



Kimley»Horn



# GRAND FORKS TRANSIT DEVELOPMENT PLAN

Existing Conditions Report

AUGUST 2016





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## COMMUNITY PROFILE

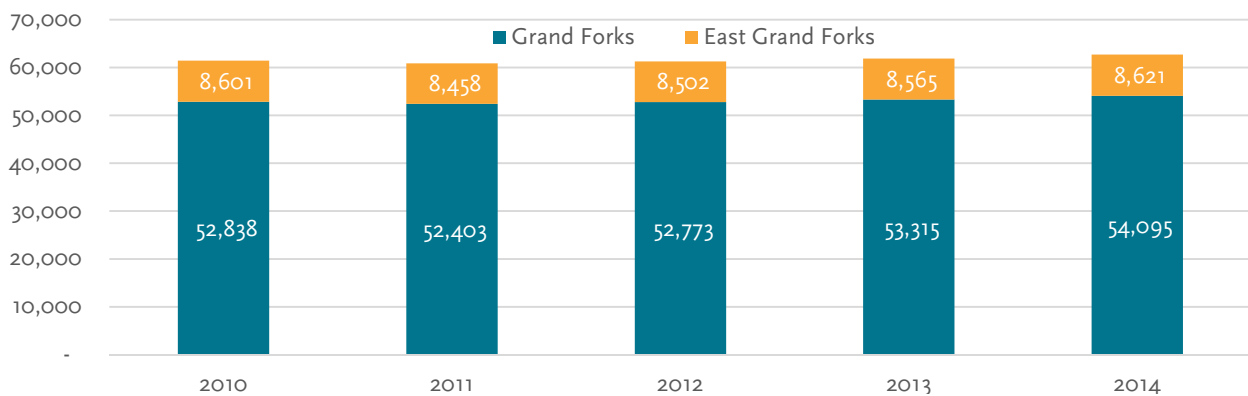
Cities Area Transit provides fixed route and demand response public transportation for Grand Forks, North Dakota and East Grand Forks, Minnesota. Cities Area Transit (CAT) operates thirteen fixed routes serving major employment, education, shopping and entertainment centers in the metro. Under its demand response service, CAT operates origin-to-destination Dial-a-Ride service for individuals who meet Americans with Disabilities Act compliant eligibility requirements and Senior Rider service for those 62 and older. Contained within this report is an existing conditions analysis including the community profile and performance of CAT service.

## DEMOGRAPHICS

### Population and Households

Since the 2010 Census, East Grand Forks' population has remained stable while Grand Forks' population has seen low, but increasing annual growth since 2011. These numbers are based on the American Community Survey 5-Year Estimates, which are slightly lower estimates than the annual Census estimates used in the recently updated land use plans. Total population reach 62,700 in 2014, its highest level since before 2010.

Figure 1: Population for Grand Forks and East Grand Forks Cities



Source: American Community Survey 5-Year Estimates

There are nearly 23,000 households in Grand Forks and 3,500 in East Grand Forks.

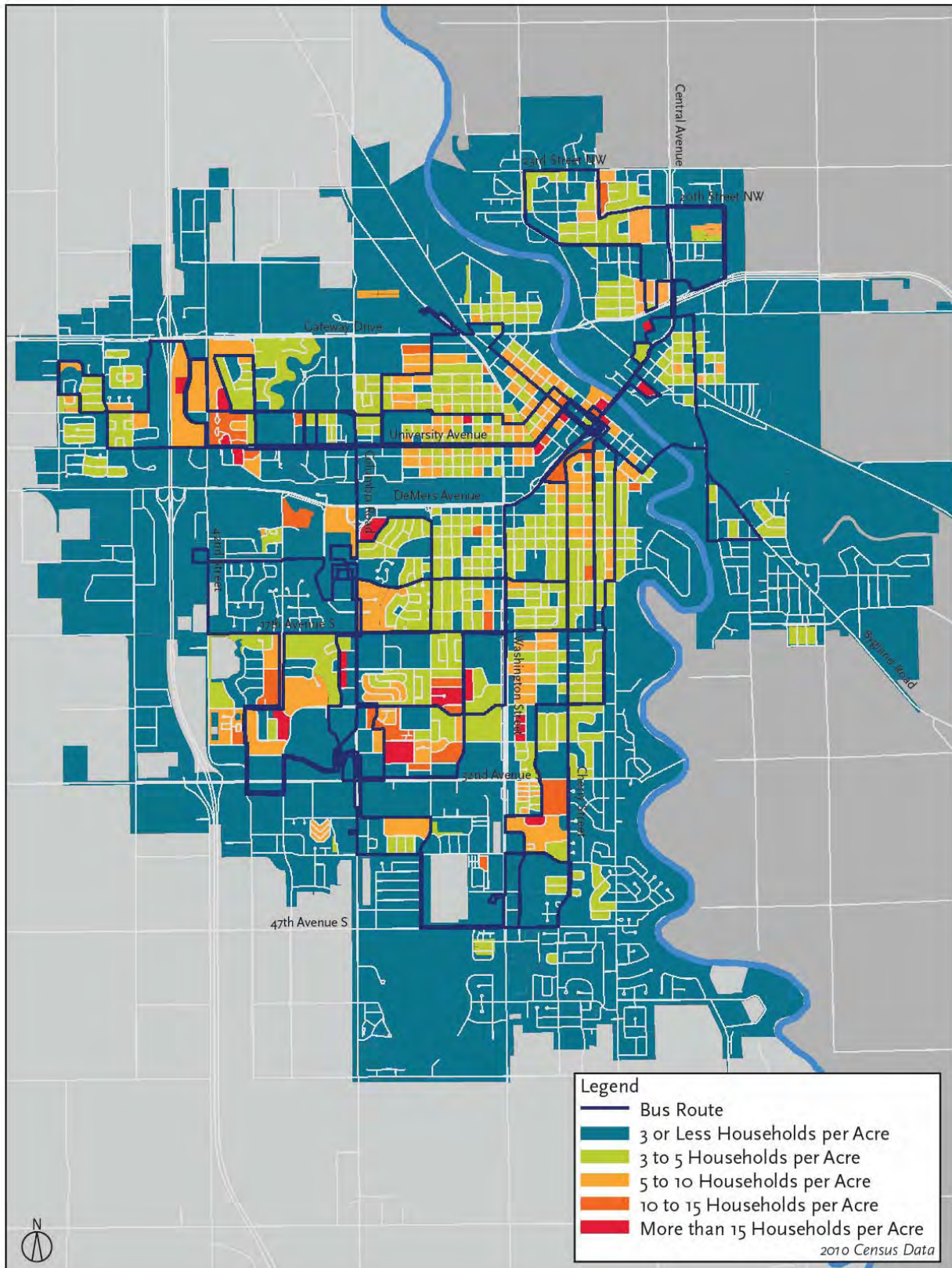
- » The average household size is 2.19 in Grand Forks and 2.46 in East Grand Forks, both are lower than their respective state average.
- » 22.2 percent of Grand Forks and 30.6 percent of East Grand Forks households have children under 18.
- » Over half, 53.3 percent, of Grand Forks and a third, 37.2 percent, of East Grand Forks housing units are renter-occupied.

Table 1: Housing Characteristics

	Grand Forks	East Grand Forks
Households	22,844	3,460
Average Household Size	2.19	2.46
Households With Children Under 18	22.2%	30.6%
Households with Someone 60 Year or Over	24.6%	33.2%
Renter Occupied	53.3%	37.2%

Source: American Community Survey 5-Year Estimates

Figure 2: 2010 Household Density per Acre



## Age

Grand Forks and East Grand Forks are younger than the United States and their respective state average. The median age in Grand Forks is just 28.1 years while in East Grand Forks it is 34.1 years. Certain ages are more likely to use transit, like primary and secondary students who may bus to school and seniors who are unable or unwilling to drive themselves. These groups represent 41 percent of Grand Forks' total population and 54.8 percent of East Grand Forks' population. Another group perceived to be more inclined to use transit is the college-age population, which is 25.8 percent of Grand Forks and 7.3 percent of East Grand Forks.

Table 2: Age Profile

	Grand Forks	East Grand Forks
Median Age	28.1	34.1
School Age (5 to 17)	12.5%	17.1%
18 to 24	25.8%	7.3%
Seniors (62+)	28.6%	37.7%

Source: American Community Survey 5-Year Estimates

## Income

The median household income in Grand Forks just exceeds \$44,000, while in East Grand Forks the median household income is just slightly above \$51,000. Both Grand Forks and East Grand Forks have lower median household incomes when compared to their respective state.

Table 3: Income Profile

	Grand Forks	East Grand Forks
Median Household Income	\$44,134	\$51,167
Below Poverty: All People	21.4%	10.6%
Below Poverty: Under 18	21.3%	9.9%
Below Poverty: Over 65	10.3%	11.6%

Source: American Community Survey 5-Year Estimates

In terms of poverty, more than 21 percent of all Grand Forks residents have incomes below the poverty line, compared to just 9.9 percent in East Grand Forks. While East Grand Forks' population in poverty is about one-half a percentage point lower than Minnesota statewide, Grand Forks' population in poverty is 80 percent higher than North Dakota statewide.

## Vehicle Access

The inability to access a private auto is often considered one of the strongest components of transit ridership. In Grand Forks, 8.4 percent of all households do not have access to a vehicle and nearly 20 percent of 2-person or more households only have access to one vehicle. In East Grand Forks, 10.6 percent of all households do not have access to a vehicle and 23.1 percent of 2-person or more households only have access to one vehicle.

Table 4: Vehicle Access

	Grand Forks	East Grand Forks
No vehicle available	8.4%	10.6%
1 vehicle available	37.9%	31.0%
2 vehicles available	35.6%	42.4%
3 vehicles available	13.3%	12.5%
4 or more vehicles available	4.9%	3.5%

Source: American Community Survey 5-Year Estimates

## Environmental Justice Areas

Environmental justice refers to the fair treatment and meaningful involvement of people from all races, cultures, abilities and incomes during the development of projects. It seeks to ensure that minority and low-income populations are not disproportionately burdened by transportation planning and policies. Environmental justice areas included in Figure 6 was provided by the Grand Forks – East Grand Forks Metropolitan Planning Organization.

