

PROJECTED GROWTH THROUGH 2040

ROCHESTER

Growth over approximately the next 25 years

55,000 Additional People

50,000 Additional Jobs

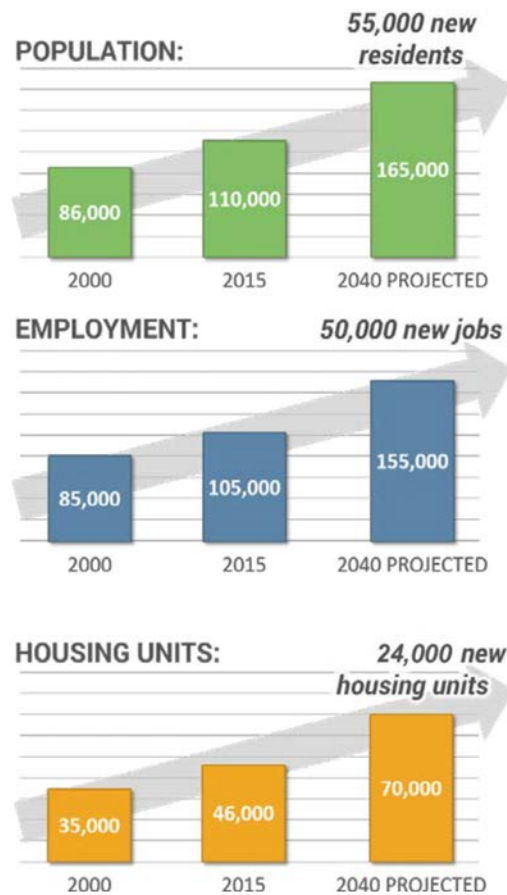
24,000 Additional Housing Units

160,000 Total Downtown Daytime Population

3 Million Annual Visitors - 2/3 Mayo Related

Source: Planning 2 Succeed 2040, Draft Comprehensive Plan

This level of growth will have significant impacts on the city's land use, transportation, neighborhoods, infrastructure, natural resources, municipal facilities and services, health, and budget.



Source: Planning 2 Succeed 2040, Draft Comprehensive Plan

DMC DISTRICT

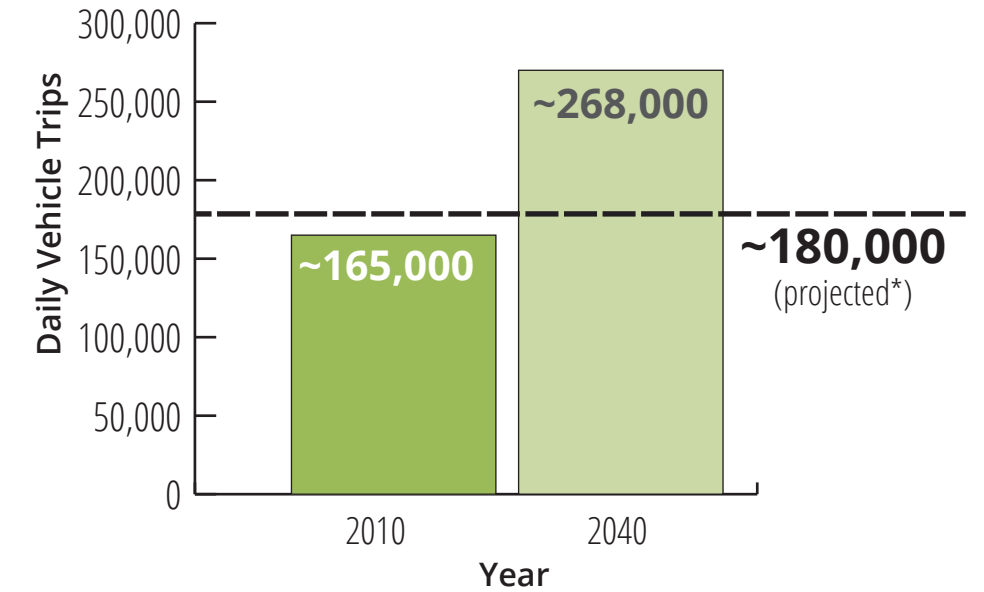
~30,000
new workers

60,000+
Total workers

~6,000
new residents

~10,000
Total residents

PRIVATE VEHICLE TRIPS IN/OUT OF DMC DISTRICT



*Projected vehicle trips in 2040 assuming implementation of DMC and Comprehensive Plan transit and land use programs.

"While more residential opportunities are expected to be developed in and around the downtown area, allowing more persons to walk to work, the great majority of the workforce will still be commuting to downtown."

- Planning 2 Succeed 2040, Draft Comprehensive Plan

Make it **easy, affordable, and convenient** for people from southeast Minnesota and around the World to get to downtown Rochester

Build **shared-parking** prioritized for economic development

Create an exceptional place for **healthy, human-powered transportation**

Invest in sustainable transportation infrastructure and programs that **reduce the ecological footprint** of the City

Bring **30%** of the workforce to downtown Rochester on **transit** by 2035

10 TRANSPORTATION PRINCIPLES

Source: DMC Development Plan

Use DMC funding to **leverage public and private** transportation infrastructure funding

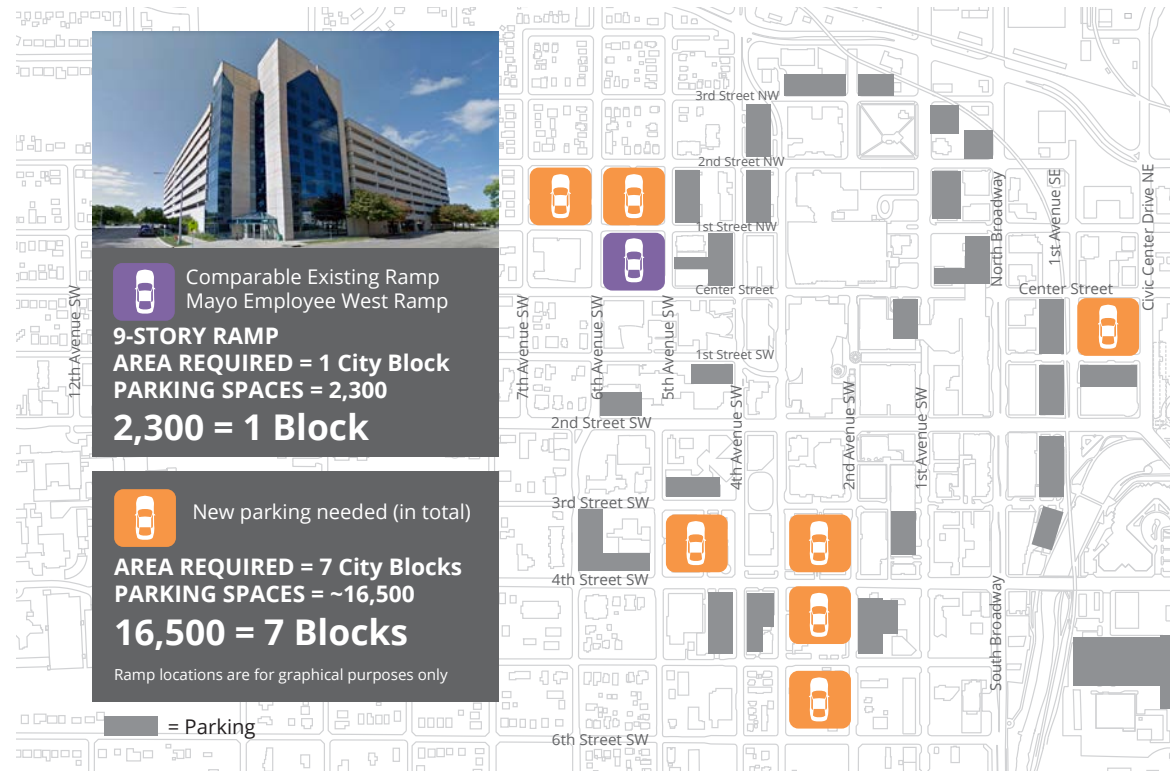
Create a **park-once downtown** environment connected by a frequent downtown circulator

Create world-class **streets, designed for people**

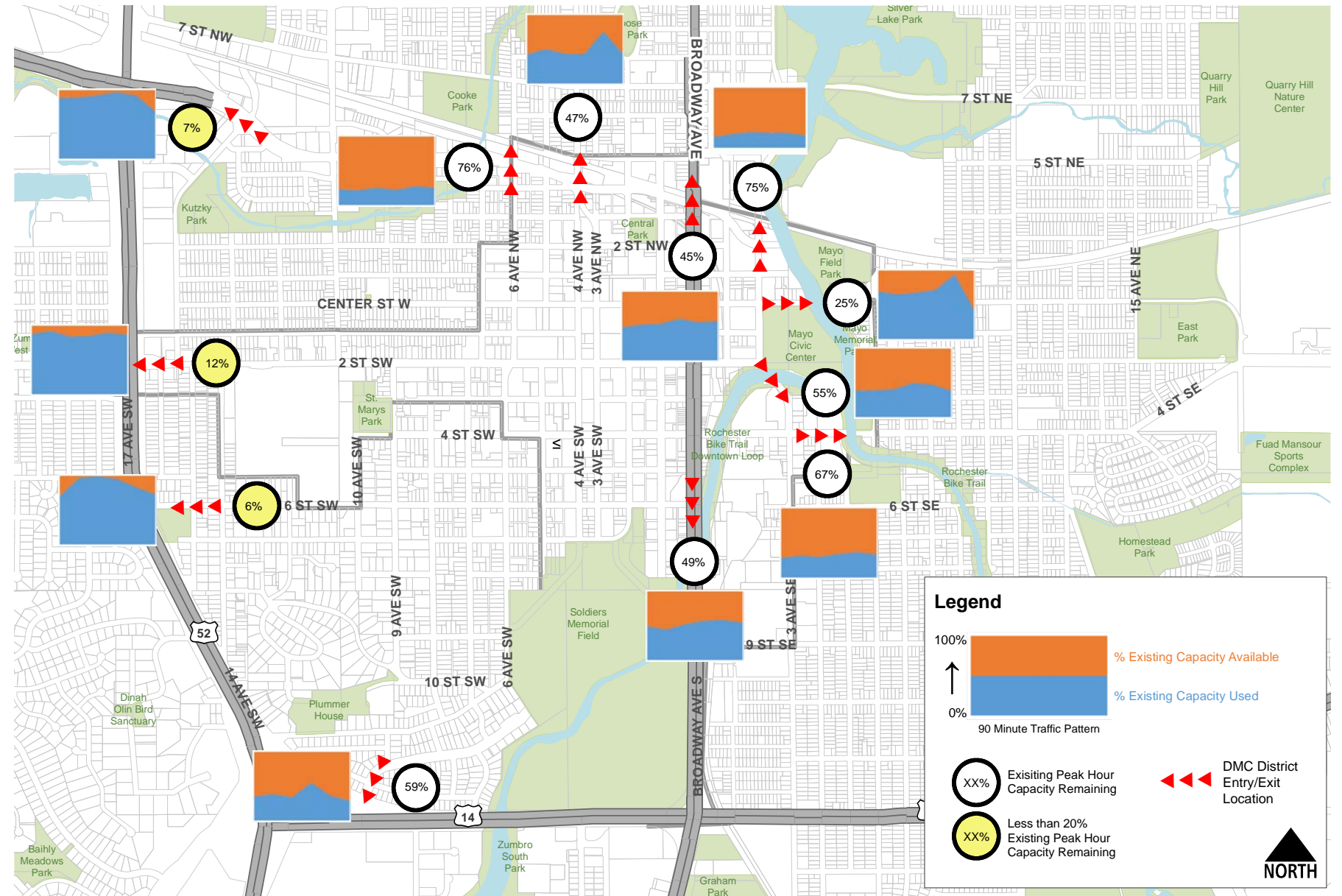
Form a downtown **Rochester Access Authority**

