



2016 Annual Route Review and Analysis Report



Prepared by the Brown County Planning Commission/
Metropolitan Planning Organization (MPO) for the Green Bay Urbanized Area
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On the Cover: Bus 1501. Green Bay Metro accepted delivery of four new 40' Gillig buses in late 2015. The buses will replace 1995 and 1998 Gillig/Phantom buses that have already been retired.

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CHAPTER ONE

Introduction

Overview

The Brown County Planning Commission and Green Bay Metro staffs conduct route reviews on a quarterly basis each year in the months of February, May, August, and November. In February of each year, a large-scale review is conducted resulting in the publication of the Green Bay Metro Annual Route Review and Analysis Report, by the Brown County Planning Commission. In May, August, and November, smaller scale route review reports are issued.

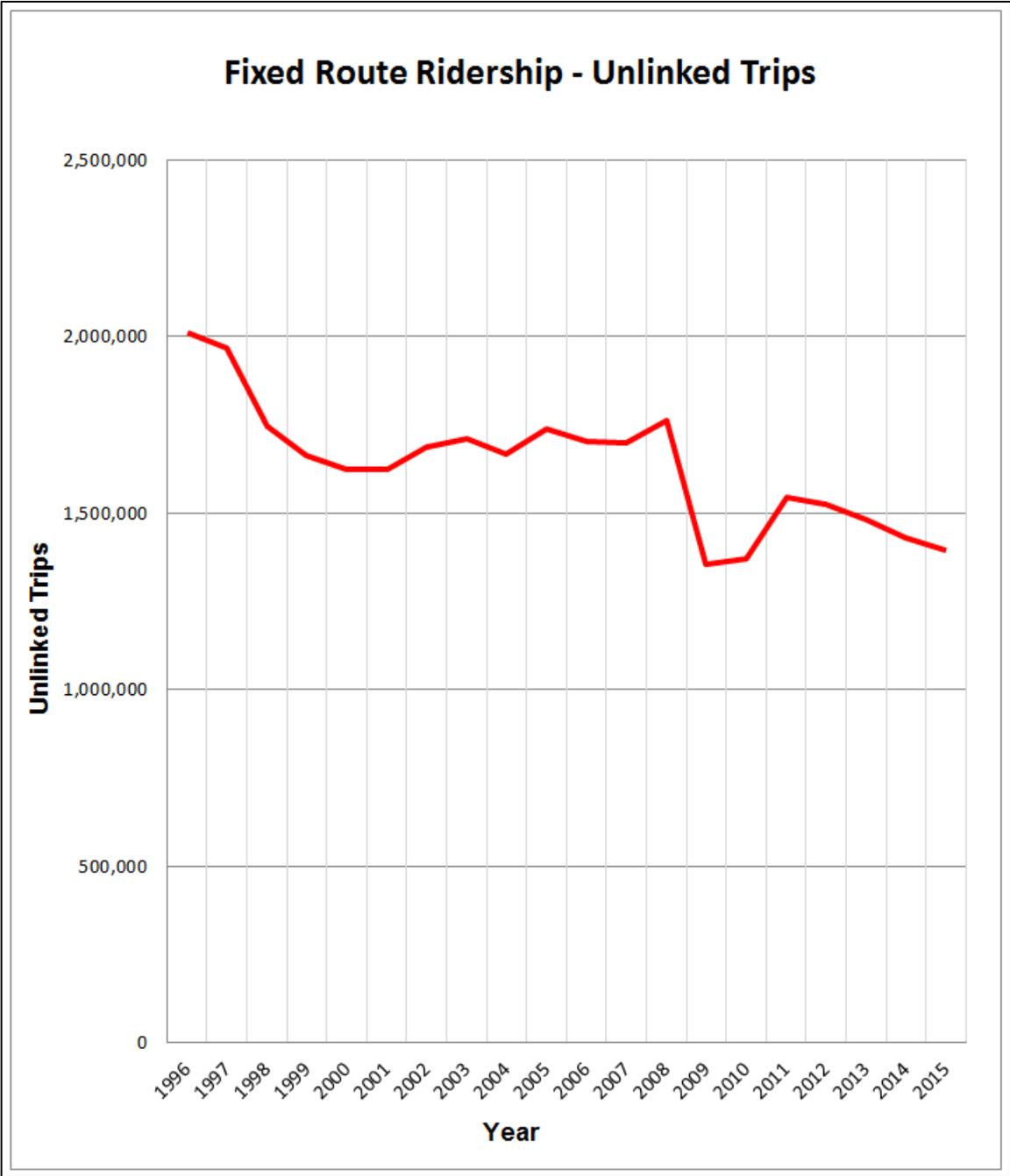
For each route review, Green Bay Metro's 15 full service routes are evaluated individually in terms of the performance standards outlined in the Green Bay Metro Policy and Procedures Manual, August 1992, as amended.

In February of 2016, the annual Green Bay Metro route review was conducted. Ridership and revenue data were gathered for all full service and limited service routes on weekdays and Saturdays. A special effort was made to separate day and evening data for the full service route system.

The passenger and revenue statistics contained in this report are typical of a weekday and Saturday in February. It should be noted that passenger and revenue levels fluctuate throughout the year.

From an annual perspective, the number of unlinked passenger trips decreased 2.4% from 1,429,205 in 2014 to 1,394,851 in 2015.

The graph below shows the 20-year ridership trend.



Note: The farebox system was automated in 2009.