Figure 3: Percent of Population 65 or Over by Census Block Group

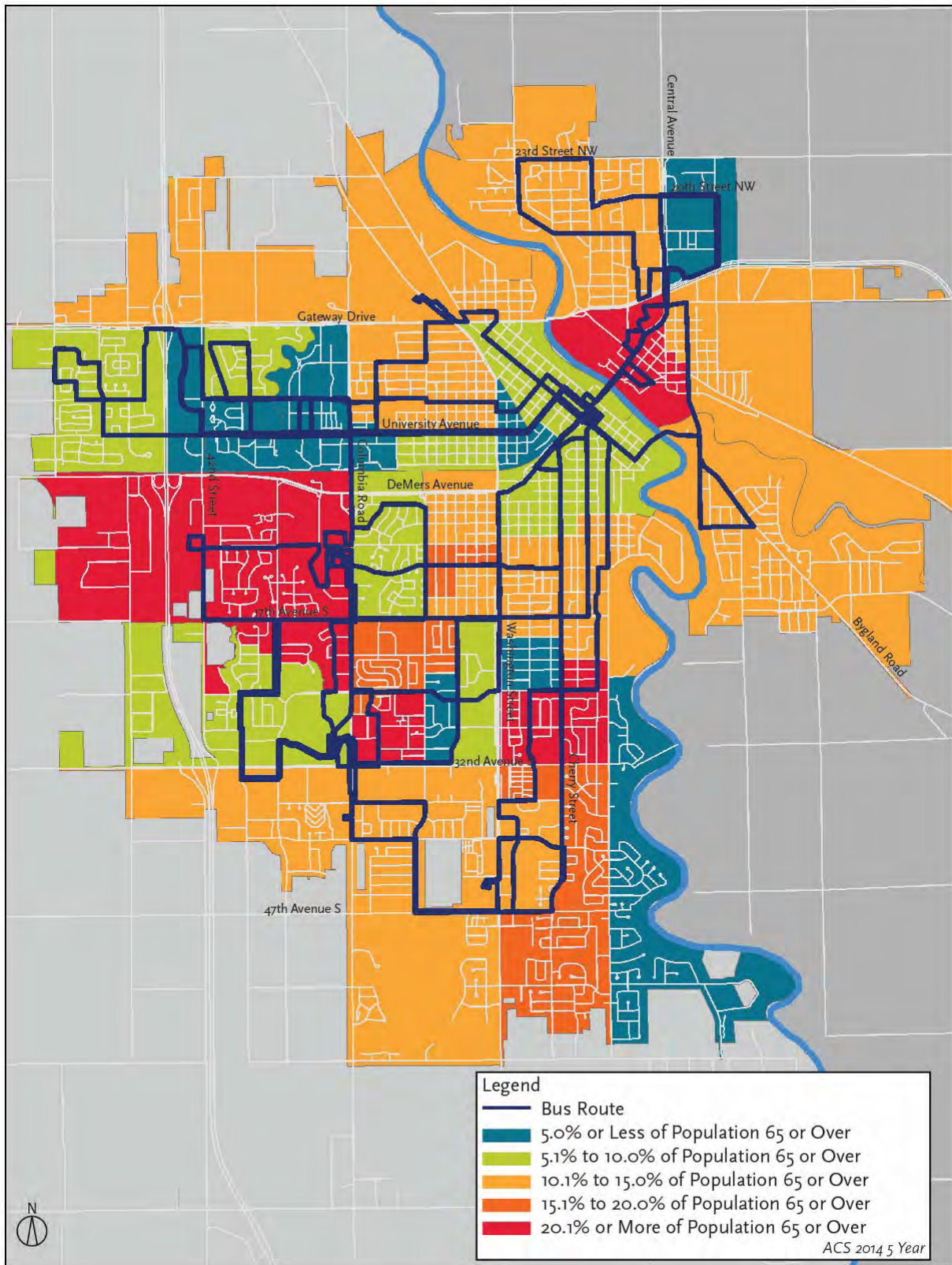




Figure 4: Poverty Characteristics by Census Block Group

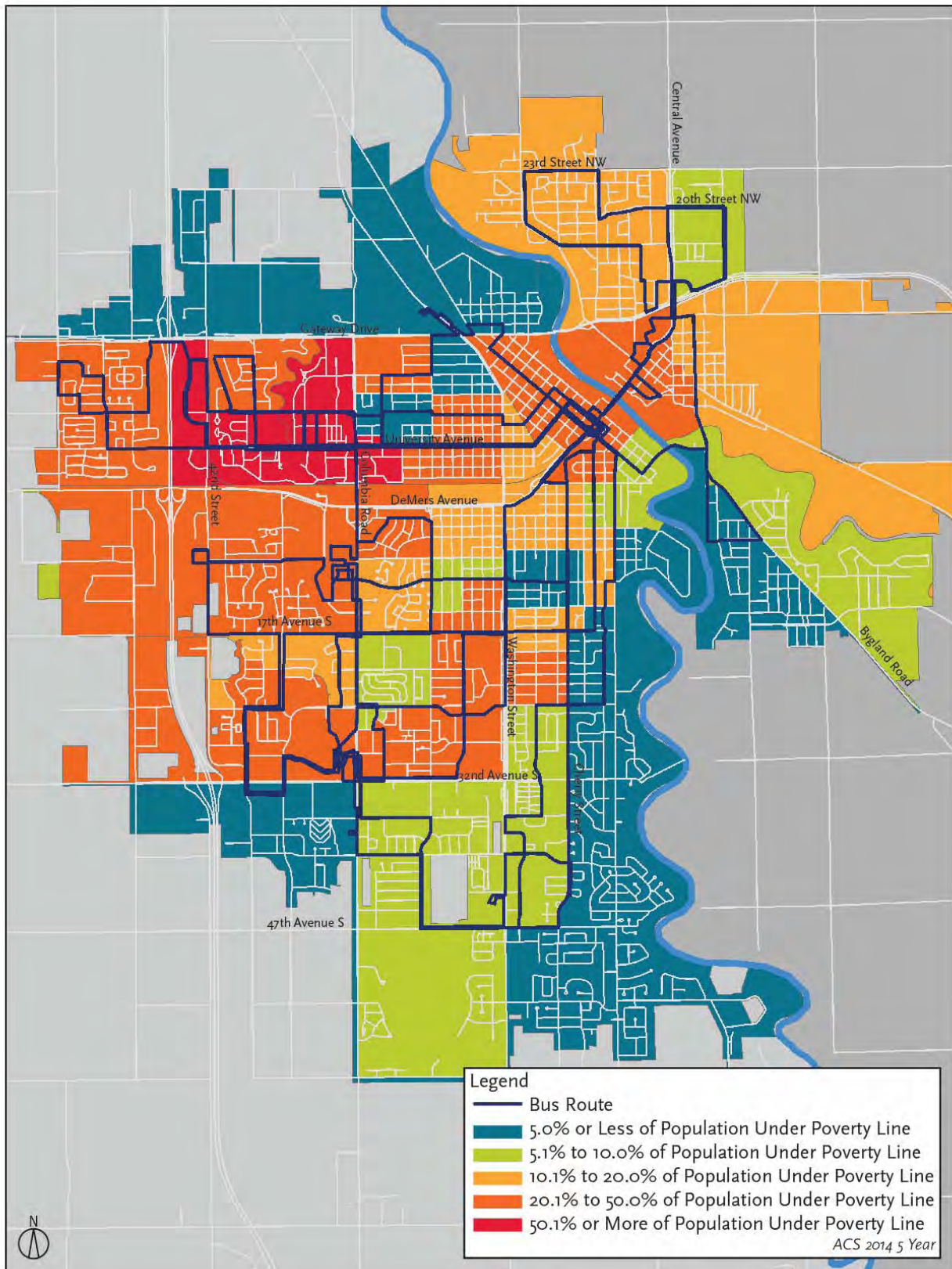


Figure 5: Zero Vehicle Households by Census Tract

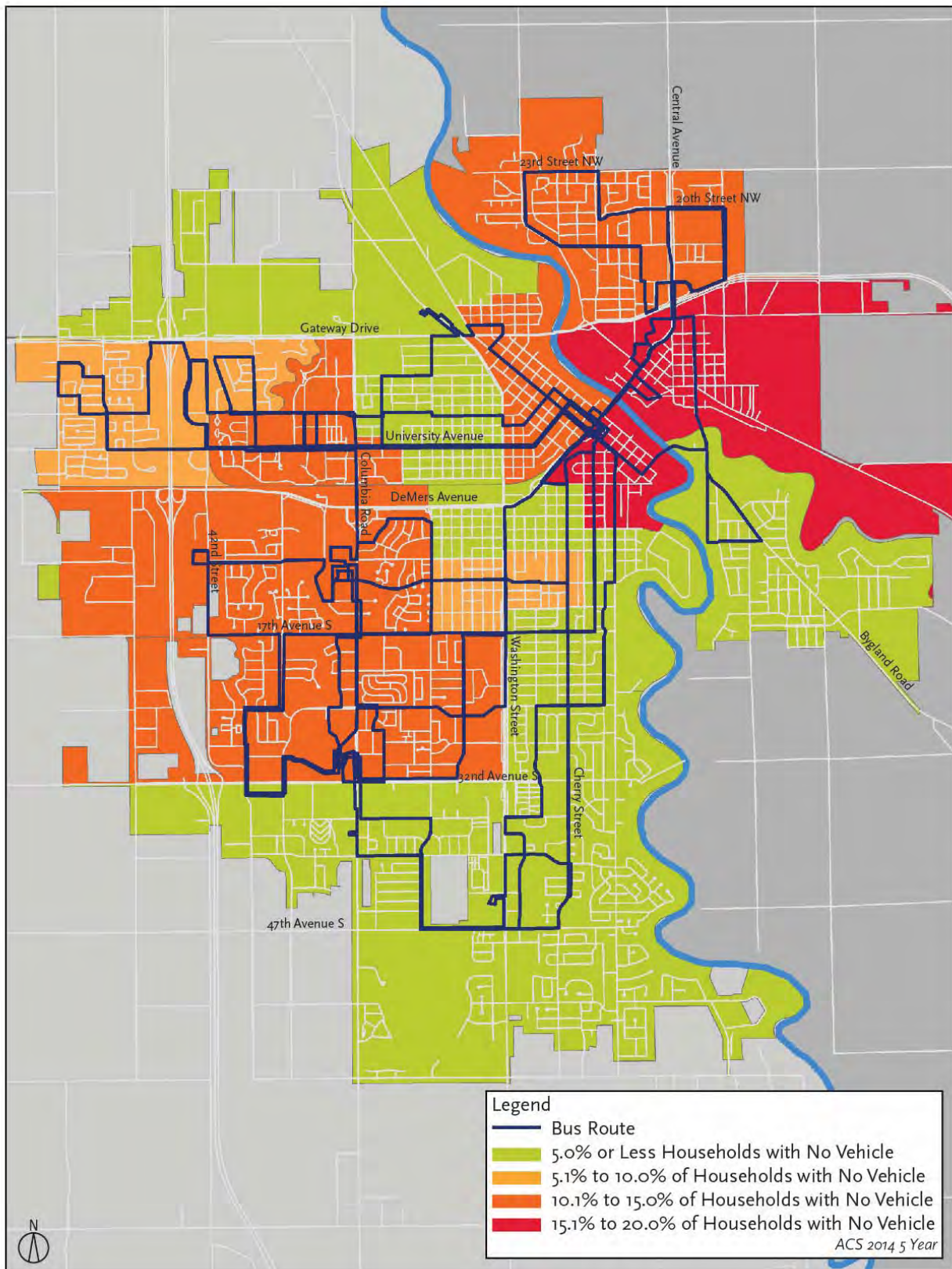
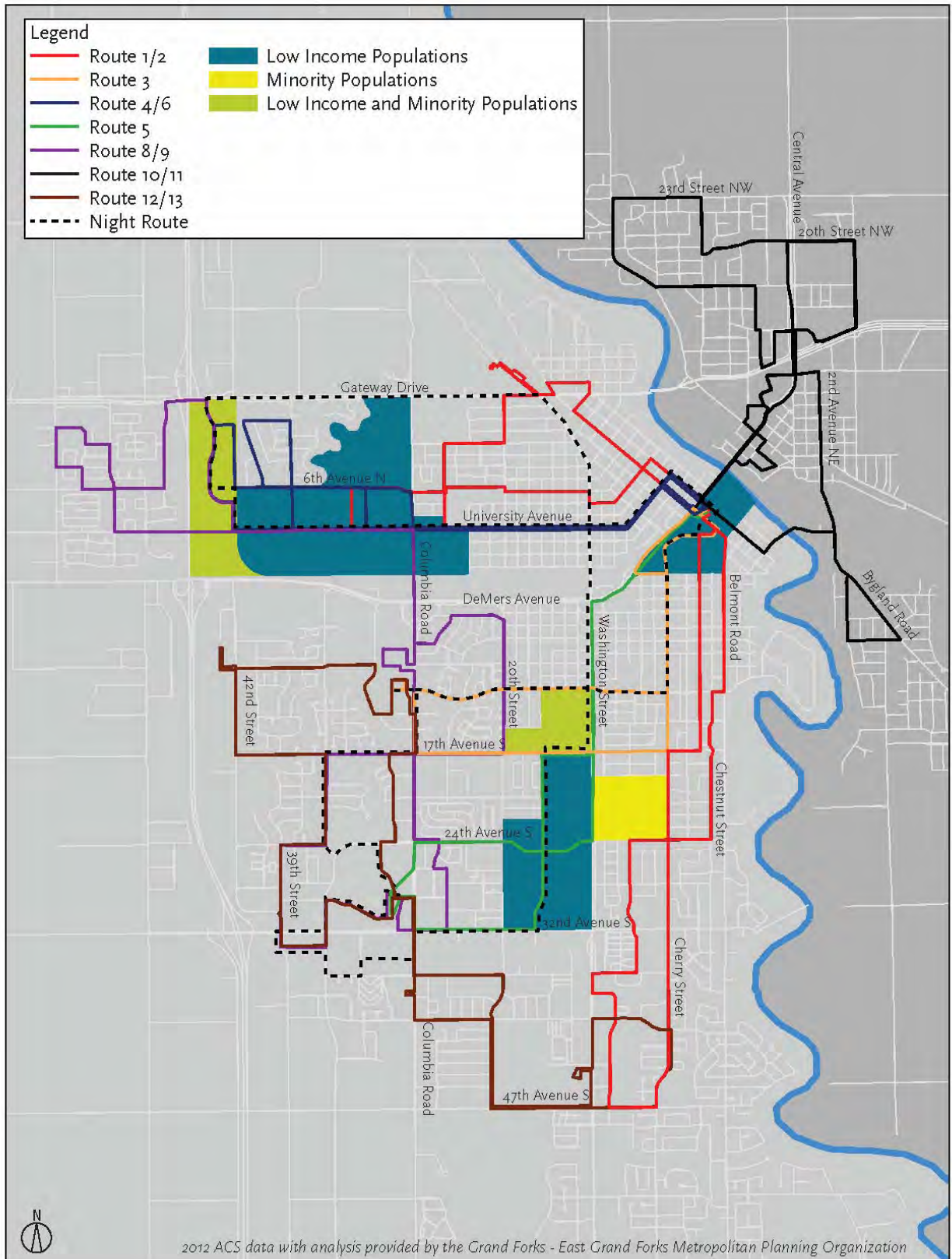


Figure 6: Environmental Justice Areas



## Employment and Commuting

The Grand Forks – East Grand Forks metro area has very low unemployment. In Grand Forks the unemployment rate is 3.3 percent and in East Grand Forks it is just 1.5 percent.

Just 1.4 percent of Grand Forks and 1.7 percent of East Grand Forks residents use transit for their daily commute, compared to 0.5 percent of North Dakota residents and 3.5 percent of Minnesota residents. The 2040 Long Range Transportation Plan has a stated objective to promote alternatives to single occupancy vehicles and to reduce VMT and VHT growth rates. The 2045 Grand Forks Land Use Plan Update also includes objectives to improve access for alternative modes of transportation and continuing to build on the multi-modal transportation systems, among other alternative mode objectives.

## Community Destinations

### Major Employers

Commuting patterns are relatively consistent day-to-day. Identifying top employers within the community helps to understand travel patterns and potential transit destinations. Some top employers are concentrated in one or two locations, like Altru and their new South Campus, while other top employers are distributed throughout the metro, like Hugo's with four in Grand Forks and one in East Grand Forks.

Of the largest employers in the metro, just five are directly adjacent to regular daytime routes, with an additional three within one-quarter mile, the typical walking threshold. This leaves just three major employers unserved, two of which are in the industrial park and one in East Grand Forks.

### Community Facilities

Other locations within the Grand Forks – East Grand Forks metro provide value, like grocery and shopping, recreation, government services, support agencies and health care. CAT provides a vital link between individuals and these community destinations.

There are 31 major social service providers, all of which are on or adjacent to regular day routes.

Additional destinations were identified and are presented in Figure 9. These destinations represent major facilities for government services, education, cultural, religious, shopping and recreational opportunities in the community. Many of these community facilities are served by hourly transit service, however depending on the facility, like the Veterans Affairs Clinic, the dedicated stop location nearest the facility may not be conducive for people seeking their services.

Table 5: Commuting Patterns

	Grand Forks	East Grand Forks
Drove Alone	80.8%	85.5%
Carpooled	7.8%	7.8%
Public Transit	1.4%	1.7%
Walked	4.1%	2.0%
Other	2.1%	1.1%
Worked from Home	3.8%	1.9%

Source: American Community Survey 5-Year Estimates

Figure 7: Largest Employers

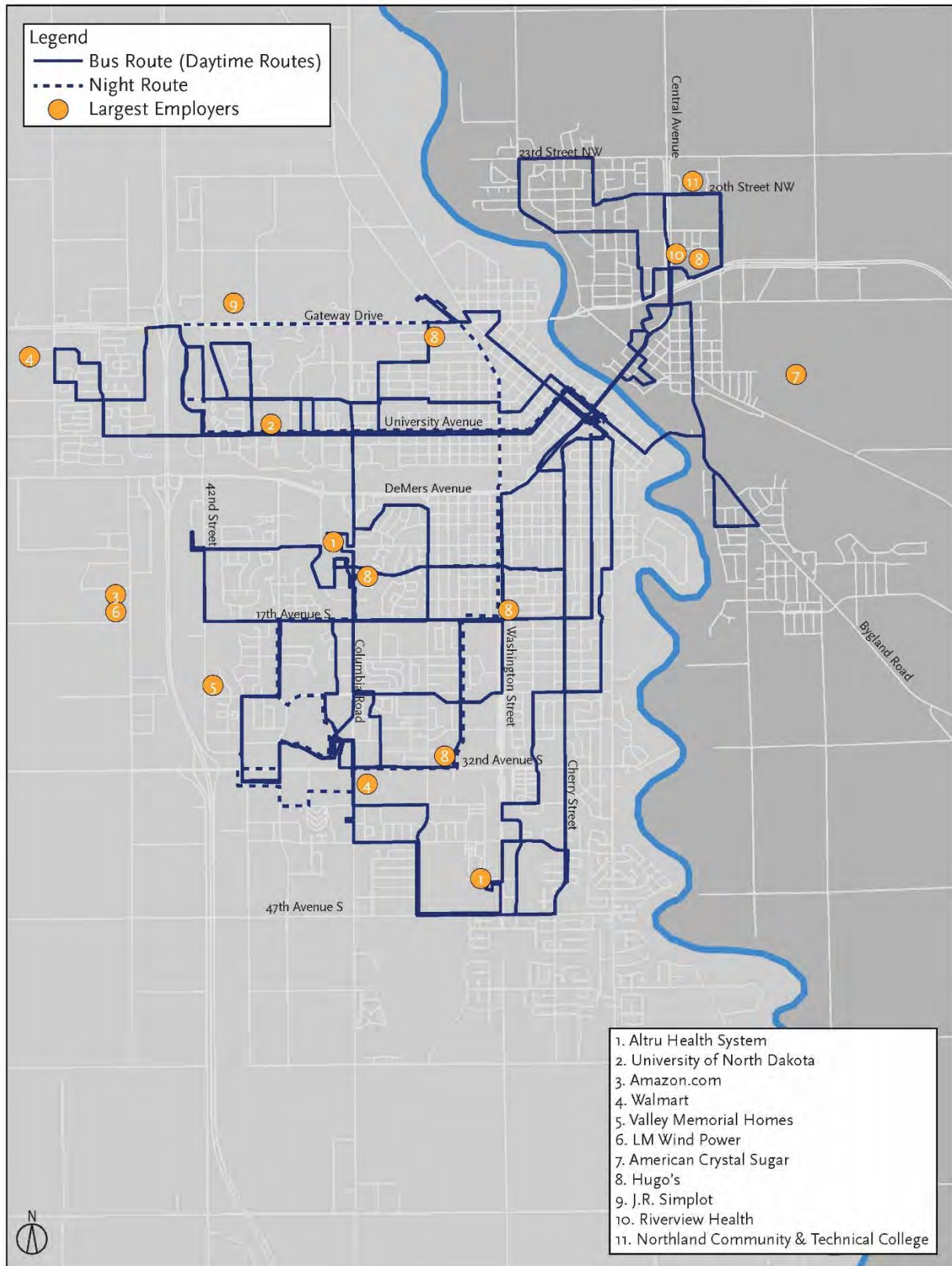


Figure 8: Social Service Providers

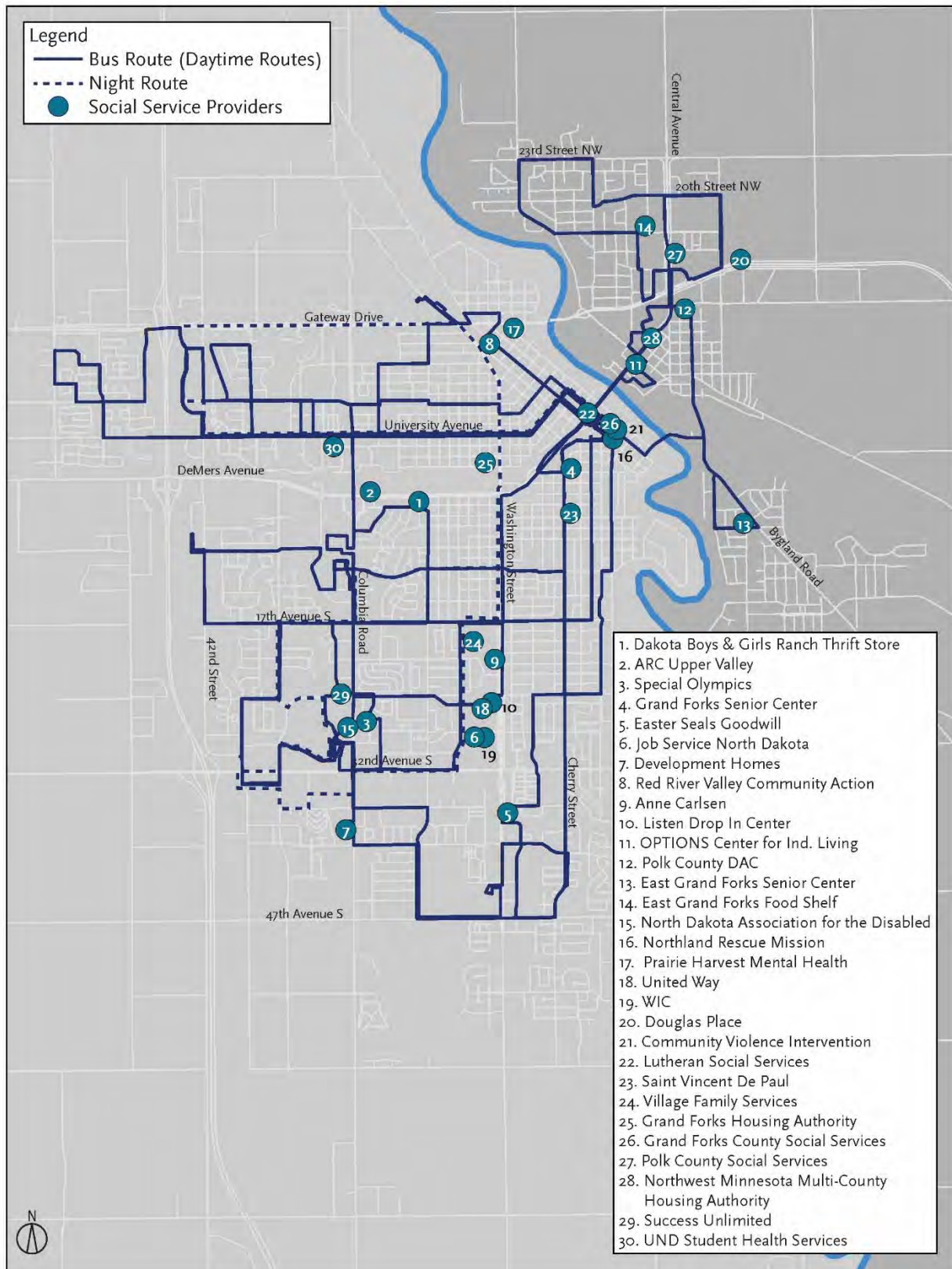
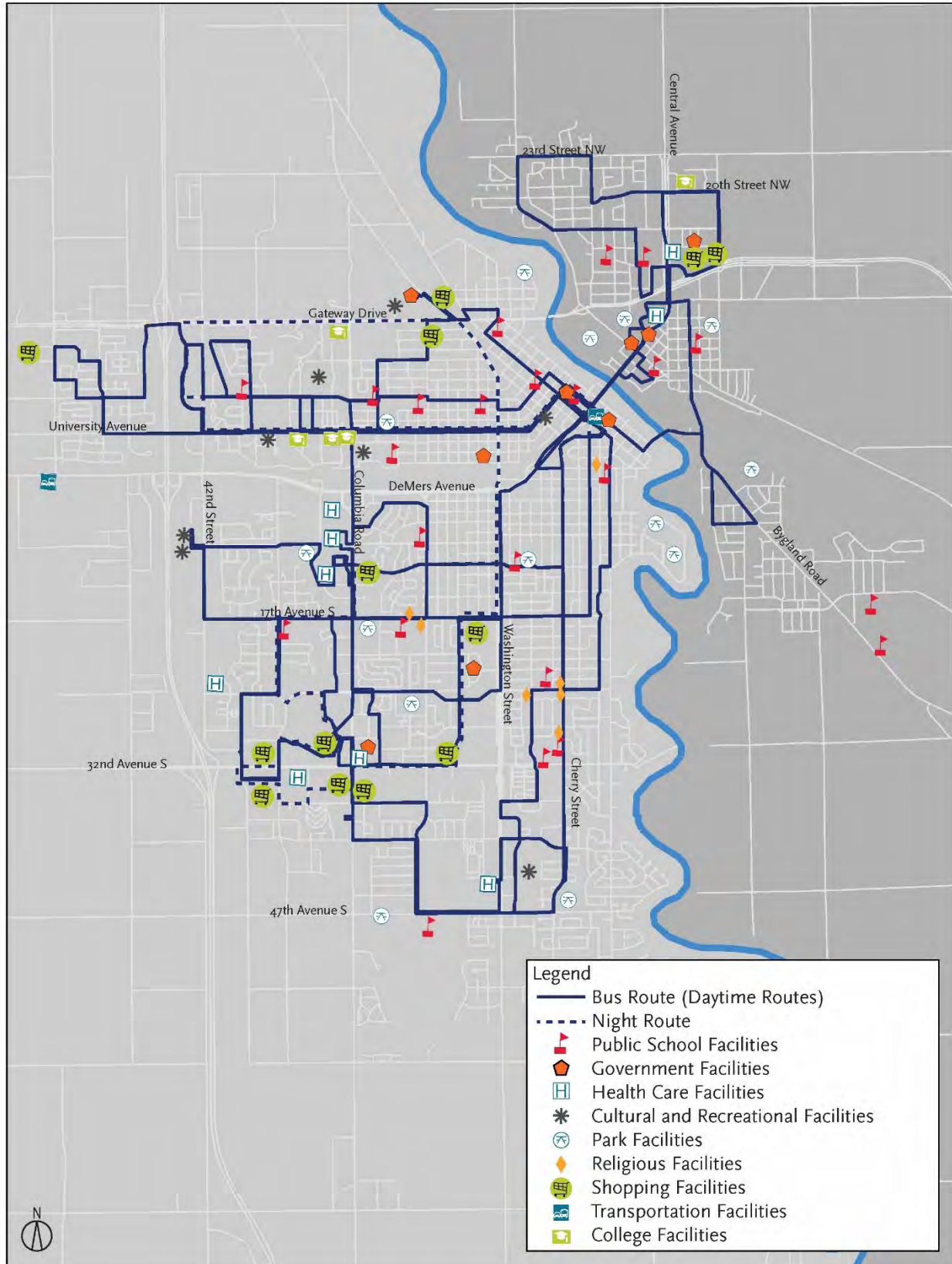


Figure 9: Major Destinations

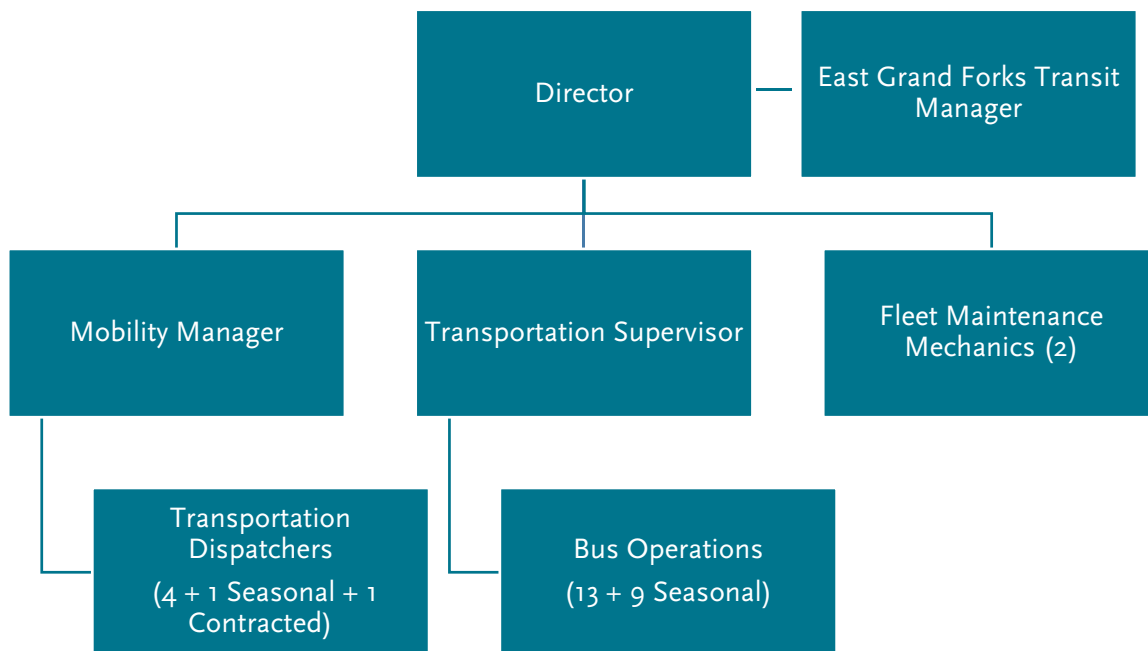


## EXISTING SYSTEM

### ADMINISTRATIVE SUMMARY

The administration of CAT is quite simple, the Public Transportation Superintendent, an employee of the City of Grand Forks, oversees the transportation supervisor, maintenance mechanics and mobility manager. The East Grand Forks manager provides oversight of East Grand Forks routes and operating revenue and expenses. Opportunities exist to strengthen various elements of the organizational structure and will be reviewed and refined throughout the planning process. Refer to Figure 10 for the current organizational chart.

