

# PROJECTED GROWTH THROUGH 2040

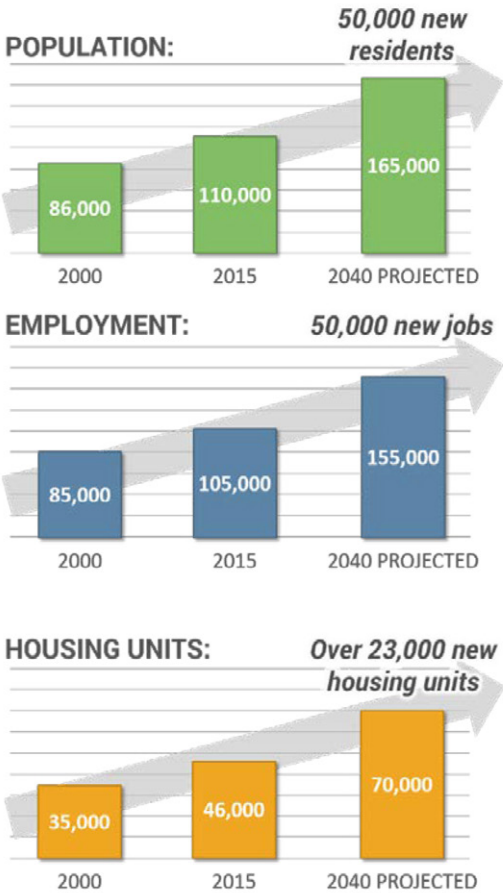
## ROCHESTER

Growth over approximately the next 25 years

**50,000** Additional People  
**50,000** Additional Jobs  
**23,000** Additional Housing Units  
**160,000** Total Daytime Population  
**3 Million** Total Visitors per year  
2/3 of whom are seeking medical treatment

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.

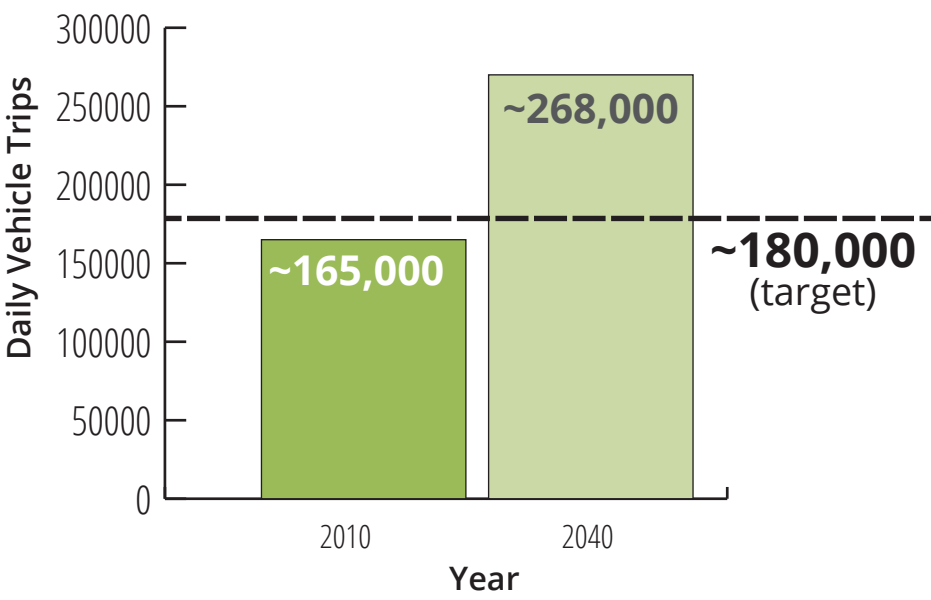


## DMC DISTRICT

**~30,000**  
new workers  
**60,000+**  
Total workers

**~6,000**  
new residents  
**~10,000**  
Total residents

## VEHICLE TRIPS



*"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

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**

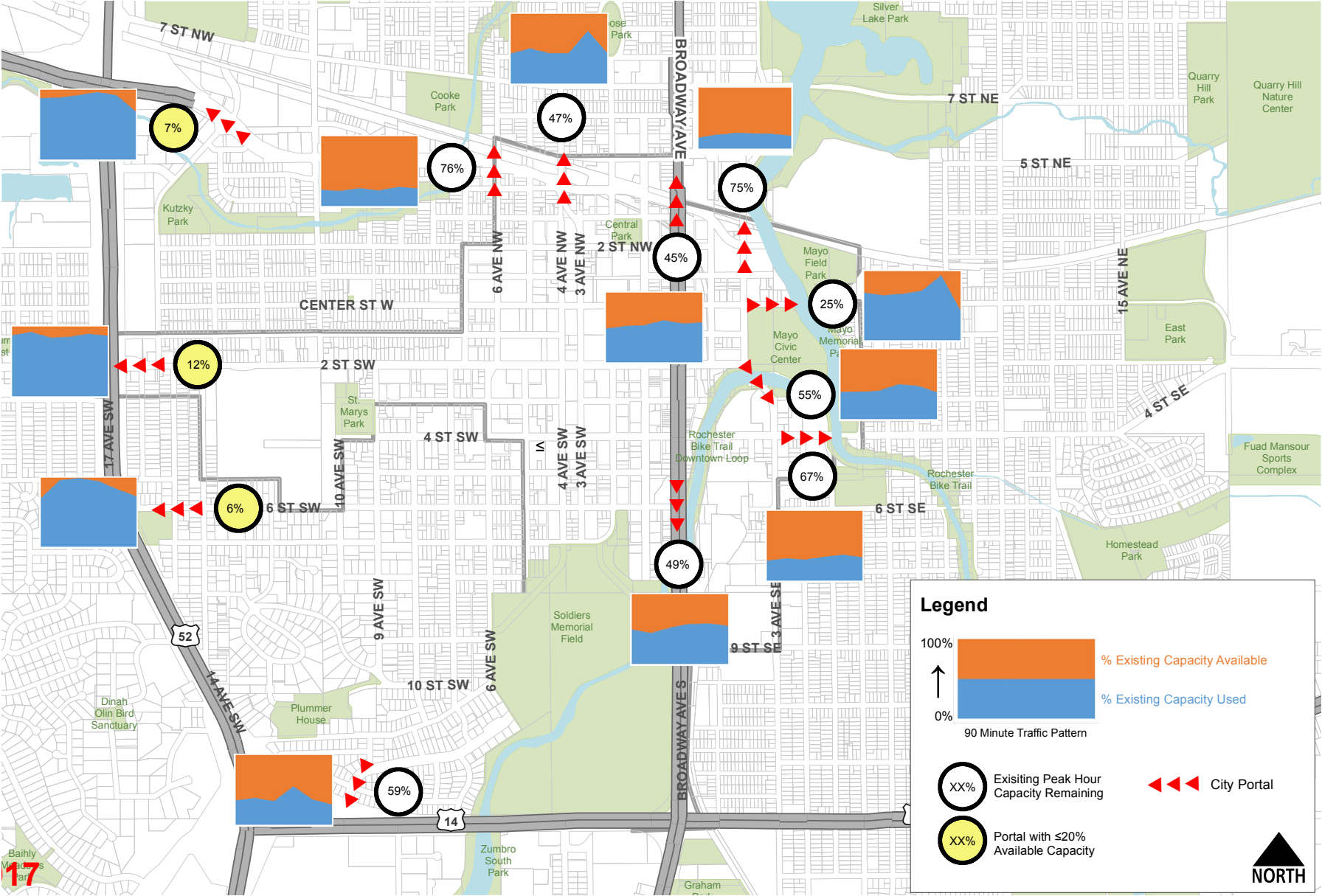
Establish and maintain a transportation network that is accessible and **inclusive to people of all ages, abilities, and states of wellness**

Source: DMC Development Plan

# PARKING DEMAND AND PORTAL CAPACITY



Parking needs will outstrip land availability and limit other types of development