Establish and maintain a transportation network that is accessible and **inclusive to people of all ages, abilities, and states of wellness**

PARKING DEMAND AND VEHICLE TRIPS IN/OUT CAPACITY



Meeting parking needs within the district would require a significant footprint and limit land available for other types of development



EXISTING DMC VEHICLE TRIPS IN/OUT CAPACITY: PM PEAK PERIOD ANALYSIS

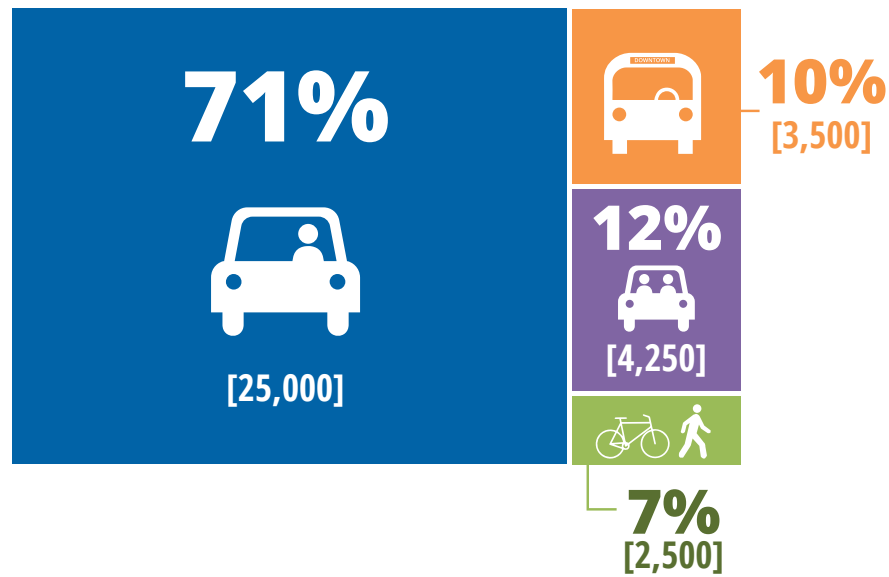
- Existing PM Peak Hour (Fall 2016)
- Number of additional vehicles that can leave downtown during the PM Peak (90 minutes) by roadway
 - Limited number of future vehicles can be accommodated on roadways (Civic Center Drive, 2nd Street SW and 6th Street SW) accessing US 52

NO BUILD 2040 PM PEAK OPERATIONS

- Year 2040 – PM Peak
- Traffic conditions if parking approach and single-occupant driver percentage (70%) maintain current trends
 - Poor operations/over-capacity conditions on roadways (Civic Center Drive, 2nd Street SW and 6th Street SW) accessing US 52
 - Downtown would be more congested than today including some roadway segments that would operate poorly

COMMUTER TRAVEL CHOICES

EXISTING CONDITIONS



■ Drive Alone
 ■ Carpool
 ■ Transit
 ■ Walk Bike
 [x,xxx] = Number of Employee Commuters

71% Single Occupant Vehicles create congestion and limit roadway portal capacity

~24,000 parking spaces demanded within DMC District (current congestion issues)

Mayo Clinic employee parking policies contribute significantly to current transit mode split

HOW CAN THE MODE SHIFT TARGET BE ACHIEVED?

PROVIDE OPTIONS

- New bus service/circulator
- Expand Park-and-Ride
- Improved bike facilities

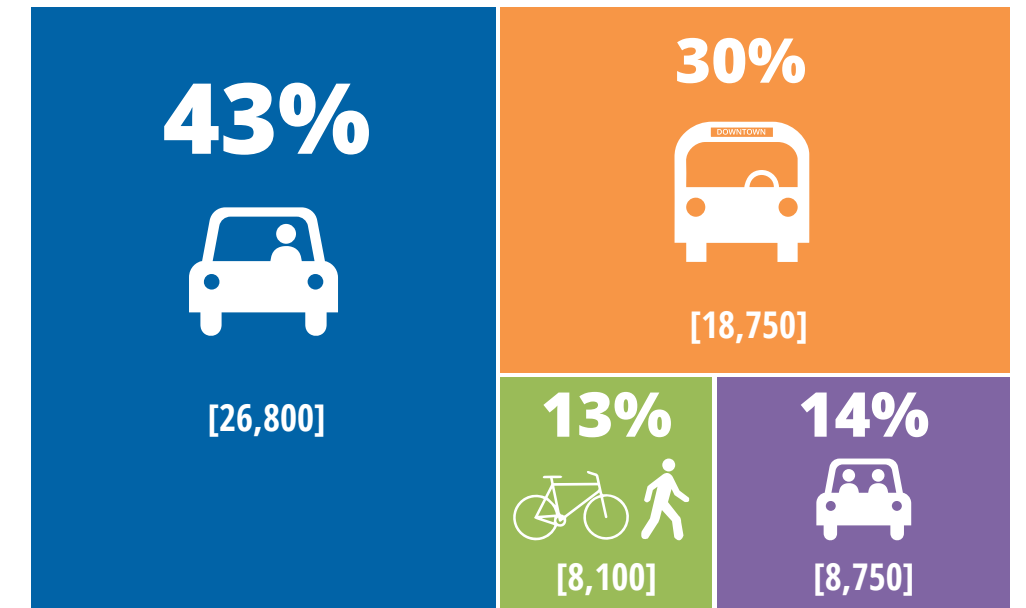
MANAGE PARKING DEMAND

- Limit employee cars downtown
- Incentivize alternate trips
- Pricing strategies

ADD DENSITY DOWNTOWN

- Housing options
- Mixed use development
- Streets designed for people

2040 TARGET CONDITIONS



■ Drive Alone
 ■ Carpool
 ■ Transit
 ■ Walk Bike
 [x,xxx] = Number of Employee Commuters

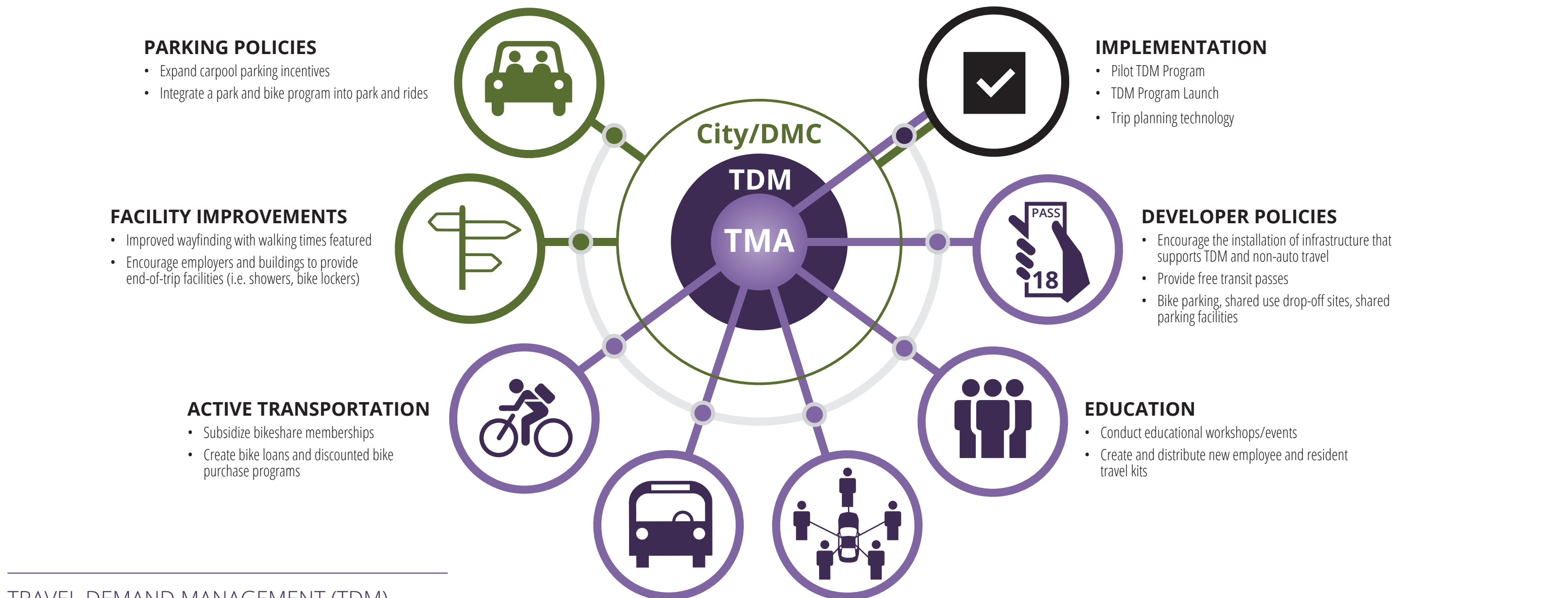
Source: DMC Development Plan

~40,000 parking spaces demanded within the DMC District under future full development conditions

