



Kimley»Horn



# GRAND FORKS TRANSIT DEVELOPMENT PLAN

Issues Analysis

AUGUST 2016



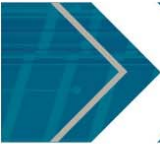
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## ASSESSING SYSTEM NEEDS

Through a variety of activities, including existing conditions analysis, public input and route reconnaissance, a variety of issues were identified on the current Cities Area Transit (CAT) system, including both fixed route and demand response services. Contained within this memorandum is a summary of the public input activities and the route reconnaissance. Evaluation of the existing conditions is contained in the Existing Conditions Technical Memorandum. Appendix A provides a more detailed listing of the specific information collected through the early public involvement process.

## INFORMATION GATHERING

### *Route Reconnaissance*

On April 28<sup>th</sup>, 2016, members of the study team spent the day interacting with CAT riders and drivers to begin identifying preliminary system issues. The following themes emerged:

- » Passengers frequently carry more on the bus than they physically can and what is allowed per CAT policy.
- » On-time performance is perceived as an issue for a variety of reasons including ineffective signal priority, long routes, peak hour traffic, difficult turning movements and inclement weather.
- » Shelters are either in the wrong locations or there are not enough.
- » Inconsistent stop announcements and some missed stops.

### *Public Input Summary*

On June 8<sup>th</sup> and 9<sup>th</sup>, 2016 the first series of public input meetings was held in Grand Forks, North Dakota and East Grand Forks, Minnesota. The series consisted of three stakeholder meetings held at Grand Forks City Hall on June 8<sup>th</sup> and three open house style public input meetings held on June 9<sup>th</sup> at various locations in the metro area, including

- » Hugo's in East Grand Forks from 10:00 A.M. to 2:00 P.M.
- » Metro Transit Center in Grand Forks from 10:00 A.M. to 2:00 P.M.
- » Grand Cities Mall in Grand Forks from 4:00 P.M. to 7:00 P.M.

*Figure 1: Photos from the Open Houses Held in June*



## Focus Groups and Open Houses

The Grand Forks-East Grand Forks MPO contacted nearly 50 stakeholders directly to invite them to one of the three focus groups, one of which was directed specifically towards human service providers. Attendance was light, with only 6 invitees attending. Each focus group included a short presentation on the existing conditions, discussion on system needs and an activity to connect desired origins and destinations. The open houses let the study team engage members of the general public and current riders at the three locations above. There were approximately 20 to 30 individuals who participated in the open houses. Most participants were passersby at either Hugo's or the Metro Transit Center and did not sign in.

Through these activities, a variety of system issues and needs were developed and are summarized below.

- » Seniors would prefer to ride the fixed route system, but some have had to start riding dial-a-ride because designated stops are too far from where people live or do not have amenities that allow seniors to wait comfortably.
- » Some areas of the metro are not well served, like new senior housing in southern Grand Forks, Veterans Affairs clinic, 42<sup>nd</sup> Street corridor, industrial park.
- » Route indirectness is a barrier for use.
- » Knowledge gap regarding fixed route accessibility, how to ride, where it goes, etc.
- » Riders would benefit from earlier, later and Sunday service.
- » Perceived safety issues at stops and on the bus.

## Survey

As part of the outreach efforts for this plan, a survey was developed which included questions for both current riders and non-users to understand the needs and perceptions of the system. The survey was distributed through various channels, including but not limited to:

- » Grand Forks – East Grand Forks Metropolitan Planning Organization's website.
- » Cities Area Transit's website.
- » Grand Forks – East Grand Forks Transit Development Plan's Facebook page.
- » On-board during the route reconnaissance event. Additional surveys were left at the MTC.
- » At the Focus Groups and Open House events.

At the time of this writing, 77 responses were received via the on-line version of the survey and 62 responses were received via the paper copy version of the survey.

## Key Results

The purpose of the survey was to supplement the other public input activities. Its responses should be analyzed with caution given the small, non-randomized sample; this survey is not statistically valid and should not be treated as such for the purpose of making large system improvements or changes. However, this does not mean the survey cannot provide insight into the existing issues and perceptions regarding CAT service.

Non-users were asked four questions about transit in general and their perceptions of CAT:

- » Non-users do not use transit because they believe it takes too long and do not know where the bus goes.
- » Non-users would consider taking transit if they had more information on routes and schedules and their travel time did not increase by more than 50 percent.
- » More than 80 percent of non-users find 10 to 20 minutes a reasonable time for a bus trip.

- » Non-users believe CAT provides an essential service that is important for the local economy. They also perceive CAT to be safe, clean and reliable, but not user friendly or convenient.

Current users of CAT were asked questions about their use patterns and perceptions of CAT. In terms of riding patterns:

- » Fifty percent of users have used CAT for more than five years.
- » Nearly seventy percent of users ride most days a week or more and walk two blocks or less to get to their bus stop.
- » More than sixty percent of respondents have a bus trip less than 30 minutes with more than 75 percent requiring just one transfer. Conversely, over 40 percent of non-users indicated they would be willing accommodate a transit trip lasting between 15 to 20 minutes.
- » The most important reasons users ride CAT is because of its affordability and convenience, but also because they do not have a vehicle and it provides fast service to their destinations.
- » Shopping, work and medical appointments make up nearly 70 percent of trips.
- » The most important improvements CAT could make include Sunday service, more frequent evening service and better or more bus shelters.
- » Current users found on time performance, courtesy and helpfulness of drivers, safety and security, cleanliness of buses and ease of use to be very good.

Both users and non-users were asked a similar set of preference and demographic questions.

- » 53 percent of total respondents prefer to emphasize service changes that give more people access to transit, but save some resources for changes that will serve the most people.
- » 92 percent of non-users reported they had a vehicle available for their use at most times, while just 32.2 percent of users have a vehicle available for their use at most times.

It should be noted that participation among UND and Northland students was low for the initial TDP survey deployment. With that in mind, the CAT and the MPO suggested using the 2011 UND Student survey as a relative proxy in certain areas. As such, that survey is occasionally referenced through this document. While five years old, the 2011 UND Student Survey is still likely valid in terms of macro level perceptions regarding CAT. The study team intends to complete additional survey work once system alternatives are developed. Part of future survey and outreach in later stages of the TDP development will focus on UND and Northland students and faculty.

## PREVIOUSLY IDENTIFIED SYSTEM BARRIERS

The focus groups which supported the Transit Development Plan (TDP) update process were structured to gather input on the status and relative significance of barriers identified in the most recent 2012 TDP. These barriers were the foundation of the TDP and also the current Coordinated Human Service Transportation Plan. The early public involvement process validated the barriers from the 2012 TDP and Coordinated Human Service Transportation Plan as still relevant to the current TDP planning process.

### *Previously Identified System Barriers*

The previous TDP update and the 2012 Human Service Coordinated Transportation Plan identified a number of system barriers that impacts the effectiveness and desirability of the CAT system, Fixed Route and Demand Response.

## Information Gap

The most common barrier for potential transit ridership is lack of information. When residents do not know where, when or how a system runs, how much it costs or if it is accessible, they are apprehensive to try to use it. The Human Service Coordinated Transportation Plan also identified that an information gap is a more impactful barrier for the new American population. The recent public involvement process provides significant evidence that more outreach and information is needed among existing and future potential CAT users.

## Accessibility to Routes

Dial-A-Ride service is provided within the entire Grand Forks and East Grand Forks city limits, which exceeds the Americans with Disabilities complementary paratransit service requirements. Previous and current analysis found many Demand Response system origins and destinations are very near a regular bus route. This suggests that environmental barriers, like ice and snow buildup or lack of sidewalks, and physical ability prevent riders from using the Fixed Route system. Input received as part of the Transit Development Plan update suggests the need to evaluate the effectiveness of the current designated stop policy implemented since the last TDP update in 2012.

## Coverage Area

As Grand Forks and East Grand Forks have grown out from their central core, providing service in these new areas has continued to be a challenge. Specific areas in Grand Forks, like 42<sup>nd</sup> Street, Gateway Drive, the industrial park and southern residential neighborhoods have no or low service coverage. While more service area is likely justifiable, recent input gathered through the TDP development process suggests that new service needs to be measured against improved levels of service to known transit hot spots.

## Cost

While the fare for riding does not cover the full cost of providing the transportation, it remains a burden for some riders, especially when CAT does not fully meet their transportation needs. Input gathered to date from key stakeholders suggests the need to streamline current fare methods and policies.

## Hours of Service

CAT does not provide any service from 10 P.M. to 6:30 A.M. Monday through Friday morning and begins at 8 A.M. on Saturday. A single night route provides service in Grand Forks only from 6 P.M. to 10 P.M. with one hour headways.

Specifically, the Human Service Coordinated Transportation Plan identified that a majority of employers in the industrial park have shifts that start at 5 A.M. and that lack of affordable transportation during the later hours impedes workers' ability to take the overnight shift. More consideration is needed to how evening routes are operated, and the general frequency and geographic coverage of evening service.

## Frequency of Routes

Most CAT routes operate with one hour headways, with the exception of Route 3, 5 and parts of the Route 4/6 and Route 10/11 service area. When a rider misses their bus, due to a variety of reasons, riders have very few other affordable options if they are unwilling or unable to wait for the next bus. This makes it difficult to rely solely on the public transit system. The existing conditions analysis and public input process suggested the need for prioritizing future service improvements to high productivity areas to ensure on time performance and a level of service commensurate with demand.



### Indirectness of Routes

The convenience of transit is greatly reduced when routes do not follow a similar path as riders would take in a personal auto. Adding walk time and transfers to indirect routes makes the time commitment of transit too great for many riders. The productivity analysis completed as part of the existing conditions assessment, coupled with the early public involvement process supports a reevaluation of how routes operate and the identification of service concepts that provides efficient crosstown connections.

### *Summary of Previously Identified Issues*

The breadth and depth of the initial 2012 barriers are expanded upon as part of the current TDP update process. These barriers provide the foundation of a full system needs analysis prior to moving further into the development of the system alternatives analysis for the update of the TDP.

As will be shown, each of these seven base barriers from the previous plans will resonate through the development of the issues analysis for the TDP update. Most significant is the problem regarding the identified information gap between the CAT system and existing and potential users. Both among current and potential users there is strong sentiment that information about the system is lacking. Most specifically is the lack of information transmittal via electronic means and tools. The lack of response to the online survey used as part of the early public involvement process exposes a clear digital gap between CAT and its most reliable customers.

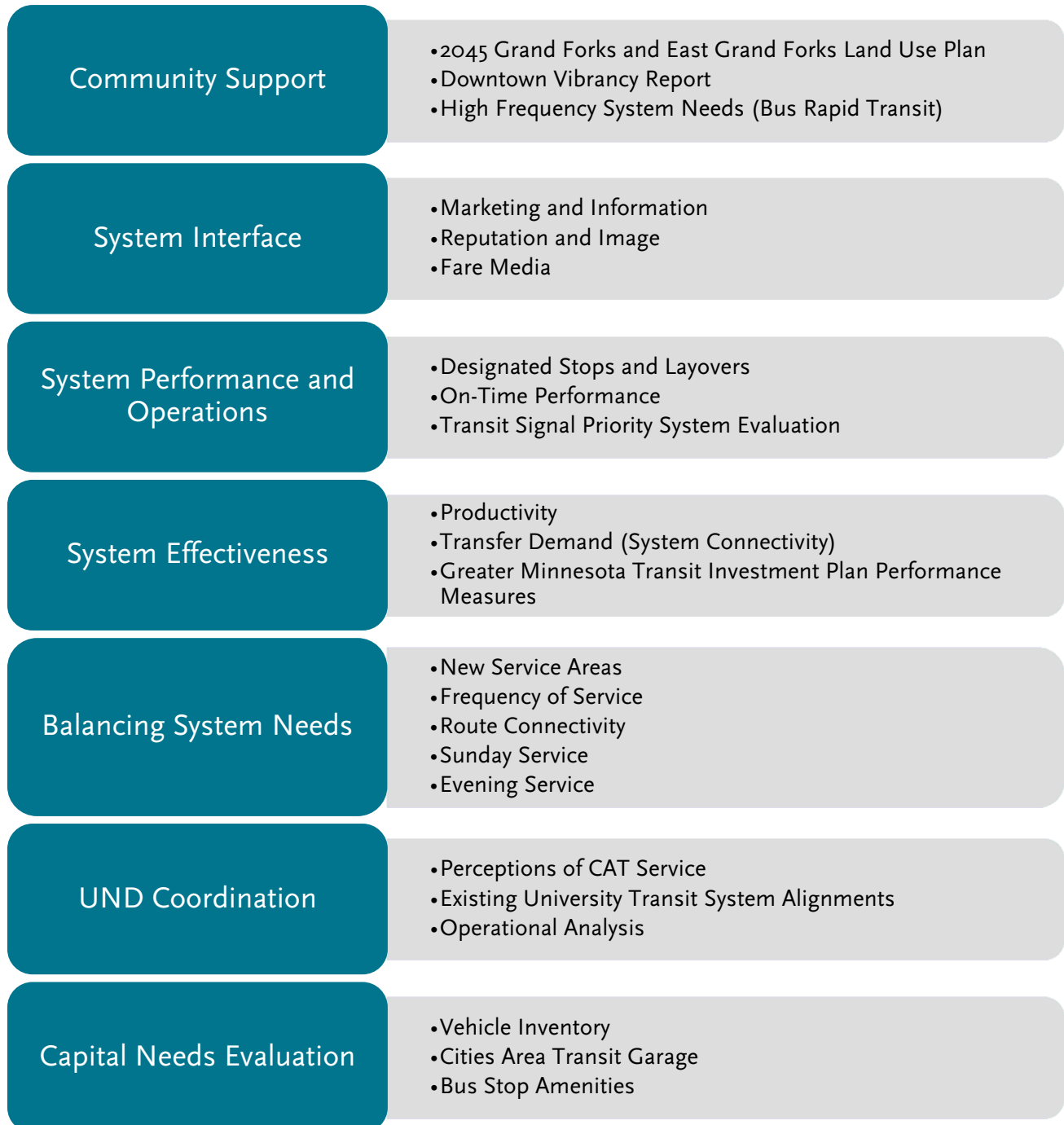
There is a substantial need to develop a balanced approach to addressing the barriers presented through hours of operation, frequency of service and the overall CAT service area. As the TDP unfolds, these three historical issues will fall under a larger issue to balance system needs. Developing a balanced approach will be accomplished in part through emerging system performance metrics outlined by both the FAST Act and MnDOT's soon to be updated Greater Minnesota Transit Investment Plan. Most importantly, the balanced approach to new service options will be controlled by the overall requirement that the TDP be fiscally constrained to reasonable forecasts for future local, state and federal revenue.

The smaller, yet no less significant issues of cost, accessibility to routes and indirectness of routes remain an undertone of the issues which will drive the update of the TDP.

## UPDATED ISSUES FRAMEWORK

Moving forward, the TDP update seeks to address the most prevalent and important issues on the CAT system. Based on the route reconnaissance, public input activities and survey, the following issues were preliminarily identified. In general, major issues areas are grouped and stratified as shown in Figure 2.

*Figure 2: Updated Issues Framework*



## COMMUNITY SUPPORT

Nationally, transit has gained favorability with the public. The American Public Transportation Association found seven in 10 Americans support using tax dollars to create, expand and improve public transportation in their communities, regardless of community size. The same survey found that 77 percent of Millennials aged 17 to 34 and 75 percent of Boomers aged 65 and older support increased public transportation funding to provide access to community amenities and attract companies and workforce. Locally, transit has been highlighted in the most recent land use plans for both Grand Forks and East Grand Forks and the Grand Forks Downtown Vibrancy Report.

### *2045 Grand Forks Land Use Plan Update*

As part of the public involvement for the 2045 Grand Forks Land Use Plan Update, a survey question asked “If you could change one thing about Grand Forks – what would it be?” The second most popular response was enhancing and improving multi-modal options for taking transit, walking and biking. The survey also asked the question “What should Grand Forks’ transportation goals be for the near future?” where 30 percent of respondents selected to improve public transit.

Additionally, the land use plan included three pilot sites. Most relevant is the pilot site at the Grand Cities Mall that would include a new transit hub (3), the public library (1), community service organizations (4) and multi-family housing (5). While the plan acknowledged many challenges with the site, the Grand Cities Mall is centrally located with access from two major roadways.

*Figure 3: Grand Cities Mall Current (Left) and Envisioned (Right)*



### *2045 East Grand Forks Land Use Plan Update*

While not as thorough as the 2045 Grand Forks Land Use Plan Update in regards to transit, the 2045 East Grand Forks Land Use Plan Update includes consideration for additional transit, including the General Land Use Goals and Policies:

- » Target funding toward existing neighborhoods through strategies like transit-oriented, mixed-use development and land recycling in accordance with the land use plan.
- » Expand access to affordable housing, particularly for housing located near transit facilities.