Figure 10: Cities Area Transit Organizational Chart



### FIXED ROUTE SYSTEM

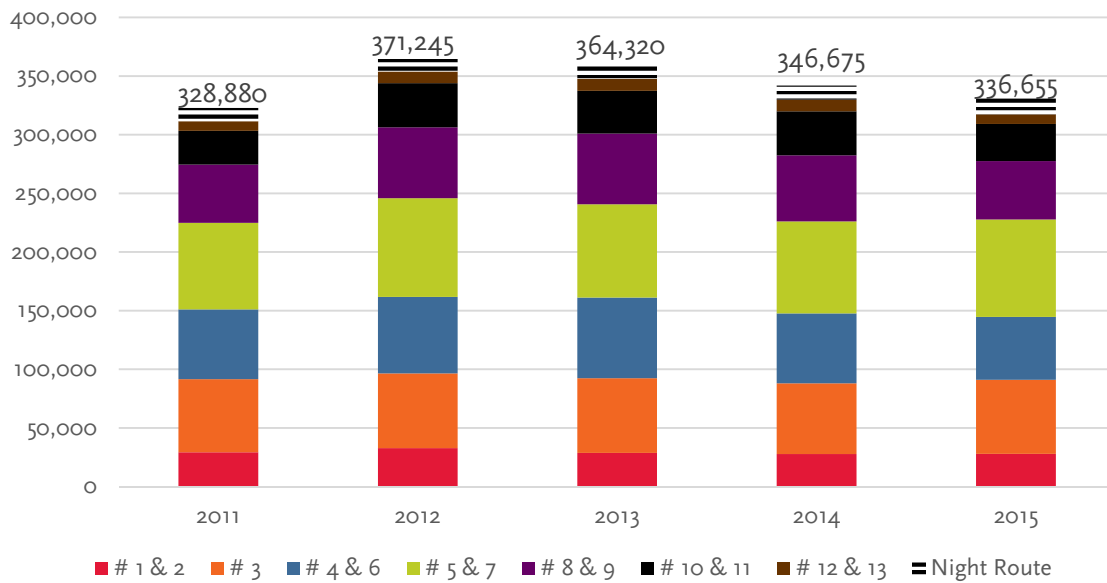
The fixed route system operates 12 regular routes Monday through Saturday. Weekday service, Monday through Friday begins between at 6:30 A.M. and ends around 6 P.M. Saturday service begins at 8 A.M. and ends around 6 P.M. A night route, available only in Grand Forks, begins around 6 P.M. running until approximately 10 P.M. Monday through Saturday. There is no Sunday service available.

#### *Historical Trends*

Since 2011, ridership has grown just 2.4 percent; 2012 was the highest ridership year, surpassing 371 thousand rides. Since 2012, annual ridership has declined. Most of the growth can be attributed to Route 5, where ridership has increase 12.5 percent since 2011. Route 10/11 and the Night Route also experienced significant growth, 9.7 percent and 21.6 percent respectively.



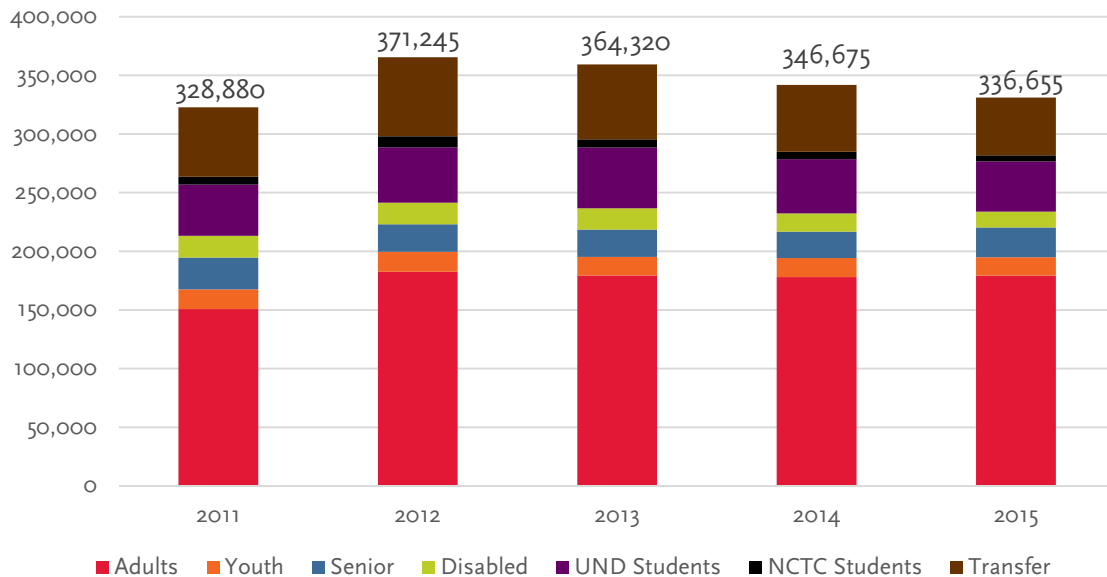
Figure 11: Fixed Route Annual Ridership by Route



## 2015 Annual Fixed Route Ridership: 336,655

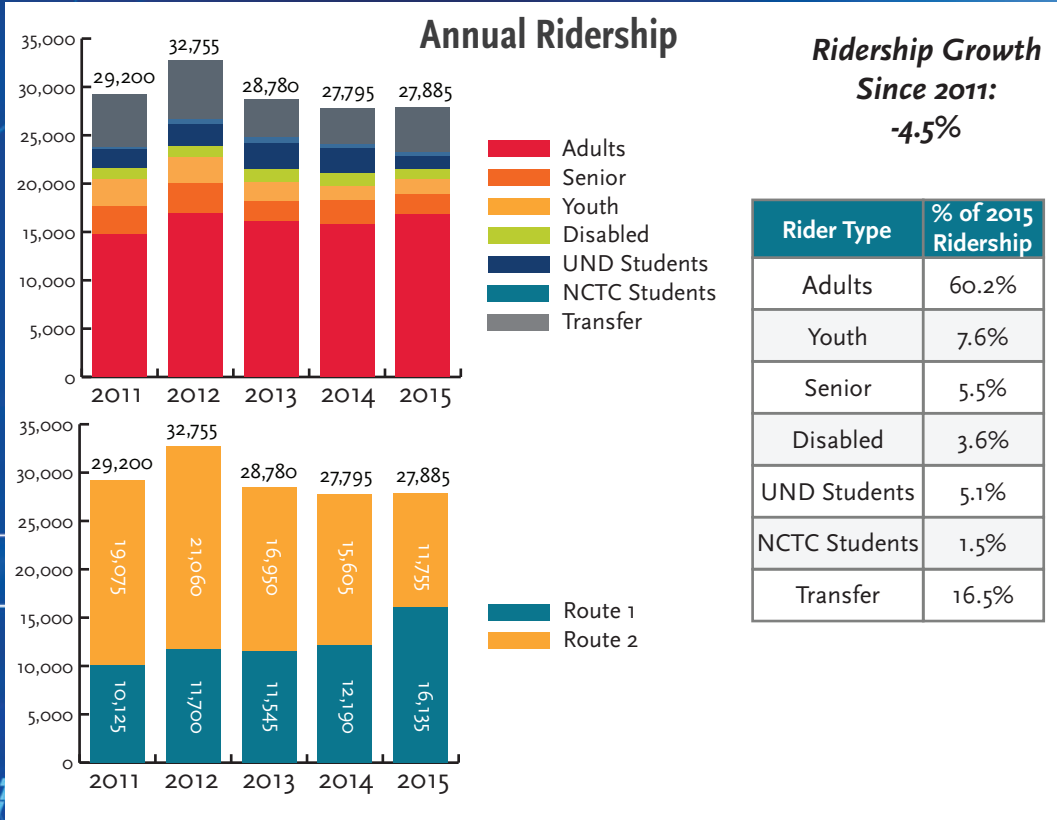
In 2015, adults made up more than half of all ridership (53.2 percent). This is up from 45.9 percent in 2011. Excluding transfers, seniors and disabled riders made up the largest decline in ridership. Senior ridership went from just over 27,000 in 2011 to 25,350 in 2015; disabled ridership went from 18,540 in 2011 to 13,540 in 2015.

Figure 12: Fixed Route Annual Ridership by Rider type



# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 1/2



### 2015 Cost of Service:

- > Cost of Service: \$327,185
- > Cost per Passenger: \$11.73

### Route Highlights

#### Major Stop Locations

**Route 1**

- > Tufte Manor
- > 36th Avenue & 10th Street
- > 40th Avenue & 11th Street
- > 40th Avenue & Cherry Street

**Route 2**

- > N 5th Street & 2nd Avenue
- > Hugo's
- > Hamline & University Avenue
- > Valley Middle School

#### 2015 Revenue Metrics

**Revenue Hours**

- > Revenue Hours: 3,450
- > Rides per Revenue Hour: 8.1
- > CAT System Average: 12.7

**Revenue Miles**

- > Revenue Miles: 51,016
- > Rides per Revenue Mile: 0.55
- > CAT System Average: 0.94

# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 3

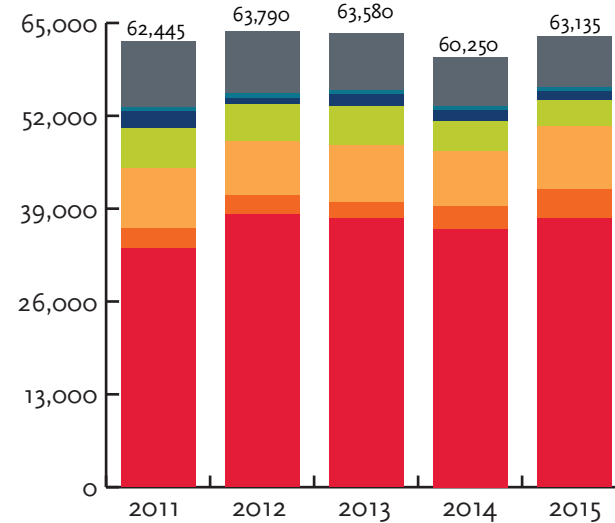


### 2015 Cost of Service:

- > Cost of Service: \$309,470
- > Cost per Passenger: \$4.90

### Annual Ridership

**Ridership Growth  
Since 2011:  
+0.6%**



■ Adults    ■ Senior    ■ UND Students    ■ Transfer  
■ Youth    ■ Disabled    ■ Northland Students

Rider Type	% of 2015 Ridership
Adults	59.0%
Youth	6.5%
Senior	14.0%
Disabled	5.8%
UND Students	1.9%
NCTC Students	0.8%
Transfer	11.4%

### Route Highlights

#### Major Stop Locations

- Route 3
- > 1st Avenue S
  - > 13th Avenue Hugo's
  - > Altru Rehab
  - > 17th Avenue & S 12th Street
  - > Grand Cities Mall
  - > The Link
  - > 4th Avenue & Cherry Street

#### 2015 Revenue Metrics

##### Revenue Hours

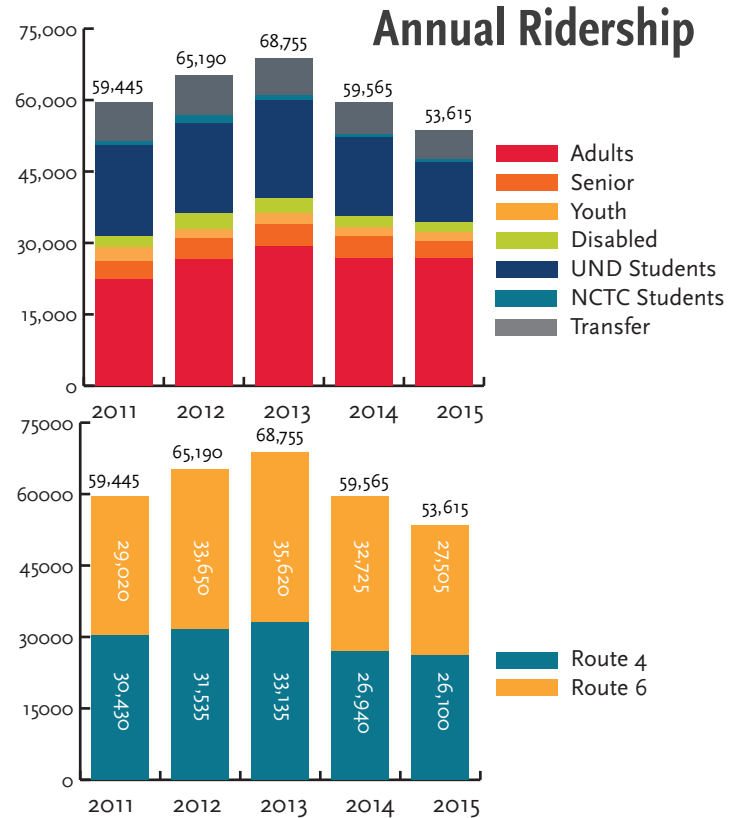
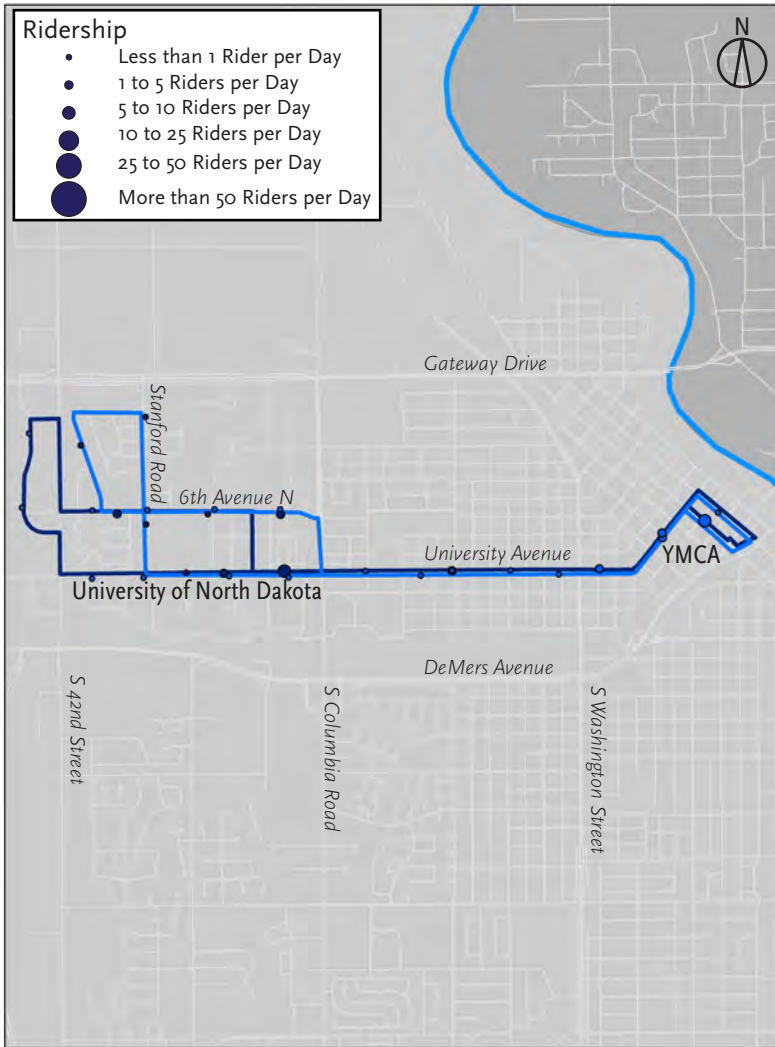
- > Revenue Hours: 3,444
- > Rides per Revenue Hour: 18.3
- > CAT System Average: 12.7

##### Revenue Miles

- > Revenue Miles: 46,514
- > Rides per Revenue Mile: 1.36
- > CAT System Average: 0.94

# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 4/6



**Ridership Growth  
Since 2011:  
-9.8%**

Rider Type	% of 2015 Ridership
Adults	49.8%
Youth	6.8%
Senior	3.5%
Disabled	3.9%
UND Students	23.6%
NCTC Students	1.1%
Transfer	11.1%

### 2015 Cost of Service:

- > Cost of Service: \$311,440
- > Cost per Passenger: \$5.81

### Route Highlights

#### Major Stop Locations

- Route 4
- > Hamline & University Avenue
  - > Stanford Center
  - > N 5th Street & 2nd Avenue
  - > 12th Street & University Avenue
- Route 6
- > N 5th Street & 2nd Avenue
  - > Hamline & University Avenue
  - > Memorial Union

#### 2015 Revenue Metrics

- Revenue Hours
- > Revenue Hours: 3,344
  - > Rides per Revenue Hour: 16.0
  - > CAT System Average: 12.7
- Revenue Miles
- > Revenue Miles: 47,405
  - > Rides per Revenue Mile: 1.13
  - > CAT System Average: 0.94

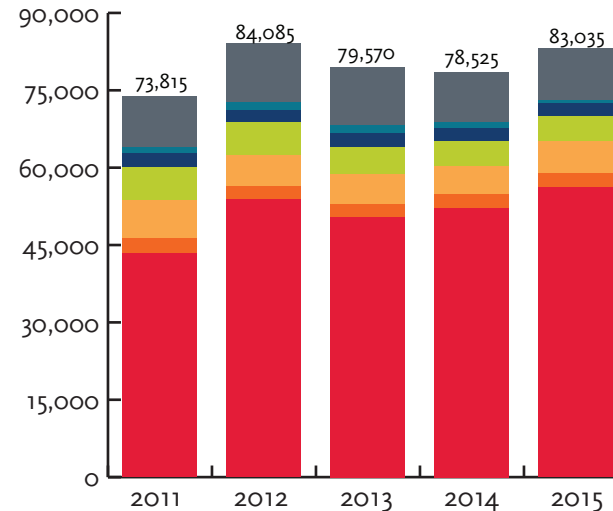
# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 5



### Annual Ridership

**Ridership Growth  
Since 2011:  
+ 12.5%**



Rider Type	% of 2015 Ridership
Adults	67.7%
Youth	3.2%
Senior	7.7%
Disabled	5.7%
UND Students	3.0%
NCTC Students	0.8%
Transfer	11.9%

■ Adults    ■ Senior    ■ UND Students    ■ Transfer  
■ Youth    ■ Disabled    ■ Northland Students

### Route Highlights

#### Major Stop Locations

- Route 5
- > Library Circle & Washington Street
  - > McDonalds
  - > Walmart
  - > S 17th Street & 24th Avenue
  - > 32nd Avenue Hugo's

#### 2015 Revenue Metrics

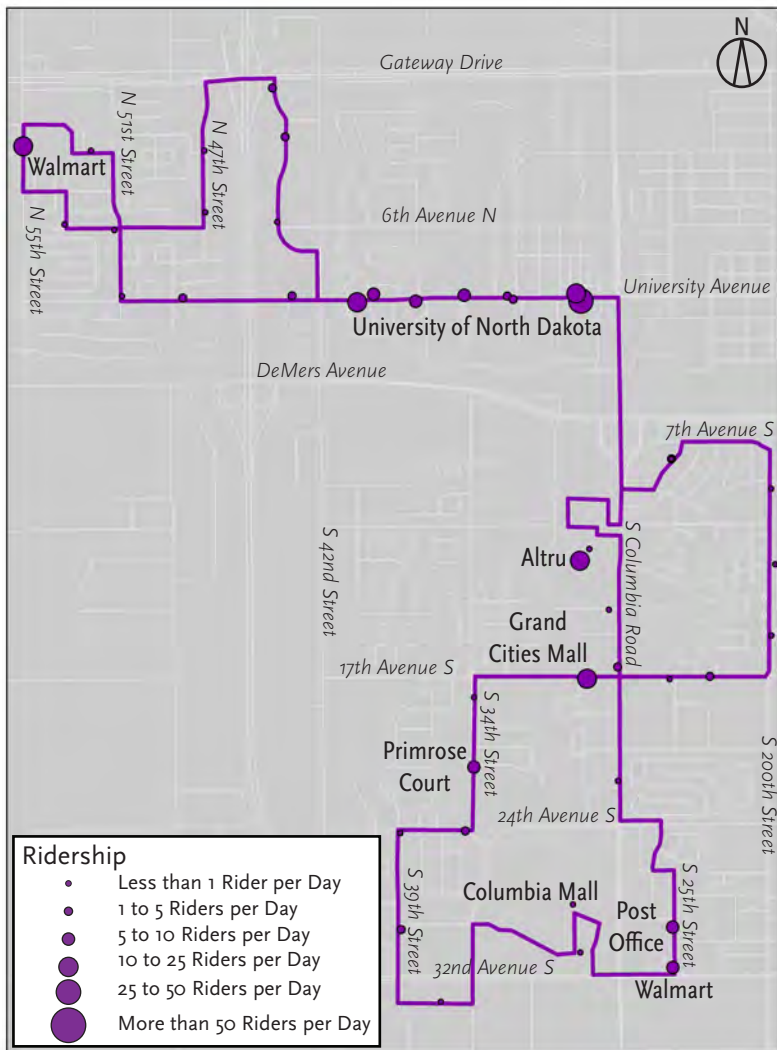
- Revenue Hours
- > Revenue Hours: 3,260
  - > Rides per Revenue Hour: 25.5
  - > CAT System Average: 12.7
- Revenue Miles
- > Revenue Miles: 26,275
  - > Rides per Revenue Mile: 3.16
  - > CAT System Average: 0.94