## EXISTING PORTAL CAPACITY: PM PEAK PERIOD ANALYSIS

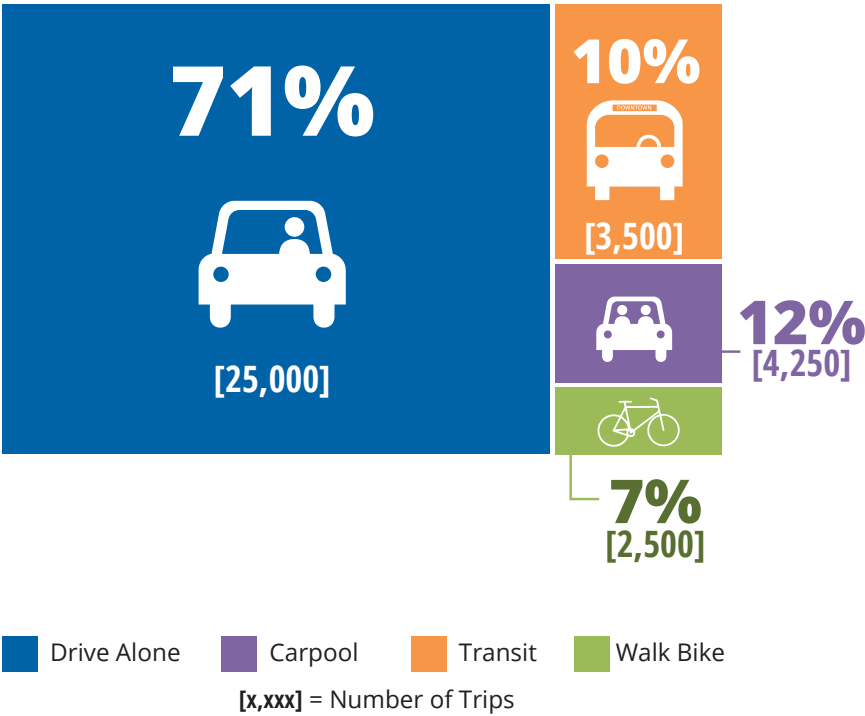
- Existing PM Peak Hour (Fall 2016)
- Number of additional vehicles that can leave downtown during the PM Peak (90 minutes) by roadway (portals out of downtown)
  - Limited number of future vehicles can be accommodated on roadways (Civic Center Drive, 2nd Street SW and 6th Street SW) accessing US 52

