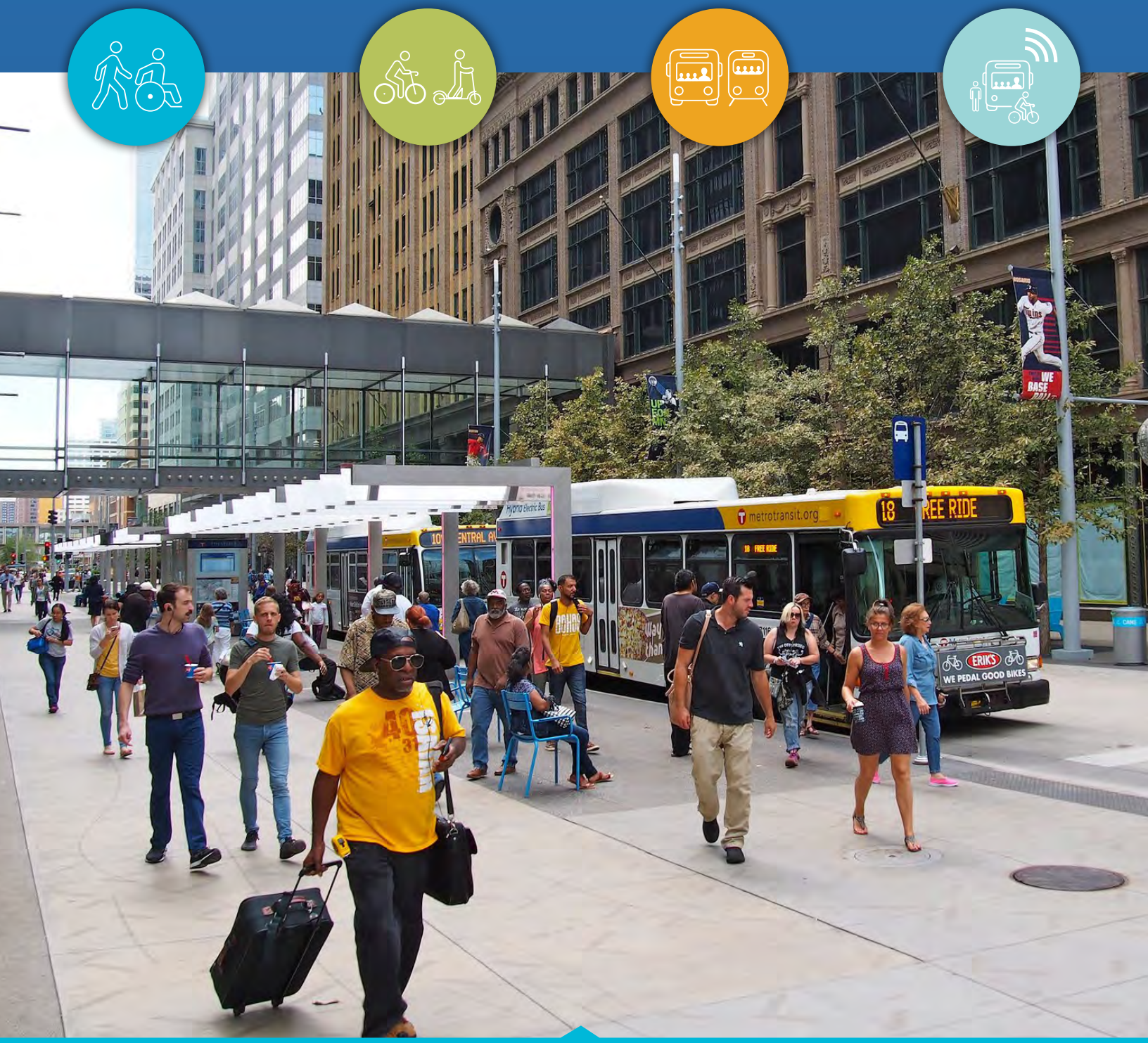
Minneapolis
City of Lakes

CITY OF MINNEAPOLIS

DRAFT Transportation Action Plan

March 6, 2020



Our transportation system is the backbone of our city. We all depend on it to safely get where we need to go. In Minneapolis, we are building streets that reflect our values and the vision outlined for transportation in Minneapolis 2040.

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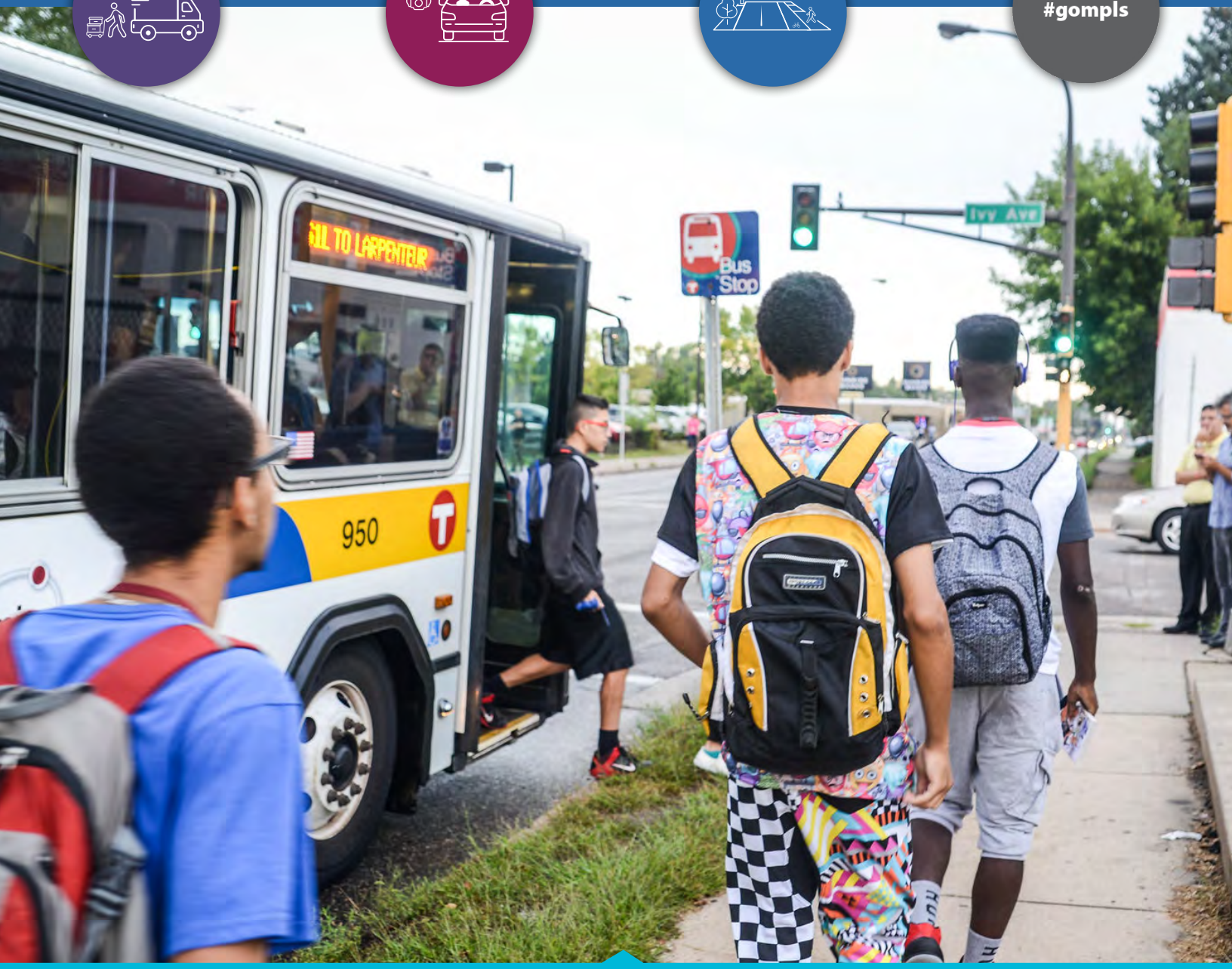


We are focused on expanding transportation options for people walking, biking and taking transit – emphasizing low carbon and more affordable ways to get around. We are building a system for people that addresses our climate emergency.

The Minneapolis Transportation Action Plan is how we will get there.

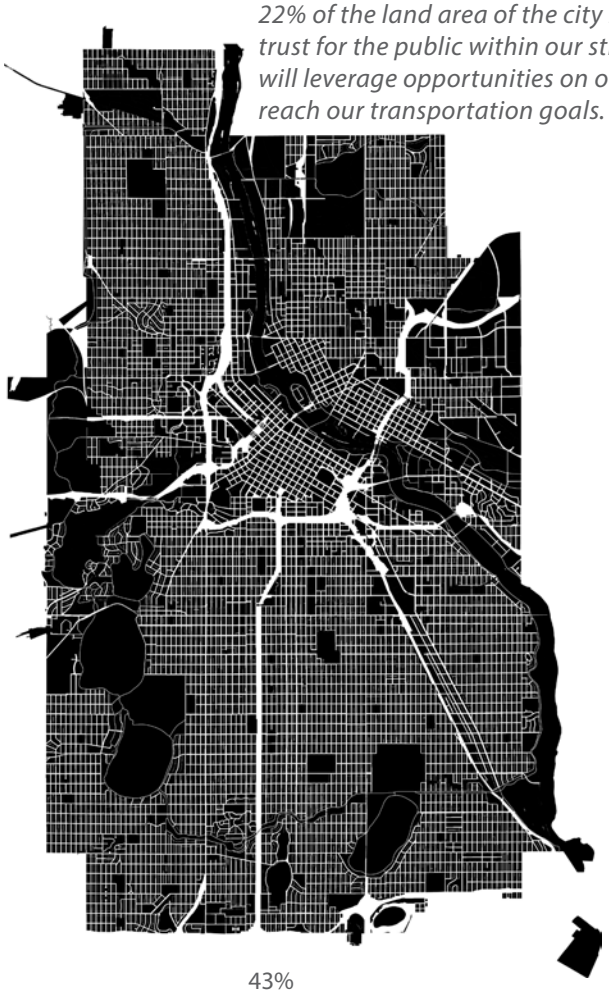
TABLE OF CONTENTS

#gompls

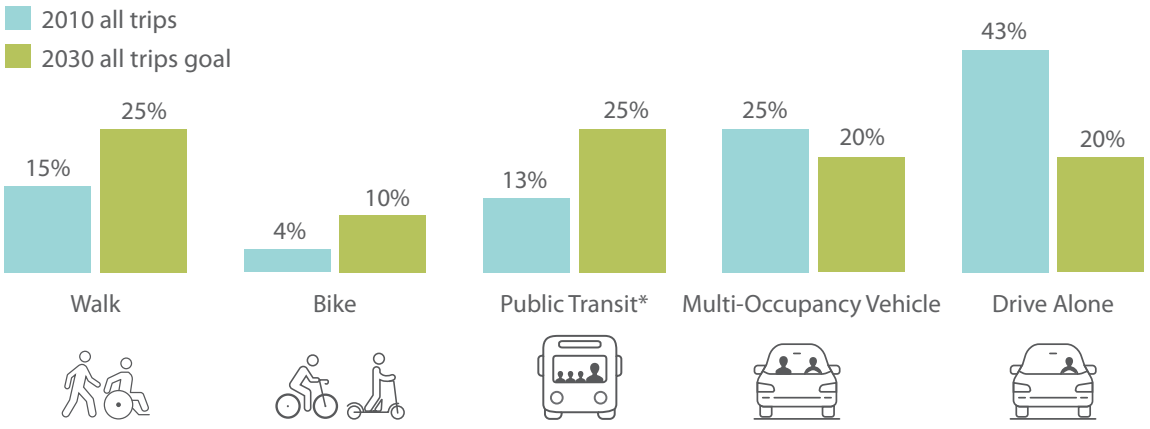
DRAFT Transportation Action Plan
EXECUTIVE SUMMARY

The Minneapolis Transportation Action Plan (TAP) is a 10-year action plan to guide future planning, design and implementation of transportation projects for all people in all the ways they move around. This plan is shaped by Minneapolis 2040, the Climate Action Plan, Vision Zero, and Complete Streets.

In 2030 our streets will reflect our City values. Our streets will be designed to address a climate emergency by emphasizing low or no carbon travel. Our streets will add protection for people walking and bicycling and will be designed to prioritize an effective transit system that serves all trips. Our streets will be organized to enhance access to jobs. Though our streets will continue to serve car traffic, our future depends on our ability to increase the city's population as projected in Minneapolis 2040 without the car traffic associated with growth. This plan does not eliminate places for people to drive, it simply rebalances space to incentivize and allow for low carbon transportation options.



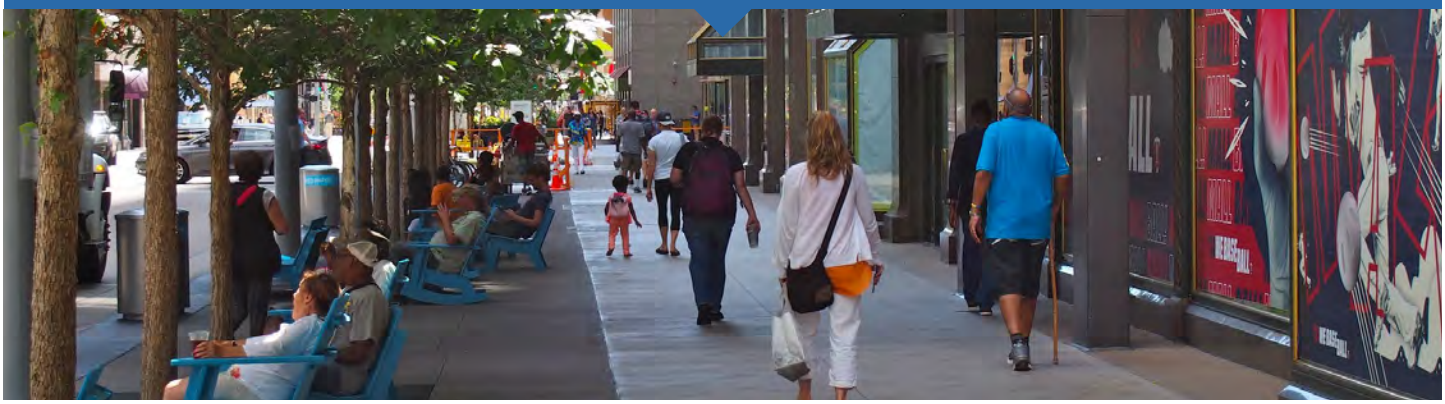
22% of the land area of the city is held in trust for the public within our streets; the TAP will leverage opportunities on our streets to reach our transportation goals.



We've set a mode shift goal to have 3 of every 5 trips taken by walking, biking, or transit.

*includes school bus. 2010 Source: Metropolitan Council Travel Behavior Inventory

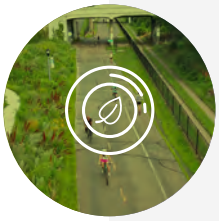
The TAP seeks to unlock the potential of our streets as places for people and as an invaluable asset for broader outcomes achieved by making the right investments in our transportation network.



The TAP outlines a vision for our streets in 2030. We did not constrain that vision with concerns about resources but rather articulated how, with additional partnerships, time, and funding, we can make our city reflect the vision for transportation laid out in Minneapolis 2040.

Transportation Goals

This plan is guided by six goals. These goals create the groundwork and will help guide transportation decisions by the City for the next 10 years. Every strategy and action will support one or more of these six goals:



Climate

Reshape the transportation system to address climate change, using technology, design and mobility options to aggressively reduce greenhouse gas emissions caused by vehicles

Safety

Reach Vision Zero by prioritizing safety for all people and eliminate traffic fatalities and severe injuries by 2027

Equity

Build and operate a transportation system that contributes to equitable opportunities and outcomes for all people

Prosperity

Provide mobility options that move people and goods through reliable connections; retain top talent and grow Minneapolis as the economic engine of the region

Mobility

Embrace and enable innovation and advances in transportation to increase and improve mobility and access options for all

Active Partnerships

Create and seize opportunities to achieve shared goals and responsibilities through partnering and leveraging funding opportunities with national and regional partners and others who invest in the city

Strategies and Actions

The strategies and actions in this action plan reflect a tension that exists in the street that results from competing uses for limited right of way. Reaching our transportation goals requires strategic action. Listed in this plan are 55 strategies and 283 actions that we plan to undertake in the next 10 years.

Each strategy is followed by several actions, detailing how we, along with our partners, will make tangible improvements on our streets. To reflect Minneapolis goals and values in our streets, the strategies and actions within this plan are focused on seven topics:

PROMOTE A SAFE AND INVITING WALKING AND ROLLING ENVIRONMENT

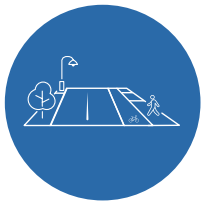
INCREASE THE AVAILABILITY AND SAFETY FOR BICYCLING AND MICROMOBILITY TRAVEL

DEFINE THE MINNEAPOLIS TRANSIT NETWORK

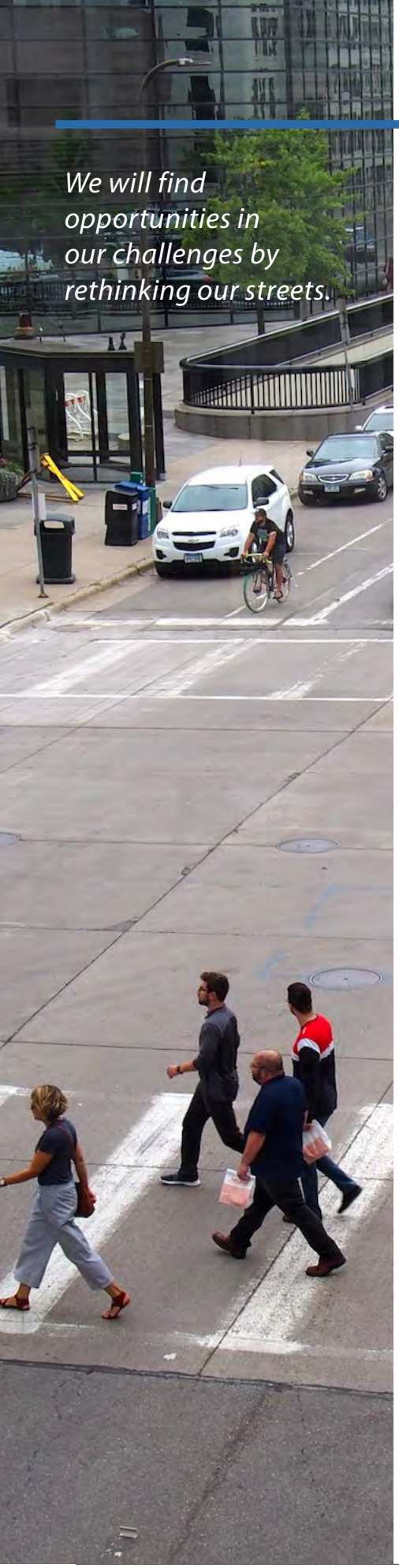
INVITE NEW TECHNOLOGY TO ADVANCE TRANSPORTATION OPTIONS

MANAGE INCREASED FREIGHT NEEDS WHILE PRESERVING THE STREET

IMPROVE STREET OPERATIONS AND ADDRESS COMPETING DEMANDS



DESIGN FOR PEOPLE



Plan Highlights

The TAP calls for action over the next 10 years to leverage our streets to reach citywide goals. When implemented, the actions in the TAP will help us create more travel options for more people.

1. **Reach a mode share goal** in pursuit of our climate goals where 3 of every 5 trips are taken by walking, rolling, bicycling or transit.

2. **Improve the experience of people walking and rolling** on our streets, with the creation of a plaza program, the inclusion of pedestrian lighting on all street reconstruction projects and actions focused on safer street crossings.

3. **Realize a City-led transit vision** that makes taking transit a more attractive and affordable option for more people.

4. **Expand transit coverage** so that 75% of residents are within a 5-minute walk of high frequency transit and 90% are within a 10-minute walk; **implement transit advantages** along all the high frequency transit corridors.

5. Use street design to **provide a more comfortable and healthier environment** for people – including more green infrastructure and trees in street projects.

6. **Act quickly to improve our streets**, focusing on paint and lower-cost infrastructure improvements to make change that improves street design and operations.

7. **Increase the All Ages and Abilities Network nearly twofold**, focusing on a low-stress and protected bicycle and micromobility network for all system users.

8. **Update the Complete Streets Policy** to incorporate freight, micromobility and green infrastructure.

9. **Adopt a strong curbside management policy** to prioritize space for people and value the competing demands for curb space.

10. **Implement a network of mobility hubs** where people can connect to multiple shared transportation options – like transit, bikes, scooters and cars.




INTRODUCTION

The Transportation Action Plan in context

The Minneapolis Transportation Action Plan (TAP) is a 10-year action plan to guide future planning, design and implementation of transportation projects for all people however they choose to move around.

The TAP supports the bold policies adopted in the Minneapolis 2040 Comprehensive Plan, which identifies transportation as a critical component to increase equity, address climate change, reduce carbon emissions, improve human health through improved air quality and increased active travel and enable the movement of people, goods and services across the City of Minneapolis (the City). How we achieve the vision of Minneapolis 2040 depends upon our ability to define and then realize the value of our Minneapolis streets. Approximately 22% of the land area of the city is held in trust for the public within our streets (often called the public right of way). The TAP seeks to unlock the potential of our streets as places for people and as an invaluable asset for broader outcomes achieved by making the right investments in our transportation network. Our streets need to reflect our values of creating a more sustainable, equitable, safe and prosperous city; the set of strategies and actions contained within this plan strives to make every journey contribute to that vision.

TRANSPORTATION CHALLENGES

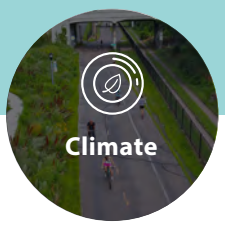
We can face our challenges by rethinking our streets. Minneapolis is a city that experiences disparities of wealth based on race. We are a cold weather city that experiences heavy snow, ice and rain storms. We have largely devoted our streets to the ease of access for vehicles over the past hundred years; as a result, pedestrians, people on bikes and people in cars die and suffer life-altering injuries each year. We are both contributing to climate change as well as experiencing the effects. These challenges cannot be solved through transportation alone, but the way the City plans and provides for transportation choices has an impact on all of them.

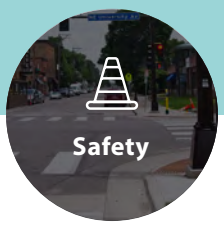
GOALS TO GUIDE TRANSPORTATION DECISIONS

There are six transportation goals that guide the strategies and actions developed in this plan: climate, safety, equity, prosperity, mobility and active partnerships.

Links to Minneapolis 2040 goals

The goals in the TAP relate directly to the goals of Minneapolis 2040 and further refine the transportation contributions to reaching these broader citywide adopted goals. Appendix C illustrates the alignment between the transportation goals and the 14 goals of Minneapolis 2040.





CLIMATE

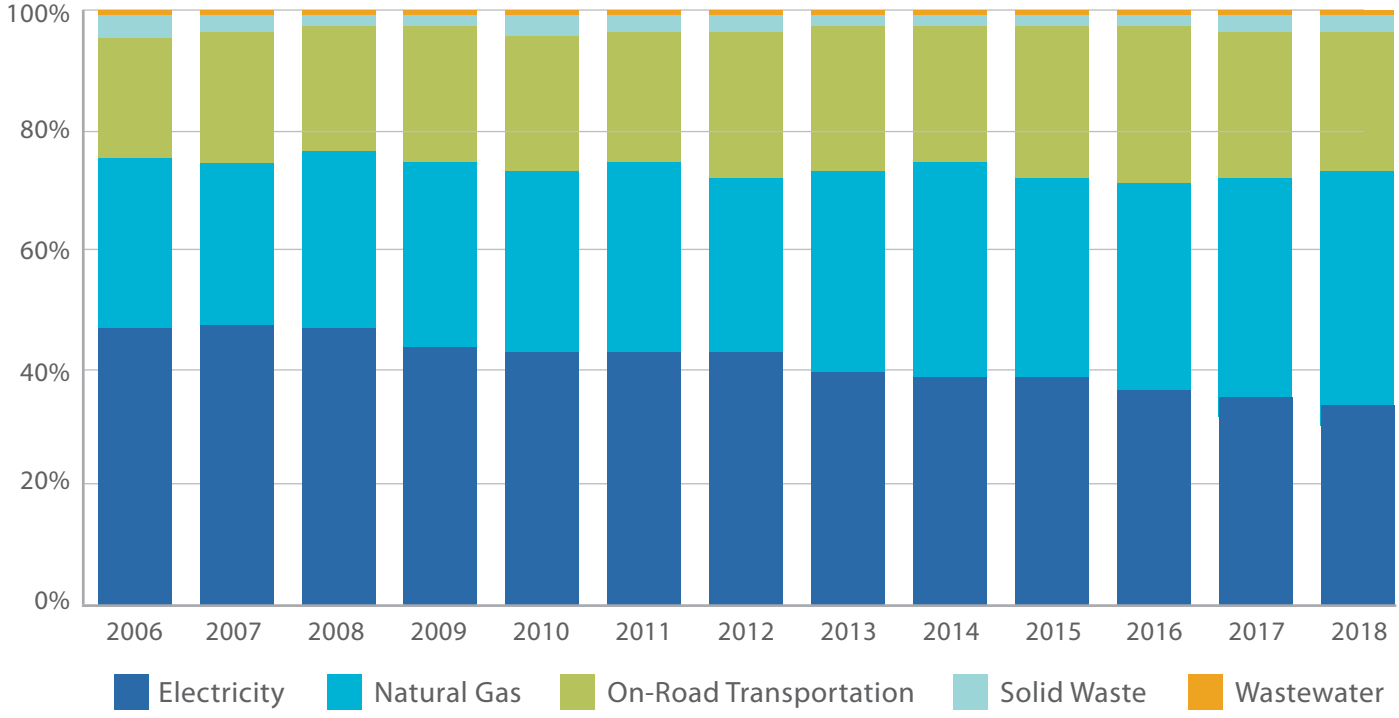
Reshape the transportation system to address climate change using technology, design, and mobility options to aggressively reduce greenhouse gas emissions caused by vehicles.

Minneapolis has set a goal of reducing our greenhouse gas emissions by 80% by the year 2050.[1] Emissions from on-road transportation account for approximately 24% of greenhouse gas emissions in Minneapolis.[2] Even with mass adoption of electric cars, Minneapolis will need to reduce automobile passenger miles by 38% to reach our goal of reducing greenhouse gas emissions by 80% by 2050.[3]

To reach our citywide climate goals, we will need to change how we move around. We will need to improve options for transit, walking and bicycling and we'll need to rapidly electrify fleets. As our population continues to increase, every effort will support reducing miles traveled in single occupancy and high-carbon vehicles because the health of our city and our climate depends on it.

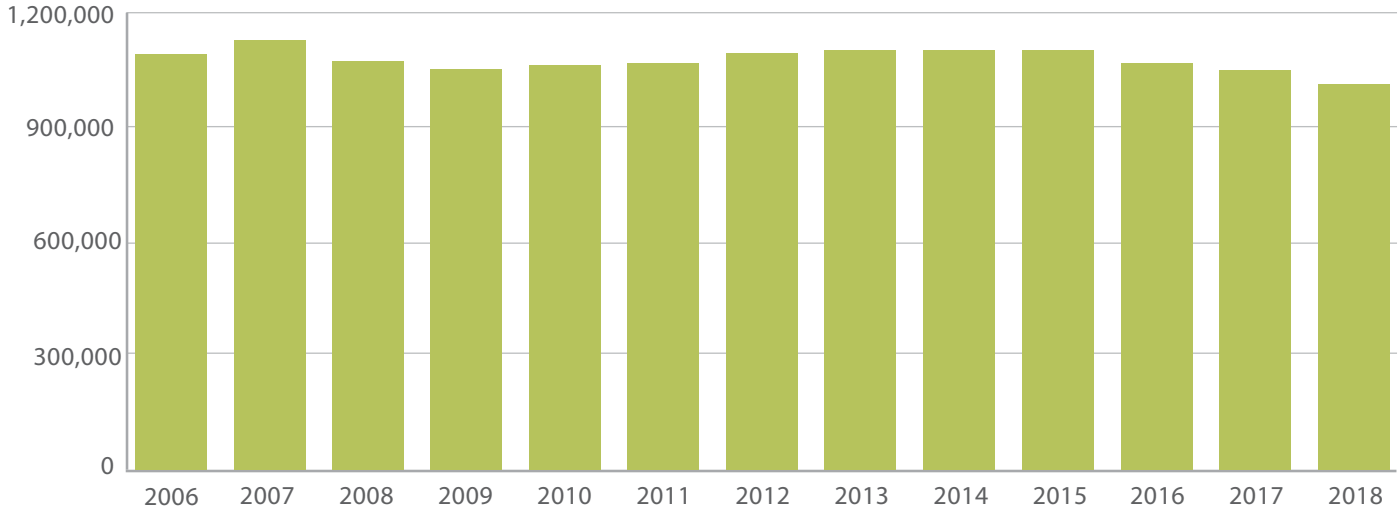
[1] City of Minneapolis Climate Action Plan (2013). 2006 baseline year for 80% reduction.
[2] Citywide Greenhouse Gas Emissions Inventory (2018)
[3] Minneapolis 2040

Figure 1: Citywide emissions by type: Transportation accounts for 24% (2018)



Source: Citywide Greenhouse Gas Emissions Inventory (2018)

Figure 2: Total emissions (metric tons of carbon dioxide) from on-road transportation



Source: Citywide Greenhouse Gas Emissions Inventory (2018)

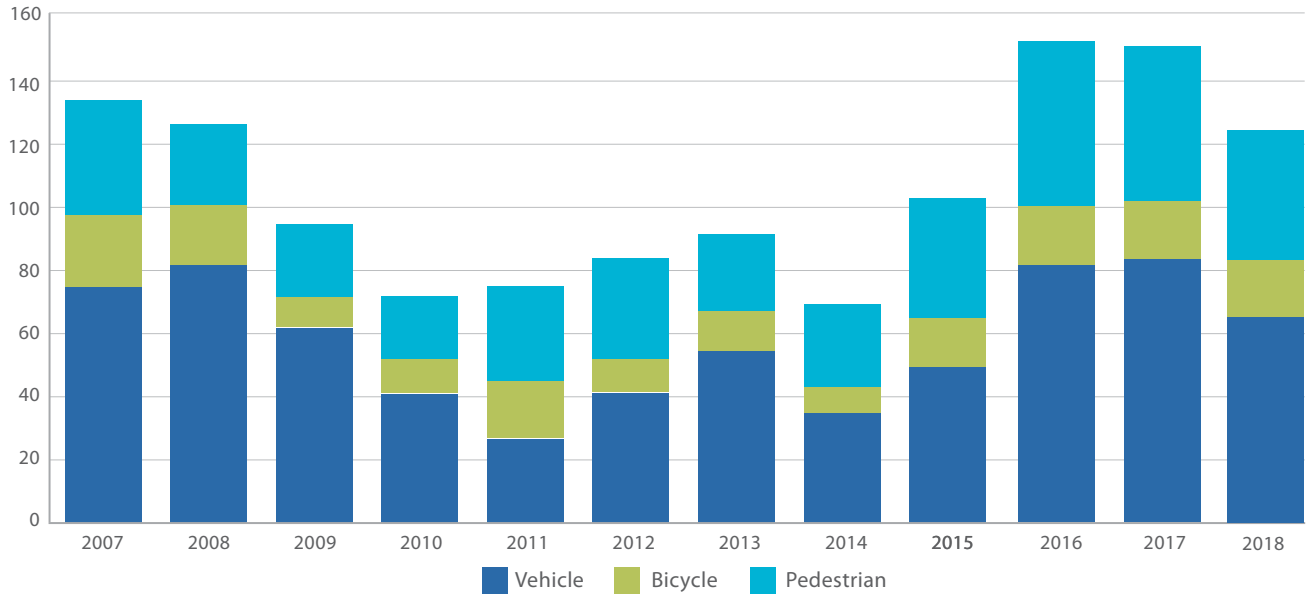
SAFETY

Reach Vision Zero by prioritizing safety for all people and eliminate traffic fatalities and severe injuries by 2027.

In 2017, the City adopted a Vision Zero Policy which commits to zero traffic-related fatalities and severe injuries by 2027. It is unacceptable that people die in traffic crashes on our streets. We are committed to improving safety on Minneapolis streets for all people.

Every year from 2007-2016, an average of 95 people either died or experienced a life-altering injury on streets in Minneapolis.[4] These injuries are disproportionately suffered by those walking and bicycling, in lower income neighborhoods, and by our Native American population.[5] Our strategies and actions directly address these inequities by focusing on ways to improve conditions for those most impacted. Transitioning automobile trips to walking and bicycling requires safe streets for these users and makes progress toward our climate goal. The City has a 2020-2022 Vision Zero Action Plan which details citywide actions and initiatives to make progress on our goal to end traffic fatalities and severe injuries by 2027.

Figure 3: Fatal and severe injury crashes*



*The Department of Public Safety expanded the definition of "serious injury" for crash reports starting in 2016 to align with federal standards, which makes it impossible to directly compare data before and after 2016.

Source: City of Minneapolis Vision Zero Crash Study (2018)

[4] City of Minneapolis Vision Zero Crash Study (2018), Minneapolis Public Works and MnDOT
[5] City of Minneapolis Vision Zero Crash Study (2018)

EQUITY

Build and operate a transportation system that contributes to equitable opportunities and outcomes for all people.

Equity translates to fair and just opportunities and outcomes for all people. The City is committed to the development of policies, practices and strategic investments to reverse racial disparity trends, eliminate institutional racism, and ensure that outcomes and opportunities for all people are no longer predictable by race.[6] Transportation is a critical part of this work.

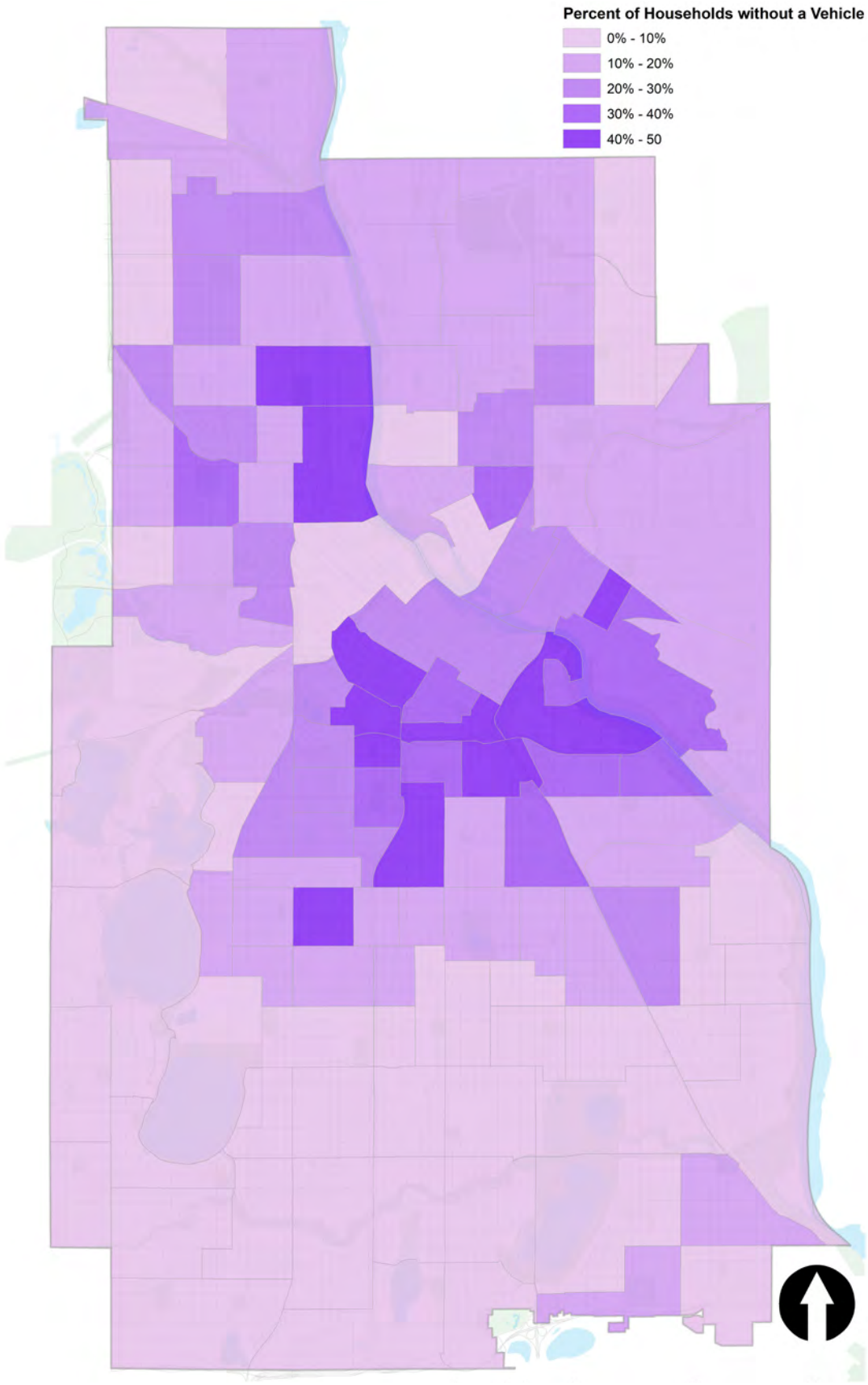
Not all people have the same access to transportation. More than one of every six people in Minneapolis (16.5%) live in a household without an automobile.[7] In some neighborhoods as many as 40-50% of households don't have access to a vehicle. While some households choose not to own a car, there are many households that cannot afford to do so. Transportation is one of the top two household costs, accounting for approximately 19% of household income in Minneapolis.[8]

One of the goals of this plan is to reduce single occupancy and high-carbon motor vehicle trips, but the current transportation network affords more opportunities to those who can purchase a car, such as access to more jobs. To design, build and operate an equitable transportation system, it is imperative that we focus on underserved communities that are in need of expanded, improved and affordable mobility options.

Additionally, 11% of Minneapolis residents self-report a disability, which may present mobility challenges.[9] Given these realities, the existing transportation system results in different challenges for different people. The approach to our work recognizes these realities and will help address them.

[6] City of Minneapolis (2017)
[7] Household Size by Vehicles Available, U.S. Census Bureau, 2013-2018 American Community Survey 5-Year Estimates
[8] 2013 American Housing Survey; American Community Survey 2009-2013 (5 year estimates)
[9] Disability Characteristics, U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimate

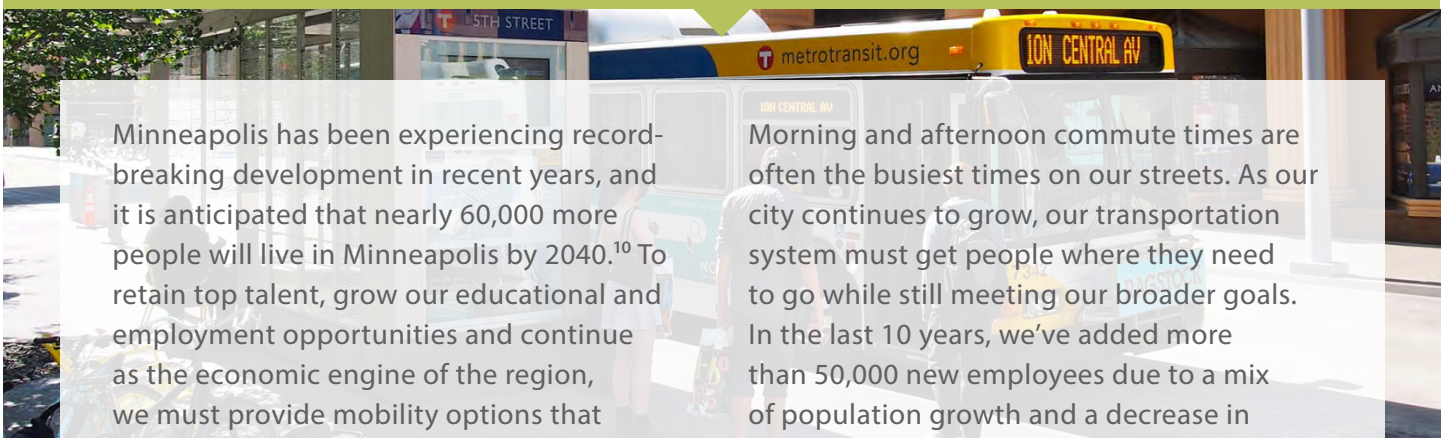
Figure 4: Households without access to a car, 2018



Source: 2018 American Community Survey 5-Year Estimates

PROSPERITY

Provide mobility options that move people and goods through reliable connections; retain top talent and grow Minneapolis as the economic engine of the region.

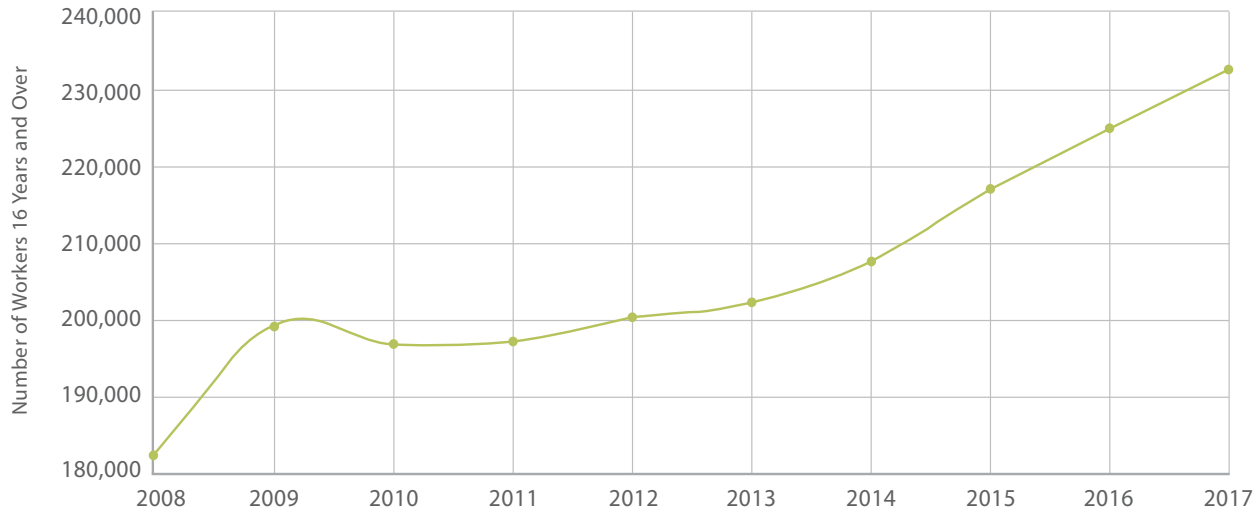


Minneapolis has been experiencing record-breaking development in recent years, and it is anticipated that nearly 60,000 more people will live in Minneapolis by 2040.[10] To retain top talent, grow our educational and employment opportunities and continue as the economic engine of the region, we must provide mobility options that reliably move people, goods and services (including utilities) throughout the city while significantly reducing our climate footprint.

Connecting people to jobs makes our region and city more competitive. Companies are increasingly choosing where to relocate based, in part, on the transportation choices that will be available to their employees. Increasing the number of jobs accessible by transportation options also supports individual prosperity, helping our city reach goals of equity and economic inclusion.

Morning and afternoon commute times are often the busiest times on our streets. As our city continues to grow, our transportation system must get people where they need to go while still meeting our broader goals. In the last 10 years, we've added more than 50,000 new employees due to a mix of population growth and a decrease in unemployment, from 9% in 2010 to 5.5% in 2018.[11] This trend is expected to continue in the coming decades as well. With 60,000 more people anticipated by 2040, it is critical that we focus on mode shift and reducing total vehicle miles traveled so that every new person does not equate to one more car on our streets. As we deal with a growing city, it's important that we provide transportation options and services, as well as the supporting infrastructure, to ensure our streets are safe, environmentally friendly and accessible to everyone who lives, works or visits our city.

Figure 5: Minneapolis Commuting Population

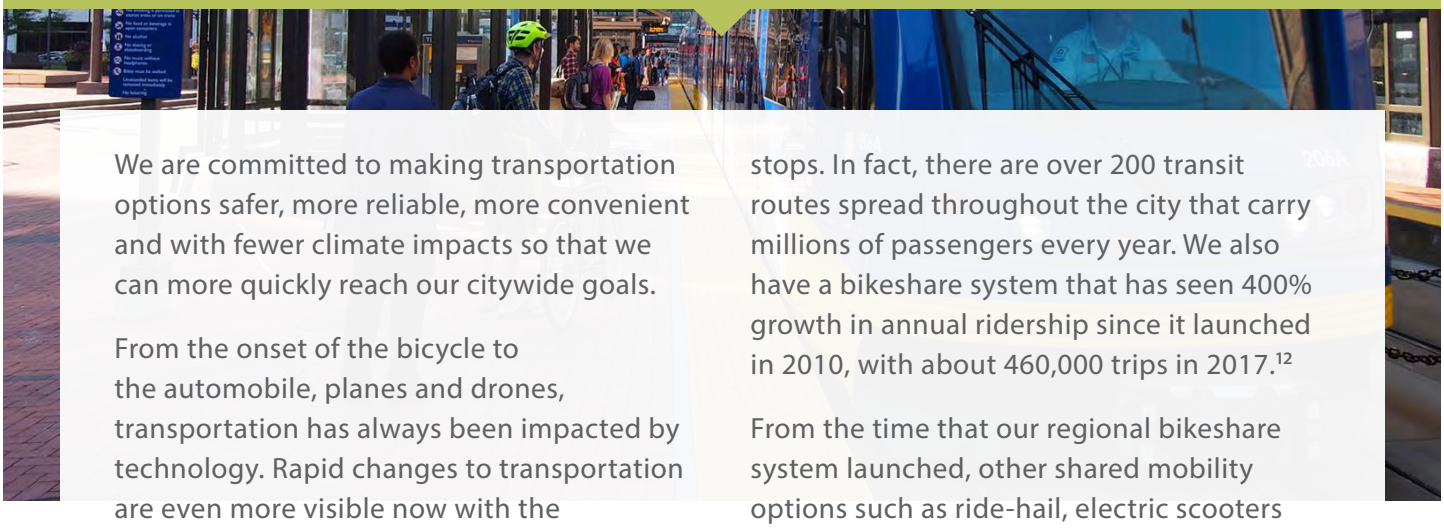


Source: American Community Survey 5-year estimates (2008-2017) and American Community Survey 3-year estimates (2008).

[10] Minneapolis 2040 and the Decennial Census, Metropolitan Council
[11] 2010 and 2018 American Community Survey 5-Year Estimates

MOBILITY

Embrace and enable innovation and advances in transportation to increase and improve mobility and access options for all.



We are committed to making transportation options safer, more reliable, more convenient and with fewer climate impacts so that we can more quickly reach our citywide goals.

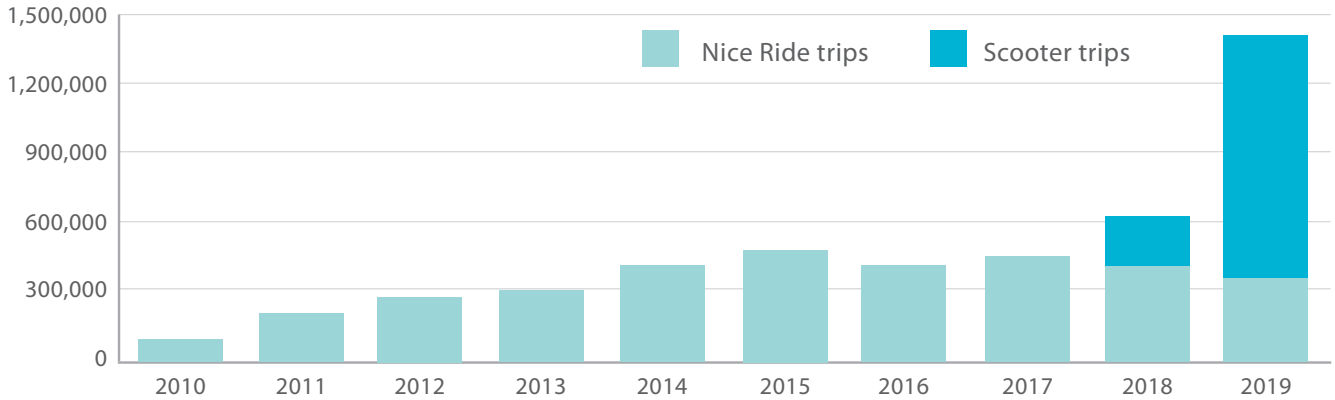
From the onset of the bicycle to the automobile, planes and drones, transportation has always been impacted by technology. Rapid changes to transportation are even more visible now with the introduction of bikesharing, ride-hailing, scooter sharing and car sharing options, all within the last 15 years. Predicting what might be next is challenging, but we know that if we stay committed to our goals, we can both anticipate and respond to change while harnessing technology to support the transportation future we want.

The City of Minneapolis has over 1,000 miles of streets and parkways that serve a variety of different types of mobility needs and transportation options. There are trips in and out of the city, between neighborhoods, or that serve as the last mile to and from transit stops. In fact, there are over 200 transit routes spread throughout the city that carry millions of passengers every year. We also have a bikeshare system that has seen 400% growth in annual ridership since it launched in 2010, with about 460,000 trips in 2017.[12]

From the time that our regional bikeshare system launched, other shared mobility options such as ride-hail, electric scooters and dockless bikeshare have emerged. In the summer of 2018, two scooter share companies brought their businesses to Minneapolis. During the first season of operation, these companies reported about 210,000 scooter trips in 2018.

In recent years, there have also been efforts to accommodate electric vehicles. As these mobility options continue to emerge, the City will be evaluating these options to ensure they are equitably and safely operated, work to support our mode share goals and that the City's infrastructure can support the move from fossil fuel to renewable energy options.

Figure 6: Nice Ride trips (system-wide) and scooter trips in Minneapolis



Source: Nice Ride Minnesota (2019) and Minneapolis scooter pilot program data (2019)

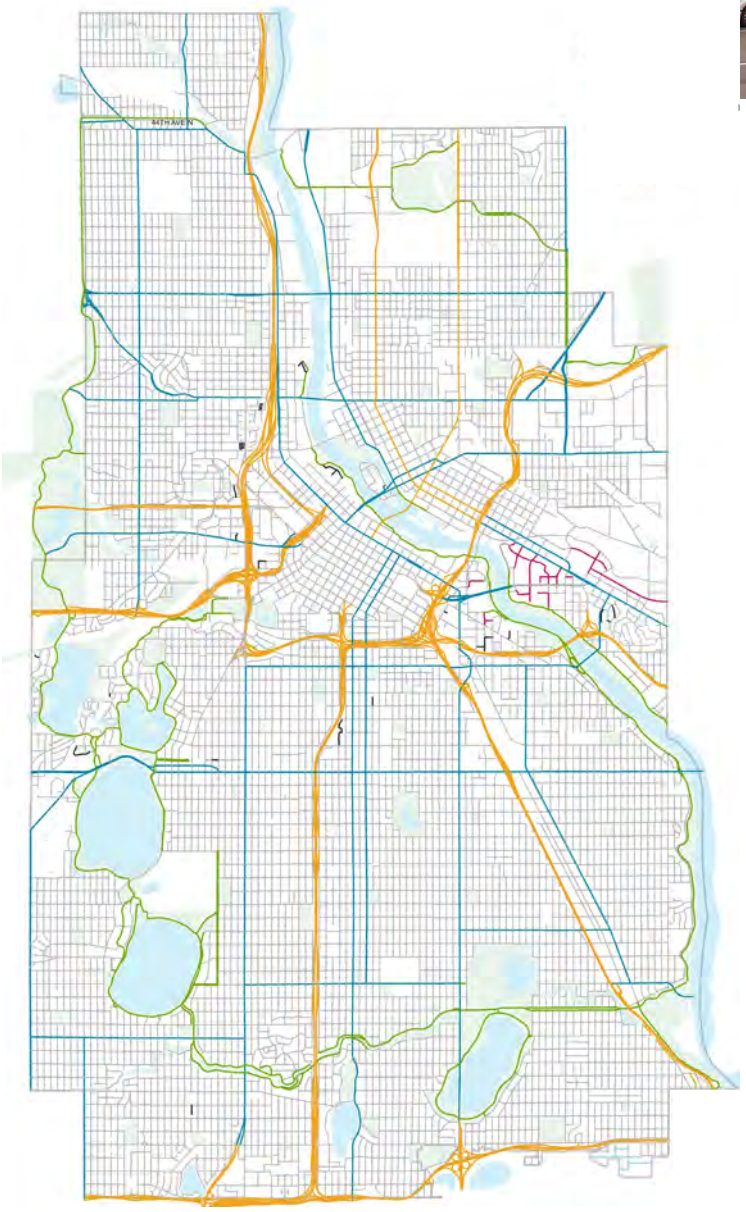
[12] Nice Ride Minnesota (2019)

ACTIVE PARTNERSHIPS

Create and seize opportunities to achieve shared goals and responsibilities through partnering and leveraging funding opportunities with national and regional partners and others who invest in the city.

Government, businesses, developers, community organizations, residents and visitors are all partners in achieving our transportation goals. The City and our agency partners hold in trust the public right of way (often referred to as streets), which comprises 22% of the available land area.[13] The City has a commitment to Vision Zero and Complete Streets, and we need to work with our partners to create a more seamless transportation system that allows people to use streets as routes, places and destinations – no matter which governmental agency manages the right of way.

Figure 7: Jurisdictional map



Source: Minneapolis Public Works, 2019

[13] City of Minneapolis Parcel, Parks, and Waterway Data

Structure of the TAP

RELATIONSHIP TO OTHER PLANNING EFFORTS

To reflect Minneapolis goals and values in our streets, the strategies and actions within this plan are focused on seven topics:

PROMOTE A SAFE AND INVITING WALKING AND ROLLING ENVIRONMENT: The plan identifies actions to make it easier, safer and more comfortable for people to get around walking or rolling using a wheelchair, stroller or other assistive mobility device. Actions are focused on a Pedestrian Priority Network. All future references to "walking" in this document are inclusive of "walking and rolling" as defined above.

INCREASE THE AVAILABILITY AND SAFETY FOR BICYCLING AND MICROMOBILITY TRAVEL: With an emphasis on establishing a low-stress network for all ages and abilities, the plan focuses on making the choice to bike or take other micromobility options easier for more people, as well as improving safety and comfort for those who ride.

DEFINE THE MINNEAPOLIS TRANSIT NETWORK: A quarter-million transit trips begin, end or travel through Minneapolis each weekday. Transit is a critical part of the City's transportation network; the plan outlines strategies and actions to support a reliable, convenient and comfortable public transit network.

INVITE NEW TECHNOLOGY TO ADVANCE TRANSPORTATION OPTIONS: Technology is changing the way we travel. The plan defines how to integrate technology and new business and service models. Shared scooters, bicycles and electric vehicles are examples of new mobility options.

MANAGE INCREASED FREIGHT NEEDS WHILE PRESERVING THE STREET: Freight is a critical component of our economy. The plan considers how raw materials, food and packages are delivered to people and businesses every day in our city with strategies and actions to improve the sustainable and efficient movement of freight to, from and through Minneapolis.

IMPROVE STREET OPERATIONS AND ADDRESS COMPETING DEMANDS: This topic further defines how the City's Complete Streets Policy, commitment to Vision Zero and transportation goals come together into daily operations and transportation system planning. It provides a foundation for evaluating competing demands within limited street space by taking a comprehensive, people-first approach.

DESIGN FOR PEOPLE: Streets are important community public spaces where we live, gather, travel, shop or wait for the bus, on a daily basis. We aim to design, build and maintain streets that are safe, functional and support the movement of people and goods throughout the city. Actions in this topic focus on the many ways streets need to serve people through design. The City's Street Design Guide (to be released in 2020) is a companion document to the TAP and will identify street typologies and provide guidance for how we approach design on all streets within the city, with the exception of freeways.

THE TAP REPLACES ACCESS MINNEAPOLIS

The TAP replaces Access Minneapolis, and all its parts, in full. Access Minneapolis was developed between 2007-2011, with updates as recently as 2017. Access Minneapolis includes:

- Downtown Action Plan
- Citywide Action Plan
- Design Guidelines for Streets and Sidewalks[14]
- Streetcar Planning
- Pedestrian Master Plan
- Bicycle Master Plan

THE TAP IN RELATIONSHIP TO THE VISION ZERO ACTION PLAN?

The City adopted a Vision Zero Action Plan in December 2019 that identifies strategies and actions across multiple City departments to make progress toward our goal of zero traffic-related deaths and severe injuries; the initial plan is for years 2020-2022 and will be updated as we make progress toward our goal. The TAP and its strategies and actions support the Vision Zero Action Plan by building off the work outlined in that plan. The specific Vision Zero strategies and actions are not repeated verbatim in this document, but rather assumes the City is working toward the strategies and actions in both plans simultaneously. Those strategies and actions articulated in the Vision Zero Action Plan are set for completion by 2022.

THE TAP'S INFLUENCE ON PROJECT PRIORITIZATION AND CAPITAL PROJECT DEVELOPMENT

The City prioritizes capital projects through the process and criteria identified as a part of its 20 Year Streets Funding Plan and publishes its multi-year plan of programmed projects annually through the Capital Improvement Program process. The TAP identifies new projects and programs that will be incorporated into the City's existing approach to prioritizing, programming and delivering transportation projects. Many projects in the TAP will require additional resources – staff time or funding – including those identified for near-term implementation (see Quick results section). The detail provided in the action plan also allows for us to apply for grant funding opportunities and potentially leverage other regional or national partnerships to achieve the actions identified.

FISCAL PLANNING AND IMPLICATIONS

The TAP is not a fiscally constrained plan. There are strategies and actions with large financial impacts on the City and its partners. While we understand additional resources are needed, we are also adjusting our existing delivery of capital projects and programs to reflect the strategies and actions outlined and to capitalize on opportunities to value-engineer and creatively finance initiatives.

[14] The Design Guidelines for Streets and Sidewalks will remain in effect until the completion of the Street Design Guide, which is anticipated to be complete in 2020.

RELATIONSHIP TO OTHER CITY AND REGIONAL PLANS

Metropolitan Council Transportation Policy Plan

The Metropolitan Council developed a Transportation Policy Plan as a part of its regional development guide, Thrive MSP 2040, which sets the direction for the region's growth and development. The most recent update to the Transportation Policy Plan was October 2018. The Transportation Policy Plan is a fiscally constrained plan that identifies regionally important projects. The TAP supports the Transportation Policy Plan and goes further to identify projects, some with regional impacts, which are important to the City of Minneapolis. Identification of some projects in the TAP may be incorporated into the Transportation Policy Plan in the future, in either the fiscally constrained portion or an increased revenue scenario.

Metro Transit Network Next

Metro Transit is an operating division of the Metropolitan Council and is the regional transit agency that operates most, but not all, of the transit service in Minneapolis.[15] Metro Transit is currently developing a plan to guide the expansion of the regional bus network, called Network Next, and will develop a prioritized vision for the bus network of 2040, including the local and express bus network, arterial bus rapid transit network and service quality investments like speed and reliability improvements and customer facilities.

The transit strategies and actions have been developed in coordination with Metro Transit and will be coordinated with the Network Next effort.

Minneapolis ADA Transition Plan for Public Works

The Minneapolis Americans with Disabilities Act (ADA) Transition Plan for Public Works details how the City complies with the 1990 Americans with Disabilities Act. The TAP works in tandem with the ADA Plan; as such, all projects and programs identified in the TAP will comply with the ADA. This plan goes further in identifying ways the City can create greater access through improvements to our transportation network.

20 Year Streets Funding Plan

The 20 Year Streets Funding Plan (approved in 2016, updated in 2018) details the process and criteria for how the City selects street improvement projects for inclusion in the annual Capital Improvement Program. The 20 Year Street Funding Plan is not superseded by the TAP; rather, the TAP helps inform how we design and operate our streets, as well as identifies additional projects outside of the typical reconstruction process that are prioritized for development. The City remains committed to prioritizing the Capital Improvement Program through a data-driven process that prioritizes equity as well as asset condition.

[15] Other transit service is provided by Minnesota Valley Transit Authority, SouthWest Transit and other transit providers that serve cities and counties in the region who opted-out of Metro Transit service.

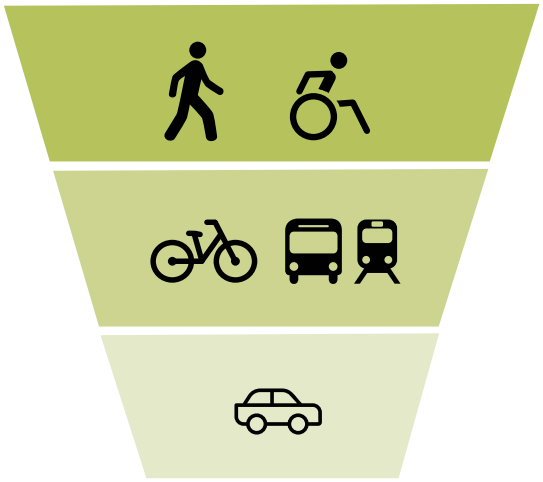
Policies that frame the Transportation Action Plan

In addition to the Minneapolis 2040 Plan, two key transportation policies help direct the goals, strategies and actions of the TAP. The Complete Streets Policy and Vision Zero Policy provide key guidance to frame all the work detailed in the TAP.

COMPLETE STREETS POLICY

The City of Minneapolis adopted a Complete Streets Policy in May, 2016. The Policy establishes a modal hierarchy that holds throughout all phases of planning, design, construction and operations of our streets. The TAP proposes to update the Complete Streets Policy *(see street operations Action 1.1)* to reflect greater nuance in prioritization to accommodate the complexity of our streets. Thus far, this hierarchy has proved helpful within and outside of city government to explain and guide our work. The role of freight, new mobility options, storage of vehicles and stormwater management will be reflected in the updated Complete Streets Policy.

Figure 8: Complete Streets hierarchy



VISION ZERO

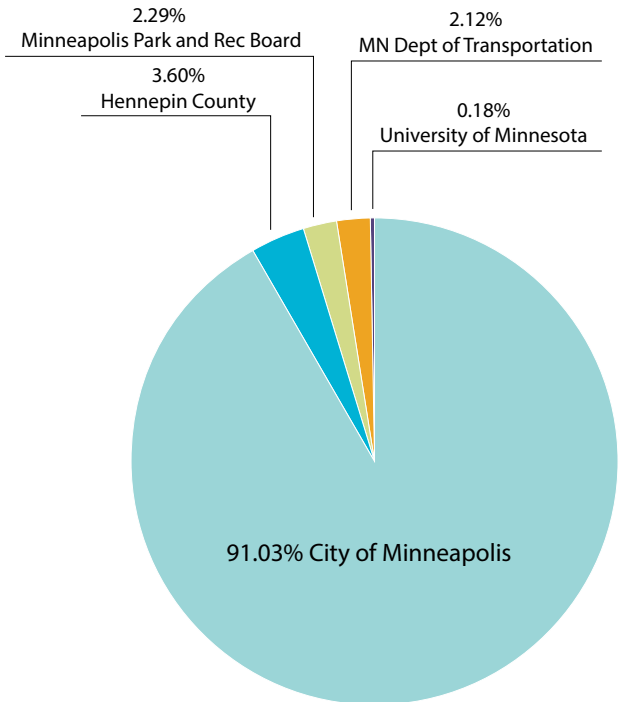
In 2017, the City adopted a Vision Zero Policy that committed to ending fatal and severe injuries on our streets within 10 years. This steadfast commitment to safety permeates throughout our plan; the work we do aims to reach Vision Zero and focus on those who are disproportionately impacted by traffic crashes (e.g., those walking, biking, Native Americans and those in ACP50 areas - areas of concentrated poverty with the majority of residents people of color).