### 2015 Cost of Service:

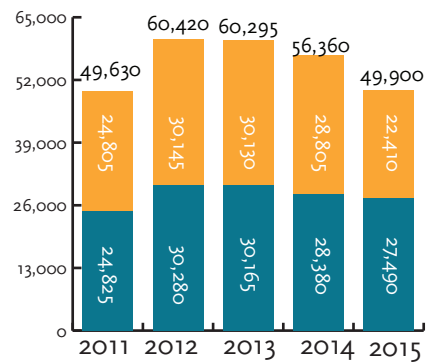
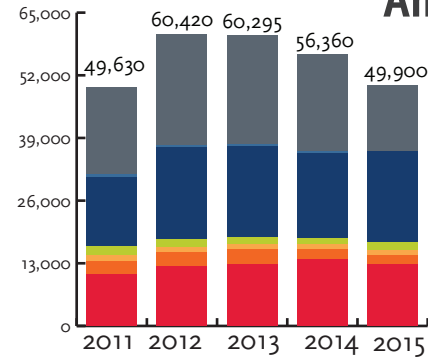
- > Cost of Service: \$318,985
- > Cost per Passenger: \$3.84

# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 8/9



### Annual Ridership



**Ridership Growth Since 2011:**  
+ 0.5%

Rider Type	% of 2015 Ridership
Adults	25.7%
Youth	3.7%
Senior	2.2%
Disabled	3.0%
UND Students	38.0%
NCTC Students	0.3%
Transfer	27.1%

### Route Highlights

#### Major Stop Locations

- Route 8**
- > Memorial Union
  - > Hamline & University
  - > Odegard Hall
  - > Walmart West

- Route 9**
- > Super Target
  - > Altru Rehab
  - > S 34th Street & Primrose Court
  - > Post Office

#### 2015 Revenue Metrics

- Revenue Hours**
- > Revenue Hours: 3,240
  - > Rides per Revenue Hour: 15.4
  - > CAT System Average: 12.7

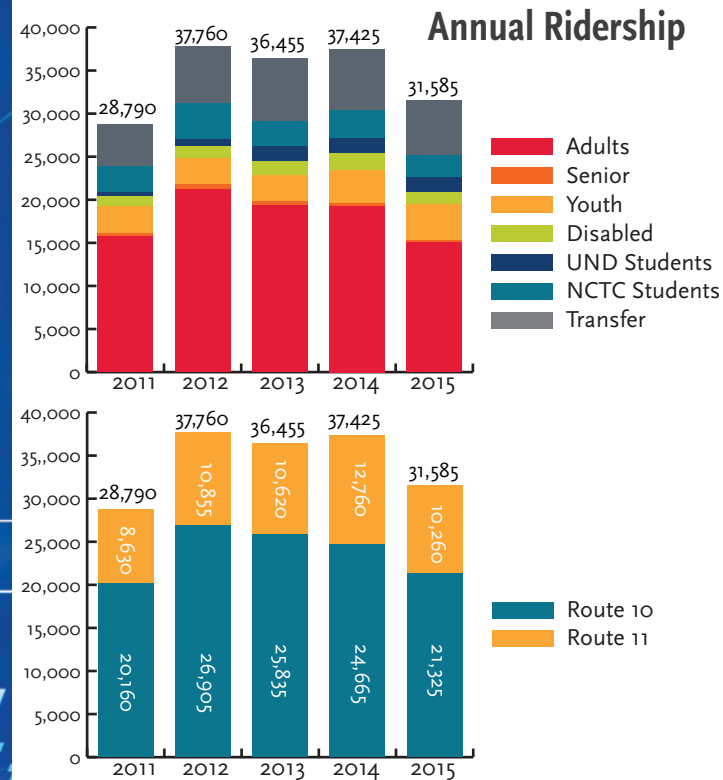
- Revenue Miles**
- > Revenue Miles: 47,792
  - > Rides per Revenue Mile: 1.04
  - > CAT System Average: 0.94

### 2015 Cost of Service:

- > Cost of Service: \$307,825
- > Cost per Passenger: \$6.17

# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 10/11



**Ridership Growth Since 2011:**  
+ 9.7%

Rider Type	% of 2015 Ridership
Adults	47.7%
Youth	0.8%
Senior	13.0%
Disabled	4.6%
UND Students	5.4%
NCTC Students	8.2%
Transfer	20.4%

### 2015 Cost of Service:

- > Cost of Service: \$306,910
- > Cost per Passenger: \$9.72

### Route Highlights

#### Major Stop Locations

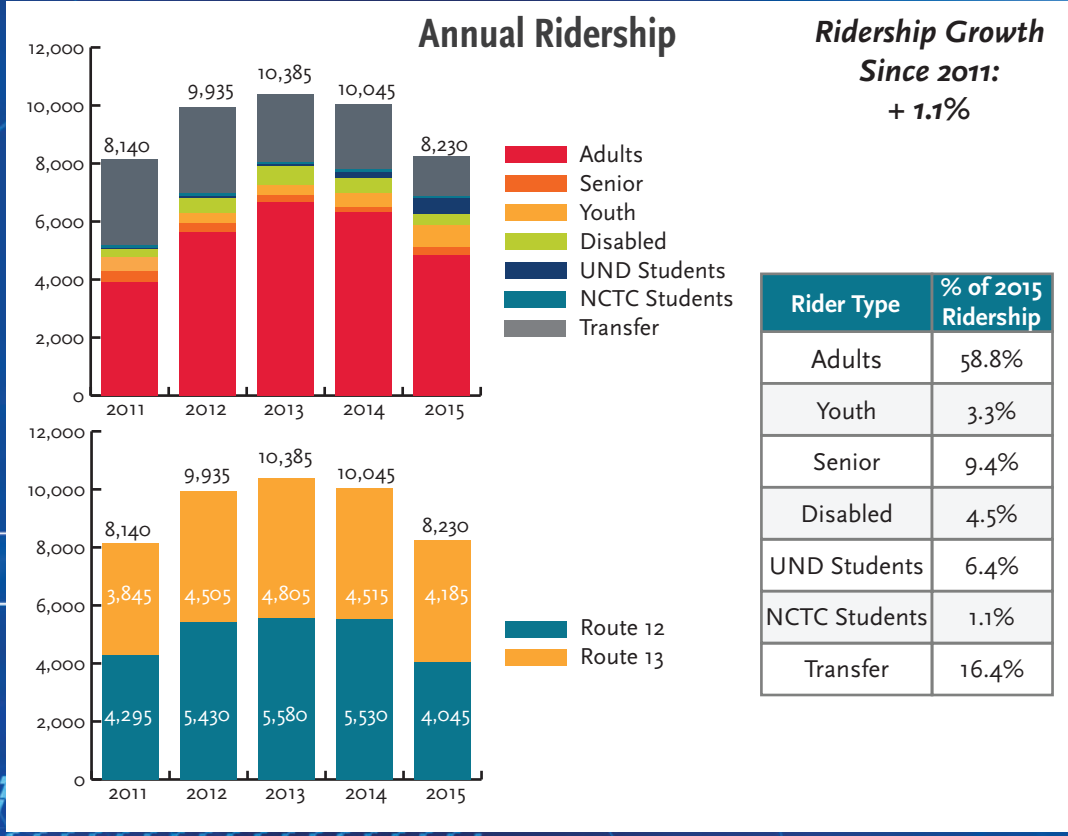
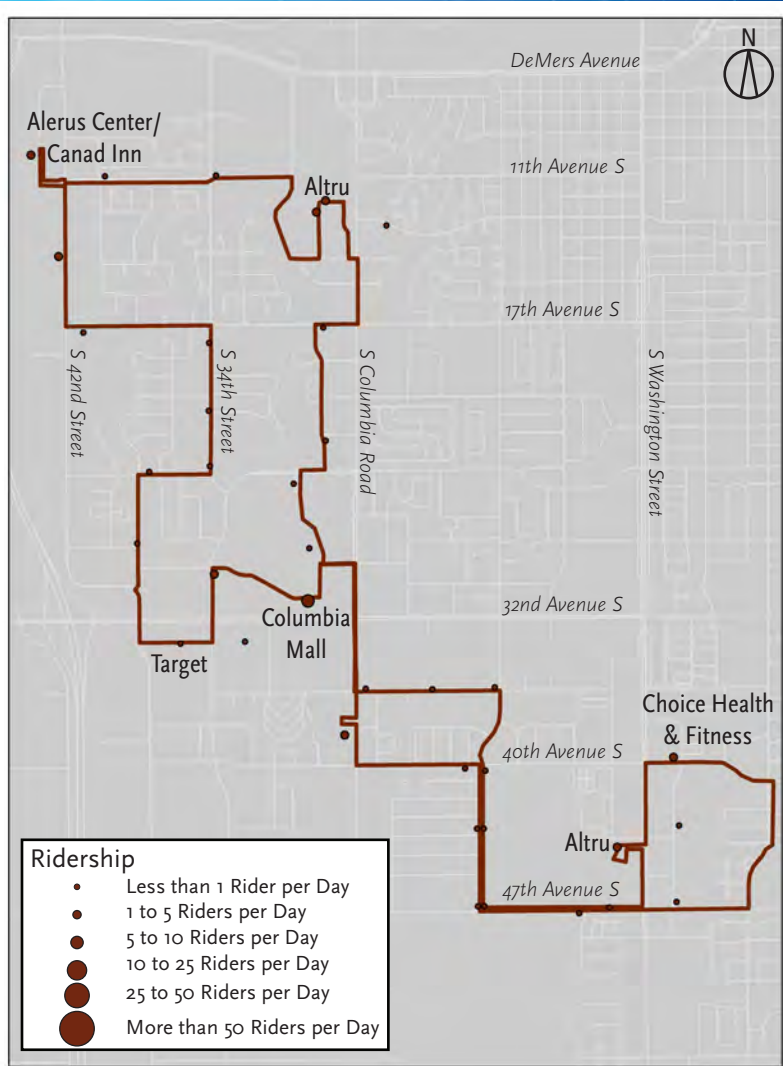
- Route 10
- > Boardwalk
  - > Northland College
  - > Central Avenue & 10th Street NE
  - > Hugo's
- Route 11
- > Gertrude & S 4th Street
  - > Hugo's
  - > Sacred Heart School
  - > Town Square Apartments

#### 2015 Revenue Metrics

- Revenue Hours
- > Revenue Hours: 3,336
  - > Rides per Revenue Hour: 9.5
  - > CAT System Average: 12.7
- Revenue Miles
- > Revenue Miles: 50,100
  - > Rides per Revenue Mile: 0.63
  - > CAT System Average: 0.94

# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Route 12/13



### 2015 Cost of Service:

- > Cost of Service: \$321,530
- > Cost per Passenger: \$39.07

### Route Highlights

#### Major Stop Locations

**Route 12**

- > Sleep Inn
- > Columbia Mall
- > 34th Street & 30th Avenue

**Route 13**

- > McDonalds
- > Altru Rehab
- > South Medical
- > 40th Avenue & 11th Street

#### 2015 Revenue Metrics

**Revenue Hours**

- > Revenue Hours: 3,578
- > Rides per Revenue Hour: 2.3
- > CAT System Average: 12.7

**Revenue Miles**

- > Revenue Miles: 49,790
- > Rides per Revenue Mile: 0.17
- > CAT System Average: 0.94



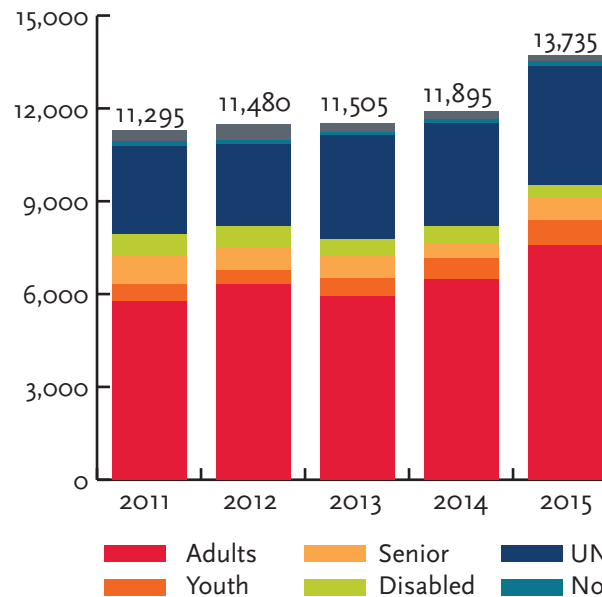
# GRAND FORKS/EAST GRAND FORKS MPO TRANSIT DEVELOPMENT PLAN UPDATE

## Night Route



### Annual Ridership

**Ridership Growth  
Since 2011:  
+ 21.6%**



Rider Type	% of 2015 Ridership
Adults	55.3%
Youth	5.8%
Senior	5.3%
Disabled	2.9%
UND Students	28.1%
NCTC Students	1.1%
Transfer	1.5%

### Route Highlights

#### Major Stop Locations

#### 2015 Revenue Metrics

##### Revenue Hours

- > Revenue Hours: 896
- > Rides per Revenue Hours: 15.3
- > CAT System Average: 12.7

> Unavailable

##### Revenue Miles

- > Revenue Miles: 16,921
- > Rides per Revenue Mile: 0.81
- > CAT System Average: 0.94

### 2015 Cost of Service:

- > Cost of Service: \$121,450
- > Cost per Passenger: \$8.84

## System Performance

System performance and quality of service uses annually collected data to understand how efficient and effective CAT operates and how attractive it is to riders. These numbers can be compared to other peer systems and provide benchmarks to measure progress against system goals and objectives based on local, state and industry standards. Where available, quality of service metrics are assigned a Level of Service ranging from “A” which is the best possible service or “F” which is the lowest possible service. These thresholds are provided by the *Transit Capacity and Quality of Service Manual Second Edition*. All analysis included in this system performance uses 2015 data.

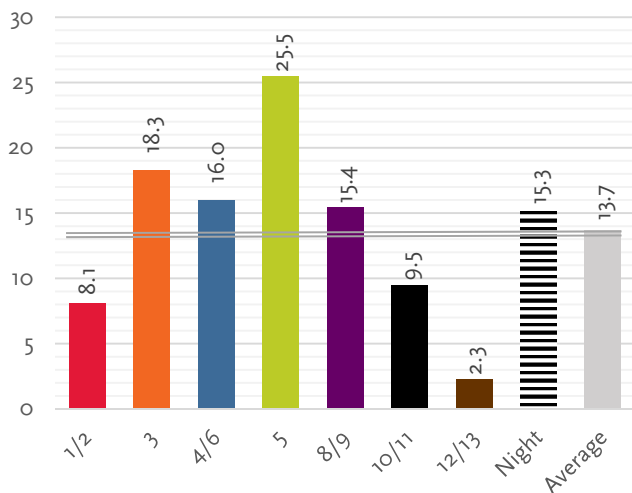
## Rides per Revenue Hour and Revenue Mile

Rides per revenue hour is a simple calculation based on the number of riders per each hour a bus is available to carry passengers (revenue hour). Rides per revenue mile is based on the number of riders per mile each bus travels when the bus is available to carry passengers. In 2015, CAT’s fixed route system provided 13.7 rides per revenue hour and 1.00 per revenue mile. The most efficient routes operate on 30 minute headways; Route 5, provided 25.5 rides per revenue hour and 3.16 rides per revenue mile and Route 3 provided 18.3 rides per revenue hour and 1.36 rides per revenue mile.

Table 6: 2015 Fixed Route System Revenue Hour and Ridership Analysis

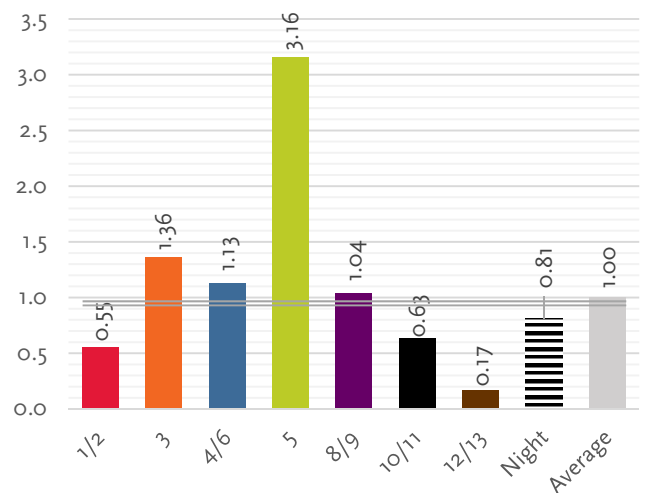
Route	Ridership	Revenue Hours	Revenue Miles	Rides/Revenue Hour	Rides/ Revenue Mile
1/2	27,890	3,450	51,016	8.1	0.55
3	63,135	3,444	46,514	18.3	1.36
4/6	53,615	3,344	47,405	16.0	1.13
5	83,035	3,260	26,275	25.5	3.16
8/9	49,900	3,240	47,792	15.4	1.04
10/11	31,585	3,336	50,100	9.5	0.63
12/13	8,230	3,578	49,790	2.3	0.17
Night Route	13,735	896	16,922	15.3	0.81
<b>Total</b>	<b>336,655</b>	<b>24,547</b>	<b>335,814</b>	-	-
Average	-	-	-	13.7	1.0

Figure 21: 2015 Fixed Route Rides per Revenue Hour



**2015 Rides per Revenue Hour Total System: 13.7**  
 2015 Rides per Revenue Hour East Grand Forks: 9.5

Figure 22: 2015 Fixed Route Rides per Revenue Mile

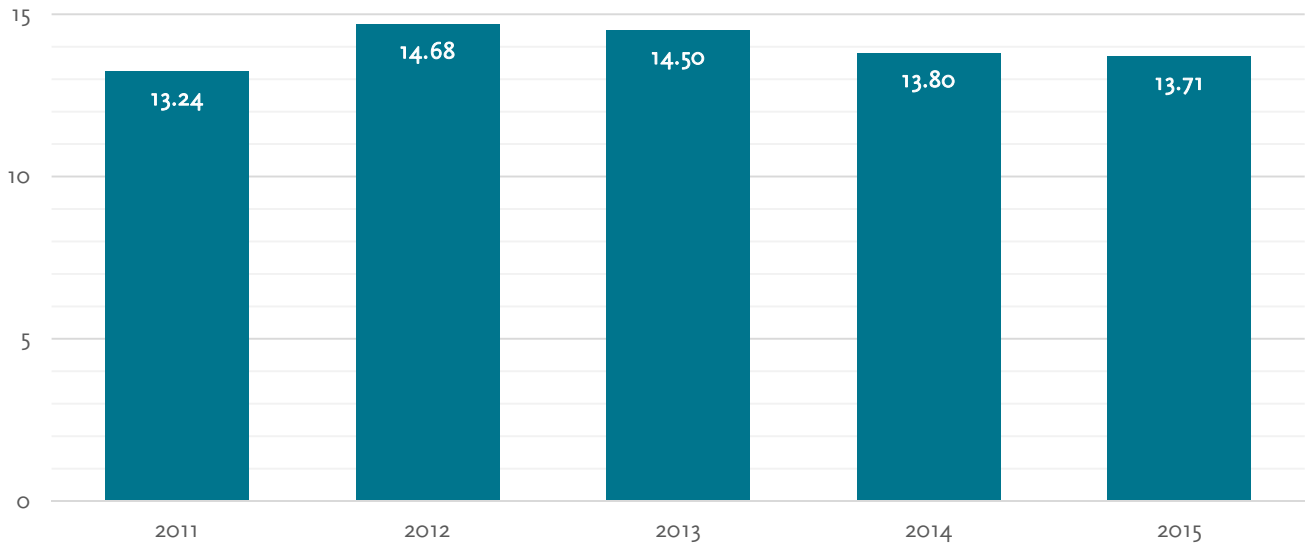


**2015 Rides per Revenue Mile Total System: 1.00**  
 2015 Rides per Revenue Mile East Grand Forks: 0.63

## Historic Rides per Revenue Hour

2015 Rides per Revenue Hour is only higher than 2011 Rides per Revenue Hour; 2012 saw the highest Rides per Revenue Hour at 14.68.

