

# 11 • Transit and Commuting

## Overview/Summary

This chapter is a summary of current and near-term transit planning recommendations and key long-range transit focus in the ROCOG area. The recent Rochester comprehensive plan update and the Integrated Transit Studies that evolved from the Destination Medical Center Plan greatly helped to shape this chapter. ROCOG and staff have been and are involved in these and similar ongoing studies as noted in this chapter, since all of these coordinated studies contribute to long-range transit planning in the Rochester and Olmsted County region.

The ROCOG area's transit systems today are organized around urban and regional commuter fixed route and express services, along with urban and regional demand responsive bus service. In the future it is anticipated these services will be expanded and enhanced and supplemented with a high capacity transit service in a selected number of key corridors/subareas. This will include Bus Rapid Transit (BRT) service serving the Rochester greater downtown area and a Primary Transit Network (PTN) serving the main corridors of Rochester.

Park and ride express service will expand and be enhanced with permanent sites replacing the current leased site model. Southern Minnesota commuter service will be increased in response to greater commuter ridership and to meet job growth in the downtown Rochester area. Finally, land use will transform over time in the core of Rochester and along the PTN corridors to support greater mode shift from single occupancy auto to transit trip-making.

## Principal Planning Support Documents

### 2014 Destination Medical Center Plan

An economic development program proposed by the Mayo Clinic in 2012 known as the "Destination Medical Center" (DMC) promises the prospect of \$3.5 billion dollars in investment by the Mayo Clinic in Rochester over the next 20-25 years, along with an anticipated \$2.5 billion expected in private investment in supporting land use and activities serving the Mayo Clinic and its patients. The Minnesota State Legislature approved legislation that provided financing mechanisms to raise up to \$585 million in public investment to support the DMC initiative, contributed from the State of Minnesota, Rochester, and

Olmsted County. The State Legislature established a Destination Medical Center Corporation (DMCC), which is charged along with the City of Rochester in managing the planning and expenditure of the \$585 million in public investment.



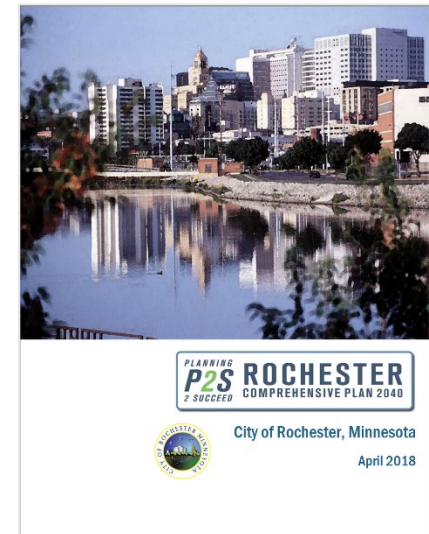
The DMC is a major economic development initiative that will drive significant new job growth and tax base for future generations. It also supports a major downtown-focused travel shift from the auto to transit. The DMC will significantly increase and accelerate the demand for private development and public infrastructure in the Greater Rochester market. The target of the DMC is to support growth in employment on the order of 35,000-40,000 jobs over 20-25 years and to double the visitation from Mayo Clinic patients/companions, business travelers, convention/event goers and other visitors to the city, and particularly the downtown core.

As part of the tenets of the legislation, the DMCC has created an agency called the Economic Development Agency (EDA). The EDA and their consultants will work closely with the Rochester Community Development Department and City Administration to coordinate the DMC Development Plan implementation with the City's comprehensive plan's components and regional transportation planning studies in general.

### Rochester 2018 Comprehensive Plan Update

The Rochester-Olmsted Planning Department completed *Planning to Succeed: Rochester Comprehensive Plan 2040* (P2S 2040) in 2018. This project consisted of two main elements:

- An update of various comprehensive plan elements was completed with a primary focus on future land use, capital facilities, affordable housing needs and options, and the management of environmental and cultural resources. Further analysis will include the ability of the City to meet future



financial needs in a fiscally sustainable manner, considering the ongoing costs of existing infrastructure and services while absorbing the short- and long-term costs of new growth.

- A long-term transit framework was created. Examples of framework elements include:
  - ▶ Explore long-term transit system alternatives to help reach the goal established in the Rochester Downtown Master Plan that calls for reducing the share of downtown travel demand by single occupant vehicle travel from a current level of 70-75% to 50% over 25 years
  - ▶ Develop a downtown high capacity rapid transit service anchored by two or more transit villages with significant parking reservoirs
  - ▶ Refine the feasibility and service characteristics of high capacity arterial transit service in the City of Rochester to serve the travel demand generated by the Downtown/DMC District, creating the Primary Transit Network
  - ▶ Redevelop the existing park & ride service to provide for permanent parking facilities replacing the current leased sites

The rationale for an aggressive mode share split goal of 50% single occupant vehicle travel into downtown (rather than the current 70%) is that the significant downtown growth anticipated under the Rochester

Downtown Master Plan and DMC initiatives will, if travel mode shares remain unchanged, necessitate the need for significant investment in terms of land in non-productive parking facilities. In addition, this future traffic will significantly increase congestion on downtown streets, impacting not only motorists but leading to a significant impact on the pedestrian environment in downtown Rochester.

## Rochester 2017 Transit Development Plan

The objective of the updated Rochester Transit Development Plan was to include a variety of evaluation and recommendations of program goals and objectives, operations/service design, capital improvements, funding, management structure, marketing, and related policy issues. The study addressed internal and external factors influencing the use of public transit, including parking supply and policy, fares, schedules, route design, amenities, marketing, land use, etc. The plan included a 5-year short range element and a longer 10-year element.



## Principal Transit Components

### The Downtown Rapid Transit System

(Note: The name of this service formerly generalized as “The Downtown Circulator” was later changed by the City of Rochester to be called “Rapid Transit”. However, the Letter for Entry into the FTA program was using the term Circulator at the time of its writing.)

The Downtown Rapid Transit system is a planned high frequency transit service designed to provide connections between major activity hubs downtown along with connection to two major mobility hubs/transit villages west and southeast of downtown. The service is envisioned to provide service every 8 to 15 minutes in peak periods and 10 to 20 minutes in off-peak periods using bus rapid transit vehicles and service design.

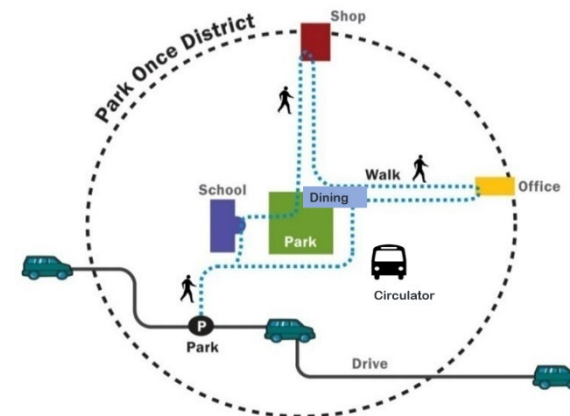
The service will connect Mayo Medical Center facilities, Mayo Civic Center, many downtown hotels and housing as well as the planned Mobility Hubs/Transit Villages which will provide commuter parking integrated with mixed use commercial and residential development.

### Create a Park-Once Downtown Environment

A key principle of downtown development is the concept of a Park Once District, conceptually highlighted in Figure 11-1, which is intended to permit individuals to park their vehicle at a location when they arrive downtown (or on

the fringes of downtown) and then move about downtown during the day without further need for their auto until the end of their stay. The frequency and accessibility afforded by the Rapid Transit System should free up high value downtown land for uses other than off-street parking. This Rapid Transit system is a key strategy of the DMC Plan.

**Figure 11-1**



Based on an original illustration by Walter Kulash.

This strategy will help to eliminate the need for as many as 6,000 to 8,000 parking stalls in the downtown core, freeing land for tax-producing, developable space. Enhanced branding for the park-once system, parking wayfinding for drivers and pedestrians, and incorporation of real-time parking information are all elements of the parking system that will be added to increase efficiency and enhance the visitor experience.

## The Locally Preferred Alternative (LPA) For the Rochester Rapid Transit System

A letter dated December 10, 2019 from the City of Rochester to the Federal Transit Administration contained the following excerpts:

"The City of Rochester, in close coordination with regional partners, submits this request for entry into the Small Starts Project Development phase for the Rochester Downtown Circulator BRT Project, referred to as "the circulator" and "the project".

The locally preferred alternative (LPA) is an approximately four-mile BRT route that will run from the Mayo Clinic West Parking Lot to downtown Rochester via 2<sup>nd</sup> Street SW, making intermediate stops at major intersections, as well as St Marys Hospital. At the St. Marys station, a transit center will be constructed on the north side of 2<sup>nd</sup> Street SW along with a pedestrian tunnel providing access between the hospital and transit center. 2<sup>nd</sup> Street SW will be reconstructed in this area to accommodate these infrastructure investments. In downtown Rochester, the circulator will serve stations at 2<sup>nd</sup> Street and 2<sup>nd</sup> Avenue SW (Gonda Building) and at 2<sup>nd</sup> Street SW and S Broadway Avenue before proceeding south along S Broadway Avenue, where it will serve the proposed future University of Minnesota-Rochester campus. The eastern terminus will potentially be located

south of 12th Street SE on property owned by Olmsted County and will include the site preparation and construction of a 1,000-car parking structure. The alignment and terminus options are shown in Figure 11-2.

On May 4, 2020, the Rochester City Council voted in favor of a phased implementation of the LPA. The first phase of the project would consist of the BRT route from the West Transit Village along 2 St SW in both directions. But instead of turning south on Broadway Ave toward the East Transit Village, the first phase would use 2 St SE, 3 Ave SE, 4 St SE, and Broadway Ave as a loop at the eastern end of the alignment, as indicated in Figure 11-3.