Key partnerships

AGENCY PARTNERSHIPS

The City cannot reach our goals without the support of other key agencies who own, operate and manage streets within the city. Hennepin County, the Minnesota Department of Transportation, the Minneapolis Park and Recreation Board and the University of Minnesota all hold critical roles in the way our streets function. While the reach of the TAP covers all streets within the city regardless of ownership, we acknowledge the jurisdictional roles and responsibilities of our partners regarding their streets.

Figure 9: Roadway jurisdiction



Source: Minneapolis Public Works, 2019

Hennepin County owns 85 miles of arterials within city boundaries, including some of our largest commercial corridors like Lake Street, Lowry Avenue, parts of Lyndale Avenue and West Broadway.

The Navy owns about 1.5 miles of streets near the southern border of the city, though they are restricted for private use.

The Minnesota Department of Transportation owns and operates 15 miles of state highways in Minneapolis and 30 miles of interstates, including 394, 94, and 35W.

Notable Minnesota Department of Transportation state highways include Central Avenue, Hiawatha Avenue, Olson Memorial Highway and University Ave NE.

The Minneapolis Park and Recreation Board (MPRB) owns and operates 55 miles of parkways within city boundaries.

These include most of the streets and trails along the lakes, river and creek, along with Kings Highway and other parkways like Saint Anthony Parkway and Minnehaha Parkway.

The University of Minnesota owns just over four miles of streets within city boundaries.

These include Pillsbury Drive SE, Delaware Street SE, Church Street SE, 23rd Avenue SE, Harvard Street SE, Walnut Street SE, 6th Street SE, 5th Street SE, Beacon Street, East River Parkway, 2nd Street S, Union Street SE, 21st Avenue S and the University of Minnesota Transitway.

Figure 10: Minnesota Department of Transportation state highway within Minneapolis

ORGANIZATION, INDUSTRY AND COMMUNITY PARTNERSHIPS

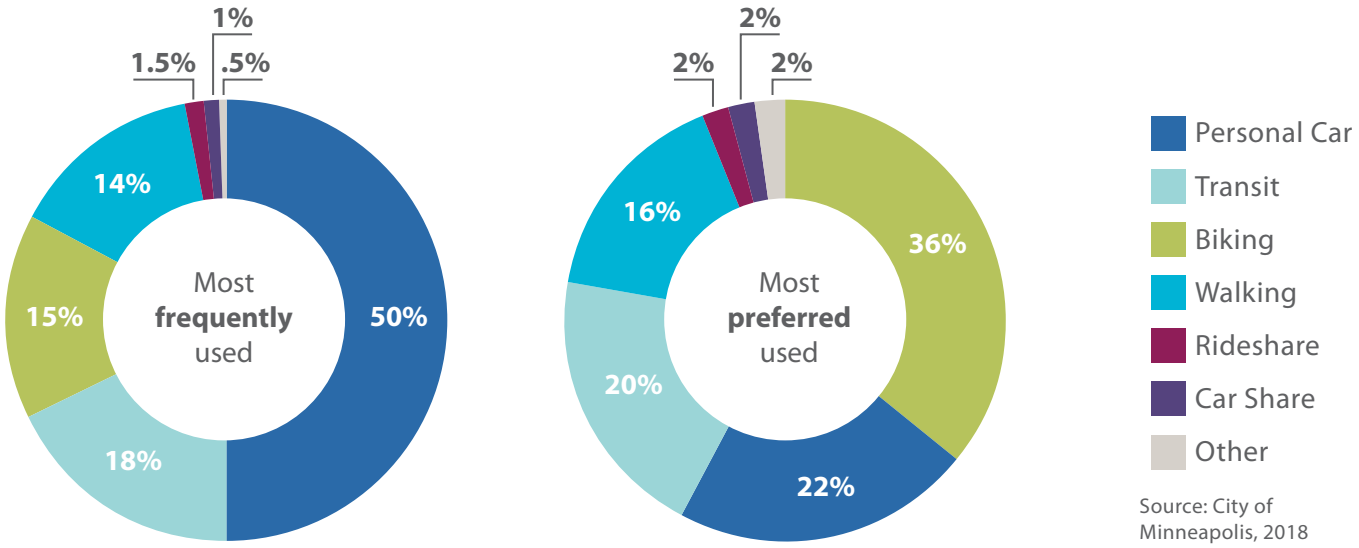
In addition to the agencies listed, the City has several key organizational, industry and business partnerships that will support us in achieving the strategies and actions outlined in this plan.

- Metro Transit is the operator of the regional transit system and delivered the transit service for 80.6 million trips systemwide in 2018, or an average of over 220,000 each day. They are a key partner in reaching our transportation vision in Minneapolis.
- Mobility providers – suburban transit providers, private ride-hailing companies and shared-micromobility companies are all partners in offering non-single occupancy travel options. These service providers offer new mobility options that promote equity and improve mobility, while transitioning dependency from the private car.
- The Twin Cities Shared Mobility Collaborative focuses on regionally advancing shared mobility and is a partner in advancing new mobility options.
- Philanthropic foundations are partners in our pursuit of data-driven decision-making and regional and national collaboration, particularly in the strategies and actions related to inviting new technology and advancing transportation options.
- Private industry, including freight shippers and business owners, are key partners for many of our freight strategies and actions.
- Private property owners and building managers are partners for maintaining and improving our pedestrian network, particularly when it comes to winter maintenance. They are also partners in coordinating improved freight deliveries. Private developers and the Department of Community Planning and Economic Development are key partners related to implementing private sector related improvements through the development review process and other land use related strategies and actions.
- The University of Minnesota and other research institutions are key partners for freight and other data or research related partnerships.

How people move in Minneapolis

We surveyed over 5,000 people during the summer of 2018 to ask how they most often travel and how they would prefer to travel. What we heard was that half typically travel by car (50%), but many of those same people would prefer to travel more by biking (36%) and transit (22%). Every category (transit, biking, walking, rideshare, car share and other) saw an increase in desired travel mode versus current way of travel except for the private car.

Figure 11: How I travel vs. how I want to travel



Source: City of Minneapolis, 2018

The City has several policies that aim to provide people with a wide variety of transportation options that are safe, sustainable, convenient and accessible. This includes Minneapolis 2040, our Complete Streets Policy, our Climate Action Plan and our Vision Zero Policy. One of the commonalities between these plans and associated policies is that they all aim to reduce the number of trips that people take in single occupancy vehicles.

Trends from various sources show that we are making progress toward reducing single occupancy vehicle trips. Despite a growth in population we have managed to keep the number of vehicle miles traveled at the same level, which shows that people are driving less per capita.[16] Based on our annual bicycle and pedestrian counts we have seen steady increases at our count locations over the past 10 years.[17] From census data we can see that younger generations are driving less than older generations.[18]

While there is reason to celebrate these trends, the pace at which people are reducing their driving is far too slow to reach our goals.

[16] Between 2008 and 2018 the annual VMT in Minneapolis decreased from 2.44 billion miles to 2.37 billion miles. In the same time, the annual VMT per capita decreased from 7,189 miles to 5,567 miles. Source: Minnesota Department of Transportation Traffic Data Reports. During this time frame population increased from about 384,000 to over 425,000.

[17] Walking and Biking in Numbers

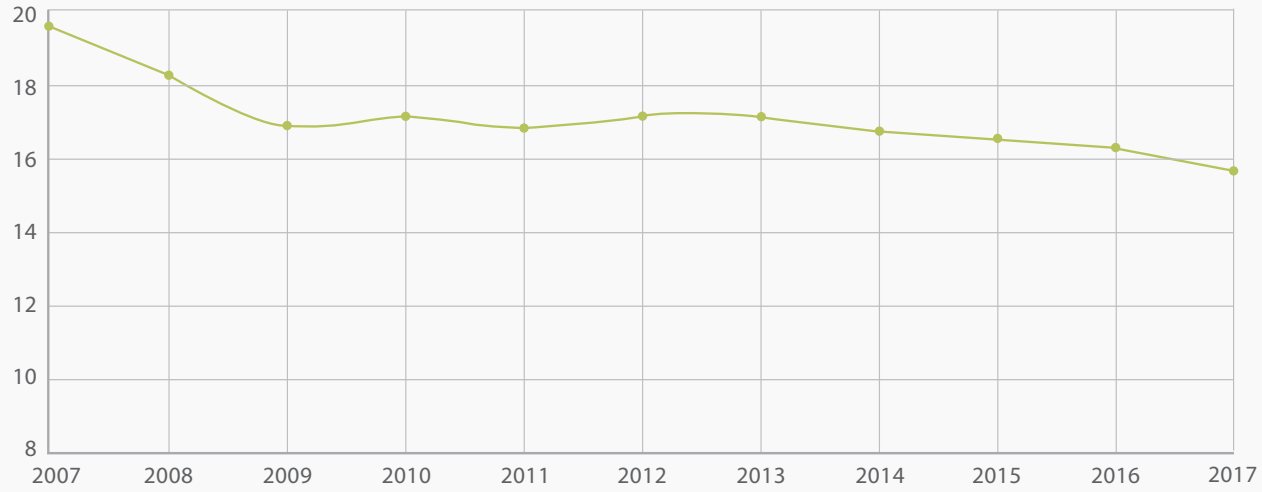
[18] 2018 American Community Survey 5-Year Estimates

A SNAPSHOT IN TIME: OUR STARTING POINT FOR TRAVEL TRENDS IN MINNEAPOLIS

People are driving less

In the last decade the average number of miles driven per person each day has decreased by about three miles.

Figure 12: Average daily vehicle miles traveled per person in Minneapolis

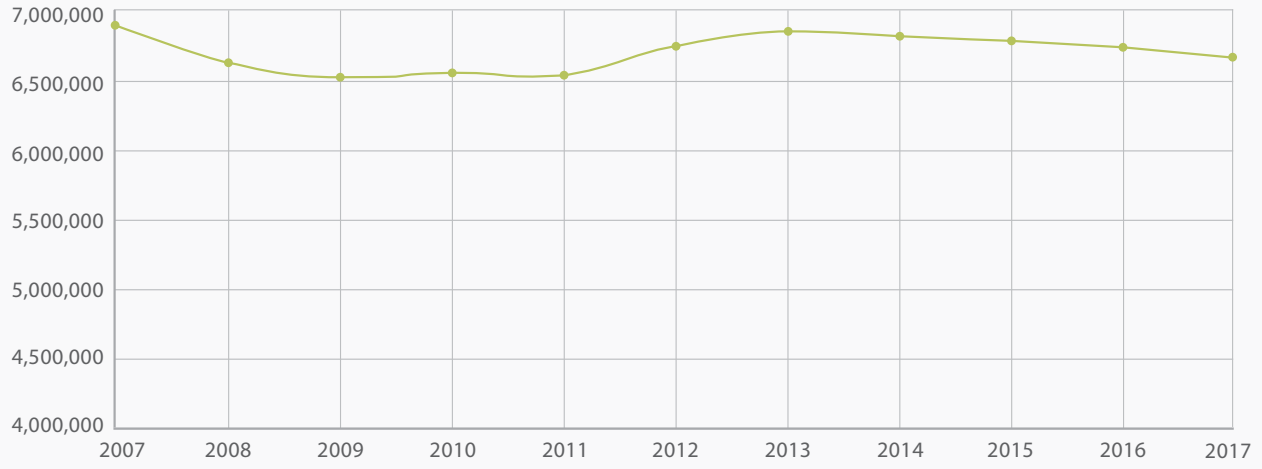


Source: Minnesota Department of Transportation Traffic Data Reports, 2007-2017

Despite a rise in population, total vehicle miles traveled has stayed relatively constant

Between 2010 and 2018 Minneapolis saw an increase of over 35,000 people.[19] Despite this growth in population, the total amount of vehicle miles traveled remains fairly constant.[20]

Figure 13: Average daily vehicle miles traveled



Source: Minnesota Department of Transportation Traffic Data Reports, 2007-2017

[19] Demographic and Housing Estimates, U.S. Census Bureau, 2010 and 2018 American Community Survey 1-Year Estimates

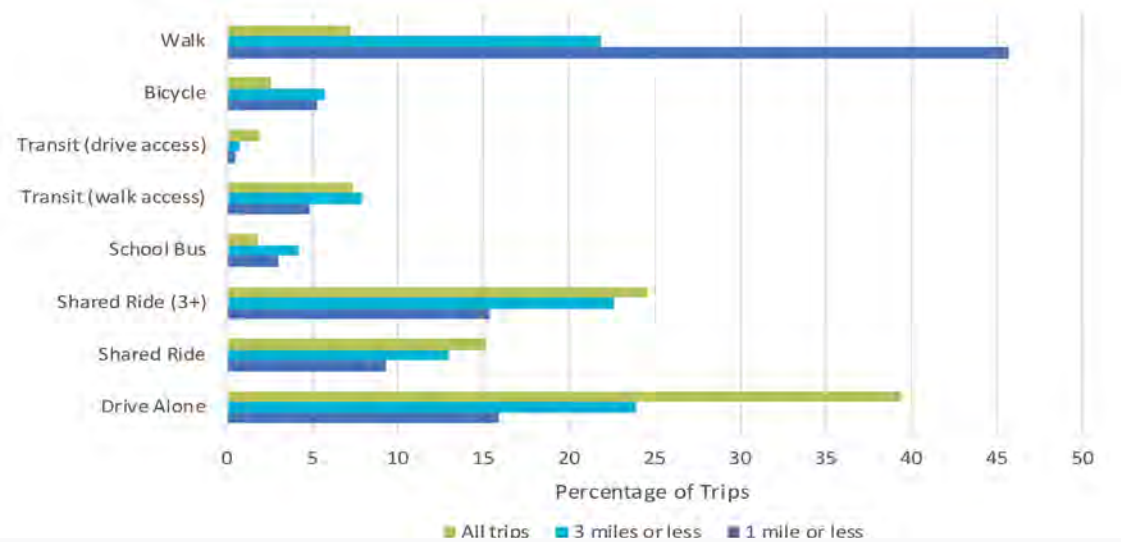
[20] Minnesota Department of Transportation, Roadway Data, VMT by Route System in each City within each County (2001-2014, 2016-2018)

A SNAPSHOT IN TIME: OUR STARTING POINT FOR TRAVEL TRENDS IN MINNEAPOLIS

People are more likely to walk, bike or take transit for shorter trips

The Metropolitan Council maintains a regional travel demand model. According to the model, for trips less than one mile people choose to walk 46% of the time and drive 16% of the time.[21]

Figure 14: Minneapolis trips beginning and/or ending in Minneapolis

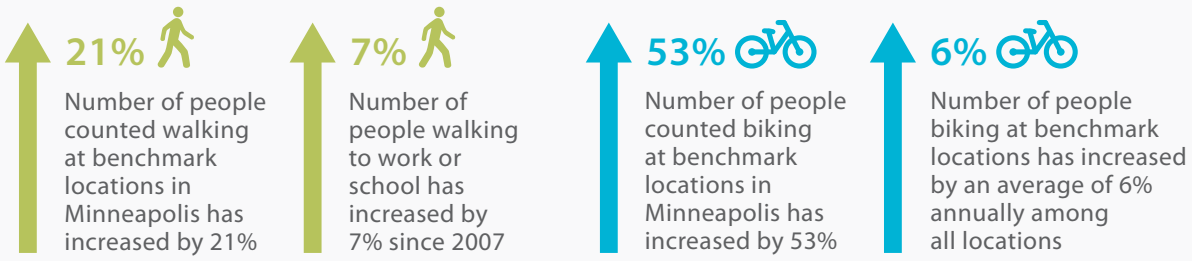


Source: Metropolitan Council Regional Travel Demand Model, 2015 Base Scenario

People are walking and biking more

The City has been collecting information about the number of people walking and biking at 30 benchmark locations since 2007. While the mode share for bicycling and walking stayed relatively constant over this period,[22] these counts show that the number of people walking and biking in Minneapolis has steadily risen over this period.

Figure 15: People walking vs. biking



Source: Walking and Biking in Numbers

[21] Metropolitan Council Regional Travel Demand Model, 2015 Scenario

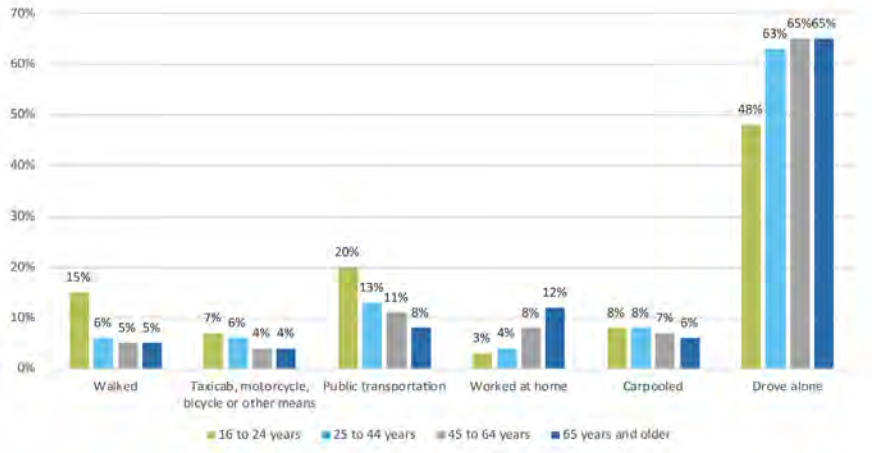
[22] 2010 and 2018 and American Community Survey 5-Year Estimates

A SNAPSHOT IN TIME: OUR STARTING POINT FOR TRAVEL TRENDS IN MINNEAPOLIS

Commute to work changes by age

According to the U.S. Census Bureau clear trends are seen connecting age and commute to work preferences. Younger workers more likely to travel to work by means other than driving alone. The likelihood of walking, taking a taxi, motorcycle, bicycle or other means, using public transit, or carpooling all decline with age, while the likelihood of working at home or driving alone to work all increase with age.[23]

Figure 16: Commute travel mode by age, Minneapolis residents

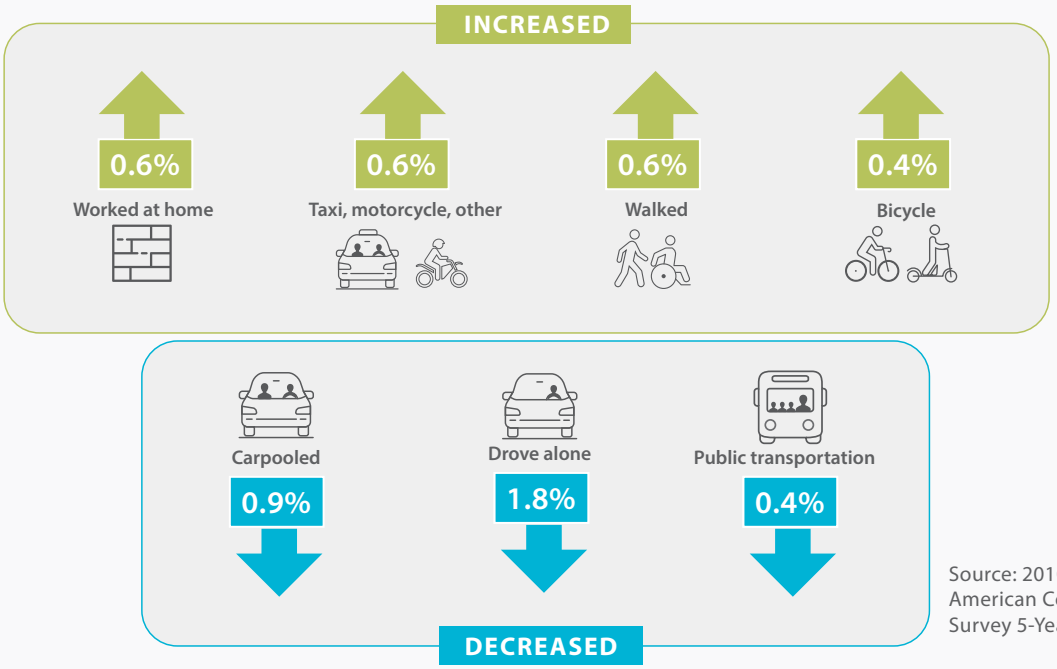


Source: 2018 American Community Survey 5-Year Estimates

Overall commute mode share has remained fairly constant

Between 2010 and 2018 the commute mode share to work stayed relatively constant.[24] While there was a slight decline in driving alone to work (-1.3%) and carpooling to work (-0.2%), there hasn't been a substantial shift in the way people get around.

Figure 17: Driving to work alone vs. carpooling to work



Source: 2010 and 2018 American Community Survey 5-Year Estimates

[23] Means of Transportation to Work by Age, U.S. Census Bureau, 2017 American Community Survey 5-Year Estimates

[24] American Community Survey 1-Year Estimates.

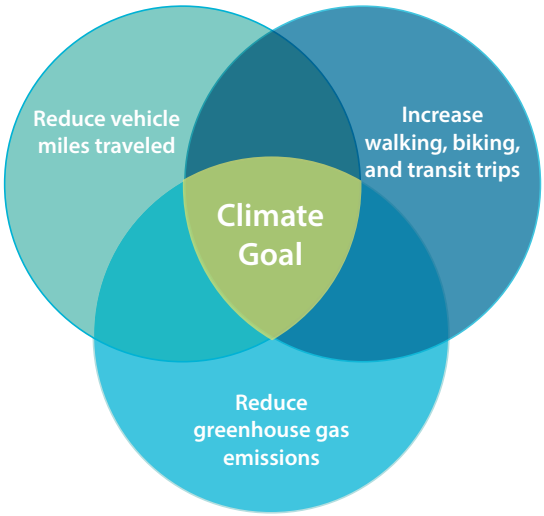



MINNEAPOLIS STREETS
in 2030

In 2030 our streets will reflect our City values. Our streets will be designed to address a climate emergency by emphasizing low- or no-carbon travel. Our streets will add protection for people walking and bicycling and will be designed to prioritize an effective transit system that serves all trips. Our streets will be organized to enhance access to jobs. Though our streets will continue to serve car traffic, our future depends on our ability to increase the city's population as projected in Minneapolis 2040 without the car traffic associated with growth. This plan does not eliminate places for people to drive, it simply rebalances space to incentivize and allow for low carbon transportation options.

To that end, there are three major metrics that we can monitor that reflect reaching our goals: mode shift, greenhouse gas reduction and reduction in vehicle miles traveled, which emphasize the TAP's focus on climate and equity.

Figure 18: Climate goal metrics



Shifting modes by 2030

Mode split measures the percentage of travelers using a particular type of transportation (walk, bike, transit, car) for a particular trip (work, school, errands). Mode split data is collected from the Metropolitan Council through the Travel Behavior Inventory, which has been collected every 10 years but will be collected more frequently moving forward. This dataset accounts for all trips taken by all people in a household.

Reflecting a reduction of car trips and an increase of walking, biking and transit trips is important to frame the strategies and actions of this plan, which is expressed as shifting modes.

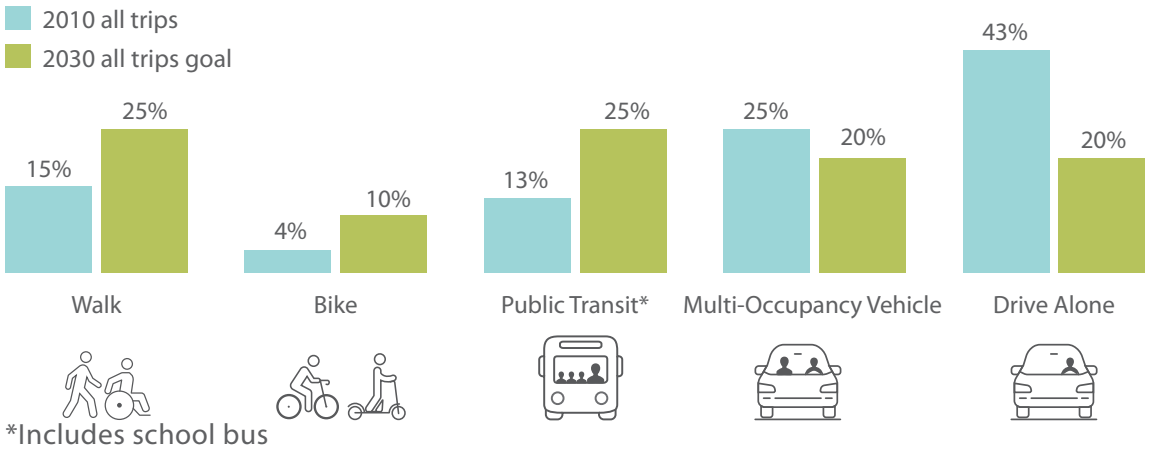
There are six key reasons to set a 2030 mode shift goal:

1. Reduce greenhouse gas emissions and improve air quality
2. Allocate space across all modes equitably
3. Reduce crash impacts from large vehicles
4. Improve quality of life related to trip time and congestion
5. Capture new trips from new residents in ways other than cars
6. Reduce costs for more residents through improved access to lower cost transportation options

2010 data shows that 68% of all trips that start or end in Minneapolis are taken by car – either individually (43%) or with other people (25%). Walking, biking, transit and school bus trips account for just under a third of all trips (32%).

We've set a goal of having 60% of trips taken by means other than a car – 35% by walking and biking and 25% by transit.[25]

Figure 19: All trips starting and ending in Minneapolis; mode split (2010) and mode split goal (2030)



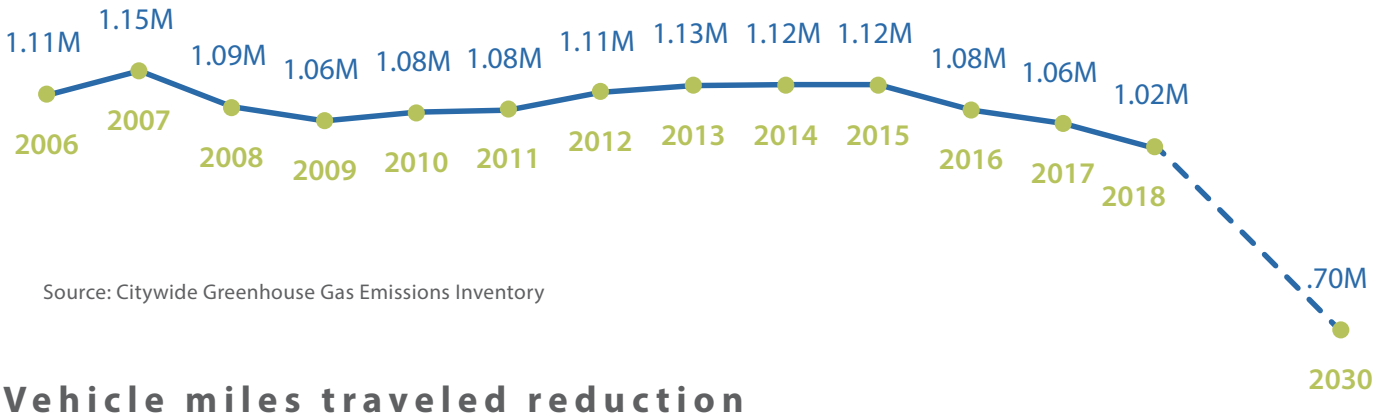
[25] The 2010 data is anticipated to be updated by the Metropolitan Council by the time the TAP is adopted; the mode shift goal may be adjusted based on changes to baseline data; we understand that 2010 trip data may be significantly different than the forthcoming 2018-2019 dataset.

Greenhouse gas reduction

The environmental impacts of gas-powered vehicles continue to degrade the air we breathe and have negative impacts on health, environment and quality of life. The Minneapolis Climate Action Plan set a goal of 80% reduction of greenhouse gas emissions by 2050, from 2006 baseline levels. 2006 baseline was just under 5.2 million metric tons citywide from all sources; the goal is just over one million metric tons in 2050.[26]

Emissions from on-road transportation account for approximately 24% of greenhouse gas emissions in Minneapolis.[27]

Figure 20: Greenhouse gas emissions (metric tons) from transportation sector historically and projected to reach City's goal



Source: Citywide Greenhouse Gas Emissions Inventory

Vehicle miles traveled reduction

Measuring the total number of vehicle miles driven is important to measuring mode shift and greenhouse gas reduction. In line with goals set in the Climate Action Plan and reinforced in Minneapolis 2040, we've set a goal of reducing vehicle miles traveled by 1.8% per year.[28] To reach this goal, the average person in Minneapolis would have to travel just four miles per day less in a car.[29]

Figure 21: Vehicle miles traveled historically and projected to reach City's goal

Source: Minnesota Department of Transportation (MnDOT); Roadway Data, VMT by Route System in each City, within each County

[26] Climate Action Plan

[27] Minneapolis Sustainability Office - Citywide Greenhouse Gas Emissions Inventory 2018

[28] The vehicles miles traveled reduction is calculated from 2018 baseline data of 2,368,057,420 miles traveled on Minneapolis streets; 1.8% annual reduction needed between 2018 and 2030. Annual vehicle miles traveled data provided by the Minnesota Department of Transportation.

[29] Minnesota Department of Transportation vehicle miles traveled data reflects all vehicle miles traveled in the City of Minneapolis and does not solely represent vehicle miles traveled for Minneapolis residents. Current population and projected population estimates for Minneapolis residents of all ages were used to calculate daily average mileage.

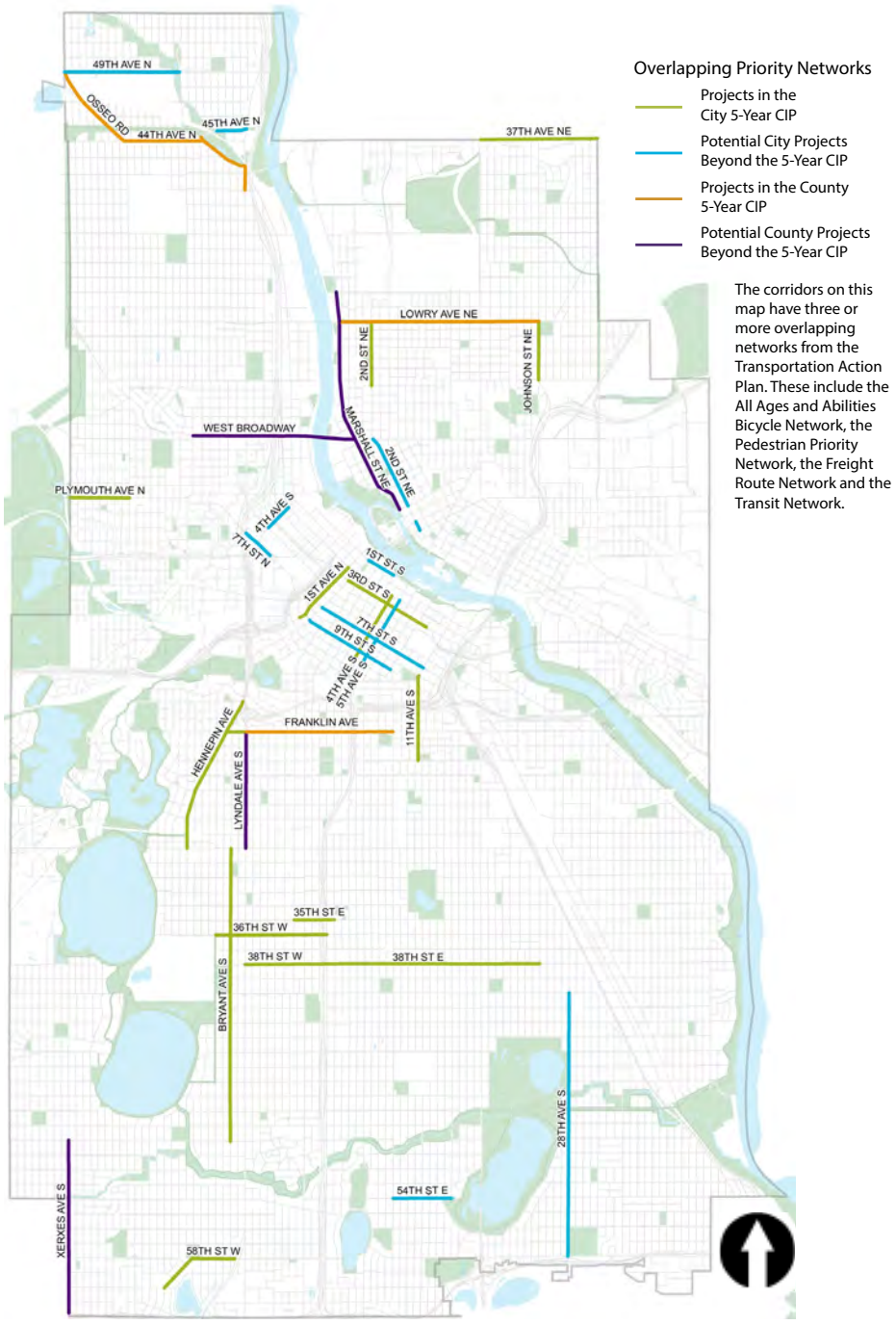
Anticipated progress on upcoming corridors

Certain streets in Minneapolis will be reconstructed within the next 10 years – the timeframe of the TAP – and their street designs will be influenced by the strategies and actions identified in this plan.

Upcoming capital projects will be influenced by the Street Design Guide, which will reference the priority networks defined in this plan: the Pedestrian Priority Network, the All Ages and Abilities Network (for biking and micromobility), Transit Priority Projects and the Truck Route Network. When the Pedestrian Priority Network, the All Ages and Ability Network and streets with transit overlap on the same street segment, the design decisions are often most difficult, especially when the public right of way is most constrained. These corridors, while challenging, provide the greatest opportunity to make bold changes to advance mode shift goals, greenhouse gas reduction and reductions in vehicle miles traveled.

While subject to change, the streets shown in Figure 22 are currently recommended for street reconstruction sometime within the next 10 years and have overlapping priority networks.

Figure 22: Upcoming street reconstruction/overlapping priority networks



Quick results

Key quick-build projects identified in our strategies and actions are highlighted below. These are tactical projects that greatly and quickly increase access and mobility, but do not require an entire street to be reconstructed. Examples include reconfiguring streets to provide transit advantages, building out a network of mobility hubs and making operational changes to streets downtown to encourage mode shift and promote safety.

TRANSIT PRIORITY LANES

Transit priority lanes, often realized as bus-only lanes, provide dedicated space for people traveling by bus or other transit vehicles, unobstructed from other traffic. By dedicating space on our streets for transit, we are improving the speed and reliability of travel which encourages more people to take transit. Collectively, this lightens our carbon footprint and lessens the demand for parking at destinations, which helps free up more space for active uses of our shared public space – an example of a virtuous circle created by giving residents options. We have piloted bus-only lanes on Hennepin Avenue S, Chicago Avenue and Nicollet Avenue; these early pilots have shown that improvements can be realized in speed and reliability for those on transit.

Streets where we plan to allocate space for bus-only lanes include:

4th Avenue South
between
Washington Avenue
and 10th Street South

5th Avenue South
between
Washington Avenue
and 10th Street South

6th Street North/South
between
1st Avenue North
and 13th Avenue South

7th Street North/South
between
1st Avenue North and
13th Avenue South

8th Street North/South downtown
between
1st Avenue North and
13th Avenue South

4th Street North/South
from the
west/freeway connections
to the Marquette/2nd Avenue
transit facilities

MOBILITY HUBS

The City has begun to pilot mobility hubs in neighborhoods throughout the city – which locate several low carbon, shared transportation services or options at the same location. This allows people to make more seamless connections between bus, bikeshare, scooters and/or carshare and helps to ensure transit trips have a more significant reach by coordinating viable options to complete the last leg of a trip. They also serve as gathering spots anchored in transportation that provide a sense of place and opportunity for people to enjoy the street.

Twelve pilot mobility hubs in Minneapolis were installed in 2019; these are providing early lessons on how to build out a network. Over the next couple of years, people should expect to see a network of mobility hubs developed throughout the city.

Figure 23: Downtown Minneapolis bus-only lanes

Figure 24: Mobility hub pilot

A FOCUS ON DOWNTOWN OPERATIONAL CHANGES TO MOVE PEOPLE

Over 205,000 people work downtown.[30] Streets downtown play a huge role in the regional economy and how people decide to travel to work. The speed of transit, the safety of bike lanes and the space and comfort of the sidewalk all influence how people decide to travel to, from and through downtown. By focusing on operational changes to our street network – without waiting for a large capital project – we can open travel options in the densest area of the city where we can make the most impact most quickly.

Near term operational changes will largely be realized by making safety improvements to High Injury Streets identified in our Vision Zero efforts. These streets are identified because they have not had recent safety improvements and are not planned for near-term reconstruction. Near-term safety improvements on these streets will be done with changes in paint, additional bollards, or potential signal changes as outlined in the Vision Zero Action Plan.

High Injury Streets downtown that we plan to make improvements to between 2020 and 2022 include:

3rd Avenue South
between
1st Street and
12th Street

11th Avenue South
between
6th Street and
Franklin Avenue

9th Street
between
Hennepin Avenue and
Chicago Avenue

7th Street
between
2nd Avenue and
11th Avenue South

6th Street
between
2nd Avenue and
Chicago Avenue

3rd Street
from
5th Avenue South
to Chicago Avenue

Hennepin Avenue
between
12th Street and
16th Street

Figure 25: Paint and bollards improve conditions for people walking and bicycling; 11th Avenue and 2nd Street S

[30] https://www.mplsdowntown.com/facts

Figure 26: High Injury Streets in downtown




HOW WE GET THERE

Strategies and actions

Reaching our transportation goals requires strategic action. Listed in this plan are strategies and actions that we plan to undertake in the next 10 years. Each strategy is followed by several actions, detailing how we, along with our partners, will make tangible improvements on our streets.

A strategy is a broad approach to reach an outcome that moves us toward achieving one of our six goals.

An action is a specific step needed to accomplish the strategy.

The transportation policies of Minneapolis 2040, from which the TAP strategies and actions build, support a multimodal network that prioritizes walking, biking and transit.

Each action identifies specific goals it supports and an estimated level of effort it will require to complete it – high, medium or low. This is meant to acknowledge that there are many factors which contribute to the success of a specific action – including support of agency partners, funding opportunities and alignment with advancements in technology and other industry changes. Identifying a scale of anticipated difficulty helps give perspective on when a specific action might be accomplished; the City will strive to complete all actions but acknowledges difficulties in predicting 10 years into the future.

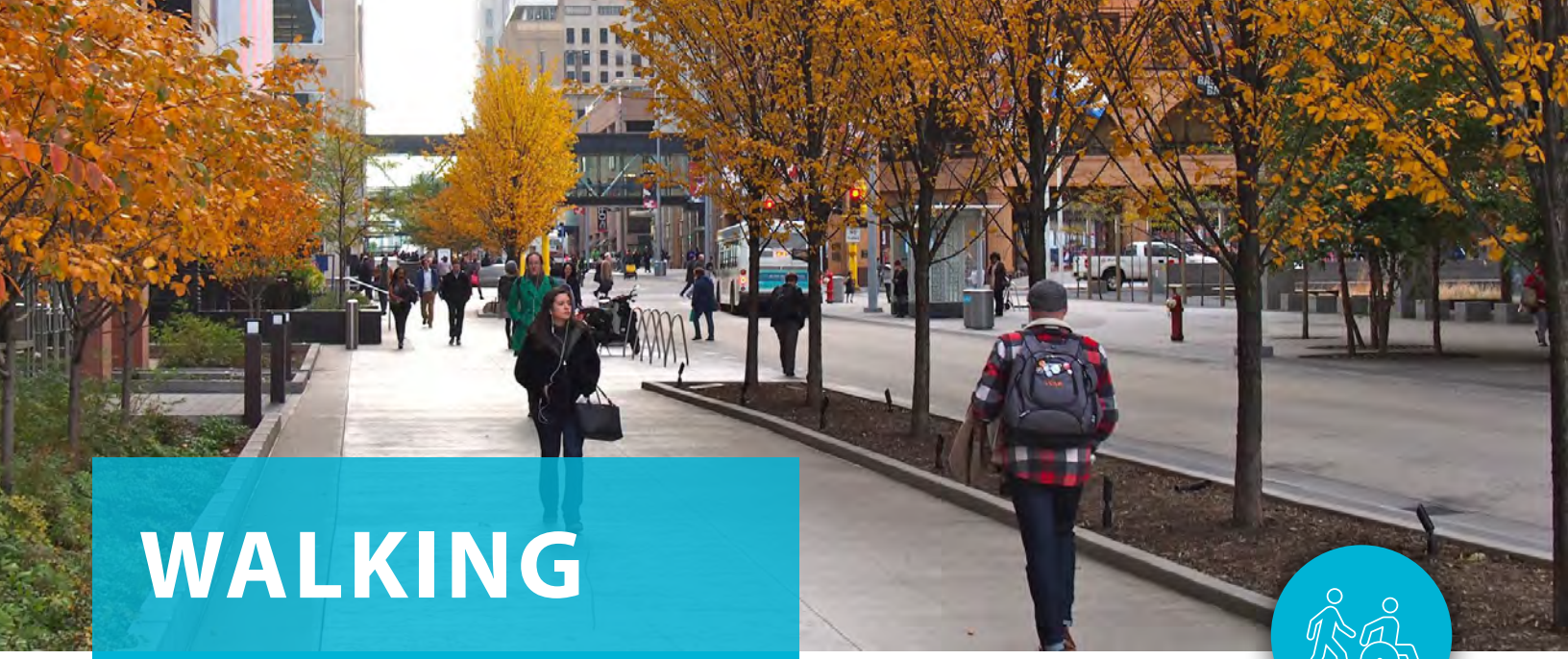
The strategies and actions listed reflect major themes we heard through community engagement for the TAP specifically but also through the Minneapolis 2040 development process. For the TAP-specific engagement, we connected with thousands of people and heard the strong desire to continue to build walkable, bikeable, transit-oriented communities, with less dependence on cars. A full summary of engagement is found in Appendix A.

The strategies and actions were developed in partnership with workgroups on each of the topic areas, along with guidance from an Interagency Technical Advisory Team, Steering Committee and Policy Advisory Committee. Membership for those committees includes City staff, partner agency representatives and other stakeholders and are listed in Appendix B.

The strategies and actions in this action plan reflect a tension that exists in the street that results from competing uses for limited right of way. We must acknowledge this tension and take a context-sensitive approach to our work, recognizing there may be multiple ways to achieve similar outcomes. Similarly, when an idea is posited where further study or evaluation is needed, it indicates that we do want to achieve the outcome, but there may be more work to undertake before definitively stating we will pursue it.

When an action identified in one topic area is linked to an action in another, that relationship is noted, and the actions are linked. When a strategy or action applies to more than one topic or strategy, the action is referenced below the strategy as "see also action" in a different topic area.

Actions are divided into two categories: actions we will do and actions we will support. Actions we will do are preceded by **DO** and are colored in dark gray, and actions we will support are preceded by **SUPPORT** and are colored in light gray.



WALKING

Promote a safe and inviting walking and rolling environment

Walking has the lowest negative carbon impact compared to other transportation modes while generating high returns in public health and equity. Everyone is a pedestrian at some point in their day because every trip begins and ends with walking. Walking is a key component of successful public transit, supports vibrant business districts and healthy people, reduces carbon footprint and contributes to safer neighborhoods by putting more eyes on the street.

Over 10% of trips in Minneapolis starting or ending in Minneapolis are less than one mile[31] – a distance that takes the typical person 15 to 20 minutes walking. Minneapolis has over 2,000 miles of sidewalk.[32] Unfortunately, pedestrians are overrepresented in the number of severe and fatal injuries on our street network, comprising nearly 1/3 of all total severe and fatal injuries.[33] As the number of people walking continues to increase, it is critical that it is formally recognized as a mode of travel, and made more welcoming, accessible and safer as a transportation option – which, without other conflicting modes, is inherently a safe activity.

2010 data shows people walk for 15% of their trips; by 2030 our goal is to increase that number to 25%. We'll get there through a combination of improved conditions for people walking as well as land use and population growth trends that are shaped through the policies outlined in Minneapolis 2040.[34]

Throughout the TAP 'walking' refers to people walking or rolling – using a wheelchair, stroller or other assistive mobility device – and 'pedestrian' as a person walking or rolling.

Figure 27: Crashes resulting in severe injury or death

Source: Vision Zero Crash Study (2018)

Because many improvements that prioritize pedestrians also do the same for those bicycling, the strategies and actions listed here often support or are linked to bicycle strategies and actions.

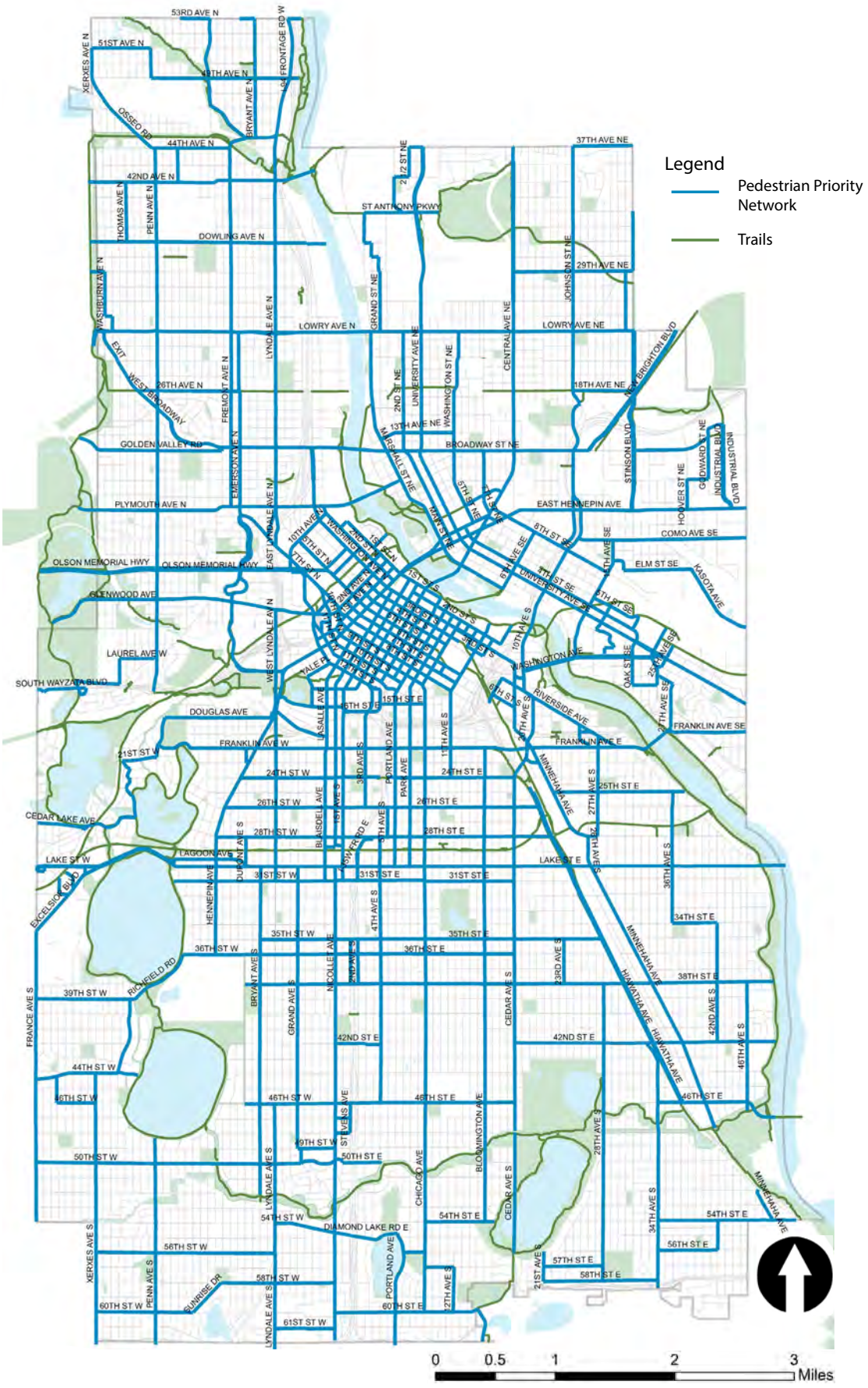
[31] Metropolitan Council's 2010 Travel Behavior Inventory, 10.6% of all trips.

[32] City of Minneapolis Public Works

[33] City of Minneapolis Vision Zero Crash Study (2018)

[34] The 2010 data is anticipated to be updated by the Metropolitan Council by the time the TAP is adopted; the mode shift goal may be adjusted based on changes to baseline data; we understand that 2010 trip data may be significantly different than the forthcoming 2018-2019 dataset.

Figure 28: Pedestrian Priority Network

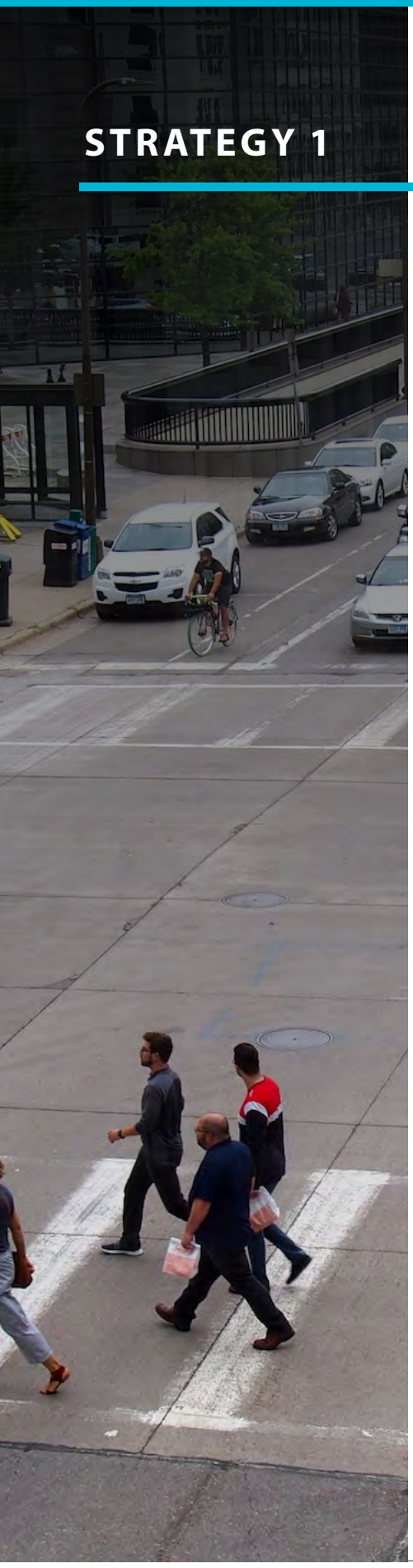


WALKING STRATEGIES

1. **Focus pedestrian improvements along and across the Pedestrian Priority Network.**
2. **Prioritize visibility and safety of pedestrians at intersections and midblock crossings.**
3. **Improve street lighting to increase visibility for pedestrians on streets and to meet the City's energy goals.**
4. **Improve winter walking and rolling.**
5. **Ensure City's policies and practices support consistent access to the sidewalk network.**
6. **Create and improve pedestrian connections across freeways, highways, rivers and railroads.**
7. **Partner with developers, utilities and property owners to provide high-quality pedestrian and public realm improvements.**
8. **Set policies and practices to leverage, manage, monitor and design for new and emerging technologies that increase visibility and comfort of pedestrians.**

SEE ALSO STRATEGIES:

- **Bicycling Strategy 3** — Prioritize a network of neighborhood greenways during the buildout of the All Ages and Abilities Network.
- **Street operations Strategy 3** — Plan for efficient and practical operations of people walking, biking and taking micromobility or transit throughout the street design process.
- **Street operations Strategy 4** — Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.
- **Street operations Strategy 5** — Price and manage use of the curb to encourage walking, biking and using transit and to discourage driving alone.
- **Street operations Strategy 6** — Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.
- **Design Strategy 2** — Foster vibrant public spaces for street life



STRATEGY 1

Focus pedestrian improvements along and across the Pedestrian Priority Network.

The Pedestrian Priority Network is a grid of streets that represent where people frequently walk and will be used to focus investments to improve the ease, comfort and safety of people walking throughout the year. The network is 282 miles and will be the focus of planning, design, operations and maintenance improvements for pedestrians across the city, replacing all existing network maps.

The Pedestrian Priority Network was developed by studying numerous factors that influence where people walk, including transit services, high density areas, commercial activity, land use and High Injury Streets for pedestrians. Trails are also noted on the Pedestrian Priority Network; a large portion of trails are owned and managed by the Minneapolis Park and Recreation Board and provide important connections for the network as they are key walking places.

Figure 29: Typical street on Pedestrian Priority Network

ACTIONS

Actions to focus pedestrian improvements along and across the Pedestrian Priority Network.

Actions	Supports	Difficulty
DO **ACTION 1.1** Prioritize citywide planning, design, operations and maintenance improvements for pedestrians on and across the Pedestrian Priority Network.	Safety, Mobility	Medium
DO **ACTION 1.2** Review the 20 Year Streets Funding Plan metrics to identify and implement changes necessary to prioritize capital improvements along the Pedestrian Priority Network.	Mobility	Low
DO **ACTION 1.3** Replace the Pedestrian Street Lighting Corridor with the Pedestrian Priority Network for project programming, maintenance and other purposes, and align funding to address the additional mileage (~70 miles); update the Street Lighting Policy to reflect this change.	Mobility	Medium

STRATEGY 2

Prioritize visibility and safety of pedestrians at intersections and midblock crossings.

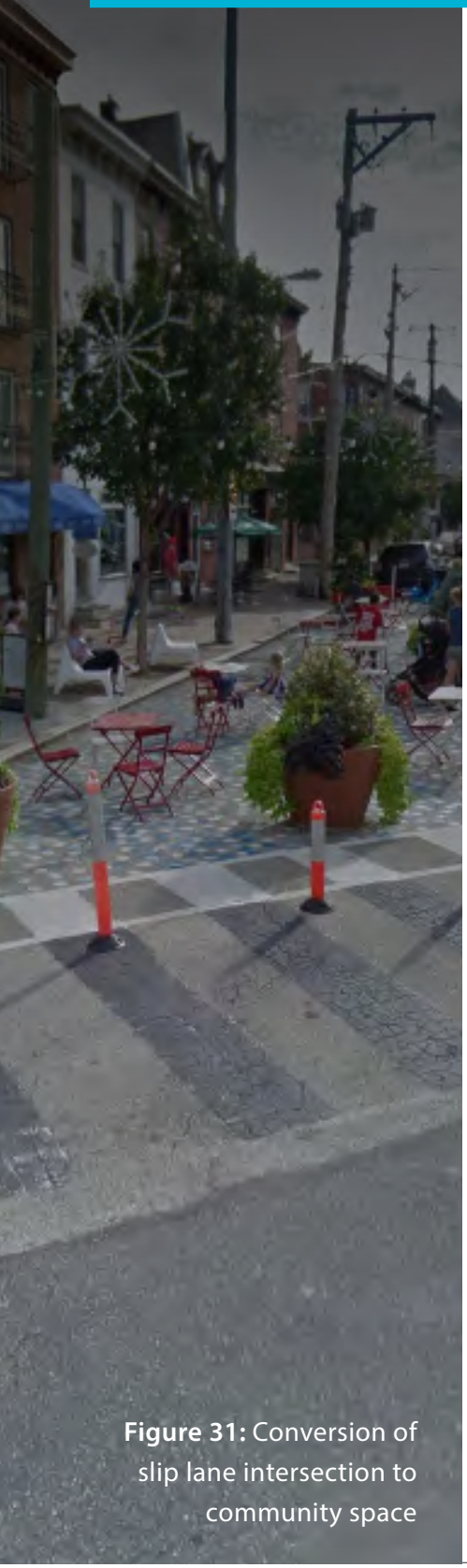
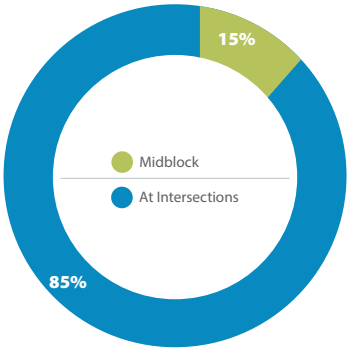


Figure 31: Conversion of slip lane intersection to community space

85% of crashes involving pedestrians happen at intersections. Of these, 68% of crashes happen at signalized intersections, while 30% happen at unsignalized or stop-controlled intersections.[35] While midblock crossings are not the norm in Minneapolis, where they exist, it is important to prioritize treatments that slow motor vehicle speed and provide visual cues for drivers to look for people crossing, particularly because drivers may not be anticipating people crossing midblock.

Figure 30: Locations of pedestrian crashes



Source: 2017 City of Minneapolis Pedestrian Crash Study

There are several operational improvements that help increase safety but may sometimes appear at odds with one another. Longer walk signals, for example, support walking speeds for those who have a slower pace, but shorter walk signals allow opportunities for people to cross more frequently. Assessing when and where to use these various treatments is important and most effective on a project by project basis.

[35] Minneapolis Pedestrian Crash Study, 2017. 2% are at no or unknown control.

Figure 32: Midblock crossing – Hennepin Ave between Lake and 31st St

ACTIONS

Actions to prioritize visibility and safety of pedestrians at intersections and midblock crossings.

Actions	Supports	Difficulty
DO **ACTION 2.1** Modify signal operation to give pedestrians a walk signal at signalized intersections without having to press a button except where doing so would provide greater benefit to pedestrians, bicyclists and transit. Note that the ADA requires pedestrian pushbuttons be installed to provide audio and vibrotactile information to pedestrians when activated.	Safety, Equity, Mobility	Low
DO **ACTION 2.2** Develop criteria for adding marked crosswalks at unsignalized intersections and midblock marked crossings to reduce distances between formalized crossings.	Safety, Mobility	Medium
DO **ACTION 2.3** Adjust and restrict vehicle turns at intersections based on street context and data. This includes strategies such as 'No Turn on Red'.	Safety	Medium
DO **ACTION 2.4** Restrict the installation of new slip lanes (unsignalized turn lanes at intersections) and convert existing slip lanes to community space. *See design Strategy 2*	Safety	Medium
DO **ACTION 2.5** Prioritize the implementation of curb extensions, pedestrian crossing medians, tabled crossings, interim painted curb extensions and related safety improvements along and across the Pedestrian Priority Network and High Injury Streets.	Safety	Low
DO **ACTION 2.6** Increase funding to implement pedestrian and bicycle improvements near or connecting to schools through the City's Safe Routes to School program and other funding opportunities to encourage students to walk or bicycle to/from school. *See bicycle Strategy 2*	Safety, Mobility, Active partnerships	High
DO **ACTION 2.7** Discontinue the use of vehicular level of service and/or vehicle counts as sole justification for the installation of traffic signals, and include pedestrian and bicycle counts in the evaluation of new traffic signal need. *See street operations Action 3.2*	Safety, Mobility	Medium

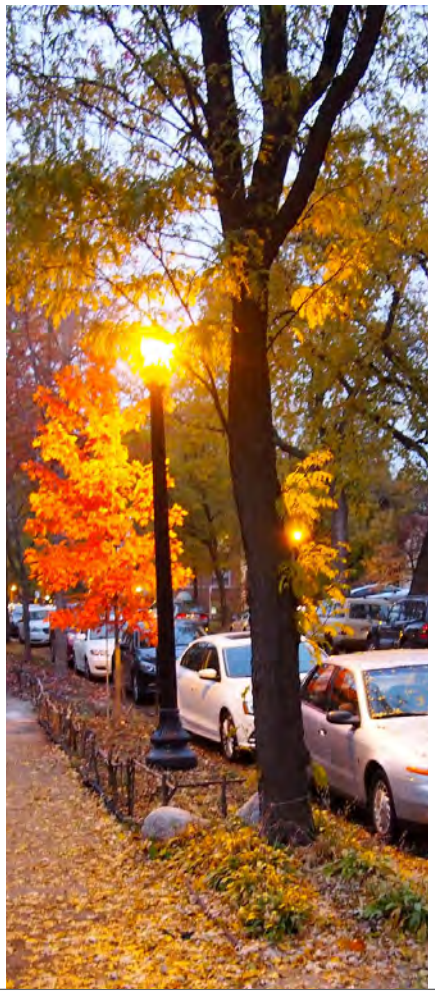
STRATEGY 3

Improve street lighting to increase visibility for pedestrians on streets and to meet the City's energy goals.

Lighting plays an important role in people's comfort walking on city streets. In Minneapolis, having adequate lighting no matter the place within the city is important, especially when the sun rises as late as 7:45 am and sets as early as 4:30 pm during the winter. This strategy adjusts the City's approach to street reconstruction projects so that pedestrian lighting is always included as part of the reconstruction project; previously, pedestrian lighting was only included as a project cost if the street was identified on the Pedestrian Street Lighting Corridor. The City typically installs 50 lights per year (3,000 feet) of standalone pedestrian scale lighting projects along a Pedestrian Street Lighting Corridor, not as a part of a street reconstruction project; these installations will now be focused on the Pedestrian Priority Network.

Figure 33:
Wood pole streetlight

Figure 34:
Pedestrian scale streetlight



ACTIONS

Actions to improve street lighting to increase visibility for pedestrians on streets and to meet the City's energy goals.

Actions	Supports	Difficulty
DO **ACTION 3.1** Update the Street Lighting Policy to include pedestrian lighting on all street reconstruction projects included as part of the capital project cost.	Safety, Equity, Active partnerships	High
DO **ACTION 3.2** Require the provision of pedestrian lighting in the public right of way with private development projects that meet size and location thresholds.	Safety, Active partnerships	Low

STRATEGY 4

Improve winter walking and rolling.

Maintaining winter access for people walking in the city is critically important. Minneapolis experiences an average of 54 inches of snow per year[36], in addition to freeze and thaw cycles , and the system in place to ensure the sidewalks are kept clear and passable involves many people and institutions throughout the city. Currently, City ordinance requires property owners of duplexes and single-family homes to clear the public sidewalk abbutting their property within 24 hours of snow ending, and all other property owners to clear their sidewalks within four daylight hours of the snow ending. Clearing corners to the gutter line are the responsibility of the corner lot property owner. There is a City-led corner cleaning program that works to clear corners after large storms, post-plowing of the streets, until all corners are cleared citywide. Moving forward and in alignment with Walking Strategies 1 and 5, the City-led corner clearing program will move to align with the Pedestrian Priority Network.

The 2018 Minneapolis Pedestrian and Bicycling Winter Maintenance Study provides options to enhance the quality and consistency of clearing snow and ice from sidewalks and bikeways; many of those ideas are reflected in the actions below.

Figure 35: Winter Maintenance Study

Figure 36: Snow-clearing timelines

[36] https://www.dnr.state.mn.us/climate/twin_cities/snowfall.html

ACTIONS

Actions to improve winter walking and rolling.

