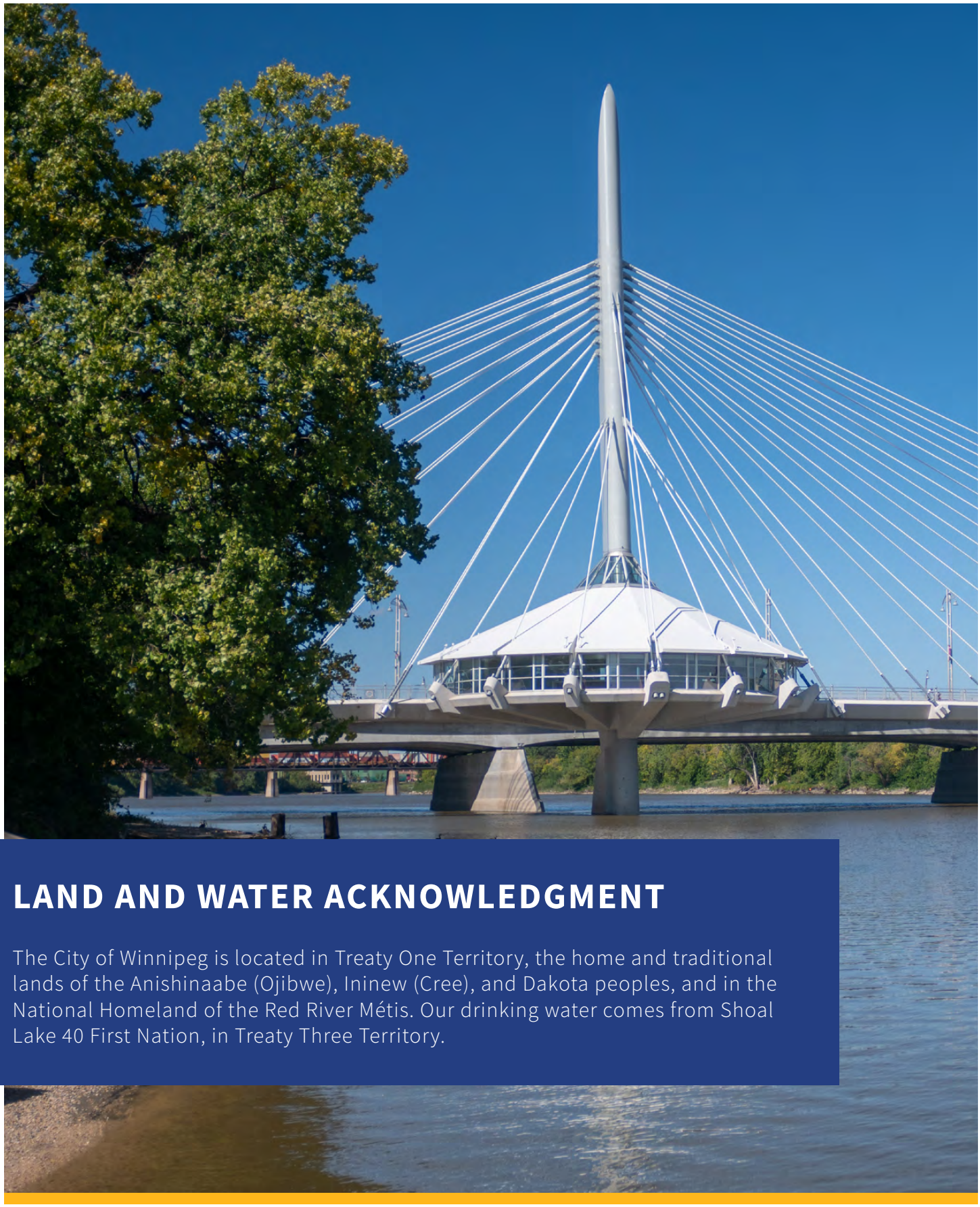
Winnipeg



TRANSPORTATION 2050

REIMAGINING MOBILITY

CITY OF WINNIPEG TRANSPORTATION MASTER PLAN



LAND AND WATER ACKNOWLEDGMENT

The City of Winnipeg is located in Treaty One Territory, the home and traditional lands of the Anishinaabe (Ojibwe), Ininew (Cree), and Dakota peoples, and in the National Homeland of the Red River Métis. Our drinking water comes from Shoal Lake 40 First Nation, in Treaty Three Territory.

GLOSSARY

Active transportation: Any human-powered mode of transportation such as walking, cycling, wheeling, skiing, skating, or skateboarding.

Direct emissions: Greenhouse gases and air pollution emitted directly from transportation operation. Example: fossil fuel burning from a vehicle.

Greenfield development: Development that occurs on previously undeveloped land.

Indirect emissions: Greenhouse gases and air pollution that are the consequence of transportation operations but are emitted from another source. Example: the construction of roads for vehicles.

Induced travel demand: Additional transportation capacity encourages new vehicular trips that were not made prior to the new infrastructure being built. This can include users switching from transit or cycling to personal vehicles to take advantage of new road capacity or the new capacity encouraging residents, jobs, and services to locate in areas more attractive due to the new capacity.

Infrastructure deficit: The current unfunded capital needs to achieve the assumed levels of service for existing infrastructure, as well as to support development of new infrastructure.

Micro mobility: Small, lightweight vehicles that are typically electric powered, such as e-bikes or e-scooters.

Mobility as a service (MaaS): Includes both the physical provision of multi-modal transportation services as well as a platform used to provide convenient and seamless access to that service.

Mobility hubs: Locations that integrate many different modes of transportation and are anchored by a high-frequency transit node.

Neighbourhood greenways: Cycle routes on local streets with low vehicle speeds and volumes - they include a range of treatments to reduce traffic volumes, slow down traffic, and improve safety for walking, cycling, and driving, particularly at intersections.

Non-capital-intensive opportunities: Initiatives that do not require a large financial investment to produce a transportation-related improvement.

Personal transportation provider: A vehicle for hire that is not a taxi and includes a limousine or rideshare vehicle.

Primary cycling network: Intended for longer distance trips (generally 2 km to 7 km) connecting to major destinations (major parks, Downtown, universities, hospitals, employment centers) and is laid out with an 800-metre buffer. The primary network was laid out to ensure that there is at least one primary route through every neighbourhood in Winnipeg.

Ride-sharing: Transportation services provided by using an internet-connected mobile device to book and pay for travel with a Personal Transportation Provider and travelling as a passenger for a single trip. Although many taxi companies now accept bookings and payment through similar apps, they are distinct from ride-sourcing where the drivers are contracted to drive on behalf of the company, using the PTP platform to facilitate services between the contracted drivers and the customers.

Secondary cycling routes: Meant for short connections to local destinations like schools, libraries, and other local destinations. The combined primary and secondary networks create a maximum 200 m spacing Downtown, and maximum 400 m spacing outside of Downtown.

Social equity in transportation: Provision of equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly those being underserved.

Strategic road network: Consists of strategic routes that enable the efficient movement of goods and people in and around Winnipeg.

Sustainable transportation: Transportation options that have a reduced impact on the environment and move more people using less space. This includes transit, walking, cycling, carpooling and other active or micro mobility options such as e-bikes, e-scooters, running or even paddling.

Vehicle for hire: means any vehicle in which transportation services are provided and includes but is not limited to a taxi, an accessible taxi, a personal transportation provider (PTP) vehicle, an accessible PTP vehicle and a limousine.

Vulnerable road users: Road users where the consequences of collisions are more severe such as pedestrians, cyclists, children, and older adults.

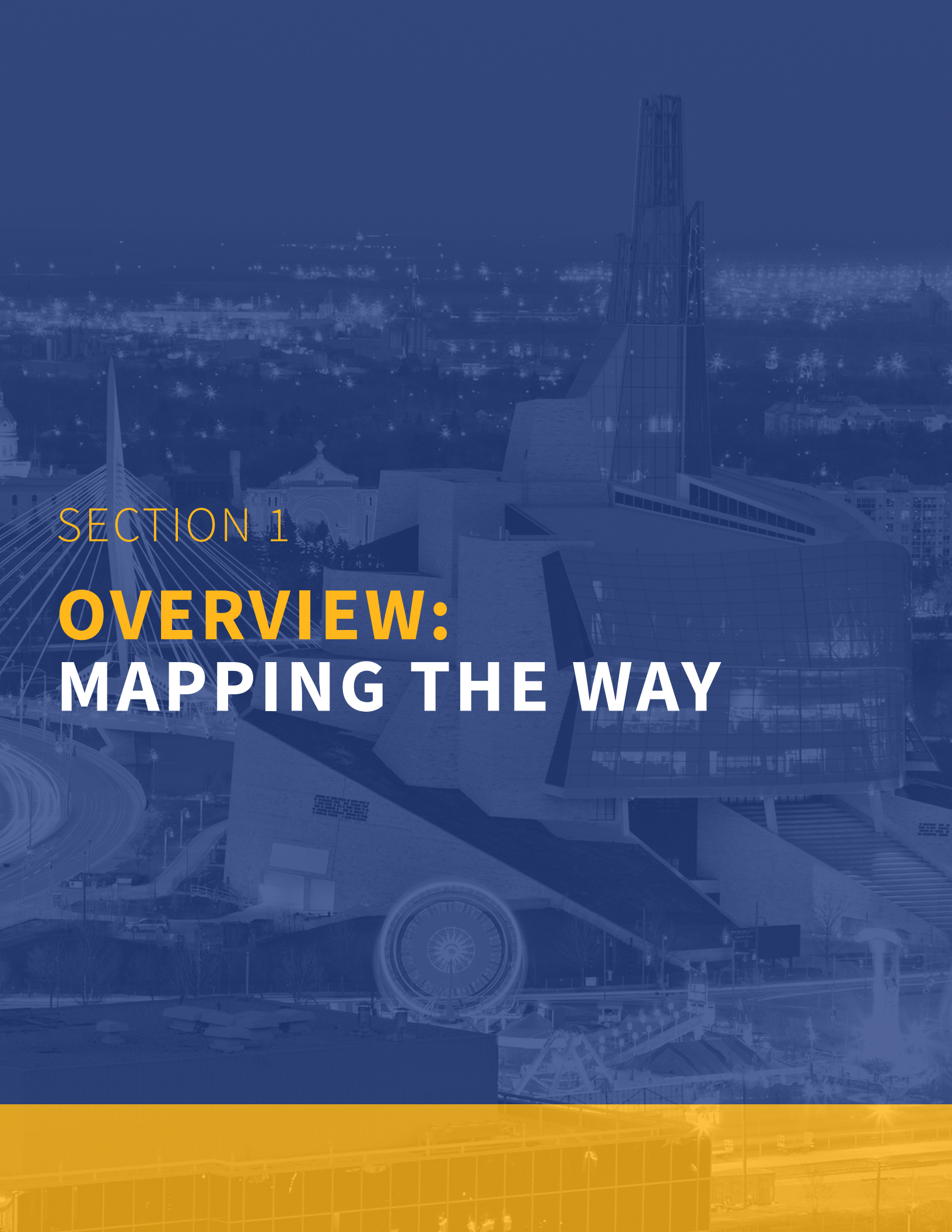


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SECTION 1

OVERVIEW:
MAPPING THE WAY

SECTION 1
OVERVIEW: MAPPING THE WAY

The Winnipeg Transportation Master Plan (*TRANSPORTATION 2050*) is a long-term, strategic planning document that directs policies, programs, and infrastructure towards a safe, sustainable, and integrated transportation system through 2050. It aims to reimagine the system to better meet the needs of pedestrians, cyclists, transit riders, motorists, and goods movement in a manner that accommodates growth and aligns with the City's overall vision for sustainable development.

- *TRANSPORTATION 2050* **envisions a transportation system that connects Winnipeg and Winnipeggers, supports quality of life and economic vitality, and provides sustainable infrastructure, mode choice, and safe, efficient, and barrier-free mobility for both people and goods.**

Winnipeg is a vibrant and growing city that will be home to nearly one million people in 2050. Demand on the city's transportation system is increasing due to both more people living, working, and recreating in the city and increased volumes of goods movement. This growth requires us to provide stronger connections across the city. To accomplish this, the decisions made today need to reimagine what mobility in Winnipeg looks like in the future. Many bridges are approaching their end of life. Financing infrastructure is a daunting task of balancing increasing need with limited resources derived from taxation, Provincial and Federal funding, and public-private partnerships.

The City's 2018 State of the Infrastructure Report reviewed the construction, acquisition, operation, maintenance, renewal, replacement, and disposition of assets, and provided detailed information about the City's infrastructure. This report included analysis of the state of existing assets, the assignment of value to needed improvements on existing or future assets, and the remaining service life of current assets.

It ultimately identified an approximately $6.9-billion gap between capital investment required and estimated future capital funding. Tackling this infrastructure funding gap means prioritizing investments in transit, active transportation (bike and pedestrian infrastructure) and strategic road and bridge replacement. It also means enhanced maintenance to support future mobility for people, effective goods movement and accommodate the future growth of the city and its economy.

- *TRANSPORTATION 2050* **supports the City's Assets Management Plan (CAMP) and maps a course to strategically rebuild and invest in a transportation network that works for all future users.**

Some 80 percent of Winnipeggers rely on their cars for mobility. While there is generally enough road capacity to meet current demand, congestion occurs due to limited bridge and underpass crossings as well as a lack of alternatives to major routes. Accommodating the single-occupant automobile is spatially difficult and expensive and will be a major challenge as the population and demand for roads grows. More Winnipeggers need to use more sustainable modes like transit, active transportation, ride sharing and carpooling to lessen dependence on single-occupant vehicles. However, many upgrades are required to transit and active transportation infrastructure to both fill gaps in the network and improve the user experience.

- *TRANSPORTATION 2050* **outlines a plan to achieve 50 percent sustainable modes use by 2050. It also identifies the legislative, policy, and programming changes needed to support both active modes and electrical vehicle use as well as where to prioritize investments.**

The transportation outcomes of *TRANSPORTATION 2050* are ambitious and require Winnipeg to reimagine how mobility looks in the future. Changing how people and goods move cannot be done overnight – current behaviour is a result of decades of land use and transportation policy. Addressing all these challenges requires a forward-thinking strategic plan that considers not only infrastructure and capital planning but also – and perhaps most importantly – shifting the way Winnipeggers think about transportation.

- *TRANSPORTATION 2050* **offers best practices when recommending upgrades to the transportation network to enhance safety and comfort on Transit, promote the health benefits of using active transportation for short trips, address road safety issues, and improve the safety and efficiency of truck and emergency vehicle movements.**
- *TRANSPORTATION 2050* **provides a pragmatic, educational, and collaborative process when planning new infrastructure or upgrading existing infrastructure.**

Going forward, the transportation system will prioritize sustainable mobility options by providing Winnipeggers with more choice: realistic transportation options that are safe, convenient, affordable, efficient, and environmentally friendly.

- *TRANSPORTATION 2050* **recognizes the transportation system performs a wide variety of roles and considers land use and its impact on transportation (and vice versa).**

This means rethinking Winnipeg's streets to make them safer and more attractive for walking, cycling, and taking transit while balancing the needs of people who must drive and providing networks for safe, efficient, and reliable goods movement.



1.1 PLAN PURPOSE

It is important Winnipeg's transportation plan enables us to address evolving transportation needs and accommodate growing travel demand while also minimizing potential challenges.

TRANSPORTATION 2050 builds on the 2011 Transportation Master Plan as our blueprint for planning, investing in, developing, and operating Winnipeg's transportation system. It leverages the existing network and investment plans to contribute positively to Winnipeg's growth over the next three decades. The plan is intended to guide future transportation-related decisions towards a more sustainable and integrated transportation system.

As a long-term strategic planning document, *TRANSPORTATION 2050* sets a vision for the future of transportation, grounds strategic planning in guiding principles, identifies focus areas and key directions, and – most importantly – establishes policies to guide future transportation-related decisions and actions to guide implementation.

These policies direct us towards a more sustainable and integrated transportation system by:

- Providing Winnipeggers with better travel options
- Supporting a thriving economy, managing impacts of moving goods and services, and maintaining effective emergency services
- Defining the dynamic between land use and transportation

While the plan identifies some site-specific action items (such as network recommendations), most actions are broader, systemic changes that – as implemented – would each result in more focused and site-specific action plans. These actions are intended to build upon each other over time to help achieve the City's transportation vision.

1.2 PLAN IMPORTANCE: REIMAGINING MOBILITY

TRANSPORTATION 2050 is an essential document that aims to solve the biggest challenges affecting the movement of people and goods in Winnipeg: aging roads and bridges infrastructure, traffic congestion, and gaps in the primary active transportation network. It sets the stage to transform how people and goods will move in Winnipeg's future transportation system and it ultimately reimagines what mobility in Winnipeg will look like in 2050.

Reimagined mobility means a transportation system where:

- 50 percent of trips are made using sustainable mobility options
- Sustainable transportation is the most desirable option for everyday travel
- An efficient network provides access and mobility to both people and goods
- People of all ages and abilities to safely move around without experiencing death or serious injury

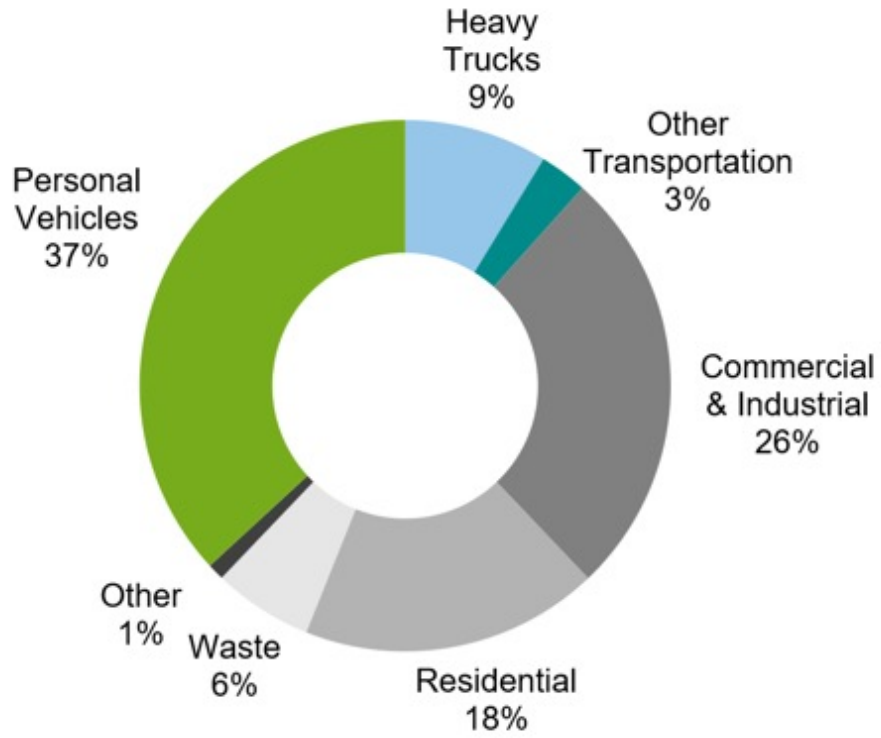
While the COVID-19 pandemic has changed travel behaviours in the short term, the lasting impacts of the pandemic on Winnipeg's transportation system are uncertain. Other trends such as the changing climate, emerging technologies and an increased focus on road safety are also prevalent and will continue to influence transportation in Winnipeg in new and evolving ways.

1.2.1 THE ENVIRONMENT AND TRANSPORTATION

TRANSPORTATION 2050 must ensure planning, design, operation, and maintenance of transportation infrastructure protects air, land, water and biodiversity

Transportation-related activities represented nearly half (48 percent) of the total greenhouse gas emissions (GHGs) in Winnipeg in 2020, with 37 percent coming from personal vehicles alone. Transportation is also a major contributor of other air pollutants such as nitrogen oxides, carbon monoxide, Sulphur dioxide, ozone, and assorted particulate matter among others which are harmful to human health and the environment. As a result, the transportation system has a big role to play in both reducing Winnipeg's GHGs and increasing a city's ability to recover from extreme weather events.

EXHIBIT 1.1: WINNIPEG 2020 GREENHOUSE GAS EMISSIONS



Source: *Community Energy Investment Roadmap, 2022*

While increasing adoption of zero emission vehicles (ZEVs) will be the primary driver of transportation-related emissions reduction, Winnipeg requires other strategies. A continued reliance on automobiles – electric or not – will negatively impact traffic flow, the environment, public health, quality of life, the electrical grid and the economy. For example, approximately 12 percent of the land in Winnipeg's existing built-up area is covered by roads. Additional land is required for parking lots and other transportation-related infrastructure. This land use contributes to the urban heat-island effect further increasing temperature changes and stormwater run-off, which can lead to infrastructure damage and flooding.

1.2.2 NEW MOBILITY AND EMERGING TECHNOLOGIES

***TRANSPORTATION 2050* must manage development and deployment of new transportation technology and plan for coordinated and timely responses that optimize benefits while managing costs and identifying risks**

Over the past two decades, new technologies and business models (often referred to as new mobility options) have introduced a variety of travel options to people. These include ridesharing, car sharing, micro-mobility devices like e-bikes and e-scooters, mobility-as-a-service (MaaS), and autonomous vehicles. These new mobility options are growing and gaining popularity due to the added choice they provide and their easy access. This is redefining how people move around cities and contributing to many reevaluating car ownership.

Similar to more traditional travel modes, each new mobility option comes with its own opportunities and challenges. For example, technology-enabled bike and e-scooter sharing services provide convenient access to active transportation and micromobility options, particularly for first- and last-mile trips, supporting a reduced reliance on personal vehicles. However, managing potential conflicts with pedestrians and cyclists is necessary. Similarly, vehicles for hire such as app based companies provide residents with convenient access to automobile travel when needed, potentially reducing the need to own a vehicle or providing a mobility option for those who cannot drive. However, they have also been shown to reduce more transit trips than personal vehicle trips and increase GHG emissions while circulating to get passengers.

If and how Winnipeg introduces these new mobility options can help amplify benefits and minimize challenges. This can be done through incentives, disincentives, regulations, governance models, and more. As technology continues to change our transportation system, it will be important for us to focus on advancing the OurWinnipeg 2045 goals and broader strategic and policy objectives.

Winnipeg must also support an imminent need for significant electric vehicle uptake. These zero-emission vehicles have the potential to significantly reduce the environmental impact of the transportation system. To address this, the federal government has announced it will require all new cars and passenger trucks to be zero-emission by 2035. Such widespread adoption of electric vehicles will require the implementation of new public infrastructure to charge the vehicles. While dozens of privately-owned charging stations are available at public locations across the city, Winnipeg has yet to provide City-owned charging infrastructure to residents. Prior to a broader rollout for the public, Winnipeg Fleet Management Agency has introduced two battery electric fleet vehicles and two electric vehicle charging stations to evaluate operational performance.

NEW MOBILITY OPTIONS IN WINNIPEG

Shared-use mobility services

Shared-use mobility services are mobility options that are not owned by a single user but, rather, are shared by all users. These services have gained significant popularity in recent years, supported by technologies that simplify access to their services by the public. Three types of shared-use mobility services are currently operating in Winnipeg.

- **Car sharing:** A local car cooperative has been providing Winnipeg residents with short-term and affordable car-rental services outside of traditional car-rental agencies since 2011. This service provides people with convenient access to a vehicle to drive themselves when needed, reducing the need to own a vehicle full time. This service is based on the idea that most trips can be served effectively by transit or active transportation; however, sometimes, access to a personal vehicle is needed or desired.
- **Ride-sharing vehicles for hire:** Currently, there is only one personal transportation providers (PTPs) to provide ride-sourcing services in Winnipeg. These services are ordered by using an internet-connected mobile device to book and pay for travel with one of the PTPs and travelling as a passenger for a single trip.
- **Pay-as-you-go vehicles for hire:** Winnipeg has numerous taxi companies that provide pay-as-you-go transportation services on demand.

Automated vehicles

Currently, fully automated vehicles operate solely at Winnipeg Airport, which deploys automated snow removal to clear runways. While automated mobility has improved significantly in the past decade, there is still debate as to when, and even if full automation will be available. It is likely that automated vehicles will soon be used for goods movement and for more straightforward travel needs, such as shuttles that travel regular routes between predetermined destinations.

Electric vehicles

Electric vehicles are an emerging technology that have the potential to significantly reduce the environmental impact of the transportation system, in line with Winnipeg's objectives. However, the widespread adoption of electric vehicles will also require the implementation of new public infrastructure, specifically about the charging of vehicles. Winnipeg has introduced two charging stations for electric vehicles to evaluate operational performance. Winnipeg Transit also recently released a report for the future of the zero-emission fleet. Over the next 10 years, Winnipeg Transit intends to operate 100 zero-emission buses.

1.2.3 ROAD SAFETY

***TRANSPORTATION 2050* must support implementation of the Winnipeg Road Safety Strategic Action Plan to reverse the current upward trend of serious injury collisions, reduce the number of road-related fatalities, and improve the quality of life for all.**

Safety issues in the transportation network can result in stress, physical injuries, and even deaths, as well as affect how people choose to move around the city. When people feel unsafe using a particular transportation mode (e.g., walking or cycling) or on a particular route, they may choose a different option. However, not everyone has the same ability to choose different options, resulting in a less equitable network.

Approved by Council on July 21, 2022, Winnipeg's Road Safety Strategic Action Plan is designed to make our roads safer for all Winnipeggers. The plan sets the direction and pace of Winnipeg's road safety investments over five years and identifies actions that will help the City meet its road safety goal: a 20 percent reduction in fatal and serious injury collisions by 2026.

The plan consists of 67 actions to achieve the long-term vision of a transportation system that allows people of all ages and abilities to safely move around without experiencing death or serious injury. Actions are grouped within five focus areas:

- Pedestrians
- Cyclists
- Signalized intersections
- Speed
- Road safety culture

1.2.4 TRANSPORTATION AND THE ECONOMY

Winnipeg's transportation system is vital to the economic prosperity of the city and its people as it provides the infrastructure and services that connect people to jobs, services, and retail, and connects goods to people and end markets locally, nationally, and internationally. As such, transportation infrastructure of all types is critical for supporting economic prosperity in Winnipeg and the broader region.

Goods movement needs are projected to increase significantly in the future with more people living and working in Winnipeg, CentrePort maturing as North America's largest trimodal inland port, and an estimated 22 percent increase in employment in the industrial/manufacturing sectors which are typically goods producing industries. The transportation system also needs to support businesses and Winnipeggers more broadly by providing reliable, safe, and affordable multi-modal access to places of work. Together with policies and actions that promote efficient use of transportation space, strategic investments in transportation infrastructure will support businesses in sending and receiving shipments catalyzing the economic prosperity of Winnipeg.

Beyond enabling the efficient movement of goods and connecting workers and jobs, transportation infrastructure also has an important role to play in supporting the success of local businesses. Investing in multi-modal transportation facilities can contribute to more complete communities enabling people to access business and services in their neighbourhoods easier. This in turn contributes to creating lively inviting streets that support local businesses that front those streets by providing more customers. Providing a wide range of mobility options is also an important contributor to maintaining and enhancing a high quality of life – a key factor in attracting and retaining workers, providing more opportunities for existing residents, and helping to promote economic prosperity in all sectors of Winnipeg's economy.

1.3 TARGETS AND KEY DIRECTIONS

TRANSPORTATION 2050 includes specific and measurable targets that align with its vision and key directions. The targets inspire action, ensure accountability, and help reaffirm that the plan is on the right track to meeting its goals.

- **Economic prosperity:** Goods can move efficiently by air, rail, and truck, ensuring support for economic growth.
- **Mode share:** Winnipeggers make 50 percent of trips by walking, cycling, transit and ride sharing by 2050.
- **Road safety:** Achieve a 20 percent reduction in fatal and serious injury collisions by 2026.
- **Accessibility and equity:** The transportation system is designed and built to be accessible and affordable to all Winnipeggers.

A practical set of seven key directions will guide planning, design, management, and evolution of the transportation network to meet these targets:

1. Integrate land use and transportation planning
2. Provide safe and sustainable mobility options for all
3. Optimize the street network to consider future demand and encourage active and alternative mode use
4. Prioritize sustainability and maintenance of roads and bridges
5. Improve reliability of goods movement
6. Make active transportation a more viable choice for more Winnipeggers
7. Provide infrastructure that ensures connected Transit service

These key directions set the stage for Winnipeg to deliver on its transportation priorities: facilitating a stronger relationship between land use and transportation; providing Winnipeggers with better travel options; and supporting a thriving economy with strong and efficient goods and services movement.

1.4 PLAN STRUCTURE

1 Introduction:

Discusses the purpose and importance of the master plan and how it was developed.

2 Context:

Provides a history of transportation in Winnipeg as well as an overview of factors affecting the transportation network and its components.

3 Strategic framework:

Establishes the strategic decision-making framework for the City of Winnipeg transportation network, including the vision, key directions, guiding principles, transportation outcomes, and priorities, and focus areas.

4 Policies, actions, and recommendations:

Provide detailed policies to guide transportation network planning and subsequent actions required to put the policies into practice. Includes details of the proposed networks for sidewalks, bikes infrastructure, Transit and Rapid Transit, trucks, and roads and bridges. Outlines the boundaries for multi-modal corridor studies and regional streets and connections.

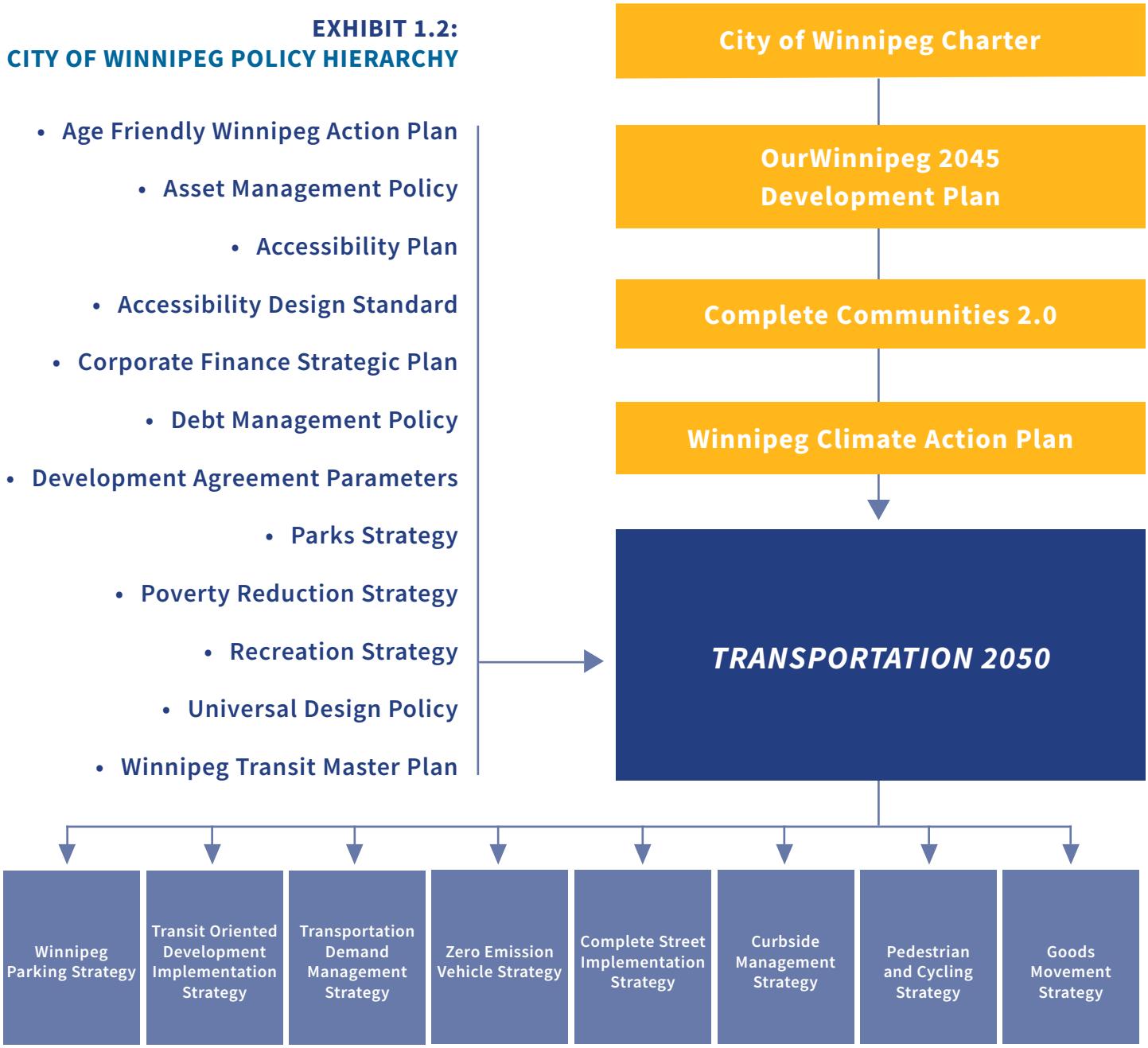
5 Plan implementation

Outlines next steps required to implement policies and actions and provide recommended infrastructure.

1.5 RELATIONSHIP TO OTHER PLANS AND POLICIES

TRANSPORTATION 2050 is the City's policy blueprint for planning, investing in, developing, and operating its transportation system over the next three decades. It fits within a hierarchy of City plans and policies. It is directed by the City of Winnipeg Charter and is both directed by and supports priorities of OurWinnipeg2045 Development Plan, and Complete Communities 2.0. It is further informed by and informs several citywide policies and plans and will result in updates to or creation of an additional number of strategic documents.

EXHIBIT 1.2:
CITY OF WINNIPEG POLICY HIERARCHY



1.5.1 THE CITY OF WINNIPEG CHARTER ACT

The City of Winnipeg Charter Act recognizes the City as a responsible, accountable government, and grants the City municipal powers from the Province of Manitoba. The Act enables the City to delivery programs and services and respond to challenges, change, and shifts in priorities. It grants the City control over management of streets and delegates the City as the traffic authority including passing by-laws respecting streets and parking.

1.5.2 OURWINNIPEG 2045 DEVELOPMENT PLAN

OurWinnipeg 2045 is Winnipeg's municipal development plan, guiding all physical, social, environmental, and economic development in the city now and into the future with six sustainable development goals. *TRANSPORTATION 2050* supports OurWinnipeg 2045 by aligning with and developing transportation outcomes for each of the six OurWinnipeg 2045 goals.

OurWinnipeg Goals:		Transportation Outcomes:
	**Leadership & Good Governance**	A transportation system that is developed and operated collaboratively with the community in a transparent and accountable manner.
	**Environmental Resilience**	A transportation system that meets or surpasses climate change and greenhouse gas emission reduction goals set by the City and the Province.
	**Economic Prosperity**	An efficient, reliable, and financially sustainable transportation system for people, goods, and services.
	**Good Health & Well-Being**	A safe transportation system that supports active, accessible and healthy lifestyle options.
	**Social Equity**	A transportation system that provides access and mobility for all in a manner that addresses the historic and systemic disadvantages of certain groups and people.
	**City Building**	A transportation system that is supported by well-integrated land use and transportation planning and provides a variety of mobility options for people and goods, prioritizing sustainable transportation as the mobility options of choice.

These outcomes guided the development of associated policies and recommended actions.

The strategic framework is discussed in detail in **Section 3.2.**

1.5.3 COMPLETE COMMUNITIES 2.0: AN OURWINNIPEG DIRECTION STRATEGY

Complete Communities 2.0 is a city-wide secondary plan that guides Winnipeg's growth, development, and land use. Its primary focus is to describe Winnipeg's physical characteristics and provide a framework for future physical growth and development based on two key pillars: the development of complete communities and articulation of an urban structure. *TRANSPORTATION 2050* plays an important role in achieving the City's land use vision described in Complete Communities 2.0.

1.5.4 COUNCIL-APPROVED ACTION PLANS AND STRATEGIES

The Climate Action Plan provides a framework to proactively, meaningfully, and effectively mitigate climate change by reducing greenhouse gas emissions. The plan established targets to reduce emissions by 20 percent between 2011 and 2030 and by 80 percent before 2050. The plan's Strategic Opportunity 3 aims to shift residents out of single-occupancy vehicles and into sustainable transportation options with lower or no emissions. *TRANSPORTATION 2050* provides an analysis of the Climate Action Plan and sets targets for mode share to help support its targets **(See Appendix A: 2030 Sustainability Review).**

The Community Energy Investment Roadmap (CEIR), which was also published in 2022, provides a strategic plan to meet the climate action targets stated in OurWinnipeg 2045. The CEIR lists five areas that need to make "big moves" to meet these targets: buildings, transportation, local renewable energy, water, and waste. The "big moves" in transportation include transit electrification, increased transit usage, increased use of active transportation, working from home, conversion to electric powered vehicles both personal and for the City of Winnipeg fleet, and a move toward zero-emission commercial vehicles.

Council's 2023-2026 Strategic Priorities Action Plan (SPAP) is the most recent commitment to continued progress in the battle against climate change. It specifically recognizes the importance of "reducing long-term costs and minimizing greenhouse gas emissions impacts on current and future generations". The SPAP also identifies updating the 2018 Climate Action Plan and developing a Climate Resiliency Strategy as key actions that require strategic focus and investment. It also includes key actions related to accelerating implementation of the Winnipeg Transit Master Plan and Pedestrian and Cycling Strategy, which will help promote the use of sustainable modes.



1.5.5 OTHER PRECEDING PLANS AND POLICIES

In addition to the Charter, OurWinnipeg and Complete Communities, and the Climate Action Plan, *TRANSPORTATION 2050* is informed by several additional citywide policies and plans including:

- Age Friendly Winnipeg Action Plan
- Asset Management Policy
- Accessibility Plan
- Accessibility Design Standard
- Corporate Finance Strategic Plan
- Debt Management Policy
- Development Agreement Parameters
- Parks Strategy
- Poverty Reduction Strategy
- Recreation Strategy
- Universal Design Policy
- Winnipeg Transit Master Plan

TRANSPORTATION 2050 considers the direction provided in these documents and integrates their considerations into future planning.

1.5.6 SUBSIDIARY POLICIES AND STRATEGIES

TRANSPORTATION 2050 provides direction-enabling policy for several subsidiary processes, plans, and policies, including:

- Winnipeg Parking Strategy
- Transit-Oriented Development Implementation Strategy
- Transportation Demand Management Strategy
- Zero Emission Vehicle Strategy
- Complete Streets Implementation Strategy
- Curbside Management Strategy
- Pedestrian and Cycling Strategy
- Goods Movement Strategy

Details of these subsidiary plans and strategies are outlined in *Section 4: Policies and key actions.*

1.6 PLAN DEVELOPMENT PROCESS

TRANSPORTATION 2050 was developed through a comprehensive, multi-component study that involved in-depth, evidence-based research and analysis, as well as extensive public and stakeholder engagement. Fully understanding the perspectives and expectations of all users was fundamental to creating a plan that reflects Winnipeggers' diverse needs, wants, and priorities.

TRANSPORTATION 2050 was developed together.

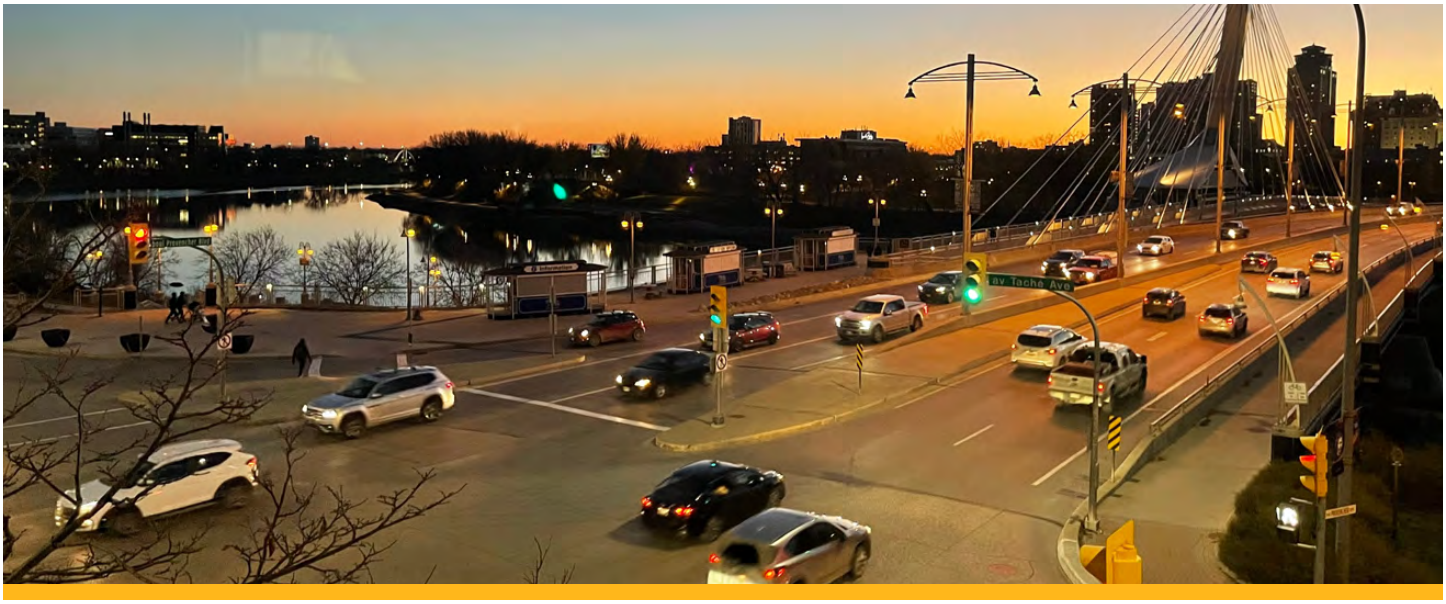
A thorough understanding of Winnipeggers' needs and desires is paramount to creating a plan that reflects Winnipeggers' priorities. Engaging with and hearing from stakeholders and residents was integral to plan development.

TRANSPORTATION 2050 is data-driven.

While *TRANSPORTATION 2050* is developed to move Winnipeg towards its desired future as defined in policy documents, the steps to get to there are informed by data analysis, flexible frameworks, and best practices. The focus for *TRANSPORTATION 2050* is to reimagine mobility to move the transportation network forward into the future. It recommends shifting the culture, tackling the infrastructure funding gap, and improving the user experience.

TRANSPORTATION 2050 is reimagining mobility.

The transportation outcomes of *TRANSPORTATION 2050* are ambitious and require Winnipeg to reimagine what mobility looks like in the future. Changing how people and goods move cannot be done overnight – current behaviour is a result of decades of land use and transportation policy. *TRANSPORTATION 2050* provides pragmatic and impactful short-term actions to initiate the shift towards Winnipeg's desired future.

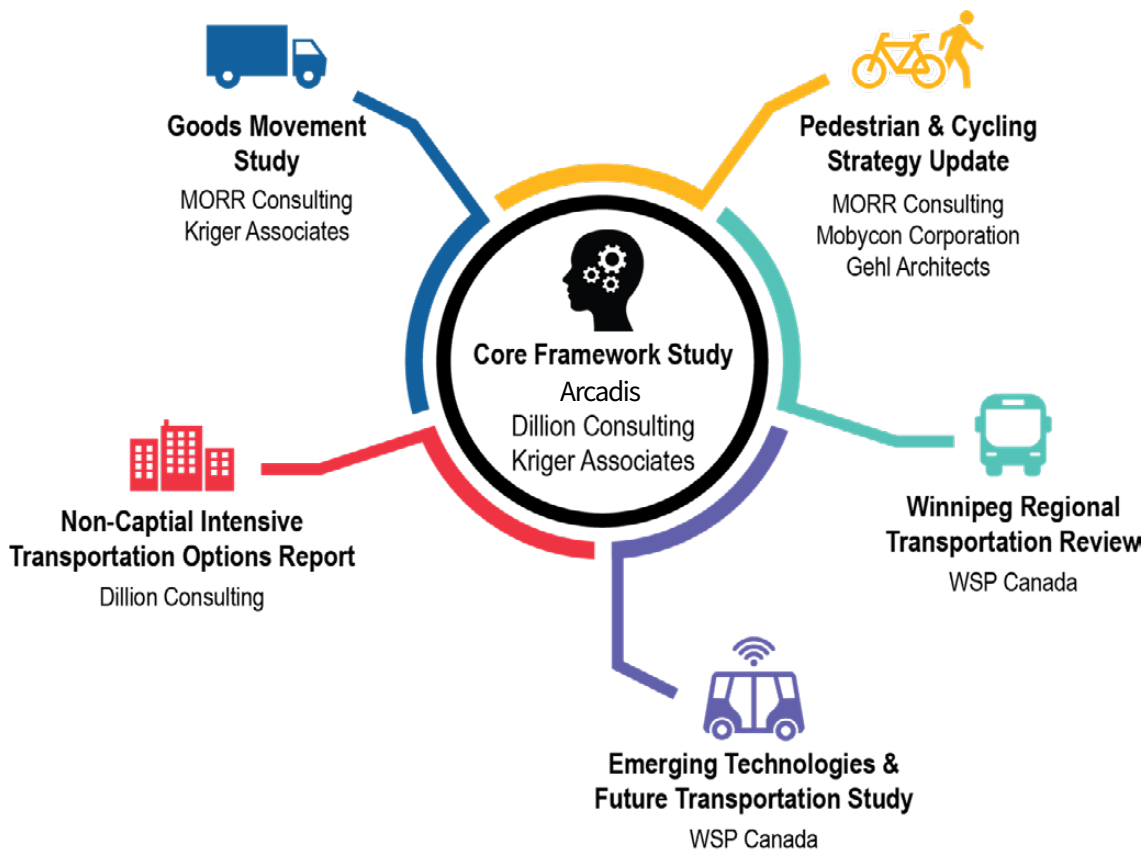


The plan is built upon the following component studies:

- Core Framework Study
- Goods Movement Study
- Roads and Bridges Study
- Pedestrian and Cycling Strategy Update
- Winnipeg Region Transportation Review
- Emerging Technologies and Future Transportation
- Non-Capital Intensive Transportation Options Study

Using a variety of methods and data sources, as well as public engagement, the overall intent was to identify and forecast gaps and opportunities impacting the City's transportation system through 2050. Each component study focused on understanding a different area of Winnipeg's transportation system and developing a path forward for it. The Core Framework study ultimately integrated the findings from each other component study as well as directions from other transportation-related plans for a system-wide perspective.

EXHIBIT 1.3: TRANSPORTATION 2050 COMPONENT STUDIES



The overall study process and management was completed under the guidance of an internal steering committee of senior Public Works, Transit, and Planning, Property and Development staff as well as in consultation with an advisory committee comprising both internal and external parties.

Together, the team built the plan based on data collected through the component studies (data-driven decision making), how Winnipeggers feel about transportation and the future of the network (public engagement), and a somewhat dichotomous set of pre-existing challenges (competing priorities). Each of these development components are discussed in the following sections.

1.6.1 DATA-DRIVEN DECISION MAKING

While the future state of Winnipeg's transportation system is defined by overarching policy, the steps taken to achieve these targets must be informed by data analysis, realistic frameworks, and best practices.

Reviewed scenarios include:

- **Business-as-usual** – predicting the result of continuing to support increased single-occupant auto use and new investment in major road infrastructure.
- **Business-as-planned short-term** – adhering to a 50 percent sustainable transportation mode share by 2030 assessing the reality of the policies, regulations, level of investment, and behavioral change required to achieve this objective in eight years.[1]
- **Business-as-planned long-term** – achieving a 50 percent sustainable transportation mode share by 2050 based on a strategic introduction of policies, regulations, and investments, and coordinated and collaborative educational program to successfully reimagine mobility and make sustainable transportation a more desirable option for everyday travel. This approach was deemed the recommended transportation outcome for the future transportation system.

Four key strategic processes were used to further guide policy development:

- **Back-casting** – an approach that works backwards from the desired future to identify what needs to be done to get to the intended goal. Rather than developing policies and projects, then determining what future-state would result from implementing them, we first set a target then developed a list of policies and projects that could help us get there.
- **Working towards a mode share target** – where 50 percent of trips are made using sustainable mobility options in 2050. This is part of back-casting and helps determine what needs to be done to achieve this target.
- **Developing a sustainability-first mindset** – making sustainable mobility options attractive so people choose to use them.
- **Building a transportation system that supports economic development**

[1] This mode share target differs from the 50 percent share by 2030 put forth by the City of Winnipeg Climate Action Plan. More information on the rationale for this target is outlined in **Section 1.7**: Acknowledging competing priorities; it is explained fully in **Appendix A: Sustainability plan review.**

While the policies and actions outlined in *TRANSPORTATION 2050* are expected to address Winnipeg's needs over the horizon of this study to 2050, this is a living plan that is expected to be updated as conditions change overtime. The City of Winnipeg will continue to monitor transportation trends and make any required changes to transportation policies and network recommendations. Further, new sources of data such as an updated origin-destination travel survey are likely to shed additional light on needs and opportunities in Winnipeg.

1.6.2 PUBLIC ENGAGEMENT

Fully understanding the perspectives and expectations of all users was fundamental to creating a plan that reflects Winnipeggers' diverse needs, wants, and priorities. *TRANSPORTATION 2050* undertook a robust public engagement process that included three phases of engagement: visioning and issues identification; strategic direction review; and plan confirmation. Full reports for all phases of engagement can be found in *Appendix B: Public Engagement Report.*

At the onset of the *TRANSPORTATION 2050* project, the project team identified two groups to engage through stakeholder-specific activities: interest-specific stakeholders and neighbourhood advisory groups.

- The interest-specific stakeholders represented a wide range of interests and organizations from across the city. These groups focused on city-wide transportation topics and broader transportation issues.
- The five neighbourhood advisory groups were based on geographic boundaries that mark the City's existing Community Committees: City Centre (central), Assiniboia (southwest), Lord Selkirk – West Kildonan (northwest), East Kildonan – Transcona (northeast), and Riel (southeast). Neighbourhood advisory groups participated in a series of workshops focused on neighbourhood transportation themes and neighbourhood-specific concerns and interests brought forward by residents and the groups that represent them. They also secondarily focused on how their neighbourhood connects with the city-wide system.

These stakeholder insights combined with what we heard from the public to inform recommendations alongside technical data and best practices.

Phase 1: Visioning and issues identification

Phase 1 of the public engagement program collected input on Winnipegger values, challenges and desires for the City's transportation system. The input collected was considered alongside technical data and analysis relating to Winnipeggers' movements and travel patterns to understand the current state of transportation in Winnipeg. This first phase of public engagement helped the project team understand how Winnipeggers view the city's transportation network, as well as how they use it, where they are challenged, and in what broad areas they would like to see improvements.

We collected input via a statistically representative survey of Winnipeggers, an online survey, and a series of workshops with both stakeholders and the public. While in-person workshops were originally planned, public health orders required all participation be moved online.

In terms of values, Phase 1 told us:

- Winnipeggers value safety above all else, with three in five saying safety is “extremely important” as they move about the city. Through work with stakeholders, reliability emerged as an additional top value for consideration. Environmental sustainability was seen as a top priority by participants in the online and stakeholder engagement activities but was the least important to respondents of the statistically significant survey.
- Winnipeggers’ commuting mode of choice is, by far, the car. A notable three in five say they always commute by car. Convenience, cost, care for the environment, and personal health are the top motivators across all transportation types. Convenience is a major motivator for the use of all transportation options outside of cycling.
- Winnipeggers place high value on safety and indicated driving is the only transportation type which satisfies this need. The top reason for driving alone is also unique in that it is the only transportation type users deemed comfortable to do alone.
- In general, Winnipeggers are happy with their respective mode splits (the amount they use each transportation mode), with at least half reporting satisfaction with the amount they travel by car, by bus, and on foot or by mobility device. However, two in five say they drive more often than they’d like, and 62 percent say they don’t bike as often as they’d like.
- Living close to work, family and friends, affordable and healthy food, and recreation are all top considerations for Winnipeggers when choosing a place to live. However, online respondents reported that socializing, entertainment, work and education are done outside of their neighbourhood more often than within their neighbourhood.
- COVID-19 and its secondary impacts saw about two thirds of Winnipeggers change their shopping habits in 2020, with just under a third indicating they expect to continue to receive an increased number of deliveries to their homes or work into the future.

In terms of “wants” we heard:

- Better maintained roads tops residents’ wish lists. The top three visions emerging from the statistically significant survey were: better maintained roads (56 percent); effective expressways (38 percent); and, fewer potholes (33 percent). Online respondents provided a different top three: better bike infrastructure (54 percent); better bus service (45 percent); and better maintained roads (42 percent).
- More than any other type of transportation, feelings of doing it less than they’d like are tied to cycling, with 62 percent of Winnipeggers (67.1 percent online respondents) saying they cycle less then they’d like to.
- Discussion about electric vehicles dominated the conversations around emerging technologies, with roughly half of Winnipeggers indicating they are likely to choose an electric vehicle when they are ready to buy or lease their next vehicle.
- There is also desire to increase the ability of people to walk or cycle a portion of their trip and use other modes – such as transit – for the remainder.

EXHIBIT 1.4: DESIRED IMPROVEMENTS AND TOP PRIORITIES FROM PHASE 1

MOST DESIRED IMPROVEMENTS BY 2050



- **BETTER MAINTAINED ROADS (56%)**

**Answer in top three on both surveys.*



- **EFFECTIVE EXPRESSWAYS (38%)**



- **FEWER POTHOLES (33%)**

OTHER TOP PRIORITIES



- **BETTER BIKE INFRASTRUCTURE**



- **BETTER BUS SERVICE**

We also heard about Winnipeggers' experiences with barriers:

- In terms of ease of use by transportation type, the statistically significant survey found more than half of all users were able to move through Winnipeg with ease through their chosen transportation type, with 93 percent of car drivers/passengers finding it easy to get around. The users who reported the greatest difficultly were those traveling by bike (36 percent indicating travel is somewhat hard or very hard). This was followed by traveling by foot (35 percent indicating travel is somewhat hard or very hard), by bus (25 percent indicating travel is somewhat hard or very hard) and car (7 percent indicating travel is somewhat hard or very hard).
- Close proximity to busy roadways is seen as a major obstacle by both pedestrians and cyclists. Active transportation users feel threatened when sharing these roadways with vehicles due driver inattention, difficulty crossing, and the loud uncomfortable environment. Long delays at pedestrian crossing are also a barrier.
- Transportation issues were identified by more than a third of online respondents as the reason they may not participate in some activities they would otherwise be interested in. The top answer was shopping – non- essential chosen by 50.8 percent of respondents. Other commonly chosen answers were volunteering (41 percent), attending self-development courses or recreational activities (39.7 percent), accepting employment (33.3 percent), and dining out (31 percent).

Phase 2: Strategic direction

In *TRANSPORTATION 2050* Phase 2, we asked the public and stakeholders if the plan fits with their vision for Winnipeg's future transportation network. The public engagement strategy for Phase 2 of *TRANSPORTATION 2050* was developed to review key findings from Phase 1, present the project's seven key directions and draft strategies and collect feedback on the draft options and opportunities. We received meaningful feedback on any challenges to implementation.

We shared that one of the main goals of the draft Plan is to encourage residents to shift to sustainable transportation options. Most participants agreed that we need to make this shift. Many also noted the challenge ahead, as the car remains the most convenient and reliable mode of travel in Winnipeg. Residents told us they need safe, efficient and reliable ways to travel by foot, wheelchair, bike, scooter and transit.

Participants told us they do not use active modes for a few key reasons, including:

- Including lack of connectivity in the network
- Unsatisfactory winter maintenance
- Real or perceived lack of safety

We heard that for long-term and sustained change to occur, *TRANSPORTATION 2050* needs to address these challenges.

Most participants (58 percent) agreed that expanding roads should only be for:

- Trucking
- Improving cycling, transit or pedestrian options
- Connecting new developments to the existing network

In particular, we heard that many would like to see all future road renewal projects include active transportation improvements. However, a portion of participants (27 percent) opposed this direction and questioned if the City can afford to build or expand roads at all.

What we heard through public engagement was combined with technical findings and analysis to refine the final *TRANSPORTATION 2050*.



What We Heard	How it Was Considered
There is support for long-term mode shift from predominantly single-occupant vehicles to more sustainable and active modes of transportation.	Mode shift to 50 percent sustainable transportation is a central focus of *TRANSPORTATION 2050* and its policy recommendations.
***TRANSPORTATION 2050* should make it less convenient to drive a car and disincentivize single-occupant vehicles.**	Before disincentivizing single-occupant vehicles, *TRANSPORTATION 2050* must first focus on developing reliable alternatives to single-occupant vehicles such as improved transit and provision of bike lanes and sidewalks. We will review measures and policies to ensure language reflects that disincentivizing single-occupant vehicle use is a potential next step.
Land use planning and transportation needs to be better integrated to increase density, create more mixed-use development, and create a more people-oriented city.	*TRANSPORTATION 2050* will contain policies that promote and foster cooperation between the City and developers. We hope the plan encourages sustainable land use as well as green and inclusive development while also planning for alternative and sustainable modes. The final document will support better transit and robust active transportation, creating a balance between economic growth, environmental stewardship, and a livable city.
Upfront and ongoing cost and access to technology are major barriers to create a more equitable transportation system for all Winnipeggers.	*TRANSPORTATION 2050* will recommend strategic enhancements to the citywide transportation system that includes reviewing the needs of all users and focusing on equitable transportation.
There is a desire for complete streets that balance the needs, safety, and efficiency of all modes of transportation.	*TRANSPORTATION 2050* supports the recommendations of the City's Road Safety Strategic Action Plan. This plan focuses on safe mobility for people of all ages and abilities. *TRANSPORTATION 2050* is also guided by OurWinnipeg 2045 and Complete Communities 2.0, which take into account the Complete Streets approach. This means considering the needs of all users in the planning and design stages. There is no one-size fits all design solution for streets; however, in the context of corridor analysis, a complete streets approach may mean accommodating certain modes on parallel routes to achieve equity and accommodation.

What We Heard	How it Was Considered
All future roadway projects (new or existing) should incorporate and accommodate space for all active transportation modes, even it if means reducing space for vehicles.	*TRANSPORTATION 2050* is guided by OurWinnipeg 2045 and Complete Communities, which take into account the Complete Streets approach. This means considering the needs of all users in the planning and design stages. There is no one-size fits all design solution for streets; however, in the context of corridor analysis, a complete streets approach may mean accommodating certain modes on parallel routes to achieve equity and accommodation
***TRANSPORTATION 2050* needs to help Winnipeggers understand the importance of goods movement to the overall function of the city.**	Commercial trucks and emergency vehicles are critical parts of the City's transportation system. Goods movement is important to the economy and for economic growth; *TRANSPORTATION 2050* and its policies recognize the importance of planning for and managing truck movements as well as increasing public education and awareness around goods movement.
The City should prioritize maintenance of existing roadways before expanding, extending, and adding new roads and bridges.	Managing the infrastructure deficit, prioritizing existing infrastructure and strategic capital investment for the future are key elements of *TRANSPORTATION 2050*.
Enhanced, reliable, and prioritized winter maintenance of sidewalks, paths, and bike lanes is key to achieve year-round mode shift to sustainable and active modes of transportation.	Winter maintenance is governed by the Council-approved snow clearing and ice control policy. *TRANSPORTATION 2050* will make recommendations for policies and strategies that support year-round use of infrastructure while also considering Winnipeg's subarctic climate and past lessons learned.
Real or perceived safety issues are a major barrier for many Winnipeggers to shift to transit use.	Efficient, safe, and reliable public transit is a key component of mode shift. *TRANSPORTATION 2050* supports the Council-approved Transit Master Plan and will recommend that Transit and Public Works work cooperatively on developing future high-capacity transit infrastructure as part of the transportation network.

1.7 ACKNOWLEDGING COMPETING PRIORITIES

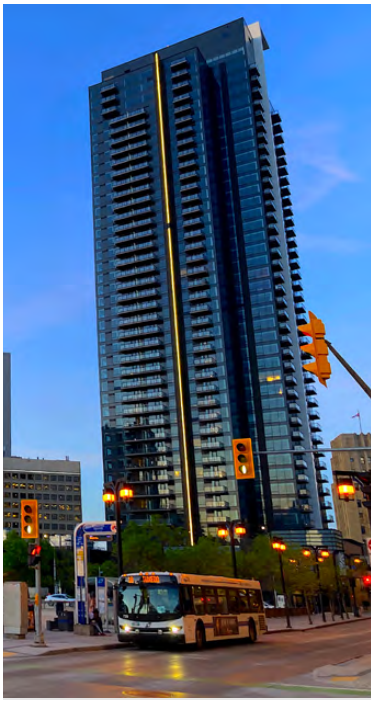
As a city-wide planning project meant to serve a variety of needs, interests, and priorities, the development of *TRANSPORTATION 2050* was informed by two political and public directions related to the future of transportation: a push for major mode shift in support of climate action and sustainable transportation; and a desire for investment to support broad economic growth and sustained multi-modal transportation. Each were equally supported to varying degrees by various data sources, stakeholders, elected officials, advocates, and Winnipeggers at-large.



Major mode shift for climate action and sustainable transportation

This objective calls for a rapid reduction in personal automobile use achieved by enacting policies that reduce road capacity or restrict cars' access to the transportation network. Coupled with an emphasis on infill construction, such policies would trigger such a significant shift to walking, cycling, and Transit as primary modes of transportation that – by 2030 – at least 50 percent of trips would be made by these modes. This would in the future result in greater investment in infrastructure that serves sustainable transportation modes. In addition, this may require the City to reduce space on the network that currently serves motor vehicle travel to reallocate it to other modes.