New Mayo employees make up **40%** of new parking demand

Employees overall make up > **50%** of new parking demand

TRAVEL DEMAND MANAGEMENT (TDM)



PARKING POLICIES

- Expand carpool parking incentives
- Integrate a park and bike program into park and rides

IMPLEMENTATION

- Pilot TDM Program
- TDM Program Launch
- Trip planning technology

FACILITY IMPROVEMENTS

- Improved wayfinding with walking times featured
- Encourage employers and buildings to provide end-of-trip facilities (i.e. showers, bike lockers)

DEVELOPER POLICIES

- Encourage the installation of infrastructure that supports TDM and non-auto travel
- Provide free transit passes
- Bike parking, shared use drop-off sites, shared parking facilities

ACTIVE TRANSPORTATION

- Subsidize bikeshare memberships
- Create bike loans and discounted bike purchase programs

EDUCATION

- Conduct educational workshops/events
- Create and distribute new employee and resident travel kits

TRANSIT PROGRAMS

- Encourage employers and buildings to add real-time transit displays
- Implement an employer transit pass program

SHARED MOBILITY

- Facilitate carsharing downtown
- Dedicated curb space for shared mobility vehicles

DMC TRANSPORTATION PRINCIPLES SUPPORTED BY TDM/TMA

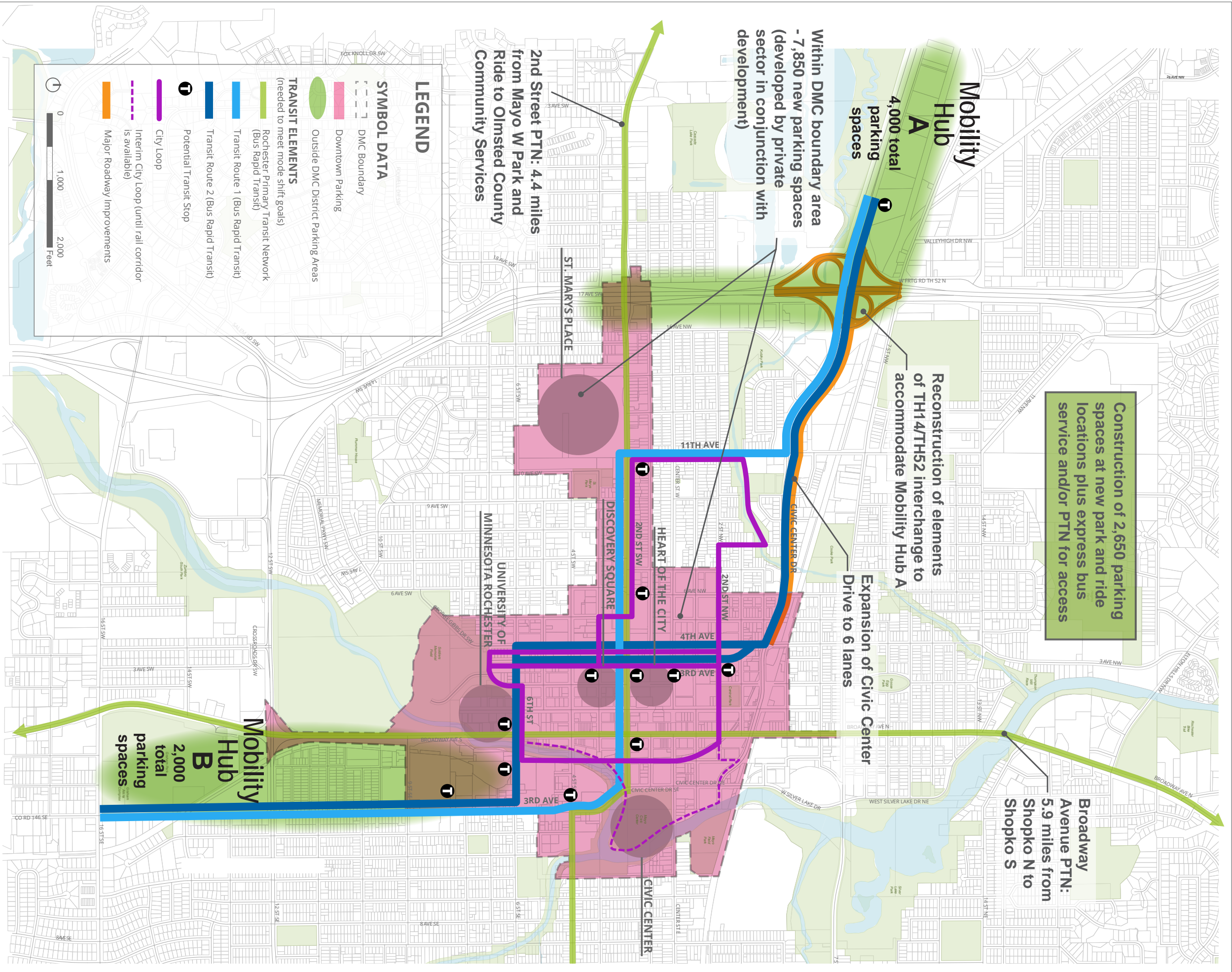
- Easy, affordable, and convenient to get to downtown Rochester
- Bring 30% of the workforce to downtown Rochester on transit
- A park-once downtown environment
- Shared-parking for economic development
- World-class streets, designed for people
- Healthy, human-powered transportation
- Reduce the ecological footprint of the City
- Transportation network accessible to all people

TRAVEL DEMAND MANAGEMENT (TDM)

The TDM program generally provides services and programs to encourage/support commuters to choose more sustainable modes such as transit and shuttle, carpooling, walking, biking, or telework.

TRANSPORTATION MANAGEMENT ASSOCIATION (TMA)

A Transportation Management Association, or TMA, is a partnership between public and private sector employers and stakeholders with a mandate to address transportation concerns within the community it serves. A TMA generally provides programs and services to encourage and support commuters to choose more sustainable commute modes such as carpooling, transit, walking, cycling and telework.



INTEGRATED TRANSIT STUDY: PREFERRED SOLUTIONS

Downtown Rochester Integrated Transit Studies

~2,650
additional parking
spaces at park-and-
ride locations



P
~8,000
New parking spaces
downtown serving
patients, visitors,
shoppers, and residents

~6,000
new employee parking
spaces located at

2
mobility hubs

**2 New transit
circulator routes**

connecting mobility hubs
with key employment
destinations

12
New BRT Stations
to access PTN and transit circulator



22,000+

daily rides will be served
by the transit circulator

**2 New BRT
PTN Routes**

providing frequent all-day
service on 2nd Street and
Broadway Avenue

18
Hours of Service
BRT: reliable service every
10 minutes

190
blocks of
pedestrian
enhancements



4 phases
of implementation

20 years
to build

\$1.2
billion to construct

1+ miles
of Civic Center Drive
expanded to 6 lanes

Reconstructed
14/52
interchange to provide
easy parking access

3 miles

of City Loop Connecting
St. Marys Place, Heart
of the City, Discovery
Square, University of
MN Rochester, and the
Downtown Waterfront

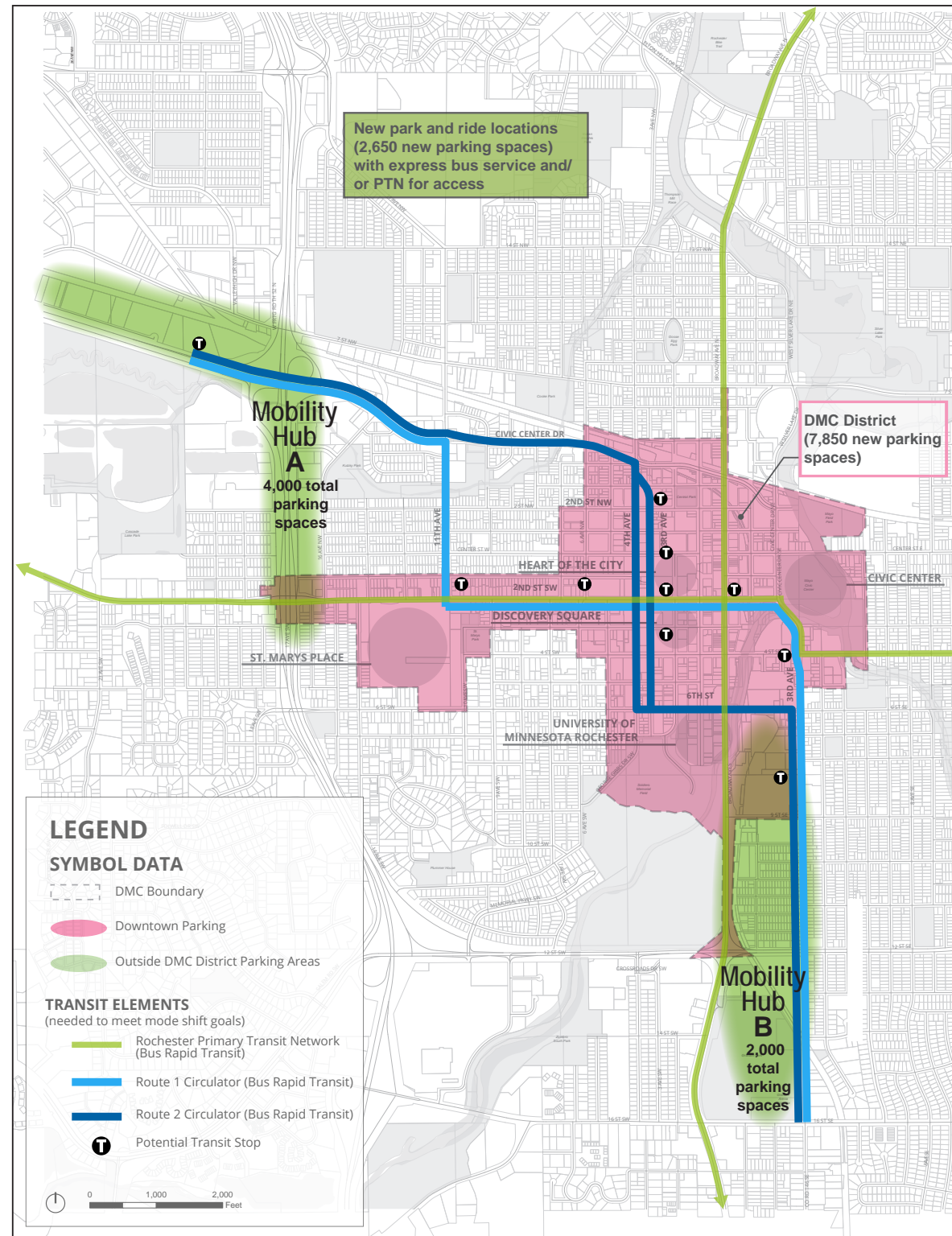


**PREFERRED SOLUTIONS:
BY THE NUMBERS**

38 blocks
of protected bikeways


A PARKING STRATEGY FOR DOWNTOWN ROCHESTER

PARKING AND TRANSIT IMPLEMENTATION




~2,650
additional parking spaces at park-and-ride locations


~8,000
New parking spaces downtown serving patients, visitors, shoppers, and residents