## 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



**71%** Single Occupant Vehicles create congestion and limited roadway portal capacity

**~24,000 parking spaces** demanded within DMC District Area (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

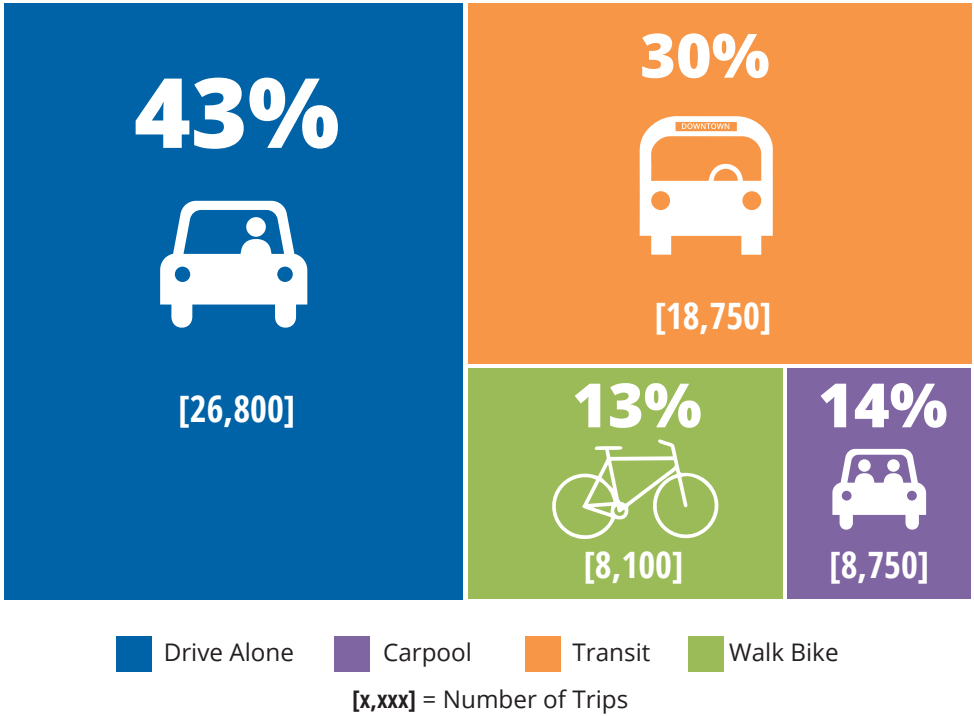
### MANAGE PARKING DEMAND

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

### ADD DENSITY DOWNTOWN

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

## 2035 TARGET CONDITIONS



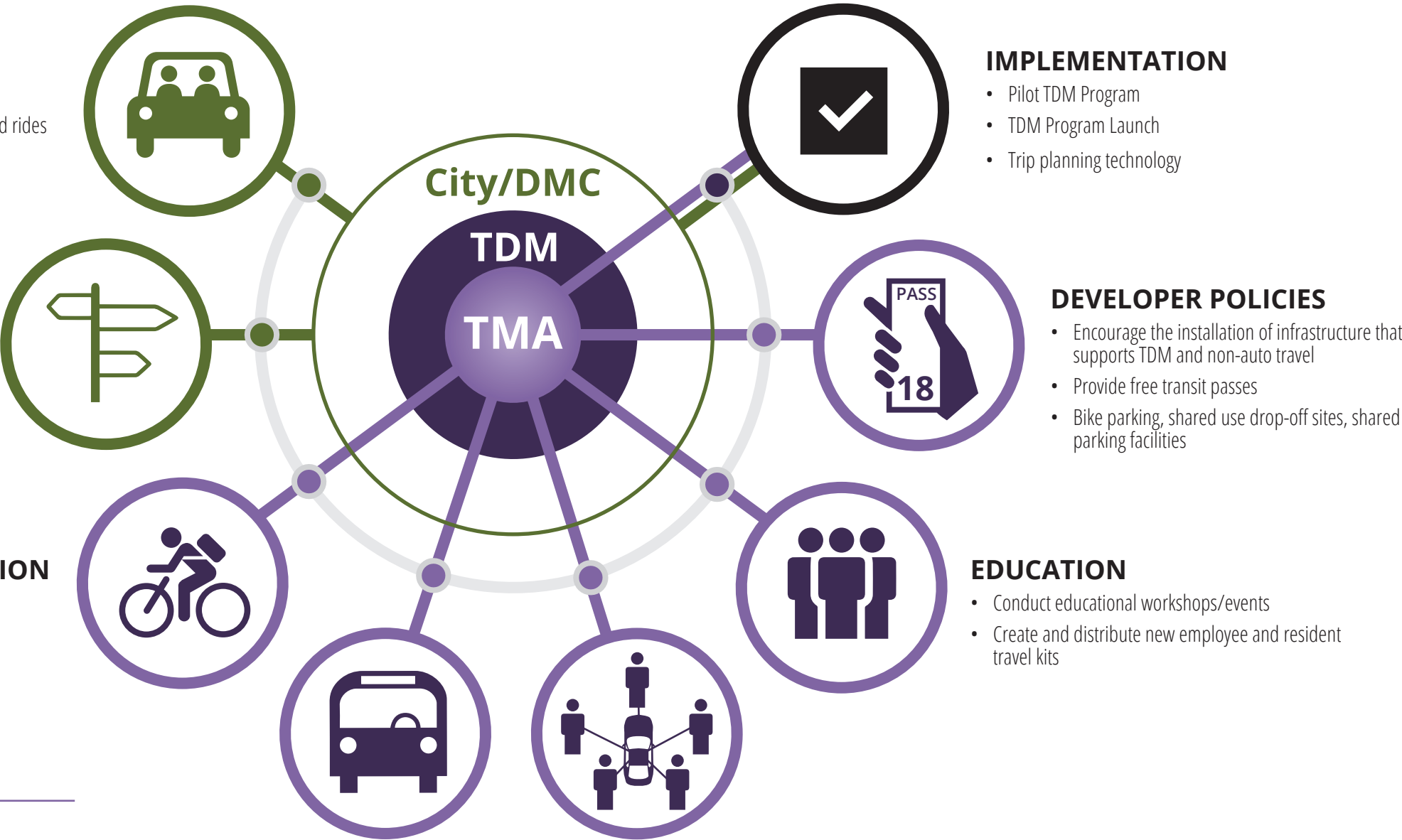
Source: DMC Development Plan

**~40,000 parking spaces** demanded 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)



## 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.

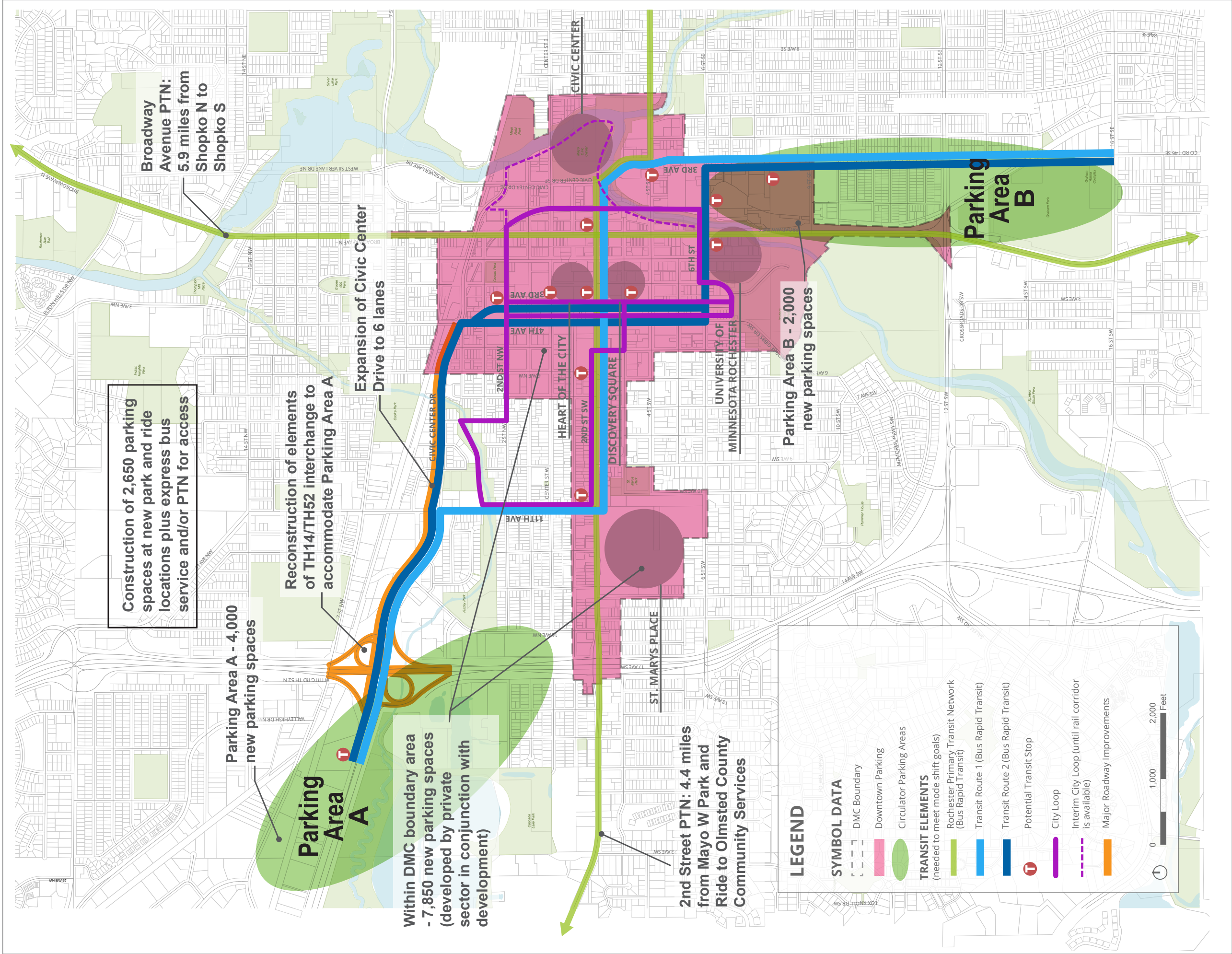
## TRANSPORTATION MANAGEMENT ASSOCIATION (TMA)

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.

## 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

**COST: \$265,000/YEAR (TMA)**



## INTEGRATED TRANSIT STUDY: HYBRID SCENARIO

Downtown Rochester Integrated Transit Studies



1/19/2018



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



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

**~6,000**  
new employee parking  
spaces located at  
**2**  
multi-modal hubs

**2 New transit  
circulator routes**  
connecting multi-  
modal hubs with key  
employment destinations

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

  
**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

  
**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

  
Approximately  
**3 miles**  
of City Loop Connecting  
St. Marys Place, Heart  
of the City, Discovery  
Square, University of  
MN Rochester, and the  
Downtown Waterfronts

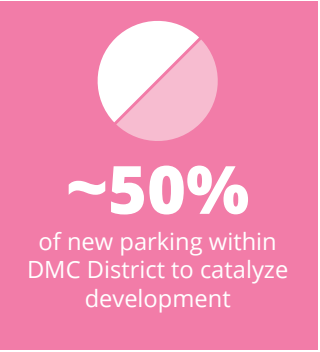
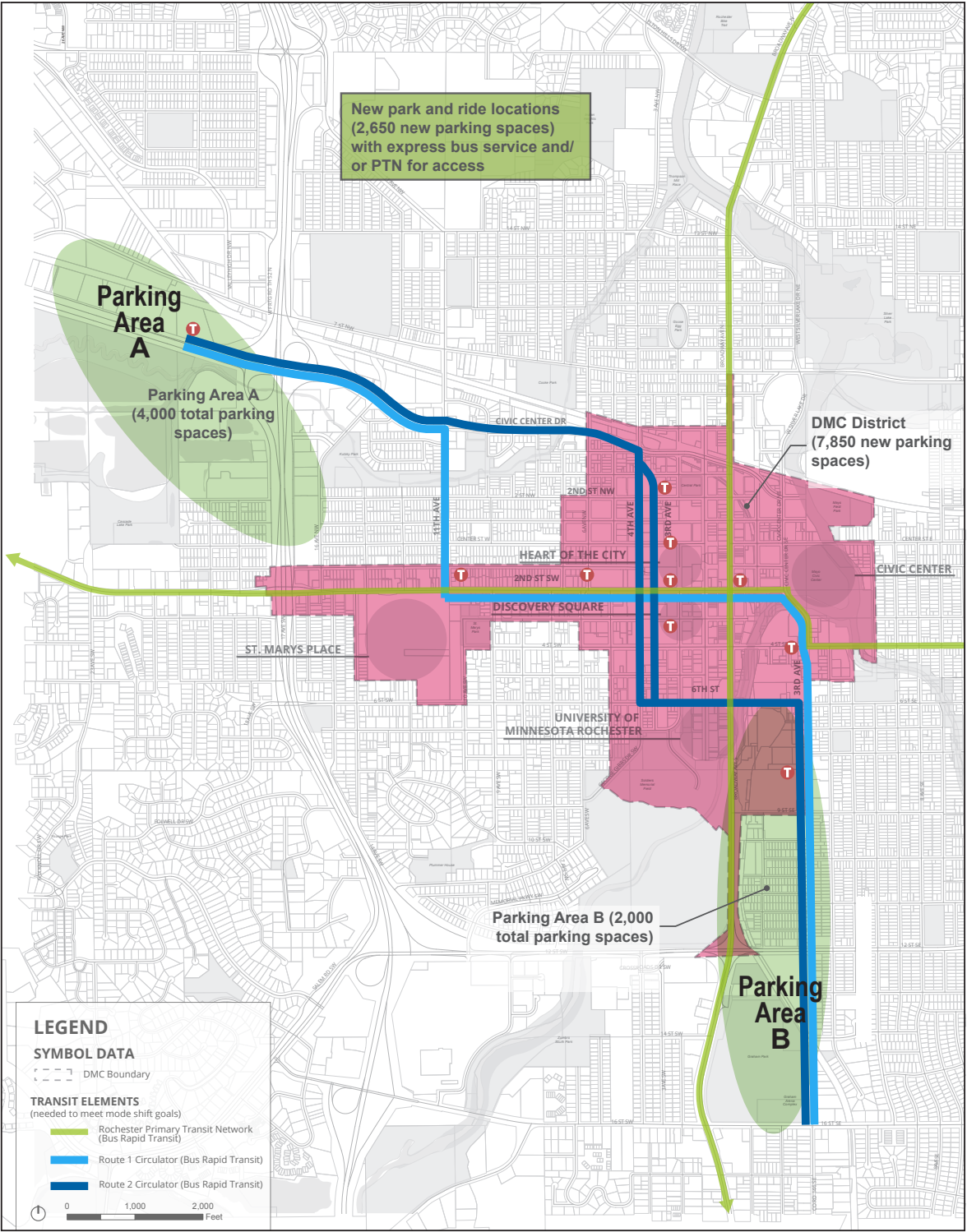
Reconstructed  
**14/52**  
interchange to provide  
easy parking access