## Grand Forks Downtown Vibrancy Report

The Community Vibrancy Initiative started in early 2015 out of the Grand Forks Mayors Office with a focus on improving local arts and events, downtown development and the relationship between the city and the University of North Dakota (UND). The draft report for the downtown development element, *Downtown Grand Forks: Values, Vision, and A Way Forward*, highlights the need to improve transportation links between downtown Grand Forks and the rest of the city. Its recommendations include:

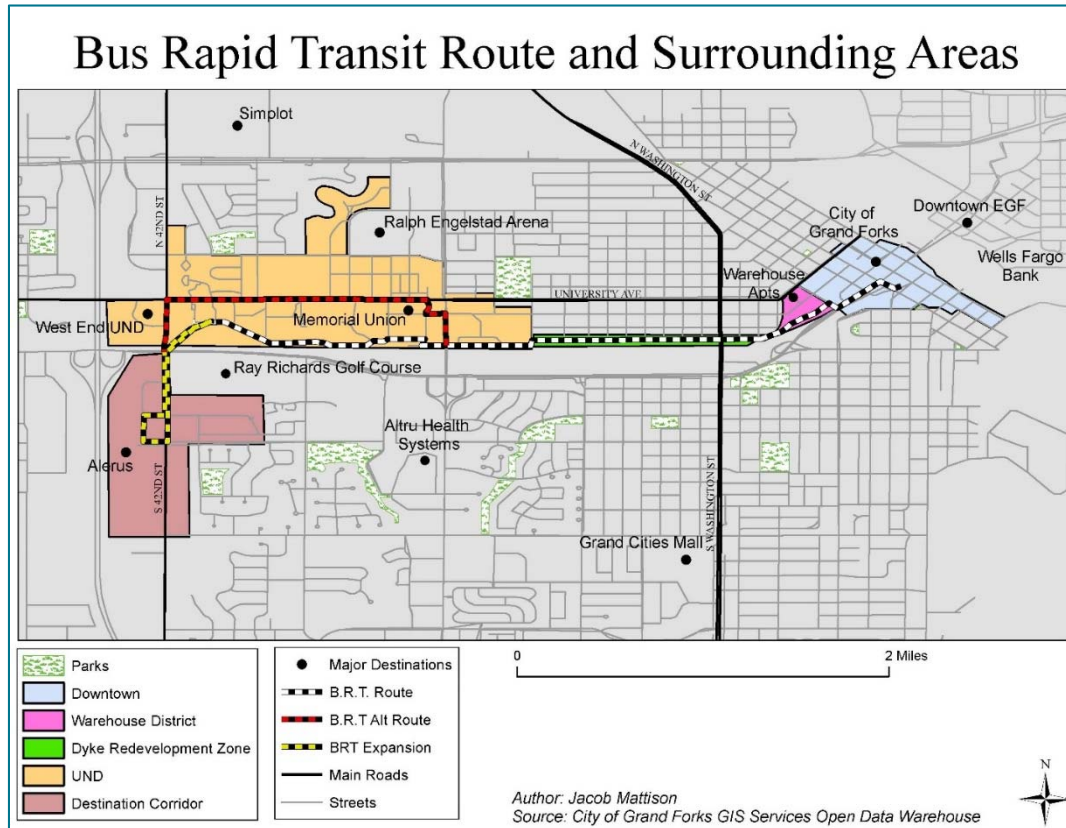
- » Improve direct transit links between downtown and the UND which could include increased frequency, dedicated bus lanes and bus queue jumps as well as a dedicated, frequent transit connection between the campus and downtown that would run during late night hours.
- » Improve transit connections between downtown and the Alerus Center/ 42<sup>nd</sup> Street Corridor which would improve access to downtown and connect downtown to the Alerus Center during special events and allow for park-and-ride facilities, alleviating perceived parking congestion in downtown.

## Bus Rapid Transit Concepts

The last few years have seen increased interest in improved frequency bus service in Grand Forks. Much of this interest ties back to community sustainability and livability initiatives being developed at the grass roots and city government level. Livable Grand Forks has been on the forefront of pushing more sustainable transportation options for the community.

Through the efforts of Livable Grand Forks, Bus Rapid Transit (BRT) in Grand Forks has been discussed, and concepts developed by local grass roots organizations interested in seeing more progressive transit

Figure 4: Bus Rapid Transit Concepts



service being developed between perceived major generators. BRT is a high-capacity, high-frequency specialized bus route with improved infrastructure and limited stops. A BRT corridor was conceptually identified between downtown to the UND via University

Avenue or Dyke Avenue, with an expansion option to the Alerus Center.

While BRT concepts are commendable, they are not fiscally constrained to the short or midterm revenue projections that will be developed as the TDP unfolds. Further, the BRT connections don't appear to line up with some of the "node" concepts identified in the current 2045 Land Use Plan for the City of Grand Forks. Moving forward with the TDP process, these concepts for BRT can be used to support improved fixed route headways as frequent as 10 to 15 minutes between major hotspots along existing high productivity transit corridors in the metropolitan area. Further, future high frequency bus connections should also focus on areas transit supportive mixed use supported through the 2045 Land Use Plan. A more refined discussion on potential candidate corridors for more frequent transit service will be discussed later on in this study.

## SYSTEM INTERFACE

### *Marketing and Information*

Many users and non-users highlighted the need for improved marketing and information regarding CAT service. Thirty percent of non-users indicated they don't know how to use CAT. Twenty percent indicated they don't know where CAT routes run. This sentiment was also echoed in the 2011 survey of UND students related to their perceptions of CAT.

The lack of information on many elements of CAT system operations for both users and non-users is concerning. First, because it makes attracting choice riders and current non-users difficult, because of the perceptions that it does not serve the area an individual needs to travel to and that it may take too long. Second, it further amplifies challenges to providing quality, easy-to-use for existing customers and regular riders.

Marketing could include items as small as dates on map materials and making them readily available in a variety of formats to marketing the accessibility of all transit vehicles. The education component of a large marketing campaign would address information gaps including how to ride the bus and where the bus goes. Transit ambassadors could visit locations like Mindful Mondays at the Senior Center to demonstrate how to get on the bus, what services are available or ride along with first-time riders.

### *Reputation and Image*

Perceptions on safety, cleanliness and timeliness of the system is often a barrier to new and senior riders. Based on the survey data collected as part of the TDP update, these issues didn't appear to be significant for current CAT users, but were for non-users. Based on data collected from UND students in 2011, perceptions on CAT were generally positive.

### *Fare Media*

Currently, CAT uses a variety of fare media:

- » Cash Fare
- » One Ride Card
- » 10 Ride Card – Adult
- » 10 Ride Card - Student
- » One Day Pass
- » 14 Day Pass
- » 31 Day Pass
- » UND/Northland Student

Each fare media also has sub types with different fares. For example, a 10 Ride Card has an adult, youth, senior, Medicare and disabled card, while a 31-day pass is a flat fee for all user types. Each of the different media and fare types result in difficulties in tracking users and encourages riders to find the best deal.

## SYSTEM PERFORMANCE AND OPERATIONS

### *Designated Stops and Layovers*

The previous TDP recommended, and CAT ultimately implemented, designated stops. Designated stops were intended to help address on-time performance, but has resulted in perceived consequences to senior riders. Previous to designated stops, seniors could hail a bus at any corner along the route which limited the amount of walking and waiting they had to do. Once implemented, designated stops required waiting, often at stop locations with no amenities like a shelter or bench. In some instances, these difficulties may have resulted in senior riders switching to the Demand Response system or stop using the system altogether. The ridership data suggests a slight decline from 2011 to 2012 in senior ridership on the Fixed Route system; senior ridership has saw slight declines in both 2011 and 2012, but does not appear to have absorbed the loss in senior ridership from the Fixed Route system. More evaluation of this potential impact of designated stops will need to be studied.

*Table 1: Historic Senior Ridership for Fixed Route and Demand Response Systems*

	Fixed Route Seniors	Demand Response Seniors	CAT System Seniors	% Change	CAT Total Ridership	% of Total CAT System
2010	24,518	24,999	49,517	5.9%	315,919	15.67%
2011	23,950	22,296	46,246	-6.6%	356,842	12.96%
2012	20,880	19,854	40,734	-11.9%	392,501	10.38%
2013	20,755	19,485	40,240	-1.2%	384,239	10.47%
2014	20,145	19,733	39,878	-0.9%	368,594	10.82%
2015	22,356	19,195	41,551	4.2%	355,773	11.68%

With the implementation of designated stops, it is important that drivers follow the timed stops. Riders reported that buses left the stop early and they were unable to use transit that day, while drivers reported they would rather leave the stop late as to not miss any riders. Designated stops, when properly measured, should provide an opportunity to get back on schedule, when running early, and help mitigate frequent stops and improve on-time performance when running late. Further evaluation of on-time performance will be needed.

### *On-Time Performance*

Designated stops helped mitigate frequent stopping to improve on-time performance, but some routes use heavily congested roadways or are slightly too long to have reliable on-time operations. Routes can and should be adjusted to ensure drivers do not need to speed to maintain on-time performance.

Another element in on-time performance is transit signal priority. During route reconnaissance, it was perceived that transit signal priority is not effective as currently operated and that further evaluation could benefit the CAT system, especially for routes that run on the major roadways like Columbia Road, Washington Street and 32<sup>nd</sup> Avenue.

Additional analysis of on-time performance and transit signal priority will be completed during the study process. However, current analysis suggests the TSP system is operating as intended. Tracking on-time performance cannot be done using preexisting data, as CAT does not track on-time performance for the Fixed Route system.

## *Transit Signal Priority (TSP) – System Evaluation*

Transit signal priority systems (TSP) are programmed to receive signals from transit vehicles and alter the signal timing. TSP does not change the signals to green like an Emergency Vehicle preemption would, but instead shortens red lights or extends green lights to accommodate the vehicle when possible. During the

*Figure 5: Transit Vehicle in Traffic*



Route Reconnaissance efforts and discussions with drivers, it appears that the TSP system is not effective.

TSP enabled signal controllers are present at 28 intersections in Grand Forks (see Figure 6). The TSP enabled signals have Opticom GPS radio systems that detect the location and speed of GPS equipped buses to estimate bus arrival times to best ensure that green signal indications are presented to buses as they arrive at these signalized intersections.

Existing TSP equipment in Grand

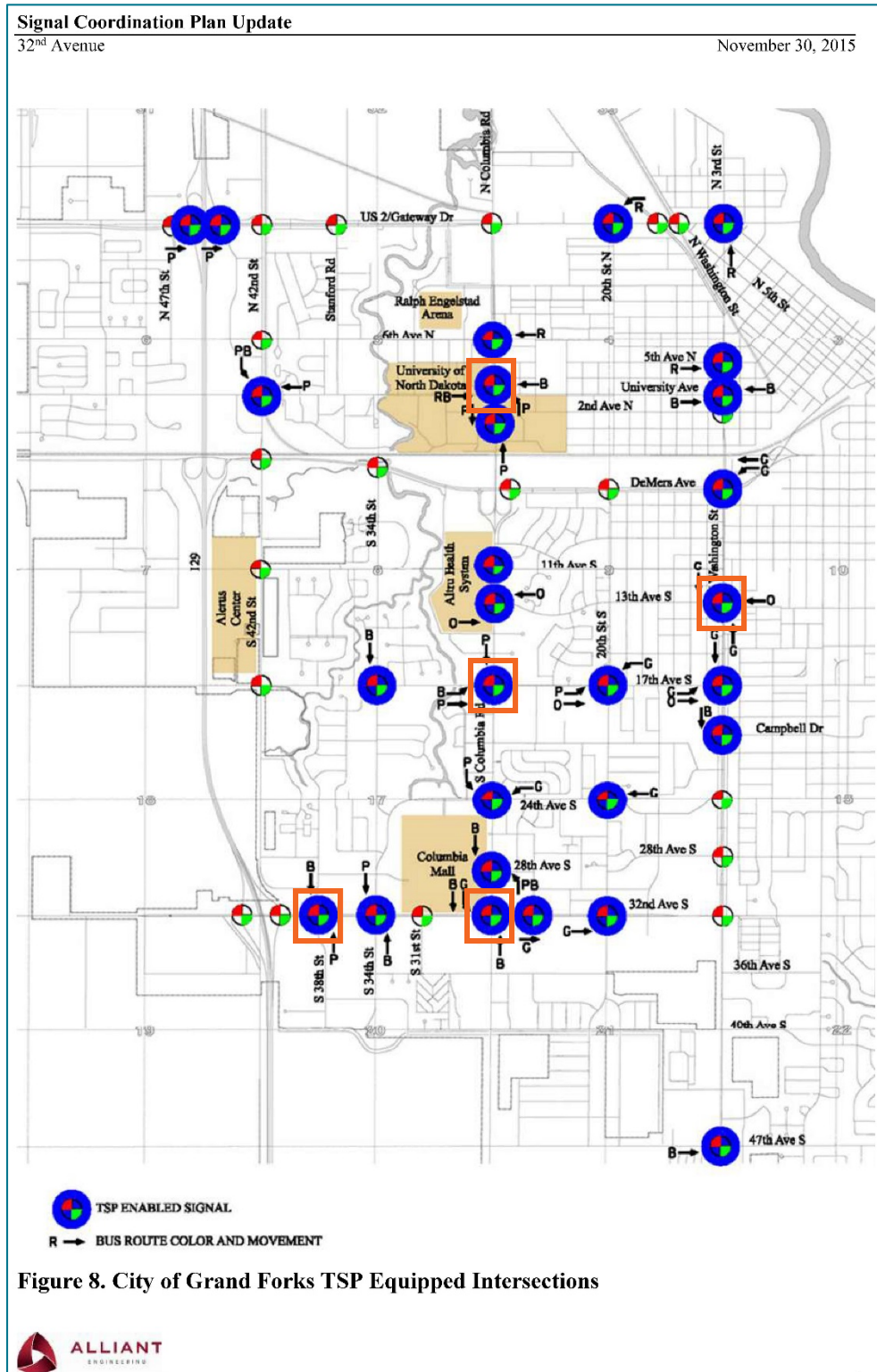
Forks does not utilize conditional priority, meaning that all buses request priority at applicable signals regardless of the status of transit routes (on-time or delayed).

KLJ requested TSP logs from signal controllers at five TSP enabled intersections in Grand Forks (32<sup>nd</sup> Avenue and 38<sup>th</sup> Street; Columbia Road and 17<sup>th</sup> Avenue; 32<sup>nd</sup> Avenue and Columbia Road; Columbia road and University Avenue; Washington Street and 13<sup>th</sup> Avenue, as identified in orange boxes on Figure 6) to verify that TSP is operating properly. A review of these logs indicates that TSP is working as intended, with logs listing the following time-stamped events:

- » TSP call received
- » TSP active
- » TSP terminated
- » TSP inhibited

Additionally, as part of the recently completed *32<sup>nd</sup> Avenue Signal Coordination Plan Update*, it was determined that TSP was not active and functioning properly at all applicable signals along the 32<sup>nd</sup> Avenue South and Columbia Road Corridors. Adjustments were made to the TSP system at that time. This situation indicates the need for periodic monitoring and evaluation of the TSP system.

Figure 6: TSP Equipped Intersections in Grand Forks



Source: Grand Forks – East Grand Forks Metropolitan Planning Organization and Alliant Engineering



## SYSTEM EFFECTIVENESS

### *Productivity*

In 2015, Route 5 generated nearly 25 percent of all ridership, with higher ridership than Routes 1/2, 10/11 and 12/13 combined. As shown in Figure 7, Routes 3, 5, 4/6 and 8/9 account for nearly 80 percent of the Cities Area Transit ridership. These routes serve the largest destinations in Grand Forks including the Senior Center, Altru, Columbia Mall, Grand Cities Mall and UND.

These major destinations underscore the idea that the current route structure and balance of system headways may not best serve the needs of the communities. Figure 8 shows routes with ridership data, where the lowest ridership routes like 12/13 and 1/2 are least effective and routes 3 and 5 are more productive.

### *Transfer Demand*

Transfers are an important component of the transit system and help to identify typical connections and trip chains for transit users. These desired connections will help develop new or revised routes to eliminate transfers and ultimately reduce travel time, while at the same time developing desired connections between productive routes segments.

A transfer analysis was completed for one hundred 31-day pass cards for the month of October 2015. This sample period coincides with the route-by-route stop analysis conducted for the TDP update. More than one thousand (1,021) transfers were analyzed to identify the biggest route transfer pairs. The six most significant route transfer pairs make up 55.0 percent of all transfers surveyed. They are shown in Table 2 with all transfer pairs in October 2015 shown in Table 3.