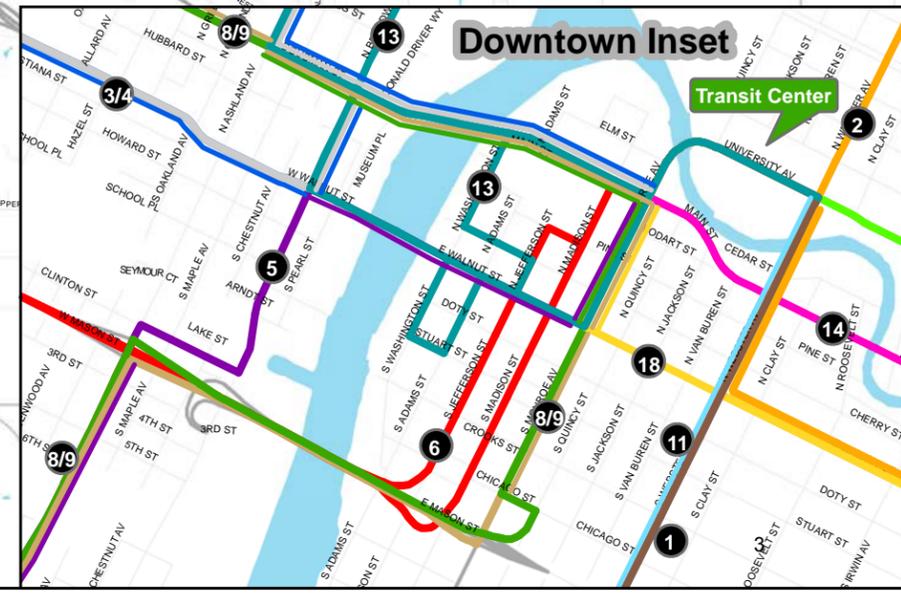
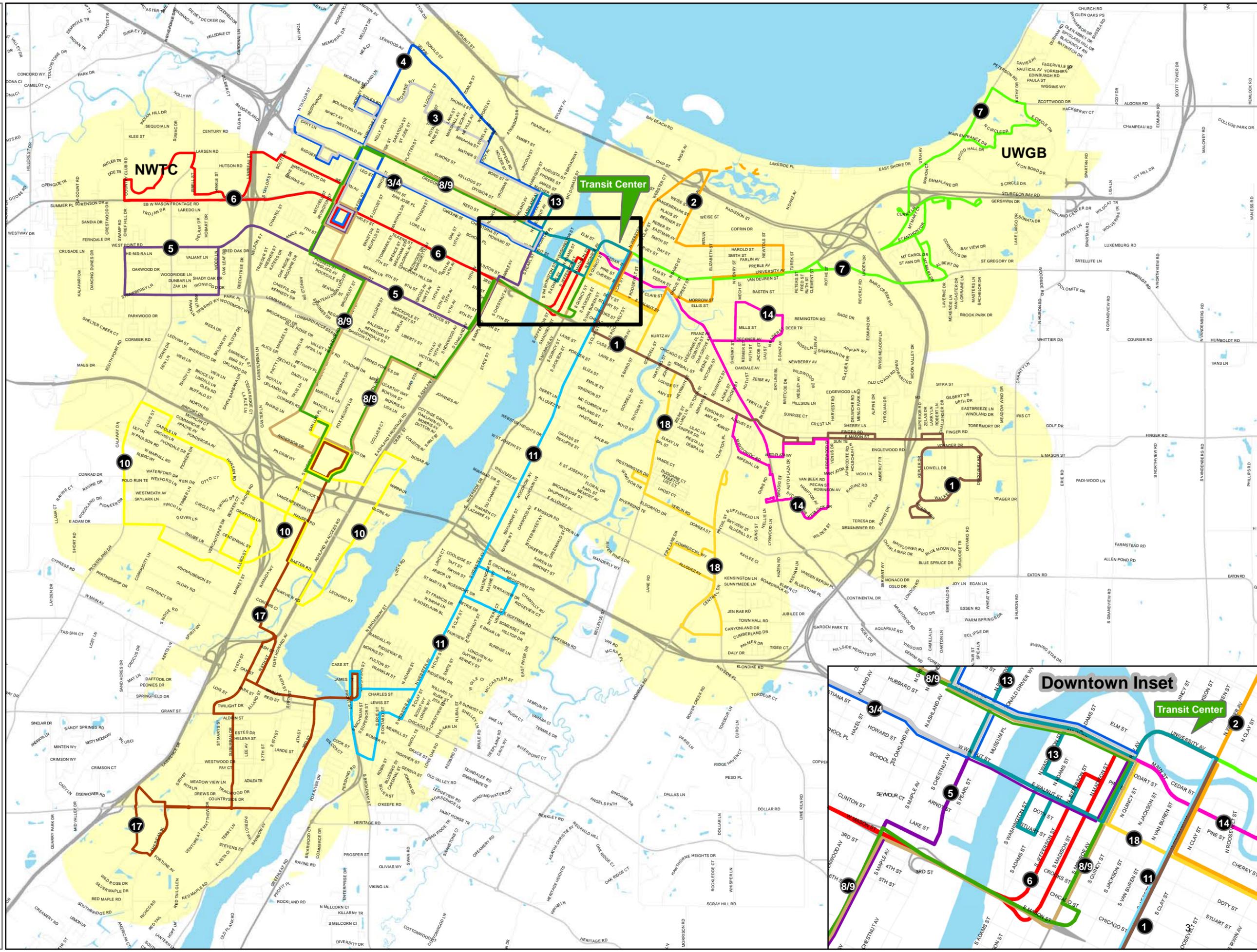
Green Bay METRO

Legend

- #1 Brown Line
- #2 Orange Zippin Line
- #2 Orange Zippin Line Upon Request
- #3 Silver Line
- #4 Blue Line
- #5 Plum Line
- #6 Red Line
- #7 Lime Line
- #8 Green Line
- #9 Tan Line
- #10 Yellow Line
- #11 Sky Line
- #13 River Line
- #14 Pink Line
- #17 Brick Line
- #18 Gold Line
- Paratransit Service Area



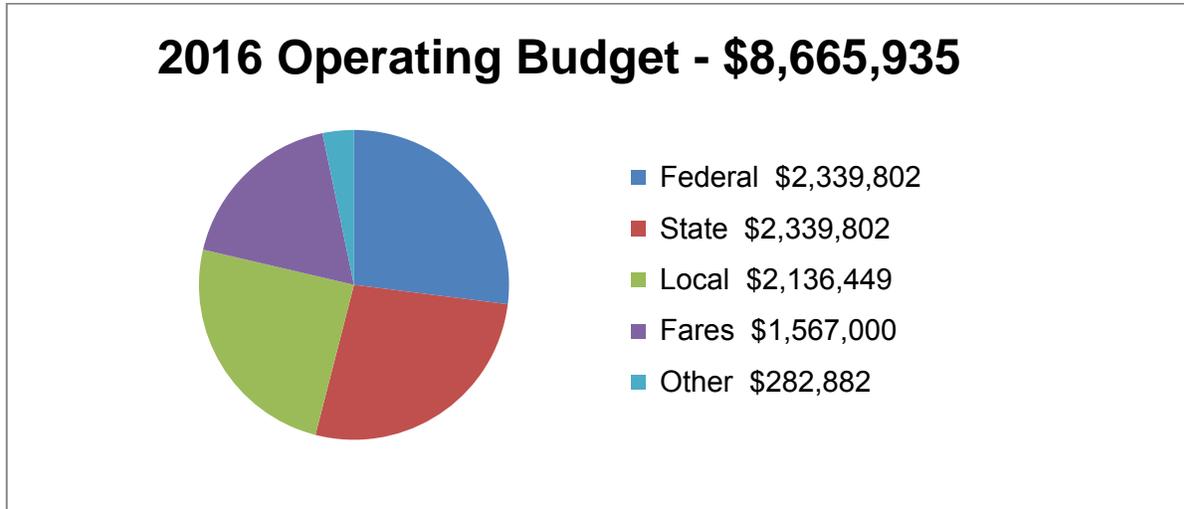
Map created by:
Brown County Planning
Commission Staff
Created: February 2016



2016 Operating Budget Estimate Overview

Green Bay Metro's 2016 operating budget estimate is \$8,665,935. Green Bay Metro receives operating assistance from a variety of sources. These include the federal Section 5307 program, state 85.20 program, local dollars from entities participating in the system, fares, advertising revenue, U-Pass revenue, and interest revenue.