~50%
of new parking within DMC District to catalyze development


~75%
of new downtown parking developed within the next 10-12 years

~6,000
new employee parking spaces located at
2
mobility hubs/areas

PROJECTED DEMAND FOR NEW PARKING SPACES THROUGH 2035
(BASED ON BALANCED DMC DEVELOPMENT PROGRAM)

User Type	Parking Demand	Preferred Location
Mayo Patient/Visitors	1,700	Within DMC District
Downtown Visitors	2,400	Within DMC District
UMR Students	400	Within DMC District
Downtown Residents	3,300	Within DMC District
Mayo Employees	6,500	Outside DMC District
Non-Mayo Employees	2,200	Outside DMC District
Total	16,500	

TIMING OF NEW PARKING DEMAND
(BASED ON BALANCED DMC DEVELOPMENT PROGRAM)

	Within DMC District	Outside DMC District	Outside District Preferred Location
Phase 1 Years 2017-19	1,440	1,250	Remote Park and Rides
Phase 2 Years 2020-24	2,180	1,960	Remote Park and Rides, Mobility Hub B
Phase 3 Years 2025-29	2,410	2,600	Mobility Hub B, then A
Phase 4 Years 2030-34	1,820	2,840	Mobility Hub A
Total	7,850	8,650	
	16,500		

DMC TRANSPORTATION PRINCIPLES SUPPORTED BY PARKING

- A park-once downtown environment
- Shared-parking for economic development

TRANSIT STRATEGY FOR DOWNTOWN ROCHESTER

BUS RAPID TRANSIT (BRT)

CONVENIENT AND RELIABLE

- Frequent, all-day BRT service- no need for a schedule
- Transit enhancements to ensure consistent travel times
- Uniquely branded buses and stations making BRT easily identifiable

COMFORTABLE

- High amenity branded stations including:
 - Well designed, weather protected shelters
 - Real-time bus arrival information
 - Off-Board Fare Collection
- Easy boarding and alighting for all passengers
 - BRT vehicles with multiple doors
 - Near-level boarding

COST-EFFECTIVE AND FLEXIBLE

- Same quality of service a lower cost than rail
- Greater flexibility for implementation including phasing and extensions
- Flexibility to evolve to autonomous bus technology in the future

EMERGING TECHNOLOGY

- The current BRT approach can accommodate autonomous vehicle and tram technology advances in the future.



Note: While BRT service is depicted here as running in the center of the street, center running versus side running BRT is to be determined.



[VIDEO] Scan to watch BRT recommendation visualization or visit

DMC Animation:
<https://vimeo.com/254512374>



BRT DMC Simulation:
<https://vimeo.com/254521883>

Password required for both videos:
 SRF2018DMC (all caps)

2 New transit circulator routes
 connecting mobility hubs with key employment destinations

12 New BRT Stations
 to access PTN and transit circulator

2 New BRT PTN Routes
 providing frequent all-day service on 2nd Street and Broadway Avenue

18 Hours of Service
 BRT: reliable service every 10 minutes

22,000+
 daily rides will be served by the transit Circulator

CIRCULATOR SERVICE

The Rochester Downtown Transit Circulator will provide a high quality bus rapid transit service for residents, commuters, businesses, patients, students, and visitors, supporting City of Rochester and DMC economic development and livability as well as livability goals. The BRT Transit Circulator will operate on two coordinated routes.

PRIMARY TRANSIT NETWORK (PTN) - PHASE 2 STRATEGY 2020-2024

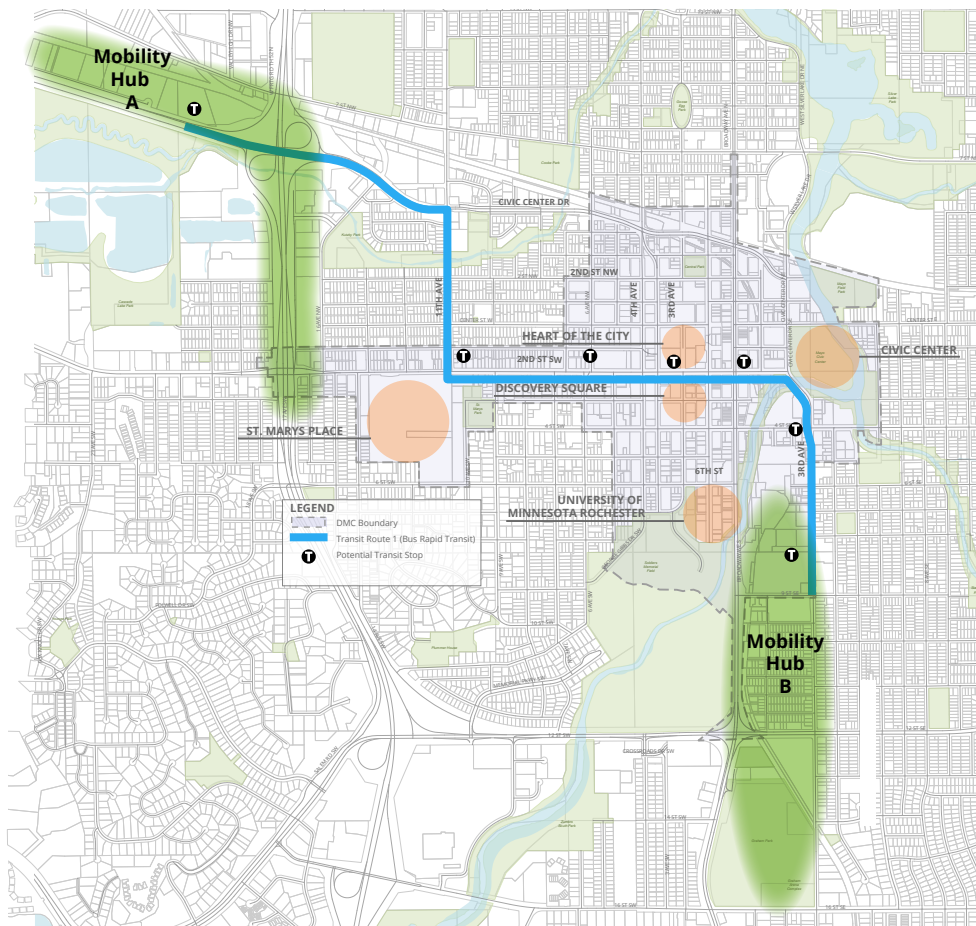
The PTN combines a high frequency transit network on Broadway Avenue and 2nd Street SW/4th Street SE/Collegeview Rd E with easy connection to downtown supporting employment recruiting and reducing the need for downtown parking. PTN service includes:

- Convenient 15 to 20 minutes service to minimize waits and reduce schedule dependence
- Speed and Reliability: service is on-time and competitive with the private automobile in connecting key destinations
- Pre-boarding purchase or payment, which encourages quick station boarding
- PTN will supplement Peak Hour express service from remote park and ride lots as well as mid-day and evening service to park and rides

DMC TRANSPORTATION PRINCIPLES SUPPORTED BY TRANSIT

- Bring 30% of the workforce to downtown Rochester on transit
- A park-once downtown environment
- Transportation network accessible to all people

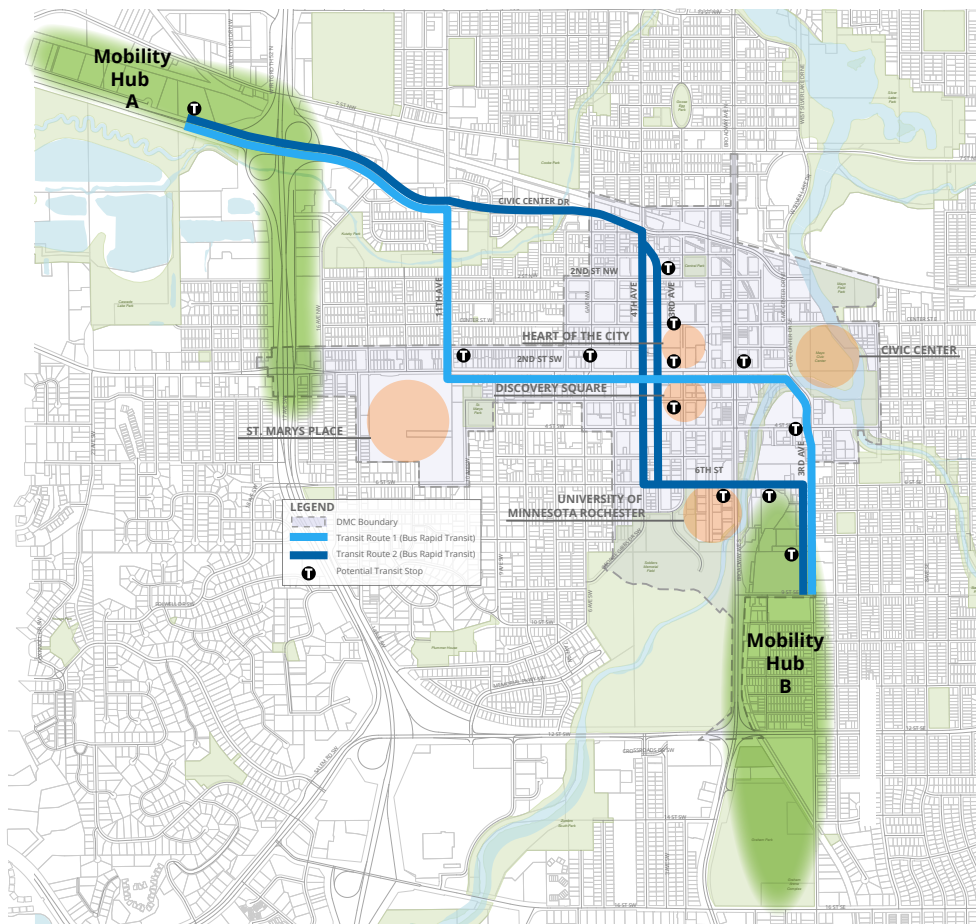
DOWNTOWN TRANSIT CIRCULATOR ROUTES



ROUTE 1

Phase 1

- Provides frequent all day, all week service from Mobility Hub A to St Marys, downtown Rochester, Government Center to Mobility Hub B.