An important consideration of this objective is that a rapid reallocation of space may be disruptive to motor vehicle travel, which is a key component of Winnipeg's transportation system. And while a sustainable transportation network is a desired common goal, the goal should be met by shifting to electricity and fuel-cell technologies as cleaner and sustainable power sources.



Network investment for economic growth and sustainable multi-modal transportation

This objective calls for continued investment in new road infrastructure and greenfield development as a means to continue to grow Winnpeg's economy. Economic growth is critical to support the vitality of the city and its region, providing both employment opportunities and an increased tax base. Such growth would enable future investment in new road building, enhanced maintenance of existing roads and bridges, a more dependable goods movement network, and expanded pedestrian, cycling and rapid transit infrastructure. Together, these would make a sustainable transportation network.

An important consideration of this objective is to ensure that this continued economic growth does not equate the continued reliance on the single-occupant automobile as a primary mode of transportation or further expansion of the city's build-up area. Instead, this growth should take place in a way that reduces negative environmental effects from pollution and green-house gas emissions and recognizes the importance of other modes of transportation.

Another way to look at this is as a dichotomy of local vibrance versus regional mobility.

On one side we have neighbourhoods that don't want thousands of cars driving by/through where they live, work, and play. These people want their neighbourhood to be quieter and more liveable and want to have the option to live without a personal vehicle or get by with fewer vehicles. They would be happy to remove a car lane to add a bike lane, plant trees, and widen sidewalks. They want to open Portage & Main to pedestrians. They don't care if this increases the commute time of someone living in the suburbs.

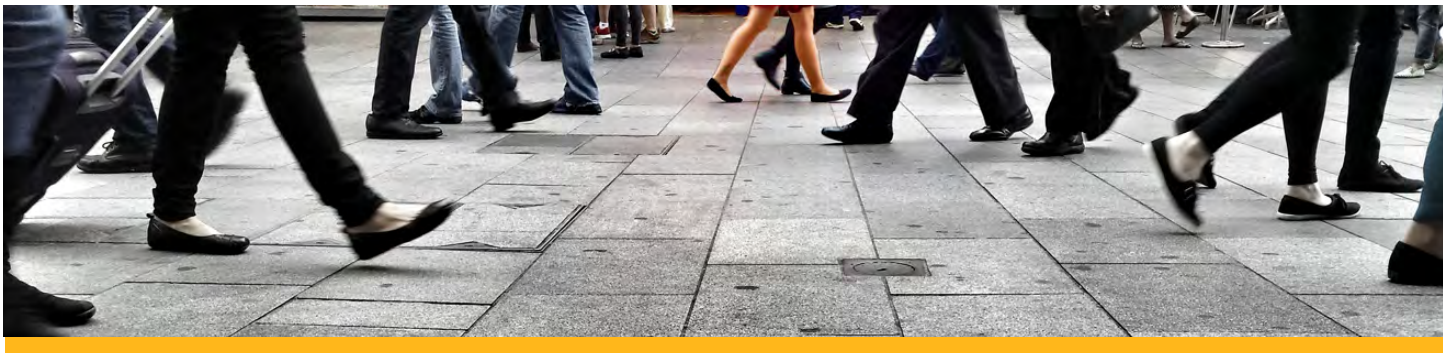
This mindset also believes that this approach can save money in the long term by reducing the need for road capacity projects, particularly mega-projects like interchanges or road widenings in areas with constrained rights-of-way.

On the other side we have people that want to live in their desired neighbourhood and want to still be able to get to their work across the city. They prioritize things like the size of their house/property over time spent commuting. But, they also want to be able to get where they need to go quickly and reliably.

Winnipeg's regional transportation system heavily favours cars and so these people are heavily reliant on cars. Consequently, they would be happy if the city continued to invest in the street network by widening regional streets, building interchanges, and implementing other intersection improvements. They are also okay with investments in sustainable modes, as long as it doesn't come at the expense of vehicle travel, which is tied to their quality of life. They would prefer if Portage & Main remained closed to pedestrians.

In its development, *TRANSPORTATION 2050* considers inputs that support both objectives, and while the plan acknowledges a paradigm shift is required to modernize our transportation network, opportunities and challenges exist within all approaches. *TRANSPORTATION 2050* must consider and balance the needs of all road users.

The future transportation network must increase mobility options to better move more people and more efficiently move goods using both less financial investment and less space. *TRANSPORTATION 2050* seeks to optimize sustainable options while recognizing the need to maintain and strategically grow the transportation network. By strategically choosing concepts that address both objectives, *TRANSPORTATION 2050* has developed a future network design built around achieving 50 percent sustainable transportation by 2050.





SECTION 2

CONTEXT: THE CURRENT STATE OF WINNIPEG AND ITS TRANSPORTATION CHALLENGES

SECTION 2

CONTEXT: THE CURRENT STATE OF WINNIPEG AND ITS TRANSPORTATION CHALLENGES

Shaped by past decisions, Winnipeg's transportation system influences people's trip choices today.

The City of Winnipeg is currently home to 776,900 people occupying 470 square kilometres. Winnipeg has a radial development pattern, with the Downtown— home to the highest concentration of density and employment—at the centre of the city. The city has an extensive prewar grid network of streets immediately surrounding Downtown (**Exhibit 2.1**). The linear and connected nature of this grid creates excellent opportunities for residents to use sustainable modes of transportation. As the suburbs were developed, streets were designed primarily for automobile use, which is why they became more and more curvilinear.

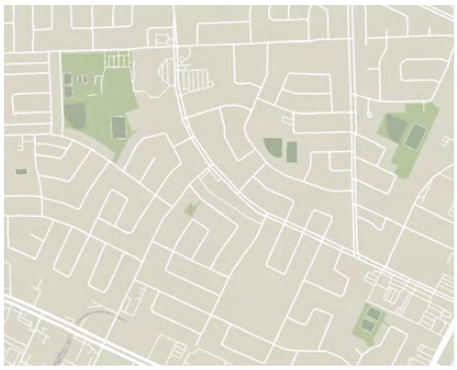
Located in the centre of Canada, Winnipeg is a major freight hub for both east–west and north–south freight traffic. More than 40 million tonnes of freight are moved by rail, truck, and air to, from, and within the city each year. Winnipeg's geography is defined by its two primary rivers, the Red and Assiniboine, and multiple rail lines that cross the city. In fact, nearly 50 percent of the trips taken during the morning and evening peak periods involve crossing a bridge.

EXHIBIT 2.1: WINNIPEG'S STREET LAYOUT

TRADITIONAL STREET GRID
(pre-war communities before 1945)



MODIFIED STREET GRID
(Early suburbs, 1945-1974)



CURVILINEAR STREET LAYOUT
(Recent suburbs, 1974-Present)



Source: *Arcadis, based on City of Winnipeg mapping data, 2011 Winnipeg TMP Needs and Opportunities Background Report.*

THE EVOLUTION OF TRANSPORTATION IN WINNIPEG

The Red and Assiniboine Rivers are Winnipeg's original transportation network, providing extensive mobility to Indigenous people in the area for thousands of years. The connectivity provided by these features continued to attract people leading to the incorporation of the City of Winnipeg in 1873. At this time, the most common modes of transportation were walking, horseback, Red River Ox Cart and stagecoach.

In the 1880s, Winnipeg was selected as the location to build a railway bridge across the Red River. The railway made Winnipeg a center of commerce and passenger movements with the Main lines of both the Canadian Pacific and Canadian National railways traversing through the city, and rail maintenance and storage yards occupying large tracts of land. The influence of the location of the railway still resonates today.

In the first half of the twentieth century, transit expanded significantly and enabled the development of what are called "streetcar suburbs" - The streetcar lines were both a catalyst and inaugurator for suburban development, influencing developers to build close to the transit service, typically on small lots on a grid-road pattern.

At the same time, new innovations in transportation including motor buses, trolley buses, and of course, the personal automobile were being introduced and popularized. As a result, many of the transit rail lines were being replaced with the more flexible operations of motor buses. In September 1955, Winnipeg operated its last streetcar, however transit served by bus continued to grow.

Also, in the first half of the twentieth century, the trucking industry consistently provided the invaluable service of transporting the goods everyone relies on. In 1929 legislation was introduced to regulate trucking including route designation, safety standards, tariffs, insurance, and bonds to protect both the carrier and the shipper. Since then, an industry association made up of active carriers has represented and advocated on behalf of its membership's interests.

The rise of personal automobiles was swift, from about 3,000 registered automobiles in Winnipeg in 1913, to an estimated 92,000 in 1957. As the popularity of personal automobiles grew and development strategies changed, standard subdivision design and construction departed from the grid patterned street layout towards "spaghetti" styled streets, bays, and cul-de-sacs. This involved extensive greenfield development starting in the 1960s that increased travel distances and contributed further to growing automobile use. In the second half of the twentieth century, these trends led to transportation planning that focused on accommodating increasing automobile demand as registered automobiles were estimated around 560,000 in Winnipeg by the early 2000s.

The changing shape of the city over the past 150 years impacted what modes of transportation were used and vice versa: the modes of transportation available have contributed to where development occurred. This history provides the foundation upon which today's travel behaviours are built, and shapes what opportunities are available within Winnipeg's context.

Today, Winnipeg's transportation network is comparable to other mid-sized cities. This network serves the current transportation needs of Winnipeggers adequately, providing generally good coverage and appropriate levels of service across different transportation modes. However, as the population grows, improvements will be required to achieve the vision of a transportation system that supports a changing population, their needs, and their travel behaviours.

2.1 CHANGING DEMOGRAPHICS, CHANGING DYNAMICS

Winnipeg has seen steady population growth since the early 2000's, largely as a result of international immigration. Between 2001 and 2016 the city's population grew by nearly 86,000 people. In 2020, Winnipeg's population was 766,900. Between 2021 and 2051, it is forecasted to grow by 222,900 people and 81,800 jobs, increasing its population from about 776,900 to just under one million and jobs from 360,000 to 442,000. It is anticipated that future growth will occur through densification of Downtown and adjacent neighbourhoods, as well as the continued expansion of new communities on the edge of the city.

This growth has and will continue to lead to significant increases in travel demand. It will also lead to continued changes in population demographics and the travel needs of Winnipeggers; these changes lead to important considerations when planning the future of the transportation network.

Canada's population is aging. The percentage of people aged 65 and older in the Winnipeg Census Metropolitan Area is anticipated to nearly double between 2014 and 2040, growing by 110,000 people or 97 percent. As people age, many older adults are no longer able to safely drive themselves and begin to rely on caregivers or other modes of transportation. Convenient and reliable active transportation and transit provides the mobility options required to travel within and outside of their neighbourhood to access services, contributing to improved independence and a higher quality of life.

Winnipeg is becoming more diverse. In 1996, approximately 10 percent of Winnipeggers identified as a visible minority; this proportion grew to 28 percent in 2016. More than a quarter of Winnipeggers have come to Canada from elsewhere, and approximately 60 percent of new Canadians have arrived in the city since 2001. One in four Winnipeggers who arrived in Canada within the last five years live in poverty. This means many new Canadian Winnipeggers arrive without the means to support personal vehicle use; many others simply do not drive upon arrival.

Twelve percent of the city's population identifies as Indigenous. Like new Canadians, one in four Indigenous Winnipeggers lives in poverty. Many rely heavily on active transportation and public transit for mobility.

The cost of transportation can significantly impact what mode of transportation people use and therefore, what opportunities people can access.

Because mobility is strongly connected to quality of life, *TRANSPORTATION 2050* must support low-cost transportation options.

This will help ensure equitable access to employment, recreation, social interaction, and health and wellbeing-related services and programs.

2.1.1 RESPONDING TO POVERTY

Though Winnipeg is one of the most affordable cities in Canada based on the cost of housing versus household income, one in eight Winnipeggers lives below the poverty line. Many others live just above it.

Our city has some of the lowest median wages in the country – 10 percent lower than the national median. Unemployment rates are relatively low compared to the national average (Winnipeg's unemployment rate was around 6.5 percent, compared to Calgary at 9.1 percent); however, trends show Winnipeg's unemployment rate increasing while Canada's decreases.

People living in poverty often travel daily to various locations to access services that help meet their basic needs like access to phones, computers, showers, laundry, and food. Travel offers the means to reach essential opportunities such as jobs, education, shops, and friends, and affects quality of life. Where streets are not walkable or bike friendly, or where transit is non-existent or unreliable, travel may be dependent on access to a motorized vehicle. This is often out of reach to those in poverty. For some, the cost of owning and operating a vehicle must be traded off against the cost of other essentials such as housing, food, and recreation. Without access to a car, people are dependent on more affordable modes of transportation like walking, biking, and transit.

TRANSPORTATION 2050 must consider the importance of these modes, especially in geographic areas of higher poverty, and that transportation must equitably serve all Winnipeggers.

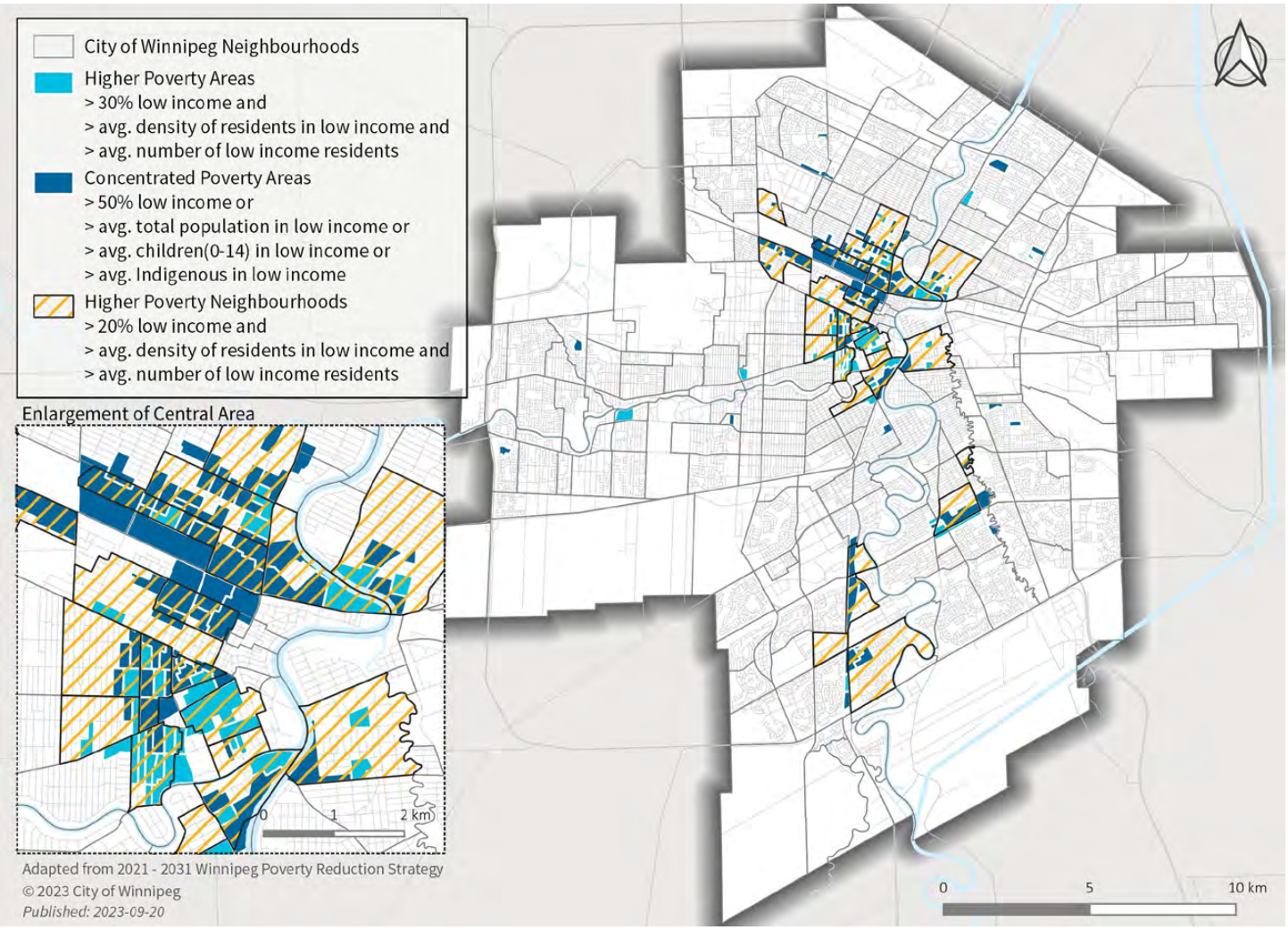
POVERTY AND GEOGRAPHY

The City of Winnipeg Poverty Reduction Strategy process included developing a map of geographic areas of higher poverty. This map informed geographic components of ***TRANSPORTATION 2050*** and its associated policies, recommendations, and actions.

SOURCES

- *Winnipeg Poverty Reduction Strategy (2021)*
- *Winnipeg Parks Strategy (2022)*
- *City of Winnipeg (n.d). Community Trends and Performance Report, Vol. 1 for 2020 Budget Report*
- *City of Winnipeg 2020 Population of Winnipeg Report*
- *City of Winnipeg 2019 State of the Infrastructure Report*
- *City of Winnipeg Community Trends and Performance Report, 2019 Budget - Volume 1*
- *City of Winnipeg Community Trends and Performance Report, 2018 Budget - Volume 1*
- *2016 City of Winnipeg, Housing and Economic Forecast*
- *Statistics Canada Focus on Geography Series, 2016 Census*

MAP 1: 2021-2031 WINNIPEG POVERTY REDUCTION STRATEGY



The map uses analysis of low-income (Market Basket Measure) data from the 2016 Census for the City of Winnipeg, including the prevalence (percentage of people), density (people per square km), and total number of people living in low- income circumstances. Additional layered analysis was undertaken for two specific demographic groups most impacted by poverty, Indigenous residents and children (0-14 years).

As shown on the map, three categories were used to help illustrate areas of the City that have a high concentration of residents living with low incomes, who subsequently may have an increased need for City and community-based services, programs, and supports. What the map shows is that poverty is found in all areas of the city, and that higher concentrations of people experiencing poverty are found in areas with lower-cost housing options, well-serviced by transit, and in areas with easier access to goods and services. Significant findings from this analysis indicate that in the darkest blue areas on the map (Concentrated Poverty Dissemination Areas), the residents living in poverty include: 44 percent of all residents; 61 percent of children (0-14 yrs.); and 61 percent of Indigenous residents (those who self-identified as Indigenous).

The Council-approved Poverty Reduction Strategy (2021) directs the City to make mobility affordable, particularly focusing on increasing walkability and bike-friendliness of sidewalks and streets in neighbourhoods with high levels of poverty. Among its 10-year objectives are to:

- Prioritize improving transportation and transit infrastructure and services in areas of higher poverty
- Increase interconnectivity to employment and affordable goods and services
- Increase collaboration with community partners improves access to safe and secure transportation by all residents

TRANSPORTATION 2050 must align with these objectives.

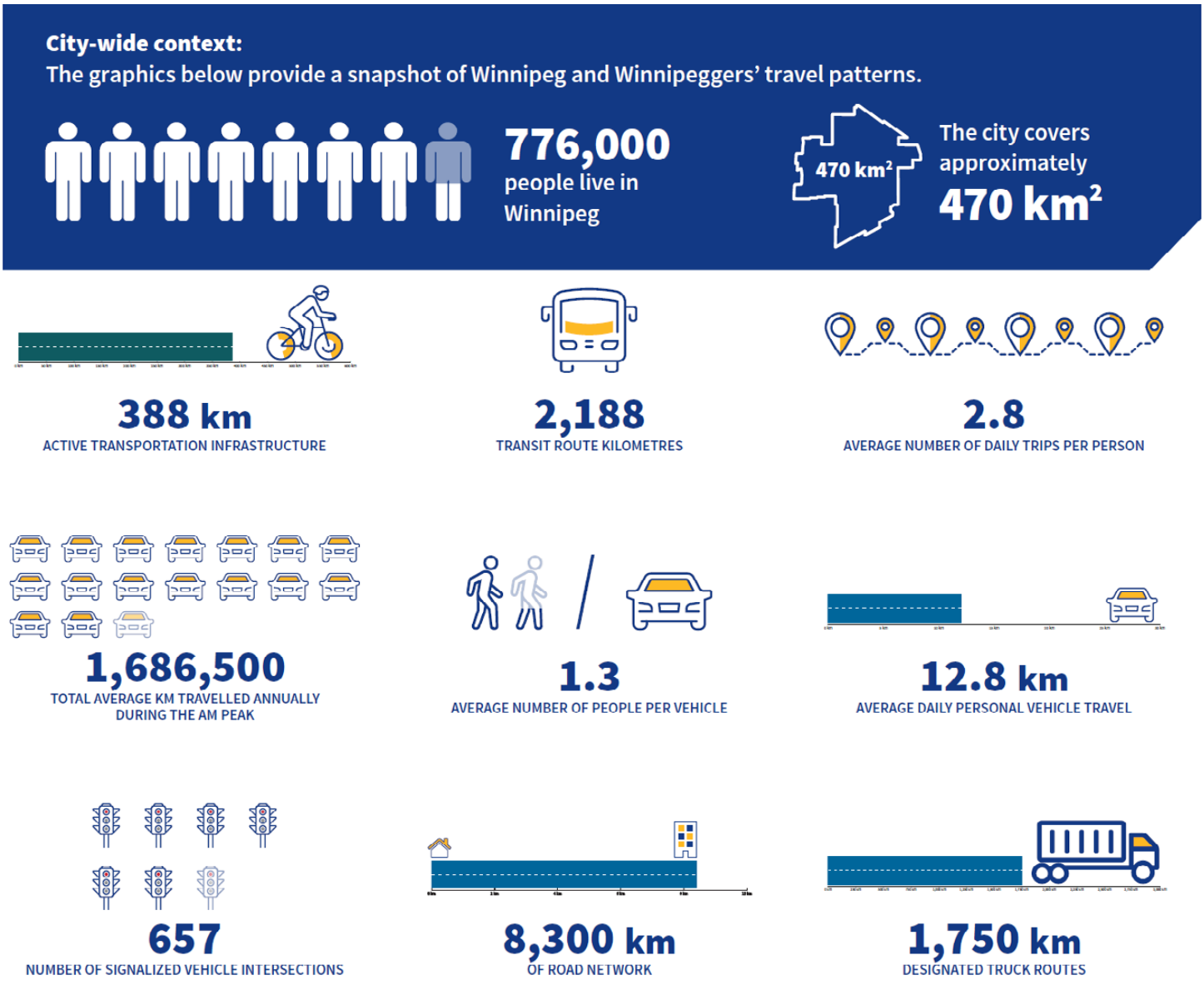


2.2 TRANSPORTATION TRENDS AND TRAVEL BEHAVIOURS

Understanding current travel trends is important to develop and implement strategies that respond to the travel behaviours of Winnipeggers. One of the most important trends is growing travel along with population and employment growth, meaning that the number of trips Winnipeg's transportation system needs to accommodate will continue to grow. Since 2006, the total number of trips in the morning peak hour has increased by nearly 40 percent and the distance people are commuting has also grown.

TRANSPORTATION 2050 **must recognize that space on Winnipeg's roadways is a finite resource and that we must focus on effective and efficient utilization to continue to move people and goods reliably throughout the city and beyond.**

EXHIBIT 2.2: TRANSPORTATION SYSTEM STATISTICS



Source: *Winnipeg Transportation Master Plan 2050, Current State Summary Report*

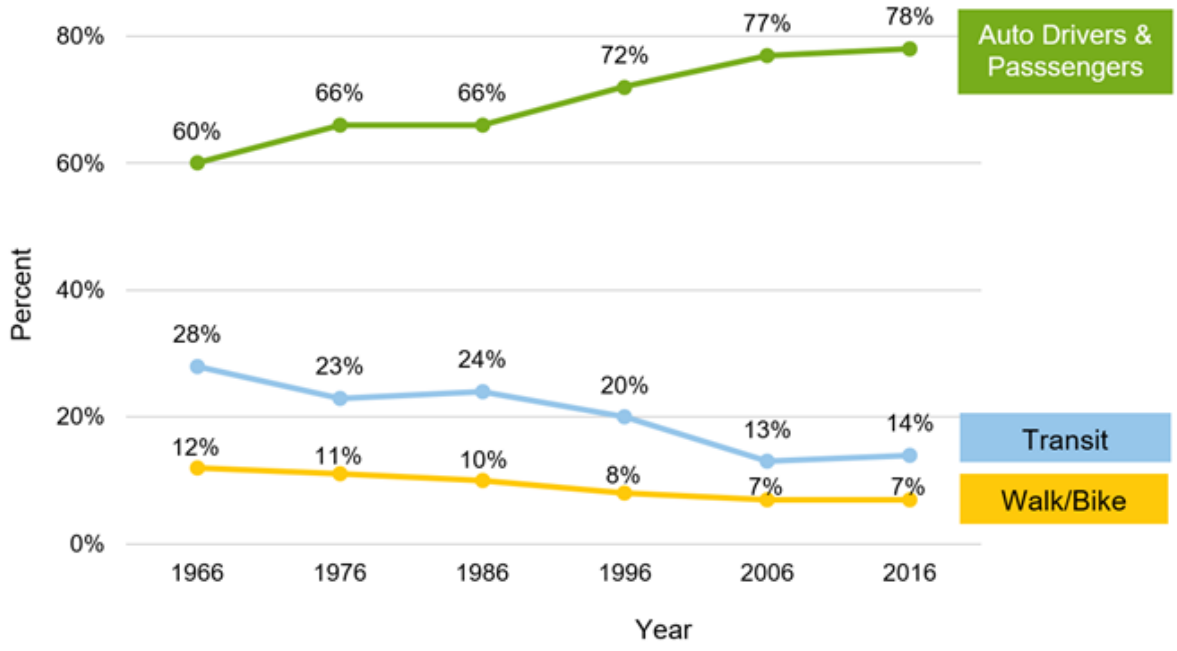
2.2.1 HOW WINNIPEG TRAVELS

Personal vehicles are the dominant mode of transportation. In 2019, nearly 84 percent of trips within Winnipeg were by car, with 65 percent being drivers and 19 being passengers. In 2019, about 36 percent of trips were made using sustainable mobility options (transit, walking, cycling, and carpooling) which means a 14 percentage-point increase is needed to meet the *TRANSPORTATION 2050* mode share target of 50 percent sustainable by 2050.

Dependence on automobiles has steadily grown over the past 50 years as low-density suburban developments proliferated in Winnipeg; this is demonstrated in **Exhibit 2.3.**

Many trips under five kilometres can be made by active transportation. In the morning peak hour in 2019, 15 percent of these short-distance trips were walked and biked. Despite this encouraging trend, 63 percent of these trips were still made by drivers and passengers of vehicles, indicating a sizeable number of unrealized potential active-mode trips.

EXHIBIT 2.3: WORK TRIPS BY MODE 1966-2016



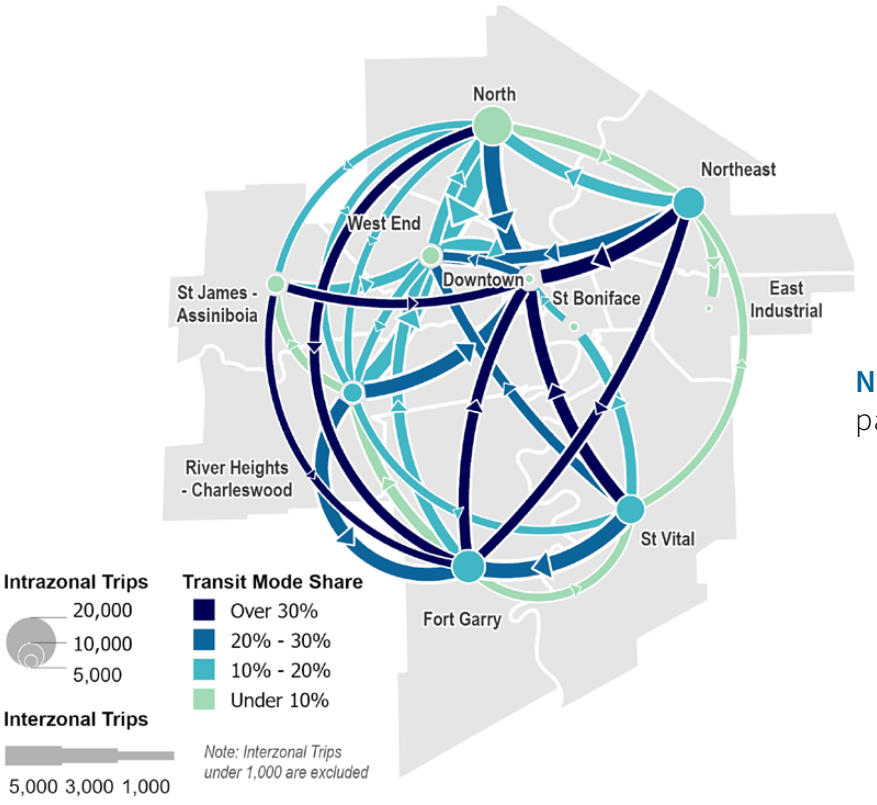
Source: *MORR Transportation Consulting, created using Statistics Canada Census and City of Winnipeg data. Adapted by Arcadis.*

2.2.2 WHERE WINNIPEGGERS TRAVEL

People travel all over Winnipeg to meet their daily needs as shown in **Exhibit 2.4.**
An analysis of the travel trends of Winnipeggers, across all travel modes, found the following:

- **Suburb-to-suburb commuting is common:** Despite Downtown being the largest employment centre, about 74 percent of commuter trips start and end outside of Downtown or the West End, indicating strong travel demand outside of central Winnipeg.
- **Transit is a popular mode for trips Downtown and to Fort Garry:** Bus routes from all corners of the city with frequent transit service tend to converge Downtown and at the University of Manitoba, making transit a more attractive option for Winnipeggers travelling to these areas.
- **Many people meet their daily needs within their own community:** Residents in the north and northeast areas of the city and in Fort Garry and St. Vital make a high volume of trips within their respective communities.
- **Many trips require a river crossing:** About 45 percent of morning peak trips cross the Red and Assiniboine Rivers, highlighting the importance of maintaining a small number of critical links in the transportation network.

EXHIBIT 2.4: MORNING PEAK HOUR ORIGIN-DESTINATION FLOWS BY ALL TRAVEL MODES AND TRANSIT MODE SHARE



Note: This exhibit captures commuter patterns for both workers and students.

Source: *Arcadis. Adapted from the 2019 Winnipeg transportation demand model update.*

Using roads and bridges

Winnipeg has an extensive road network of approximately 7,070 road-lane kilometres of arterial, collector, and local roads. Perimeter Highway (Provincial Trunk Highways 100 and 101) circles the city, providing access to the surrounding region and acting as a bypass route around the city. Several parts of an inner ring road have also been implemented including Route 90/Kenaston Boulevard, Abinojii Mikanah, Lagimodiere Boulevard, and Chief Peguis Trail.

Approximately 9.3 road-lane kilometres serve every 1,000 residents; this marks a decrease from the 2010 ratio of 9.9 km per 1,000. This trend indicates that population growth has outpaced the construction of new roads. It will be important for *TRANSPORTATION 2050* to continue to support an increase the efficiency of existing roadways, as maintaining a sufficient level of service with the minimum amount of road lanes helps to minimize associated costs.

The Red River, Assiniboine River, and freight rail lines all act as natural barriers to travel across the city. There are seven road crossings over the Assiniboine River and nine over the Red River. These crossings provide connectivity across the city, but also create pinch points as wide volumes of traffic from many routes must be funneled to the limited number of crossings. With nearly half of all commuter trips requiring a bridge crossing, it is imperative that the City's bridges are well-maintained so they can continue to provide essential connectivity across the city.

Traffic congestion in Winnipeg is most significant Downtown and near river and rail crossings, however the problem is not limited to these areas. Many major arterial and collector roads are experiencing high congestion levels—even in neighbourhoods relatively far from Downtown.

KEY TRENDS AND CHALLENGES

- The road network has expanded since the last TMP, with new road segments added to high-growth areas, increasing the capacity of key links.
- The city's road classification system adequately defines the role of each road type for automobiles but could be improved in its accommodation of transit and non-motorized road users.
- Traffic congestion is largely concentrated at locations approaching Downtown, mixed-use centres, and river and rail crossings.
- Vehicle speeds and increasing traffic volumes on residential streets are a safety concern for residents.
- Congestion is more frequently seen as intersection delay rather than midblock road demand exceeding capacity, suggesting a lack of acute capacity at intersections.
- Though serious-injury and fatal collisions have gradually declined since 2012, total injuries per person and registered vehicle have increased.
- Collisions involving pedestrians and cyclists are more likely to result in a fatality or major injury compared with passenger vehicles.
- Collisions involving pedestrians and cyclists are generally concentrated Downtown, in the northwest areas of Winnipeg and along mixed-use corridors.

Using public transportation

Winnipeg Transit offers extensive transit services across 84 fixed bus routes, providing almost 50 million rides per year. Winnipeg Transit also operates two on-demand services; Winnipeg Transit Plus (specialized transport service for persons whose disability prevents them from using conventional transit) and Winnipeg Transit On-Demand (which allows people to call to request a ride within a specific service area).

Access to frequent transit service (defined as a bus every 15 minutes or less at any given stop) is primarily along urban and regional mixed-use corridors converging Downtown. This largely aligns with areas that have the highest density of people and jobs, which is beneficial for encouraging higher transit ridership. However, in 2019 only 21 percent of dwellings were located within a 500 m distance of a frequent-service transit stop, limiting the reach and convenience of transit services for many. Further, dispersed travel origins and destinations not centered downtown are more difficult to serve by transit.

Access to transit services by those outside Winnipeg but within the greater metropolitan region is also limited as there are no services beyond city limits that connect to Winnipeg Transit and other amenities that could improve access such as park and rides near the municipal boundary are not readily available.

KEY TRENDS AND CHALLENGES

- Ridership on Winnipeg Transit increased between 2006 and 2014 but has since decreased.
- While Transit service has increased since 2013 in terms of route, service area, and frequency, it has not kept pace with population growth and therefore has experienced a reduction in overall availability of services per person. This leads to an overall decrease in service convenience to customers.
- Service levels in urbanized areas have been thinned to provide service to expanding areas, with increased subsidies needed in outer-suburban locations.
- Development patterns have resulted in widely dispersed trip origins and destinations, often requiring riders to walk longer distances and make more transfers to reach their destination. This has reduced Transit's ability to compete with personal automobiles.
- Those living in higher-density and higher-poverty areas northwest of Downtown are not served by frequent, all-day Transit and therefore have limited access to travel options.



Cycling and walking

CYCLING

As of 2020, the total length (lane-km) of the cycling network in Winnipeg is 702 lane-kilometres **(Exhibit 2.5).**

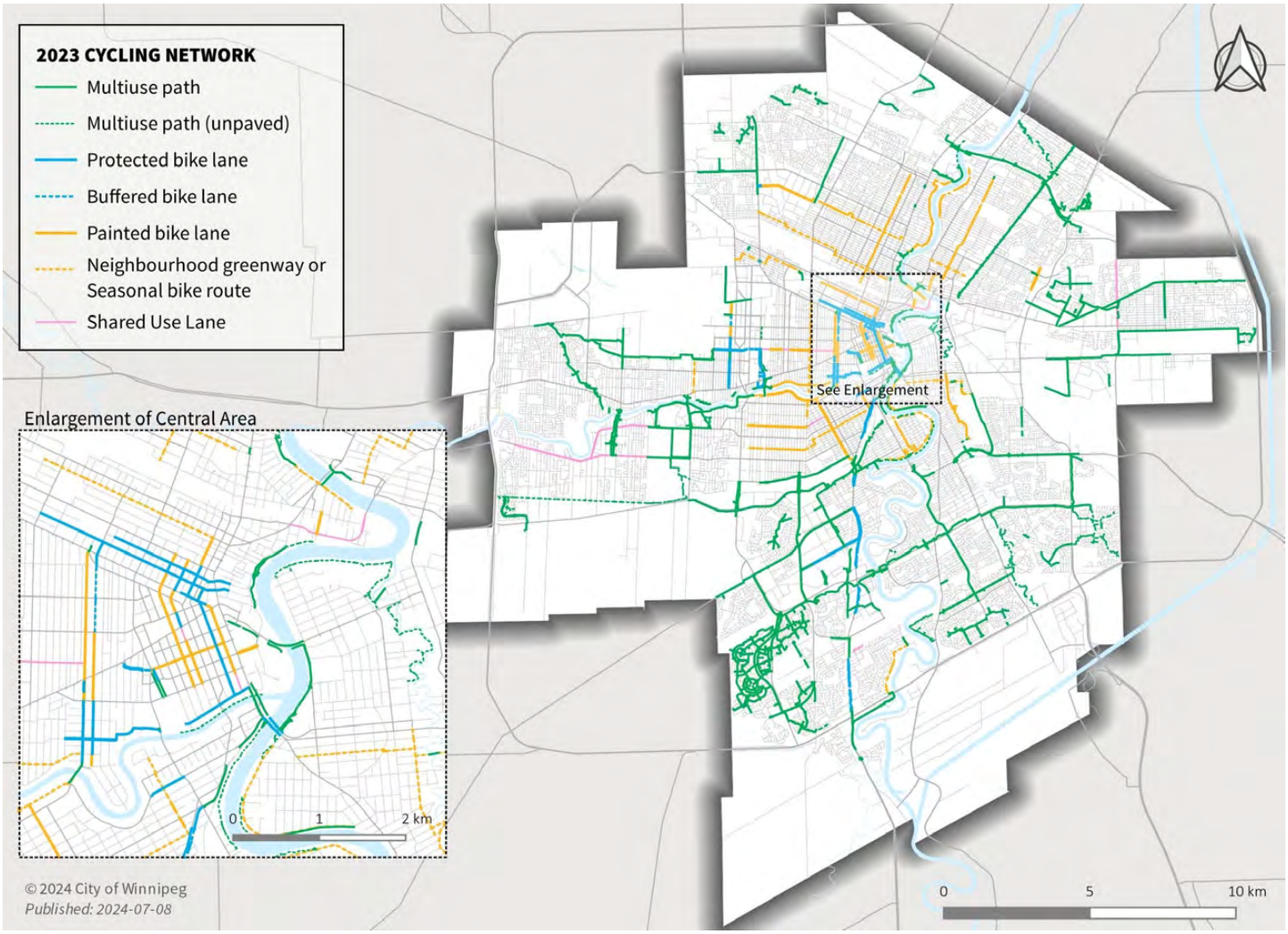
Most of the available network (76 percent or 533 lane-km) is multiuse pathways that are physically separated from the roadway. While separation from vehicles can improve road safety and accessibility for people of all ages and abilities, the sometimes-remote locations can increase personal security concerns, particularly at night. Further, multiuse pathways often do not separate pedestrians and cyclists nor do they necessarily provide convenient access to destinations; this makes them ideal for recreation but less suitable for meeting daily travel needs.

EXHIBIT 2.5: LENGTH (LANE-KM) OF CYCLING FACILITY BY TYPE IN WINNIPEG, 2020

Cycling Facility Type	Length (lane-km)
Multi-use paths	447
Multi-use paths (unpaved)	86
Protected bike lane	18
Buffered bike lane	11
Painted bike lane	28
Neighbourhood greenway	64
Enhanced summer bike route	9
Shared Use Lane	48
TOTAL	**702**



MAP 2: CURRENT WINNIPEG CYCLING NETWORK





WALKING

The total length of Winnipeg's sidewalk network is 2,670 km, which means there is just one kilometre of sidewalk for every three road-lane kilometres. An additional 710 km of trails and paths separated from the roadway also support the sidewalk network. While the high level of separation from traffic can increase safety and accessibility, many trails and paths are shared facilities along with other modes of active transportation which provides its own challenges. Gaps in the sidewalk network exist on several major north-south routes and in many outer-suburban residential areas, particularly in new developments. These gaps can adversely affect transit usage, given that transit users may not be able to get to easily and safely to and from transit stops.



KEY TRENDS AND CHALLENGES

- The integral role that active transportation plays in healthy and complete communities is recognized by the public and the City of Winnipeg through policy documents and recent investments.
- 167 km of the cycling network has been added since 2015, which is an increase of 75 percent for a 2020 total of 388 km.
- Limited space within road rights-of-way and emerging best practices for well-separated infrastructure accessible to people of all ages and abilities leads to competing interests for space.
- Limited crossings over rivers and rail corridors exist, extending travel distances for people who walk or bike.
- Many outer-suburban residential areas, particularly in new developments, have no sidewalks or have limited sidewalks without amenities.
- Several major north–south routes lack sidewalks, creating challenges for longer-distance walking trips and walking at the start or end of transit trips.
- Mixed-use centres in suburban locations are typically not well-designed for pedestrian or cycling access, often have limited and inconvenient or uncomfortable facilities.
- Cycling facilities (such as bike paths) are concentrated south of Downtown, with limited facilities in other neighbourhoods; notably, only 9 percent of the cycling network is located within higher-poverty areas.

Goods Movement & Emergency Services

MOVING GOODS

In Winnipeg, trucks and courier vehicles move most goods; however, with its mid-continental location, Winnipeg is also a key node in multi-modal, transcontinental goods movement networks connecting roads, rail, and air transportation methods. This means there is considerable interaction between the urban, regional, and long-haul transportation of goods on city streets and Winnipeg's economic development. It also means there is a significant footprint of inter-modal infrastructure, associated with rail yards and the airport, involved with goods movement in Winnipeg and the surrounding area.

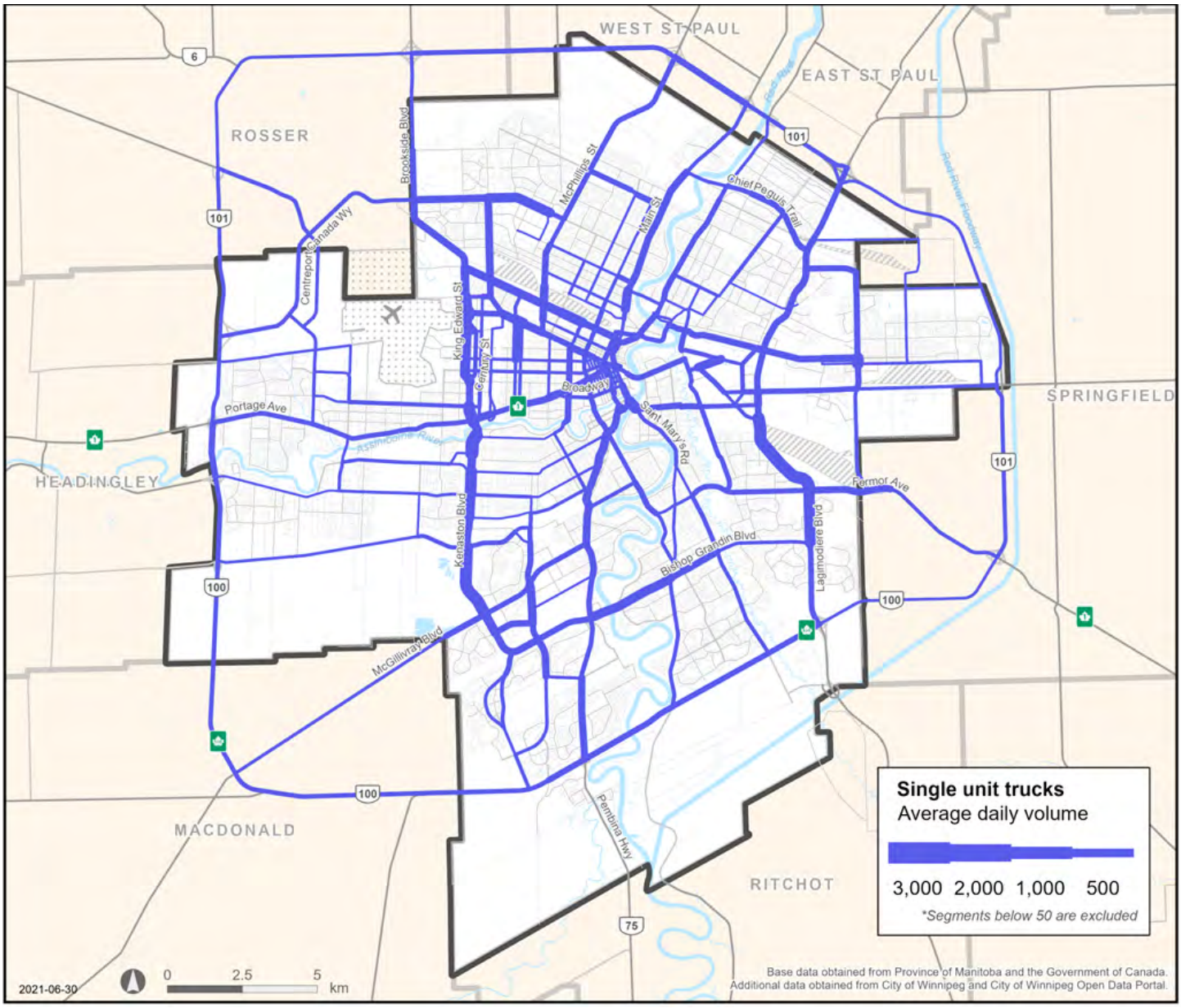
Key truck route corridors in Winnipeg include Route 90, Lagimodière Boulevard, Inkster Boulevard, Logan Avenue, and Keewatin Street, in addition to Perimeter Highway.

When looking at truck traffic, it is important to distinguish between the size of the vehicles, specifically between single units, which are medium-sized two- and three-axle vehicles, and articulated units such as tractor-semitrailer combinations.

Single-unit trucks are found at higher volumes within Winnipeg's boundaries, including in and around Downtown. These are often used for pickups and deliveries to and from local origins and destinations. Articulated units are seen in larger volumes along Perimeter Highway and particularly around CentrePort Way. This large truck traffic is typically a mix of local, regional, and long-haul traffic moving to and from the truck yards and other industries.

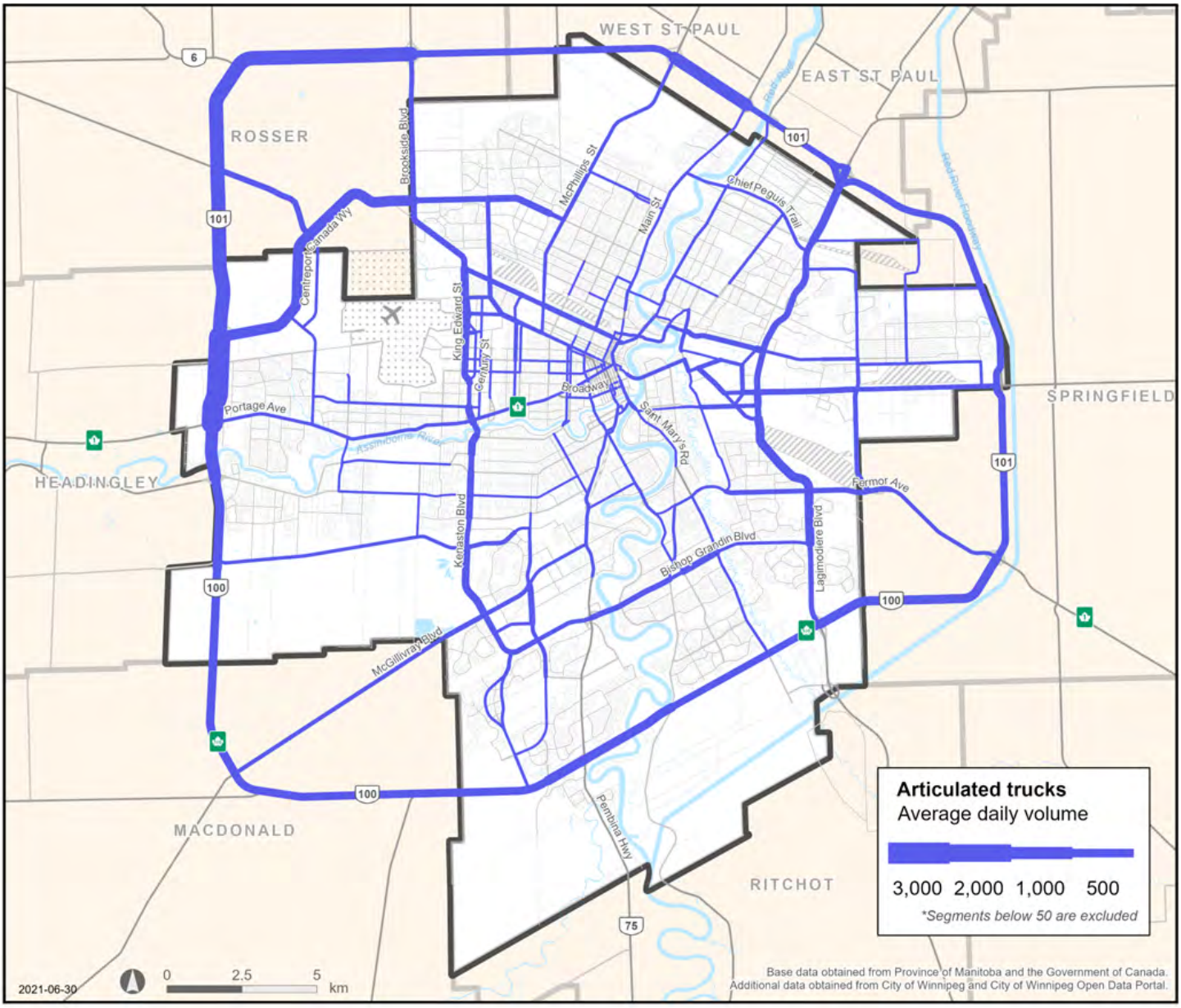


EXHIBIT 2.6: AVERAGE DAILY TRUCK TRAFFIC (SINGLE-UNIT TRUCKS)



Source: *MORR Transportation Consulting. Formatting adapted by Arcadis.*

EXHIBIT 2.6 (CONTINUED): AVERAGE DAILY TRUCK TRAFFIC (ARTICULATED TRUCKS)



Source: *MORR Transportation Consulting. Formatting adapted by Arcadis.*

KEY TRENDS AND CHALLENGES

- As Winnipeg is an important multimodal freight hub, its road network must accommodate substantial truck traffic while balancing trucking needs with those of cars and more sustainable modes of transportation.
- The rail network has an extensive footprint across the city, with railway yards and more than 200 at-grade crossings. The rail network in general creates physical barriers and pinch points throughout the city, while at-grade crossings contribute to road network delays.
- As more industrial activity starts to take place outside the city's boundary, there will be an increased need for cross-jurisdictional coordination of land-use and transportation planning.
- The impacts of COVID-19 on e-commerce may change future demands on commercial vehicles, especially for urban delivery.

IN RESPONSE TO EMERGENCIES

Emergency service vehicles need special consideration. It is critical that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion. This relies primarily on emergency services providers being able to find the best and shortest path to a call. Traffic calming measures, traffic congestion, and construction all play a role in impacting emergency services responses.



2.3 FOCUSING ON ROAD SAFETY

Between 2012 and 2018, 98 people were killed and 1,113 suffered major injuries as a result of collisions on Winnipeg streets. While the annual proportion of road-related fatalities remained approximately constant over this time, the number of major injuries trended upwards. In July 2022, Council approved the Winnipeg Road Safety Strategic Action Plan to guide the reduction of fatalities and major injuries over the next five years and beyond. This reinvigorated a focus on safety both in transportation planning and everyday on local streets.

The plan will serve as a guide for implementing both short-term solutions and long-term investments over the next three to five years and beyond in a coordinated and focused manner. There are three key findings related to road safety in Winnipeg:

- Though serious-injury and fatal collisions have gradually declined since 2012, total injuries per person and registered vehicle have increased
- Collisions where a pedestrian or a cyclist is involved are more likely to result in a fatality or major injury compared with passenger vehicles
- Collisions where a pedestrian or a cyclist is involved are generally concentrated Downtown, in the northwest areas of Winnipeg and along mixed-use corridors

The plan and its actions are based on the Vision Zero philosophy and Safe System approach. Vision Zero is an aspirational concept where no human loss of life is acceptable because of transportation mobility. This vision is motivated by the widely shared value of protecting the health and safety of everyone using our transportation system.

The Safe System sets the approach for achieving Vision Zero. It recognizes that Vision Zero can only be achieved by taking a systems approach and integrating efforts amongst a multidisciplinary team of stakeholders (road designers, vehicle manufacturers, policy makers, enforcement agencies, families, workplaces, schools, and others) and that road safety is a shared responsibility. The Safe System approach recognizes that people make mistakes when using the road transportation system, and their bodies are fragile, meaning that they can only withstand so much force before they fail. As a result, road infrastructure must be planned and designed to forgive users' mistakes, hence, preventing severe harm to road users as a result of collisions.

The Safe System approach is built upon five pillars:

1. Safe roads and roadsides
2. Safe speeds
3. Safe vehicles
4. Safe road users
5. Post-collision care and response

In addition to safety relating to collisions, personal safety and security relating to slips and falls as well as crime prevention are essential considerations for Winnipeg's transportation system. This is particularly notable for sustainable mobility options such as transit, walking, and cycling where good maintenance particularly in winter months and perceived and actual personal security are essential to providing safe access to these equitable and sustainable mobility options. Overall consideration of the impacts of adverse weather conditions, such as snow, ice, and cold temperatures on road safety are critical to improving safety for all road users.

***TRANSPORTATION 2050* must keep safety, and the Road Safety Strategic Action Plan, at its forefront as all network decisions will play a role in safety on our streets**

2.4 TRANSPORTATION AND ENVIRONMENTAL RESILIENCE

The transportation sector plays a crucial role in environmental resilience. As the highest source of greenhouse gas emissions and air pollution, transportation has a direct impact on climate change and environmental degradation. Personal vehicles account for most of Winnipeg's transportation emissions. Winnipeg can help reduce the reliance on personal vehicle use – thus lowering emissions – by both improving and promoting active transportation options like walking and cycling and investing in efficient public transit systems. Incorporating green infrastructure (like plant and soil systems) in street design can enhance community resilience. It can mitigate the impacts of extreme weather and significant precipitation events and enhancing air and water quality. Transitioning towards low-carbon and renewable energy sources, such as electric vehicles and biofuels, will also reduce the carbon footprint of the sector. Generally, these changes can help the transportation sector contribute significantly to building climate resilience, participate in global efforts to combat climate change, and creating a more sustainable and livable future.



2.4.1 WHAT DOES THIS MEAN FOR WINNIPEG?

Winnipeg's Climate Action Plan (2018) "provides a framework to proactively, meaningfully, and effectively mitigate climate change by reducing greenhouse gas (GHG) emissions." As noted in this plan, more than 50 percent of greenhouse gas (GHG) emissions can be attributed to the transportation sector (based on 2011 data), with personal vehicles being the largest single contributor. The Climate Action plan sets out a short-term target of having a 20 percent reduction in GHG emissions by 2030 (17 percent reduction for the transportation sector) and a long-term target of an 80 percent reduction in GHG emissions by 2050, relative to 2011 emissions. The 2050 target is based on global GHG emission reductions needed to do to limit global warming to 2°C.

Mode share is one of the performance indicators towards the 2030 emissions reductions target, with targets of 50 percent auto-driver, 21 percent auto-passenger, 15 percent public transit, and 14 percent walking and cycling. The Climate Action Plan also sets out several transportation-related key directions and actions. **Exhibit 2.7** summarizes the key directions and actions that are most pertinent to the Roads and Bridges Strategy.

EXHIBIT 2.7: TRANSPORTATION-RELATED KEY DIRECTIONS AND ACTIONS FROM THE CLIMATE ACTION PLAN (2018)[3]

Key Direction	Action	Timeline
1.8 - Ensure that City Land Use, Transportation and Built Environment Policy, Bylaw, and Regulation Recognize the Council-Approved Climate Protection and Mitigation Priorities	Incorporate climate risks and mitigation targets and opportunities into the anticipated Transportation Master Plan update and Transit Master Plan	Short-Term (2018- 2022)
3.3 - Design New Suburban Communities to Enable Enhanced Transit Services and Access to Transit Corridors	Ensure street network layout in new communities forms an overarching grid pattern with direct connections to adjacent neighbourhoods to allow for convenient and efficient transit routes along major streets	Short-Term (2018- 2022)
3.5 - Reduce Traffic Congestion	Adopt intelligent railway crossing measurement and compensation mechanisms that reduce congestion due to railway crossings.	Short-Term (2018- 2022)
	Adopt intelligent and automated signal timing systems that adapt signal timings to weather and traffic conditions, alleviating congestion and reducing transit times	Short-Term (2018- 2022)

[3] City of Winnipeg (2018) Winnipeg's Climate Action Plan, **link**

The City of Winnipeg has since adopted three further documents that continue Winnipeg's commitment to environmental sustainability – *OurWinnipeg 2045,* the *Community Energy Investment Roadmap (CEIR),* and *Council's Strategic Priorities Action Plan* (2023-2026). *OurWinnipeg 2045,* which was officially adopted in May 2022, is the primary development plan for the City of Winnipeg. It outlines six localized goals for Winnipeg, one of which is environmental resilience. One objective under the environmental resilience goal is to "prioritize sustainable transportation as the mobility options of choice" [4]. The *TRANSPORTATION 2050* target of achieving at least 50 percent sustainable mode share aligns with this objective, as sustainable modes will have to be enchanced/upgraded so that they can become more competitive with vehicular travel before many Winnipeggers will view them as the mobility option of choice. A notable policy change in *OurWinnipeg 2045* from the *2018 Climate Action Plan* is achieving net-zero emissions by 2050 instead of just an 80 percent reduction in emissions. This change reflects updates to energy and emissions modelling, as well as aligning with new federal targets. Key environmental policies that are relevant to the Roads and Bridges Strategy are shown in **Exhibit 2.8.**

[4]City of Winnipeg (2020), OurWinnipeg 2045. **link.**

EXHIBIT 2.8: KEY TRANSPORTATION-RELATED OURWINNIPEG 2045 POLICIES [5]

#	Policy	Description
2.5	**Climate resilient growth**	Actively explore innovative approaches to city building, an integrated and sustainable transportation system and related infrastructure capacity enhancements that mitigate the impact of climate risk on infrastructure; leverage targeted densities as detailed in Complete Communities; and minimize conflict between different street functions and users.
2.6	**Integrated regional planning**	Enable a collaborative and integrated solution to sustainable transportation system connectivity and efficiency on a regional scale, in a manner that addresses infrastructure costs, promotes public health benefits, and reduces greenhouse gas emissions.
2.9	**Reduce road congestion**	Increase the efficiency, convenience and usage of the active and public transportation system, to improve air quality, provide a viable alternative to the automobile, and reduce current and future road congestion.
2.10	**Digital communications**	Facilitate equitable access to effective and affordable digital communication infrastructure capacity, to enable remote employment, education and entertainment opportunities that reduce transportation requirements.

EXHIBIT 2.8: KEY TRANSPORTATION-RELATED OURWINNIPEG 2045 POLICIES - CONTINUED

#	Policy	Description
2.11	Eliminate fossil fuel dependence	Pursue an increase in the use of alternative fuels, electric and zero-emission vehicles and charging infrastructure as part of a sustainable transportation system and green fleet.
2.21	Leverage green infrastructure	Conserve, restore, and enhance the urban forest as a key contributor to air quality, erosion control, carbon sequestration, storm water management, efficient energy resource consumption, shade, improved health and well-being, and mitigation of and adaptation to the urban heat island effect.

[5]City of Winnipeg (2020) OurWinnipeg 2045, **link**



The Community Energy Investment Roadmap (CEIR), which was also adopted in 2022, provides more detailed directions on how to meet the climate action targets stated in *OurWinnipeg 2045.* It identifies five areas or sectors that need to make "big moves" to meet these targets: buildings, transportation, local renewable energy, water, and waste. For each area, CEIR identifies more specific targets. **Exhibit 2.9** lists the actions related to the "big moves" in transportation.

EXHIBIT 2.9: TRANSPORTATION-RELATED ACTIONS FROM THE COMMUNITY ENERGY INVESTMENT ROADMAP (2022)[5]

Category	Action	Target Year
Transit electrification	100% of fleet is electric or zero-emissions	2035
Increase transit use	15% of trips are made by transit	2030
Active transportation	50% of <2km trips are made by walking and <5km trips are completed by cycling or other human-powered modes of transportation	2050
Working from home	Implement smart commute/ home-based work to reduce annual vehicle trips by 9% per person and trip length by 6% per person	Not Stated
Personal vehicles	100% of new personal-use vehicles are electric	2035
City fleet Commercial vehicles	The municipal vehicle fleet is 100% electric	2035
	All heavy-duty vehicles (semi-trucks) are electric	2035
	Light-duty commercial vehicles (including taxis) are 100% electric	2040

[5]City of Winnipeg (2022) Community Energy Investment Roadmap, **link**

Further, CEIR identifies four programs or areas of focus for the big moves that are needed to achieve the transportation specific targets: (1) changes to the built environment; (2) improvements and encouragement in active transportation; 3) enhanced transit; and (4) a shift from fossil fuel-powered vehicles to zero-emission. In particular, trip avoidance and mode shift are expected to help meet interim emissions targets while zero-emission vehicle adoption is low. These approaches will also help reduce demand on the electrical grid as adoption increases. CEIR also identifies five-year targets to track progress towards the overall sector emission targets.