Actions	Supports	Difficulty
DO **ACTION 4.1** Expand education and awareness to educate residents and businesses on City's sidewalk snow and ice removal ordinance, related standards and responsibilities.	Safety, Equity, Mobility, Active partnerships	Low
DO **ACTION 4.2** Collaborate with the Neighborhood and Community Relations Department to build and share a list of community resources for clearing sidewalks to help clear snow for those who are unable.	Safety, Equity, Mobility, Active partnerships	Low
DO **ACTION 4.3** Work in partnership with Metro Transit to develop enhanced winter maintenance standards and enforcement for transit stops and stations. *See transit Strategy 5*	Safety, Mobility, Active partnerships	Medium
DO **ACTION 4.4** Change 311 and related property reports language to more accurately communicate when issues are resolved in the computer system vs. on the street as snow and ice complaints are received and processed.	Mobility	Low
DO **ACTION 4.5** Consider further streamlining inspection process by eliminating sending an Order to Correct and instead proceed with authorizing snow removal or ice mitigation.	Mobility	Medium
DO **ACTION 4.6** Consider adding financial penalties to properties out of compliance with snow and ice clearing responsibilities, with an emphasis on properties with repeat issues.	Safety, Equity, Mobility	Medium
DO **ACTION 4.7** Evaluate feasibility of changing City of Minneapolis Ordinance 445.20 for sidewalk clearing to require clearing the sidewalks earlier.	Equity, Mobility	High

continued on next page

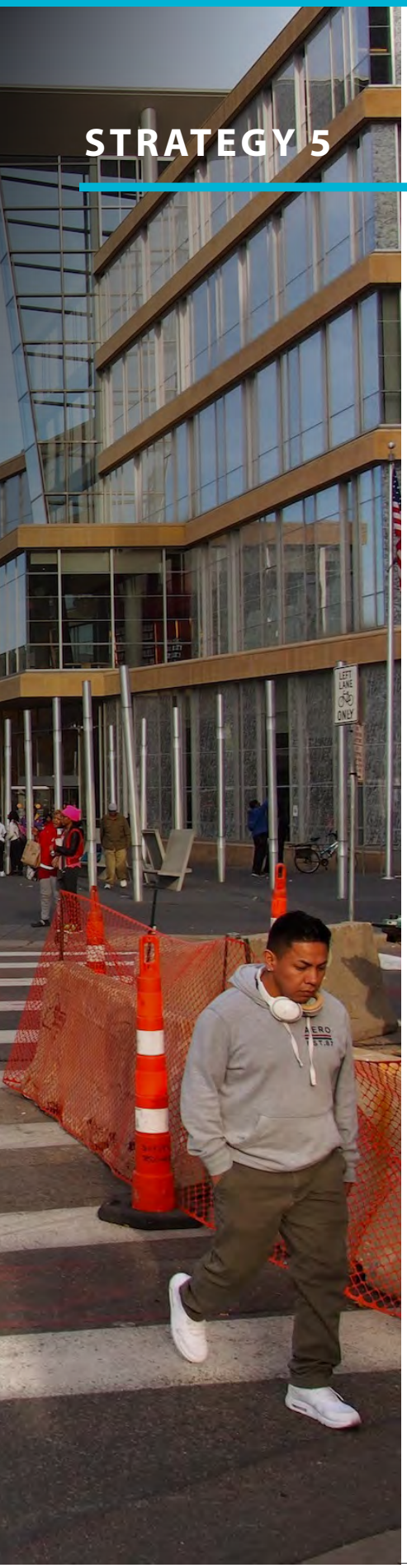
ACTIONS (continued)

Actions to improve winter walking and rolling.

Actions	Supports	Difficulty
DO **ACTION 4.8** Continue to pilot, evaluate and implement processes that improve winter conditions for people walking; focus on coordination, sidewalk inspections, corner clearing and a willingness to test new solutions to improve snow and ice clearance.	Safety, Equity, Mobility	High

SEE ALSO ACTIONS:

- **Bicycling Action 6.9** — snow and ice removal on the All Ages and Abilities Network trails
- **Bicycling Action 6.10** — snow and ice removal on greenways
- **Street operations Action 9.4** — snow and ice removal at construction sites



STRATEGY 5

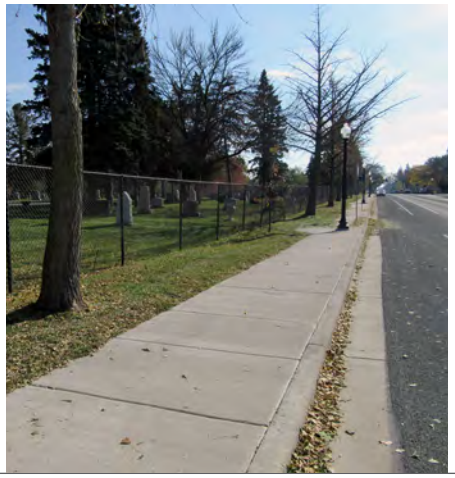
Ensure City's policies and practices support consistent access to the sidewalk network.

A variety of activities can cause temporary or permanent obstacles to accessing the over 2,000 miles of sidewalks in the city, including temporary closures due to street projects, utility work or private development projects, upheaving or other physical obstruction that makes a sidewalk inaccessible to people using wheeled devices to travel and lack of sidewalk for other reasons, including deferred maintenance.

City crews inspect sections of the city each year to determine where repairs are needed, and then work with property owners to fix the sidewalks – usually with a focus on broken or heaved sidewalks that hinder movement. Temporary patches are also deployed on an as-needed basis (typically complaint driven) until permanent fixes are secured.

Figure 37: Sidewalk in need of replacement

Figure 38: Sidewalk gap (on left) filled with the construction of new sidewalk (on right)



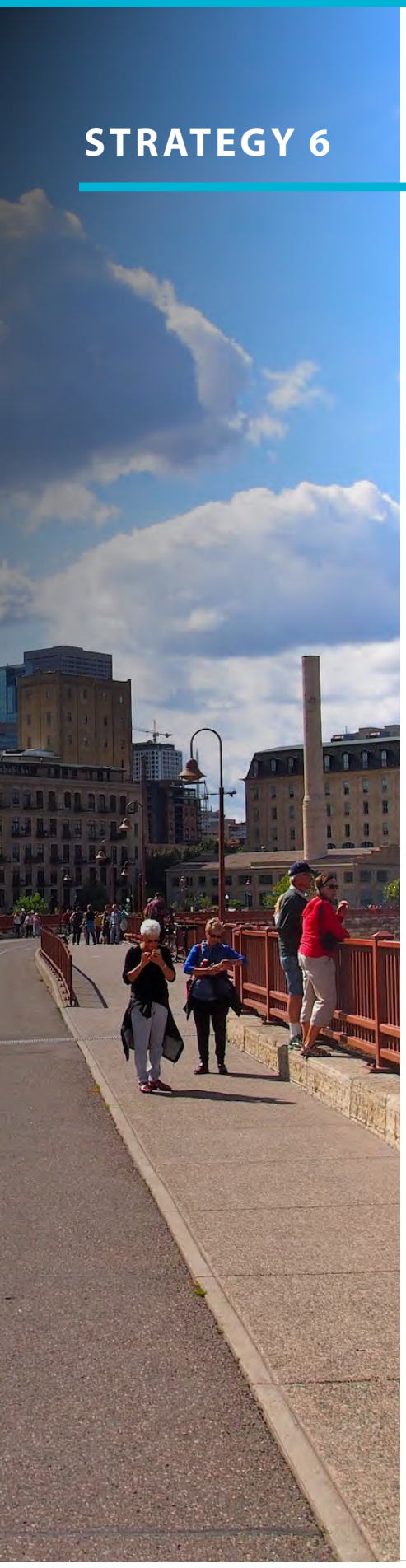
ACTIONS

Actions to ensure City's policies and practices support consistent access to the sidewalk network.

Actions	Supports	Difficulty
DO **ACTION 5.1** Complete a condition inventory of sidewalk, City-owned multiuse trails and street crossings. *See bicycling Action 6.6*	Equity, Mobility	High
DO **ACTION 5.2** Prioritize sidewalk repair locations by using a data-driven approach based on the sidewalk inventory data.	Safety, Equity, Mobility	Medium
DO **ACTION 5.3** Fund and implement proactive inspections of temporary pedestrian access routes adjacent to work zones to ensure access requirements are being met; issue fines for non-conforming or non-existent pedestrian access routes and consider withholding future permit approvals until non-compliant access routes are eliminated.	Safety, Mobility	Medium
DO **ACTION 5.4** Confirm location of and fill gaps in the sidewalk network and prioritize gaps near parks and other public destinations. *See bicycling Action 6.6*	Safety, Prosperity, Mobility, Active partnerships	Medium
DO **ACTION 5.5** Provide pedestrian crossings at all legs of legal intersections by default; retroactively work to install these where they do not exist.	Safety, Mobility, Active partnerships	Medium

SEE ALSO STRATEGY:

- **Street operations Strategy 9** — street detours and Complete Streets



STRATEGY 6

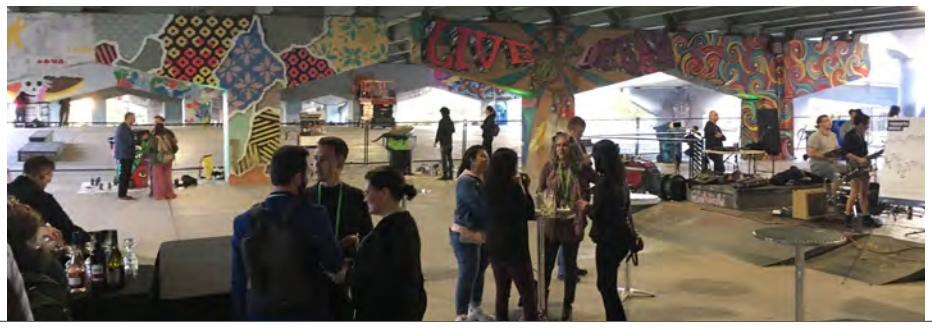
Create and improve pedestrian connections across freeways, highways, rivers and railroads.

There are a number of natural and human-made obstructions that limit pedestrian movement across them – such as freeways, railroads and rivers. This strategy focuses on how to make existing overpasses or underpasses more attractive, inviting and part of a seamless pedestrian network.

Figure 39: Existing underpass in Minneapolis

Figure 40: New 5th Street pedestrian bridge over I-35W

Figure 41: Underpass park in Toronto



ACTIONS

Actions to create and improve pedestrian connections across freeways, highways, rivers and railroads.

	Actions	Supports	Difficulty
DO	**ACTION 6.1** Establish spacing guidelines for connections across freeways, rivers and railroads to identify locations for new pedestrian (and bicycle) bridges or underpasses. *See bicycling Strategy 2*	Equity, Mobility, Active partnerships	Low
DO	**ACTION 6.2** Reestablish the street grid in places where streets do not exist through the creation of new pedestrian and bicycle connections. *See street operations Action 5.8*	Mobility	High
DO	**ACTION 6.3** Identify funding for connectivity, safety and aesthetic improvements for underpass or overpass improvement projects such as I-94 near the Farmer's Market and the I-94 viaduct through the North Loop.	Mobility, Active partnerships	High
DO	**ACTION 6.4** Improve local street connections to freeway entrances and exits to improve pedestrian safety and comfort through enhancing signal operations and street design.	Safety, Mobility, Active partnerships	High
SUPPORT	**ACTION 6.5** Identify opportunities and partnerships to design, fund and construct lids over highways and railroads. *See street operations Action 8.5*	Equity, Prosperity, Mobility, Active partnerships	High

SEE ALSO ACTIONS:

- **Bicycling Action 2.2** — non-motorized bridge over Interstate 94
- **Bicycling Action 2.6** — new river crossings for Midtown Greenway and Great Northern Greenway
- **Street operations Action 6.5** — eliminate gaps in street grid and reopen Nicollet Ave at Lake St

STRATEGY 7

Partner with developers, utilities and property owners to provide high-quality pedestrian and public realm improvements.

As population growth and development occurs, more demands and interruptions are imposed on the sidewalk system. In 2018, it was the third straight year in which over $1.5 billion in building permits were granted, with 2019 exceeding more than $2 billion. This strategy focuses on collaborating with developers and utility companies to minimize impacts to the right of way and to restore the asset to its original or better condition.

Figure 42: Protected bikeway and enhanced pedestrian realm near The Commons Park

Figure 43: Curb bump out

Figure 44: Greenway promenade

ACTIONS

Actions to partner with developers, utilities and property owners to provide high-quality pedestrian and public realm improvements.

Actions	Supports	Difficulty
DO ACTION 7.1 Require right of way restoration by contractor, developer or utility companies to comply with latest ADA and City standards prior to issuing additional permits, certificates of occupancy or obtaining future site plan or other approvals. *See design Action 1.4*	Safety, Equity, Mobility, Active partnerships	High
DO ACTION 7.2 Change parking ramp exit requirements to include mirrors and messaging to prioritize pedestrians; rather than alerting pedestrians that a car is approaching, messaging should alert drivers that a pedestrian or bicyclist is approaching.	Safety, Equity, Active partnerships	Medium
DO ACTION 7.3 Improve driveway sightlines on high volume entrances and exits, particularly along High Injury Streets.	Safety, Equity, Mobility	Medium
DO ACTION 7.4 Require developers to implement public realm improvements called for in the Street Design Guide including filling public sidewalk gaps in conjunction with approvals for building construction and site modification. *See design Action 1.4*	Prosperity, Active partnerships	Medium
DO ACTION 7.5 Secure transportation easements for public pedestrian walkways in coordination with development.	Mobility, Active partnerships	Medium
DO ACTION 7.6 Encourage the use of skyways as transportation routes by requiring convenient and easily accessible vertical connections between the skyway system and the public sidewalks, particularly along transit corridors and the Pedestrian Priority Network. Use the development review and permitting process in collaboration with the Department of Community Planning and Economic Development and continue to work with partners to update wayfinding and signage standards in the Minneapolis skyway system.	Equity, Prosperity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Street operations Action 6.5** — eliminate gaps in street grid and reopen Nicollet Ave at Lake St
- **Design Action 2.6** — minimize curb cuts

STRATEGY 8

Set policies and practices to leverage, manage, monitor and design for new and emerging technologies that increase visibility and comfort of pedestrians.

This strategy outlines ways we can use technology to improve how people walking are detected on our streets, how they may access information about preferred walking routes based on real-time information like congestion (noise impacts, air quality impacts) and how infrastructure might physically change given their presence, such as through brighter lighting or LED crosswalks that recognize when a pedestrian is crossing a street.

Improvements for people who are blind or vision-impaired are also likely to be more readily available with new technologies, such as those accessed from smartphones or other devices. These technologies can detail real-time conditions (such as detours or unexpected obstacles in the path of travel) into a user's ear.

Figure 45: Pedestrian counter

Figure 46: LED light-up crosswalk

ACTIONS

Actions to set policies and practices to leverage, manage, monitor and design for new and emerging technologies that increase visibility and comfort of pedestrians.

Actions	Supports	Difficulty
DO **ACTION 8.1** Assess digital wayfinding tools that provide real-time information on getting around the city by foot and integrate successful tools into the mobility hub network. *See technology Action 3.1, design Action 5.3*	Mobility	Low
DO **ACTION 8.2** Explore emerging technology such as adaptive lighting which can brighten when pedestrians, bicyclists or other street users are detected or expected, enhancing visibility and comfort of all right of way users while aligning with the City's lighting and energy goals.	Climate, Safety, Mobility	Medium
DO **ACTION 8.3** Test new technologies related to pedestrian detection and data collection, including passive detection at traffic signals to expedite and lengthen the walk phase in response to pedestrian presence and demand. *See technology Strategy 1*	Climate, Safety, Equity, Mobility	Medium
DO **ACTION 8.4** Assess demonstrations of new applications that provide navigation assistance for people who are blind or low vision and the potential impact on City practices.	Safety, Equity, Mobility	Low

BICYCLING

Increase the availability and safety of bicycling and micromobility travel

Over 30% of the trips we take in Minneapolis are less than three miles.[37] Sometimes these trips feel a little too far to walk. Bicycles and other low-power micromobility options, such as electric-assist bicycles and scooters, can be ideal for these short trips. As more people use these new transportation options, the demand for safe and comfortable places to ride, charge and park these vehicles will increase.

Over two-thirds of residents say they often or sometimes ride a bicycle to get to school, visit parks or run errands.[38] And on average, over 4% of Minneapolis residents ride a bicycle to work (4.1%), which is one of the highest bicycle commuting rates in the country.[39]

Options are expanding with new types of bicycles and low-powered vehicles:

- Nice Ride bikeshare increases access to a bicycle and can be used for one-way trips and connections to transit
- Adaptive bicycles improve access for people with disabilities
- Electric-assist bicycles help people ride up hills or in windy weather, go farther or carry more weight
- Cargo bicycles help people carry kids and groceries
- Shared scooters have quickly proven to be popular for many and are effective first and last connections for transit access

The City's growing bikeway network has encouraged more people to bike and use micromobility vehicles. Even with this progress, many people in Minneapolis do not see riding a bicycle or scooter as a routine way to get around. Narrow bike lanes, lack of physical separation from motor vehicles, challenging intersection crossings and snow or ice are just some of the reasons why people do not feel comfortable.

[37] Metropolitan Council Travel Demand Model, 2010.
[38] City of Minneapolis Resident Survey, 2016
[39] Means of Transportation to Work for Workers 16 Years and Older, U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimate

To make bicycling, in all its new forms, a real option for more people, the plan establishes an All Ages and Abilities Network to be constructed over the next ten years. This network will include protected lanes and trails that are physically separated from moving cars, trucks and buses, will feature improved intersection crossings and be accessible year-round. The goal for the All Ages and Abilities Network is for people on bikes to only share space with cars on quiet low-speed streets or on neighborhood greenways.

People biked for 4% of their trips in 2010; we've set a goal to increase that to 10% of trips taken by bicycle or micromobility by 2030.[40]

The terms 'biking', 'bicycling' and 'bikeways' broadly refers to people who use any type of bicycle or micromobility vehicle like scooters or electric-assist bicycles.

Figure 47: Adaptive vehicle types


Greenspeed

Micromobility includes various human-scale vehicles – like bicycles and scooters, which are typically shared and can be electric or human-powered.


Handcycle

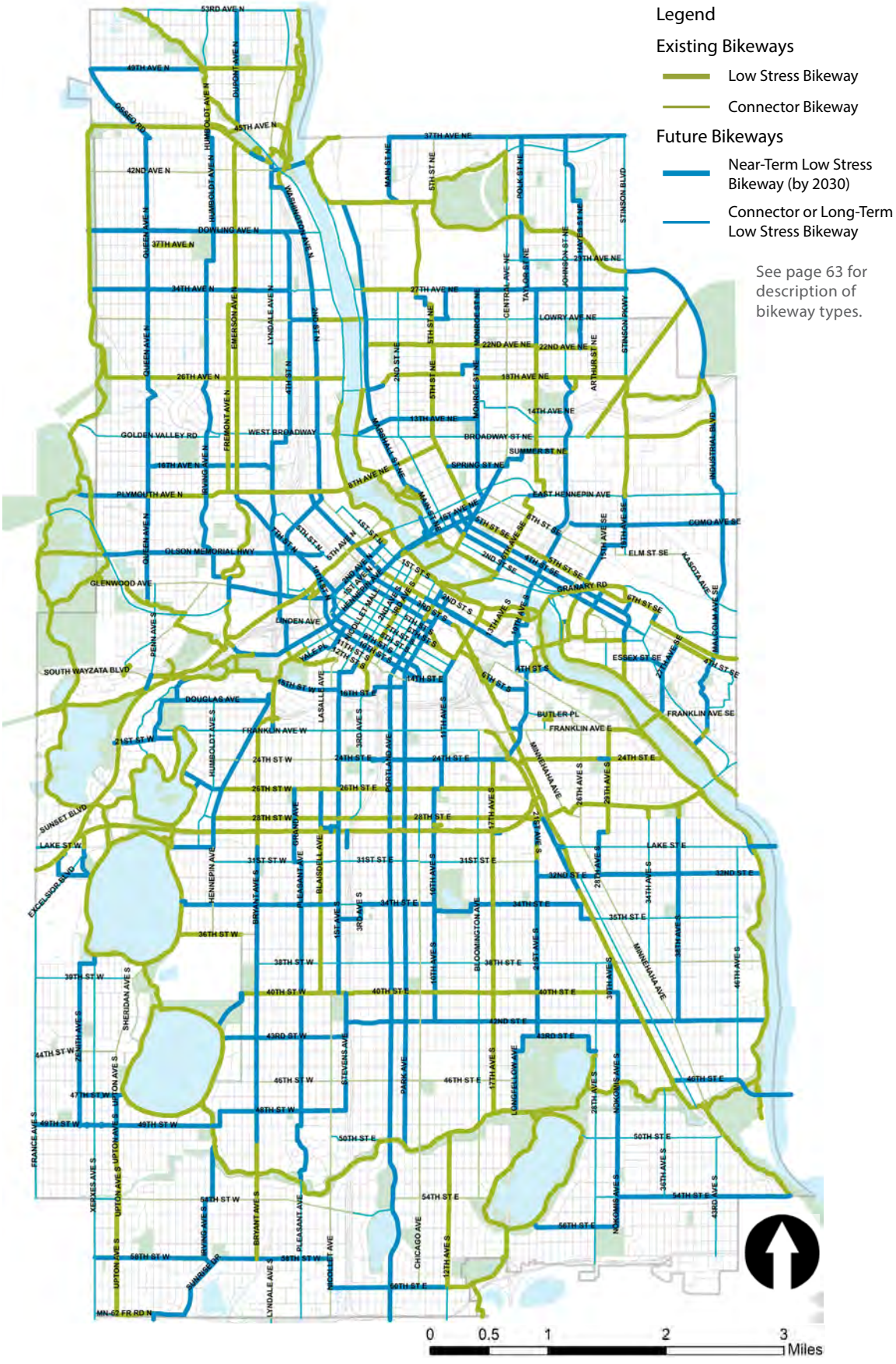

Ice trike


Side by side

Source: Twin Cities Adaptive Cycling

[40] The 2010 data is anticipated to be updated by the Metropolitan Council by the time the TAP is adopted; the mode shift goal may be adjusted based on changes to baseline data; we understand that 2010 trip data may be significantly different than the forthcoming 2018-2019 dataset.

Figure 48: All Ages and Abilities Network



BICYCLING STRATEGIES

1. **Complete the All Ages and Abilities Network.**
2. **Build bikeway connections that overcome significant physical barriers during the buildout of the All Ages and Abilities Network.**
3. **Prioritize a network of neighborhood greenways during the buildout of the All Ages and Abilities Network.**
4. **Enhance intersection design and safety during the buildout of the All Ages and Abilities Network.**
5. **Plan and implement bikeway connections to and between regional destinations and adjacent city networks.**
6. **Maintain the All Ages and Abilities Network to provide year-round access.**
7. **Provide wayfinding to help people navigate the All Ages and Abilities Network.**
8. **Design bikeways using best practices that reflect the community and serve as an asset to people who may not currently ride a bike or use micromobility.**
9. **Update bicycle and micromobility parking practices to support demand and diversity of vehicles to significantly expand bicycle racks in the right of way.**
10. **Expand safe biking and micromobility education and encouragement.**
11. **Measure biking and micromobility ridership levels and user comfort.**

SEE ALSO STRATEGIES:

- **Street operations Strategy 3** — Plan for efficient and practical operations of people walking, biking and taking micromobility or transit throughout the street design process
- **Street operations Strategy 4** — Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving
- **Street operations Strategy 5** — Price and manage use of the curb to encourage walking, biking and using transit, and to discourage driving alone
- **Street operations Strategy 6** — Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects

STRATEGY 1

Complete the All Ages and Abilities Network

The All Ages and Abilities Network will include three primary bikeway types:

- **Protected bike lanes**: routes on relatively busy streets with some form of physical separation from motor vehicle traffic, such as bollards, concrete curbs, parked cars and planters.
- **Trails**: non-motorized paths for pedestrians and bicyclists, typically more separated from the street than protected bike lanes, and are typically located near rivers, lakes, parkways and railroad corridors.
- **Neighborhood greenways**: routes that enhance local, low volume streets and give priority to people walking, biking and rolling. This will include removing or significantly limiting motor vehicles along sections of the street.

There is an additional type of bikeway highlighted on the All Ages and Abilities Network called connector bikeways which are standard bike lanes without physical separation from motor vehicles that may or may not meet the definition of an All Ages and Abilities bikeway depending on the context of the street (including volume, width and speeds).

Figure 49: Multiple types of vehicles in bike lane

ACTIONS

Actions to complete the All Ages and Abilities Network.

Actions	Supports	Difficulty
DO **ACTION 1.1** Build all low-stress routes identified on the All Ages and Abilities Network by 2030, which will include a total of 136 miles of new or upgraded bikeways, including: • 79 miles of protected bike lanes that provide a low-stress riding experience on high volume corridors. • 48 miles of new neighborhood greenways that manage motor vehicle volume and speed, improve safety at major crossings and reduce stopping at minor crossings. Start with the Northside Greenway and the Southside Greenway. • 9 miles of new trails that provide connections along the Mississippi River or along rail lines that could be converted to trails.	Climate, Safety, Equity, Mobility	High
DO **ACTION 1.2** Consider building bikeways not included on the All Ages and Abilities Network to respond to development opportunities and changing transportation demands.	Safety, Mobility	Low
DO **ACTION 1.3** Use design to build projects that prevent blocked lanes or conflicts with loading and parked vehicles.	Safety, Mobility	Medium

STRATEGY 2

Build bikeway connections that overcome significant physical barriers during the buildout of the All Ages and Abilities Network.

Bikeways work best in a connected network; the existing network will be added to and improved over the coming decade. The network is funneled into more focused corridors as major natural and manmade barriers are crossed, including rivers, railroads and highways. This strategy focuses on capitalizing on opportunities to partner with the Minnesota Department of Transportation, Hennepin County, Minneapolis Park and Recreation Board and others to ensure any crossing of a major barrier includes a high-quality facility for people traveling on bike or other micromobility vehicle, as well as for pedestrians. These opportunities are most obvious when a project is active, but the actions detailed here include efforts to retrofit existing bridges with facilities for increased safety and comfort for people biking and using micromobility options.

Figure 50: Cyclists on Sabo Bridge

Figure 51: Protected bikeways

ACTIONS

Actions to build bikeway connections that overcome significant physical barriers during the buildout of the All Ages and Abilities Network.

Actions	Supports	Difficulty
DO ACTION 2.1 Build protected bike lanes on existing motorized bridges over the Mississippi River, railroad corridors, freeways and expressways. *See walking Strategy 6*	Safety, Equity, Mobility	High
DO ACTION 2.2 Partner with the Minnesota Department of Transportation to build a new non-motorized bridge over I-94 between Lowry Avenue North and Dowling Avenue North, connecting North Minneapolis to the Mississippi River. *See walking Strategy 6*	Equity, Mobility	High
DO ACTION 2.3 Consider planning new crossings of Regional Bicycle Barriers (as defined in the Metropolitan Council's Transportation Policy Plan) as project development opportunities arise.	Safety, Equity, Mobility	Medium
SUPPORT ACTION 2.4 Coordinate with Minneapolis Park and Recreation Board's Neighborhood and Regional Park Capital Investment Projects to improve bikeway connections between parkway trails and City-owned bikeways.	Equity, Mobility, Active partnerships	Low
SUPPORT ACTION 2.5 Coordinate with the Minneapolis Park and Recreation Board to evaluate converting one-way trail operations to two-way, particularly around Bde Maka Ska, Lake of the Isles and Lake Harriet.	Equity, Mobility, Active partnerships	High
SUPPORT ACTION 2.6 Work with agency partners to evaluate opportunities to build new river crossings for the Midtown Greenway and Great Northern Greenway. *See walking Strategy 6*	Equity, Mobility, Active partnerships	High

SEE ALSO ACTION:

- **Street operations Action 6.2** — Advance the All Ages and Abilities Network through bridge maintenance and repair

STRATEGY 3

Prioritize a network of neighborhood greenways during the buildout of the All Ages and Abilities Network.

The City published a Greenways Study in 2019. The most significant outcome of the Greenways Study was the introduction of the concept of neighborhood greenways, which replaces the term bicycle boulevard that was used in the 2011 Bicycle Master Plan.

Neighborhood greenways are similar to bicycle boulevards, in that they will be installed on low volume residential streets that connect neighborhood destinations and manage motor vehicle volume and speed. Neighborhood greenways differ from bicycle boulevards because they will optimize travel for pedestrians and bicyclists by eliminating or significantly reducing motor vehicle use. Neighborhood greenways will also greatly improve the walking environment throughout the city by limiting interactions with motor vehicles and improving the experience of crossing the street.

Neighborhood greenways will be linear and have logical beginning and end points, typically connecting to other bikeways on the All Ages and Abilities Network as they are installed. Each block will be unique based on the context of the neighborhood, technical analysis and community engagement. Some blocks may fully remove motor vehicle access, others may narrow the vehicular travel space by half and other blocks could primarily focus on intersection treatments such as curb extensions, median refuge islands and traffic circles. All greenways will be designed and built to accommodate emergency vehicles. Neighborhood greenways may also be used for flooding and stormwater management mitigation.

Figure 53: Neighborhood Greenway

Figure 52: Bicycle boulevard

ACTIONS

Actions to prioritize a network of neighborhood greenways during the buildout of the All Ages and Abilities Network.

Actions	Supports	Difficulty
DO **ACTION 3.1** Implement neighborhood greenways. In addition to building new greenways, this program should include improvements to 10 miles of existing neighborhood greenways (21 miles existing).	Climate, Safety, Equity, Mobility	High
DO **ACTION 3.2** Include greening and stormwater infrastructure elements, public art and public realm improvements as standard in all greenway projects.	Climate, Safety, Equity, Mobility	High

SEE ALSO ACTIONS:

- **Bicycling Action 8.2** — Medians and intersection improvements
- **Bicycling Action 8.3** — Greening and stormwater infrastructure

STRATEGY 4

Enhance intersection design and safety during the buildout of the All Ages and Abilities Network.

Minneapolis crash data shows that 80% of bicycle crashes happen at an intersection – 48% at signalized intersections and 32% at stop signs.[41] Focusing design strategies on the intersection to minimize exposure and risk from vehicles is key to improving safety and comfort for bicyclists. An added benefit is that improved conditions for bicyclists tends to increase comfort, reduce crossing distances and improve visibility for pedestrians. A key focus of this strategy is building protected intersections. Protected intersections better protect bicyclists traveling through the intersection through the inclusion of design treatments like vertical separation elements and turning wedges.

Figure 54: Protected intersections

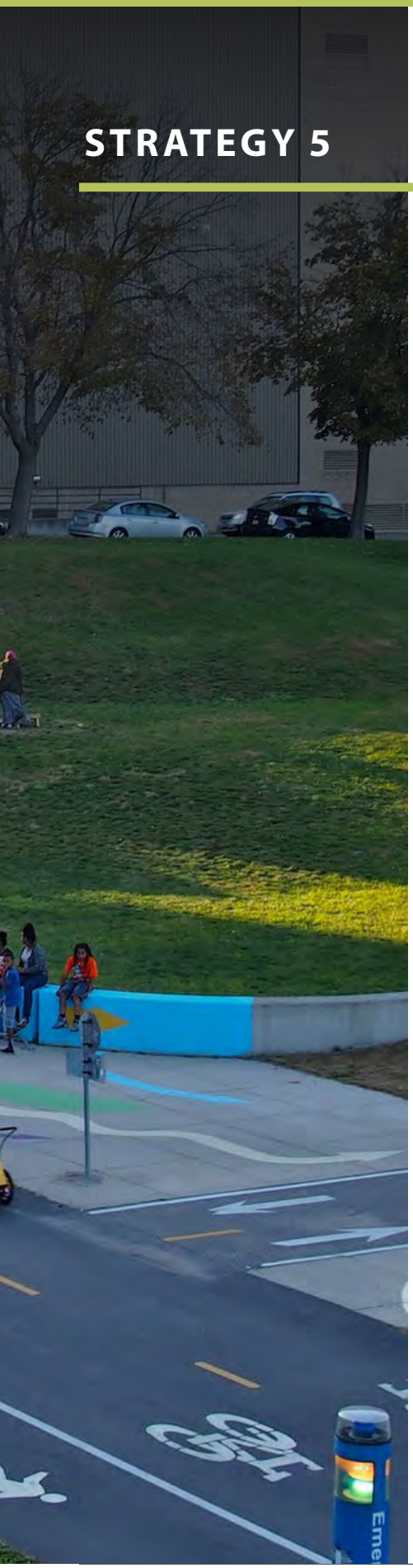
Figure 55: Raised crossings

[41] Minneapolis Vision Zero Crash Study (2018).

ACTIONS

Actions to enhance intersection design and safety during the buildout of the All Ages and Abilities Network.

Actions	Supports	Difficulty
DO **ACTION 4.1** Build protected intersections along the entire bikeway network, prioritizing the All Ages and Abilities Network and High Injury Streets as identified in the Vision Zero Action Plan.	Safety, Mobility	High
DO **ACTION 4.2** Build median islands, curb extensions, raised crossings, signals and/or reduce the number of travel lanes along the All Ages and Abilities Network on crossings of any street types other than low volume residential streets. *See bicycling Action 8.2*	Safety, Mobility	High
DO **ACTION 4.3** Install transit islands where appropriate to ensure compatibility of protected bikeways, transit operations and people walking, with careful consideration for accessibility. *See design Strategy 5*	Safety, Equity, Mobility	High



STRATEGY 5

Plan and implement bikeway connections to and between regional destinations and adjacent city networks.

Connecting to the larger regional bike network is important as it allows regional commuters and other people living outside of Minneapolis to connect to destinations in the city. Coordinated regional connections also promote alternatives to driving for longer distances.

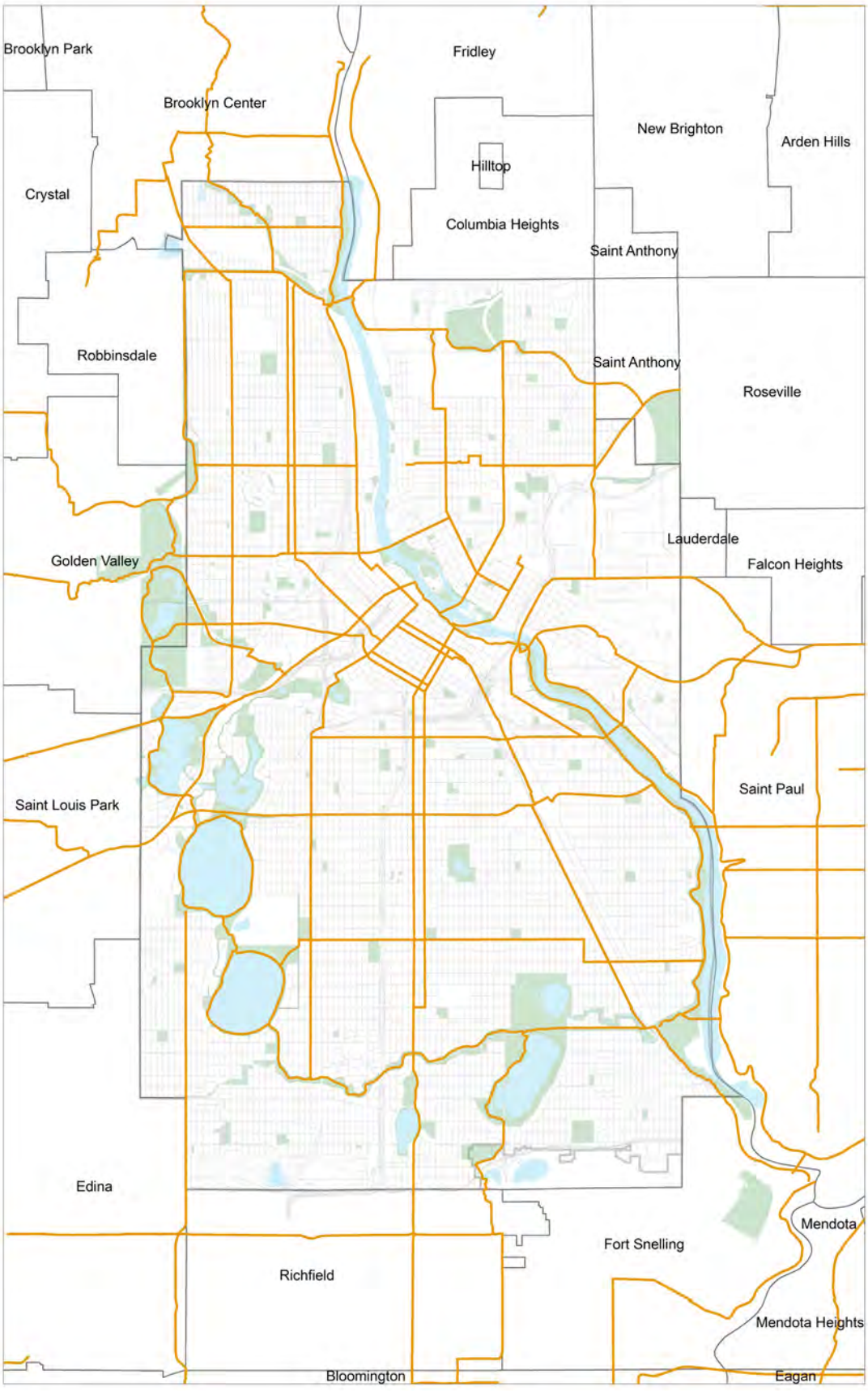
The actions below build upon several of our partner's planning efforts. These include the Metropolitan Council's long-term vision for the Regional Bicycle Transportation Network, which identifies regionally significant connections for bicyclists like the extension of the Midtown Greenway across the Mississippi River, as well as the Minneapolis Park and Recreation Board's efforts to complete the Grand Rounds trail system, which will be a 50+ mile system of trails in Minneapolis.

ACTIONS

Actions to plan and implement bikeway connections to and between regional destinations and adjacent city networks.

	Actions	Supports	Difficulty
SUPPORT	**ACTION 5.1** Partner with the Metropolitan Council to identify opportunities to implement the Regional Bicycle Transportation Network, prioritizing the All Ages and Abilities Network and considering where the Regional Bicycle Transportation Network crosses regional barriers and/or provides direct connections to adjacent city bicycle networks. Potential example includes extending the Midtown Greenway across the Mississippi River into St. Paul.	Safety, Mobility, Active partnerships	Low
SUPPORT	**ACTION 5.2** Support the Minneapolis Park and Recreation Board in completing the Grand Rounds Missing Link, connecting Northeast and Southeast Minneapolis.	Mobility, Active partnerships	Low
SUPPORT	**ACTION 5.3** Work with partners to support bikeway connecting South Minneapolis directly to Minneapolis-St. Paul Airport Terminal 1 and Blue Line Light Rail stations.	Prosperity, Mobility, Active partnerships	Medium

Figure 56: Existing Regional Bicycle Trail Network



STRATEGY 6

Maintain the All Ages and Abilities Network to provide year-round access.

Maintenance of the All Ages and Abilities Network includes sweeping, replacement of bollards, repainting street lines, snow and ice clearance, maintaining smooth pavement and providing the same quality of access when detours are required along parts of the network.

Bicycle lanes are often impacted by construction, utility activities and development. There are obstructions, both planned and unplanned, that put bicyclists and other users into general traffic lanes. Depending on the confidence of the rider, this experience ranges from acceptable but inconvenient, to unacceptable, to terrifying. To preserve a network where people of all ages and abilities feel comfortable riding, we need to put practices in place that manage the right of way for these users and maintain predictable comfort measures along the All Ages and Abilities Network.

Figure 57: Well maintained winter bicycle facility

Figure 58: Bollard not maintained

Figure 59: Detour difficulty for bike lanes

Figure 60: Curb separated bike lane prevents temporary parking in lane

ACTIONS

Actions to maintain the All Ages and Abilities Network to provide year-round access.

Actions	Supports	Difficulty
DO ACTION 6.1 Develop and implement a written All Ages and Abilities Network Maintenance Plan that is regularly updated.	Safety, Equity, Prosperity, Mobility	Medium
DO ACTION 6.2 Require low-stress bikeway detours or temporary bike lanes in place of general travel lanes any time bike lanes are impacted due to construction closures and detours to ensure continuity, including during construction activities, utility projects and closures related to development projects; ensure restoration meets City standards. *See street operations Strategy 9*	Safety, Equity, Prosperity, Mobility	Medium
DO ACTION 6.3 Implement and fund proactive inspections of bikeway detour or temporary bike lane requirements around work zones and ensure compliance, issue fines for and eliminate non-conforming or non-existent bikeway detour or temporary bike lane routes. *See street operations Strategy 9*	Safety, Mobility	Medium
DO ACTION 6.4 Improve existing protected bike lanes with more permanent separation, such as curb barriers and planters or other green infrastructure. Consider opportunities to improve the pavement condition when selecting improvements as a part of retrofit projects.	Safety, Equity	Medium
DO ACTION 6.5 Replace all missing bicycle bollards on protected bikeways each spring by June 1st.	Safety, Equity, Mobility	Low
DO ACTION 6.6 Inspect and maintain trail and bike lane pavement condition in coordination with routine sidewalk and roadway pavement inventory cycle. *See walking Action 5.1*	Safety, Equity, Mobility	Medium
DO ACTION 6.7 Improve the pavement condition along the All Ages and Abilities Network with routine street and trail maintenance projects, including sealcoat and resurfacing projects.	Safety, Equity, Mobility	Medium

continued on next page

ACTIONS (continued)

Actions to maintain the All Ages and Abilities Network to provide year-round access.

Actions	Supports	Difficulty
DO **ACTION 6.8** Sweep the All Ages and Abilities Network once a week during spring, summer and fall.	Safety, Equity, Mobility	Medium
DO **ACTION 6.9** Prioritize clearing snow and ice on the All Ages and Abilities Network, including trails and protected bikeways within 24 hours of a snow event.	Safety, Equity, Mobility	Medium
DO **ACTION 6.10** Determine best way to ensure existing and future neighborhood greenways have the same quality of snow and ice clearance as trails and protected bikeways.	Safety, Equity, Mobility	High
DO **ACTION 6.11** Increase lighting on the All Ages and Abilities Network by installing standalone lighting where bikeways are not adequately lit by pedestrian or roadway lighting. *See walking Strategy 3*	Safety, Equity, Mobility	Medium

SEE ALSO STRATEGY:

- **Street operations Strategy 9** — Street detours and Complete Streets

STRATEGY 7

Provide wayfinding to help people navigate the All Ages and Abilities Network.

Bicycle wayfinding signage currently exists at several locations around Minneapolis, including the Midtown Greenway and at the newly installed mobility hub pilots. Providing a similar set of navigational wayfinding signs, designed for those using the All Ages and Abilities Network, will help provide direction to those on the network. An interconnected All Ages and Abilities Network with signage that shows users time or distance to certain destinations on a low-stress corridor will give users the ability to navigate the network, and the destinations it will serve, with assuredness.

Figure 62: Mobility hub wayfinding signage

Figure 61: Midtown Greenway wayfinding information

ACTIONS

Actions to provide wayfinding to help people navigate the All Ages and Abilities network.

Actions	Supports	Difficulty
DO **ACTION 7.1** Develop a wayfinding plan for the All Ages and Abilities Network in the city and coordinate with neighboring jurisdictions and regional partners.	Mobility, Active partnerships	Medium
DO **ACTION 7.2** Install wayfinding signs along the existing All Ages and Abilities Network and include signage as new projects are built.	Mobility	Low
DO **ACTION 7.3** Promote the All Ages and Abilities Network with maps, educational materials and partnerships with community organizations.	Mobility, Active partnerships	Low

SEE ALSO ACTION:

- **Technology Action 3.1** — Implement mobility hub network

STRATEGY 8

Design bikeways using best practices that reflect the community and serve as an asset to people who may not currently ride a bike or use micromobility.

Bikeways provide clear benefits to the users of them, but often provide additional benefits to those who travel along the same corridor. Examples include traffic calming and reduced speeds of vehicles which lowers the risks and severity of crashes along those corridors. Including additional elements like greening along bikeways provides multiple benefits, like more protection to the bicyclists, helping to capture rainwater before it enters the stormwater system, creating habitat for birds and other small animals and providing visual interest for people traveling along the corridor, no matter the mode of travel.

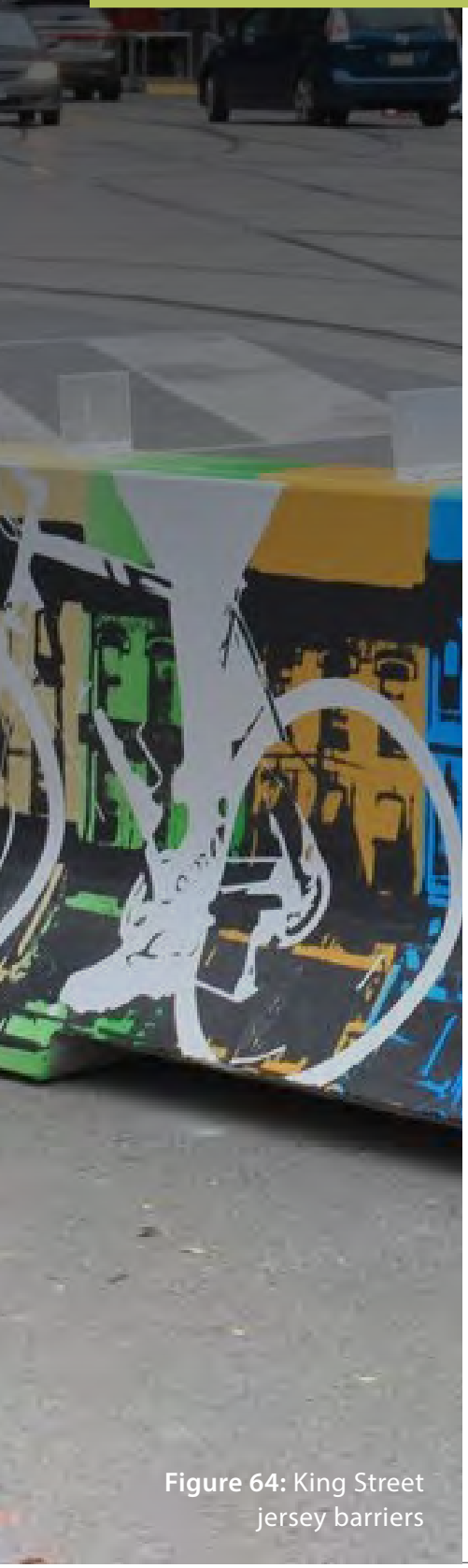
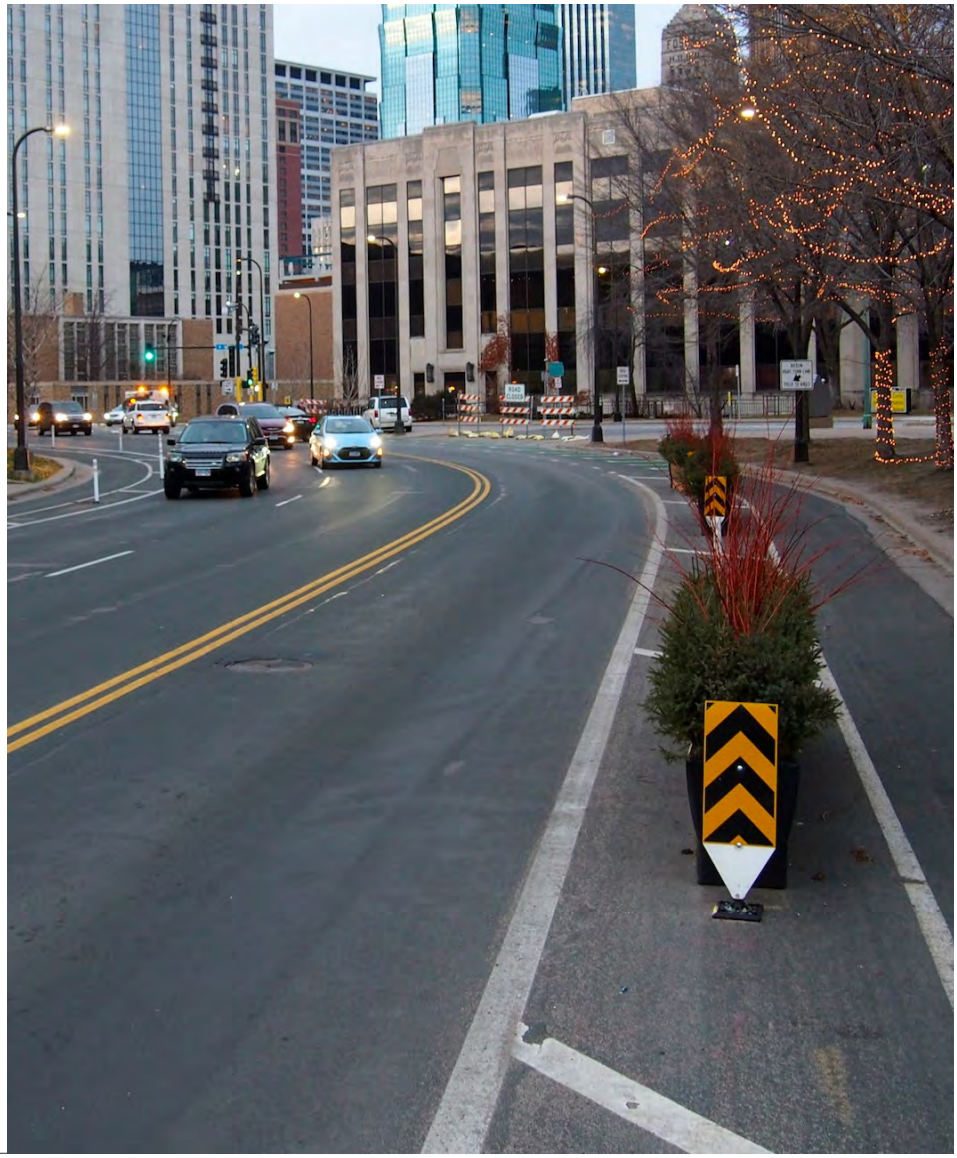


Figure 64: King Street jersey barriers

Figure 63: 3rd Avenue bike planters



ACTIONS

Actions to design bikeways using best practices that reflect the community and serve as an asset to people who may not currently ride a bike or use micromobility.

Actions	Supports	Difficulty
DO **ACTION 8.1** Design protected bikeways to accommodate access to the curb for the mobility impaired, working directly with the Minneapolis Advisory Committee on People with Disabilities and the broader disability community to test and monitor designs.	Safety, Equity, Mobility	Low
DO **ACTION 8.2** Incorporate median islands and intersection treatments into protected bikeways and neighborhood greenways that benefit people walking as they cross streets. *See bicycling Action 4.2*	Safety, Mobility	Medium
DO **ACTION 8.3** Install greening and stormwater infrastructure elements along trails, protected bike lanes and neighborhood greenways. *See design Strategy 4*	Climate, Prosperity, Mobility, Active partnerships	Medium
DO **ACTION 8.4** Integrate public realm or public art projects into bikeway features to reflect the community when appropriate.	Prosperity	Medium

SEE ALSO ACTION:

- **Bicycling Action 1.3** — Use design to prevent blocked lanes

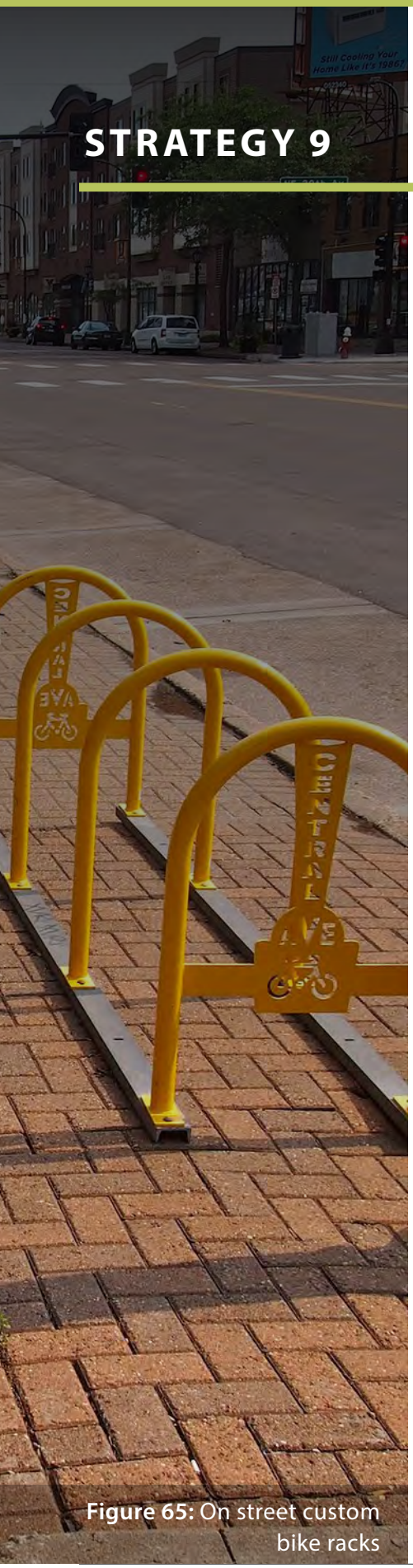


Figure 65: On street custom bike racks

STRATEGY 9

Update bicycle and micromobility parking practices to support demand and diversity of vehicles to significantly expand bicycle racks in the right of way.

The rise of different types of vehicles, including scooters, bikeshare and other new vehicle types increase the need for safe spaces to park these vehicles. The City currently operates five accommodations for bike and micromobility parking:

Bike corral program

The Bicycle Corral Cost Share Program is designed for businesses with high bicycle demand and limited space in the boulevard or sidewalk area. It is a low-cost method to provide bicycle parking in the same space occupied by an on-street parked car. Businesses are reimbursed up to 50% of the bike corral cost.

Figure 66: Bike corral

Bike rack program

The Bike Rack Cost Share program allows eligible businesses to be reimbursed up to 50% of the bicycle rack cost and 50% of the installation cost. Schools, libraries, parks and other eligible public facilities can request to receive racks at no cost.

Bike lockers

Public bike lockers are available to rent at Ramp A, Courthouse Ramp, the University of Minnesota and at Metro Transit stations and transit centers.

Nice Ride station placement

Nice Ride has both stations for docked bicycles and painted spots on sidewalks for the dockless blue bikes.

Figure 67: Nice Ride hub

Scooter parking zones

The City has created several on-street scooter parking zones to provide a designated space for scooters to be parked, out of the pedestrian clear zone and in a predictable manner for scooter users.

Figure 68: Scooter parking zone

ACTIONS

Actions to update bicycle and micromobility parking practices to support demand and diversity of vehicles to significantly expand bicycle racks in the right of way.

Actions	Supports	Difficulty
DO ACTION 9.1 Develop approach and criteria to reserve curbside or furnishing zone space on all mixed-use block faces for seasonal on-street bicycle and micromobility parking at no charge. *See technology Action 2.1, street operations Action 5.11*	Equity, Mobility	Medium
DO ACTION 9.2 Complete a citywide evaluation of bike rack installations and develop a process to identify locations to add bike racks across the city, including adding hitches to meter poles and stand-alone bike racks.	Mobility	Medium
DO ACTION 9.3 Install bike and micromobility parking with all capital projects, consistent with the Street Design Guide. *See design Strategy 1*	Equity, Mobility	Low
DO ACTION 9.4 Expand the bicycle rack cost share and bicycle corral programs to make free for businesses and residences within ACP50 areas.	Equity, Mobility	Low
DO ACTION 9.5 Update the Zoning Code, which requires minimum bike parking for new developments, to accommodate increased demand and a range of vehicle types, including adaptive and cargo bicycles and electric charging needs.	Equity, Mobility	Low
SUPPORT ACTION 9.6 Work with Metro Transit to implement secure and covered bicycle parking at transit stations. *See transit Strategy 5*	Safety, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Technology Action 2.4** — Provide adaptive shared vehicles
- **Technology Action 6.2** — Electric charging infrastructure is compatible with bicycles and micromobility
- **Street operations Action 5.1** — Develop curbside management policy

STRATEGY 10

Expand safe biking and micromobility education and encouragement.

The City of Minneapolis partners with Minneapolis Public Schools on Safe Routes to School projects and planning efforts. This strategy focuses on that partnership as well as broader education efforts for residents and businesses.

Figure 69: Open streets Minneapolis

Figure 70: Pop up event

Actions to expand biking and micromobility education and encouragement.

	Actions	Supports	Difficulty
DO	**ACTION 10.1** Provide on-site education for bikeway projects post-installation to help people understand changes to street operations, particularly when an All Ages and Abilities project is implemented. This can include temporary visual materials and pop-up engagement in the neighborhood.	Safety, Active partnerships	Low
DO	**ACTION 10.2** Ensure that Open Streets Minneapolis continues to be a sustainable program and evolves. Explore different route types, lengths, frequency and repetition, including ideas like 'car free Sundays', low-programmed open streets, partnering with the Minneapolis Park and Recreation Board for events on parkways and finding other ways to encourage and give people the opportunity to envision Minneapolis streets in a different way.	Safety, Prosperity, Active partnerships	Medium
SUPPORT	**ACTION 10.3** Help Minneapolis Public Schools get to a universal bike education program for fourth and fifth grade students.	Safety, Equity, Active partnerships	Low
SUPPORT	**ACTION 10.4** Work with the Minnesota Department of Public Safety to add more bicycle, scooter and other new mobility options to the driver's education curriculum.	Safety, Mobility, Active partnerships	High

SEE ALSO ACTIONS:

- **Walking Action 2.6** — Use the Safe Routes to School program to encourage walking and biking
- **Technology Action 2.1** — Welcome and maintain bikeshare and micromobility option

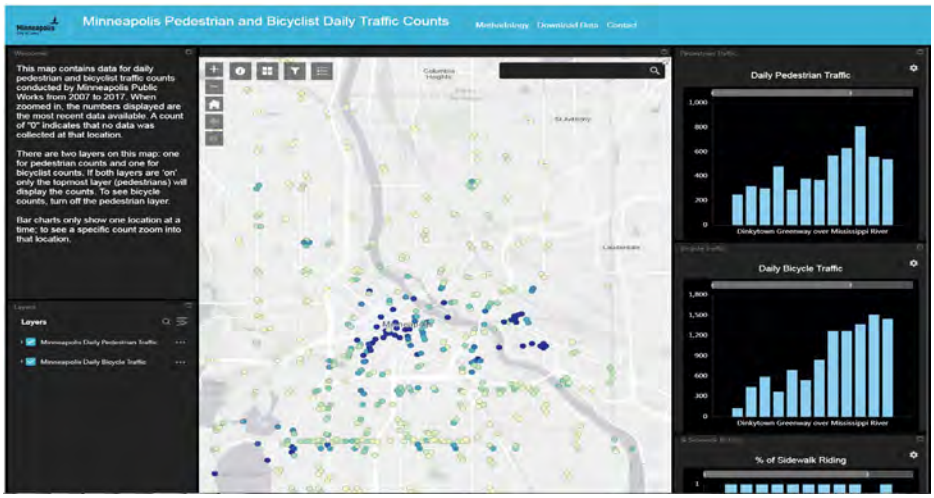
STRATEGY 11

Measure biking and micromobility ridership levels and user comfort.

Building out a safe and convenient bike network will require monitoring, including impacts of investments on perceptions and use patterns of existing and new riders. In so doing, we will be able to adjust our approach if needed in light of user preference and use patterns.

Being able to help public understanding of new micromobility options through data – including use data, crash data and travel behavior choices – will help the public better react to the changing mobility options as well as give people more information for their own journey.

Figure 71: Minneapolis of bike/walk counts program dashboard



ACTIONS

Actions to measure biking and micromobility ridership levels and user comfort.

	Actions	Supports	Difficulty
DO	**ACTION 11.1** Expand use of automated counters to measure seasonal traffic variation and integrate biking and micromobility count data into traffic databases.	Mobility	Low
DO	**ACTION 11.2** Require data sharing from micromobility service providers to understand travel behavior and inform infrastructure and policy changes. *See technology Strategy 4*	Mobility, Active partnerships	Low
DO	**ACTION 11.3** Conduct a biennial survey in coordination with micromobility service providers to collect information on the perceptions of biking and micromobility including who is riding and the experiences of people riding. *See technology Strategy 4, technology Action 7.4*	Mobility, Active partnerships	Low

TRANSIT

Define the Minneapolis Transit Network

Transit is a central component of Minneapolis 2040 and throughout the engagement process for the TAP, we repeatedly and clearly heard that people want reliable access to transit. Transit is a critical foundation for the City's multimodal transportation system while also contributing to economic competitiveness by attracting business, private investment and top talent to the city. Over 30,000 (16.5%) households in the city do not have access to or choose not to own a personal car, with the highest concentration of car-free individuals living in neighborhoods around downtown Minneapolis.[42] The comprehensive plan calls for more growth in population and jobs, focused along and near transit corridors.

Over 30,000 (16.5%) of households in the city do not have access to a vehicle, with the highest concentration of car-free individuals living in neighborhoods around downtown Minneapolis.[43]

To effectively plan for this growth, the City will partner with the Metropolitan Council to plan for and invest in a transit priority projects that aim to improve the coverage, speed and reliability of transit service. The Metropolitan Council provides a backbone of service and operation, and the City of Minneapolis, through this chapter of the Transportation Action Plan, defines a clear set of priorities, goals and actions for the city.

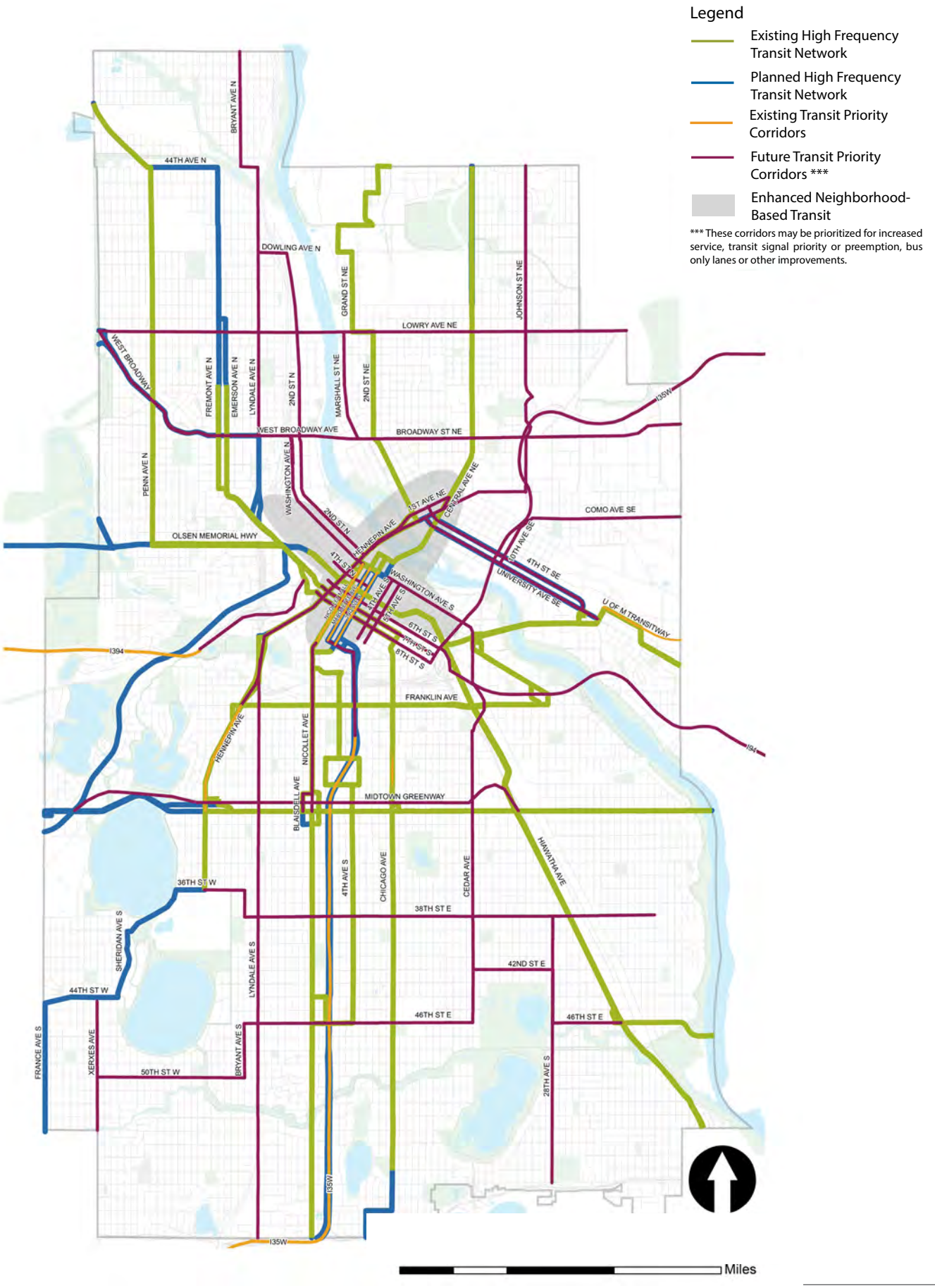
Transit must be convenient, reliable and frequent to effectively reduce trips made by single occupancy vehicles. In 2010 people took transit for 13% of their trips (including 2% by school bus). Our goal is to increase that to 1 in 4 trips (25%) by 2030.[44]

[42] Household Size by Vehicles Available, U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

[43] Household Size by Vehicles Available, U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

[44] The 2010 data is anticipated to be updated by the Metropolitan Council by the time the TAP is adopted; the mode shift goal may be adjusted based on changes to baseline data; we understand that 2010 trip data may be significantly different than the forthcoming 2018-2019 dataset.