*Table 2: Significant Route Transfer Pairs*

Route Pairs	Total Transfers	Percent of Surveyed Transfers
Route 4/ Route 5	130	12.7%
Route 3/ Route 5	114	11.2%
Route 6/ Route 5	97	9.5%
Route 3/ Route 4	92	9.0%
Route 1/ Route 5	74	7.2%
Route 5/ Route 9	55	5.4%
Total	562	55.0%

The combination of the Route 4/Route 5 and Route 6/Route 5 transfers result in 22.2 percent of all transfers surveyed. This transfer pattern generally represents demand from south Columbia Drive to UND through the MTC (downtown). This same route path is available on Route 8, however it only operates on a 60 minute headway currently. The most significant route transfer pairs suggest improved north-south connections may benefit riders by providing a more direct route.

*Figure 7: Route Productivity*

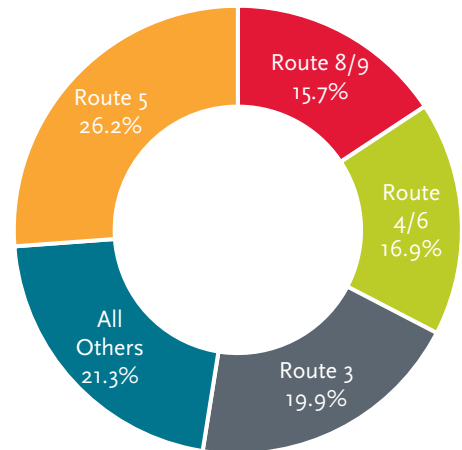


Figure 8: Route Productivity

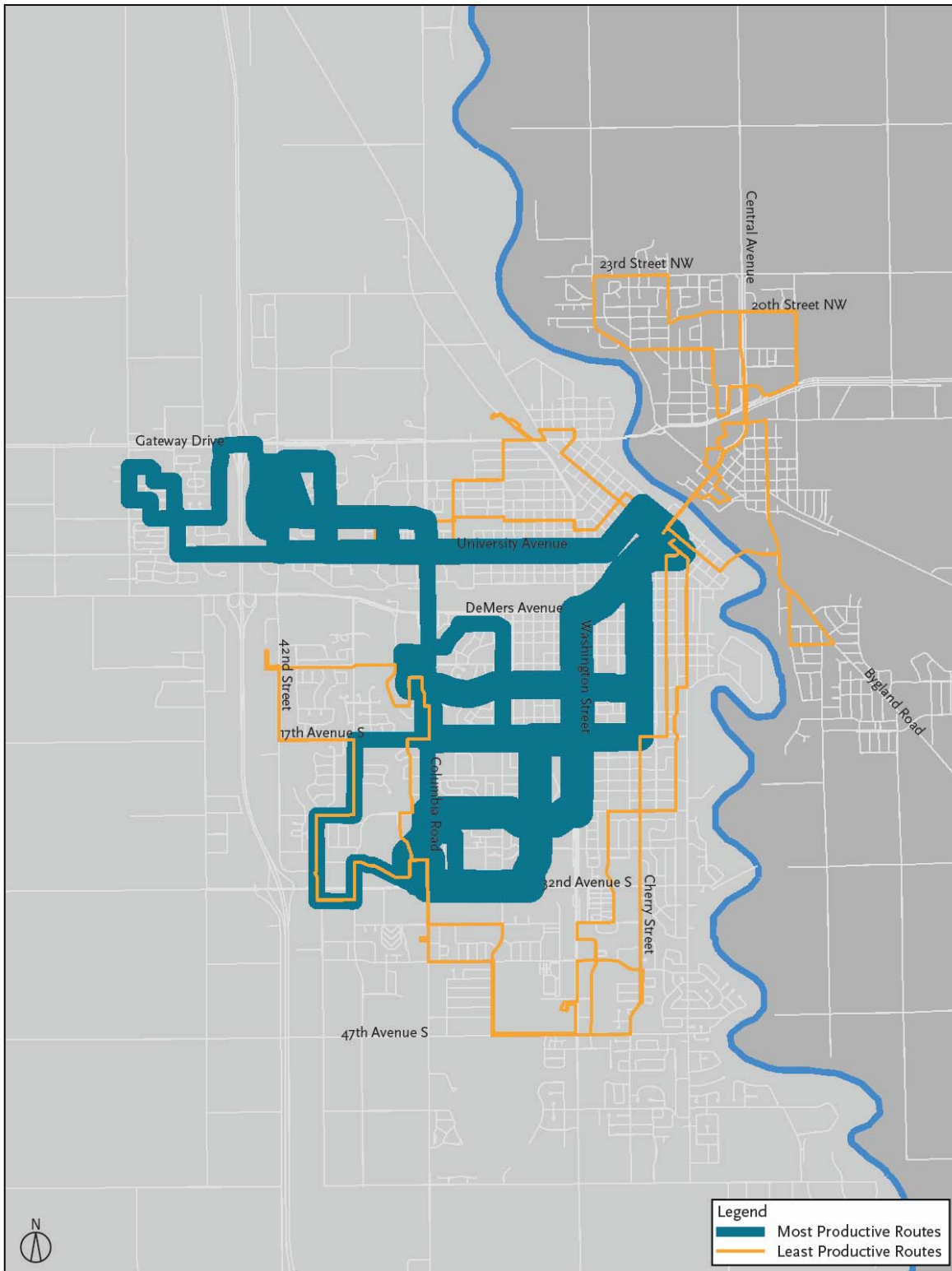


Table 3: Transfer Analysis for October 2015

From Route	To Route	Transfers	From Route	To Route	Transfers	From Route	To Route	Transfers	
1	3	28	2	3	7	3	1	18	
	4	23		4	1		2	3	
	5	37		5	7		4	56	
	11	1		6	1		5	56	
	12	1		10	1		6	23	
	13	1		11	7		8	1	
								9	20
								10	7
								11	5
					13	3			
Total Transfers		91	Total Transfers		24	Total Transfers		192	
From Route	To Route	Transfers	From Route	To Route	Transfers	From Route	To Route	Transfers	
4	1	12	5	1	37	6	1	1	
	2	1		2	5		2	1	
	3	36		3	58		3	17	
	5	73		4	57		4	3	
	8	34		6	65		5	32	
	10	4		9	42		8	8	
	11	14		10	26		10	1	
				11	5				
				12	1				
		13	2						
Total Transfers		174	Total Transfers		298	Total Transfers		63	
From Route	To Route	Transfers	From Route	To Route	Transfers	From Route	To Route	Transfers	
8	2	1	9	2	3	10	1	2	
	3	8		3	7		3	6	
	4	2		5	13		4	3	
	5	19		6	1		5	21	
	6	2					6	1	
	13	11							
Total Transfers		43	Total Transfers		24	Total Transfers		33	
From Route	To Route	Transfers	From Route	To Route	Transfers	From Route	To Route	Transfers	
11	1	5	12	1	12	13	3	6	
	2	1		3	1		5	2	
	3	3		5	11		9	10	
	4	25		9	1				
	5	4							
	6	3							
Total Transfers		41	Total Transfers		25	Total Transfers		18	

### *MnDOT Greater Minnesota Transit Investment Plan*

The 2016 Greater Minnesota Transit Investment Plan updated the previous plan to refine the investment priorities and strategic directions for rural transit in Minnesota. The plan focused on seniors, low income populations, homeless populations, individuals with disabilities, veterans, new Americans and commuters. The FAST Act requires performance based planning, for which MnDOT developed performance measures and targets where applicable. They can be seen in Table 4.

Given the lack of similar statewide guidance for CAT from the North Dakota Department of Transportation, the MnDOT guidance should be considered the minimum standards to use for the continuation of performance measure development with the TDP update. Many of the proposed MnDOT metrics are included in the Existing Conditions Report, however some of these metrics are not easily available with existing datasets or are not tracked. These thresholds should be considered the basis of goals and performance measures set in the update of the TDP.

It is suggested that the current goals, objectives, standards and performance measures from the current TDP be evaluated in light of the FAST Act and MnDOT's Transit Investment Plan.

## BALANCING SYSTEM NEEDS

Through public involvement completed for the previous and current TDP, a variety of system needs have been identified that include the following:

- » New Service Areas
- » Frequency of Service
- » Route Connectivity
- » Sunday Service
- » Night Service

Developing a balanced approach within current and projected funding constraints will be critical to this current TDP update. While new service can be developed in this plan, it will ultimately need to be prioritized and cost-constrained, which will likely not include all new service desires.

### *New Service Areas*

A number of currently developed or developing areas receive little or no service from CAT. Interstate 29 is a major barrier for transit service. Only Route 8, which serves Walmart-west and other locations between University Avenue and Gateway Drive operates west of I-29. Potential grade separations of I-29 between 32<sup>nd</sup> Avenue South and Demers Avenue may facilitate improved transit service to areas west of I-29. Future "new" service within the planning horizon of the current TDP is probably unlikely. Based on the input gathered through the early stage of the planning process, new service is a low priority when compared against the need to provide better service to current demand areas. New or expanded services to currently developed areas will likely require the modification/realignment of existing routes.

Table 4: MnDOT Performance Measures

Metric	Fixed Route Description	Included in Analysis	Demand Response Description	Included in Analysis
Span of Service	Provided as demand warrants.	✓	Provided as demand warrants.	✓
Service Frequency	60 minutes or better, 30 minutes during peak hours	✓	-	-
Service Availability	75% of the service area population within ¼ mile of transit route.	✓	75% of population covered by service area.	✓
Service Hours per Capita	2.0	✓	0.45	✓
Information Availability	Standard requirements: Title VI, Riders Guide, Service Schedules, trip reservation process.	N/A	Standard requirements: Title VI, Riders Guide, Service Schedules, trip reservation process.	N/A
Planning Requirements	Identified and analyzed as part of Transit Development Plan. Service expansions must be determined through alternatives analysis.	N/A	Identified and analyzed as part of Transit Development Plan. Service expansions must be determined through alternatives analysis.	N/A
Number of Shelters Installed	Shelters at stops with at least 20 boardings per day or major transfer points.	✓	Shelters at stops with at least 20 boardings per day or major transfer points.	N/A
Bicycle Parking at Transit Stops	Bike parking at stops with at least 20 boardings per day or more.	x	Bicycle access on buses.	N/A
Continuous Walking Route and Crossings	Pedestrian facilities within ¼ mile of stops with at least 20 boardings per day.	x	-	-
Public Transportation and Human Services Coordination	All public transit providers are required to coordinate with Regional Transportation Coordination Councils.	N/A	All public transit providers are required to coordinate with Regional Transportation Coordination Councils.	N/A
Passengers per Service Hour	15	✓	3	✓
On-Time Performance	90% of schedule stops on-time (within 5 minutes).	x	90% on-time within published pickup window.	Requested
Advance Reservation Time	-	-	Minimum two hours in advance.	✓
Reservation Negotiation Window	-	-	Maximum: Up to one hour before/after requested time.	x
Trip Denials	-	-	Must follow ADA trip denial definitions and process.	✓
Trip Cancellations	-	-	Bus or vanpool trips should only be canceled from lack of riders or weather.	Requested
Passenger Complaints	Six complaints per 100,000 boardings.	Requested	Six complaints per 100,000 boardings.	Requested
Road Calls	One road call per 14,000 revenue miles.	Requested	One road call per 14,000 revenue miles.	Requested
Accidents	Fewer than 1 accident per 100,000 revenue miles.	Requested	Fewer than 1 accident per 100,000 revenue miles.	Requested
Fleet Maintenance	At least 75% of all regular fleet available for operations.	◇	At least 75% of all regular fleet available for operations.	◇
Spare Ratio	Spare vehicles to regular fleet vehicles less than 20%.	◇	Spare vehicles to regular fleet vehicles less than 25%.	◇
Cost per Revenue Hour	\$85.00	✓	\$60.00	✓
Cost per Ride	\$5.00	✓	\$15.00	✓
Farebox Recovery	15%	✓	15%	✓

✓ = Included in Existing Conditions or Issues Analysis    ◇ = Data available but not included    x = Data not available    N/A = Metric not applicable for analysis

### Currently Unserved Areas

The 42<sup>nd</sup> Street corridor has multiple high density multi-family housing developments, commercial and special event facilities. Currently, these areas have limited or indirect transit service that are unappealing to choice riders, specifically at places like The Grove student housing development. The Grove requested transit service during its developments process but was ultimately denied; The Grove purchased their own bus and provides direct service to the UND campus.

Figure 9: The Grove Bus



### Industrial Park

At both the focus group meetings and the open houses, industrial park service was identified as a need in the community. This need was also identified in the previous TDP. Representatives from the Economic Development Corporation and the Grand Forks – East Grand Forks Chamber of Commerce cited businesses in the industrial park are interested in transit as they have limited parking spaces available and workforce retention issues when individuals cannot get to work because they do not have a driver's license or access to a vehicle. There are identified challenges to serving the industrial park

- » Employees of the industrial park desire fast and direct access.
- » Differences in shift start and end times make it difficult to serve all businesses equally.
- » On-time performance is key.

To effectively serve the industrial park, ridership would need to be relatively high. To accomplish this, businesses would need to consider more consistent shift start and end times, limit parking and potentially financial incentives, of which many are tax deductible.

### New Growth Areas

The 2045 Grand Forks Land Use Plan includes major growth areas, primarily west of I-29

- » Commercial, urban residential and industrial uses between 55<sup>th</sup> and 69<sup>th</sup> streets and Gateway Drive and DeMers Avenue.
- » Mixed use and industrial between 55<sup>th</sup> and 62<sup>nd</sup> streets and DeMers and 17<sup>th</sup> avenues.
- » Mixed use and urban residential between I-29 and approximately 55<sup>th</sup> Street and 32<sup>nd</sup> and 47<sup>th</sup> Avenues.

While development in these locations is unlikely to be developed before the next TDP update, with a complete system reconstruction, consideration should be given to extending service into these areas.

### *Frequency of Service*

The primary operational issue facing the CAT system is the need for improved frequency of service. This need is most glaring on the current day time fixed route operations. Only Route 3 and Route 5 operate on

30 minute headways. Route 4/6 and parts of Route 10/11 operate on a de-facto 30 minute headway given the interlined pairs have very similar route structure. Outside of these route segments, the balance of the CAT system is interlined with 60 minute headways.

Although future system alternatives have yet to be developed, the most productive routes, Route 3, Route 4/6, Route 5, Route 8/9 should be considered for improved headways as well as the Central Avenue/DeMers Avenue segments of Route 10/11. In general future frequency of service improvements should focus both on corridors experiencing high productivity today and also focus on connecting existing system generators.

### *Route Connectivity*

Related to frequency of service is the need to improve connectivity between routes. The routes as currently operated can be confusing to new users and frustrating to long-time users. As the TDP moves further into alternatives development, changes to lower productivity routes will be evaluated.

The transfer connections discussed earlier, coupled with the current productivity, public input and on-time performance issues suggest the need to fully evaluate the current route alignments and structure. With the existing conditions analysis and initial public involvement completed, opportunities for change are beginning to emerge. What follows is an initial evaluation of potential options to be further discussed in the alternatives analysis phase of the TDP. This list is not exhaustive and is only reflective of the initial concepts which have emerged based on information and input gathered through the existing conditions and initial public input phase of the TDP update.

### **Route 1/2**

The Route 1/2 interlined pair has the potential to be modified to better address existing demand areas, and to improve frequency on a single route alignment. Examples could include consolidating the southern portion of Route 1 into Route 12 (as discussed below) and running Route 1 through the Grand Cities Mall, a future potential transit node. Further, Route 2 could be shortened to eliminate access into the UND campus or limit Route 2's northern most point to Home of Economy and Hugo's. In this way, the potential to operate a new single 30 minute headway route in place of the current interlined 60 minute headway currently provided on Route 1/2.

### **Route 4/6**

This current interlined pair operated is not logical for riders; it is essentially one route with separate numbers and a slightly different route path. The 4/6 pair should be restructured to be a quick and easy connection from downtown to the UND. Coordinating the 4/6 pair with the UND shuttle service could result in improved service area and frequency to the campus as well as create opportunities to improve headways and extend the consolidated 4/6 pair to the Wal-Mart on Gateway Drive, which would assist in addressing observations discussed later regarding Route 8.

### **Route 8/9**

The Route 8/9 pair is one of the more productive parts of the CAT system. However, as changes and modifications are made to less productive elements of the system, like Route 1 and Route 12, opportunities will emerge to streamline the current north-south connection provided by Route 8/9 between south Columbia Road and the UND. Consideration should be given to provide this as a single route, instead of the convoluted route currently operated.

As efficiencies are explored for streamlined service east-west along University Avenue, an option should be considered to consolidate portions of Route 8 west of the UND campus into a different route, possibly an

improved 4/6. This would allow an opportunity for a 30-minute headway between the most productive portions of Route 9 and the UND. Similar to Route 4/6, the operational integrity of the northern portions of this route segment would benefit from better coordination with the service area and frequency of the UND shuttle service.