Because mode shift targets cannot be achieved through transportation planning alone, the *TRANSPORTATION 2050* uses the 2018 Climate Action Plan's 2030 transportation related targets for its 2050 targets. Two notable differences between the CEIR's mode share targets for 2050 and *TRANSPORTATION 2050*'s mode share targets for 2050, are: (1) CEIR does not set carpooling targets and instead groups vehicle passengers and vehicle drivers together as "cars"; and (2) CEIR's target for active transportation in 2050 is almost double the target set by *TRANSPORTATION 2050*. A comparison between the CEIR and *TRANSPORTATION 2050* targets is shown in **Exhibit 2.10.**

EXHIBIT 2.10: COMMUNITY ENERGY INVESTMENT ROADMAP AND TRANSPORTATION 2050 MODE SHARE TARGETS [6]

Performance Measure		Percent of Travel by Mode					
		Community Energy Investment Roadmap					*TRANSPORTATION 2050* [a]
		2016	2025	2030	2040	2050	2050
Share of total personal vehicles which is electric		0%	1%	15%	76%	100%	100%
Share of total energy used for transit which is electric		0%	50%	75%	100%	100%	100%
Mode share	Cars	82%	78%	73%	64%	56%	50% driver 21% passenger
	Transit	9%	10%	12%	14%	16%	15%
	Active Transportation	7%	10%	13%	19%	27%	14%
	Other (school buses)	3%	2%	2%	1%	0%	0%

[6] City of Winnipeg (2022) Community Energy Investment Roadmap, **link**

[a] **Note:** *TRANSPORTATION 2050*'s mode share targets for 2050 are equal to the 2018 Climate Action Plan's targets for 2030.

Integrated land use, transportation and infrastructure planning and design underpins the energy and emission reductions pathways identified in CEIR. Urban Planning and land use policies which encourage densification help facilitate emissions reduction options, including using transit, active transportation, shorter travel distances and efficient buildings and services (CEIR Program #3: The Built Environment 3.1 pg 61). Climate resilience requires a systemic transformation, where climate considerations are embedded into every policy and expenditure, both within government administration and across the city. This will require collaboration across all sectors to meet stated goals.

Council's 2023-2026 Strategic Priorities Action Plan (SPAP) is the most recent commitment to continued progress in the battle against climate change. It specifically recognizes the importance of "reducing long-term costs and minimizing greenhouse gas emissions impacts on current and future generations".[7] It also includes key actions related to accelerating implementation of the Winnipeg Transit Master Plan and Pedestrian and Cycling Strategy, which will help promote the use of sustainable modes.

Despite having slightly different recommendations, all of these documents reflect an understanding that the coordination of transportation and land use decisions focused on achieving climate resilience plays a pivotal role in reducing the number of trips made by personal vehicles and supporting the fuel source switch from fossil fuels to clean energy. Reaching these targets will require (1) an increased focus on developing dense, complete communities where sustainable modes thrive; (2) a shift from accommodating sustainable modes to prioritizing them so that they can become practical alternatives to using personal vehicles; and (3) a change in perception from sustainable modes being options to being the modes of choice.

[7] City of Winnipeg Council's Strategic Priorities Action Plan (2023-2026), **link**





SECTION 3

TRANSPORTATION STRATEGIC FRAMEWORK

SECTION 3

TRANSPORTATION STRATEGIC FRAMEWORK

Winnipeg is a vibrant and growing city that will be home to nearly one million people in 2050. Demand on the city's transportation system is increasing due to both more people living, working, and enjoying recreational opportunities in the city and increased volumes of goods movement. This growth requires us to provide stronger connections across the city. To accomplish this, the decisions made today need to reimagine what mobility in Winnipeg looks like in the future.

TRANSPORTATION 2050 is intended to direct policies, programs, and infrastructure towards a safe, sustainable, and integrated transportation system. It positions the City to better meet the needs of all road users while accommodating growth and aligning with the overall vision for sustainable development. But this work can only be enabled by a strong strategic framework.

The Transportation Strategic Framework will guide – and provide governance for – planning, implementation, and evaluation for years to come. It includes:

- A strong vision, supporting goals, and associated transportation outcomes to set the stage for reimagining
- Key directions to guide our planning
- A comprehensive set of priorities, focus areas, and objectives to inform policies and action items

Each are outlined in the following sections.

3.1 VISION, GOALS, AND OUTCOMES

The *TRANSPORTATION 2050* vision is a tangible description of the desired future state of transportation in Winnipeg. It guides all the policies and actions contained within *TRANSPORTATION 2050* and can be used to measure the effectiveness of future decision-making.

A transportation system that connects Winnipeg and Winnipeggers, supports quality of life and economic vitality, and provides sustainable infrastructure, mode choice, and safe, efficient, barrier-free mobility for both people and goods.

The goals of *TRANSPORTATION 2050* are prescribed by those of OurWinnipeg 2045, the City's 25-year municipal development plan. As these goals are designed to guide all physical, social, environmental, and economic development in Winnipeg, they will be key to the future of the transportation network; *TRANSPORTATION 2050* identifies an associated transportation outcome for each.

OurWinnipeg Goals:		Transportation Outcomes:
	Leadership & Good Governance	A transportation system that is developed and operated collaboratively with the community in a transparent and accountable manner.
	Environmental Resilience	A transportation system that meets or surpasses climate change and greenhouse gas emission reduction goals set by the City and the Province.
	Economic Prosperity	An efficient, reliable, and financially sustainable transportation system for people, goods, and services.
	Good Health & Well-Being	A safe transportation system that supports active, accessible and healthy lifestyle options.
	Social Equity	A transportation system that provides access and mobility for all in a manner that addresses the historic and systemic disadvantages of certain groups and people.
	City Building	A transportation system that is supported by well-integrated land use and transportation planning and provides a variety of mobility options for people and goods, prioritizing sustainable transportation as the mobility options of choice.



3.2 KEY DIRECTIONS

The *TRANSPORTATION 2050* plan provides seven key directions to help Winnipeg achieve its targets and transportation outcomes and shift how the City plans, builds, and delivers mobility. These key directions directly informed focus areas, priorities, and objectives, which in turn informed policy development and associated action items. They ultimately provide rationale for decision-making and direct future planning.

Key direction 1: Integrate land use and transportation planning

The integration of land use and transportation is a cornerstone of sustainable development and a key objective of *OurWinnipeg 2045.* The location of homes, businesses, services, and jobs impacts where and how people travel around the city. In turn, the location of transportation services like rapid transit lines or new roadways influences where people choose new places to live, which businesses they will frequent, as well as have an impact on where they work.

This is vital both within city limits and the broader Winnipeg Metropolitan Region, as people and goods regularly move across municipal boundaries. Integrated planning can reduce overall trip lengths and make non-automobile travel modes more attractive.

It is essential that Winnipeg provide compact, complete communities that satisfy our daily needs near our homes as well as an efficient, safe, and reliable multi-modal transportation network with convenient access to transit, sidewalks and cycling lanes. Policies must support this.

Key direction 2: Provide safe and sustainable mobility options for all

The term *sustainable mobility* refers to transportation options that have a reduced impact on the environment and move more people using less space. This includes alternatives to single-occupancy vehicles such as transit, carpooling, walking, cycling, and other active or micro-mobility options such as e-bikes, e-scooters, running or potentially even using a kayak or canoe. These options are healthier for people and the environment, and their increased use can reduce traffic congestion, collisions, and greenhouse gas emissions and air pollution.

Policies must ensure the transportation network supports safe and sustainable mobility options because when people have non-automobile travel options available to them, they drive less.

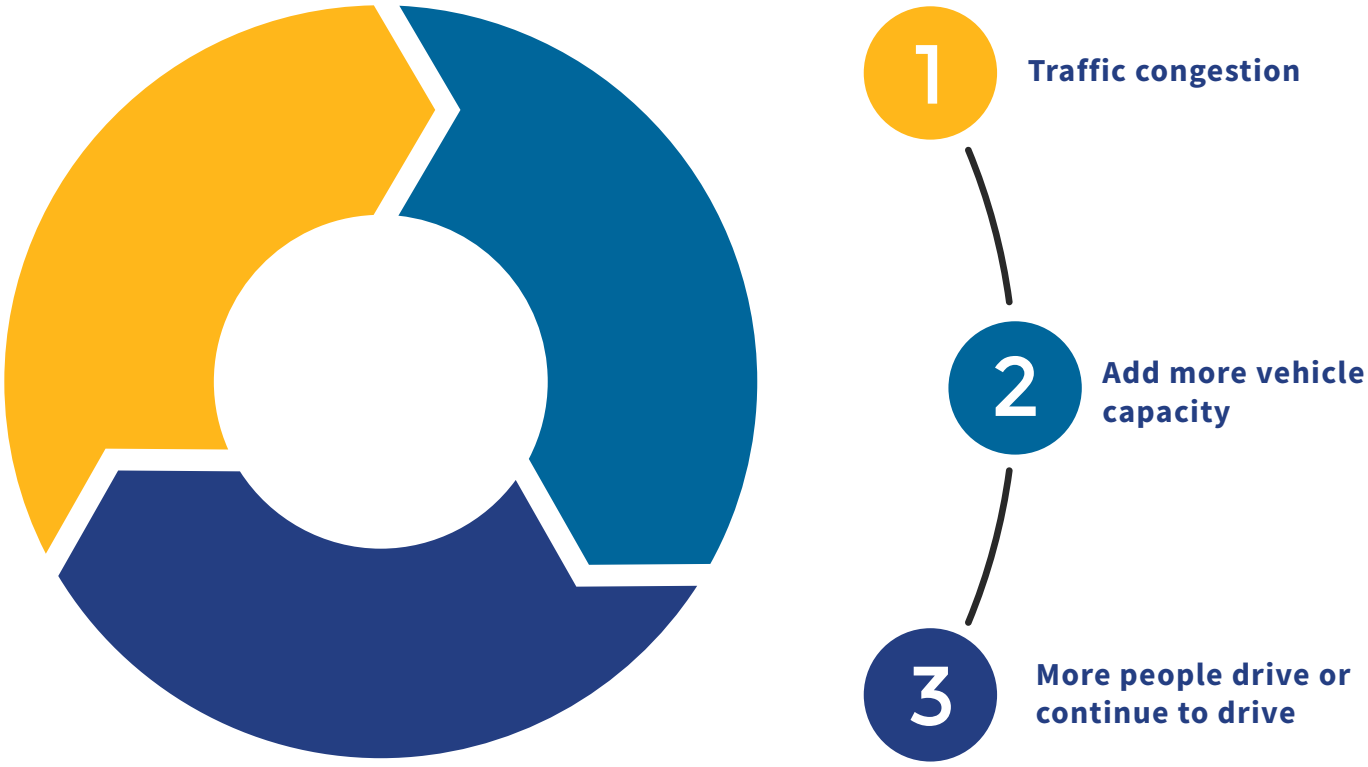
Key direction 3: ***Optimize the network to consider future demand and encourage active and alternative mode use***

Over the past several decades, Winnipeg's street network has been designed to primarily serve the movement of automobiles. With Winnipeg's population growing, the best opportunity to move people and goods more efficiently, equitably, and sustainably by making it possible for more people to use the same transportation network at once. This requires both transforming our streets to serve sustainable mobility options and further integrating land use and transportation to reduce the amount of travel required.

Cities around the world are taking this approach as they widely recognize it is not possible to build our way out of traffic congestion; adding more automobile capacity to address congestion leads to more automobile use, which in turn leads to more traffic congestion as shown in **Exhibit 3.1.** This is also called induced travel demand.

Policies that direct transportation network changes and growth must focus on maximizing capacity, considering and mitigating future demand, and also encouraging and supporting sustainable mobility options (which are more space-efficient).

EXHIBIT 3.1: INDUCED DEMAND



Key direction 4: Prioritize sustainability and maintenance of roads and bridges

Winnipeg's road network is a great resource, providing far-reaching access to every corner of the city and enabling people and goods to connect between origins and destinations. While reliance on personal automobiles is expected to decrease in the future, driving or riding in a vehicle will remain an essential mobility option in Winnipeg for the foreseeable future. Trucks will also continue to need a reliable road network for goods movement.

Given the focus on sustainable transportation in *TRANSPORTATION 2050,* the emphasis for the future is on strategically enhancing the road network by prioritizing sustainability of new infrastructure and maintenance of existing infrastructure. Policies for Winnipeg's road network and bridges must aim to extend the network to meet the needs of new developments and augment the existing network to improve operations and support the economy. This also includes maintaining the network in a state-of-good-repair, particularly Winnipeg's bridges which provide essential connectivity across the city for multiple modes.

Key direction 5: Improve reliability of goods movement

Winnipeg is located in the centre of the country and at the crossroads of railway and highway networks. It also houses a significant manufacturing and industrial sector of its own. Together, these factors mean Winnipeg generates significant goods movement traffic. This volume is expected to increase in the future with anticipated growth in the transportation and logistics sector as well as the increase in e-commerce. With 10 percent of all jobs in Winnipeg and the surrounding region in the transportation and logistics sectors (2017), policies concerning goods movement must focus on optimizing connectivity and efficiency to support economic prosperity of Winnipeg and the broader region.

Key direction 6: Make active transportation a more viable choice for more Winnipeggers

Active transportation refers to any mode of travel that relies primarily on human power. Cycling, walking, and using a wheelchair or mobility device are the most common forms of active transportation. The term can also encompass activities like rollerblading, running, jogging, skateboarding and, in Winnipeg's case, paddling or skating along the river system.

Active transportation is an integral part of sustainable city building, with benefits that positively affect both individuals and the community. Cities around the world, including Winnipeg, are increasingly recognizing that walking and cycling are essential components of a transportation system that contributes to sustainability and equity by being the most affordable and low-carbon travel modes available, in addition to being cost-effective in terms of infrastructure investments.

Winnipeg recognizes the significant quality of life and health benefits that are associated with people using active modes of transportation, as well as the positive economic development advantages that residents can enjoy through a vibrant pedestrian- and cycling-supportive environment. Safe and convenient active transportation networks also play an important role in providing a great option for the first- and last-mile portion of trips by transit, carpooling, or personal transportation providers. Active transportation policies must focus on making active, sustainable modes more accessible, using them for daily travel more practical, and choosing them a more viable option for more Winnipeggers.

Key direction 7: ***Provide infrastructure that ensures connected transit service***

Winnipeg Transit plays a vital role in the city's sustainable and integrated transportation system. Growing transit ridership will be a key component of moving more people as Winnipeg's population continues to grow. Further, as a travel option that is more affordable than personal vehicle ownership, transit plays a key role in providing an equitable transportation system that enables access to opportunities by all Winnipeggers.

The Council-approved Winnipeg Transit Master Plan lays out a clear path to an improved network and package of services. The implementation of the Winnipeg Transit Master Plan is essential to achieving the broader direction provided in *TRANSPORTATION 2050.* As such, this Key Direction outlines policies to provide infrastructure that connects the city with transit service to meet daily needs. It does not lay out the actions as this is instead done in the *Winnipeg Transit Master Plan.*

RESPONDING TO TRAFFIC CONGESTION: TRANSIT AS A VIABLE WINTER-CITY ALTERNATIVE

Land use planning and changes in urban form that reduce our dependence of the automobile will promote more trips by public transit and active modes (walking and cycling) and offer the best potential to shift to a more sustainable transportation system. Reduced single-occupant vehicle use over time and managing traffic through the City's Transportation Management Centre will minimize the impacts of congestion and improving travel times.

Improving the reliability of the transportation systems, both now and in the future, will mean that some improvements will require enhanced maintenance of existing facilities, replacement of aging bridge structures, and the construction of new infrastructure including bicycle lanes, sidewalks, rapid bus lanes and new roadways.

High quality public transit service is an essential requirement to convince people to make the move from their automobile to the bus. People will choose transit if it satisfies their mobility needs. Substantial investment in the frequency, comfort, safety and reliability of transit service are necessary to change the culture and increase ridership to enable transit to influence land use changes.

This approach and corresponding policies and actions are supported by *TRANSPORTATION 2050*.

3.3 PRIORITIES, FOCUS AREAS, AND OBJECTIVES

TRANSPORTATION 2050 identifies three priorities that will help us achieve our transportation vision and goals. Each of these priorities brings with it a series of focus areas and objectives that informed policy development.

Priorities	Focus Areas	Objectives
Land use	**Corridors and Complete Streets**	Enhance the attractiveness of the urban streetscape and improve safety of all users by targeting select segments of multi-modal corridors and streets that emphasize sustainable mobility options and connect to the surrounding land uses as identified in *Complete Communities 2.0.*
	Parking	Deliver ongoing service improvements by: • Effectively managing parking services and curb space • Providing adequate availability of parking to all stakeholders • Supporting land use and development goals of OurWinnipeg 2045 and Complete Communities 2.0 • Encouraging sustainable transportation use and mobility choices through parking space provision
	Downtown circulation	Through street design: • Foster an environment, where people want to live and businesses want to invest • Ensure streets are beautiful, that trees thrive, and that materials, colours, and textures are support the character and historic nature of downtown • Increase the number of people who travel to or within downtown by bus, bike and other alternative modes of transportation
	Major nodes	Create better connectivity in and around major nodes for walking, cycling and street networks, while increasing access and reducing response times for emergency vehicles.

Priorities	Focus Areas	Objectives
Land use (Continued)	**Employment areas**	Promote economic development by ensuring efficient movement of workers and goods.
		Promote greater use of sustainable modes of transportation (including but not limited to walking, cycling, and transit) while also maintaining automobile, goods movement, and emergency vehicle mobility.
		Provide affordable mobility and universal access for all.
People mobility	**Walking and cycling**	Make walking and bicycling more attractive and convenient through the provision of a pedestrian and cycling network that is connected, safe, and accessible, contributing to a more vibrant community.
		Ensure all opportunities to enhance active transportation must take a four-seasons approach and respond to changing travel behaviour in winter weather.
	Transit	Have transit play a vital role in our city's sustainable and future multi-modal transportation system.
		Support an equitable transportation system that enables access to opportunities for all Winnipeggers.
	Motor vehicles	Support the policies, programs, and initiatives of the *Road Safety Strategic Action Plan.*
		Ensure infrastructure operation is safe, reliable, and accessible
		Protect the integrity and value of existing infrastructure through timely rehabilitation and refurbishment that optimizes the life cycle and defers the need for more costly replacement.
		Support the shift to multi-modal choices and zero-emission vehicles.
Goods movement and emergency services	**Truck route network update**	Recognize the important economic role of goods movement by providing a safe, efficient, and connected goods movement transportation network.
	Emergency vehicle response	Consider access to emergency services in the planning, design, and operation of the transportation network.

3.3.1 LAND USE

Developing complete communities where people can meet their daily needs within their community is integral to supporting a high-quality of life. It also has a big influence on transportation as travel distances shrink to access jobs, services, and more, making sustainable mobility options more attractive and viable. Vice versa, the transportation system plays a vital role in achieving Winnipeg's land use goals. Complete streets in both new and existing neighbourhoods are a valuable support for complete communities as they are designed to accommodate a range of mobility options and goods movement safely and efficiently.

The integration of land use and transportation is a cornerstone of sustainable development and a key objective of *OurWinnipeg 2045.* Where homes, businesses, services, and jobs are located impacts where and how people travel around the city. In turn, where transportation services like rapid transit lines or new roadways are provided influences where new homes, businesses, services, and jobs choose to locate. This is vital within the City of Winnipeg, but also within the broader Winnipeg Metropolitan Region as people and goods are moving across municipal boundaries regularly.

Integrated planning of land use and transportation can result in reduced overall trip lengths, making non-automobile travel modes more attractive. This can be done by providing compact, complete communities that satisfy our daily needs near our homes, combined with providing an efficient, safe, and reliable multi-modal transportation network with convenient access to transit, sidewalks and cycling lanes.

The City plans and directs land use through *OurWinnipeg 2045* as the City's municipal development plan, and then by *Complete Communities Direction Strategy 2.0,* which defines the urban structure. From there, secondary plans provide additional guidance and more detailed zoning bylaws govern what type of development is acceptable and where. Throughout the development process, there are additional procedures in place that help verify that new developments will contribute positively to the city throughout all phases of the project.

Complete Communities 2.0 outlines Winnipeg's land use vision, providing clear policy direction to build compact, complete communities with a supportive land use mix, density, and design, and a sustainable and integrated multi-modal transportation system. The 50 percent intensification target is key to Winnipeg's land use vision with transformative areas such as Downtown and corridors identified as ideal locations to accommodate growth. As such, the transportation system plays an important role in achieving the intensification target and the broader land use vision.

Input from the public also indicates a desire for integrated land use and transportation as the Phase 1 *TRANSPORTATION 2050* public engagement found that living close to work, family, and friends, near affordable and healthy food options and recreation facilities were all found to be top considerations for Winnipeggers. The importance of integrating land use and transportation is also emphasized in *OurWinnipeg 2045* and is further supported by policies at the regional and provincial levels.

Corridors and complete streets

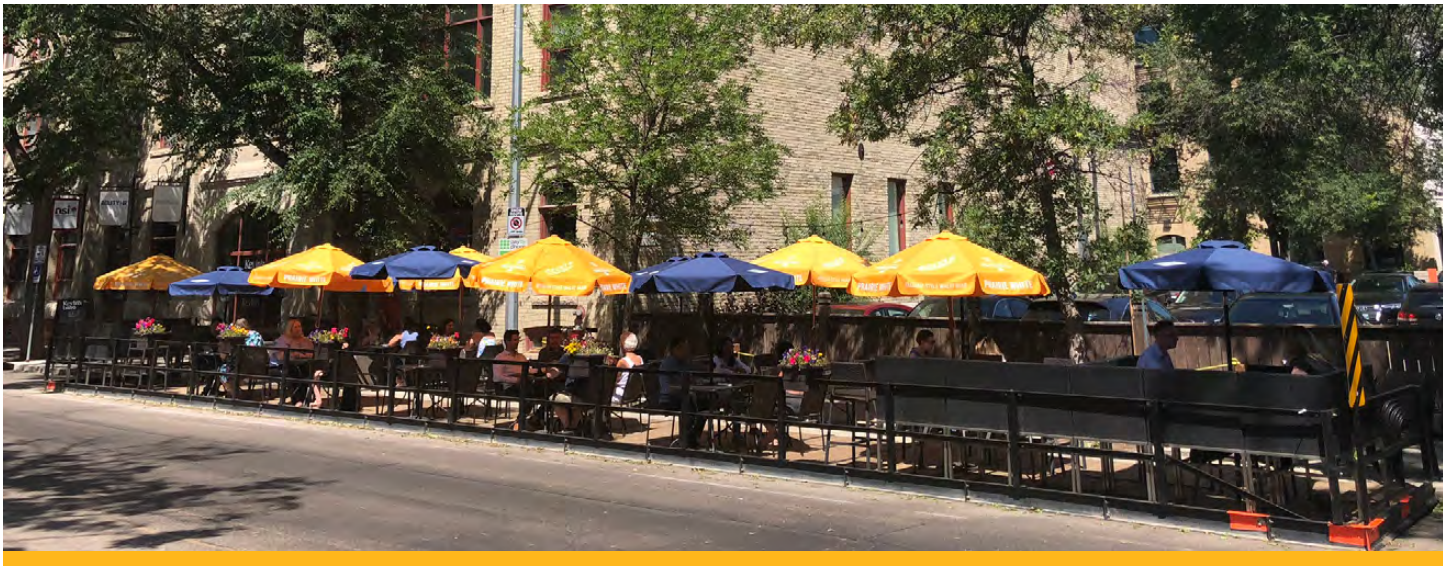
Over the past several decades, Winnipeg's street network has been designed to primarily serve the movement of automobiles. With Winnipeg's population growing, the best opportunity to move people and goods more efficiently, equitably, and sustainably is increasing the utilization of this valuable public space. This requires both transforming our streets to serve sustainable mobility options, and further integrating land use and transportation to reduce the amount of travel required.

One of the key components of accommodating population growth and achieving the *OurWinnipeg 2045* goals is optimizing Winnipeg's existing infrastructure – mainly using Winnipeg's roadways more efficiently, to move more people and goods, while using the same amount of space. This, combined with the need to increase the provision and use of sustainable mobility options, calls for transforming Winnipeg's streets. This involves a departure from the idea that roadways are for movement and access by cars, towards the idea that they are for movement and access by people and goods, in addition to holding a valuable placemaking role as the City's most prolific public spaces.

The OurWinnipeg 2045 Complete Streets Policy is to: *Apply Complete Streets principles in the design, reconstruction, construction and operation of designated Urban Mixed Use Corridors, and other areas of the city where appropriate, to enhance the safety and usability of an integrated and sustainable transportation system based on a hierarchy of users which safeguards those most at risk of fatality and injury.*

There is no one-size-fits-all design solution to making a street more complete. As such, systematic decision making is important for consistently applying Complete Streets principles to all road projects in a manner that considers the unique circumstances – whether it is an existing or new street. Public, stakeholder and cross-departmental engagement is an important part of this process to identify needs and priorities for a given street, manage trade-offs, work towards solutions, and ensure that street design accounts for emergency and other services.

See **Appendix C** for a detailed outline of elements of a Complete Street Implementation Strategy.



Complete Streets are streets that are planned, designed, operated, and maintained with the safety and needs of all road users at the forefront, not just automobiles. The approach recognizes that streets have many roles, both as transportation corridors and as public spaces and that streets should provide safe spaces for people who walk, bike, wheel, take transit, or drive as well as for the safe and efficient movement of goods. Improving the safety of streets for all users is critical to achieving broader city building goals including achieving a 50% sustainable mode share target. When streets are safer for a variety of road users, they are more attractive for sustainable transportation making them a viable option for people to choose more often.

While all streets can be Complete Streets, each street will look different. The specific infrastructure and design treatments will be different on every street depending on the surrounding transportation and land use context. A Complete Streets approach does not prescribe specific design; it is about making sure that all road related processes account for the safety and needs of all road users.

Winnipeg already has many Complete Streets. For example, local residential streets with low traffic volumes and low vehicle speeds, often accommodate all road users well without the need for additional infrastructure, such as bike lanes. Another example of a complete street in Winnipeg is Sherbrook Street in Downtown which involves bus stops on concrete islands, protected bike lanes, tactile paving and more. Both of these streets are Complete Streets, however both look very different because they are tailored to the specific context where they are located.

Winnipeg also has many streets that cannot be considered Complete Streets, often because they are not safe, reliable or inviting places for transit users, pedestrians, and cyclists. Transitioning these streets to be more complete needs to consider the context of the corridor to determine the best approach for each specific location. Weather conditions, such as snow and ice, will need to be taken into consideration to ensure that Winnipeg can provide Complete Streets year-round.

In some cases, creating a Complete Street will involve maintaining the top priority of the corridor as being a thoroughfare for the movement of people and goods – this may involve adding basic but safe facilities and features for transit riders, pedestrians and cyclists to meet their needs.

However, in many cases, creating a Complete Street will involve prioritizing the needs of non-automobile users. This can take a variety of forms including reallocating road space to give priority to transit vehicles, adding protected bike lanes, making sidewalks wider, reducing crossing distances for pedestrians by extending curbs at intersections, or implementing design interventions to reduce vehicle speeds to name a few. This is particularly important for corridors on the Primary Transit Network where vehicle capacity may need to be reduced to accommodate transit services in order to increase the people moving capacity of a corridor. This is vital to achieving the OurWinnipeg 2045 Goals and transportation outcomes in *TRANSPORTATION 2050*. In corridors where non-automobile modes are prioritized, basic facilities for automobiles and trucks are still provided to ensure safe operation but their needs are not prioritized.

The curbside has become one of the most valuable and important public spaces in cities today. With the emergence of ridesharing services, the deeper integration of sustainable mobility options, and the future availability and adoption of connected and autonomous vehicles, in addition to increased urban goods movement, public realm improvements and continued parking requirements, our demands on this space have never been so great. As a limited public resource, it is important for the City to plan for how the space can help the City achieve its Goals, as outlined in OurWinnipeg 2045 and the transportation outcomes. Identifying priority users and uses, and more efficiently using the available curbside space in a context-sensitive manner is a key component of transforming and optimizing Winnipeg's roadways.

Complete Streets are also an important component of developing Complete Communities, which are places that both offer and support a variety of lifestyle choices, providing opportunities for people of all ages and abilities to live, work, shop, learn and play in close proximity to one another. [8] This is why OurWinnipeg 2045 policies seek equity in the level of service provided across all travel modes in order to achieve a balanced modal split, and provide a sustainable and integrated transportation system that safeguards those most at risk of fatality and injury.

[8] Complete Communities 2.0



Parking

TRANSPORTATION 2050 recognizes the importance of having a strategic plan for parking developed with input from residents, businesses, hospitals, and other stakeholders who rely on effective parking and curbside management. To be written by the Winnipeg Parking Authority, the *Winnipeg Parking Strategy* will outline amendments to current parking policies and propose innovative, modern approaches to both on-street and off-street parking throughout the city. The strategy will also consider other aspects of curbside management and include a roadmap of progressive policies and practices that will be implemented over the next five years so that stakeholders know what to expect of parking in Winnipeg.



Downtown circulation

Winnipeg plays the primary role in providing the appropriate street infrastructure to help grow the Downtown and make it an even more desirable place for people to be. Street character is a major determinant of how development occurs Downtown. *Complete Communities 2.0* envisions Downtown evolving as a collection of compact, mixed-use residential neighborhoods. Well-designed streets provide the services that are a pre-condition to living in high density but also establish the character and experience of urban living.

Focusing on Downtown offers the best opportunity to help meet our modal shift target of 50 percent sustainable modes by 2050. Downtown can maintain and strengthen its role as the hub of our transit system and our pedestrian and cycling networks. Through-traffic will be managed in a manner that maximizes safety, moderating the speed of flow, and balancing the needs of other modes.

Creating great urban streets requires deliberate thinking and careful planning. They are complicated spaces intended to satisfy a diversity of needs.

Major nodes

Major nodes are focal points for a mix of retail, employment, and residential uses. They function as local centres of civic life for their regional section of the city. Developed in the last 50 years, most major nodes are typically anchored by malls that include significant amounts of surface parking, promoting car travel and unfriendly to sustainable modes like active transportation. Motorized vehicular traffic volumes and congestion on major roads in these areas is quite hazardous to other road users, making bicycling and walking difficult and unattractive. With continued development occurring in and around these major nodes, there is an opportunity to reimagining mobility for all users.

Improvements to sidewalks and road-crossing points will make it safer and more accessible to walk within the major nodes, with transit and cycling becoming less stressful as space is clearly defined for all vehicle uses. Parking will be better matched to meet demand encouraging bicycles, electric car charging, transit park and ride, carpooling and other mobility means. Trucks will have clearly defined paths to bring deliveries to stores and businesses to increase safety and minimize disruption.

Employment areas

A key consideration is planning for the lands and transportation networks necessary to sustain Winnipeg's thriving industrial, manufacturing and goods movement sectors – lands that also require efficient multi-modal transportation connections within and beyond the city and are a catalyst of local and regional economic prosperity. *Complete Communities 2.0* directs that land use decisions and the design of the built environment need to be coordinated with the need for goods movement and calls for the review of land use policies to ensure alignment with the vision for goods movement.

3.3.2 PEOPLE MOBILITY

TRANSPORTATION 2050 emphasizes moving people using sustainable modes of transportation, providing convenient, accessible, and realistic choices, and making the integration of all modes safer. Although walking, cycling and transit are more sustainable modes of transportation, it is projected most daily trips will continue to be made by private vehicles.

Historically, network planning has placed lower priority on active and sustainable transportation modes such as walking and cycling and higher priority on efficiently moving motorized vehicles. Residential, employment, and industrial areas have, over the last 50 years, been geographically separated. As a result, personal automobile use is the norm. The use of transit and active transportation modes has steadily decreased from about 40 percent of work trips in 1966 to just 21 percent in 2016. The high use of personal vehicles contributes 48 percent of Winnipeg's total greenhouse gas emissions, with 37 percent coming from personal vehicles alone. While transit services, sidewalks and cycling networks are available, gaps remain and they continue to be somewhat inconvenient or inaccessible for many people.

OurWinnipeg 2045 prioritizes sustainable transportation modes as the mobility options of choice. It promotes a transition to a sustainable transportation system that:

- Safely and efficiently moves people, goods, and services
- Increases access to a variety of affordable mobility choices
- Encourages less reliance on personal vehicle travel
- Reduces travel time
- Mitigates congestion and related greenhouse gas emissions
- Supports the development of denser, better-connected, healthy and complete communities

As such, *TRANSPORTATION 2050* promotes a more sustainable and integrated transportation system where 50 percent of daily trips are made using sustainable mobility options by 2050. Data-driven modelling predicts that most daily trips are expected to continue to be made in the future by private vehicles particularly in outlying areas of the city where low density land use is prevalent. It may not be practical to accommodate all modes of travel equally in every part of Winnipeg. Future transportation and traffic studies may have to make decisions about which modes should be prioritized in different areas of the city.

To achieve a 50 percent sustainable mobility goal and avoid greater congestion as the population grows, a series of policies, programs, and initiatives called Transportation Demand Management (TDM) that encourage a shift in behaviour toward sustainable mobility options will likely be required. This will rely on people using combinations of modes, making the integration of modes and user experience important.

One example of TDM is mobility hubs, as mentioned in the *Winnipeg Transit Master Plan.* These locations integrate many different modes of transportation and are anchored by a high-frequency transit node.

The multi-modal amenities at mobility hubs could include secure cycle parking and bike-share services, parking for car-sharing services, so-called kiss-and-rides, and pick-up and drop-off areas for Winnipeg Transit Plus and vehicles for hire, as well for other potential amenities like shops, restaurants, or daycare centres. Mobility hubs will be key to enabling trips that use multiple modes, satisfying the first-and last mile of transit trips, and increasing mobility options available to people.

The more compact form of development envisioned by *OurWinnipeg 2045* and its companion land use document *Complete Communities 2.0* will bring homes, jobs, services and amenities closer together. This change in land use will support *TRANSPORTATION 2050* objectives by increasing walking, cycling and transit in Downtown, core area neighbourhoods, along major arterial streets and at regional activity centres.

Daily needs such as employment, services, healthcare, school, daycare, and more are accessed through the transportation system. As a result, the transportation system plays a powerful role in people's ability to access opportunities and therefore prosper. To support the prosperity of all Winnipeggers, it is vitally important that *TRANSPORTATION 2050* removes systemic barriers to equitable mobility and looks specifically at improving travel options in geographic areas of higher poverty. **Map 3** shows transit trips to work by transit throughout Winnipeg, highlighting how geographic areas of higher poverty rely heavily on transit as a mode of travel for work trips.

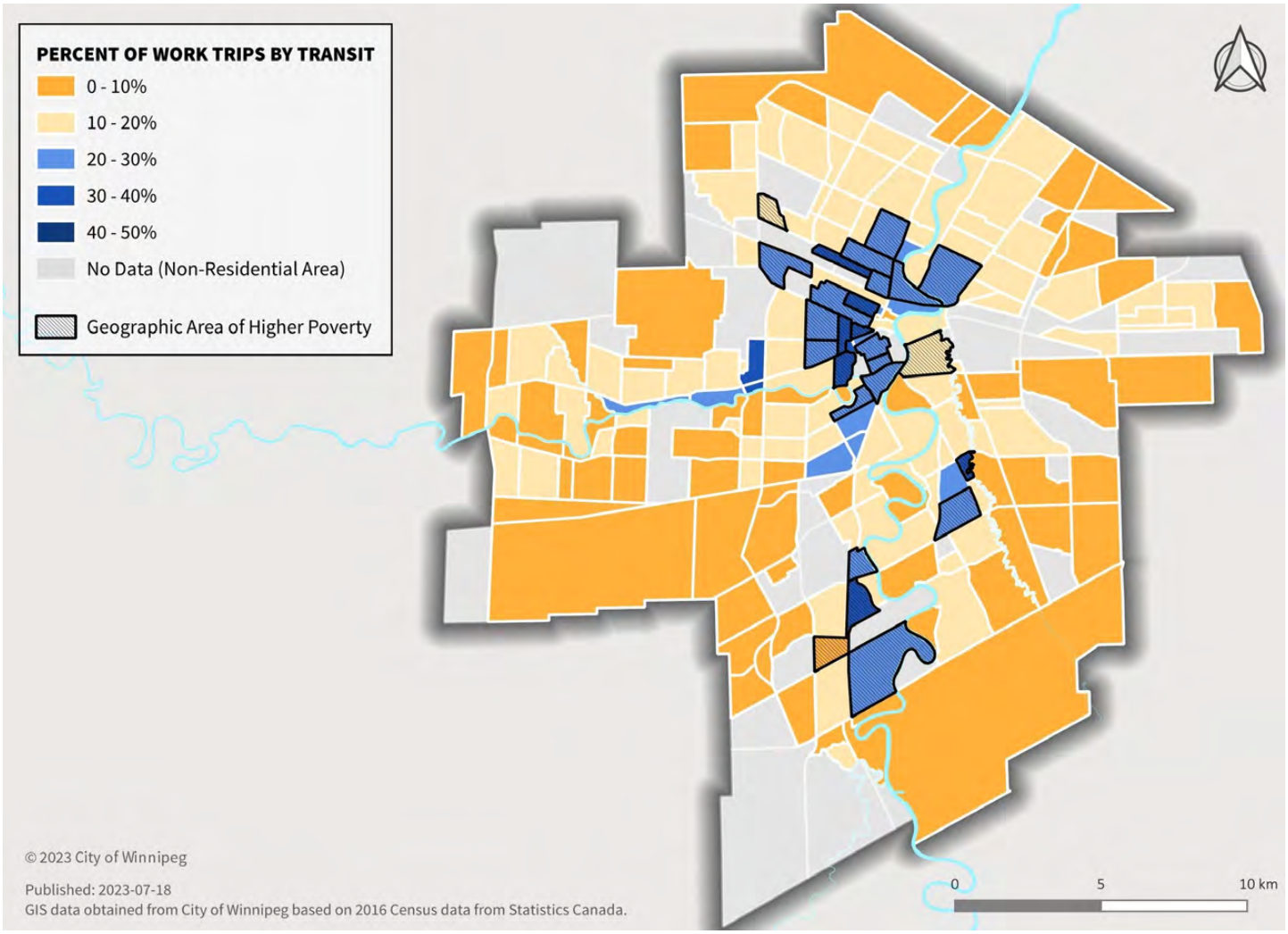
For Winnipeg's aging population, many of whom can no longer drive, alternate modes of transportation to personal vehicles provide opportunities for independent mobility within and beyond their immediate neighbourhoods. For people experiencing poverty, providing more travel options that are lower cost compared to personal vehicle ownership can help improve access to opportunities and contribute to potentially improved financial, social and health outcomes. *TRANSPORTATION 2050* must systemically consider and address the needs of equity seeking groups who experience barriers to transportation based as race, gender, ability, or language and remove barriers that limit mobility for any Winnipegger.

This is particularly important for Winnipeg's transit system which needs to provide access to everyone, with a particular focus on those who rely on it the most. Transit equity is impacted by decisions in three main areas: the network – where transit routes are offered; the service – stations/stops and the frequency/quality of service; and the price – the cost to access the service and how people pay.

Providing high-quality, convenient, and affordable travel options such as safe, accessible, and well-connected transit, bike lanes, and sidewalks and ensuring that new and emerging mobility options are accessible to everyone once available are critical components of a socially equitable city. The future transportation network will continue to manage the demand for vehicle use, but more importantly be optimized to support people and goods mobility using sustainable and environmentally friendlier modes.



MAP 3: PERCENT OF WORK TRIPS BY TRANSIT



Walking and biking

Active transportation is an integral part of sustainable city building, with benefits that positively affect both individuals and the community. Cities around the world, including Winnipeg, are increasingly recognizing that walking and cycling are essential components of a transportation system that contributes to sustainability and equity by being the most affordable and low-carbon travel modes available, in addition to being cost-effective in terms of infrastructure investments.

Winnipeg recognizes the significant quality of life and health benefits that are associated with people using active modes of transportation, as well as the positive economic development advantages that residents can enjoy through a vibrant pedestrian- and cycling-supportive environment.

Walking is the most basic form of transportation, offering health and wellness benefits, costing very little, and is available to almost everyone, regardless of age, gender, ability, or income. Cycling is more than a recreational pursuit. Bicycles are efficient human-powered machines that provide health and wellness benefits and offer travel that's faster than walking.

Finally, safe and convenient active transportation networks also play an important role in providing a great option for the first- and last-mile portion of trips by transit, carpooling, or personal transportation providers. *TRANSPORTATION 2050* targets 14 percent of all trips being made by active transportation by 2050. With a significant portion of work trips of five kilometres or less currently being made by personal automobiles, there is a big opportunity to shift more trips towards active modes of transportation. This supports local, regional, and provincial policy direction that aims to reduce single-occupancy vehicles and improve the health and well-being of people.

Transit

Quality public transit service is an essential requirement for a city to be seen as vibrant and economically competitive. Residents will choose to use public transit if it meets and satisfies their mobility needs. Improvements to the frequency, reliability, convenience, safety, and comfort of transit service are the key factors in making transit an appealing mobility option. These must be supported by a framework of complementary modal mobility options and a strategic action plan prescribed by *TRANSPORTATION 2050.*

Transit use will be key to achieving the *TRANSPORTATION 2050* target of 50 percent of all trips being made by sustainable mobility options by 2050. Contributing to the *OurWinnipeg 2045* Goals, the Winnipeg Transit Master Plan envisions a simpler transit network that providers faster, and more reliable transit service that is useful for riders. This is compatible with regional and provincial policy direction that aims to reduce reliance on personal automobiles and single-occupant vehicles. Analysis conducted as part of *TRANSPORTATION 2050* indicates that the network and services outlined in the *Winnipeg Transit Master Plan* can support the level of ridership anticipated with a 15 percent transit mode share in 2050 and will be essential to achieve this target.

TRANSPORTATION 2050 has set an ambitious but achievable target of moving 50 percent of people by sustainable modes (i.e. transit, cycling and walking) and reducing dependency on personal vehicles by 2050. This 50 percent mode share target was set based on previously adopted Council policies and were analyzed using city-wide travel demand models to understand the dynamics and implications of this target.

50 percent Sustainable mode shift and high-capacity transit

TRANSPORTATION 2050 targets the 50 percent sustainable mobility goal as a way to avoid greater vehicular congestion in the future as the city grows, and outlines a series of policies and actions that will improve alternative transportation encouraging and enabling people to shift modes.

However, promoting mode shift away from cars toward alternative transportation modes will be extremely challenging if these alternatives are perceived as inferior or less convenient compared to private automobiles. It is crucial to make modes such as public transit, cycling and walking attractive, efficient and easy to use. Enhancements may include re-designing the public transit network, building Rapid Transit lines, installing dedicated bike lanes, improving pedestrian infrastructure, and implementing smart transportation technologies. Without adequate investment in appropriate alternative modes, private automobiles will remain the go-to mobility option for the majority of Winnipeggers up to and beyond 2050.

During our data-driven city-wide travel demand modelling to determine travel mode targets and target years leading up to 2050, a key question that became evident was "can we accommodate 50 percent mode share shift without Light Rail Transit (LRT)?"

Quality, convenient and comfortable public transit service is an essential part moving forward to achieving the goal of 50 percent sustainable transportation and the Winnipeg Transit Master Plan will achieve that through implementation of the high-frequency transit bus route network. However, a notable challenge is future population growth and the shift to sustainable modes will create demand for high-capacity transit by 2050.

Therefore, further detailed study and modelling analysis is needed to answer the following critical questions:

- When will Winnipeg need LRT?
- On what corridors will LRT be needed?

The *TRANSPORTATION 2050* plan recommends that a strategic study be undertaken by Public Works and Transit following up on the "Made In Winnipeg" study in 2005, immediately following approval of the *TRANSPORTATION 2050* to provide a plan of action with regard to future Rapid Transit development in the years leading up to and beyond 2050. This study would occur concurrently with and use data from the Winnipeg Area Transportation Survey to be undertaken in 2025.

Motor vehicles

It's increasingly evident Winnipeg cannot afford to continue building outwards and expanding infrastructure while trying to maintain existing infrastructure within the built-up area. Projected future population and economic growth will result in the desire to improve levels of service (LOS) in the maintenance and replacement of existing infrastructure. Important to our economy, trucks will continue to need a reliable road and bridges network for goods movement.

Winnipeg has continued to build new roadways — today, Winnipeg has approximately 5.2 road-lane kilometres per 1,000 residents, which is an increase from the 2010 ratio of 4.5 per 1,000. This means that the cost per person to maintain Winnipeg's roadways has increased. It will be important to increase the efficiency of Winnipeg's existing roadways, as maintaining a sufficient level of service with the minimum amount of road lanes helps to minimize associated costs.

Once infrastructure is built, it requires ongoing maintenance and regular rehabilitation for it to operate safely and efficiently and reach the expected service life. The requirement for ongoing maintenance is a very important consideration for both existing infrastructure and potential new infrastructure. By maximizing the use of existing infrastructure, the need for new infrastructure is minimized, thereby reducing future maintenance costs. This supports a more financially sustainable transportation system as more people can meet their transportation needs by using a smaller amount of infrastructure and services to its highest potential. This also means that more financial resources can be put towards rehabilitating existing assets, helping to shrink Winnipeg's infrastructure deficit.

The Red River, Assiniboine River, and freight rail lines all act as natural barriers to travel across the city. With nearly half of all commuter trips requiring a bridge crossing, it is imperative that the City's bridges are well-maintained, so they can continue to provide essential connectivity across the city. Traffic congestion in Winnipeg is most significant Downtown and near river and rail crossings.

Significant improvements in traffic operations can often be accomplished through operational improvements and adjustments. Winnipeg's Transportation Management Centre (TMC) has made the implementation of many of these improvements possible through the centrally-controlled and fully connected signals and video management systems. For example, the TMC allows for signal timing changes in response to vehicle collisions and other unplanned adverse traffic events which dynamically optimize traffic flow. Improvements should be targeted at areas experiencing congestion including major retail nodes, regional corridors, and on and around bridges.

Given the focus on sustainable transportation in *TRANSPORTATION 2050,* the emphasis for the future is to strategically optimize and enhance the road and bridges network. This is reflected in the policies recommendations which aim to connect the network to meet the needs of new developments and refurbish the existing network to improve operations and support the economy. This also includes maintaining the network in a state-of-good-repair, particularly Winnipeg's bridges which provide essential connectivity across the city for multiple modes.



3.3.3 GOODS, SERVICES, AND EMERGENCY SERVICES MOVEMENT

Commercial goods vehicle and emergency service (police, fire, ambulance) mobility are critical elements of Winnipeg's transportation network, and must be considered and accommodated in the planning, design, and operation of the transportation system. The movement of goods, materials and services is particularly important to Winnipeg's economy as the industrial, manufacturing, and transportation sectors plays a key role in the local and regional economy.

Truck route update

Winnipeg is located the center of the country and at the crossroads of railway and highway networks, and with a significant manufacturing and industrial sector, Winnipeg generates large volumes of goods movement traffic. This is expected to increase in the future with anticipated growth in the transportation and logistics sector as well as the increase in e-commerce. With 10 percent of all jobs in Winnipeg and the surrounding region being from the transportation and logistics in 2017, goods movement is also key to the economic prosperity of Winnipeg and the broader region.

In Winnipeg, trucks and courier vehicles move most goods; however, with its mid-continental location, Winnipeg is also a key node in multi-modal, transcontinental goods movement networks connecting roads, rail, and air transportation modes. There is considerable interaction between goods movement modes and other modes of transportation. It also means there is a significant footprint of inter-modal infrastructure, associated with rail yards and the airport, involved with goods movement in Winnipeg and the surrounding area.

When looking at truck traffic, it is important to distinguish between the size of the vehicles, specifically single units, which are medium-sized two- and three-axle vehicles, and articulated units, such as tractor-trailer combinations. Single-unit trucks are found at higher volumes within Winnipeg's boundaries, including in and around Downtown, and are used for pickups and deliveries to and from local origins and destinations. Articulated units are seen in larger volumes along the Perimeter Highway and particularly around CentrePort in the northwest of Winnipeg. This articulated unit traffic is typically a mix of local, regional, and long-haul traffic moving to and from the truck yards and other industries.

Goods movement will remain a core component of Winnipeg's economy, enabling supply chains to function locally, regionally, and internationally. As a result, the City will continue to facilitate the efficient movement of goods across transportation modes. This will be a key part of supporting individual and community self-sufficiency, local and regional prosperity, and long-term quality of life. While some goods movement may be suited to modes such as rail, cycles, and perhaps other technologies such as drones, trucks are anticipated to remain the most common transport mode for goods movement over the horizon of this study.

Winnipeg's vision for goods movement is: *A cohesive, efficient and effective network of routes designated and preserved for truck transportation, enabling the continued development of Winnipeg's competitive and diversified economy, and furthering Winnipeg's competitive role as an intermodal hub for regional, national, and international freight movement by air, rail, and road.*

Winnipeg's truck route network is the foundation of goods movement as most goods are moved by truck. It is vital that the truck route network provides good connectivity across the city as this is how Winnipeggers get the goods they rely on every day. A truck route network should be reviewed and updated regularly to account for changing conditions.

Planning for efficient goods movement infrastructure and protecting the lands that house Winnipeg's thriving manufacturing and industrial sector is important. This helps contribute to a system that is designed to be effective for all users, reducing conflict between incompatible uses. It also aligns with *Complete Communities 2.0* which aims to coordinate land use decisions and the design of the built environment with the need for goods movement.

Supporting multi-modal transportation options, and therefore reducing automobile use, will mitigate the impact of congestion on and improve safety for commercial vehicle movements within the city.

Emergency vehicles movement

Emergency services are unique users of the transportation network and operate in all parts of the city. It is critical that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion.

It is important to understand the primary emergency response routes where certain traffic calming measures cannot be implemented, and important to maintain neighbourhood access for emergency vehicles by ensuring that effective street design and traffic calming measures accommodate the expedient and safe movement of rapidly moving large responder vehicles.

It is also important for the emergency services providers to be kept up to date on the inventory of traffic calming measures, road closures, and other detours to maintain quality medical first response, firefighting, and policing services.





SECTION 4

DIRECTION: POLICIES AND KEY ACTIONS

SECTION 4

DIRECTION: POLICIES AND KEY ACTIONS

TRANSPORTATION 2050 emphasizes moving people using sustainable modes of transportation. It aims to direct a network that provides convenient, accessible, and realistic choices while making the integration of all modes safer. Although walking, cycling, and transit are more sustainable modes of transportation, most daily trips are projected to continue to be made using private vehicles.

The following policies attempt to be a balanced approach that mitigates conflict and ensures people can get where they're going, receive the goods and services they need, and have choices when doing so. The policies are organized by focus area.

4.1 LAND USE

OBJECTIVES

- Enhance the attractiveness of the urban streetscape and improve safety of all users by targeting select segments of multi-modal corridors and streets that emphasize sustainable mobility options and connect to the surrounding land uses as identified in Complete Communities 2.0
- Deliver ongoing service improvements by:
  - Effectively managing parking services and curb space
  - Providing adequate availability of parking to all stakeholders
  - Supporting land use and development goals of OurWinnipeg 2045 and Complete Communities 2.0
  - Encouraging sustainable transportation use and mobility choices through parking space provision
- Through street design:
  - Foster an environment, where people want to live and businesses want to invest
  - Ensure streets are beautiful, that trees thrive, and that materials, colours, and textures are support the character and historic nature of downtown
  - Increase the number of people who travel to or within downtown by bus, bike and other alternative modes of transportation
- Create better connectivity in and around major nodes for walking, cycling and street networks, while increasing access and reducing response times for emergency vehicles.
- Promote economic development by ensuring efficient movement of workers and goods.

SUPPORTS

- **OurWinnipeg 2045 goals:** Leadership & Good Governance, Good Health & Well-Being, Social Equity, and City Building

- ***TRANSPORTATION 2050* key directions:**
  - Key Direction #2 - Integrate land use and transportation planning

The best transportation plan is supported by a good land use plan.

The built environment influences travel behaviour, and conversely a well-planned transportation system plays a vital role in achieving desired land use goals. Developing complete communities where people can meet their daily needs within their neighbourhood is integral to supporting both a high-quality of life and economic viability. Such communities influence transportation choices, as travel distances shrink when accessing jobs, services, and more. This makes sustainable mobility options more attractive and viable. Complete streets in both new and existing neighbourhoods are a valuable support for complete communities as they are designed to accommodate a range of mobility options and goods movement safely and efficiently.



4.1.1 POLICIES AND ACTIONS

***Policy LU 1.1:** Prioritize providing multi-modal transportation options for people and goods when updating and implementing City planning policies and processes.*

KEY ACTIONS

A. Develop and implement a transportation project prioritization methodology that considers factors such as equity, climate commitments, and other strategic goals, in alignment with the OurWinnipeg 2045 Strategic Priorities Action Plan process, including, for example, developing a multiple indicator index.

B. Develop a Transit-Oriented Development (TOD) Implementation Strategy that identifies planning mechanisms to operationalize TOD in Winnipeg as described in the TOD Handbook and OurWinnipeg 2045 (policies 6.18, 6.31 & 6.32).

C. Review and update zoning bylaws along existing and future Rapid Transit corridors and the Primary Transit Network to:

- Enable context-sensitive density through infill development.
- Support a pedestrian-oriented public realm at sidewalk level.

D. Consider the implementation of development incentives to encourage intensification Downtown and along Corridors (such as fee exemptions or Tax Increment Financing).

E. Apply multi-modal level of service guidelines to Winnipeg's Transportation Impact Study Guidelines for new developments.

F. Require Transportation Demand Management Plans be developed by the project proponent as part of the Transportation Impact Study process.

G. Require contractors working on projects that will impact the right-of-way to submit a construction zone mitigation plan outlining the measures they will take to maintain the mobility, safety and accessibility for pedestrians, cyclists and drivers, as well as safe access to transit stops.

H. Develop and implement a set of neighbourhood site design guidelines for New Communities in concert with key stakeholders according to guidance provided in Complete Communities 2.0, including but not limited to:

- A grid or fused grid network of collector and local streets;
- Transit accessibility;
- Multimodal service provision; and
- Multimodal connections with adjacent neighbourhoods.

Policy LU 1.2: Manage off-street parking to support Complete Communities and multi-modal transportation for people and goods.

KEY ACTIONS

A. Encourage the provision of parking on a district basis where appropriate, including Downtown and at Rapid Transit station areas.

B. Develop a tax for surface parking lots to better reflect the true cost of surface parking lots on the City (i.e. environmental impacts and land value) and promote infill development reflecting the highest and best use.

C. Revise off-street parking requirements to encourage parking provision that is suitable to each individual development, including considering the removal of parking minimums or addition of parking maximums.

D. Implement the recommendations in the Winnipeg Parking Strategy (currently under development) and continue to implement recommendations from the Downtown Parking Strategy (2011).

Policy LU 1.3: Collaborate with the Winnipeg Metropolitan Region, government bodies including Indigenous, Federal, and Provincial governments, and relevant stakeholders to support regional land use and transportation integration.

KEY ACTIONS

A. Contribute to and align with the development of on-going and future region-wide plans that promote integrated regional land use and transportation planning.

B. Support the establishment of a regional transportation body to:

- Create a channel of communication for Winnipeg Metropolitan Region member municipalities and regional Indigenous stakeholders regarding the regional transportation network
- Coordinate planning, delivery, operations, and financing of the regional street and highway network, regional active transportation facilities, regional transit services, and parking
- Establish region-wide design standards for all future arterial and highway intersections and traffic management features that align with Transport Association of Canada (TAC) guidelines for heavy vehicles
- Address transportation planning and safety issues occurring at municipal boundaries, including Regional Streets and weight-rated highways in collaboration with Manitoba Transportation and Infrastructure
- Consider the regional transportation impacts of development plans

C. Coordinate with neighbouring municipalities to ensure that new neighbourhoods that are in the vicinity of the municipal boundaries provide a grid network on local and collector streets and provide multi-modal transportation opportunities.

***Policy LU 1.4:** Account for the needs of all road users in transportation decision-making*

KEY ACTIONS

A. Public Works to develop a Complete Streets Implementation Strategy based on guidance provided in Appendix 3 that outlines tools and process to operationalize the Complete Streets policy in all road planning and design.

4.2 PEOPLE MOBILITY: WALKING AND CYCLING

OBJECTIVES

- Promote greater use of sustainable modes of transportation (including but not limited to walking, cycling, and transit) while also maintaining automobile, goods movement, and emergency vehicle mobility
- Provide affordable mobility and universal access for all
- Make walking and bicycling more attractive and convenient through the provision of a pedestrian and cycling network that is connected, safe, and accessible, contributing to a more vibrant community
- Ensure all opportunities to enhance active transportation must take a four-seasons approach and respond to changing travel behaviour in winter weather

SUPPORTS

- **OurWinnipeg 2045 goals:** Leadership & Good Governance, Environmental Resilience, Economic Prosperity, Good Health & Well-Being, Social Equity, and City Building

- ***TRANSPORTATION 2050* key directions:**
  - Key Direction #1 – Integrate land use and transportation
  - Key Direction #2 – Provide safe and sustainable mobility options for all
  - Key Direction #3 – Transform and optimize Winnipeg's street network
  - Key Direction #6 – Enhance active transportation opportunities

Explicit direction for the future of walking and cycling in Winnipeg is provided by the Council-approved Pedestrian and Cycling Strategies (PCS). *TRANSPORTATION 2050* sets high-level direction for walking and cycling as key network components; the PCS builds upon the strategic framework of *TRANSPORTATION 2050*, tailoring it to support active transportation.

4.2.1 PEDESTRIAN AND CYCLING STRATEGY FRAMEWORK

The Pedestrian and Cycling Strategy (PCS) seeks to maximize transportation options by ensuring accessibility, comfort, and safety of walking and cycling in Winnipeg.

The strategies aim to create a transportation network where:

- Walking and cycling are safe, convenient, practical, and attractive transportation choices for people of all ages and abilities
- Equitable access to walking and cycling provides greater transportation choices for residents and visitors in neighbourhoods across Winnipeg. This will improve personal mobility, promote healthy living, and reduce greenhouse gas emissions, thus contributing to quality of life and community wellbeing
- The community is engaged in transparent processes to invest in and prioritize cost-effective, progressive, and innovative infrastructure, support programs, and policies
- Walking and cycling infrastructure are strategically integrated with land use to foster walkable and bicycle-friendly communities in existing and new neighbourhoods
- Walking and cycling infrastructure will be maintained in good repair, operational in all seasons, including establishment of priority networks for winter maintenance
- Winnipeg is recognized as a leading Winter City in promoting walking and cycling throughout the year

TRANSPORTATION 2050 sets high-level policy to guide planning for the pedestrian and cycling networks. These policies are outlined in the following section. The PCS takes these policies further. They outline more specific policy statements as well as direction for infrastructure and programs over the next 25 years and beyond. By doing so, they provide a detailed implementation plan with six strategic directions that organize 94 of actions into short, medium, and long-term priorities for walking and cycling improvements throughout the city.

TRANSPORTATION 2050 does not stipulate actions directly related to walking and cycling; these are contained within the PCS. Please refer to the PCS for more information.

4.2.2 POLICIES

- **Policy WB 1.1:** Prioritize improving connectivity in active transportation networks
- **Policy WB 1.2**: Increase the convenience of active modes
- **Policy WB 1.4:** Enable more active transportation use in all seasons through improved operations and maintenance
- **Policy WB 1.5:** Increase sustainable travel choices for all residents
- **Policy WB 1.8:** Implement educational and awareness campaigns to encourage more active mode use

WATERWAYS – UTILIZING OUR THREE RIVERS FOR SUSTAINABLE TRANSPORTATION

The City of Winnipeg has three rivers flowing through its boundaries: the Red, Assiniboine and Seine. Current waterside walkways that have been developed along the Red and Assiniboine Rivers in the downtown area are popular in the spring-summer-fall months, along with a seasonal winter trail for recreation promoting walking and skating.

Potential future land use scenarios and waterway management may also lead to greater access and use of these natural pathways for transportation. Cities like Vancouver have developed water-based transit services providing convenient connections to/from the surface transit system across rivers and ocean inlets.

Further studies, modelling and impact analysis needs to be undertaken to determine potential future transportation options for these watersheds.

A water bus service in Winnipeg was active during summer 2024: **link**



4.3 PEOPLE MOBILITY: TRANSIT

OBJECTIVES

- Have transit play a vital role in our city's sustainable and future multi-modal transportation system
- Support an equitable transportation system that enables access to opportunities for all Winnipeggers

SUPPORTS

- **OurWinnipeg 2045 goals:** Leadership & Good Governance, Environmental Resilience, Economic Prosperity, Good Health & Well-Being, Social Equity, and City Building.

- ***TRANSPORTATION 2050* key directions:**
  - Key Direction #1 – Integrate land use and transportation,
  - Key Direction #2 – Provide safe and sustainable mobility options for all,
  - Key Direction #6 – Enhance active transportation opportunities,
  - Key Direction #7 – Connect the city with transit service to meet daily needs.