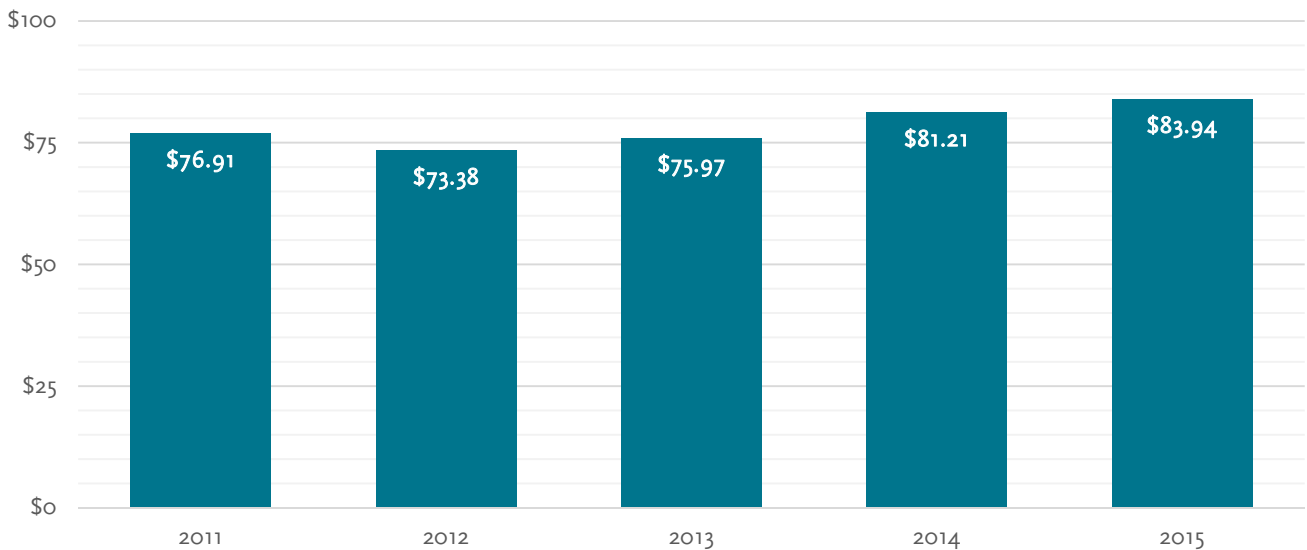
Figure 23: Historic Rides per Revenue Hour



## Historic Cost per Revenue Hour

Cost per Revenue Hour was relatively stable from 2011 to 2013, with 2012 experiencing the lowest Cost per Revenue Hour at \$73.38, while 2015 experienced the highest Cost per Revenue Hour at \$83.94, or 14.4 percent higher than 2012.

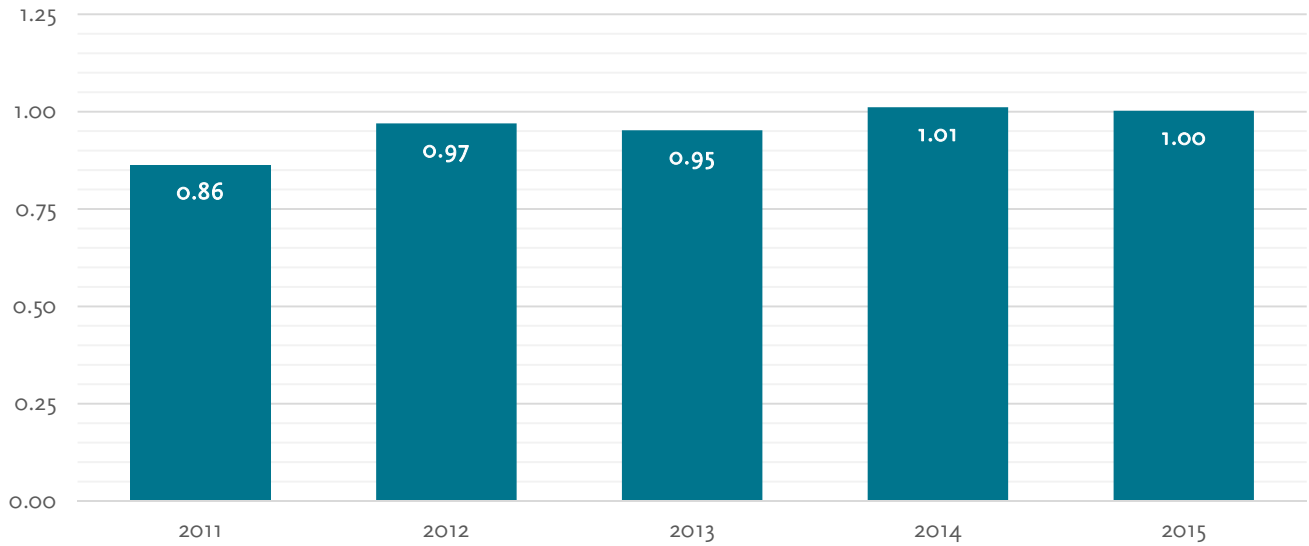
Figure 24: Historic Cost per Revenue Hour



## Historic Rides per Revenue Mile

2011 saw the lowest Rides per Revenue Mile at 0.86, with 2014 experiencing the highest Rides per Revenue Mile at 1.01; 2015 saw a very slight decline to 1.00 Rides per Revenue Mile.

Figure 25: Historic Rides per Revenue Mile



## Historic Cost per Revenue Mile

Similar to Cost per Revenue Hour, 2015 saw a large increase over previous annual cost per revenue mile from 2011 to 2014. 2012 experienced the lowest Cost per Revenue Mile at \$4.85, while 2015 experienced the highest Cost per Revenue Mile at \$6.14, 26.6 percent higher than 2013.

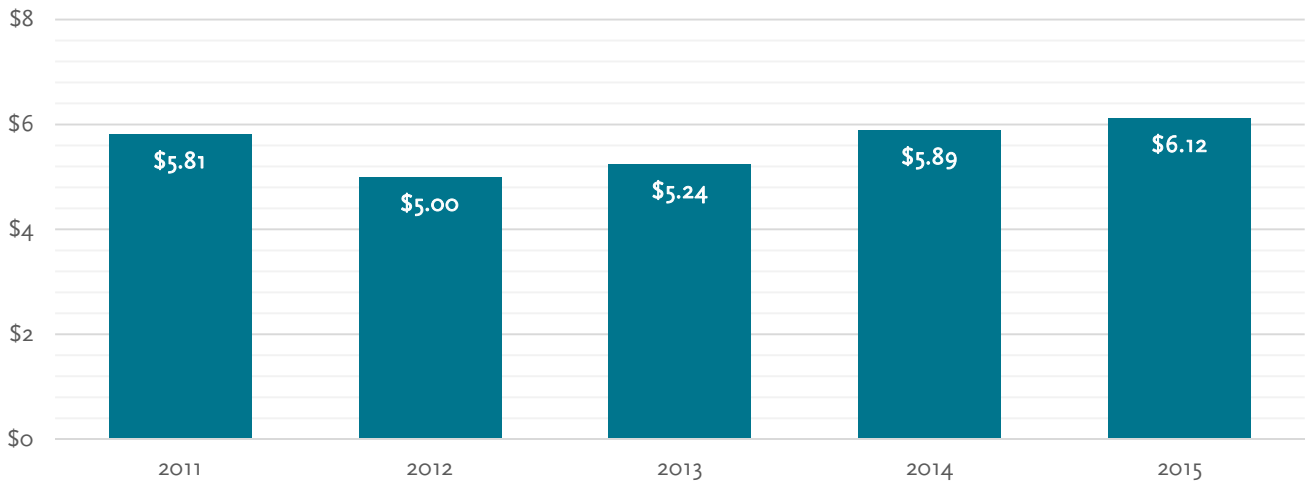
Figure 26: Historic Cost per Revenue Mile



## Cost per Passenger

As more people ride CAT, the system becomes more cost-efficient in terms of cost per passenger. Since 2012, the average cost per passenger has increased from \$5.00 in 2012 to \$6.12 in 2015. The least cost-effective route is also the route with the lowest ridership, Route 12/13 costs \$39.07 per passenger, while Route 5, the route with the highest ridership costs just \$3.84 per passenger. The average cost per passenger by route is \$11.26.

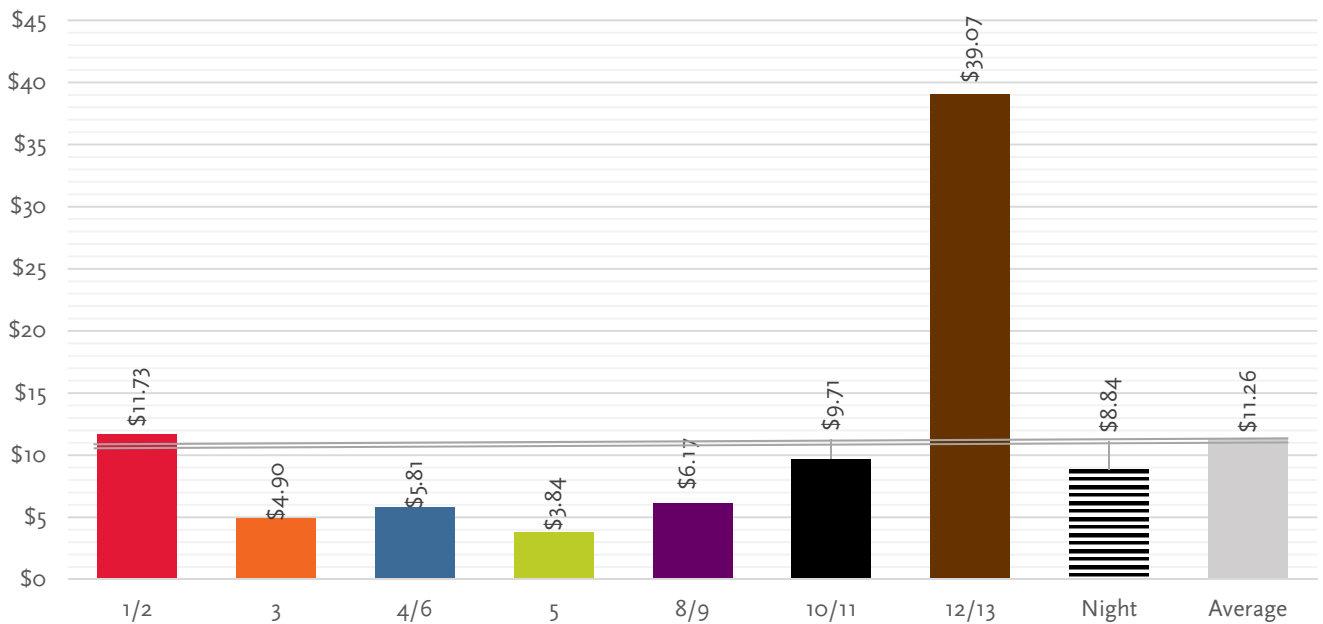
Figure 27: Historic Cost per Passenger



**2015 Total System Cost per Passenger: \$6.12**

*2015 East Grand Forks Cost per Passenger: \$9.71*

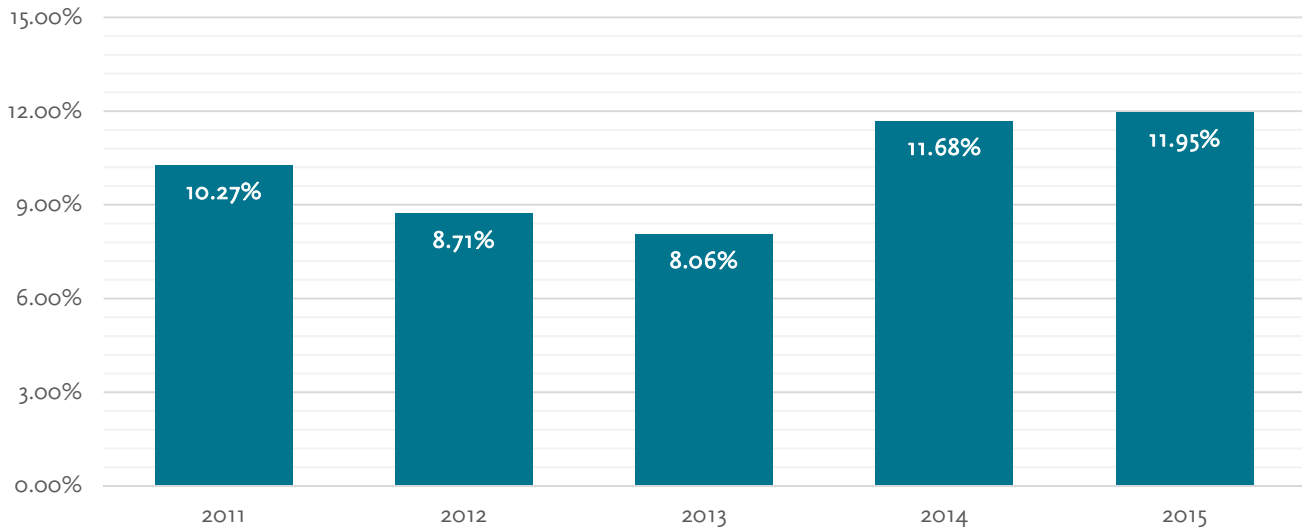
Figure 28: 2015 Cost per Passenger by Route



## Farebox Recovery

Farebox recovery is a ratio of fares collected relative to the total cost of the service, which has ranged from 8.06 percent in 2013 to 11.95 percent in 2015. In 2015, \$246,300 was collected in fares.

Figure 29: Fixed Route System Farebox Recovery



**2015 Total System Farebox Recovery: 11.95%**  
 2015 East Grand Forks Farebox Recovery: 6.61%

## Frequency

Service frequency is a measure of how often a user has access to bus service. This is an important consideration to choice users who may not want to give up the freedom to choose when they travel and do not want to plan their day around transit availability. Currently, just two routes, Route 3 and Route 5 operate at 30 minute headways. The remaining routes operate at 60 minute headways. Overall, CAT operates at LOS “E”.

Table 7: Fixed Route System Frequency Level of Service

LOS	Average Headway (Min)	Vehicles Per Hour	Comments
A	< 10 Minutes	> 6	Passengers do not need schedules.
B	10 to 14 Minutes	5 to 6	Frequent service, passengers consult schedules.
C	15 to 20 Minutes	3 to 4	Maximum desirable time to wait if bus is missed.
D	21 to 30 Minutes	2	Service unattractive to choice riders.
E	31 to 60 Minutes	1	Service available during the hour.
F	> 60 Minutes	< 1	Service unattractive to all riders.

**2015 Average Headway: 55 Minutes, LOS E.**  
 2015 East Grand Forks Headway: 60 Minutes, LOS E.

## Service Coverage

The presence of transit service near a potential users origin *and* destination impact whether an individual can use transit. However, not every location is suitable for transit provision, given low job and household densities do not lend themselves to transit use. An area is considered transit supportive if it has a household density of three per

acre or job density of four per acre. Because the system operates with designated stops, “near” was defined as one-quarter mile from any designated stop, per industry standards.

Using the traffic analysis zones from the travel demand model, allows comparative analysis for 2015 existing transit supportive area. In 2010, 89.0 percent of the nearly 5,900 acres of transit supportive acres were served within one-quarter mile of designated stops.

Table 8: 2010 Transit Supportive Area

	Total System	East Grand Forks
Total Area	72,635	
Transit Supportive Area	5,897	642
Within ¼ Mile of Stop	5,246 (89.0%)	536 (83.5%)
Not Within ¼ Mile of Stop	651 (11.0%)	106 (16.5%)

Table 9: Fixed Route System Coverage Level of Service

LOS	Transit Supportive Area Covered	Comments
A	90% to 100%	Virtually all major origins and destinations served.
B	80% to 89.9%	Most origins and destinations served.
C	70% to 79.9%	About three-quarter of higher-density areas served.
D	60% to 69.9%	About two-thirds of higher-density areas served.
E	50% to 59.9%	At least one-half of the higher-density areas served.
F	< 50%	Less than one-half of the higher-density areas served.

**2015 Total System Transit Supportive Area Covered: 89.0%, LOS B**

*2015 East Grand Forks Transit Supportive Area Covered: 83.5%, LOS B*

## Span of Service

Span of service reflects the number of hours that transit is available. This metric may be important to those who work non-traditional hours or who would like to use transit for shopping, dining or other events. This factor is different for Grand Forks, which offers the Night Route service, increasing its span of service to 15.5 hours, or LOS “C”; East Grand Forks runs service from 6:30 A.M. until 6 P.M. for a span of service of 11.5 hours, or LOS “E”.

Table 10: Fixed Route System Hours of Service Level of Service

LOS	Hours per Day	Comments
A	19 to 24	Night or owl service provided.
B	17 to 18	Late evening service provided.
C	14 to 16	Early evening service provided.
D	12 to 13	Daytime service provided.
E	4 to 11	Peak hour service/ limited midday service.
F	0 to 3	Very limited or no service.

**2015 Hours of Service (Grand Forks): 15.5 Hours, LOS C.**

*2015 Hours of Service (East Grand Forks): 11.5 Hours, LOS E.*

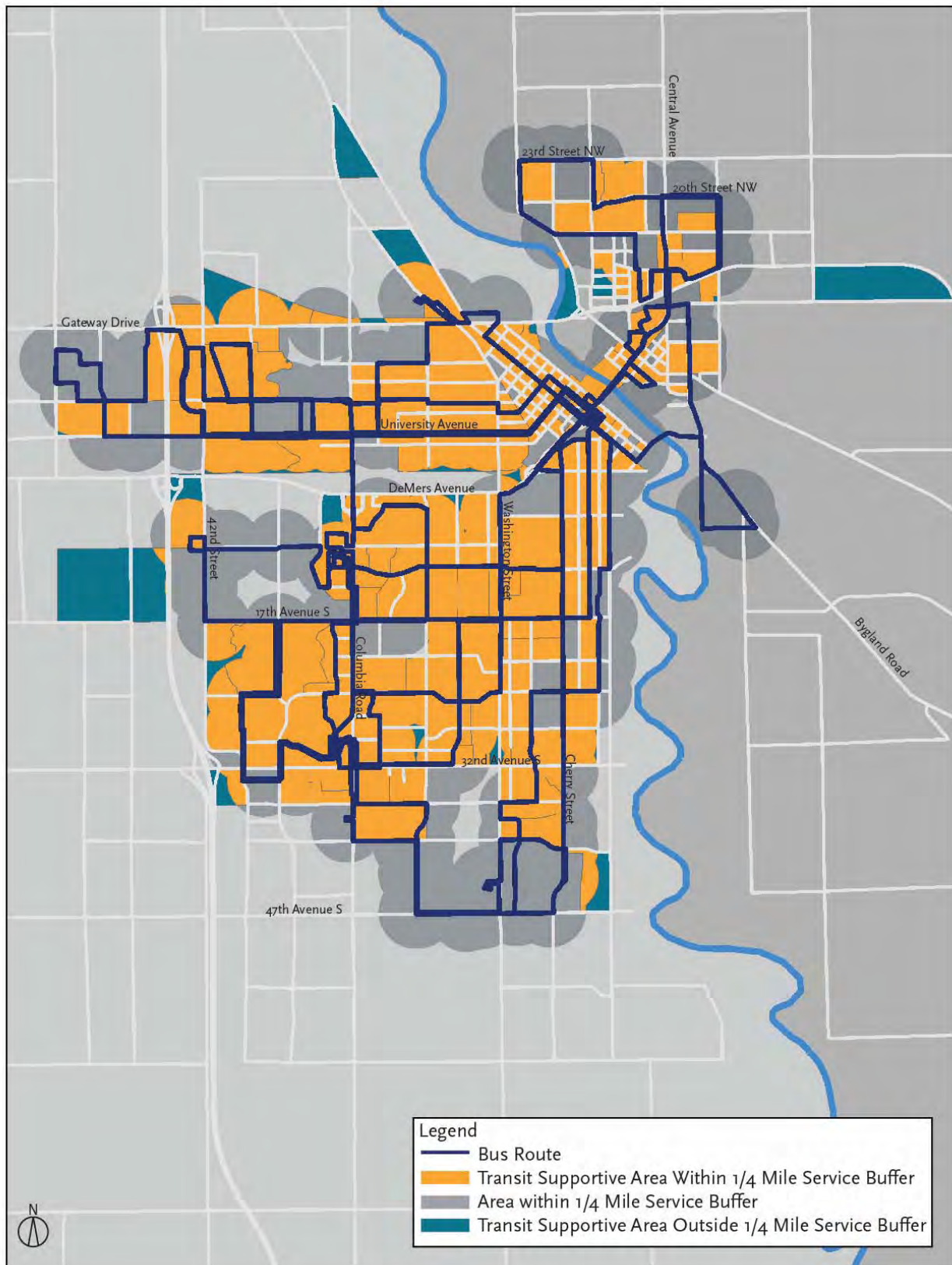
## Service Hours per Capita

Cities Area Transit provides 0.391 service hours per capita. Broken down that is 0.392 for Grand Forks and 0.386 for East Grand Forks.