**38 blocks**  
of Additional protected  
bikeways

## THE HYBRID SCENARIO: BY THE NUMBERS

# A PARKING STRATEGY FOR DOWNTOWN ROCHESTER

## PARKING AND TRANSIT IMPLEMENTATION



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 | Preferred Location                       |
|--------------------------|---------------------|----------------------|------------------------------------------|
| Phase 1<br>Years 2017-19 | 1,440               | 1,250                | Remote Park and Rides                    |
| Phase 2<br>Years 2020-24 | 2,180               | 1,960                | Remote Park and Rides,<br>Parking Area B |
| Phase 3<br>Years 2025-29 | 2,410               | 2,600                | Parking Areas B, then A                  |
| Phase 4<br>Years 2030-34 | 1,820               | 2,840                | Parking Area A                           |
| Total                    | 7,850               | 8,650                |                                          |
|                          | 16,500              |                      |                                          |

### DMC TRANSPORTATION PRINCIPLES SUPPORTED BY PARKING

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

**COST: \$845 MILLION**

# TRANSIT: THE HYBRID CONCEPT

## 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 at half the cost of 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 multi-  
modal 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:

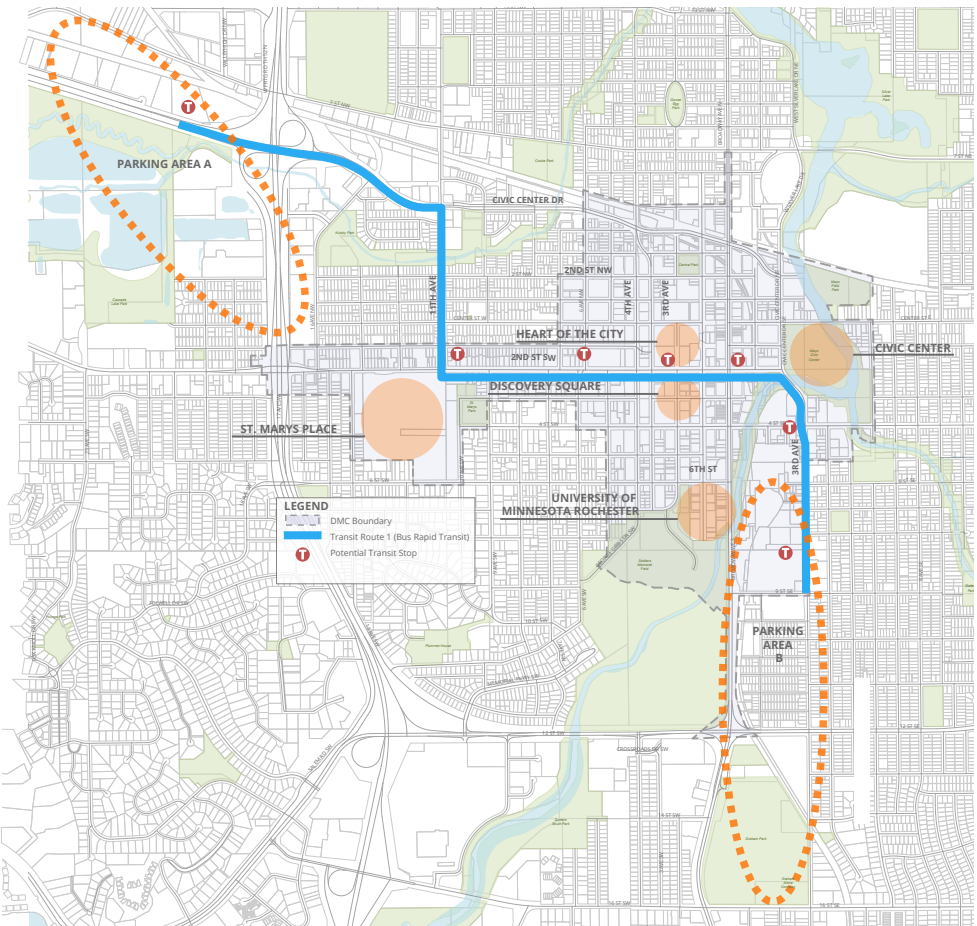
- Convenient 15 to 20 minutes service to minimize waits and reduce schedule dependence
- Speed and Reliability: service is on-time and competitive with the private automobile in connecting key destinations
- Pre-boarding purchase or payment, which encourages quick station boarding
- PTN will supplement 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