The Council-approved Winnipeg Transit Master Plan sets a 25-year vision for transit service and infrastructure in the city. It establishes the long-term vision for transit in Winnipeg, supported by strategic policy guidance that creates structure and transparency. It includes transit service classes, service guidelines, infrastructure guidelines, Winnipeg Transit Plus recommendations, and a fare strategy.

4.3.1 POLICIES

The following excerpts describe policies from the *Winnipeg Transit Master Plan* which will be furthered by actions recommended by *TRANSPORTATION 2050*. Detailed actions to achieve these policies can be found in the *Winnipeg Transit Master Plan* document separately; *TRANSPORTATION 2050* does not set policy direction specifically related to transit.

Enhance the customer experience of transit users

Transit service and infrastructure guidelines have been developed to provide customers with a comfortable, consistent, and reliable experience. Routes will be consistent and easy to understand. Transit stops and stations will have amenities appropriate to their service class and usage and will be universally accessible. Access to transit, and connections between routes at transit junctions, will be designed to be simple, accessible, and safe. Pedestrian-friendly amenities will help provide seamless connections between transit and active modes of transportation.

Increase transit ridership

The Primary Transit Network lines are designed to increase ridership by offering direct and frequent service, every 15 minutes or better for the majority of the day, seven days a week. Increasing ridership is the most significant way Winnipeg Transit can contribute to reducing greenhouse gas emissions in Winnipeg.

Improve transit mobility Downtown

Create simple and straight routing through downtown, with frequent service. Reduce routes that turn around and terminate downtown to improve mobility for all users.

Complement land use development with transit service

As transit service will be an integrated part of the urban fabric; service levels and service design will complement the diverse development patterns in Winnipeg.

Improve integration between transit and other transportation modes

Transit will function as one component of the broader multi-modal transportation network, working seamlessly with the cycling and pedestrian network and the broader transportation network.

Ensure transit is inclusive

Conventional transit service will be available to, and be accessible for, as many people as possible. Winnipeg Transit Plus will be available to anyone who is unable to use the conventional system some of the time or all of the time.

In addition to accessible conventional transit service, Winnipeg Transit Plus is available for people who qualify for the prebooked, shared-ride service. Winnipeg Transit works to enable as many people as possible to use conventional transit, prioritizing the use of Winnipeg Transit Plus for those who are unable to use the conventional service for some or all of the time.

Continuously innovate to improve transit customer service and service sustainability

As technology continues to evolve, Winnipeg Transit will use the opportunities it provides to continuously improve customer service and service sustainability. Thinking strategically will ensure Winnipeg's investments in technology will advance transit. Incorporating zero-emission bus technology to reduce transit's carbon footprint, using app-based trip booking and fare payments to implement real-time on-request services, identifying potential autonomous vehicle routes, and improving real-time passenger information systems are just a few innovative ideas included in the *Winnipeg Transit Master Plan*.

Empower healthy communities by increasing access to local essential community services by transit
In planning the new network, attention was paid to match existing travel patterns within neighbourhoods with convenient access to essential community services such as grocery stores, health care, education, and recreation, ensuring each neighbourhood has access to these vital services and amenities.

Balance transit investment with affordability

Maintain a balance between transit investment and affordability for the transit rider and the taxpayer. The cost of additional service and transit infrastructure improvements should be implemented in such a way that it does not create an unrealistic financial burden to taxpayers or necessitate drastic increases to transit fares.

TRANSPORTATION 2050 aims to support approved policies set out in the Council-approved Winnipeg Transit Master Plan (WTMP) and strengthen the overall transportation network.

See the *Proposed 2025 Winnipeg System Map (Section 5)* and *Winnipeg Transit Master Plan* for more information.

4.4 PEOPLE MOBILITY: MOTOR VEHICLES

OBJECTIVES

- Support the policies, programs, and initiatives of the Road Safety Strategic Action Plan
- Ensure infrastructure operation is safe, reliable, and accessible
- Protect the integrity and value of existing infrastructure through timely rehabilitation and refurbishment that optimizes the life cycle and defers the need for more costly replacement
- Support the shift to multi-modal choices and zero-emission vehicles
- Address existing and short-term capacity issues
- Identify long-term improvements to address future growth needs in the City

SUPPORTS

- **OurWinnipeg 2045 goals:** Leadership & Good Governance, Economic Prosperity, and City Building.
- **Key directions:**
  - Key Direction #2 – Provide safe and sustainable mobility options for all;
  - Key Direction #3 – Optimize the network to consider future demand and encourage active and alternative mode use;
  - Key Direction #4 – Prioritize sustainability and maintenance of roads and bridges;
  - Key Direction #5 – Improve reliability of goods movement;
  - Key Direction #7 – Provide infrastructure that ensures connected transit service

Winnipeg's transportation system, as in many Canadian cities, is primarily designed for cars. This has led to a high rate of automobiles use for mobility. Car travel is an appealing mobility choice because it offers comfort, flexibility, and convenience – all of which are emphasized by Winnipeg's sprawling urban form and cold winter months. However, car-dependency also poses challenges for a growing city, such as managing congestion, maintaining relatively expensive infrastructure, and making progress towards environmental goals. Careful planning is required to address these challenges as Winnipeg's population grows and travel demand increases.

An internal working document, the Roads and Bridges Strategy was developed during the *TRANSPORTATION 2050* process, to consider how to continue to shape a transportation network that functions from both a economic and sustainability lens. The Roads and Bridges strategy needed to achieve two primary functions.

The data-driven Roads and Bridges Strategy is built on the policies contained within *TRANSPORTATION 2050* to achieve two primary functions:

1. **Transforming and optimizing existing streets:** To achieve 50 percent sustainable mode share in 2050, Winnipeg's transportation system will need to move slightly more cars than today but significantly more buses, cyclist, and pedestrians. This indicates a need for continued focus on maintaining existing roads and bridges while increasing investment in modes of transportation that can move more people with our existing infrastructure. Multi-modal corridor studies (see Map 4) and the Local and Regional Street renewal programs will play a pivotal role in transforming Winnipeg's streets to meet future needs.
2. **Strategically enhancing the road network:** While Winnipeg's efforts must focus on maintaining and transforming our existing infrastructure, we shouldn't stop all investment in new roads. We must just be more strategic. *TRANSPORTATION 2050* developed an assessment method to evaluate roads and bridges projects that would require major capital investment. This included new roads and bridges and projects that propose adding lanes to existing roads and bridges. All projects were scored based on five evaluation criteria:
   - Social equity
   - Contribution to transit
   - Contribution to active transportation
   - Economic development, in terms of goods movement and land development
   - Affordability

It is important to note that vehicle level of service (LOS), a common metric used to assess congestion, was not included as an evaluation criterion. This deliberate omission stems from the understanding that prioritizing car-oriented solutions and adding capacity for vehicles often leads to increased car use and dependency, making it more challenging to achieve the city's goal of attaining a 50 percent sustainable mode share.

Implementing these strategic enhancements would result in completion of the strategic roads and bridges network.

Additionally, *TRANSPORTATION 2050* recommends adequate funding be provided to undertake a detailed Strategic Road Network Study and subsequent individual multi-modal corridor studies immediately following its adoption.

The detailed Strategic Road Network Study will replace the previously proposed Inner Ring Road Study (Winnipeg's Inner Ring Road consisting of Route 90/Kenaston Boulevard, Abinojii Mikanah (Route 165), Lagimodiere Boulevard (P.T.H. 59), and Chief Peguis Trail (Route 17). These corridors are critical to regional vehicle movement in the city, however, there are other corridors that provide a similar function of supporting regional trips by connecting to the Perimeter Highway and Provincial Truck Highway network. As a result, the strategic road network consolidates corridors with a common function into one network.

Traffic modelling done for *TRANSPORTATION 2050* identified several portions of the 2011 conceptual strategic road network as notable congestion points, hindering the flow of goods and regional trips, even after reaching 50 percent sustainable mode share targets. Maintaining a higher vehicle level of service on this network can provide connectivity throughout the city while discouraging routing through the downtown for cross-city trips and on other major mixed-use corridors.

The challenge that remains is how to improve travel time reliability for goods movement on the strategic road network without unintentionally contributing to the sprawl of Winnipeg's urban form. The type of study required to address these issues is more detailed than can be undertaken within the scope of *TRANSPORTATION 2050*. The study will identify targeted solutions for improving goods movement on a subset of streets that are critical at a regional level while also discouraging routing through the downtown for cross-city trips. The resulting network will have four main focuses:

1. Developing a safe and reliable vehicle and truck-oriented network for regional trips
2. Improving the goods movement network throughout the city and capital region
3. Providing a reliable route around the Downtown that reduces cut-through traffic and complements investment in sustainable modes on constrained corridors
4. Supporting growth in recent and new communities

The study will identify:

1. Corridors that form the network
2. Corridors that require improvements to address existing and future needs, including prioritizing the most urgent needs
3. Design criteria for greenfield and retrofit corridors that recognizes the variability of our current network and adjacent land uses
4. Criteria for when grade separation should be considered, and if not feasible, what alternative solutions are acceptable
5. Recommendations for updating the Private Access By-Law and Zoning By-law to reflect the operational needs of these corridors

It is recommended that the study be used to develop a program to undertake detailed corridor studies. These corridor studies will identify short term improvements to address existing capacity issues and long-term improvements to address future growth needs. It is critical to develop long term plans for corridor improvements as it enables the City to minimize constraints and preserve the necessary land required to undertake these improvements. In addition, this will enable the city to promote compatible land uses adjacent to these future corridors to more readily support development in these areas.

Corridor study programs

One of the aims of *TRANSPORTATION 2050* is to make sustainable modes competitive with motorized vehicles, which will encourage greater use of alternative modes in the future, making Winnipeg less automobile-reliant while maintaining a high standard of travel conditions for the public, with the goal of achieving a 50% sustainable mode split by 2050.

- Transit is particularly effective for medium-long range trips (i.e., greater than 3-5 km) in areas of higher density and where rights-of-way limit roadway expansion, such as along constrained Downtown corridors.
- Active transportation complements transit; it is effective in similar contexts but is better-suited to short-range trips (i.e. shorter than 3-5 km).
- However, a major challenge at present in Winnipeg is that much of the city's recent growth and future anticipated growth is in lower-density development near the outskirts of the city. This type of development has historically been difficult to serve by sustainable modes, as trips are generally longer than 3-5 km.

It is acknowledged that some transportation corridors will need to change to take on new roles and new demands within the network, whereas other corridors will require some level of infrastructure upgrades to accommodate increased traffic, even with the impending shift to greater use of sustainable modes.

Consequently, several new, distinct programs (a multiyear program of work made up of the study of multiple transportation corridors which may form a network) have been identified for the Public Service to take on, to identify proposed improvements that will be needed in the future, based on the specific needs the targeted mode shift associated in distinct areas of Winnipeg, and determined by the intended role of the corridor in the overall transportation network.

These programs are:

- Rapid Transit Corridors Program
- Strategic Road Network (SRN) Program
- Multi-modal Corridors Program

These corridors may also be candidates for modifications to land use uses and increased density, and may be part of the Complete Streets Program, specifically the Rapid Transit Corridors or Multi-modal Corridors programs.



RAPID TRANSIT CORRIDORS PROGRAM

The Rapid Transit Corridors program is managed by Winnipeg Transit. This program, which is currently partially funded, oversees the planning and construction of rapid transit on a number of high-traffic corridors, including but not limited to Portage, Main, and Nairn/Regent. These are shown on **Map 4A,** the corridors annotated as “Rapid Transit Dependent”.

The corridors that form this network will need to be analyzed to determine what changes to make to them to allow for upgraded (rapid and/or high volume) transit service to be incorporated into the right-of-way, while continuing to permit vehicular travel. Road capacity will likely have to be sacrificed to provide right-of-way for Transit corridors and station infrastructure on these corridors.

Additionally, active modes will need to be considered, e.g. bike lanes, sidewalks, multi-use paths, which may be on the same corridor or on a parallel corridor.

STRATEGIC ROAD NETWORK (SRN) PROGRAM

The Strategic Road Network is made up of corridors that are critical for:

- providing a safe and reliable network for regional trips;
- improving goods movement throughout the City and Capital Region;
- providing a reliable route around the Downtown (with the aim of reducing cut-through traffic and complementing investments in sustainable modes on constrained corridors); and
- supports growth in neighbourhoods that are difficult to serve with sustainable modes.

Establishing and studying the SRN corridors is important because improvements on these corridors have the potential to be property intensive, require a high degree of coordination various stakeholders, and require exploration of various funding strategies to address the significant capital investment.

Even if improvements are not warranted within a short/medium planning horizon, establishing the right-of-way requirements will ensure land use planning occurs proactively to mitigate stakeholder impacts.

The corridors that are to be a part of this program will need to be determined by the Public Service.



MULTI-MODAL CORRIDOR PROGRAM

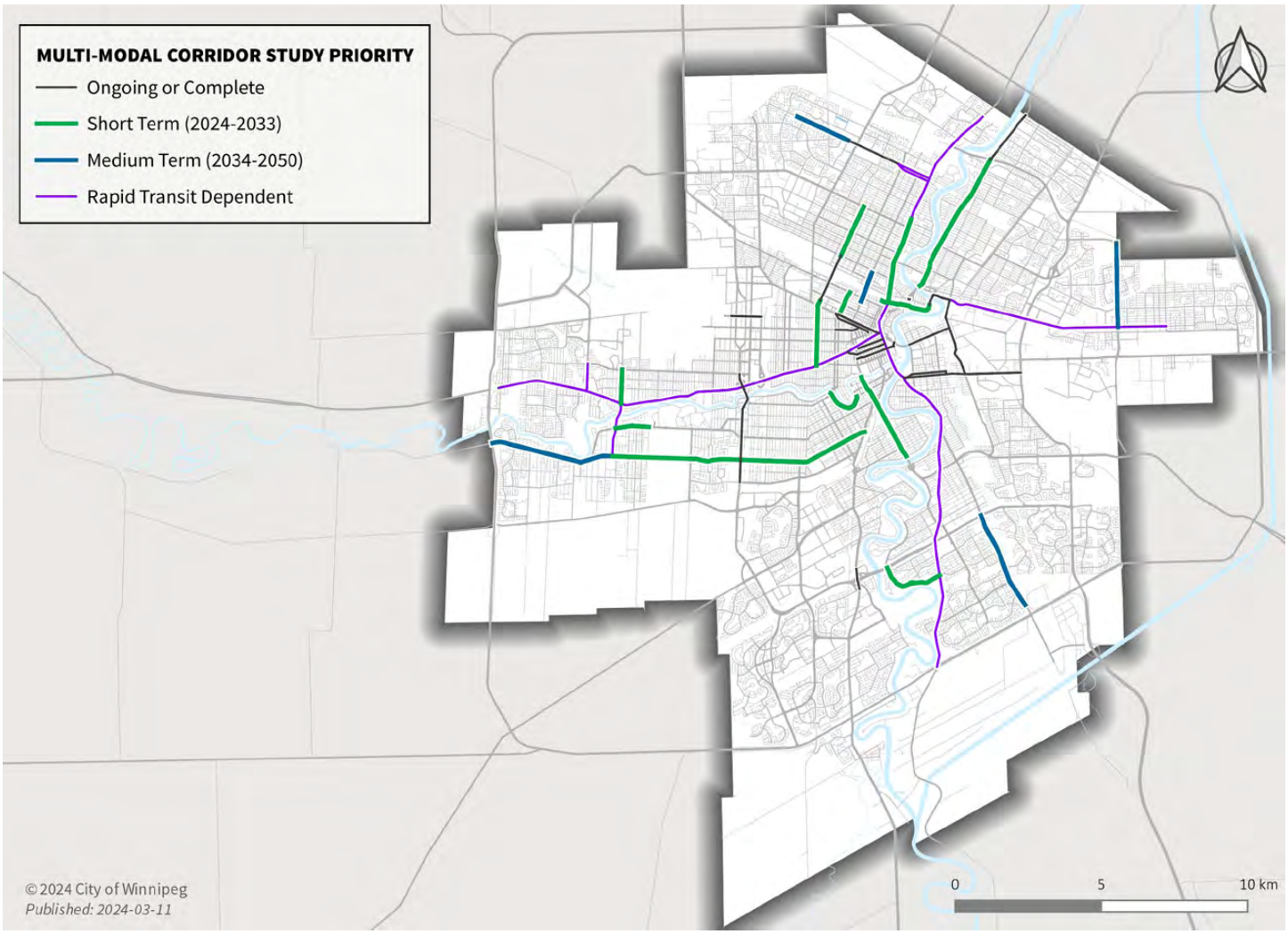
A third program related to multi-modal corridor studies is required to fill in the remaining gap left by the first two programs. These corridors are also shown on **Map 4A.**

Multi-modal corridors are routes that are not covered by the Rapid Transit Corridor Program but have multiple modes that potentially require upgrading but are simultaneously competing for limited right-of-way space.

They are typically constrained corridors in mature and/or dense communities, which makes property acquisition cost-prohibitive and/or otherwise undesirable.

The focus on these corridor studies will be to determine how to allocate the right-of-way so as to safely and efficiently move increasing numbers of people whilst also balancing goods movement needs. A key outcome of these studies will be identifying strategic enhancements to the Transit and active transportation network along these corridors to improve the overall capacity of moving people.

MAP 4: MULTI-MODAL CORRIDOR STUDY PRIORITY



4.4.1 POLICIES AND ACTIONS

These larger, network-wide policies and actions focus on motor vehicle movement and guide how the public service manages and operates the road network, as well as provide them with the tools they need to plan for the future. These policies help address the 15 road- and bridge-related challenges noted in the Roads and Bridges Strategy.

Policy MV 1.1: Reduce the transportation infrastructure deficit by prioritizing upgrades to existing infrastructure that move more people and goods.

KEY ACTIONS:

A. Only expand, extend, or add roads for the purposes of providing space for goods movement or sustainable mobility options, or for connecting new developments to the existing network.

B. Within the transportation project prioritization methodology, prioritize maintenance and upgrades to existing infrastructure to move more people efficiently, rather than building new infrastructure. This will increase the utilization of existing infrastructure and decrease maintenance costs associated with new assets.

C. Coordinate preventative or planned maintenance with new or redevelopment projects to reduce duplication in work, minimize impacts on service, and reduce additional strains on an asset's expected service life.

D. Manage travel demand growth Downtown without creating additional road space for vehicles.

E. Coordinate preventative or planned maintenance with new or redevelopment projects to reduce duplication in work, minimize impacts on service, and reduce additional strains on an asset's expected service life.

Policy MV 1.2: Use transportation demand management to increase sustainable mode use.

KEY ACTIONS:

A. Develop a Transportation Demand Management Strategy to coordinate the implementation of initiatives and incentive programs that reduce single-occupancy vehicles and increase the use and viability of sustainable mobility options.

B. Identify consistent funding sources for Transportation Demand Management (TDM) within the TDM Strategy.

C. Develop a workplace Transportation Demand Management program that will encourage the use of sustainable mobility options for employers across the city and within the City of Winnipeg.

D. Continue supporting a flexible work program for City of Winnipeg employees that enables them to shift working hours or work-from-home regularly, to reduce peak period travel demand and encourage the other participating workplace Transportation Demand Management program members to implement a similar program.

E. Prepare Transportation Demand Management Plans for all major transportation projects to identify multi-modal initiatives and programs for the design, construction, and operation phases.

F. Continue and expand support for an online carpool matching program (i.e. GoManitoba).

G. Engage with employers (including the City of Winnipeg) to encourage employees to carpool through programs such as preferred parking spots, discounted parking rates or parking cash-out programs.

H. Establish a New Development Travel Program, targeted at residents of new developments near the Primary Transit Network or active transportation facilities with the goal of encouraging sustainable travel behaviour.

I. Study road pricing as an opportunity to manage travel demand in Winnipeg including traditional road tolling, urban tolls, and congestion charges in consultation with key stakeholders and the public.

J. Promote Winnipeg Transit's EcoPass program with all employers (including the City of Winnipeg), particularly those located Downtown or on the Primary Transit Network through the workplace Transportation Demand Management program.

K. Expand and continue to support school outreach programs that engage youth in transportation discussions and encourages the use of active transportation for travelling to and from school.

L. Partner with organizations that provide services to new immigrants to engage and educate newcomers on the transportation system in Winnipeg and promote sustainable mobility options.

M. Identify areas throughout Winnipeg that are underserved by sustainable transportation and focus the implementation of Transportation Demand Management programming in those areas in the short-term (for example the Fort Garry Industrial Park).

N. Partner with regional and provincial partners to develop a regional Transportation Demand Management strategy.

***Policy MV 1.3:** Plan and operate the transportation system to reduce greenhouse gas emissions and increase environmental resilience.*

KEY ACTIONS:

A. Develop a Zero Emission Vehicle Strategy to prepare the City of Winnipeg for 100 percent of car and passenger truck sales to be zero emission by 2035 as per the Government of Canada's mandatory target. This strategy would include interim targets for 2025 and 2030 and plans to implement the necessary infrastructure, educate, and engage the public, encourage adoption, and update the City's corporate fleet (as an update to the Green Fleet Plan, 2010).

B. Continue progress on the Transition to Zero-Emission Bus Program which will see 30 percent of Winnipeg Transit's fleet be zero-emission by 2030 and 100 percent of the fleet by 2050 or earlier.

C. Identify a consistent source of funding beyond 2027 to fund the Transition to Zero-Emission Bus Program through to 2050.

D. Investigate and utilize federal programs available to assist municipalities transition to zero-emission vehicles and promote programs targeted at individuals.

E. Identify opportunities to support the transition to zero emission freight vehicles such as through subsidies, priority loading areas for zero-emission vehicles, urban consolidation centres and more.

F. Integrate climate change considerations into the transportation project prioritization methodology (See Action 1.1.1.A) to contribute to greenhouse gas emission targets set by the City and the Province and increased climate resilience. This could include estimating greenhouse gas emissions

that would result from the operation of the project and evaluating a project's contribution to a transportation system more resilient to extreme weather.

G. Assess the resilience of Winnipeg's transportation network to changing climate conditions such as increased flooding and higher temperatures, and update standards as necessary to ensure new and rehabilitated infrastructure is designed appropriately.

H. Invest in green streets infrastructure and other green innovations that reduce stormwater runoff and mitigate heat island effects.

Policy MV 1.4: Embed equity and inclusion in all transportation decisions.

KEY ACTIONS:

A. Undertake and implement the Strategic Road Network Study to: develop a safe and reliable vehicle and truck-oriented network for regional trips; improve the goods movement network throughout the City and Capital Region; provide a reliable route around the Downtown that reduces cut-through traffic and complements investment in sustainable modes on constrained corridors; and support growth in existing and future developments.

B. Identify and implement a formal approach to consistently consider equity in the transportation project prioritization methodology (action 1.1.A) and in the design of transportation projects. For example, including weighted equity factors as part of a prioritization formula.

C. Review all transit-related decision-making processes to ensure that equity considerations are included and prioritized (e.g., the evaluation process used to rank transit service requests and prioritize service planning changes in the annual service change report).

D. Effectively engage with community members who are systemically disadvantaged, underrepresented and/or underserved on all transportation projects.

E. Provide adequate funding and time as part of transportation-related engagement opportunities to engage with community members who are systemically disadvantaged, underrepresented and/or underserved.

F. Identify opportunities in geographic areas of higher poverty to address existing travel demand and issues with accessibility to sustainable travel choices, for implementation in the short-term.

G. Establish measures to track access to and reliability of transportation services in geographic areas of higher poverty to enable continuous improvement.

H. Continue to demonstrate leadership by incorporating barrier-free, accessible, and universal design principles in all stages of development and delivery of transportation facilities, networks, and programs.

I. Continue to provide capital funding to retrofit existing infrastructure to remove barriers to access.

J. Continue to identify and address accessibility barriers in the transportation network as part of integrated planning processes.

K. Support the implementation of the Winnipeg Poverty Reduction Strategy.

L. Continue to support physical transit fare media used for social equity programs.

M. Continue to increase initiatives to ensure accessible Vehicles for Hire are provided.

N. Create a working group to inform, monitor and implement transportation equity considerations over the horizon of *TRANSPORTATION 2050*.

O. Maintain a commitment to the Winnipeg Accessible Design Standard for the design of newly constructed and/or renovated transportation facilities.

P. Update transportation policies and implementation tools related to universal design and accessibility as necessary.

Policy MV 1.5: Advance Winnipeg's Towards Zero road safety commitment, prioritizing those most at risk of fatality and injury including pedestrians and cyclists.

KEY ACTIONS:

A. Adopt the Road Safety Strategic Action Plan (RSSAP) as a guiding document for the continued implementation of road safety measures.

B. Monitor progress towards the implementation of the RSSAP.

C. Update the RSSAP on a five-year cycle.

D. Create a Road Safety Branch within the Transportation Division with new employees specifically assigned to implement the actions of the RSSAP.

E. Embed a Safe Systems approach to road safety as part of the organizational culture at the City of Winnipeg across all departments.

F. Continue the six-step traffic calming review process that allows the City, councillors, and residents to work together to introduce traffic calming initiatives within neighbourhoods and update as needed.

G. In conjunction with Manitoba Transportation and Infrastructure, encourage road safety assessments to improve motor vehicle safety on all cross jurisdictional routes.

H. Ensure that interfaces and crossing points between active transportation routes and truck routes are designed to protect the safety of vulnerable road users.

I. Promote safe and convenient access to transit by providing pedestrian crossings at transit stops, prioritizing those on the Primary Transit Network.

J. Work with Manitoba Public Insurance and Manitoba Transportation and Infrastructure to modify the provincial collision report to include a section that specifically deals with commercial vehicles to improve data collection on collisions involving commercial vehicles.

K. Conduct warrant analyses of all at-grade rail crossing in Winnipeg according to Transport Canada Guidelines for grade separation to improve safety and efficiency at these locations.

Policy MV 1.6: Account for the needs of all road users in transportation decision making.

KEY ACTIONS:

A. Public Works to develop a Complete Streets Implementation Strategy based on guidance provided in Appendix 3 that outlines tools and process to operationalize the Complete Streets policy in all road planning and design.

B. Work with Planning, Property & Development, developers, and area residents to undertake an Charleswood area transportation study to determine the best design for a future regional and local transportation network. The study should: consider limitations caused by natural topographic features, waterways, railways, existing developments, and land uses and maximize safe and efficient connectivity for all modes including pedestrians, cyclists, goods movement, emergency vehicles, and private cars.

***Policy MV 1.7:** Manage curbside space based on the context of the street.*

KEY ACTIONS:

A. As part of the Winnipeg Parking Strategy, develop a curbside management strategy that includes policies and technologies to both better manage curbside space for all uses (including loading) and decrease peak-time parking infractions.

B. Identify locations where on-street parking can be removed to make space for through traffic on sustainable mobility options (e.g. cycling, walking, transit, HOV).

C. Identify locations where on-street parking could be increased in support of sidewalk safety and neighbourhood economic vitality.

D. Explore opportunities for technology to provide motorists with real time data on on-street parking availability, parking rate, loading zone locations, accessible parking space locations and areas where residential parking permits are available as per the Winnipeg Parking Strategy.

E. Continue to use paid parking as a tool to generate turnover in areas with high parking demand and a limited number of on-street spaces as per the Winnipeg Parking Strategy.

***Policy MV 1.8:** Adopt and implement the Winnipeg Parking Strategy, as developed by the Winnipeg Parking Authority, including amendments to current parking policies aspects of curbside management and includes a roadmap of progressive policies and practices.*

***Policy MV 1.9:** In conjunction with the downtown planning process, pursue a series of actions to improve the downtown experience.*

KEY ACTIONS:

A. Respect and restore the traditional pedestrian-oriented form through street design Downtown.

B. Embed improvements to pedestrian safety, comfort and convenience in all road work undertaken Downtown including in the capital budget planning of road renewal projects.

C. Manage travel demand growth Downtown without creating additional road space for vehicles.

D. Prioritize sustainable as the mobility options of choice in the planning, design, operation and maintenance of transportation infrastructure downtown.

E. Consider continuous-sidewalk intersection design styles specific to key Downtown pedestrian areas.

F. Consider truck apron intersection design for key intersections not on a designated truck route within Downtown.

G. Integrate placemaking features within rights-of-way Downtown where suitable in alignment with Downtown planning initiatives.

H. Invest in green streets infrastructure and other green innovations that reduce stormwater runoff and mitigate 'heat island' effects.

I. Update the Downtown Parking Strategy.

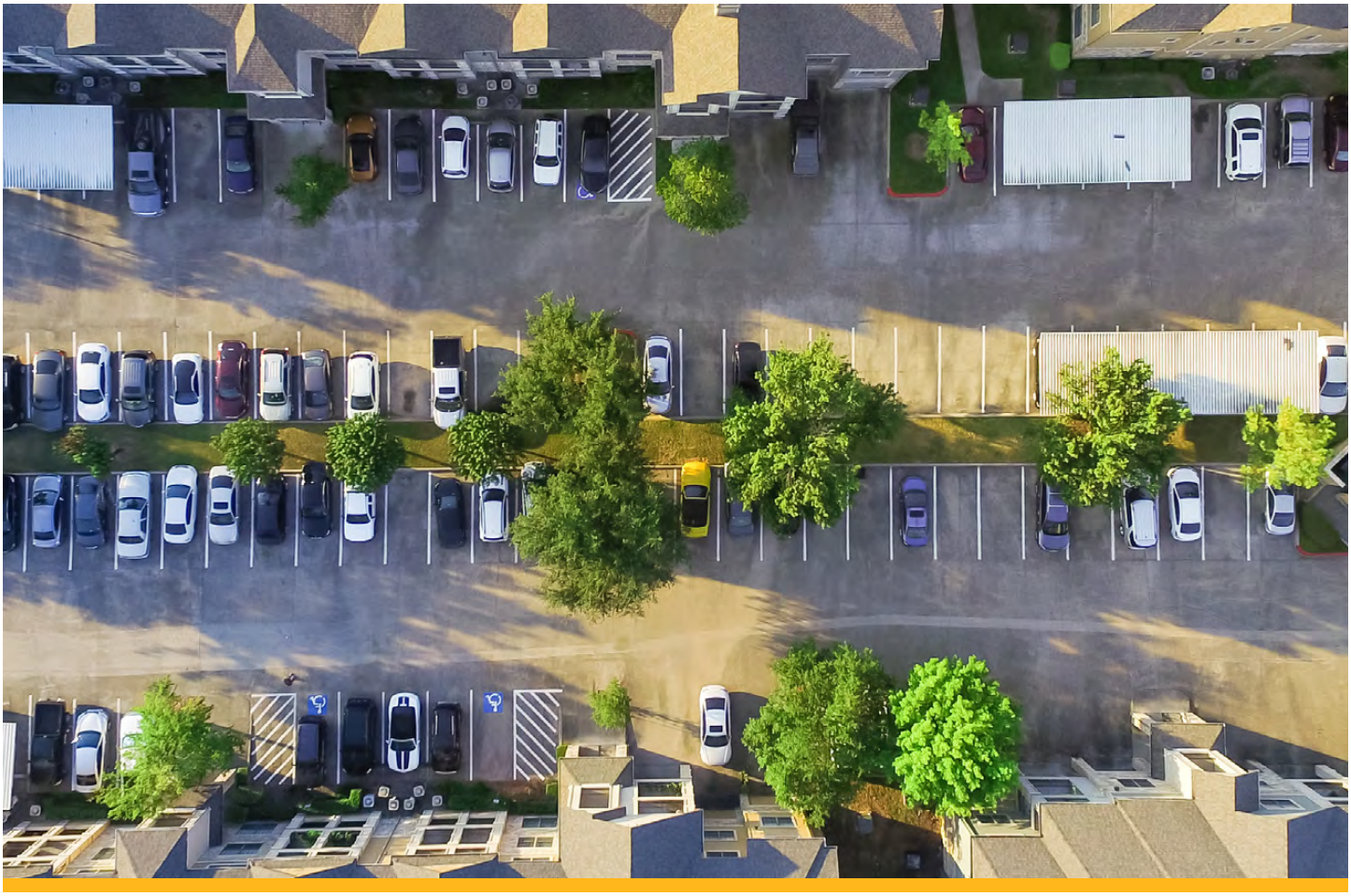
Policy MV 1.10: Incorporate goods movement considerations into the land use planning and development approvals process

KEY ACTIONS:

A. Review existing land use policies to ensure the movement of goods including loading zones are appropriately considered in development proposals.

B. Designate the Airport Area within the Urban Structure, to support the role of the Winnipeg James Armstrong Richardson International Airport as a major transportation hub for passengers and cargo with operation 24 hours per day, 7 days per week.

C. Support the continued development of CentrePort as a focus for goods movement by working with the Rural Municipality of Rosser to resolve outstanding issues associated with the provision of servicing infrastructure, land use planning, zoning, and development.



TRANSPORTATION IN DOWNTOWN

Complete Communities 2.0 envisions Downtown evolving as a collection of vibrant, compact and mixed-use neighborhoods that combine residential, commercial, and other land uses. Well-designed streets are essential to achieving this vision as they provide the services necessary for living in a higher density neighbourhood but also establish the character and experience of urban living. Appropriate street infrastructure will help grow Downtown and make it an even more desirable place for people to be.

Downtown also offers the best opportunity to meet the target of 50 percent sustainable mode use in 2050 by maintaining and strengthening its role as a hub of the transit system and walking and cycling networks. By combining the compact nature of Downtown, with the provision of high-quality sustainable travel options, accessing destinations without a personal vehicle will become more feasible and enjoyable.

To advance the land use and transportation vision for Downtown, *TRANSPORTATION 2050* outlines several Downtown-specific actions. In addition, the City is currently developing Downtown Urban Design Guidelines, a Downtown Streetscape Design Standards Manual, and functional design of bike lanes Downtown. This work will build on the *TRANSPORTATION 2050* transportation outcomes, applying them to the context of Downtown and developing actions tailored to this unique area of the city.

"We must design transportation infrastructure so Downtown is easy to get to, and easy to get around in. Downtown should be safe, accessible, and oriented to enhance the pedestrian, cyclist, and transit rider experience. This will bring life to our streets and reduce dependence on single-occupancy vehicles." - Complete Communities 2.0

4.5 GOODS MOVEMENT AND EMERGENCY SERVICES

OBJECTIVES

- Recognize the important economic role of goods movement by providing a safe, efficient, and connected goods movement transportation network
- Consider access to emergency services in the planning, design, and operation of the transportation network

SUPPORTS

- **OurWinnipeg 2045 goals:** Leadership & Good Governance, Economic Prosperity, and City Building.
- ***TRANSPORTATION 2050* key directions:**
  - Key Direction #1 – Integrate land use and transportation
  - Key Direction #4 – Strategically enhance the road network and bridges
  - Key Direction #5 – Support economic prosperity with reliable goods movement

Commercial goods vehicle and emergency service (police, fire, ambulance) mobility are critical elements of Winnipeg's transportation network, and must be considered and accommodated in the planning, design, and operation of the transportation system. The movement of goods, materials and services is particularly important to both the City of Winnipeg and the Province of Manitoba as the industrial, manufacturing, and transportation sectors play key roles in the local and regional economies. The economic role of CentrePort and the James A. Richardson Winnipeg International Airport are expected to grow significantly in the coming years. Local goods movement and deliveries are essential to everyday living in the city, and as the number of people living and working in the city increases several actions are needed to support increased trucking activity while reducing neighbourhood impacts and safety concerns.

To accommodate this anticipated growth, investment in strategic infrastructure and maintenance of existing roads and bridges facilities is essential to a thriving economy and high quality of life. *TRANSPORTATION 2050* must achieve a balance that minimizes minimize response times while implementing measures to upgrade transit efficiency and improve road, cycling and pedestrian safety.

Winnipeg's truck route network is the foundation of goods movement as most goods are moved by truck. The truck route network outlines where trucks are allowed to travel and whether they can always do so or only at certain times of the day. Trucks are however allowed off the network for first- and last-mile access to origins and destinations but must take the shortest route available. It is vital that the truck route network provides good connectivity across the city as this is how Winnipeggers get the goods they rely on every day.

Emergency services need special consideration in the transportation system. It is critical that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion.

4.5.1 POLICIES AND ACTIONS

Policy GMES 1.1: Incorporate goods movement considerations into the land use planning and development approvals process.[9]

KEY ACTIONS

A. Work with stakeholders to accommodate Long Combination Vehicle (LCV) operations in future commercial/industrial developments and the adjacent thoroughfares.

B. Review existing land use policies and processes to ensure the movement of goods (including but not limited to loading zones and entry/egress points) are appropriately planned for in development proposals.

C. Deploy corridor management planning adjacent to key rail corridors to avoid pressures limiting freight activity and access to intermodal terminals and yards.

D. Designate the Airport Area within the Urban Structure, to support the role of the Winnipeg James Armstrong Richardson International Airport as a major transportation hub for passengers and cargo with operation 24 hours per day, 7 days per week (as per OurWinnipeg 2045 policy 6.34).

E. Support the continued development of CentrePort as a focus for goods movement by working with the Rural Municipality of Rosser, and the Province of Manitoba to resolve outstanding issues associated with the provision of servicing infrastructure, land use planning, zoning, and development.

F. Evaluate impacts to the reliability of goods movement for all projects which may reduce capacity on truck routes identified in the truck route network.

[9] This policy and associated actions also apply to ***4.3.1 Land Use*** and should be considered as means to both recognize the important economic role of goods movement by providing a safe, efficient, and connected goods movement network and align transportation planning and infrastructure investment with city land use directions and implementation strategies.

Policy GMES 1.2: Implement the recommended update to Winnipeg's truck route network.

KEY ACTIONS:

A. Amend the By-Law to update Winnipeg's truck route network and use the updated method outlined in the Goods Movement Study as the basis for regular network reviews and updates going forward.

B. Approve the update to Winnipeg's truck route network (outlined in the Goods Movement Study of *TRANSPORTATION 2050*) and use the updated method outlined in the Goods Movement Study as the basis for regular network reviews and updates going forward.

C. Designate a strategic goods movement network that identifies a priority network for goods movement that connects all major freight generators.

D. Create a new position for a freight transportation coordinator within Public Works to address the planning, design, operation, coordination, and regulatory issues associated with the movement of freight transportation in Winnipeg and its Metropolitan Region.

Policy GMES 1.3: Support safe and efficient goods movement by exploring strategic infrastructure and operational improvements and planning for new technologies.

KEY ACTIONS:

A. Continue reviewing and updating signal timing plans to enhance the flow of goods on strategic goods movement network while maintaining a safe environment for all other users.

B. Investigate the feasibility of piloting a reserved lane for use by trucks and other priority vehicles (e.g., HOV, transit, etc.) on a corridor with high truck volumes.[10]

C. Evaluate the need for improved traffic control at key freight generators and attractors in Winnipeg and surrounding municipalities in collaboration with those municipalities.

D. Monitor and evaluate the infrastructure implications of new technologies for commercial and heavy-duty vehicles, including but not limited to vehicle-infrastructure communications, automated vehicles, and zero-emission vehicles.

E. Evaluate the feasibility of an east-west freight corridor connecting CentrePort with Transcona and the CN Intermodal Terminal. Include considerations for multiple routing options for through truck movements around Downtown and away from residential neighbourhoods.

[10] This action is recommended as a pilot project for implementation as part of the supplemental Roads and Bridges Strategy

Policy GMES 1.4: Collaborate with regional partners to coordinate plans and policies to increase goods movement safety, efficiency, and reliability.

KEY ACTIONS:

A. Support the establishment of a regional goods movement group that includes representation from key stakeholders in the public and private sector, including air, rail, and road transport to:
   - Coordinate responses to municipal boundary and cross-boundary road infrastructure issues such as freight trip generation, traffic safety, and planning.
   - Coordinate cross-boundary infrastructure to serve key freight generators that are located across or adjoining the City's boundaries.

B. Coordinate with the Provincial government to ensure that municipal truck weight and dimension rules in the City and the Winnipeg Metropolitan Region conform to the regulations established by the Province.

C. Review snow clearing policies and snow clearance priorities with the Province and the other municipalities in the Capital Planning Region to understand impacts on goods movement and revise where appropriate.

D. Work with stakeholders (including rural municipalities, the Capital Planning Region, and Province of Manitoba) to manage highway access points in accordance with published design plans and standards.

Policy GMES 1.5: Promote last-mile goods movement innovations in partnership with service providers.

KEY ACTIONS:

A. Review provision and management of on-/off-street loading areas and truck parking.

B. Investigate the feasibility of implementing a Vehicle Parking Reservation System for downtown Winnipeg loading zones and other areas with high loading zone demand.

C. Investigate opportunities for off-peak and flexible deliveries.

D. Collaborate with private industry to investigate opportunities to promote and expand cycle delivery systems (e.g., cargo bikes).

E. Investigate opportunities to reduce the number of large trucks for some goods movement trips within Winnipeg such as urban consolidation centres.

Policy GMES 1.6: Collect data on freight-related issues to aid decision making and support improved analytical tools.

KEY ACTIONS:

A. Implement a systematic truck traffic screen-line counting program across Winnipeg and key adjacent freight generators.

B. Request continued access to provincial traffic data.

C. In collaboration with the Province of Manitoba and other stakeholders, design, develop and implement a region-wide establishment / truck origin-destination survey, supplemented by special generator surveys at key freight terminals.

D. In collaboration with the Province of Manitoba and other stakeholders design, develop, and implement a commodity flow survey in the region and beyond.

E. Collect cargo data at the Winnipeg James Armstrong Richardson International Airport.

F. Develop advanced freight modelling tools to support policy, design and operational needs.

Policy GMES 1.7: Use operational enhancements to improve emergency vehicle access at critical points on the road network.

KEY ACTIONS

A. Develop a process for continually improving emergency vehicle operation through traffic to improve efficiency and reduce level-of-service delays.

B. In collaboration with the Winnipeg Police Service and Winnipeg Fire Paramedic Service, develop an informational tool that informs decisions about the planning, design, and operations of emergency service vehicles in the transportation network. This would require Public Works to develop and maintain an inventory system that provides current information on traffic calming measures, road closures, and other detours to WPS and WFPS.

C. Consider emergency vehicle access in street engineering, and the planning and design of traffic calming measures.



4.6 VEHICLES FOR HIRE/RIDE HAILING

TRANSPORTATION 2050 recognizes the importance of supporting sustainable and accessible modes of mobility such as transit, bicycles, walking and vehicles for hire, including taxicabs, limousines, accessible transportation providers and Personal Transportation Providers (PTPs) like Uber and Lyft. At the end of 2023, there were 600 standard and accessible taxicabs, 59 limo/luxury vehicles and 2,052 standard and accessible PTPs in Winnipeg.

Taxicabs historically have consisted of both private commercial and community-based providers, and since 1918 have been providing Winnipeggers with the flexibility of curb-to-curb trips on demand. In many ways taxis complemented, rather than competed with other modes, particularly transit by providing first leg or final leg of journey connections from the bus stop to home, providing night-time service at times when transit does not operate, and acting as a backup when change is needed to travel arrangements. In 2022, the vehicle-for-hire industry carried 6.68 million trips, in 2023 there were 8.88 million trips, and in 2024 that number is projected to be 10 million.

Wheelchair Accessible Vehicles (WAV) provide essential point-to-point transportation for persons who use wheelchairs or other mobility devices and cannot easily use the transit system. As the development of digital applications and computerized dispatch technologies makes it easier and more convenient for people to plan, book and pay for trips, especially as part of longer multi-model trips, the City of Winnipeg must continue to work with these providers to ensure alternative modes are an essential component of the transportation network. In 2022, the City of Winnipeg launched a on-demand WAV centralized dispatch system pilot project to improve customer service, reduce wait times, and invest in the service providers. With the success of the pilot project, City Council recently voted to make it a permanent program beginning in 2025.

These services are regulated by the City of Winnipeg's Vehicle for Hire By-Law No. 129/2017 administered through the Public Works Department's Winnipeg Parking Authority division. Polices and regulations set out in the By-Law sets standards for passenger safety, driver safety, consumer protection and accessibility. The vehicles for hire industry offers a variety of options for citizens and visitors to handle their transportation needs.

Regarding environmentally friendly travel options, Winnipeg's taxicab industry offers one of the most fuel-efficient fleets in North America with over 90% of the in-service vehicles being hybrid. As technology advances the available of reliable electric powered vehicles, greenhouse gas emissions will be eliminated as vehicles are replaced over the next 20 years.

In terms of affordability, taxicabs are the only option next to Transit which accepts cash for payment, in addition to electronic means such as debit/credit card and e-transfer.In recognition of the role in supplementing public transit, taxicabs are allowed to use Winnipeg's network of Diamond Lanes as a means of ensuring speed and reliability in service delivery.

The City of Winnipeg will work with the taxi industry and other private hire services to improve standards and regulations along with facilitating the shift to new technologies by developing an Electric Vehicles Strategy, maintaining the infrastructure (Roads, Bridges and Diamond Lanes) necessary to ensure their continued operation as a important part of the transportation system.

THE IMPORTANCE OF TRUCKS, COMMERCIAL VEHICLES, AND THE STRATEGIC ROAD NETWORK TO THE CITY ECONOMY

Winnipeg is a significant distribution hub in Western Canada. The development of CentrePort with air and rail modes combined with the goods movement network utilizing heavy and medium trucks and light trucks used of commercial purposes will ensure that Winnipeg remains competitive in the distribution of goods.

Commercial vehicles are the primary moves of goods and services within Winnipeg and include heavy and medium duty trucks, and light duty vans for commercial purposes. Heavy and medium trucks are covered by the City's Truck Route bylaw, requiring them to use designated truck routes during transportation. Lighter weight vehicles (such as couriers, delivery and dray, and service persons) provide small scale goods and service movement while generating a large number of trips and use on the transportation network.

Many Winnipeggers who responded to a survey conducted by Probe Research for *TRANSPORTATION 2050* indicated that the completion of the strategic road network (including Route 90/Kenaston, Abinojii Mikanah, Lagimodiere, and Chief Pegius Trail) is a top priority for them.

Therefore, it is critically important for the City's economy for businesses to have a reliable network of roadways where light commercial vehicles and heavy trucks can travel safely and efficiently.





SECTION 5

DELIVERING THE PLAN

SECTION 5

DELIVERING THE PLAN

Winnipeg's road, bridge, transit, goods movement, sidewalk, and cycling infrastructure systems come together to make the city's transportation network.

The primary targets of the *TRANSPORTATION 2050* plan are:

- To make transportation network more sustainable and attractive by increasing mode share to 50 percent by 2050
- To support economic growth by investing in a reliable transportation network and ensuring efficient goods movement by air, rail and truck routes
- To achieve a 20 percent reduction in fatal and serious injury collisions by 2026
- To design and build a reliable, safe, and secure transportation network that is accessible and affordable to all residents

Many of the actions and recommendations outlined in this plan will require more detailed study and/or consultation. With limited resources and practical constraints, the roadmap to achieving our goals requires us to prioritize our efforts and explore innovative funding and design solutions

Achieving these targets requires adopting and implementing all actions recommended in the Core Framework Study. The following outlines a road map on how to do so:

- **Strategic transportation network recommendations** – routing recommendations for each: pedestrian; cycling; transit; roads and bridges; and goods movement
- **Immediate-term action recommendations** – big-impact actions that could be implemented on a one-to two-year timeframe
- **Pilot project recommendations** – projects that can be implemented in the short-term to test the effectiveness and efficacy of potential long-term solutions
- **Comprehensive action plan** – a list of each recommended action, categorized by focus area, and its associated timeframe, departments to be involved in implementation, (if known) and resource requirements



5.1 NETWORK RECOMMENDATIONS

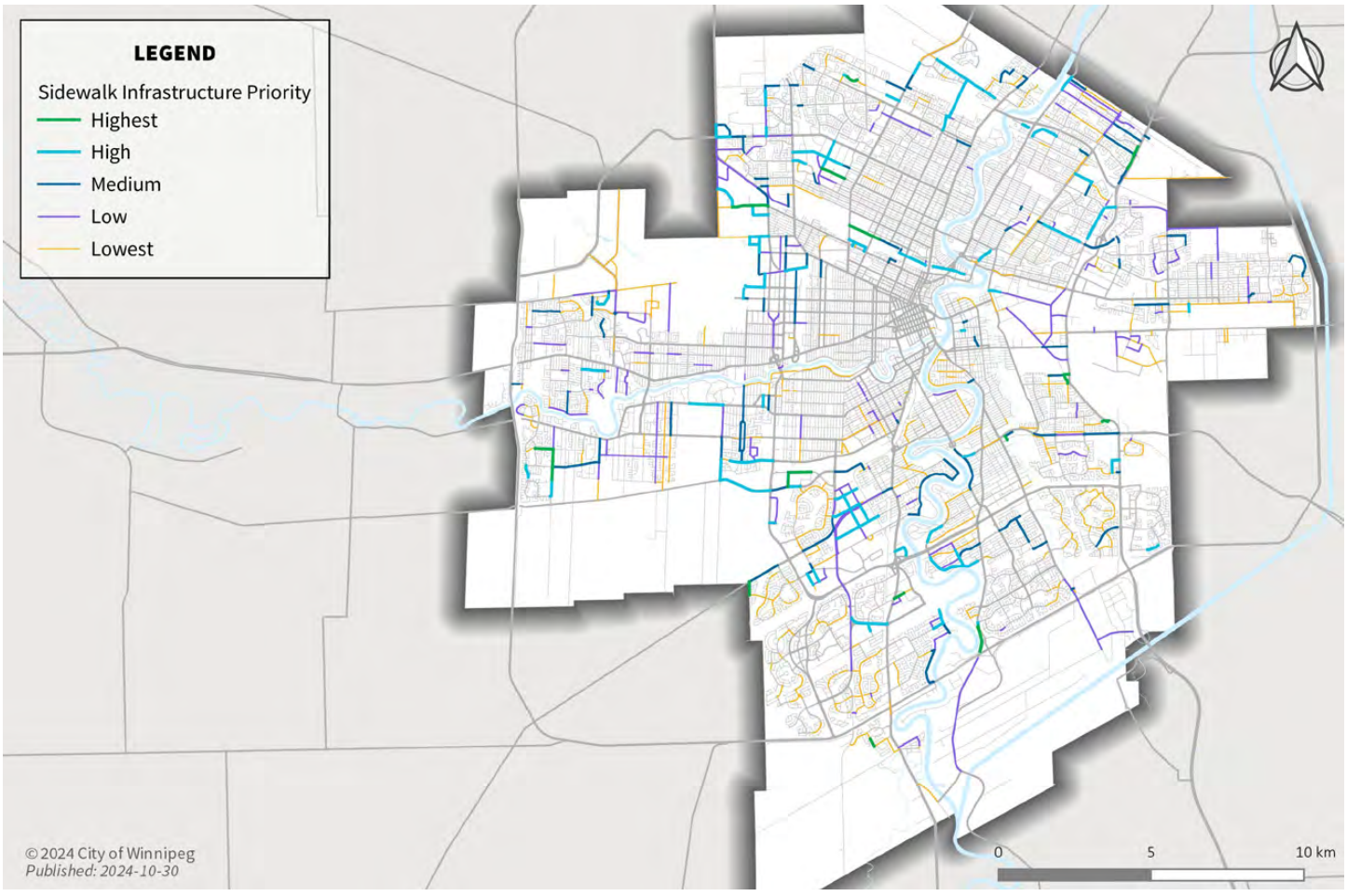
TRANSPORTATION 2050 presents network recommendations that support the achievement of 50 percent sustainable mode share by 2050, while effectively serving the needs of all residents, businesses, and visitors within the context of a growing city. These maps are conceptual in nature and illustrate an ideal network scenario. It is important to note detailed studies would be required to determine whether individual routes are technically feasible in practice.

5.1.1 RECOMMENDED SIDEWALK AND CYCLING NETWORKS

Sidewalks and cycling routes are most useful when they are connected to form a legible network providing direct and convenient access to important destinations such as schools, libraries, transit stops, shopping and employment centres. The maps shown proposed networks for the city; no representation is made on these maps that a route or investment has been approved or be made. Site and project assessments, studies and future financial capacities must be considered before any decisions about these representations are made.

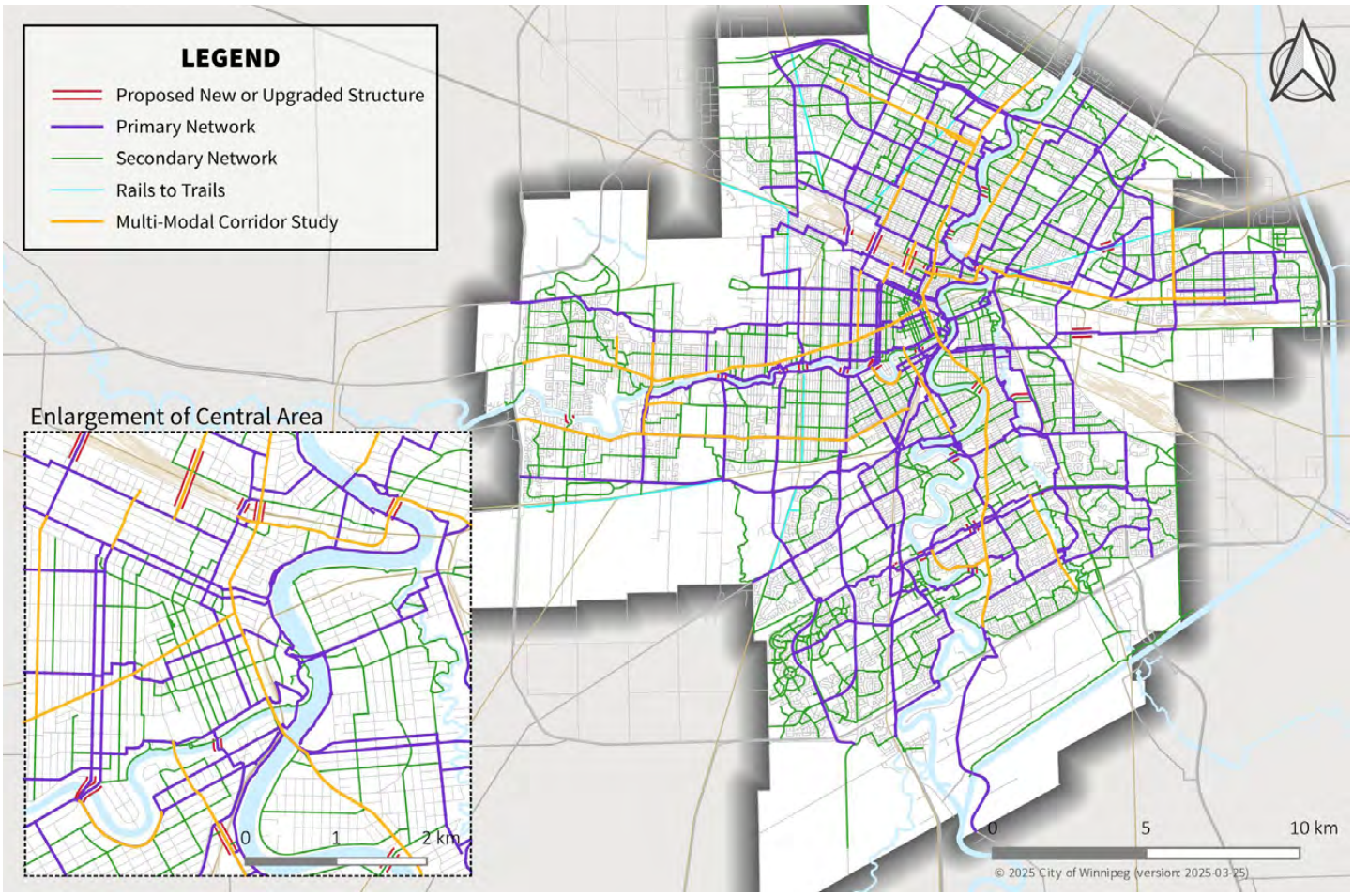
Proposed sidewalk network

MAP 5: PROPOSED SIDEWALK IMPLEMENTATION PRIORITY



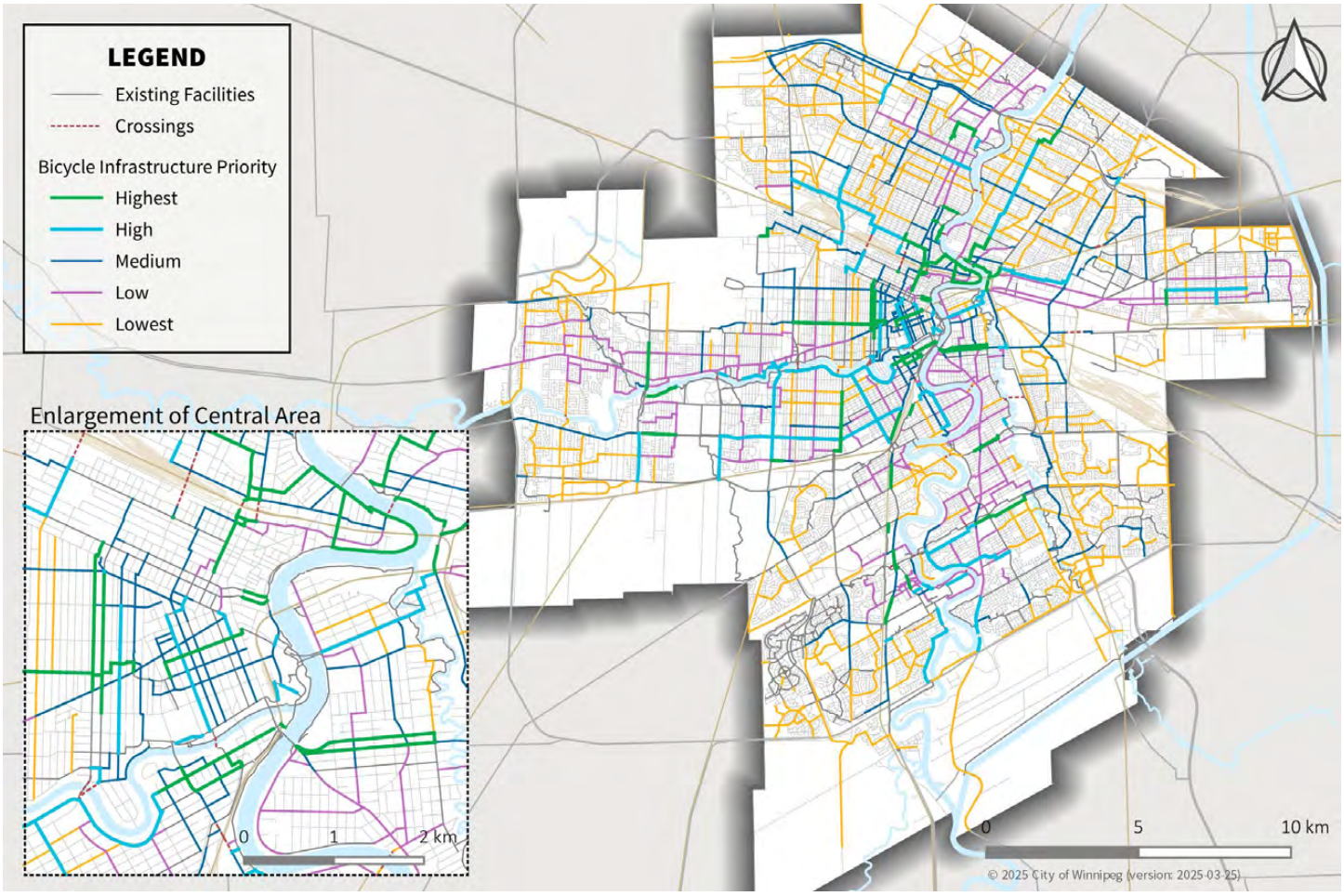
Proposed cycling network

MAP 6: PROPOSED CYCLING NETWORK



Proposed cycling network implementation priority

MAP 7: PROPOSED CYCLING NETWORK IMPLEMENTATION PRIORITY



5.1.2 COUNCIL-APPROVED TRANSIT NETWORK

Reliable, accessible, convenient, comfortable, and safe transit is critical to our success as a multi-modal city. Transit passengers start as pedestrians or cyclists, who extend their travel range by using transit to link between neighbourhoods or to the downtown or post-secondary education. Transit can also move large groups of people in small amounts of space, supporting infill development or growing economy without contributing to congestion. It is important as part of the *TRANSPORTATION 2050* plan to support increased ridership, improved and cost-effective service by building transit supportive streets and sidewalks.

REGIONAL TRANSIT

Historically, public transportation services between city and its metropolitan region was very robust with many private bus carriers offering daily trips for commuters. However, by the late 1990s the frequency and quality of bus services declines as automobile ownership and use increase. Most bus service ceased operations by the early 2000s leaving the car as an only travel option into the city.

The development and growth of regional services in cities like Toronto, Montreal, Calgary, and Edmonton can offer successful examples of various models that can be explored as potential future alternatives to the car. From car-share and taxi service to mobility hubs, van or mini-bus connecting to city Transit routes, or full-on independent bus routes from downtown to regional centres are options to be studied. These services can range from private sector contract operation to public sector entities.

As growth continues in the Winnipeg Metropolitan region, the demand for sustainable will lead the need to study and consider public transportation services.