### **Route 10/11**

Route 10/11 has a spine along DeMers Avenue and Central Avenue which connects the Metro Transit Center to Northland Community College and Hugo's. Outside of this core segment, Route 10/11 has two less productive loops, one on Route 10 and one on Route 11. Consideration should be given to connecting the most productive segment of Route 10/11 into one of two future new route segments in Grand Forks. This connection would serve to provide a more seamless crosstown function for these service corridors. The logical consolidation would be with either current route alignment of Route 4/6 or Route 5. Additional discussion and coordination would be needed on insurance and liability issues of a bi-state route.

### **Route 12/13**

Route 12/13 was developed through Job Access Reverse Community (JARC) funding as a demonstration route. It now appears that this current route pair is not effective. Similar to Route 4/6, Route 12/13 is awkward and confusing for users. Both routes follow a very similar route path in certain areas and in aggregate are trying to provide a general connection between the southeast portion of Grand Forks through the Columbia Mall and Altru into the area adjacent to the CanadInn/Alerus Center. Most logically, Route 13 should gather ridership on the southern portion of Route 1, continue to serve Altru and the Columbia Mall and possibly look for a general system transfer at the Grand Cities Mall. Route 12 conversely should not serve areas south of 32<sup>nd</sup> Avenue and in turn should provide a better connection from Columbia Mall through its current general service area and then provide a connection into the UND.

### ***Sunday Service***

CAT does not provide service on Sundays. This prevents people from social activities like church, cultural and arts events, food access, employment and medical care. A system of Sunday service should be evaluated that operates akin to the system currently running in the evening.

### ***Night Service***

Currently, the regular route service runs from 6:30 or 7 A.M. and ends at 6 or 6:30 P.M., depending on the route. At 6 P.M. the Night Route starts, ending at 10 P.M. The Night Route is an hourly one-way loop that serves many of the biggest destinations in Grand Forks. East Grand Forks has no night service.

Service alternatives for the Night Route could include either extending the more product regular routes later into the evening or adding another bus to the Night Route for improved frequency or in the other direction. Either way, alternatives needs to consider options for expanded night bus service not only in Grand Forks, but in East Grand Forks, too.



Figure 10: UND Shuttle



## UND COORDINATION

The intent of this TDP was to develop a structural framework between CAT and the UND for transit service delivery.

Substantial analysis was completed as part of the previous TDP regarding the UND shuttle service. The most recent TDP prepared an exhaustive evaluation of recommendations regarding the UND Shuttle Service. Unfortunately, very little of the analysis dealt with opportunities to improve effectiveness between on campus service and CAT.

In 2011, the Small Urban and Rural Transit Center (SURTC) developed an assessment of the UND campus shuttle. The report highlighted the need for the development of a larger partnership agreement between UND and CAT. This historic sentiment echoes the overall intent of this TDP to develop a coordinated framework with the UND. Changes to CAT and the UND shuttle system need to be made in tandem for the overall transit system work effectively.

Macro level analysis and coordination is needed to determine policy and programming opportunities for coordination between CAT and UND. As discussed earlier, several CAT routes could undergo substantial positive change if done with coordinated modifications to the UND Shuttle Service. Preliminary discussions are encouraged between UND and CAT prior to development of system alternatives analysis.

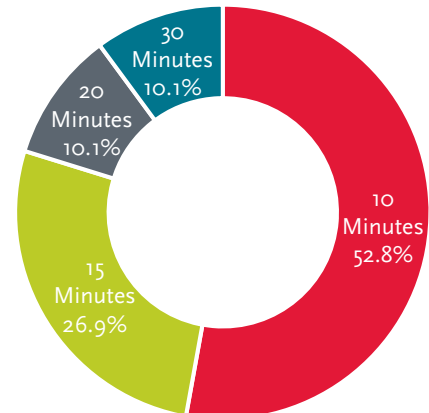
### Perceptions of CAT Service

SURTC’s assessment of the shuttle service included a survey of students’ perception of CAT. That survey process alluded to several possible concerns and barriers from the UND student population regarding the utility of the CAT system. The most relevant results include wait time, factors negatively affecting CAT service and preferred communication methods.

### Wait Time

SURTC asked students “If you miss the CAT, how long are you willing to wait for the next bus?” Over half, 52.8 percent, indicated they would only be willing to wait 10 minutes for the next bus; another 26.9 percent indicated they would only be willing to wait 15 minutes. Only 10.1 percent were willing to wait 30 minutes. Given that bus service is effectively on a 30 minute headway through the campus, these headways are very unattractive to students.

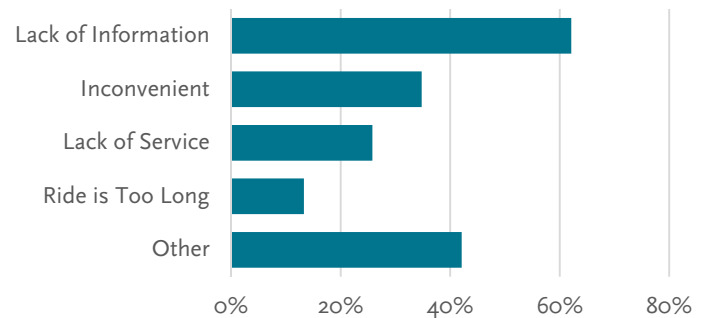
Figure 11: Willingness to Wait for CAT Bus (SURTC Survey)



## Negative Factors

SURTC asked students “If you are not using CAT buses, what factors are keeping you from using the bus service?” The primary factor was lack of information cited by 62.1 percent, followed by 34.8 percent citing inconvenience and 25.8 percent citing lack of service. This parallels the information and perceptions gathered through the initial public involvement where lack of information and communication was identified as a major barrier.

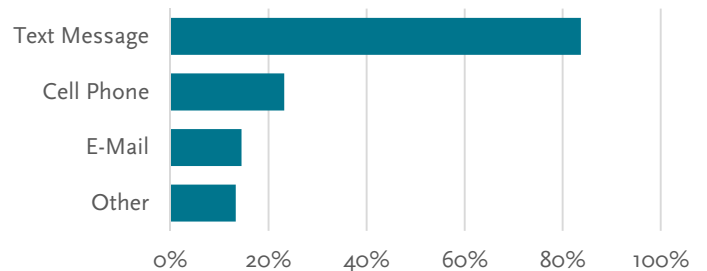
Figure 12: Factors Negatively Affect CAT Usage (SURTC Survey)



## Preferred Method of Communication

SURTC asked students “What is the best way to notify you if the bus will be late?” Text messages were preferred by 83.7 percent of students that completed the survey, followed by a phone call at 23.2 percent and email at 14.5 percent. CAT has no way currently to communicate in real-time with its riders.

Figure 13: Preferred Method of Communication (SURTC Survey)



## Existing University Transit System Alignments

The UND was recently mandated by the State of North Dakota to make significant budget cuts after drastic state budgetary shortfalls; combined with changing personnel, provides an opportunity to reevaluate system coordination with the University.

Currently, the UND provides free on-campus transportation during the fall and spring semester. They offer four daytime routes at 15 or 20 minute headways from approximately 7:30 A.M. to approximately 4:30 P.M. and one Monday-through-Thursday night route that operates at 30 minute headways from 4:30 P.M. to 10:30 P.M.

At any given time, there could be as many as five buses on University Avenue through UND’s campus, including four UND shuttle route buses and one CAT bus. Selected timetables are shown in Table 3. Not only does it lead to congestion issues, it also results in duplicative service. Currently through campus, Route 4/6 runs on University Avenue for one direction and 6<sup>th</sup> Avenue the other, effectively serving the primary east-west routes on campus at 30 minute headways. Route 4/6 almost entirely duplicates the Green Route #3 and Purple Route #4 campus shuttle routes. Service improvements to Route 4/6 could eliminate the need for most of the existing campus shuttle routes.

Table 5: Selected Timetables through UND Campus

Route	Stanford Road/ 6 <sup>th</sup> Avenue		Odegaard Hall		Memorial Union	
	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
CAT Route 4	:39	x	-	-	x	:36
CAT Route 6	x	:09	:16	x	:17	x
CAT Route 8	-	-	:08	:45	:06	:42
UND Route 1	x	x	:58, :08, :23, :38	x	:59, :14, :29, :44	x
UND Route 2	x	x	x	:31, :46, :01, :16	x	:39, :54, :09, :24
UND Route 3	x	:43, :03, :23	:31, :51, :11	x	:37, :57, :17	x
UND Route 4	:41, :01, :21	x	x	:36, :56, :16	x	:48, :08, :28

Figure 14: UND Routes 1 and 3

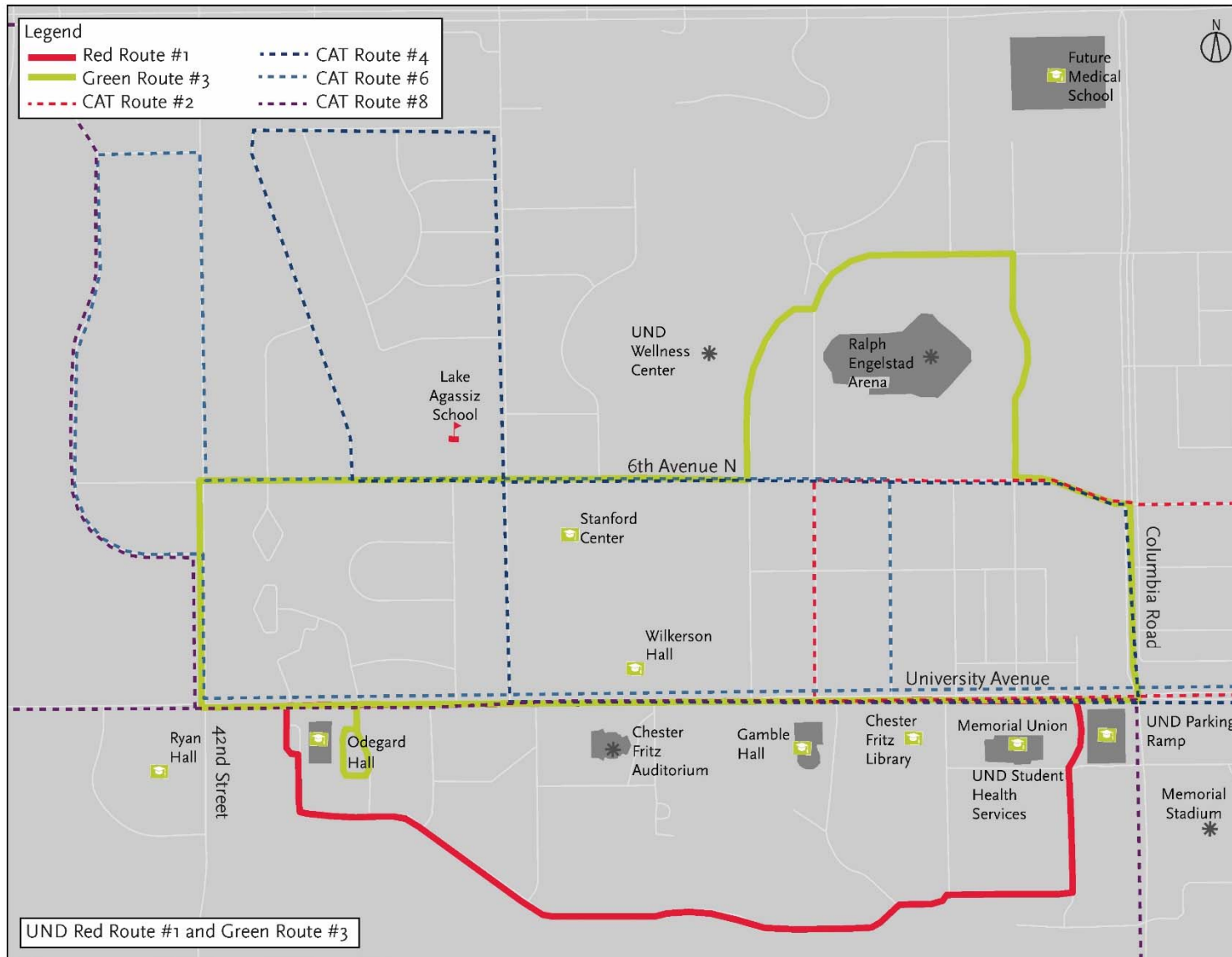
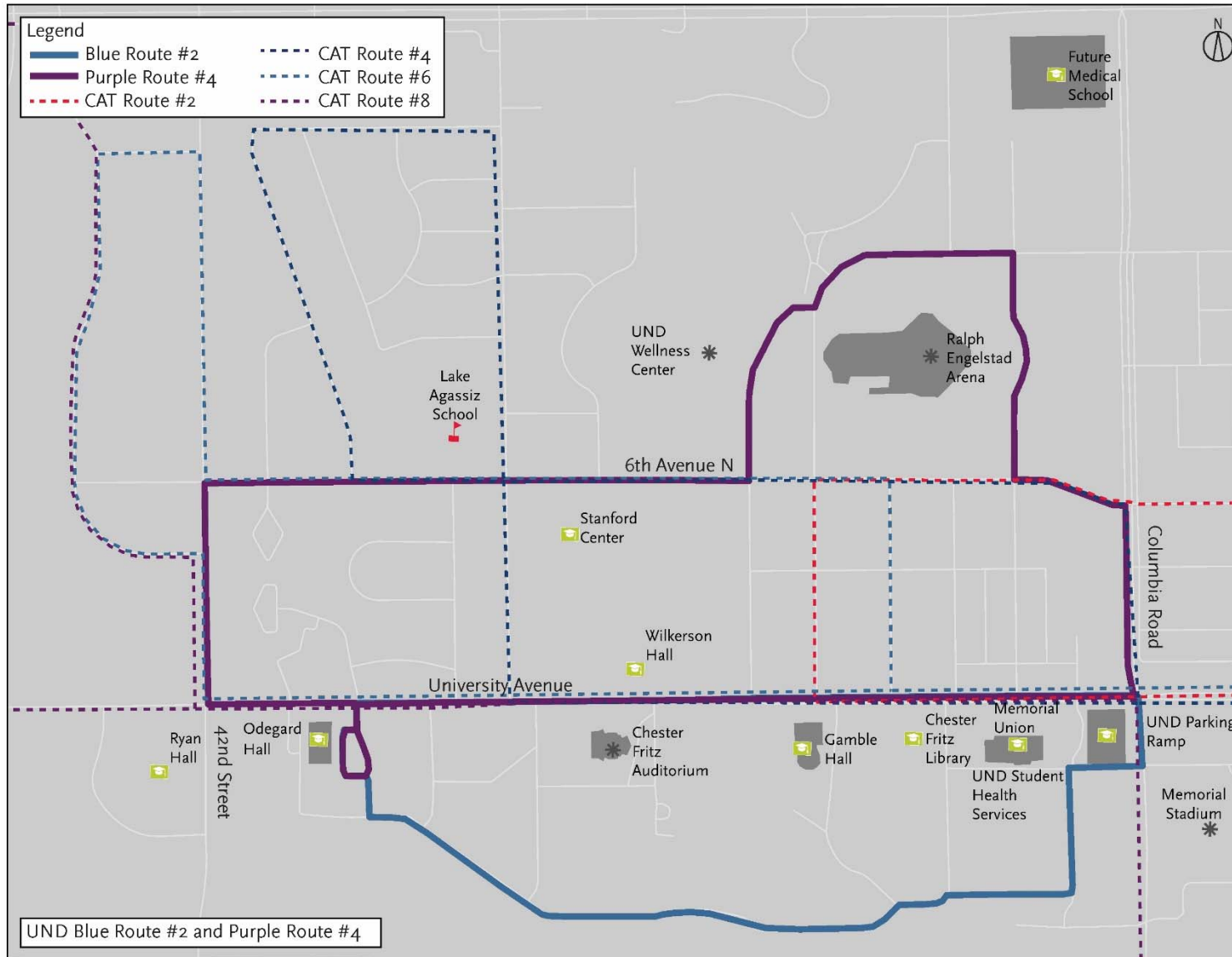


Figure 15: UND Routes 2 and 4



## Operational Analysis

UND provided operational data including ridership from 2011 to 2016, revenue hours for 2015 and 2016, revenue miles for 2015 and 2016 and operating costs for 2015 and 2016. Analysis for each is provided below.

## Ridership

UND maintains ridership numbers that are coordinated with school years (i.e. 2011 is the 2010-2011 school year). Ridership on the UND shuttle system has ranged from 178.5 thousand rides in 2012 to 263.7 thousand rides in 2013. Ridership also roughly follows student enrollment, whereas 2013 was the highest student enrollment in the six-year period and also the highest ridership.