**COST: \$302 MILLION**

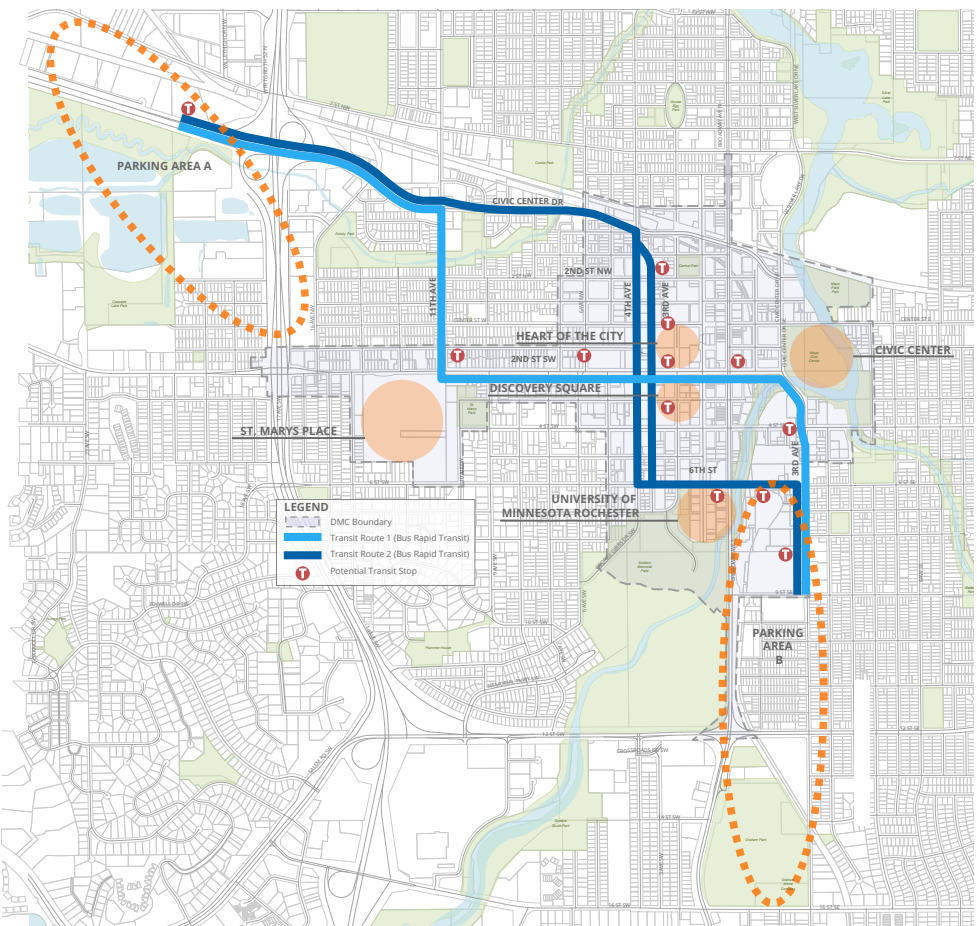
# TRANSIT: THE HYBRID CONCEPT



## ROUTE 1

### Phase 1

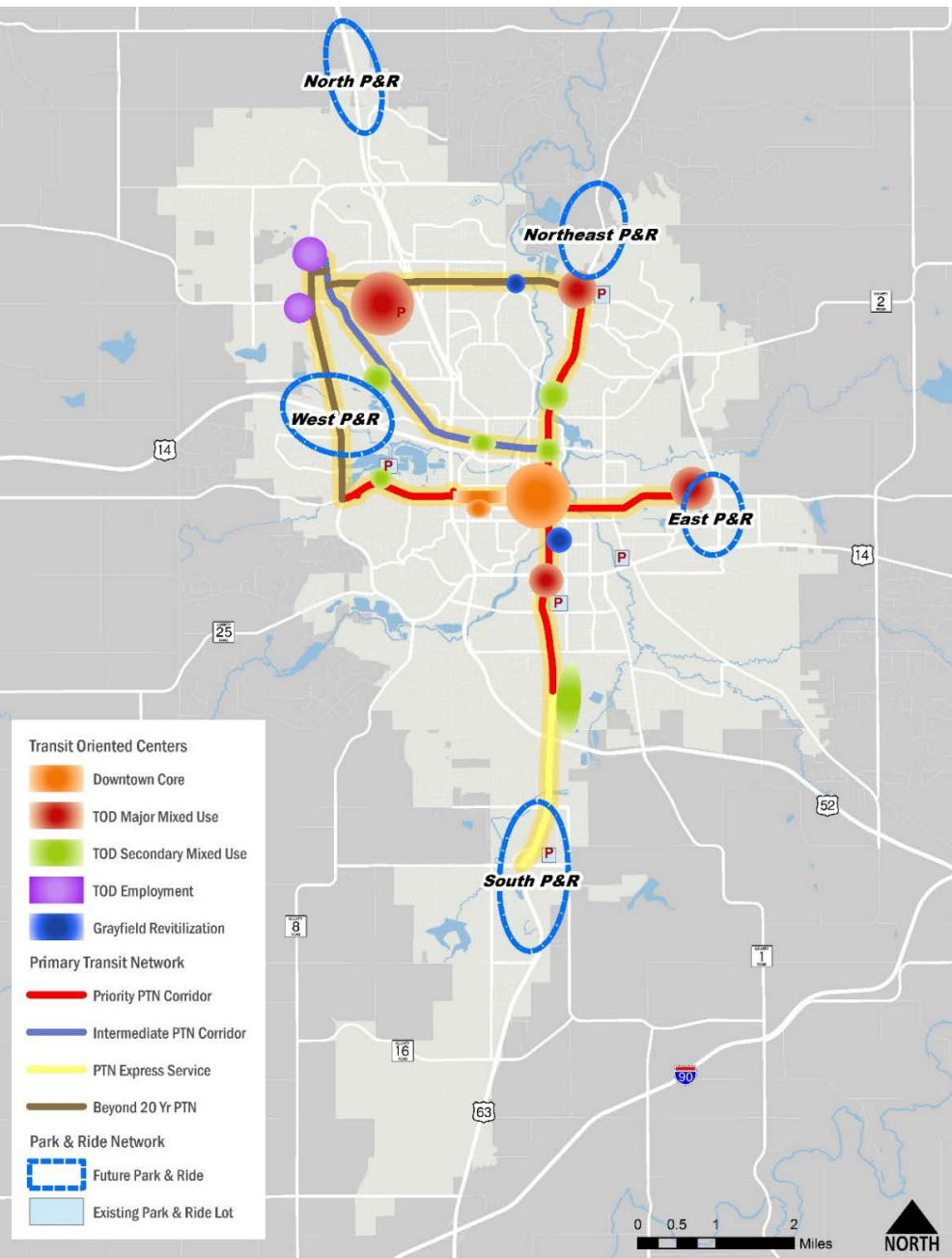
- Provides frequent all day, all week service from Parking Area A to St Marys, downtown Rochester, Government Center to Parking Area B.



## ROUTE 2

### Phase 2

- Provides direct access to the Gonda Building from Parking Areas 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 on the north-south corridor.



## PRIMARY TRANSIT NETWORK

A Primary Transit Network (PTN) is identified, comprised of key transit corridors in Rochester where coordination of land use, development policies, and public infrastructure investment will result in higher frequency and more sustainable transit service; create conditions favorable to transit-oriented and mixed-use development; and provide Rochester residents better access to the DMC District. The PTN is described in Rochester's comprehensive plan and is part of the Phase 2 strategy 2020 – 2024.

## ENHANCED LOCAL SERVICE

Rochester Public Transit will expand service to growing system of park and ride lots which circle Rochester. Local, fixed route service will continue to acquire ridership by adding new routes, increasing the span of service, and increasing the frequency of service—especially on Primary Transit Network routes—to at, or near BRT levels. Local buses can share the dedicated transit lanes and stops with the transit circulator service in the DMC district.

## REGIONAL COMMUTER SERVICE

Motor coach service from surrounding communities will 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 policies (and a newly formed 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.



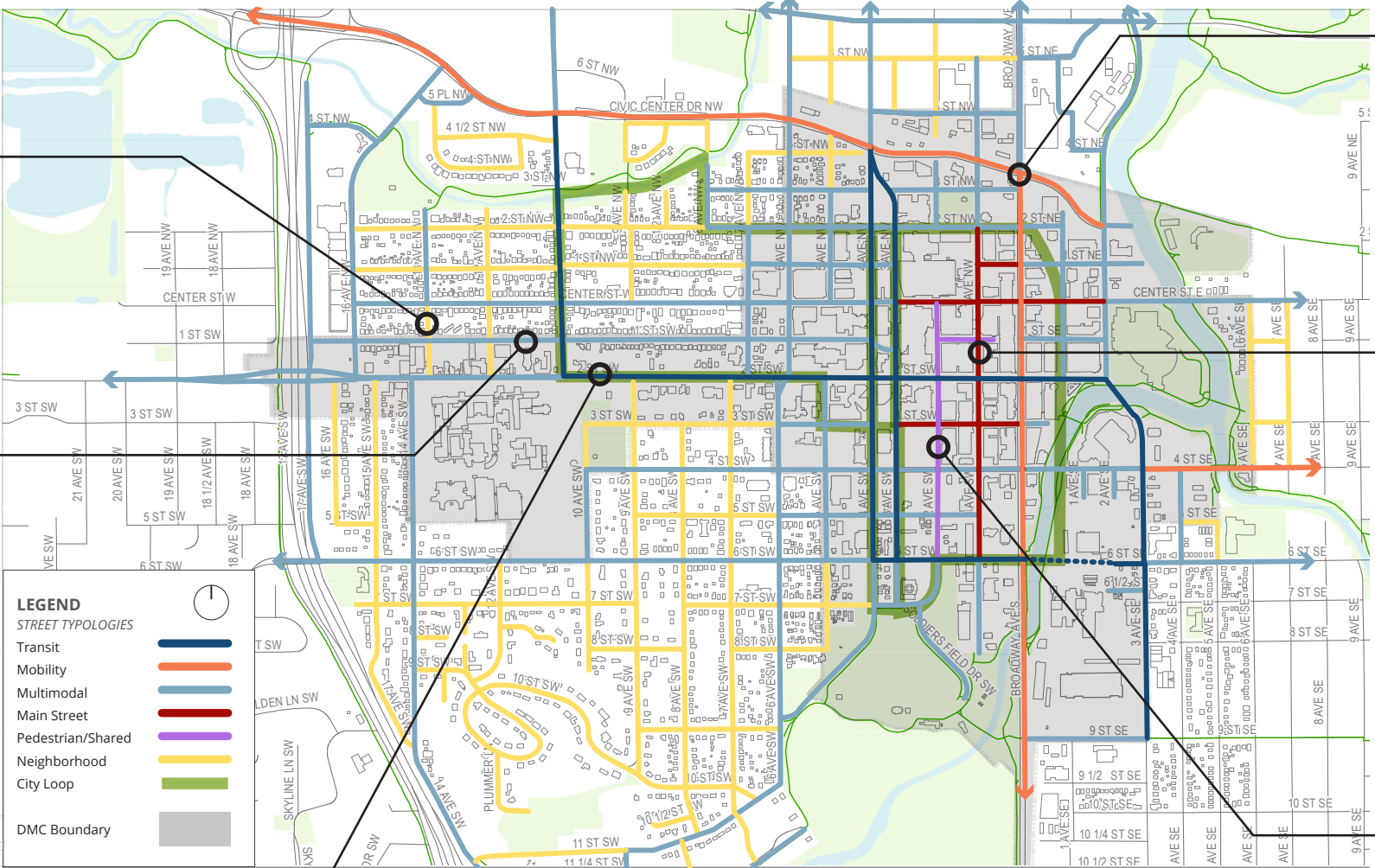
**Multimodal Streets:** Design features do not prioritize one mode over another, but strive to accommodate a variety of modes.