A summary of the 2016 estimated Green Bay Metro budget by revenue source is below:

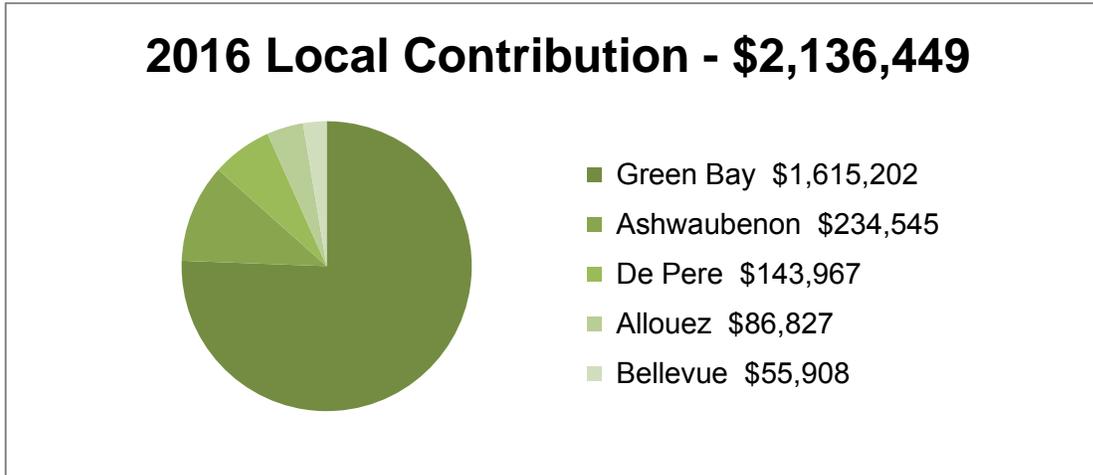


2016 Budget Estimate

Source:	Amount	Percent
Federal	\$2,339,802	27.0%
State	\$2,339,802	27.0%
Local	\$2,136,449	24.7%
Fares	\$1,567,000	18.1%
Other	\$282,882	3.3%
Total:	\$8,665,935	100.0%

Local Share

The 2016 budget estimate consists of contributions from participating local entities. The sum of the contribution is projected to be \$2,136,449 (24.7%) of the entire operating budget. Local entities contribute to the system based on system mileage and population. The breakdown by participating local entities is as follows:



2016 Budget Estimate – Local Contribution Analysis

Source:	Amount	Percent of Local Share	Percent of Budget
Green Bay	\$1,615,202	75.6%	18.6%
Ashwaubenon	\$234,545	11.0%	2.7%
De Pere	\$143,967	6.7%	1.7%
Allouez	\$86,827	4.1%	1.0%
Bellevue	\$55,908	2.6%	0.6%
Total:	\$2,136,449	100.0%	24.7%

CHAPTER TWO

Route Modifications

In 2015, Metro added a new Downtown-only route, increased Saturday service on the #6 Red, modified the service hours of the #8 Green to create the new #9 Tan, and began to explore service to the new Titletown District. A full description and analysis will be included in Chapter 8 Programs and Initiatives.

CHAPTER THREE

Full Service Route System Performance

According to the Green Bay Metro Policy and Procedures Manual, "...each existing bus route should be evaluated individually to determine if the service provided is attracting a desired amount of ridership and revenue."

The Green Bay Metro system policy for operational evaluation of new bus routes is somewhat different from the evaluation of established bus routes. New routes are to be examined at six-month intervals and must meet minimum ridership and revenue figures or the Transit Commission will give serious consideration to abandoning or making substantial changes to routes that are chronically unproductive. The purpose of the periodic examination is to allow existing and potential riders to become familiar with the new route schedule and service area and to allow time for operational improvements before meeting system-wide standards.

The policy manual outlines five performance measures to be used in the evaluation of a bus route. In some cases, the performance of a route is compared to the performance of the entire system.

The criteria of revenue per hour, passengers per hour, and operating ratio use minimum measurements based on the system median. After six months of service, a new route must reach 30 percent of the median. After one year, the route should reach 60 percent, and after two years, it should reach 80 percent.

The following performance standards are used to review all full service routes:

Revenue Per Hour

The revenue per hour standard helps to determine the financial efficiency of a route. The revenue per hour of an established individual route should be at least 80 percent of the system median.

- The system standard for weekdays was \$9.17 per hour during the route review study period.
- The #6 Red route was the strongest route in terms of revenue generated per hour at \$19.36.
- The lowest performing route was the #18 Gold route at \$6.48.

Please see Table 1 for a route-by-route summary of revenue per hour.

There are no set standards for limited service routes. However, they generally experience much higher passenger and revenue rates than the full service routes. The intent of limited service routes is to operate at or near seated capacity.

Please see Chapter Four for an overview of the Limited Service Route System.

**Table 1
Revenue per Hour
Weekday**

Route	Daytime Trips	Evening Trips	Total Trips	Route Length (in hours)	Total Revenue	Daytime Revenue per Hour	Evening Revenue per Hour	Total Revenue per Hour
# 6 Red	26	3	29	1.0	\$561.56	\$20.28	\$11.43	\$19.36
# 8 Green	13	3	16	1.0	273.59	18.94	9.12	17.10
# 9 Tan	13	3	16	1.0	241.63	16.07	10.90	15.10
# 2 Orange	25	7	32	0.5	213.44	15.26	6.49	13.34
# 4 Blue	13	3	16	1.0	211.80	14.30	8.64	13.24
# 7 Lime	26	3	29	1.0	353.39	12.39	10.45	12.19
#14 Pink	13	3	16	1.0	193.75	13.56	5.82	12.11
# 1 Brown	26	3	29	1.0	332.42	11.83	8.27	11.46
# 5 Plum	8	0	8	1.0	85.30	10.66		10.66
#11 Sky	13	3	16	1.0	164.41	11.88	3.33	10.28
# 3 Silver	13	0	13	1.0	125.74	9.67		9.67
SYSTEM STANDARD								\$9.17
#13 River	24	7	31	0.5	122.68	9.07	3.96	7.91
#10 Yellow	13	3.5	16.5	1.0	122.63	8.72	2.66	7.43
#17 Brick	13	3	16	1.0	107.04	7.61	2.70	6.69
#18 Gold	12	3	15	1.0	97.15	7.48	2.45	6.48
Total/System Average:					\$3,206.53	\$12.99	\$6.55	\$12.01

System Median:

\$11.46

System Standard:

\$9.17

Notes:

Daytime operations are from 5:15 AM to 6:00 PM.

Evening operations are from 6:00 PM to 9:45 PM.

Revenue is passenger generated only. Free fare passengers are not included.

#3 Silver and #5 Plum do not operate in the evening.

Passengers Per Hour

This standard evaluates the number of revenue passengers per hour. Each route should reach 80 percent of the system median of passengers per hour.

- The system standard for weekdays was 11.5 passengers per hour during the route review study period.
- On weekdays, the #6 Red route had the highest passengers per hour rate of 24.9.
- The poorest performing route was the #18 Gold, which carried only 8.1 passengers per hour.

Please see Table 2 for a route-by-route summary of passengers per hour. Green Saturday (everyone rides for free) passengers can be seen in Table 3.