Figure 16: UND Shuttle Ridership

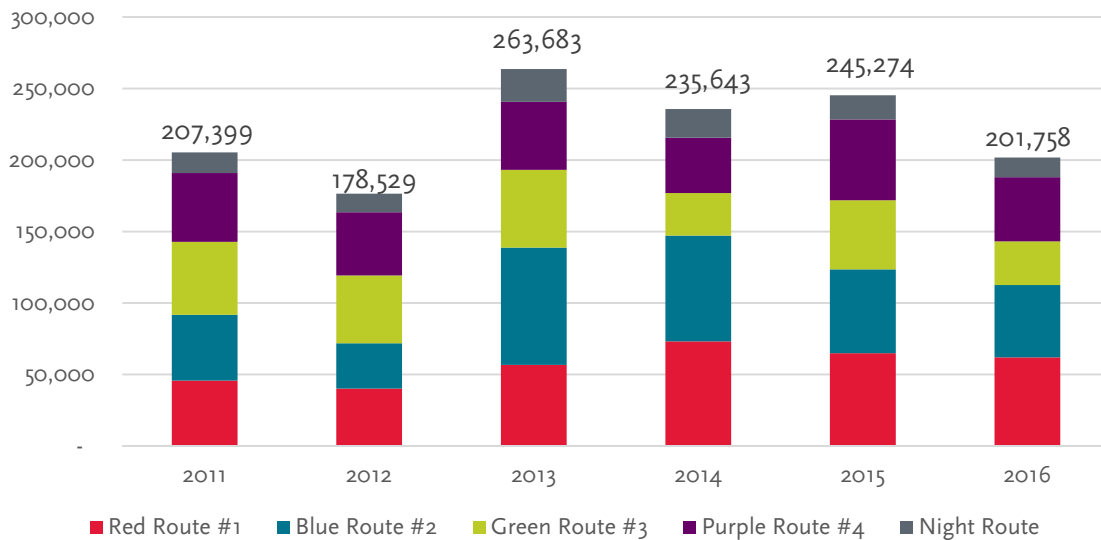
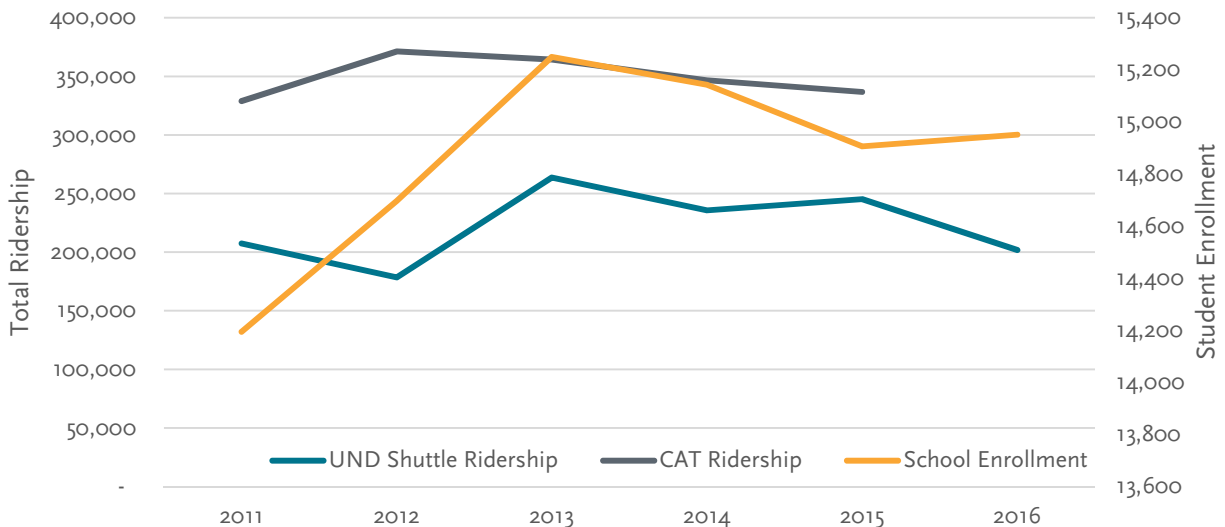


Figure 17: UND Ridership and Student Enrollment

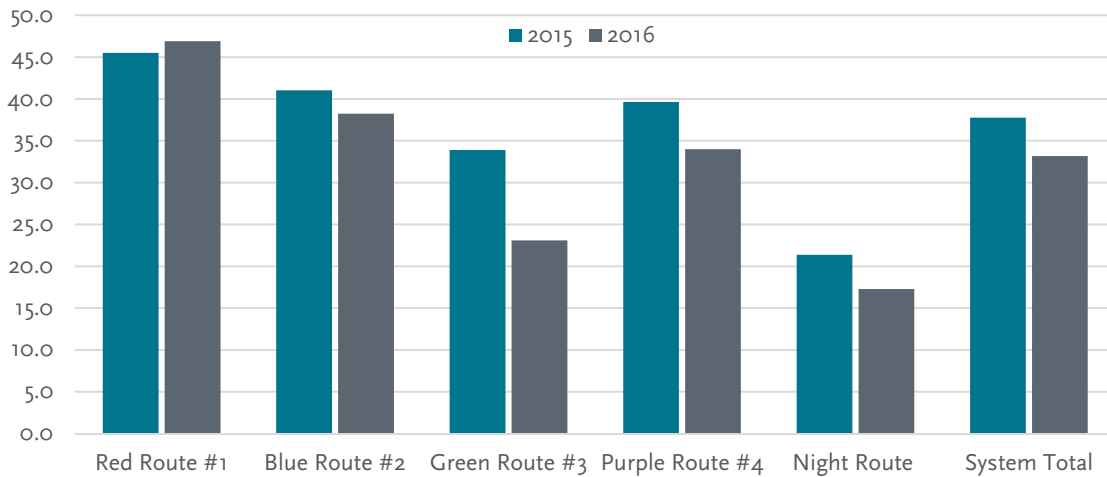


### Revenue Hours

Revenue hours was approximated based on information provided by the University (ridership by route, revenue hours by combined day routes and night route) by dividing equally annual revenue hours by four.

Daytime revenue hours decreased by nearly 500 hours in 2016, compared to 2015; the night route revenue hours increased by six hours. For all but the Red Route #1, rides per revenue hour declined in 2016, when compared to 2015.

Figure 18: UND Rides per Revenue Hour



In 2016, UND revenue hours exceeded 6,000, resulting in a cost per revenue hour of \$49.30.

### Revenue Miles

Revenue miles was calculated using the same methodology as revenue hours. Similar to revenue hours, revenue miles for daytime routes decreased nearly 3,500 miles but the night route increased more than 500 miles in 2016 compared to 2015. Again, all routes excluding Red Route #1 saw declines in rides per revenue miles in 2016 compared to 2015.

Figure 19: UND Rides per Revenue Mile

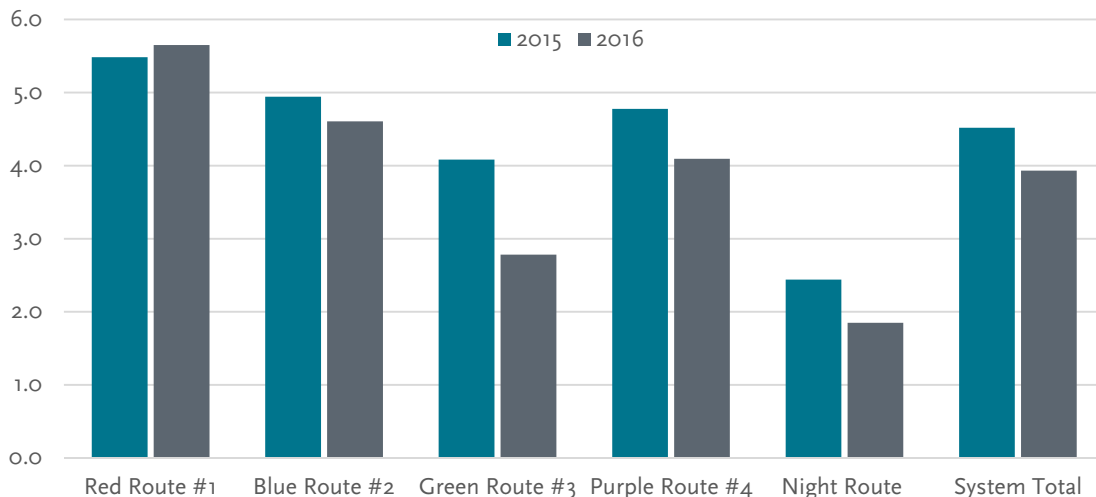


Table 6: UND Fleet Inventory

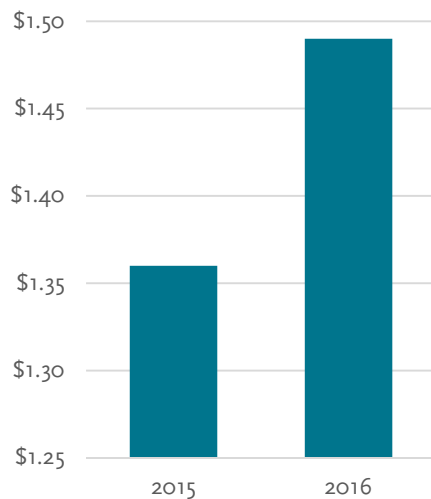
Vehicle #	Capacity	Wheel Chair Positions	Age	Mileage
SF 9048	40	2	2001	20,808
SF 9044	40	2	2002	19,916
SF 9043	40	2	2004	161,34
SF 9042	40	2	2004	15,321
SF 9041	40	2	2009	9,510
SF 9040	40	2	2011	7,684
Average			11	14,895

## UND Fleet Inventory

UND operates six vehicles which are owned by the North Dakota State Fleet Service and leased to the University at a rate of \$25 per hour. The average age of the fleet is 11 years with 14,895 miles. The North Dakota State Fleet Service maintains its shuttle vehicles on a 15-year depreciation schedule.

Based on this schedule, four of the six vehicles would be candidates for replacement between 2016 and 2020.

Figure 20: UND Cost per Ride



## Operating Costs

UND's operating costs for 2016 declined 10.3 percent to just under \$300,000. This is likely associated in part with the decrease in revenue hours through fewer lease hour costs and wages. Even with reduced expenditures, the cost per ride increased 9.1 percent to \$1.49 in 2016 from \$1.36 in 2015.

## Total Investment

As shown in Table 7, in addition to the \$300,000 UND pays to operate their shuttle system, they pay nearly \$31,000 to CAT for access. This increases the total investment to \$331,000, or \$22.12 per student. This investment gets them 6,082 revenue hours annually. If CAT were to take over providing all transit services on campus, at a rate of \$100 per revenue hour, they would be able to provide 3,307 service hours, just 54.4 percent of service hours offered now.

Table 7: UND Investment

2015-2016 Academic Year	
UND Shuttle Cost	\$299,834
UND Shuttle Revenue Hours	6,082
UND Cost per Revenue Hour	\$49.30
CAT Access Costs	\$30,839
Total UND Transit Costs	\$330,673
CAT Cost per Revenue Hour	\$100
UND Service Hours at CAT Cost	3,307
UND Shuttle Cost per Student	\$20.05
CAT Access Cost per Student	\$2.06
Total UND Transit Cost per Student	\$22.12

## CAPITAL NEEDS EVALUATION

### *Vehicle Inventory*

The fleet inventory analysis in the Existing Conditions chapter of the report found the average remaining service life for the fixed-route fleet was just 24.6 months and the demand response fleet had an average remaining service life of 24.2 months. It also showed two vehicles in the fixed-route fleet one year and six years past the planned service life and four vehicles in the demand response fleet one to two years past their planned service life. With six vehicles in the fixed route fleet and five vehicles in the demand response fleet reaching or exceeding their planned service life, the need for expanded capital investment will be significant just to maintain service over the next two years.

The following investments are currently programmed in the 2016 to 2019 Transportation Investment Plan:

- » North Dakota
  - 2016: Purchase three fixed route bus replacement using FTA 5339 funds
  - 2016: Purchase four demand response vehicles using FTA 5310 funds awarded July, 2015
- » Minnesota
  - 2016: Purchase one fixed route vehicle with MnDOT funds
  - 2016: Purchase one demand response vehicle with Section 5307 funds
  - 2017: Purchase one paratransit vehicle with Section 5307 funds
  - 2018: Purchase one paratransit vehicle with Section 5307 funds
  - 2019: Purchase one paratransit vehicle with Section 5307 funds

Based on currently programmed replacements alone, the average remaining service life for the fixed route fleet at the end of 2020 would increase to 29.5 months but the demand response fleet would decline to 7.9 months. To replace all vehicles through 2020 that reach their useful service life, four additional fixed route fleet vehicles and four demand response fleet vehicles would need to be replaced.

*Table 8: Summary of CAT Fleet*

Fixed Route		Demand Response	
Year	Number	Year	Number
2010	4	2015	3
2011	2	2016	5
2016	4	2017	1
		2018	1
		2019	1
<b>Total</b>	<b>10</b>	<b>Total</b>	<b>11</b>

### *Cities Area Transit Garage*

The single highest capital priority for CAT is a major upgrade and rehabilitation of the storage and maintenance facility. The current CAT garage is well beyond its useful life and is no longer operationally or structurally sufficient to meet current needs. Total costs to upgrade the facility were recently estimated at nearly \$8.0 million dollars. As the TDP process continues, future capital revenue streams to ensure the timely rehabilitation of the CAT garage need will receive serious consideration.



## *Bus Stop Amenities*

When riders were no longer able to flag the bus on any corner, bus stop amenities became an important consideration for riders, especially those with mobility issues. Bus stop amenities can help improve rider satisfaction and bring visibility to the CAT System. Currently, there are 50 shelters out of 210 total designated stops, meaning 23.8 percent of dedicated stops in the CAT system have shelters.

Thresholds for improved bus stop amenities typically depend on location (rural, suburban urban), using national standards based on *Transit Cooperative Research Program Report 19: Guidelines for the Location and Design of Bus Stops*, a small urban or suburban system like CAT is recommended to place shelters at any stop where there are 25 boardings per day. This is comparable to the threshold used in TDPs for Fargo-Moorhead Metro Area Transit; Mankato, Minnesota; and La Crosse, Wisconsin and the Greater Minnesota Transit Investment Plan.

Given that just twelve stop locations have 20 average daily boardings, and just nine have 25 average daily boardings, additional criteria can be used to evaluate the need for shelters, including:

- » Number of transfers at a stop
- » Availability of space for shelters
- » Number of individuals in the area with mobility concerns
- » Proximity to major activity centers
- » Headways greater than 30 minutes
- » Adjacent land use compatibility