Figure 72: Transit Priority Projects



TRANSIT STRATEGIES

1. **Increase transit coverage so that 75% of city residents are located within a quarter mile and 90% of residents are located within a half mile of high frequency transit corridors.**
2. **Increase the speed and reliability of transit.**
3. **Increase available resources for transit and actively manage capital transit investments.**
4. **Partner with Metro Transit and other agencies to pursue new transit projects of high impact.**
5. **Expand multimodal access to transit.**
6. **Support efforts to ensure transit is a safe, comfortable and affordable option for all city residents.**

SEE ALSO STRATEGIES:

- **Street operations Strategy 3** — Plan for efficient and practical operations of people walking, biking and taking micromobility or transit throughout the street design process.
- **Street operations Strategy 4** — Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.
- **Street operations Strategy 5** — Price and manage use of the curb to encourage walking, biking and using transit, and to discourage driving alone.
- **Street operations Strategy 6** — Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.
- **Design Strategy 5** — Use street design to improve transit operations.

Figure 73: Hennepin Ave bus only lane pilot

STRATEGY 1

Increase transit coverage so that 75% of city residents are located within a quarter mile and 90% of residents are located within a half mile of high frequency transit corridors.

Minneapolis 2040 allows greater density of housing near existing and planned high frequency transit lines. The Transit Priority Projects map identifies corridors to improve frequency and reliability on existing routes and identifies where new crosstown services are needed.

High frequency transit corridors have service every 15 minutes during key weekday and Saturday hours. Currently, 47% of Minneapolis residents have a quarter mile access, or about a 5-minute walk, to high frequency transit. An additional 24% of people have access within a half mile, or about a 10-minute walk. The TAP sets a goal of 75% of city residents located within a quarter mile and 90% of residents located within a half mile walk of high frequency transit corridors.

The current transit system undergoes minor service adjustments quarterly, with more major adjustments done through Metro Transit's Service Improvement Plan and when major capital projects come online. The last full Service Improvement Plan was completed in 2015 with an update report in 2017, and Metro Transit's Network Next will be looking at larger service adjustments systemwide in 2020. With many development and new population centers in Minneapolis, ensuring growth corridors are well served by transit is a focus of this strategy. Each of the strategies below will depend on upon the partnership with Metro Transit and should be coordinated with Network Next.

Figure 74: Existing and planned high frequency transit routes

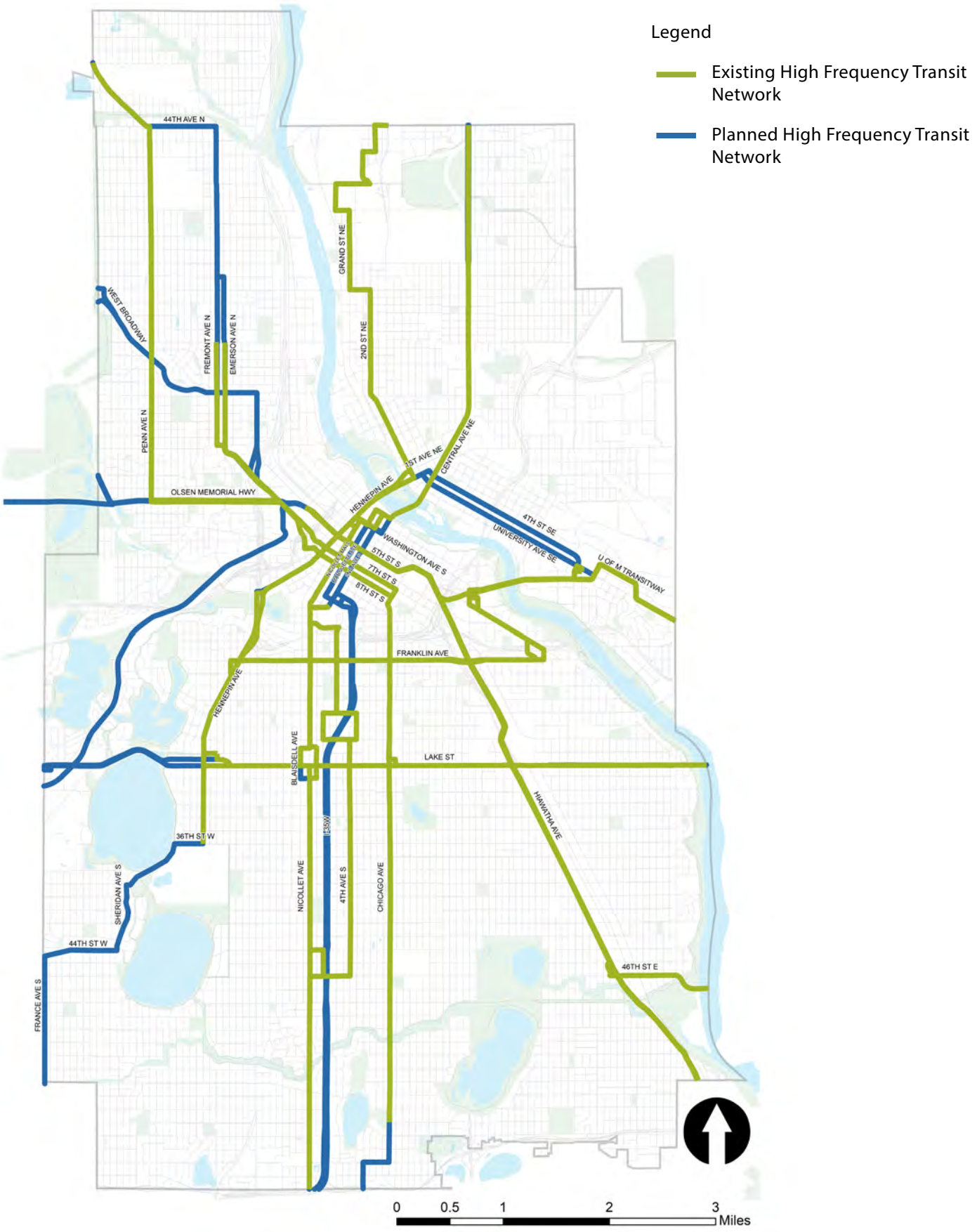
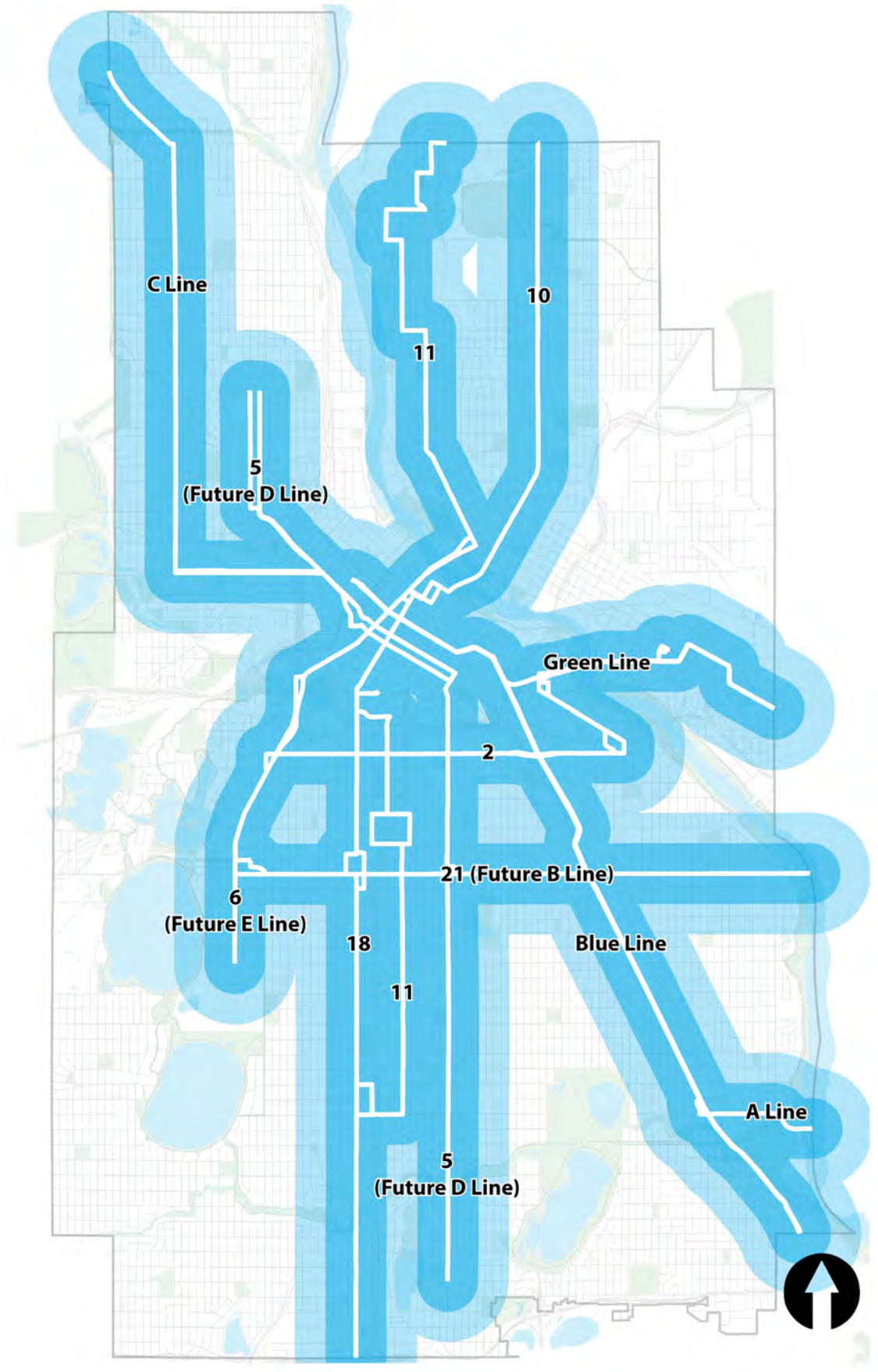


Figure 75: 5- and 10-minute walksheds to existing high frequency transit



ACTIONS

Actions to increase transit coverage and proximity to high frequency transit.

Actions	Supports	Difficulty
DO **ACTION 1.1** Expand the high frequency network.	Equity, Prosperity, Mobility, Active partnerships	High
DO **ACTION 1.2** Coordinate with Metro Transit's Network Next plan to reflect the strategies and actions in this plan.	Equity, Prosperity, Mobility, Active partnerships	Medium
DO **ACTION 1.3** Establish enhanced neighborhood-based transit options, considering the use of new vehicle types, in growing neighborhoods to provide enhanced access and connections to housing, goods, services, employment and other destinations including existing high-frequency transit routes. Explore options along the downtown riverfront and North Loop first.	Prosperity, Mobility	High
SUPPORT **ACTION 1.4** Increase the high frequency network from 15 to 10 minutes or better.	Equity, Prosperity, Mobility, Active partnerships	High
SUPPORT **ACTION 1.5** Improve the quality and expand the high frequency network of local crosstown service, specifically from north to northeast Minneapolis and from south to southwest Minneapolis.	Equity, Prosperity, Mobility, Active partnerships	High

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ACTIONS (continued)

Actions to increase transit coverage and proximity to high frequency transit.

SUPPORT	**ACTION 1.6** Expand coverage to new or growing markets and improve transit service to areas that are currently underserved based on potential demand from population or development increases. Focus initially on: • Marshall St NE – between Broadway St NE and Lowry Ave NE • Lyndale Ave N – between West Broadway and northern city boundary • Lowry Ave – western city boundary to eastern city boundary • W Broadway Ave/Broadway St NE – extend from Lyndale Ave N to the eastern city boundary • Como Ave SE – between University Ave SE and eastern city boundary • 38th St – Bryant Ave S to 42nd Ave S • Xerxes Ave to 46th Street Station - traveling along 50th Street W, Bryant Ave S, 46th St E, Cedar Ave, 42nd St E, 28th Ave S, 46th St E • Lyndale Ave S – Hennepin/Lyndale merge near Loring Park to southern city boundary • Washington Ave – West Broadway to Cedar Ave continuing to 46th St • 2nd St N – Hennepin Ave to Dowling Ave N • Johnson St NE – Hennepin Ave to 37th Ave NE • Xerxes Ave – 44th St W to 54th St W • 28th Ave S – 38th St E to 58th St E • 4th St SE and University Ave SE – Central Ave to 27th Ave SE	Equity, Prosperity, Mobility, Active partnerships	High
SUPPORT	**ACTION 1.7** Work with Metro Transit and Minneapolis Public Schools to ensure the transit system offers safe, reliable and convenient transit routes and service for high school students.	Climate, Safety, Equity, Mobility, Active partnerships	High
SUPPORT	**ACTION 1.8** Support reverse commute service connecting Minneapolis residents to suburban employment centers.	Climate, Prosperity, Mobility, Active partnerships	Medium
SUPPORT	**ACTION 1.9** Partner with Metro Transit to identify and secure bus layover locations, including restroom availability, that provide efficient access at the beginning of routes.	Mobility, Active partnerships	Low

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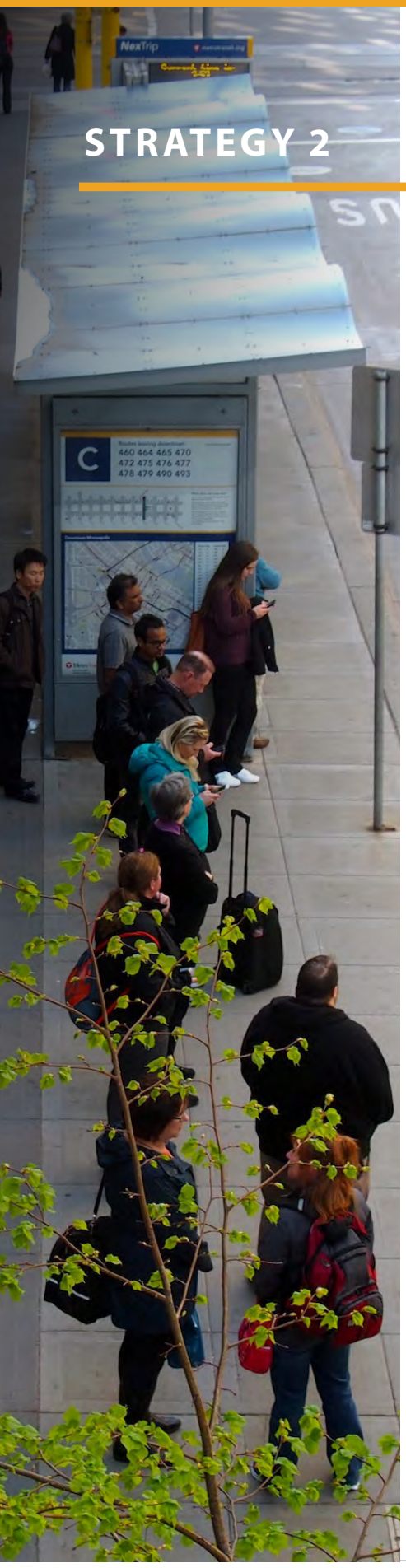
ACTIONS (continued)

Actions to increase transit coverage and proximity to high frequency transit.

SUPPORT	**ACTION 1.10** Explore partnerships and opportunities with private companies and other organizations to subsidize and implement neighborhood or employer circulators.	Prosperity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Technology Action 1.6** — Research and integrate automated transit vehicles
- **Technology Action 6.7** — Siting of electric charging stations



STRATEGY 2

Increase the speed and reliability of transit.

Many improvements can be made to transit within City streets and by adapting the City's practices. Bus priority lanes, adjustments to signal timing, curb extensions or in-lane transit stops and stop consolidation are all examples of using existing street right of way to improve speed and reliability. Large transit projects often take years to plan, design, fund and construct, and often involve multiple agencies – including city, regional, state, federal offices as well as transit operators. This 10-year action plan recognizes that while that process is valid and necessary for certain types of transit projects like light rail or bus rapid transit projects, there are other quick-build opportunities that we can identify and implement in the near term to make improvements sooner rather than later. We need to invest now in transit projects. The actions below focus on near-term opportunities to improve the transit in the city.

Transit accounts for 14% of all commuter trips. Over 200,000 employees work in downtown Minneapolis each day and 13.5% of commuter trips.[45] During busy commute times, bus service becomes unreliable due to congestion during peak travel hours. An added focus on downtown is included in this chapter due to the density of trips.

Figure 76: Painted bus lane

[45] 2018 American Community Survey 5-Year Estimates

Figure 77: Transit signal priority

Bus-only lanes refer to using one travel lane for buses only, either for a select period of time or throughout the entire day depending on context.

ACTIONS

Actions to increase the speed and reliability of transit.

Actions	Supports	Difficulty
DO ACTION 2.1 Use full-time dedicated bus-only lanes or dynamic lanes (peak period operation) to improve the speed, frequency and reliability of transit on congested corridors.	Climate, Prosperity, Mobility, Active partnerships	High
DO ACTION 2.2 Install a bus-only lane and/or other transit advantages on the following high priority corridors: • 4th Ave S between Washington Ave and 10th St S • 5th Ave S between Washington Ave and 10th St S • 6th St N/S between 1st Ave N and 13th Ave S • 7th St N/S between 1st Ave N and 13th Ave S • 8th St N/S downtown between 1st Ave N and 13th Ave S • 4th St from the freeway connections on the west to Marquette and 2nd Aves	Climate, Equity, Prosperity, Mobility, Active partnerships	High
DO ACTION 2.3 Evaluate the potential for a bus-only lane and/or other transit advantages on the following corridors, considering partnerships with other jurisdictions. • Hennepin Ave between Washington Ave S and 12th St S • Hennepin Ave between Franklin Ave and 12th St S • West Broadway Ave from western city boundary to eastern city boundary • Central Ave from 3rd Ave bridge to northern city boundary • University Ave/4th St from Hennepin/1st Ave NE to eastern city boundary • 11th Street South between Hennepin and Marquette • 12th Street South between Hawthorne to 2nd Avenue	Climate, Equity, Prosperity, Mobility, Active partnerships	High
DO ACTION 2.4 Improve transit speed and reliability throughout downtown; focus on Nicollet Mall and Marquette/2nd Ave operations first.	Climate, Equity, Prosperity, Mobility, Active partnerships	High
DO ACTION 2.5 Plan for transit during street reconstruction projects. Ensure that road reconstruction projects on high frequency transit corridors allocate dedicated space for bus-only lanes or other transit advantages, and if applicable, integrate bus rapid transit-ready station design. *See street operations Strategy 9*	Climate, Equity, Prosperity, Mobility, Active partnerships	High

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ACTIONS (continued)

Actions to increase the speed and reliability of transit.

DO	**ACTION 2.6** Prioritize the use of curb space for transit operations and passengers and allow for dynamic flexibility depending on the time of day. *See street operations Action 5.2*	Prosperity, Mobility, Active partnerships	High
SUPPORT	**ACTION 2.7** Support transit advantages on freeways, including direct connections into and out of downtown, that rely on lane conversions instead of expansions where technically feasible and with consideration of local impacts. Direct connections into downtown should connect to streets with transit-only facilities, including from: • I-94 between downtown Minneapolis and downtown St Paul • I-94 north of downtown • I-35W north of downtown	Climate, Prosperity, Mobility, Active partnerships	High
SUPPORT	**ACTION 2.8** Increase enforcement of bus-only lane operation to ensure effectiveness on existing and future routes: • Increase targeted parking enforcement strategies for vehicles blocking current and future bus-only lanes. • Support the implementation of automated enforcement. *See street operations Action 6.6*	Equity, Mobility, Active partnerships	High
SUPPORT	**ACTION 2.9** Increase the size of the traffic control agent workforce, assign traffic control agents in coordination with transit operators and ensure that traffic control agents are educated and focused on increasing person throughput, prioritizing the movement of transit vehicles over automobiles.	Climate, Prosperity, Mobility, Active partnerships	High

STRATEGY 3

Increase available resources for transit and actively manage capital transit investments.

Currently, the City contributes to transit improvements through partnerships with Metro Transit and funding from our cooperative project fund in the Capital Improvement Program. As the City prioritizes its role in making transit work more effectively, leveraging existing mechanisms to fund transit improvements is an important part of the work. Existing mechanisms include:

- cooperative project funding;
- partnering with private development to include transit amenities into building construction projects;
- land use controls through the Department of Community Planning and Economic Development including incentivizing transit through parking regulations;
- adjusting signal timing and including transit priority signalization along transit corridors; and
- redesigning streets to allow better transit facilities and interactions with other modes, particularly along the curb.

Actions below focus on adjustments to our existing tools to better recognize transit improvements as a prioritizing force within our capital program as well as to look creatively to leverage additional resources for transit improvements on city streets in coordination with regional partners.

Figure 78: Transit infrastructure on bridge at 46th St S over Interstate 35W

ACTIONS

Actions to increase available resources for transit and actively manage capital transit investments.

Actions	Supports	Difficulty
DO **ACTION 3.1** Modify capital programs to support transit investments on corridors that have the highest ridership and lowest car ownership rates and allocate funds in a manner that advances citywide transit priorities.	Equity, Mobility, Active partnerships	High
DO **ACTION 3.2** Work with the Department of Community Planning and Development and other agency partners to convert excess right of way to development parcels; an example includes along Olson Memorial Highway (Highway 55).	Mobility, Active partnerships	High
DO **ACTION 3.3** Continue to leverage private development opportunities to implement or improve transit investments in the public right of way.	Climate, Mobility, Active partnerships	Medium
SUPPORT **ACTION 3.4** Support transit infrastructure improvements during freeway bridge maintenance and replacement projects along transit corridors.	Climate, Mobility, Active partnerships	Low
SUPPORT **ACTION 3.5** Support regional efforts to better operate transit through larger regional investments in high-impact locations in Minneapolis. Examples include exploring better operations for buses at the Washington Ave and I-35 W intersection.	Climate, Prosperity, Mobility, Active partnerships	Medium

SEE ALSO ACTION:

- **Street operations Action 6.5** — Eliminate gaps in the street grid and reopen Nicollet Avenue at Lake St

STRATEGY 4

Partner with Metro Transit and other agencies to pursue new transit projects of high impact.

Light rail and bus rapid transit routes provide the major spines of the existing METRO transitway system in Minneapolis, along with one commuter rail line. Bus rapid transit service includes off-board fare payment, fewer stops compared to regular transit lines, enhanced shelters that include real-time vehicle information and longer buses that allow for all-door boarding. Light rail service is similar but runs along dedicated rail lines. The existing light rail has routinely exceeded ridership expectations and has spurred development along the corridors. High frequency transit serves about 3% of the region by land area, but the volume of development it is capturing is significant.[46]

Light rail and bus rapid transit are major capital investments; however, bus rapid transit projects are less costly to build and quicker to plan and construct than light rail projects, which require a larger scale of investment and time needed for implementation. Fifty percent of the funding for design and construction of light rail and bus rapid transit projects is historically provided by the federal government. We believe that expanding the METRO transitway network is an effort worth investing in. It will be critical with any new light rail developments in Minneapolis that provisions are in place to ensure that nearby residents benefit from the transit investment, including through preservation and construction of affordable housing.

Several projects in Minneapolis have gone through early environmental review processes and have a locally preferred alternative identified. The extents of these corridors are extended below in cases, reflecting the vision of increasing high frequency transit to more people throughout the city.

[46] Development Trends Along Transit: Regional growth near high frequency transit in the Twin Cities, 2019.

Figure 79: Nicollet-Central LPA

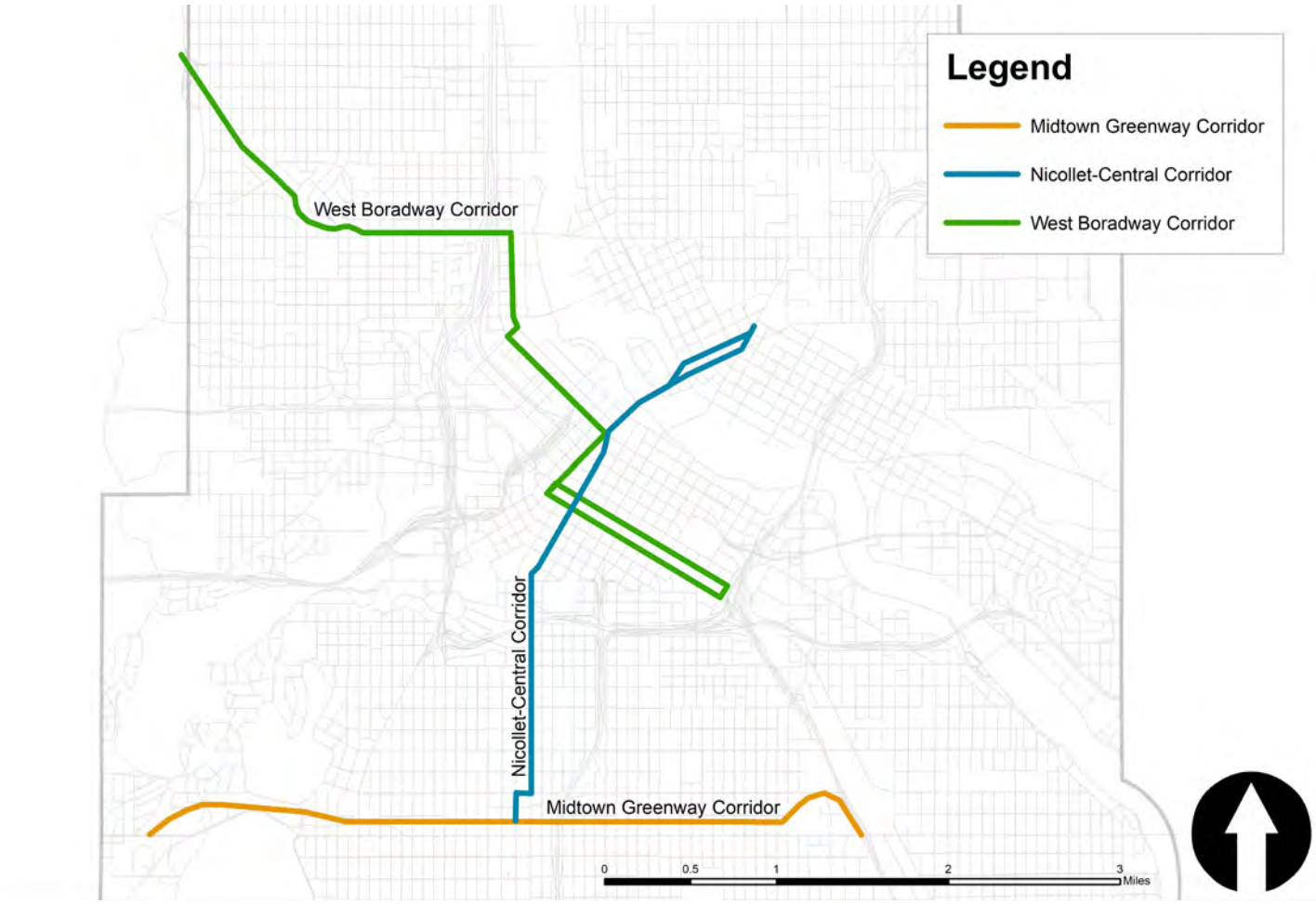

Figure 80: METRO transitways

ACTIONS

Actions to partner with Metro Transit and other agencies to pursue new transit projects of high impact.

Actions	Supports	Difficulty
DO **ACTION 4.1** Plan, design and construct high capacity, neighborhood-based transit along the Nicollet-Central corridor.	Climate, Prosperity, Mobility, Active partnerships	High
DO **ACTION 4.2** Plan, design and construct high capacity, neighborhood-based transit within the dedicated right of way along the Midtown Greenway from West Lake Station on the METRO Green Line Extension to Lake Street Station on the METRO Blue Line.	Climate, Prosperity, Mobility, Active partnerships	High
DO **ACTION 4.3** Plan, design and construct high capacity, neighborhood-based transit along the West Broadway corridor from downtown Minneapolis to the northwest suburbs.	Climate, Prosperity, Mobility, Active partnerships	High
SUPPORT **ACTION 4.4** Advocate and provide continued support for the METRO Blue Line Extension light rail project, connecting Minneapolis with the region's northwestern communities.	Climate, Prosperity, Mobility, Active partnerships	High
SUPPORT **ACTION 4.5** Support bus rapid transit on Olson Memorial Highway (Highway 55) extending to the region's western communities.	Climate, Prosperity, Mobility, Active partnerships	Low
SUPPORT **ACTION 4.6** Develop long-term operations plans for new transit services in partnership with Metro Transit and other partner agencies.	Climate, Mobility, Active partnerships	Medium
SUPPORT **ACTION 4.7** Advocate for light rail and bus rapid transitways that provide direct connections to regional job centers and other destinations outside of the downtown core within Minneapolis, connecting Minneapolis residents with the regional rail system.	Prosperity, Mobility, Active partnerships	High

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ACTIONS (continued)

Actions to partner with Metro Transit and other agencies to pursue new transit projects of high impact.

SUPPORT	**ACTION 4.8** Advocate for transitway alignments that are conducive to transit-oriented development and that would include preservation, maintenance and construction of housing at all levels of affordability.	Climate, Equity, Prosperity, Mobility, Active partnerships	Medium
SUPPORT	**ACTION 4.9** Continue to partner with the Hennepin County Regional Railroad Authority, Metro Transit, the Minnesota Department of Transportation and developers near Target Field Station to plan for the expansion of future commuter rail, inter-city passenger rail and/or high-speed rail projects and supporting facilities.	Equity, Prosperity, Mobility, Active partnerships	High
SUPPORT	**ACTION 4.10** Support statewide efforts to advance the Northern Lights Express connecting Minneapolis with Duluth via high speed rail.	Climate, Equity, Prosperity, Mobility, Active partnerships	Medium

SEE ALSO ACTION:

- **Transit Action 6.8** — Integrate unique and interactive design on high impact transit projects

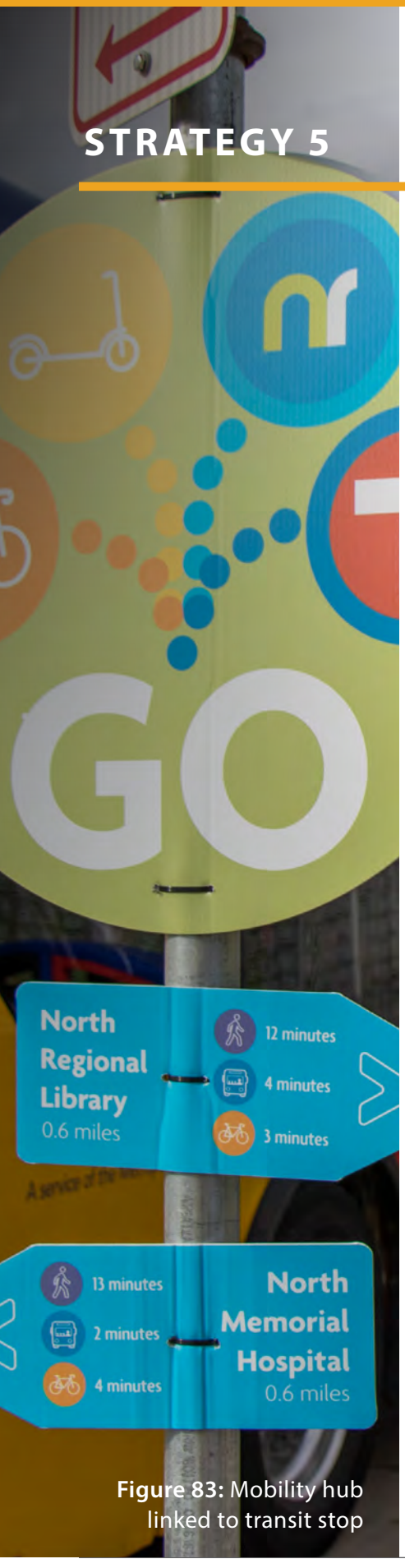

Figure 83: Mobility hub linked to transit stop

STRATEGY 5

Expand multimodal access to transit.

Ensuring that a connected multimodal system feeds into the transit network will expand people's ability to rely on transit and lessen dependency on the automobile. Supporting technological advancements to integrate payment options and partner with shared mobility providers are key to increasing access to transit while reducing friction.

Figure 81: New vehicle type: autonomous shuttle

Figure 82: Mobility hubs bring transit and shared mobility services together

ACTIONS

Actions to expand multimodal access to transit.

Actions	Supports	Difficulty
DO **ACTION 5.1** Prioritize pedestrian improvements connecting residents to transit service, including completing missing links in the sidewalk network, safe crossings at high volume intersections and maintaining pedestrian access through construction zones. *See walking Action 5.4*	Safety, Equity, Mobility, Active partnerships	Medium
DO **ACTION 5.2** Explore partnership opportunities to implement and subsidize shared ride and other on demand mobility services targeting first and last mile transit options to connect people to transit stops and stations.	Climate, Equity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Walking Action 4.3** — Winter maintenance at transit stops and stations
- **Bicycling Action 9.6** — Bike parking at transit stations
- **Technology Action 2.1** — Bikeshare and micromobility
- **Technology Action 3.1** — Implement mobility hub network
- **Technology Action 3.3** — Integrated payment technology

Figure 84: High school students getting on the bus

STRATEGY 6

Support efforts to ensure transit is a safe, comfortable and affordable option for all city residents.

We heard through our engagement that free transit fares, lower transit fares or more affordable transit was a desire for most people as current transit fares were considered a barrier for many individuals.

Transit fares (local bus and METRO/light rail) on Metro Transit currently are $2.50 for rush hour rides (6:00-9:00 am and 3:00-6:30 pm Monday – Friday) and $2.00 for non-rush hour rides. Reduced fares of $1.00 are available for low-income individuals with valid documentation, seniors (65+), youth (6-12) and Medicare card holders during non-rush hours; express bus rides cost more. People with disabilities with valid documentation can ride the system (local bus, METRO and express bus) for $1.00 at any time with the Transit Assistance Pass (TAP card). Metro Transit also has a partnership with Minneapolis Public Schools which offers Go To Cards to high school students who take the city bus to school for $97/quarter.[47]

There is currently one example of a zone discount and two examples of free fares within the Metro Transit system:

- The downtown zone has a $0.50 fare for rides within an established zone.
- Free rides between the Minneapolis Convention Center and the METRO Blue and Green lines on 5th Street in downtown Minneapolis via the Route 18, 10 or 59 along Nicollet Mall. This service is available 7 days a week between 5:00 am and 1:00 am.

Additionally, there are several times throughout the year that Metro Transit offers free rides, in partnership with others, to encourage safe travel behaviors. These days typically include afternoon/evening/night of St Patrick's Day, New Year's Eve and other days on occasion.

Feeling safe while riding or waiting for transit was another key theme we heard during engagement. There are many elements that contribute to real and perceived safety conditions at station locations and on transit vehicles – including the presence or lack of presence of other riders, lighting, security cameras, access to emergency phones, the cleanliness of vehicles and waiting areas and the conduct of fellow passengers or other people on the vehicle or at or near a stop. Special considerations during winter – like clear and passable paths from stations to vehicles for all users and at waiting areas are also important to make transit safe and comfortable.

[47] Metro Transit. https://www.metrotransit.org/student-pass-admin.

Figure 85: Well maintained transit stop

Figure 86: Metro Transit offers free fares along Nicollet Mall

Figure 87: TAP card benefit

ACTIONS

Actions to support efforts to ensure transit is a safe, comfortable and affordable option for all city residents.

Actions	Supports	Difficulty
DO **ACTION 6.1** Study and assess the feasibility of free or reduced transit fares; evaluate the passage of programs citywide and/or within certain zones or based on trip distance.	Equity, Mobility, Active partnerships	High
DO **ACTION 6.2** Establish requirements for Metropass participation for all new commercial, mixed-use and residential buildings within a half mile of a high frequency transit corridor.	Climate, Mobility, Active partnerships	High
SUPPORT **ACTION 6.3** Support Metro Transit initiatives tied to increased security of the transit system that address real and perceived safety issues while considering equity concerns.	Safety, Equity, Active partnerships	Low
SUPPORT **ACTION 6.4** Work with partner agencies to improve customer comfort through clean waiting areas and upgraded amenities such as shelters, lighting, seating, heat and real-time schedule information. *See technology Action 3.1*	Safety, Equity, Mobility, Active partnerships	Medium
SUPPORT **ACTION 6.5** Work with Metro Transit to expand affordable fare programs and increase participation among eligible residents.	Equity, Mobility, Active partnerships	High
SUPPORT **ACTION 6.6** Support Metro Transit's work with Minneapolis Public Schools and other non-profit organizations to provide affordable fares for all program participants.	Equity, Mobility, Active partnerships	Low
SUPPORT **ACTION 6.7** Work with Metro Transit to expand additional fare-free days throughout the year.	Equity, Mobility, Active partnerships	Medium

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ACTIONS (continued)

Actions to support efforts to ensure transit is a safe, comfortable and affordable option for all city residents.

SUPPORT	**ACTION 6.8** Encourage investment and design of integrated design elements to engage people and reflect the communities that transit serves through signage/wayfinding, public art, plaza/open spaces, streetscape, real-time traffic count displays and other creative or interactive design elements on major transit projects (light rail, bus rapid transit, etc.) *See design Strategy 5*	Equity, Prosperity, Active partnerships	Medium
SUPPORT	**ACTION 6.9** Support partner agency efforts to work with new immigrant and non-English speaking communities to educate and build familiarity with the transit system for prospective riders.	Equity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Walking Action 4.3** — Winter maintenance at transit stops and stations
- **Technology Action 3.3** — Integrated payment technology

TECHNOLOGY

Invite New Technology to Advance Transportation Options

It is difficult to know what changes will come to transportation in the next 10 years. If the past 10 years of significant technological advancement in transportation is any indication, to successfully meet our goals we will need to continue to build off our historical investment in the City's core infrastructure. Rapid changes of the past 10 years were driven primarily by the market introduction of the smartphone and phone-based applications on top of improved cellular coverage. The technology paired with shared mobility business models allowed real-time access to widely distributed vehicles and modes. These emerging technology-enabled mobility options are what we are referring to as advanced mobility.

By proactively focusing on the ability of our systems, infrastructure, operations and staff to adapt to further change, we will make sure that these innovations happen with and for us, not to us. We are growing our planning capacity internally and externally by leveraging our community, public and private partnerships. Our vision is that all people in Minneapolis can travel safely, equitably and reliably through both public and private services.

This topic outlines how we will most thoughtfully integrate technology to help us meet our goals. This topic is most commonly defined by these four advancements in transportation, all of which are enabled by new business models and technology:

- Shared fleets (vehicles available to the public for temporary use)
- Electric vehicles (including transit, automobiles, scooters and bicycles)
- Connected infrastructure and connected people (the ability for vehicles, people and traffic systems to communicate through computer systems over wireless networks)
- Automation of transportation (vehicle technology that automates part of driving)

Technology improvements have attracted new business models and accompanying capital into the transportation market that are important for local government to understand and influence. The City will seek partnerships with those entities that share our values and will help us achieve our City goals, creating the right balance of regulation and support for innovation to enable new solutions. It is the City's role to communicate the challenges and set the rules for engagement, so that the private sector can develop the solutions successfully.

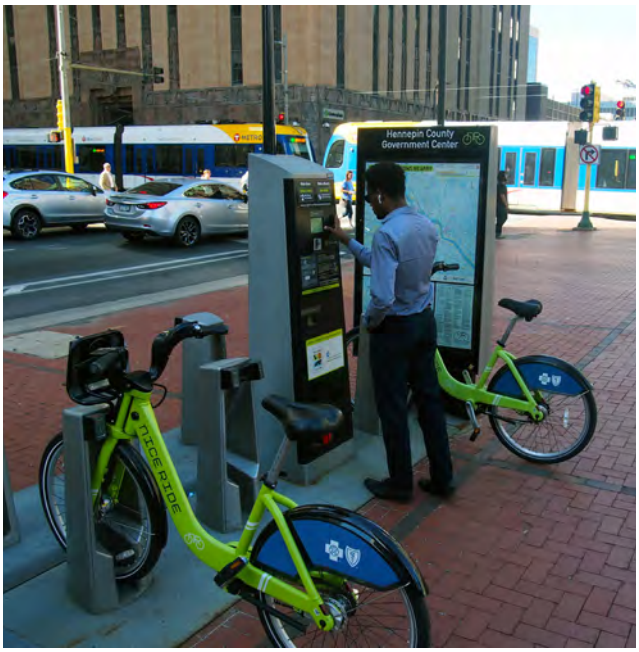
Numerous actions throughout this plan are influenced by new technology advancements. These are noted throughout the document as supporting strategies in this topic area.

Shared mobility refers to transportation services that are shared among users, either at the same time or one after another and accessed on as an-needed basis.

Advanced mobility describes an approach to maximizing travel opportunities through new and evolving technology in safe, equitable and reliable ways, through public and private services and collaboration.

Figure 88: Electronic ticketing

Figure 89: Nice Ride technology



TECHNOLOGY STRATEGIES

1. **Harness technological advancements for citywide benefits, ensuring newly adopted technologies support safe street operations and focus on human-centered design.**
2. **Increase access to shared mobility services by removing the barriers of physical ability, geographic placement, language, payment methods, income and technology and digital literacy.**
3. **Formulate public-private partnerships to implement innovative, ambitious and scalable pilots.**
4. **Require private shared mobility providers, including transportation network companies, to share data that supports the City's ongoing transportation planning and operations work, with a focus on equity and access for all and minimizing greenhouse gas emissions.**
5. **Build a culture of continuous improvement in knowledge, education and communications around new technologies that advance transportation options.**
6. **Encourage and support electric vehicles by developing public charging stations and incentivizing private off-street stations; incentivize power sources from renewable generated electricity.**
7. **Continue to develop internal resources capacity for advanced mobility initiatives.**

SEE ALSO STRATEGIES:

- **Street operations Strategy 3** — Plan for efficient and practical operations of people walking, biking and taking micromobility or transit throughout the street design process.
- **Street operations Strategy 4** — Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.
- **Street operations Strategy 5** — Price and manage use of the curb to encourage walking, biking and using transit, and to discourage driving alone.
- **Street operations Strategy 6** — Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.
- **Design Strategy 5** — Use street design to improve transit operations.

Figure 91: Repurposing space on 4th Street downtown

STRATEGY 1

Harness technological advancements for citywide benefits, ensuring newly adopted technologies support safe street operations and focus on human-centered design.

Increased pressure on our curb space, driven by an increase in land use density, e-commerce deliveries and new advanced mobility modes, is pushing us to manage our right of way in a more sophisticated manner. In order to serve changing customer needs and stay on track toward a low carbon future, we must price and allocate space based on our 2030 goals and priorities and the true value of the space.

The changes we are making to how our streets are designed and operated to accommodate these changes aims to encourage low carbon travel and keep a human focus on our streets.

Figure 90: Autonomous transit shuttle

When information is shared between vehicles, infrastructure and/or people, often through a device they carry, they are said to be "connected".

ACTIONS

Actions to harness technological advancements for citywide benefits, ensuring newly adopted technologies support safe street operations and improve the safety and comfort of users.

Actions	Supports	Difficulty
DO **ACTION 1.1** Ensure newly adopted technologies and policies complement and enhance the existing public transportation system.	Prosperity, Mobility	Medium
DO **ACTION 1.2** Ensure that all emerging technology pilots adhere to the standards outlined in Technology Action 2.2. *See technology Action 2.2*	Safety, Equity, Mobility	Low
DO **ACTION 1.3** Convert street space for shared mobility services (either high occupancy motor vehicles or micromobility options) and other emerging technologies. These conversions should improve the quality of pedestrians or transit travel.	Equity, Prosperity, Mobility	High
DO **ACTION 1.4** Continue to offer Minneapolis as a testing ground for automated vehicle pilots and learn from other cities doing similar work. Pilots should only test a shared model of travel, such as shuttles, and adhere to Technology Action 2.2. *See technology Action 2.2*	Mobility	Medium
DO **ACTION 1.5** Evaluate impacts of automated vehicles on street design and vice-versa, with specific emphasis on the safety of people walking and biking and adjust guidance as necessary. *See design Action 1.7*	Mobility	Medium
DO **ACTION 1.6** Research and develop recommendations for integrating and regulating privately operated, automated transit vehicles as well as employing them within government. *See transit Strategy 1*	Safety, Mobility	Medium
DO **ACTION 1.7** Ensure traffic signal system compatibility with next generation communication systems through cellular or DSRC (dedicated short-range communication channels) and V2X (vehicle to infrastructure/vehicle/everything communications systems).	Mobility, Active partnerships	High

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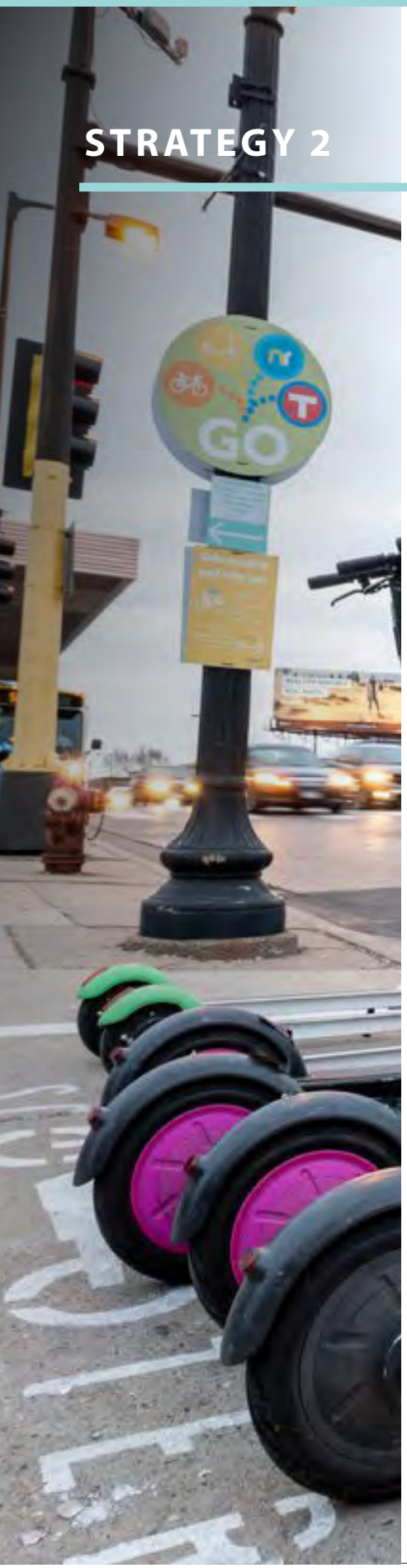
ACTIONS (continued)

Actions to harness technological advancements for citywide benefits, ensuring newly adopted technologies support safe street operations and improve the safety and comfort of users.

Actions	Supports	Difficulty
DO ACTION 1.8 Collaborate with partners to research and understand the feasibility of unmanned aerial vehicles (drones) operating in the urban context, including permitting, weather implications, data implications, privacy and local impacts of federal regulatory decisions. *See freight Action 7.1*	Mobility, Active partnerships	High
DO ACTION 1.9 Prepare for drones for delivery, as an inspection vehicle or for other means of advancing mobility in the city including removal of trips from the system. *See freight Action 7.1*	Safety, Prosperity, Mobility, Active partnerships	High
DO ACTION 1.10 Incorporate elements in street reconstruction projects which support advanced mobility, such as electric vehicle charging infrastructure, protected micromobility lanes and designated spaces for pick up and drop off, including flex zones which change purpose by time of day, week or season.	Mobility	Medium
DO ACTION 1.11 Implement Safe Vehicle actions from 2020-2022 Vision Zero Action Plan, focusing on: • Determining how advanced mobility options are shaping the safety of city streets and responding appropriately; • Piloting and managing emerging vehicle technologies with the potential to improve safety; and • Continuing to monitor safety on the City's scooter share pilot and make adjustments to provider requirements, public education, or street design as appropriate. *See street operations Action 2.1*	Safety, Mobility	Medium

SEE ALSO STRATEGIES AND ACTIONS:

- **Walking Strategy 8** — Use technology to increase pedestrian visibility and comfort
- **Transit Action 2.8** — Effective bus-only lane operations
- **Freight Action 1.3** — Shared freight lockers
- **Freight Strategy 7** — Regulate new delivery technologies
- **Street operations Strategy 5** — Price and manage the curb

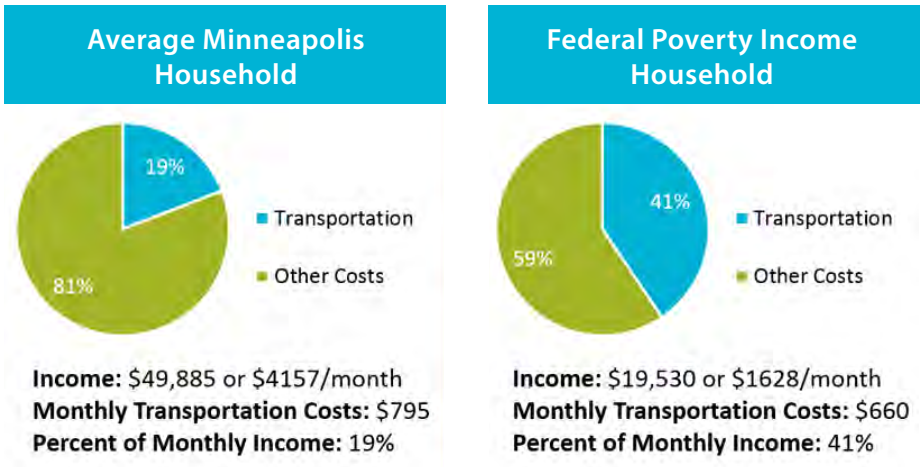


STRATEGY 2

Increase access to shared mobility services by removing the barriers of physical ability, geographic placement, language, payment methods, income and technology and digital literacy.

Shared vehicles and services create options for people who do not have access to or choose not to have a private vehicle. Increasing access to shared fleets is important for shifting travel behaviors and maintaining affordability. The City is focused on ensuring full access to these shared mobility service options for those who could benefit most by removing barriers such as lack of a smartphone, bank account or a driver's license. By partnering with local organizations and other public agencies that are already working on access issues, we are leveraging resources to have the greatest impact.

Figure 92: Percentage of household income spent on transportation



Source: 2013 American Housing Survey; American Community Survey 2009-2013 (5 year estimates)

Figure 93: HOURCAR car sharing system

Figure 94: Nice Ride docked station

ACTIONS

Actions to increase access to shared mobility services by removing the barriers of physical ability, geographic placement, language, payment methods, income and technology.

	Actions	Supports	Difficulty
DO	**ACTION 2.1** Maintain and welcome an environment where bikeshare and micromobility options thrive and provide real mobility options and benefits. *See technology Action 6.4, bicycling Strategy 9*	Climate, Equity, Prosperity, Mobility, Active partnerships	Medium
DO	**ACTION 2.2** Include conditions in agreements with shared mobility service providers that require equitable access: low-price options, education and outreach about how to access services, geographic distribution with a focus in areas of concentrated poverty with majority people of color, non-English resources, non-smartphone access, ADA access to vehicles and services and multiple payment methods including options for the unbanked.	Equity, Active partnerships	Low
DO	**ACTION 2.3** Work with public and private partners to standardize the low-income eligibility and registration process for shared mobility services.	Equity, Active partnerships	High
DO	**ACTION 2.4** Work with shared mobility service providers to provide adaptive vehicles where possible and vehicles with additional storage and passenger capacity. *See bicycling Action 9.1*	Equity, Mobility, Active partnerships	Medium
DO	**ACTION 2.5** Review existing validation requirements for alternatives to having a driver's license to operate shared mobility services where potentially feasible.	Equity	Medium
DO	**ACTION 2.6** Evaluate the reintroduction of car sharing or similar model that allows for one-way trips and analyze city support for viability. *See street operations Action 5.8*	Equity, Mobility, Active partnerships	High
DO	**ACTION 2.7** Institute a process to consult with communities, grassroot coalitions and non-profits to evaluate existing services, envision and create new solutions to reduce barriers to shared mobility services that best suit the needs of low-income and underrepresented individuals.	Equity, Prosperity Mobility, Active partnerships	High

Figure 95: Metro transit app on phone

STRATEGY 3

Formulate public-private partnerships to implement innovative, ambitious and scalable pilots.

Technology innovations in transportation are primarily being developed and deployed by the private sector; public agencies have the role of regulating and permitting their use on city streets as right of way managers. The partnerships with both the private sector and other public agencies are critical to our ability to deploy safe and successful pilots. All pilots are selected to help determine permanent advanced mobility implementations.

Mobility as a Service, the concept of a multimodal trip planning and payment as a subscription service through one virtual platform, presents a partnership opportunity. Working with regional partners such as Metro Transit, as well as private service and application providers, to enable the deployment of Mobility as a Service will help people take into account environmental, personal health, financial and time considerations when trip planning. Our approach allows for compatibility with mobility providers and utilizes open data to allow for multiple private platforms.

Financial incentives can change how people travel. This can benefit their health and the environment.

Another key opportunity for partnering regionally is to pilot and deploy mobility hubs. Mobility hubs are physical places where people can connect to multiple modes of transportation to make their trip as safe, convenient and reliable as possible. Most hubs are centered on transit connections, where multiple modes are available to extend the reach of transit. Bicycle and micromobility parking, car share vehicles and wayfinding and real time information are all potential components of mobility hubs.

Figure 96: Mobility hub visualization

Figure 97: Mobility hub

Mobility hubs are places where people can connect to multiple modes of transportation to make their trip as safe, convenient and reliable as possible.

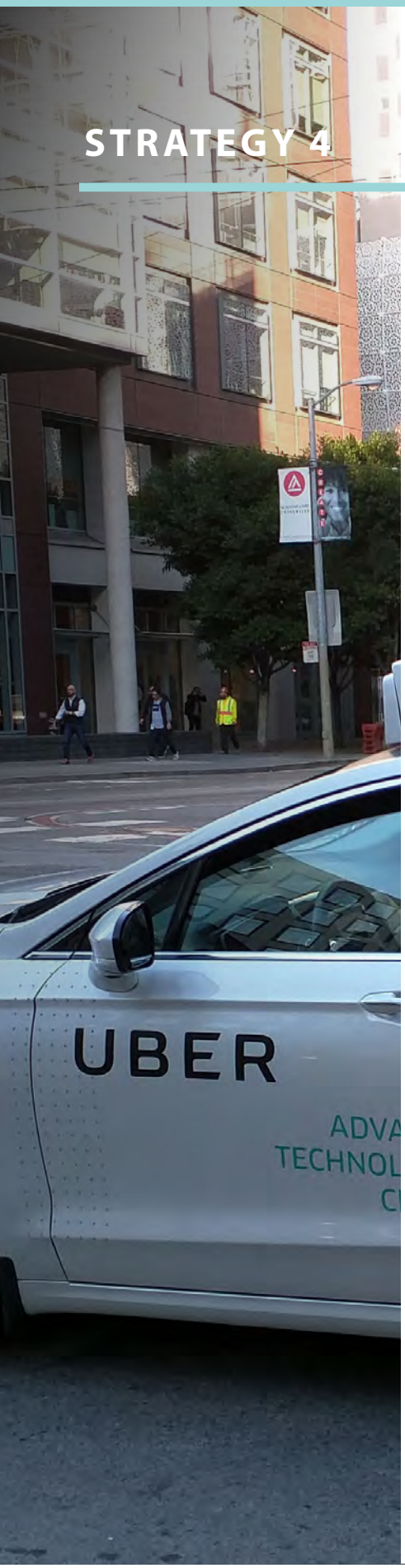
ACTIONS

Actions to formulate public-private partnerships to implement innovative, ambitious and scalable pilots.

Actions	Supports	Difficulty
DO ACTION 3.1 Implement a network of mobility hubs in partnership with Metro Transit. Mobility hubs will be designed to connect transit with other shared mobility services such as bikeshare, scooter share and carshare. Mobility hubs will vary in scale based on context, space and viability and may have placemaking, vehicle charging and wayfinding features. *See walking Action 8.1, transit Strategy 5*	Mobility, Active partnerships	High
DO ACTION 3.2 Work with public and private partners and community-based organizations to evaluate future mobility hub locations and ensure that the geographic placement of mobility hubs includes locations in ACP50 areas.	Equity, Mobility, Active partnerships	Medium
DO ACTION 3.3 Collaborate with public and private partners to enable a virtual platform for accessing and paying for transit and shared mobility services, including a multimodal subscription package. *See transit Strategy 5*	Equity, Prosperity, Mobility, Active partnerships	High
DO ACTION 3.4 Work with the Metropolitan Council and Metro Transit to expand app-based vanpool and carpool. *See street operations Strategy 4*	Climate, Prosperity, Mobility, Active partnerships	Medium
DO ACTION 3.5 Work with the Metropolitan Council and Metro Transit to pilot a microtransit service within Minneapolis and the greater Twin Cities region. *See street operations Strategy 4*	Equity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Transit Action 5.2** — On demand mobility services
- **Technology Action 7.3** — New technologies



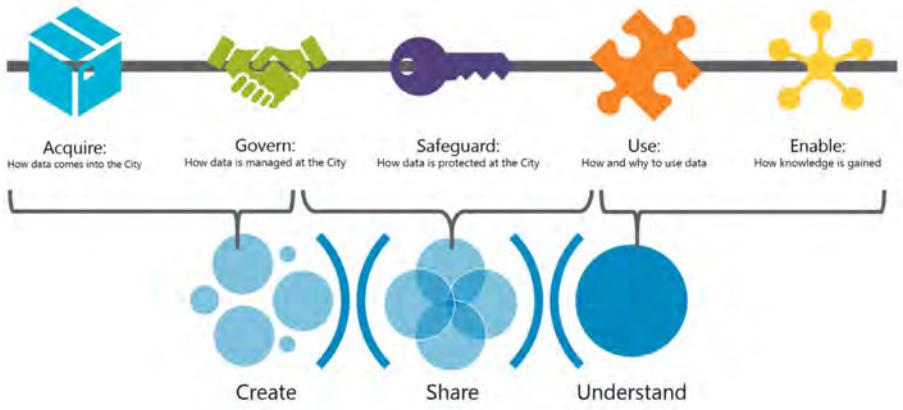
STRATEGY 4

Require private shared mobility providers, including transportation network companies, to share data that supports the City's ongoing transportation planning and operations work, with a focus on equity and access for all and minimizing greenhouse gas emissions.

Access to trip and vehicle data can provide critical information for supporting management of the right of way and future planning of mobility options. Data can also support decision making around additional infrastructure and safety improvements and policy development to support mode shift and greenhouse gas reductions.

In line with the City's Data Policy, the privacy and protection of user data is our top priority. In order to establish and communicate clear and consistent standards of data processing, the City developed a Mobility Data Methodology and Analysis that can be applied across mobility service providers. This allows the City to access, use and share data in a way which is safe, intentional and transparent.

Figure 98: City of Minneapolis data policy workflow



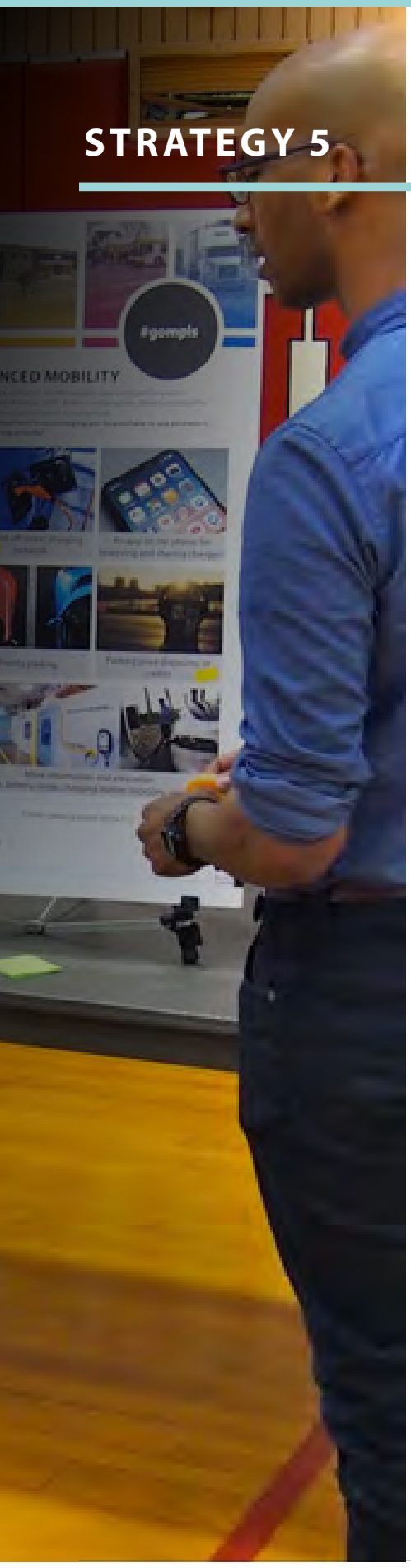
ACTIONS

Actions to require private shared mobility providers, including transportation network companies, to share data that supports the City's ongoing transportation planning and operations work, with a focus on equity and access for all and minimizing greenhouse gas emissions.

Actions	Supports	Difficulty
DO **ACTION 4.1** Ensure that all data is fully aggregated and anonymized for the protection of users.	Equity, Active partnerships	Medium
DO **ACTION 4.2** Require data from all shared mobility providers to further City goals that abides by the City's Mobility Data Methodology and Analysis.	Active partnerships	Low
DO **ACTION 4.3** Analyze data received to understand impacts to safety, trip behavior, equitable access and the environment.	Mobility, Active partnerships	Medium
DO **ACTION 4.4** Work with public partners to establish a standardized process for data requests and a system to share data across agencies.	Active partnerships	Medium
DO **ACTION 4.5** Create and publish fully anonymized and aggregated open data sets and public transparency dashboards. *See technology Action 5.1*	Climate, Safety, Equity, Prosperity, Mobility, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Bicycling Action 11.2** — Requiring data sharing from micromobility service operators
- **Bicycling Action 11.3** — Survey of bicycle and micromobility users



STRATEGY 5

Build a culture of continuous improvement in knowledge, education and communications around new technologies that advance transportation options.

Many of the challenges in realizing greater adoption of shared fleets can be addressed through increased awareness and education of available services and how they work. Partnering with mobility service providers through requirements in agreements can help leverage more resources to increase awareness and understanding. Using feedback gathered through education and community engagement throughout our pilots will help us adjust our approach to planning and delivering mobility services.

Figure 99: Scooter safety Facebook/Instagram post from City of Minneapolis social media channel

ACTIONS

Actions to build a culture of continuous improvement in knowledge, education and communications around new technologies that advance transportation options.

Actions	Supports	Difficulty
DO ACTION 5.1 Create a City of Minneapolis webpage dedicated to new transportation technologies and systems, including information on shared, electric, connected and automated vehicle systems, as well as active pilots, projects and policies. The webpage should include an open data portal for information sharing. *See technology Action 4.5*	Mobility, Active partnerships	Low
DO ACTION 5.2 Partner with the public and private sector to develop a curriculum, marketing and outreach programs for employers and employees.	Safety, Mobility, Active partnerships	Medium
SUPPORT ACTION 5.3 Utilize shared mobility operator partnership agreements to expand engagement and education efforts.	Active partnerships	Low

SEE ALSO ACTION:

- **Bicycling Action 10.4** — Adding bicycle and micromobility content to driver's education

STRATEGY 6

Encourage and support electric vehicles by developing public charging stations and incentivizing private off-street stations; incentivize power sources from renewable generated electricity.

Figure 101: EV charging stations for bikes, scooters and cars

Source: Metro Transit

While electric cars, trucks and buses will be important to reach climate goals, the adoption of electric vehicles alone will not get us to our goals. Prioritizing the shared element of advanced mobility is key to reduce dependency on automobiles and support walking, biking and transit.

Electric vehicle adoption is important to reduce greenhouse gas emissions, and we have seen hybrid and electric vehicles showing up in greater numbers on our streets – from electric buses, to personal cars, to shared scooters and bikes. It is estimated that by 2040, 55% of all new car sales will be electric.[48] Currently just 2.4% of the cars and trucks in Minneapolis area are hybrid or electric;[49] as this number grows, there is potential for transportation related greenhouse gas emissions to be reduced. Working in tandem with our vehicle miles traveled reduction goal and mode shift goal, this is an important part of meeting our overall climate goal.