**2015 Total System Service Hours Per Capita: 0.391**

*2015 East Grand Forks Service hours per Capita: 0.386*

Figure 30: 2010 Transit Supportive Areas





## Transit-Auto Travel Time

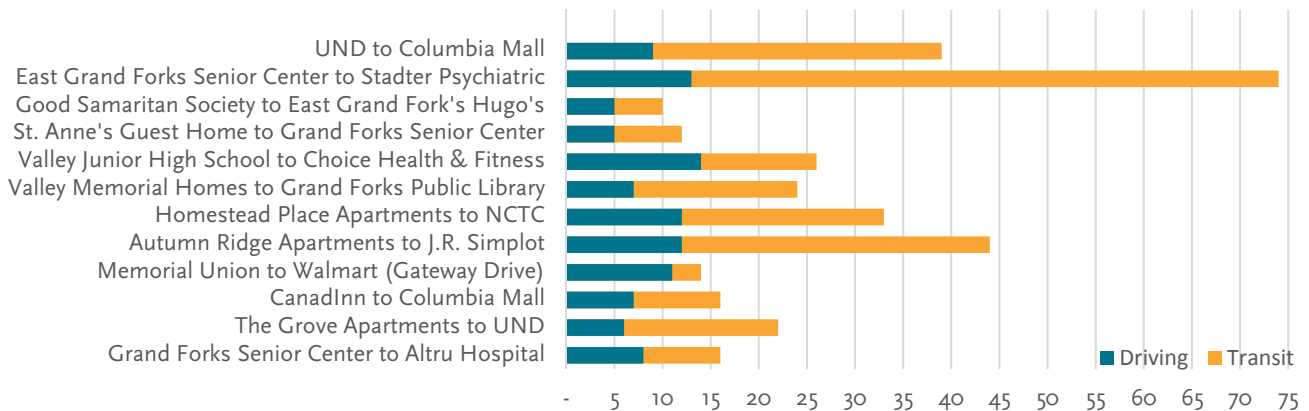
Riders often consider how long transit will take when compared to auto when deciding whether they can reasonably take transit to their destination. Transit travel time includes the time it takes to walk to and from the stop, the bus travel time and any layover that may be necessary. Auto travel times in small cities like Grand Forks and East Grand Forks are often very short, not limited by severe congestion.

Table 11: Fixed Route System Transit-Auto Travel Time Level of Service

LOS	Travel Time Difference (Minutes)	Comments
A	0	Faster by transit than by automobile.
B	1 to 15	About as fast by transit as by automobile.
C	16 to 30	Tolerable for choice riders.
D	31 to 45	Round-trip at least an hour longer by transit.
E	46 to 60	Tedious for all riders; may be best possible in small cities.
F	> 60	Unacceptable to most riders.

Using Google Maps and the scheduling information from CAT, the following transit-auto travel times were estimated for a very small sample of major origins and destinations within the metro. On average, transit is about three times longer than driving. However, on average with this sample, the average travel time difference is eighteen minutes.

Figure 31: Transit-Auto Travel Time



**2015 Average Transit-Auto Travel Time Difference: 18 Minutes, LOS C.**

## On-Time Performance

Transit riders expect transit to run on time to maintain their own schedules and make transfers when necessary. When routes do not run on schedule it can be indicative of other issues within the system like ineffective transit signal priority, long routes, congested routes, longer than expected boarding time, etc. Transit systems with high on-time performance levels of service are highly reliable and attractive to choice users, while systems with low levels of service may result in users choosing earlier trips to ensure their arrival. For the purposes of this analysis is defined as within five minutes of the posted time. CAT does not currently track on-time performance. However, preliminary field data collection did not notice any major on-time performance issues, nor have any been reported.

Table 12: Fixed Route System On-Time Performance

LOS	On-Time Percentage
A	95% to 100%
B	90% to 94%
C	85% to 89%
D	80% to 84%
E	75% to 79%
F	< 75%

2015 On-Time Performance: Not Available.

### Summary of Fixed Route System Performance

The previously described metrics represent a variety of qualities that demonstrate the quality, effectiveness and efficiency of the current Fixed Route System. Later in this report, performance targets will be developed for these metrics.

Table 13: 2015 Fixed Route System Performance

Metric	2015 Total System	East Grand Forks
Annual Ridership	336,655	31,585
Revenue Hours	24,547	3,336
Revenue Miles	335,815	50,100
Rides per Revenue Hour	13.7	9.5
Rides per Revenue Mile	1.00	0.63
Cost per Passenger	\$6.12	\$9.71
Farebox Recovery	11.95%	6.61%
Average Headway	55 Minutes	60 Minutes
Transit Support Areas Covered	89.0%	83.5
Hours of Service (Grand Forks)	15.5 Hours	11.5
Service Hours per Capita	0.391	0.386
Average Transit-Auto Travel Time Difference	18 Minutes	
On-Time Performance	Not Available	

## DEMAND RESPONSE SYSTEM

CAT's Demand Response system includes Dial-A-Ride service and Senior Rider service. Dial-A-Ride; the Senior Rider service is an origin-to-destination service for eligible people age 62 and older.

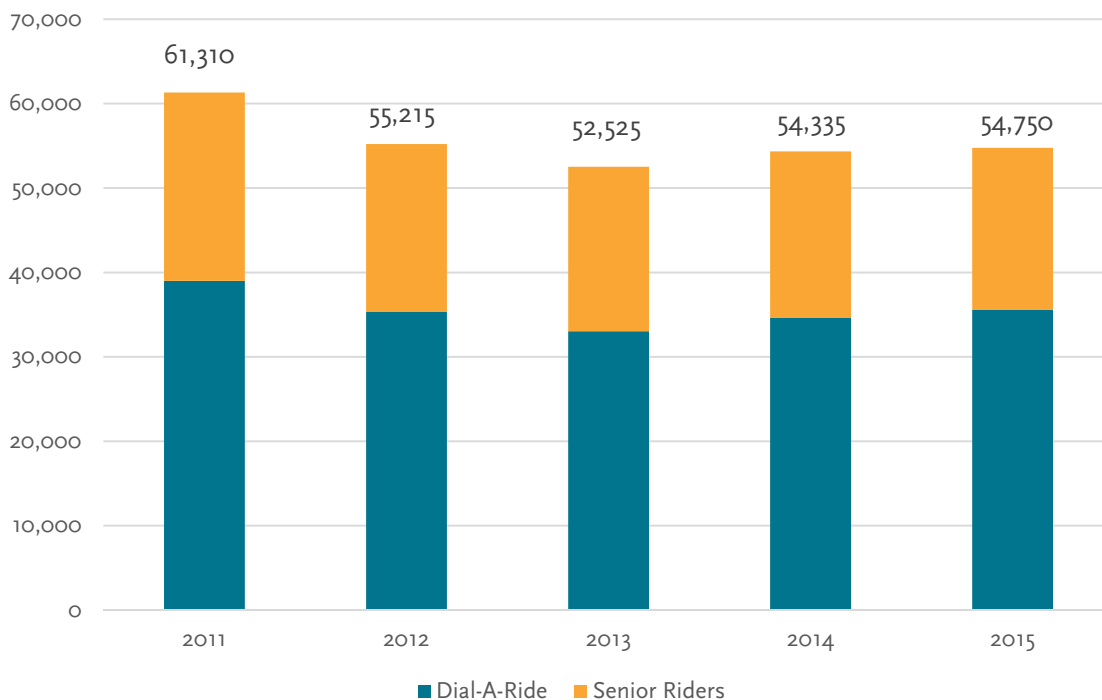
Dial-A-Ride service is an origin-to-destination service for all eligible people who are unable to access the fixed route service due to a disability. Eligible riders schedule rides within the city limits of Grand Forks and East Grand Forks at a cost to the rider of \$3.00 per trip. Dial-A-Ride service is available beginning at 6 A.M. until 10 P.M. Monday through Friday and 8 A.M. until 10 P.M. on Saturdays. To request a trip, an eligible rider must schedule all one-way trips at least one day in advance; if the ride needs to be canceled it must be done in advance, at least two hours.

Senior Rider service is an origin-to-destination service for all eligible people who are 62 and older. Again, Senior Rider services can be scheduled within the city limits of Grand Forks and East Grand Forks at a cost to the rider of \$3.00 per trip. It operates from 6 A.M. until 10 P.M. Monday through Friday and 8 A.M. until 10 P.M. on Saturdays. To request a trip, an eligible rider must schedule all one-way trips at least one day in advance; if the ride needs to be canceled it must be done in advance, at least two hours.

### Historical Trends

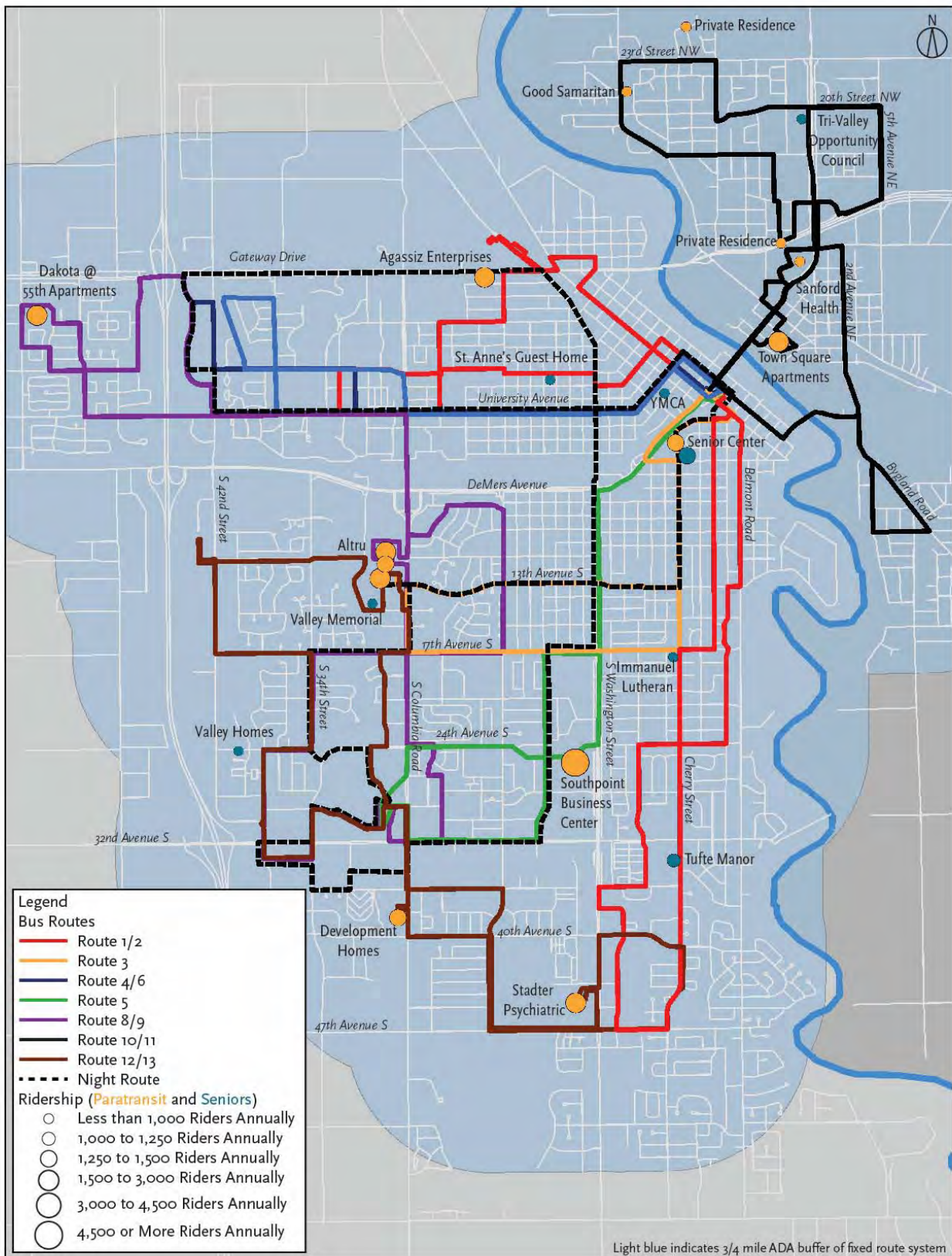
Since 2011, ridership has decreased nearly 12 percent. This decline in ridership is likely related to the change in dispatching functions and rider certification. The ridership decline is fairly evenly split between Dial-A-Ride and Senior Rider, with ridership declines of 3,460 and 3,100 respectively. 2013 was the lowest ridership year, with ridership growing slightly in both 2014 and 2015. Senior Riders made up just 35.1 percent of 2015 ridership. In 2015, just 7.3 percent of riders originated in East Grand Forks. The demand response service area with the largest origins and destinations are shown in Figure 32.

Figure 32: Historical Trends in Demand Response Ridership



2015 Annual Demand Response Ridership: 54,750

Figure 33: Demand Response Service Area with Largest Origins and Destinations



## System Performance

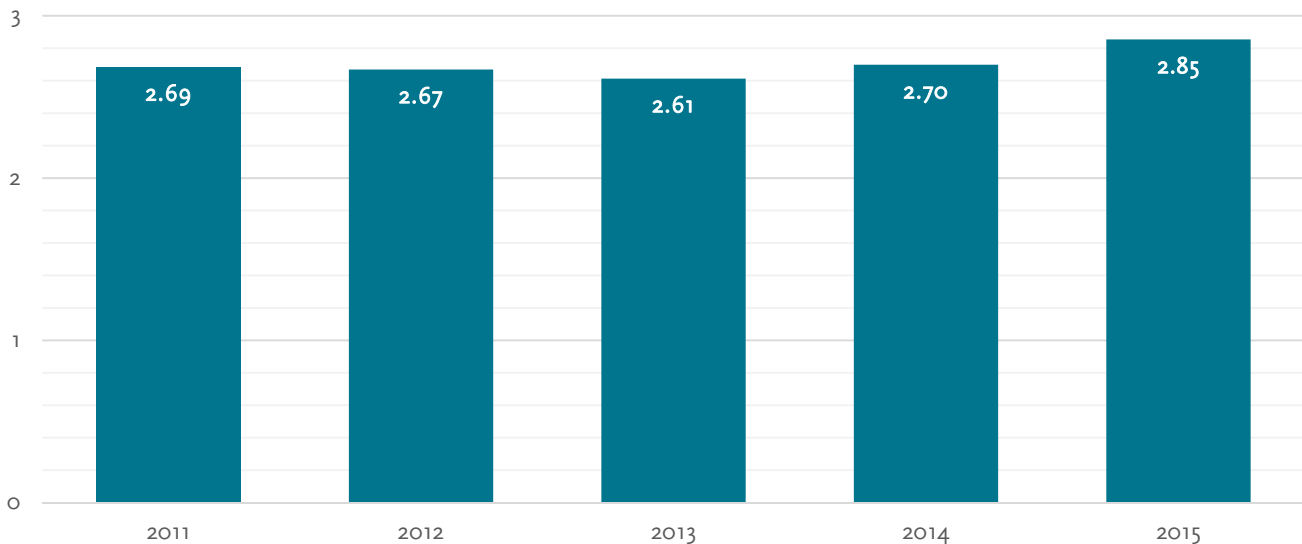
System performance and quality of service measures are slightly different for demand response systems. Many of these systems are provided in accordance with strict Americans with Disabilities Act requirements and are not available to the general public. Therefore, the considerations in trying to attract choice riders are not applicable, this does not mean though that the system should not strive to maximize efficiency, effectiveness and quality of service.

System performance and quality of service measures for the Demand Response system will use annually collected data. These numbers can be compared to other peer systems and provide benchmarks to measure progress against system goals and objectives based on local, state and industry standards. Quality of service metrics are assigned a Level of Service ranging from “1” which is the best possible service or “8” which is the lowest possible service. These thresholds are provided by the *Transit Capacity and Quality of Service Manual Second Edition*.

## Rides per Revenue Hour

Rides per revenue hour is a simple calculation based on the number of riders per each hour a bus is available to carry passengers (revenue hour). Rides per revenue mile is based on the number of riders per mile each bus travels when the bus is available to carry passengers. In 2015, CAT’s Demand Response system had 19,200 Revenue Hours, down 15.7 percent from 2011, and provided 54,750 rides. This results in 2.85 rides per revenue hour for 2015, which is the highest since before 2011.

Figure 34: Demand Response Historical Rides per Revenue Hour



**2015 Rides per Revenue Hour: 2.85**

## Cost per Revenue Hour

Cost per Revenue hour for the Demand Response system has been steadily increasing since 2011. In 2015, it reached \$64.36, which is 75.8 percent higher than the 2011 Cost per Revenue Hour.

Figure 35: Demand Response System Historic Cost per Revenue Hour

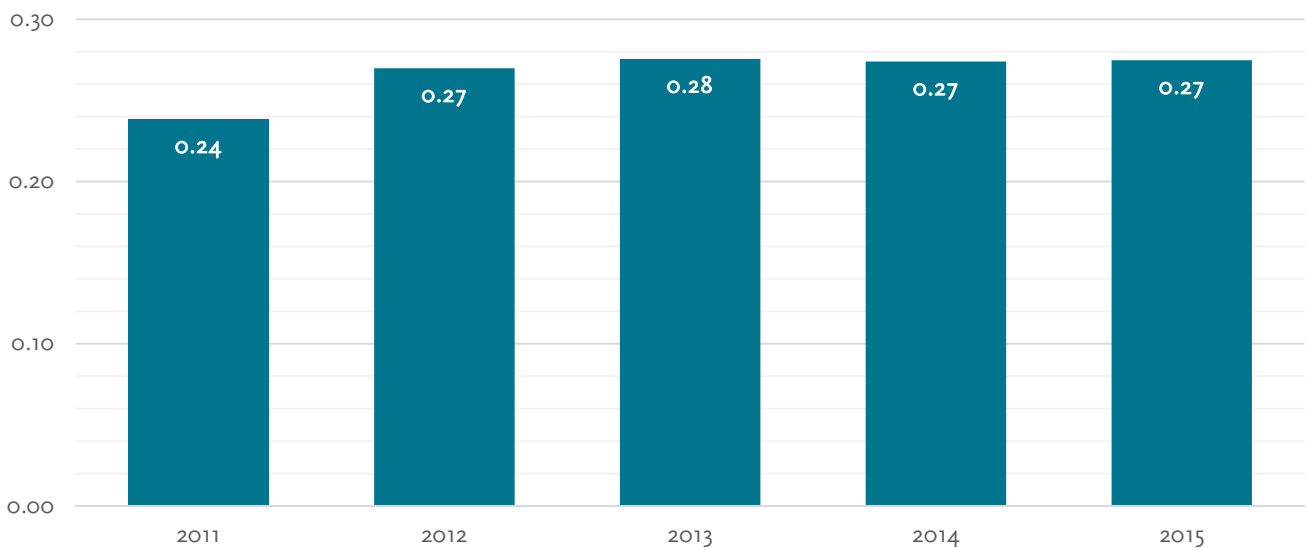


2015 Cost per Revenue Hour: \$64.36

### Rides per Revenue Mile

Rides per revenue mile is based on the number of riders per mile each bus travels when the bus is available to carry passengers. In 2015, CAT's Demand Response system had 199,250 Revenue Miles and provided 54,750 rides. This results in 0.27 rides per revenue mile for 2015. Rides per Revenue Mile has remained nearly constant since 2012.