Proposed 2025 Winnipeg transit system map

MAP 8: WINNIPEG TRANSIT SHORT TERM NETWORK PLAN



5.1.3 ROADS AND BRIDGES NETWORK PRIORITIZATION AND RECOMMENDATIONS

Recommendations from the Roads & Bridges Network were each reviewed and scored into one of three broad categories:

1. **Continue with Major Capital Project process:** These projects meet the warrant to have a business case submitted to the Major Capital Project process and incorporated into investment planning processes. If a business case has already been submitted, this project should continue to the next stage of design and/or assessment. Note that this recommendation is based on limited data and should not be viewed as a commitment to bring the project to fruition. Subsequent studies may reveal that the costs of the project outweigh the benefits and the project can be removed from the Major Capital Project process at that time.
2. **Rescope:** These projects do not meet the warrant to have a business case submitted with the proposed design elements and operation assumptions but could meet the warrant with changes to these parameters (e.g. more cost-effective design variations, increased synergies with sustainable modes, etc.). Projects with this designation should be rescoped and submitted to the Major Capital Project Process or deferred for future consideration as priorities and needs change over time. If a business case has already been submitted, each project should have its business case revised to improve alignment with the key directions set out in *TRANSPORTATION 2050*. The project should be included in investment planning processes despite not currently meeting the warrant threshold.
3. **Defer to beyond 2050:** These projects do not meet the warrant to have a business case submitted with the proposed design elements and operation assumptions and are unlikely to score high enough to meet the warrant even with changes to these parameters. If a business case has already been submitted, these projects should have their respective business cases removed from the Major Capital Project process. These projects should be deferred to beyond 2050 and excluded from investment planning processes. However, right-of-way required for this project should still be reserved as future needs and priorities could change.

Projects that received a recommendation of "Continue with Investment Planning Process" or "Rescope" were then regrouped based on an approximate timeline of need. This step was taken in recognition that although the projects that scored the highest on the *TRANSPORTATION 2050* assessment are the most important for the City, they are not necessarily the projects that should be completed first. Other factors, such as the lifespan of existing infrastructure elements, timelines related to new development, and the priorities of City Council, influence the timeline for when these projects are needed. As such, the final version of the maps may contain amended sequencing of the recommendations. It should also be noted that the timeline of need may not necessarily correspond to when some projects will be built. Funding approvals are subject to the priorities of current and future Councils and, as previously noted, the City of Winnipeg's tax revenue is not sufficient to fund all of these projects. Actual construction timelines are dependent on Council priorities and securing funding through cost sharing agreements and other funding strategies.

Projects were ranked as either short-term needs (i.e. 2024-2033) or medium-term needs (i.e. 2034-2050). Projects that did not score high enough on the *TRANSPORTATION 2050* Roads and Bridges Assessment were assigned to the "Future Consideration (Beyond 2050)" category and are shown on the corresponding map.

The map also shows potential provincially-led road improvement projects in the vicinity of Winnipeg. These projects were identified through reviews of the *PTH 101 Functional Design Study*[11], PTH 3 Functional Design Study[12], South Perimeter Design Study[13], Manitoba Capital Region Transportation Master Plan[14], and discussions with Manitoba Transportation and Infrastructure (MTI) as part of the Winnipeg Regional Transportation Review (WSP 2022) component study of *TRANSPORTATION 2050*. The potential provincial projects are shown to provide additional context to the projects proposed within the City of Winnipeg, but are subject to change as future needs and priorities may change.

[11] Manitoba Infrastructure (2023) PTH 101 Functional Design Study – Phase 2 Engagement, **link**

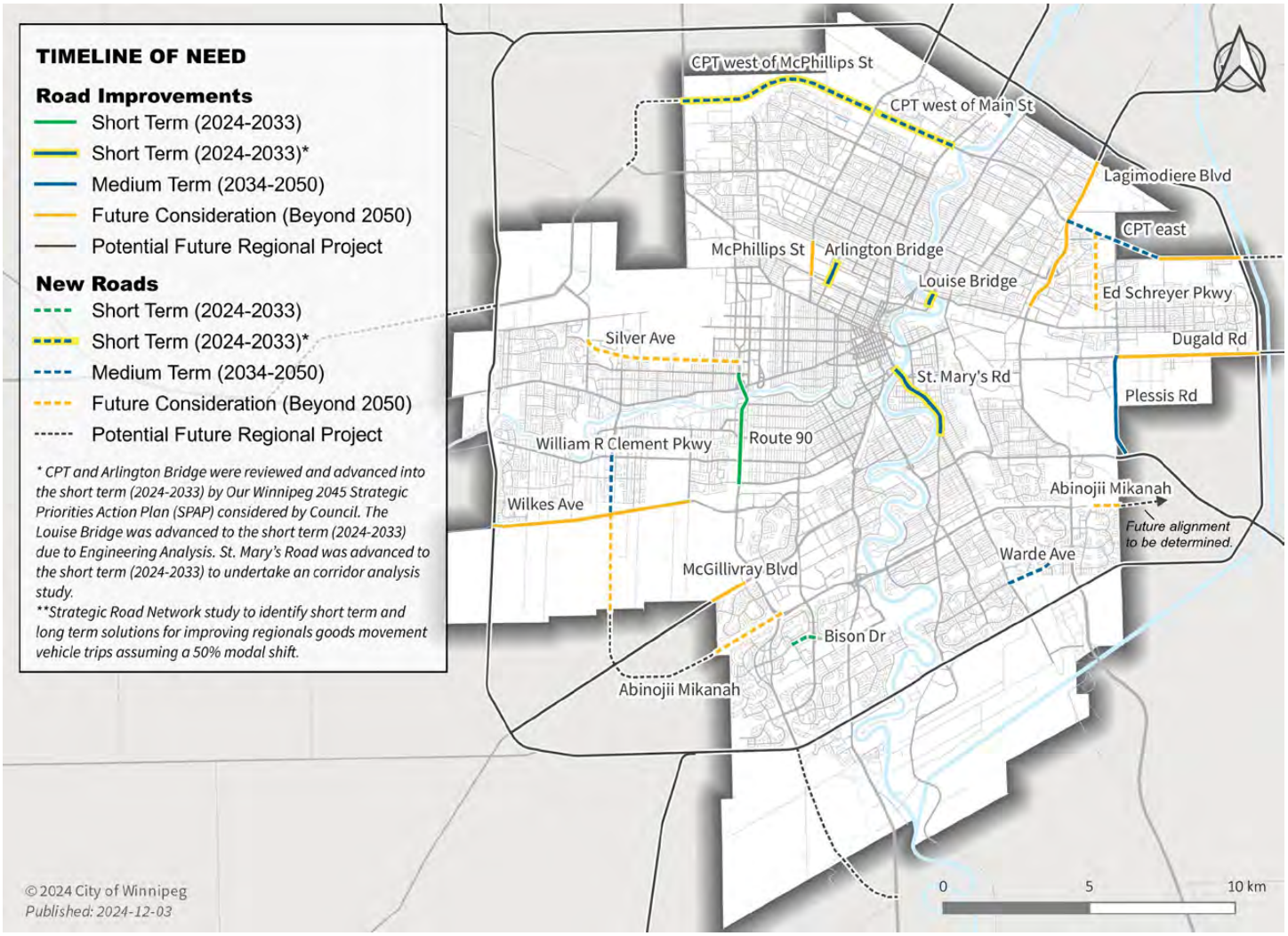
[12] Manitoba Infrastructure (2023) PTH 3 Functional Design Study – Phase 2 Engagement, **link**

[13] Manitoba Infrastructure (2020) South Perimeter Design Study, **link**

[14] Partnership of the Manitoba Capital Region (2014) Manitoba Capital Region - Transportation Master Plan, **link**

Proposed motor vehicles network

MAP 9: *TRANSPORTATION 2050* ROAD NETWORK PROJECTS TO 2050 AND BEYOND

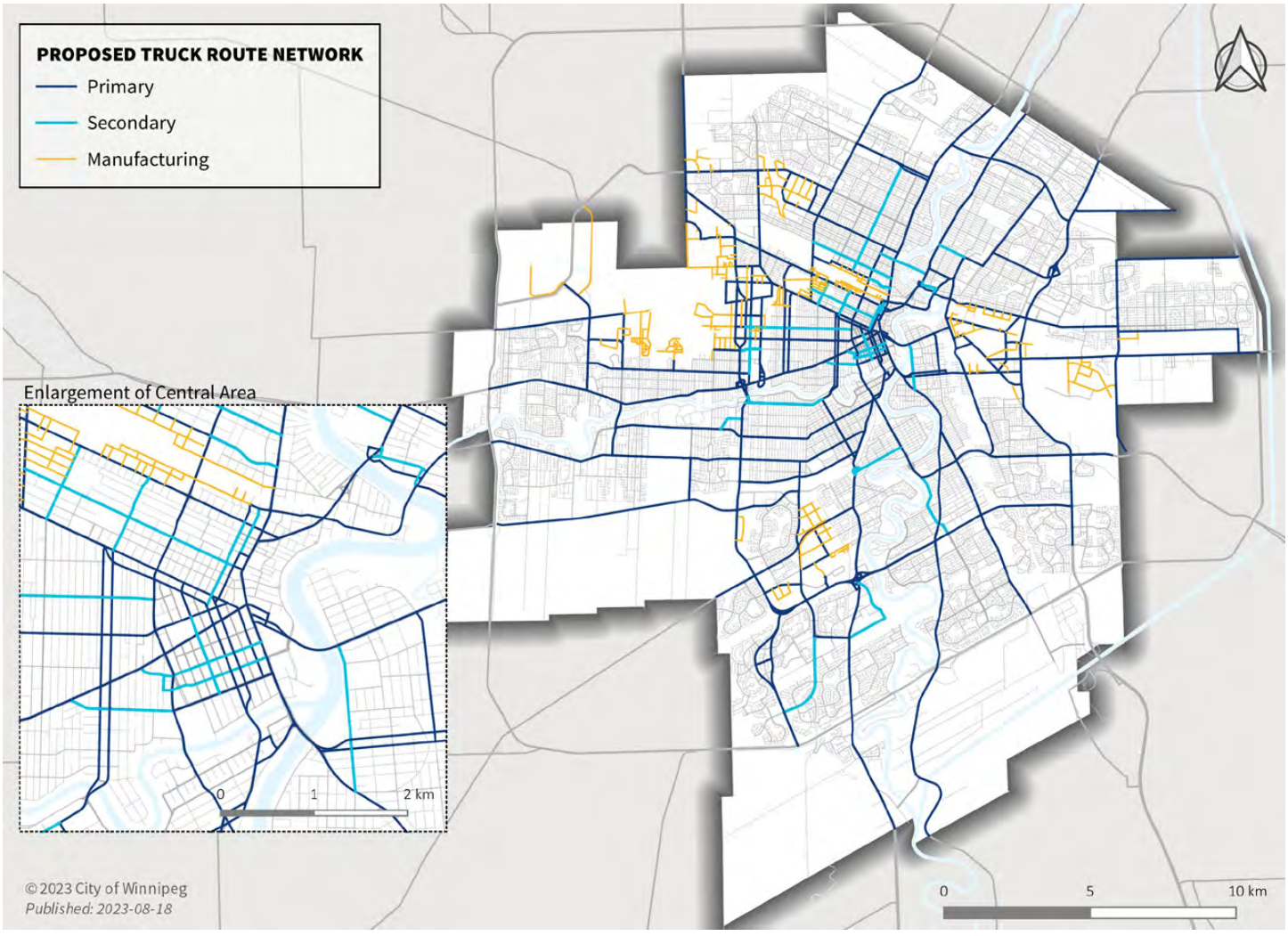


5.1.4 GOODS MOVEMENT NETWORK RECOMMENDATIONS

The overall objective of designating a truck route network is to minimize truck traffic on local streets that would otherwise seek the shortest routing to an origin/destination if truck routes were not made available. The existing truck route network was developed based on years of operation, knowledge of Winnipeg's unique transportation system, and political/citizen pressures. While individual routes have been added and removed over the years, the network has not undergone a complete system-wide review in over 40 years.

The *TRANSPORTATION 2050* project completed a data-driven review of the truck route network ensure that it accommodates goods movement needs in Winnipeg while balancing competing interests for capacity of Winnipeg's road network. An iterative truck route selection process was developed to independently establish a truck route network for the City founded on a data-driven quantitative assessment of street segments using criteria that is relevant to decisions regarding truck route designation.

MAP 10: TRUCK ROUTE NETWORK



5.2 IMMEDIATE ACTION PLAN

This section outlines initial moves that should be completed in one to two years as well as plans for monitoring, reporting on and updating *TRANSPORTATION 2050*.

- **Develop and implement a transportation project prioritization methodology** that considers factors such as equity, climate commitments, and other strategic goals, and for example, developing a multiple indicator index
- **Develop a Transit-Oriented Development (TOD) implementation Strategy** that identifies planning mechanisms to operationalize TOD in Winnipeg as described in the TOD Handbook and *OurWinnipeg 2045*
- **Adapt and calibrate Transportation Association of Canada's (TAC) and other current best practice guidance for cycling facility selection and design** to Winnipeg conditions
- **Develop a Transportation Demand Management Strategy** to coordinate the implementation of initiatives and incentive programs that reduce single-occupancy vehicles and increase the use and viability of sustainable mobility options
- **Develop a Zero Emission Vehicle Strategy** to prepare the City of Winnipeg for 100 percent of car and passenger truck sales to be zero emission by 2035 as per the Government of Canada's mandatory target. This strategy would include interim targets for 2025 and 2030 and plans to implement the necessary infrastructure, educate, and engage the public, encourage adoption, and update the City's corporate fleet (as an update to the Green Fleet Plan, 2010)
- **Create a working group** to inform, monitor and implement transportation equity considerations over the horizon of *TRANSPORTATION 2050*
- **Designate a strategic goods movement network** that identifies a priority network for goods movement that connects all major freight generators
- **Develop a Complete Streets Implementation Strategy** based on guidance provided in Appendix D that outlines tools and process to operationalize the Complete Streets policy in all road planning, design, and maintenance. This includes but is not limited to:
  - A Complete Streets decision making process
  - Multimodal level of service guidelines (MMLOS)
  - Corridor study guidelines
  - Design guidelines for new and existing corridors
  - Freight supportive guidance for incorporating goods movement into Complete Streets
  - An updated road classification system with improved multi-modal considerations
- **Develop detailed guidelines for multi-modal corridor studies**
- **Develop a Curbside Management Strategy** that includes policies and technologies to better manage curbside space for all uses based on the surrounding context

5.3 INNOVATION PLAN

Pilot projects are a mechanism commonly used by municipalities to test the effectiveness of an initiative at addressing needs. Pilot projects can be implemented as part of the initial moves to address needs and opportunities in Winnipeg's transportation system in the short-term. This includes initiatives that are low-cost and easy to implement but can lead to large benefits.

Ideal features of a pilot project include:

- Low upfront financial investment
- A monitoring program to track and communicate progress throughout and at the end of the pilot
- Flexibility to adjust deployments based on feedback
- Easy reversal, if necessary, at the end of the pilot

Effective monitoring is essential during a pilot as allows improvements and testing of different options, as well as communication of progress to the public, Council, and other stakeholders. Monitoring also helps determine whether moving the pilot into a continuous initiative is desirable.

TRANSPORTATION 2050 proposes for consideration six pilot projects for implementation in the short-term.

- **Designated truck lanes** - Investigate the feasibility of piloting a truck-only lane on a high truck volume corridor. A 12-month pilot is recommended to account for a full year of traffic and weather conditions. (Supports Policy 3.1 - Account for the needs of all road users in transportation decision making.)
- **Pop-up active transportation infrastructure** - The City should pilot the increased implementation of temporary infrastructure measures to formalize active transportation routes, such as temporary speed displays, planters, paint, and traffic calming curbs and barricades. These could be implemented along the former enhanced summer bike routes and other locations that close gaps in the cycling network.
- **Secure bike parking –** Pilot a publicly-available full-serve bicycle parking station or long-term secure bike parking in an area of high cycling activity. If successful, plan to implement other similar facilities at key locations in the city.
- **Curbside management** - Downtown Winnipeg has many loading zones that have been in place for decades, with little or no re-evaluation of their use despite changing land use and transportation demands. Rethinking the management of curbside space would allow for a more efficient use of this valuable commodity in the downtown area. Providing for convenient access and high turnover will maximize the number of people that can access a particular destination during event times. A three to six-month pilot testing various loading zone options should be conducted. (Supports Policy 3.2 – Manage curbside space to accommodate appropriate uses while supporting access and mobility.)

- **Reduce parking on arterial roads** - Arterial roads are intended to move people and goods as their primary function. Existing curbside parking or loading spaces may sometimes be redundant, particularly where there is abundant accessory parking and loading for the properties along the corridor. In some situations, parking could be limited to introduce additional capacity for an improved flow of people and goods (particularly during peak periods), prioritizing sustainable mobility options. A 12-month pilot project is recommended. (Supports Policy 3.1 - Account for the needs of all road users in transportation decision making.)
- **Autonomous vehicle bus testing** - Automated buses are ready for real-world testing and Winnipeg's Southwest Transitway is an ideal testing location, as a fully separated right-of-way that experiences cold and winter conditions. It would make sense to test autonomous buses at this location outside of revenue service hours, noting that this may be precluded by existing maintenance agreements.



5.4 MANAGING THE INFRASTRUCTURE DEFICIT AND FUTURE FUNDING OPTIONS

TRANSPORTATION 2050 lists many policies and actions related to enhancing the level of service or providing new services related to road construction and maintenance, transportation planning and traffic management, and roadway snow removal and ice control. Such improvements will require increases to operating budgets (e.g., additional staffing, equipment, etc.) and capital investment. Increases to staffing can be evaluated through a staffing audit.

Transportation infrastructure is expensive to build and maintain; the infrastructure funding gap must be managed as Winnipeg continues to grow and the demand for travel increases. Capital investments can be analyzed through asset management programs and transportation planning studies. One of such studies done in the past is the City's *2018 State of the Infrastructure Report,* which reviewed the acquisition, renewal, and replacement of assets, and provided detailed information about the City's infrastructure. This report included analysis of the state of existing assets, the assignment of value to needed improvements on existing or future assets, and the remaining service life of current assets. It ultimately identified an approximately $6.9-billion gap between capital investment required and estimated future capital funding over 10-year period. This is a decrease from the 2009 infrastructure funding gap, which was equivalent to $9.9 billion in 2018 dollars. As of 2018, approximately 31 percent of Winnipeg's infrastructure funding gap was related to existing roads and bridges and 13 percent was for proposed (i.e. new) roads and bridges.

Two contributing factors to the decreasing roads and bridges infrastructure funding gap are:

- **Prioritizing existing infrastructure:** Winnipeg has put a focus on prioritizing maintaining its existing roads and bridges over building new roads and bridges. the length of streets per capita in Winnipeg has decreased over the past decade. This trend indicates that population growth has outpaced the construction of new roads and widening of existing roads. Further, the average condition of roads has increased over this same period.
- **Increased street renewal funding:** The local street renewal reserve was established in 2013 and the regional street renewal reserve was established in 2014. These reserves are funded through a 2 percent dedicated tax increase. These reserves and the Accelerated Roads Program (i.e. a multi-level government shared funding model which closed in 2023) have enabled the Public Service to increase investment in street renewals, leading to steady improvements in the overall condition of roads in Winnipeg. Note that although street condition grading has well-defined procedures, it is currently a manual process and is prone to subjectivity, which accounts for some of the year-to-year change. Also note that Public Works changed the way it measures overall pavement condition in 2019. The decrease in pavement condition from 2019 to 2022 can largely be attributed to this new way of measuring rather than an actual decrease in pavement condition.

These financial trends indicate the need to be more strategic with the City's investment in transportation infrastructure and that funding major capital projects in the future will be more difficult than in the past. As mentioned previously, designing and operating cities around personal vehicle use is relatively expensive because they are not very space-efficient. That is, alternative modes of transportation, such as public transit, cycling, and walking, can move more people per hour in the same amount of space in comparison to personal vehicles. Being space-efficient is important in urban areas because space is limited and widening rights-of-way can be expensive or practically impossible. Therefore, there are financial incentives for developing and improving the networks for sustainable modes, particularly in high-density areas like the Downtown.

Further information on Winnipeg's infrastructure funding needs and funding strategies can be found in the Supplement to the 2023 Adopted Budget, Community Trends and Performance Report, and the 2018 State of the Infrastructure Report.

5.4.1 PROJECT TIMELINE OF NEED AND ESTIMATE CAPITAL COSTS

As part of the long-term strategic planning process, capital costs were estimated to understand the magnitude of investment required to implement the capital projects identified in this plan. At this stage in the planning process, cost estimates are high-level for planning purposes, and should not be used for detailed budgeting. Further study conducted on each project will help determine more details and refine the cost estimates.

Recommended projects were ranked as either short-term needs (i.e. 2024-2033) or medium-term needs (i.e. 2034-2050). Projects that did not score high enough on the *TRANSPORTATION 2050* Roads and Bridges Assessment were assigned to the "Future Consideration (Beyond 2050)" category. Other factors, such as the expected lifespan of existing infrastructure and the timeline for new developments, influence the timeline for when these projects are needed. It should also be noted that the timeline of need may not necessarily correspond to when some projects will be built. Actual construction timelines are dependent on Council priorities and securing funding through cost sharing agreements and other funding strategies.

These are Class 5 level cost estimates presented in 2021 dollars. This includes an estimated $2.2 billion for capital projects related to the recommended transportation networks.

In addition, the City will need to fund capital projects committed outside of *TRANSPORTATION 2050* and ongoing road operations and maintenance work to renew and maintain the existing and proposed transportation network. Capital projects associated with the active transportation network and transit network were recommended and costed in the *Core Framework Technical Report and Pedestrian and Cycling Strategy Update* component studies of *Transit Master Plan* project respectively.

EXHIBIT 5.1: COST ESTIMATES PRESENTED IN 2024 DOLLARS

	Cost Estimates ($ millions)		
Project Type	**Short Term (2024-2033)**	**Medium Term (2034-2050)**	**TOTAL**
New road or bridge	53	1041	1,094
Road widening*	993	119	1,112
Bike network (primary)	205	177	382
Bike network (secondary)	7	120	127
Ped & cycle structures (bridges)	127	84	211
Sidewalks (arterial & collector)	60	40	100
Rapid transit (Source: WTMP)	588	1,093	1,681
TOTAL	**2,033**	**2,674**	**4,707**

**Costs beyond 2050 TBD*

Capital funding options

Funding opportunities for capital projects are continuously evolving and need to be monitored to align with identified capital projects. There are both internal and external funding sources available for capital projects. Property taxes are the City of Winnipeg's main source of revenue to fund services and programs such as fire service, recreation programs, parks, libraries, road maintenance, and stormwater management. There are several other funding opportunities available at the provincial and federal level, as well as through third-party organizations that can contribute to capital costs associated with transportation infrastructure and fund associated programming.



This currently includes:

- **Manitoba Building Sustainable Communities Program** – Government of Manitoba
- **Investing in Canada Infrastructure Program** – Infrastructure Canada
- **Green Municipal Fund** – Federation of Canadian Municipalities
- **Municipalities for Climate Innovation Program** – Federation of Canadian Municipalities
- **Rail Safety Improvement Program** – Government of Canada
- **Trans-Canada Trail** – Trail Funding Program

The Federal Government also administers the Canada Community Building Fund (formerly known as the Gas Tax Fund) that can be used by municipalities to fund 18 categories of infrastructure projects, including projects under the following categories: public transit, local roads, and bridges (including active transportation infrastructure), and highways.

5.5 MONITORING THE PLAN

A robust monitoring program is a vital component of *TRANSPORTATION 2050's* implementation to understand and communicate progress. Understanding progress helps guide continued implementation and future updates by determining what actions have been completed, what impact they have had, and what gaps remain. Communicating progress to City employees, Council, stakeholders, partners, and the public demonstrates transparency and accountability – key components of *OurWinnipeg2045's* Leadership and Good Governance Goal.

The progress of this plan will be monitored through Status Updates and Progress Reports. Status Updates will be conducted annually and list the status of all the actions within *TRANSPORTATION 2050.* Progress Reports are more robust, involving measuring and reporting progress on key indicators.

Progress Reports will be completed regularly, such as on a five-year cycle. Both the Status Updates and Progress Reports are valuable communication and planning tools that will aid the implementation of *TRANSPORTATION 2050.*

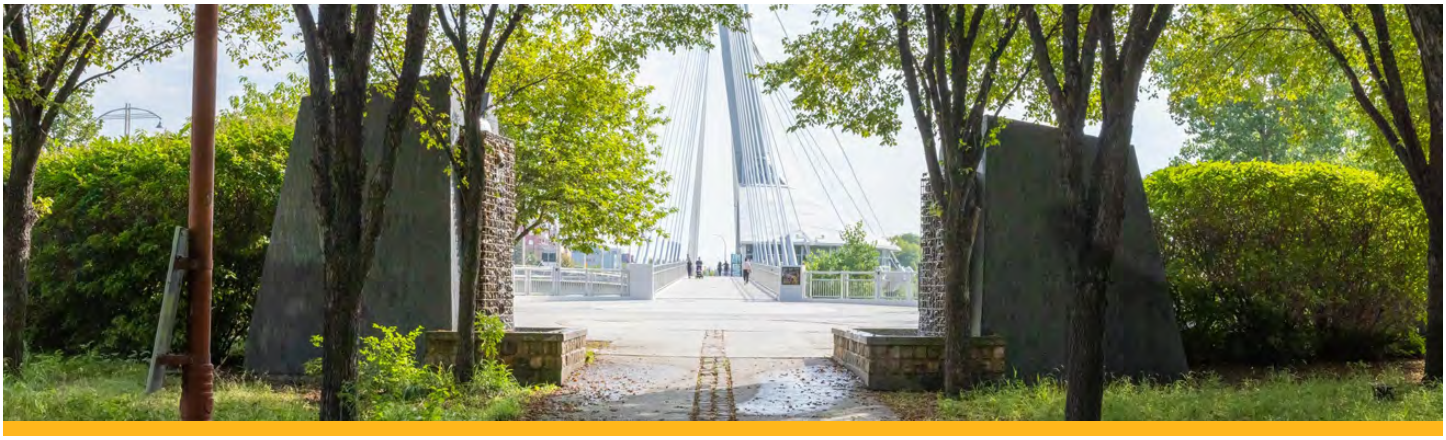


EXHIBIT 5.2: TRANSPORTATION 2050 MONITORING INDICATORS

	OURWINNIPEG 2045 GOAL & TRANSPORTATION OUTCOME					
INDICATOR						
Sustainable mode share – all day (all trips, work trips, <5 km, and in geographic areas of higher poverty)		✓		✓	✓	✓
Resident's satisfaction with ease of mobility per mode (as reported in the Citizen Satisfaction Survey)	✓		✓			✓
Proportion of development that occurred within the built area (i.e. intensification)	✓	✓	✓	✓	✓	✓
Car ownership per household		✓		✓		
Number of traffic collisions resulting in injuries or fatalities by mode				✓	✓	
Transit trips per capita		✓	✓	✓		✓
Transit revenue service hours per capita		✓	✓	✓		✓
Percent of residents and jobs within 800 m of a stop on the Primary Transit Network and 400 m of all other transit stops		✓				
Percent of residents and jobs within 800 m of the primary cycling network		✓				
Percent of people in Geographic Areas of Higher Poverty with access to both primary transit service (800 m) and primary cycling facilities (800 m)		✓	✓		✓	✓
Electric vehicle uptake		✓				
Goods movement travel time reliability			✓			✓
Pedestrian and cycling project funding per capita	✓				✓	✓
Transit project funding per capita	✓				✓	✓
Road project funding per capita	✓				✓	✓

5.6 UPDATING THE PLAN

TRANSPORTATION 2050 is a living document that must be regularly reviewed to ensure it continues to meet the transportation needs of Winnipeg.

Changing best practices, growth patterns, resident expectations, new data, and development pressures can necessitate a review of *TRANSPORTATION 2050*, as would changes in the timing of major infrastructure within and outside Winnipeg's jurisdiction. The City of Winnipeg will continue to monitor transportation trends and make any required changes to transportation policies and network recommendations during subsequent updates of *TRANSPORTATION 2050*.

Generally, master plans should be reviewed every five years to determine the relative need for a detailed review and/or update.





APPENDIX A

2030 SUSTAINABILITY PLAN REVIEW

APPENDIX A

2030 SUSTAINABILITY PLAN REVIEW

1. INTRODUCTION

Based on analysis conducted as part of Winnipeg's Transportation Master Plan (*TRANSPORTATION 2050*) Core Framework Study, a 50 percent sustainable mode share is targeted for 2050. This memorandum provides a summary of additional analysis conducted on the potential of achieving a 50 percent sustainable mode share target by 2030. All mode shares referred to throughout this memorandum are for a 24-hour period (i.e., an "all-day" mode share).

Sustainable modes have a reduced impact on the environment and move more people using less space. This includes transit, walking, cycling, carpooling and other active or micro mobility options such as e-bikes, e-scooters, running or even paddling.

This appendix:

- Presents a summary of the *TRANSPORTATION 2050* mode share target for 2050, including the necessary shift in travel behaviour to achieve the target
- Describes the required mode shift and highlights the necessary travel behaviour changes to achieve a 50 percent sustainable mode share in Winnipeg by 2030
- Discusses *TRANSPORTATION 2050* initiatives that could be accelerated to encourage this mode shift by 2030
- Summarizes additional initiatives that the City would need to consider to potentially achieve this target by 2030 including associated opportunities, challenges and uncertainties
- Describes the climate action targets in Winnipeg and the method used to determine and assess the 2050 and 2030 mode share targets

The memorandum highlights that achieving a 50 percent sustainable mode share by 2030 would require major changes to infrastructure, land use and policy. These changes would be very challenging to implement in a short period of time (eight years), may result in adverse residual impacts, and includes many uncertainties that may not ultimately meet the target. Targeting a 50 percent sustainable mode share by 2050, as presented in *TRANSPORTATION 2050*, allows for a more gradual yet still ambitious transition, removing the need for abrupt and potentially disruptive and uncertain interventions optimized for quick results.

2. TRANSPORTATION 2050 MODE SHARE TARGET

As part of the Core Framework Study of *TRANSPORTATION 2050*, a 50 percent sustainable mode share target was determined as an ambitious but achievable target for the 2050 horizon of the study. The current mode share in Winnipeg is presented alongside the 2050 target in **Exhibit 1.1.** A description of how this target was determined and assessed is presented in this Appendix.

A summary of the mode share analysis is presented below, describing the necessary shift in travel behaviour to achieve this target. Notably, between 2019 and 2050, Winnipeg's population and overall travel demand (daily trips) is expected to increase by about 30 percent.

- The total number of auto driver trips cannot increase above 2019 levels – this means the equivalent of all new trips would need to be made using sustainable modes, despite significant population growth.
- The number of transit trips would need to increase by 125 percent between 2019 and 2050 – based on key transit system metrics of peer municipalities like Ottawa and Calgary, this is feasible with the network and services outlined in the *Winnipeg Transit Master Plan.*
- The number of walking and biking trips would need to increase by 130 percent between 2019 and 2050—at least 20 percent of short distance auto trips (under 5 km) would need to shift to active transportation modes to achieve this.

- Based on the mode share analysis, to achieve a 50 percent sustainable mode share target by 2050 significant changes in transportation service provision and travel behaviour will need to take place. *TRANSPORTATION 2050* is designed to achieve this transformative mode shift within the context of Winnipeg's land use vision (as defined in *OurWinnipeg 2045* and *Complete Communities 2.0*) through a combination of infrastructure, policies and programs, putting Winnipeg on a path for a more sustainable future.

EXHIBIT 1.1: 2019 MODE SHARE (MODELLED) AND 2050 MODE SHARE TARGETS

Mode	2019	2050 Targets
Active transportation	8%	14%
Transit	8.5%	15%
Auto passenger	19%	21%
Auto driver	64.5%	50%

3. HOW WOULD TRAVEL BEHAVIOURS NEED TO CHANGE TO HAVE 50 PERCENT SUSTAINABLE MODE USE BY 2030?

Major changes to travel behaviour and therefore infrastructure, land use and policy would be required in the next eight years to achieve this target. The mode share analysis concluded that to achieve a 50 percent sustainable mode share target by 2030 the following would need to happen:

- Despite population and travel demand growth of about 12 percent, total daily auto driver trips would need to decrease by 9 percent from 2019 totals in the context of close-to-existing land use
- For the average Winnipegger who drives about two thirds of their total trips, that means replacing at least 20 percent of their current driving trips with sustainable modes
- People who currently drive more than 60 percent of their trips, would need to shift up to half of their driving trips to sustainable modes by 2030
- The number of transit trips taken daily would need to increase by nearly 75 percent—even if transit service productivity increases (from 34 to about 37 rides per revenue vehicle hour), to meet this demand the transit system would need to provide all the networks and services as outlined in the WTMP by 2030, increasing revenue vehicle hours nearly 50 percent compared to 2019
- This substantial service increase would be needed to meet increased demand and account for the fact that the 2030 context (land use and policy) will be less transit supportive than the 2050 context, meaning that transit service will be less productive in 2030

These represent major changes in travel behaviour and transit networks and service provision at magnitudes not commonly achieved by peers, particularly in a short timeframe. Experience from peer municipalities around the world indicates that shifting travel behaviours takes time. A case study of mode shift achieved in Metro Vancouver is presented below for context.

CASE STUDY: MODE SHIFT IN METRO VANCOUVER

Vancouver is well-known in Canada for high levels of sustainable mode use. While the City of Vancouver is most notable, municipalities across Metro Vancouver have been actively working towards reducing dependence on automobiles through a variety of land use and sustainable transportation initiatives such as increased density, including surrounding rapid transit stations, and expanding transit/active transportation networks and services.

Translink regularly conducts a regional travel survey, collecting data on trip patterns in Metro Vancouver. The most recent data available is from 2011 and 2017.

Exhibit 1.2 shows the change in auto driver trips and mode share in Metro Vancouver municipalities. Population density is included as it is a key driver of sustainable mode use. Surrey and Richmond are presented as they have a similar population density to Winnipeg (1,519 people/km2). Over this five-year period, key findings include:

- Notable decreases in auto driver mode share were achieved ranging from 3 to 6 percentage points
- With population growth and growing travel demand overall, the total number of auto driver trips still increased from 11 percent to 21 percent.
- Vancouver has the lowest auto driver mode share but also a population approximately 3.5 times denser than Winnipeg, Surrey and Richmond.

EXHIBIT 1.2: AUTO DRIVER TRIP AND MODE SHARE CHANGE, METRO VANCOUVER 2011-2017

Metric	Surrey	Richmond	Vancouver	Metro Vancouver
Population density (people/km2) a	1,637	1,534	5,493	854
Total auto driver trips				
2011 auto driver trips	787,600	301,000	767,000	3,829,000
2017 total auto driver trips	953,000	333,000	855,000	4,379,000
% change in auto driver trips	**21%**	**11%**	**11%**	**14%**
Auto driver mode share				
2011 auto driver mode share	**64%**	**61%**	**45%**	**59%**
2017 auto driver mode share	**60%**	**55%**	**41%**	**56%**
Mode shift	**-4%**	**-6%**	**-3%**	**-4%**

a Population density metrics are from the 2016 Census for consistency across all locations.

In addition to Translink's data collection, the City of Vancouver conducts an annual travel survey. Data reported through this initiative indicates that sustainable mode use (defined as bike, walk and transit only) decreased by 10 percent in 2020 compared to 2019 due to travel behaviour impacts from COVID-19. While these trends may have changed for 2021/2022 (data not available) this does indicate that additional work and new strategies may be required to regain sustainable mode use from 2019.

4. WHAT COULD BE DONE BETWEEN NOW AND 2030 TO ENCOURAGE 50 PERCENT SUSTAINABLE MODE USE?

The behaviour shift required in Winnipeg to achieve a 50 percent sustainable mode share by 2030 (described in **Chapter 3**) is significant and would need to be supported by major infrastructure, land use and policy changes. Due to the short timeframe (eight years) initiatives optimized for quick results would be necessary. To make progress towards this target by 2030, a three-prong approach would need to be taken:

1. **Land use initiatives –** bring origins and destinations closer together
2. **Sustainable transportation incentives** – make sustainable modes viable and desirable for most trips
3. **Driving disincentives** – restrict the use of automobiles to meet travel needs

To do this, the City could explore accelerating the high-impact strategies currently in *TRANSPORTATION 2050*, but additional initiatives would need to be considered to encourage a mode shift of this magnitude so quickly. Examples of both are described below (**Sections 4.1 and 4.2**) with discussion on opportunities, challenges and uncertainties.

4.1 WHAT INITIATIVES CURRENTLY IN TRANSPORTATION 2050 WOULD HAVE THE HIGHEST IMPACT ON SUSTAINABLE MODE USE?

Every policy and action included in *TRANSPORTATION 2050* plays an important role in moving Winnipeg towards achieving the full suite of transportation outcomes associated with each *OurWinnipeg 2045* goal. However, the *TRANSPORTATION 2050* initiatives that would have the highest impact on sustainable mode use specifically are the robust, safe and **connected sidewalk, cycling and transit networks and the associated transit service.** Numerous actions in *TRANSPORTATION 2050* are designed to support the implementation of these networks and services which fall into the **sustainable transportation incentives** category.

Encouraging 50 percent of trips to be made using sustainable modes by 2030 would require accelerated implementation of the transit network and services in the *Winnipeg Transit Master Plan (WTMP)* by 2030 instead of 2050. Implementation of the sidewalk and cycling networks in the *Pedestrian and Cycling Strategy Update* component study of *TRANSPORTATION 2050* would also need to be accelerated.

These would provide a significant proportion of the population with competitive alternatives to automobile travel—which many Winnipeggers do not currently have access to. Having viable alternatives available is an essential step in facilitating a significant shift towards sustainable mode use as it means that sustainable modes become more attractive for more people and more trips. Discussion on the opportunities, challenges and uncertainties of accelerating these *TRANSPORTATION 2050* initiatives is below.

OPPORTUNITIES

- Implementing active transportation and transit networks and services is within the City's jurisdiction making this an opportunity the City could choose to accelerate. Additionally, Master Plan level planning is already complete for these networks and transit service meaning that many projects are ready to move to the detailed design phase or have already moved into the design and implementation phase.

CHALLENGES/UNCERTAINTIES

- Implementing these networks and services by 2030 instead of 2050 would require a significant increase in spending over the next eight years that would have otherwise been spread over nearly 30 years. This would require major contributions from other levels of government (which take time to coordinate) and/or major financing/debt taken on by the City (which again would likely be challenging to acquire, manage and justify).
- With eight years until 2030, completing design and construction, and procuring necessary components like additional buses for the full network expansion would require speed unprecedented in the current North American planning context. For example, the design and construction of the Southwest Transitway in Winnipeg (both Phases 1 and 2) lasted from 2008 to 2020 (12 years).
- Ensuring the design and implementation process is done thoroughly is vital for the ultimate service to be effective. A compressed timeline would mean less opportunity to engage with the public and stakeholder groups whose valuable input helps inform more successful outcomes. For the Southwest Transitway, public engagement on design lasted 2 years.
- Investment in infrastructure and service alone does not guarantee a shift in travel behaviour. While there are many examples where investment in sustainable transportation infrastructure contributes to sustainable mode use (e.g. Portland, Oregon), investments in sustainable modes are typically most effective when combined with dense land use that has origins and destinations close together.



4.2 WHAT COULD BE DONE IN ADDITION TO ACCELERATED TRANSPORTATION 2050 INITIATIVES TO ENCOURAGE 50 PERCENT SUSTAINABLE MODE USE BY 2030?

In addition to accelerating high-impact strategies already in *TRANSPORTATION 2050*, new initiatives would likely be required to achieve this change in travel behaviour by 2030. This section includes discussion on additional initiatives that may encourage a mode shift of this magnitude, described according to the three categories of actions required. General information on the potential impact of these types of initiatives is included as well as discussion on the overall opportunities, challenges and uncertainties.

Appendix C includes additional information per initiative (including a case study for each).

The initiatives described focus largely within the City's jurisdiction however in many cases, collaboration with provincial or federal levels of government to advocate for regulatory changes or fund initiatives would be required.

Notably, this is intended to provide general information on potential initiatives the City could utilize—additional study would be required to thoroughly understand the best approach for Winnipeg.

LAND USE INITIATIVES

Increased density and mixed-use areas (combining residential, commercial and other land uses) are essential to high sustainable mode use. Neighbourhoods with these characteristics tend to reduce per capita vehicle travel as origins and destinations are closer together making sustainable modes of travel more viable. Research indicates that each 10 percent increase in population density typically reduces per capita vehicle kilometres travelled (VKT) by 1-3 percent. Dense mixed-use neighbourhoods are even more effective, typically reducing VKT by 5-15 percent compared to single-use neighbourhoods.4 Initiatives beyond *TRANSPORTATION 2050*, *OurWinnipeg 2045* and *Complete Communities 2.0* that the City could consider are:

- **Zero greenfield development** – No expansion of the existing built-up area
- **Ambitious density targets at transit stops –** Minimum density targets combined with increased density allowances for areas around existing/planned transit stops/stations
- **Increasing density allowance and mixed-use zoning within the existing built-up area** – Updating as-of-right density and mixed land use allowances within the existing built-up area

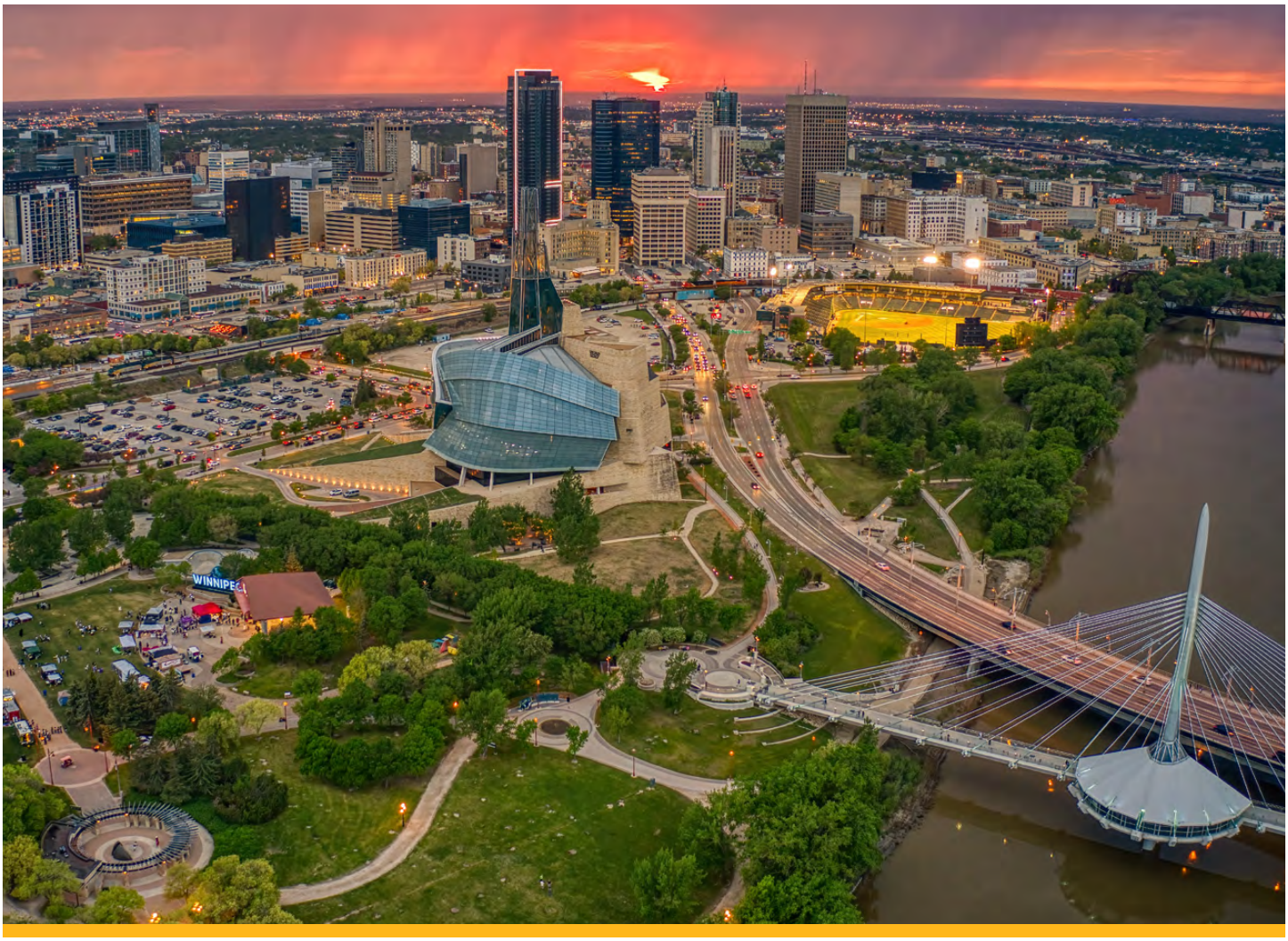
OPPORTUNITIES

There is already support for some level of increased density and mixed land uses in City and regional planning documents (*OurWinnipeg 2045, Complete Communities 2.0, Plan 20-50*).

- Housing development trends indicate increasing demand for multi-unit dwellings which are typically higher density than single-family detached homes.

CHALLENGES/UNCERTAINTIES

- City council very recently adopted Complete Communities 2.0 which outlines the land use vision for Winnipeg (May 26, 2022). This included a 50 percent intensification target that will see half of all new development take place in greenfields. These plans were developed with extensive consultation with the public, stakeholders and other levels of government to determine what works for Winnipeg. Adjusting key components of Complete Communities 2.0 (such as the level of greenfield development) would be a major change in the land use vision and would need to be reviewed with the same level of rigour the original plan was developed through to ensure it would work for Winnipeg. Further, the land use vision as adopted has fed into many future greenfield development plans already.
- General market acceptance from both the development community and the public for additional increased density and mixed land uses is uncertain as demand for new single-family detached homes remains.
- Shifts in land use patterns take time. Even if these ambitious land use initiatives were passed immediately, it would take many years for more mixed-use and denser developments to be completed at a volume that would truly begin to impact travel behaviours (e.g., 10 percent increase in density which research shows can reduce VKT by 1-3 percent).



SUSTAINABLE TRANSPORTATION INCENTIVES

People's mode choice behaviours are affected by numerous factors with cost and time being two key components. Actively incentivizing sustainable transportation by implementing initiatives that make sustainable modes more competitive than automobiles based on cost and/or time can help make these travel options more attractive for meeting travel demands. While the details of the incentives dictate the level of impact, research on several workplace programs indicate that the mode share of program participants driving alone can decrease from 2-25 percent. 6 Initiatives beyond *TRANSPORTATION 2050* that the City could consider are:

- **Expansion of diamond lanes and dedicated transitways beyond WTMP** – New road space dedication exclusively for transit or transit combined with bicycles and taxi during specified hours
- **Fare-free transit –** Funding public transit fully by means other than fares
- **Sustainable transportation financial incentives** – Programs such as tax benefits, bicycle/e-bike subsidies or parking cash out that make sustainable transportation more financially attractive

OPPORTUNITIES

- There is a desire among Winnipeggers to bike more than they currently are. According to the statistically significant survey conducted during Phase 1 engagement of *TRANSPORTATION 2050*, 62 percent of respondents said they cycle less than they would like to. Incentives that make the cost or time associated with cycling more attractive could leverage this and see some of these people shift from wanting to doing.
- Most sustainable transportation incentives do not require any additional infrastructure (or minimal in the case of diamond lanes) making their implementation quick once the details are determined.

CHALLENGES/UNCERTAINTIES

- The cost associated with some incentive programs can be quite significant—funding sources for these programs would need to be identified and may require contributions from other levels of government.
- The outcomes of some incentive programs (particularly free transit) are uncertain and could lead to minimal mode shifts at a high price.
- Many sustainable transportation incentive programs are currently administered as workplace programs—collaborating with workplaces and other program administrators would need to be investigated more deeply to understand the potential impact city-wide. Alternatively, varying administration approaches could be utilized that don't rely on workplaces however in that case, a high level of administrative support would likely be required from the City.

DRIVING DISINCENTIVES

Building on sustainable transportation incentives, disincentives that increase the cost or time of personal vehicle travel can also lead to increased sustainable mode use. Importantly, before driving disincentives are considered, viable alternatives must be available to people—otherwise these disincentives could negatively impact people's overall mobility and quality of life, in addition to the city's economy. Where viable alternatives exist, disincentives can be warranted to achieve policy objectives related to safety, environmental impact, placemaking, financial sustainability and more. Travel behaviour impacts are highly dependent on the type and magnitude of the disincentives—research indicates that many driving disincentives could reduce vehicle trips by about 4 percent. Initiatives beyond *TRANSPORTATION 2050* that the City could consider are:

- **Road pricing** – Programs that have drivers pay directly for driving on a particular roadway or in a particular area—there are many types of road pricing
- **Removing road capacity** – This includes reallocating space to other modes or removing capacity all together (e.g., for patios, parkettes or boulevards/landscaping). It uses congestion as a catalyst for change toward sustainability
- **Parking adjustments** – Reducing the availability and/or increasing the cost of parking
- **Vehicle and fuel taxes** – Financial disincentive that discourages use through increased cost

OPPORTUNITIES

- Like incentive programs, most disincentives programs do not require any additional infrastructure (with the exception of road pricing which requires significant digital infrastructure) making their implementation relatively quick once the details are determined.
- For financial disincentives, funds collected through the programs can be reinvested in sustainable transportation infrastructure/programs further supporting the shift to more sustainable mode use.

CHALLENGES/UNCERTAINTIES

- As described above, viable transportation alternatives must be available before disincentives are employed. Implementing transit and active transportation network expansions will take many years, even on an accelerated timeline (as discussed in **Section 4.1**). As such, it will be several years before most driving disincentive programs could be implemented.
- Many driving disincentives (e.g., road pricing, vehicle/fuel taxes) would require provincial or even federal support and/or regulatory changes—support from these levels of government on disincentive programs is unknown however international examples indicate they are typically controversial. Regardless, gaining this support/advocating for regulatory changes would require significant effort and time from the City.
- Public support for vehicle disincentive programs is typically challenging to achieve based in international examples (New York, London, etc.)
- While some disincentive programs can be designed to limit impact to goods movement by truck in the City, many disincentive programs would reduce auto capacity and potentially lead to increased congestion and longer travel times for goods movement.

SUMMARY OF POTENTIAL ADDITIONAL INITIATIVES

The potential initiatives described in this section illustrate the magnitude of intervention required to encourage such a significant mode shift by 2030. Many of these initiatives are not commonly employed in North American cities and have several challenges and uncertainties associated that may make their implementation impractical and/or may not lead to the desired increase in sustainable mode use. Consistent challenges relate to the costs, timelines and general support for initiatives associated with meeting this target by 2030.

5. HOW CAN TRANSPORTATION-RELATED EMISSIONS BE REDUCED TO MEET GHG TARGETS?

TRANSPORTATION 2050 set a target for 50 percent of trips to be made using sustainable modes by 2050 as an ambitious but achievable mode share to guide City of Winnipeg decision making on the transportation system. *TRANSPORTATION 2050* includes a robust package of policies, actions and networks to achieve this target. Additional initiatives to help meet or exceed this mode share target should be consistently reviewed in updates to the plan.

TRANSPORTATION 2050 recognizes the urgent need to take action on climate change and the major role that the transportation system will play in meeting the City's net zero target. While mode shift will play an important role in reducing GHGs, over the next three decades, the primary driver of transportation-related greenhouse gas emission reductions will be shifting to zero-emission vehicles. With strong support for the transition to zero-emission vehicles, the transportation system can do its part to achieve the net zero target with a 50 percent sustainable mode share in 2050.

While zero-emission vehicles will be the primary driver of transportation-related GHG emission reductions, facilitating a shift to 50 percent sustainable mode use in 2050 is still of vital importance for a number of reasons. A continued reliance on automobiles, electric or not, will have negative impacts in Winnipeg. This includes environmental impacts (beyond just GHG emissions) and increased traffic congestion in addition to the other public health, quality of life, city building and economic challenges associated with high automobile use. To make progress towards the full suite of *OurWinnipeg 2045* goals, increasing sustainable mode use significantly is essential.



6. DESCRIPTION OF MODE SHARE ANALYSIS

Climate action mode share targets

Currently in Winnipeg, the vast majority of trips are made using an automobile, with about 62 percent of trips made by automobile drivers and an additional 20 percent by automobile passengers. This has significant implications for greenhouse gas emissions (GHGs): in 2020, transportation-related activities represented nearly half (48 percent) of the total GHGs in Winnipeg, with 37 percent from personal vehicles alone. As a result, the City's Climate Action-related plans include mode share targets.

In 2018, City council approved Winnipeg's *Climate Action Plan (CAP)* which outlined two main directions to reduce transportation emissions including fuel switching to cleaner energy sources (e.g., electric vehicles) and facilitating a mode shift to decrease dependence on single-occupancy automobile use. In 2022, City council approved the Community Energy Investment Roadmap (CEIR) which updated the City's emission reduction targets to net-zero by 2050. As a result, *OurWinnipeg 2045* includes a policy to meet and exceed GHG reduction targets of 20 percent by 2030, relative to 2011, and net zero by 2050 (Policy 2.1).

NET-ZERO means emitting no GHGs or offsetting GHGs such as through tree planting or carbon-capture technologies.

Both the *CAP* and the *CEIR* outline 2030 mode share targets towards reducing emissions, presented alongside the current mode share in Winnipeg in **Exhibit 1.3.** Notably, the 2030 mode share targets in the CAP and the CEIR are similar, however the CEIR groups automobile-related modes together and active modes together. For the purpose of analysing mode share targets for *TRANSPORTATION 2050*, the CAP targets were used as they are more granular and comparable to outputs from the City's travel demand model (used for the analysis).

EXHIBIT 1.3: CURRENT MODE SHARE AND FUTURE MODE SHARE TARGETS

		CAP Target	CEIR Targets A	
Mode	**Current Mode Share (2019)**	**2030**	**2030**	**2050**
Auto driver	62%	50%	73%	56%
Auto passenger	20%	21%		
Transit	10%	15%	12%	16%
Cycling	2%	4%	15%	27%
Walking	6%	10%		

A The CEIR targets were not yet available at the time of the *TRANSPORTATION 2050* mode share analysis. Once released, the existing mode share analysis (as described in section 2 of this memorandum) was re-reviewed within the context of the new targets. The CAP targets remained the key comparator for the 2030 mode share analysis as they are similar to the CEIR 2030 targets, but they are more granular and comparable to the outputs from the City's travel demand model (used for this analysis). The CEIR targets also did not change the conclusions of the mode share analysis for 2050 or 2030.

2050 ANALYSIS

TRANSPORTATION 2050 conducted an analysis to determine an appropriate mode share target for the 2050 horizon of the study (no 2050 target existed at the time of this assessment). While the 50 percent sustainable mode share target was outlined in the CAP for 2030, this served as a good starting point for the analysis to understand the impacts of this target on the 2050 transportation system. From there, varying mode share targets could be assessed as necessary.

Winnipeg's Travel Demand Model was used to conduct the mode share analyses for 2050 and 2030. This model forecasts travel demand under varying future scenarios (as described in this memorandum). The model produces many outputs such as overall travel demand (number of daily trips), mode share, volumes on particular corridors and much more. Further analysis on the model outputs can be conducted to sense-check findings. For example, how many transit service hours would be needed in 2050 to serve the predicted number of transit trips? How many trips would need to shift from driving to walking/biking to meet the mode share target? Analysis of model outputs was a key component of the mode share analysis described in this memorandum and was a central part of developing recommendations in *TRANSPORTATION 2050*.

To understand the impacts of a 50 percent sustainable mode share in 2050, two future scenarios were developed.

1. First a **2050 business-as usual** (2050 BAU) scenario was modelled in the City's transportation model. This forecasted overall travel demand in 2050 based on expected land use patterns and projected population and employment determined through the *OurWinnipeg 2045* and *Complete Communities 2.0* process. Notably, Winnipeg's population and overall travel demand is expected to increase by about 30 percent between 2019 and 2050.
2. For the transportation system, the 2050 BAU scenario represents a continuation of current trends with minimal change in transportation policies, programs or the approach to infrastructure. In the BAU scenario the projected auto driver mode share is similar to the current situation (projected 59 percent compared to the current 62 percent).
3. Keeping the total travel demand from the 2050 BAU constant, a **50 percent sustainable by 2050 scenario** was developed. This included determining the required shift in travel behaviour from the 2050 BAU for 50 percent of trips to be made using sustainable modes against peer municipalities such as transit ridership per capita, transit ridership per revenue service hour, change in auto driver trips and auto occupancy. The calculated travel demand per mode was also inputted into the model and the potential impacts on the transportation system were assessed.
4. The results of this scenario analysis indicated that the changes required between 2019 and 2050 to achieve a 50 percent sustainable mode share are ambitious, however based on analysis of peer municipalities, they are also potentially achievable with the strong action as outlined in *TRANSPORTATION 2050*. Based on this analysis, a 50 percent sustainable mode share target was set for *TRANSPORTATION 2050*.

2030 ANALYSIS

Building on the 2050 analysis, the Core Framework Study of *TRANSPORTATION 2050* conducted further analysis to understand the potential to achieve 50 percent sustainable mode use in 2030. The results indicated that major changes to travel behaviour and therefore infrastructure, land use and policy would be required in the next eight years to achieve this target.

Like the 2050 analysis described in **Section 2,** this analysis included modelling a **2030 business-as-usual scenario** (2030 BAU) to understand overall travel demand in 2030 based on expected land use patterns and projected population and employment. Notably, in 2030 Winnipeg's population and overall travel demand are expected to increase by about 12 percent—the forecasted 2030 BAU auto driver mode share is 61 percent. Keeping the total travel demand from 2030 BAU constant, the required shift in travel behaviour to achieve 50 percent sustainable mode use by 2030 was determined. Like the 2050 analysis, this included determining the required shift in travel behaviour from the 2030 BAU and from today and sense-checking key metrics against peer municipalities and the Winnipeg Transit Master Plan.

TRANSIT SERVICE LEVEL ASSESSMENT

A key component of sense-checking the required travel behaviour change was assessing the necessary transit service levels to meet the projected demand in 2030 if 50 percent of trips were made using sustainable modes. Under this scenario, the number of daily transit trips would increase by 75 percent from 2019 to 2030.

The service levels needed to meet this demand in 2030 depend on how productive the transit service provided is—specifically how many transit rides are served per revenue vehicle hour (RVH).8 In 2019, there were 34 rides served per RVH in Winnipeg. RVH is influenced by a number of factors such as land use, service levels/reliability and the presence of other initiatives that encourage a shift to sustainable modes.

Over the next eight years (to 2030) while land use will evolve, it is expected to be similar to today's context as major changes in land use take time. Within this context, an increase in rides per RVH is possible based on increased service levels and other sustainable transportation initiatives (potentially up to 37 rides per RVH from 34 in 2019). However, it is very unlikely to increase significantly until overall land use shifts to be much more transit-supportive.

It is expected that by 2050, Winnipeg's land use will have shifted to be more transit-supportive (as per the *Complete Communities 2.0* vision) which, along with other initiatives, can potentially facilitate an increase in the transit rides per RVH to levels like Ottawa (42 rides per RVH) which in 2019 had a bus rapid transit system comparable to what Winnipeg will have under the *WTMP.* As such, with more rides being served per RVH in 2050, the 50 percent sustainable mode share target can be achieved in 2050 under the same transit service levels (as per the *WTMP*) that would be required in 2030.



APPENDIX B

PUBLIC ENGAGEMENT REPORT

TRANSPORTATION MASTER PLAN: 2050

Phase 1 –Public Engagement Report

Prepared by the City of Winnipeg with reference to materials developed by Scatliff + Miller + Murray and Probe Research Inc.

JULY 2021

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1.0 Executive summary

Public engagement during Phase 1 of the Transportation Master Plan: 2050 (TMP2050) will help ground the plan in a deep understanding of what Winnipeggers care about, use, have challenges with, and want from the City's transportation system. Phase 1 engagement educated residents on the city's transportation network and provided a connection between the project team and Winnipeggers that will support further discussion on methods and means to move our city and people into the future.



In a year disrupted by the ongoing COVID-19 pandemic and related public health restrictions, more than 6, 500 Winnipeggers still took time to learn about TMP2050 through the project page and more than 1,700 invested their time to share insights with the us. These discussions were vast and fruitful.

Most importantly, Phase 1 engagement illustrated that Winnipeggers have common ground in their care for safety and reliability in Winnipeg's transportation system. Winnipeggers make most trips by car but many others have an appetite to shift toward more active and greener alternatives. Convenience, cost, care for the environment, and personal health are top motivators across all transportation modes; we heard common challenges with infrastructure maintenance across the transportation network, feeling unsafe outside a car, and trips taking longer than anticipated.

Living close to work, family and friends, affordable and healthy food, and recreation are all important to Winnipeggers. However, many also reported having to leave their neighborhood for some of these activities - particularly socializing, entertainment and work.