Figure 100: Transit electric charging station – C Line

[48] Electric Vehicle Outlook: 2018 Bloomberg New Energy Finance (2018)
[49] Driving Innovation, Auto Alliance (AA) (2018)

Figure 102: Electric vehicle charging stations in public right of way

Figure 103: City of Minneapolis electric fleet

Figure 104: Solar charging Nice Ride station

ACTIONS

Actions to encourage and support electric vehicles by developing public charging stations and incentivizing off-street stations; incentivize power sources from renewable generated electricity.

Actions	Supports	Difficulty
DO ACTION 6.1 Assess the projected demand and current supply of the electric vehicle charging network in the city and propose and implement additional charging locations.	Climate, Mobility	Medium
DO ACTION 6.2 Ensure all public electric vehicle charging infrastructure is scalable to service multiple vehicle types – including shared cars, bicycles and scooters with minimal right of way space impacts; incentivize or support all private infrastructure to do the same. *See bicycling Strategy 9*	Climate, Mobility	Low
DO ACTION 6.3 Implement renewable energy sourced charging stations (supplemental solar-powered) in place of hard-wired only electric charging stations.	Climate	Low
DO ACTION 6.4 Encourage and incentivize the conversion of shared mobility fleets to electric in city agreements. *See technology Action 2.1*	Climate	Low
SUPPORT ACTION 6.5 Partner with public and private entities for education and outreach campaigns which promote the benefits and operation of electric vehicles.	Climate, Active partnerships	Low
SUPPORT ACTION 6.6 Work with the Department of Community Planning and Economic Development to require developers to build off-street electric vehicle charging stations in their developments.	Climate, Active partnerships	Low
SUPPORT ACTION 6.7 Support partner transit agencies as electric fleets are incorporated including expedited siting of charging locations. *See transit Action 1.9*	Climate, Mobility, Active partnerships	Low

SEE ALSO STRATEGY:

- **Freight Strategy 4** — Transition fleets to zero-emissions technology

STRATEGY 7

Continue to develop internal resources capacity for advanced mobility initiatives.

The City is working actively to prepare for what may come. We work with public and private partners and cities around the world to adopt best practices and focus on being at the forefront of technological advancements occurring in transportation. In order to understand the new data and information that advanced mobility affords us, we are building internal capacity to ingest data, with dashboards, visualizations, new tracking tools and the digital mapping of the curb. We are committed to both stimulating innovation and maintaining control of the public right of way while increasing and protecting the safety and security of people using our streets.

Figure 105: Digital mapping of the curb

ACTIONS

Actions to develop internal resource capacity for advanced mobility initiatives.

Actions	Supports	Difficulty
DO **ACTION 7.1** Develop a City multi-disciplinary team and funding mechanisms to facilitate advancing transportation technology and pilots in Minneapolis.	Mobility	Medium
DO **ACTION 7.2** Launch a program to educate City staff, appointed and elected officials and stakeholders on advanced mobility topics.	Mobility, Active partnerships	Medium
DO **ACTION 7.3** Create and publicize a refined process for businesses that want to test or deploy new technologies or services in the city.	Mobility, Active partnerships	High
DO **ACTION 7.4** Implement a travel behavior study based upon shared mobility modes and seasonal impacts. *See bicycling Action 11.3*	Climate, Mobility	Medium

FREIGHT

Manage Increased Freight Needs While Preserving the Street

As our city continues to grow and consumer choices continue to evolve, the demand for the movement and delivery of goods will also grow. In Hennepin County, freight tonnage is expected to increase by nearly 40% by the year 2040.[50] Additionally, the growth of e-commerce (purchases made online and delivered to homes and businesses) will continue to play an important role in the growing demands of goods movement. Nationally, package volume from the United States Postal Service has more than doubled in the past decade from 3.1 billion in 2010 to 6.2 billion in 2018.[51]

Nationally, package volume from the United States Postal Service has more than doubled in the past decade from 3.1 billion in 2009 to 6.2 billion in 2018.

The increased demand for goods will also increase demands on our city streets. Technology plays a large role in how these goods are delivered; as cities and companies experiment with drones, delivery robots, delivery lockers and sophisticated algorithms to make deliveries more efficient, we will look to learn from and implement the best ideas. As the volume of freight moving through and to Minneapolis continues to grow, we need to be prepared to mitigate any negative impacts to safety, congestion and the environment.

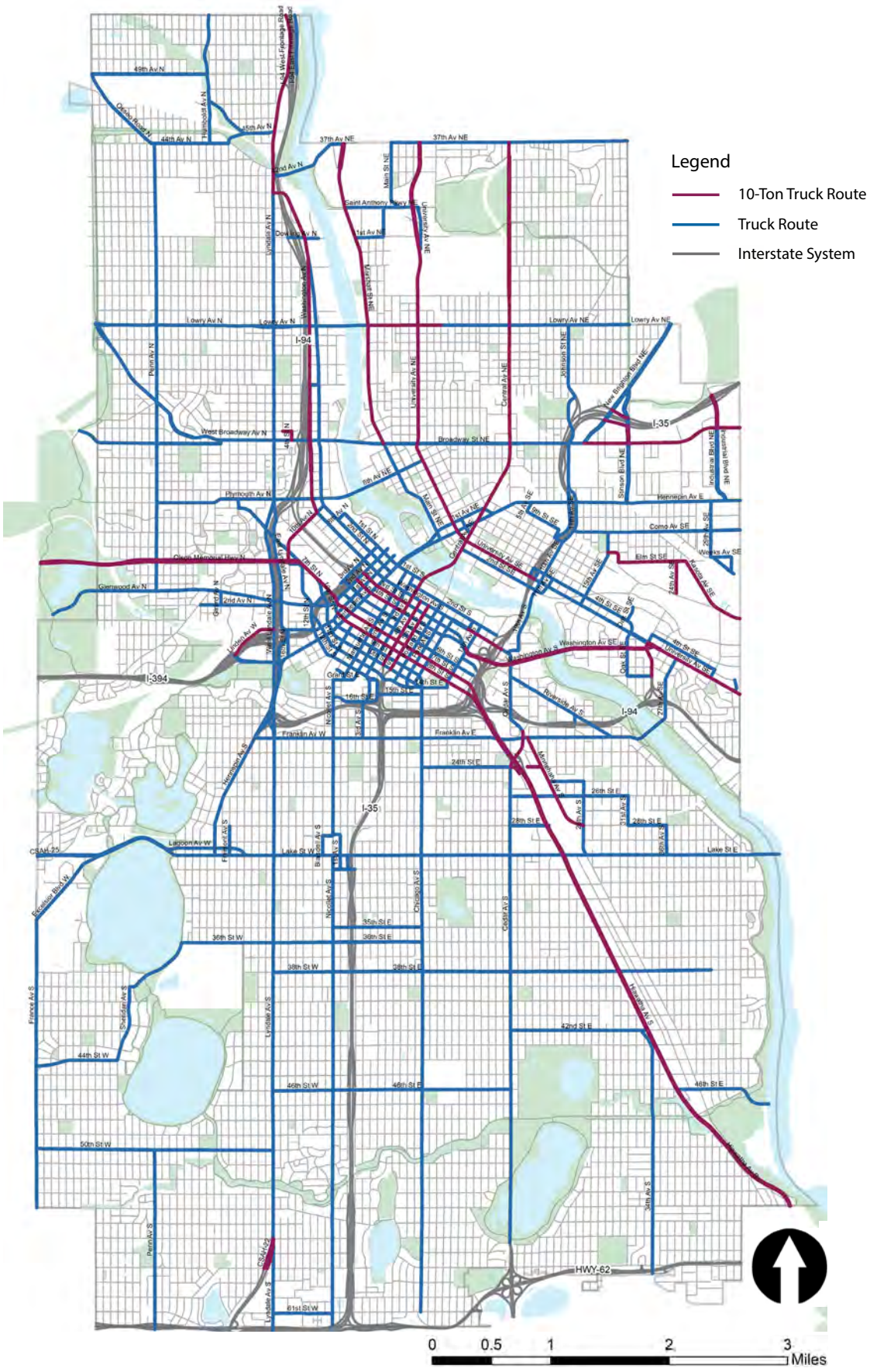
Minneapolis 2040 established a freight policy which states the City will accommodate freight movement and facilities to support the local and regional economy.

[50] Hennepin County Public Works. Hennepin County Freight Study (2016)

[51] United States Postal Service (2018). Includes Priority Mail, Priority Mail Express, First-Class Packages, Package Services, Parcel Return Service, and Parcel Select.

Figure 106: Types of freight

Figure 107: Truck route network



FREIGHT STRATEGIES

1. **Utilize land use tools to improve the efficiency of deliveries.**
2. **Improve the safety and efficiency of freight movements and integrate freight into the Complete Streets framework.**
3. **Provide freight operators with tools to better navigate the city.**
4. **Transition vehicle fleets to zero-emissions technology where technology allows.**
5. **Implement dynamic freight loading zones into citywide curbside management efforts.**
6. **Work with private sector and agency partners to guide and implement freight planning initiatives.**
7. **Regulate new delivery technologies that use the public right of way.**
8. **Develop a freight education program to educate the public and freight operators.**

SEE ALSO STRATEGY:

- **Technology Strategy 6** — Develop and incentivize electric vehicle charging stations

Figure 108: Outdoor delivery locker

STRATEGY 1

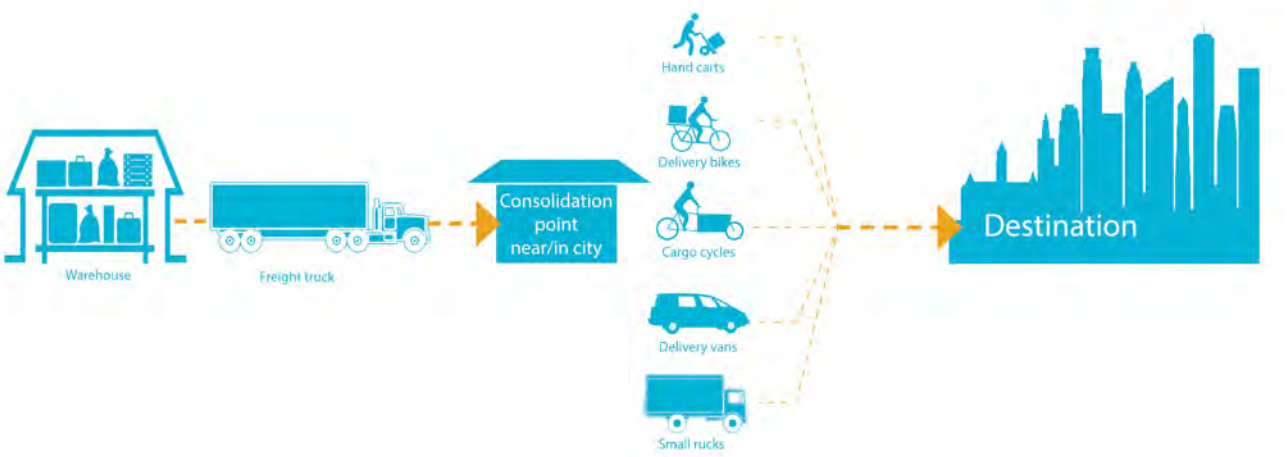
Utilize land use tools to improve the efficiency of deliveries.

Minneapolis 2040 outlined several important freight and land use actions including:

- A production and processing policy – which aims to expand and maintain areas for production, processing and distribution of products, services and ideas.
- Action items in that policy that link to transportation include:
    - Designate Production and Processing Areas that comprise large contiguous tracts of land historically used for industrial purposes, that are well-served by transportation infrastructure for both people and freight and that contain building stock suitable for production and processing businesses to expand access to higher wage job opportunities.
    - Prioritize use of land in Production and Processing Areas for production, processing and last mile distribution of products and services uses that have minimal or no air, water or noise pollution impacts and that provide quality living-wage jobs.
    - Improve transit, bicycle and pedestrian access to areas of employment, including Production and Processing Areas and Production Mixed Use Areas.
    - Develop guidance for future development in Production and Processing Areas and Production Mixed Use Areas served by regional transit lines in order to ensure a minimum level of development and job intensities.

The following actions further define land use tools that can be utilized to improve the efficiency of deliveries - through smaller loading zones, consolidating freight deliveries, minimizing time needed at the curb, better securing residential deliveries and linking delivery options with other transportation efforts like mobility hubs.

Figure 109: Mini-consolidation center idea



ACTIONS

Actions to utilize land use tools to improve the efficiency of deliveries.

Actions	Supports	Difficulty
DO ACTION 1.1 Work with the Department of Community Planning and Economic Development to revise the Zoning Code to improve the efficiencies of onsite deliveries by updating onsite loading requirements for new developments.	Prosperity, Mobility	Low
DO ACTION 1.2 Work with developers and property owners to develop small urban consolidation centers to break down loads and minimize the use of large vehicles for last mile deliveries, encouraging the use of low carbon modes like electric cargo bikes for final deliveries.	Climate, Prosperity, Mobility, Active partnerships	Medium
DO ACTION 1.3 Pilot a shared locker system that can accommodate multiple e-commerce deliveries and is available to the public; focus on incorporating as component of mobility hub project. *See technology Action 3.1*	Climate, Prosperity, Mobility, Active partnerships	Medium
DO ACTION 1.4 Use available tools and regulatory authority to coordinate delivery services for businesses in the same building or block, potentially including coordinating time of day, sharing delivery service providers and sharing use of loading dock space.	Climate, Prosperity	High

continued on next page

ACTIONS (continued)

Actions to utilize land use tools to improve the efficiency of deliveries.

	Actions	Supports	Difficulty
DO	**ACTION 1.5** Coordinate with the Department of Community Planning and Economic Development to mandate that private developments design buildings to accommodate increased online package deliveries.	Prosperity, Active partnerships	Low
DO	**ACTION 1.6** Investigate the feasibility of implementing a time restricted truck free zone.	Climate, Prosperity, Mobility	High
DO	**ACTION 1.7** Maintain and maximize the use of the existing commercial and residential alley network for deliveries, especially in commercial and business nodes.	Prosperity, Mobility	Low
DO	**ACTION 1.8** Standardize a process to identify and mitigate loading and circulation impacts to nearby properties if an alley must be vacated.	Prosperity, Mobility	Low

Figure 111: Truck unloading

STRATEGY 2

Improve the safety and efficiency of freight movements and integrate freight into the Complete Streets framework.

The City's Vision Zero Crash Study and subsequent analysis reviewed crashes that involved trucks between 2007 and September 2019. Data indicates that large trucks were involved in approximately 3.5% of severe and fatal crashes.[52] This strategy focuses on how we can more thoughtfully incorporate safety considerations into the systems that deliver goods throughout the city – through the planning and design of streets and better data collection. Through better data collection we can understand where and how often trucks of different sizes are using the system, so we can better accommodate and design appropriately along those streets as well as streets where there is not as much truck traffic. Understanding curbside space needs for loading and unloading goods and ensuring truck-related crashes on our system are well documented is an important action in pursuit of safe freight movements.

Several actions in this strategy focus on freight safety related concerns we heard through engagement for the TAP, specifically around carrying hazardous goods through the city. Currently, there are more than a dozen freight rail corridors that travel through the city. To date, there have been no crashes related to these corridors that have involved a car; data for crashes involving pedestrians or bicyclists is not available.

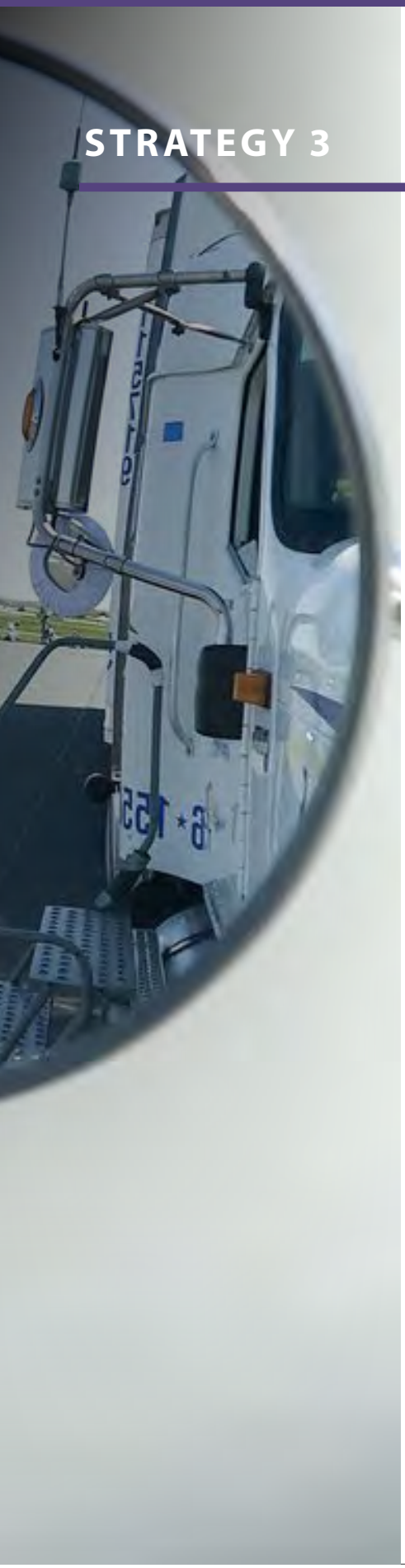
Figure 110: Truck unloading at curb

[52] Minneapolis Public Works.

ACTIONS

Actions to improve the safety and efficiency of freight movements and integrate freight into the Complete Streets framework.

Actions	Supports	Difficulty
DO ACTION 2.1 Add a section to the City's Complete Streets Checklist regarding truck volumes and on-street loading data to evaluate and incorporate freight needs into street design process. *See street operations Action 1.1*	Safety	Medium
DO ACTION 2.2 Incorporate a data traffic count collection effort to gain insight into the volume of freight activity occurring within the city; include commercial vehicles and classification by type.	Safety, Mobility	Medium
DO ACTION 2.3 Advocate for revisions to Municipal State Aid rules (Sections 9936, 9941, 9946, 9951 in Chapter 8820) to allow greater flexibility for State Aid Cities to use smaller design vehicles in the designs of streets on the State Aid system. *See design Action 6.2*	Safety	Medium
DO ACTION 2.4 Collaborate with the Minnesota Department of Transportation Rail Safety and Coordination Office to review freight rail risk factors data and crash data for all modes to identify rail grade crossing locations to improve.	Safety, Active partnerships	Medium



STRATEGY 3

Provide freight operators with tools to better navigate the city.

A key part of this strategy is to update the 2002 Truck Route Network (Figure 107). The purpose of this network is to designate routes for trucks to travel based upon their trip purpose (across town or across the country) and serve as an input in future roadway redesigns. The network will be an overlay in the Street Design Guide so that designers are directed to consider freight demands when designing future roadway projects. The Truck Route Network will be updated in coordination with Minneapolis 2040 future land uses and freight truck volume data and comparing against routes established in the current Truck Route Map. The updated network will provide guidance to where trucks should travel unless otherwise impractical (typically for the last few blocks of a delivery).

Maintaining and updating the Truck Route Network as freight volumes change over time helps planners, designers and managers of the street network keep decisions and impacts to freight a key part of street design and operation conversations.

Figure 112: Street with truck traffic

ACTIONS

Actions to provide freight operators with tools to better navigate the city.

Actions	Supports	Difficulty
DO ACTION 3.1 Adopt an update to the 2002 Truck Route Network.	Prosperity, Mobility	Medium
DO ACTION 3.2 Provide the Truck Route Network on the City's website; publish it through an API. *See technology Action 4.5*	Prosperity, Mobility	Low
DO ACTION 3.3 Revise the Trucks and Truck Routes ordinance to align with the planning goals of this action plan.	Prosperity, Mobility	Low
DO ACTION 3.4 Communicate live construction detour information affecting truck routes through the City's website, an API and other communications outlets. *See technology Action 4.5*	Prosperity, Mobility	Low
SUPPORT ACTION 3.5 Support regional and statewide agencies in their freight planning efforts to install intelligent transportation systems (ITS) and other wayfinding or real-time signage information.	Mobility, Active partnerships	Low

An API stands for application programming interface; APIs are an interface that allows apps to take functionality and data from other apps.

Figure 114: Low emission zone, London

STRATEGY 4

Transition vehicle fleets to zero-emissions technology where technology allows.

Transportation emissions account for 24% of the greenhouse gas emissions in the city.[53] Nationally, light-duty vehicles, which include passenger cars and light-duty trucks, account for 59% of greenhouse gas emissions from the transportation sector, while medium- and heavy-duty trucks account for 23%.[54]

Working to mitigate the impact of freight-related greenhouse gas emissions, including freight delivered via small vehicles is an important part of reaching our climate goals. Evaluating and working to make bicycles, delivery trikes and other small electric vehicles more attractive for deliveries is part of the work to lower greenhouse gas emissions coming from freight.

The current idling policy under Title 3 of the Minneapolis Code of Ordinances, Air Pollution and Environmental Protection, sets limits for idling in loading and unloading zones, exceptions to those limits, and associated penalties. Ensuring compliance with the policies we have in place is critical to minimizing air pollution and protecting air quality.

Figure 113: Cargo delivery bike

[53] City of Minneapolis Greenhouse Gas emissions data, Office of Sustainability.

[54] EPA Office of Transportation and Air Quality.

ACTIONS

Actions to transition vehicle fleets to zero-emissions technology where technology allows.

Actions	Supports	Difficulty
DO **ACTION 4.1** Identify locations along the Truck Route Network to install electric charging stations.	Climate, Mobility	Low
DO **ACTION 4.2** Facilitate and expand bicycle, courier and small truck deliveries.	Climate, Prosperity	Medium
DO **ACTION 4.3** Evaluate the establishment of a Low Emission Zone(s) which would only allow trucks that meet certain emissions standards to enter.	Climate, Equity	High
DO **ACTION 4.4** Evaluate the City's idling policy for commercial vehicles (ordinance 58.30) to reduce the current idling duration.	Climate, Equity	Medium

SEE ALSO STRATEGY:

- **Technology Strategy 6** — Develop and incentivize electric vehicle charging stations

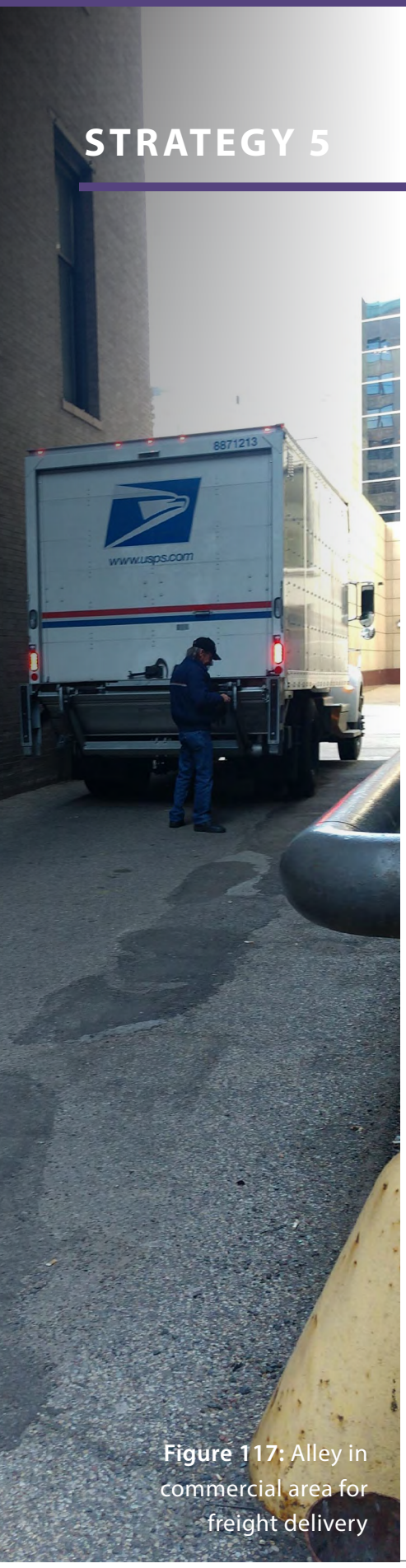


Figure 117: Alley in commercial area for freight delivery

STRATEGY 5

Implement dynamic freight loading zones into citywide curbside management efforts.

The loading and unloading of goods is a critical function in the city. Every business, whether it is a coffee shop, restaurant, small manufacturer or office – has deliveries. While some businesses have off-street parking lots, below ground loading docks or loading bays, many businesses rely on the curb in front or the alley behind their establishment to be able to receive goods. This demand for loading zones also applies to the personal delivery of packages from online vendors or food delivery services.

This strategy focuses on laying out a path to better understand freight-related curbside demands, experimenting with how to best accommodate them, and implementing mechanisms that better manage curbside freight demands in balance with other competing curbside demands.

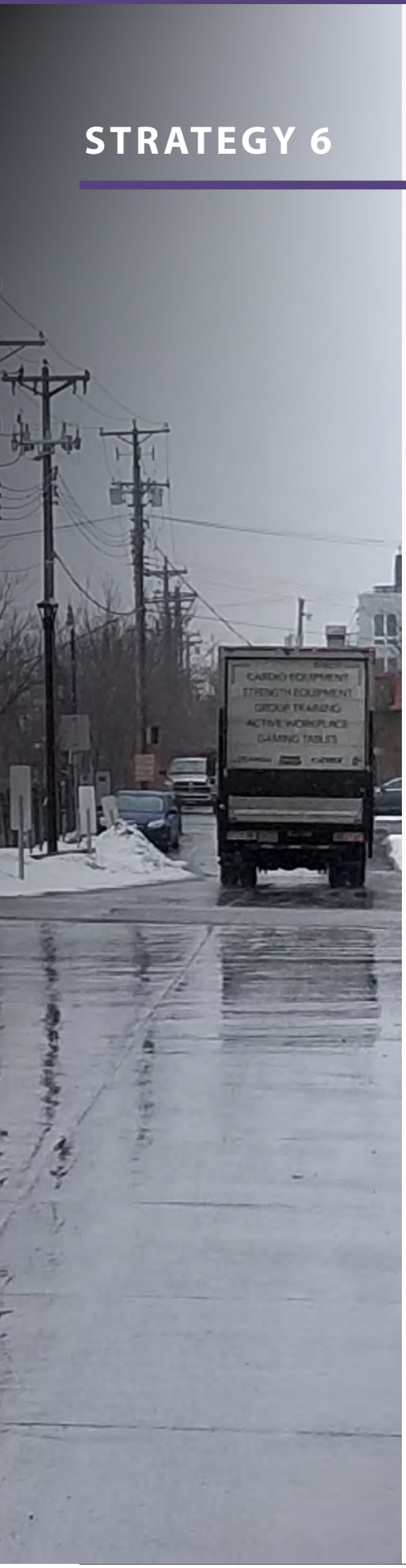
Figure 115: Truck unloading

Figure 116: Time restricted loading zone

ACTIONS

Actions to implement dynamic freight loading zones into citywide curbside management efforts.

Actions	Supports	Difficulty
DO **ACTION 5.1** Investigate freight loading zone demand and supply.	Prosperity	Medium
DO **ACTION 5.2** Identify high intensity delivery zones in the city.	Prosperity	Medium
DO **ACTION 5.3** Document all private loading bays and alleys within the city to assess where gaps in loading zones exist, supplementing existing curbside and private loading areas data. *See street operations Action 5.12*	Prosperity, Mobility, Active partnerships	Medium
DO **ACTION 5.4** Procure and study e-commerce delivery data to supplement field collection efforts in partnership with others.	Prosperity, Mobility, Active partnerships	High
DO **ACTION 5.5** Pilot multiple locations to implement dynamic curb pricing for on-street deliveries and other curbside needs. *See street operations Action 5.2*	Prosperity, Mobility	Medium



STRATEGY 6

Work with private sector and agency partners to guide and implement freight planning initiatives.

There are multiple partnership opportunities that will help advance the City's work in this area. Opportunities include joining already established networks to collaborate regionally on what is a regional, state and national-scoped network. Supporting academic or state-sponsored freight research projects help tie City-specific concerns with the larger regional and interstate nature of freight goods movement.

Figure 118: Nighttime delivery zone

Figure 119: Amazon Prime delivery van

ACTIONS

Actions to work with private sector and agency partners to guide and implement freight planning initiatives.

Actions	Supports	Difficulty
DO **ACTION 6.1** Participate in the Minnesota Freight Advisory Committee to collaborate with regional partners to solve freight related issues.	Active partnerships	Low
DO **ACTION 6.2** Partner with academic institutions, government agencies and private sector businesses to research freight urban logistics, including last mile connections and curb-to-door delivery.	Active partnerships	Medium
DO **ACTION 6.3** Partner with academic institutions, government agencies and private sector businesses to assess the impacts of e-commerce deliveries in neighborhoods to determine if actions are needed to mitigate impacts.	Active partnerships	Medium
DO **ACTION 6.4** Evaluate the option of coupling a pricing mechanism with off-peak loading incentives.	Prosperity, Active partnerships	Medium
DO **ACTION 6.5** Develop an off-hours delivery pilot to incentivize non-peak delivery times.	Prosperity, Active partnerships	Medium

STRATEGY 7

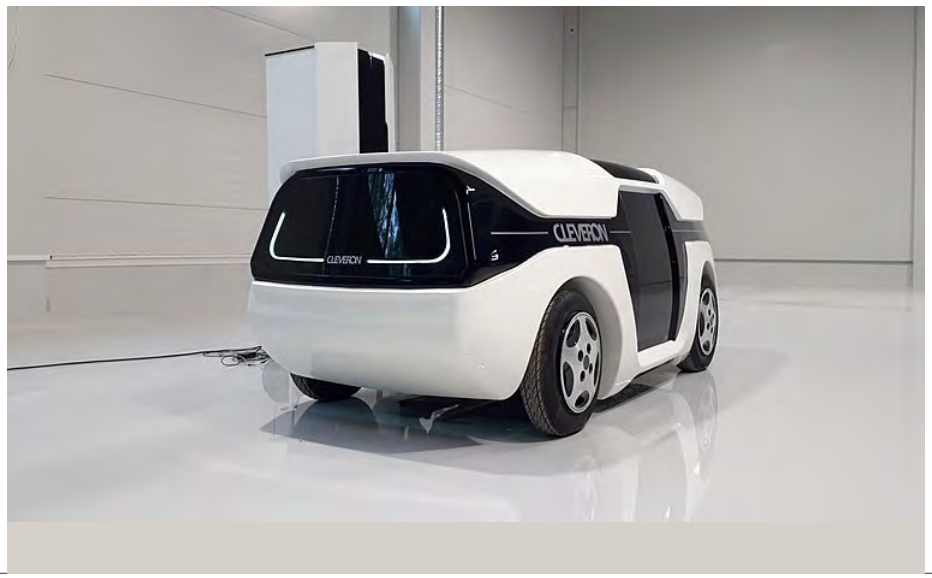
Regulate new delivery technologies that use the public right of way.

Figure 122: Delivery drone

In cities around the country we've seen delivery robots, drone delivery and other creative, more efficient ways of redefining the delivery of goods to doorsteps, lockers or businesses. With more automation, delivery trucks full of packages could be out for delivery at any hour of the day or night. Planning for these new technologies and developing agreements with providers to ensure the operators are aligned with our transportation goals is critical. Managing the curb is another important part of how changing delivery options will operate on our streets.

Figure 120: Delivery bot uses public sidewalk to deliver goods

Figure 121: Autonomous delivery locker



ACTIONS

Actions to regulate new delivery technologies that use the public right of way.

Actions	Supports	Difficulty
DO **ACTION 7.1** Manage autonomous delivery in the right of way (vehicles, drones, sidewalk robots and other emerging technologies) by establishing agreements with service providers to ensure that their operations align with the City of Minneapolis transportation goals. *See technology Action 1.2, technology Action 1.4*	Prosperity, Active partnerships	Medium
DO **ACTION 7.2** Expand standard data sharing requirements to all automated modes; write into regulation the creation of APIs for transmission of fleet data for delivery services. *See technology Strategy 4*	Prosperity, Active partnerships	Medium

SEE ALSO ACTIONS:

- **Technology Action 1.8** — Research unmanned aerial vehicles (drones) permitting and local impacts
- **Technology Action 1.9** — Proactively prepare for freight drone activity

STRATEGY 8

Develop a freight education program to educate the public and freight operators.

Education about the Truck Route Network is essential for making it useful. Having an informed driver population that understands which streets are more accommodating to larger freight vehicles will help deliveries run more smoothly, and keep drivers and others using our streets know where to expect potential truck traffic. Thinking about how to develop and communicate an education program that explains the goals, rationales and expectations of freight delivery in the city is needed to better partner with freight operators and business owners.

On the public side, ensuring residents understand truck operating norms and limitations is helpful to promote safe behavior around large vehicles. Events like 'behind the big wheel' that has occurred at Open Streets helps bicyclists and pedestrians experience the vantage point from a large truck and where harder to see spots exist.

Figure 123: Truck navigates a local street alongside a bicyclist

ACTIONS

Actions to develop a freight education program to educate the public and freight operators.

Actions	Supports	Difficulty
DO **ACTION 8.1** Develop an urban delivery handbook to help businesses and operators better understand the rules and regulations regarding the delivery of goods within the city.	Safety, Active partnerships	Medium
DO **ACTION 8.2** Collaborate with partners to educate truck drivers on City regulations, the Truck Route Network and online resources. *See freight Action 3.1, freight Action 3.2*	Safety, Active partnerships	Medium
DO **ACTION 8.3** Partner with others to host demonstrations at public events such as Open Streets to educate the public about safety around large vehicles.	Safety, Active partnerships	Low

STREET OPERATIONS

Improve Street Operations and Address Competing Demands

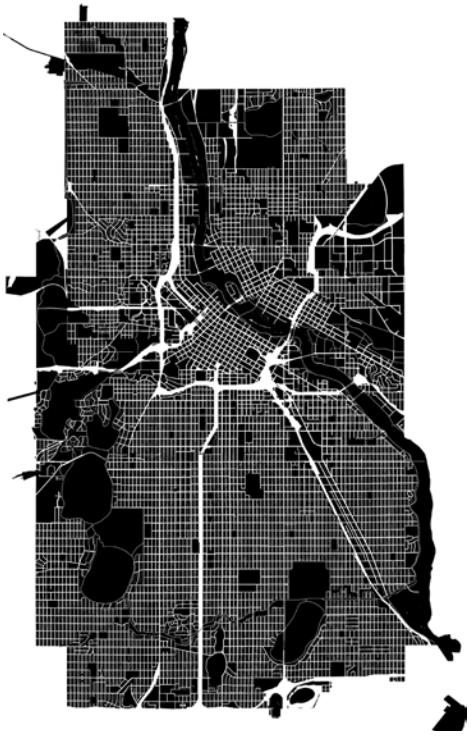
The public right of way, often referred to as our streets, comprises almost a quarter of the land area in the city[55] and refers to what many people consider the street, boulevard and sidewalk up to the private property line. The City holds this land in trust for the public good. The public right of way on any one street is limited and planning for the safe and efficient movement of people and goods within this confined space requires balancing many demands.

As growth occurs throughout the city, there is increasing need for more walkable and livable communities. Minneapolis is experiencing record-setting growth; 2018 will be the seventh year in a row that the city has seen over $1 billion in new development.[56] Adapting our streets to respond to this growth within limited right of way requires a future-flexible transportation system that embraces innovative and more efficient ways to move people and goods throughout the city.

A transportation system that works for everyone regardless of ability or income will offer multiple options for getting around safely and comfortably. Achieving this balance takes a people first approach. The Street Operations topic clarifies how the Complete Streets Policy, commitment to Vision Zero and climate goal come together into daily operations and systems planning.

Minneapolis is experiencing record-setting growth; 2018 will be the seventh year in a row that the city has seen over $1 billion in new development.

Figure 124: The public right of way comprises 22% of our land area and is held in trust for public benefit

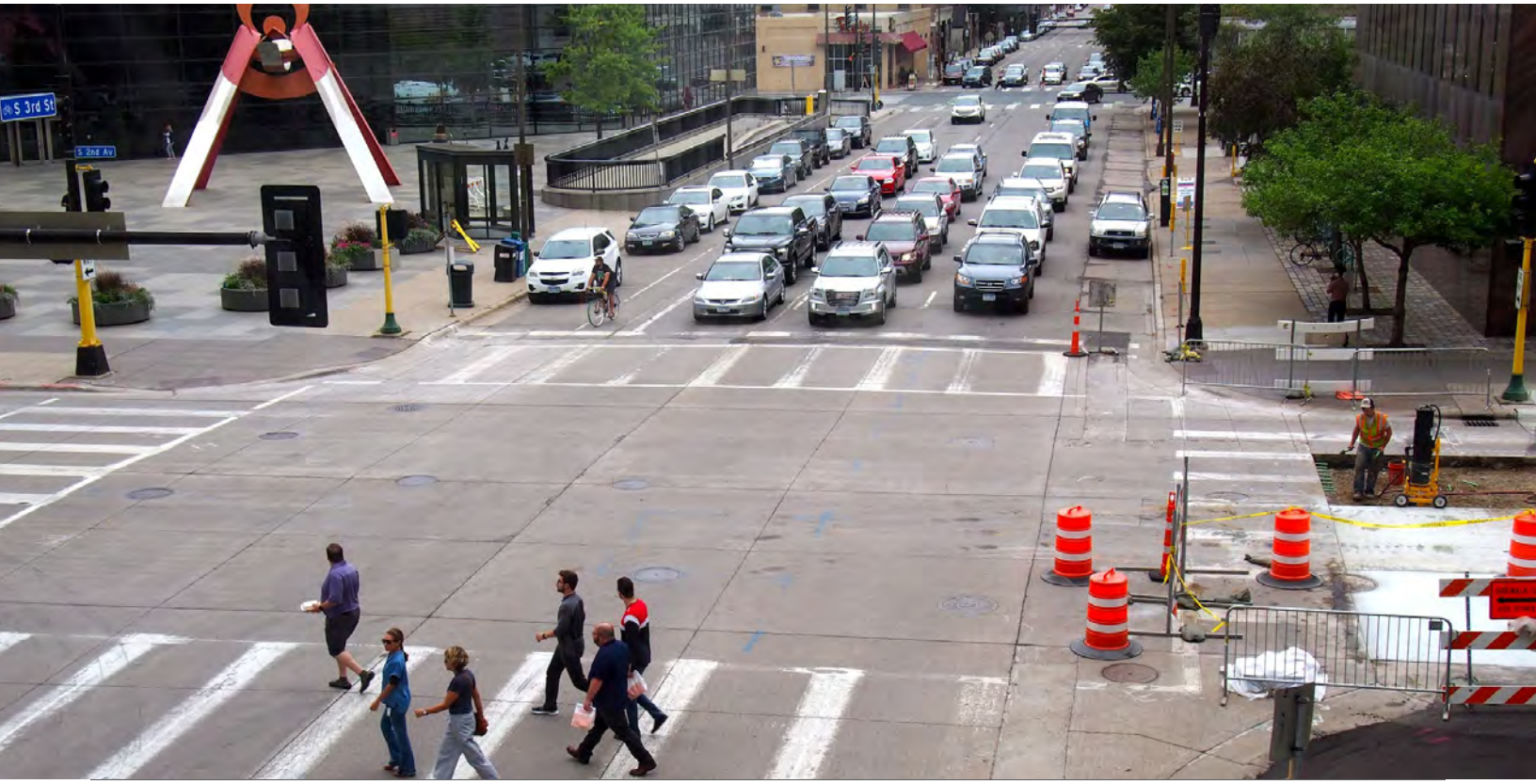


[55] City of Minneapolis Parcel, Parks, and Waterway Data

[56] Building Value of Work, City of Minneapolis Department of Community Planning and Economic Development (2018)

STREET OPERATION STRATEGIES

1. Update the City's Complete Streets Policy.
2. Use quick-build tools to eliminate traffic related deaths and severe injuries on city streets.
3. Plan for efficient and practical operations of people walking, biking and taking micromobility options or transit throughout the street design process.
4. Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.
5. Price and manage use of the curb to encourage walking, biking and using transit and to discourage driving alone.
6. Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.
7. Align traffic signal operations with the Complete Streets Policy.
8. Coordinate with agency partners who own, operate and manage infrastructure within the City to plan, build and operate at the City's standards.
9. Manage street detours in line with Complete Streets Policy.

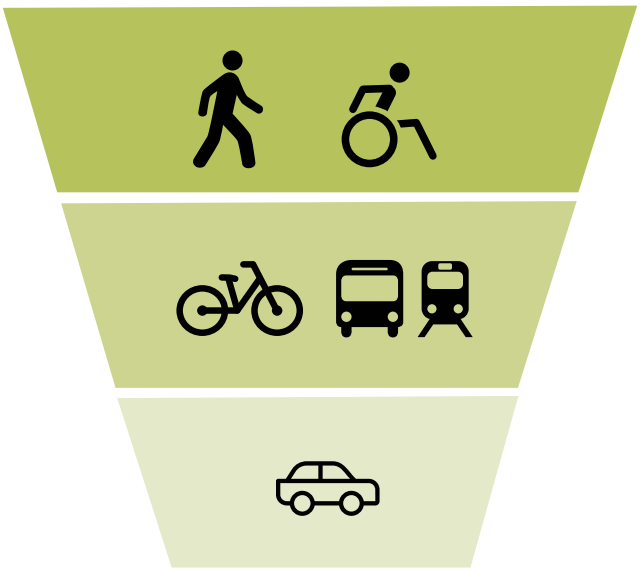


STRATEGY 1

Update the City's Complete Streets Policy.

The City adopted a Complete Streets Policy in 2016 that has successfully driven the design and operations of numerous streets in the city since its passage. Given the pace of change on our streets, we recognize the need to update the policy to incorporate more fully the complex and often competing needs within the right of way.

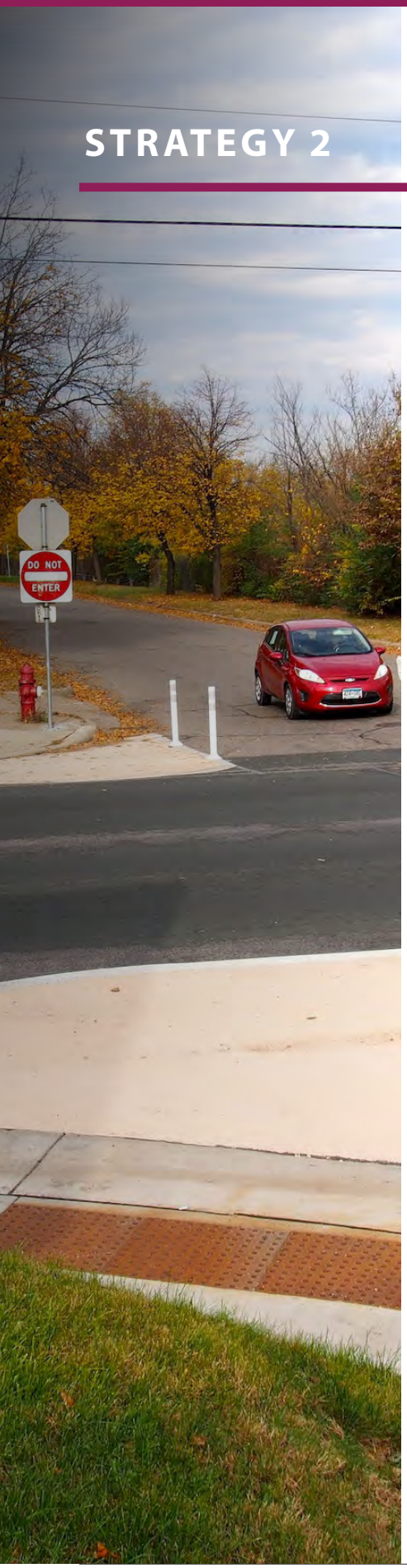
Figure 125: Complete Streets hierarchy



ACTIONS

Actions to update the City's Complete Streets Policy.

	Actions	Supports	Difficulty
DO	**ACTION 1.1** Incorporate freight, micromobility and green infrastructure into the City's existing Complete Streets Policy. *See freight Action 2.1, design Strategy 4*	Climate, Safety, Equity, Prosperity, Mobility, Active partnerships	Medium



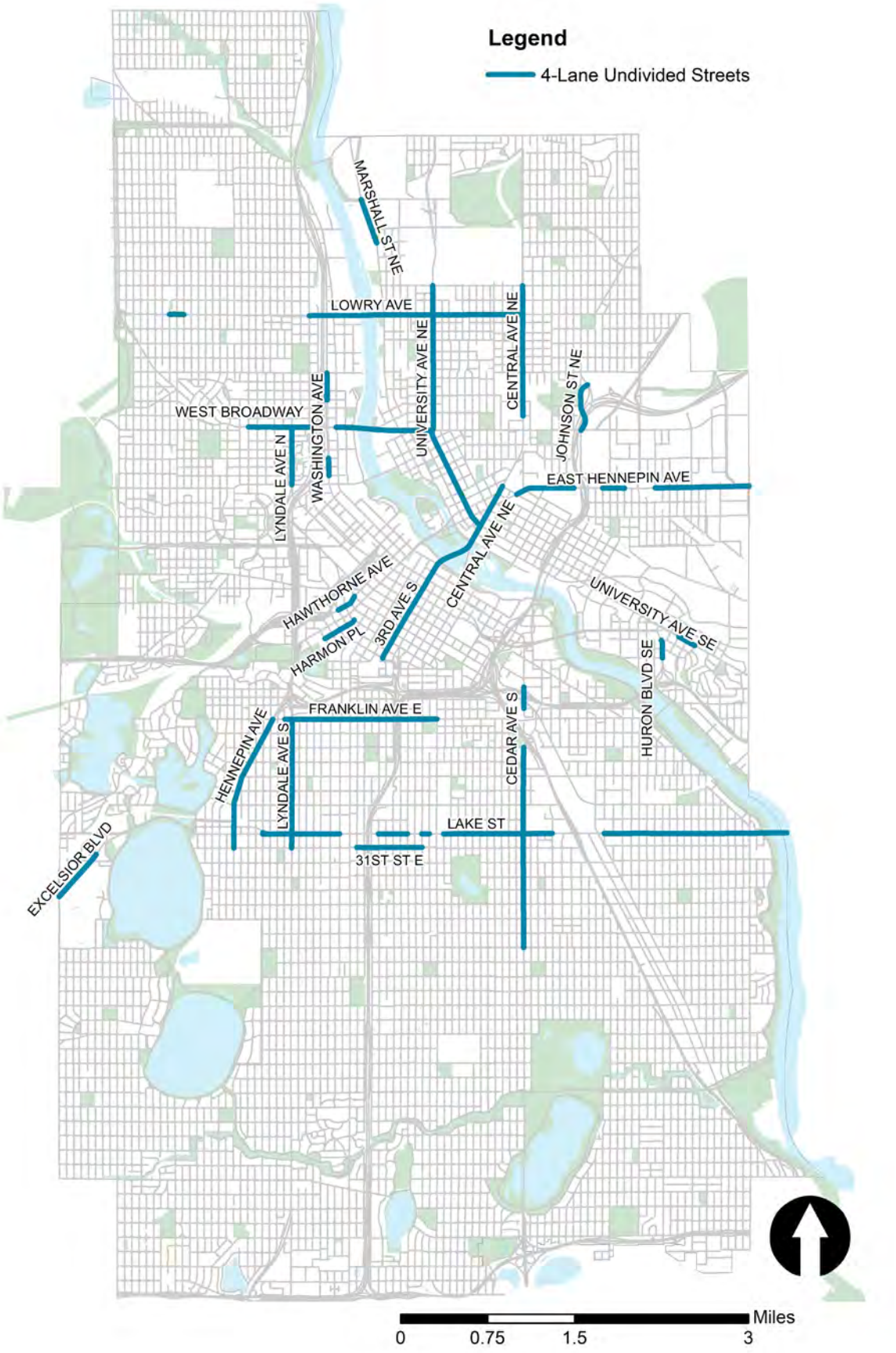
STRATEGY 2

Use quick-build tools to eliminate traffic related deaths and severe injuries on city streets.

The City is committed to eliminating death and severe injuries on our streets by 2027. The City has a 2020-2022 Vision Zero Action Plan which outlines strategies and specific actions to get us closer to that goal. The way streets operate have a huge impact on safety for all modes; this strategy acknowledges the deep connection between street operations and Vision Zero without duplicating the Vision Zero Action Plan.

Figure 126: Reconfiguring space on W 15th Street near Loring Park

Figure 127: 4 lane undivided streets in Minneapolis



ACTIONS

Actions to use quick-build tools to eliminate traffic related deaths and severe injuries on city streets.

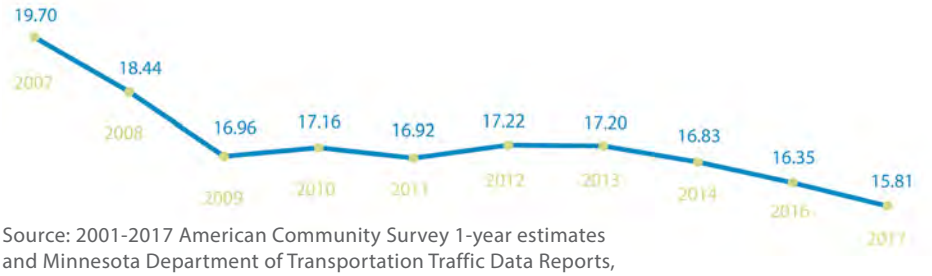
Actions	Supports	Difficulty
DO ACTION 2.1 Complete all Safe Streets strategies and actions in the Vision Zero Action Plan and any updates of the 2020-2022 plan, with a focus on reducing speeds, reconfiguring road space to support safer travel and encourage more people to walk, bike and take transit and install safety improvements at intersections along High Injury Streets. *See technology Action 1.11*	Safety	High
DO ACTION 2.2 Prepare final evaluation of 4-lane undivided streets for safety conversions; potential design solutions include 4-to-3 lane conversions. Current 4-lane undivided streets for evaluation include: • Lyndale Ave N between Plymouth Ave and West Broadway • Hennepin Ave S between Franklin Ave and 31st St • 3rd Ave S between 1st St S and 12th St S • 31st St E between 1st Ave S and Park Ave • Harmon Pl between Spruce Pl and 10th St S • Johnson St NE between Broadway Ave NE and I-35W freeway entrance ramp • Huron Blvd SE between Fulton St SE and Delaware St SE • Hawthorn Ave from 8th St to 11th St • Lowry Ave N between Queen Ave N and Oliver Ave N and Lowry Avenue N and NE between 4th St N and Central Ave NE • Broadway Ave N and NE segments between Fremont Ave N and University Ave NE • Washington Ave N segments between 14th Ave N and 26th Ave N • Lyndale Ave S between Franklin Ave and 31st St • Cedar Ave S between 24th St and 38th St and between 7th St S and 9th St S • Franklin Ave between Aldrich Ave S and Chicago Ave • Lake St segments between Dupont Ave and West River Pkwy • Excelsior Blvd between France Ave and Abbott Ave S • University Ave SE segments between Oak St SE and St. Mary's Ave SE • Marshall St NE from 30th Ave NE to St. Anthony Pkwy • Hennepin Ave E segments between 8th St SE and 33rd Ave SE • Central Ave NE segments between 2nd St SE and 27th Ave NE • University Ave NE and SE between Central Ave and 27th Ave NE	Climate, Safety, Equity, Prosperity, Mobility, Active partnerships	High

STRATEGY 3

Plan for efficient and practical operations of people walking, biking and taking micromobility options or transit throughout the street design process.

Minneapolis has a 2030 mode shift goal of getting to 35% of all trips walking, biking or micromobility, 25% transit (including school bus) and 20% each of multi-occupancy vehicle and driving alone. To get there we need to plan, design and construct streets that provide more options for people to travel more efficiently and make it more convenient for people to make those choices. By pushing back on pre-determined growth in vehicular trips when performing traffic analyses and measuring level of service from a motor vehicle point of view we can ensure a people first future versus continuing a car first approach. The approach in this strategy is to focus street operational and design decisions on daily people throughput without letting the peak vehicular travel hour drive decisions.

Figure 128: Vehicle miles traveled per capita



Source: 2001-2017 American Community Survey 1-year estimates and Minnesota Department of Transportation Traffic Data Reports, 2007-2017

Figure 129: Street space needed for 38 people to travel 5 different ways

ACTIONS

Actions to plan for efficient and practical operations of people walking, biking and taking micromobility options or transit throughout the street design process.

	Actions	Supports	Difficulty
DO	**ACTION 3.1** Plan and design for zero or decreasing motor vehicle trip growth and positive growth in other modes for trip forecasting for street projects where the City is the primary implementer. Work with project partners to encourage this approach in project planning when the City is a partner versus a lead.	Climate, Mobility	Medium
DO	**ACTION 3.2** Discontinue the use of vehicular level of service except where necessary to meet funding, legislative or other jurisdictional requirements. *See walking Action 2.5*	Mobility	Medium
DO	**ACTION 3.3** Advocate to use potential for mode shift and non-motorized counts as evaluation measures in Regional Solicitation applications.	Mobility, Active partnerships	Medium

Level of service is a traditional transportation engineering performance indicator that measures level of delay for motor vehicles through an intersection.

STRATEGY 4

Leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.

The actions listed in this strategy support the work of others in the region who work to promote mode shift to transit, walking and biking downtown in particular and beyond. The actions also speak to the City's transportation demand management strategies which focus on helping people make the decision and use existing infrastructure to walk, bike or take micromobility or transit options.

Travel Demand Management Plans are tools that help to ensure new development accurately plans for travel patterns in line with City goals. Travel Demand Management Plans are required by ordinance for all non-residential development containing 100,000 square feet or more of new or additional gross floor area to address the transportation impacts of the development on air quality, parking and roadway infrastructure. Travel Demand Management Plans are reviewed by Public Works and the Department of Community Planning and Economic Development staff.

Figure 130: #MoveLikeABoss campaign by Move Minneapolis

ACTIONS

Actions to leverage City resources and partnerships to promote, educate and encourage walking, biking and transit as alternatives to driving.

	Actions	Supports	Difficulty
DO	**ACTION 4.1** Explore efforts to contract with Move Minneapolis to expand work on mode shift to include larger employment areas outside of downtown.	Climate, Mobility, Active partnerships	Medium
DO	**ACTION 4.2** Update Travel Demand Management Plan requirements in the Zoning Code to apply to more development projects than they do currently, to address mode split goals and traffic growth rates, Metropass participation and mandatory self-reporting audits that occur every two years as well as any additional monitoring needed to improve safety.	Climate, Safety, Mobility, Active partnerships	Medium
DO	**ACTION 4.3** Work with community and agency partners to enhance communication practices about the importance of walking, biking and using transit for citywide events.	Mobility, Active partnerships	Low
SUPPORT	**ACTION 4.4** Partner with Move Minneapolis to recruit downtown employers and property owners to increase walking, biking and transit use among their employees and residents.	Climate, Mobility, Active partnerships	Medium

Figure 133: Curbside use reserved for bike corral

STRATEGY 5

Price and manage use of the curb to encourage walking, biking and using transit and to discourage driving alone.

During public engagement, we asked a question about ranking the importance of uses typically accommodated along the curb. The results show that people understand the multiple demands for curbside use beyond the typical parking uses. All these uses, and the careful consideration of the opportunity cost of the curb, are necessary to evaluate when implementing new ways of managing the curb.

Past decisions have rendered much of the public right of way available for the travel and storage of private vehicles at little cost, the increasing demands and opportunities for the space forces the City to reconsider how this space is allocated and accessed. How space is allocated, what access exists for who and at what cost, will guide the use of the City's streets.

Minneapolis has 8,330 on-street metered parking spaces that are priced for at least part of the day.[57] Approximately 32 miles, or 3% of the miles in the city are metered. Comprehensively evaluating the opportunity to extend where and how curbs are priced through modernized ordinances is a specific action outlined below with a large potential to align practices more accurately with our transportation goals and Complete Streets Policy.

Cornerstone to this strategy is the development of a curbside management policy. The City will manage the curb in a way that reflects our goals and supports advancements in mobility. A concrete way this will happen is to create flexible curbside space for different uses, including loading and unloading of people (on transit or in shared or private cars) and goods, storage of all types of vehicles and mobility spaces (transit and bike lanes).

Figure 131: Parklets use curbside space to extend sidewalk

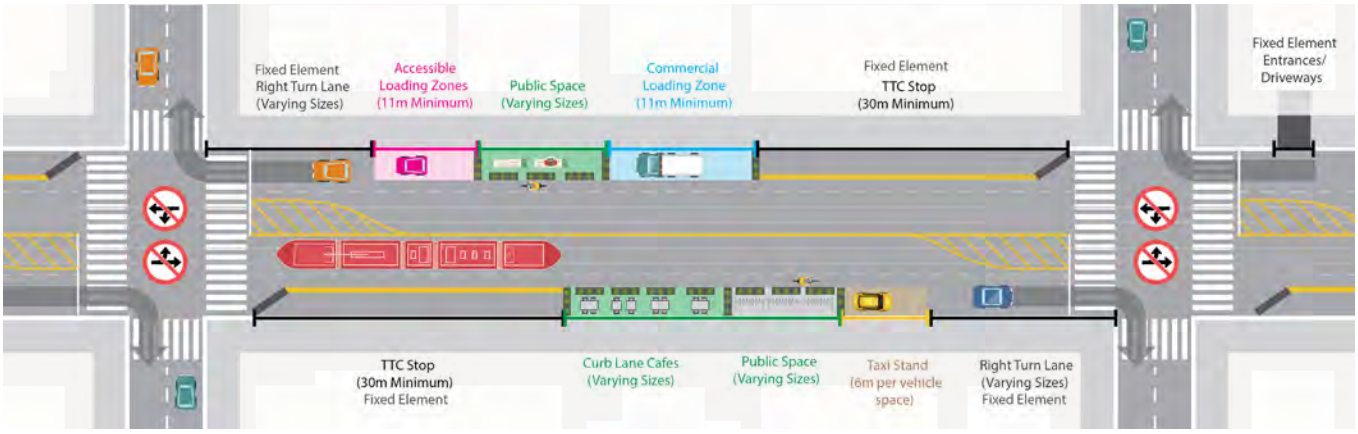
Figure 132: Curbside use activity ranking

190 participants ranked curbside uses in the following order:

1. **Transit boarding**
2. **Bike lanes**
3. **Activation**
4. **Stormwater**
5. **Passenger drop-off**
6. **Freight loading**
7. **Parking**

[57] Minneapolis Parking

Figure 134: Organizing the curb along King Street, Toronto



Source: City of Toronto, Ontario

ACTIONS

Actions to price and manage use of the curb to encourage walking, biking and using transit and to discourage driving alone.

Actions	Supports	Difficulty
DO ACTION 5.1 Adopt a strong curbside management policy that takes full advantage of a dynamic urban environment; prioritize the curb in alignment with the City's Complete Streets Policy and value the competing demands for curb space.	Mobility	Low
DO ACTION 5.2 Develop a multi-purpose dynamic curb zone pilot for multiple corridors to accommodate all users and develop a revenue structure which charges across modes for use of these zones. *See transit Action 2.6, freight Action 5.5*	Mobility	High
DO ACTION 5.3 Modernize ordinances to incentivize desired uses through pricing structure – for example, to encourage use of curbside for parklets and other street activation uses or shared, electric vehicles. *See technology Strategy 1*	Prosperity, Mobility	Low
DO ACTION 5.4 Utilize technology along commercial corridors and within downtown and other commercial areas to manage all curbside uses. *See technology Strategy 1*	Prosperity, Mobility	High
DO ACTION 5.5 Employ on-street and off-street parking strategies to support transit corridors (parking maximums for new developments, facilitated shared parking incentives, dynamic pricing, expanded metered parking).	Climate, Equity, Mobility	High

continued on next page

	Actions	Supports	Difficulty
DO	**ACTION 5.6** Investigate implementation of a per trip fee for applicable curbside uses including delivery and shared mobility services.	Mobility	High
DO	**ACTION 5.7** Study congestion pricing with the intent to discourage single occupancy vehicle trips.	Mobility	High
DO	**ACTION 5.8** Pursue legislative changes and governmental support needed to make car sharing more attractive. *See technology Action 2.6*	Mobility	High
DO	**ACTION 5.9** Price on-street parking meters to support multimodal street operations and mode share goals.	Mobility	Medium
DO	**ACTION 5.10** Evaluate whether meters or priced curb space should be expanded to more corridors.	Mobility	Medium
DO	**ACTION 5.11** Assign and mark typical block faces in downtown to flexibly assign space for activation or placemaking, on-street bicycle or scooter parking, passenger and freight loading, drop off/pick up and standard vehicular storage zones, where immediate adjacent curbside space is not used for bike or transit mobility. *See bicycling Action 9.1*	Mobility	High
DO	**ACTION 5.12** Continue the process of digitizing the activities on the curb (parking, loading, etc.), and plan for digital communication between the curb and vehicles.	Mobility	High
DO	**ACTION 5.13** Utilize public-private partnerships to implement solutions when parking and mobility challenges arise, such as district parking, mobility hubs, carpool incentives, electric vehicle priority, stormwater retention, water filtration and others. *See bicycling Strategy 9, technology Action 3.1, technology Strategy 6*	Active partnerships	Medium

Congestion pricing is a tool to manage the volume of motor vehicles entering certain zones by charging a fee during a set period of the day or week.

Placemaking – or activation – refers to using street as shared public spaces for people.

STRATEGY 6

Induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.

The way a street operates is driven by individual choice of how, where and how fast to travel, the physical space of the street including lane and striping, signal operations, surrounding land uses and how many other people are also using the same space.

The City has long prioritized all modes when delivering transportation projects; this strategy calls out specific actions that will help more quickly elevate options for walking, biking and transit improvements. Dedicating space proportional to planned travel patterns and mode shares in a systems-based approach will help to induce mode shift.

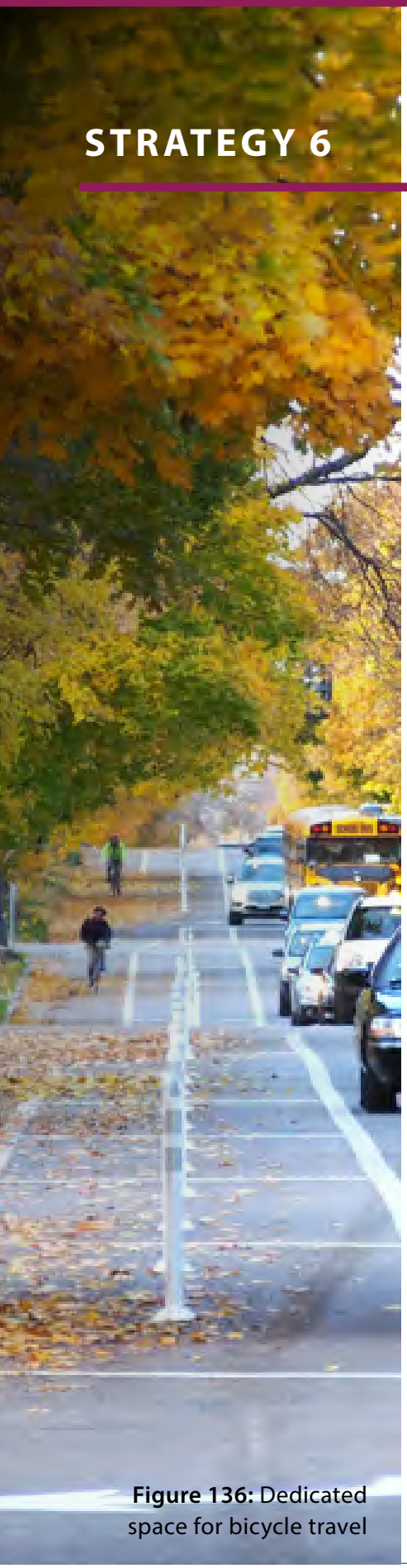


Figure 136: Dedicated space for bicycle travel

Figure 135: Bus only lane on Chicago Avenue, prioritizes transit travel

ACTIONS

Actions to induce regional mode shift by prioritizing pedestrian, bicycle and transit facilities and operations into capital transportation projects.

