and Slinger. Additional municipalities in the County could also request this higher level of service. Table 50 contains an estimate of the operating expenses, revenues, and assistance for 2015 associated with providing demand-response service in each of the municipalities of the County, assuming that those residents use the service at a similar rate as is expected for the residents of the Cities of West Bend and Hartford in Table 49. This estimate does not include the capital costs of additional vehicles to provide this higher level of service.

Providing demand-response service to many municipalities in the County would likely introduce significant complexity and additional cost into the system, but it would bring the shared-ride taxi service in line with the recommendation of the Service Frequency and Availability Design and Operating Standard under Objective No. 2 of the Public Transit Service Objectives, which recommends a maximum of 45 minutes in urban areas between a resident placing a request for service and the arrival of the taxi.

#### Reduced Level of Service Alternative

Under this alternative, the County would extend the service area of the Shared-Ride Taxi service to cover trips with both ends inside each city, but the entire county-wide service would remain advanced reservation. This would provide a lower level of service to the residents of the Cities of Hartford and West Bend, but would treat all areas of the County equally. This lower level of service would likely reduce demand for the service, subsequently reducing the number of rides provided within Hartford and within West Bend compared to the existing municipal taxi services.

Table 51

PROJECTED ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR PROVIDING A UNIFORM LEVEL OF SERVICE COUNTY-WIDE FOLLOWING A MERGER OF THE
MUNICIPAL TAXI SYSTEMS WITH THE WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE: 2015-2019

	Projected <sup>b</sup>		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	1,434,000	1,434,000	1,434,000
Revenue Vehicle Hours	85,200	85,200	85,200
Revenue Passengers			
Total	172,800	172,800	172,800
Passengers per Revenue Vehicle Mile	0.12	0.12	0.12
Passengers per Revenue Vehicle Hour	2.03	2.03	2.03
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$3,518,900	\$3,809,000	\$3,662,500
Farebox Revenues <sup>a</sup>	566,800	632,400	599,600
Percent of Expenses			
Recovered through Revenues	16.1	16.6	16.4
Operating Assistance			
Federal <sup>a</sup>	\$ 608,100	\$ 658,200	\$ 632,900
State <sup>a</sup>	1,644,000	1,779,600	1,711,100
County <sup>a</sup>	700,000	738,800	718,900
Total <sup>a</sup>	2,952,100	3,176,600	3,062,900
Per Trip Data			
Operating Expenses <sup>a</sup>	\$20.36	\$22.04	\$21.20
Farebox Revenue <sup>a</sup>	3.28	3.66	3.47
Total Operating Assistance <sup>a</sup>	17.08	18.38	17.73

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

A similar service change recently occurred in Ozaukee County, when the City of Port Washington chose to discontinue its municipal taxi service on January 1, 2012. Following this change, a number of riders chose to use a new local privately owned and operated taxi service, while approximately 55 percent of riders chose to use the Ozaukee County Shared-Ride Taxi service. The operator of the Ozaukee County Shared-Ride Taxi service experienced an increase in passengers per revenue mile and passengers per revenue vehicle hour, for similar reasons to those discussed in the previous alternative.

Using this nearby experience as a guide, Table 51 displays the estimated operating expenses, revenues, and ridership for the County Shared-Ride Taxi service under this alternative. This alternative is estimated to increase the County funding assistance for the Shared-Ride Taxi by \$104,000, or 17 percent, in 2014. The increased efficiency of the service would result in an approximately 4 percent increase in the amount of expenses recovered through fares. Similar to the previous alternative, this alternative assumes no significant new capital expenditures for the County, as the ownership of the City of Hartford and City of West Bend taxi vehicles would be transferred to the County.

<sup>&</sup>lt;sup>b</sup>These projected operating expenses, revenues, and ridership can be compared to the County's 2012 annual operating expenses, revenues and ridership for the existing County Shared-Ride Taxi System in Table 46 on page 96.