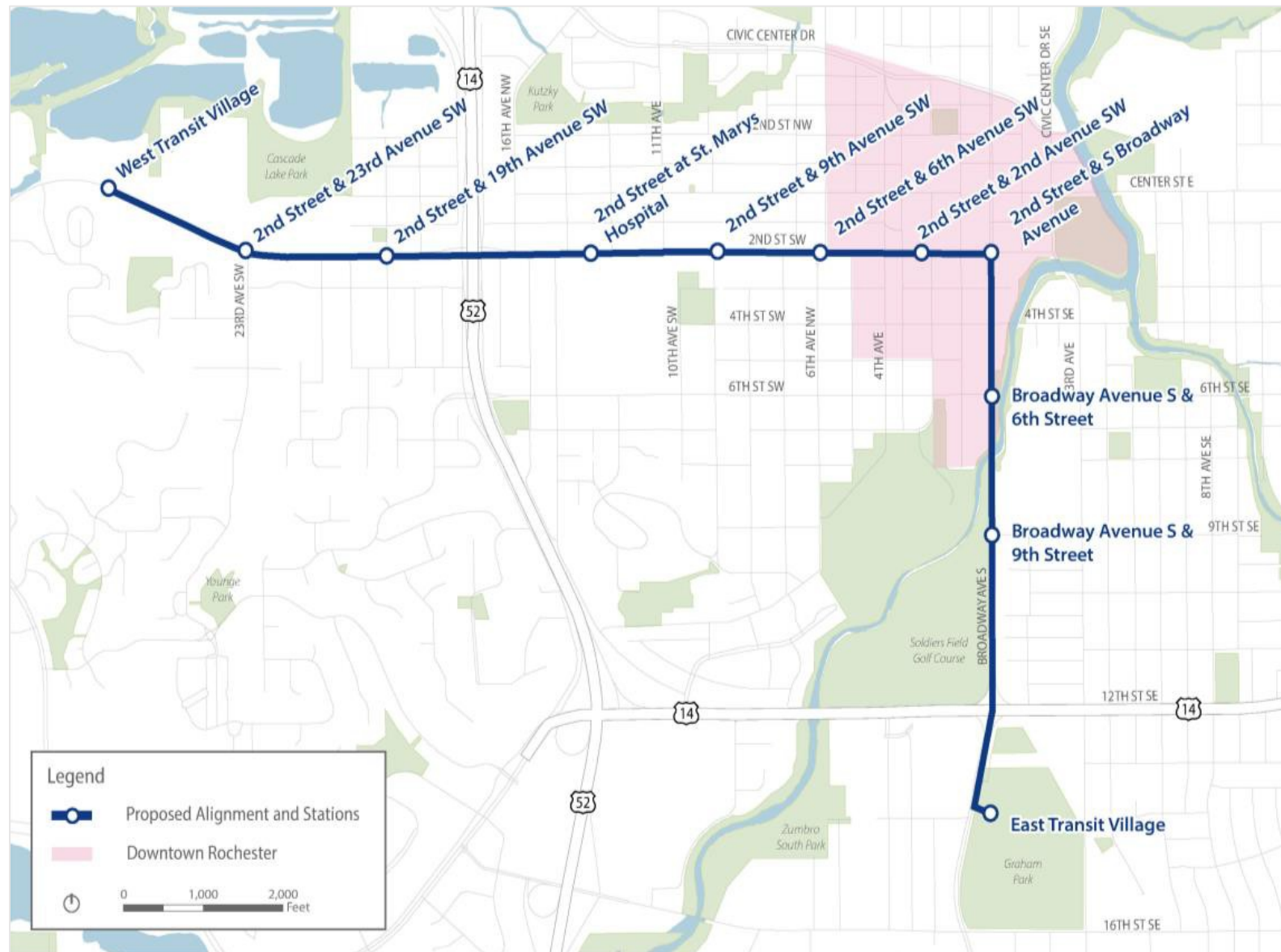
The phased implementation recognized that establishing the east-west movement along the 2 St corridor would be easier to accomplish, while the north-south movement along South Broadway Ave presented challenges for siting the East Transit Village and other considerations resulting from traffic impacts in that corridor. An alignment connecting to an east or southeast transit village with large parking reservoir is still intended as part of the Downtown Rapid Transit project, but that leg of the project will be in a later phase of implementation.

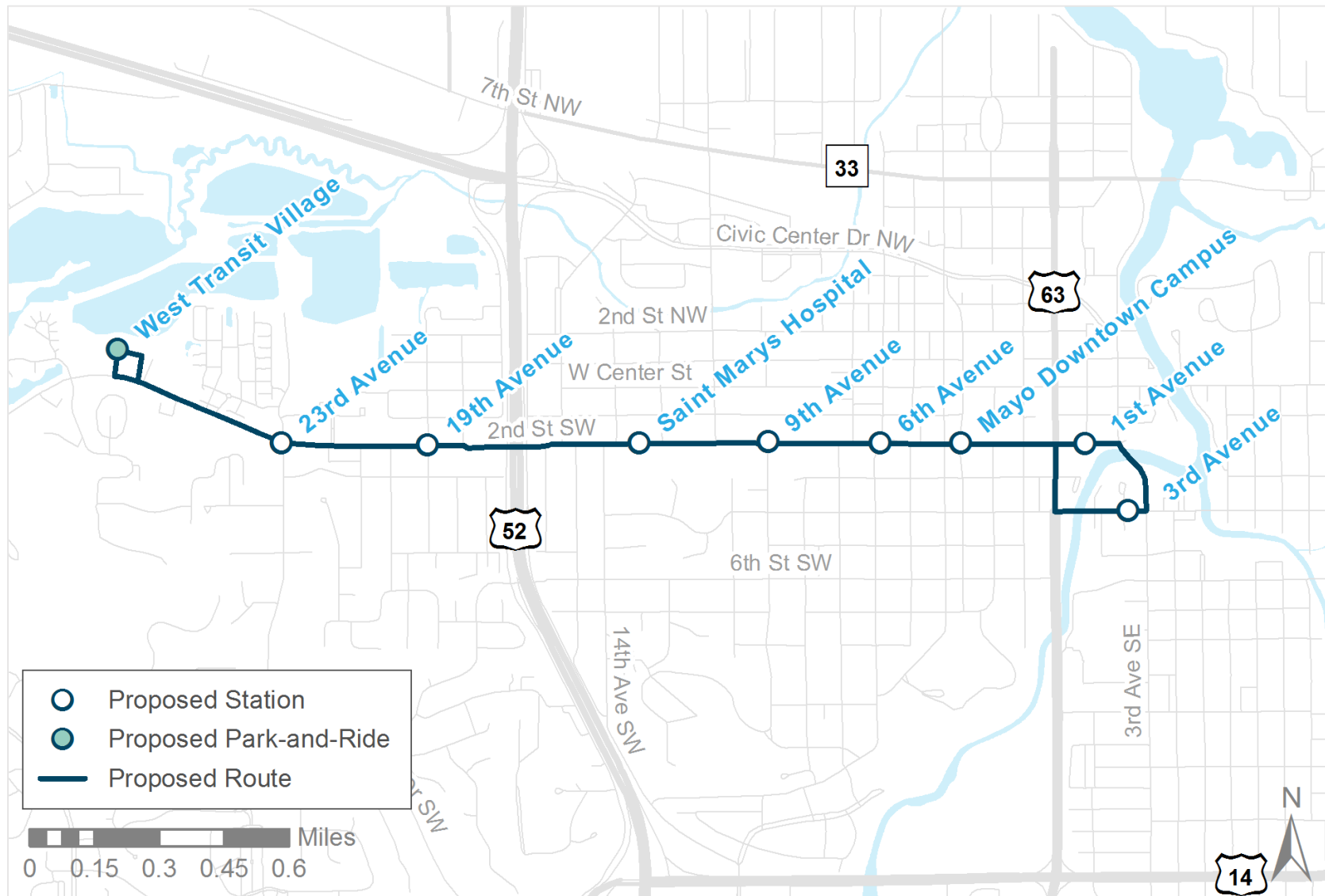
### Downtown Area Commuter Parking/Transit Villages

As noted in Figure 11-2, the endpoints of the Downtown Circulator west and south of downtown Transit Villages/



**Figure 11-2: Locally Preferred Alternative for Rochester Downtown Rapid Transit**

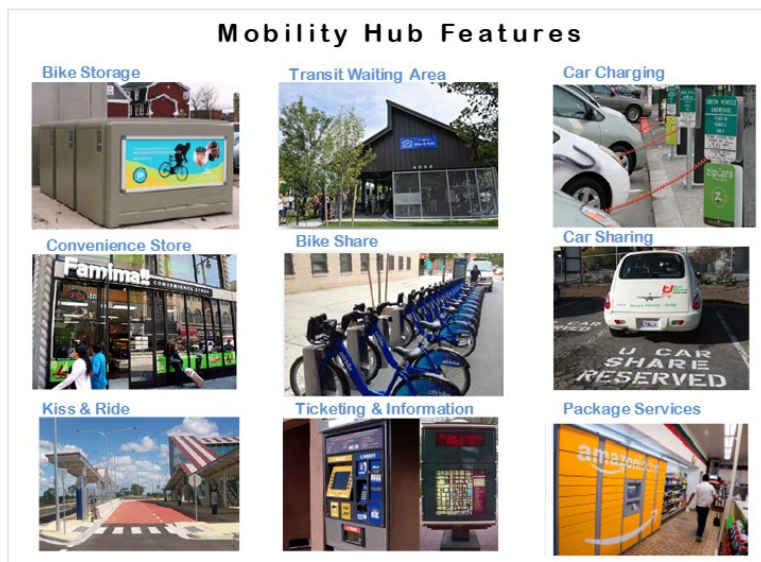


**Figure 11-3: Proposed Phase 1 of Rochester Downtown Rapid Transit**

Mobility Hubs are envisioned to provide major parking reservoirs for people traveling to destination downtown, combined with mixed used development that will provide housing and space for business with easy connection to downtown. Figure 11-4 highlights some potential development concepts for these sites, envisioned to be located at the Mayo West Park and Ride lot on 2nd St SW, and in the vicinity of the former Seneca/Graham Park on South Broadway.

The "Mobility Hub" element of the Transit Villages highlights the incorporation of services or features targeting commuters and others living in the immediate vicinity of the site to encourage their use of Downtown Rapid Transit.

**Figure 11-4**



## LPA Capital and Operating Cost Estimate

At this time, it is expected that the total capital investment from all sources for the original LPA would be approximately \$203 million in year of expenditure (2023) dollars, placing it in range for the Small Starts program as a corridor-based bus project. The City of Rochester currently estimates that 49 percent of the project cost would be requested from Small Starts. The annual cost of operating and maintaining the circulator in the configuration of the original LPA is anticipated to be \$4.04 million, with an hourly operating cost per revenue hour of \$118.37 and 34,140 annual revenue hours expected.

The first phase of the LPA, having only one transit village, at the west terminus, and fewer stations along the entire route, is estimated to have a total capital cost of about \$107 million and an annual operating and maintenance cost of \$2.94 million.

## Need for the Project

Downtown Rochester is expected to grow dramatically; employment is expected to grow by approximately 65 percent and population by 30 percent over the next 20 years. Both the City of Rochester's *Downtown Master Plan* and the *DMC Development Plan* identify a major increase in transit mode share to accommodate this growth and state a goal of carrying 23 to 30 percent of all commuters on transit. As a result, transit ridership on



both the local and regional transit systems is expected to nearly double, requiring more transit capacity.