Actions	Supports	Difficulty
DO **ACTION 6.1** Allocate street space to support planned travel patterns and desired mode shares.	Mobility	Medium
DO **ACTION 6.2** Advance the All Ages and Abilities Network, transit improvements and emergency response infrastructure through the bridge maintenance and replacement process. *See bicycling Strategy 2*	Mobility	Medium
DO **ACTION 6.3** Pilot innovative street operations and designs in response to changing conditions, markets, travel patterns, demographics, mode shift goals and technology to more efficiently use the public right of way.	Mobility	Low
DO **ACTION 6.4** Capitalize on opportunities to benefit vulnerable users, such as restriping streets outside of the Capital Improvement Program, adding delineators or markings and enhancing signage or wayfinding.	Safety, Equity, Mobility	Low
DO **ACTION 6.5** Restore or eliminate gaps in the street grid when conducting planning or development activities. In particular, as soon as possible reconnect the street grid at Nicollet Ave and Lake Street. *See walking Action 6.3*	Equity, Prosperity, Mobility, Active partnerships	High
SUPPORT **ACTION 6.6** Support efforts to obtain legislative authority for automated enforcement and if granted, support its use to enforce vehicles blocking intersections, crosswalks, bicycle facilities and travel lanes.	Safety, Mobility	High

SEE ALSO ACTION:

- **Transit Action 2.8** — Effective bus-only operation

Figure 138: Bike signal

STRATEGY 7

Align traffic signal operations with the Complete Streets Policy.

Traffic signals are timed and coordinated citywide to promote safe and consistent travel times. The actions below do not include exhaustive adjectives like 'all' and 'every' because specific movements allowed by a traffic signal may have a negative impact for some other competing use; this approach does not indicate a lack of commitment to completing this strategy but rather realistically approaching its implementation. For example, longer walk times for pedestrians goes against shorter cycle lengths, which also have benefits for pedestrians. Automatic display of the WALK signal without having to push a button, may, in some cases extend the total cycle length, creating additional delay for pedestrians and transit vehicles. Transit queue jumps prioritize those traveling on bus or other transit, but elongate waiting times for pedestrians crossing that street – the same holds true for green arrows for specific turning time for vehicles.

The City is doing adjustments on most traffic signals in 2020 to align with new, lower speed limits. This adjustment is being done with recognition that a larger, citywide alignment of signals with Complete Streets will be done in the future.

Figure 137: Queue jump for transit lets transit vehicle surpass other vehicles after red light

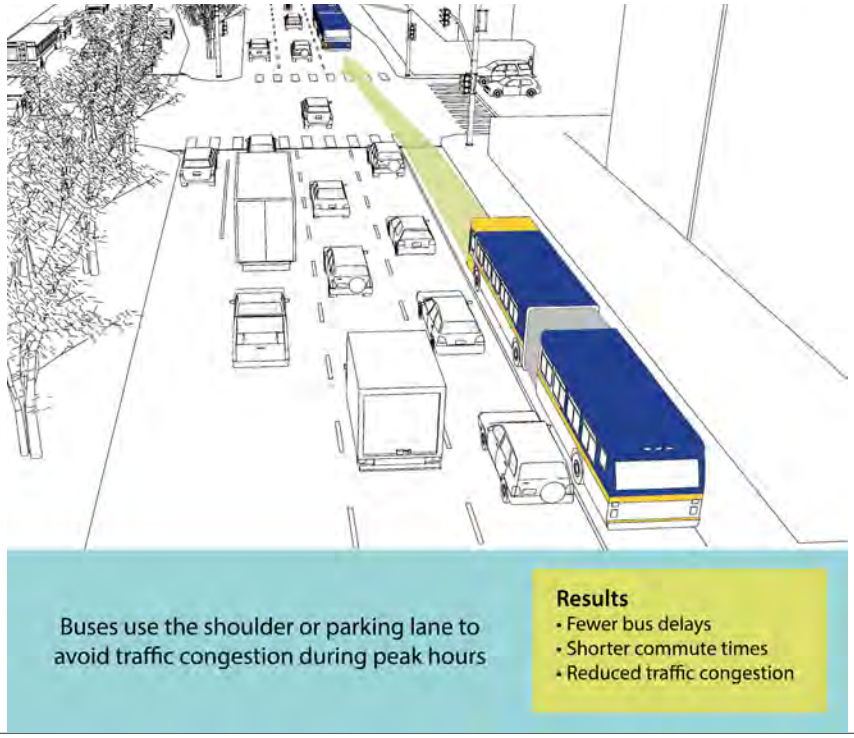


Figure 139: Leading pedestrian interval

ACTIONS

Actions to align traffic signal operations with the Complete Streets Policy.

Actions	Supports	Difficulty
DO **ACTION 7.1** Identify locations where operation of traffic signals should be evaluated to prioritize pedestrian mobility, comfort and safety.	Safety, Equity, Mobility	Low
DO **ACTION 7.2** Implement transit advantages along all high frequency transit corridors, through transit only lanes, transit signal priority, queue jumps and other treatments as appropriate.	Safety, Equity, Mobility	Medium
DO **ACTION 7.3** Use traffic signals to increase efficiency of people biking. Include specific bike signals on the All Ages and Abilities Network, and time signals to reduce the need for people biking to stop.	Safety, Equity, Mobility	Medium
DO **ACTION 7.4** Re-time traffic signal coordination to encourage vehicle speeds at or below the posted speed limit.	Safety, Mobility	Low

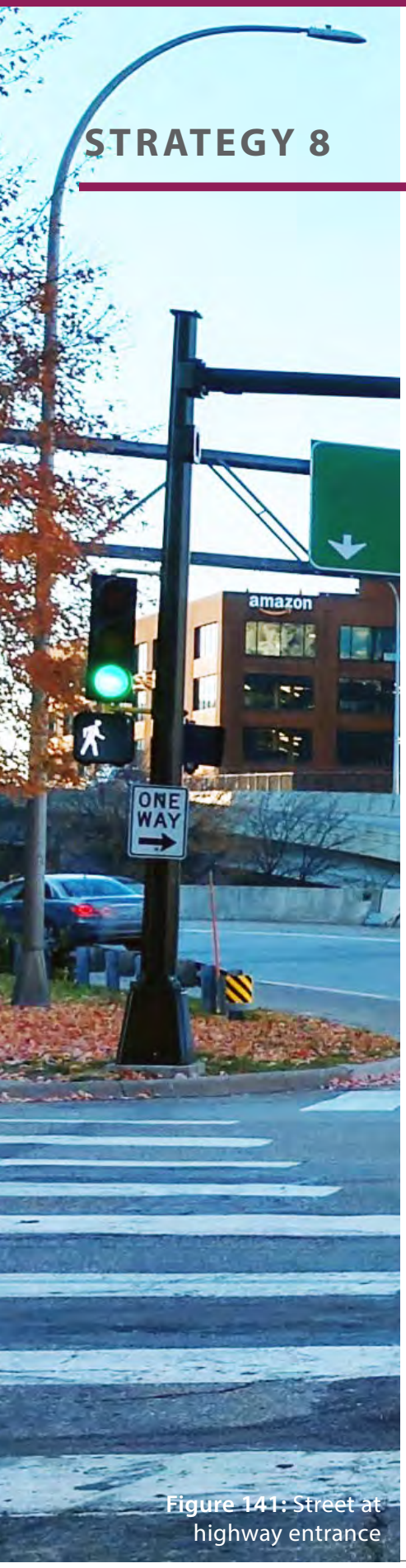


Figure 141: Street at highway entrance

STRATEGY 8

Coordinate with agency partners who own, operate and manage infrastructure within the City to plan, build and operate at the City's standards.

Streets in Minneapolis are owned and operated by one of five agencies: the City of Minneapolis, Hennepin County, the Minnesota Department of Transportation, the Minneapolis Park and Recreation Board and the University of Minnesota. Typically, the systems and volumes increase from local to county to state systems – and design decisions are often influenced by accommodating an increasingly higher volume of street users.

While final responsibility and determination for design decisions for a particular street is held by the underlying jurisdictional owner, the design process is often collaborative between the overlapping jurisdictions and we work with our partners to reach design and operational decisions that reflect our values and goals while recognizing their underlying authority.

Figure 140: A County road in Minneapolis that was redesigned to better fit local context

Figure 142: Existing raised I-94 viaduct in the North Loop

ACTIONS

Actions to coordinate with agency partners who own, operate and manage infrastructure within the City to plan, build and operate at the City's standards.

Actions	Supports	Difficulty
DO ACTION 8.1 Manage vehicle traffic volumes and mobility on the regional system and local streets by allocating space efficiently for use throughout the day versus focusing on peak travel times.	Mobility, Active partnerships	Medium
DO ACTION 8.2 Ensure that streets serving freeway connections reflect the Complete Streets Policy; maintain local street qualities as opposed to facilitating freeway movements at streets leading to or from freeway access ramps, where streets change character (from highway to arterial) or when streets change owner (from State or County to City). *See design Strategy 6*	Mobility, Active partnerships	High
DO ACTION 8.3 When partner agencies have authority over street design and use of the right of way, pursue changes that better align with the Street Design Guide, the Complete Streets Policy and Vision Zero.	Safety, Mobility, Active partnerships	Medium
DO ACTION 8.4 Study the viability of the following changes to the regional network: • Convert the I-94 freeway bridge connections via 3rd/4th Streets (North Loop viaduct) to MnPASS only, with the long-term goal of eliminating this and similar facilities. • Close or reconfigure Interstate 394 access at Washington Avenue N and 3rd Avenue N.	Climate, Mobility, Active partnerships	High

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ACTIONS (continued)

Actions to coordinate with agency partners who own, operate, and manage infrastructure within the City to plan, build and operate at the City's standards.

SUPPORT **ACTION 8.5**

Support efforts to convert street right of way to land for other uses, using public/private partnerships as appropriate. Ideas include:

- Develop lids or land bridges to reconnect communities. *See walking Action 6.5*
- Identify alternatives for using the land on freeway embankments such as energy collection with solar panels or wind harvesting; water management and purposeful plantings; and as dedicated public transit corridors.

Prosperity, Mobility, Active partnerships

High

SEE ALSO ACTIONS:

- **Transit Action 2.7** — Transit advantages on freeways through lane conversions
- **Design Action 6.1** — Changes to regional functional class system

STRATEGY 9

Manage street detours in line with Complete Streets Policy.

The actions listed here outline specific ways to improve the implementation of detours to maintain safe access for all street users. Ensuring clear passage for pedestrians should be the first priority, and bicyclists or those on micromobility vehicles should not be deposited into mixed traffic if they have otherwise been traveling in a separated facility. Ensuring that emergency responders can navigate the space is always a top priority during construction, and detours should be designed to accommodate.

Figure 144: Sidewalk closed

Figure 143: Bikes may use full lane signage

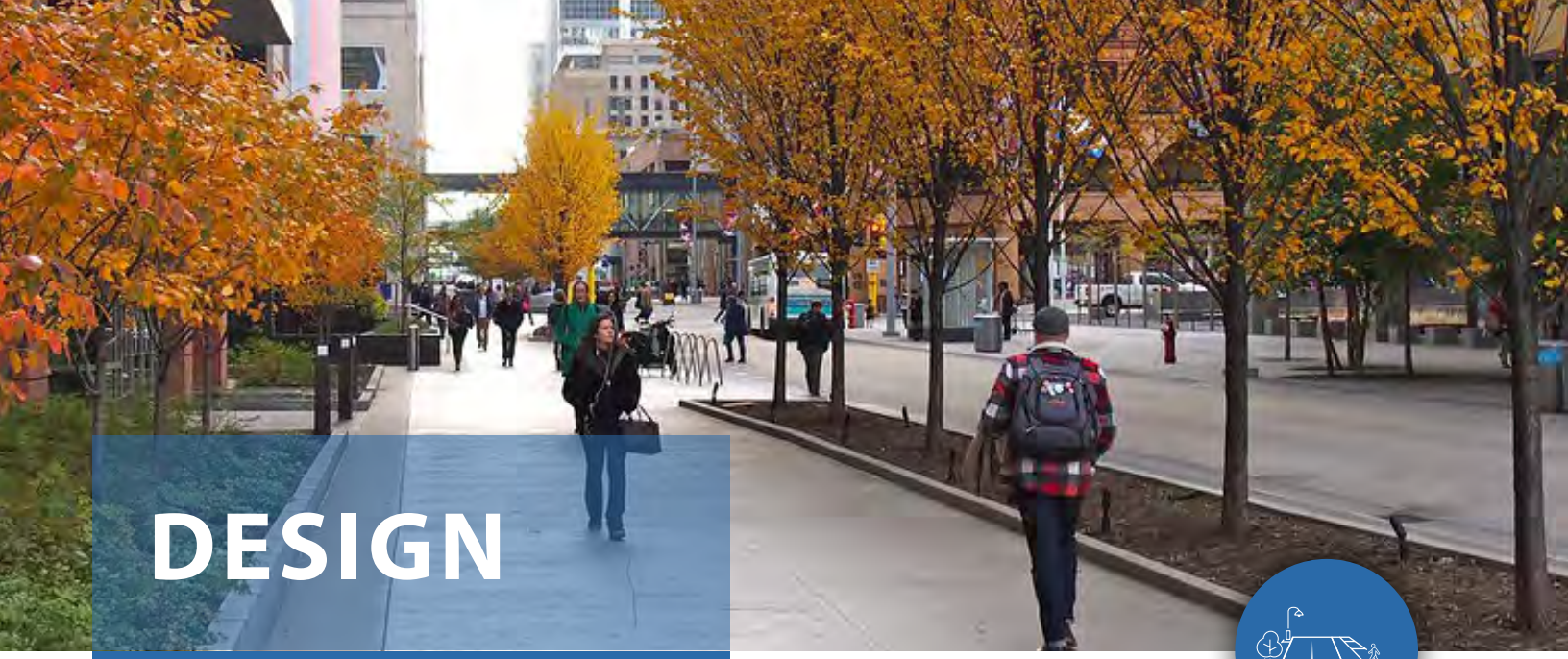
ACTIONS

Actions to manage street detours in line with Complete Streets Policy.

	Actions	Supports	Difficulty
DO	**ACTION 9.1** Provide safe, direct and comfortable temporary facilities for non-motorized users during construction in accordance with the current and updated Complete Streets Policy.	Safety, Equity, Mobility	Medium
DO	**ACTION 9.2** Price lane obstruction permits to reflect the Complete Streets hierarchy such that removal of pedestrian or bicycle access is more costly than general purpose travel lane closures.	Equity, Mobility	Medium
DO	**ACTION 9.3** Reconstruct disturbed pedestrian, bicycle and transit facilities in accordance with planned future conditions, not existing, when altered by development or utility work, as documented in this plan and the Street Design Guide.	Safety, Mobility	High
DO	**ACTION 9.4** Inspect and enforce non-compliance at construction sites where pedestrian walkways are not being cleared of snow and ice. *See walking Strategy 4*	Safety, Mobility, Active partnerships	High

SEE ALSO ACTIONS:

- **Walking Action 5.3** — Inspect pedestrian access requirements around work zones and ensure compliance
- **Bicycling Action 6.2** — Require low-stress bikeway detours
- **Bicycling Action 6.3** — Inspect bikeway detours and ensure compliance



DESIGN

Design for people

There are over 1,000 miles of streets in Minneapolis. Streets include sidewalks, transit stops, bikeways and roadway space. They provide space for trees and include critical infrastructure such as pipes for drinking water, stormwater drains to collect rain and cables for electricity and communications. They are the common canvas for public art and community gathering places.

Minneapolis streets are the backbone of people's daily routines and we want to make sure they work for everyone, no matter how you get around. Yet, street designs of the last century have favored the movement of cars over people. Wide roads and complicated intersections have resulted in streets that are uncomfortable for many, especially those walking, bicycling or taking transit, the very young, old or those experiencing any type of special mobility needs. Additionally, current auto-centric street designs make it challenging to build attractive and welcoming public spaces, where people want to walk, bicycle, shop and spend more time.

The City recognizes the consequences of past street design decisions and adopted a Climate Action Plan (2013), Complete Streets Policy (2016) and commitment to Vision Zero (2017), all of which take a fresh approach to thinking about how we design our streets and how street design can impact people's choices of how to travel. To ensure that Minneapolis street design reflects these priorities, the Minneapolis Transportation Action Plan is updating our Street Design Guide. This new design guide is a key step to make walking, bicycling and transit real options in Minneapolis, eliminating all traffic deaths and severe injuries and addressing the effects of climate change.

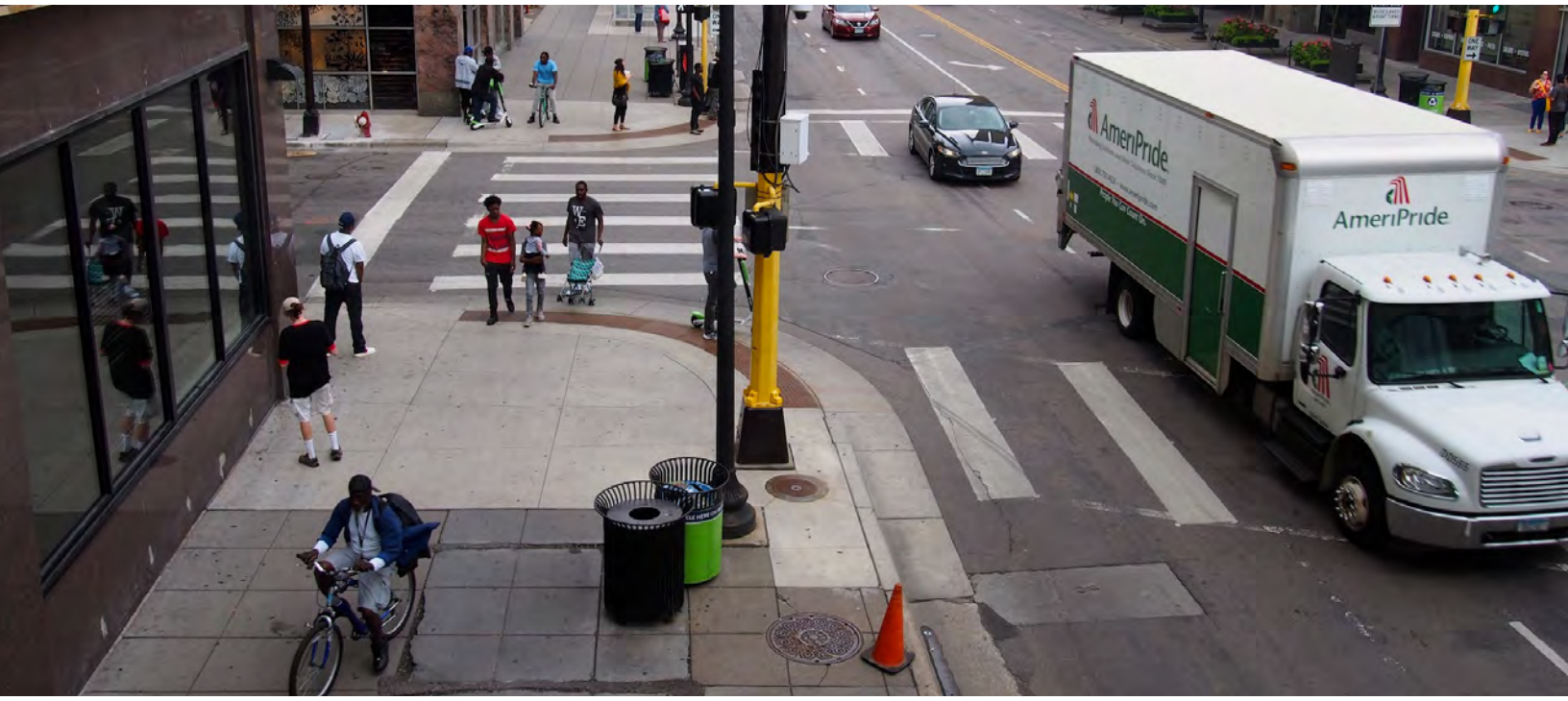
The Street Design Guide will be finalized in 2020, separate from and guided by the Transportation Action Plan.

DESIGN STRATEGIES

1. **Develop a Street Design Guide that informs the planning and design of all future street projects. The Street Design Guide will recognize streets as the city's largest public space and institutionalize the City's Complete Streets Policy, Vision Zero commitment, greenhouse gas emission reduction goal and stormwater management requirements through the design of city right of way.**
2. **Foster vibrant public spaces for street life.**
3. **Incorporate carbon-reduction design elements into City infrastructure projects.**
4. **Green the streets.**
5. **Use street design to improve transit operations.**
6. **Seek design exceptions and variances to established standards when standards established by other units of government conflict with the City's Complete Streets Policy.**

SEE ALSO STRATEGY:

- **Bicycling Strategy 3** — Neighborhood greenways



STRATEGY 1

Develop a Street Design Guide that informs the planning and design of all future street projects. The Street Design Guide will recognize streets as the city's largest public space and institutionalize the City's Complete Streets Policy, Vision Zero commitment, greenhouse gas emission reduction goal and stormwater management requirements through the design of city right of way.

The City of Minneapolis has strong policies that direct resources and set an agenda relative to transportation. Key policies include:

- Complete Streets, which establishes a modal priority framework that prioritizes people as they walk, bicycle and take transit over people when they drive;
- Vision Zero, which sets a goal of ending traffic related fatalities and life-changing injuries on our streets by 2027;
- Climate-related goal to reduce citywide greenhouse gas emissions by 30% by 2025 and 80% by 2050 (from 2006 emissions levels); and
- Stormwater management programs that increase pervious areas and incorporate stormwater quality practices into linear projects to improve the water quality in the city's lakes, creeks and the Mississippi River.

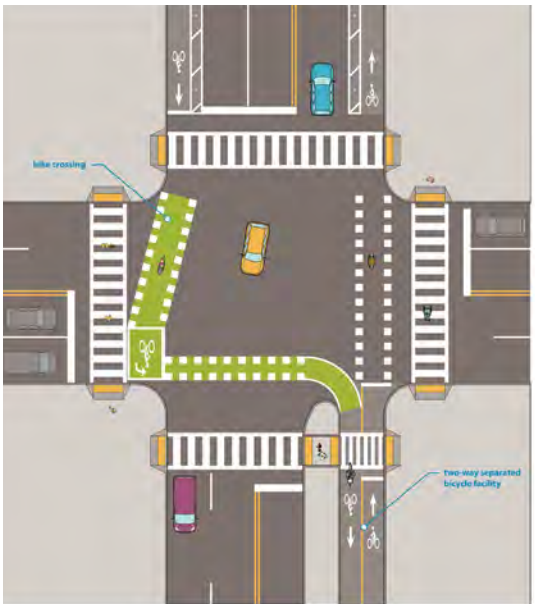
These policies give clear direction for an approach to how we design our streets. Street design must reflect these policies and translate them into opportunities for increased health and safety outcomes for everyone and improved walking, biking, transit and green infrastructure.

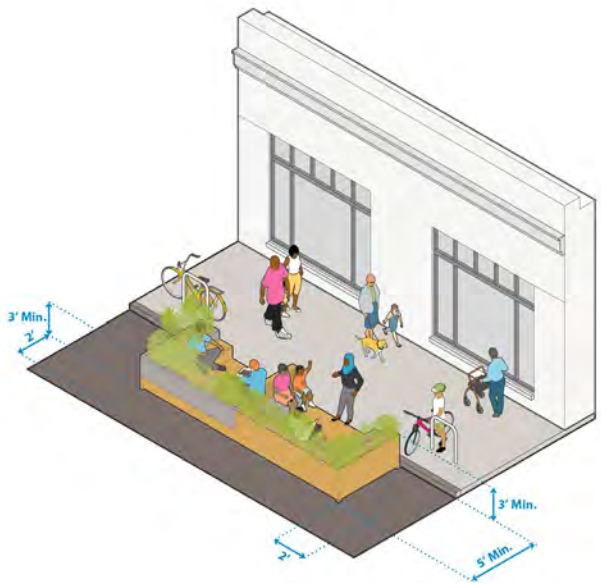
The Street Design Guide will:

- Directly support transportation goals and provide the starting point for all designs for street reconstruction projects in the city.
- Serve as a starting point for street design changes to better meet our goals and provide safer and more convenient options without waiting for a street reconstruction project, through projects that rely primarily on operational changes through street restriping and use of bollards.
- Inform approaches for all partnership projects on streets owned and operated by other jurisdictions.

Figure 145: Typical street type in Street Design Guide

Figure 146: Typical design exhibit in Street Design Guide





ACTIONS

Actions to develop a Street Design Guide that informs the planning and design of all future street projects.

Actions	Supports	Difficulty
DO ACTION 1.1 Establish an updated street typology based on planned land use and built form to inform the character of streets and organize design guidance.	Safety, Mobility	Low
DO ACTION 1.2 Create typical concepts and cross-sections for each street type based on common street widths, including designs for reconstruction, resurfacing and other interim street projects.	Safety	Low
DO ACTION 1.3 Publish the Street Design Guide online in a user-friendly format on a platform that is accessible to City staff, partner agencies, private developers and the public.	Safety, Active partnerships	Low
DO ACTION 1.4 Update requirements for private development and utility work that impacts the street right of way to incorporate treatments detailed in the Street Design Guide. *See walking Strategy 7*	Safety, Active partnerships	Low
DO ACTION 1.5 Update the Complete Streets checklist for transportation projects to align with the Street Design Guide.	Safety	Low
DO ACTION 1.6 Review the Street Design Guide every two years and make updates as needed to reflect changes in transportation options, local and national best practices and new information as a result of research and evaluation of pilot projects and data evaluation.	Safety	Low
DO ACTION 1.7 Research, evaluate and adopt design guidance for automated vehicles and automated transit curbside use needs and travel lane impacts. *See technology Action 1.5*	Safety, Mobility, Active partnerships	High

Figure 149: City Parklet

STRATEGY 2

Foster vibrant public spaces for street life.

Streets are spaces where people travel through but also where people gather, meet and socialize. This strategy aims to create more attractive places within the public right of way that are inviting, that encourage people to linger and enjoy the city where they live, work or play. Many initiatives that support people enjoying public space also have multiple benefits, for example, added greenery helps contain stormwater and can treat stormwater through water purification naturally before entering the city's waterways.

Figure 147: Lou Gehrig Plaza in Bronx, NY

Figure 148: Public art in Minneapolis

Figure 150: Sidewalk design allows ample space for activities

ACTIONS

Actions to foster vibrant public spaces for street life.

Actions	Supports	Difficulty
DO ACTION 2.1 Create a Minneapolis Plaza Program to convert underused street space for pedestrians using guidance from the plaza standards in the Minneapolis Zoning Code.	Prosperity, Active partnerships	Medium
DO ACTION 2.2 Revamp the existing courtesy bench program (Minneapolis Ordinance 283) and create a new request process for installing benches and potentially other street furniture.	Equity, Prosperity	Medium
DO ACTION 2.3 Coordinate with the Department of Community Planning and Economic Development to simplify the process to 'paint the pavement' through creative crosswalks, murals and other art in the public right of way.	Prosperity, Active partnerships	Medium
DO ACTION 2.4 Establish the parklet and street café programs as permanent seasonal programs instead of pilot programs.	Safety, Active partnerships	Low
DO ACTION 2.5 Explore opportunities for car-free streets.	Climate, Safety, Prosperity, Mobility	High

continued on next page

ACTIONS (continued)

Actions to foster vibrant public spaces for street life.

Actions	Supports	Difficulty
DO **ACTION 2.6** Consolidate or eliminate existing curb cuts and minimize new curb cuts for vehicle access across sidewalks during street and development projects *See walking Strategy 7*	Safety, Equity, Mobility	Medium

SEE ALSO STRATEGIES AND ACTIONS:

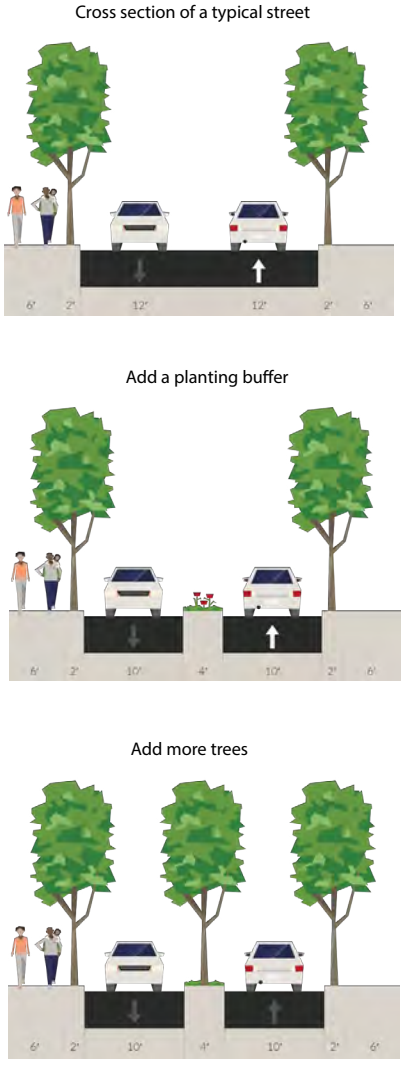
- **Walking Action 2.4** — Covert slip lanes to community space
- **Bicycling Strategy 3** — Neighborhood greenways
- **Bicycling Action 10.2** —Open Streets Minneapolis is sustainable and evolves
- **Technology Action 3.1** — Implement mobility hub network

STRATEGY 3

Incorporate carbon-reduction design elements into City infrastructure projects.

This strategy goes beyond how people travel to consider actions that are aimed at the materials we travel on and the impervious space they cover. Continuing to test and evaluate materials as they become available for inclusion in our capital transportation projects to increase product longevity and reduce environmental impacts, minimizing the footprint of the impervious portion of the street design and being open to alternatives to salt and sand that meet objectives around safety in snow and ice are the focus of the strategy.

Figure 151: Reducing lane width of travel lanes offers multiple benefits, including less impervious surface



ACTIONS

Actions to incorporate carbon-reduction design elements into City infrastructure projects.

Actions	Supports	Difficulty
DO **ACTION 3.1** Test and evaluate new and emerging techniques in pavement materials, utilities and other public infrastructure to increase material longevity and reduce lifecycle carbon footprint.	Climate	Low
DO **ACTION 3.2** Update the Street Design Guide to reflect evaluations and best practices related to environmental stewardship objectives.	Climate	Low
DO **ACTION 3.3** Reduce the negative environmental impacts of street designs by decreasing the amount of asphalt or concrete in favor of increasing green space.	Climate	Medium
DO **ACTION 3.4** Continue investigating alternatives to traditional salt and sand winter maintenance.	Climate	Low

STRATEGY 4

Green the streets.

Green street elements bring life to the street, capture carbon from the air, reduce heat island effects and provide critical stormwater management function to reduce localized flooding and improve water quality. We will seize opportunities as we make improvements to streets to increase functional and aesthetic street treatments that contribute to climate benefits in the city. Functional elements treat and/or contain stormwater before entering the larger stormwater network. Aesthetic treatments include public realm improvements like plantings, boulevards and trees that help contribute to a sense of place.

Figure 152: Temporary installation of trees helps add greenery quickly and creates street life

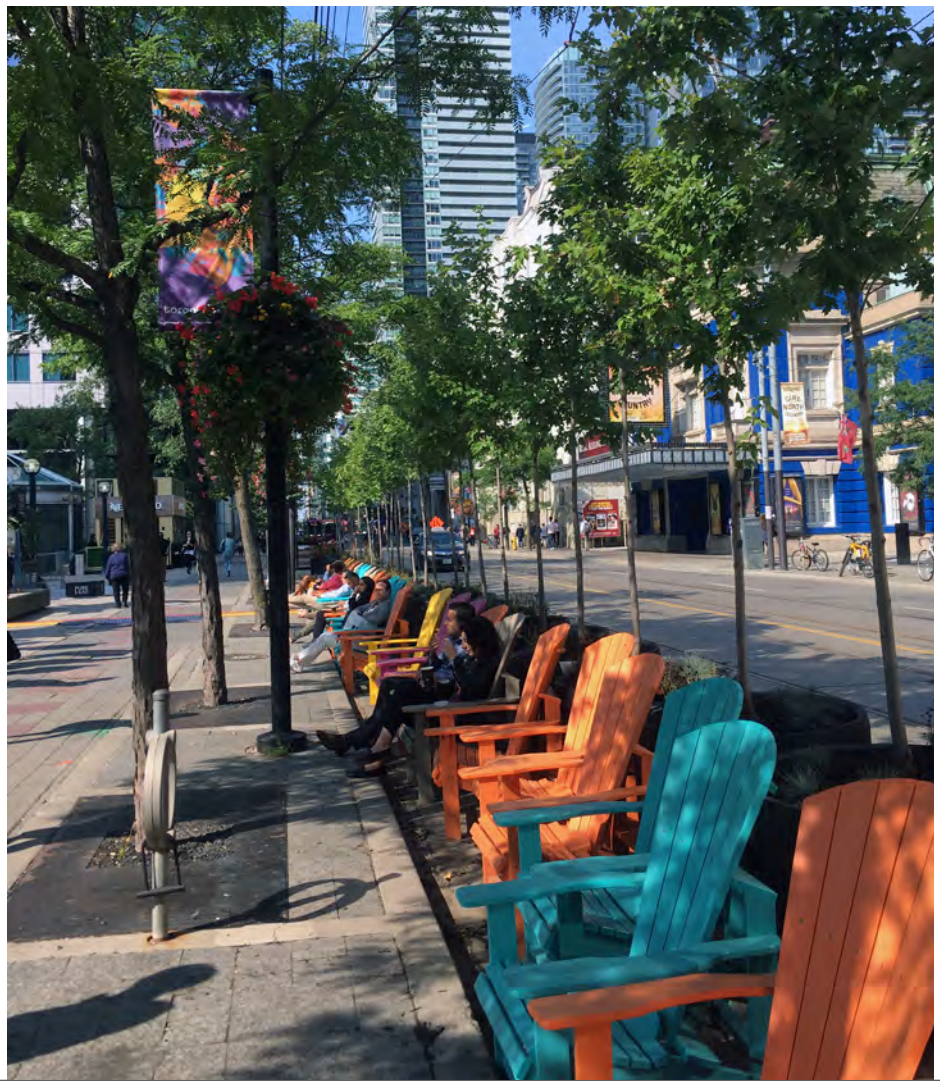


Figure 153: Incorporating stormwater infrastructure on street projects will help with localized flooding issues

ACTIONS

Actions to green the streets.

	Actions	Supports	Difficulty
DO	**ACTION 4.1** Build and maintain stormwater infrastructure into streets, using native plants and bioswales to reduce runoff and treat water prior to entering waterways.	Climate, Active partnerships	High
DO	**ACTION 4.2** Experiment with planting materials, such as biochar, that help street trees and plants survive in harsh winter conditions.	Climate	Medium
DO	**ACTION 4.3** Add greening elements to streetscapes to support the comfort and pleasure of people using the streets, as bikeway protection where appropriate, around transit stops and stations and in high volume pedestrian areas.	Climate, Active partnerships	Medium
SUPPORT	**ACTION 4.4** Achieve 40% tree canopy coverage by 2040 by working with partners and the Minneapolis Tree Advisory Commission and by preserving and enhancing tree plantings in the City's right of way. Prioritize coverage where it least exists and in areas of concentrated poverty with majority people of color.	Climate, Active partnerships	Medium

STRATEGY 5

Use street design to improve transit operations.

Many high frequency transit corridors are the same corridors where people want to be bicycling, walking or visiting for shopping or other needs. Designing the right of way to support all these activities, and creatively bringing design and operational options together that integrate these uses can be seen in examples locally and from afar.

Figure 154: Bike/transit interaction

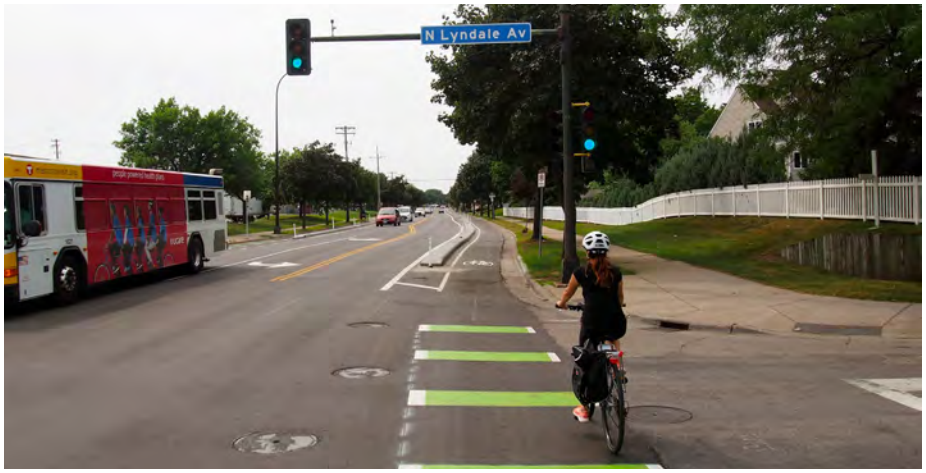


Figure 155: Transit island, Chicago

Figure 156: Parklet designed into bus stop, San Antonio

Figure 157:
Bus bump out

ACTIONS

Actions to use street design to improve transit operations.

Actions	Supports	Difficulty
DO **ACTION 5.1** Adapt street designs, signals, organization and operations as appropriate to support transit facilities and transit priority.	Climate, Safety, Prosperity, Mobility	High
DO **ACTION 5.2** Design intersections and transit stops to foster safe and predictable interactions between all users consistent with the updated Street Design Guide and Metro Transit's bus stop design guidelines. Explore integrating creative ideas like parklets and plazas with bus stop designs. *See technology Action 3.1*	Safety, Equity, Mobility, Active partnerships	High
SUPPORT **ACTION 5.3** Support Metro Transit's efforts to improve wayfinding throughout the city in the public right of way, with an emphasis on connections to the high frequency network. *See walking Action 8.1, technology Action 3.1*	Safety, Mobility, Active partnerships	Low

SEE ALSO ACTIONS:

- **Bicycling Action 4.3** — Install transit island for bicycle/transit compatibility
- **Transit Action 2.5** — Plan for transit during street reconstruction projects

STRATEGY 6

Seek design exceptions and variances to established standards when standards established by other units of government conflict with the City's Complete Streets Policy.

Regional functional classification is a national system of classifying streets into different categories, with implications for street design, intersection controls and speed limits. Classifications have impacts on which streets are eligible to receive regionally allocated federal funds through the Regional Solicitation process. There are 4 classes defined within the Twin Cities metropolitan area, including:

- **Principal arterials**, which are intended to move vehicle traffic over long distances. The principal arterials in Minneapolis are the Interstate system, Hiawatha Avenue and Olson Memorial.
- **Minor arterials**, including A and other minor arterials, which are intended to serve medium-to-short trips and support access to major traffic generators. Examples include Broadway Avenue, Lake Street, Lyndale Avenue and Johnson Street Northeast.
- **Collector streets**, including major and minor collectors, which are intended to balance providing direct access to residences and businesses and providing connections between neighborhoods and to arterial streets. Examples include Dowling Avenue North, 18th Avenue Northeast and 38th Street.
- **Local streets**, which are intended to primarily provide direct access to residences and businesses and serve only short trips.

Municipal State Aid Routes are designated streets within Minneapolis that are eligible to receive funds for street maintenance and construction based on a formula determined by the State Legislature.

Projects on the State Aid System need to follow the Municipal State Aid Rules, however variances or design exceptions can be sought and granted where desired designs do not conform with current State Aid Standards.

Figure 158: Municipal state aid routes in Minneapolis

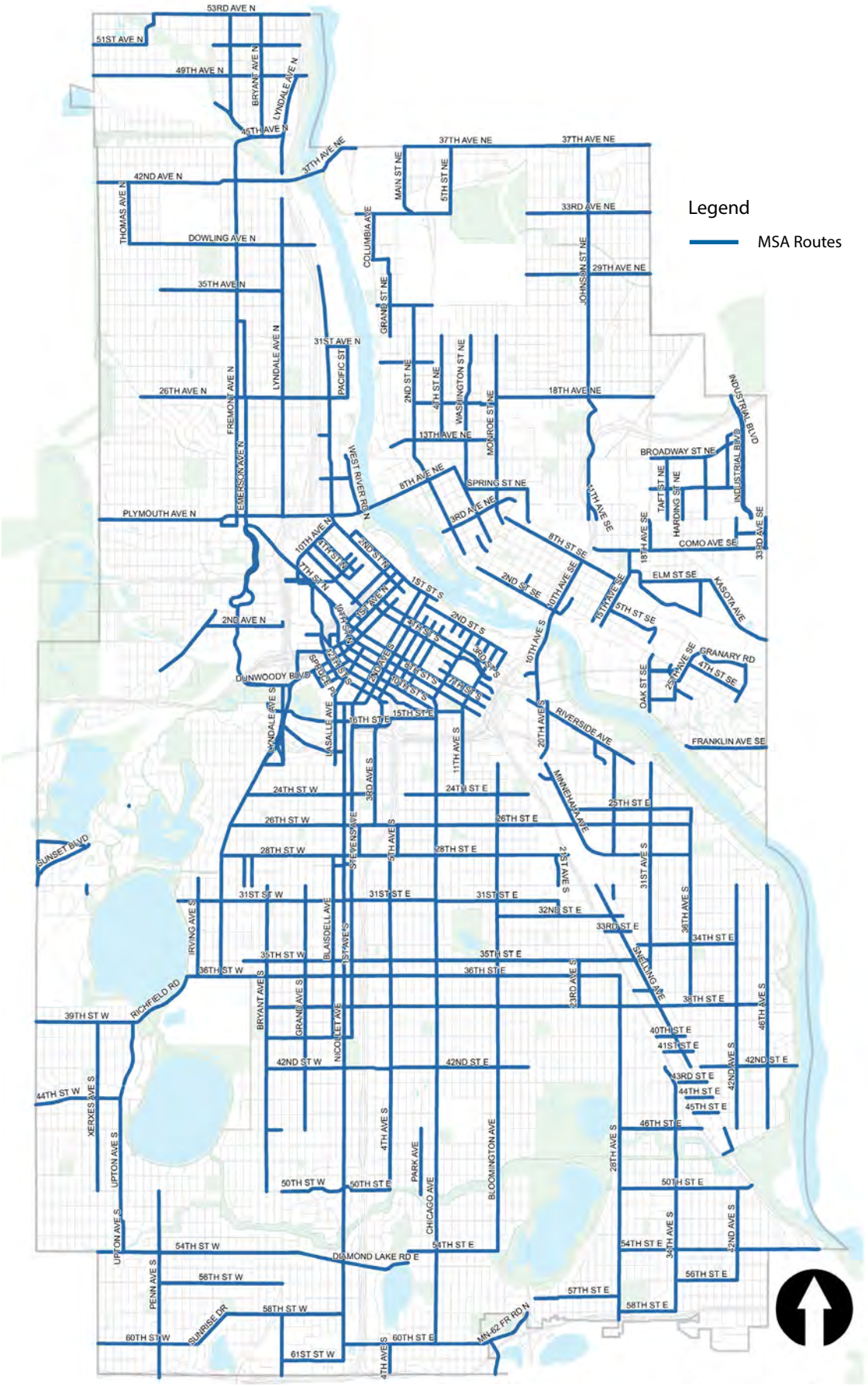
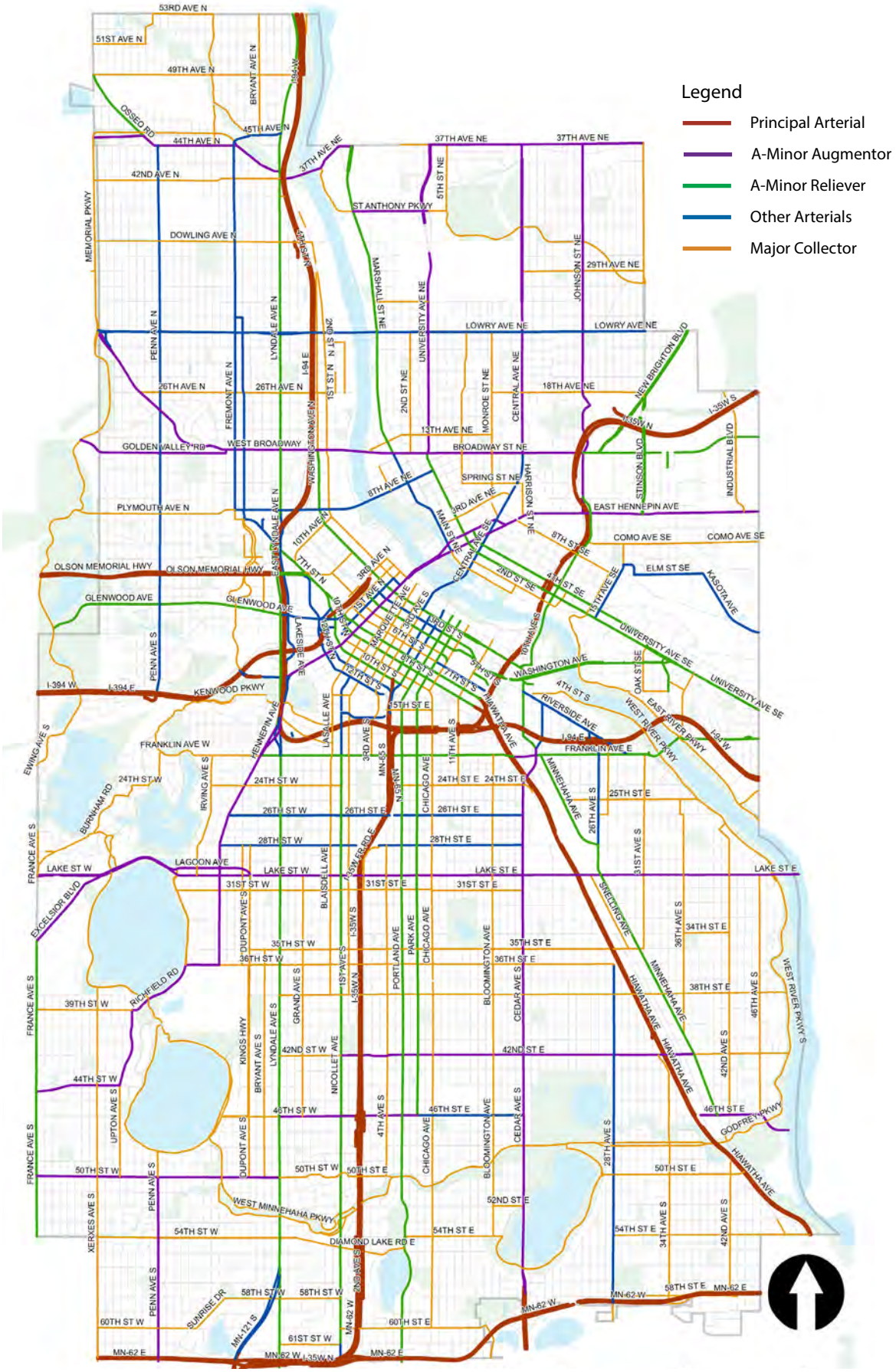


Figure 159: Functional classifications, in Minneapolis



ACTIONS

Actions to seek design exceptions and variances when standards established by other units of government conflict with the City's Complete Streets Policy.

Actions	Supports	Difficulty
DO ACTION 6.1 Work with the Minnesota Department of Transportation to request changes to the Twin Cities Regional Functional Classification System to better align with updated street typologies in the Street Design Guide. Initial changes include: • Add 3rd St N/S from 2nd Ave N to Portland Ave as an A Minor on the regional functional classification system. • Add 6th St N/S from 2nd Ave N to 13th Ave as an A Minor on the regional functional classification system. • Remove 10th St S from Hennepin Ave to 5th Ave S as an A Minor on the regional functional classification system. • Add 4th Ave S from Washington Ave S to 7th St S as an A Minor on the regional functional classification system. • Add 5th Ave S from Washington Ave S to 7th St S as an A Minor on the regional functional classification system. • Change 26th St E/W from Hennepin Ave S to Cedar Ave from Other Minor to Major Collector and extend to Minnehaha. • Change 28th St E/W from Hennepin Ave S to Cedar Ave from Other Minor to Major Collector and extend to Hiawatha. • Add Diamond Lake Rd from Lyndale Ave S to Portland Ave S as an A Minor on the regional functional classification system. • Add Highway 121 from Highway 62 to 58th St E as an A Minor on the regional functional classification system. • Adjust other streets as appropriate.	Active partnerships	Low
DO ACTION 6.2 Evaluate potential changes the City may request to the Municipal State Aid Routes to better align with the updated street typologies.	Active partnerships	Low
DO ACTION 6.3 Evaluate potential changes to the Municipal State Aid Rules the City may advocate for to provide flexibility needed for the City to use the Street Design Guide with few or no variances.	Active partnerships	Low
DO ACTION 6.4 Evaluate the need for variances, design exceptions and pilots to support the use of the Street Design Guide during street reconstruction projects.	Mobility, Active partnerships	Low

SEE ALSO ACTION:

- **Freight Action 2.3** — Design vehicles on State Aid system

PROGRESS

Making and monitoring progress on the action plan

THE IMPLEMENTATION FRAMEWORK

THE PACE OF PROGRESS: IMPLEMENTATION STRATEGIES

The strategies and actions in this plan vary in complexity and scale. Some represent tangible projects that will be planned, funded, scoped, designed, constructed and exist out in the world – these are easier to plan and schedule. Others are about changing how we approach the work – the rationale for how decisions are made or which projects move forward. Given the various scale and complexity, including those that require contribution and collaboration with partner agencies, it is difficult to predict with precision when or how the actions will be completed.

REPORTING ON PROGRESS

Staff will report on the success and challenges of achieving the strategies and actions laid out in this plan through two venues: our annual Your City, Your Streets Progress Report and a more formal progress report on the plan every two years.

The Transportation Action Plan identifies strategies and actions for the next 10 years – from 2020 to 2030. But the pace of change in the transportation world – through technology, new ways of getting around, as well as increased attention and focus on the link between transportation choices and climate change – ensures that some focus areas in this plan will evolve over the next ten years. If major adjustments are needed, we will amend the plan to address those needs.

MONITORING PROGRESS: TRACKING INDICATORS DEMONSTRATE INFLUENCE

We have identified five tracking indicators that over time will measure how our efforts influence broader change. The impacts of our transportation plans, projects and investments influence these indicators but are not solely responsible for their success. We know the City's transportation investments alone will not result in our reaching these goals, but they are important metrics for us to monitor.

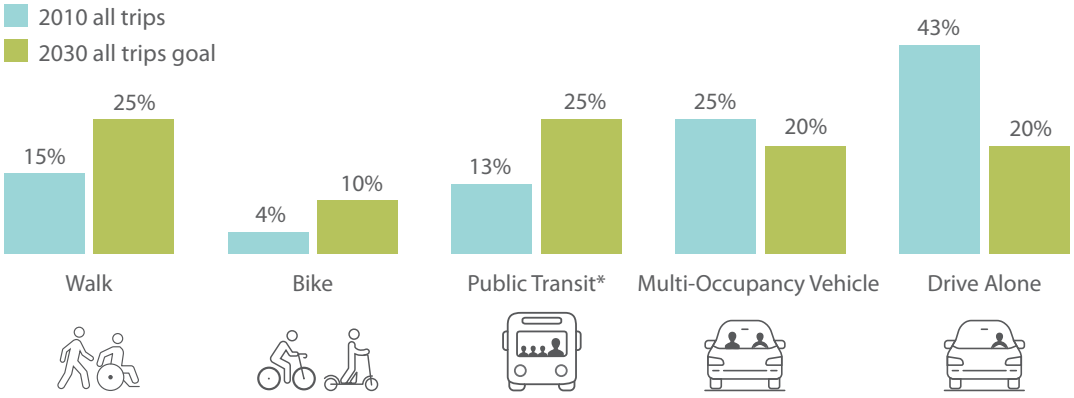
All the tracking indicators work toward a more inclusive transportation system that has equity at its core – by shifting people into more sustainable and affordable modes, protecting our most vulnerable street users, reducing pollution, connecting people to frequent and reliable transit and reducing the distance people travel to get to their daily needs. By pursuing the strategies and actions in the TAP we aim to advance the City of Minneapolis' work on advancing equity and racial equity.[58]

[58] Minneapolis City Council definitions: Equity is defined as fair and just opportunities and outcomes for all people; racial equity is defined as the development of policies, practices and strategic investments to reverse racial disparity trends, eliminate institutional racism, and ensure that outcomes and opportunities for all people are no longer predictable by race.

MODE SHIFT

Today, people driving alone make up 43% of all trips in Minneapolis.[59] To meet our goals we have set a mode split goal of reducing that number to 20%. Mode shift goals are for trips that start or end in Minneapolis only.

Figure 160: Comparison of trips

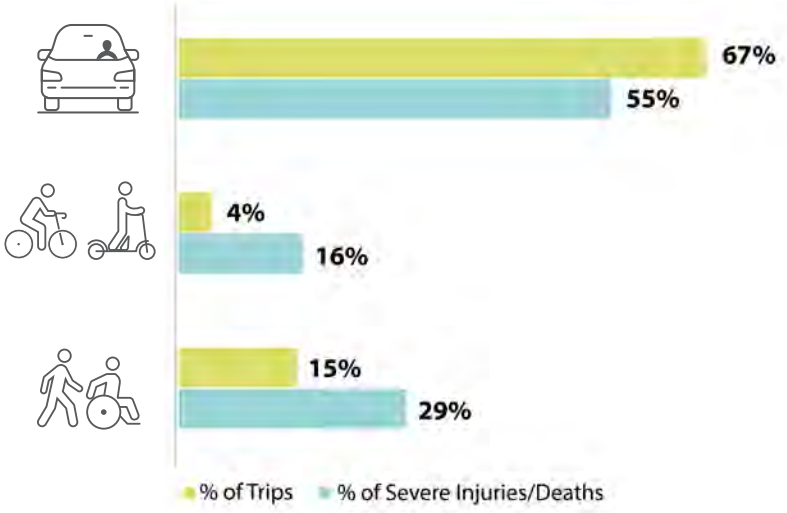


*Includes school bus

SAFETY

The City committed to Vision Zero in 2017 with the goal of reaching zero traffic related fatalities and life-altering injuries within 10 years.

Figure 161: People walking and on bikes are overrepresented in crashes that result in fatalities or severe injuries



All trips goal:
Zero severe and fatal traffic crashes by 2027

2016-2018 baseline:
13 people killed;
133 people severely injured annually[61]

Source: Injuries/deaths from Vision Zero Crash Study, percent of trips from 2010 Met Council Travel Behavior Inventory. Automobile category includes cars, trucks, motorcycles, but not transit.

[59] Mode split data is taken from Metropolitan Council's Travel Behavior Inventory (TBI) 2010 data set. The TBI has typically been updated every 10 years; the Metropolitan Council is moving toward a more continual update which would produce new data every 3 years. This data set is the most reliable data that measures trips beyond commute to work travel patterns.

[60] Note for draft plan: The 2010 data is anticipated to be updated by the Metropolitan Council by the time the TAP is adopted; the mode shift goal may be adjusted based on changes to baseline data; we understand that 2010 trip data may be significantly different than forthcoming 2019 data.

[61] Crashes excluded from this include: 1) crashes on freeways; 2) crashes on private property; 3) Crashes reported as a suicide or a homicide in which the 'party at fault' intentionally inflicted serious bodily harm that causes the victim's death; and 4) crashes caused directly and exclusively by a medical condition.

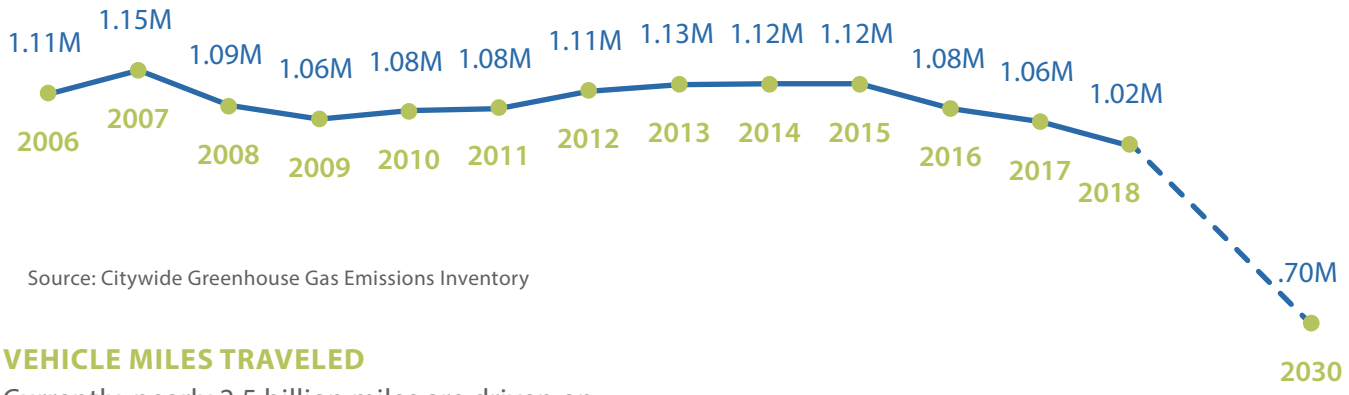
GREENHOUSE GAS EMISSIONS FROM THE TRANSPORTATION SECTOR

As of 2018, the transportation sector accounted for 24% of greenhouse gas emissions in Minneapolis. The City has adopted a goal of an 80% reduction by 2050, starting from a 2006 baseline.

Goal: 80% reduction by 2050 (from 2006 baseline); or 700,000 metric tons in 2030

2010 baseline: 1,019,144 metric tons

Figure 162: Greenhouse gas emissions (metric tons) from transportation sector historically and projected to reach City's goal



Source: Citywide Greenhouse Gas Emissions Inventory

VEHICLE MILES TRAVELED

Currently, nearly 2.5 billion miles are driven on Minneapolis streets each year, or simply put, each resident drives 15 miles per day on average.[62] For the City to meet its greenhouse gas emissions goal of an 80% reduction by 2050, we need to reduce the average amount of driving per person. To support our 2050 greenhouse gas emissions goal, Minneapolis residents will need to drive four less miles per day on average, reducing their average daily driving to 11 miles per day, by 2030.[63]

Goal: 500 million less vehicle miles traveled by 2030 (from 2018 baseline); 1,868,057,420 miles traveled in 2030

2018 baseline: 2,368,057,420 miles

Figure 163: Vehicle miles traveled historically and projected forward

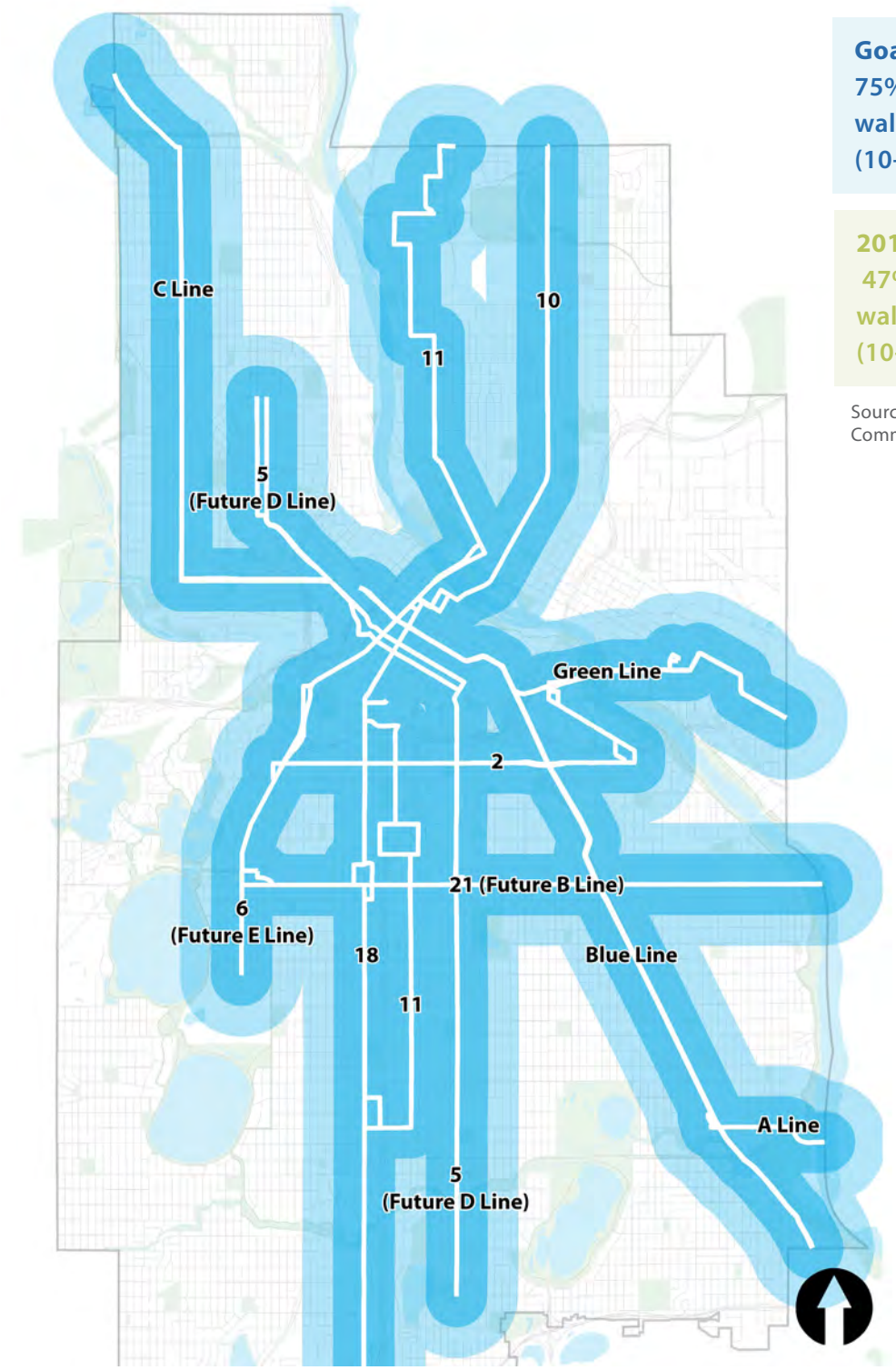
Source: Minnesota Department of Transportation (MnDOT); Roadway Data, VMT by Route System in each City, within each County

[62] Minnesota Department of Transportation and US Census, American Community Survey. Minnesota Department of Transportation vehicle miles traveled data is a collection of all vehicle miles traveled in the City of Minneapolis and does not solely represent vehicle miles traveled for Minneapolis residents. Current population and projected population estimates include all Minneapolis residents regardless of age and were used to calculate daily average mileage.

[63] Actual daily vehicle miles traveled reduction per person is 4.1 miles, assuming 2030 population forecasts.

Nearly one-half of people living in Minneapolis are within a five-minute walk of high frequency transit; the goal is to increase this number by over 50% over the next 10 years.

Figure 164: 5- and 10-minute current walksheds to high frequency transit



Goal:
75% within ¼ mile (5-minute walk); 90% within ½ mile (10-minute walk)

2018 baseline:
47% within ¼ mile (5-minute walk); 68% within ½ mile (10-minute walk)

Source: Based on 2018 American Community Survey 5-year estimates

MONITORING PROGRESS:
KEY METRICS TO MEASURE PROGRESS ON OUR PLAN

This plan lays out specific strategies and actions that are intended to be completed over the next 10 years. The most basic way to measure progress is by documenting the completion of the actions laid out in this plan.

EQUITY

The TAP details strategies and actions that will, if implemented, help to reverse racial disparity trends, eliminate institutional racism and ensure that outcomes and opportunities for all people are no longer predictable by race. The most affordable transportation options will be more widely available to more people and people will not be as burdened by the costs of daily travel.

There are four key metrics detailed below. The goal is to have each of them progress within ACP50 areas at a rate equal to or greater than the citywide rate. ACP50 areas are areas of concentrated poverty with more than 50% people of color.