Figure 36: Historical Demand Response Rides per Revenue Mile

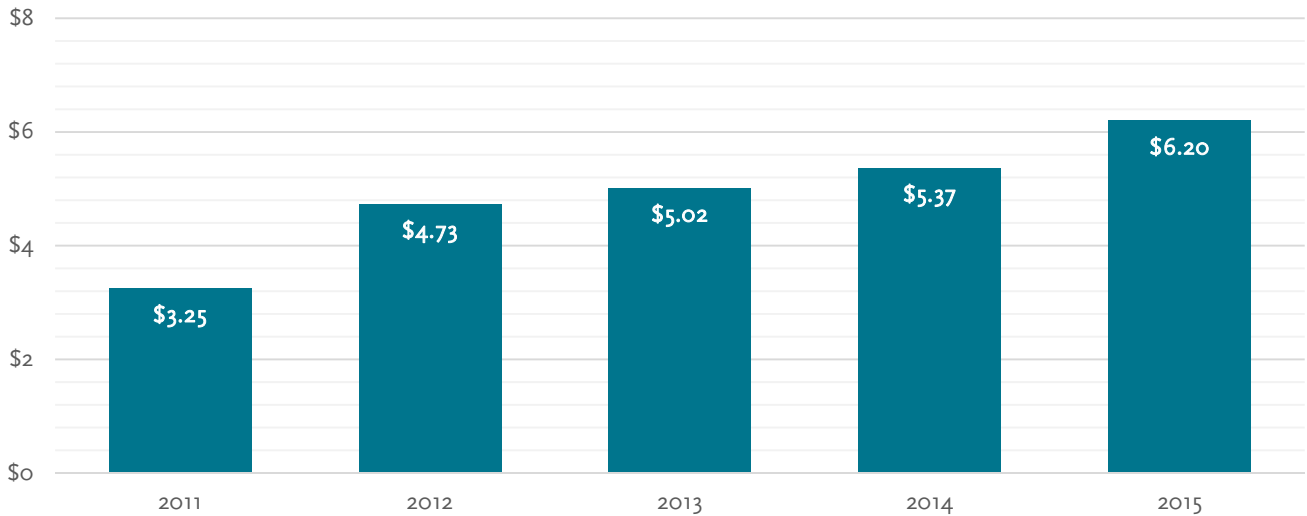


2015 Rides per Revenue Mile: 0.12

## Cost per Revenue Mile

Similar to Cost per Revenue Hour, Cost per Revenue Mile has been increasing since 2011. In 2015, Cost per Revenue Mile reached \$6.20 per mile, or 90.8 percent higher than 2011 Cost per Revenue Mile.

Figure 37: Demand Response Historic Cost per Revenue Mile

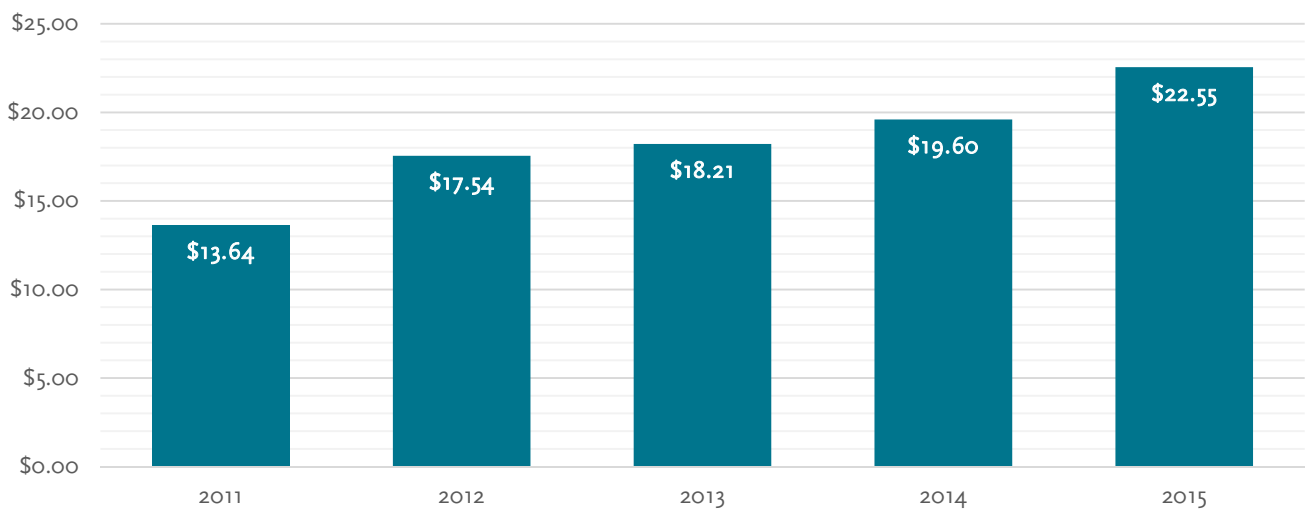


2015 Cost per Revenue Mile: \$6.20

## Cost per Ride

In 2015, the operating cost of the Demand Response System surpassed \$827 thousand and provided 54,750 rides. In 2015, the average Cost per Ride rose to \$22.55, which is 65.3 percent higher than 2011's Cost per Ride, the five-year low at \$13.64.

Figure 38: Historical Demand Response Cost per Ride

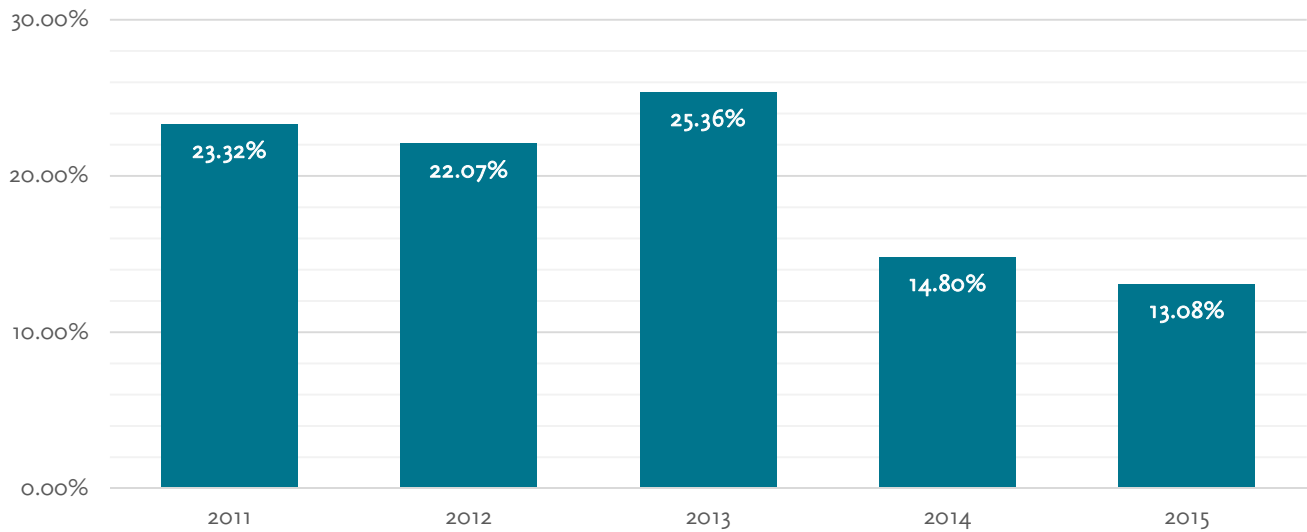


2015 Cost per Ride: \$22.55

## Farebox Recovery

The Demand Response system has traditionally recovered more costs through the farebox than the fixed route system. The farebox recovery rate has fallen from its five-year high in 2013 at 25.36 percent to just 13.08 percent in 2015. This is a 48.4 percent decline in farebox recovery.

Figure 39: Demand Response Farebox Recovery



**2015 Farebox Recover: 13.08%**

## Service Coverage

The demand response system serves all areas within the city boundaries of Grand Forks and East Grand Forks, which exceeds the 3/4 mile service buffer required by the Americans with Disabilities Act.

## Span of Service

Like Fixed Route service, the span of service for Demand Response service is a measure of the number of hours the service is available. Unlike the Fixed Route service, the Demand Response performance measure includes the number of days per week the service is available. The CAT Demand Response system runs from 6 A.M. to 10 P.M. Monday through Friday and 8 A.M. to 10 P.M. on Saturdays. There is no service on Sunday. The average hours of service is 15.67, or Level of Service 2.

Table 14: Demand Response System Hours of Service Level of Service

Hours per Day	6 or More Days per Week	5 Days per Week	3 to 4 Days per Week	2 Days per Week	1 Days per Week	0.5 Days per Week	< 0.5 Days per Week
≥ 16.0	LOS 1	LOS 2	LOS 4	LOS 5	LOS 6	LOS 7	LOS 8
12.0 – 15.9	LOS 2	LOS 3	LOS 4	LOS 5	LOS 6	LOS 7	LOS 8
9.0 – 11.9	LOS 3	LOS 4	LOS 4	LOS 6	LOS 6	LOS 7	LOS 8
4.0 – 8.9	LOS 5	LOS 5	LOS 5	LOS 6	LOS 7	LOS 7	LOS 8
< 4.0	LOS 6	LOS 6	LOS 6	LOS 7	LOS 8	LOS 8	LOS 8

**2015 Hours of Service: 15.67 Hours, LOS 2.**



## Service Hours per Capita

With just over 19,000 revenue hours, the CAT Demand Response System has 0.31 service hours per capita.

**2015 Service Hours per Capita: 0.31.**

## Unservd Trips

This performance measure seeks to understand two components of reliability, first, if trips are denied due to lack of capacity and second, if trips are booked and scheduled but do not show up for the trip. In 2015, CAT had zero unserved trips.

*Table 15: Demand Response System Unserved Trips*

LOS	Unservd Trips
1	0 to 1%
2	1% to 2%
3	2% to 4%
4	4% to 6%
5	6% to 8%
6	8% to 10%
7	10% to 12%
8	More than 12%

**2015 Unserved Trips: 0, LOS 1.**

## Response Time

Response time is a measure of how much advance planning a rider must undergo to schedule a ride on the Demand Response system. Fast and convenient service should be a goal, but limitations in service, fleet and funding can limit these characteristics. Level of Service “1” represents very prompt service, similar to a taxi ride, while Level of Service “8” requires weeks of preplanning.

CAT provides next day service, requiring an appointment and some planning. At this time, it is unlikely that CAT will drastically change its response time.

*Table 16: Demand Response System Response Time*

LOS	Response Time	Comments
1	Up to ½ Hour	Very prompt response, similar to exclusive-ride taxi service.
2	More than ½ Hour, up to 2 Hours	Prompt response; considered immediate response for service.
3	More than 2 Hours, Same Day Service	Requires planning, but can still travel the day trip is requested.
4	24 Hours in Advance	Requires some advance planning.
5	48 Hours in Advance	Requires more advance planning.
6	48 Hours in Advance, Up to 1 Week	Requires advance planning.
7	More than 1 Week, Up to 2 Weeks	Requires considerable advance planning, may still work for some trips.
8	More than 2 Weeks, or Unavailable	Requires significant advance planning or service is unavailable.

**2015 Response Time: 24 Hours in Advance, LOS 4.**

## *Summary of Demand Response System Performance*

The previously described metrics represent a variety of qualities that demonstrate the quality, effectiveness and efficiency of the current Demand Response System. Later in this report, performance targets will be developed for these metrics.

*Table 17: 2015 Demand Response System Performance*

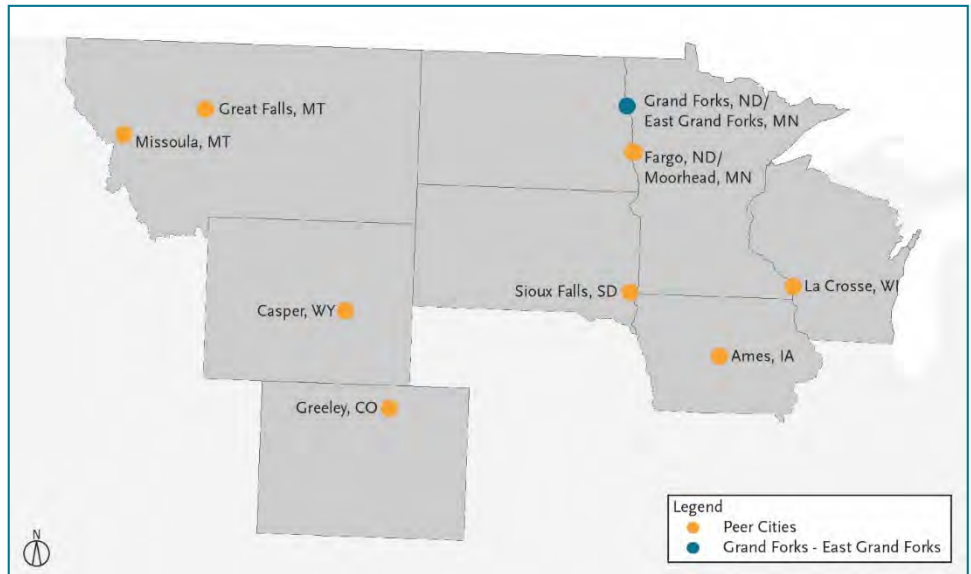
Metric	2015 Performance
Annual Ridership	54,750
Rides per Revenue Hour	2.85
Rides per Revenue Mile	0.12
Cost per Ride	\$22.55
Span of Service	15.67 Hours
Service Hours per Capita	0.39
Unserved Trips	0
Response Time	24 Hours in Advance

## PEER ANALYSIS

Comparing CAT's performance measures year-over-year is a way to measure progress towards a set of goals, however comparing performance measures against systems' performance is a way to establish whether CAT is performing well when compared to similar geographical, demographic and economic peers. The performance of CAT was compared to eight peer systems relative to system characteristics and efficiencies. The seven peer systems include

- » LaCrosse, Wisconsin
- » Sioux Falls, South Dakota
- » Missoula, Montana
- » Greeley, Colorado
- » Ames, Iowa
- » Great Falls, Montana
- » Fargo, North Dakota/Moorhead, Minnesota
- » Casper, Wyoming

Figure 40: Peer Cities



The 2014 Reports from the National Transit Database were used as the basis of the peer analysis to ensure that the comparisons are equal for all systems. The 2014 system performance measures used in this peer analysis include:

- » Farebox Recovery is the percentage of total operating costs collected from riders. The higher this percentage is, the more cost effective the system.
- » Cost per Revenue Mile is the cost per mile traveled while the bus was in service. The lower this number is, the more cost effective the system.
- » Cost per Revenue Hour is the cost per hour the bus was in service. The lower this number is, the more cost effective the system.
- » Cost per Rider is the cost per passenger served by the system. The lower this number is the more cost effective the system.
- » Riders per Revenue Mile is the number of passengers per mile traveled while the bus was in service. The higher this number is, the more effective the system.
- » Riders per Revenue Hour is the number of passengers per hour the bus was in service. The higher this number is, the more effective the system.

## FIXED ROUTE PEER ANALYSIS

Within the peer systems, CAT operates in the second smallest metro, just 61,270 people, only Ames, Iowa is smaller, with 60,440 people. It is the third densest metro at 2,553 people per square miles, only Ames, Iowa and Greeley, Colorado are denser. In 2014, CAT's fixed route system

- » Recovered about 11.7 percent of operating costs through farebox revenue. Excluding Ames, Iowa, CAT is 4.8 percent higher than the Peer Cities Average. Including Ames, Iowa, CAT is 27.3 percent lower than the total Peer Cities Average.
- » Cost \$5.95 per revenue mile, which is 2.4 percent higher than the total Peer Cities Average.
- » Cost \$81.21 per revenue hour, which is 12.0 percent higher than the total Peer Cities Average.
- » Cost \$5.89 per rider, which is 27.1 percent higher than the Peer Cities Average excluding Ames and 39.6 percent higher than the total Peer Cities Average.
- » Had 1.01 rides per revenue mile, which is 28.2 percent lower than the Peer Cities Average excluding Ames, Iowa. Including Ames, Iowa, CAT is 55.3 percent lower than the total Peer Cities Average.
- » Had 13.80 rides per revenue hour, which is 23.7 percent lower than the Peer Cities Average excluding Ames, Iowa. Including Ames, Iowa, CAT is 50.1 percent lower than the total Peer Cities Average.

Table 18: Fixed Route Peer Characteristics

City	Population Density	Fleet Size	Ridership	Fare Revenue	Operating Expenses	Revenue Hours	Revenue Miles
LaCrosse, WI	1,978	14	1,192,752	\$633,582	\$4,661,352	54,215	766,569
Sioux Falls, SD	2,450	28	955,357	\$573,128	\$4,234,877	62,669	748,928
Missoula, MT	1,826	18	901,166	\$246,052	\$3,953,204	44,728	580,130
Greeley, CO	2,874	12	532,094	\$381,046	\$2,513,415	32,384	422,461
Great Falls, MT	2,103	13	436,041	\$237,839	\$2,304,985	33,357	419,762
Fargo, ND/Moorhead, MN	2,524	30	2,223,701	\$1,015,343	\$7,646,574	102,428	1,314,805
Casper, WY	2,152	7	165,734	\$61,322	\$1,032,593	24,621	299,041
Ames, IA	2,628	74	6,609,229	\$4,384,130	\$8,679,250	116,077	1,200,141
<b>Total Peer Cities Average</b>	<b>2,317</b>	<b>24.5</b>	<b>1,627,009</b>	<b>\$941,555</b>	<b>\$4,378,281</b>	<b>58,810</b>	<b>718,980</b>
<b>Peer Cities Average excl. Ames</b>	<b>2,272</b>	<b>17.4</b>	<b>915,264</b>	<b>\$449,759</b>	<b>\$3,763,857</b>	<b>50,629</b>	<b>650,242</b>
Grand Forks-East Grand Forks	2,553	8	346,673	\$238,360	\$2,040,284	25,125	342,846

Table 19: Fixed Route Peer Performance

City	Farebox Recovery	Cost per Revenue Mile	Cost per Revenue Hour	Cost per Ride	Ride per Revenue Mile	Ride per Revenue Hour	Average Fleet Age
LaCrosse, WI	13.6%	\$6.08	\$85.98	\$3.91	1.56	22.00	9.5
Sioux Falls, SD	13.5%	\$5.65	\$67.58	\$4.43	1.28	15.24	8.6
Missoula, MT	6.2%	\$6.81	\$88.38	\$4.39	1.55	20.15	6.9
Greeley, CO	15.2%	\$5.95	\$77.61	\$4.72	1.26	16.43	4.3
Great Falls, MT	10.3%	\$5.49	\$69.10	\$5.29	1.04	13.07	4.8
Fargo, ND/Moorhead, MN	13.3%	\$5.82	\$74.65	\$3.44	1.69	21.71	8.55
Casper, WY	5.9%	\$3.45	\$41.94	\$6.23	0.55	6.73	5.2
Ames, IA	50.5%	\$7.23	\$74.77	\$1.31	5.51	56.94	8.8
<b>Total Peer Cities Average</b>	<b>16.1%</b>	<b>\$5.81</b>	<b>\$72.50</b>	<b>\$4.21</b>	<b>2.26</b>	<b>27.67</b>	<b>7.1</b>
<b>Peer Cities Average excl. Ames</b>	<b>11.1%</b>	<b>\$5.61</b>	<b>\$72.18</b>	<b>\$4.63</b>	<b>1.41</b>	<b>18.08</b>	<b>6.8</b>
Grand Forks-East Grand Forks	11.7%	\$5.95	\$81.21	\$5.89	1.01	13.80	6.2