The following factors contribute to the need for the project:

- Growth in local and regional travel associated with the implementation of the *DMC Development Plan*
- Limited ability of the existing transportation network to support local and regional economic development priorities
- Congested downtown entry points and primary streets resulting from continued reliance on personal automobiles
- Parking program and policies that encourage the use of private automobiles
- Constrained transit system capacity and need to optimize/coordinate multiple existing services (RPT, Rochester City Lines [RCL], Mayo, and private shuttles)

## Primary Transit Network

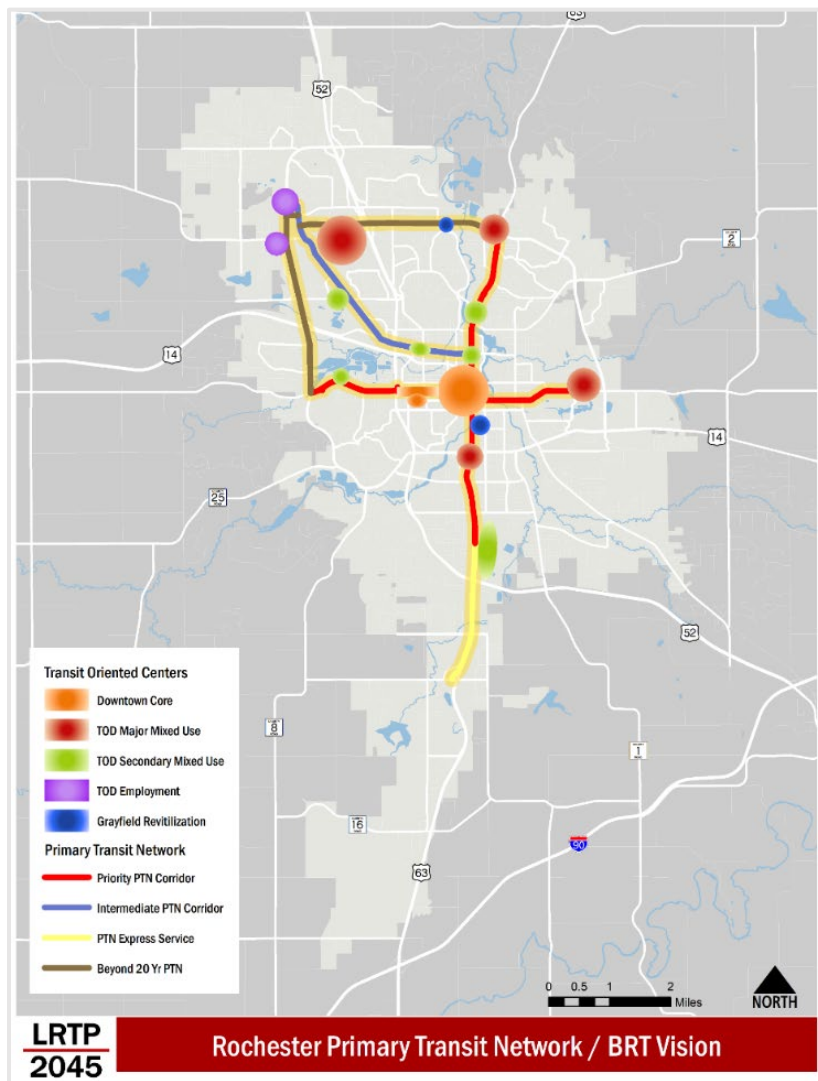
A Primary Transit Network (PTN) is planned for Rochester that will provide enhanced high frequency service to commuters, transit dependent households, students, one-car households and major origin/destinations in the core of Rochester. The PTN is introduced to Rochester as the framework for development of an identifiable transit infrastructure

intended to create a sense of permanence that will attract private investment to growth-oriented transit corridors and nodes. The PTN will help guide growth in Rochester along a network of transit corridors where high-amenity transit services will connect major destinations and mixed-use nodes.

The Plan envisions a core network of Transit Supportive Corridors served by the PTN as illustrated in Figure 11-5. Broadway Avenue North and South along with 2nd St SW and 4th St SE will create a network touching every quadrant of the city, expanding ultimately in the long term along 7th St NW/Valleyhigh Dr, 37th St, and West Circle Dr to connect major development hubs throughout northwest Rochester.

The type of transit service along PTN corridors will be Bus Rapid Transit (BRT), the same type as used for the Downtown Rapid Transit System. However, while the Rapid Transit System will be only one route operating between two mixed-use transit village termini downtown, the PTN will be a separate system of multiple routes operating throughout the City.

The Rapid Transit System, PTN, and existing Rochester Public Transit bus service will provide three distinct but interrelated transit services that serve different ridership needs. In addition, city land development policies have

**Figure 11-5**

been amended to facilitate pedestrian friendly, transit supportive levels of growth along the core Broadway/2nd

St/4th St spines, which should generate synergies between the prospect of investment in the PTN and land use that can make viable a more active lifestyle less dependent on private vehicle travel.

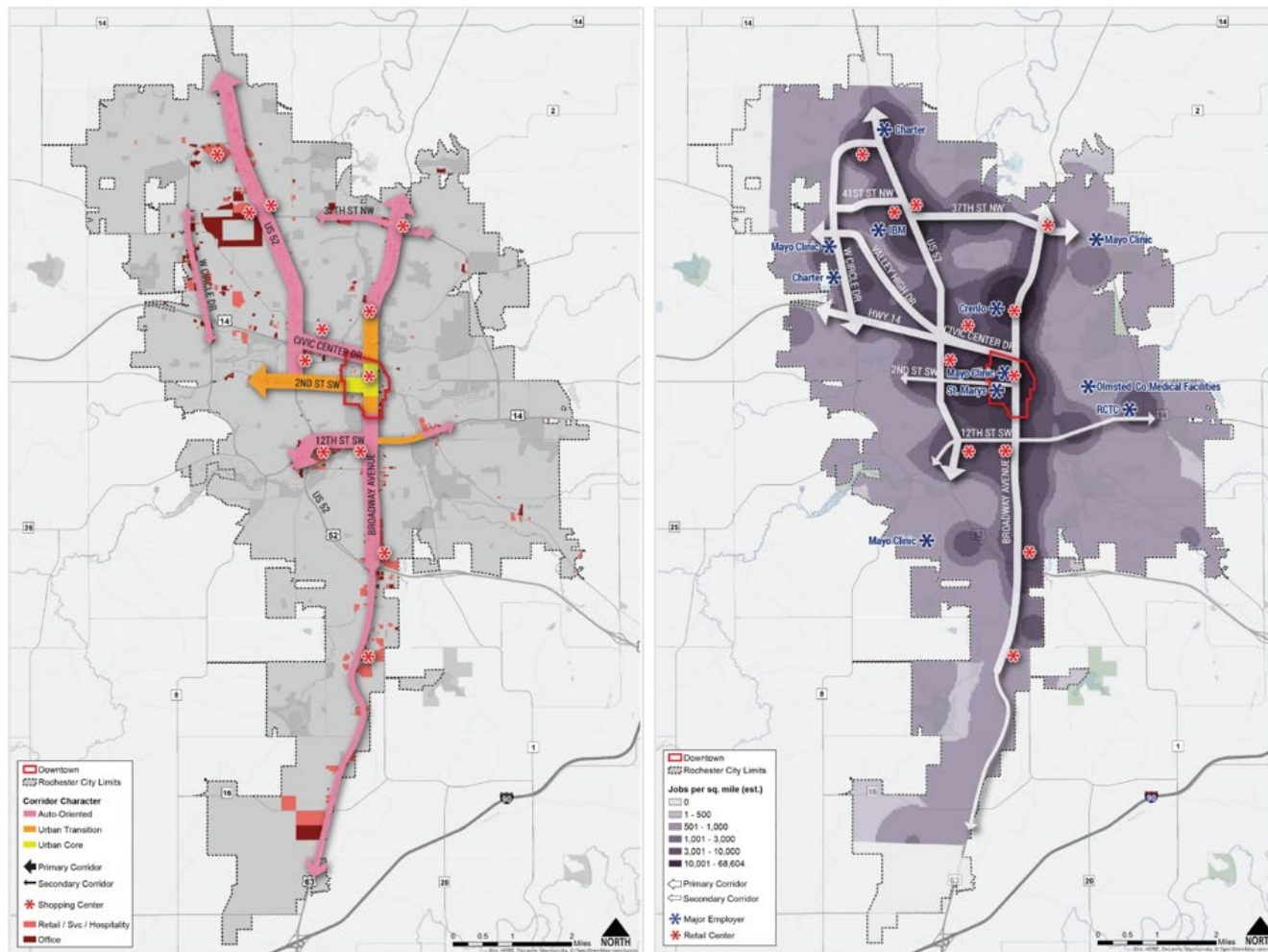
The Primary Transit Network was formulated through the P2S 2040 update process and was endorsed by ROCOG. Figure 11-6 shows two of the types of analysis done during the P2S 2040 project to provide a basis for the routes eventually selected for the Primary Transit Network.

### BRT Service Characteristics

The Federal Transit Administration currently defines BRT as a bus system that meets the following criteria:

- Ideally at least some of the route operating in a lane dedicated for transit use during peak periods
- Defined stations that are accessible for persons with disabilities, offer shelter from the weather, and provide information on schedules and routes
- Intersection signal priority through congested intersections and or queue jump lanes in areas without a dedicated guideway
- At least a 14-hour span of service on weekdays and in a 10-hour span of service on weekends with a minimum of 10-minute headways in the peak and 15-minute headways in the off peak period on weekdays and 30-minute headways on weekends

Figure 11-6



- A separate and consistent brand to easily identify stations and vehicles<sup>1</sup>

Bus Rapid Transit buses have features that differ from regular line-haul fixed route buses, as illustrated in Figure 11-7. BRT rubber wheeled vehicles look and feel much

**Figure 11-7**

## WHAT IS BUS RAPID TRANSIT (BRT)?


### BRT FEATURES

#### STATION DESIGN



Bus stops are upgraded to premium stations with enhanced amenities and information kiosks.

#### FARE COLLECTION



Off-board fare payment speeds boarding and increases convenience. Police enforcement enhances security.

#### VEHICLE DESIGN



BRT vehicles have a unique look that is distinct from regular local and express service. Vehicles have multiple doors.

### BUS RAPID TRANSIT (BRT)

Bus Rapid Transit (BRT) is a transit mode that uses buses and incorporates many of the premium characteristics of light rail transit (LRT). The primary objective of BRT is to provide faster and more frequent transit service and an improved customer experience. Faster service is accomplished by reducing traffic signal and passenger delays and by providing roadway enhancements. An improved passenger experience is achieved through more comfortable vehicles, stations, information technology, and improved service reliability.

BRT is flexible as it can be tailored to best meet the needs and constraints of a community. BRT design can range from a high end exclusive transitway with substantial stations to a design that operates in mixed traffic but still offers high-quality transit service and passenger amenities.

BRT provides the same quality of service as rail but at a lower cost. It allows greater flexibility for phasing and integration with autonomous technology.

#### IDENTITY/BRANDING



A system brand is developed to differentiate BRT transitways from other transit services.

#### STATION SIZE



Stations and boarding platforms are sized to projected passenger demand and available space.

#### RUNNINGWAY



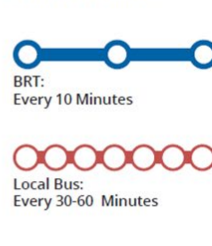
Runningway improvements can vary. Ideally, BRT runningways would be exclusive to only transit vehicles; however, in more constrained areas, buses operate in mixed traffic with minor spot improvements.

#### SIGNAL PRIORITY



Signal priority allows buses additional green time to minimize delay and increase speed.

#### SERVICE PLANS



BRT:  
Every 10 Minutes

Local Bus:  
Every 30-60 Minutes

Limited stop service plans respond to corridor demand. Buses would run every 15 minutes or better, 7 days a week.

<sup>1</sup> From: U.S. Department of Transportation , Federal Transit Administration , June 2016.



like a railcar. They can operate either on streets without major modifications, or in a separate busway, or switch from one to another over the course of a route. Like a rail system, BRT service usually has permanent stations and amenities. BRT vehicles have a low floor design, making them easy to board, and have several doors for faster boarding/deboarding. Features generally associated with a BRT system include signal priority at intersections, queue jump lanes, and off-board fare collection. Vehicles are often fueled with low emission hybrid electric or compressed natural gas, and electric BRT vehicles are becoming more common.