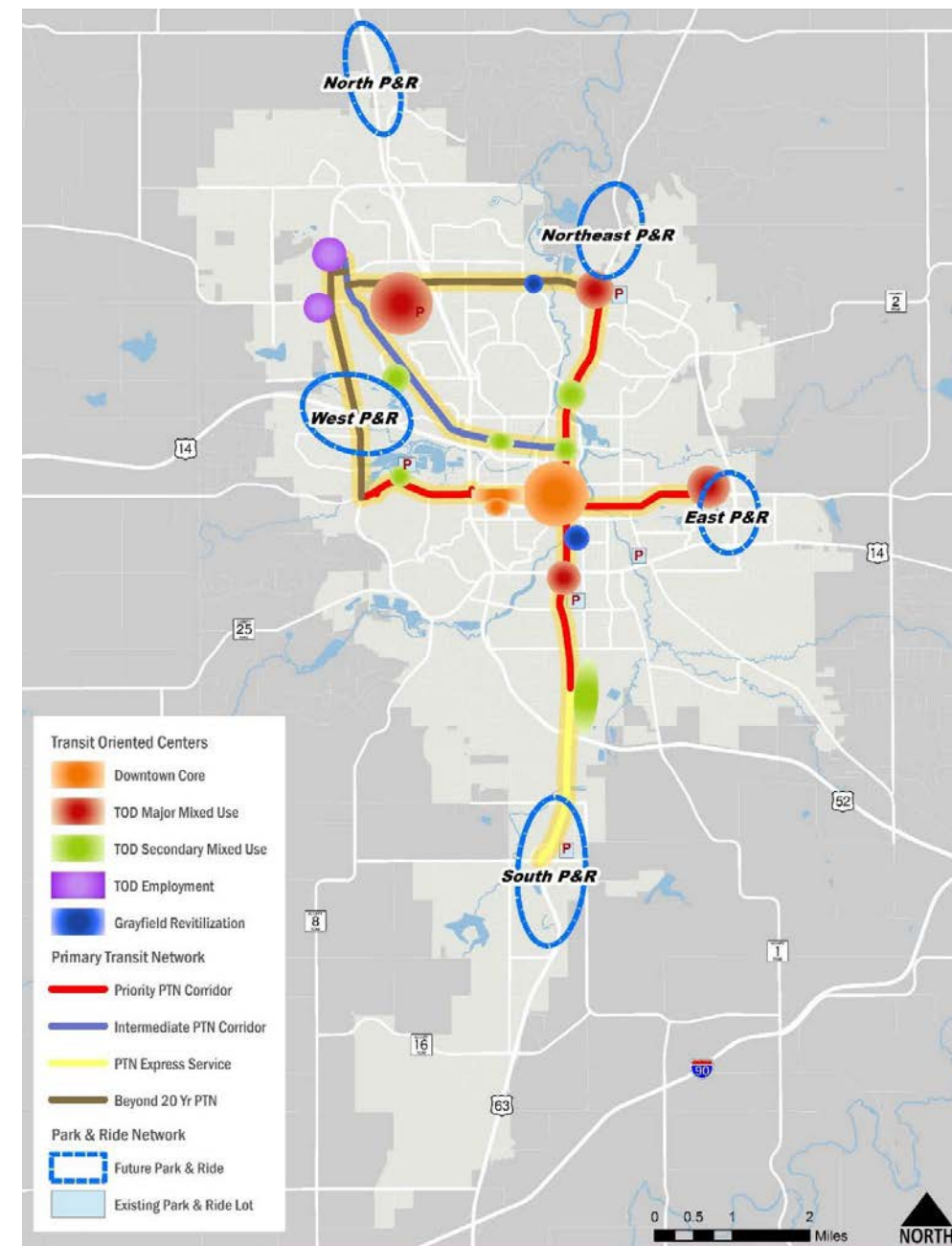


ROUTE 2

Phase 2

- Provides direct access to the Gonda Building from Mobility Hubs A and B and will reduce the number of buses on 2nd Street.
- Provides direct access to Methodist Hospital and the future location of the University of Minnesota Rochester and other locations along 3rd/4th Avenue north/south corridor.

DMC DISTRICT SUPPORTED BY TRANSIT NETWORKS



Proposed Primary Transit Network and Transit-Oriented Development Centers

PRIMARY TRANSIT NETWORK

In order to provide Rochester residents better access to the DMC district, a Primary Transit Network (PTN) is proposed. The PTN will utilize a Bus Rapid Transit (BRT) system of enhanced infrastructure and integrate with the City's overall transit system. Along the PTN corridors, land use and development policy and public infrastructure investment will be coordinated to create conditions favorable to transit oriented and mixed use development, resulting in conditions supportive of sustainable high frequency transit service. The PTN concept is further described in the City's Comprehensive Plan, with phased construction of improvements expected to begin in 2019 with the reconstruction of North Broadway Avenue.

ENHANCED LOCAL SERVICE

Rochester Public Transit will expand service to a growing system of park and ride lots which circle Rochester. Local, fixed route service will look to grow ridership by adding new routes, expanding hours of service, and increasing, where wanted, the frequency of service. Local transit will supplement Bus Rapid Transit (BRT) service on the Primary Transit Network (PTN) to create a high frequency service spine that will facilitate travel to the DMC district and support the introduction of new crosstown connections or neighborhood circulator routes.

REGIONAL COMMUTER SERVICE

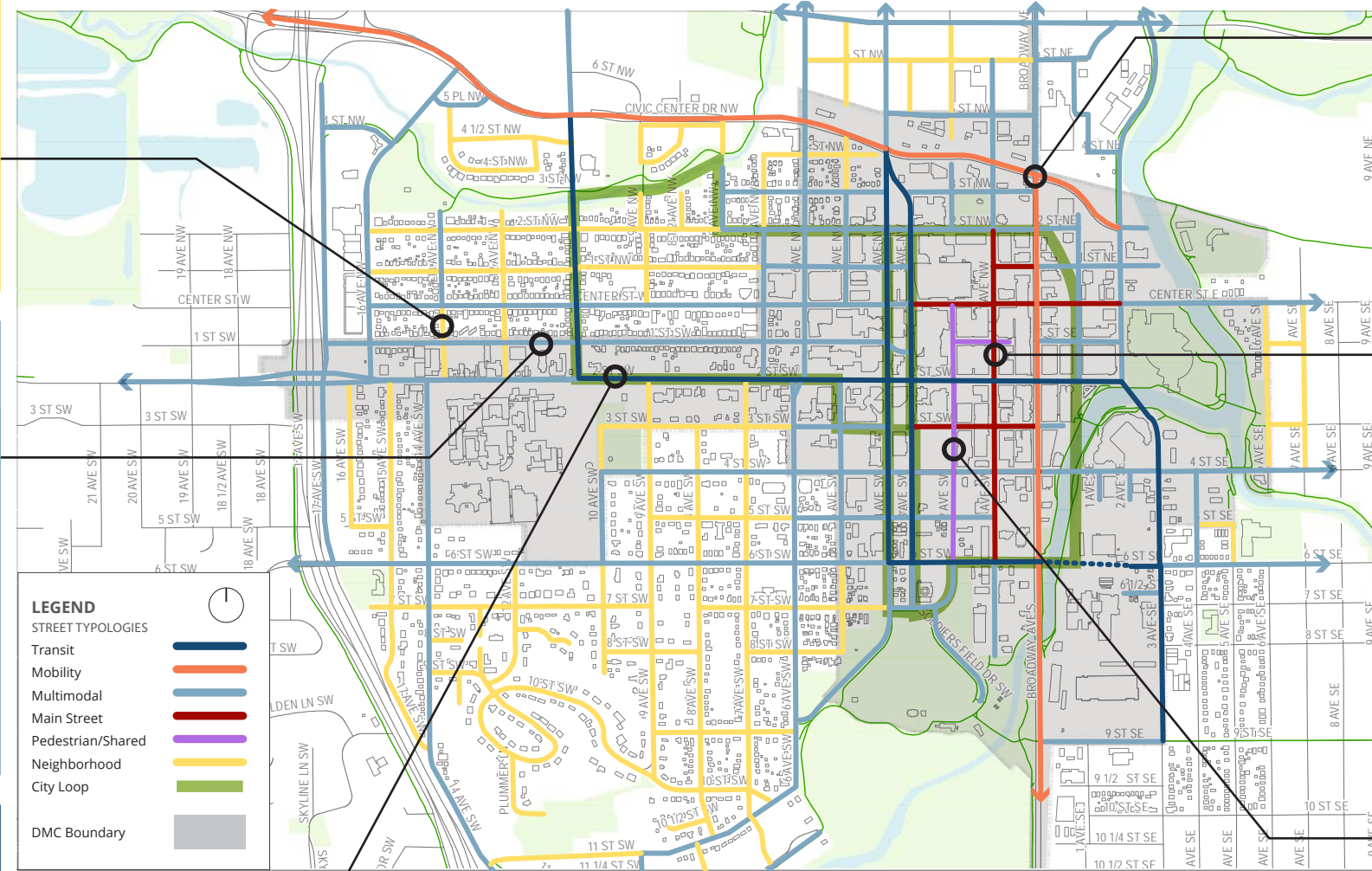
Motor coach service from surrounding communities will grow as demand is driven higher by as the DMC district workforce grows and talent is drawn to Rochester from greater distances. Private operators will invest in current routes and expand to new communities to meet the demand. Transportation demand management polices, and a newly formed Transportation Management Association (TMA) will incentivize use of this highly efficient mode.