**Table 2
Passengers per Hour
Weekday**

Route	Daytime Trips	Evening Trips	Total Trips	Route Length (in hours)	Total Hours	Total Passengers	Total Passengers per Hour
# 6 Red	26	3	29	1.0	29.0	721	24.9
# 8 Green	13	3	16	1.0	16.0	347	21.7
# 9 Tan	13	3	16	1.0	16.0	302	18.9
# 2 Orange	25	7	32	0.5	16.0	289	18.1
# 4 Blue	13	3	16	1.0	16.0	283	17.7
# 7 Lime	26	3	29	1.0	29.0	508	17.5
#14 Pink	13	3	16	1.0	16.0	267	16.7
# 1 Brown	26	3	29	1.0	29.0	419	14.4
#11 Sky	13	3	16	1.0	16.0	226	14.1
# 5 Plum	8	0	8	1.0	8.0	111	13.9
# 3 Silver	13	0	13	1.0	13.0	172	13.2
SYSTEM STANDARD							11.5
#13 River	24	7	31	0.5	15.5	158	10.2
#10 Yellow	13	3.5	16.5	1.0	16.5	157	9.5
#17 Brick	13	3	16	1.0	16.0	150	9.4
#18 Gold	12	3	15	1.0	15.0	122	8.1
Total/System Average:					267.0	4,232	15.9

System Median: 14.4

System Standard: 11.5

Notes:

Daytime operations are from 5:15 AM to 6:00 PM.

Evening operations are from 6:00 PM to 9:45 PM.

Revenue is passenger generated only. Free fare passengers are not included.

#3 Silver and #5 Plum do not operate in the evening.

**Table 3
Green Saturday**

Route	Hours of Service per Saturday	All Passengers Ride Free	Free Riders per Hour
# 1 Brown	11	238	21.6
# 2 Orange	11	211	19.2
# 3 Silver			
# 4 Blue	11	188	17.1
# 5 Plum			
# 6 Red	15	545	36.3
# 7 Lime	11	230	20.9
# 8 Green	11	371	33.7
# 9 Tan	11	258	23.5
#10 Yellow	11	96	8.7
#11 Sky	11	163	14.8
#13 River	11	113	10.3
#14 Pink	11	244	22.2
#17 Brick	11	146	13.3
#18 Gold	11	97	8.8
Total/System Average:	147	2,900	19.7

Notes:

#3 Silver and #5 Plum do not operate on Saturday.

Operating Ratio

The operating ratio of a route is determined by dividing a route's passenger revenue by the total operating expense. The standard for the operating ratio is 80 percent of the system median.

The operating expense of a route is determined by multiplying the total number of system hours by the cost per hour. The Green Bay Metro System has an estimated expense of \$84.83 per hour for 2016 (paratransit costs were removed from this figure starting in 2007 upon recommendation of the state).

Expenses include items such as driver wages and fringe benefits, fuel, bus maintenance, and insurance.

The operating ratio measure illustrates the percentage of revenue recovered. For example, on average the weekday full service system recovers 14.1 percent of all expenses, or 14.1 cents per every dollar spent operating the system (excluding the paratransit system).

- The system standard for weekdays was 10.8 percent during the route review study period.
- The #6 Red route had the highest operating ratio at 22.8 percent.
- The poorest performing route was the #18 Gold route, which had an operating ratio of 7.6 percent.

Please see Table 4 for a route-by-route summary of operating ratio.

**Table 4
Operating Ratio or Percent of Expenses Recovered
Weekday**

Route	Daytime Trips	Evening Trips	Total Trips	Route Length (in hours)	Total Hours	Total Revenue	Daytime Operating Ratio	Evening Operating Ratio	Total Operating Ratio
# 6 Red	26	3	29	1.0	29.0	\$561.56	23.9%	13.5%	22.8%
# 8 Green	13	3	16	1.0	16.0	273.59	22.3%	10.7%	20.2%
# 9 Tan	13	3	16	1.0	16.0	241.63	18.9%	12.9%	17.8%
# 2 Orange	25	7	32	0.5	16.0	213.44	18.0%	7.7%	15.7%
# 4 Blue	13	3	16	1.0	16.0	211.80	16.9%	10.2%	15.6%
# 7 Lime	26	3	29	1.0	29.0	353.39	14.6%	12.3%	14.4%
#14 Pink	13	3	16	1.0	16.0	193.75	16.0%	6.9%	14.3%
# 1 Brown	26	3	29	1.0	29.0	332.42	13.9%	9.8%	13.5%
# 5 Plum	8	0	8	1.0	8.0	85.30	12.6%		12.6%
#11 Sky	13	3	16	1.0	16.0	164.41	14.0%	3.9%	12.1%
# 3 Silver	13	0	13	1.0	13.0	125.74	11.4%		11.4%
SYSTEM STANDARD									10.8%
#13 River	24	7	31	0.5	15.5	122.68	10.7%	4.7%	9.3%
#10 Yellow	13	3.5	16.5	1.0	16.5	122.63	10.3%	3.1%	8.8%
#17 Brick	13	3	16	1.0	16.0	107.04	9.0%	3.2%	7.9%
#18 Gold	12	3	15	1.0	15.0	97.15	8.8%	2.9%	7.6%
Total/System Average:					267.0	\$3,206.53	15.2%	7.5%	14.1%

System Median: 13.5%
System Standard: 10.8%

Notes:

Daytime operations are from 5:15 AM to 6:00 PM

Evening operations are from 6:00 PM to 9:45 PM

Revenue is passenger generated only. Free fare passengers are not included.

#3 Silver and #5 Plum do not operate in the evening.

Loading Standards

Metro service should provide adequate seating to meet passenger demand. This standard is calculated by dividing the number of passengers at the maximum load point by the number of seats available. Green Bay Metro's buses have seating capacities of 25 to 45 passengers.

Off-Peak Loading Standard

The off-peak loading standard is 1.0. Factors of more than 1.0 indicate that some passengers are standing. During the off-peak periods, a seat should be provided to every passenger.

Peak Loading Standard

The peak loading standard should not exceed 1.25. During the peak periods, some passengers may be standing; however, passengers usually do not have to stand for long distances due to passenger turnover. The off-peak and peak loading standards are nationally accepted and apply to the Green Bay Metro System.

Metro operations staff monitors off-peak and peak loading conditions. When a route displays a large quantity of passengers on a particular run and passengers are forced to stand, strategies for mitigating the occurrences may be implemented, such as assigning a larger capacity bus to the route.

In general, peak periods for the Green Bay Metro System are considered to occur before school starts at approximately 6:45 a.m. until 8:45 a.m. and again when school lets out at approximately 2:45 p.m. until 4:45 p.m. on weekdays.

Standing Loads

Metro operations staff reports that standing occurs on a regular basis on the #4 Blue and #6 Red on weekdays and Saturdays. In some cases, drivers have had to turn passengers away because standing room was not available. These capacity problems force riders to wait until the next bus arrives, which could be thirty or sixty minutes later.

Schedule Adherence

The schedule adherence (on-time performance) of each route is monitored by Metro operations staff. Green Bay Metro's guideline is zero minutes early to five minutes late under normal conditions. The goal of a transit system should be 100 percent on-time operation. However, many factors, such as traffic conditions, rail and bridge crossings, mechanical failures, and inclement weather cause delays from time to time.

Metro uses an automatic vehicle locator system that determines the location of each bus and transmits the information back to the dispatch office where operations staff can observe on a large screen if the buses are adhering to the published schedule. Dispatchers can determine if a bus is running on time, running ahead of schedule, running behind schedule, or is off its route. Equipment in the buses will also let the drivers know if they are deviating from the schedule.