TMP2050 is looking forward at a time of increasing change brought on both by new technologies and other societal shifts. COVID-19 and its secondary impacts saw about two thirds of Winnipeggers change their shopping habits in 2020, with just under a third indicating they expect to continue to receive an increased number of deliveries to their homes or work into the future. Half of Winnipeggers will look to a GPS screen to help chart their route; a third are not incorporating new technologies into

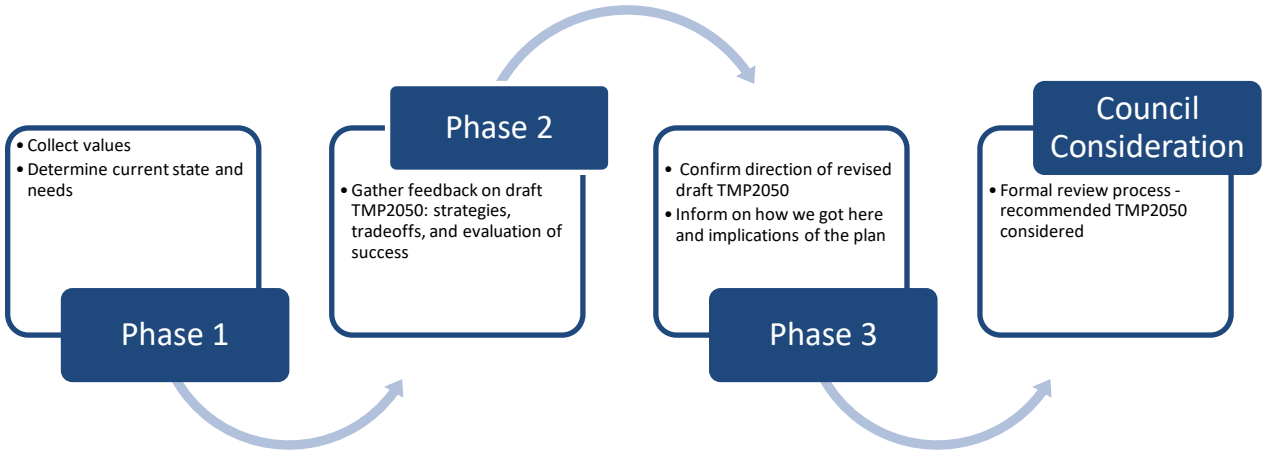
their transportation routines. Half of Winnipeggers are likely to choose an electric vehicle for their next lease or purchase, foretelling potential for a dramatic shift; only five per cent currently self-report as owning an electric vehicle.

Through a combination of technical research, data analysis, and public and stakeholder engagement, TMP2050 will help ensure our transportation system supports quality of life and economic vitality for years to come.

2.0 Introduction

TheTMP2050 is a subsidiary plan to *OurWinnipeg*, and is undergoing an update to take it through 2050. The updated plan will support the principles of the City's Climate Action Plan, and will serve as a 30-year blueprint to will guide future investment in Winnipeg's transportation network.

The project is organized into three phases. The first phase is now complete. The contents of this report represent finding from the public engagement program in Phase 1 of three phases.



3.0 Strategy

The public engagement strategy was developed to ensure as many users of as many transportation modes as possible were provided a chance to both share their perspectives and viewpoints and learn about the TMP2050 project. The input collected is to be considered alongside technical data and analysis relating to Winnipeggers' movements and travel patterns.

This project falls within the 'involve' portion of the Engage Winnipeg Policy which commits the project team to work directly with the public to ensure that public concerns are understood and reflected. Participants are involved to define options that are not yet well defined.

3.1 Objectives

Objectives were set for the broad TMP2050 public engagement program; some may not be applicable in all phases. These project-wide engagement objectives are as follows.

1. Winnipeggers are aware of opportunities to get involved.
2. Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. Example: The last decade of population growth.
3. Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents).
4. Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users.
5. Winnipeggers understand that different approaches and strategies will be required for different areas of the city. Example: Road widening in dense areas is not feasible.
6. Participants' opinions, experiences and desires and perceptions play a role in identifying the current state and future goals of transportation in Winnipeg.
7. Participant feedback on draft strategies is incorporated when developing the final document.
8. Participants understand how their input was considered and incorporated into the final document.

As stated above, not all objectives are intended to be met at each phase. For example, objective #5 '*Winnipeggers understand that different approaches and strategies will be required for different areas of the city'* will be pursued during phases two and three.

To support the Phase 1 goal to collect values and determine the current state of transportation and Winnipeggers' related needs, the objectives targeted by Phase 1 engagement activities are as follows.

1. Winnipeggers are aware of opportunities to get involved.
2. Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. Example: The last decade of population growth.
3. Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents).
4. Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users.
6. Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of transportation in Winnipeg.

A variety of communication and engagement techniques were used in Phase 1 to satisfy these objectives. They are described in sections **5.0 Promotion** and **6.0 Engagement activities and objective alignment**.

3.2 Pre-engagement

Pre-engagement planning

One of the core values of public engagement is that 'public participation seeks input from participants in designing how they participate' (International Association for Public Participation). As part of early project planning, it is also important to identify decision makers' expectations for the public engagement process. As part of engagement planning, we reached out to groups and decision-makers to better understand what they feel makes for meaningful participation and planning to ensure Winnipeggers at large, and key players specifically, help meaningfully shape the next 30 years of our transportation network.

3.2.1 Approach

Councillor meetings

The project manager arranged meetings with each Councillor and the Mayor during the summer of 2020. Councillors were asked to provide their overall views of transportation in Winnipeg and, more specifically, to comment on engagement for TMP2050. This feedback allowed the team to better understand what decision-makers are looking for from the TMP2050 process and the transportation issues their constituents bring to them.

Internal stakeholder issue mapping

In the spring of 2020, the project manager distributed an email and worksheet to staff across the project's internal working group – which includes staff from Public Works, Property Planning and Development, and Winnipeg Transit – requesting input on important issues and where public input could help improve decision-making. The correspondence additionally requested input on the stakeholder list.

Stakeholder workshop

External stakeholders (identified by the project team and internal working group) were invited to participate in a workshop called 'How to engage on Transportation Master Pan 2050'. This exercise's workbook is in Appendix A. The public engagement planning workshop presented stakeholders with the project's public engagement strategy and gathered their feedback on proposed objectives and techniques. This feedback emphasized the importance of certain techniques, such as working with existing interest groups, and the need to reach individuals who may be less heard or less frequently sought out by public engagement activities.

3.2.2 Results & application

What we heard during pre-engagement reinforced the importance of three primary factors: leveraging relationships with existing organizations, conducting proactive, targeted outreach, and bringing different perspectives together to ensure the TMP2050 strategy reflects all Winnipeg's communities. This feedback resulted in a more robust stakeholder outreach plan, prompted an inter-generational

discussion approach at the virtual workshops, and placed an emphasis on outreach techniques that can be used in future phases (should COVID-19 restrictions be lifted). The feedback received and how that feedback was considered and incorporated into engagement planning is outlined in Appendix B.

4.0 Limitations

In Phase 1 of TMP2050, the public engagement process faced obstacles – the majority of which were related to the ongoing COVID-19 pandemic and related public health restrictions.

4.1 In-person meeting restrictions

When the TMP2050 public engagement program was first conceptualized, it was built on meeting Winnipeggers "where they are" and relied heavily on in-person interactions – both for promotion and actual engagement. As public health orders evolved alongside the pandemic, engagement was forced to move entirely virtual. While the project team responded with agility and retooled engagement opportunities to ensure meaningful participation could take place online with extensive supports available to those less comfortable with the medium, the lack of in-person events created some intrinsic limitations and barriers and impacted the program.

- Individuals in marginalized communities, who are less heard from under ideal conditions, may have been less involved due to the conditions.
- Some participants were alienated by the medium and were uncomfortable participating in group discussions on-camera or by voice.
- Nuances of in-person discussions were eliminated.

4.2 Timing

The public engagement program launched on November 10, 2020 –the same day the Province of Manitoba made a previously unscheduled announcement that Winnipeg would shift immediately into a Critical Provincial Response Level, in accordance with the Pandemic Response System. Though City communications staff subsequently undertook targeted outreach and pitched the story to all major media outlets in Winnipeg, we received uptake from just two outlets.

4.3 Facility and programing closures

While in-person engagement moved off the table in mid-2020, community-based, in-person promotional pop-ups remained a possibility right up to the week prior to the TMP2050 launch. Unfortunately, escalating public health restrictions eliminated all planned in-person interactions. Further, digital promotional installations planned for community centres and libraries were unable to launch as these facilities closed under Winnipeg's Code Red status.

4.4 Outreach

The project team had prearranged a number of outreach conversations to take place with community services organizations upon the program's launch, and had also offered to help facilitate discussion groups (either in-person or online) to help marginalized Winnipeggers participate in the program and

have their transportation needs recorded. However, these plans were not carried out as frontline community services and outreach organizations were greatly impacted with the increased COVID-19 restrictions, and many either closed entirely or shifted day-to-day priorities to solely focus on essential services and public health programming.

4.5 Pandemic fatigue

Understandably, many Winnipeggers (like many others around the world) are experiencing "pandemic fatigue," or the inability to focus attention to anything other than life's necessities. It is to be expected that participation levels would be affected by this trend.

4.6 Demographics

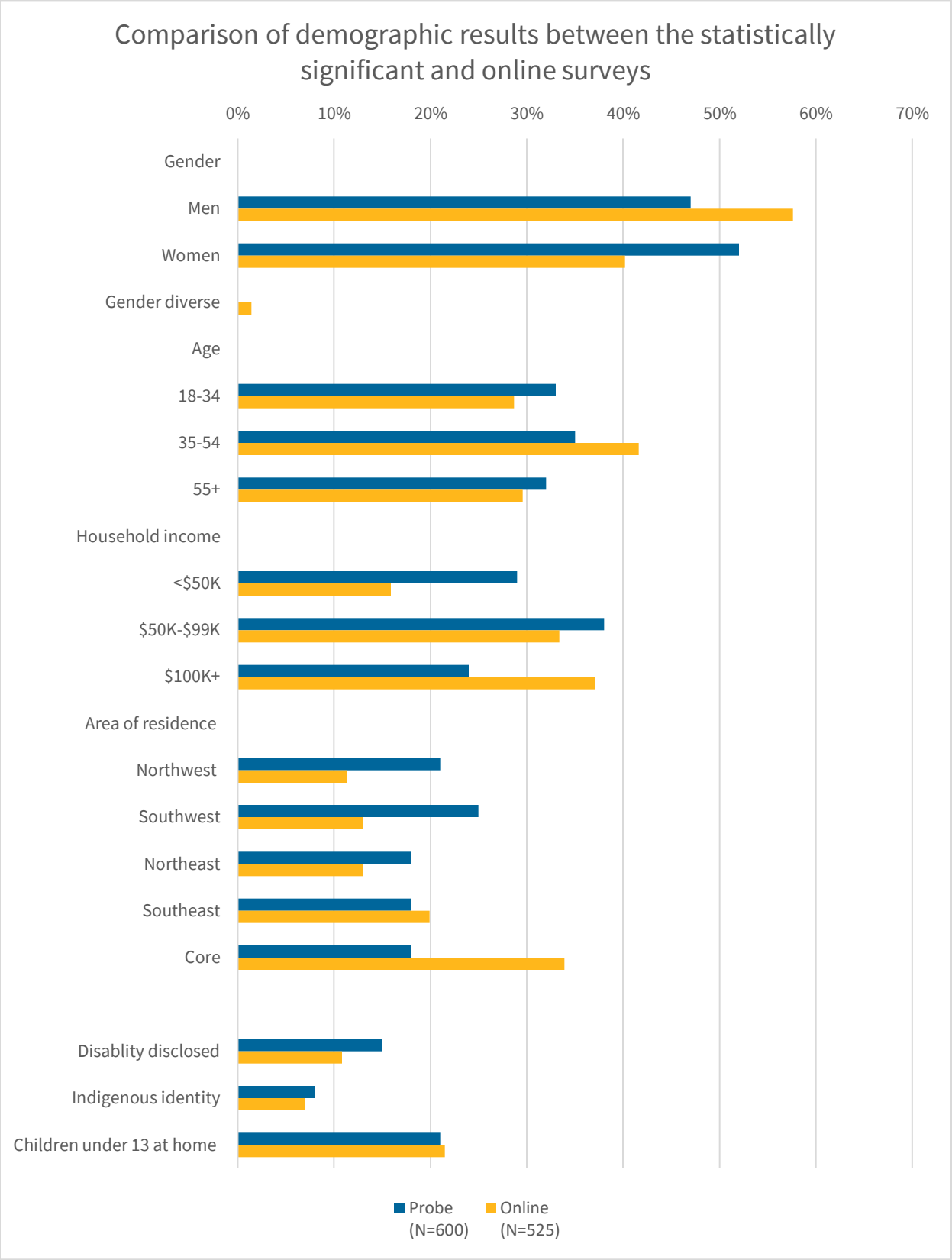
The City retained Probe Research Inc. to provide statistically significant survey results from a city-wide probability sample of 600 individuals with a margin of error of +/- 4.0, 19 times out of 20. This sample group was broadly representative of the actual Winnipeg population for age, gender and region of the city.

Questions asked in the statistically relevant survey were replicated in the City's own online survey (which was open to all Winnipeggers); participants in this tool were asked to answer some non-mandatory demographic questions.

Held against the results of the statistically significant survey, online survey respondents over-represented the following demographics: male (10.6% over Winnipeg average), ages 35-54 (6.6% over Winnipeg average), household income of $100, 000 or more (12.1% over Winnipeg average), and residence within the City Centre (15.9% over statistically significant survey geographic distribution). In demographic areas where there is over representations, other demographic groups were subsequently under represented. The higher representation of some groups in public engagement activities is not unique, and may represent both increased comfort by some demographic groups in providing feedback to government and an increased tendency for some special interest groups to consistently participate in City engagement processes.

Information provided by online survey participants shows a higher representation of cyclists versus users of other modes in comparison to the statistically significant survey. One reason for this may be the prevalence of cycling enthusiasts on the City's email distribution list, which includes a large number whose contact information was gathered due to participation in recent and frequent Walk Bike program engagement activities.

The public engagement strategy includes efforts to increase dialog with demographic groups who are traditionally underrepresented. This included the development of neighbourhood advisory groups and outreach to the Mayor's Youth Advisory Council. This report includes additional transportation-related feedback from the City's Poverty Reduction Strategy to improve the project team's understanding of transportation issues for Winnipeggers experiencing poverty; this feedback will inform Phase 2 activities that increase promotion and outreach to underrepresented groups.


Comparison of demographic results between the statistically significant and online surveys
0%
10%
20%
30%
40%
50%
60%
70%
Gender
Men
Women
Gender diverse
Age
18-34
35-54
55+
Household income
<$50K
$50K-$99K
$100K+
Area of residence
Northwest
Southwest
Northeast
Southeast
Core
Disablity disclosed
Indigenous identity
Children under 13 at home
Probe (N=600)
Online (N=525)

5.0 Promotion & media

A full-scale promotional campaign supported the public engagement program. The plan used the tagline: *How do you get where you're going?* and focused on engaging Winnipeggers while they are on their travels or once they arrive at their destination.

Outdoor, Transit, and street-level advertising focused on asking Winnipeggers to reach out with their thoughts on "getting where they're going" in one of three ways: visiting the website at a later time; scanning a QR code that takes them directly to the engagement portal; or posting their thoughts on/vision for transportation in Winnipeg on social media using the #TMP2050 and #gettherewpg hashtags.

Print and radio advertising shared basic project details, and pushed users to the online engagement via the URL.

Paid social media advertising and **programmatic social media posts** served three primary purposes: sharing project information; pushing users to the engagement portal; and asking them to share their vision for Winnipeg's transportation network via an Instagram, Facebook, or Twitter post.

A **streeter-style video** was also used to introduce Winnipeggers to the project, show how each of us has a role in shaping the future of the transportation network, and push viewers to the engagement portal via the URL. It was shared on social media, and on the project website.

In addition to the campaign, several additional communication methods were used to promote engagement opportunities.

- Project webpage (winnipeg.ca/tmp2050) hosted the project background detailing the study focus areas and alignment with other City plans, videos, timeline, FAQs, supporting documents, level of engagement, online engagement opportunities and updates. Launched in early October the page received 7 900 + total visits by the end of 2020.
- Project information was sent to 2 600+ subscribers of the Engage Winnipeg newsletter on November 12, 26, and December 10.
- Engagement information was distributed to the 223 people on the stakeholder list, which comprised members of the Neighbourhood Advisory Groups and Interest-Specific Stakeholders.
- Digital posters with event information, project website address, and project contact information were prepared for City leisure centres and libraries, but were unable to be placed due to COVID-related facility closures.

Promotional materials as well as a breakdown of media placement can be found in Appendix J.

5.1 Earned media coverage

City communications staff subsequently undertook targeted outreach and pitched the story to all major media outlets in Winnipeg; we received uptake from two outlets.

CJOB, Global News and CTV News conducted live interviews with the team lead and provided extensive details about the project as follows.

The City of Winnipeg has embarked on an exciting new transportation study that will be the blueprint for guiding the City and our people's mobility and goods movement for the next 30 years.

- *It will be an update to the last version of the Transportation Master Plan from 2011.*
- *It is a large-scale and comprehensive study that will look at a number of areas including infrastructure (such as Roads and Bridges), public rights-of-way, public services like parking, traffic management and transit, and most importantly human travel behavior.*
- *It's a huge task for our Technical Staff to analyze our current transportation network and existing travel conditions and problems, but also trying to determine the best path forward in what type of system do we want and what should we build and invest in for future generations?*
- *At the end of this process, we need to present to Council a detailed plan that will outline sustainable, safe and effective mobility options for people and efficient and safe goods movement to ensure a good quality of life and economic vitality for Winnipeggers.*

We are working with staff from other City Departments to ensure our priorates are aligned with and compliment their plans for future population growth, land-use patterns and housing development, the future delivery of public transit service and routes, achieving greenhouse gas emission reductions, ensuring equity in transportation and building a liveable city for all Winnipeggers.

- *We have also reached out to numerous stakeholders who rely on the transportation system such as the Trucking Association, cycling groups, neighbourhood residents, the airport authority and many others to provide input as we develop our plan.*

Winnipeggers have divergent opinions and different ideas about transportation, but the key is to listen and seek to understand those different viewpoints and work toward building a consensus.

- *We will be reaching out to a diverse range of Winnipegger's from all areas of the city, crossing all socio-economic lines, and different age groups ranging from seniors and retirees to middle-aged workers to the youth in order to understand what they would like to see for the future transportation network.*
- *An important component of this study is to talk to Winnipeggers directly and ask them directly what they value and want to see in a future transportation system – mention online survey*

Our Technical Team has been tasked to look at all aspects of the transportation system through detailed research, comprehensive data collection and analysis, extensive scenario modelling so that the TMP2050 study will result in an action plan that will guide us through the challenges, identify opportunities and provide us with clear and affordable choices on what to build for the future. Some items are reviewing include:

- *New technology such as mobility apps for cellular phones, electric vehicles and driverless vehicles*
- *Mobility as a Service (MaaS) including Peg City Car COOP, Uber, Tappcar, taxicabs and TransitPlus*
- *Strategic road and bridge Investments, including "Smart Corridors" and priority lanes for emergency vehicles, transit and trucks*
- *Better pedestrian connections and greenways*
- *Fully developing our cycling network*
- *Exploring potential for using our rivers and waterways for transportation (in summer and winter)*

The Public has a variety of ways to get involved, including an online ***survey*** *which can be found at www.winnipeg.ca/tmp2050.*

- *The survey should take roughly 12 minutes of your time and will be open until December 11, 2020*
- *Also on our website the public can find a "**Mapping Tool**" where you can leave us a note about specific locations of concern or where you want to make suggestions for improvement*
- *The website also features "upcoming online events" which include workshops and panel discussions*
- *Finally, our website will provide the public with information about the transportation system in Winnipeg*

6.0 Engagement activities and objective alignment

Engagement activities were selected to achieve the engagement objectives of this phase of the TMP2050.

Activity	Participation	Phase 1 Engagement objective	Objective alignment
Public opportunities			
Online survey	767 respondents (764 in English and 3 in French)	• Participants' opinions, experiences and desires and perceptions play a role in identifying the current state and future goals of transportation in Winnipeg.	Early in the project process questions were developed with all component studies to base later decision making in an understanding of Winnipeggers current use, challenges and values.
Online mapping tool	414 comments from 88 contributors	• Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of transportation in Winnipeg.	The collection of location-based feedback focused directly on challenges experienced across Winnipeg's transportation network. The format of the tool allowed participants to both provide feedback and review the raw comments of others.
Discussion kit	3 organizations made submissions representing 28 participants	• Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of transportation in Winnipeg	Provided as a tool to support community or established groups with key questions from the survey tool when connecting with their trusted networks. The discussion kit allowed for a self-led discussion format to best meet the needs of the audience while sharing personal feedback and learning from other participants.
Online panel and workshop	37 participants	• Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. • Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents). • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Participants' opinions, experiences and desires and perceptions play a key role in identifying the	Developed under the theme *Moving into the future, Winnipeg over the next 30-years* five panelists were selected for the online event to share key considerations about current challenges and the possibilities around future of local transportation. The series of seven to ten-minute presentations were paired with audience polls and a panelist discussion with questions raised by stakeholders from the Neighbourhood Advisory Groups. The presentation was recorded greater access beyond the scheduled event.

		current state and future goals of transportation in Winnipeg.	Public participation in the event included a poll and rank exercise about key considerations to be undertaken by the TMP2050 and top rated answers guided the group discussion with a focus on impacts to Winnipeggers of all ages.
Discussion event	22 participants	• Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. • Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents). • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of transportation in Winnipeg.	The discussion event was a follow-up to the online panel and discussion to allow for more time for participant discussion. A recording of the panelists was shared with participants ahead of the event. The workshop followed the same format as the previous workshop adding another round of discussion focused on the impacts of the COVID-19 pandemic.
Stakeholder meetings	157 participants split between interest-specific and neighbourhood advisory groups. Each group met twice for a total of 18 meetings.	• Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. • Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents). • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Participants' opinions, experiences and desires and perceptions play a key role in identifying the	Groups were provided key insights into specific topics by component study leads and an in-depth introduction on need and current state by the project manager. Participants shared their input through facilitated conversations and exit surveys.

	An additional meeting was held with the Mayor's Youth Advisory Committee with 10 participants in attendance	current state and future goals of transportation in Winnipeg.	
Statistically significant survey	600 respondents	• Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of transportation in Winnipeg.	Probe Research Inc. was retained by the City of Winnipeg to survey 600 Winnipeggers about their attitudes and behaviours regarding the city's transportation system. The survey was conducted online using a 15-minute (average) questionnaire. It was available in both official languages. A city-wide probability sample of 600 would mean a margin of error of +/- 4.0, 19 times out of 20. Minor statistical weighting was applied to ensure the survey sample is broadly representative of the actual Winnipeg population for age, gender and region of the city.

7.0 Analysis

The online survey data was analyzed directly in the online survey tool and is presented in **Section 8.0**. Answers to open-ended questions were grouped according to similar ideas. Each group was assigned a theme, which captures the main ideas shared among all comments in that group.

Probe Research analyzed results from the statistically significant survey and submitted results to the City of Winnipeg. Those results are also contained in **Section 8.0**.

Scatliff + Miller + Murray analyzed results from stakeholder engagement. All comments were summarized and coded into specific topics to assist the technical teams in preparation and refinements of their individual component studies. Highlights are presented in both **Section 8.0** and **8.2 Component-specific insights**.

The discussion kit included a worksheet with four questions for feedback. Participants were asked to submit their responses under the headings “Question 1, Question 2, Question 3, Question 4” to support consistent analysis by the project team. All submissions were thoroughly reviewed; repetition of similar responses are reported by theme. Results are contained under **8.2 Component-specific insights.**

Input from the online mapping tool was separated by transportation type and clustered by geographic data. Comments were then reviewed to reveal top themes in geographic areas. Results are contained under **8.2 Component studies – specific insights.**

A vote-and-rank tool was used as part of the public workshop and discussion events to help gather ideas and further explore those that most resonated with participants. Participants were then asked to record their notes within a digital worksheet. These documents were reviewed and comments are summarized in both **Section 8.0** and **8.2 Component studies – specific insights**.

In late 2020, concurrent to TMP2050 engagement, the City of Winnipeg was also engaging stakeholders in Phase 2 of a Poverty Reduction Strategy in partnership with Make Poverty History Manitoba and the Winnipeg Poverty Reduction Council (an initiative of United Way Winnipeg). One of this project’s thematic focuses was Equity in Transportation, which stakeholders identified as the fifth most important area (of eight identified through Phase 1 of their engagement) to help the project team prioritize the strategy’s implementation. To assist with the TMP2050 focus area of equity and inclusiveness this report will reference actions identified through the Poverty Reduction Strategy process under section **8.1.1.3 Challenges** and **8.2 Component-specific insights.** To learn more about the Poverty Reduction Strategy, please visit winnipeg.ca/povertystrategy.

8.0 Results

8.1 Key findings

The most important takeaways from the TMP2050 Phase 1 engagement tell us Winnipeggers have common ground in terms of what motivates our transportation choices and what we are most concerned about.

Values:

- Safety
- Reliability

Use:

- By car (driver or passenger) - 83% of Winnipeggers use always/often
- On foot (or with mobility device) – 24% of Winnipeggers use always/often
- By bus (including TransitPlus) – 11% of Winnipeggers use always/often
- By bike – 6% of Winnipeggers use always/often

Barriers:

- Transportation network maintenance
- Safety outside a vehicle
- Efficient use of time

A more comprehensive explanation of results is in the sections below.

In terms of values, Winnipeggers prize safety above all else, with three in five saying safety is “extremely important” as they move about the city. Through work with stakeholders, reliability emerged as an additional top value for consideration. Environmental sustainability was seen as a top priority by participants in the online and stakeholder engagement activities but was the least important to respondents of the statistically significant survey. Other areas of agreement between all participants included high support for personal health, speed and flexibility.

Winnipeggers’ commuting mode of choice is, by far, the car. A notable three in five say they always commute by car. So why are Winnipeggers choosing one transportation option over another? Convenience, cost, care for the environment, and personal health are the top motivators across all transportation types. Convenience is a major motivator for the use of all transportation options outside of cycling. Winnipeggers place high value on safety and indicated driving is the only transportation type which satisfies this need. The top reason for driving alone is also unique in that it is the only transportation type users deemed comfortable to do alone.

In general, Winnipeggers are happy with their respective mode splits (the amount they use each transportation mode), with at least half reporting satisfaction with the amount they travel by car, by bus, and on foot or by mobility device. That said, there is some appetite to shift toward more active and greener alternatives. For instance, two in five say they drive more often than they'd like, and the majority say they don't bike as often as they'd like.

As for visions for the future, better maintained roads tops residents' wish lists. The top three visions emerging from the statistically significant survey are: better maintained roads (56%); effective expressways (38%); and, fewer potholes (33%). Online respondents provided a different top three: better bike infrastructure (54%); better bus service (45%); and better maintained roads (42%).

Living close to work, family and friends, affordable and healthy food, and recreation are all top considerations for Winnipeggers when choosing a place to live. However, many report that some of these activities require them to leave their neighborhood - particularly for socializing, entertainment and work.

More than any other type of transportation, feelings of "wanting to do more" are tied to cycling, with 62% of Winnipeggers (67.1% online respondents) saying they cycle less then they'd like to. However, there are some major challenges facing those who walk or bike that threaten Winnipeggers' top value of safety. Close proximity to busy roadways is seen as a major obstacle by both pedestrians and cyclists. Active transportation users feel threatened when sharing these roadways with vehicles due driver inattention, difficulty crossing, and the loud uncomfortable environment. Long delays at pedestrian crossing are also a barrier.

Inconsistencies in pedestrian and cycling infrastructure and connections sometimes leave users stranded or forced into unsafe conditions. Cyclists using the online mapping tool also cited issues crossing bridges, river paths. and railways. Feeling unsafe walking at night was, by far, the biggest concern expressed by Winnipeggers who travel by foot or mobility device. Both indicated a desire for increased options to navigate around construction sites.

There is also desire to increase the ability of people to walk or cycle a portion of their trip and use other modes – such as transit – for the remainder; this could be facilitated with improved bike storage at transit stops or increased ability to transport a bike by transit as bike theft and storage are barriers to cycling.

8.1.1 Overall views on the transportation network

8.1.1.1 Transportation Values

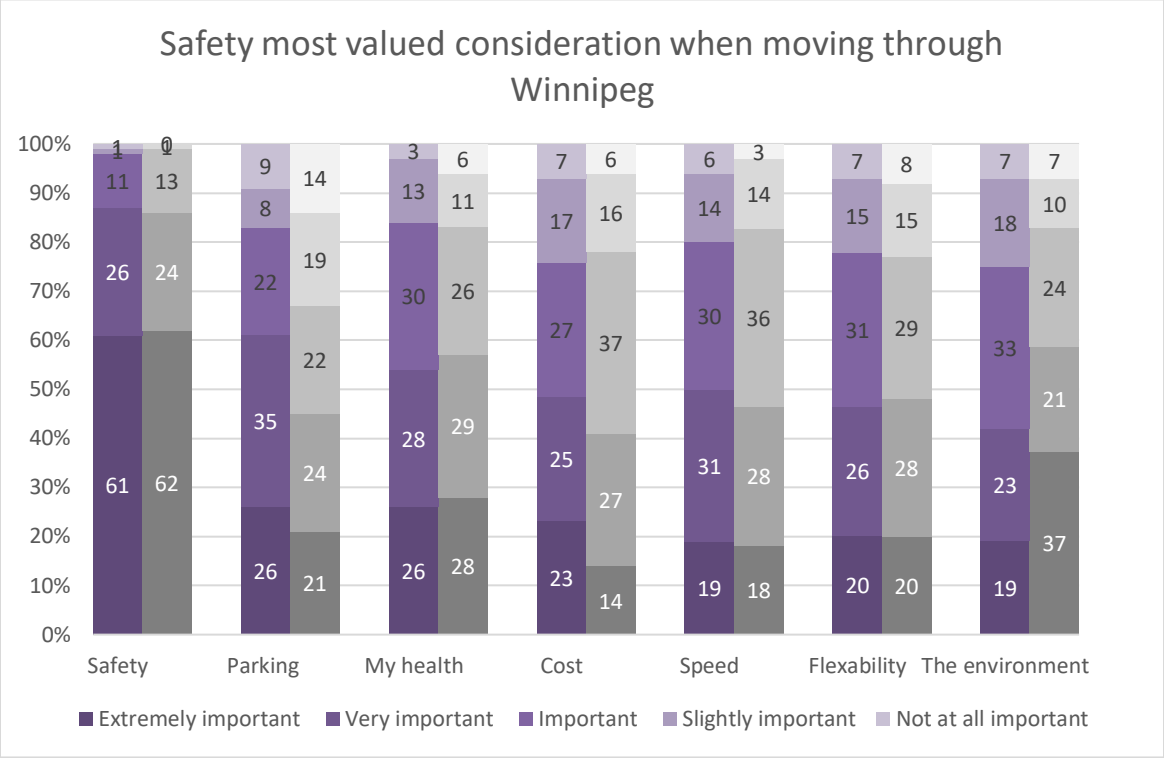


Figure 1 - Comparative results of statistically significant survey and online survey. Results in colour on left represent the statistically significant survey (n=600) and online survey respondents on right (n=747).

Noting safe transportation as a top value presents a key area for common ground among all Winnipeggers. Safety was revealed to be highly important when considering how to move around Winnipeg, with 87% of Winnipeggers in the statistically significant survey indicating it is either extremely important or very important. The consideration of safety was the top response by a considerable margin in both the online and statistically significant surveys.

Safety was also a top-rated consideration within the stakeholder priorities, voted as the most important by neighborhood advisory group participants and sharing the second most important position (with equity and inclusiveness) among interest-specific advisory group participants.

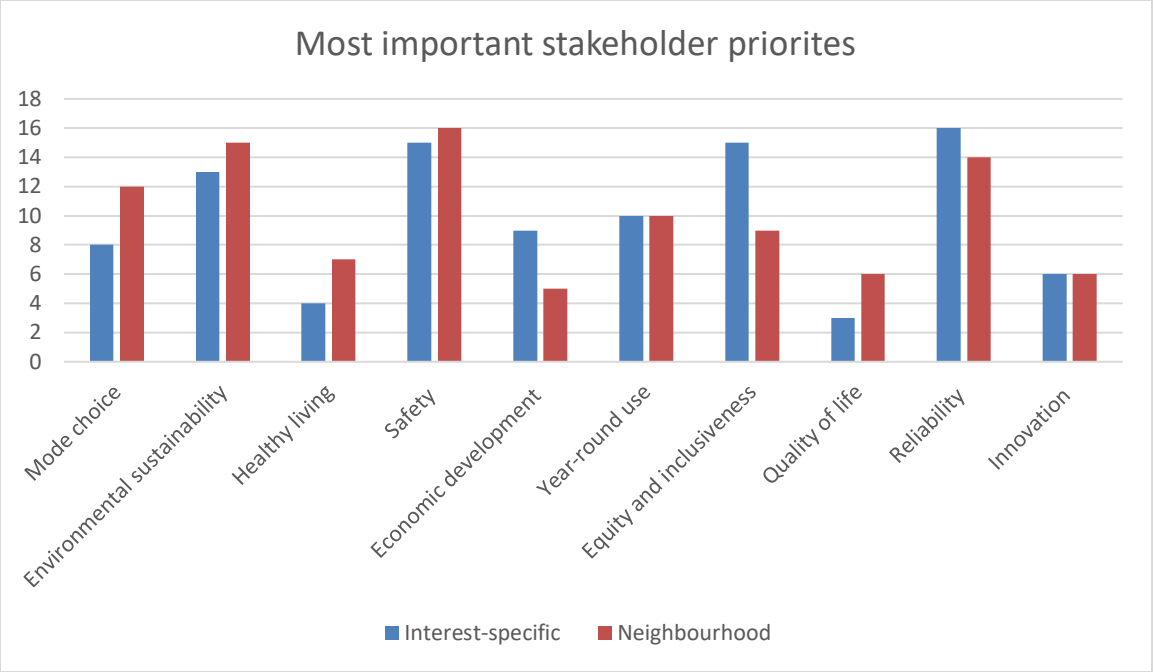


Figure 2 – Comparison of stakeholder ranking exercise from round two meetings on most important Stakeholder Priorities. Axis-y = % of votes.

Specific to stakeholder discussions, a series of stakeholder priorities allowed more in-depth analysis of values (based on discussions with stakeholders in their first round of meetings) and an opportunity for participants to rank values against others. The ranking exercise in the round two meetings helped clarify which elements are most important; as shown in Figure 2, reliability emerged as an additional top value for consideration.

Other areas of agreement between respondents of both the online and statistically significant surveys (with a difference of no more than three per cent) include high support for personal health (54%+ high importance), speed (48%+ high importance), and flexibility (48%+ high importance).

The two surveys diverged on values placed in the second, fourth, and last positions. The statistically significant survey determined parking to be the second most valued consideration while respondents to the online survey placed it in the last position with increased support for the environment. Cost was deemed less important by respondents to the online survey. As noted in the limitations section **4.6 Demographics** the difference may be due to an increased response rate from some demographics including those who cycle, are male, live in the City Centre or have a household income of over $100,000 per year.

Environmental sustainability was additionally identified in various meetings with stakeholders and was a top-rated priority in the second round of meetings, rated second-most important by the neighbourhood advisory groups and fourth most important by interest-specific groups.

The online survey allowed respondents to select “other” as a value, and received 74 suggestions. Top suggestions were: accessibility for all (10 comments); ease of use/predictability (eight comments); bike parking (eight comments); end of vehicle congestion (four comments); and reduced use of vehicles (four comments).

Further considerations were identified via stakeholder discussions: economic development; year-round use; equity and inclusiveness; quality of life; and innovation.

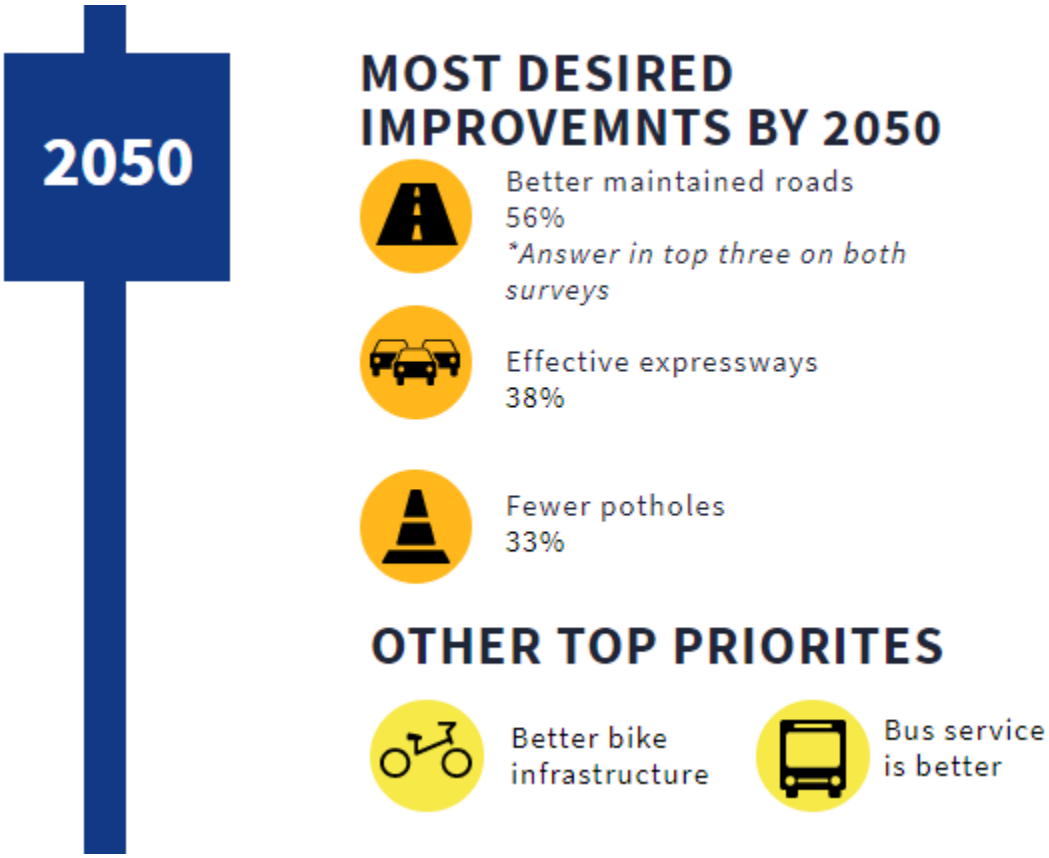


Figure 3 – Top results from the statistically significant survey are shown with the percentage of Winnipeggers who ranked this answer in their top 3. Other priorities relate to the top answers from the online survey and stakeholder discussions.

Winnipeggers were also asked to think about the city’s transportation network in the year 2050. The top three visions emerging from the statistically significant survey are: better maintained roads (56%); effective expressways (38%); and, fewer potholes (33%). Online respondents provided a different top three: better bike infrastructure (54%); better bus service (45%); and better maintained roads(42%).

The second round of stakeholder meetings focused on ‘future options and opportunities’ for Winnipeg’s transportation network. These included opportunities relevant to each of the component studies, such as repurposing of rail lines for active transportation or light rail routes, improvements to connections between transportation modes, completion of a full ring road, design and

implementation of an inner ring road and cycling lane, and the expansion of infrastructure for electric vehicles.

Throughout Phase 1, residents touched on concern over roads not performing well for their intended use – often in relation to high volumes of traffic. This included comments about pedestrian and commercial areas on major thoroughfares, where the road is home to a destination or multiple destinations but is also as a major connector for motorists and trucks to travel through. One participant in the stakeholder meetings encouraged the project team to reflect on the City's history and the rejection of proposed freeways and public transit improvements in the 1960's and 1970's, suggesting these oversights have resulted in high volumes of vehicle traffic and truck routes on arterial roads.

A question tested only with Winnipeggers in the online survey asked about expectations when it comes to daily commute times. The majority of respondents (61.4%) indicated that a commute time of 16-30 minutes is most reasonable. These results were consistent amongst different transportation users, revealing no major difference in commute time expectations. **See Figure 4.** The results appear to show alignment with the theory of Marchetti's constant which suggests one hour per day is as long as people are willing to spend on commute times. Frequent transit riders appear to be the outliers with less focus on 15 minutes or less (12.2% less than total response) and more focus on a daily commute time of 31-45 minutes (7.2% more than total response).

Question: In your mind, what is the most reasonable expected daily commute time (to get from your home to your most common destination)? Please note your response will be held against the your most commonly used travel choice.					
	15 minutes or less	16-30 minutes	31-45 minutes	46 minutes or more	Total
All	**25.53%**	**61.36%**	**11.10%**	**2.01%**	**748**
Bike*	22.65%	65.81%	9.40%	2.14%	234
Transit*	13.33%	64.17%	18.33%	4.17%	120
Walk*	24.21%	62.81%	11.23%	1.75%	285
Car*	27.68%	61.96%	9.23%	1.13%	531

Figure 4 - * respondents who indicated they use this travel options always or often.

8.1.1.2 Transportation Use

Both survey tools asked Winnipeggers to self-report the frequency in which they use each of four different transportation types: bike, bus (including TransitPlus), on foot (or with mobility device) and car (driver or passenger). The top result revelated most Winnipeggers are getting around by car (83% using a car always or often).

The online survey included fewer frequent drivers than the statistically significant survey (71% using a car always or often vs. 83%). The reduced reporting of car use in the online survey additionally resulted in increased reporting of use for the other three transportation types. As noted in the limitations section **4.6 Demographics** the difference may be due to an increased response rate from

some demographics, particularly those living in the City Centre and those with preexisting interests in active transportation.

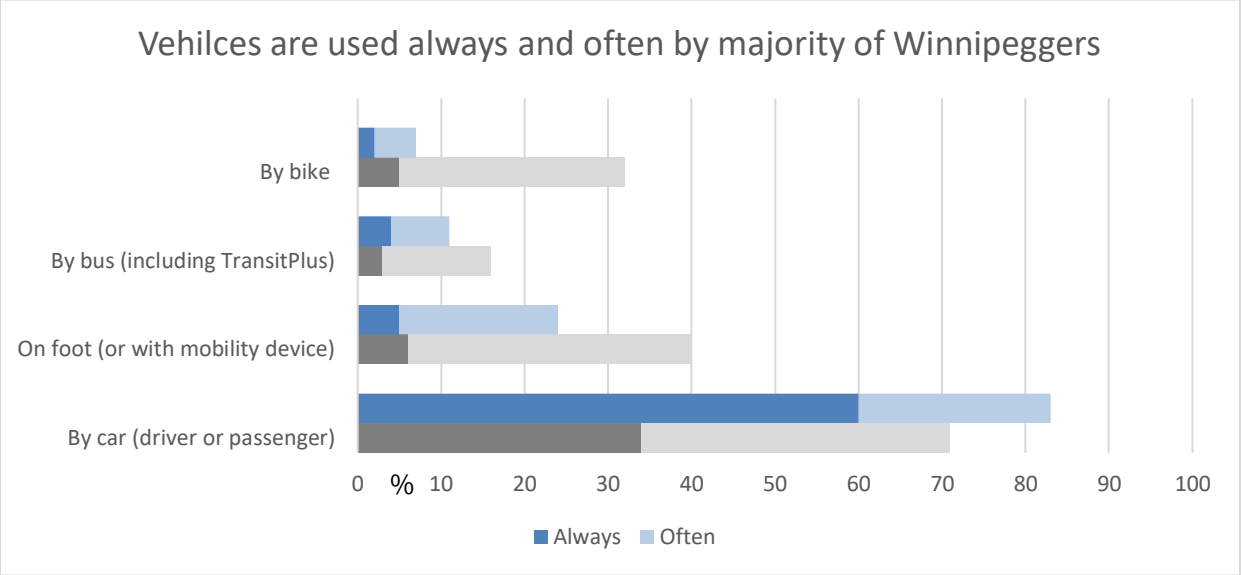


Figure 5 Comparative results of statistically significant survey and online survey. Results in colour on the top represent the statistically significant survey (n=600) and online survey respondents on bottom (n=747).

Participants were asked to reflect on their mode split and indicate if they desire a personal shift in usage of each transportation type. Winnipeggers were least satisfied with the amount they cycle, with 62% indicating they bike a little or a lot less than they'd like to. Some 41% of Winnipeggers move through the city on foot or using a mobility device less than they would like. The transportation type most often reported in use more or a lot more than the respondent would like is the car (39% of respondents).

A secondary line of questioning asked Winnipeggers to think about a place they go most often in a typical week and identify how they get there. According to the statistically relevant survey, the majority of Winnipeggers reach their frequent destination alone, by car (67% of respondents). 11% make these trips by carpool, 9% walk/use a mobility device, 8% use Winnipeg Transit, 2% bike and the remaining 3% don't typically leave the house. Online survey participants returned similar results, , only with a greater representation of individuals who bike to the place they go most often (14.9%) and a reduced number of individuals who drive alone (56%) or carpool (6%).

Reasons for use

So why are Winnipeggers choosing one transportation option over another? Convenience, cost, care for the environment, and personal health are the top motivators across all transportation types. Convenience is a major motivator for the use of all transportation options outside of cycling. Winnipeggers earlier placed top value on safety, and indicated driving is the only transportation type

which satisfies this need. The top reasons for driving alone are also unique in that users deemed it the only mode of transportation they are comfortable with.

Top reasons for driving alone
1. Most convenient 2. More comfortable 3. Safest
Top reasons for carpooling
1. Most convenient 2. Better for the environment 3. Saves me money
Top reasons for walking
1. Good for my health 2. Most convenient * 3. Save me money * *Online results: Better for the environment (rank 2nd) and it's enjoyable (rank 3rd)
Top reasons for using the bus
1. Most convenient * 2. Saves me money * 3. Better for the environment *Online results: Saves me money (rank 1st) and most convenient (rank 2nd)
Top reasons for biking
1. Saves me money* 2. Good for my health* 3. Better for the environment* *Online results: Good for my health (rank 1st), better for the environment (rank 2nd), and saves me money (rank 3rd) .

Land use tied to transportation habits

Living close to work, family and friends, affordable and healthy food, and recreation are all top considerations for Winnipeggers when choosing a place to live. However, many Winnipeggers also report some of these activities require them to leave their neighborhood - particularly for socializing, entertainment and work.

Respondents to the online survey were asked if they consider proximity to a list of common destinations when choosing a place to live. Proximity to work was the top answer cited by 68% of respondents as a location they considered when looking for a place to buy or rent. Other top answers included socializing/visiting friends and family (52.9%), affordable, healthy food (48%) and recreation facilities (45.3%).

To provide a greater understanding of which activities require Winnipeggers to travel outside of their neighbourhood, respondents were asked to consider a list of activities that may be part of their regular routine. Visiting friends and family was reported as happening outside their neighbourhood by 58% of Winnipeggers, followed by viewing arts and culture (42%), and work (40%). The two activities that happen in the neighbourhood more often than outside it are grocery shopping (74%) and recreation (44%).

When asked what big changes or trends the City should consider when planning transportation over the next 30 years, attendees of the public panel/workshop and discussion events noted complete communities as a key theme. Considerations around increasing housing options for downsizing populations, facilitating a "15-minute city", and shifting to denser neighborhoods were top-voted answers. Discussion on these topics included themes around greater incentives for building density, measurements and indicators of density, safety for pedestrians, increased hubs for shopping and services, increased housing options to age-in-place, support for transit, and decreased reliance on vehicles.

8.1.1.3 Transportation Challenges

Transportation issues were identified by more than a third of online respondents as the reason they may not participate in some activities they would otherwise be interested in. The question was responded to by 297 of the 767 online survey respondents. It is assumed those who did not provide an answer are not facing transportation issues that stop them from participating in the options available. The top answer for an activity the respondents do not participate in because of transportation issues is *shopping – non-essential* chosen by 50.8% of respondents. Other commonly chosen answers were volunteering (41%), attending self-development courses or recreational activities (39.7%), accepting employment (33.3%), and dining out (31%).

In terms of ease of use by transportation type the statistically significant survey found more than half of all users were able to move through Winnipeg with ease through their chosen transportation type, with 93% of car drivers/passengers finding it easy to get around. The users who reported the greatest difficultly were those traveling by bike (36% indicating travel is somewhat hard or very hard). This was followed by traveling by foot (35% indicating travel is somewhat hard or very hard), by bus (25% indicating travel is somewhat hard or very hard) and car (7% indicating travel is somewhat hard or very hard).

The online survey provided greater insight into the challenges facing each transportation type:

Why is it hard to travel by bike?
327 online respondents indicating travel by bike is hard, particularly because:

1. Drivers are not following road rules (66.4%)
2. Other (63%)
    a. Need better connections between bike infrastructure (60 comments), need more bike routes (45 comments), scary/ not safe to bike on busy roads (35 comments), bikes

need to be separated from vehicles (27 comments), motorists do not give cyclists enough space (11 comments).

3. Poor roads (more potholes, etc.) (48.9%)
4. Poor snow removal (29%)
5. Takes longer (17.1%)

Among cyclists, the statistically significant survey also found problems with:

1. Lack of safe public places to lock up my bike (91%)
2. Bad or angry drivers (89%)
3. Gaps in the bicycle network – no paths or lanes where you want to go (87%)
4. Feeling forced to ride sidewalks on busy streets (86%)
5. Poor road/bike lane surface conditions (e.g. potholes, lack of snow removal)

Why is it hard to travel on foot (or with a mobility device)?
273 online respondents who indicated traveling by foot (or with a mobility device) is hard, particularly because of:

1. Poor snow removal (55.3%)
2. Sidewalks are in poor condition (54.6%)
3. Takes longer (49.8%)
4. Other (46.5%)
    a. Locations too far away/urban sprawl (37 comments), feel unsafe adjacent to busy traffic/need direct pedestrian routes (17 comments), I don't live a walkable distance to basic needs (14 comments), personal safety concerns/Downtown/night (13 comments), lack of crosswalks/long wait/ fast light cycle (12 comments), no sidewalks (10 comments)
5. Drivers not following the rules (27.5%)

Among pedestrians the statistically significant survey also found problems with:

1. Feeling unsafe walking at night (86%)
2. Poor sidewalk surface conditions, such as crack or lack of snow removal (85%)
3. Most places I want to go are too far to walk to (77%)
4. Not enough safe places to cross busy streets (77%)
5. Lack of sidewalks, or sidewalks that end (75%)

Why is it hard to travel by bus? *409 online respondents who indicated traveling by bus is hard, particularly because:*

1. Busses are less likely to show up at their scheduled time (68.5%)
2. Takes longer/more traffic jams (55.8%)
3. Other (51.6%)

a. Need more frequent buses (40 comments), routes don't go where I need (31 comments), transfers are slow/uncomfortable (29 comments), no direct routes that I need (29 comments), no regular service near my home (18 comments), personal safety concerns (15 comments), faster to use other transportation types (12 comments), complicated to plan (10 comments).

Impacts of COVID-19 on Winnipeg Transit

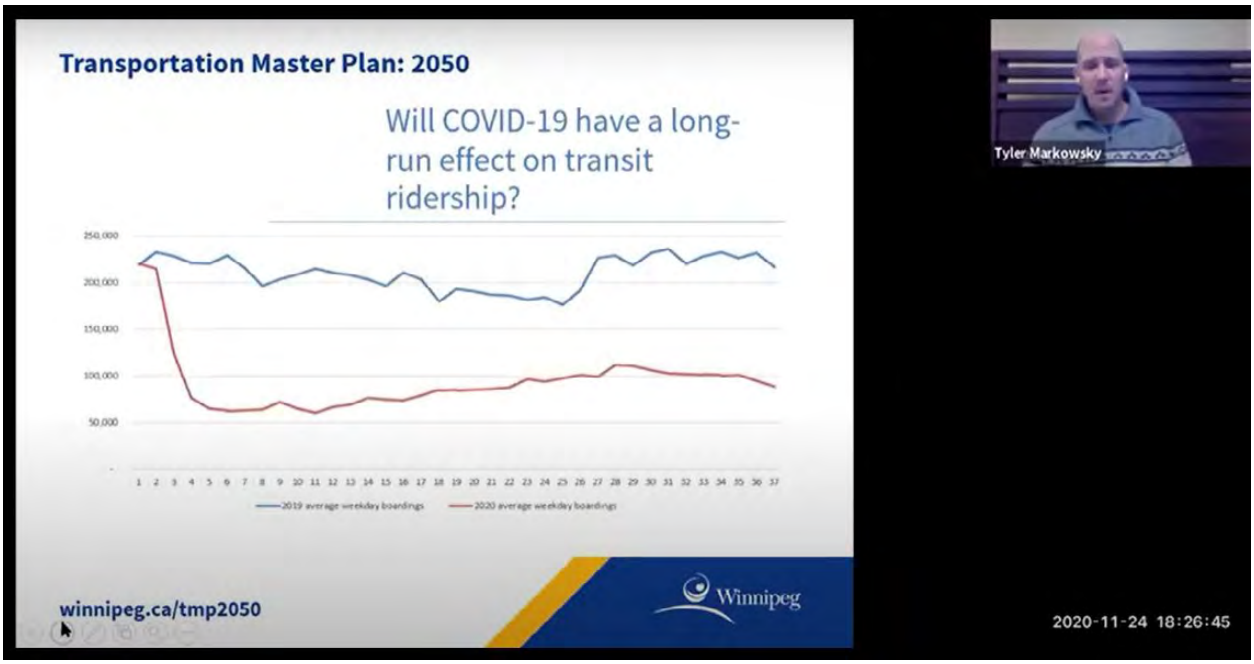


Figure 6 City Economist Tyler Markowsky presenting transit ridership findings at Panel and Workshop event on November 24, 2020. A recording of the event is available on the video tab of the project page.

Transit ridership in 2020 was unique due to COVID-19 pandemic which resulted in decreased use of public transit in cities around the world. Winnipeggers were asked if they were using the bus less often now than before the pandemic, what is the most important thing that would need to be in place for you to use the bus as much as you did before the pandemic. The top two answers on both answers were availability of a vaccine for the virus and enforcement of mandatory masks.

Why is it hard to travel by car?

218 online respondents who indicated travel by car is hard, particularly because:

1. Takes longer/ more traffic jams (64.7%)
2. Poor roads (potholes, etc.) (50.5%)
3. Construction (42.2%)
4. Other (30.3%)
    a. Traffic flow interrupted by traffic light synchronization (14 comments), too many traffic lights (10 comments), confusing road network (5 comments), no direct routes across city/freeways (5 comments)

5. Drivers not following the rules (29.8%)

8.1.1.3.1 Poverty Reduction Strategy

The Poverty Reduction Strategy includes two objectives under the theme of Equity in Transportation which fall within the scope of the TMP2050:

1. Increase affordability and accessibility of transportation for those who need it most.
2. Target improvements to transportation infrastructure and service areas where residents rely on transit to move around the city.

Feedback collected through that program included the following comments on those objectives from stakeholders:

- Parking requirements are often a barrier to densification and affordable housing.
- Good neighbourhood design is required for good transit.
  - If the layout of neighbourhoods and the connections between neighbourhoods are poor, there will be no efficient transit routes.
- The City shouldn't always a focus on infrastructure, but focus on the service.
- Many low-income people rely on personal vehicles.
  - Poor road conditions increase the cost of ownership.
- Snow removal needs to be prioritized in areas of high pedestrian and transit use.

Further comments improving transportation for Winnipeggers experiencing poverty can be found under

8.1.2 Component studies – specific insights.

8.1.1.4 Transportation Opportunities

The second round of eight stakeholder meetings with interest-specific groups and neighbourhood advisory groups focused on 'future options and opportunities' for Winnipeg's transportation network. The meeting offered a review of what we heard from Round 1, including a presentation of the draft stakeholder priorities and was followed by a focused discussion on ideas and opportunities for improving Winnipeg's transportation network. From this round of meetings we heard a wide range of opportunities and ideas for how to improve Winnipeg's transportation network. These included:

- Opportunities relevant to each of the component studies such as repurposing of rail lines for active transportation or light rail routes
- Improvements to connections between transportation modes
- Completion of a full ring road
- Design and implementation of an inner ring road and cycling lane

- The expansion of infrastructure for electric vehicles.

The discussion kits asked respondents how they would like to see the TMP2050 address the need to reduce greenhouse gas emissions. Four themes emerged from submissions.

1. Need for metrics and measurement on shifts towards targets proposed in Winnipeg's Climate Action Plan:
    - Ideas included vehicle kms travelled, mode share, greenhouse gas emissions on capacity, considerations for future infrastructure adjusted to 2050 prices and life cycle cost analysis with environmental impacts.
2. Prioritization of low carbon transportation options, which a desire to raise the importance of pedestrian, cycling and transit compared to use of vehicles.
3. A desire to reduce the number of vehicles on the roads and increase space for parks, trees, transit and active transportation.
4. Interest in the mass adoption of electric vehicles and buses.
    - However, one submission warned electric vehicles alone would not alone bring about the required changes.

8.2 Component–specific insights

8.2.1 Goods Movement

Engagement asked a few direct questions about the Good Movement component study and provided space for Winnipeggers to reflect on future improvements. These conversations revealed interest in ways the City can support the use of more low-carbon vehicles such as electric vehicles for commercial use. The use of alternate means for goods delivery such as drones or cargo bikes was also referenced by participants. Impacts of COVID-19 and Provincial public health orders saw about two thirds of Winnipeggers change their shopping habits with under a third indicating that they expect to continue to receive an increased number of deliveries to their homes or work into the future. More than half of Winnipeggers say they've noticed more large trucks and delivery vehicles than five years ago. When thinking about the next 30 years of transportation, Winnipeggers are interested in improved logistics around deliveries, movement or repurposing of rail lines and improved access to the airport.

8.2.1.1.1.1 Values

The online survey asked respondents: "What is the single most important improvement to goods movement you would like to see by 2050?". This question was unique to the online survey. Of the seven options presented the top answer by a significant margin was more low-carbon vehicles (e.g., cargo bicycles, electric delivery vans) with 42.8% of respondents making this selection. The second most supported option was a desire for night-time delivery requirements to reduce congestion in certain areas with 14.3% of respondents making this selection. This question allowed for the collection of "other" solutions; write-in responses included a desire for city freeways (six comments), rules and enforcement to keep trucks on designated routes (five comments), movement of rail lines

outside of the city (five comments), more locally manufactured goods and services (four comments), a single hub to consolidate all goods movement (three comments), keeping heavy trucks outside the city (three comments) and improved signal timing (three comments).

8.2.1.1.1.2 Impacts of COVID-19

Since the onset of the COVID-19 pandemic, some people are ordering more things like groceries, clothes, or housewares online or over the phone and having them delivered to their home or work. To determine how this impacts travel habits, Winnipeggers were asked to think about their experiences with all shopping and deliveries both currently and prior to the pandemic.

A change to Provincial public health orders during Phase 1 engagement resulted in a drastic change to the shopping environment during this time. The time frame of the statistically significant survey in mid-October 2020 occurred while non-essential in-store shopping was still permitted, while the online survey period aligned with a moratorium on in-store shopping for non-essential items. The two different shopping environments should be considered when reviewing the difference in results.

The top answer in October indicated that shopping habits had not changed at all for 41% of Winnipeggers. The answer to this question changed during November and December with the online survey finding only 30% of respondents could say their shopping habits have not changed at all.

In October, 30% of respondents were having more things delivered to home or work, but will go back to in-person shopping as soon as it's safe to do so. The other 30% of respondents indicated they've been having more things delivered to home or work and plan to continue shopping this way. Again, these results were different during the November and December period which found 43.7% of respondents are having more things delivered to home or work, but will go back to in-person shopping as soon as it's safe to do so and 26.2% of respondents indicated they've been having more things delivered to home or work and plan to continue shopping this way when the pandemic ends.

8.2.1.1.1.3 Tactic-specific insights

Statistically relevant survey

The statistically relevant survey included several benchmarking statements that were not included in the online survey. In relation to goods movement we learned 55% of Winnipeggers agree there are more large trucks and delivery vehicles on the road compared to five years ago. Thirty-five per cent of Winnipeggers agree there are more/longer trains.

Online survey & mapping tool

Respondents to the online mapping tool shared 10 locations of interest or concern in regards to the use of a commercial vehicle. The most conveyed concern was over need for alternate routes for commercial trucking on regional streets (representing six of the 10 comments).

Discussion kits

Two of the three organizations which submitted completed discussion kits noted the increase in home deliveries as a result of COVID-19 restrictions and correlated an increase in delivery vehicles on residential streets.

Other suggested opportunities for goods movement included:

- Package delivery drones
- Shifting freight to electric fleets first
- Improved logistics for increases in home deliveries
- Electric cargo bikes

Discussion/workshop events

Discussion event participants took part in a vote-and-rank exercise around the consideration of how traffic patterns changed during the COVID-19 pandemic and how we should apply what has been learned or experienced to the way we plan transportation for the next 30 years. Once of the most supported consideration was in regards to the management of postal deliveries, questioning in particular if the City will prioritize door-to-door delivery of if we are better off asking people to pick up deliveries at central locations.

A smaller group of participants was tasked with reviewing this concept under the lens of how it may impact each generation differently.

Considerations:

- A single solution should be avoided. Consider flexibility based on citizen needs.
- Clarity is required on what is framing this decision making. Example: Is it a reduction on greenhouse gas emissions or wear and tear on roads?
- Will citizens push back over the loss of home delivery and it's convivence?
- Not all citizens can be expected to walk up to a central pick-up location.
- We need more feedback from younger demographics who will inherit these systems.
- Winnipeg needs to look globally for solutions.
- The road systems surrounding any new centralized pick-up area must be improved and designed for high volumes of traffic.
- Plan should distinguish between different types of deliveries.