Figure 41: Fixed Route Peer Analysis Productivity per Revenue Hour

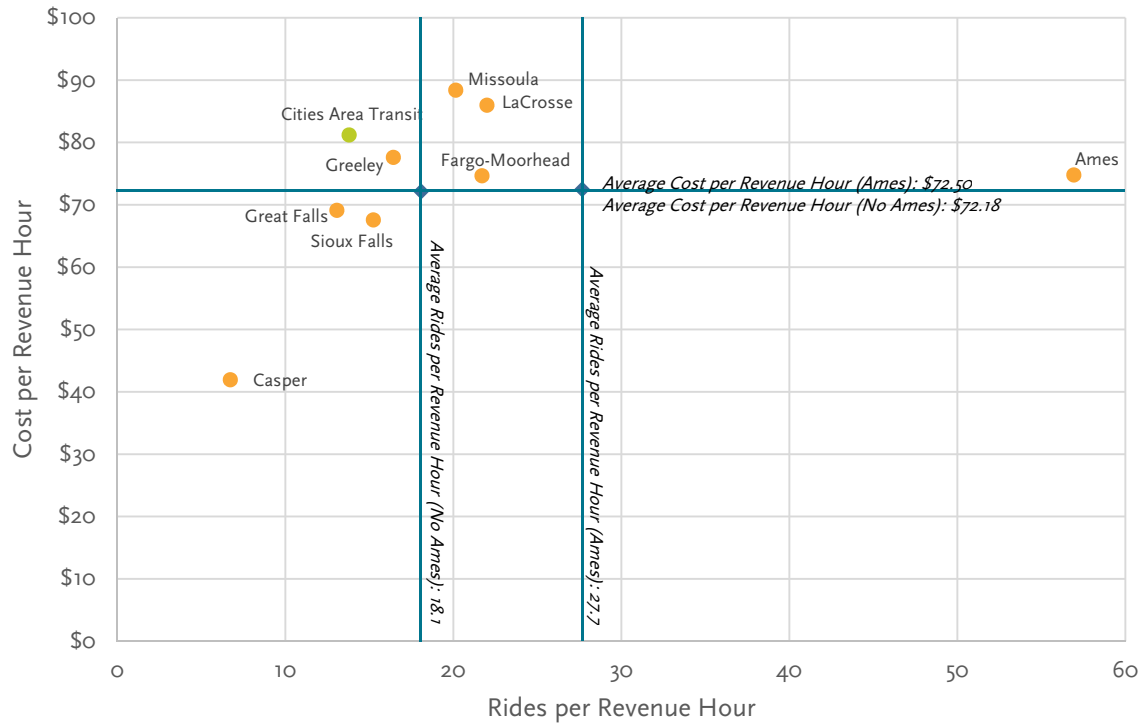
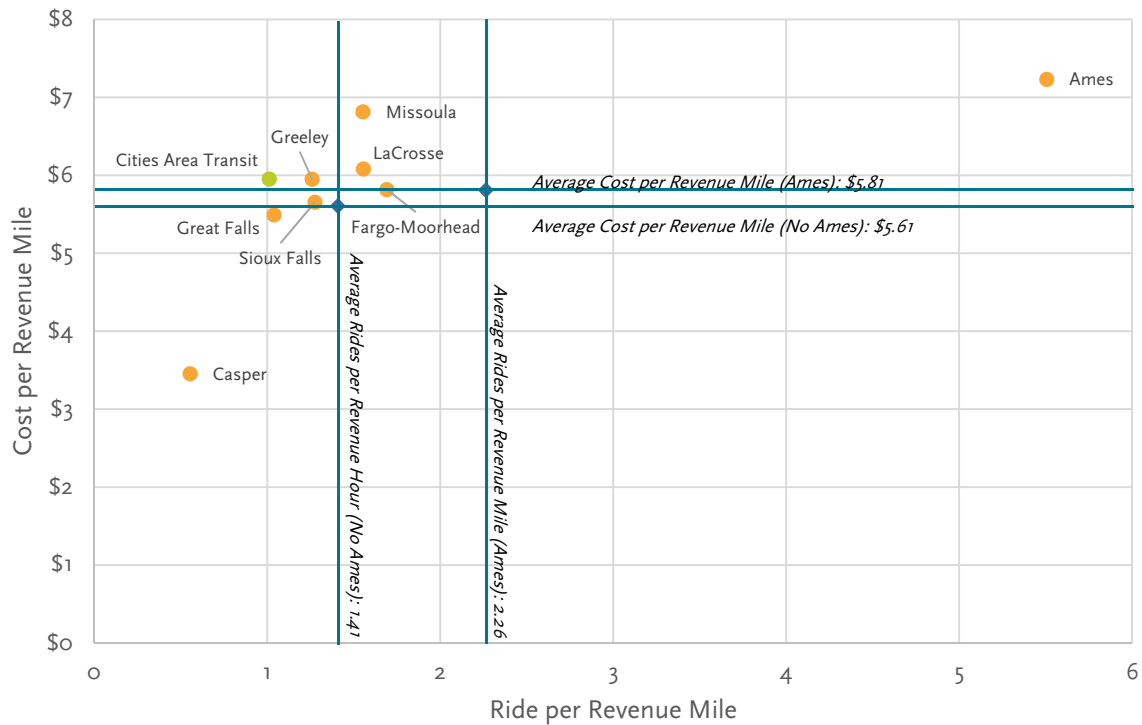


Figure 42: Fixed Route Peer Analysis Productivity per Revenue Mile



## DEMAND RESPONSE PEER ANALYSIS

In 2014, CAT's demand response system

- » Recovered about 14.8 percent of operating costs through farebox revenue. Excluding Ames, Iowa, CAT is 16.6 percent lower than the Peer Cities Average. Including Ames, Iowa, CAT is 9.1 percent lower than the total Peer Cities Average.
- » Cost \$5.37 per revenue mile, which is 18.0 percent higher than the total Peer Cities Average.
- » Cost \$52.89 per revenue hour, which is 1.8 percent higher than the total Peer Cities Average.
- » Cost \$19.60 per rider, which is 16.8 percent lower than the total Peer Cities Average.
- » Had 0.27 rides per revenue mile, which is 49.7 percent higher than the Peer Cities Average excluding Ames, Iowa. Including Ames, Iowa, CAT is 38.9 percent higher than the total Peer Cities Average.
- » Had 2.7 rides per revenue hour, which is 25.8 percent higher than the Peer Cities Average excluding Ames, Iowa. Including Ames, Iowa, CAT is 19.5 percent higher than the total Peer Cities Average.

Table 20: Demand Response Peer Characteristics

City	Population Density	Fleet Size	Ridership	Fare Revenue	Operating Expenses	Revenue Hours	Revenue Miles
LaCrosse, WI	1,978	14	30,430	\$352,457	\$528,698	27,032	346,965
Sioux Falls, SD	2,450	22	132,387	\$224,100	\$3,751,509	53,154	625,026
Missoula, MT	1,826	7	21,602	\$88,374	\$678,057	9,896	120,069
Greeley, CO	2,874	6	23,881	\$48,281	\$847,463	13,496	136,604
Great Falls, MT	2,103	6	31,965	\$59,000	\$445,408	12,058	141,479
Fargo, ND/Moorhead, MN	2,524	16	62,222	\$211,421	\$1,634,340	30,682	392,458
Casper, WY	2,152	7	52,202	\$63,768	\$958,523	18,833	215,582
Ames, IA	2,628	3	10,552	\$11,100	\$183,149	3,461	34,737
<b>Total Peer Cities Average</b>	<b>2,317</b>	<b>10</b>	<b>45,655</b>	<b>\$132,313</b>	<b>\$1,128,393</b>	<b>21,077</b>	<b>251,615</b>
<b>Peer Cities Average excl. Ames</b>	<b>2,272</b>	<b>11</b>	<b>50,670</b>	<b>\$149,629</b>	<b>\$1,263,428</b>	<b>23,593</b>	<b>282,598</b>
Grand Forks-East Grand Forks	2,553	10	54,336	\$157,631	\$1,065,005	20,136	198,365

Table 21: Demand Response Peer Performance

City	Farebox Recovery	Cost per Revenue Mile	Cost per Revenue Hour	Cost per Ride	Ride per Revenue Mile	Ride per Revenue Hour	Average Fleet Age
LaCrosse, WI	66.7%	\$1.52	\$19.56	\$17.37	0.09	1.13	7.4
Sioux Falls, SD	6.0%	\$6.00	\$70.58	\$28.34	0.21	2.49	4.3
Missoula, MT	13.0%	\$5.65	\$68.52	\$31.39	0.18	2.18	5.6
Greeley, CO	5.7%	\$6.20	\$62.79	\$35.49	0.17	1.77	5.5
Great Falls, MT	13.2%	\$3.15	\$36.94	\$13.93	0.23	2.65	3.6
Fargo, ND/Moorhead, MN	12.9%	\$4.16	\$53.27	\$26.27	0.16	2.03	5.2
Casper, WY	6.7%	\$4.45	\$50.90	\$18.36	0.24	2.77	4.8
Ames, IA	6.1%	\$5.27	\$52.92	\$17.36	0.30	3.05	5.8
<b>Total Peer Cities Average</b>	<b>16.3%</b>	<b>\$4.55</b>	<b>\$51.93</b>	<b>\$23.56</b>	<b>0.20</b>	<b>2.26</b>	<b>5.275</b>
<b>Peer Cities Average excl. Ames</b>	<b>17.7%</b>	<b>\$4.45</b>	<b>\$51.79</b>	<b>\$24.45</b>	<b>0.18</b>	<b>2.15</b>	<b>5.2</b>
Grand Forks-East Grand Forks	14.8%	\$5.37	\$52.89	\$19.60	0.27	2.70	3.6

Figure 43: Demand Response Peer Analysis Productivity per Revenue Hour

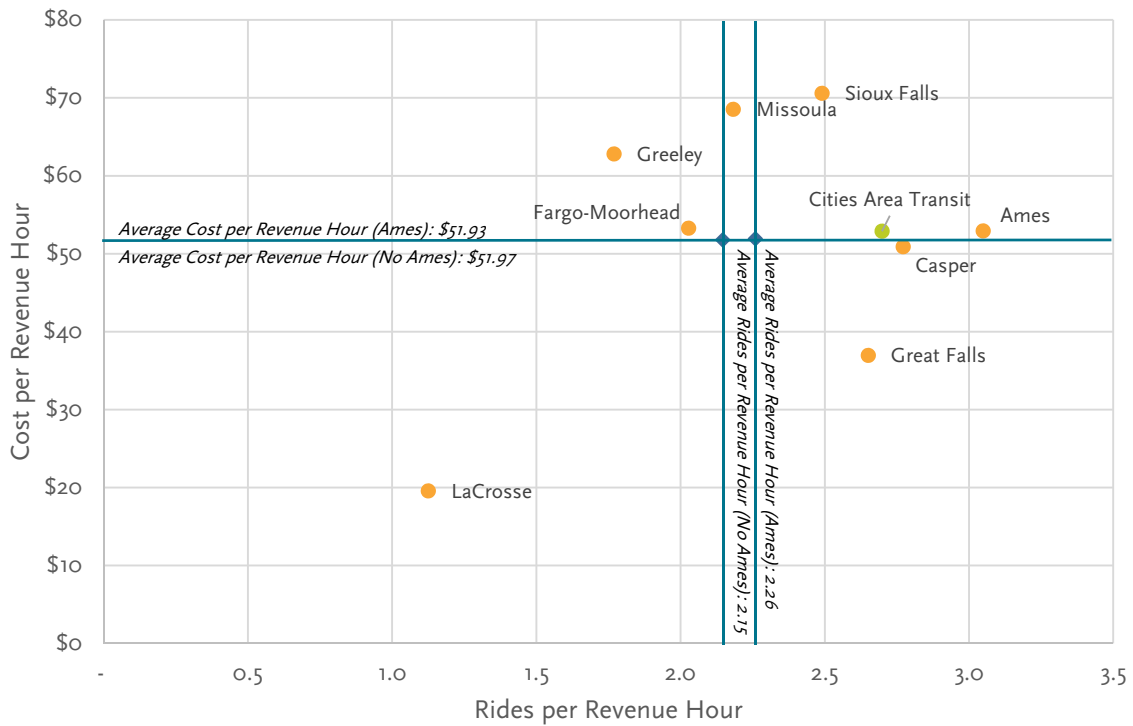
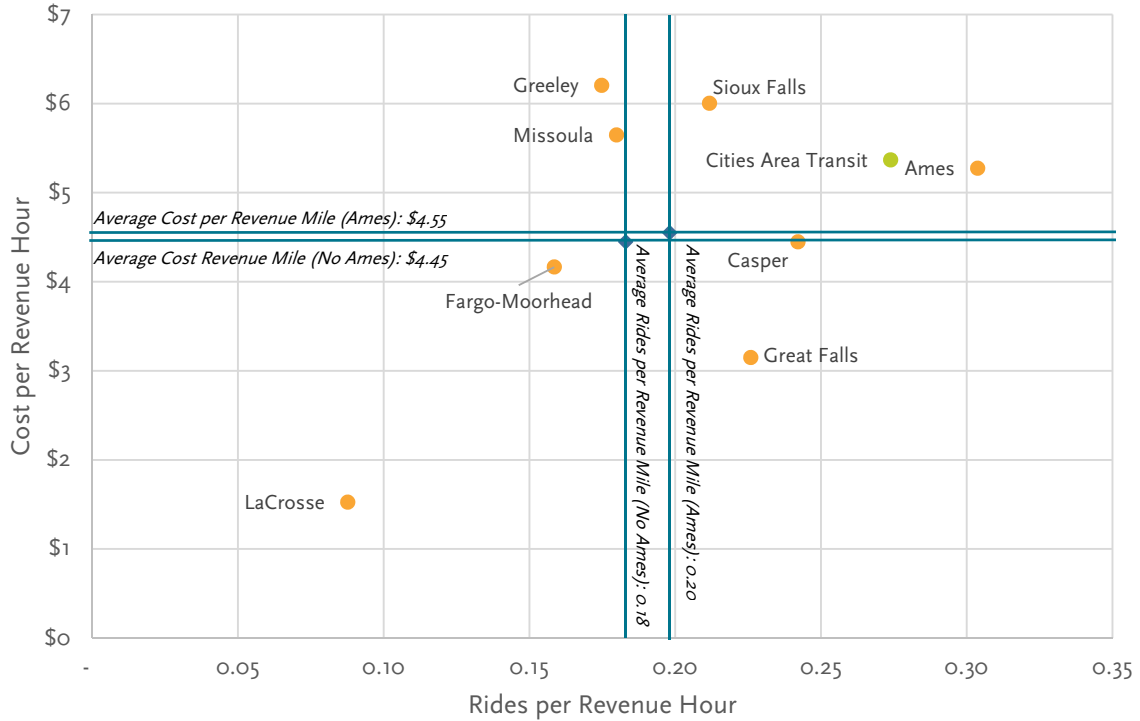


Figure 44: Demand Response Peer Analysis Productivity per Revenue Mile



## CAPITAL SUMMARY

CAT has a fleet of 21 vehicles: 10 Fixed Route vehicles and 11 Demand Response vehicles. All vehicles are accessible and feature bicycle racks. These vehicles are housed at the City Bus Garage and Administrative Office. In 2016, CAT applied for a Bus & Bus Facilities Discretionary Grant and a TIGER Grant for an \$8.5 million renovation and expansion project for the 33 year old building.

The Fixed Route fleet includes seven large heavy-duty buses, and three smaller light- and medium-duty buses. The average age of the Fixed Route fleet is 8.25 years, with four buses scheduled for replacement in 2016. With these replacements, the average age will be just 3.4 years. The Demand Response fleet includes two light-duty buses and nine vans. The average age of the Demand Response fleet is 4.6 years. With five buses scheduled for replacement in 2016, the average age will be just 3.4 months.

Figure 45: Heavy-Duty Bus (Top) and Medium-Duty Bus (Bottom)



Table 22: Fixed Route Fleet Inventory

Vehicle Number	Vehicle Type	Vehicle Year	Mileage	Useful Life (Months)	Actual Service (Months)	Remaining Months	Useful Life (Mileage)	Remaining Life (Mileage)
103	New Flyer	2010	236,007	144	68.4	75.6	500,000	52.8%
104	New Flyer	2010	245,119	144	68.4	75.6	500,000	51.0%
105	New Flyer	2010	231,284	144	68.6	75.4	500,000	53.7%
106	New Flyer	2010	248,673	144	68.6	75.4	500,000	50.3%
976	New Flyer	1997	563,980	144	217.6	(73.6)	500,000	-12.8%
42	Gillig	2004	414,074	144	139.3	4.7	500,000	17.2%
31	Gillig	2003	407,051	144	156.6	(12.6)	500,000	18.6%
91	Chevy Arboc	2009	259,091	84	83.9	0.1	200,000	-29.5%
112	Chevy Arboc	2011	170,504	84	60.1	23.9	200,000	14.7%
113	Ford E-450	2011	236,066	60	58.8	1.2	150,000	-57.4%
Average			301,185	124	99.0	24.6	405,000	15.9%

Table 23: Demand Response Fleet Inventory

Vehicle Number	Vehicle Type	Vehicle Year	Mileage	Useful Life (Months)	Actual Service (Months)	Remaining Months	Useful Life (Mileage)	Remaining Life (Mileage)
107	Dodge Entervan	2010	129,370	48	63.7	(15.7)	100,000	-29.4%
108	Dodge Entervan	2010	120,046	48	63.6	(15.6)	100,000	-20.0%
109	Dodge Entervan	2010	127,330	48	63.6	(15.6)	100,000	-27.3%
114	Chevy Arboc	2011	195,797	85	42.0	43.0	200,000	2.1%
121	Dodge Entervan	2012	80,068	48	41.5	6.5	100,000	19.9%
141	Dodge Entervan	2014	47,166	48	21.0	27.0	100,000	52.8%
142	Chevy Arboc	2014	7,691	85	15.9	69.1	200,000	96.2%
151	Dodge Entervan	2015	10,847	48	6.2	41.8	100,000	89.2%
152	Dodge Entervan	2015	9,480	48	6.2	41.8	100,000	90.5%
153	Dodge Entervan	2015	10,300	48	6.2	41.8	100,000	89.7%
154	Dodge Entervan	2015	8,695	48	6.2	41.8	100,000	91.3%
Average			67,890	54.7	30.6	24.2	118,200	41.1%



## FINANCIAL SUMMARY

A critical component of the TDP update will involve a future revenue forecast to ensure a fiscal constraint test upon a five year program of projects for CAT. Table 24 represents the baseline assessment of existing revenue broken out by city and funding source.

Assumptions used to develop local, state and federal revenues were based on information reported by the City of East Grand Forks. In order to develop existing revenue, a composite review of CY 2011, 2012 and 2013 general ledgers were used, as provided by the City of East Grand Forks. Additionally, CY 2015 MnDOT grant reporting materials were used to further refine a baseline existing revenue assumption for the City of East of Grand Forks.

Assumptions used to develop local, state and federal revenues reported by the City of Grand of Forks were based on the CY 2015 balances sheets provided by the City of Grand Forks. These materials were reviewed with city staff to ensure appropriate accounting for various revenue funds. Additionally, adjustments were made to account for current guidance for both state and federal funding based on recent information from the North Dakota Department of Transportation and the Federal Transit Administration.

Existing and baseline revenues for CAT exclude special grants or revenues which may have been reflected in the data sets. Examples would be one time funding for the VCLTI project or federal capital funds. Funding CAT is done through a variety of sources on both the Minnesota and North Dakota side of the metro. In 2015, CAT had \$3.02 million in revenue:

- » Federal funding is 37.8 percent of all funding
  - Federal funding is 38.9 percent of Grand Forks funds but just 28.7 percent of East Grand Forks funds
- » State funding is 14.6 percent of all funding
  - NDDOT provides just 10.5 percent of Grand Forks funds while MnDOT provides 46.9 percent of East Grand Forks funds
- » All local sources cover the remaining 47.7 percent, of which general fund/property taxes are the largest revenue source
  - Local funds make up 50.6 percent of Grand Forks funds while local funds are just 24.4 percent of East Grand Forks funds

Each different funding source has unique expectations for growth over time. These growth expectations will guide the development of future revenue scenarios that will be used to cost constrain alternatives.

Table 24: Total Revenue

East Grand Forks			Grand Forks			CAT System	
<b>Local Revenue</b>							
NCTC	\$3,600	1.1%	UND*	-	-	\$3,600	0.1%
Farebox	\$16,700	4.9%	Farebox	\$240,100	9.0%	\$256,800	8.5%
Ad Revenue	\$0	0.0%	Ad Revenue	\$25,700	1.0%	\$25,700	0.9%
General Fund/ Property Tax	\$62,070	18.4%	General Fund/ Property Tax	\$1,043,800	39.0%	\$1,105,870	36.7%
Miscellaneous Revenue	\$0	0.0%	Miscellaneous Revenue	\$46,000	1.7%	\$46,000	1.5%
<b>Subtotal Local</b>	<b>\$82,370</b>	<b>24.4%</b>	<b>Subtotal Local</b>	<b>\$1,355,600</b>	<b>50.6%</b>	<b>\$1,437,790</b>	<b>47.7%</b>
<b>State Revenue</b>							
MnDOT	\$158,590	46.9%	NDDOT	\$281,243	10.5%	\$439,833	14.6%
<b>Federal Revenue</b>							
FTA 5307	\$97,140	28.7%	FTA 5307	\$1,042,326	38.9%	\$1,139,466	37.8%
<b>Total Revenue</b>	<b>\$338,100</b>	<b>100.0%</b>	<b>Total Revenue</b>	<b>\$2,679,169</b>	<b>100.0%</b>	<b>\$3,017,269</b>	<b>100.0%</b>

\*2015 UND revenue was \$32,100. However, this was included in the Farebox line item for Grand Forks.