Seven full service routes currently cross the Fox River and/or active railroad tracks in downtown Green Bay. Delays due to train activity and watercraft movement at the Walnut Street, Nitschke (Main Street), and Tilleman (Mason Street) bridges can create schedule adherence problems for the system.

In 2015, Metro typically operated with a 93%-99% schedule adherence rate each month.

Full Service Fixed Route Results and Recommendations

Overall, ridership levels have declined by more than nine percent. This decline can be partially attributed to various changes made to reduce the need to transfer, low fuel prices incentivizing private automobile use, and annual fluctuations.

Year	Ridership
2011	1,542,287
2012	1,523,838
2013	1,482,429
2014	1,429,205
2015	1,394,851

Based on the performance evaluation and other circumstances, staff has identified the following concerns:

Weekday Service

Ridership and revenue statistics for the #10 Yellow, #17 Brick, and #18 Gold routes show that they all fall below system performance standards for established routes. The current route structures were introduced in late 2013. However, the areas served by the routes have performed at low levels for many years. Low ridership can be attributed to low population densities, few and far between transit generators, route directness, and a service frequency of only once per hour. National studies show that people are more likely to ride when service frequency is every 15 or 30 minutes.

Saturday Service

The system average for Green Saturday is over 19 passengers per hour, which is quite good.

Recommendation: Staff should continue to work with the communities and businesses served by the three routes and consider any changes that may lead to increased ridership.

CHAPTER FOUR

Limited Service Route (LSR) System Performance

Green Bay Metro operates 10 limited service routes. All limited service routes operate on regularly scheduled school days. All limited service routes are open to the general public.

Service

#65, #70, #71, #72, #73, #74, #75, #76, and #77 – The routes provide service in the City of Green Bay and Village of Allouez. Green Bay and Allouez share the local cost based on miles within their respective communities. Pass sales to the Green Bay School District help offset the local share. The routes are primarily used by students of the Green Bay School District who either live two or more miles away from school or have to cross a major obstacle to reach school. All routes are available to the general public.

#78 – This route operates exclusively in the Village of Ashwaubenon. Local funds are provided by the village. Revenue from pass and cash fares is generated primarily by middle and high school students traveling between home and school. This route is also available to the general public.

Ridership

As stated earlier, there are no set standards for limited service routes. However, LSRs generally experience high passenger per trip rates. The intent of this type of service is to operate at or near seated capacity.

In February of 2016, an average of 490 one-way trips were made each day. This means that an average of 245 middle and high school students used the limited service system each day. This produced an average of 27 passengers per trip and exceeded the buses' seating capacity in many cases.

Route #77, which operates in the Village of Allouez, carries an average of only 11 riders in the morning and six riders in the afternoon. Brown County Planning Commission staff recommends that Metro staff work with the village and the school district to address the issue.

Route #78, which operates in the Village of Ashwaubenon, carries an average of only four riders in the morning and 10 riders in the afternoon. The route has performed at a low level for quite some time. Brown County Planning Commission staff recommends that Metro staff work with the village and the school district to address the issue.

**Table 5
Limited Service Routes
Passengers**

Limited Service Route	Passengers	Limited Service Route	Passengers
#65 a.m.	37	#75 a.m.	31
#65 p.m.	28	#75 p.m. (two loops)	53
#70 a.m.	30	#76 a.m.	10
#70 p.m.	30	#76 p.m.	28
#71 a.m.	45	#77 a.m.	11
#71 p.m.	73	#77 p.m.	6
#72 a.m.	17	#78 a.m.	4
#72 p.m.	16	#78 p.m.	10
#74 a.m.	33		
#74 p.m.	28		
Total Passengers:			490
Average Passengers per Trip:			27

Note:

Limited Service routes operate on a published schedule and are open to the general public.

CHAPTER FIVE

Paratransit Program

Paratransit is an alternative to the fixed route system. It is intended for people who cannot be served by Metro's fixed route buses due to disabilities. Service is more flexible in terms of scheduling and routing, is offered on a demand/response basis, and is usually provided by low capacity vehicles, such as vans or small buses. Paratransit is meant to be complementary to the fixed route system in terms of service area, service days and hours, and cost.

The Americans with Disabilities Act (ADA) became law on July 26, 1990. The law is intended to provide equal access rights for people with disabilities in the areas of employment, public services, public transportation, private accommodations, and telecommunications. The law requires recipients of Federal Transit Administration (FTA) funds, such as Green Bay Metro, to prepare a program for providing transportation services to people with disabilities by using both lift-equipped fixed route service and complementary paratransit service. Individuals are eligible to use ADA public transportation service or paratransit if they satisfy disability standards established by the ADA.

Metro has contracted with several private companies since 1988 to provide paratransit service. In 2011, MV Transportation began providing paratransit services. The contract with MV was renewed in 2015 after Metro completed a competitive bidding process.

Paratransit Contract Rates

MV currently receives \$23.39 per passenger for each one-way trip. The cost per trip is adjusted annually based on parameters set in the contract. Green Bay Metro also provides the fuel to operate MV's revenue vehicles.

Agency Trips

Agency trip rates were approved by the Transit Commission and introduced on February 2, 2012. An agency is defined as an organization that serves persons who qualify for human service- or transportation-related programs or services due to disabilities, income, or advanced age. Many paratransit clients fall under the umbrella of a local agency. For example, a paratransit client that receives financial support from a program administered by the Brown County Human Services Department and travels to the CP Center for therapy three times per week would be charged the agency rate for the home-to-CP and CP-to-home trips. Agency fares are permitted under USC 49 CFR Part 37.131(c).

Many transit systems in Wisconsin have implemented an agency rate. Agency rates can vary from a modest charge to the full cost of providing the qualifying trip. Currently, Metro's agency rate is \$15.00 per one-way trip. For comparison, Metro Transit in Madison charges the passenger for the entire cost of each one-way trip which is \$33.75.

Green Bay Metro offers advance-purchase convenience tickets for \$3.00 (regular rate) or \$15.00 (agency rate). Clients may also pay cash upon boarding the paratransit vehicle.

The table below summarizes the number of trips and the trip costs associated with the paratransit program. These data do not include Metro staff time associated with the program.

Paratransit Program 1998-2015

Year	Trips	Trip Costs*	Cost Increase/ Decrease	Percent Cost Increase/Decrease
1998**	69,621	\$602,918		
1999	81,571	\$908,077	\$305,159	51%
2000	94,057	\$1,081,756	\$173,679	19%
2001	97,000	\$1,161,209	\$79,453	7%
2002***	98,320	\$1,484,632	\$323,423	28%
2003	96,509	\$1,515,223	\$30,591	2%
2004	100,601	\$1,664,826	\$149,603	10%
2005	96,039	\$1,639,625	-\$25,201	-2%
2006****	72,979	\$1,305,135	-\$334,490	-20%
2007	69,499	\$1,243,337	-\$61,798	-5%
2008	69,140	\$1,337,548	\$94,211	8%
2009	68,868	\$1,313,787	-\$23,761	-2%
2010	67,384	\$1,337,797	\$24,010	2%
2011*****	63,337	\$1,330,561	-\$7,236	-1%
2012	59,399	\$1,393,869	\$63,308	5%
2013	55,821	\$1,543,765	\$149,896	11%
2014	54,477	\$1,440,195	-\$103,570	-7%
2015	48,899	\$1,195,321	-\$244,874	-17%

* Trip cost includes fuel escalator payments from 2006-2011.