ACTIONS COMPLETED ACROSS TOPICS

Accomplishing these goals will require bringing in outside funding sources and seizing opportunities with development projects and other partners.

Goal: 100% of actions completed or in progress by 2030

Baseline will be measured from 2020 moving forward

There are 55 strategies and 274 actions across 7 topic areas in the TAP. We will track progress on these strategies and actions as: completed, in progress, or not yet started. Our goal is to have 100% of the actions completed or in progress by 2030. We acknowledge that some are more difficult to accomplish than others and that conditions will change over the next 10 years. There will be some things we set out to do that will remain undone at the end of 10 years, due to changing priorities, lack of partnership opportunities or better ideas replacing what is laid out in this plan.

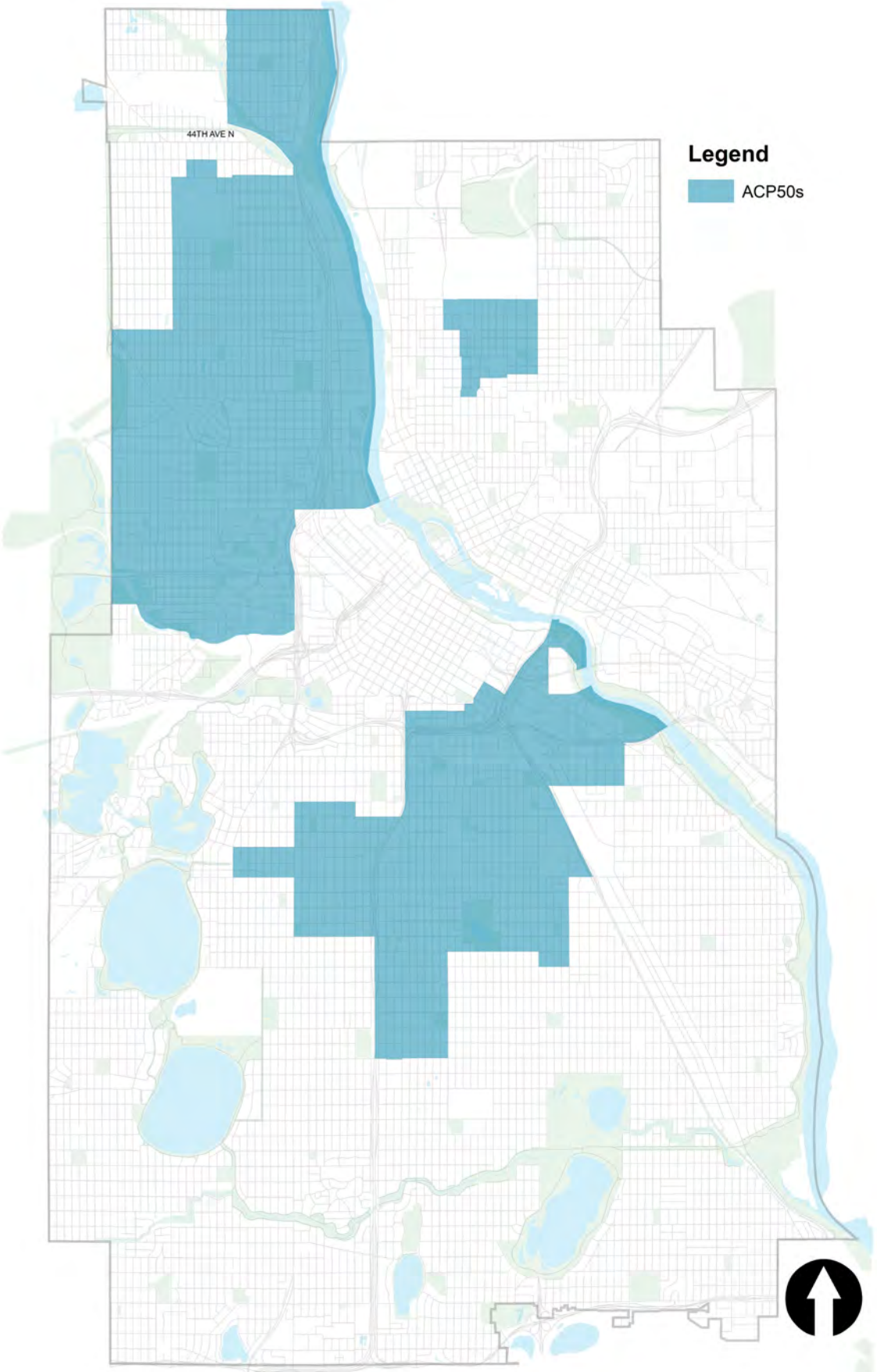
PEDESTRIAN IMPROVEMENTS

Goal: 100 miles of pedestrian realm improvements; 3,800 pedestrian intersection corner improvements

Baseline will be measured from 2020 moving forward

To measure success in pedestrian improvements, we look to measure two separate but related metrics: miles of pedestrian realm improvements and number of pedestrian intersection improvements. Pedestrian realm improvements include sidewalk replacement or filling of gaps and installation of boulevards or pedestrian lighting. Pedestrian intersection improvements include the number of corners with curb extensions and ADA ramps.

Figure 165: Areas of Concentrated Poverty where 50% or More Residents are People of Color (ACP50s)



MILES OF ALL AGES AND ABILITIES NETWORK COMPLETED

Goal: 100% of the network, 282 miles

2019 baseline: 146 miles exist on the All Ages and Abilities Network

The All Ages and Abilities Network consists of 282 miles. The goal is to complete the entire buildout of this network by 2030. 146 miles of this network already exist and 136 miles needs to be built, some of which will be upgrades from existing striped bike lanes.

NUMBER OF TRANSIT PRIORITY PROJECTS IMPLEMENTED

Goal: All 23 corridors identified in the plan

Baseline will be measured from 2020 moving forward

Many improvements to transit depend on operational and design changes on our streets that prioritize transit. Tracking and reporting on the number of corridors where transit priority improvements have been installed is a key metric to measure progress on the plan. The TAP identifies 23 corridors for transit priority projects, including:

Bus-only lanes and/or transit advantages on 6 corridors:

- 4th Avenue South between Washington Avenue and 10th Street South
- 5th Avenue South between Washington Avenue and 10th Street South
- 6th Street North/South between 1st Avenue North and 13th Avenue South
- 7th Street North/South between 1st Avenue North and 13th Avenue South
- 8th Street North/South downtown between 1st Avenue North and 13th Avenue South
- 4th Street from the west/freeway connections to Marq2

New high frequency neighborhood-based transit on 3 corridors:

- Nicollet-Central corridor
- Midtown Greenway from West Lake Station on the Green Line Extension to Lake Street Station on the Blue Line
- West Broadway from downtown Minneapolis to the northwest suburbs

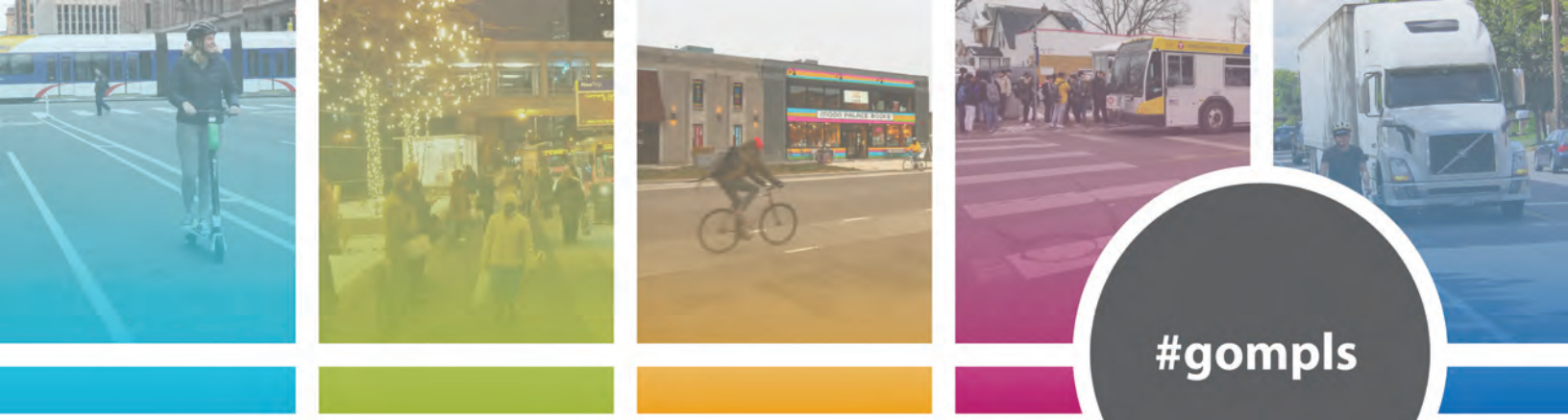
Transit priorities on 14 corridors. These corridors may be prioritized for increased service, transit signal priority or preemption, a bus-only lane or other improvements.

- Marshall Street NE – between Broadway Street NE and Lowry Avenue NE
- Lyndale Avenue N – between West Broadway and northern city boundary
- Lowry Avenue –western city boundary to eastern city boundary
- West Broadway – extend from Lyndale Avenue N to the eastern city boundary
- Como Avenue SE – between University Avenue SE and eastern city boundary
- 38th Street – Bryant Avenue S to 42nd Avenue S
- Lyndale Avenue S – Hennepin/Lyndale merge near Loring Park to southern city boundary
- Washington Avenue – West Broadway to Cedar Avenue continuing to 46th Street
- 2nd Street N – Hennepin Avenue to Dowling Avenue
- 50th Street W/Dupont Avenue S/46th Street E/42nd Street E – Xerxes Avenue to 46th Street Station
- Johnson Street NE – Hennepin Avenue to 37th Avenue NE
- Xerxes Avenue – 44th Street W to 54th Street W
- 28th Avenue S – 38th Street E to 58th Street E
- 4th Street SE and University Avenue SE – Central Avenue to 27th Avenue SE

Phase I: 2018

Phase II: January-June 2019

Phase III: 2020 – coming with final plan

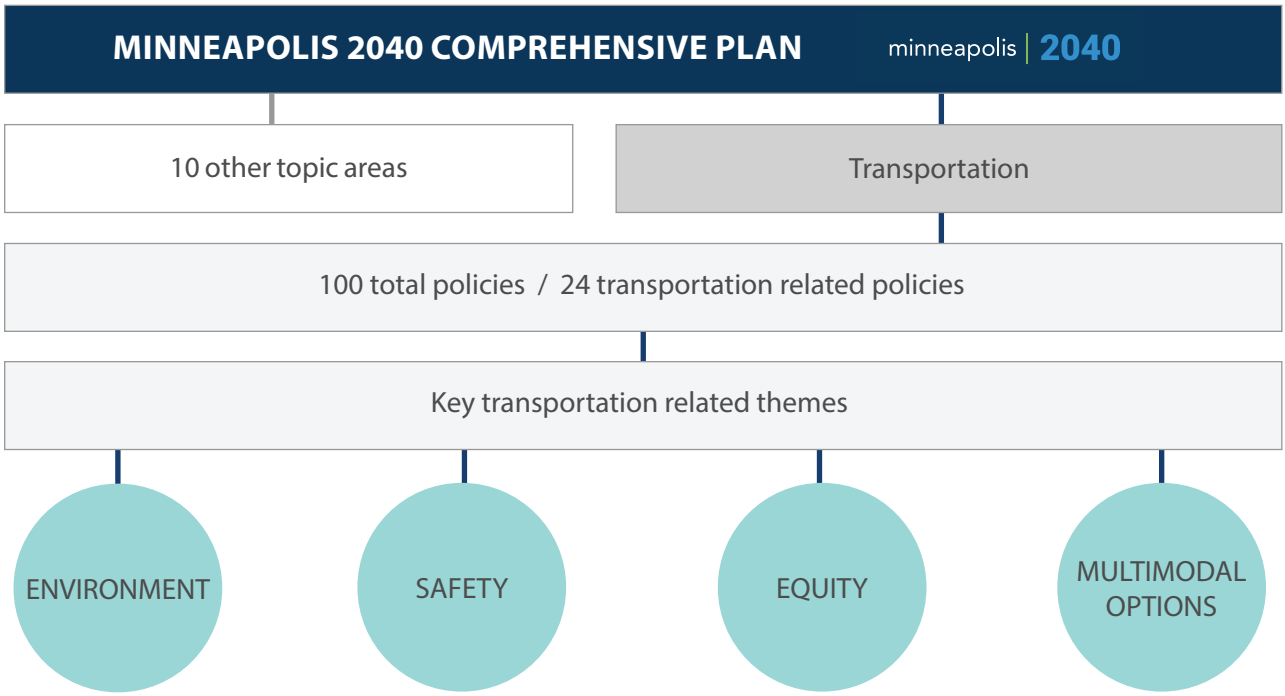


Phase I Engagement Summary

Minneapolis Transportation Action Plan | Department of Public Works | March 2019

MINNEAPOLIS 2040 COMPREHENSIVE PLAN

Minneapolis 2040 is the City's Comprehensive Plan which was approved by the City Council in December 2018 to be submitted to the Metropolitan Council. The plan sets the long-term transportation vision for the city. The Phase I Engagement Summary summarizes the transportation direction set in Minneapolis 2040 and highlights input from the public gathered during 2018 at events held throughout the summer and fall, and through an online survey.



Reduce the energy, carbon, and health impacts of transportation through reduced single-occupancy vehicle trips and phasing out of fossil fuel vehicles.

Eliminate fatalities and severe injuries that are a result of crashes on City streets by 2027.

Ensure that the quality and function of the transportation system contributes to equitable outcomes for all people.

Support, build, and maintain a multimodal transportation system that promotes growth in a sustainable manner and prioritizes walking, biking and transit.

THEMES

We need to aggressively expand clean transportation options to reduce our impact on climate change.

Keep the streets safe for everyone!

The City needs to invest resources into programs that are equitable in supporting people of color and indigenous communities.

Transportation options besides driving should be strengthened before driving is discouraged.

MINNEAPOLIS 2040 COMPREHENSIVE PLAN

Over three years, City staff engaged with thousands of community members about the goals, topics, policies, and actions of the Minneapolis 2040 Comprehensive Plan. Feedback collected through Minneapolis 2040 helped form the vision for transportation in the city; this feedback will also inform strategies developed in the Minneapolis Transportation Action Plan.

The 2040 Plan engagement effort focused on hearing from people from a variety of backgrounds, with a focus on communities that have been historically underrepresented. The City received **more than 2,200 comments** on transportation in planning process while developing Minneapolis 2040.

Most comments offered support for improving transit, walking, and bicycling, and expressed support for related policy items. Some comments offered concern that a focus on transit, walking, and bicycling would negatively impact people who rely upon driving or was not a realistic future to pursue.

City staff engaged with community members at...

25 Community events

34 Community dialogues

30 Ward & neighborhood events

14 Open houses

City staff received over...

10,000 online comments,

2,200 of which focused on transportation.

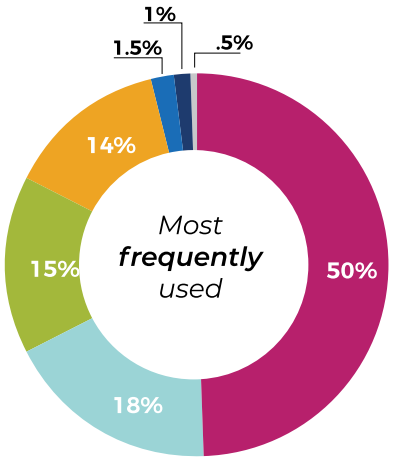
The 2040 Comprehensive Plan established the city's long term transportation vision

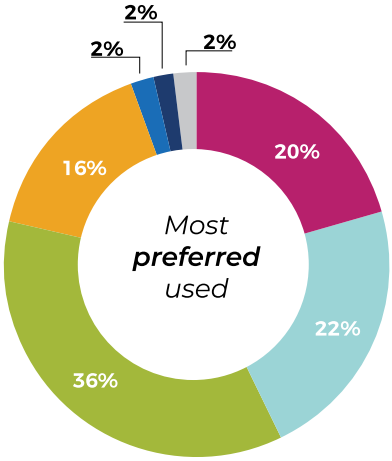
EARLY CONVERSATIONS ON TRAVEL BEHAVIOR

In the summer of 2018 Public Works staff engaged with the community in two ways: at in-person events and through an online survey. Staff were at Open Streets events and at farmer's markets throughout the city. Open Streets are events that temporarily close a street to motorized traffic and open it up for general use by the public, notably those walking and bicycling.

To help inform the Minneapolis Transportation Action Plan, we asked people their most frequent and most preferred mode of transportation. We collected more than 5,000 responses at events around the city and the online survey.

We heard that driving is the most frequent way that people get around today, yet biking and transit are the top ways people would like to travel. The largest increases in demand were seen for biking, transit, walking, rideshare and carshare options; this feedback aligns with feedback from the Minneapolis 2040 Comprehensive Plan that people would like more transportation options available.





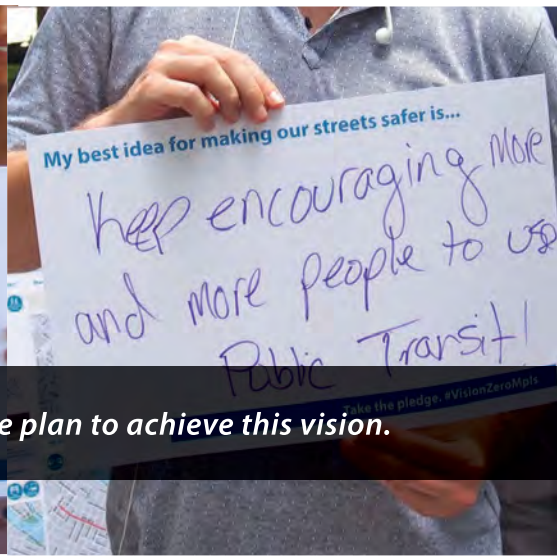
personal car | biking | rideshare | other
transit | walking | car share

WHAT IS YOUR MOST FREQUENT AND PREFERRED MODE OF TRANSPORT?

50%
FREQUENTLY
use a car

74%
PREFER
biking, transit or walking

Over
5,000
engaged around the city and an online survey



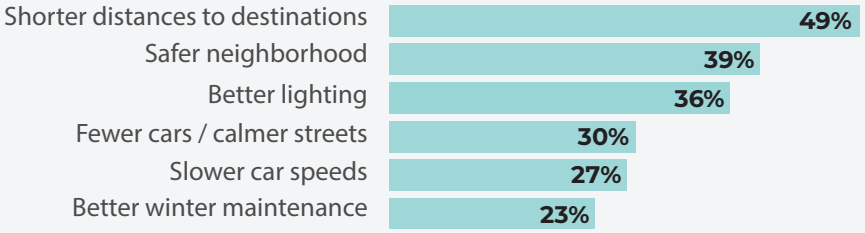
The Minneapolis Transportation Action Plan will establish how we plan to achieve this vision.

TAKEAWAYS FROM THE SURVEY

We received 2,744 responses to our online survey conducted between from the end of August through early November 2018.

WALK

What would encourage you to walk more than you currently do?*

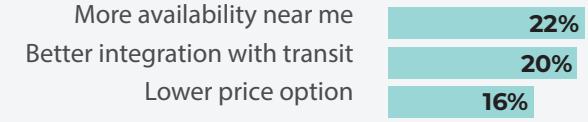


TRANSIT

What would encourage you to take transit more frequently? *

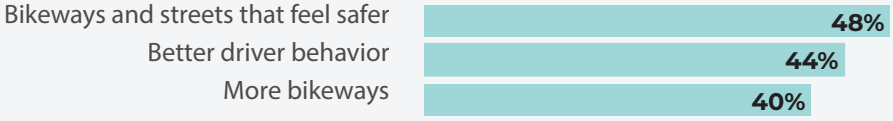
SHARED

What would encourage you to use a shared mode, such as rideshare, bikeshare or electric scooters?*



BICYCLE

What would allow you to bicycle for more trips?*



* Respondents could choose more than one response; percentages do not equate 100 percent.

In this survey, residents younger than 25, residents in North and the University of Minnesota area, African Americans, Asian Americans, and Latinos were most underrepresented. We will be doing specific engagement to ensure that we hear from underrepresented voices to inform this plan.

NEXT STEPS

Throughout 2019, we will be seeking input and feedback on initial ideas and draft elements of the plan.

Public Works will be hosting a number of engagement events, including:

- Community workhops
- Cultural dialogues
- Organization workshops
- Additional in-person and online activities

Check out our website to stay involved!

STAY UPDATED

go.minneapolismn.gov gompls@minneapolismn.gov

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Search and use #gompls on social media to stay connected

For reasonable accommodations or alternative formats please contact gompls@minneapolismn.gov. People who are deaf or hard of hearing can use a relay service to call 311 at 612-673-3000. TTY users can call 612-673-2157 or 612-673-2626. Para asistencia 612-673-2700, Yog xav tau kev pab, hu 612-673-2800, Hadii aad Caawimaad u baahantahay 612-673-3500.

ACKNOWLEDGMENTS

Three committees and eight workgroups were established to help develop and guide the work of creating the Transportation Action Plan. The members identified below were critical to the development of this plan. Many agencies are represented in these committees and groups; while their participation was instrumental to the final plan, not all strategies and actions align completely with those agencies' practices and procedures; their jurisdictional responsibilities are acknowledged, respected and identified throughout the action plan.

Thank you for the partnership, collaboration and conversation to all the community members, agency partners and staff who helped shape this plan.

** Entities represented by only one member at each meeting.*

DEPARTMENT ACRONYMS

- Department of Community Planning and Economic Development (CPED)
- Minneapolis Advisory Committee on People with Disabilities (MACOPD)
- Minneapolis Bicycle Advisory Committee (BAC)
- Minneapolis Committee on Aging (MACOA)
- Minneapolis Fire Department (MFD)
- Minneapolis Health Department (MHD)
- Minneapolis Neighborhood and Community Relations (NCR)
- Minneapolis Park and Recreation Board (MPRB)
- Minneapolis Pedestrian Advisory Committee (PAC)
- Minneapolis Public Works Transportation Engineering and Design (TED)
- Minneapolis Public Works Transportation Planning and Programming (TPP)
- Minneapolis Surface Water and Sewers (SWS)
- Minneapolis Traffic and Parking Services (TPS)
- Minneapolis Transportation Maintenance and Repair (TMR)
- Minnesota Department of Transportation (MnDOT)
- University of Minnesota (UMN)

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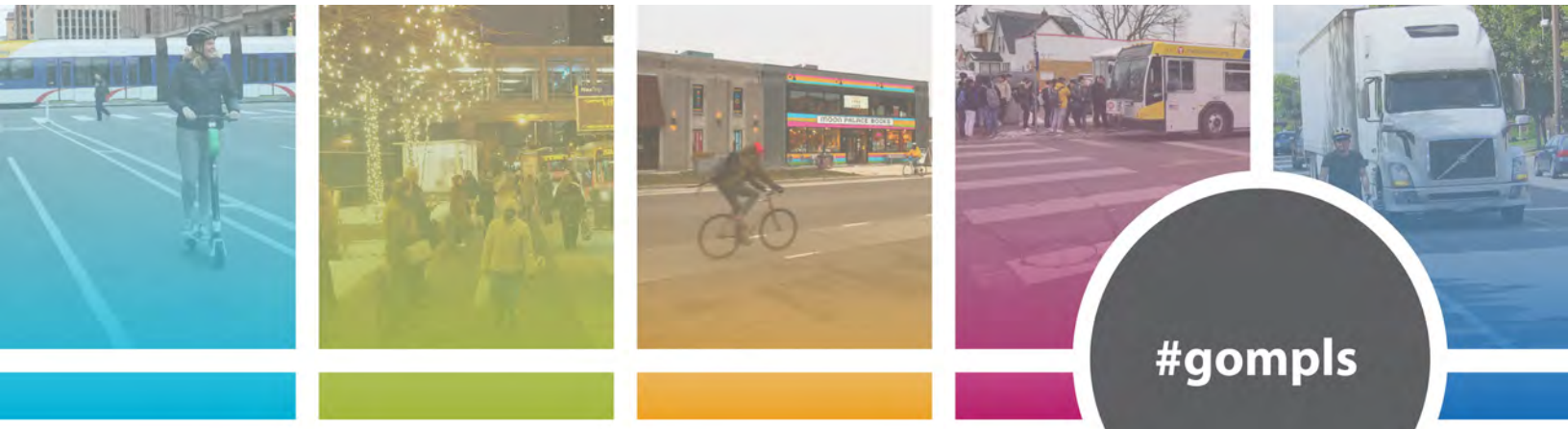


Phase II Engagement Summary

Minneapolis Transportation Action Plan | Department of Public Works | August 2019

Minneapolis Public Works conducted engagement for Phase II of the Minneapolis Transportation Action Plan to get input on draft ideas for improving transportation for all people in all the ways they move around Minneapolis. Phase II engagement built off the framework set by the Minneapolis 2040 Comprehensive Plan (2016–2018) and high-level Phase I Transportation Action Plan engagement (2018). The Phase II Engagement Summary includes feedback received from engagement activities conducted between January and June 2019.

- **Gather** — Starting with the data (2017-2018)
- **Analyze** — Understanding the context (2018)
- **Listen** — Join the conversation (early 2019)
- **Create** — Bringing it all together (late 2019/early 2020)
- **Finalize** — Adopting the plan (2020)

PHASE II FEEDBACK IN CONTEXT

Input received in Phase II is helping shape the draft plan. Phase III engagement will seek feedback on the draft plan through a series of in-person and online events. Phase II was coordinated with engagement for the Vision Zero Action Plan.

ENGAGEMENT PROCESS

City staff developed a multi-faceted approach to Phase II engagement, including prioritizing engagement with historically underrepresented groups. The focus of Phase II was sharing information on existing conditions and receiving input on potential approaches to making improvements on our street across seven topic areas. Staff also collected feedback on draft priority bicycle and pedestrian networks.


Advanced Mobility

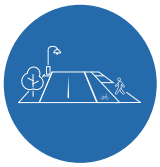

Pedestrian


Bicycle


Transit


Freight


Street Operations


Street Design

PHASE II ENGAGEMENT APPROACH

Four main engagement methods were used during Phase II to connect with as many and as diverse a sampling of people who live and work in Minneapolis.

1

In-person events including community workshops, organization workshops, ward forums, and other City-hosted events like "An evening with Janette Sadik-Khan".

2

Online engagement including the Transportation Action Plan website, online surveys, social media, and a Facebook Live open house.

3

Community engagement contracts where staff partnered with six community organizations and artists to do targeted engagement to reach traditionally underrepresented groups.

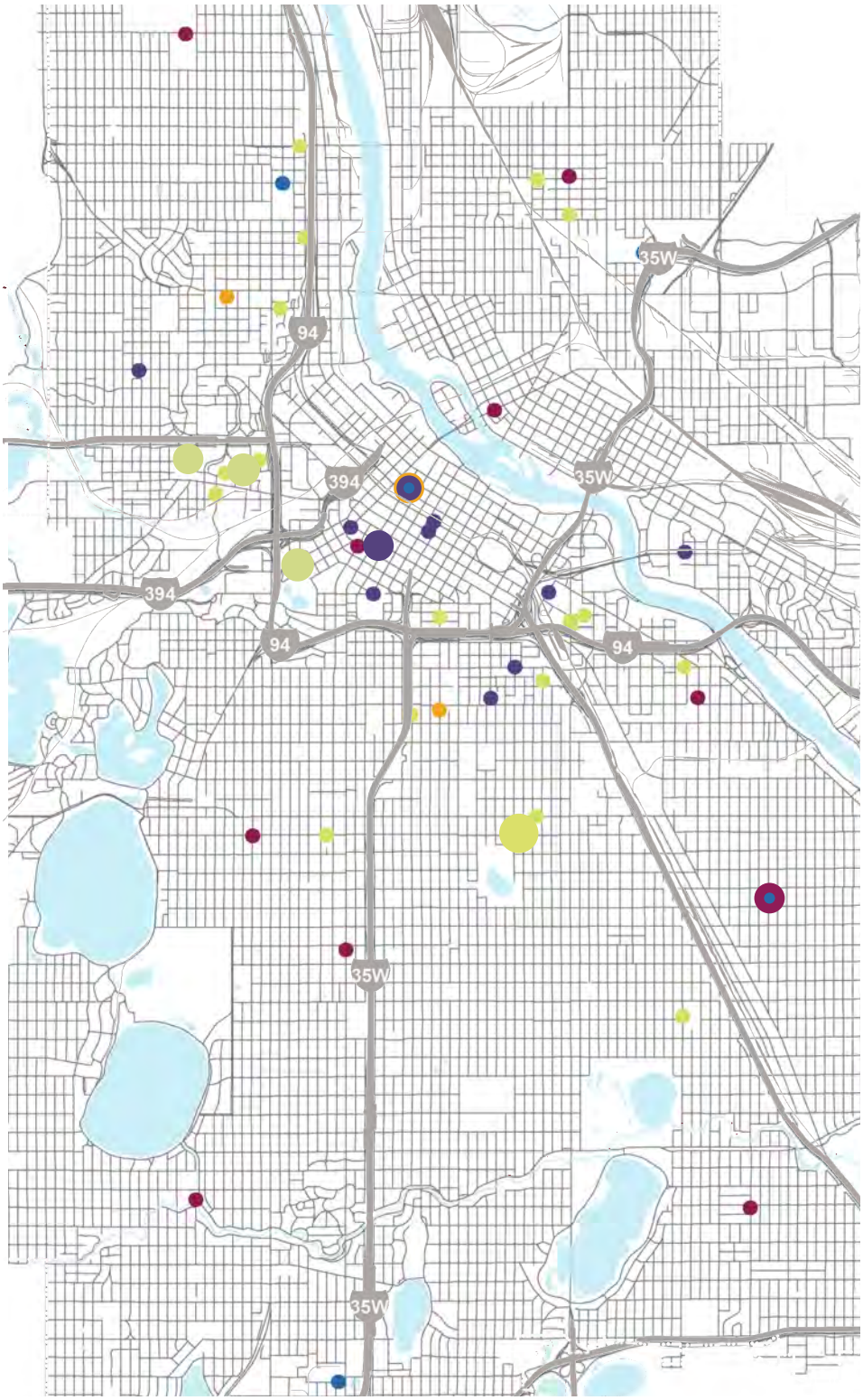
4

Community dialogues which were facilitated and customized conversations between City staff and community members of historically underrepresented groups.

PHASE II ENGAGEMENT BY THE NUMBERS

Engagement events map

- Community dialogue
- Community engagement hosted by community partners
- Community workshop
- Organization workshop
- Other event or presentation
- Ward forum



City staff and partners engaged with community members through

33
Events and presentations

Including:

6
Community workshops

3
Organization workshops

7
Community dialogues

10
Ward forums

In addition, community partners hosted

30
Community engagement activities

Messaging reached nearly **100,000** people on social media with over **700,000** impressions

During Phase II, City staff received over

2,500
comments

4,000
responses to multiple-choice questions

ENGAGEMENT SPOTLIGHT: COMMUNITY CONTRACTS FOR ENGAGEMENT

To expand the reach of engagement, Public Works partnered with six community-based organization and artists for creative engagement projects. These partners were selected after an open solicitation in early 2019 which generated 15 proposals. The six partners engaged with 758 people around the Transportation Action Plan through a series of 30 different activities.

High school students used historic letterpress to make postcard art related to transportation.

Comunidades Latinas Unidas En Servicio (CLUES) focused conversations on access to food and transportation issues

Residents in Minneapolis talked about public housing and transportation needs.

City staff worked with the following organizations and artists.

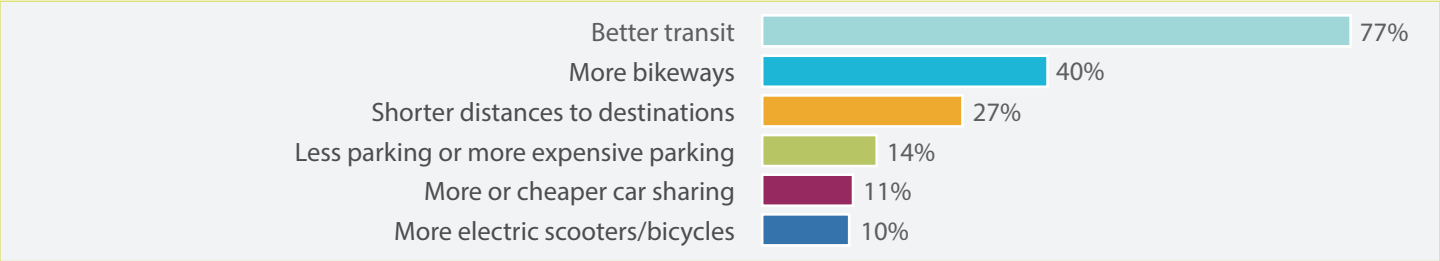
1. **Comunidades Latinas Unidas En Servicio (CLUES)**, who did focus groups with Latino families on transportation access
2. **Harrison Neighborhood Association**, who did outreach and engagement sessions with residents with an extra focus on reaching East African and Southeast Asian residents
3. **Minneapolis Highrise Representative Council**, who engaged with public housing residents
4. **Move Minnesota**, who engaged with Minneapolis Community and Technical College students
5. **Seward Redesign and West Bank Community Development Corporation**, who led conversations with Somali community members
6. **Streetcorner Letterpress**, who did screen print transportation visioning with high school students

Feedback from this engagement is incorporated in this summary, and a separate summary detailing this engagement is available on the Transportation Action Plan website.

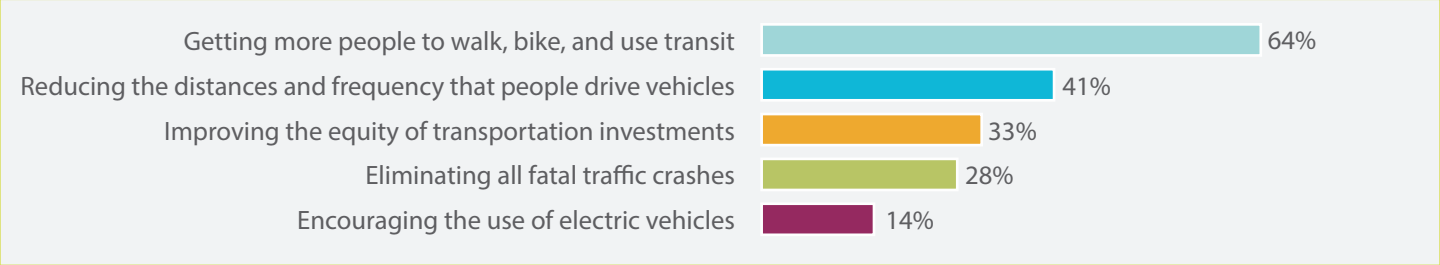
OVERARCHING FEEDBACK

City staff asked three overarching questions throughout Phase II engagement. Collectively, more than 2,500 responses to these questions were received. The questions attempted to gauge how people can help support the goals of reducing greenhouse gas emissions, what success of this plan would look like 10 years in the future, and what is the largest opportunity to transform transportation in Minneapolis.

1 To reach the City's greenhouse gas reduction goal, we need to reduce driving by more than 33 percent. What are two things that would support you driving less? (1,893 responses)



2 How would you measure the success of the Transportation Action Plan? Select up to 2 priorities. (1,179 responses)



3 Dream big. What would transform transportation in Minneapolis in the next decade? (333 responses)

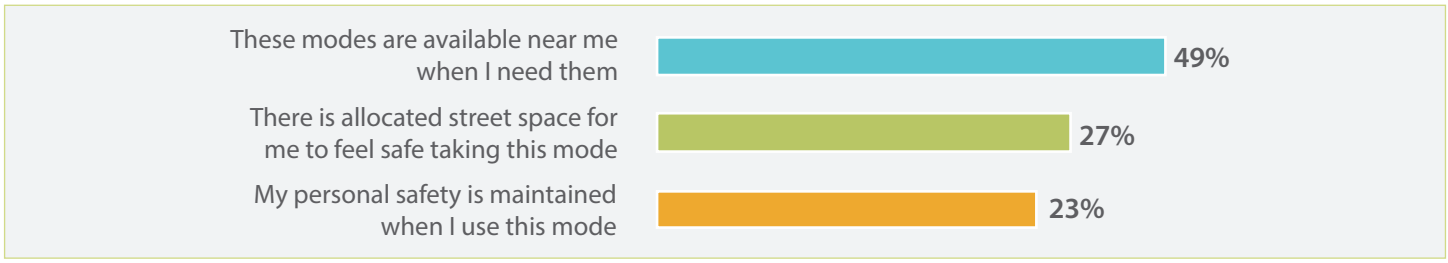
Improving or reducing the cost of transit was the most common response. Some respondents shared future technology ideas such as electrifying transportation, automated vehicles, or flying cars. Reducing or slowing cars was also a common theme.

This graphic illustrates the frequency of words given in the responses.

ADVANCED MOBILITY ENGAGEMENT SUMMARY

Engagement for advanced mobility focused on shared and electric vehicles as the top two areas to gather public input on. Connected and autonomous vehicles were topics discussed during Phase I, which are two other major themes covered in the advanced mobility topic.

What is most important when using shared mobility services? Choose up to three. (358 responses)

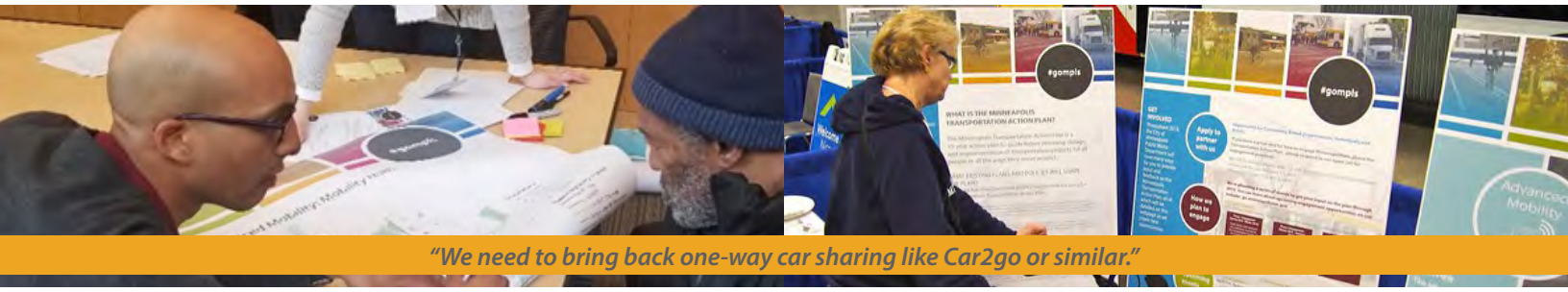


Staff also engaged on the topic of mobility hubs, which provide a physical space to find multiple mobility options (scooters, bikes, transit, car share, etc.). Mobility hubs use transit as a backbone, and help foster first and last mile transit connections. Feedback on mobility hubs included the desire for potential locations within walking distance of destinations such as grocery stores, schools, parks and the airport, and to include features such as benches, lockers and kiosks that provide real-time connection information.

1. More widely distributed, predictable and reliable shared mobility options, especially outside of downtown, that are accessible by all

2. Dedicate space for new mobility options to co-exist safely with other modes through pick up/ drop off zones for ride hailing and parking zones for bikes and scooters

3. Support for moving more people in less space in shared and electric capacities



"We need to bring back one-way car sharing like Car2go or similar."

PEDESTRIAN ENGAGEMENT SUMMARY

Engagement for the pedestrian topic focused on ways the City can prioritize walking as a more viable option for everyday trips for more people. Staff also presented the draft Pedestrian Priority Network. Most people were supportive of the proposed network and provided recommendations for potential uses, including year-round maintenance, public realm improvements, and safe crossings.

Participants were asked what the top three most important things the City should prioritize to make walking a more viable option. While there was fairly equal distribution among the (612 respondents) different answer options, winter maintenance received the most votes (18%), with a particular focus on transit stops and intersections. Improving driver behavior, such as encouraging people to drive more slowly and yield to pedestrians (10%), as well as providing more safe places to cross (8%) were also noted as important improvements. Answers also varied somewhat by section of the city.

Top recommendations for improving walking conditions by area

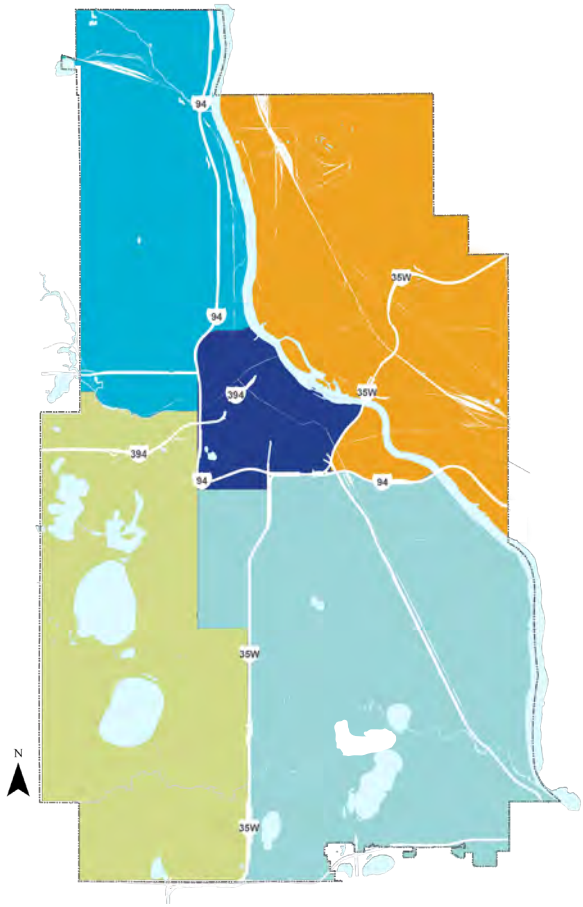
North
Snow clearance, especially at transit stops, and driver behavior

Northeast
Safer places to cross and improved sidewalk condition

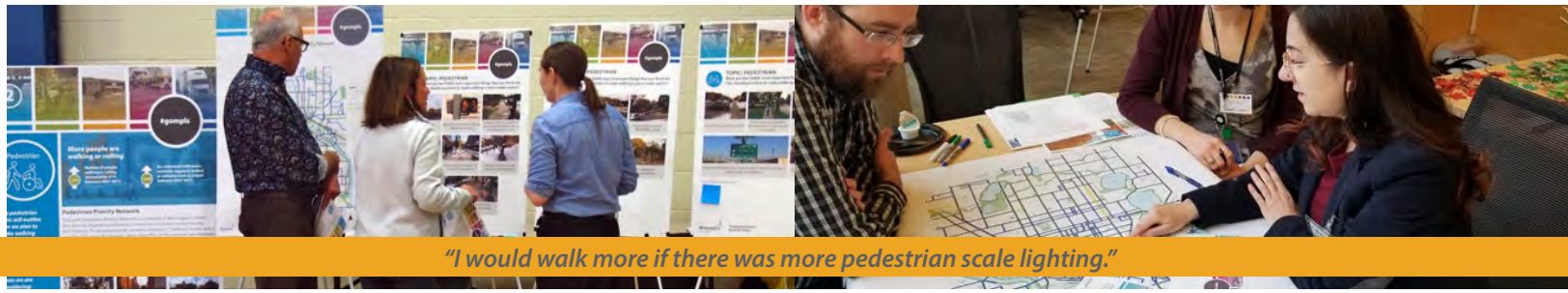
Downtown
Snow clearance and more safe places to cross

Southeast
Driver behavior and snow clearance

Southwest
Snow clearance and driver behavior



1. Include more benches, greening, and improved lighting as part of all street projects
2. Create more pedestrian only streets and car-free pedestrian plazas
3. Improve snow clearance of sidewalks, intersections and bus stops
4. Improve safety of people walking at intersections and midblock crossings, especially on high speed and high-volume roads



"I would walk more if there was more pedestrian scale lighting."

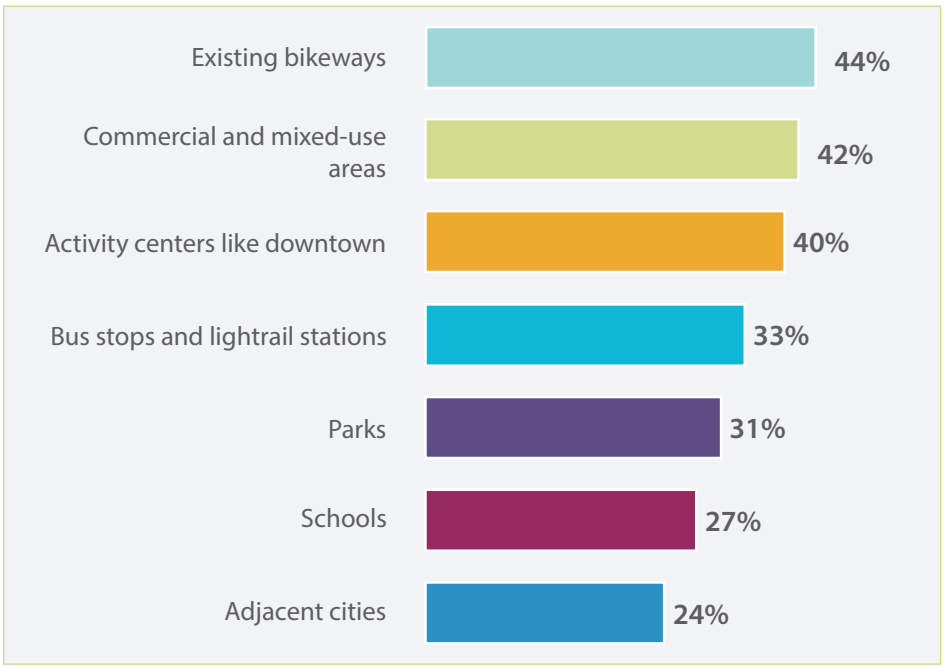
BICYCLE AND LOW-POWERED VEHICLES ENGAGEMENT SUMMARY

Engagement for the bicycle and low-powered vehicle topic asked what would allow people to bike or use low-powered vehicles for more trips. Staff also asked for feedback on the draft All Ages and Abilities network, which would include a network of low-stress bikeways to be built by 2030. Staff received hundreds of comments about individual streets and other ideas to improve the network.

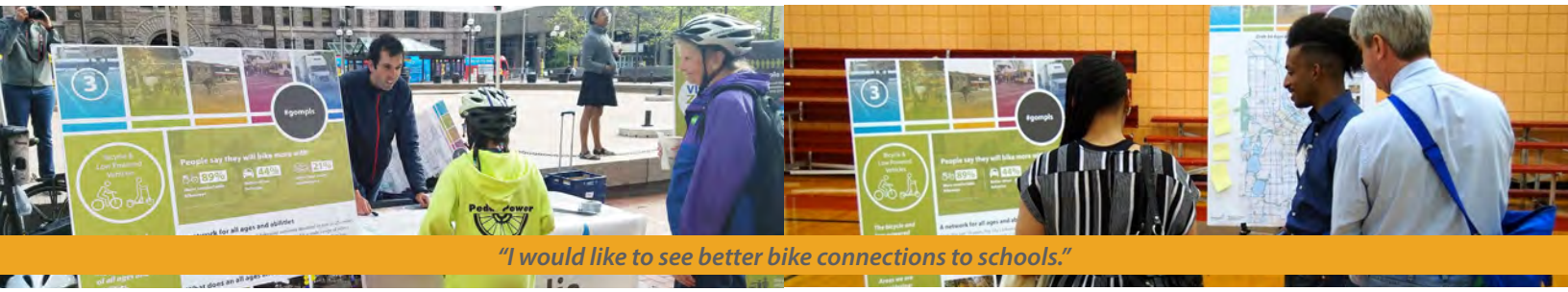
Most people were very supportive of more low-stress bikeways, but wanted to ensure they would be well-connected and easy to navigate. People stressed the importance of connecting the network to existing bikeways, in addition to commercial areas and activity centers like downtown, bus stops, parks, and schools were received and documented.

Comments showed that many people want to bike or bike for more trips, but need more comfortable routes that connect to destinations. People are also interested in using bike share and scooter share, but feel there are not enough stations throughout the city, they are limited by payment or age restrictions, or do not know how to use the services.

What destinations should the bike network connect to? Choose up to three. (262 responses)



1. Increase access to dockless bike share and scooter share, and expand education about how to use those services
2. Consider the needs of youth, families, and non-conventional commuters when designing bikeways
3. Freeways, busy streets, and complex intersections are significant sources of stress when biking
4. Improve year-round maintenance of bikeways



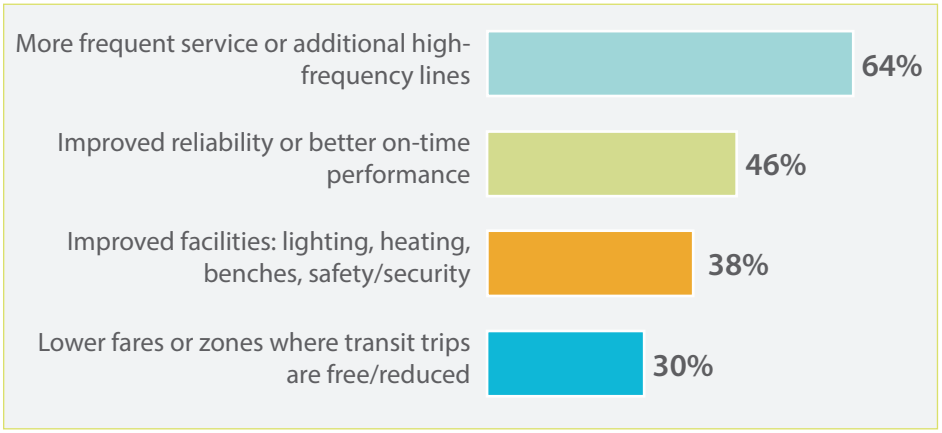
"I would like to see better bike connections to schools."

TRANSIT INPUT SUMMARY

Engagement for the transit topic focused on ways to improve transit through increased access, reliability, and safety. Most people expressed a desire for more transit options with faster travel times and supported the idea of adding more high frequency service throughout the city.

Participants were asked to choose the top three options that they think would encourage people to use transit. More frequent service or additional high-frequency lines received the highest overall ranking from the various in-person events and the online survey.

What do you think would encourage people to use transit more? Choose up to three. (397 responses)



95% of all respondents agreed that having more frequent service would increase their transit use

Transit came up as a top priority though multiple engagement venues. The comments received and conversations with the public highlighted several additional themes to improving transit service, reliability, comfort and convenience throughout the city.

- Improve the cleanliness at all transit stops, facilities and vehicles
- Incorporate more heated shelters, lighting, and benches
- Improve non-peak service citywide and extend hours
- Incorporate more electric buses and trolleys
- Consider free transit fares citywide as well as less expensive fares

1. Create a network of bus only lanes to support fast, reliable and frequent bus service on all major transit streets
2. Improve the safety and security at all transit stops, facilities and vehicles
3. Improve winter snow clearing and maintenance at bus stops, sidewalks and corners
4. Consider free transit fares citywide as well as less expensive fares and zones

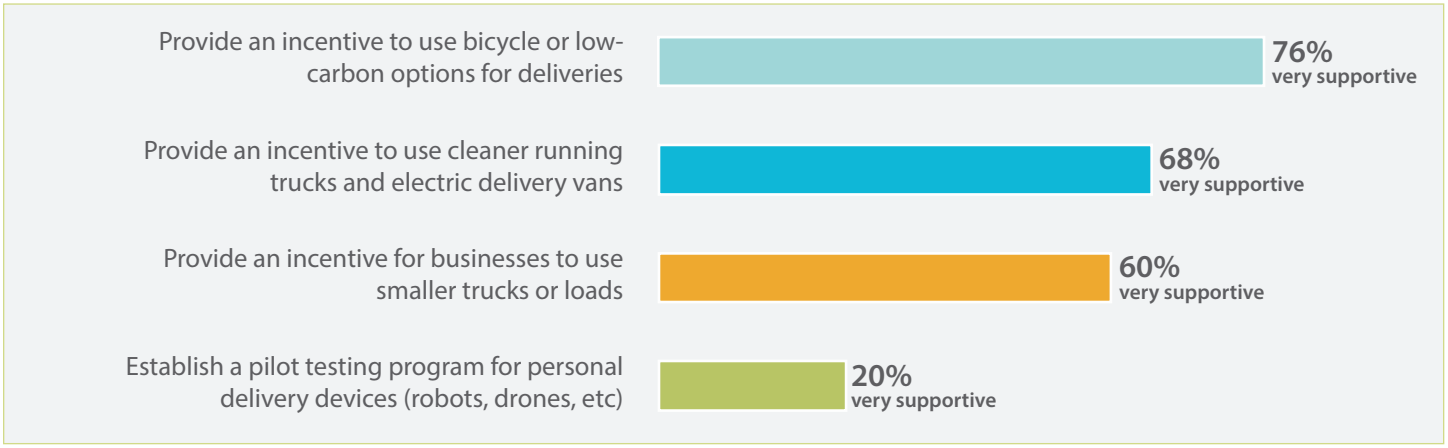
"Having benches, heated shelters and lighting at more bus stops would encourage me to use transit more."

FREIGHT ENGAGEMENT SUMMARY

Freight engagement activities focused on providing feedback on potential freight strategies such as requiring trucks to have improved safety features, incentivizing carbon-neutral delivery vehicles and incentivizing smaller truck vehicle sizes. Engagement activities also gauged the impact of e-commerce and the interest in consolidated delivery options.

Attendees viewed freight vehicles, specifically large trucks, as unsafe for bicyclists and pedestrians, environmentally hazardous, and consuming too much physical space in the street. Attendees were in favor of strategies and policies focused on improving the safety of trucks, limiting truck sizes, incentivizing carbon-neutral freight vehicles, and providing more on-street and off-street loading options to better organize freight delivery.

How much do you support these freight management ideas? (139 responses)



Attendees also indicated an interest in reducing the externalities of e-commerce deliveries by utilizing clustered drop-offs such as delivery lockers. Attendees were not supportive of testing drones or other new devices for personal delivery.

1. Provide more loading zones and/or curb space to accommodate deliveries, especially in downtown
2. Use smaller trucks and break down bigger loads into smaller loads for delivery on city streets
3. Design streets for smaller trucks instead of semi-trucks

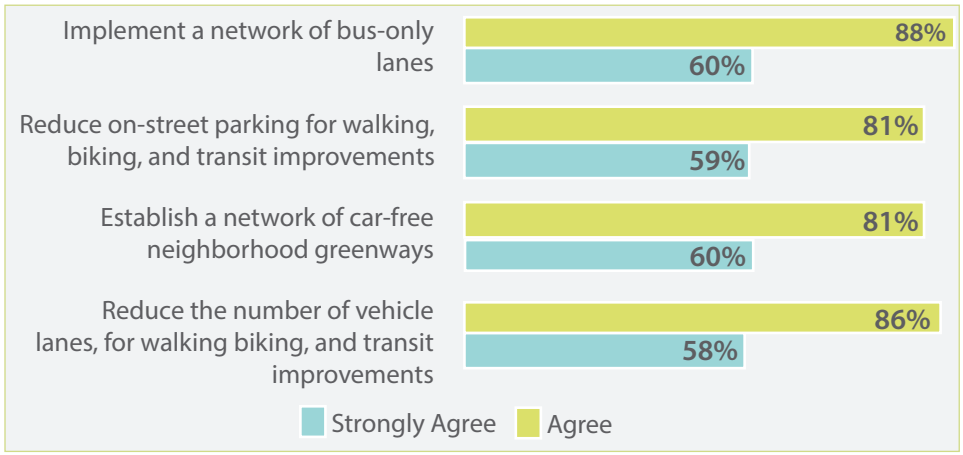
"We should encourage smaller trucks in place of large semi-trucks."

STREET OPERATIONS INPUT SUMMARY

Engagement for street operations addressed how to achieve the City's modal and environmental goals through a wide range of multimodal strategies. Comments ranged across all the ways people get around (walking, biking, taking transit, driving, etc) with specific concerns about mobility needs for each mode. Participants were asked to consider how they would reallocate space within the right of way to achieve the City's goals. Many people expressed an interest in driving less if other options were more convenient and comfortable. There was a sense that prioritizing transit service would best achieve mode shift away from driving, while improvements to bikeways and the pedestrian realm were also essential.

As stated in Minneapolis 2040, the city is committed to reducing greenhouse gas emissions by 80% by 2050. City staff asked what policies would incentivize travel behavior change.

What do you think are the right policy actions to reach our goals? (299 responses)



An additional activity focused on ranking uses that are typically accommodated curbside, usually what people typically think of as a parking lane. Participants were asked to rank these activities according to their preferred use of this curbside space, while keeping in mind the City's established Complete Streets modal hierarchy.

The participants ranked curbside uses in the following order: (190 responses)

1. Transit boarding
2. Bike lanes
3. Activation (parklets, etc)
4. Stormwater
5. Passenger drop-off
6. Freight loading
7. Parking

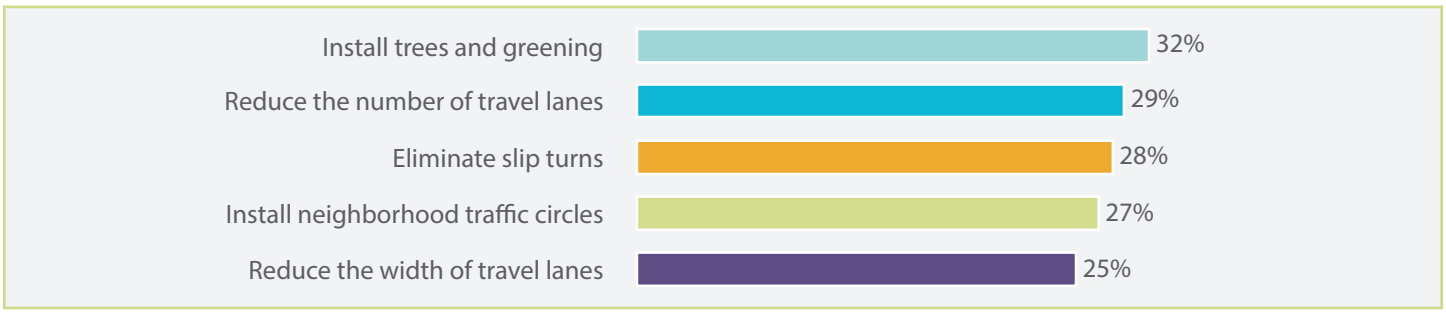
1. Prioritize transit over general purpose traffic and add more high-frequency transit in various part of city
2. Improve traffic signal operations for people walking, including eliminating the need to push a button to cross the street and increase the ease of crossing
3. Poor driver behavior and facilities do not meet the needs and safety of people walking and biking
4. Better integrate the Complete Streets policy into operational decision-making

"Let's prioritize transit by installing bus only lanes."

STREET DESIGN ENGAGEMENT SUMMARY

Engagement for the street design topic focused on how the design of sidewalks, bikeways, roadways, and intersections can support the City's Complete Streets and Vision Zero policies and reduce greenhouse gases. The feedback received on street design was largely supportive of rethinking how we design our streets to reduce crashes and provide more transportation options. People across all engagement activities were supportive of reducing the speeds of cars and trucks through design and providing more dedicated space for people walking, biking, and taking transit.

What options do you think have highest potential to reduce motor vehicle speed? (347 responses)



1. Design streets to encourage slower car speeds

2. Build designated spaces for all users, including wider sidewalks, more comfortable bikeways and bus only lanes

3. Provide more space for trees and greening

"Main commercial corridors have destinations and are growing, but are the worst to walk on. We need to make [them] better."

STAY UPDATED

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Minneapolis 2040 Goals

Aligned Transportation Action Plan

1

Eliminate disparities
Goal 1: In 2040, Minneapolis will see all communities fully thrive regardless of race, ethnicity, gender, country of origin, religion, or zip code having eliminated deep-rooted disparities in wealth, opportunity, housing, safety, and health.

Equity

2

More residents and jobs
Goal 2. In 2040, Minneapolis will have more residents and jobs, and all people will equitably benefit from that growth.

Equity Prosperity

3

Affordable and accessible housing
Goal 3. In 2040, all Minneapolis residents will be able to afford and access quality housing throughout the city.

Equity Prosperity Mobility

4

Living-wage jobs
Goal 4. In 2040, all Minneapolis residents will have the training and skills necessary to participate in the economy and will have access to a living-wage job.

Prosperity

5

Healthy, safe, and connected people
Goal 5. In 2040, the people of Minneapolis will be socially connected, healthy, and safe.

Climate Safety Prosperity

6

High-Quality Physical Environment
Goal 6. In 2040, Minneapolis will enjoy a high-quality and distinctive physical environment in all parts of the city.

Climate Equity Mobility

7

History and Culture
Goal 7. In 2040, the physical attributes of Minneapolis will reflect the city's history and cultures.

8

Creative, Cultural, and Natural Amenities
Goal 8. In 2040, Minneapolis will have the creative, cultural, and natural amenities that make the city a great place to live.

9

Complete neighborhoods
Goal 9. In 2040, all Minneapolis residents will have access to employment, retail services, healthy food, parks, and other daily needs via walking, biking, and public transit.

Climate Safety Equity Prosperity Mobility

10

Climate Change Resilience
Goal 10. In 2040, Minneapolis will be resilient to the effects of climate change and diminishing natural resources, and will be on track to achieve an 80% reduction in greenhouse gas emissions by 2050.

Climate

11

Clean environment
Goal 11. In 2040, Minneapolis will have healthy air, clean water, and a vibrant ecosystem.

Climate

12

Healthy, Sustainable, and Diverse Economy
Goal 12. In 2040, Minneapolis will remain the economic center of the region with a healthy,

Climate Prosperity

13

Proactive, Accessible, and Sustainable Government
Goal 13. In 2040, Minneapolis City government will be proactive, accessible, and fiscally sustainable.

14

Equitable Civic Participation System
Goal 14. In 2040, Minneapolis will have an equitable civic participation system that enfranchises everyone, recognizes the core and vital service neighborhood organizations provide to the City of Minneapolis, and builds people's long term capacity to organize to improve their lives and neighborhoods.

Active Partnerships

Active partnerships: supports all TAP goals

Walking snapshot in Minneapolis

MORE PEOPLE ARE WALKING OR ROLLING

Reliable data for counting pedestrians in Minneapolis comes from two sources: the U. S. Census Bureau and the City of Minneapolis' annual counting program. The two data sources measure different things: the way people travel to work or school (U.S. Census Bureau) and the number of people walking at select locations throughout the city (City of Minneapolis Count Program). Together, they give us an idea of trends for people walking in Minneapolis. According to the U.S. Census Bureau, 3,567 more people walked or rolled to work or school between 2007-2017.[1] Over the same time, the number of people walking or rolling increased by 21% at annually counted city benchmark locations.[2]

Figure 1: People are walking more

This figure represents the change between 2007 and 2017.