Figure 21: CAT Bus Stops



Figure 22: Average Daily Boardings and Shelter Type in East Grand Forks

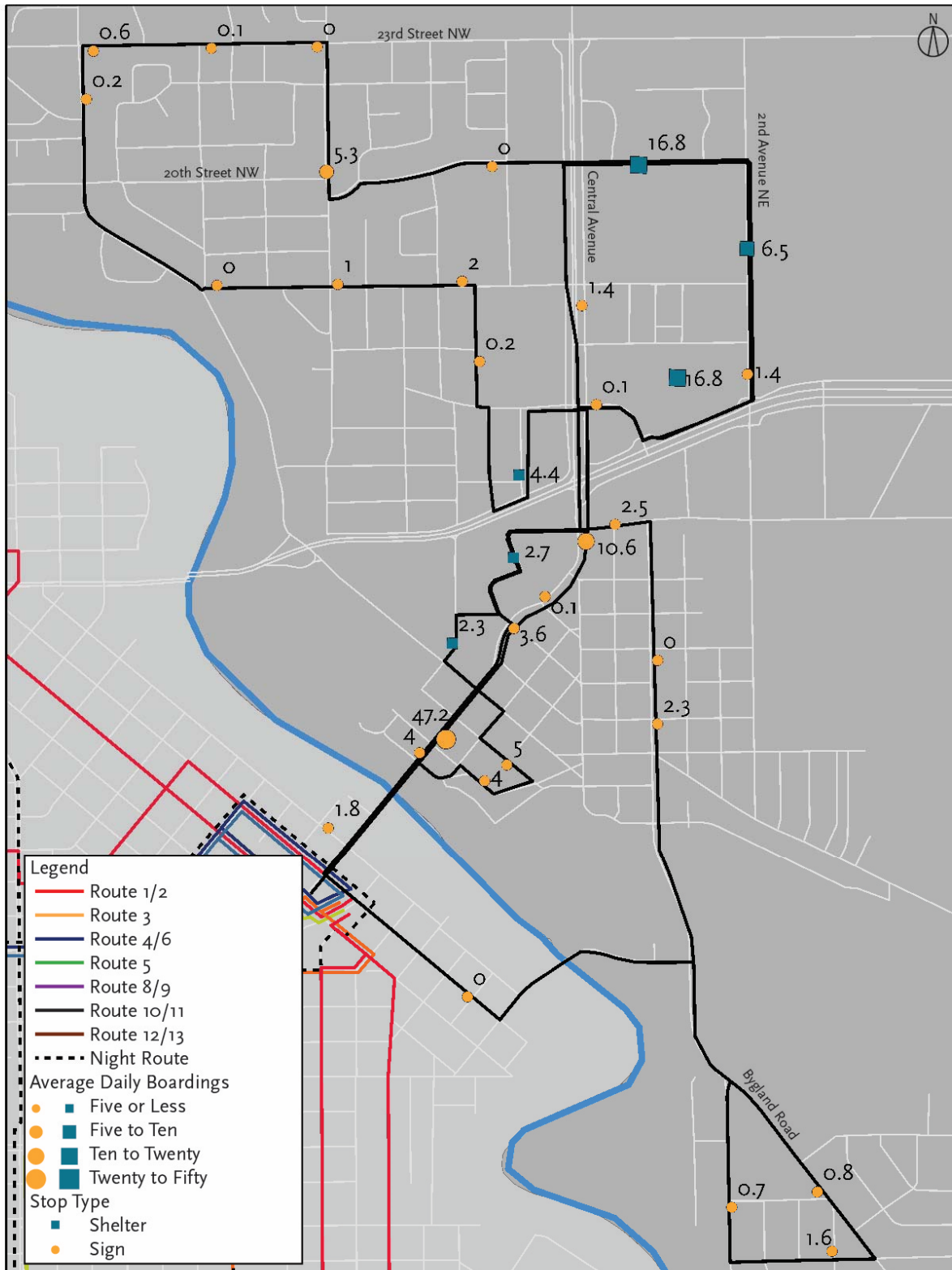


Figure 23: Average Daily Boardings and Shelter Type for North Grand Forks

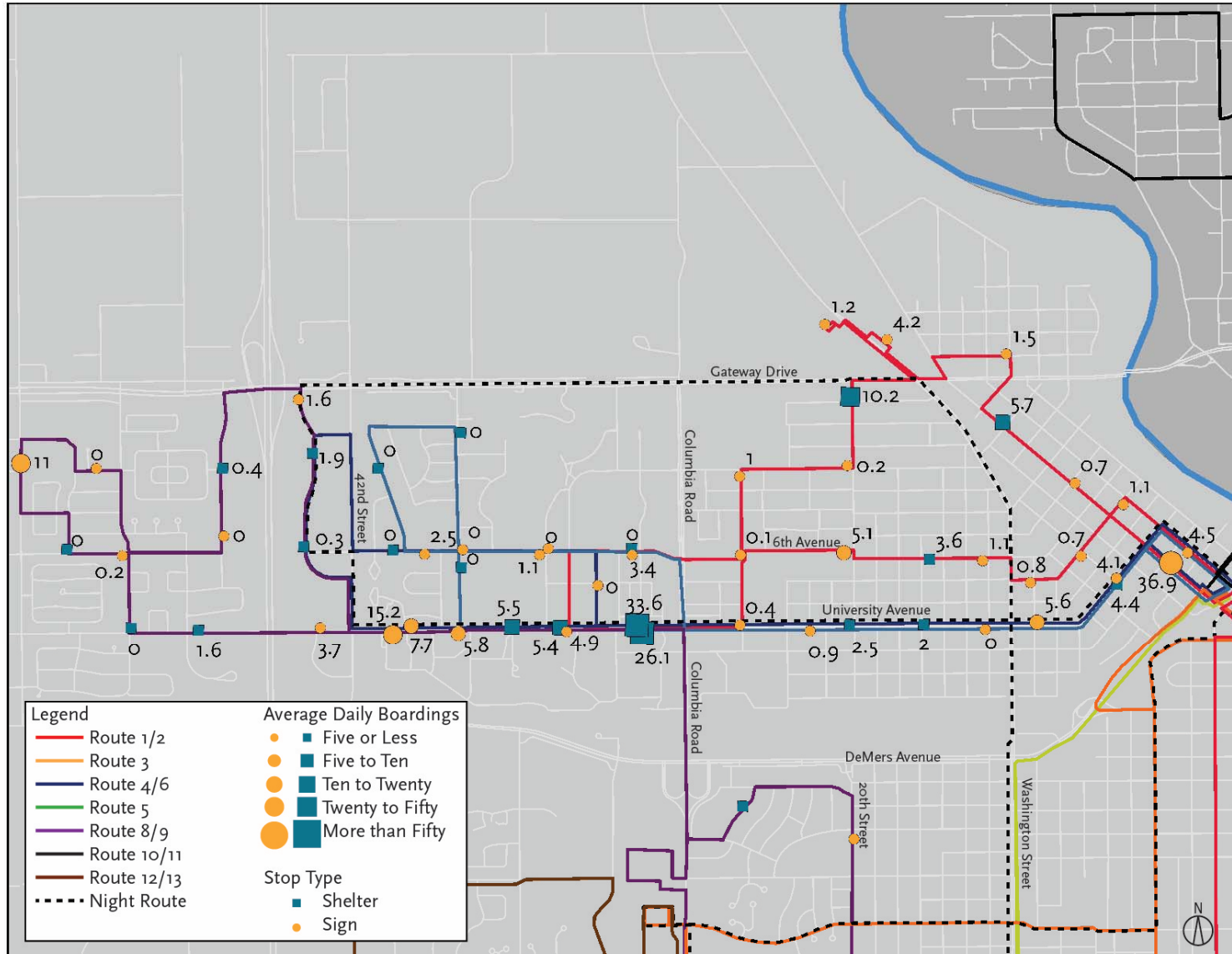
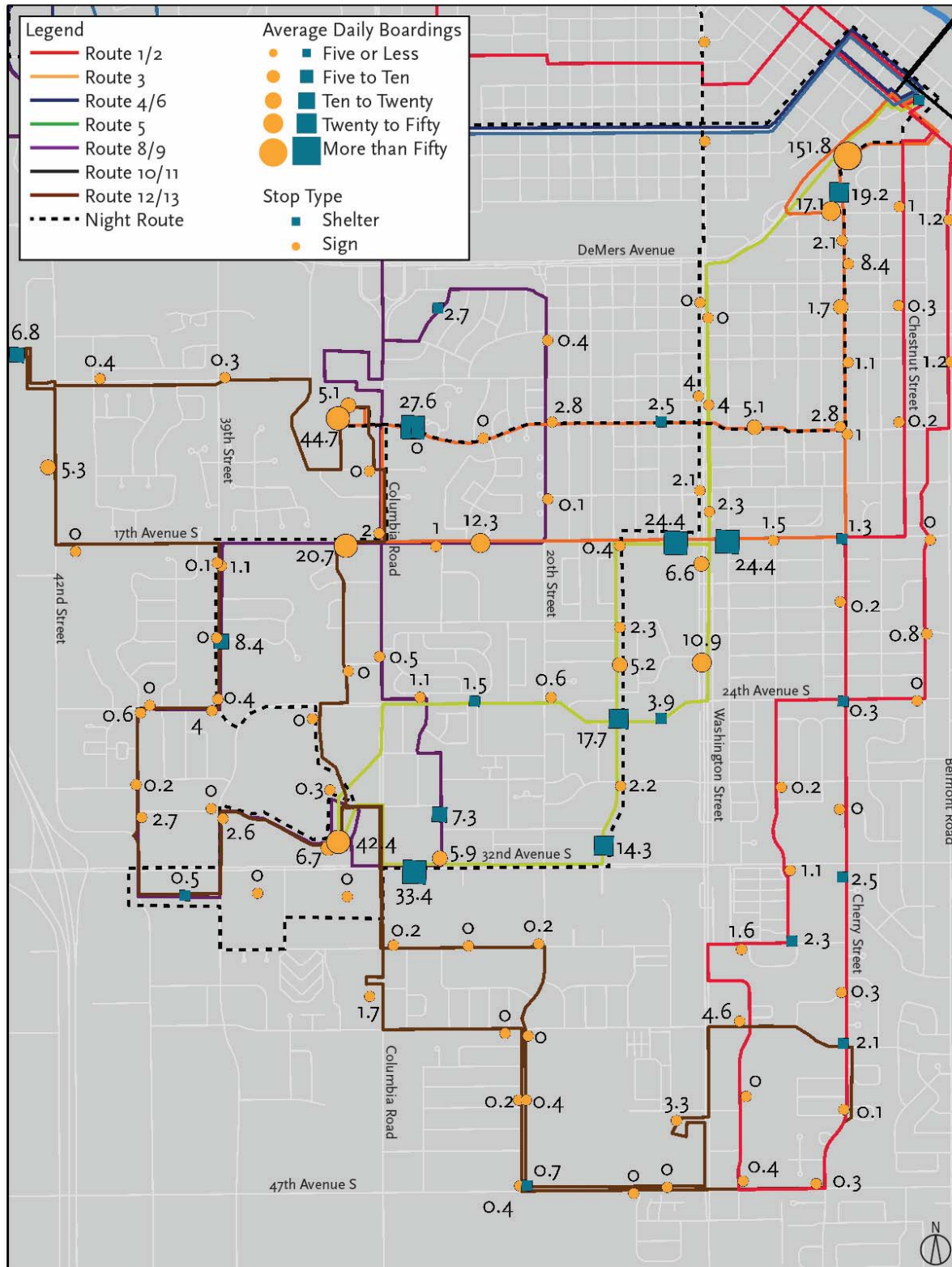


Figure 24: Average Daily Boardings and Shelter Type for South Grand Forks





# APPENDIX A

Public Input Summary

# Memorandum

**Date:** 6/23/2016  
**To:** Teri Kouba, Grand Forks – East Grand Forks MPO  
**From:** Bethany Brandt-Sargent  
**RE:** Public Input Meeting Summary



## Remarks

On June 8<sup>th</sup> and 9<sup>th</sup>, 2016 the first series of public input meetings for was held in Grand Forks, North Dakota and East Grand Forks, Minnesota. The series consisted of three stakeholder meetings held at Grand Forks City Hall on June 8<sup>th</sup> and three open house style public input meetings held on June 9<sup>th</sup> at various locations in the metro area, including

- » Hugo's in East Grand Forks from 10:00 A.M. to 2:00 P.M.
- » Metro Transit Center in Grand Forks from 10:00 A.M. to 2:00 P.M.
- » Grand Cities Mall in Grand Forks from 4:00 P.M. to 7:00 P.M.

## *Focus Groups*

The Grand Forks-East Grand Forks MPO contacted stakeholders directly to invite them to one of the three focus groups, one of which was directed specifically towards human service providers. Each focus group included a short presentation on the existing conditions, discussion on system needs and an activity to connect desired origins and destinations.

Despite lower than expected turn out, a variety of system issues and needs were developed and are summarized below. Further, the primary barriers outlined with in the current ***Coordinated Human Service Public Transit Plan*** (2012) were validated as still being relevant to the public transit system in Grand Forks-East Grand Forks.

Key system needs identified in general through the focus group process were as follows:

- » Information Gap regarding available services;
- » Need for additional marketing and information materials to targeted populations;
- » Access to Jobs within the Industrial Park west of I-29;
- » Recognize transit as an option for community sustainability initiatives;

## **Focus Group 1: Human Service Providers**

Only a representative from the Senior Center attended the first focus group. The following issues were discussed:

- » Seniors previously rode the fixed route transit before the system switched to designated stops, which are too far from where people live or do not have amenities that allow seniors to wait comfortably.
- » Seniors do not like that they have to call ahead of time and are worried about cancelling too often.
- » Seniors would prefer to ride the fixed route service and will typically use whichever fare type is the best deal.
- » Seniors occasionally comment that they need earlier or weekend service.
- » Senior Center staff was not aware of one call/one click program.
- » Major gap in service for rural seniors needing to get to medical appointments multiple days a week.
- » The Senior Center has requested new brochures but none have been delivered, so they have been making copies. Brochures do not have dates so it is impossible to tell how current the maps being used.
- » Senior Center, Altru campuses, Walmart, pharmacy and beauty salons are important destinations.
- » New senior housing in southern Grand Forks is not well served.
- » Seniors would benefit from transit informational sessions.

### Focus Group 2: General Users

Representatives from the Veterans Affairs Clinic and the Center for Independent Living attended this focus group. The following issues were discussed:

- » Veterans generally and homeless veterans specifically need to get to the VA clinic but the closest stops are Target, Walmart and Columbia Mall which are either too far away or require crossing busy streets, including 32<sup>nd</sup> Avenue. The clinic desires a stop nearer their location.
- » The Center for Independent Living reported that their users find paratransit is inconvenient but didn't know that all buses are accessible.
- » Lack of information and how to use the fixed route system prevent many from using it.
- » Information on how to voice complaints or needs is not readily available.
- » Many clients of the Center for Independent Living would benefit from better evening and weekend service.
- » As more riders with mobility devices switch to the fixed route service, on-time performance issues would likely increase.
- » Center for Independent Living tries to use one-call/one-click but the service is inconsistent because there are not enough providers.

### Focus Group 3: General Users

Representatives from Cities Area Transit, the Economic Development Corporation and the Grand Forks Sustainability Office attended this focus group. The following issues were discussed:

- » Some paratransit riders did not know the fixed route buses are totally accessible.
- » Industrial park would benefit from service but indirectness is a barrier. Cities Area Transit has worked with companies in the past but their interest has not been maintained. The Chamber of Commerce and the Economic Development Corporation is working on developing park and ride locations because businesses in the industrial park have run out of parking space.
  - Many employees of the Industrial Park businesses do not have a license (approximately 40 percent).

- » The City of Grand Forks is interested in encouraging employees to use the bus, but indirectness is a barrier.
- » Convenient service would be a benefit to the 42<sup>nd</sup> Street corridor that attracts many visitors. The Alerus Center and neighboring hotels like transit because it adds a selling point for special events.
- » The hub and spoke system as currently designed is outdated.
- » Private suppliers of transit, like the Grove apartment complex are providing service. Grand Forks City Council denied their request to add transit to their location and existing transit routes are not direct enough to be useful for the residents.
- » Given budget cuts, the University of North Dakota may be interested in contracting out their transit system and should consider what the relationship may look like.

### ***Open Houses***

Throughout the day, the study team engaged members of the general public and current riders on the issue of transit in the Grand Forks – East Grand Forks metro area. Specific issues discussed included:

- » Need for Sunday bus service, potentially similar to how current night service operates
- » More robust evening service in terms of coverage area and hours of operation; potentially looking at expanding the hours of operation of more popular day routes (E.g. 3, 5, 10, etc.)
- » Better service on routes which are currently working well (E.g. 3, 4, 5, and 6)
- » Improve connections north to south on west end of town, specifically along 42<sup>nd</sup> and Columbia Road
- » Evaluate transit access and circulation along 32<sup>nd</sup> Avenue South, area seems ineffectively served given the large amount of employment and retail
- » Drivers need training for different types of mobility devices
- » Desire for service to Parkwood Place and North Dakota Eye Clinic
- » General theme identified the need to ensure adequate shelter distribution, specifically at high boarding locations; specific shelter requested at Walmart on Gateway Drive
- » Getting to the City Halls is difficult
- » Service to the industrial park was identified as a need
- » Identified need for a second hub or transfer station that might serve to support a more efficient route pattern
- » Explore options for park and ride locations
- » Route Shout is a good service but does not include the Night Bus
- » Perceived safety issues and troublesome passengers
- » Drivers sometimes do not stop at the timed stop, hold until scheduled time or call ahead for transfers
- » Route 8/9 is confusing

### ***Route Desire Lines***

Each of the Focus Group meetings and the Open Houses provided participants an opportunity to illustratively denote *transportation desire lines*. Participants were given yarn to represent a limited number of bus headway and asked to “connect” major destinations they consider important.

In general, existing riders who completed the exercise tended to select and highlight those corridors which currently provide needed transit services they current used. For those non-riders and stakeholders who



participated in the exercise, a more global view was taken. Non-riders tended to make connections along corridors such as Gateway Drive and 42<sup>nd</sup> Street which are currently served by transit.

An extrapolation of these outputs will be factored into the Issues Identification process currently underway.

### *Survey*

As part of the outreach efforts for this plan, a survey was developed which included questions for both current riders and non-users to understand the needs and perceptions of the system. The survey was distributed through various channels, including but not limited to:

- » Grand Forks – East Grand Forks Metropolitan Planning Organization’s website.
- » Cities Area Transit’s website.
- » Grand Forks – East Grand Forks Transit Development Plan’s Facebook page.
- » On-board during the route reconnaissance event. Additional surveys were left at the MTC.
- » At the Focus Groups and Open House events.

At the time of this writing, 74 responses were received via the on-line version of the survey and 62 responses were received via the paper copy version of the survey.