Other BRT features include:

- Wide seats with extra legroom for a comfortable ride
- Standing room for riders who prefer to stand for shorter trips
- Seating for 48 passengers and overall capacity up to 80 riders
- Electronic automatic stop announcements
- Wheelchair boarding at the second door, and sometimes bicycle boarding at the third door directly onto onboard bike racks

BRT service usually includes more station-like boarding/deboarding facilities (Figure 11-8), which can be built to accommodate several buses simultaneously. Stations are less frequent than on local/neighborhood bus routes and spaced farther apart in order to

consolidate passenger/bus interaction and keep overall schedules more competitive with the auto. Land use intensity along BRT corridors needs to be considerably higher than typical urban corridors service by local bus service.

**Figure 11-8**



### Implementing the PTN Network

One of the strategic benefits of implementing the proposed Bus Rapid Transit service along the Rochester PTN is that it allows for incremental investment and deployment of a network of enhanced transit service as transit supportive land use intensity evolves along designated corridors.

Figure 11-9 describes a typical path of incremental investment that can lead from traditional local bus service to Bus Rapid Transit service over time as land use along a corridor intensifies and evolves. Initially more



frequent service can be introduced incorporating some BRT features, with later evolution to full BRT when land uses along the transit corridors provide enough trip

origins and destinations along the routes to justify the added expenses.

**Figure 11-9**

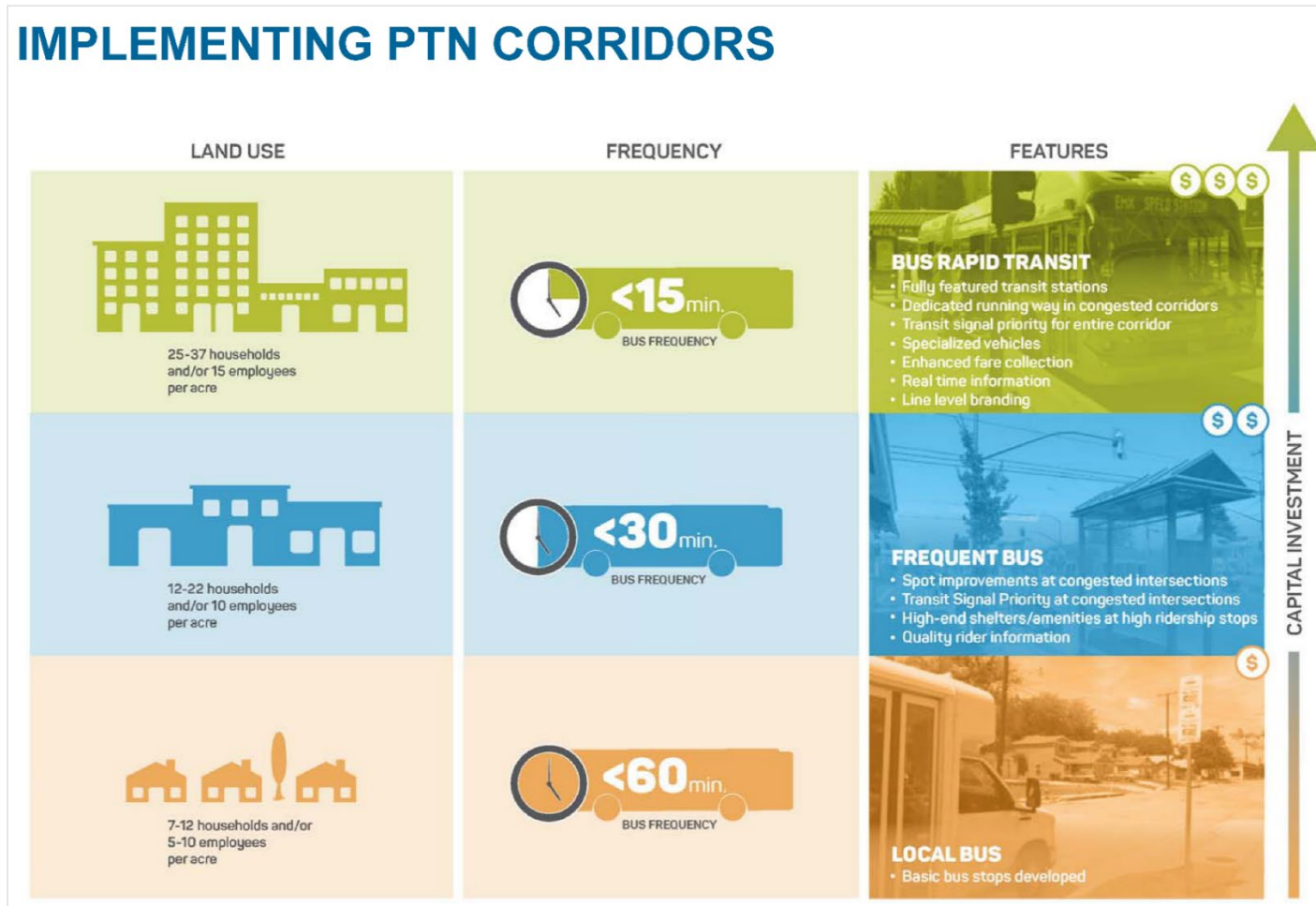
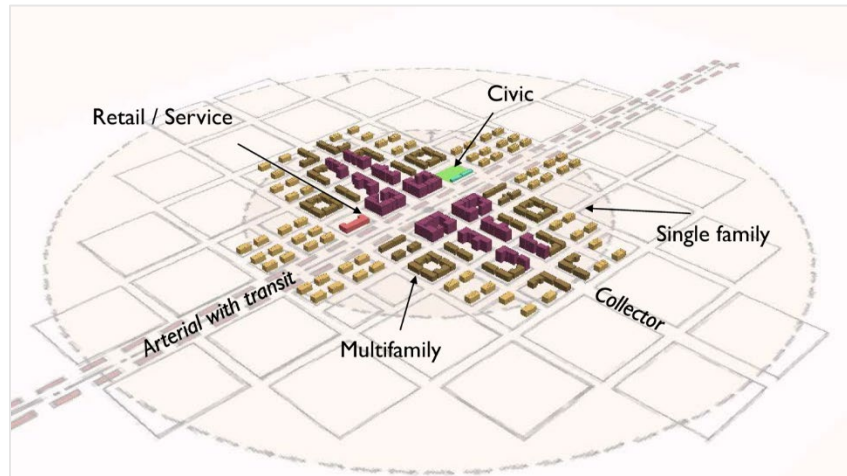


Figure 11-10 provides an example of the types of land uses that can typically be found in a Transit Oriented Development. Along the PTN this would be identified as a node including a BRT station location.

**Figure 11-10**

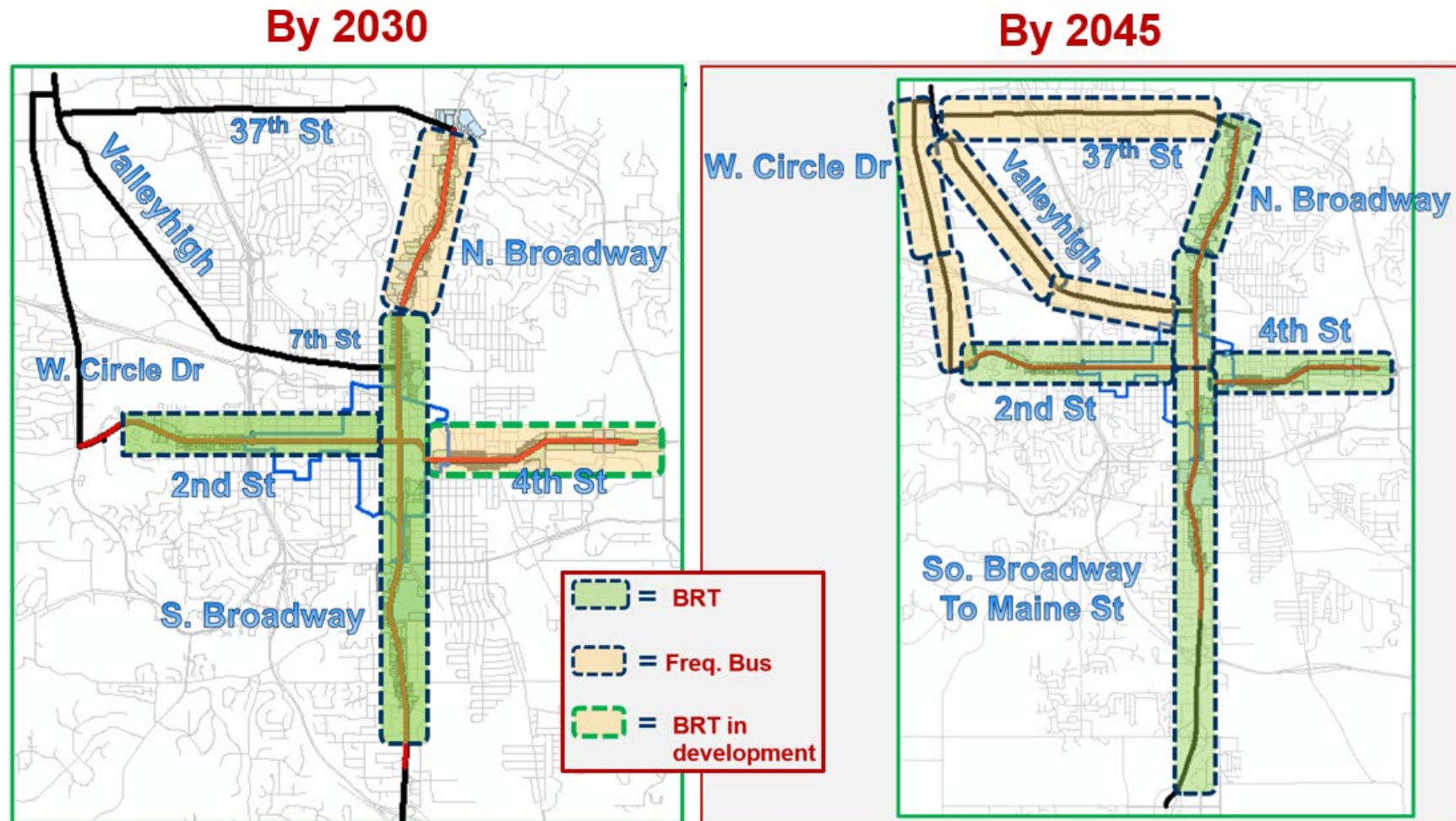


The Primary Transit Network can only advance as the land use intensifies along the corridors. Therefore, it's unlikely that the entire network will be built out by the end of this 2045 planning horizon. Figure 11-11 provides an estimate of when the various buildouts on the corridors will occur by timelines. The green boxes show those corridors that are expected to be operating as a full bus rapid transit system by the time horizons given. The red lines show the expected alignment of the first PTN