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



## DMC STREET TYPOLOGIES: HYBRID SCENARIO



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



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



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



*Typologies 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

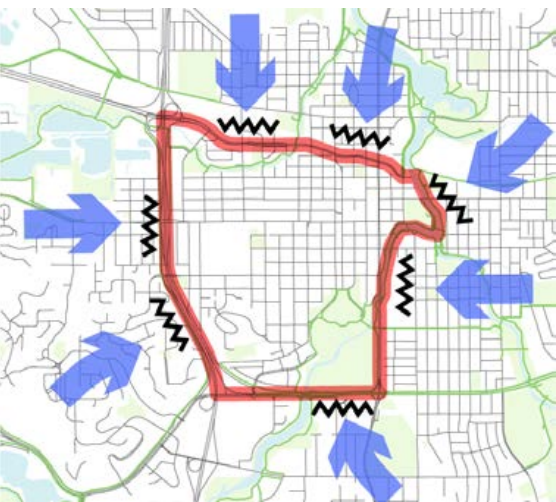
- Bring 30% of the workforce to downtown Rochester on transit
- World-class streets, designed for people
- Healthy, human-powered transportation
- Transportation network accessible to all people

**COST: \$30 MILLION**

# AN IMPROVED BICYCLE NETWORK

## BICYCLE PORTALS IMPROVE DOWNTOWN ACCESS

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



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



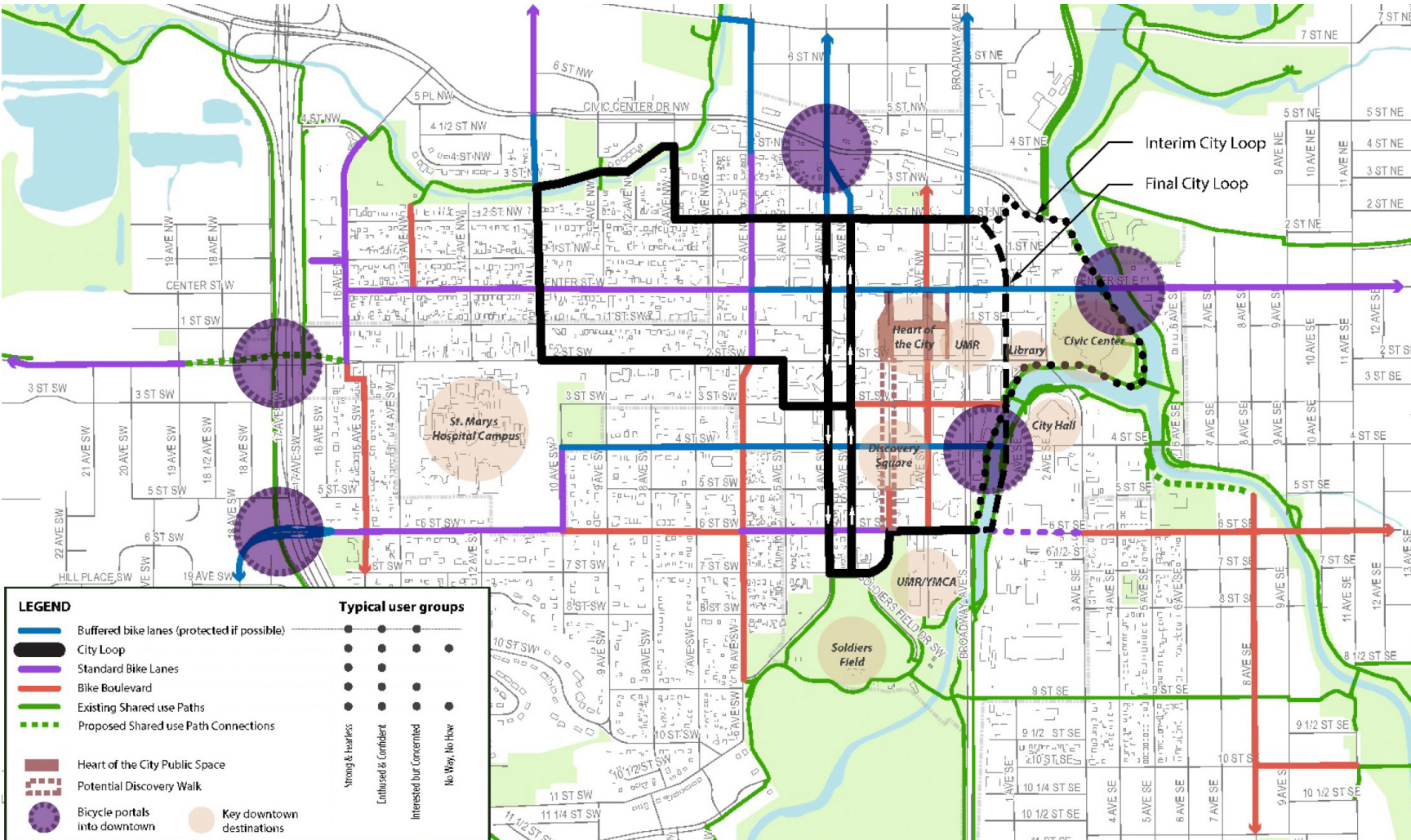
Portals and high quality bicycle and pedestrian corridors provide access to and through downtown.



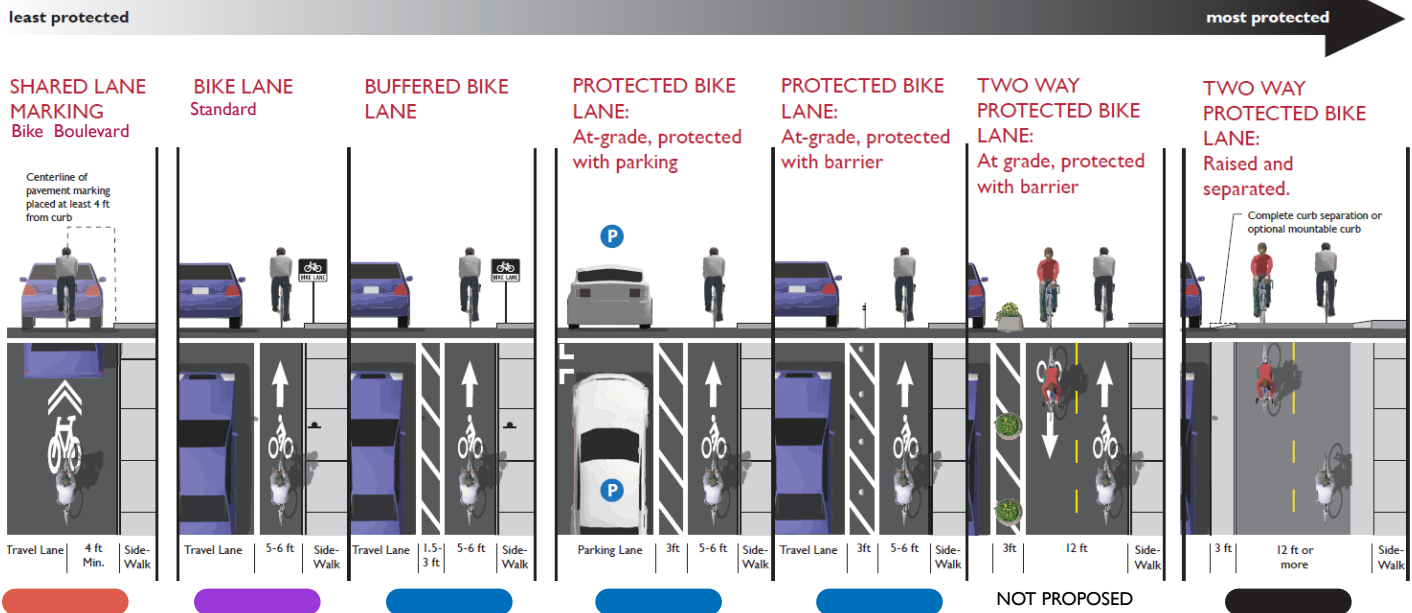
Portals across the barrier provide downtown bike access.