SEVERE AND FATAL PEDESTRIAN CRASHES ARE INCREASING

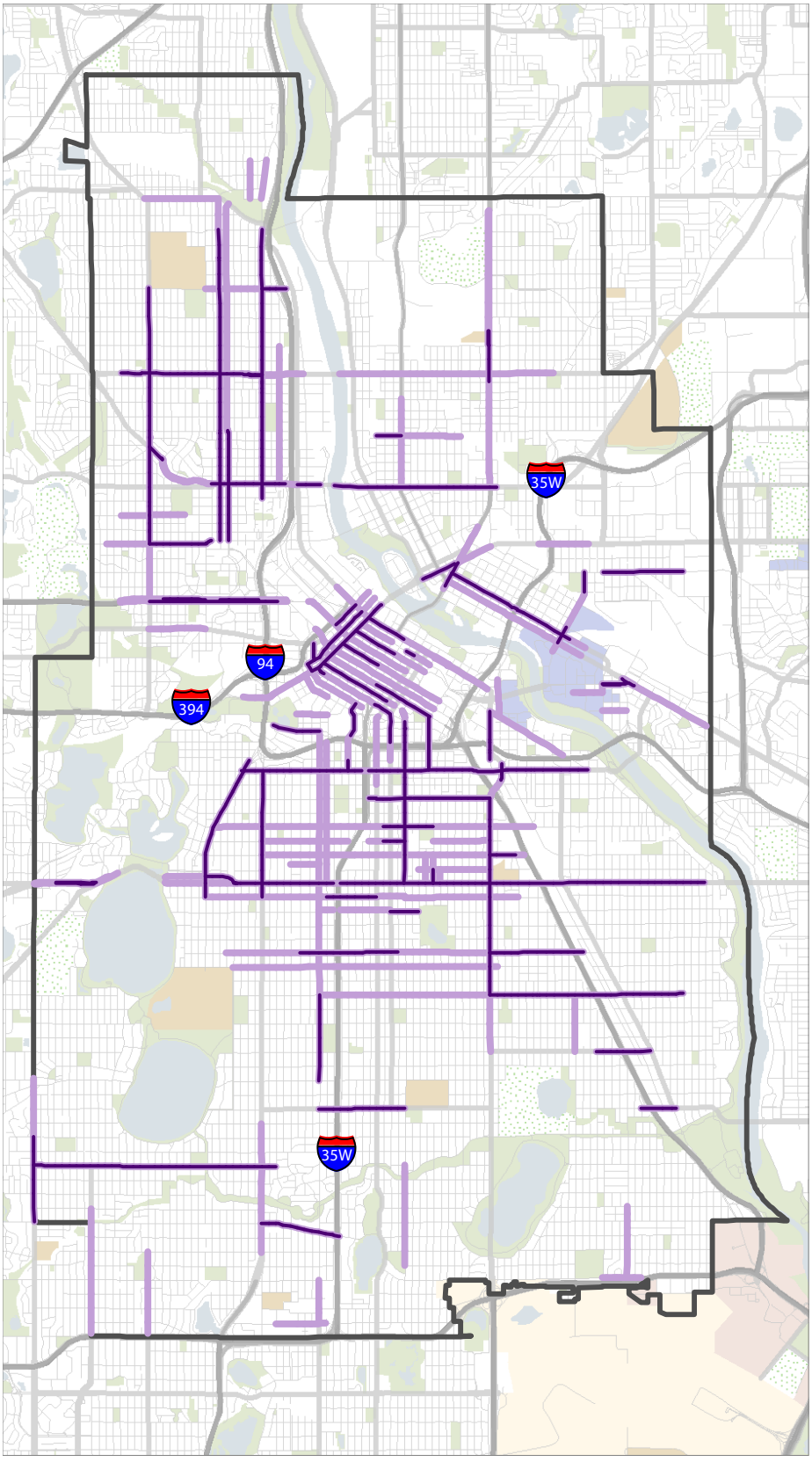
After years of decline, pedestrian injuries and deaths have been rising in recent years in Minneapolis. From 2007 to 2016, a pedestrian was severely injured or killed on Minneapolis streets every 13 days on average. Most of the crashes (80%) involving pedestrians occur on, and are concentrated along, a small number of streets (see Figure 2 on the next page). Pedestrian crashes disproportionately impact lower-income neighborhoods where the majority of residents are people of color.

Pedestrians are the most vulnerable street users; 11% of reported pedestrian crashes lead to a life-altering injury or death.

[1] U.S. Census Bureau's American Community Survey 5-year Estimates (2012-2016)

[2] 30 annual benchmark locations; Annual Minneapolis Bicyclist and Pedestrian Count data

Figure 2: High Injury Street map



Ten Year Crash Database

Crash Concentration Corridors

High Injury Network

Pedestrian Crash Concentration Corridors

Crashes are concentrated.
80% of all pedestrian crashes occurred on **10%** of roadway miles in the City.

Minneapolis
City of Lakes

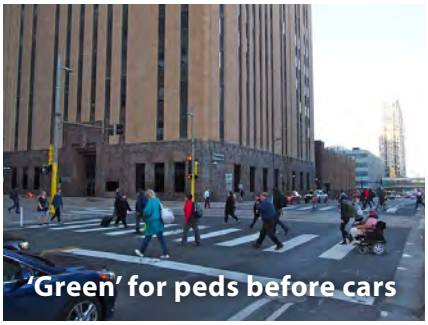
Pedestrian Crash Study

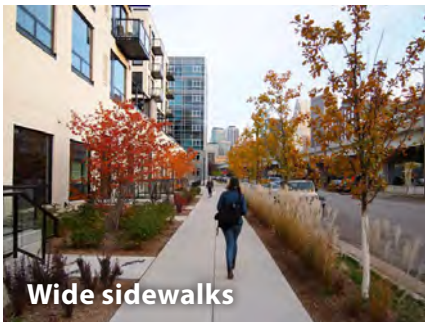
DESIGNING FOR PEDESTRIANS FIRST

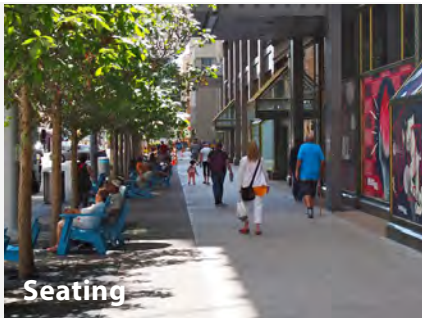
In recent years, there has been an increased focus on improving pedestrian infrastructure. In 2017, the city upgraded 3,000 crosswalk markings from parallel line crosswalk to Minneapolis Zebra crosswalks that will improve the visibility of pedestrian crossings. The city has also implemented, and continues to evaluate the effectiveness of, leading pedestrian signal intervals (LPI) that allows a pedestrian to begin crossing the street before vehicles receive a green light. This ensures that pedestrians are more visible within the crosswalk before vehicles begin moving.

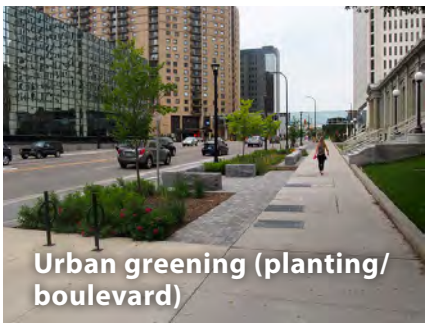
There are multiple ways to improve safety and comfort for those walking and rolling. Curb extensions, sometimes called bumpouts or bulbouts, extend the sidewalk area into the street to shorten pedestrian crossing distances and improve visibility. Wide sidewalks allow people to pass each other comfortably and can also provide space for public realm improvements such as pedestrian lighting, trees, benches or other features that help to buffer pedestrians from moving vehicles and contribute to a walkable environment. Reducing the number of four lane streets, multiple lane one-way streets, and slowing motor vehicle speeds are also important for safety and comfort for people walking, particularly as they cross the street.

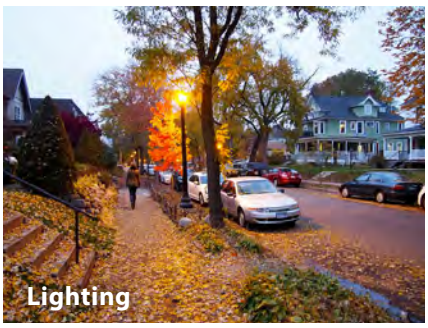
Figure 3: Street design for pedestrians











ACTIVATING PUBLIC SPACES

Programming public spaces with events and activities encourages people to be active and demonstrates alternative uses for street space. Minneapolis has many programs oriented to improving the pedestrian environment. One of the more successful programs is Open Streets. Open Streets is a series of events when a street is closed to vehicular traffic for part of the day (typically 6 hours) and opened up to those walking and bicycling; street vendors are out, activities like yoga and dancing are organized, and there are spots with live music and other activities. Open Streets focuses on promoting healthy living, sustainable transportation, civic pride and discovering local businesses. The event started in 2011 with one event and an estimated 5,000 attendees. It has since expanded to 7 or 8 events annually, with an estimated 103,500 attendees in 2019.[3]

Parklets and street cafés are other programs that activate streets through partnerships with businesses and community organizations. Parklets provide amenities like seating, plantings, bike parking and public space for people to linger and enjoy through the conversion of on-street parking spaces. The City currently operates three public parklets, and organizations or businesses can also apply to host a parklet. The street café program is offered to local businesses to expand their outdoor seating areas into the street. A survey from 2017 showed that all businesses that hosted parklets would recommend hosting a parklet to another business, and they agreed that the parklet contributed to increased sales and foot traffic. Both hosts and users agreed that the parklet improved the streetscape and enhanced neighborhood identity.[4]

Figure 4: Parklet

Figure 5: Open Streets event

[3] Our Streets Minneapolis.

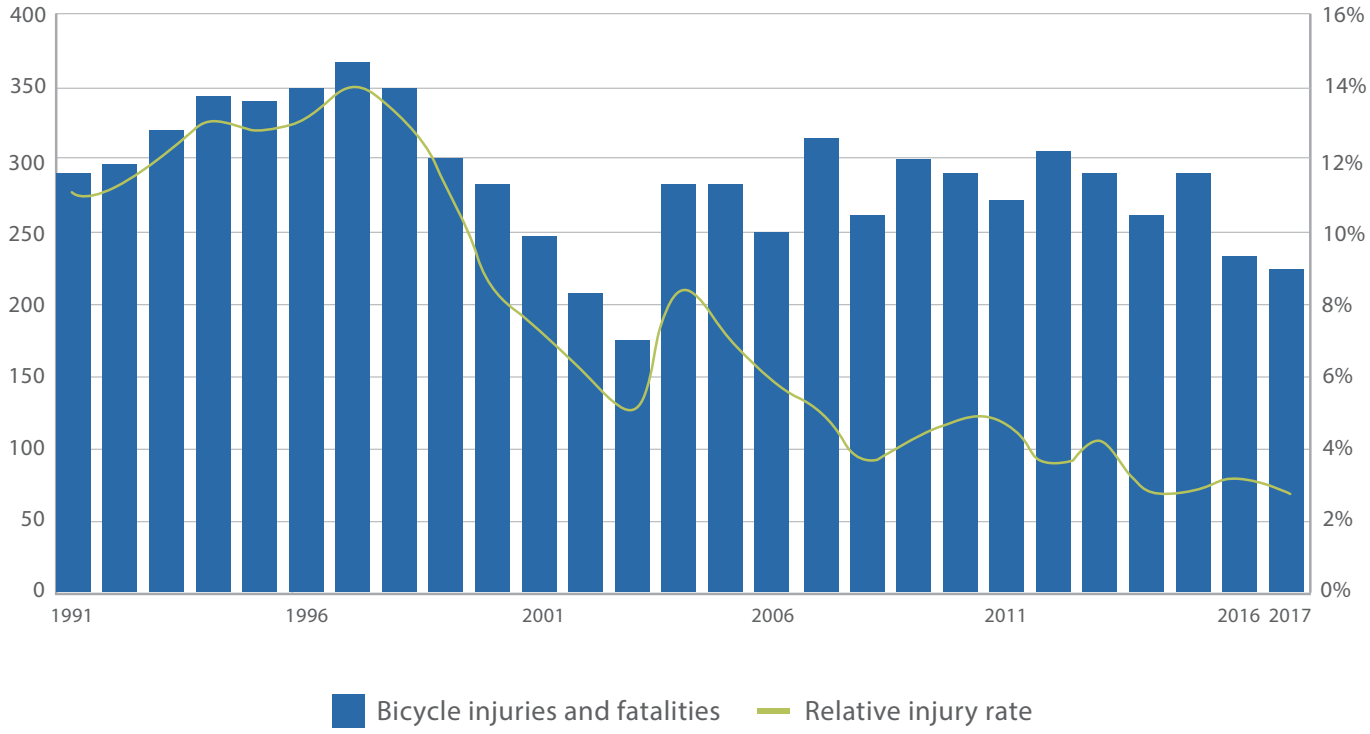
[4] City of Minneapolis Parklet Program Survey (2017).

Bicycling snapshot in Minneapolis

BICYCLING IS GETTING SAFER

Bicycling in Minneapolis is safer than it was 25 years ago, in part due to more bikeways and more people bicycling. Between 1993 and 2017, the miles of bikeway have increased 199%[5] and the average number of bicycle commuters increased 212%.[6] During that same time, the bicycle crash rate decreased by 75%.[7] While bicycling is getting safer, people biking are the most overrepresented in severe and fatal crashes in Minneapolis.

Figure 6: Bikeway miles vs bicycle crash rate



EXISTING BIKEWAY NETWORK

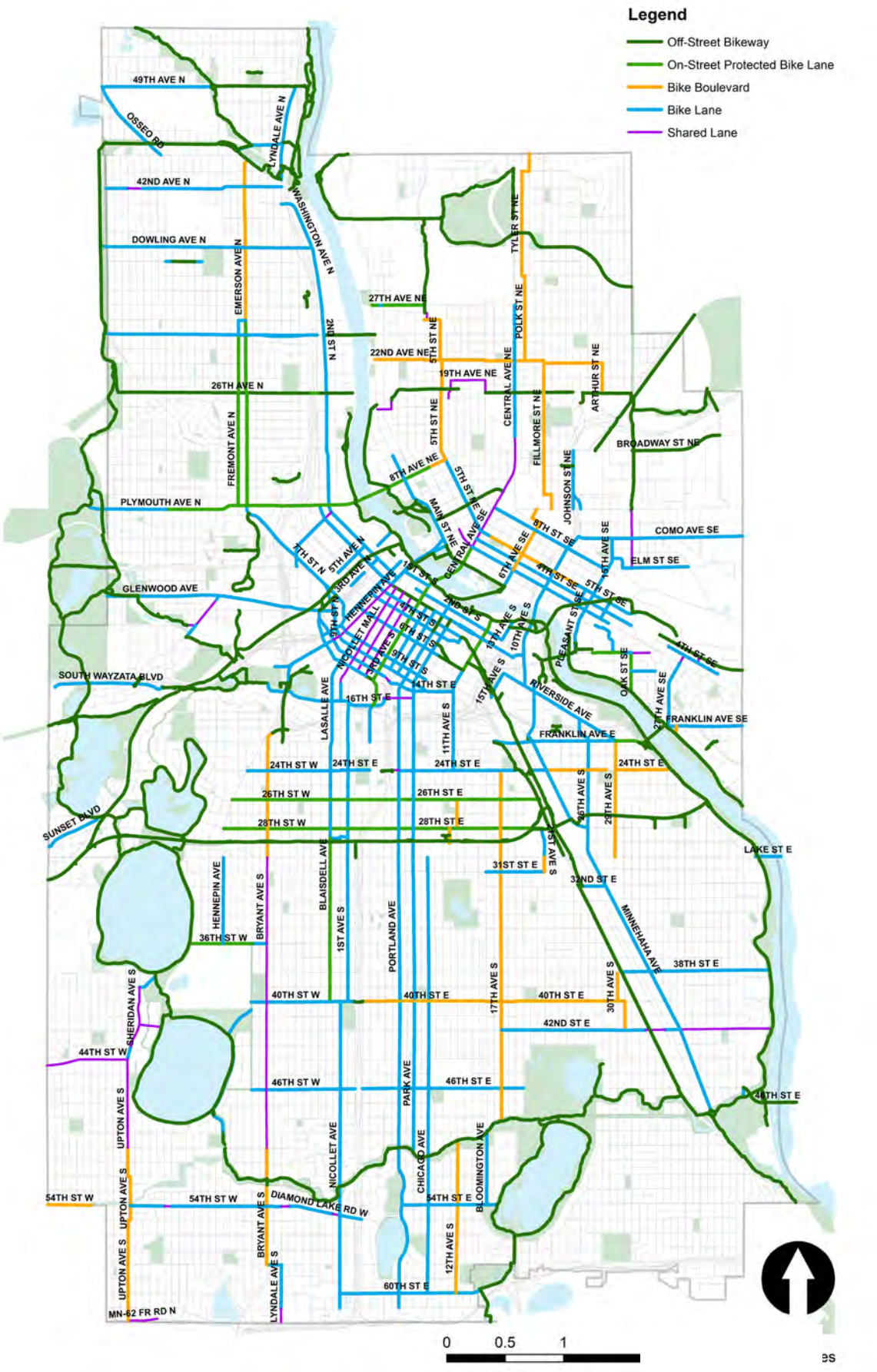
The existing bikeway network is not comfortable for all people. Over the last 10 years, the city's bikeway network doubled in size to 255 miles of bikeways (through 2019). However, only 49% of this network meets the criteria of an all ages and abilities bikeway (protected bike lanes and trails) and most of this mileage does not connect to schools or commercial areas. To encourage people of all ages and abilities to bicycle, we must build a connected network of comfortable bikeways.

[5] City of Minneapolis Department of Public Works.

[6] Means of Transportation to Work for Workers 16 Years and Over. U.S. Census Bureau, 1990-2000 Decennial Census

[7] As reported to Minneapolis Public Works by the Minneapolis Police Department and Minneapolis Park Police.

Figure 7: Existing bike network

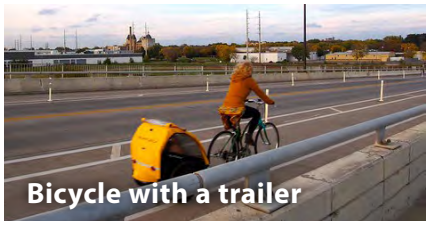


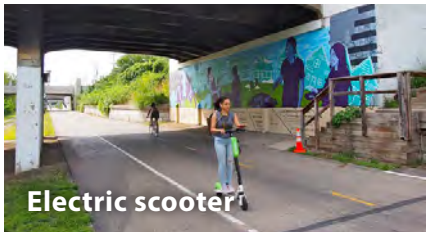
DESIGNING FOR NEW USERS

If we want bicycling an attractive transportation option for more people, it is important to consider how we can support more children, seniors, women, people of color, low-income people, people with disabilities and people with multiple passengers to bicycle as we design bikeways and streets.

We also need to support a growing fleet of low-powered vehicles. From cargo bicycles to adaptive bicycles, and electric assist bicycles to electric scooters, these new vehicles can expand who is able to bicycle and what trips bicycles can be used for.

Figure 8: Types of bicycle and micromobility

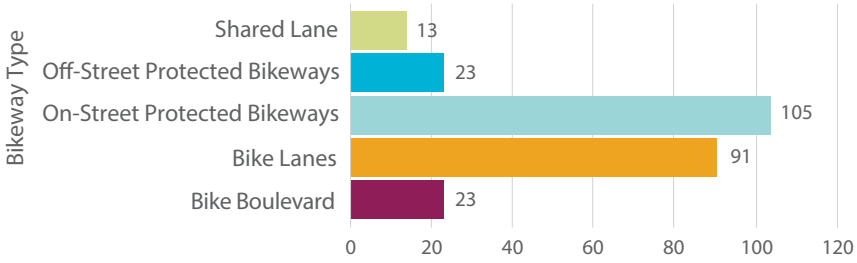




DESIGNING FOR COMFORT

City of Minneapolis traffic counts show that bicycling is growing six times faster on protected bike lanes and trails than on other bikeway types.[8] Conventional bike lanes and well-designed bicycle boulevards (also called neighborhood greenways) on less busy streets can also be attractive places to bike. Protected bike lanes and neighborhood greenways will be prioritized as a part of the All Ages and Abilities Network to improve and expand the existing network.

Figure 9: Existing bikeway mileage



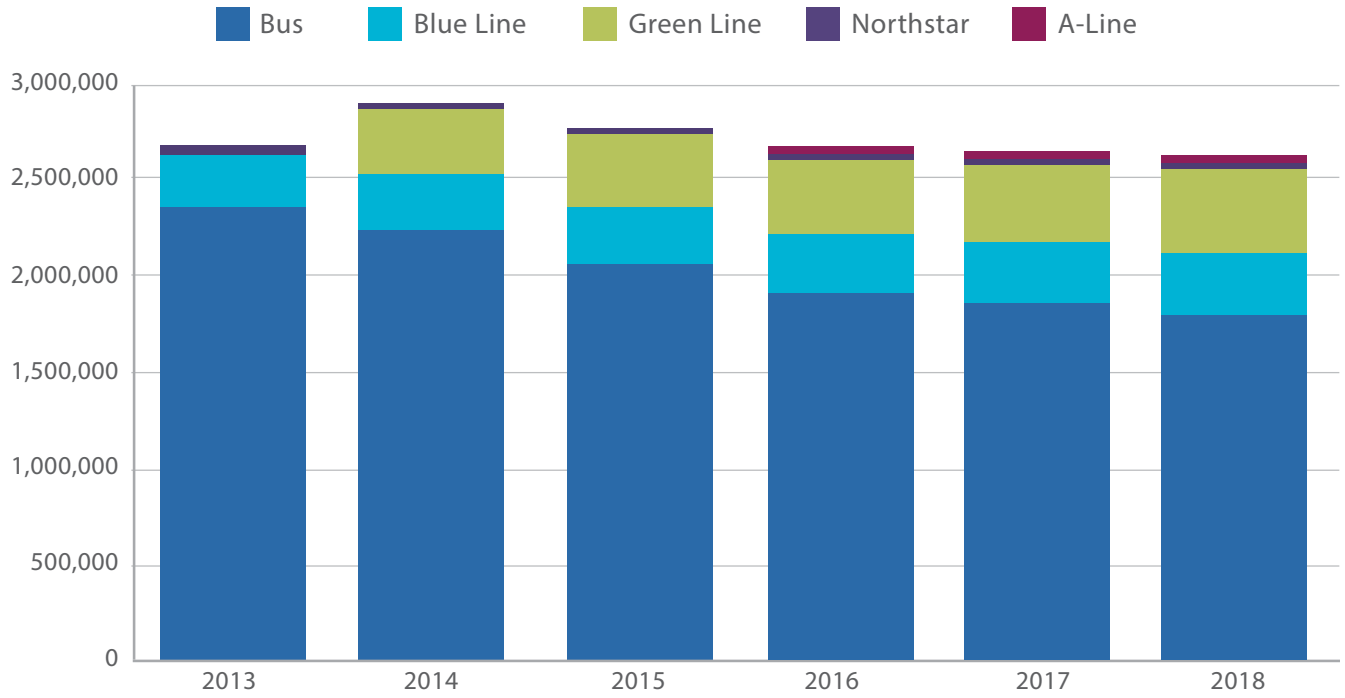
[8] Minneapolis Public Works Pedestrian and Bicyclist Traffic Counts, 2007-2017

Transit snapshot in Minneapolis

TRANSIT RIDERSHIP OVER TIME

Metro Transit, as a part of the Metropolitan Council, operates most of the local transit service in the region. Despite increases in light rail (LRT) and rapid bus (BRT) use, the overall number of Metro Transit trips in the region declined by 9% between 2014 and 2018,[9] after previous years of gains.

Figure 10: Average weekday transit ridership



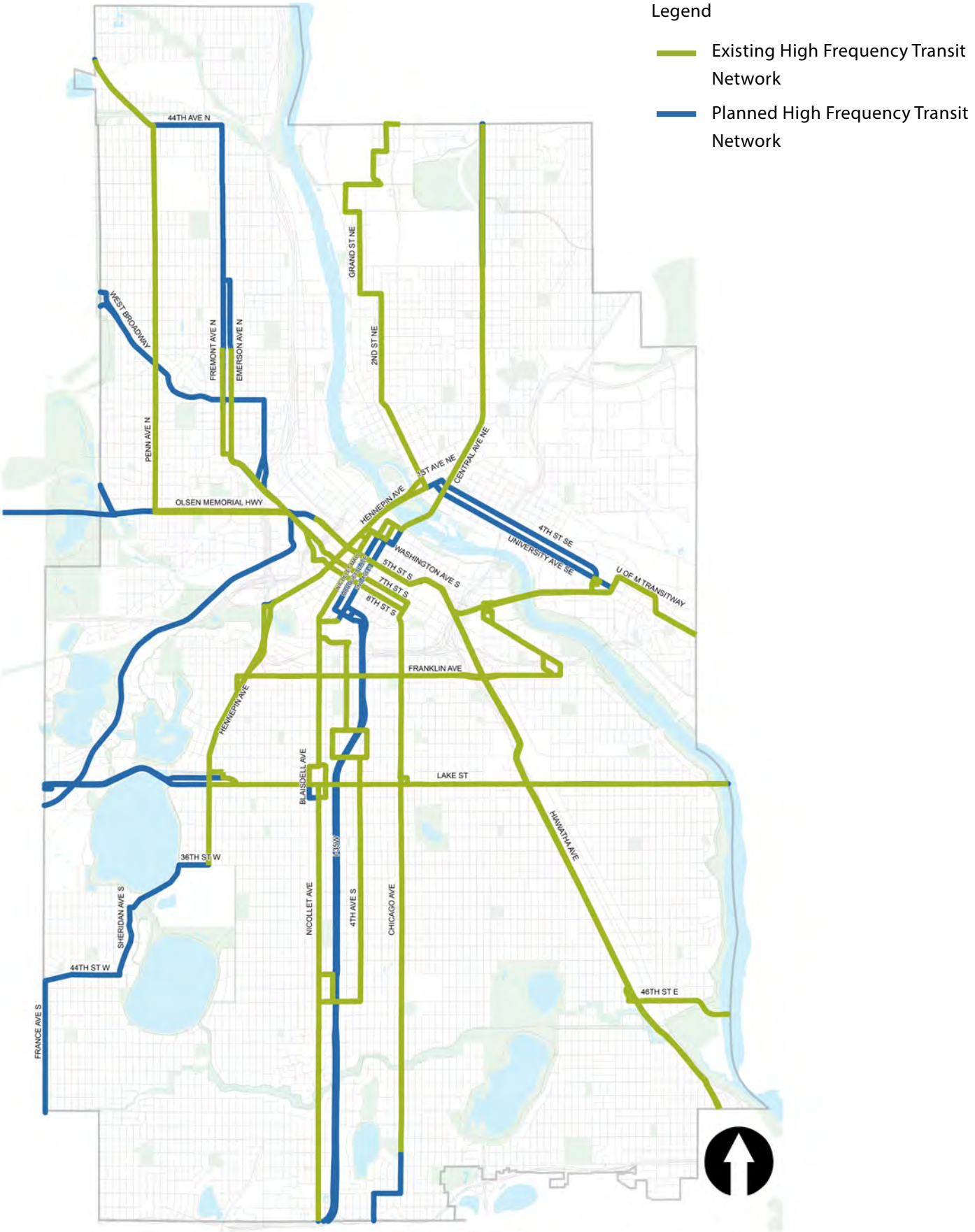
LOCAL AND HIGH FREQUENCY TRANSIT ROUTES

Transit routes are distributed throughout the city and operate as either local or high frequency bus routes or light rail lines. High frequency routes mean buses or light rail arrive every 15 minutes or better.[10] High frequency routes (bus and light rail) have the highest ridership in the city, operating most of the day and throughout the week. A total of 153 total transit routes, including 11 high frequency routes, serve residents, workers and visitors in the city.

[9] Metropolitan Council Boardings and Alightings Data, 2013-2018.

[10] Metropolitan Council (2018)

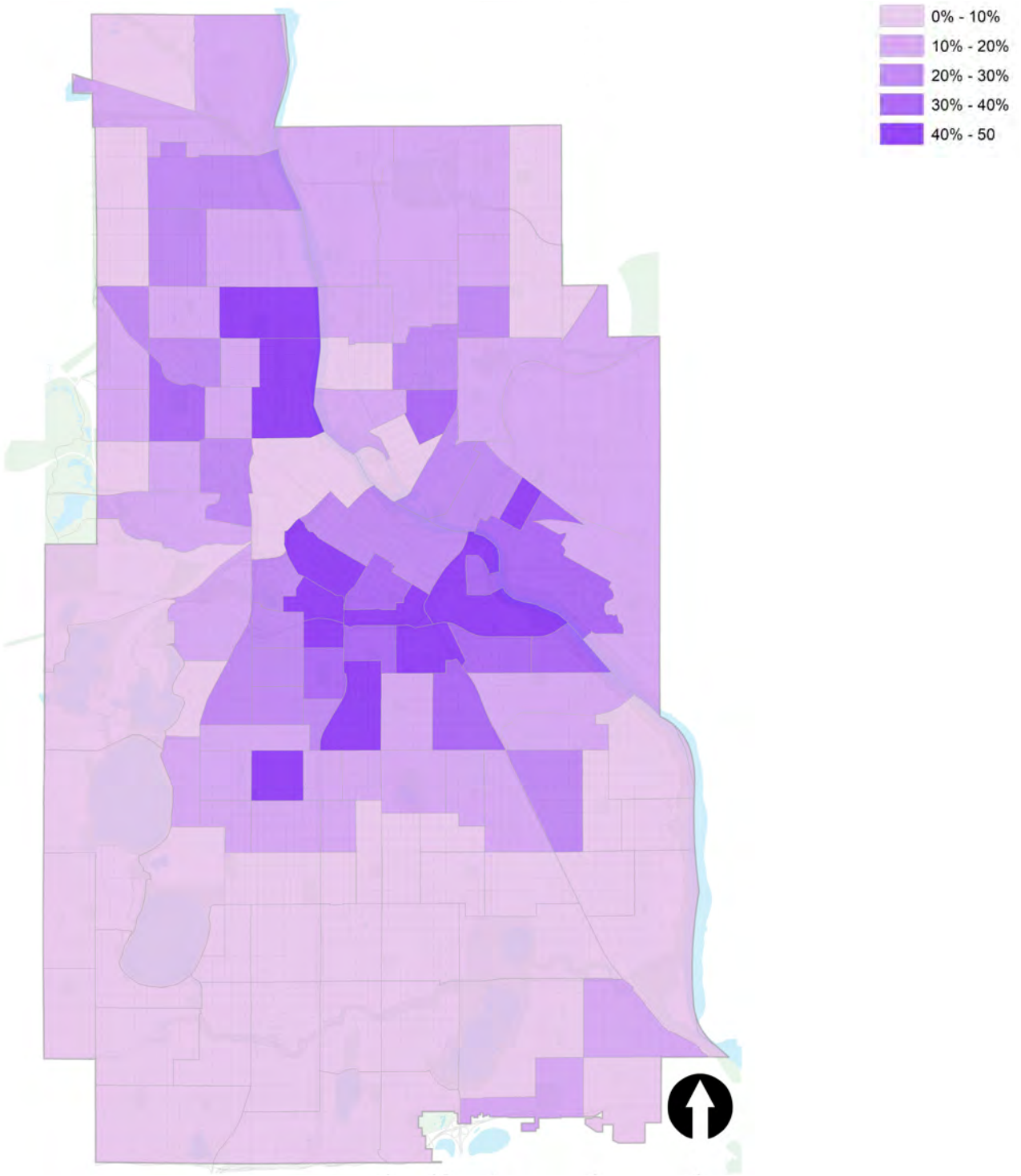
Figure 11: Existing and planned high frequency transit routes



HOUSEHOLDS WITHOUT VEHICLES

More than one of every six people in Minneapolis (16.5%) live in households without access to an automobile,[11] by choice or necessity. Car-free households are more common in densely-populated urban areas and high poverty neighborhoods where vehicle ownership is challenging. Less auto dependence typically correlates with higher transit ridership.

Figure 12: Percent of households without a vehicle, 2014-2018



Source: 2018 American Community Survey 5-Year Estimates

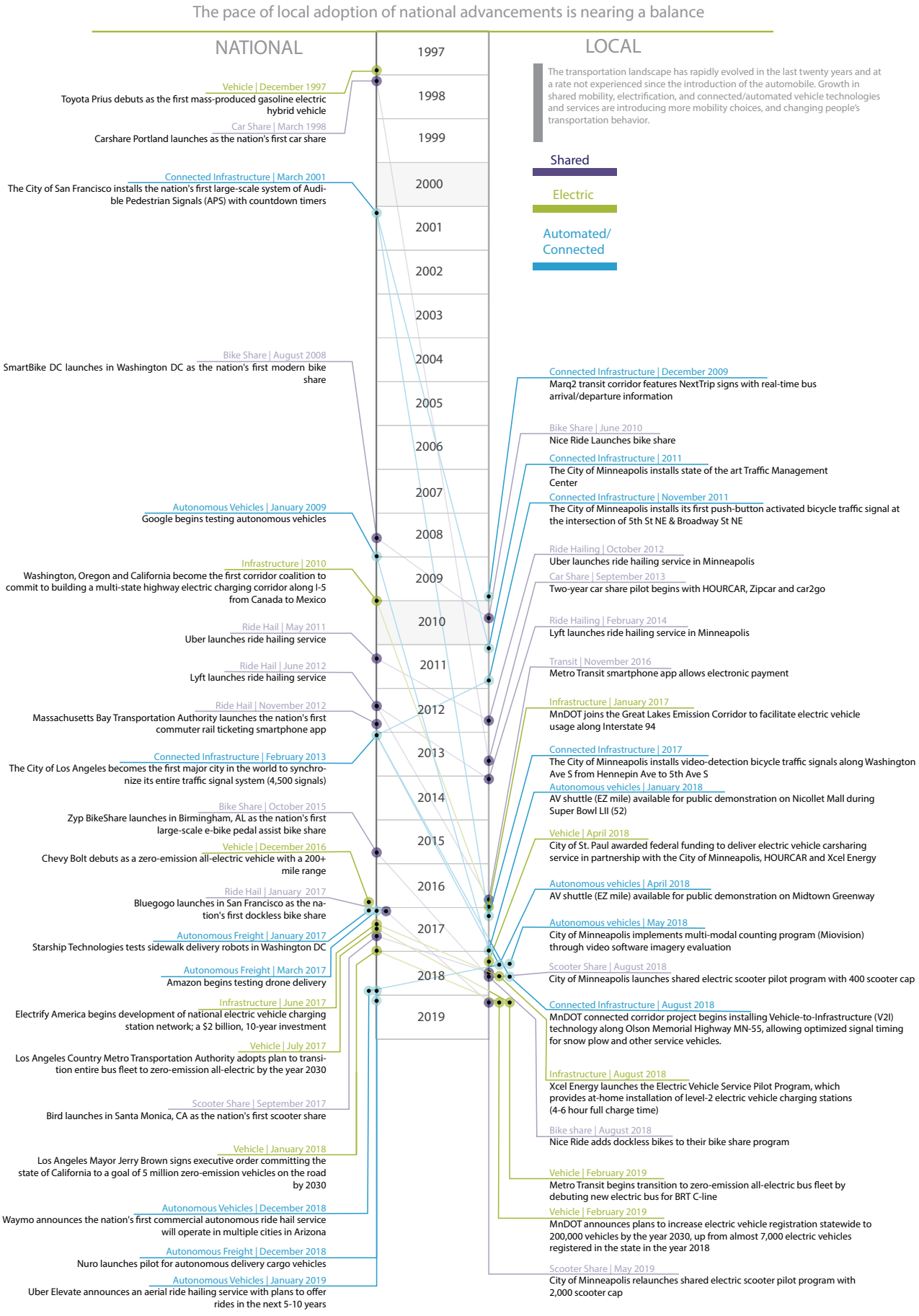
[11] Household Size by Vehicles Available, U.S. Census Bureau, 2014-2018, American Community Survey 5-Year Estimate

Technology snapshot in Minneapolis

THE PACE OF TECHNOLOGICAL CHANGE IN TRANSPORTATION

The pace of change in technology that impacts transportation options has been increasing. Transportation options have been increasing due to new models enabled by a few technological improvements that have enabled all new shared modes – smartphones, wifi and 5G network. The impacts of innovation can mean something that was not on our streets five years ago (scooters) are now commonplace. Focusing on preparing and setting goals allows us to effectively regulate and manage these service models through policies and design.

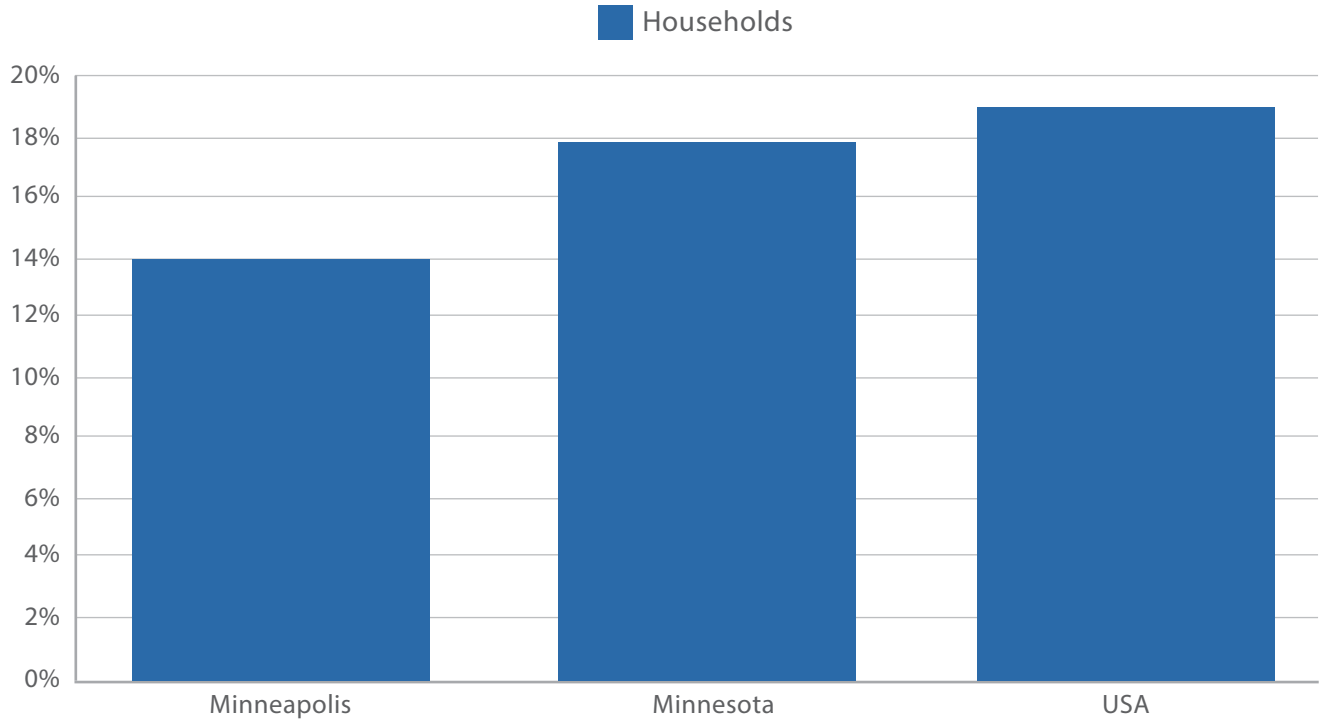
Figure 13: Timeline of advanced mobility



ACCESS TO TECHNOLOGY

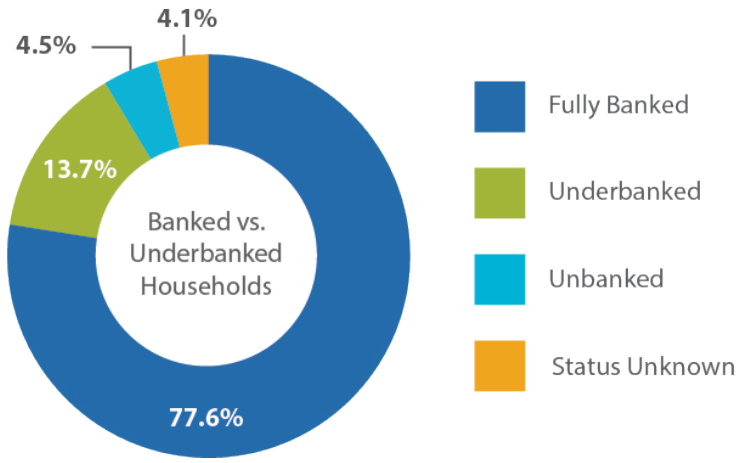
Access to technology is critical to ensuring everyone benefits from new transportation options. As shared mobility services grow in popularity, solutions for those without smartphone and banking access are needed. In the City of Minneapolis, 23.3% of households do not have access to a smartphone.[12]

Figure 14: Households without smart phone access



Additionally, in the Twin Cities metro region, 1.5% of households are categorized as unbanked, meaning they are not a member of a bank or similar financial institution.[13] These groups are limited in their ability to utilize popular shared mobility services which typically require a smartphone and banking access. For this survey, the term underbanked refers to households that had an account at an insured institution but also obtained financial products or services outside of the banking system.[14]

Figure 15: Banked and underbanked households

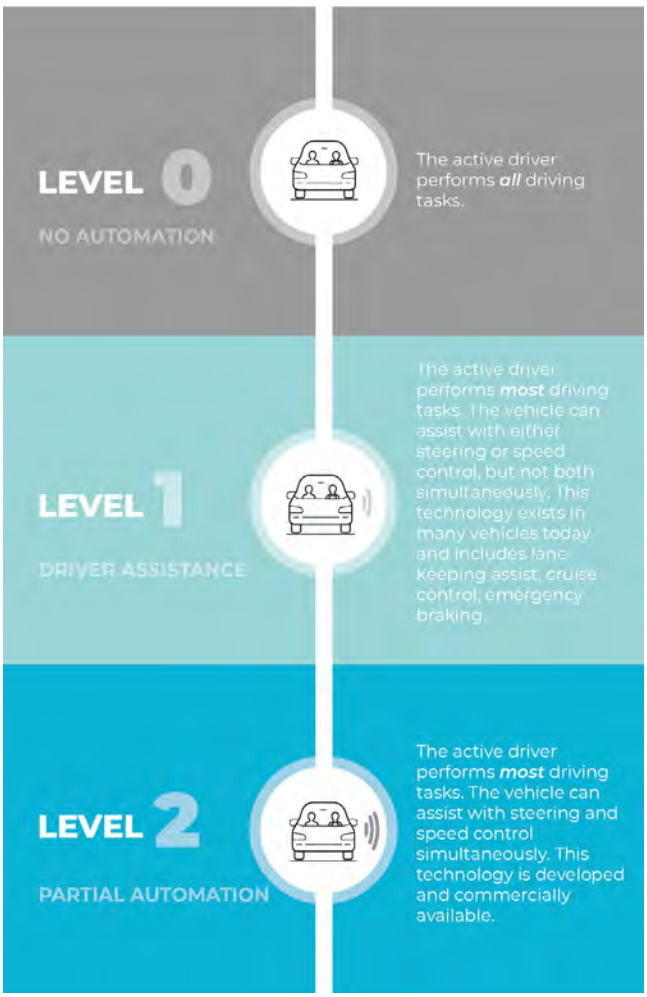


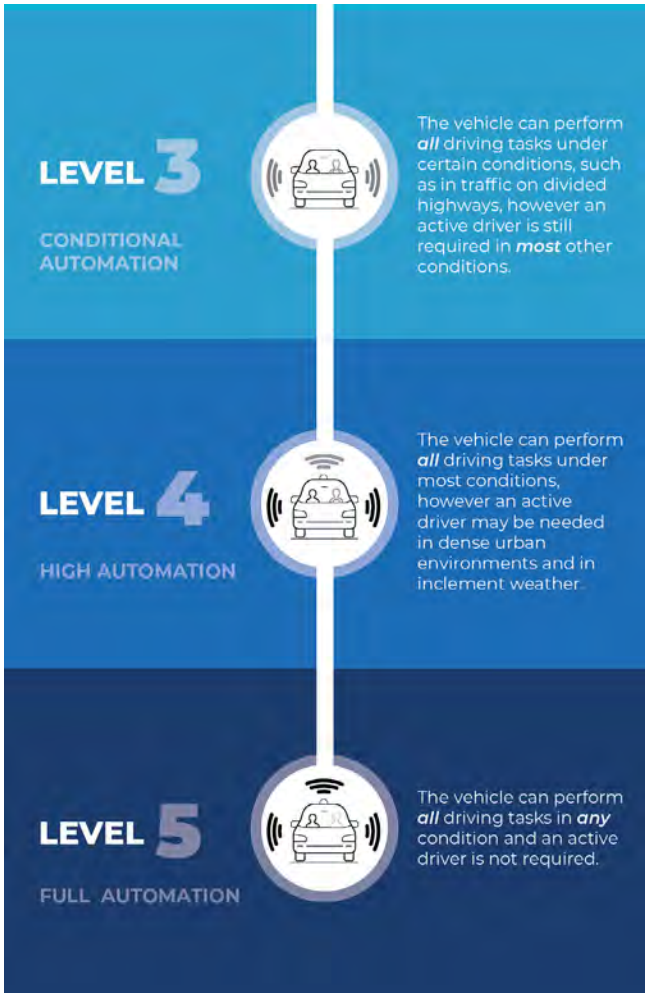
[12] FDIC, 2017 Banking Status Survey
[13] FDIC, 2017 Banking Status Survey
[14] FDIC, 2017 Banking Status Survey

AUTOMATED TECHNOLOGY

Done correctly, automated vehicles could be a tool for future mobility that can be applied to a variety of service models, including transit, urban delivery and ride sharing. Despite much speculation around when the fully autonomous vehicle will enter the mainstream market, it is important to consider that the transition to full automation is an evolution. Vehicles currently operate on our streets that already have a certain level of automation inherent to them. Level 1 vehicles are those where the driver is in control, but some assistance is given – tools like adaptive cruise control, lane-departure assistance and automated braking to avoid collisions. Some new models of vehicles integrate Level 2 technologies, which automate both speed and steering. The integration of higher levels of automation will continue to impact all people who use the public right of way, including those walking, biking, taking transit and operating analog vehicles.

Figure 16: Levels of automation





Freight snapshot in Minneapolis

FREIGHT: A LONG JOURNEY

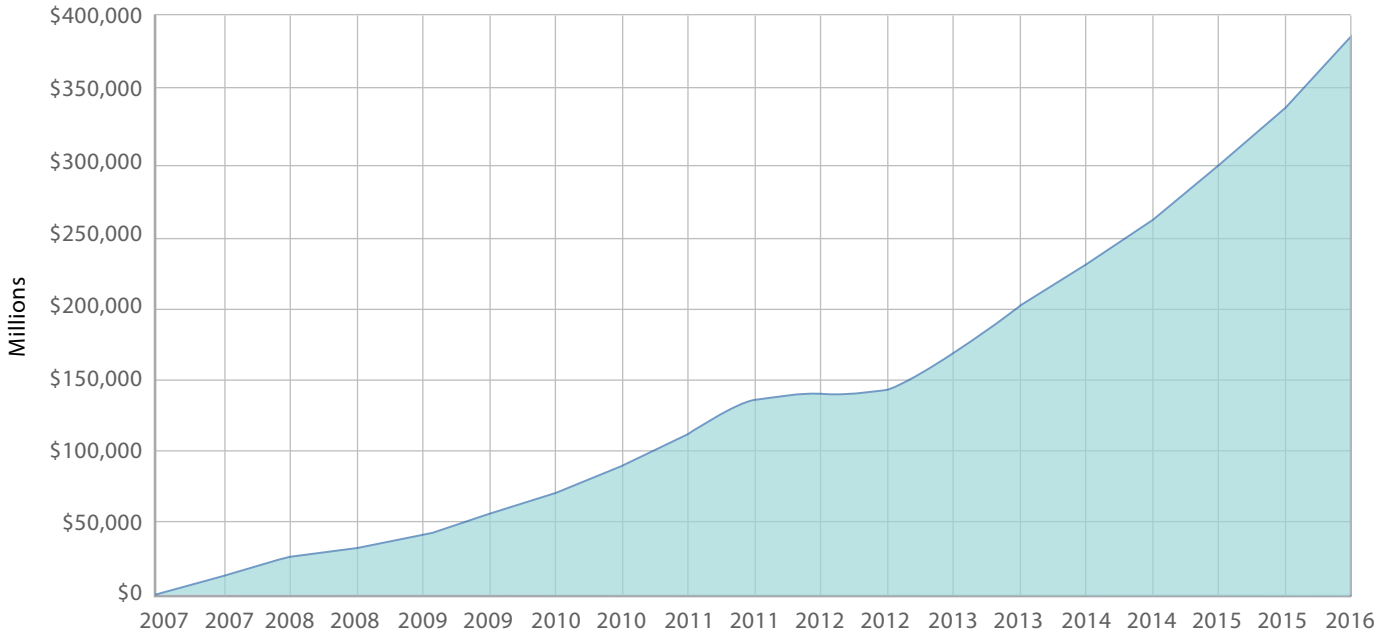
Have you ever wondered how coffee makes its way to your mug? Coffee, and most other goods in your home and office, were transported via freight. Figure 17 shows a supply chain of how coffee moves through the international freight system before it gets to you.

Figure 17: From bean to cup

E-COMMERCE IS ON THE RISE

People are doing an increasing proportion of their shopping online. E-commerce, defined as the sale or purchase of goods or services through the internet, has grown rapidly throughout the United States in recent years. In 2016, e-commerce accounted for 8% of national retail sales, a percentage which has been growing steadily since 2010.[15] With this growing use of online shopping and growing customer demand for fast deliveries, delivery vehicles are using residential streets more often. We need to plan for this consumer demand for convenience delivery and understand its impact on our streets and the ability to incentivize smaller scale delivery vehicles like electric cargo bikes.

Figure 18: Growth of e-commerce in the U.S.



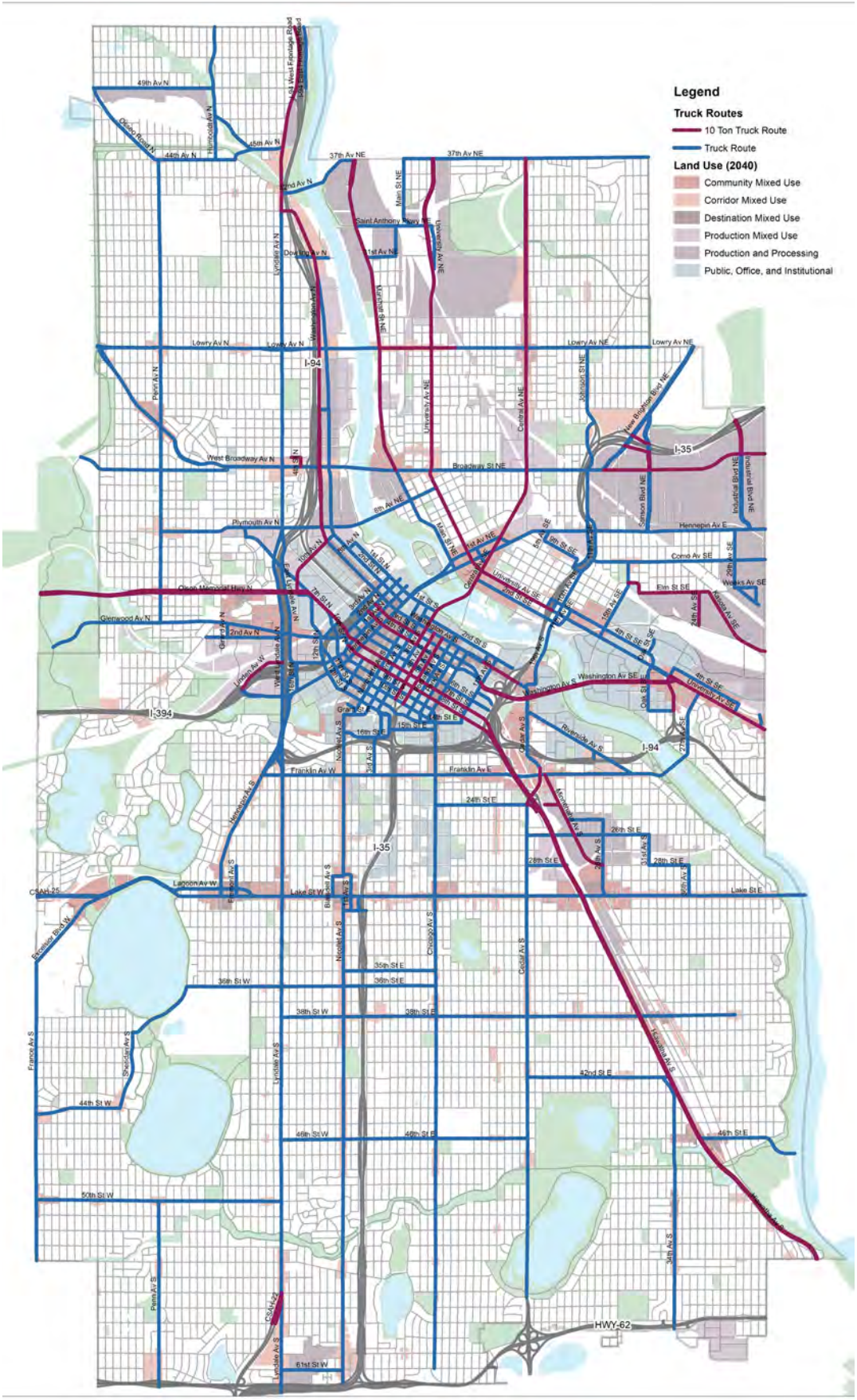
Estimated Annual U.S. Trade Retail Sales - Total and E-Commerce: 1998-2016. U.S. Census Bureau

EXISTING FREIGHT NETWORK IN MINNEAPOLIS

The safe, efficient and reliable movement of freight is vital to a healthy local and regional economy. All industries, especially manufacturing, construction, wholesale and retail trade, rely on a multimodal freight system to transport goods. The existing truck route network and long-established freight railway network are closely tied to these types of land uses. As land uses and freight needs change, we need to ensure our truck routes are in the right place and that locations where our streets intersect with the freight railway are redesigned and mitigated for a people first approach in accordance with our Complete Streets Policy.

[15] Estimated Annual U.S. Trade Retail Sales - Total and E-Commerce: 1998-2016. U.S. Census Bureau

Figure 19: Freight and land use map



Street operations snapshot in Minneapolis

AN EXTENSIVE TRANSPORTATION SYSTEM

Within Minneapolis there is an extensive transportation system that includes networks of streets, sidewalks, bikeways and transit routes that offer people many options for getting around. The same person may need to use, or choose to use, a different part of this system depending upon the time of the day, day of the week or by season. No matter the way one travels, these networks come together on our streets. The City of Minneapolis owns and operates some, but not all, of this transportation system. In Minneapolis you can find:

- 1,062 miles of streets and 394 bridges (Minneapolis owns 107 of the bridges)
- More than 2,000 miles of sidewalks
- 150 miles of on-street bikeways and 105 miles of off-street bikeways and trails
- 811 traffic signals, operated and maintained by the City of Minneapolis
- 207 local transit routes and 11 high frequency transit routes
- Many street trees, boulevards and public spaces

STREETS HAVE MANY DEMANDS

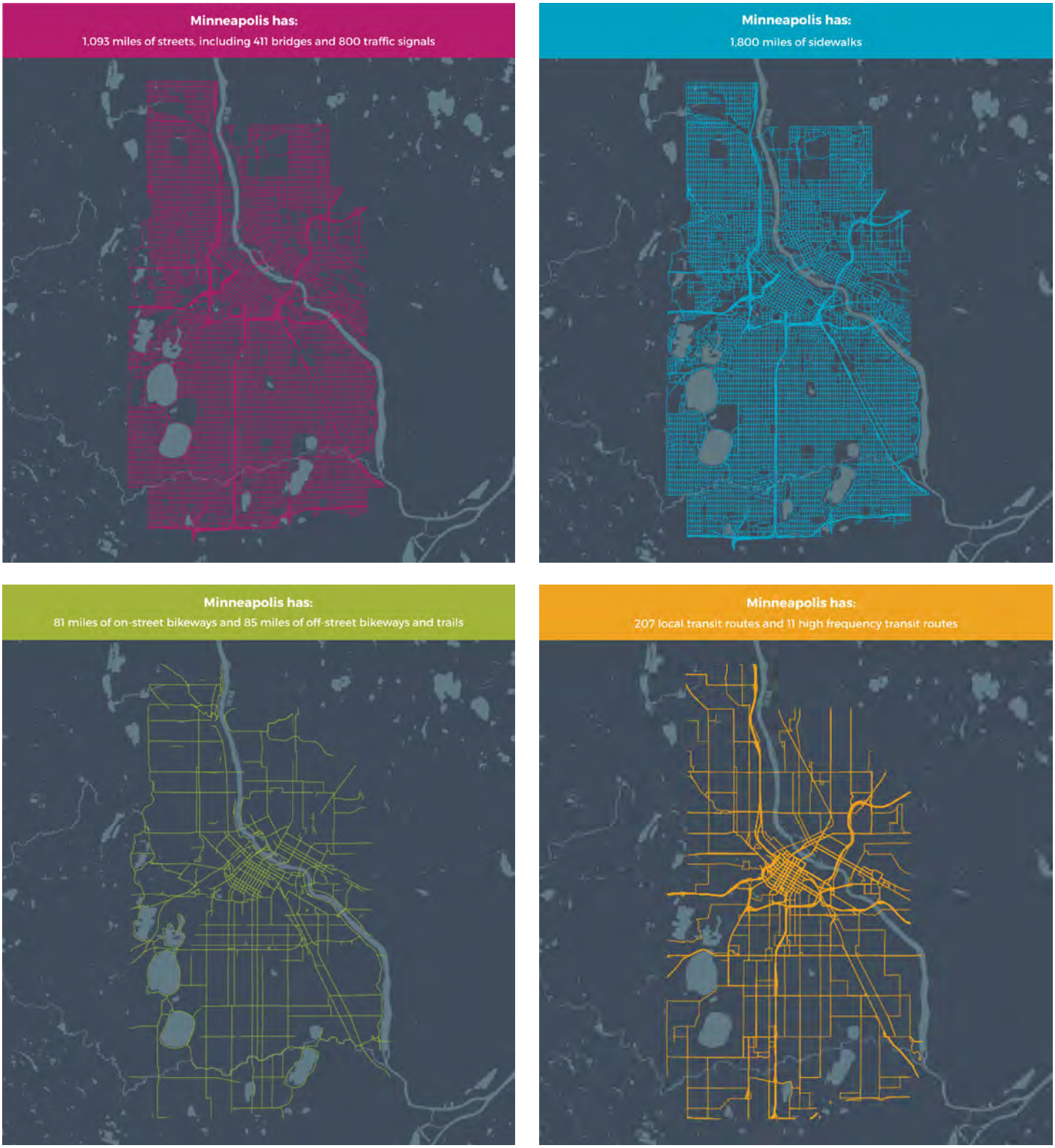
The space available on our streets is a fixed resource with many competing needs. Streets are spaces for people walking, biking, taking transit, driving and places that accommodate parking, deliveries, trash collection and more. Additionally, these public spaces are often the shared living rooms of our communities, including the realm between the street and the sidewalk that houses our trees and crucial drainage.

Planning a safe and efficient transportation system for everyone within this limited space is complex. The City of Minneapolis' Complete Streets Policy helps to give preference and guidance for how to manage those competing demands. This modal priority framework prioritizes people as they walk, then those on bicycle and transit, over people when they drive.

Figure 20 shows the many different uses that are often accommodated within the limited public space available for streets, or public right of way. The typical street right of way width within the city is between 60 feet and 80 feet, although constraints often make the usable right of way narrower. However, a few larger streets in the city have a right of way of 100 feet or more.

Figure 20: Typical Minneapolis street

Figure 21: Minneapolis transportation system

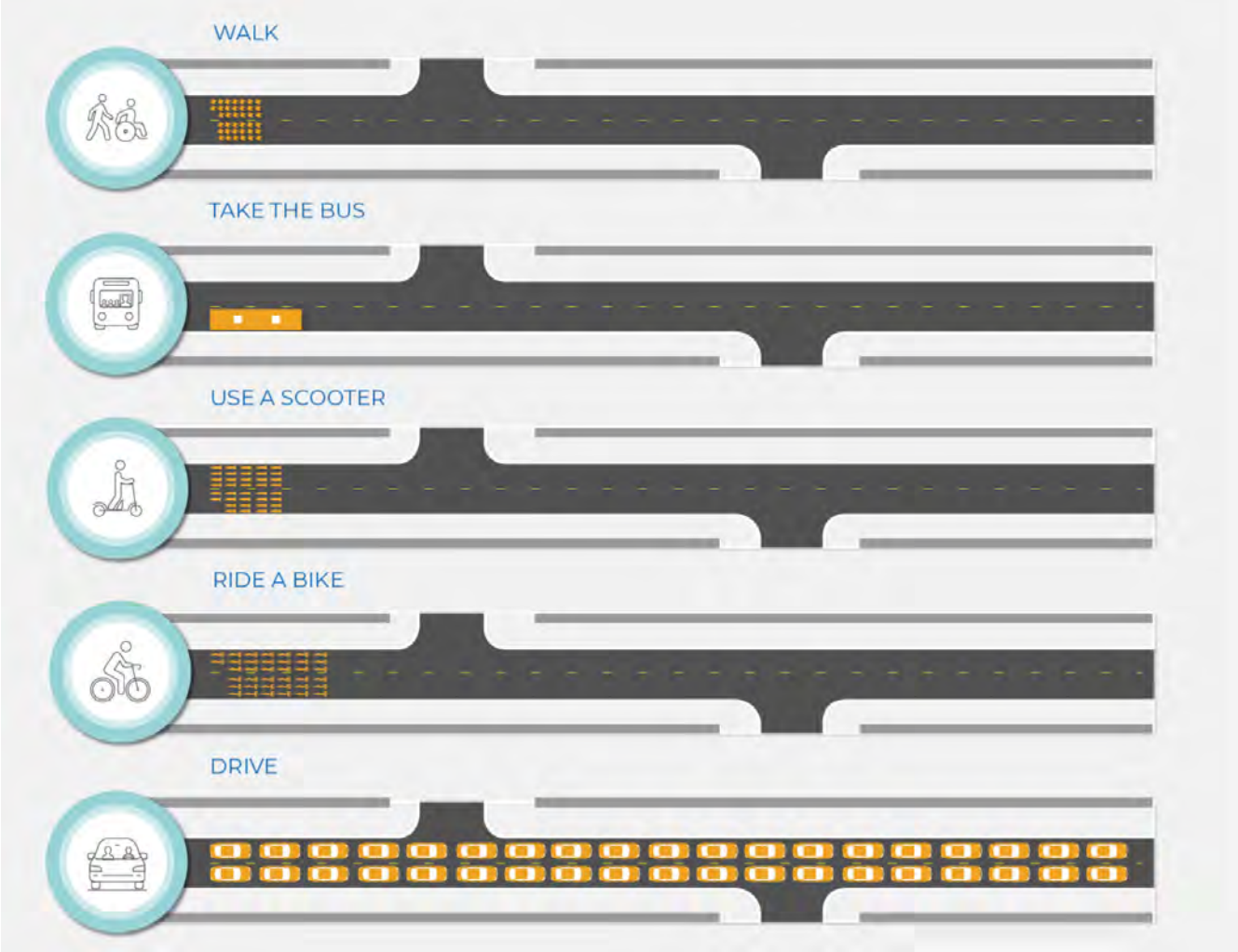


REDESIGNING OUR TRANSPORTATION FOR A GROWING CITY

Minneapolis is growing faster than it has since 1950. Between 2010 and 2016, the city added an additional 12,000 housing units and more than 37,000 residents. While our population is increasing, the space within our streets is not. If all new residents and commuters in Minneapolis traveled as we do today, the number of cars on our streets, and the resulting congestion, and greenhouse gas emissions would all increase in unison. To manage this growth in a way that meets our transportation and climate goals, we need to make strategic investments that allocate space on our streets in a more efficient way. This means prioritizing transportation options that have less impact on our environment and that are able to move more people more efficiently.

Figure 22 illustrates that people walking, or traveling by bus, bike or scooter results in a much more efficient use of limited street space compared to people driving alone. Transit-only infrastructure like Marquette Avenue and 2nd Avenue S are part of an efficient commute for many of the 205,000 people[16] working daily in downtown Minneapolis.

Figure 22: Use of street space by 38 people



[16] Minneapolis Downtown Council, Downtown Facts. https://www.mplsdowntown.com/facts/

Snapshot of street design in Minneapolis

The Street Design Guide will be finalized in 2020, separate from and guided by the Transportation Action Plan.

GOOD STREET DESIGN

Good street design is many things – most effectively shown through images. Good street design:

- Is for people
- Helps meet climate goals
- Is accessible for all people
- Includes space for all users
- Encourages safer, slower speeds
- Supports commerce and retail
- Is comfortable and welcoming
- Is flexible
- Moves many people effectively

Figure 23: Good street design