** Under contract with Lamers, Inc. exclusively beginning in 1998.

*** Start of four and one-half year contract in January with four-month extension with Medi-Vans.

**** Start of four and one-half year contract in November with Medi-Vans. Service area reduction implemented.

***** Start of first contract in May with MV Transportation. Metro pays for all fuel and cost is included. Second contract awarded to MV in 2015.

CHAPTER SIX
Fare Structure

Fares

Green Bay Metro's past and present fare structures are shown below. Metro has been successful in maintaining fares below the average of its peers.

Green Bay Metro Fares

Fare Category	1998	2003	2005	2009	2016
Adult					
Cash	\$1.00	\$1.25	\$1.50	\$1.50	\$1.50
Day Pass - Introduced in 2012					\$3.00
Week Pass - Introduced in 2012					\$12.00
30-Day Pass	\$21.50	\$23.00	\$26.00	\$35.00	\$35.00
Student (K-12)					
Cash	\$1.00	\$1.25	\$1.50	\$1.50	\$1.00
Day Pass - Introduced in 2012					\$2.00
30-Day Pass	\$16.00	\$16.00	\$19.00	\$19.00	
30-Day Pass - Increase on 7/1/13					\$20.00
Reduced (Age 65+/ qualifying Disability w/ ID Card)					
Cash	\$0.50	\$0.60	\$0.75	\$0.75	\$0.75
Day Pass					\$1.50
30-Day Pass	\$10.75	\$12.25	\$15.25	\$25.00	\$25.00
Disabled Veterans w/ Service-Connected ID					Free
Green Saturday - Introduced in 2011					Free
Paratransit					
Origin to Destination	\$2.00	\$2.50	\$3.00	\$3.00	\$3.00
Agency Fare-Origin to Destination - Began on 7/1/15					\$15.00

CHAPTER SEVEN
Bus Fleet and Other Capital Needs

Bus Fleet

The table below details Green Bay Metro’s 2016 bus fleet:

Bus Quantity	Year	Make	Length	Age of Vehicles in Years
3	1999	DuPont Trolleybus	34’	17
9	2003	New Flyer	30’	13
3	2004	New Flyer	30’	12
9	2009	New Flyer	35’	7
10	2011	Gillig	35’	5
4	2015	Gillig	40’	1
Average age of the 38 active buses:				8.45

Peak Bus Requirements

The full service route system requires 25 buses during peak operations. Although Metro has the necessary number of buses to provide this level of service at the present time, there is a need for newer and additional high-capacity buses.

Bus Replacement Guidelines

The Federal Transit Administration (FTA) has established a standard that each transit vehicle should be either retired or rehabilitated at the end of its normal service life. Normal service life for transit vehicles is considered to be 500,000 travel miles or 12 years for transit buses greater than or equal to 35 feet in length and 10 years for transit buses that are less than 35 feet. Metro staff has done an excellent job maintaining vehicles for use beyond their expected lifespans. However, maintenance costs increase with age. A total of 15 of Metro’s 38 buses exceed the standard.

Bus Replacement and Capital Needs

In 2012, Congress passed and the President signed the federal transportation law Moving Ahead for Progress in the 21st Century (MAP-21). MAP-21 dramatically reduced funding for bus and other capital items. This reduction added to an already significant backlog of unmet capital needs for transit systems throughout the country, including Green Bay Metro.

In December of 2015, the Fixing America’s Surface Transportation (FAST) Act was signed into law. The FAST Act increased funding for transit capital, but it is still well below pre-MAP-21 levels. As a result, Green Bay Metro has not been able to replace buses at the end of their normal service lives.

As noted in the bus fleet table, Metro took delivery of four 40’ buses in late 2015. Three of these buses were purchased through the Federal Highway Administration’s Surface Transportation Program – Urban (STP-U) that is administered by the Green Bay Metropolitan Planning Organization (MPO), and one was purchased through the traditional FTA capital program.

Metro also secured approximately 54% of the funds needed for two buses through the MPO's 2016-2020 STP-U program, and delivery is expected in 2017.

With the two buses expected to be delivered in 2017, it is anticipated that Metro will need an additional 10 new buses by 2019. Therefore, it is recommended that 40' buses be purchased as soon as possible to begin replacing the 2003 and 2004 New Flyer buses. Multiple routes would benefit from the increased seating capacity that 40' buses offer because passengers are often required to stand for trips that are currently provided by Metro's smaller buses.

Non-bus capital requests for 2016 are shown below. Funding is pending.

Project	Cost	Federal Funds
Transitway Resurface	\$130,000	\$104,000
Generator	\$60,000	\$48,000
Bobcat with snow plow or blower	\$25,000	\$20,000
Transfer Point Improvements	\$15,000	\$12,000
Total:	\$388,000	\$311,000

CHAPTER EIGHT

2015 Programs and Initiatives

Fixed Route Service.

#6 Red. As a result of standing passenger loads, Metro implemented four additional #6 Red trips on Saturdays with downtown departures at 12:15 pm, 1:15 pm, 2:15 pm, and 3:15 pm. This service began on February 21, 2015. Ridership reports indicate that the additional service has proven effective in relieving capacity issues.

#9 Tan. The #9 Tan route replaced the second of two #8 Green buses. The #9 Tan acts as counterclockwise service to the #8 Green and serves the same general area. This change resulted in additional timing options for riders and improved service on weeknights and Saturdays. The #8 Green/#9 Tan route pair meet the system's established performance standards.

#13 River. In 2015, Green Bay Metro staff developed and implemented a full service bus route that exclusively provides service to the east and west sides of downtown Green Bay. The #13 River provides 30-minute service from the Transportation Center with the use of one bus. The route was developed to allow existing routes that previously snaked through downtown to use the time to increase service on the urban area periphery and/or improve schedule adherence. As a result of the implementation of the #13 River, small-scale adjustments were made to established routes serving the downtown area.

Data indicate that the #13 River is performing at approximately 70% of the of system standards, which, for a new route, is acceptable. However, it should be noted that it is very likely that the service pulled riders away from established routes, resulting in no noticeable increase in overall ridership at this time. In addition, because of the area's limited river crossings, many Metro routes continue to serve the downtown area to some degree.

#19 G Route. The #19 G route was established in 2015 through a partnership between Green Bay Metro and the Green Bay Packers. The route, billed as "Downtown to Titledown", provided 30-minute service between Downtown Green Bay and the Titledown District and offered direct service between dozens of tourist attractions, restaurants, and shopping sites.

The #19 G route operated from July 16 through September 25, 2015. A total of 3,898 trips were made over 61 service days.

The Green Bay Packers provide a direct subsidy to offset the local (municipal) share as well as the passenger (fare) portion of the cost to provide the service. This arrangement allows all passengers to ride for free. Federal and state public transportation grants covered the balance of the route's expenses.