# Memorandum

**Date:** 6/23/2016  
**To:** Teri Kouba, Grand Forks – East Grand Forks MPO  
**From:** Bethany Brandt-Sargent  
**RE:** Route Reconnaissance Observations



## Remarks

On April 28<sup>th</sup>, 2016, members of the study team spent the day interacting with Cities Area Transit riders and drivers to begin identifying preliminary system issues. The following issues were discussed or observed:

- » No specific issues were noted or observed on Routes 1/2 or 8/9.
- » Route 3
  - Changes recommended from the last TDP have been helpful for drivers and resulted in better on-time performance.
  - Lack of traffic control at 4<sup>th</sup> Avenue South and DeMers Avenue is difficult for drivers to find a gap, especially during peak travel times.
  - Drivers would prefer a far-side stop at Cherry Street and 8<sup>th</sup> Avenue.
  - Each driver enforces carry-on limits differently.
- » Route 4
  - Automatic announcements were not consistent.
  - No shelter at the Hamline Street and University Avenue stop but one is desired.
  - Riders do not like the stop locations from Washington Street to Columbia Road. They would prefer if they aligned so they could see the bus from shelters, but the changes have fixed on-time performance.
  - Signal priority was not effective at Columbia Road and University Avenue.
- » Route 5
  - Left turn is difficult at 5<sup>th</sup> Street and DeMers Avenue.
  - Drivers often fall behind because signal priority is not effective but catch up between major intersections.
  - People who use this route for shopping do not have any place to store bags and carry-on limits seemed not to be enforced.
- » Route 6
  - Generally this route is efficient, but at periods when class gets out pedestrians and bicyclist congests University Avenue.
- » Route 10
  - Riders prefer the Hugo's stop on this route because it drops off and picks up at the door.
  - Northland College is a big destination with language classes for New Americans. In the past, have had to leave people either at the MTC or Northland College because not enough space on the bus.

- When interlining, drivers do not always remember to switch the route number displayed on the bus.
- » Route 11
  - Passenger reported the driver missed the stop previously and she had to walk to the MTC.
  - Drivers not using layover procedures. Driver reported that he would rather run late than early as to not miss riders.
- » Route 12
  - Driver announced the stop but did not use the radio so it was difficult to hear.
  - Young kids use this route and Route 13 for Choice Health & Fitness.
  - Ran nearly five minutes behind schedule until reached the South Middle stop.
- » Route 13
  - Driver said this route often runs behind schedule during the winter.
  - Unclear stop and boarding procedures at the Columbia Mall. Bus did not stop, despite team member waiting at the designated stop.

# Memorandum

**Date:** 6/23/2016  
**To:** Teri Kouba, Grand Forks – East Grand Forks MPO  
**From:** Bethany Brandt-Sargent  
**RE:** Survey Results



## Remarks

As part of the outreach efforts for this plan, a survey was developed which included questions for both current riders and non-users to understand the needs and perceptions of the system. The survey was distributed beginning April 25<sup>th</sup>, 2016 through various channels, including but not limited to:

- » Grand Forks – East Grand Forks Metropolitan Planning Organization’s website.
- » Cities Area Transit’s website.
- » Grand Forks – East Grand Forks Transit Development Plan’s Facebook page.
- » On-board during the route reconnaissance event. Additional surveys were left at the MTC.
- » At the Focus Groups and Open House events.

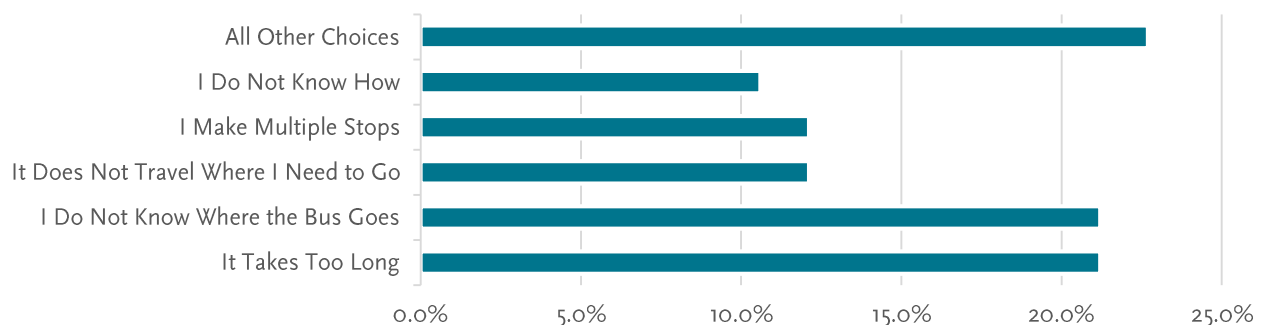
At the time of this writing, 77 responses were received via the on-line version of the survey and 62 responses were received via the paper copy version of the survey.

## ***Non-User Responses***

Thirty-seven non-users responded to the on-line survey. The results presented below are representative of this subsample.

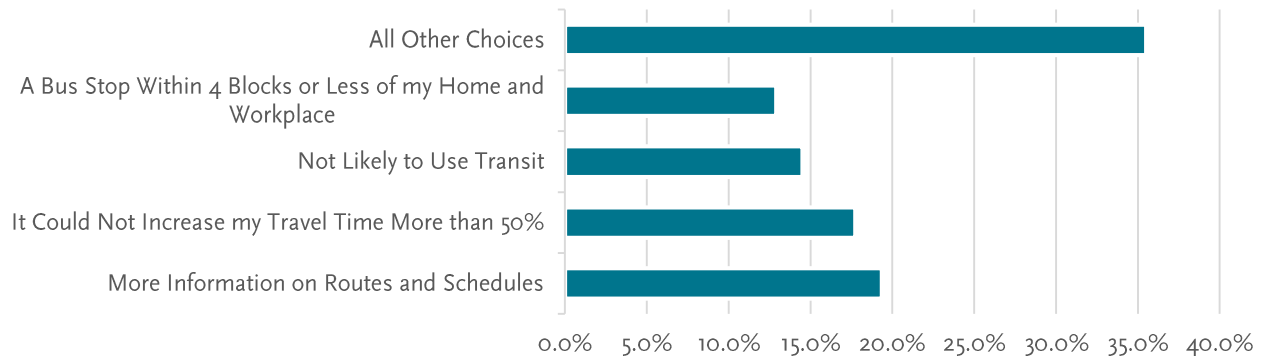
When asked why non-users do not ride Cities Area Transit, the two most significant single issues were that it takes too long and they do not know where the bus goes. All other choices include does not operate late enough, unsafe, not reliable, does not operate early enough, it costs too much. Other answers specified by the respondents include I have my own car (three responses), “not sure how with toddler”, and “heard many negative things about using Dial-a-Ride.”

*Figure 1: What are the most important reasons you do not use the bus?*



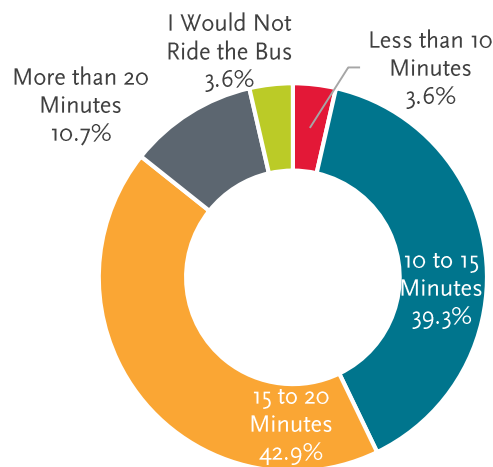
Non-users were asked what would lead them to try transit. The most common responses was more information on routes and schedules and it could not increase travel time more than fifty percent. All other choices includes, more frequent service, later evening service, Sunday service, higher gas prices, earlier Saturday service, guaranteed ride home program. Answers specified by respondents include “Absolutely no other choice.”

Figure 2: What would lead you to try transit?



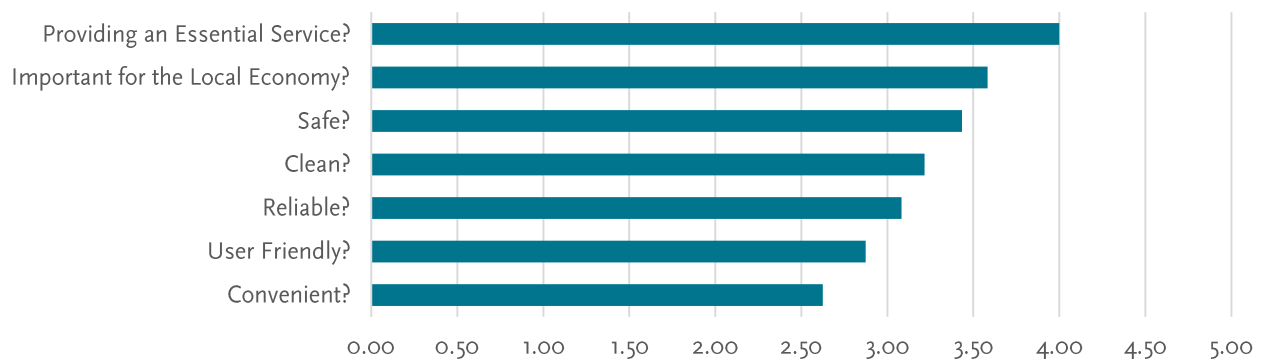
For most non-users, a reasonable time for a bus trip ranges from ten to twenty minutes.

Figure 3: What would be a reasonable time for a bus trip?



Non-users were also asked about their perceptions of Cities Area Transit. On average, non-users believed Cities Area Transit is reliable, clean, safe, important for the local economy and an essential service (represented by an average score of 3.0 or greater), but they do not perceive Cities Area Transit as convenient or user friendly.

Figure 4: Do You Think Cities Area Transit Service Is



### User Responses

Of the 102 Cities Area Transit user responses received, more than fifty percent have been riding Cities Area Transit for more than five years and 68 percent use it most days a week or daily.

Figure 6: How long have you been riding Cities Area Transit?

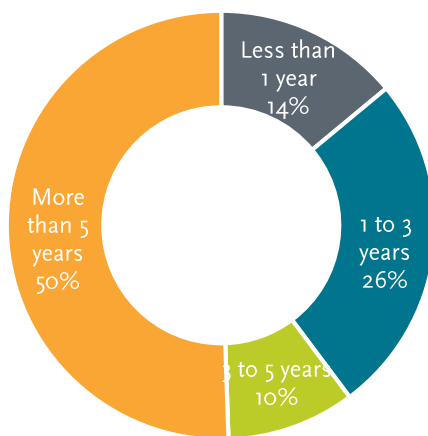


Figure 5: On average, how often do you use Cities Area Transit?

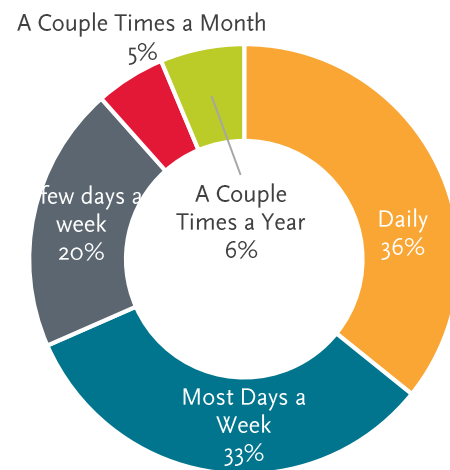
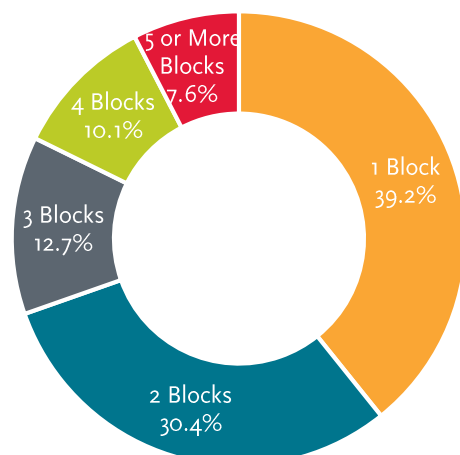


Figure 7: How far do you typically travel to get to the bus stop?

Nearly 70 percent of CAT users reported they typically walk two blocks or less to get to the bus stop.



Users responded they most typically only require one transfer to reach their destination and most trips are 30 minutes or less. Users also indicated they typically ride between 6 A.M. to 6 P.M., with just 13.1 percent riding after 6 P.M.

Figure 10: How many transfers do you typically make on a one-way trip?

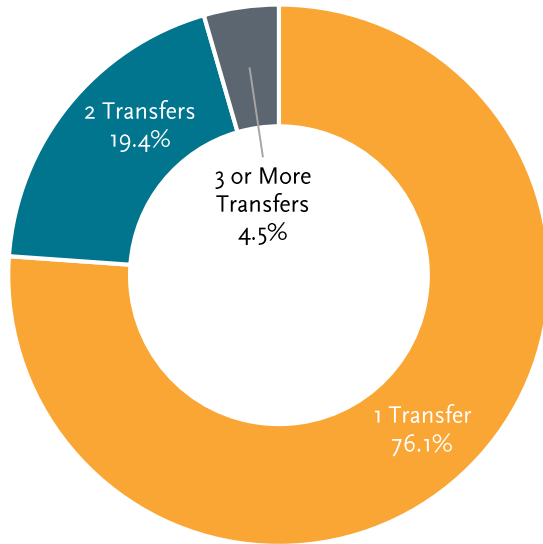


Figure 9: On average, how long is your total trip?

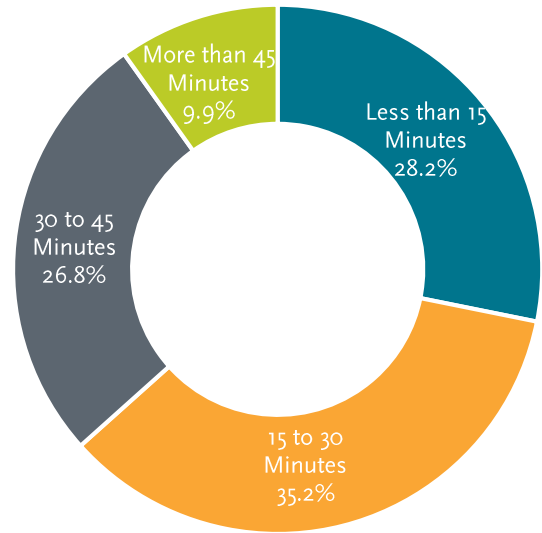


Figure 8: What times of day do you typically ride the bus?

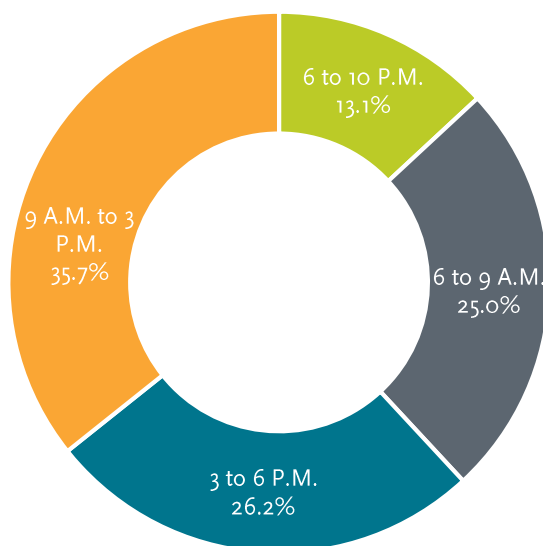
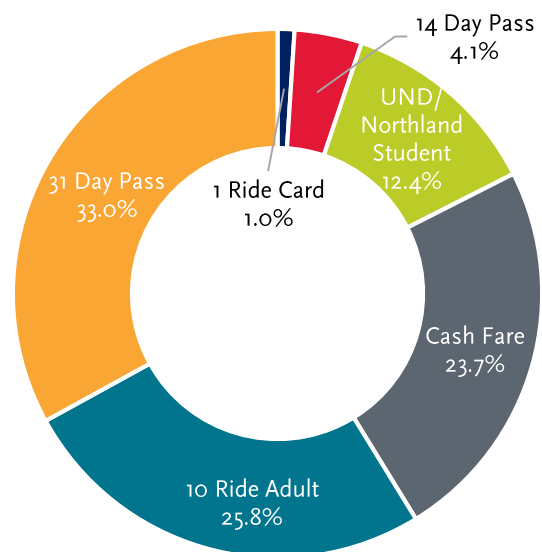
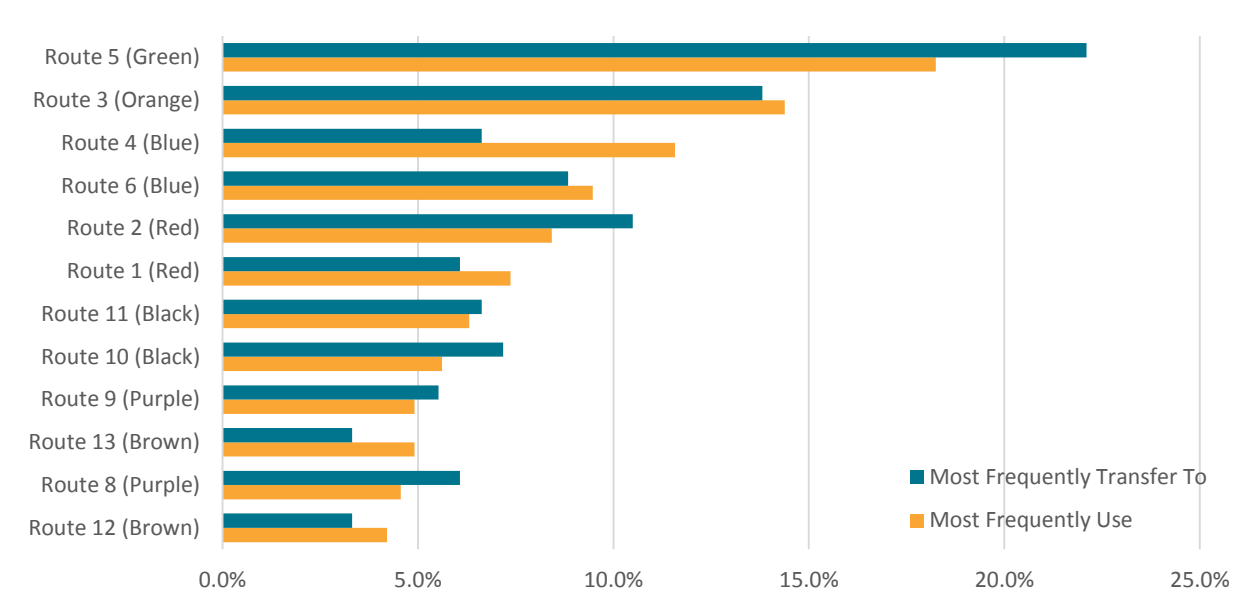


Figure 11: How do you typically pay for your trip?