Ideas:

- Is there a way to consolidate all delivery services?
    - Could local show owners act a distribution centers? Opportunity for shops to created additional draw to their business?
    - Locate central distribution hubs at student centers.

- Should there be a fee associated with residents who desire home delivery?
- Possible solutions should be rolled out and tested in a trial format.
- Pursue electric or drone delivery to keep aligned with reduced greenhouse gas emissions.
- Could large delivery vehicles moving during peak periods pay more?

Stakeholder discussions

Stakeholder discussions provided two streams of thoughts on goods movement: challenges and opportunities. Round 1 of stakeholder discussions noted challenges in design of roadways for goods movement, citing restricted turning options in the downtown area; access and egress point impeding traffic flow; a lack of controlled intersections; the sprawling fabric of the city; and the divisions caused by rail lines as impediments to efficient goods movement by both vehicles and bikes.

Round 2 focused on ideas and opportunities for improving Winnipeg's transportation network. The following provides a brief overview of some of the ideas and opportunities brought forward by participants in regards to goods movement.

- Completion of a full ring road
- Relocate rail lines outside of the city
- Repurpose rail lines for active transportation / bus rapid transit / light rail transit routes
- Implement an active transportation inner ring road
- Improve direct access to the airport
- Allow adequate space for loading zones
- Improve truck route access to the airport
- Implement a clear operational policy for truck route designation and operation
- Repurpose rail lines for active transportation routes
- Relocate rail lines outside of the city

Participants provided the following reflections and considerations about their own experiences with goods movement in the City of Winnipeg:

- Living in an apartment building parcels won't be left at door. Sometimes these parcels will be delivered to local post office, but other times deliveries must be picked up at warehouse in St. James Industrial area which is difficult to travel to.
- Concern with the wages paid to delivery staff and that they are not paid well. Chooses not support Amazon because of the concentration of wealth in company ownership.
    - Another participant had a contrary opinion suggesting food delivery services are a good option for the employment of young people.
- Desire for food delivery services to use electric vehicles to reduce carbon footprint.

8.2.2 Emerging Technologies and Future of Transportation

Discussion about electric vehicles dominated the conversations around emerging technologies, with roughly half of Winnipeggers indicating they are likely to choose an electric vehicle when they're ready

to buy or lease their next vehicle. This could indicate a rather dramatic change is afoot, as current ownership of an electric vehicle was self-reported at only 5% of respondents to the online survey. Expansion or improvements to City infrastructure to provide electric vehicle charging stations was also commonly raised. That said, enthusiasm for electric vehicles was tempered as a few citizens also warned that use will not solve all environmental concerns, pointing to manufacturing practices or increased vehicle use.

Use of a global positioning system (GPS) app or device is the most popular new transportation technology used by nearly half of all Winnipeggers. Technologies to support the use of transit by accessing bus schedules and arrival times were also commonly cited, with further conversations requesting improved accessibility of these formats and integration into trip chaining options. Still one- third of Winnipeggers have not changed their habits to adopt new transportation technologies.

Car sharing was referenced across engagement activities, with support for increased use and integration into commercial and government fleets; it was also cited as a desired alternative for those uncomfortable with taxis. One-third of Winnipeggers are interested in using Mobility as a Service apps (36%) and electric bikes (34%). A fifth showed interest in using electric scooters (21%). Stakeholders in particular raised the importance of proactive City policies to support the use new transportation options.

8.2.2.1 Tactic-specific insights

Statistically relevant survey

The possibility of adopting driverless vehicles was met with equal parts distrust and cautious interest in the statistically relevant survey, with only 11% of Winnipeggers indicating they're ready to jump into any approved driverless vehicles. The idea of using similar technology for snow clearing was also raised. The most common technologies respondents identified as helping them travel around Winnipeg were: a global positioning system (GPS) app or device (54.2%), an app or website that provides bus routes and times (43.6%), electronic signs at bus stops and stations (39.1%), and an app for booking a ride (e.g. – taxi, Uber/TappCar) (19.1%). One fifth or 20.4% of respondents noted they do not use any of these technologies.

Just over half (55.7%) of Winnipeggers are open to choosing an electric vehicle when they're ready to buy or lease a new car, with 23.8% indicating they are very likely and 32% saying they are likely. Just under half (44.2%) don't believe their next vehicle will be electric; 18.3% indicated they are very unlikely and 25.9% are unlikely to make the move.

Only in the statistically significant survey were Winnipeggers asked about some other technologies not widely used in Winnipeg but that may be in the future. One third of Winnipeggers are interested in using Mobility as a Service apps (36%) and electric bikes (34%). A fifth showed interest in using electric scooters (21%).

Online survey

Asked only in the online survey, just 5.3% of respondents indicated that they own an electric vehicle (including hybrid vehicles).

Just under half or (49%) of respondents are open to choosing an electric vehicle when they're ready to buy or lease a new car, with 16% indicating they were very likely and 33% saying they were likely. Just over half or 51% don't believe their next vehicle will be electric, with 29% indicating they were very unlikely and 22% saying they were unlikely.

Respondents to the online survey were asked to imagine that driverless vehicles had passed all safety tests and were approved for Winnipeg roads, and were then asked to choose one statement that best described their feelings about commuting in a driverless vehicle. Just under half (47.3%) said it sounds interesting and they are open to it. The next largest group (38.2%) said no thanks, they still wouldn't trust it. The smallest group (14.6%) were the most enthusiastic indicating they would use it as much as they could.

Discussion kits

There were six major themes across the submitted discussion kits when it came to discussing which emerging technologies in the field of transportation are most relevant for the City of Winnipeg to consider:

- Increased support and incentives for electric cars and buses such as financial incentives and charging stations.
    - However, one submission warned that electrification of transportation can't be counted on to fix all issues. Submission warning of other environmental concerns and continued vehicle congestion.
- Car sharing and the need to expand programs
- Sidewalk clearing via autonomous vehicles or temperature control
- Improved trip chaining between transit and cycling with improvements to Navigo
- Improved wayfinding apps for Winnipeggers living with visual impairments
- Considerations for not leaving the vulnerable behind when adopting new technologies
    - Working with communities to test
    - Not eliminating items of use such as paper bus schedules

Other submitted ideas included:

- Increased businesses commitment to car shares and ride shares for staff
- More park and ride options
- Mobility as a Service
- Integration of car shares, and municipal and provincial fleets
- Better systems for developing more durable and sustainable roads and walkways
- Solar electric charging stations

Stakeholder discussions

Stakeholder discussions provided two streams of thoughts on emerging technologies: challenges and opportunities.

Round 2 discussions focused on ideas and opportunities for improving Winnipeg's transportation network.

The following provides a brief overview of some of the ideas and opportunities brought forward by neighbourhood advisory group participants in regards to the Emerging Technologies and Future Transportation study.

- Facilitate use of new technology through infrastructure and policy – i.e. segways, motorized scooters, e-scooters, e-bikes, skateboards
- Introduce light rail transit
- Emissions testing for older vehicles and business vehicles (i.e. large trucks)
- Improve/expand infrastructure for electric vehicles

The following provides a brief overview of some of the ideas and opportunities brought forward by interest-specific participants.

- Adapt regulatory framework to allow for the development and use of new technologies
- Expand infrastructure for electric vehicles
- Explore new snow clearing methods to support active transportation modes
- Explore new materials for roadway development – i.e. self-repairing concrete

Other insights

Feedback from the Mayor's Youth Advisory Council provided the following reflections and considerations about their own experiences with emerging technologies and the future of transportation in the City of Winnipeg:

- Indicated desire to use an electric scooter but is worried about mass theft if City were to follow a scooter share program.
    - Another participant noted registration in rental programs can combat misuse.
- Support for car sharing programs like a car co-op.
- Media stories about the death of a pedestrian hit by an anonymous vehicle is terrifying. If the reason was the pedestrian was not well lit there are concerns that there are many parts of Winnipeg where this could be a problem.
- Would be interested to see Winnipeg Transit use more electric buses.

Feedback collected through the Poverty Reduction Strategy included the following comment on emerging technologies:

- The City needs to support ride share programs, which are used as alternative for those uncomfortable with taxis.

8.2.3 Active Transportation

More than any other type of transportation biking was tied to feelings of wanting to do more, with 62% of Winnipeggers (67.1% online respondents) saying they biked less then they'd like to. However, those who walk or bike face some major challenges to safety (Winnipeggers' top value).

Busy roadways are seen as a major obstacle by both pedestrians and cyclists. Active transportation users feel threatened when sharing these roadways with vehicles due driver inattention, difficulty crossing, and the loud uncomfortable environment. Long delays at pedestrian crossing are also a barrier.

With recognition that investments have been made in recent years to improve bike routes, inconsistencies in pedestrian and cycling infrastructure and connections between bike routes sometimes leave users stranded or forced into unsafe conditions. Added wayfinding options could help. In addition to busy roads, cyclists also commonly cited issues crossing bridges, river paths and railways. Both users indicated the desire for increased options to navigate around construction sites.

Maintenance of active transportation paths and sidewalks is seen as a top concern. Snow removal in particular is seen by all users as an issue. However, the statistically significant survey found that cyclists feel more physical barriers that separate cyclists from vehicles is the best way to support use in winter (with 60% saying they would bike more if separation was available). Regular snow clearing on bike routes and lanes was seen by 36% of Winnipeggers as a reason to bike more in the winter.

There is also desire to increase the ability of people to walk or cycle a portion of their trip and use other modes – such as transit – for the remainder; this could be facilitated with improved bike storage at transit stops or increased ability to transport a bike by transit as bike theft and storage are barriers to cycling.

See section **8.1.1.2 Use** to review cycling and pedestrian results in comparison with other forms of transportation.

See section **8.1.1.3 Challenges** to review cycling and pedestrian results in comparison with other forms of transportation.

8.2.3.1 Tactic-specific insights

Statistically relevant survey

Asked only in the statistically significant survey, Winnipeggers were asked what changes could support them in biking more during the winter. More physical barriers that separate cyclists from vehicles was seen as the best support with 60% of respondents saying they would bike more in this instance. Regular snow clearing on bike routes and lanes was seen by 36% of Winnipeggers as a reason to bike more in the winter.

Online survey & mapping tool

In total there were 157 location specific comments submitted about the use of bikes in Winnipeg. Many of the comments noted difficulties navigating areas in the city such as bridges, river paths and railways.

Top areas of particular concern were:

Riverside path east of Osborne Street South (11 comments)
Comments noted gravel path is too narrow and steep (off of Glasgow Avenue).
Respondents indicated a desire for better cycling route from the Lord Roberts area to the Forks, noting current route has gaps and inconsistent lane treatments.

Pedestrian bridge at Omand's Creek (10 comments)
Respondents requested wider paths citing difficulties navigating the narrow path with pedestrians.

Bridge connections between Downtown to Osborne neighbourhoods (eight comments)
Concern over the abrupt end of cycle lanes on the Osborne Street Bridge.
Safety concerns about the use of a bicycle on the Donald Street Bridge.

Path under Harry Lazarenko Bridge on west side of Red River (four comments)
Flooding, lack of maintenance and need for lighting were all noted as barriers.

Osborne Street rail underpass south of Confusion Corner (three comments)
Biking on the road with traffic feels too tight and dangerous.

Signalized pedestrian crossing at Assiniboine Avenue and Main Street (three comments)
Bike lane abruptly ends east of Main Street with desired connection to The Forks.

In total there were 68 location specific comments submitted about walking in Winnipeg. Many of the comments noted concern with crossing busy roadways which included long delays for pedestrian crossings and vehicles not watching for pedestrians.

Top areas of particular concern were:

Intersection of Portage and Main (seven comments)
Pedestrian movements are desired above ground to cross roadway, feelings that underground is confusing, inaccessible and concern for personal safety.

Portage Avenue – various locations (five comments)
Long delay for pedestrians to cross at signalized intersections may encourage some users to ignore lights.

Discussion kits

There were four key themes across the discussion kits that spoke directly to walking and cycling:

Barriers to cycling:

- Cyclist discomfort/fear about use of busy roads
- City bike routes are not always intuitive and users can feel lost without map or previous awareness
- Snow can result in dangerous conditions, barriers and ruts if lanes are not maintained
- Navigation through Downtown difficult, requires cyclist confidence on busy streets, some sections not crossable at all (Portage and Main)
- More secure lock-ups/bike parking required at major hubs
- Inconsistent lighting on trails

Barriers to walking:

- Snow can result in dangerous conditions, barriers and ruts without timely snow clearing

COVID-19

- "Bike boom" of 2020 may have introduced more people to cycling

TMP2050 and reduction of greenhouse gases

- Desire for the TMP2050 to raise the importance low carbon travel options over vehicles
- If vehicle numbers are reduced this could free up space for active transportation, parks/trees and transit

Workshop/discussion event

During the workshop event participants took part in a vote-and-rank exercise around big changes or trends for the City to think about when planning transportation for the next 30 years. The most supported consideration suggested a shift in how we prioritize our modes of transportation as we reign in our greenhouse gas emissions.

A smaller group of participants was tasked with reviewing this consideration under the lens of how it may impact each generation differently.

Considerations:

- The transportation network must be flexible as transportation needs/options change with age
    - Time availability is a major consideration for mode choice
    - Reliance on vehicles for moving vulnerable, job
    - Do some modes limit what jobs people can apply to? Bus routes/time.
- Moving away from cars shouldn't always mean reduction of city-wide emissions
    - EV's come with manufacturing impacts on environment

Discussion event participants took part in a vote-and-rank exercise around the consideration of how traffic patterns changed during the COVID-19 pandemic and how we should apply what has been learned or experienced to the way we plan transportation for the next 30 years. The most supported consideration was a call for more spaces for pedestrians and cyclists in relation to the Open Streets program that limited vehicle use on some streets during the spring/summer of 2020.

A smaller group of participants was tasked with reviewing this consideration under the lens of how it may impact each generation differently.

Impacts:

- More cyclists could result in decreased vehicle trips
- Snow removal
    - Equal priority between roads and sidewalks
- Improve crosswalk visibility
- Improved cycling network results in increased freedom for kids/teens
- Seniors rely on other options/walking when they can no longer drive
- Need predictability on the roads as to where everyone should be

Required supports:

- School travel plans
    - Staff positions
    - Walking school buses
    - Encouragement for AT – bike racks
- Ped/bike network
    - Connections to transit
    - Cut throughs in cul-de-sac neighbourhoods
    - Connections that make use enjoyable, comfortable and practical
    - Secure bike parking
    - Maintenance and improvement
    - Signage/wayfinding
    - More frequent crossing of busy roads
    - Equal priority to vehicles
- Transit
    - Parks to make wait enjoyable

Stakeholder discussions

Neighbourhood advisory group stakeholders noted design issues as one of the biggest challenges they face. These issues included inconsistencies in infrastructure design for cycling lanes and sidewalks, which resulted in confusion for users and bystanders; the divisions in neighbourhoods caused by rail lines; a desire to replace sharrows with protected cycling lanes; the need for traffic

calming measures on residential streets; and the need to better integrate transportation plans with land use planning decisions.

Another issue raised by all neighbourhood advisory groups was safety. Participants' comments regarding safety included issues arising from poor street/sidewalk maintenance (i.e. snow clearing, potholes); inconsistencies in pedestrian and cycling infrastructure that leave users stranded or forced into unsafe conditions; the need for traffic calming measures on residential streets; the need for separated cycling infrastructure to reduce conflicts between users/modes; and a need for more lighting throughout the pedestrian and cycling network.

Participants also noted connectivity as a key issue they face when making daily transportation decisions. The issue of connectivity was cited most often in relation to the pedestrian and cycling network, with participants noting numerous gaps in the network and challenges with crossing barriers such as rivers and rail. The connectivity gap discussed most frequently pointed to cycling routes with abrupt endings that force users into the roadway with little warning and a lack of accessible alternative routes for cyclists and pedestrians around construction sites.

Other issues brought forward by participants during these meetings included:

- The importance of convenience and ease when making transportation decisions, regardless of mode
- The desire for a transportation system that supports a high quality of life – i.e. opportunities to connect with nature, room to socialize while using the pedestrian and cycling network, and an enjoyable atmosphere with reduced noise and air pollution
- The need to reduce conflicts between all users through separated infrastructure or traffic calming measures

In Round 2 of the neighbourhood advisory group meetings, discussions focused on ideas and opportunities for improving Winnipeg's transportation network. The following provides a brief overview of some of the ideas and opportunities brought forward by participants in regards to the pedestrian and cycling strategy update.

- Improve connectivity of cycling and pedestrian networks
- Expand separated/protected cycling infrastructure
- Improve multimodal connections to facilitate easier use of multiple modes in a single trip
- Repurpose rail lines for active transportation routes
- Facilitate a cycling ring road
- Increase secure bike parking throughout the city
- Use of pedestrian bridges to cross waterways
- Expand wayfinding on cycling routes

Interest-specific group stakeholders noted connectivity as one of the key issues with the current transportation system. The challenges that were discussed included gaps in the pedestrian and

cycling network that forced users into unsafe conditions and a lack of accessible alternate routes around construction sites.

Another issue brought up during these meetings was the importance of convenience when making personal transportation decisions. Participants noted that their transportation decisions were affected by the ease with which they were able to reach their destination and carry out various errands along the way, regardless of which mode they were using. Participants also noted a desire for more efficient transfers between modes, allowing them more flexibility in their trip planning.

Participants also noted design challenges as a key issue. The discussion here referenced the inconsistent design of cycling lanes throughout the city and sidewalks in new developments. It was noted that these inconsistencies caused confusion for users and bystanders and led to unsafe conditions for all users.

Other issues raised during this meeting included:

- Maintenance of existing infrastructure, especially active transportation routes during winter
- The need for political support of active transportation projects through budget and policy decisions

Round 2 interest-specific discussions focused on ideas and opportunities for improving Winnipeg's transportation network. The following provides a brief overview of some of the ideas and opportunities brought forward by participants in regards to the pedestrian and cycling strategy update.

- Repurpose rail lines for active transportation routes
- Explore new technology for snow clearing on active transportation routes
- Improve accessible cycling and walking routes around construction sites
- Improve multimodal connections to facilitate convenient and safe use of multiple modes in one trip
- Improve wayfinding along whole of pedestrian and cycling network
- Create pedestrian and cycling connections across waterways

Participants provided the following reflections and considerations about their own experiences with active transportation in the City of Winnipeg:

- Concern over the safe use of a bike in areas were there aren't bike lanes. Participant noted use of cycling on sidewalks, stopping to keep pedestrians safe, but feeling that biking on busy roads is not safe. Wish was to see bigger sidewalks that can accommodate all non-motorized users. Pointed to Sherbrook and Maryland as a good example.
- Bike theft was referenced as a barrier to cycling because the participant feared the large investment would eventually be stolen.
- There was a desire to see bike share or rental programs widely available across Winnipeg.

Additional insights

Feedback collected through the Poverty Reduction Strategy included the following comments on active transportation:

- Snow removal needs to be prioritized in areas of high pedestrian and transit use.
- Bicycle theft in Winnipeg needs to be addressed, as many low-income residents rely on bicycles for transportation.

9.0 What we heard

This report has been shared with the project team to use in the development of proposed options and solutions to be presented in the options and opportunities engagement. Further information on how what we heard was considered will be posted at the onset of Phase 2 Public Engagement in the fall of 2021.

What We Heard
Winnipeggers value safety above all else when it comes to transportation. *Three in five say safety is "extremely important" as they move about the city.*
Reliability is also of great importance to Winnipeggers. *This idea emerged and was ranked highly through work with stakeholders.*
Convenience is a major consideration for the majority of Winnipeggers when choosing what transportation type to use. *The exception to this is cyclists, who do not list convenience as a top reason to cycle.*
Care for the environment is a key reason why Winnipeggers carpool, take transit, bike or walk. *This was listed among the top three reasons for using each transportation type. The exception to this is walking, where the environment was listed in the top three reasons in the online survey but did not appear in the top three of the statistically significant survey.*
Personal health is a key reason why Winnipeggers walk or bike. *Health was listed in top three reasons for using each transportation type.*
Cost savings is a key reason why Winnipeggers carpool, walk, take transit, or bike. *This was among the top three reasons for using each transportation type with the exception of walking, where the cost savings top three in the statistically significant survey but not the online survey.*
Equity and inclusiveness are important to some Winnipeggers. *This idea emerged and was ranked highly through work with interest-specific stakeholders.*

What We Heard
The majority of Winnipeggers choose to get around by car. *A notable 83% say they always commute by car compared to 5% who always commute on foot (or with a mobility device), 4% who always commute by bus (including Transit Plus) and 2% who always commute by bike.*
Moving around Winnipeg is easiest for those who travel by car. *93% of car drivers/passengers find it easy to get around.*
Half of Winnipeggers leave their neighbourhoods to socialize, recreate, or work. *Living close to work, family and friends, affordable and healthy food, and recreation are all top considerations for Winnipeggers when choosing a place to live. However, visiting friends and family was reported as happening outside their neighbourhood by 58% of Winnipeggers, followed by viewing arts and culture (42%), and work (40%).*
Goods movement and an increased home delivery system will be an ongoing trend in Winnipeg. *COVID-19 and its secondary impacts saw about two thirds of Winnipeggers change their shopping habits in 2020, with just under a third indicating they expect to continue to receive an increased number of deliveries to their homes or work.*
Not all Winnipeggers incorporate technology into their transportation habits. *Half of Winnipeggers will look to a GPS screen to help chart their route; a third are not incorporating new technologies into their transportation routines.*
Better maintained roads is among the top most desired improvements by 2050. *This want was in the top three options on both the statistically significant survey (56% want) and the online survey (42% want).*
Effective expressways is among the top most desired improvements by 2050. *This want was in the top three options on the statistically significant survey (38% want). The second round of stakeholder meetings focused on 'future options and opportunities' for Winnipeg's transportation network. These included opportunities such as completion of a full ring road, and design and implementation of an inner ring road and cycling lane.*
Fewer potholes is among the most desired improvements by 2050. *This want was in the top three options on the statistically significant survey (33% want).*
Better bike infrastructure is among the most desired improvements by 2050. *This want was in the top three options on the online survey (54% want). Stakeholders desired the repurposing of rail lines for active transportation or light rail routes.*

What We Heard
Better bus service is among the most desired improvements by 2050. *This want was in the top three options on the online survey (45%). Stakeholders desired the repurposing of rail lines for active transportation or light rail routes.*
Winnipeggers would like to shift toward more active and greener transportation alternatives. *For instance, two in five say they drive more often than they'd like, and the 62% of Winnipeggers (67.1% online respondents) say they don't bike as often as they'd like.*
There is an interest in improving connections between transportation modes. *Stakeholders noted a desire to combine walking or biking a portion of a single trip with another mode, such as transit or car.*
Winnipeg may see a sudden influx of electric vehicle use. *Half of Winnipeggers are likely to choose an electric vehicle for their next lease or purchase; currently, only five per cent self-report owning an electric vehicle.*
Winnipeggers want to get where they are going within 16-30 minutes. *The majority of respondents (61.4%) indicated that a commute time of 16-30 minutes across all transportation types is most reasonable.*
Winnipeg's current network does not particularly support ease of use for those who travel by modes other than car. *Those who often travel by bike reported the greatest difficulty getting around (36% indicating travel is somewhat hard or very hard). This was followed by traveling by foot (35% indicating travel is somewhat hard or very hard), by bus (25% indicating travel is somewhat hard or very hard).*
Cyclists are concerned with a lack of safe public places to lock up a bike. *This was the top concern of cyclists within the statistically significant survey.*
Bad or angry driving causes difficulties for cyclists. *Those who say it's hard to bike in the city cited bad or angry drivers as a top reason for cycling difficulty (89% of cyclists in statistically significant survey and top in online survey).*
Inconsistencies in cycling infrastructure and connections sometimes leave users stranded or forced into unsafe conditions. *Those who say it's hard to bike in the city cited gaps in bike infrastructure as a top reason for cycling difficulty (87% of cyclists in statistically significant survey and top response in online survey). Stakeholders also identified this issue. The top locations for issues on the online mapping tool were bridges, river paths and railway crossings.*

What We Heard
Pedestrians feel unsafe walking at night. *This was the top concern of pedestrians within the statistically significant survey.*
Poor sidewalk conditions make it difficult to get around by foot. *Those who say it's hard to walk in the city cited poor sidewalk conditions or snow removal as a top reason for walking difficulties (85% of pedestrians in statistically significance survey and top answer in online survey).*
Both pedestrians and cyclists want to be able to move around construction sites more easily. *Stakeholders noted lack of accessible alternative routes around construction sites.*
Transportation issues prevent some Winnipeggers from participating in activities. *More than a third of online respondents said transportation issues are the reason why they don't participate in some activities. The top answer for an activity the respondents do not participate in because of transportation issues is shopping – non-essential chosen by 50.8% of respondents facing this barrier. Other commonly chosen answers were volunteering (41%), attending self-development courses or recreational activities (39.7%), accepting employment (33.3%), and dining out (31%).*

10.0 Evaluation

The table below identifies the public engagement objectives from Phase 1 and activities to achieved the set objectives, along with any required adjustments that will be made for in Phase 2 of the Public Engagement Program.

Phase 1 Engagement Objectives	Summary of Phase 1 activities	Evaluation – Achieved, Somewhat Achieved or Not Achieved Comments and considerations for Phase 2
Winnipeggers are aware of opportunities to get involved.	• Public engagement planning workshop • Meetings with Councillors • Neighbourhood advisory groups • Meeting with Mayor's Youth Advisory Council • See 5.0 Promotion & media	**Evaluation – Somewhat Achieved** 1,700+ participants participated in Phase 1 and another 6,500+ were aware (based on website visits) Phase 1 of the TMP2050 faced obstacles related to the ongoing COVID-19 pandemic and related health restrictions. See section 4.0 Limitations for details. A partnership with the City's Poverty Reduction Strategy improved the project team's understanding of transportation issues for Winnipeggers experiencing poverty. Phase 2 will seek to increase promotion and outreach to underrepresented groups.
Winnipeggers have access to empirical	• Online panel and workshop	**Evaluation - Achieved**

evidence on the root causes of congestion in the transportation network. Example: The last decade of population growth.	• Stakeholder meetings • Project website • Current State report	For the online panel and workshop, five panelists shared key information about current challenges and the possibilities around the future of local transportation. A recording of the event was available online for those unable to attend. Stakeholder meetings included key insights into specific topics. Presentation materials were made publicly available on the project website. The Current State report released in July 2021 provides a comprehensive review of usage data as well as critical issues facing the City's Transportation Network and sets the stage for meaningful discussion in Phase 2 around future scenarios.
Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents).	• Stakeholder meetings • Online panel and workshop • Online survey • Project website	**Evaluation - Achieved** Informing residents about TMP2050's connection to other planning documents was a key focus in Phase 1. Stakeholders were, prior to stakeholder events, provided a fact sheet outlining TMP2050's integration with other City plans. Presentations by the project manager included further information on how the 30-year vision was established through other planning documents. The introduction to the online survey included assertions from feedback previously gathered in other planning documents and links to those documents.
Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users.	• Online panel and workshop • Stakeholder meetings • Current state report • Online survey • Statistically significant survey • Project website	**Evaluation - Achieved** Participants were informed of project focus areas, which all touch on the need to strategically plan for the future. Project events and materials included insights on previous mode share counts which were again measured during Phase 1 engagement. The Current State report provides further insight into current conditions of Winnipeg's vast transportation network and will support discussions in Phase 2 about the future state and recommendations on how to improve.
Participants' opinions, experiences and desires and perceptions play a key role in identifying the current state and future goals of	• Stakeholder meetings • Online survey • Statistically significant survey • Online workshop and discussion event • Online mapping tool • Discussion kit	**Evaluation - Achieved** In addition to project team involvement in public meetings, the contents of this Phase 1 public engagement report were presented to and reviewed by the project team. Section 9.0 What we heard currently outlines major themes from the public engagement program and will be updated and posted at the onset

transportation in Winnipeg.		of Phase 2 with updates on how each item in the chart was considered in the development of the options and opportunities.

11.0 Conclusion and next steps

This first phase of public engagement helped the project team understand how Winnipeggers view the city's transportation network, as well as how they use it, where they are challenged, and in what broad areas they would like to see improvements.

What we heard through public engagement will be combined with technical findings and analysis to create options and solutions for the transportation network.

These options and opportunities will be presented during Phase 2 public engagement in Fall 2021.

TRANSPORTATION MASTER PLAN: 2050

Phase 2
Public Engagement Report

Prepared by the City of Winnipeg
[NOVEMBER 2022]

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1.0 Executive Summary

In TMP2050 Phase 2, we asked if the plan fits with residents' vision for Winnipeg's future transportation network. We presented the seven key directions and draft strategies and asked for feedback from the public and stakeholders. Overall, we heard support for the key directions and strategies along with meaningful feedback on the challenges to implementation.

Due to continuing public health restrictions through Fall 2021, we engaged virtually. Feedback was collected through:

- 14 virtual workshops with 186 online workshop participants (32 attended more than one workshop);
- Telephone town hall with over 9,000 Winnipeggers;
- An online survey with more than 1,500 participants.

In Phase 2, we talked about encouraging residents to shift to sustainable transportation options. Most participants agreed that we need to make this shift. Many also noted the challenge ahead as the car remains the most convenient and reliable mode of travel in Winnipeg. Residents told us they need safe, efficient and reliable ways to travel by foot, wheelchair, bike, scooter and transit.

Participants told us they do not use active modes for a few key reasons, including:

- including lack of connectivity in the network
- unsatisfactory winter maintenance
- real or perceived lack of safety.

We heard that for long-term and sustained change to occur, TMP2050 needs to address these challenges.

Most participants (58 percent) agreed that expanding roads should only be for:

- trucking
- improving cycling, transit or pedestrian options.
- connecting new developments to the existing network.

In particular, we heard from stakeholder groups and neighbourhood advisory groups that they would like to see all future road renewal projects include active transportation improvements. However, a portion of survey participants (27 percent) opposed this direction and questioned if the City can afford to build or expand roads at all.

As we move on to Phase 3, feedback from stakeholders and the public along with technical research and data will develop the draft TMP2050.

2.0 Background

The Transportation Master Plan: 2050 (TMP2050) engagement plan defined the engagement process for Phase 2 and included objectives, communication tools, and events. It fulfilled the

project goals by successfully communicating and engaging with both the public and stakeholders.

2.1 OBJECTIVES

Objectives were set for the broad TMP2050 public engagement program; some may not be applicable in all phases. These project-wide engagement objectives are as follows:

1. Winnipeggers are aware of opportunities to get involved.
2. Winnipeggers have access to empirical evidence on the root causes of congestion in the transportation network. Example: The last decade of population growth.
3. Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents).
4. Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users.
5. Winnipeggers understand that different approaches and strategies will be required for different areas of the city. Example: Road widening in dense areas is not feasible.
6. Participants' opinions, experiences, desires, and perceptions play a role in identifying the current state and future goals of transportation in Winnipeg.
7. Participants' feedback on draft strategies is incorporated when developing the final document.
8. Participants understand how their input was considered and incorporated into the final document.

Phase 2 engagement activities targeted objectives 1-7 above and reviewed key findings from Phase 1, presented the project's key directions and strategies and collected feedback on the draft options and opportunities.

2.2 STAKEHOLDER-SPECIFIC PROGRAM

At the onset of the TMP2050 project, the project team identified two groups to engage through stakeholder-specific activities: interest-specific stakeholders and neighbourhood advisory groups. For a full list of interest-specific stakeholders contacted for this project please see Appendix A.

2.3 INTEREST-SPECIFIC STAKEHOLDERS

The interest-specific stakeholders represented a wide range of interests and organizations from across the city. These groups focused on city-wide transportation topics and broader transportation issues. For Phase 2 engagement, interest-specific stakeholders were invited to join one or several thematic stakeholder workshops based on their interests or areas of expertise. Based on gaps identified in Phase 1, additional stakeholders were included in Phase 2 to ensure additional representation from marginalized persons and organizations that represent them.

2.4 NEIGHBOURHOOD ADVISORY GROUPS

The five neighbourhood advisory groups were based on geographic boundaries that mark the City's existing Community Committees: City Centre (central), Assiniboia (southwest), Lord Selkirk – West Kildonan (northwest), East Kildonan – Transcona (northeast), and Riel (southeast).



Figure 1: Winnipeg Geographic Boundaries

Participants were recruited in Phase 1 and were invited to participate again in Phase 2. Neighbourhood advisory groups participated in a series of workshops focused on neighbourhood transportation themes and neighbourhood-specific concerns and interests brought forward by residents and the groups that represent them. They also secondarily focused on how their neighbourhood connects with the city-wide system. All 124 neighbourhood advisory group members from Phase 1 were invited to their respective workshops via an email on November 10, 2021.

2.5 STAKEHOLDER NOTIFICATION

All stakeholders were invited to meetings via direct email invitations. All invitations can be found in Appendix E. All follow-up correspondence regarding the project is noted in the communication log (Appendix B).

3.0 Engagement Activities

Phase 2 engagement focused on determining whether a series of key directions and related draft strategies could fulfil the vision and strategic priorities set out by TMP2050. A Key Directions and Strategies book helped guide Phase 2 discussions. The booklet was uploaded

to the project webpage on November 17, 2021. Stakeholders who registered for a workshop were emailed a digital copy prior to their respective meetings.

The key directions and strategies booklet aimed to:

- Confirm the vision for TMP2050
- Convey key directions, strategies, and options of TMP2050
- Provide easily understandable infographics
- Use creativity to help generate enthusiasm for the project

Pages from the book are outlined below; the complete booklet can be found in Appendix C.



Figure 2: Sample Pages from Key Directions and Strategies Booklet

Building on the content of the book, engagement activities were designed to achieve TMP2050's Phase 2 engagement objectives as outlined in Table 1.

Table 1: Engagement Opportunities

Activity	Participation	Phase 2 Engagement Objective	Objective Alignment
Online Survey	1,511 respondents (1,502 in English and nine in French).	• Participants' opinions, experiences and desires and perceptions play a role in identifying the current state and future goals of transportation in Winnipeg. • Participant feedback on draft strategies is incorporated when developing the final document.	Participants shared their feedback on key directions and corresponding strategies, trade-offs, and evaluation of success.
Stakeholder Workshops	88 participants joined the interest-specific group. Of these, 18 attended multiple workshops. 23 participants joined the neighbourhood advisory group workshops.	• Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents). • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Winnipeggers understand that different approaches and strategies will be required for different areas of the city. Example: Road widening in dense areas is not feasible. • Participants feedback on draft strategies is incorporated when developing the final document.	Participants were provided the key directions and strategies booklet to learn about how the broad vision for TMP2050 fits within other planning documents and provided an overview of all key directions, corresponding strategies, and draft options and opportunities. Participants shared their feedback on the draft opportunities and their interest in a shift to other transportation modes.
Telephone Town Hall	9,032 participants.	• Winnipeggers are aware of opportunities to get involved. • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents).	An automated call to 100,000 Winnipeggers went out prior to the town hall to broadly invite residents to the event. Participants received an overview of the TMP2050 process. During the question-and-answer period, seventeen participants were able to ask their question and all participants heard from other Winnipeggers to better understand their transportation needs and concerns.

		• Winnipeggers understand that different approaches and strategies will be required for different areas of the city. Example: Road widening in dense areas is not feasible.	
Public Workshops	75 participants joined the public workshops and of those participants, 15 people attended multiple workshops.	• Winnipeggers understand the 30-year vision for the transportation network (established through other planning documents). • Winnipeggers recognize the need to strategically plan the future of transportation in our city, and that future strategies must balance the needs of many types of road users. • Winnipeggers understand that different approaches and strategies will be required for different areas of the city. Example: Road widening in dense areas is not feasible. • Participants feedback on draft strategies is incorporated when developing the final document.	The workshop started with a thorough presentation from the project team on the process to date, including how TMP2050 aligns with other City planning documents. Following the presentation of specific potential options and opportunities, participants broke out into discussion groups to discuss the feasibility of it and how it would work in Winnipeg or their neighbourhood. Participants shared their feedback on the draft opportunities and their interest in a shift to other transportation modes.

3.1 ONLINE SURVEY

The online survey launched on November 17, 2021, and was live and open for public input until December 17, 2021. The survey included a core survey to gather input on key questions under consideration by the project team, followed by an option to review and submit additional feedback on the proposed strategies. The online survey data was analyzed directly in the online survey tool and is presented in **Section 5**. Answers to open-ended questions were grouped according to similar ideas. Each group was assigned a theme, which captures the main ideas shared among all comments in that group. The online survey results are not statistically representative of the population of Winnipeg. A statistically representative survey was conducted in Phase 1.

3.2 STAKEHOLDER WORKSHOPS

Table 2: Stakeholder Workshop Schedule 1

Date	Interest-Specific Groups
Wednesday, November 17, 2021	Transportation, land use, and supporting all modes – *how do we build a connected city?*
Thursday, November 18, 2021	Improving transportation access – *how do we provide safe and sustainable mobility options for all?*
Friday, November 19, 2021	Revitalizing roads and bridges – *how do we enhance the network?*
Monday, November 22, 2021	Safe and efficient goods movement – *how do we support business and industry?*
Tuesday, November 23, 2021	Enhancing active transportation – *how do we update the Pedestrian and Cycling Strategies?*

Table 3: Stakeholder Workshop Schedule 2

Date	Neighbourhood Advisory Groups
Wednesday, November 17, 2021	Lord Selkirk – West Kildonan
Thursday, November 18, 2021	City Centre
Monday, November 22, 2021	Assiniboia
Tuesday, November 23, 2021	East Kildonan – Transcona
Wednesday, November 24, 2021	Riel

3.2.1 WORKSHOP GOALS

- Review the key findings from Phase 1
- Present the direction for TMP2050
- Test and review the draft 'opportunities and options' concepts
- Gather feedback

3.2.2 WORKSHOP OBJECTIVES

- Report back on all city-wide and stakeholder engagement activities and what we heard
- Report back on the component studies
- Gather feedback on the draft strategies
- Discuss, gather feedback, and evaluate the options presented
- Use the stakeholder priorities to evaluate potential scenarios to inform the direction of TMP2050

3.2.3 INVITATIONS

On November 10, 2021, email invitations were sent to interest-specific group stakeholders and neighbourhood advisory group members to join the Phase 2 workshops. Interest-specific group stakeholders were invited to join one or more of the five topic-based workshops and to register via Zoom to receive the meeting link(s). Neighbourhood advisory group members were invited to their specific group meeting. See Appendix E for stakeholder invitations.

The key directions and Strategies Booklet was emailed to all registered participants on November 16, 2021. Any participants who registered after November 16 were emailed the booklet as their registration was received.

Reminder emails were also sent to all neighbourhood advisory group members the day of their workshop to encourage them to register for the upcoming workshop. All registered participants were reminded about their upcoming workshop with an email and meeting link the day of the workshop.

3.2.4 WORKSHOP FORMAT AND MATERIALS

A virtual workshop was facilitated on Zoom, which began with a presentation by the project team. The presentations began with a project recap, public & stakeholder engagement summaries, and an introduction to the seven key directions for TMP2050.

Presentation slides and neighbourhood advisory group presentation slides can be found in Appendix F.

For interest-specific group workshops, a detailed presentation of strategies, options, and opportunities related to the workshop topic followed the overview presentation. Specific strategies and options were discussed further gather participants' feedback, input, and opinions about the draft opportunities.

Participants in the neighbourhood advisory group workshops were able to vote in real time on the key directions they wanted to discuss further. The most popular directions were presented in more detail and discussed accordingly.

All discussions were facilitated using Google Jamboards. Groups with more than eight participants were split into smaller discussion groups. Participants in each room engaged in similar roundtable discussions and exercises; the Jamboard provided a virtual whiteboard for participants to view during the discussion and was populated with participants' comments by the facilitators. An example of two blank Jamboards is included below. All Jamboards can be found with their corresponding meeting notes in Appendix G.

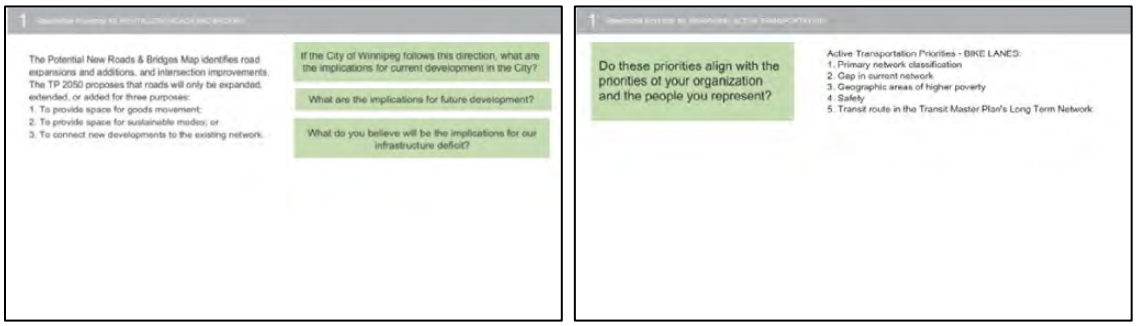


Figure 3: Sample Blank Jamboard Slides

In all workshops, polls were used to quickly gather feedback. Multiple choice polls allowed participants to give input about their current transportation habits, general opinions about the direction of TMP2050, and feedback on the workshop. Ranking polls were used to rank priorities as they related to particular strategies. Results of the polls can be found throughout **Section 5**.

After each meeting, participants were provided a link to an online exit survey and encouraged to complete the comprehensive online survey. Those results can also be found throughout **Section 5**. Full reports of exit surveys for interest-specific group workshops and neighbourhood advisory group workshops can be found in Appendices H and I.

3.2.5 STAKEHOLDER PARTICIPATION

In total, there were 23 participants at five neighbourhood advisory group workshops and 88 participants at the five interest-specific stakeholder workshops. Stakeholders were invited to join one or more workshops and 18 people attended multiple workshops.

3.3 TELEPHONE TOWN HALL

A 60-minute telephone town hall provided Winnipeggers the opportunity to learn more about the project and participate in a facilitated question-and-answer period. A full audio transcript of the event was posted to the project website.

Objectives of the telephone town hall were to:

- Foster broad public understanding of TMP2050
- Develop public understanding of the planning documents that inform the direction of TMP2050
- Encourage further participation in the Phase 2 engagement program and upcoming public workshops
- Gather input from the public about the direction of the City's future transportation network

During the event, the project team provided listeners with a brief presentation about the project context, what we learned and accomplished in Phase 1, and a high-level overview of the seven key directions, then opened the floor for questions.

Prior to the question-and-answer period, participants were asked three poll questions to gather high-level feedback on the seven key directions.

The poll questions were:

1. Do you think the key directions could address the issues of reliability in the transportation network?
2. Do you think the key directions could address the issue of safety in the transportation network?
3. Do you think the key directions could address the issue of environmental sustainability as it relates to transportation?

Nearly 100,000 automated calls went out to Winnipeggers to join the telephone town hall, 9,019 attended the event and an additional 123 joined the town hall via an online stream. Listeners were encouraged to submit their questions at any time throughout the town hall and we received 169 questions (43 online, 104 by phone, and 22 by voice mail). The script from the telephone town hall can be found in Appendix K. All questions that were asked during the town hall can be found in Appendix L and remain anonymous.

3.4 PUBLIC WORKSHOPS

Table 4: Public Workshop Schedule 1

Date	Interest-Specific Groups
Monday, November 29, 2021	The Connected City: Building a transportation network that supports people, communities, and growth
Tuesday November 30, 2021	The Safe & Sustainable City: Supporting transportation equity

Wednesday, December 1, 2021	The Reliable City: Revitalizing the road and bridges network
Thursday, December 2, 2021	The Active City: Updating the Pedestrian & Cycling Strategies

3.4.1 WORKSHOP GOAL

Review the key findings from Phase 1, present the direction for TMP2050, test and review the draft opportunities and options concepts, and gather feedback.

3.4.2 WORKSHOP OBJECTIVES

- Present the vision for TMP2050, seven key directions, and what we heard in Phase 1
- Report back on all engagement activities and results to date
- Report back on the component studies
- Gather feedback on the draft strategies
- Discuss, gather feedback on and evaluate the options presented

3.4.3 WORKSHOP FORMAT AND MATERIALS

A virtual workshop included an overview presentation on the project overview, Phase 1 public and stakeholder engagement summaries, and an introduction to the seven key directions.

Presentation slides were also posted publicly on the project website. Complete sets of all public workshop presentation slides can be found in Appendix F. A sample of the presentation slides is included below.



Figure 4: Sample of Presentation Slides



Figure 5: Sample of Presentation Slides

All discussions were facilitated using Google Jamboards. Groups with more than eight participants were split into smaller discussion groups. Participants in each room engaged in similar roundtable discussions and exercises; the Jamboard provided a virtual whiteboard for participants to view during the discussion and was populated with participants' comments by the facilitators. An example of two blank Jamboards is included below. All Jamboards can be found with their corresponding meeting notes in Appendix G.

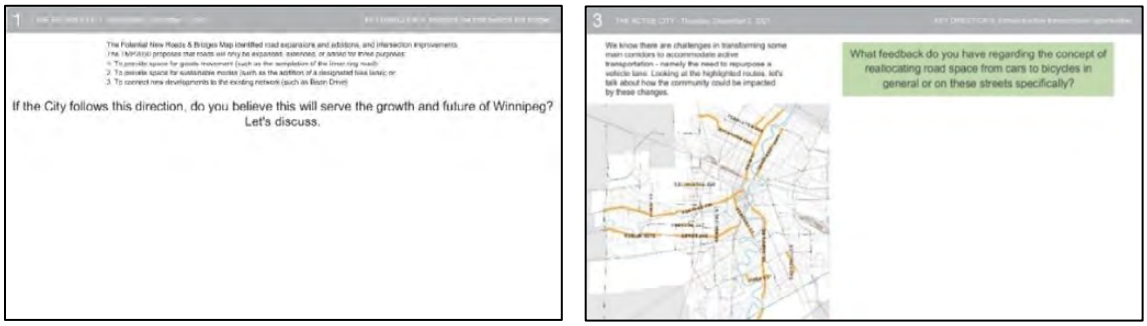


Figure 6: Sample Blank Jamboard Slides

In all workshops, polls were used to quickly gather feedback. Multiple choice polls allowed participants to give input about their current transportation habits, general opinions about the direction of TMP2050, and feedback on the workshop. Ranking poll questions were used to rank priorities as they related to particular strategies. Results of the polls can be found throughout **Section 5**.

After each meeting, participants were provided a link to an online exit survey and link to the comprehensive online survey. Those results can also be found throughout **Section 5**. Full report of the exit survey for the public workshops can be found in Appendix J.

3.4.4 WORKSHOP PARTICIPATION

A total of 57 people attended one or more of the four topic-based public workshops. As attendees could join multiple sessions, 15 people attended several workshops.

3.4.5 WORKSHOP IMAGES

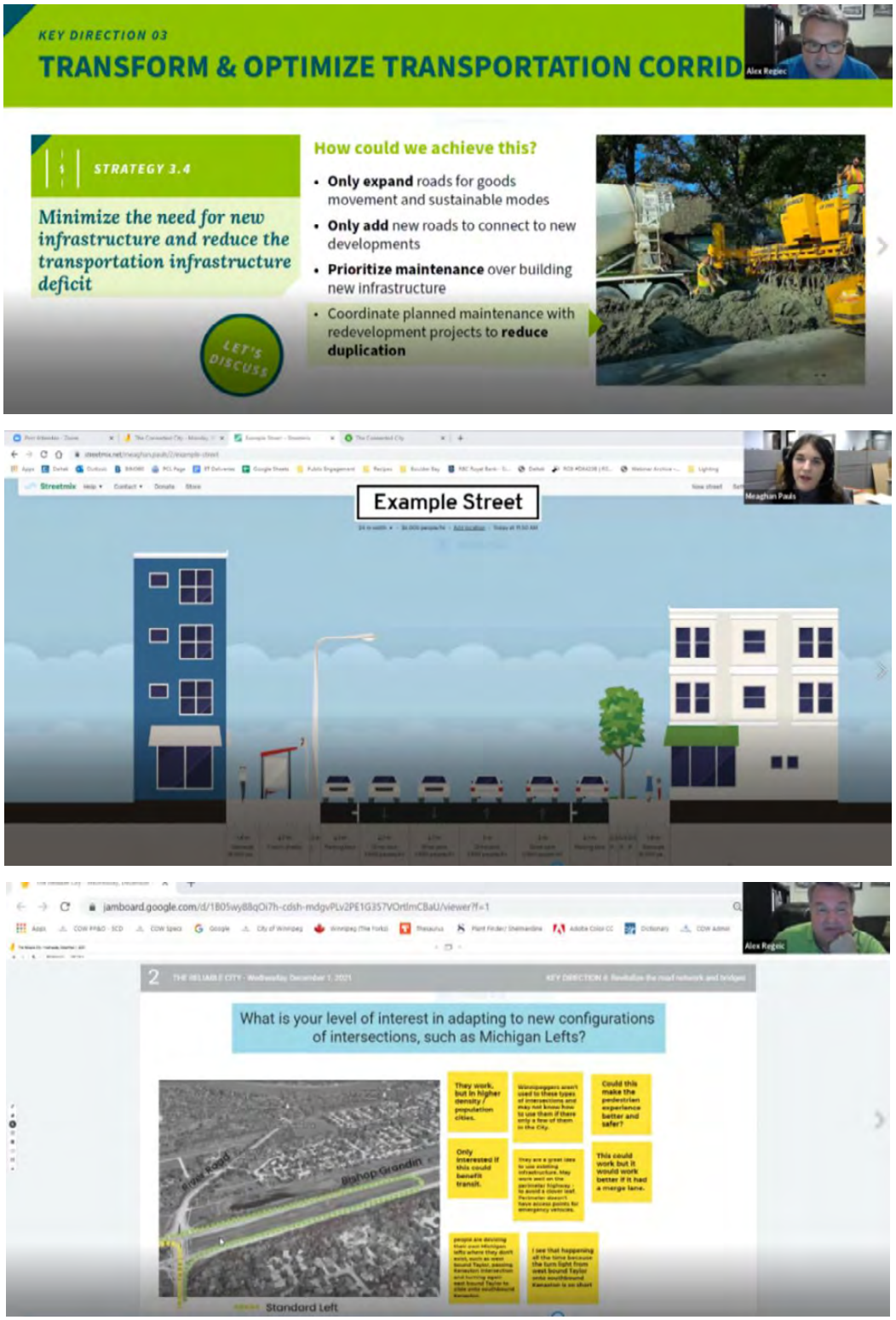


Figure 7: Screen Captures from Online Workshop

4.0 Analysis

All data and feedback received from the online survey, stakeholder workshops, and public workshops was analyzed based on three categories:

1. General feedback on the project direction
2. Key findings on specific key directions, corresponding strategies, and options and opportunities
3. General feedback on the engagement program

Feedback about the general direction of TMP2050 was summarized; main themes are presented in **Section 5.1**.

Feedback on the key directions, strategies, options, and opportunities was analysed as a whole, summarized, and coded based the key direction to which it related. Key themes and highlights are provided in **Section 5.2** and categorized by each key direction.

Feedback on the program itself was gathered at select points throughout the stakeholder and public workshops and can be reviewed in **Section 5.3**.

5.0 Results

5.1 GENERAL FEEDBACK ON PROJECT DIRECTION

Most workshop participants (84 percent, 67 of 80) feel that, based on the key directions and strategies, the purpose of the TMP2050 project is clear.

Table 5: General Feedback on Project Direction

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
13 (16%)	54 (68%)	8 (10%)	5 (6%)	0 (0%)

5.1.1 ALIGNMENT WITH KEY ISSUES

All participants were asked whether they believe the key directions and strategies could help address each of four key issues identified by OurWinnipeg and Phase 1 engagement: climate change; traffic congestion; limited city finances; and safety.

Workshop participants indicated the key directions and draft strategies would have the most impact on climate change and safety; the majority also said the direction of TMP2050 would partially address existing traffic congestion issues but may not do enough to fully address this problem.

Most online survey respondents (81-94 percent) indicated the issues align with what they believe to be the primary transportation-related issues. Those who disagreed were given the

opportunity to explain why; these comments were grouped into common themes by each key issue.

- Online survey respondents who disagreed that climate change is a key transportation issue (19 percent of respondents) indicated: they aren't concerned with climate change in general (82 comments); they feel there are more important issues for the City to address (55 comments); and they don't feel there is enough traffic in Winnipeg to impact climate change (34 comments).
- Online survey respondents who disagreed that traffic congestion is a key transportation issue (18 percent of respondents) indicated: more transportation alternatives to cars (e.g., public transportation options) would alleviate traffic congestion (92 comments); they aren't concerned with traffic congestion in Winnipeg (72 comments); and improvement to the active transportation network would reduce congestion (47 comments).
- Online survey respondents who disagreed that city finances are a key transportation issue (16 percent of respondents), indicated: spending to improve Winnipeg's transportation network is a top priority (88 comments); transportation needs to be affordable for everyone (50 comments); and investment should be made in public transit (31 comments).
- Finally, online survey respondents who disagreed that safety is a key transportation issue (6 percent of respondents), indicated: safety is an issue for all road users (not just cars), including active transportation (28 comments); that safety should be a higher priority than the other key issues (19 comments); and that improved road construction and maintenance is needed for safety (10 comments). See Appendix N for the full list of themes.

Workshop participants were asked via an online exit survey to share their level of support for TMP2050's broad direction: to only expand, extend, or add roads for the purposes of providing space for goods movement or sustainable mobility options, or for connecting new developments to the existing network. Most respondents supported the statement (58 percent), however, there was over a quarter of respondents (27 percent) that opposed this direction.

Table 6: Support for TMP2050's Broad Direction

Strongly Support	Support	Neutral	Oppose	Strongly Oppose
15 (21%)	26 (37%)	11 (15%)	15 (21%)	4 (6%)

5.1.2 NOTABLE CONCERNS WITH BROAD DIRECTION

Participants in both stakeholder and public engagement streams expressed high-level support for the seven key directions overall. However, there were concerns with several key

themes that emerged in multiple workshops. We heard from nearly all participants that driving is currently the most popular mode of transportation because it is convenient, reliable in all seasons, and is generally considered safe. Most participants said that while they are interested in a broad mode shift and want to see residents change to more sustainable and active modes, the City should expect opposition because of the widespread reliance on the personal vehicle. While the majority expressed support for a shift to more active and sustainable modes, some expressed strong feelings that Winnipeg should continue to be a car-centric city due to our cold climate and want to see the efficient movement of goods and people in vehicles, including the completion of the inner ring road to increase efficiency.

We heard that, in order to encourage broad change, the City needs to disincentivize driving a single occupant vehicle and prioritize infrastructure for active modes and transit, while also ensuring these modes are safe, efficient, and reliable. Participants pointed to a lack of connectivity in the network, lack of winter maintenance, and real or perceived lack of safety as major barriers for utilizing active transportation modes. Participants indicated that a collective mode shift to sustainable modes will not occur if these challenges are not addressed. Some participants want to see active transportation integrated into all future roadway projects, whether they are new roads or the rehabilitation of existing infrastructure, and space for vehicles reduced if necessary to accommodate active transportation modes.

Participants also expressed that the shift in thinking proposed by TMP2050 needs to be integrated into all City departments, affect City budget, and be supported by other levels of government.

Many exit survey responses indicated participants are concerned about the budget required to execute the strategies and questioned the feasibility of the key directions because of the high cost required. Specifically, many workshop participants expressed a concern about the high cost to build new roads and bridges and believe the City should focus on maintaining existing infrastructure only.

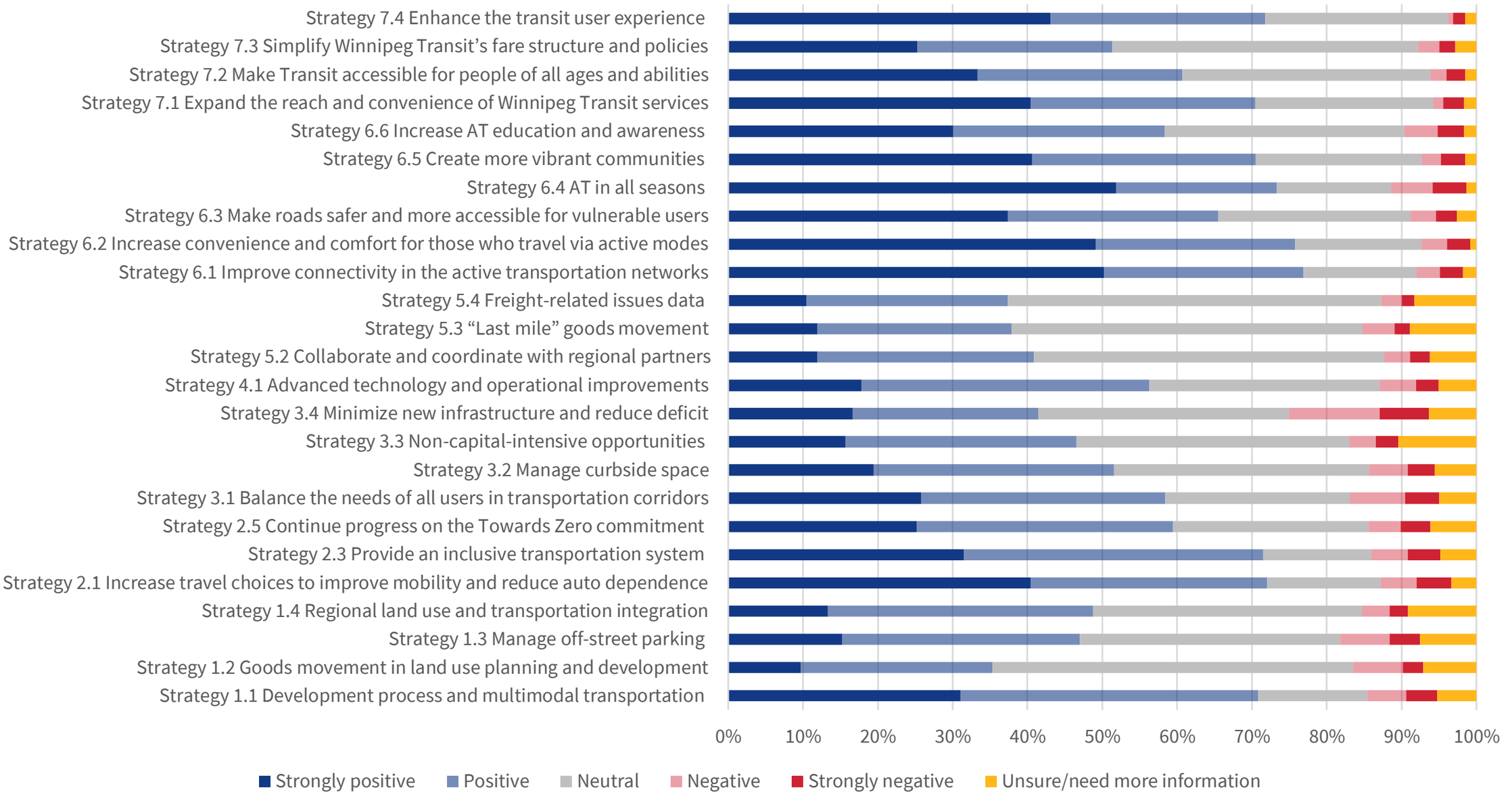
Overall, some participants expressed that the key directions and strategies do not go far enough to reduce greenhouse gases and affect climate change. Stakeholders and the public want to see measurable solutions and clear targets to ensure change occurs and climate change goals are met.

5.2 KEY FINDINGS ON SPECIFIC KEY DIRECTIONS

Below, we outline what we heard when discussing each key direction with stakeholders and the public at their respective workshops and highlight how online survey respondents felt a key set of draft strategies could address the identified key issues and fulfill the respective key direction. Graph 1 shows how online survey respondents felt the strategies would impact their lives.

Graph 1: What impact would this proposed change have on your life?

*Online survey response



Note: Some labels have been shortened to fit the chart format. The strategy descriptions as they appeared to participants are presented in-full throughout the rest of the report.

* The total response number from each question is available in the online survey insight charts for each question.