The performance of the #19 G was as follows in 2015:

Daily Trips	Average Passengers per Day*	Passengers per Hour
23 One-Hour Trips per Weekday	58	2.5
15 One-Hour Trips per Saturday	77	5.1
Performance expectation for New Routes		5.0-10.0
Satisfactory Performance for Established Routes		15.0+

*Includes service on days of open-to-the-public practice and Family Night events.

Factors that may have contributed to low-ridership include the following:

- **Land Use.** An extensive amount of vacant land exists in the Titledown District that was served by the #19 G. This land is owned by the Packers and is planned to be the location for the Packers' Titledown District development.

Aerial Photo of Vacant Land West of Lambeau Field

Courtesy of Google Earth



- **Competition with Free Parking.** As with most popular destinations within the Green Bay Metro service area, free or low-cost parking is readily available.
- **Duplicative Service:** Many of the areas served by the #19 G are already served by one of Metro's other routes, including the #3, #4, #5, #6, #8, #9, and #13 routes. Although alternative routes require a fare, many existing riders purchase daily, weekly, or 30-day *unlimited* pass media. Therefore, the fact that route #19 G is free is of no advantage to many core riders.
- **Fee for Transferring.** If a potential rider's origin *and* destination are served by the #19 G, the trip can be made for free. However, if the potential rider requires a transfer, a fare is required. For example, an out-of-town guest is staying at a hotel in the I-43 Business Center and has a Lambeau Field Entertainment District destination. The individual would be required to pay a fare on the #14 route prior to transferring to the free #19 G route.

Future Transit Service to the Titledown District

Work is currently underway to bring an upscale hotel, brewery, health care facility, townhomes,

and public plaza to the 34-acre mixed-use district that is west of Lambeau Field.

Titletown District Development Illustration

Courtesy of the Green Bay Packers



Metro staff should monitor the progress of the Titletown District and consider direct transit service as the project comes to fruition.

Green Bay Metro East Side Route Study

In 2011, Green Bay Metro established a transfer point at Green Bay Plaza on the west side of Green Bay and realigned many of its routes on the west side of the Fox River to provide more efficient service for customers and extend the reach of the west side routes. In May of 2015, Brown County Planning Commission staff released the *Green Bay Metro East Side Route Study* which identifies routing options and service levels aimed at accomplishing the same goals on the east side of the Fox River.

A full copy of the report can be found at:

<http://www.public.applications.co.brown.wi.us/plan/planningfolder/transpotation/East%20Side%20Route%20Study%20FINAL%2007302015.pdf> or go to <http://www.co.brown.wi.us/> and click on Departments, Planning, Transportation, and Transit Planning.

Bus Stops

Green Bay Metro Comprehensive Bus Stop Study

Brown County Planning Commission staff completed the Green Bay Metro Comprehensive Bus Stop Study at the end of 2014. This study assesses each fixed route bus stop's level of use, amenities, and accessibility. The study also provides recommendations for improving bus stops that were found to be heavily used during the study period.

A passenger shelter was placed at the Oneida Street transfer point in 2015.

Bus Stop Before Improvements



Bus Stop After Improvements



Green Bay Metro offers 51 shelters throughout the area which includes nine new shelters that were installed in 2015. It is anticipated Metro will install an additional five shelters in 2016.

Fixed Route Passenger Survey Conducted

As part of the development of the *Green Bay Metro East Side Route Study*, passengers were surveyed regarding a number of issues including trip type. The results below demonstrate that transit is necessary for businesses to access the local workforce.

Trip Type	Percent of Responses
Work	43%
School	17%
Combined	12%
Other	10%
Shopping/Dining	7%
Medical	5%
No Answer	6%
Total:	100%

Completion of a Green Bay Metro Strategic Plan

In early 2011, Green Bay Metro commissioned the development of a strategic plan. The plan development process was facilitated by Dr. Meir Russ of the University of Wisconsin-Green Bay, and the plan’s advisory team consisted of Green Bay Metro staff, a Green Bay Transit Commissioner, MPO staff, and representatives of the Greater Green Bay Area Chamber of Commerce and the area’s business community. Dr. Russ was chosen to facilitate the plan development process because of his expertise in the fields of knowledge management and strategic planning.

Dr. Russ led the advisory team through a series of working sessions. The group completed a number of activities and developed the following strategic goals for Metro:

1. Safety
2. Dependability
3. Growth
4. Financial sustainability
5. Create/add value

As the strategic plan was taking shape, changes to Metro’s management resulted in the plan development effort being discontinued in favor of other priorities.

In 2015, Green Bay Metro staff expressed interest in completing the strategic plan. A number of alternatives are being evaluated with the goal of having an approved plan by 2016.

Green Saturday Program

The Green Bay Transit Commission implemented Green Saturday in 2011. This program allows everyone to ride the fixed route bus system for free on Saturday.

The program was designed to encourage non-riders to try Green Bay Metro at no cost with the intention of converting them to fare-paying passengers on weekdays.

According to a recent survey, 16% of weekday and 9% of Saturday respondents indicated that they have paid to use the weekday bus service as a result of trying the bus for the first time on Green Saturday.

Reaction to the program has been positive, and Saturday ridership has increased from approximately 1,000+ to 2,500-3,000+ unlinked trips per Saturday.

U-Pass Program

The U-Pass (or Universal Pass) Program began on July 1, 2008. The program allows participants an unlimited number of rides on any Green Bay Metro bus by scanning an authorized identification card.

Students, faculty, and staff of UW-Green Bay, Rasmussen College, and St. Norbert College may participate in the program.

A total of 39,898 one-way trips were made with the U-Pass in 2015. The distribution of these trips is summarized below.

U-Pass Participant	2014 Unlinked Trips	2015 Unlinked Trips
UW-Green Bay	34,116	35,106
Rasmussen College	262	133
St. Norbert College	5,280	4,659
Total:	39,658	39,898

Green Bay is reimbursed for the trips by the participants at agreed-upon rates.

Other Opportunities

Green Bay Metro is hopeful that similar arrangements can be made with other educational institutions and other local businesses and entities.

Green Bay Packers Game Day Service



CHEESEHEAD



QB SNEAK



QUICK SLANT



LAMBEAU LEAP

In 2011, Green Bay Metro began to provide game day service to and from all Packers home games. The service is free and open to the public.

Route guides are produced annually and distributed at businesses along the routes as well as posted on Metro's website. Bus stop signs have been installed along the four routes providing service including the #29 Cheesehead, #30 QB Sneak, #31 Lambeau Leap, and #36 Quick Slant.

Area residents and visitors have taken advantage of the service to get to work, be part of the game day activities at businesses served by the routes, and to attend the games at Lambeau Field. The ridership totals for the service are shown below. Please note that the data includes pre- and post season games. Service levels may vary season to season.

Season	One-Way Trips
2011/2012	20,616
2012/2013	25,527
2013/2014	26,953
2014/2015	29,352
2015/2016	26,333

The additional advertising revenue received from themed wrapped buses partially offsets the cost of the Packers Game Day Service.

It is anticipated that the program will continue during the 2016/2017 season.

Bike Rack Use

In 2007, Green Bay Metro received a grant and installed bicycle racks on all buses.

The addition of bike racks has expanded Metro's service area as passengers are able to utilize biking on either end of their commute. In 2015, bicycle rack use reached 14,840.