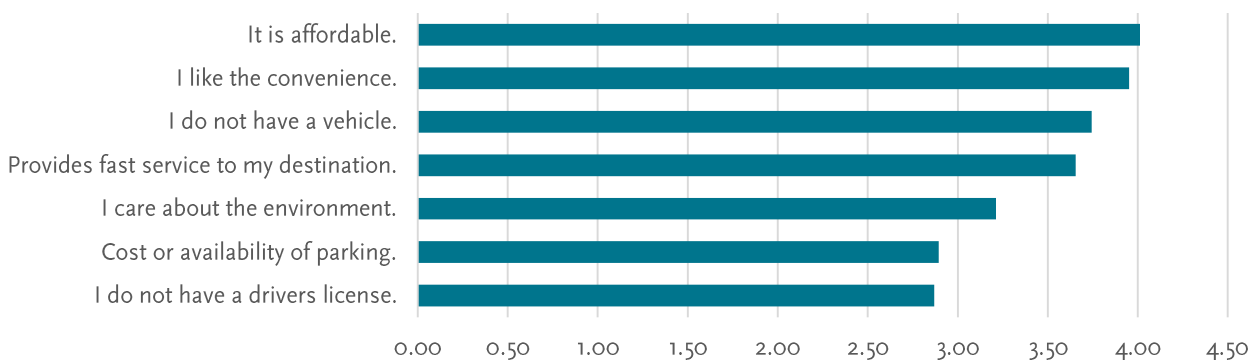
Most users responded using Route 3 (14.4 percent) and Route 5 (18.2 percent) most frequently, followed by Route 4 (11.6 percent) and Route 6 (9.5 percent). Respondents also cited they most frequently transfer to Route 5 (22.1 percent), Route 3 (13.8 percent) and Route 2 (10.5 percent).

Figure 12: Which routes do you most frequently use (orange) and transfer to (blue)?



Users were asked the most important reasons they use transit. On average, users cited affordability, convenience, not owning a vehicle, convenience and fast service as the most important reasons.

Figure 13: What are the most important reasons you use transit?



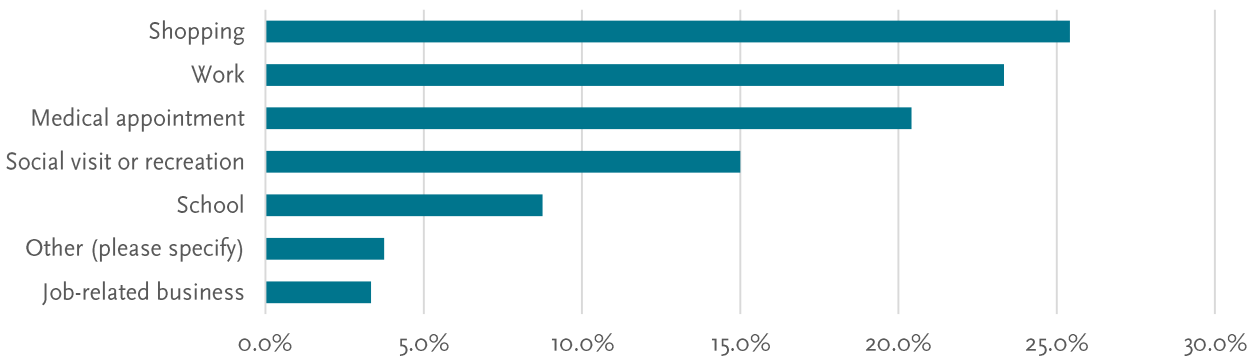
Other reasons cited include “like meeting new people”; “I hate driving especially in this area”; “I taxi’d home after bar close and want a cheaper alternative to get back to my vehicle”; “not driving under the influence.”



The primary purposes existing CAT users take transit include shopping (25.4 percent), work (23.3 percent) and medical appoint (20.4 percent). Other reasons included

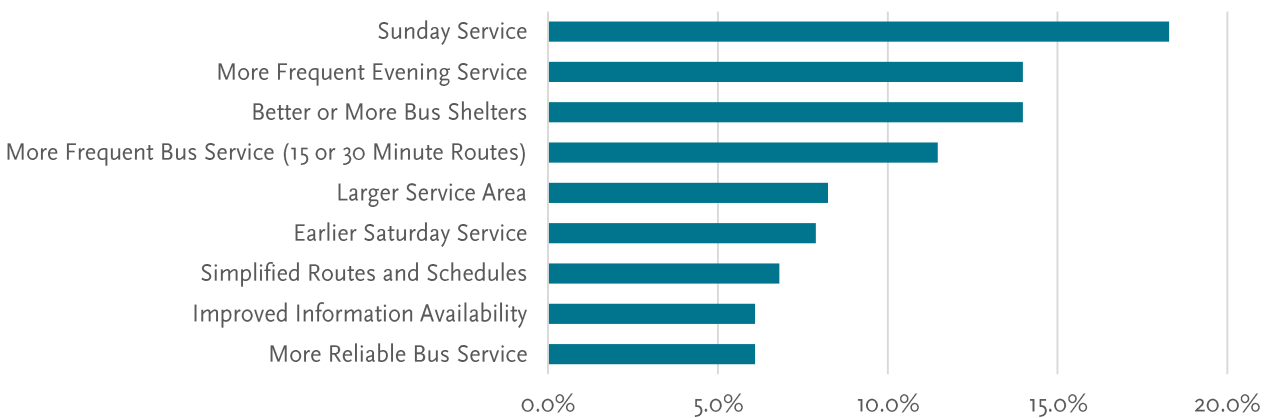
- » Everything
- » To get a haircut
- » Church on Wednesday night
- » UND
- » Go to NEHS
- » Library
- » Not driving under the influence

Figure 14: For what purposes do you ride CAT?



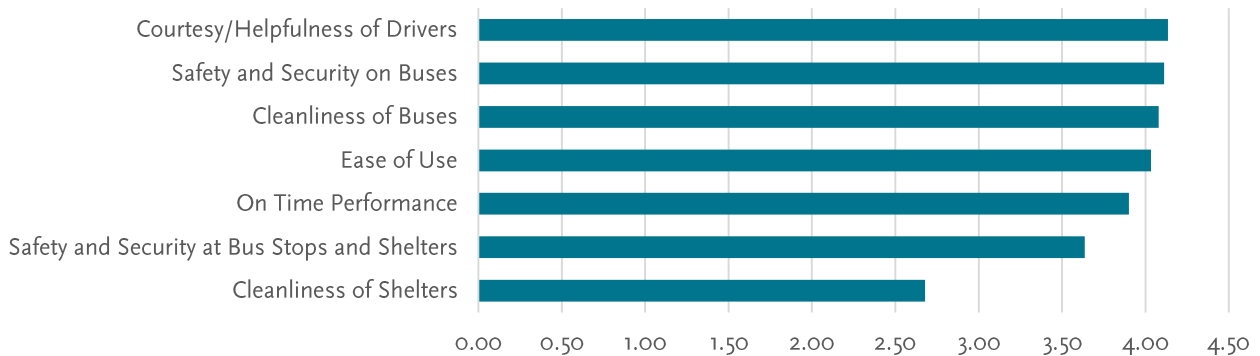
CAT users were asked to select the most important improvements that could be made to the service. Sunday service, more frequent evening service, better or more bus shelters and more frequent bus service were the most commonly selected improvements.

Figure 15: What are the most important improvements CAT could make?



Users were asked to rank characteristics from very poor to excellent. On average users found on time performance, courtesy and helpfulness of drivers, safety and security, cleanliness of buses and ease of use to be very good. They only found cleanliness of shelters to be somewhat poor.

Figure 16: Please rank the following characteristics of CAT.

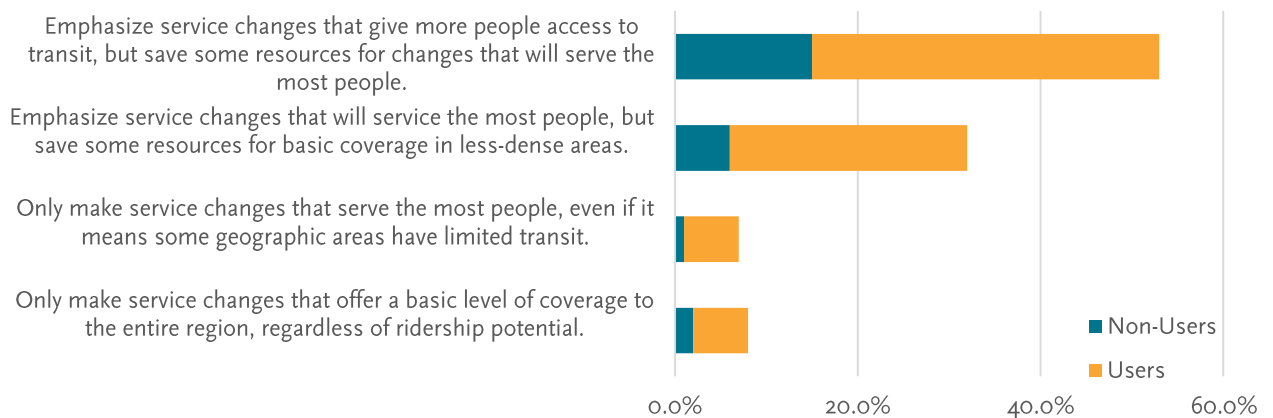


### Demographic and Preference Questions

Five questions were asked to both current users and non-users of the Cities Area Transit system.

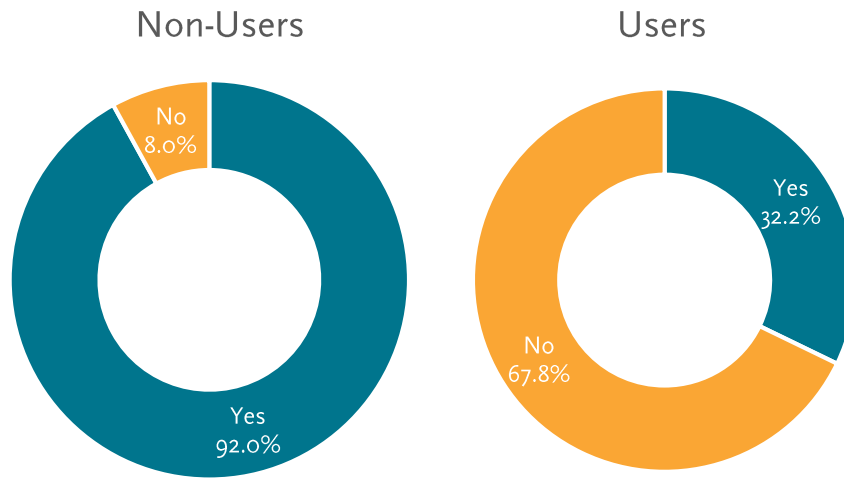
Survey respondents were asked to select a service approach; 53 percent preferred to emphasize service changes that give more people access to transit, but save more resources for changes that will serve the most people.

Figure 17: Select the service approach you most agree with.



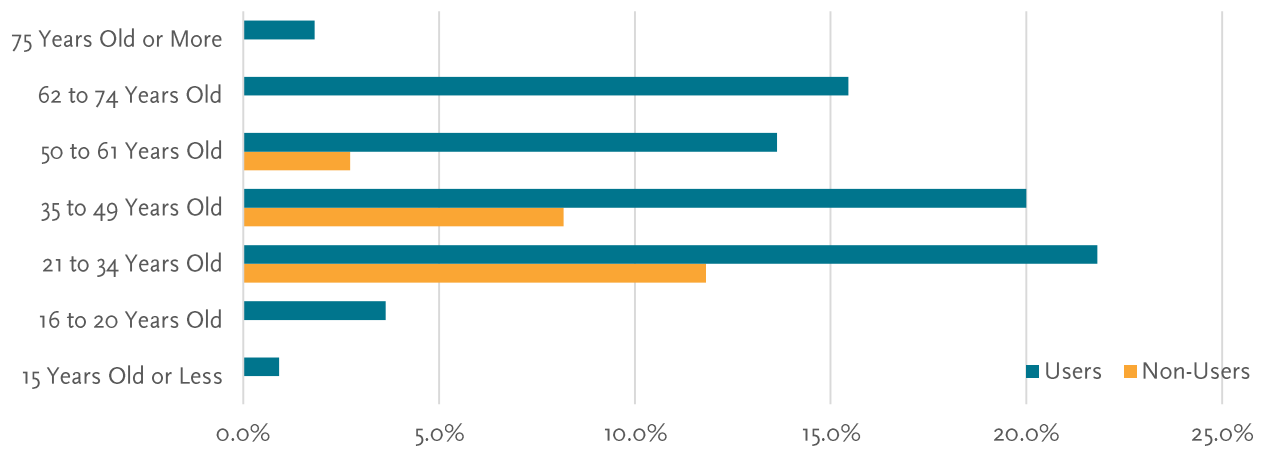
Respondents were also asked if they had access to a vehicle at most times. For non-users, a vehicle was available most times for 90 percent of respondents. However, that number falls to just 32 percent of users.

Figure 18: Vehicle Availability for Non-Users and Users



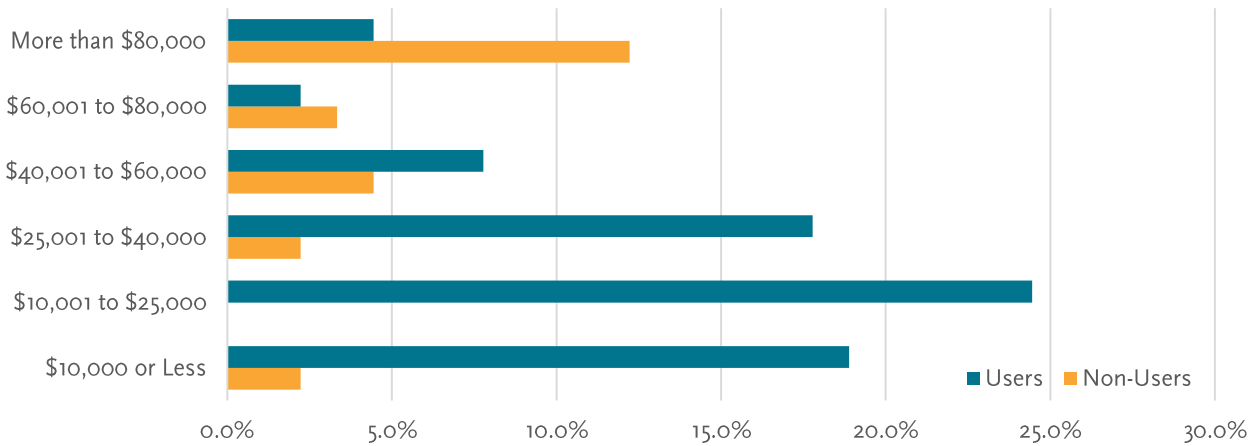
The remaining demographic questions were optional for survey respondents. Of total survey respondents, 61.8 percent fell between the ages of 21 to 49 years old, with 52.0 percent of non-users and 28.2 percent of users between 21 and 34.

Figure 19: What is your age?



For non-users, fifty percent of respondents reported their annual household income to be greater than \$80,000, while 57.4 percent of current users have an annual household income of \$25,000 or less.

Figure 20: What is your household income?



Just 8.2 percent of survey respondents (3.5 percent of non-users and 4.7 percent of users) live in East Grand Forks.

Figure 21: What is your zip code? (Combined into Cities)