Table 52

PROJECTED ADDITIONAL ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP
FOR A MERGED OZAUKEE COUNTY-WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	95,500	95,500	95,500
Revenue Vehicle Hours	4,500	4,500	4,500
Revenue Passengers			
Total	7,100	7,100	7,100
Passengers per Revenue Vehicle Mile	0.07	0.07	0.07
Passengers per Revenue Vehicle Hour	1.58	1.58	1.58
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$185,900	\$201,300	\$193,500
Farebox Revenues <sup>a</sup>	23,300	26,000	24,600
Percent of Expenses			
Recovered through Revenues	12.5	12.9	12.7
Operating Assistance			
Federal <sup>a</sup>	\$ 32,100	\$ 34,800	\$ 33,400
State <sup>a</sup>	86,900	94,000	90,400
County <sup>a</sup>	43,600	46,500	45,100
Total <sup>a</sup>	162,600	175,300	168,900
Per Trip Data			
Operating Expenses <sup>a</sup>	\$26.18	\$28.35	\$27.26
Farebox Revenue <sup>a</sup>	3.28	3.66	3.47
Total Operating Assistance <sup>a</sup>	22.90	24.69	23.79

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

# Merging the Ozaukee County and Washington County Shared-Ride Taxi Services

Across the Region, people reliant on transit services express a repeated desire for better connections across county and municipal borders. Given that Ozaukee County and Washington County operate very similar taxi services, a discussion of merging these two services was requested by the Advisory Committee and is included here. Any merger of the two systems would provide passengers with greater mobility, making many destinations in the two counties more accessible. However, merging the services would require the service hours and fare policies for the two services to be unified, and intergovernmental agreements detailing arrangements for providing funding, sharing assets, and managing the merged service would need to be negotiated.

This potential merger would likely result in an increase in travel, and potentially longer trips, as passengers would be able to freely cross county lines rather than transferring only at the current transfer point in the Village of Newburg. Based on a comparison of existing travel between the two counties using all types of transportation and existing use of the Washington County Shared-Ride Taxi to travel to Ozaukee County, merging the two systems is estimated to generate an additional 7,100 passenger trips each year. The estimates of additional operating expenses, revenues, and ridership displayed in Table 52 would need to be allocated between the budgets of the two counties through a method detailed in the required intergovernmental agreements.

# Providing a Secondary Washington County Shared-Ride Taxi Depot in the Village of Germantown

Developing a secondary depot for the Shared-Ride Taxi service in or near the Village of Germantown may reduce the operating expenses of this service. An analysis of existing taxi logs indicates that the County should be able to reduce the number of vehicle hours and vehicle miles traveled by the Shared-Ride Taxi vehicles by storing some vehicles in Germantown each night and having some employees start their shifts at this new depot instead of at the existing location in the City of West Bend. A second taxi depot located in or near the Village of Germantown should reduce vehicle hours by approximately 700 hours per year, by eliminating the travel time to and from the existing depot when the first or last trip of the day is in Germantown or a nearby community. This should allow the County to reduce local funding by an average of \$8,100 annually from 2015 to 2019.

Despite this apparent cost savings, there will likely be some costs that are difficult to estimate as part of the addition of any second depot:

- Shared-Ride Taxi vehicles currently refuel at the County's refueling station in West Bend. The County
  would likely need to refuel the vehicles somewhere in Germantown, which would possibly have a higher
  unit fuel price.
- Although the Shared-Ride Taxi digital dispatching system would allow the dispatcher to manage the
  vehicles based in Germantown from the West Bend depot, face-to-face meetings and interactions with the
  service manager would likely still be necessary. This could introduce staffing complexities, with the
  County either paying for drivers to travel to West Bend to meet with the service manager, or rotating the
  drivers who start their shifts in Germantown.
- Given the location that the vehicles are currently maintained (West Bend), the vehicles located in Germantown would need to travel to West Bend for any scheduled maintenance or repairs, reducing County savings from this secondary depot. This could be done by coordinating the trips to and from West Bend with a passenger's trip request, but careful planning would be required.
- The County would need to lease space for the storage of the vehicles and any associated equipment.
- To provide sufficient capacity to serve the southeastern part of Washington County, the County would likely need to purchase an additional vehicle to keep at the secondary taxi depot in Germantown. The capital cost for this would range from \$37,000 to \$50,000 for an accessible vehicle.