## 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.

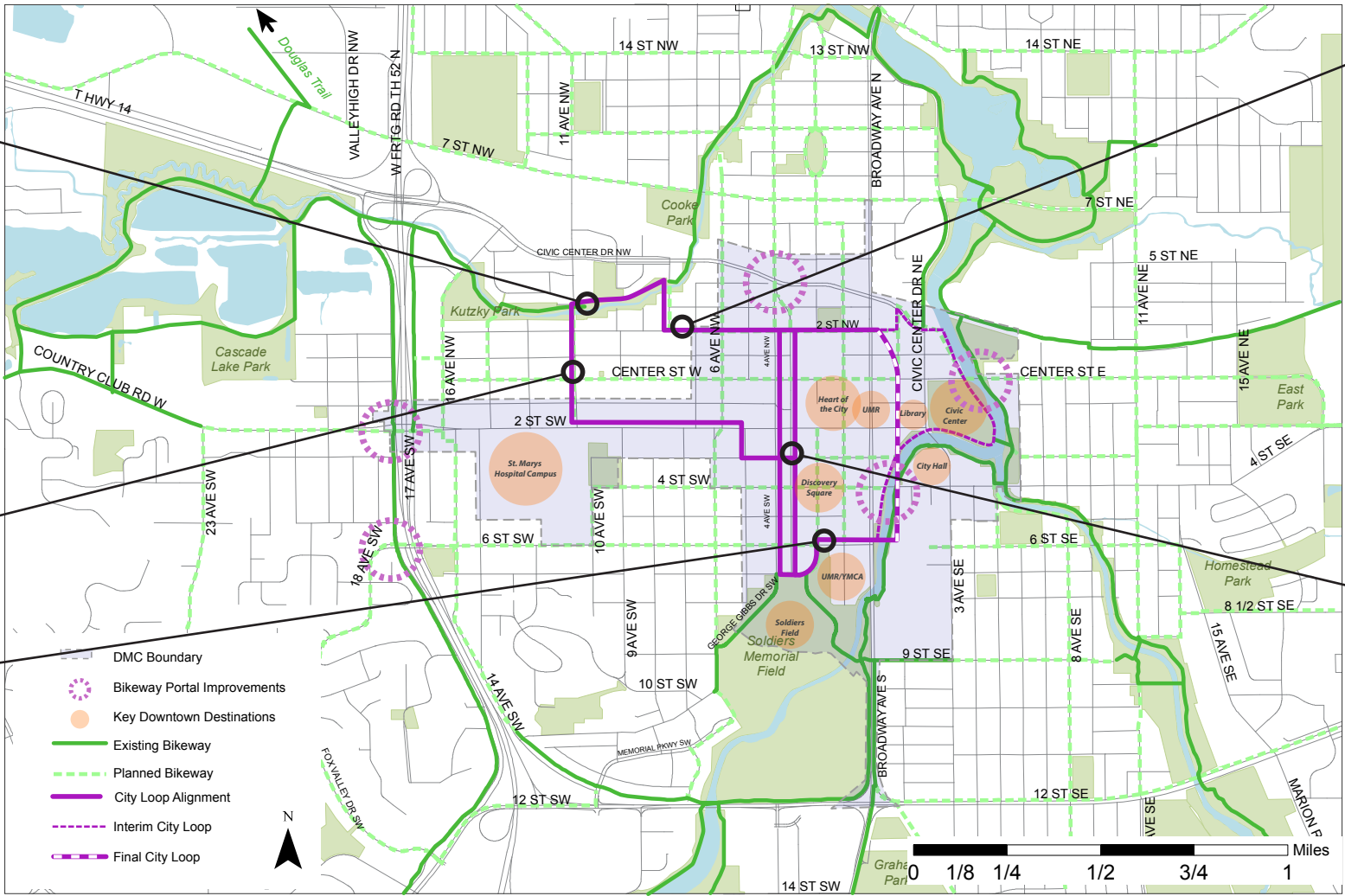
## DMC TRANSPORTATION PRINCIPLES SUPPORTED BY IMPROVED BICYCLE NETWORK

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

# 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 University of Minnesota's Rochester campus expansion and existing Zumbro River trails.



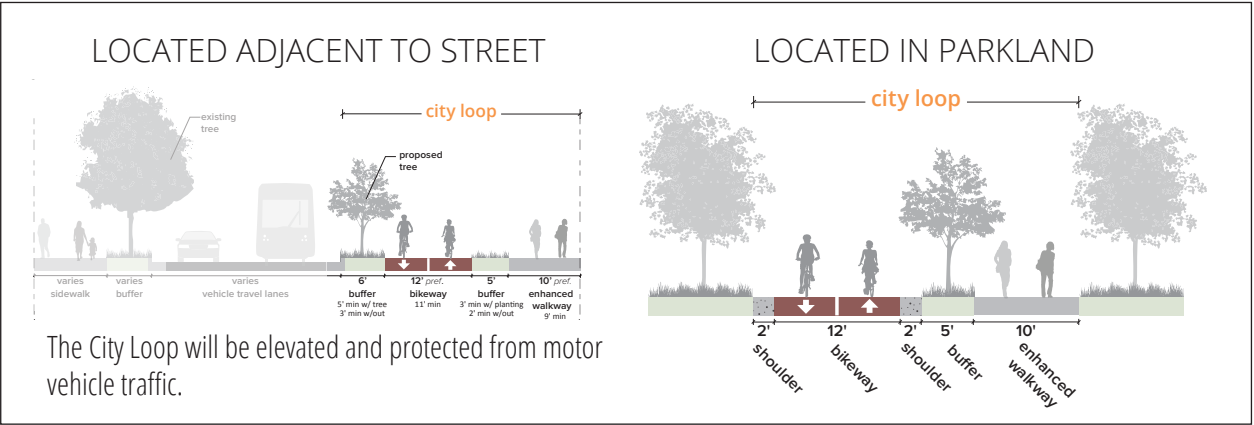
### 2nd Street NW - West Facing:

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.



The City Loop will be elevated and protected from motor vehicle traffic.

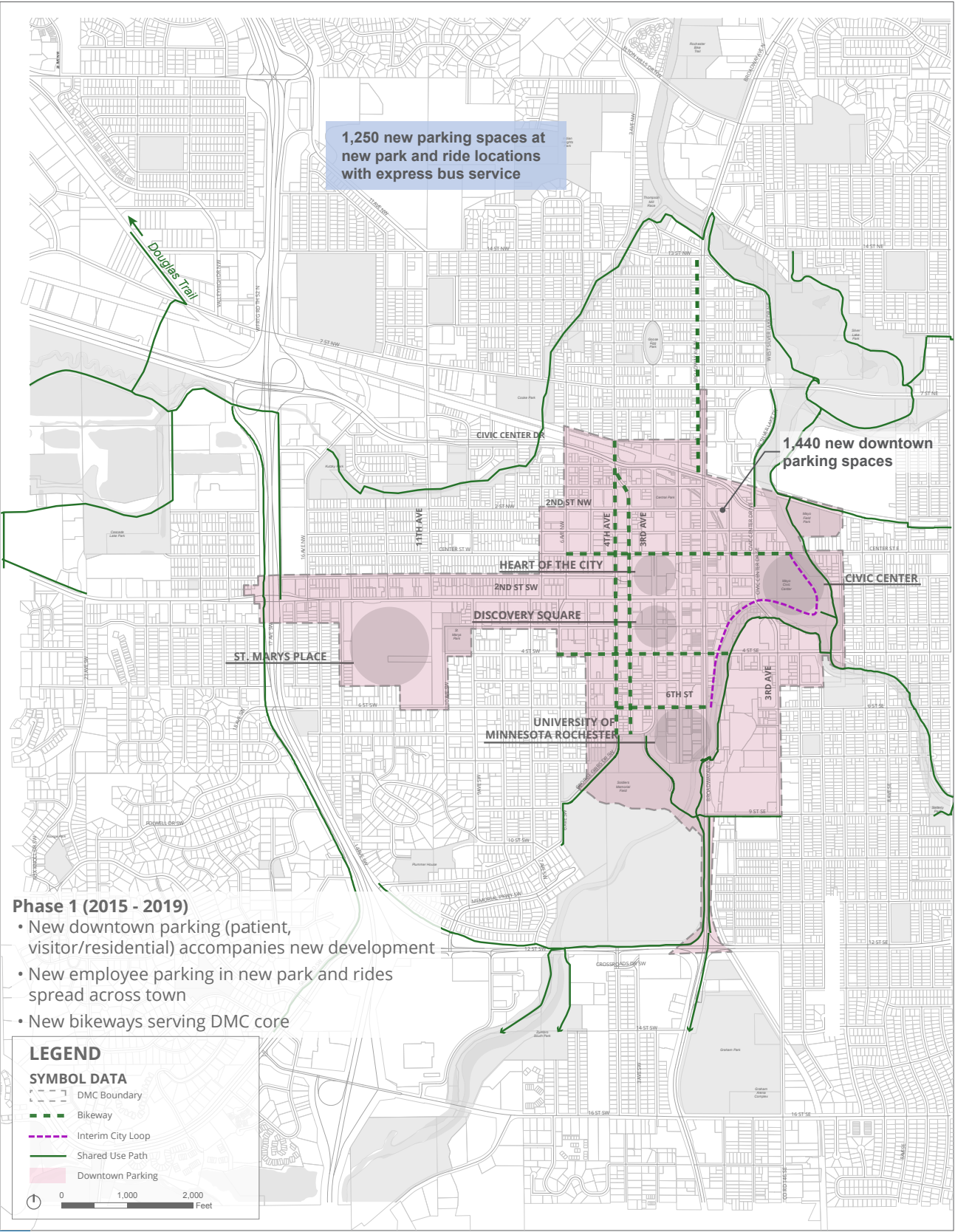
## DMC TRANSPORTATION PRINCIPLES SUPPORTED BY CITY LOOP

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- Healthy, human-powered transportation
- Reduce the ecological footprint of the City
- Transportation network accessible to all people