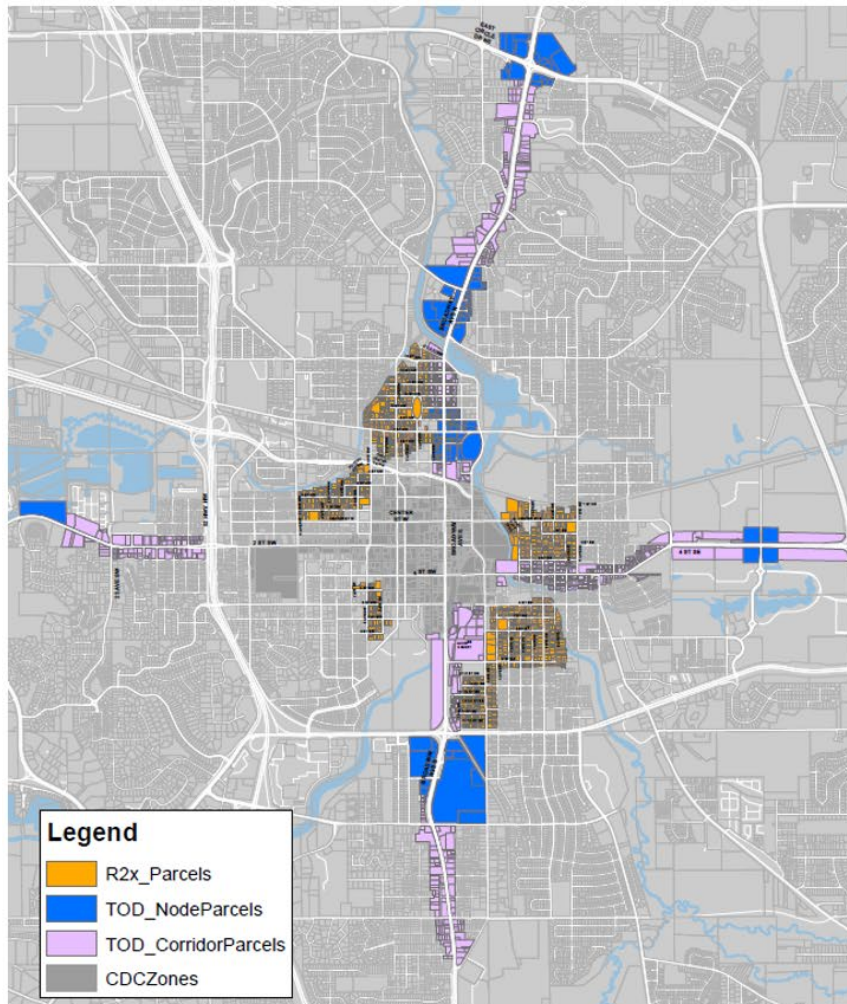
routes, and the black lines show the expected alignment of the subsequent PTN routes.

In 2018, the Rochester-Olmsted Planning Department, in cooperation with ROCOG staff planners and a consultant, began the development of a corridor zoning plan for the first phases of the PTN network. The City of Rochester's Community Development Department completed this undertaking in 2019. This process resulted in adoption of Transit Oriented Development (TOD) regulations for areas of the Broadway Ave corridor and the 2<sup>nd</sup> St SW/4<sup>th</sup> St SE corridors outside of Rochester's Central Business District, as illustrated in Figure 11-12. The TOD regulations include both zoning criteria for TOD nodal areas, consistent with the designation of TOD nodes found in P2S 2040, and TOD corridor regulations for those area between nodes. This process also established an R-2x zone in areas within walking distance of Rochester's central core, easily accessible to and supportive of the PTN Network. The TOD and R-2x zones will encourage development with the density necessary to support BRT service. At some point, the next PTN corridor or corridors should be selected for the same type of zoning treatments. This is the primary tool that will ensure that the land use will densify in order to support bus rapid transit service on the Primary Transit Network in Rochester.

**Figure 11-11: Anticipated Phasing of Primary Transit Network through 2045**



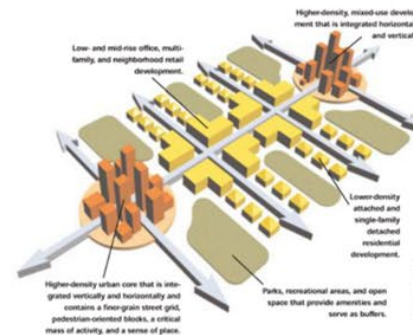


**Figure 11-12: Area Zones to Support the Primary Transit Network**

### Transit Oriented Development Overview

Goal 6 of the Comprehensive Plan; Develop Node and Corridor based Transit-Oriented Development opportunities

- Focused on encouraging mixed housing, employment, recreation and retail opportunities, to support safe and convenient multi-modal transportation options entering downtown
- Residential neighborhood protection standards provide a height and intensity "step down" entering residential neighborhoods
- Based on the nodes and corridors in the Comprehensive Plan- Primary Transit Network
- Focus on staff level review and approval to reduce regulatory barriers
- Within the TOD zone, there are different height and intensities for nodes vs corridors
- Building setback 10 foot maximum
- Building design standards promote street orientation and pedestrian activity



### LIST OF PROPOSED PERMITTED USES

- Multi-Family residential
- Semi-Transient Accommodations
- Medical Stay Dwelling
- Congregate Housing
- Transient Accommodation
- Offices
- Research and Testing
- Business Service
- Personal Service
- Educational Services
- Membership Organizations
- Day Care Facility
- Medical Facilities
- Offender Transitional Housing
- Nursing & Personal Care
- Veterinary Service
- Fast Food Restaurant
- Standard Restaurant
- Retail Trade
- Communications
- Emergency Services
- Parking Facility Associated with a City-designated park and ride

Max. Floor Area Ratio	TOD Node	TOD Corridor
Residential	4.0 FAR	3.0 FAR
Mixed Use	5.0 FAR	4.0 FAR
Nonresidential	3.0 FAR	2.0 FAR
Max Height		
Standard	70ft	60ft
Bonus available fronting on Broadway, 2 <sup>nd</sup> street, 4 <sup>th</sup> street	20% gross floor area residential= 12 additional feet 30% gross floor area residential= 16 additional feet 40% gross floor area residential= 22 additional feet	

## Rochester Park and Ride Service

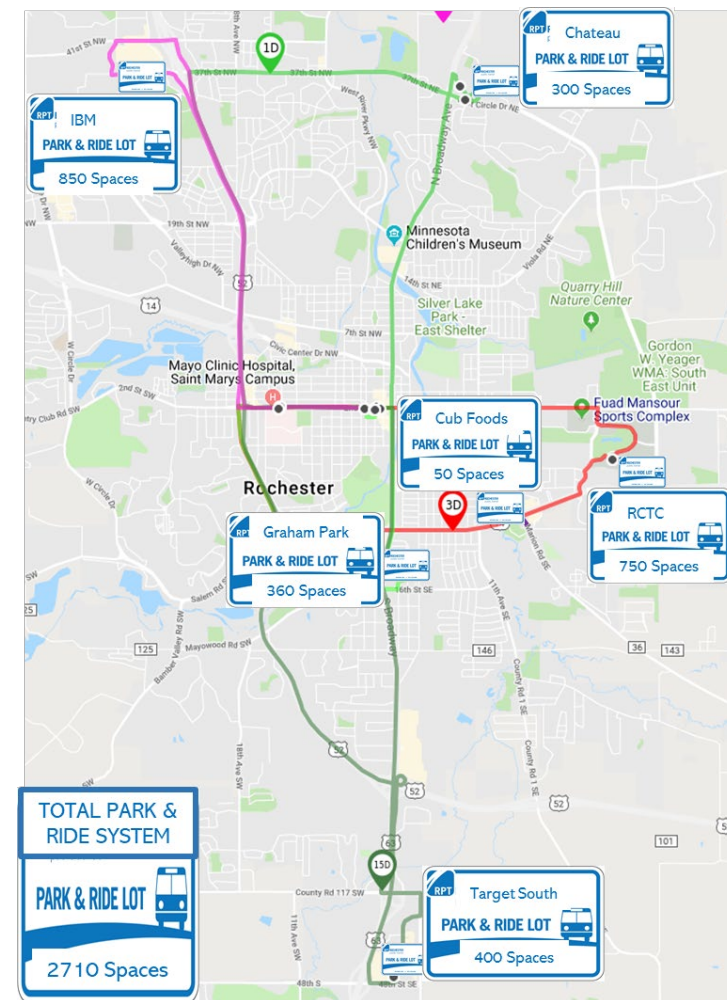
The Rochester public transit system has a long history of providing park and ride express service to downtown and St Marys. The majority of riders work at Mayo. In addition, Rochester City Lines, a private company, also has a long history providing remote park and ride service from surrounding communities in southern Minnesota, also to downtown Rochester and St Marys.

The Rochester Park and Ride network provides remote parking at various locations outside of the Central Business District (CBD) during peak travel times for commuters five days of week. The park and ride locations, and the number of parking spaces available at each, are shown in Figure 11-13. These park and ride facilities are not owned by the City of Rochester; they are used by Rochester Public Transit through agreements/leases with the property owners.

Rochester Public Transit currently provides peak hour express route service from 6 locations. This service is in addition to regular fixed route service. Express peak hour service is now, and will continue to be, an attractive transit option as the urban geography continues to extend into the 5-8 miles range from the Downtown area.

The principal feature of express service is that boardings/deboardings occur only at the park and ride sites, thereby greatly reducing the ride time on the bus

**Figure 11-13**



and helps the service compete with auto travel time. Note that Mayo also provide their own park and ride service from sites close in to downtown. Most to all of

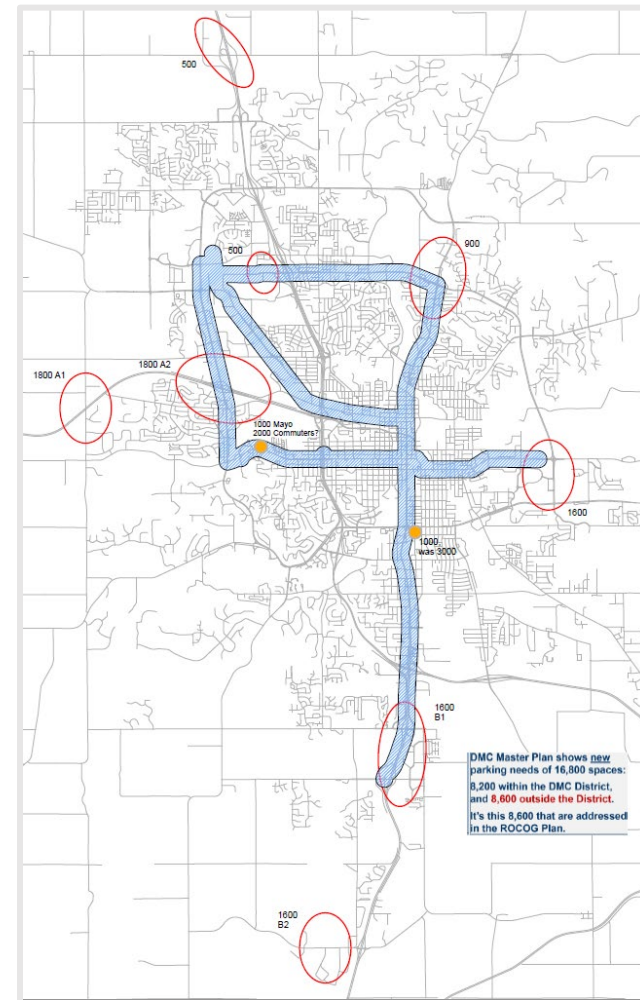


this ridership is expected to convert over to use the Downtown Rapid Transit System.