AN IMPROVED STREET NETWORK FOR ALL USERS

Neighborhood Streets: Streets are designed for low volumes of slow moving traffic and are comfortable and inviting for play and leisure uses.



DMC STREET TYPES: PREFERRED SOLUTIONS



Mobility Streets: Design features accommodate high volumes of vehicles while still providing facilities for other modes.



Multimodal Streets: Design features do not prioritize one mode over another, but strive to accommodate a variety of modes.



Main Streets: Streets cater to pedestrian movement and amenities while also accommodating automobiles.



Transit Priority Streets: Design elements and modal priorities are transit-oriented, while also being pedestrian-friendly.



Pedestrian-only & Shared Streets: The curbsless design and cohesive paving materials allow for flexible usage ultimately catering to pedestrians and bicyclists.



Street types set priorities for movement of people, not just vehicles, and ensures that transit, cyclists and pedestrians are all provided safe and convenient access to and circulation through downtown. - Downtown Rochester Master Plan, 2010

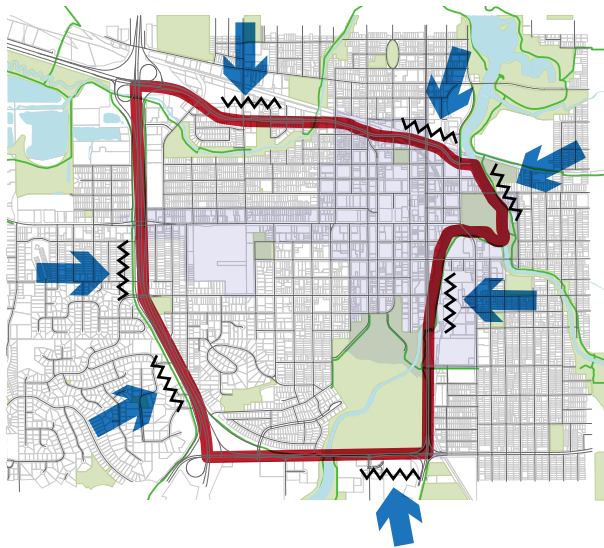
DMC TRANSPORTATION PRINCIPLES SUPPORTED BY STREET TYPOLOGY

- Bring 30% of the workforce to downtown Rochester on transit
- World-class streets, designed for people
- Healthy, human-powered transportation
- Transportation network accessible to all people

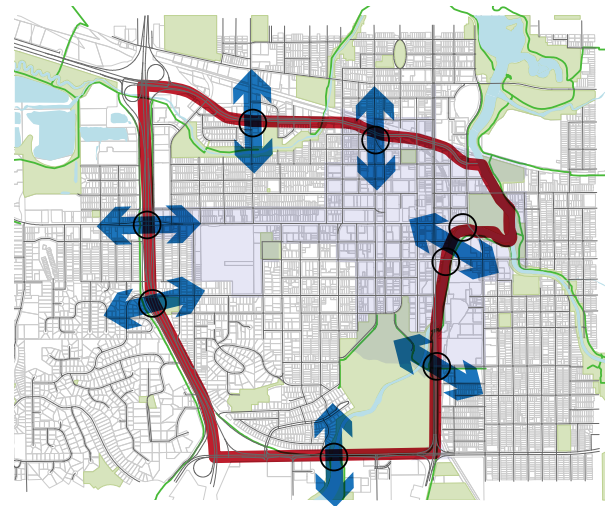
AN IMPROVED BICYCLE NETWORK

BICYCLE PORTALS IMPROVE DOWNTOWN ACCESS

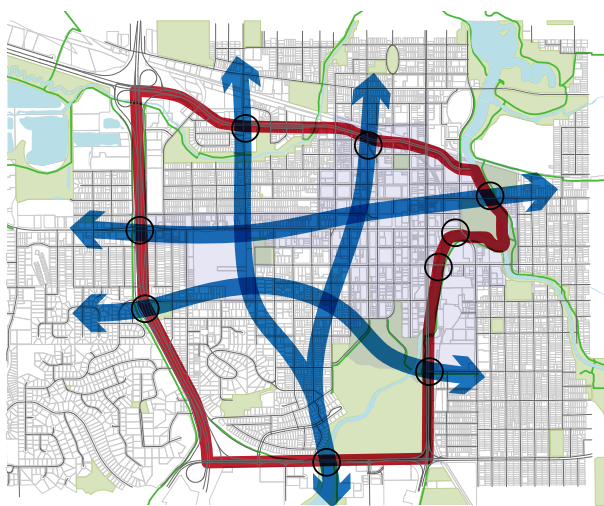
Major roadways and Zumbro River are a significant barrier (red line) that limit access to downtown.



Downtown Rochester is ringed by significant barriers that inhibit bicycle (and pedestrian) connectivity into and through downtown from surrounding areas.



Access to downtown is limited to a set of portals (entryways) that cross the barriers created by high volume, high speed roads, and the Zumbro River.



Connecting portals (entryways) with high quality pedestrian and bicycle corridors will enhance access into and across downtown.

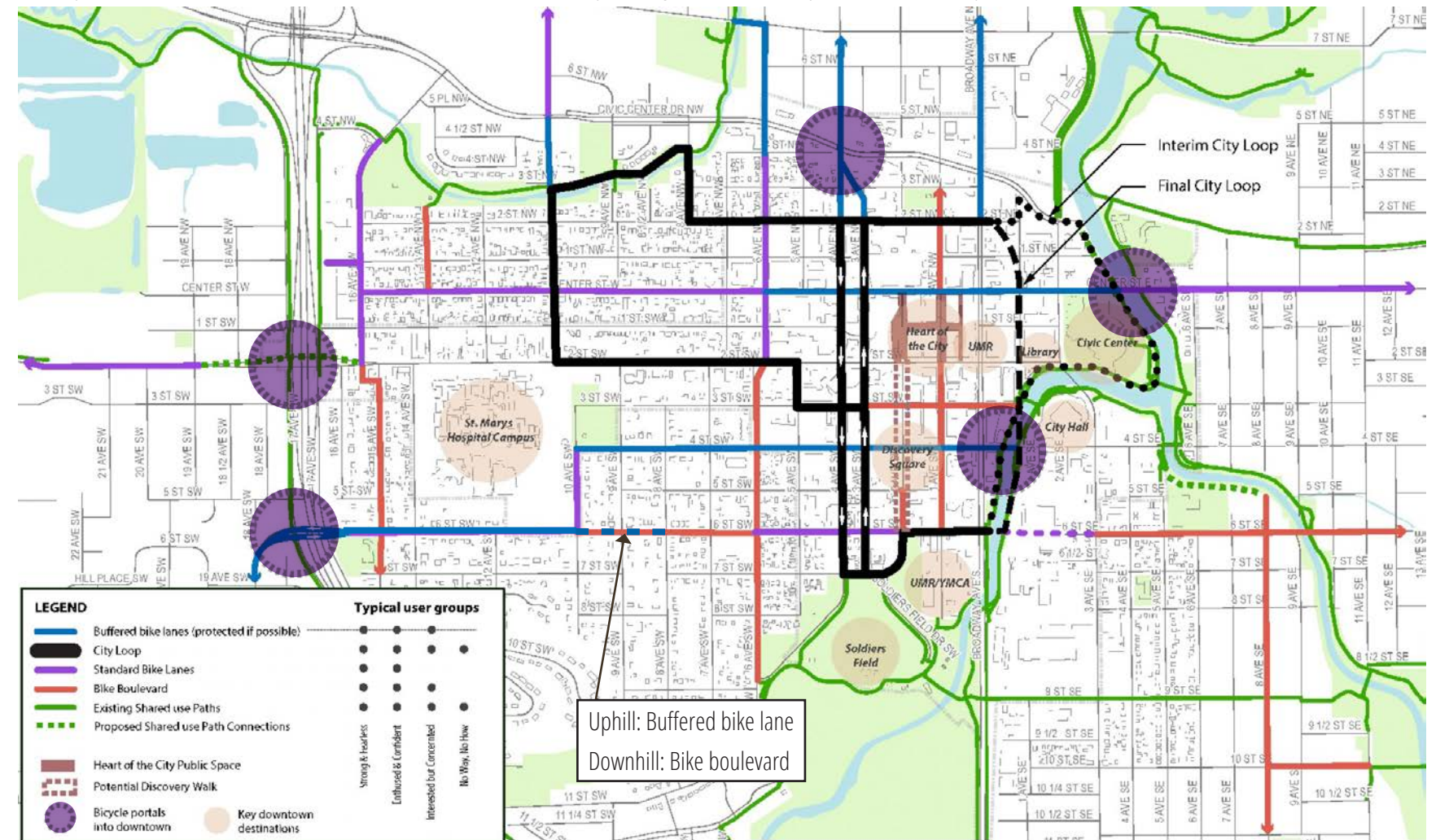
DMC TRANSPORTATION PRINCIPLES SUPPORTED BY IMPROVED BICYCLE NETWORK

- World-class streets, designed for people
- Healthy, human-powered transportation
- Reduce the ecological footprint of the City