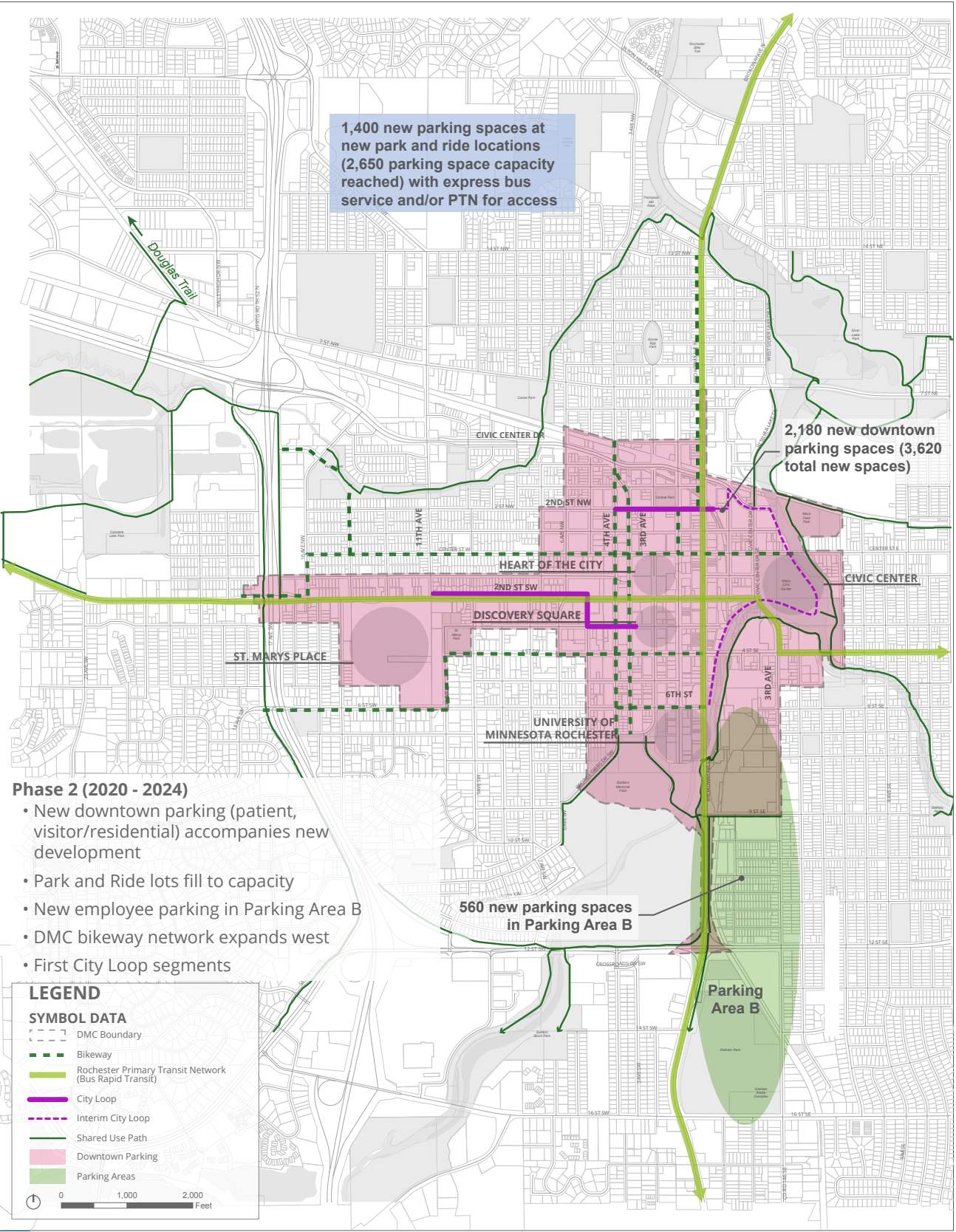
**COST: \$37 MILLION**

# INTEGRATED TRANSIT STUDIES: PHASES 1-2

## INTEGRATED TRANSIT STUDIES - PHASE 1

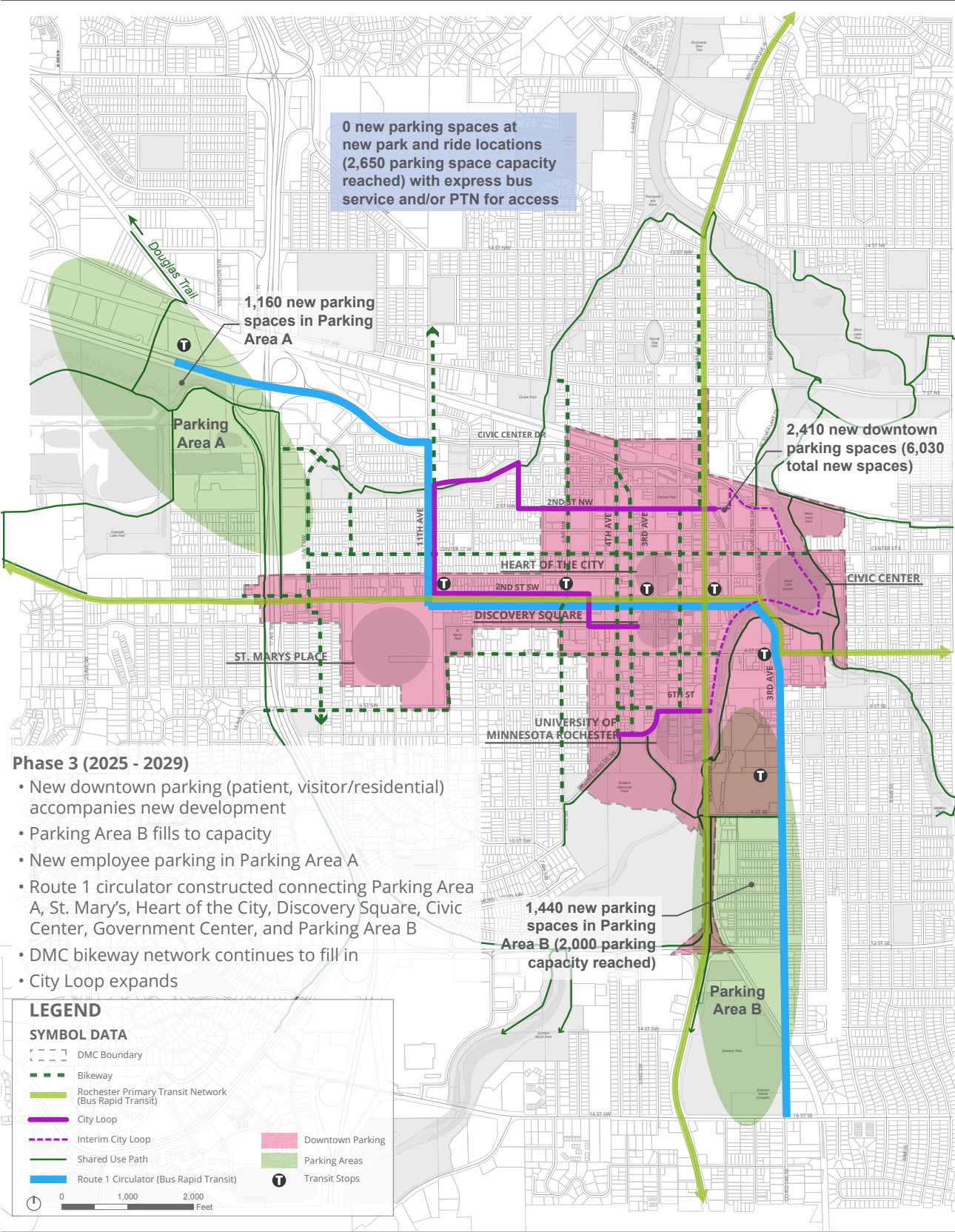


## INTEGRATED TRANSIT STUDIES - PHASE 2



# INTEGRATED TRANSIT STUDIES: PHASES 3-4

## INTEGRATED TRANSIT STUDIES - PHASE 3



## INTEGRATED TRANSIT STUDIES - PHASE 4