The Destination Medical Center (DMC) Master Plan projects a need for 16,800 new parking spaces to serve future downtown development. About half of these spaces are envisioned to be developed within downtown to serve customers, patients, visitors, event patrons and new downtown residents, along with some minor expansion of employee parking. The remaining new employee parking, estimated at 8,600 spaces, would be built outside of the DMC District. City of Rochester staff and ROCOG planners have jointly developed a component of this 2045 Plan to lay out strategies to move from the current leased park and ride sites to the creation of a network of permanent park and rides sites served by express bus service. These potential sites are shown in relation to the city of Rochester and the PTN in Figure 11-14. Note that on US-14 west of Rochester and on US-63 south of Rochester, two potential locations are indicated; only one site will eventually be selected at each location.

Express route park and ride service tends to serve two principal rider types. The first group are those who live in Rochester but either do not have local bus service at their home, or who do but choose not to ride it. Instead, they drive, walk, or bike to the park and ride site to make the bus trip into downtown to work.

**Figure 11-14**



The second rider type are those who live outside of Rochester and make an auto commute to the park and ride site and then ride the bus the remaining part of the trip. Both types of park and ride riders are motivated by

either the lack of convenient or available parking downtown or by avoidance of paying the relatively high cost of downtown parking.

Figure 11-15 shows an example of a Park & Ride site with surface parking. Bike parking is included inside the building.

Figure 11-16 shows an example of a Park & Ride ramp, in this case with adjoining buildings containing supporting services. (This is a site of the SouthWest Transit system in the Twin Cities metropolitan area). When considering the PTN node/station system and the future Park & Ride system, there is the potential for combining sites in some geographic areas of Rochester.

### Regional Commuter Transit

With the Mayo Clinic, employing over 32,000 workers in Rochester/Olmsted County, there is a long history of the local workforce being supplemented by regional workers. Commuters from as far north as the Twin Cities, areas west to Interstate 35, as well as southwestern Wisconsin and northeastern Iowa travel to work in Rochester.

Among the options for these long distance commuters is a regional commuter bus service operating by Rochester City Lines (RCL), a private bus company based in Rochester serving about 40 regional communities with peak period weekday bus service to Rochester, as shown

**Figure 11-15**



**Figure 11-16**



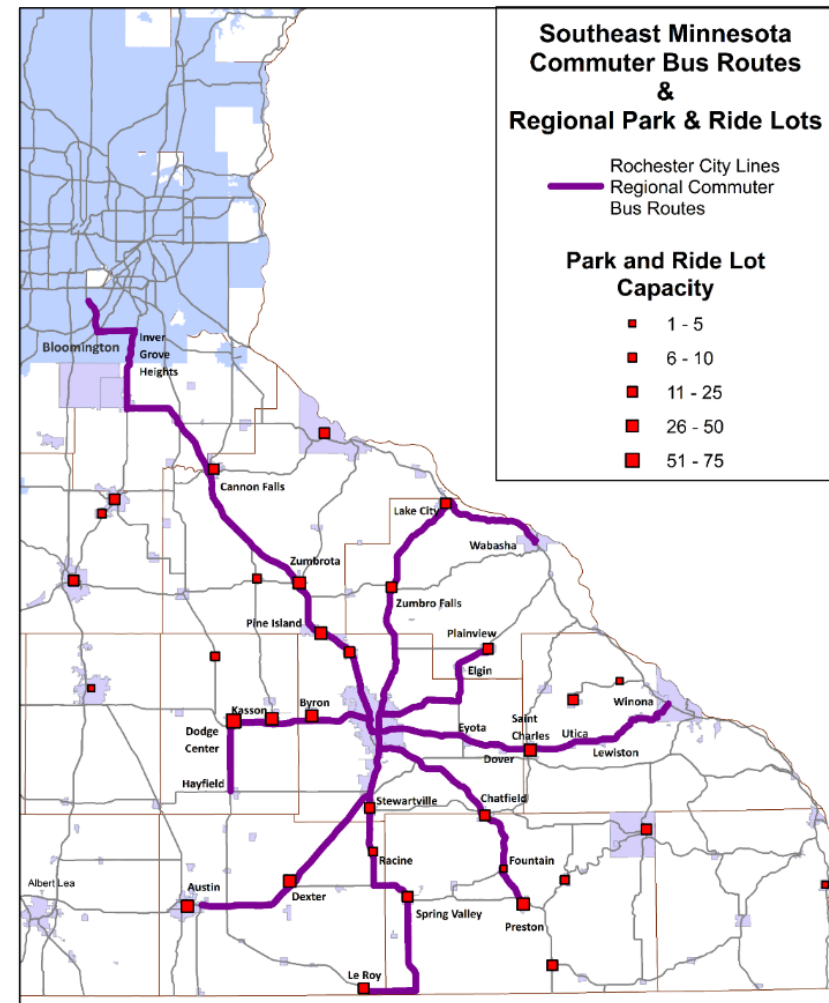
on the map in Figure 11-17. The service is oriented toward the Rochester downtown with secondary service to the St. Marys Hospital campus. All small cities in Olmsted County are served, with the majority of service provided to cities beyond Olmsted County. Due to Mayo Clinic subsidy of employee rides, service is successful without public subsidy.

Intercity bus routes of this type play a key role in helping the City of Rochester achieve its mode-shift goal of reducing auto trips downtown to less than 50% of all trips. By persuading commuters from cities outside Rochester to leave their cars at home and travel longer distances to downtown Rochester on a coach bus, these services reduce congestion and pollution in downtown Rochester, and contribute to a more efficient use of energy, particularly that derived from fossil fuels.

Many of these communities on their own or in partnership with MnDOT have established park and ride lots to serve regional commuters. Some lots serve both those using the RCL service as well as people who meet there to carpool to Rochester or other locations, (shown also in Figure 11-17).

Figure 11-18 helps to illustrate why efforts like regional commuter service is vital for Rochester economic health. This graphic is taken from the Rochester Transit Framework study work conducted in 2015. This study

**Figure 11-17**

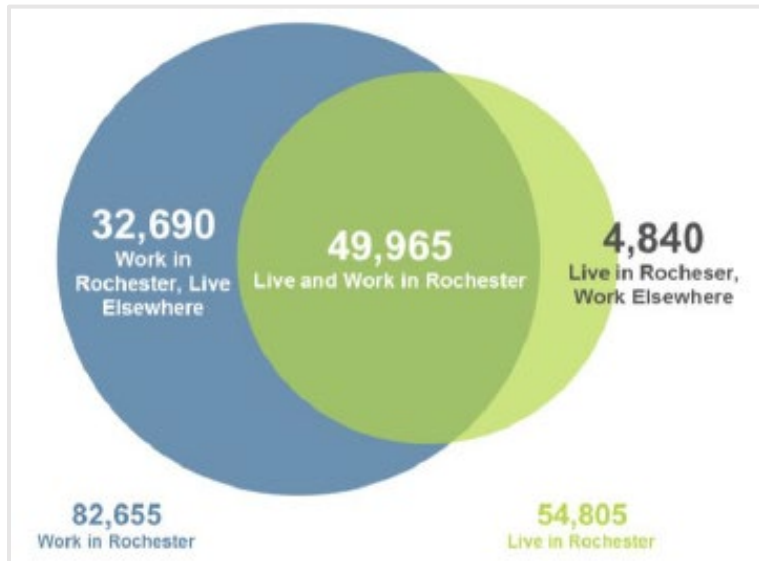


included a concentration on long term transit solutions for regional commuters who will continue to fill jobs in



Rochester, particularly jobs in the Rochester downtown area, without the need to park a car downtown.

**Figure 11-18**



Commuter trip demand to downtown Rochester is expected to continue growing.

- Mayo is expected to continue to subsidize the trip cost
- The DMC initiative will produce a variety of new jobs in the downtown district; many of those will be taken by out of town commuters
- Future new employee parking will be limited in the downtown per DMC planning initiatives

Figure 11-19 helps to illustrate the commuting patterns into Rochester based on Census data. Commuters

parking downtown significantly affect downtown congestion and intersection turning movements during the work peak hours. This is being addressed mainly in the DMC planning work in coordination with city planning staff.

**Figure 11-19**

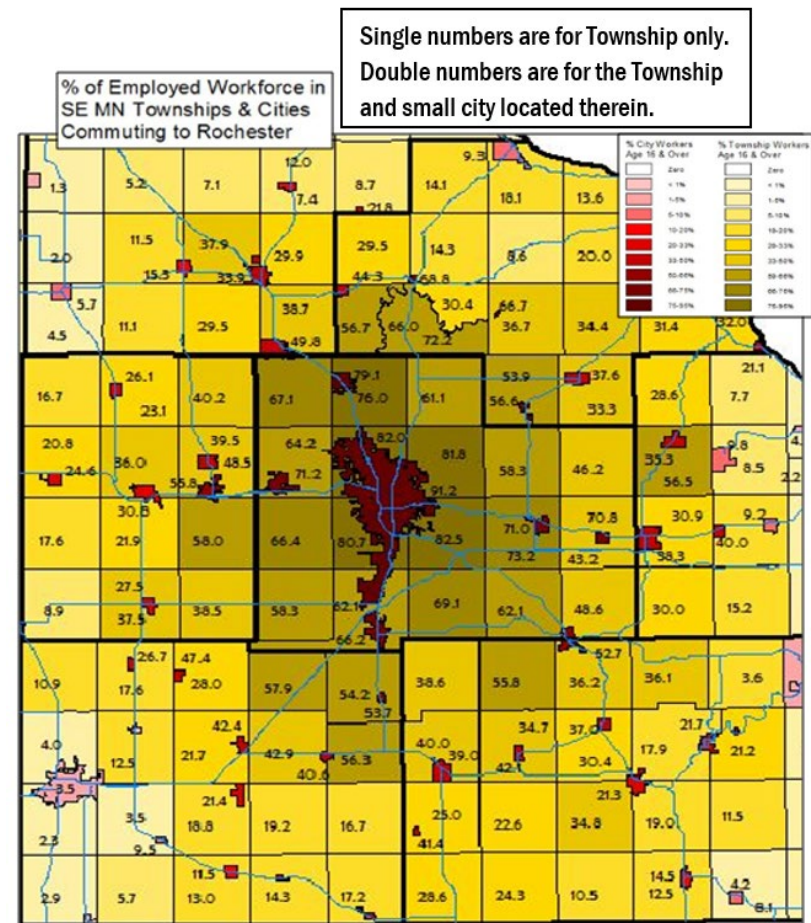
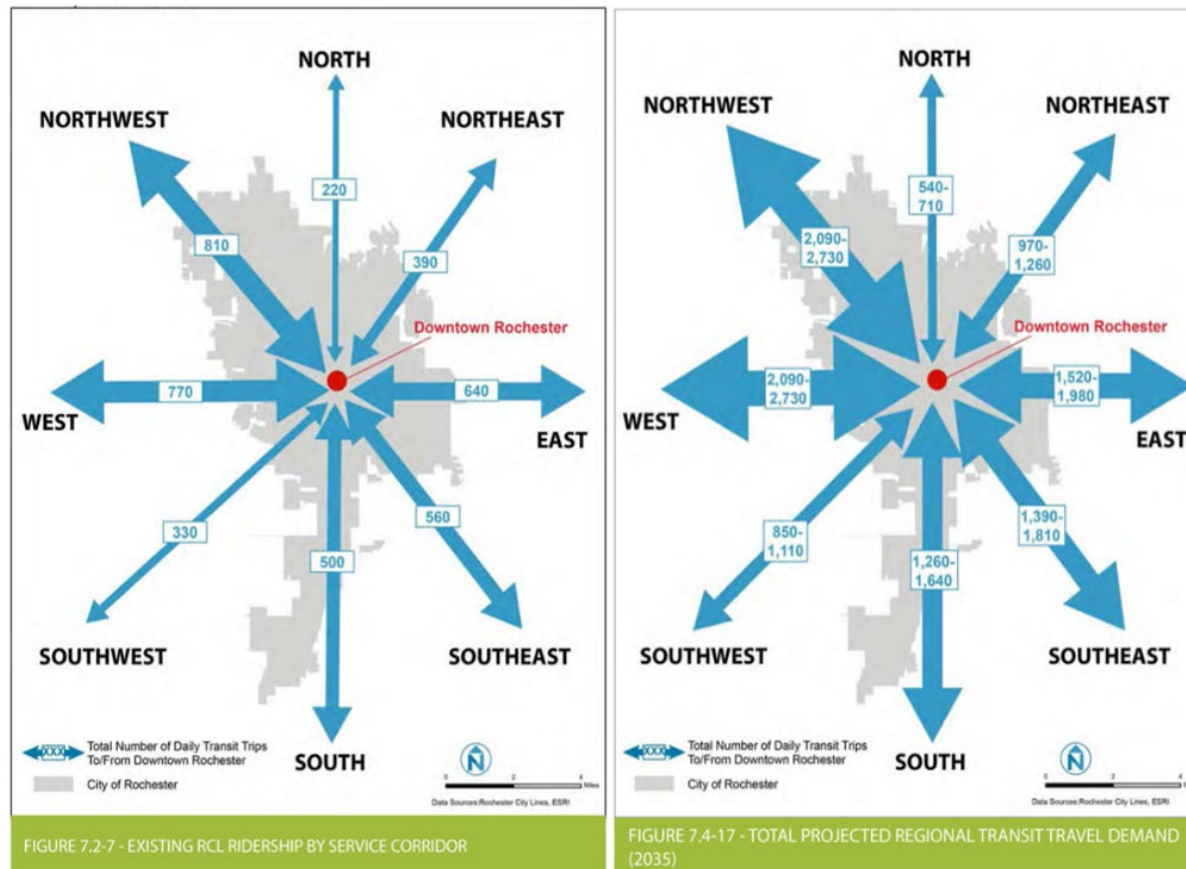