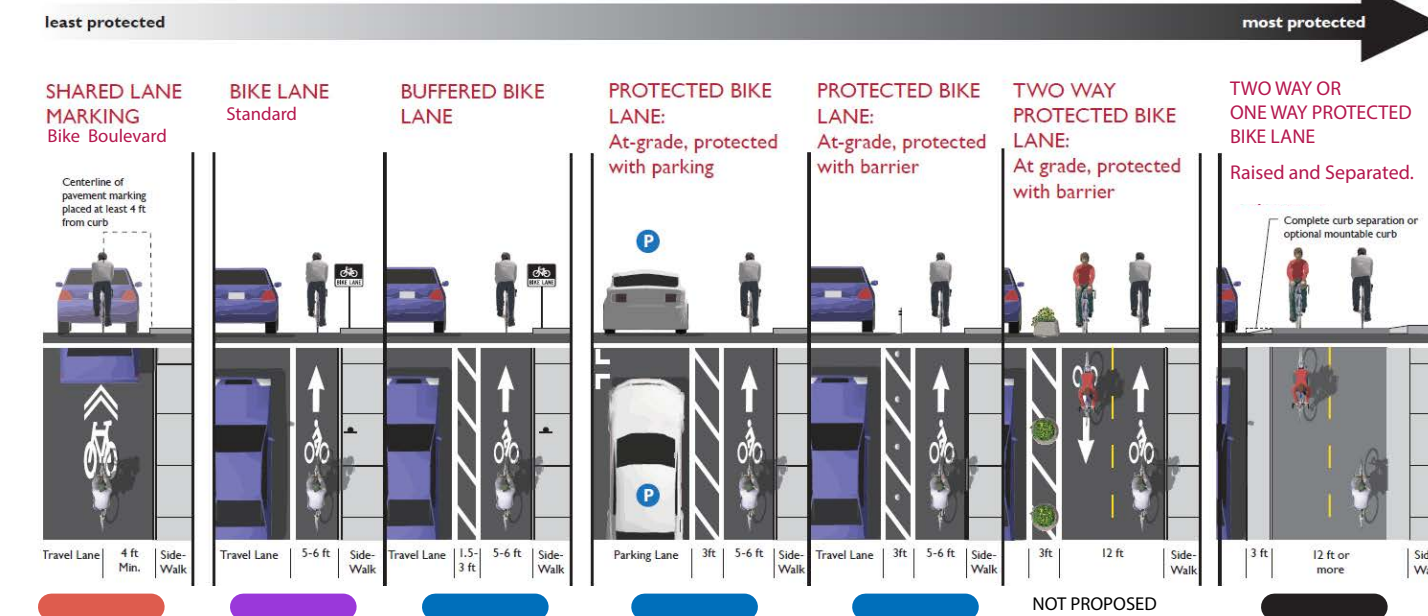


A BICYCLE NETWORK FOR ALL AGES AND ABILITIES

The bikeway network will connect bicyclists to downtown Rochester safely and comfortably from the City's established shared use path network and other existing and planned bikeways outside of downtown. Both north-south and east-west bikeways through downtown will provide access to major downtown destinations.



BIKEWAY FACILITY CONTINUUM

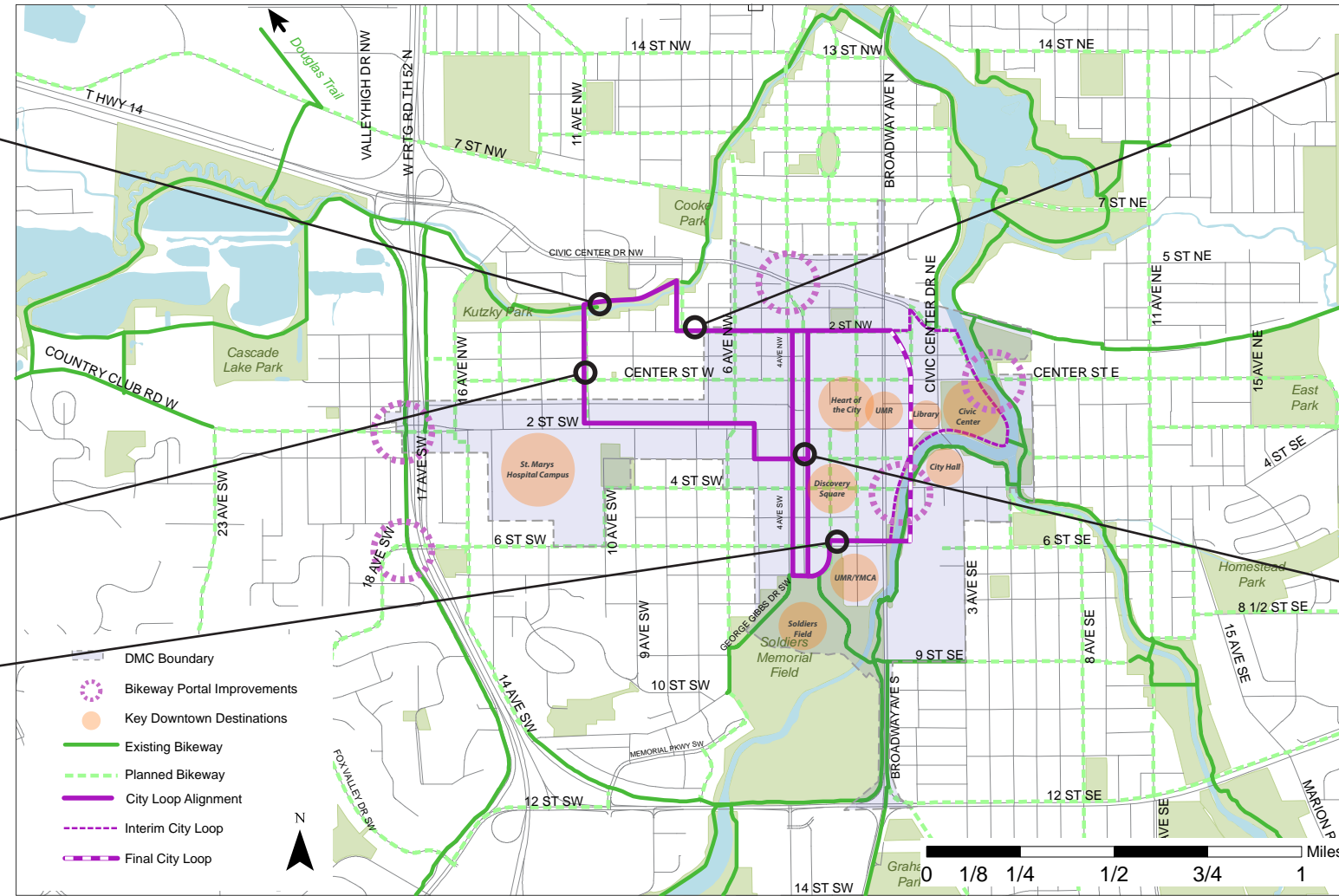


Higher degrees of user separation result in more comfortable facilities accessible to a broader category of people interested in bicycling.

CITY LOOP: A WORLD-CLASS PEDESTRIAN & BICYCLE URBAN TRAIL

CITY LOOP

A safe, healthy and enjoyable way to move to and through the DMC.



Kutzky Park - East Facing:

This City Loop segment transforms a portion of the existing park trail running along the north side of Cascade Creek into a branded, high amenity dual walking and cycling facility.



11th Avenue NW - North Facing:

The City Loop runs through the Kutzky Park neighborhood as it connects Kutzky Park with 2nd St. SW and St. Marys Place.



6th Street SW - West Facing:

The 6th St. SW segment provides access to Soldier's Field park and trail facilities, the proposed University of Minnesota's Rochester campus expansion and existing Zumbro River trails.



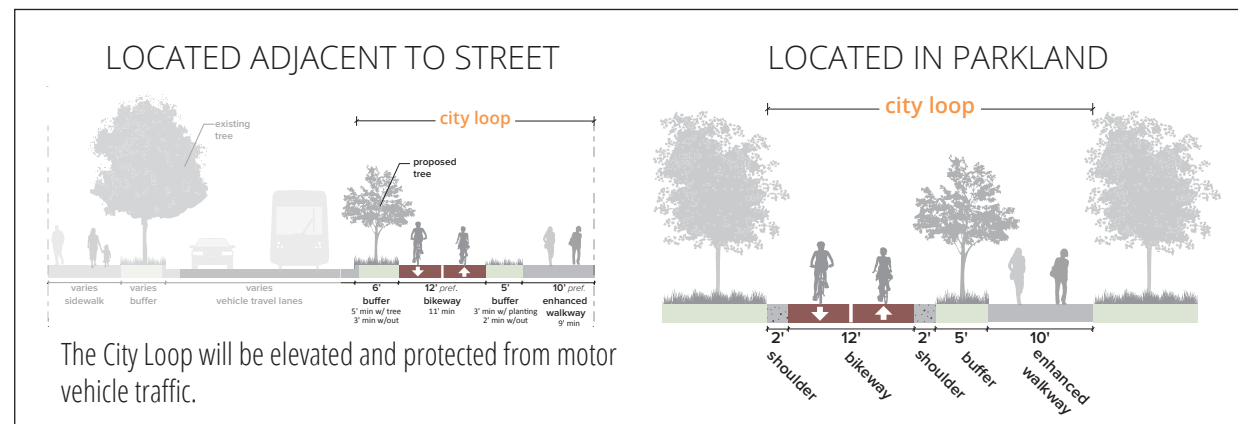
2nd Street NW - West Facing:

The western portion of the City Loop's 2nd Street NW segment travels through the Kutzky Park neighborhood as it provides connections between the DMC's Heart of the City District, Kutzky Park and the Cascade Lake trail loop west of HWY 52.



3rd Avenue SW - North Facing:

As the City Loop travels along 3rd Avenue it runs through the DMC's Heart of the City and Discovery Square districts and connects Mayo Clinic facilities to landscaped open spaces, including Central Park to the north and Soldier's Field to the south.