In the photo below, a Green Bay Metro passenger is shown boarding the bus after loading his bicycle onto the front rack. The racks are easy to use and allow bicyclists to load and unload their bicycles within seconds. Metro does not charge an additional fee for bike rack use.



Photo: Brown County Planning Commission.

Bike Rack Use by Month

Month	2014	2015
January	411	690
February	448	654
March	601	912
April	986	1,347
May	1,344	1,718
June	1,546	1,785
July	1,788	1,672
August	1,563	1,420
September	1,622	1,383
October	1,637	1,332
November	974	1,019
December	603	908
Total:	13,523	14,840
Average per Month:	1,127	1,349

Note: All Green Bay Metro buses are equipped with a bike rack which can accommodate two bicycles.

Mobility Device Use on the Fixed Route Bus System Reaches All-Time High

A mobility device is designed to assist with walking or otherwise improve the mobility of people with a mobility concern. Devices can include electric wheelchairs and scooters and manually-operated aids such as walkers and crutches.

All of Green Bay Metro buses are equipped with the necessary equipment to load, unload, and secure standard wheelchairs and scooters as required by law.

In 2015, Metro experienced 7,585 trips made by passengers using a mobility device. Passengers using a mobility device may qualify for reduced fares. Metro staff also offers free one-on-one mobility device boarding and alighting training upon request. Metro does not charge a fee for mobility device usage.

Mobility Device Boardings

Month	2014	2015
January	256	422
February	290	295
March	507	600
April	715	750
May	785	685
June	750	728
July	716	858
August	742	679
September	650	719
October	724	710
November	547	521
December	480	618
Total:	7,162	7,585
Average per Month:	597	690

Note: All Green Bay Metro buses are equipped with the necessary equipment to accommodate standard and electric wheelchairs.

CHAPTER NINE

Plans and Programs

2014-2018 Transit Development Plan (TDP) for the Green Bay Metro System

In 2013, the Brown County Planning Commission staff, in conjunction with the Green Bay Metro staff and an advisory committee, prepared the 2014-2018 Transit Development Plan (TDP) for the Green Bay Metro System. A TDP is a five-year plan designed to evaluate route structure, fares, capital improvement projects, policies and procedures, and general operational functions for a transit system. Long-range issues beyond 2018 were also addressed. The TDP was approved by the Green Bay Transit Commission on November 25, 2013. The recommendations and implementation status are as follows:

2014-2018 TDP Recommendations and Implementation Status

Item	Recommendation	Status
Bus Fleet	Apply for 40-foot buses to replace aging vehicles and vehicles that have been removed from service due to condition.	<p>Three 40-foot buses have been approved through the Federal Surface Transportation Program-Urban (STP-U). One additional bus funded via traditional FTA capital funds. Delivered in late 2015.</p> <p>Additional two 40-foot buses approved at approximately 54% via STP-U in 2015. Delivery anticipated in 2017.</p> <p>Additional buses applied for through Section 5339 but not currently funded.</p>
Regional Transportation Authority (RTA)	Establish an RTA in the area to offset the decreases in federal and state operating assistance provided to Green Bay Metro since reaching an urbanized area population of 200,000.	The state enabling legislation that is necessary to create an RTA does not exist.
Full Service Bus Routes	Green Bay Metro staff, with the assistance of the MPO, should continue to explore route restructuring options to maximize effectiveness.	Metro and planning staffs are evaluating east side route restructuring options and locations for a possible east side hub. East Side Study report issued in 2015.

Fixed Route System Fares	Metro should continue to maintain a fare structure that is appealing to existing and potential riders.	Green Bay Metro continues to maintain fares at levels lower than the average of its Wisconsin peers.
U-Pass Program	Expand the program to include other post-secondary institutions and others. UW-Green Bay, St. Norbert, and Rasmussen College are participants.	Other entities are encouraged to participate.
Paratransit Program	Continue to study the feasibility of taking over vehicle management, dispatch and scheduling, and/or other aspects of the paratransit program with the goal of reducing the overall cost of the program.	<p>Metro has secured funding for scheduling and dispatch software and anticipates acquisition and implementation of this portion of the service in approximately two to three years. Paratransit vehicles are identified in the Transportation Improvement Program (TIP), but are not funded.</p> <p>MV Transportation was awarded paratransit program contract in 2011. A second contract was awarded in 2015, and this contract will expire in 2018.</p>

In 2018, Brown County Planning Commission staff will prepare the 2019-2023 Transit Development Plan (TDP) for the Green Bay Metro System.

Wisconsin Department of Transportation (WisDOT) Independent Management Audit

In 2012, SRF Consulting Group was hired by WisDOT to perform management audits for several transit properties in Wisconsin, including Green Bay Metro. This review is conducted approximately every five years and addresses 10 functional areas.

SRF issued its final report entitled Green Bay Metro – System Management Performance Review, in November 2012.

In general, the consultants found Green Bay Metro to be operating very efficiently. Below is a list of the functional areas and SRF's recommendations:

Functional Area	Recommendation	Status
1. Accounting, Finance, & Purchasing	No Recommendation	
2. Personnel & Labor Relations	No Recommendation	
3. Transportation Operations	No Recommendation	
4. ADA Paratransit Service	No Recommendation	
5. Safety Management & Training	No Recommendation	
6. Long- & Short-Range Planning	No Recommendation	
7. Scheduling	No Recommendation	
8. Marketing	a. Add translation functionality to website or offer multilingual information (such as Google Translate).	a. Implemented in 2013.
9. Vehicle & Facility Maintenance	a. Purchase & install backup generator capable of powering all essential functions for transit operations. b. Investigate the potential benefits of implementing a more advanced inventory system using barcode or other scanning technology.	a. Programmed. Metro staff to use balance of 2012 capital grant. b. Investigated. Metro staff does not plan on implementing.
10. Information Technology	No Recommendation	

Green Bay Metro Management Plan

The following represents a summary of the 2016 goals prepared by Metro staff as part of the budget process.

Goals for 2016:

1. Establish a “Safe Stop” program. Review current procedures for alighting and boarding passengers in compromised areas.
2. Review the process and timeline for implementing the East Side Study.
3. Prepare for the Federal Transit Administration Triennial Review in spring of 2016.
4. Expand advertising opportunities.
5. Continue to explore funding alternatives to assist in capital needs.
6. Monitor route frequency needs.
7. Explore options for new marketing materials.

CHAPTER TEN

Summary of Recommendations

The Brown County Planning Commission staff recommends the following:

1. Staff should continue to closely monitor the performance of all bus routes by conducting ridership analyses on a quarterly basis.
2. Metro staff should work with affected parties to increase ridership on the #77 and #78 limited service routes.
3. Monitor the progress of the new Tiletown District and consider implementing direct fixed route bus service.
4. The Transit Commission should encourage the City of Green Bay to continue to set aside the necessary local share for future bus acquisitions and other future capital needs.
5. Monitor the progress of any legislation or activities relating to future funding for operating and capital projects.
6. Continue to inform elected officials and interested parties of the need for a transit funding solution.
7. Continue to implement recommendations in the 2014-2018 TDP.
8. Implement the Management Plan goals 2016.

APPENDIX A