Figure 11-20 provides the most recent commuter ridership estimates and future ridership projections for regional commuter transit ridership. This information is taken from consultant work done as part of P2S 2040 and DMC planning. The major commute-sheds are from

**Figure 11-20**

the northwest and the west, and these are the areas where transit and park and ride services will most need to intercept commuters before they drive a car and park it downtown.





## Park and Ride Sites in Small Cities in Olmsted County

Figure 11-21 shows the location of current park and ride lots in Olmsted county outside of Rochester and the envisioned future demand for spaces at these locations. These park and ride lots are located along existing regional commuter bus routes and can also serve individuals interested in carpooling into Rochester. As the park and ride and transit systems grow, these lots can provide another option for commuters who wish to reduce their drive time by parking close to home and making more productive use of their commute time by spending it on a bus (where they can read, write, etc.), rather than driving their car for a longer time and parking in the park and ride facilities in the City.

ROCOG recently explored trying to find a means of supporting maintenance and either expansion of such lots, or constructing new lots using government funding. No means of doing so have been found so far with one reason being that the main bus carrier serving the sites is a private company.

## Local Rochester Bus Transit

The local service bus transit mode is planned to be the main transit option for land use in the non-core part of Rochester in the future. This is true for both local fixed route service and the ZIPS paratransit service. This

understanding is consistent within several current and future transportation plans:

- Rochester Downtown Mobility Study (2010)
- Previous ROCOG Long Range Plans
- DMC Master Plan (2015)
- 2017 RPT Transit Development Plan
- Rochester Comp Plan Update (2018)

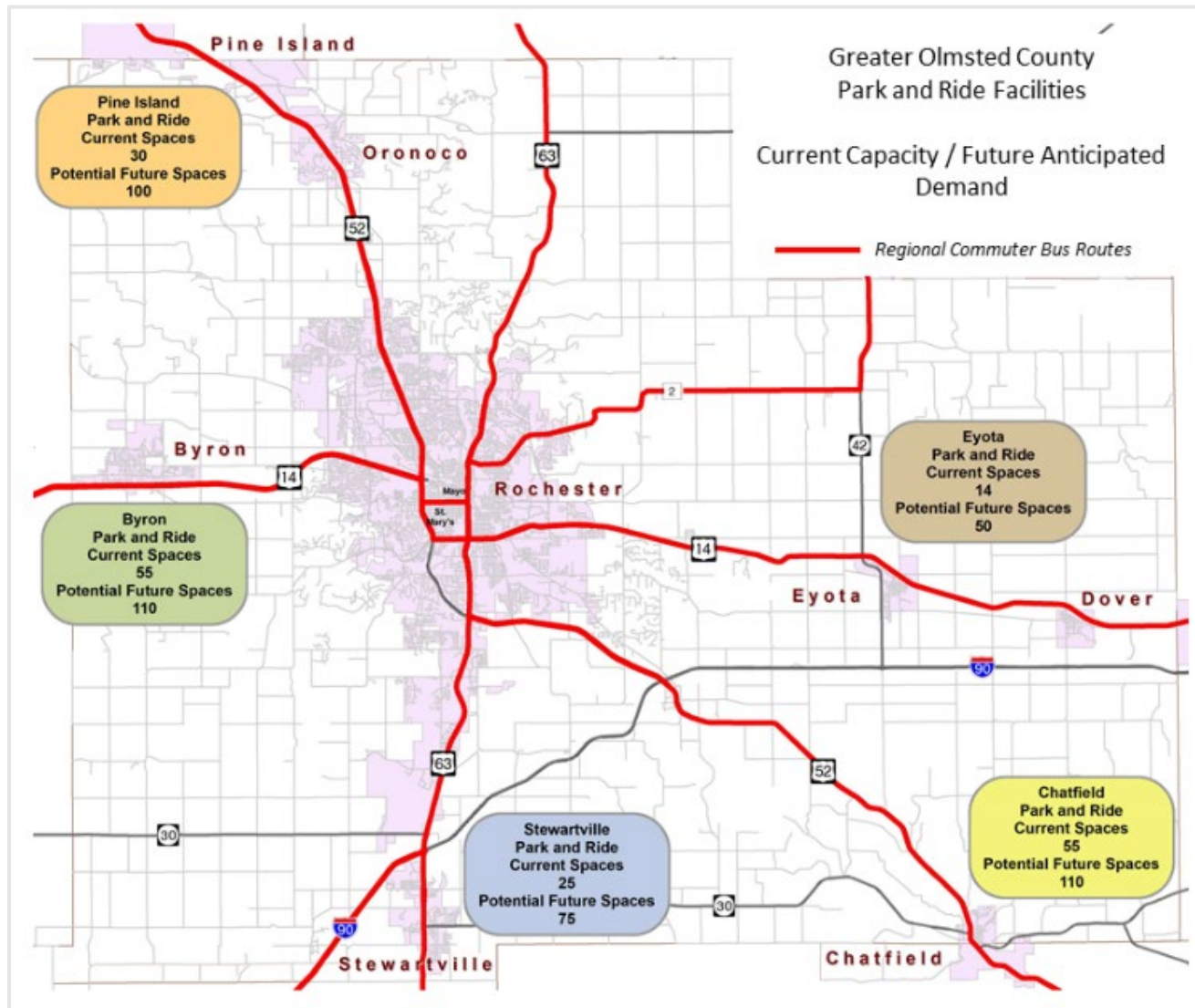
See Chapter 3 for background information on current Rochester transit services. Figure 11-22 provides an overview of the expansion areas that Local Fixed Route service will need to grow into.

## Local Fixed Route Service

The current Rochester Public Transit (RPT) fixed route system is managed and funded, both for operations and capital, by the City of Rochester. The two figures below show the general system in two ways: Figure 11-22 shows the general route network along with various levels of future land use growth.

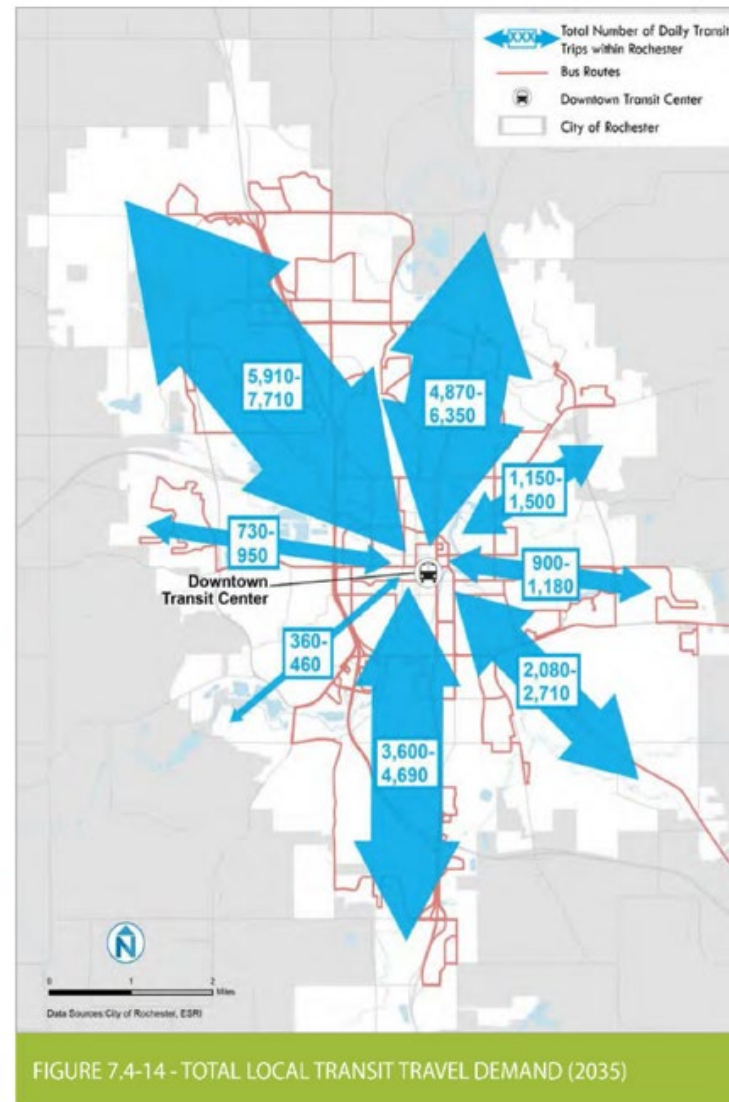
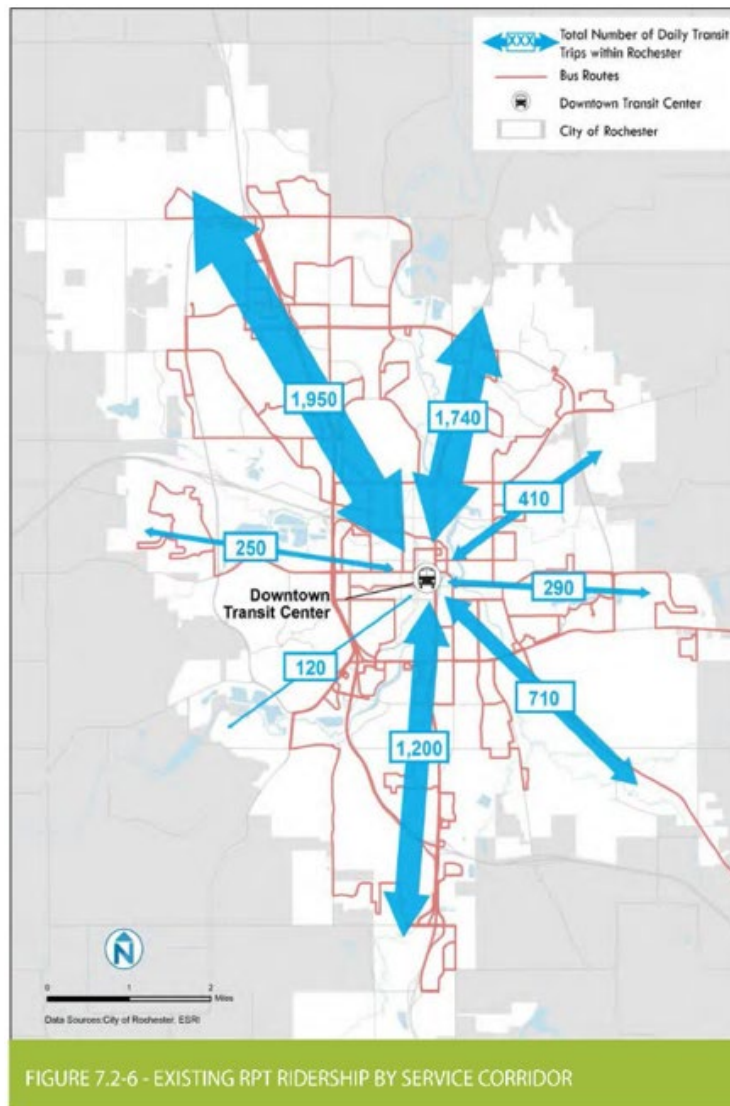
Figure 11-23 is taken from consulting work during the same plan update and shows generalized routes along with a Transit Dependency Index. The purpose of the graphic is to show that regular fixed route service is expected to grow along with land use over the coming decades. Service will develop in future parts of Rochester where residential land use is dense enough and commercial/job sites are strong enough to warrant