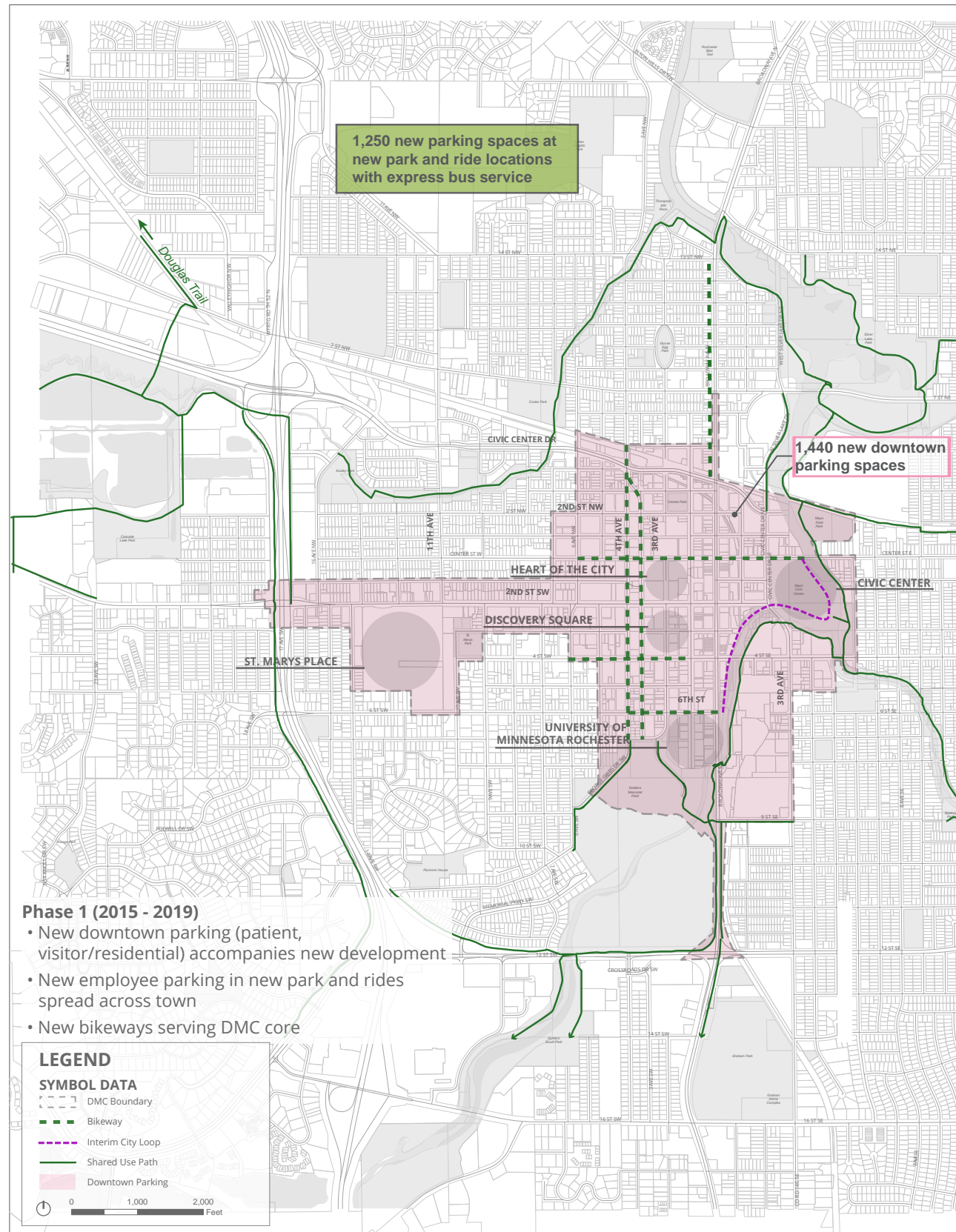


DMC TRANSPORTATION PRINCIPLES SUPPORTED BY CITY LOOP

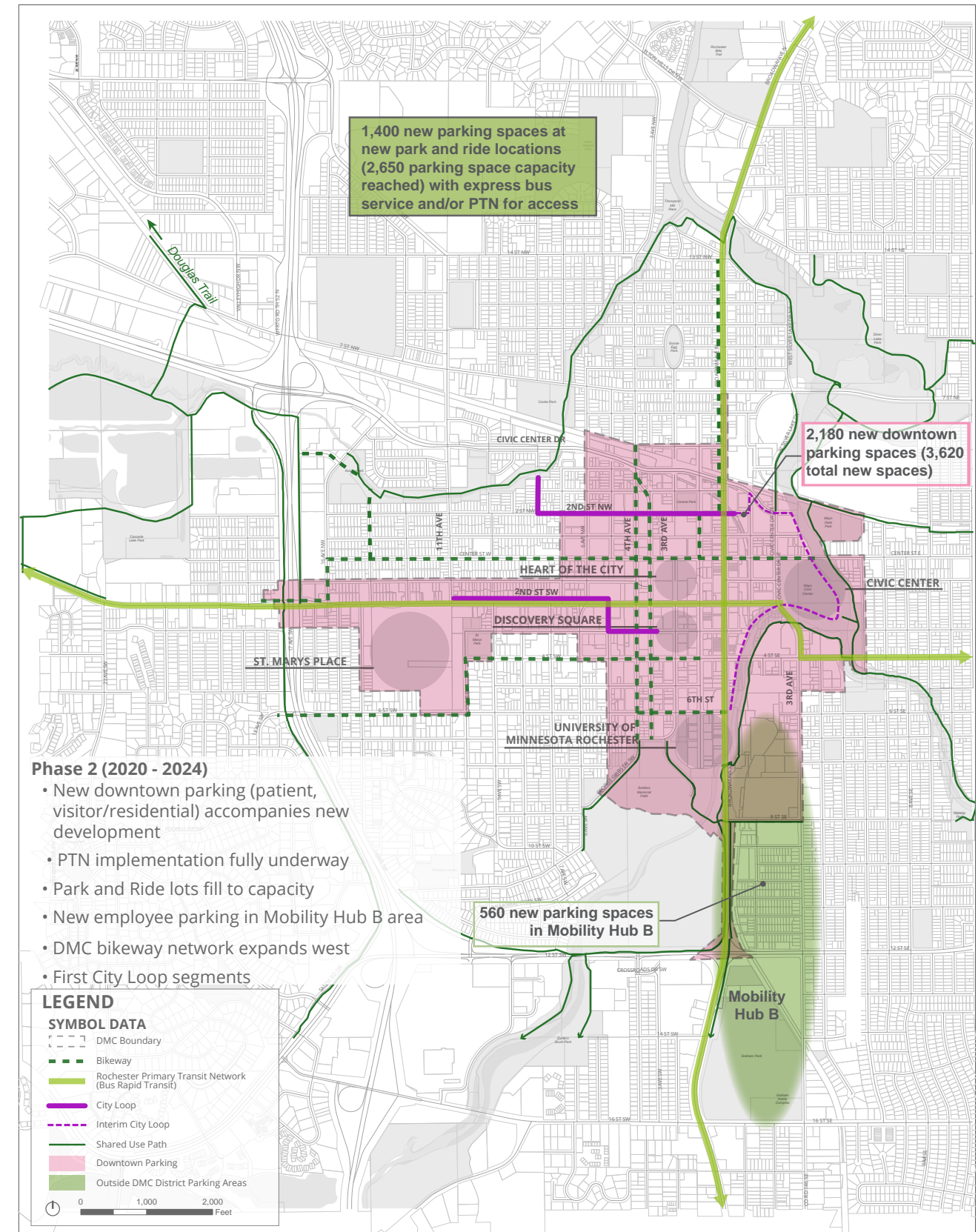
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- Reduce the ecological footprint of the City
- Transportation network accessible to all people

INTEGRATED TRANSIT STUDIES: PHASES 1-2

INTEGRATED TRANSIT STUDIES - PHASE 1

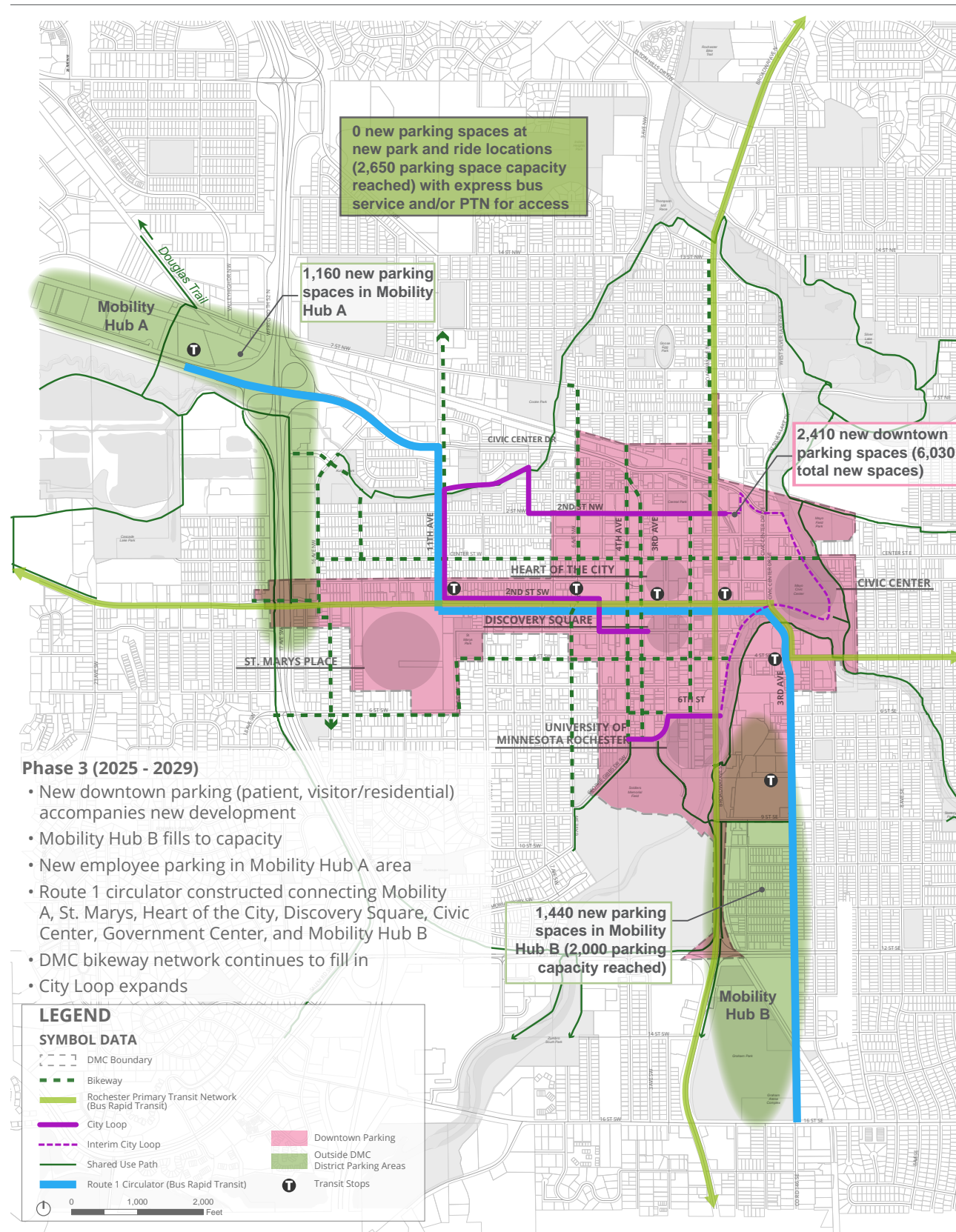


INTEGRATED TRANSIT STUDIES - PHASE 2



INTEGRATED TRANSIT STUDIES: PHASES 3-4

INTEGRATED TRANSIT STUDIES - PHASE 3



INTEGRATED TRANSIT STUDIES - PHASE 4