It is important to note that a secondary depot would not increase service quality or quantity for the residents of Germantown and the surrounding communities. As the County Shared-Ride Taxi system is an advanced-reservation service, trips from, to, and within the Germantown area would not change under this alternative.

#### **Extending Washington County Shared-Ride Taxi Service Hours**

Another unmet transportation need that has been raised during this planning effort is the lack of transportation options for individuals outside of the current shared-ride taxi service hours, such as those who are unable to drive to receive a safe ride home from a restaurant, bar, or tavern. To address this concern, the following analysis considers the potential extension of the service hours of the Shared-Ride Taxi until 1 a.m. on Saturday and Sunday mornings. Providing this service would help alleviate a public safety concern, taking unsafe drivers off the County's roads, and would meet the needs of individuals who have limited options for traveling late at night.

Requests for safe rides home from dining and entertainment establishments are unlikely to be planned events, which means they would not be satisfactorily served by an advanced-reservation service. Therefore, this alternative proposes providing a demand-response service from the end of the current service hours on Friday and Saturday evenings, 10:00 p.m., until 1 a.m. the following morning. These three additional service hours would have operators and a dispatcher available to take any requests for service from 10:00 p.m. until 12:30 a.m. The estimated operating expenses assume that only two operators would be needed. Table 53 provides estimated operating expenses, revenues, and ridership for this service.

Table 53

PROJECTED ADDITIONAL ANNUAL OPERATING EXPENSES, REVENUES, AND RIDERSHIP FOR PROVIDING EXTENDED SERVICE HOURS OF THE WASHINGTON COUNTY SHARED-RIDE TAXI SERVICE: 2015-2019

	Projected		
Characteristics	2015	2019	Average
Services Provided			
Revenue Vehicle Miles	14,000	14,000	14,000
Revenue Vehicle Hours	1,000	1,000	1,000
Revenue Passengers			
Total	1,040	1,040	1,000
Passengers per Revenue Vehicle Mile	0.07	0.07	0.07
Passengers per Revenue Vehicle Hour	1.04	1.04	1.00
Expenses and Revenues			
Operating Expenses <sup>a</sup>	\$41,300	\$44,700	\$43,000
Farebox Revenues <sup>a</sup>	3,400	3,800	3,600
Percent of Expenses			
Recovered through Revenues	8.2	8.5	8.4
Operating Assistance			
Federal <sup>a</sup>	\$ 7,100	\$ 7,700	\$ 7,400
State <sup>a</sup>	19,300	20,900	20,100
County <sup>a</sup>	11,500	12,300	11,900
Total <sup>a</sup>	37,900	40,900	39,400
Per Trip Data			
Operating Expenses <sup>a</sup>	\$39.71	\$42.98	\$41.33
Farebox Revenue <sup>a</sup>	3.28	3.66	3.47
Total Operating Assistance <sup>a</sup>	36.44	39.33	37.87

<sup>&</sup>lt;sup>a</sup>Expenses and revenues are expressed in estimated year-of-expenditure dollars.

#### **CONCLUSION**

The alternatives discussed in this chapter deserve the Advisory Committee's full consideration, but very few would be able to be implemented without additional Washington County funding. Further discussion between the County and Specialized Transport Services, Inc. may confirm that a second taxi depot will reduce County funding, and raising fares or reducing service will also reduce County funding. Serving Mayfair Mall and offices nearby could make the Medical Center Route more efficient, increasing the percentage of operating expenses recovered through passenger revenues. A number of the alternative fixed-route services could be initiated using CMAQ funding, allowing the County to experiment with new services without a substantial—or possibly any—investment of County funds for the first three years of operation. In particular, service from the City of Hartford, service to Kohl's Department Stores Corporate Headquarters, service to General Mitchell International Airport, and the reverse commute services could be initiated in this fashion. As the County considers these alternatives and the recommended transit plan that results from this process, it will need to balance the needs of its citizens and the desire for an efficient, financially sustainable transit system.