Figure 11-21







**Figure 11-24**

service. The transit dependent are one of the key ridership markets for fixed route service. Additionally, transit dependent or single-auto households may have workers at Mayo. Current and future fixed route service will continue to promote work-centered trip-making since Mayo is the largest trip generator in the city.

P2S 2040 includes a major element called the Transit Framework from which both the Primary Transit Network and future expectations for future fixed route local service emerge. This report contains guidance and recommendations to help to implement transit improvements for increased use of transit from Rochester neighborhoods into the downtown work, higher education, and retail/commercial center. Work done for P2S 2040 by Nelson/Nygaard Consulting produced Figure 11-24. The figure indicates that transit demand will grow at the highest rates in the north and northwest.

### RPT Paratransit Service

Rochester, Olmsted County, and ROCOG have long supported paratransit services within the ROCOG study area. The expectation is that the future will call for increased paratransit services due to the aging of the Baby Boomers, and as current life spans continue to grow in general.

The Zumbro Independent Passenger Service (ZIPS) is the local Americans with Disabilities Act (ADA) complementary paratransit service for the Rochester

Public Transit service area. The service is managed by the staff of Rochester Public Transit. It offers an alternative mobility option for those who are unable to use the fixed-route system. The operation is contracted at a per vehicle hourly rate with a private transit operator. The contracted operator provides drivers, vehicle maintenance and storage, dispatching, and customer service.

**Figure 11-25**



The current ZIPS service area is actually somewhat larger than the fixed route area. Because of this, the current ZIPS service boundaries may not necessarily need to be adjusted due to shifts in future urban/suburban residential growth patterns over the next 20-30 years. A focus of P2S 2040 is based on a land use scenario to contain urban growth with less sprawl over time that happens to stay within the current ZIPS service area. The current service covers the four townships of Cascade, Marion, Haverhill, and Rochester townships.



Note that all RPT fixed route buses now have low-floor entry and ramps, and all future ones will also. This helps to reduce some of the demand for the more expensive ZIPS services.

## Costs

The expansion of transit service in Rochester planned for the next several decades will require substantial capital investment and additional operating costs. The establishment of two BRT systems (Downtown Rapid Transit and the PTN) and the expansion of the park and ride system are new investments that require not only expansion of the vehicle fleet but new stations, systems operation technology, guideway development and, in the case of park and ride, construction of approximately 7500 parking spaces. These costs are discussed at length in Chapter 15, where the examination looks at transit in five categories:

- ▶ ZIPS dial-a-ride paratransit service (existing)
- ▶ Fixed-route neighborhood service (existing)
- ▶ Park and ride direct service (expansion)
- ▶ Downtown Rapid Transit BRT (new)
- ▶ Primary Transit Network BRT (new)

The aggregate operating costs for ZIPS dial-a-ride paratransit service are estimated to total \$38.5 million across the period of 2021 to 2045. Due to the transition to split bus/taxi service, the number of buses needed for

fleet expansion is projected to be only 2-3 vehicles over the planning horizon, while approximately 8 replacement vehicles will be needed during that time period. Total cost of vehicle purchases is estimated at \$3.6 million.

Over the 2021-2045 period, operating costs for fixed route neighborhood service (not including park and ride service; see below) is estimated to total \$241.6 million. Expected costs for vehicle replacement over the plan horizon are \$75.5 million, including purchase of 86 replacement places (approximately 7 vehicles every 2 years working out to a 15-year replacement cycle) and fleet expansion of 17 vehicles.

The City of Rochester plans to transition its park and ride system from one where parking capacity is leased from private landowners to one where the City will own and operate permanent parking structures. In addition, to support the vision of reducing single occupant vehicle travel into downtown Rochester, a major expansion of service is planned. To understand the costs of this expansion, examination of the park and ride direct service as a distinct part of the transit system was completed. The total capital costs from 2021 to 2045 are estimated at \$95 million, which includes seven permanent parking facilities, some built as ramps, totaling over 7,000 parking spaces. The annual operating costs for the full build-out of this system are estimated at \$4.2 million, which could total over \$100 million over the course of this planning period. The long-term operating

cost total is difficult to estimate, since the park and ride locations are being chosen with attention given to co-locating with areas served by the PTN. This service would draw some park and ride patrons, reducing the amount of dedicated transit capacity needed for the park and ride direct service. However, the PTN is currently only an illustrative project, and its schedule of phased implementation is uncertain, thus blurring the long-term estimates for the park and ride service vehicle acquisition and operating costs.

Over the 2021-2045 period, operating costs in aggregate for the Downtown Rapid Transit service are estimated to total \$93.2 million. This includes both phases of the project, with Phase I coming online in 2025 and Phase II anticipated to come online in a 2029-2030 timeframe. The total development costs of both phases of the project are estimated at \$203 million. This includes the price of initial purchase and eventual replacement of 12 60-foot electric BRT vehicles; design and construction of 8 BRT stations in Phase I and 2-3 additional stations in Phase II; development of the guideway using the concept of a Business-Access Transit Lane; and acquisition of needed systems operations technology.

As noted above, the PTN is included in the plan as an illustrative project, since further detailed study must occur before funding for it is sought and secured. However, some necessary items for the service can be identified now. The three corridors identified for PTN

service within the 2021-2045 timeframe of the plan will total nearly 20 miles in length, and travel time will be between 20 and 35 minutes per route. This leads to an estimate of 20 vehicles necessary to be dedicated to the PTN during peak hours. The total development costs for the PTN are estimated at \$32.9 million. The annual operating costs at full build-out are estimated at \$13.6 million. Those annual costs would be lower in the earlier years of the service, since not all corridors are expected to be built at the same time. The uncertain phasing in of PTN service makes a total cost during this plan horizon difficult to predict.

### Transit Asset Management

Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law in 2012, and it included several provisions that collectively transformed the federal surface transportation program to one that emphasized the achievement of performance-based outcomes for a set of federally-established performance measures. The Fixing America's Surface Transportation (FAST) Act was signed into law in 2015, and it expanded upon the MAP-21 performance-based outcomes to emphasize that states and MPOs must also set targets and monitor progress for each of the federal performance measures. Transit asset management and transit safety are two of the areas for which performance targets need to be established and monitored. There are funding implications associated with the progress being made

towards each target to incentivize that planning efforts be tied to performance targets and goals.

ROCOG adopts performance targets annually, within 180 days from the state's adoption of targets. Historically, ROCOG has adopted the state's performance targets for safety, bridge and pavement condition, and system reliability. Public transit agencies often opt to set their own performance targets, rather than agree to those set by MnDOT. MnDOT and public transit agencies established a set of performance targets in 2017 for use in measuring transit agency assets. Rochester Public Transit (RPT) indicated in July 2017 that they will develop targets that will support and expand on those developed by MnDOT. As of the publication of this Plan, ROCOG has agreed to the targets established by MnDOT, and once the RPT targets are formally adopted will look to supplement the MnDOT targets with the locally developed RPT targets in future planning work. The preliminary RPT targets are currently available in a report entitled *Public Transit Capital Asset Management Plan for Rochester Public Transit*, dated October 2017. That report will be the repository of the RPT-MPO-supported targets until it may be updated.

RPT's interim TAM targets include:

- **Facilities:** No more than 10% of its facilities have met or exceeded their useful life benchmark, which are 40 years for most transit related facilities such as Maintenance Depot/Facilities, and 20 years for

passenger or parking facilities such as stations or park and ride facilities

- **Rolling Stock:** No more 10% of vehicles have met or exceeded a Useful Life Benchmark (ULB) of 14 years for a full-size transit bus or 10 years for a cutaway bus)
- **Equipment** (\$50,000 or more in value): No more than 10% of any equipment in a condition that has met or exceeded their ULB.

RPT's current performance related to Transit Asset Management is reported in Chapter 9 where targets and outcomes for all federal performance measures are summarized.

## Transit Safety Performance

At the time of plan publication, RPT has not formally adopted final transit safety performance targets. Preliminary targets have been established and published as part of the latest RPT Agency Safety Plan, dated August 2020. Figure 11-26 illustrates the targets RPT is proposing for use:

**Figure 11-26**

<b>Safety Performance Targets</b>							
Targets below are based on review of the previous 5 years of RPT's safety performance data.							
<b>Mode of Transit Service</b>	<b>Fatalities (total)</b>	<b>Fatalities (per 100 thousand VRM)</b>	<b>Injuries (total)</b>	<b>Injuries (per 100 thousand VRM)</b>	<b>Safety Events (total)</b>	<b>Safety Events (per 100 thousand VRM)</b>	<b>System Reliability (VRM/failures)</b>
<b>Fixed Route Bus</b>	0	0	1	.0568	1	0.568	73,291
<b>ADA/ Paratransit</b>	0	0	0	0	0	0	36,900