5.2.1 KEY DIRECTION 1: INTEGRATE LAND USE AND TRANSPORTATION

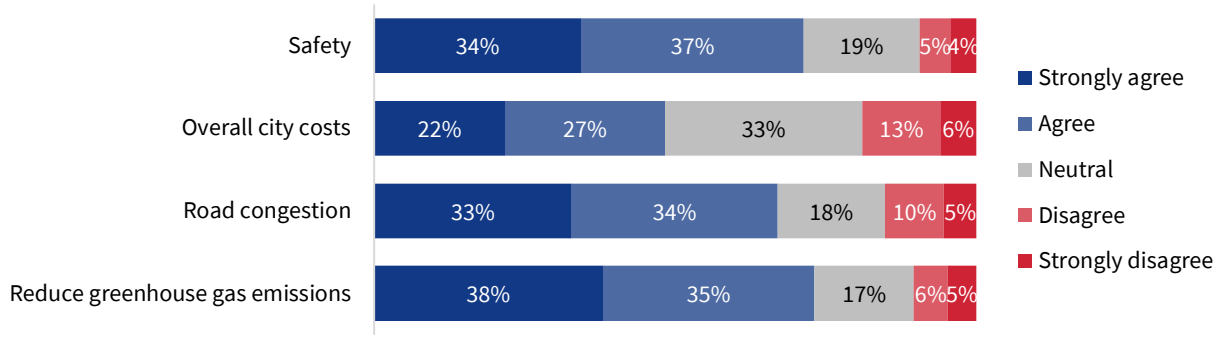
Workshop participants (both stakeholders and public) noted the challenges of the sprawling nature of our city and expressed that the City needs to better integrate land use, planning, and transportation. Participants want to see increased density, more mixed-use development on major corridors, parking minimums eliminated, and a more people-oriented Winnipeg. Ultimately, we heard the convenience of the car is preventing many people from switching to more sustainable mode options in the short term. However, stakeholders and the public alike expressed widespread interest in long-term change by reducing parking and increasing density, which could reduce vehicle usage by making driving less convenient and other modes, like walking, cycling, and busing, more convenient.

Online Survey Insight

Online survey respondents were prompted to think about incorporating mechanisms into the development process to ensure multimodal transportation options are viable, planned for, and provided. They were asked whether this strategy could support improvements to the four key issues facing the City's transportation network:

Graph 1: Strategy 1.1 Incorporate mechanisms into the development process to ensure multimodal transportation options are viable, planned for, and provided - Do you believe this strategy will support improvements to...

819 responses



With that in mind, survey respondents were also asked whether implementation of this strategic approach would have a positive impact on their own lives. Most respondents (71 percent) feel such a strategy would either have a strongly positive or positive impact on their life. Fifteen percent of respondents feel this would have a neutral impact on their life, nine percent feel it would have a negative or strongly negative impact on their life and five percent are unsure (Appendix M).

5.2.1.1 PARKING AND DOWNTOWN DEVELOPMENT

When talking about whether reducing parking Downtown could affect behaviour, we heard a common belief that Winnipeggers may choose to avoid Downtown altogether rather than choose a mode other than personal vehicle to get there. Participants noted an abundance of inexpensive parking all over the city and suggested people would choose to go elsewhere rather than change their mode of transportation.

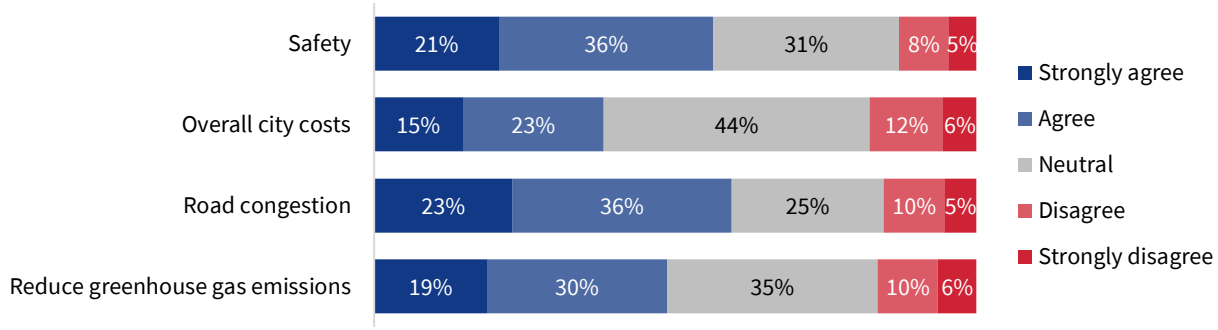
Instead of only decreasing availability of parking downtown, neighbourhood advisory group members indicated that improvements to transit, pedestrian and cycling networks, and winter maintenance could encourage mode shift. Walking, cycling, and transit networks must be thoughtfully integrated and fully accessible to compete with driving. In particular, a more easily acceptable shift for those who typically drive could be to take taxis, Ubers, or carpool instead.

Online Survey Insight

Online survey respondents were asked if they believe managing off-street parking to support multimodal transportation could support improvements to the four key issues facing the City's transportation network:

Graph 2: Strategy 1.3 Manage off-street parking to support Complete Communities and multimodal transportation - Do you believe this strategy will support improvements to...

819 responses



With that in mind, the survey also asked whether implementation of this strategic approach would have a positive impact on their own lives. Forty-seven percent of respondents feel this proposed strategy would either have a strongly positive or positive impact on their life. Thirty-five percent of respondents feel this would have a neutral impact on their life, 11 percent feel it would have a negative or strongly negative impact on their life and seven percent are unsure (Appendix M).

5.2.1.2 LAND USE AND MODE SHIFT

We heard that, while people may shift to regularly taking transit to and from Downtown, trips to and from other destinations carry many barriers. Participants noted widespread shift to more sustainable and active modes such as transit will not happen without reliable solutions to mobility barriers experienced in winter, such as snow clearing of sidewalks.

Other barriers include:

- Safety concerns
- Weather conditions
- Distribution of stops
- Poor quality/unreliable service
- Cost
- Difficult to schedule around many commitments (challenging for families)
- Lack of convenience vs. personal vehicles
- Lack of incentive when inexpensive parking is available for personal vehicles
- COVID-specific health and safety concerns

5.2.1.3 TRANSIT-ORIENTED DEVELOPMENT

Participants were also asked what would encourage transit usage and transit-oriented development. To incentivize transit use, stakeholders indicated that more frequent transit, safer pedestrian crossings of major roadways, and workplace promotion would encourage more use.

The following requirements were identified by stakeholders and the public as important elements to ensure the success of future transit-oriented development in the City:

- Frequent, rapid, convenient, consistent, and reliable transit service
- Safe and comfortable buses
- Reliable and accessible connections between transit and the walking and cycling network
- Incentives for developers such as fee reduction, accelerated permits, parking reductions, and density bonuses

5.2.1.4 LAND DEVELOPMENT

To encourage more development Downtown, along corridors and at regional mixed-use centres, stakeholders identified the following barriers and want the following incentives.

Barriers:

- Cost of infrastructure upgrades
- Incompatible land use and character on adjacent land

- Site access
- Pricing and affordability

Incentives:

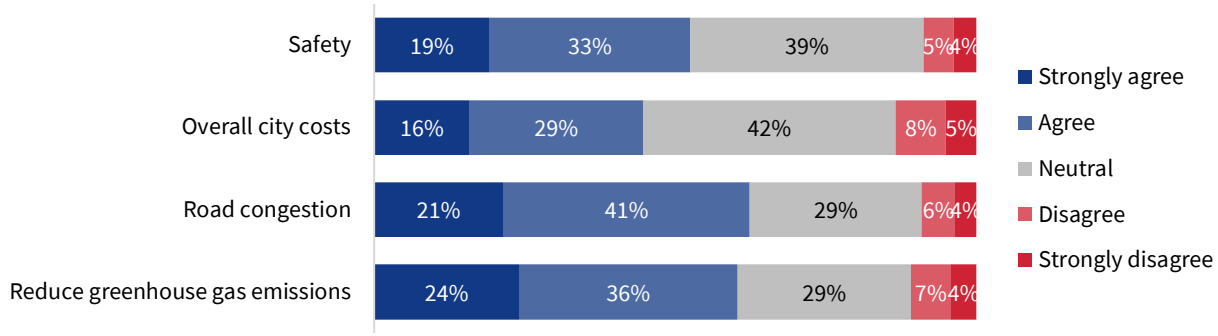
- Flexibility in permitted uses in zoning by-law
- Reduce or remove parking minimums (and create parking maximums)
- Increase tax on surface parking lots

Online Survey Insight

Online survey respondents were asked if they believe collaborating with partners to support regional land use and transportation integration could support improvements to the four key issues facing the City's transportation network:

Graph 3: Strategy 1.4 Collaborate with partners to support regional land use and transportation integration - Do you believe this strategy will support improvements to...

819 responses



With that in mind, the survey also asked whether implementation of this strategic approach would have a positive impact on their own lives. Forty-nine percent of respondents feel this proposed strategy would either have a strongly positive or positive impact. Thirty-six percent of respondents feel this would have a neutral change on their life, six percent feel it would have a negative or strongly negative impact on their life and nine percent are unsure (Appendix M).

5.2.1.5 PARK AND RIDE

Most stakeholders – all of whom identified as Winnipeg residents – expressed a lack of strong interest in park and ride locations or transit hubs and did not believe integrating this type of infrastructure would significantly impact mode shift. They did note, however, that such infrastructure may be beneficial for non-residents driving into the city to work from the

greater Metro Region. Once again, stakeholders noted the availability of free parking throughout the city makes driving more convenient than transit, discouraging drivers to switch to transit.

5.2.2 KEY DIRECTION 2: PROVIDING SAFE AND SUSTAINABLE MOBILITY OPTIONS FOR ALL

In multiple workshops, participants repeatedly shared that safety, cost, physical accessibility, and seasonal limitations are the top three barriers to providing safe and sustainable mobility options for all. Most acknowledged the need for systemic and behavioural change, to stop designing for cars, to make driving less convenient, and to shift how Winnipeggers think about sustainable transportation modes.

At the public workshop in particular, participants indicated improved safety should look like a combination of the following:

- Improved visibility at crosswalks
- Reduced residential speed limits
- Separated bike lanes
- Added speed tables in residential areas
- Reduced speeds at intersections
- More pedestrian crossings at major corridors
- Fewer right-turn-on-red intersections
- Longer crossing times for pedestrians

Participants noted that, to improve transportation access for all users, significant improvements to the active transportation network are required. This should include connecting gaps, providing secure bike parking, and creating a more reliable, frequent, and affordable transit service that links to the network. Some workshop participants would like to see a neighbourhood-based system added to the larger transit system wherein buses would come more frequently and travel only within a smaller area.

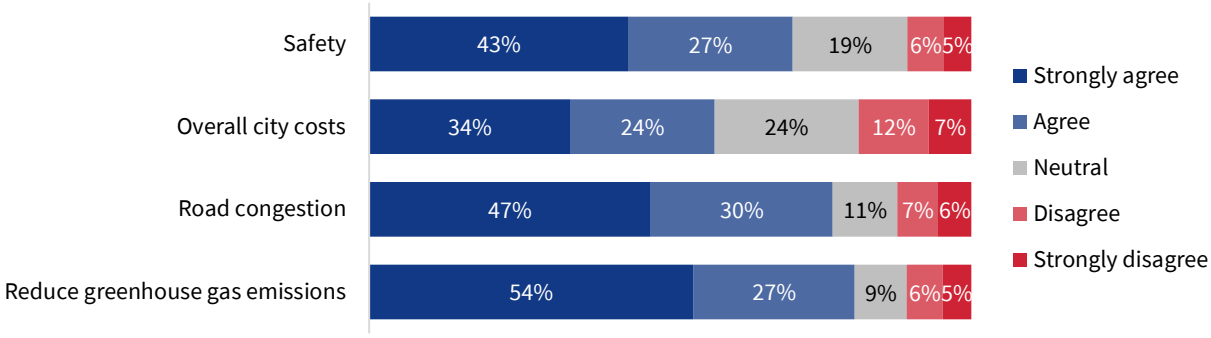
Stakeholders indicated that for transportation modes to be equitable, they need to consider upfront costs, ongoing costs, access to technology, and access to a driver's license. In addition, stakeholders and the public were critical of programming-focused solutions to create access to transportation and believe equity can only be achieved through government support and subsidized provision of services.

Online Survey Insight

Online survey participants were asked to consider whether increasing travel choices available to all residents could improve mobility and reduce auto dependence and, in turn, address the four key issues facing the City's transportation network:

Graph 4: Strategy 2.1 Increase travel choices available to all residents to improve mobility and reduce auto dependence - Do you believe this strategy will support improvements to...

750 responses



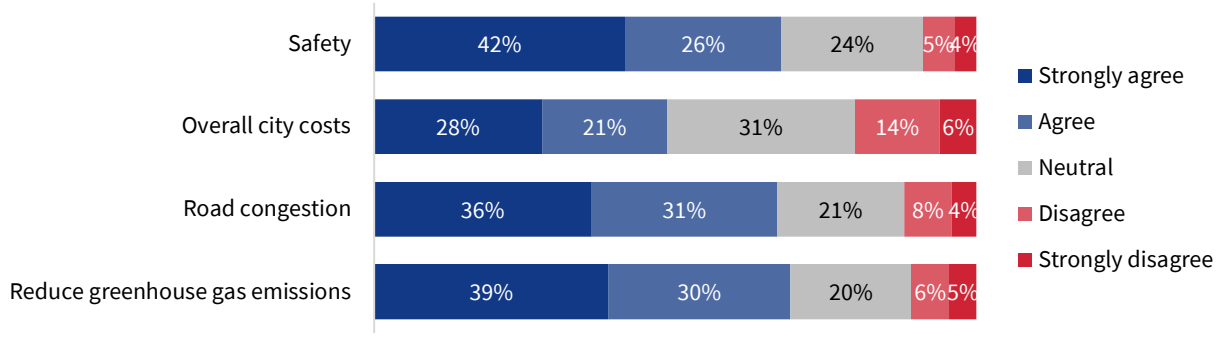
With that in mind, the survey also asked whether implementation of this strategic approach would have a positive impact on their own lives. Most respondents (59 percent) feel this proposed strategy would either have a strongly positive or positive impact on their life. 30 percent of respondents feel this would have a neutral impact on their life, seven percent feel it would have a negative or strongly negative impact on their life and four percent are unsure (Appendix M).

Online Survey Insight

Survey respondents were also asked whether they agree that providing an inclusive transportation system that offers all Winnipeggers access to opportunities would address the four key issues:

Graph 5: Strategy 2.3 Provide an inclusive transportation system that offers access to opportunities to all Winnipeg residents - Do you believe this strategy will support improvements to...

750 responses



With that in mind, the survey also asked whether implementation of this strategic approach would have a positive impact on their own lives. Most respondents (59 percent) feel this proposed strategy would either lead to strongly positive or positive change in their life. Thirty percent of respondents feel this would have a neutral impact on their life, seven percent feel it would have a negative or strongly negative impact on their life and four percent are unsure (Appendix M).

Workshop participants additionally discussed a few potential programs that the City could introduce or enhance to increase transportation access for all. These included bike sharing programs, car sharing programs, and online carpool matching programs.

5.2.2.1 BIKE SHARE PROGRAM

Participants had mixed opinions about bike share programs. Some indicated a bike share program could be a great way to share resources and could work well for short trips Downtown, while others were also skeptical of whether it could be successful in Winnipeg.

The following were identified as concerns about a bike share program:

- The feeling that the city may not have enough population density to support a bike share program
- Cost and inequitable access to credit cards required to utilize standard bike share programs
- Current network challenges, like secure and available bike parking, network connectivity, and safe routes, limit cycling use, regardless of bike share program
- Winter weather

- The potential that bike share docking stations on sidewalks could become an obstacle for sidewalk users with mobility challenges

Participants expressed a need for any bike share program to be well-integrated with other modes of transportation (like walking and transit) and also to include e-bikes and cargo bikes as part of a bike fleet.

5.2.2.2 CAR SHARE PROGRAM

While many participants indicated that a car share program could reduce the need for a second vehicle in a given household and create access to a variety of vehicles based on user needs (car, van, or truck), the majority feel barriers to access outweigh the potential benefits and, as such, that a program could not be expected to create substantively more opportunities for accessible transportation in Winnipeg.

We heard that while car sharing can reduce the reliance on a personal vehicle, it also caters more to the middle class who are able use car sharing as a lifestyle choice. Additional barriers included:

- The requirement to book online (vs. accessibility of reliable internet)
- The upfront and ongoing user costs
- Requirement for users to pay via a credit card (vs. accessibility of credit cards for those with already limited access to transportation)
- Potential for the fleet to be too small
- Challenges of having fixed pick-up and drop-off locations

5.2.2.3 CARPOOL MATCHING

Stakeholders did not think online carpool matching would be successful or appealing in Winnipeg. Informal carpool matching already exists within local Facebook groups, universities, or with friends and family.

5.2.3 KEY DIRECTION 3: TRANSFORM AND OPTIMIZE TRANSPORTATION CORRIDORS

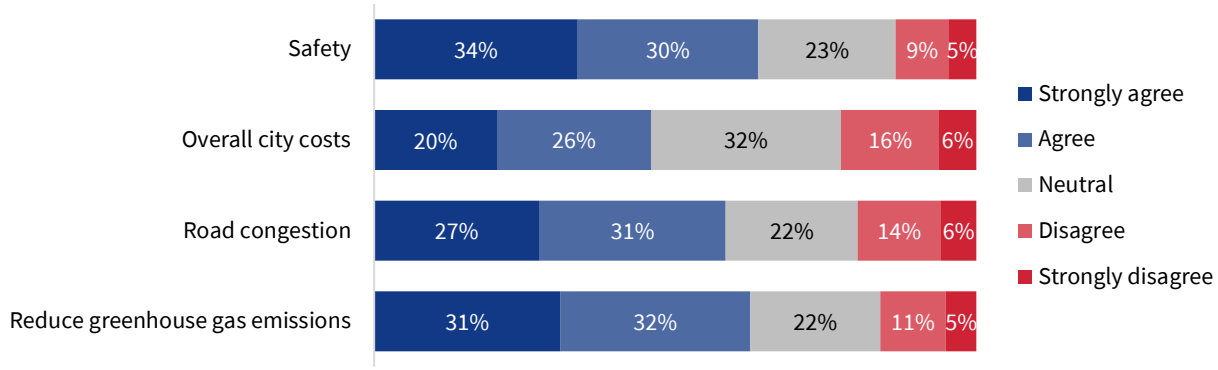
Workshop participants were asked to discuss the long-term shift from predominantly driving single-occupant vehicles to more sustainable and active modes of transportation and recognize that to promote this, two things should occur: road space should be converted for active and sustainable modes of transportation, driving a car should be made to be less convenient.

Online Survey Insight

Online survey respondents were asked if they believe a strategic approach the balances the needs of all users in all transportation corridors – also known as Complete Streets – could support improvements to the four key issues facing the City's transportation network:

Graph 6: Strategy 3.1 Balance the needs of all users in transportation corridors - Do you believe this strategy will support improvements to...

690 responses



Workshop participants who completed the exit survey (99 percent) also support such an approach and believe the trade-off of losing street space for cars is a reasonable exchange for increased safety and improved efficiency for all road users.

5.2.3.1 COMPLETE STREETS APPROACH AND TRADE-OFFS

Sixty-four percent of stakeholders who completed an exit survey indicated they would like to see all Winnipeg streets transformed into Complete Streets while 35 percent believe the concept is important on certain streets, but that some roadways need to continue to prioritize the automobile.

Both workshop participants and online survey respondents were asked to look at a fictional roadway without adequate space to accommodate all road users in its current state and prioritize elements to remain. Combined, roadway elements were ranked in the following order from most important to least important:

1. Bike lane capacity
2. Diamond vehicle lane capacity – spaces for carpool use, taxis, and buses
3. Sidewalk width
4. Vehicle lane capacity – spaces for single-use cars, trucks, buses, and motorcycles
5. Boulevard and median greenery
6. Loading zones
7. On-street parking

A few anomalies occurred in this ranking exercise, particularly among specific neighbourhood advisory groups. While the majority of workshop participants ranked on-street parking, loading zones, and vehicle lane capacity as the lowest priorities, participants from the Assiniboia neighbourhood advisory group ranked vehicle lane capacity as the second priority, indicating less of an appetite to shift to active modes of transportation like biking and walking in this area of the city. As well, participants of the Riel neighbourhood advisory group indicated that loading zones should be the third most important priority, which may indicate a higher value on deliveries and vehicle-for-hire pick-ups and drop-offs. While most participants did not prioritize on-street parking many noted that parking needs of local businesses should be considered through a neighbourhood-wide lens rather than street-by-street.

5.2.3.2 TRAFFIC CALMING ON COMPLETE STREETS

When asked to consider whether traffic calming measures could better support safe travel of all modes along Complete Streets-designated routes, workshop participants supported the use of street-specific and context-specific traffic calming measures. Participants said they want to see traffic calming discourage vehicles from cutting through residential areas, as long as these measures do not cause congestion elsewhere, impede access for emergency vehicles, or make travel more difficult for active modes of transportation. (For example, we heard that it can be difficult for cyclists to traverse speed bumps.)

Participants ranked suggested traffic calming measures according to preference and perceived impact as follows:

1. Narrow vehicle lanes
2. Planters separating bike lanes from vehicle lanes
3. Speed bumps
4. Continuous sidewalks at intersections
5. Alternate location of on-street parking (i.e., shift parking to opposite side of street on different blocks)
6. Roundabouts
7. Lower residential speed limit to 30km/hr
8. Curb bump outs
9. Speed tables
10. Street trees

5.2.3.3 TECHNIQUES FOR COMPLETE STREETS

Participants also offered feedback on specific roadway design techniques that would facilitate multiple users sharing road space with multiple users and create Complete Streets.

Workshop participants expressed broad support for reversible lanes on the appropriate streets. Some 67 percent of participants expressed support for an additional tax for surface

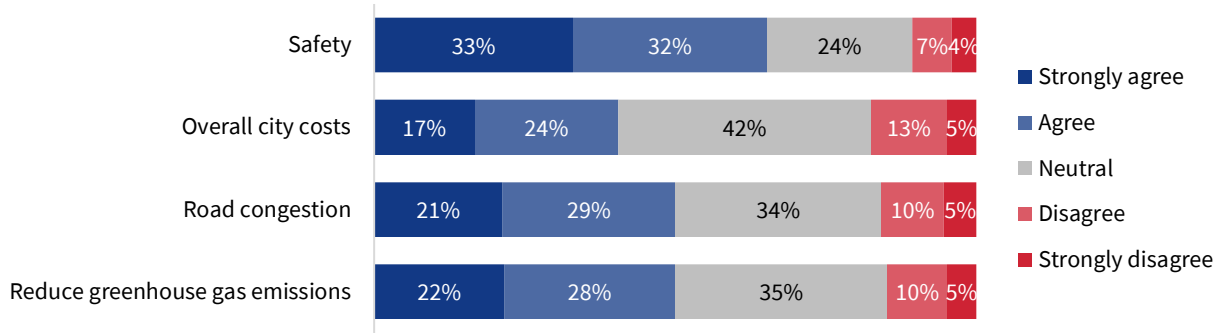
parking lots to better manage off-street parking and reflect the true cost of surface parking lots. A vehicle parking reservation system had mixed support from participants, with 42 percent supporting and 42 percent opposing it. The remaining 16 percent were neutral on the topic.

Online Survey Insight

Online survey respondents in particular were asked to consider whether they agree that managing curbside space to accommodate appropriate uses while supporting access and mobility could support improvements to the four key issues facing the City's transportation network:

Graph 7: Strategy 3.2 Manage curbside space to accommodate appropriate uses while supporting access and mobility - Do you believe this strategy will support improvements to...

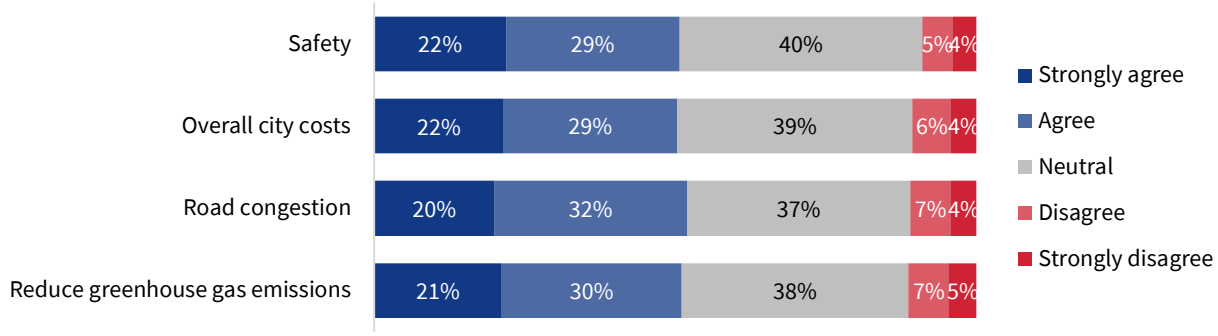
690 responses



Online Survey Insight

The online survey also asked whether implementing lower-cost (non-capital-intensive) infrastructure solutions could enhance operations of existing corridors, and – in turn – support improvements to the four key issues facing the City's transportation network:

Graph 8: Strategy 3.3 Implement non-capital-intensive opportunities to enhance operations of existing corridors - Do you believe this strategy will support improvements to...
690 responses



5.2.4 KEY DIRECTION 4: REVITALIZE THE AUTOMOBILE NETWORK AND BRIDGES

Discussion on this topic focused on the strategy that roads only be expanded, extended, or added for three purposes:

1. To provide space for goods movement
2. To provide space for sustainable modes
3. To connect new developments to the existing network

It is critical to note that workshop participants did not come to a consensus on this key direction.

Many participants expressed concerns about the continued expansion of, addition to, and improvements to the road network and bridges as it will only continue to prioritize and encourage personal vehicle use. We heard mixed opinions about the future of the car in Winnipeg and many felt this key direction does not align with the overall mode shift goals of the project. Some participants shared that this key direction and corresponding draft strategies do not work hard enough to shift people away from driving and towards other modes, while others shared that the car will always be part of the city's transportation future.

In general, we heard concerns about the high cost to implement the potential road and bridge improvements, and the effects doing so would have on the City's budget. When discussing who should pay the cost for expansion, participants suggested alternative revenue streams such as tolls and contributions from trucking companies.

Most workshop participants noted goods movement is an important part of our economy and that routes that are designed for trucks also benefit buses and emergency vehicles. However,

participants cautioned that roadways built to benefit goods movement – though they do also benefit buses – could be perceived as also benefiting single-occupant vehicles thus perhaps leading to more resistance to mode shift.

There was a clear consensus that any and all roadways expanded, extended, or added must incorporate space for more sustainable modes, including walking, cycling, and transit. On certain roadways, this may mean removing space for personal-use vehicles rather than expanding the infrastructure.

5.2.4.1 TECHNIQUES TO ENHANCE FLOW AND SAFETY

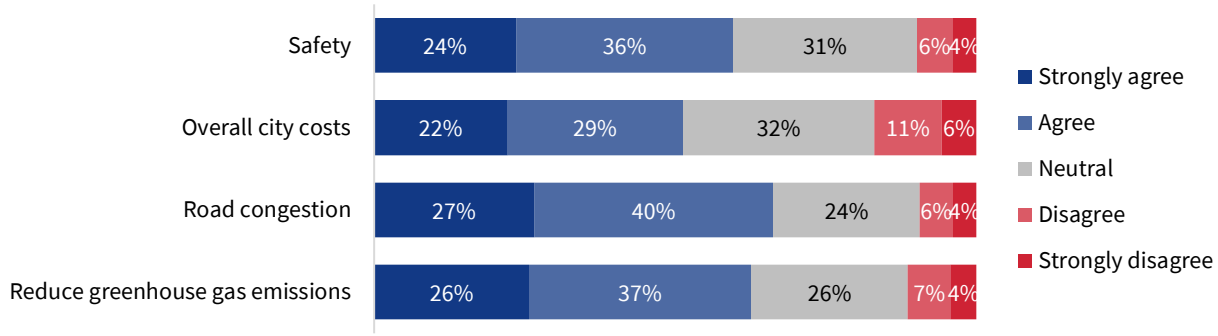
During the workshops, we heard feedback on specific techniques to enhance traffic flow and safety. Overall, there was interest in techniques such as the Michigan Left (a right turn followed by a U-turn replaces a left turn at an at grade intersection between a divided roadway and a secondary roadway), Continuous Green "T" Intersection (a type of 3-leg intersection where one direction of mainline traffic, opposite to the side street approach, does not have to stop), and digital message boards with real-time information on traffic updates on certain streets, but participants were cautious to accept these techniques without fully understanding the impacts to pedestrian and cycling safety and flow. Concerns were also flagged that unconventional intersection types are challenging for people with visual impairments to navigate.

Online Survey Insight

Online survey participants were asked to consider whether using advanced technology and operational improvements to maximize the use and efficiency of the existing road network could support improvements to the four key issues TMP2050 is trying to address:

Graph 9: Strategy 4.1 Maximize the use and efficiency of the existing road network through advanced technology and operational improvements - Do you believe this strategy will support improvements to...

679 responses



Most respondents (56 percent) feel implementing this strategic approach would either have a strongly positive or positive impact on their life. 31 percent of respondents feel this would

have a neutral impact on their life, eight percent feel it would have a negative or strongly negative impact on their life and five percent are unsure (Appendix M).

5.2.4.2 PRIORITIES FOR THE ROAD NETWORK AND BRIDGES

Workshop participants were asked to prioritize a set of criteria that could be used to evaluate future road and bridge projects. They ranked the criteria as follows:

1. Replacing existing infrastructure before building new infrastructure
2. Building projects that integrate active transportation and sustainable modes of travel
3. Building projects that encourage and enable mode shift
4. Building projects that prioritize transit over personal-use vehicles

In addition to the above criteria, participants also identified the following priorities for roads and bridges:

- Completing the inner ring road
- Repurposing rail lines for transit
- Repurposing aging infrastructure solely for active transportation modes (e.g., converting an over-capacity bridge to a walking and cycling bridge)
- Using development agreements to build active transportation infrastructure and transit hubs in new developments.

5.2.5 KEY DIRECTION 5: SUPPORT GOODS MOVEMENT AND ECONOMIC PROSPERITY

In general, the potential changes to the goods movement network were well-received. New routes identified in the updated truck route map appeared to improve efficiency to move goods throughout the city.

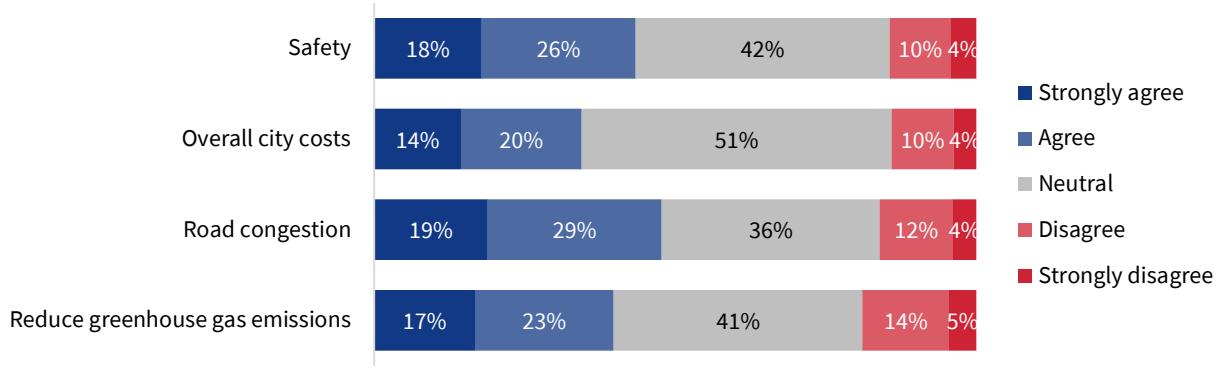
However, participants noted two major goods movement-related challenges TMP2050 must address: the integration of transportation and land use (including integrating CentrePort into the overall network) and increasing the perceived value of goods movement to the overall function of the City. Specific to the latter, participants suggested TMP2050 should focus some efforts on educating Winnipeggers on the importance of goods movement and, specifically, how integral it is to each of our lives.

Online Survey Insight

Online survey respondents were asked if they believe one such strategy – protecting the viability of goods movement in land use planning and development could – support improvements to the four key issues facing the City's transportation network:

Graph 10: Strategy 1.2 Protect the viability of goods movement in land use planning and development - Do you believe this strategy will support improvements to...

631 responses

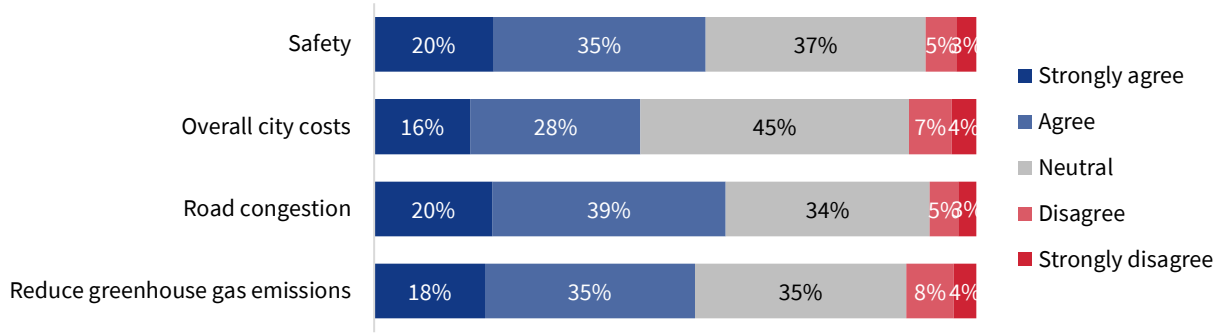


Online Survey Insight

Related but not exclusive to CentrePort, online survey respondents were also asked if they believe collaborating and coordinating with regional partners could increase safety, efficiency, reliability, and planning in goods movement, and – in turn – support improvements to the four key issues facing the City's transportation network:

Grpah 11: Strategy 5.2 Collaborate and coordinate with regional partners to increase goods movement safety, efficiency, reliability, and planning - Do you believe this strategy will support improvements to...

631 responses



5.2.5.1 FEEDBACK ON SPECIFIC SOLUTIONS

When asked to weigh in on truck-only lanes on high truck volume corridors, workshop participants – particularly stakeholders with a vested interest in trucking and/or business –

indicated this strategy could help move goods more safely and efficiently and suggested a pilot program in collaboration with the Manitoba Trucking Association would be the key to successful implementation and evaluation. Participants singled out three streets as ideal candidates for such a pilot – Portage Avenue, Main Street, and Kenaston Boulevard – and noted that any other multi-lane corridors with an available third lane would also be appropriate.

Participants, including those from within the trucking sector, did not particularly support a vehicle loading reservation system within Downtown and other high loading demand areas. People making quick deliveries would not benefit from this service, but it would be more helpful in situations that require longer loading times.

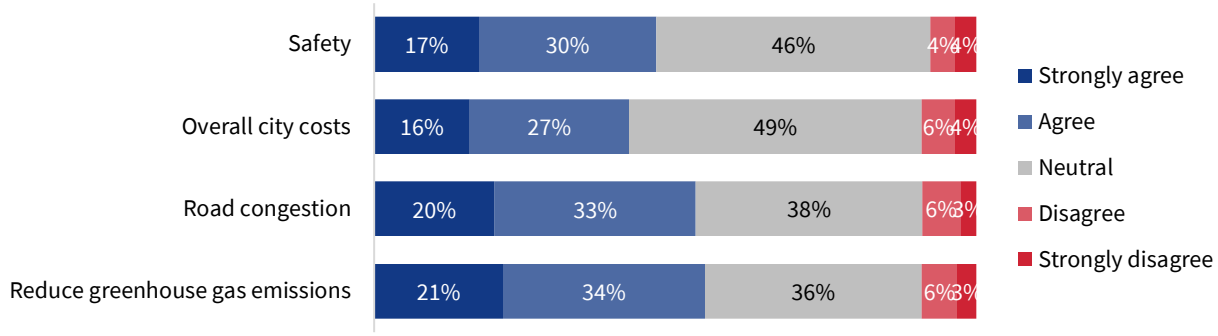
Respondents gave feedback and commented on a few additional potential strategic approaches and solutions.

Online Survey Insight

When asked whether allowing service provider innovations that safely and economically improve "last mile" goods movement could support improvements to the four key issues facing the City's transportation network, survey respondents had the following to say:

Graph 12: Strategy 5.3 Allow for service provider innovations that safely and economically improve "last mile" goods movement - Do you believe this strategy will support improvements to...

631 responses

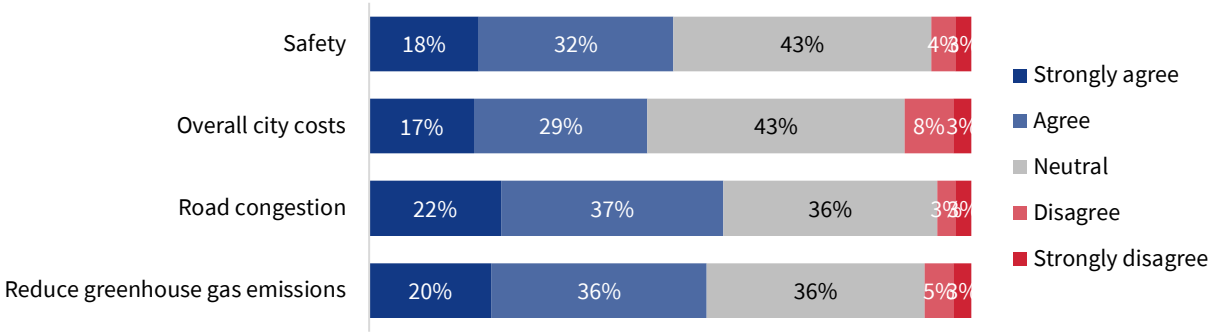


Online Survey Insight

Respondents were also asked to consider whether the four key issues could be impacted by prioritizing data collection on freight-related issues to help with decision-making and, going forward, support the development of improved analytical tools:

Graph 13: Strategy 5.4 Prioritize data collection on freight-related issues to help with decision making and, going forward, support the development of improved analytical tools - Do you believe this strategy will support improvements to...

631 responses



5.2.6 KEY DIRECTION 6: ENHANCE ACTIVE TRANSPORTATION OPPORTUNITIES

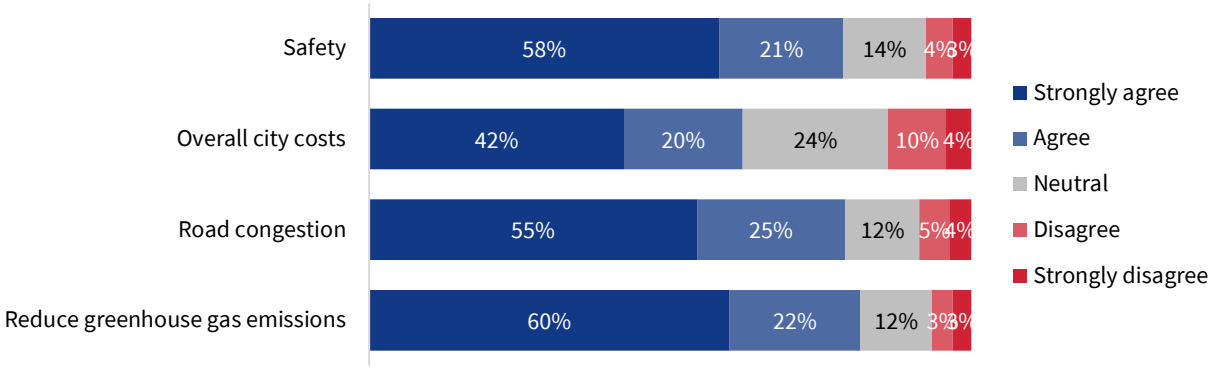
Workshop participants expressed mixed feelings about the strategies and proposed opportunities to enhance the active transportation network. While most feel the plan has potential intention to improve the active transportation network, we heard some believe it can only be implemented if the City's overall budget and priorities shift to align with the Pedestrian and Cycling Strategies.

Online Survey Insight

To help gauge Winnipeggers' overall thoughts on active transportation, online survey participants were asked to consider improving connectivity in active transportation networks as a strategic approach. Specifically, they were asked whether they believe actions related to this strategy could support improvements to the four key issues facing the City's transportation network:

Graph 14: Strategy 6.1 Improve connectivity in the active transportation networks - Do you believe this strategy will support improvements to...

615 responses



With that in mind, the survey also asked whether implementation of this strategic approach would have a positive impact on their own lives. Most respondents (77 percent) feel such an approach would have either a strongly positive or positive change on their life. 15 percent of respondents feel this would have a neutral change on their life, 6 percent feel it would have a negative or strongly negative impact on their life and 2 percent are unsure (Appendix M).

5.2.6.1 COMMON THEMES

Some common themes emerged throughout the stakeholder and public workshops, including participants desire for the City to:

- Better connect the active transportation network (cycling routes in particular) as Winnipeggers will not use it if it has gaps
- Enhance winter maintenance as it is key to achieving year-round mode shift
- Anticipate and strategize ways to overcome resistance from Winnipeggers if road space is reallocated away from cars to active modes (recognizing this is necessary to meet active transportation and climate goals)

Participants also agreed widespread mode shift is being held up by a few key barriers, namely:

- Illumination – better lighting would create a sense of personal safety and help with visibility of obstacles and hazards
- Secure bike parking – more long-term and short-term parking is required throughout the city, at transit hubs, and at park and ride locations.
- Some suggested the City should consider partnering with businesses to implement bike parking programs
- Vehicle speeds – pedestrians and cyclists may feel safer with lower speed limits on residential streets or traffic calming measures that would otherwise lower speeds

All participants – both workshop attendees and online survey respondents – were asked what would encourage them to walk and bike more than they currently do. Results are broken down by public workshops and online survey, as the questions differed slightly.

5.2.6.1.1 Walking

At the public workshops, participants ranked what the City could do to encourage them to walk more than they currently do. They ranked answers in order of impact, from most impactful, to least impactful, as follows:

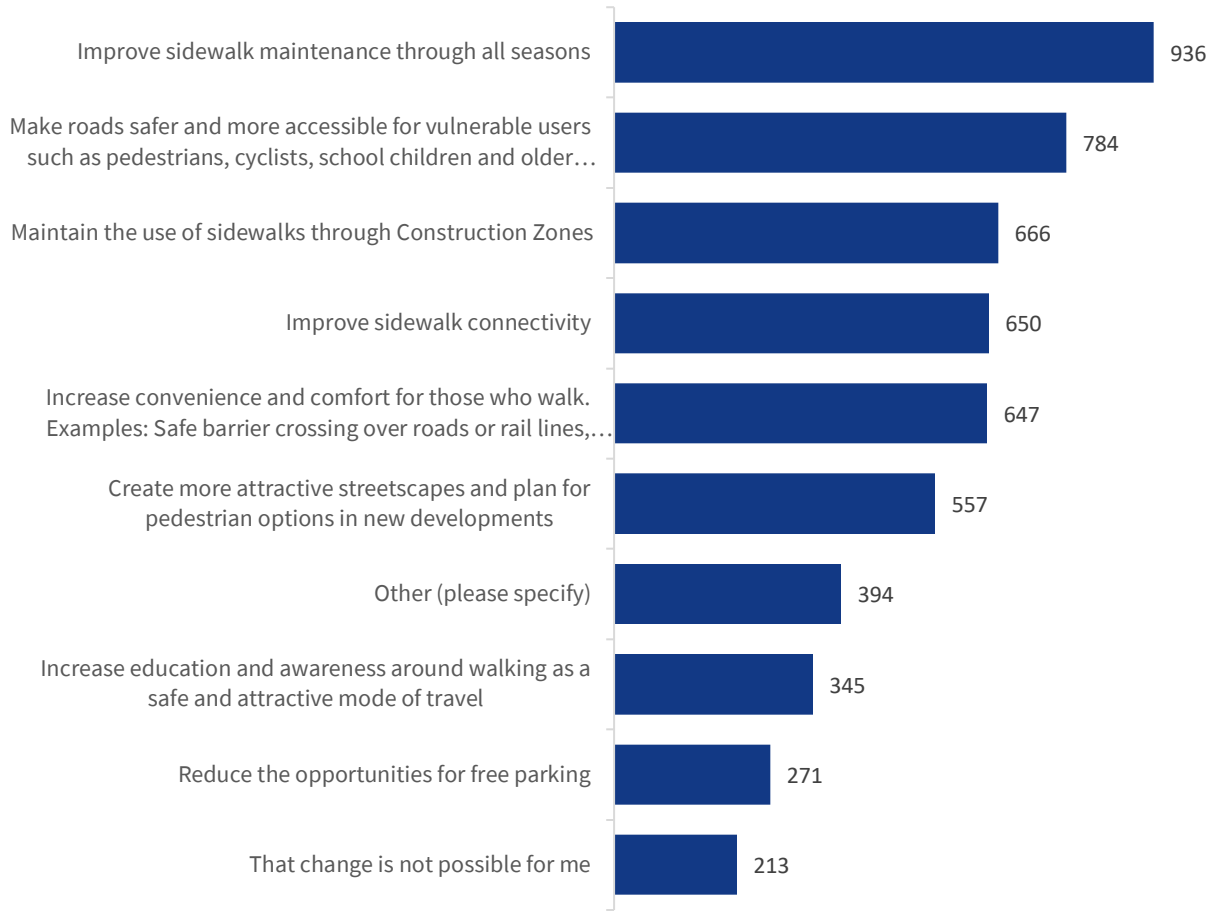
1. Improve sidewalk maintenance through all seasons
2. Make roads safer and more accessible for vulnerable users such as pedestrians, cyclists, school children, and older adults
3. Increase convenience for those who walk
4. Improve sidewalk connectivity
5. Maintain the use of sidewalks through construction zones
6. Create more attractive streetscapes and plan for pedestrian options in new developments
7. Reduce the opportunities for free parking
8. Increase education and awareness around walking as a safe and attractive mode of travel

Online Survey Insight

Online survey respondents were asked a slightly different question: what the City could do to encourage them to walk rather than drive for just one commuting trip a week.

They ranked answers in order of impact, from most impactful to least impactful, as follows (1,446 responses, multiple answers could be selected):

Graph 15: What could the City do to encourage you to walk rather than drive for just one commuting trip a week? Please choose all that apply.
1446 responses



In addition to ranking responses, participants (both workshops and online survey) indicated they may walk more often if:

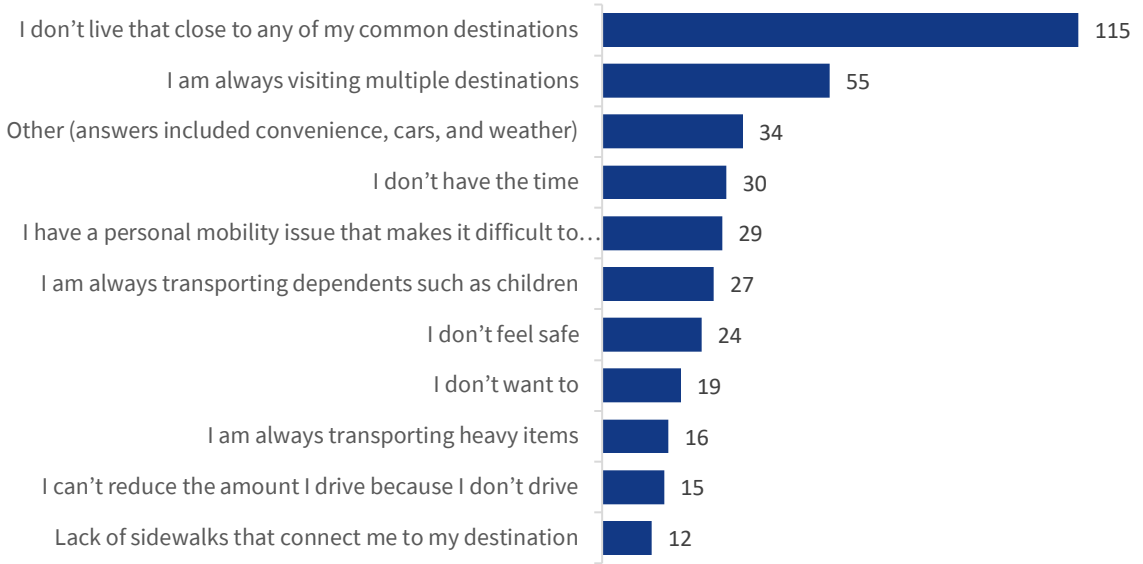
- The City were to make real-time information available online about the progress of pathway and sidewalk snow clearing
- The City added more sidewalks to the network
- They had an increased perception of safety
- Sidewalks were better illuminated
- Intersection crossings were better/safer
- More streets had more trees
- Policies/bylaws were changed
- Neighbourhoods were densified
- More bridges were crossable by active modes
- Sidewalk conditions were improved
- There was less noise pollution

- Large parking lots were more accessible and/or connected to the network
- Routes were cleaner

Online Survey Insight

Online survey respondents who indicated walking more is not an option for them were asked to provide more details (multiple answers could be selected):

Graph 16: You indicated that a shift to walking more is not an option for you. Please tell us if any of these reasons apply:
173 responses



5.2.6.1.2 Cycling

Workshop participants also ranked what the City could do to encourage them to bike more than they currently do. They ranked answers in order of impact, from most impactful, to least impactful, as follows:

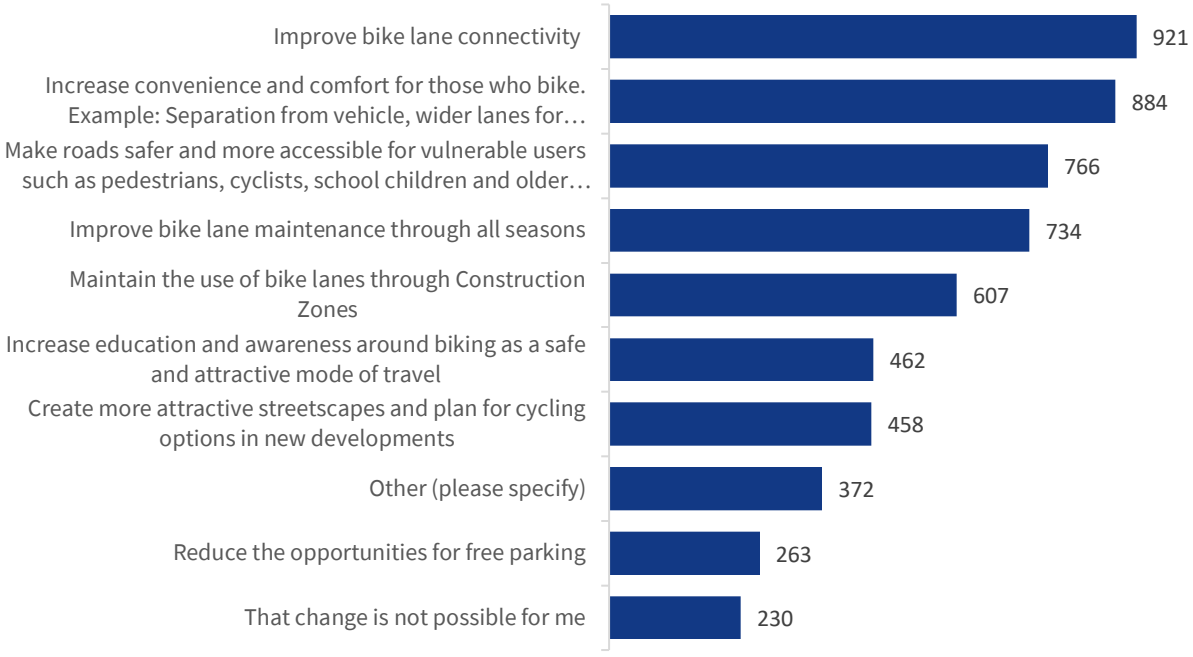
1. Improve bike lane connectivity to the network
2. Make roads safer and more accessible for vulnerable users such as pedestrians, cyclists, school children, and older adults
3. Improve bike lane maintenance through all seasons
4. Increase convenience and comfort for those who bike
5. Maintain the use of bike lanes through construction zones
6. Increase education and awareness around biking as a safe and attractive mode of travel

7. Create more attractive streetscapes and plan for cycling options in new developments
8. Reduce the opportunities for free parking

Online Survey Insight

Online survey respondents were once again asked a slightly different question: what the City could do to encourage them to bike rather than drive for just one commuting trip a week. They ranked answers in order of impact, from most impactful to least impactful, as follows (1,416 responses, multiple answers could be selected):

Graph 17: What could the City do to encourage you to cycle rather than drive for just one commuting trip a week?
1416 responses



In addition to ranking responses, participants (workshops and online survey) indicated they may bike more often if:

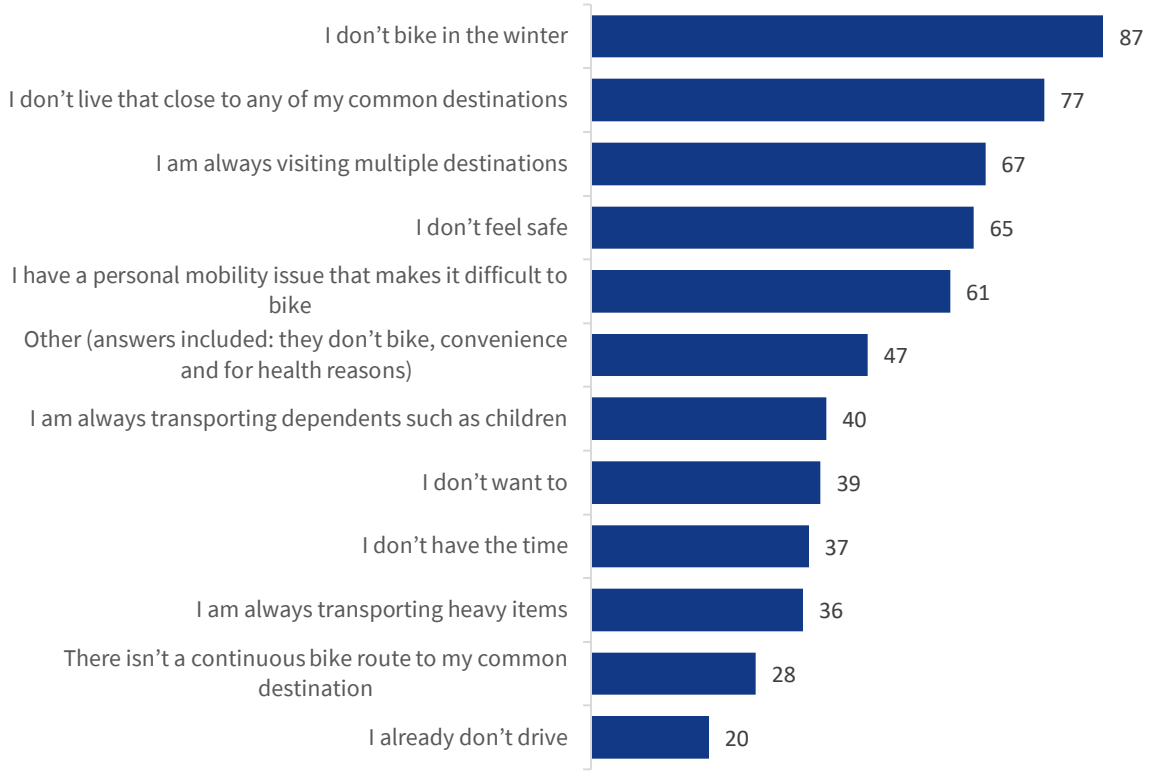
- The City was to provide more secure bike parking
- They felt safer
- Bike lanes were separated from vehicle traffic
- Crossings and intersections were easier/safer to navigate
- Vehicle lanes were narrowed to slow traffic
- More active transportation bridges were built

- Bike lanes and/or streets were better lit
- Railway crossings were improved
- Wayfinding was better
- The road and path surface were improved (reduced potholes, uneven paving, etc.)

Online Survey Insight

Online survey respondents who indicated biking more often is not an option for them were asked to provide more details (multiple answers could be selected):

Graph 18: You indicated that a shift to biking more is not an option for you. Please tell us if any of these reasons apply:
207 responses

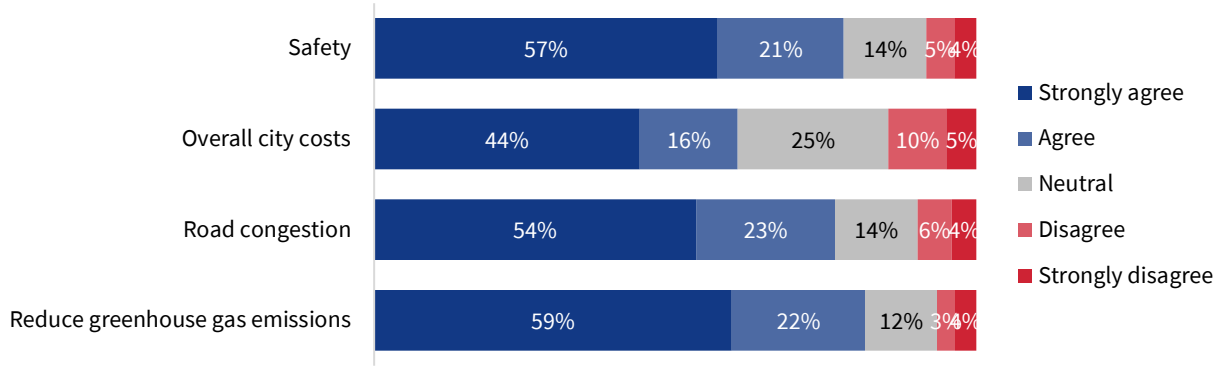


Online Survey Insight

Online survey respondents were asked if they believe increasing convenience and comfort for those who travel via active modes could make progress on the four key issues facing the City's transportation network:

Graph 19: Strategy 6.2 Increase convenience and comfort for those who travel via active modes - Do you believe this strategy will support improvements to...

615 responses



The majority of respondents (76 percent) feel this proposed strategy would either have a strongly positive or positive change on their life. 17 percent of respondents feel this would have a neutral change on their life, 7 percent feel it would have a negative or strongly negative impact on their life and 1 percent are unsure (Appendix M).

5.2.6.2 PRIORITIZATION OF IMPLEMENTATION OF NEW BIKE LANES

Workshop participants indicated the following additional priorities for new bike lanes:

- Safety – eliminate dangerous locations before a collision occurs
- Prioritize infrastructure near major trip generators and major destinations

5.2.6.3 PRIORITIZATION OF IMPLEMENTATION OF NEW SIDEWALKS

Stakeholders indicated the following additional priorities for new sidewalks:

- Prioritize building sidewalks adjacent to high-speed roadways (50 km/h or faster) where none currently exist
- Connect new sidewalks to schools, seniors' centres, major destinations, and commercial areas

5.2.6.4 PEDESTRIAN AND CYCLING STRATEGIES: ACTION ITEMS

All participants were asked their opinions on key action items proposed in the draft Pedestrian and Cycling Strategies.

At the public workshop, participants were asked to rank eight key action items in order of importance. They were ranked in the following order, from most important to least important:

1. Improve winter maintenance

2. TIE: Repurpose hydro and rail right-of-way and surplus road rights-of-way for active transportation
   TIE Implement the Road Safety Strategic Action Plan
3. Adapt and calibrate the Transportation Association of Canada's guidance for bike facilities
4. Better lighting
5. Include sidewalks on local streets in new developments
6. Introduce a bike share program
7. Connect to areas outside city limits

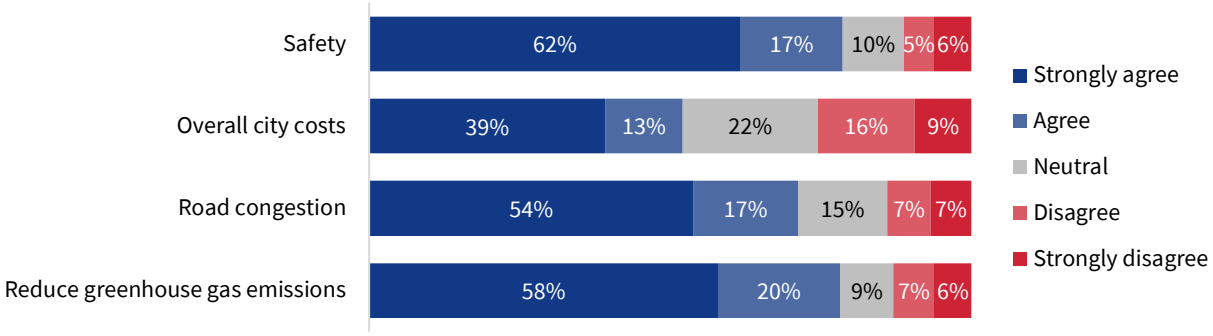
A key theme among all participants was that improved winter maintenance is key to achieve year-round shift to more active and sustainable modes of transportations. Workshop participants would like to see clearing of bike lanes prioritized over vehicular lanes and would like the City to more carefully consider details such as removal of small ridges and ensuring sidewalks are not blocked with piles of snow. Participants indicated Winnipeggers won't fully commit to active transportation unless they are able to do so year-round. Unsatisfactory winter maintenance of paths, sidewalks, and bike lanes incentivizes Winnipeggers to depend on driving.

Online Survey Insight

Online survey respondents were asked if they believe a strategic approach that improves operations and maintenance to enable walking and cycling in all seasons could improve each of the four key issues facing the City's transportation network:

Graph 20: Strategy 6.4 Enable walking and cycling in all seasons through improved operations and maintenance - Do you believe this strategy will support improvements to...

615 responses



Further to this, respondents were asked how such a strategy may impact their own lives. The majority of respondents (73 percent) feel this proposed strategy would either have a strongly positive or positive change on their life. 15 percent of respondents feel this would have a neutral change on their life, 10 percent feel it would have a negative or strongly negative impact on their life and 1 percent are unsure (Appendix M).

Many stakeholders were supportive of repurposing hydro and rail right-of-way, but cautioned these assets should only be converted to multi-use pathways for active modes of transportation if they enhance the overall network.

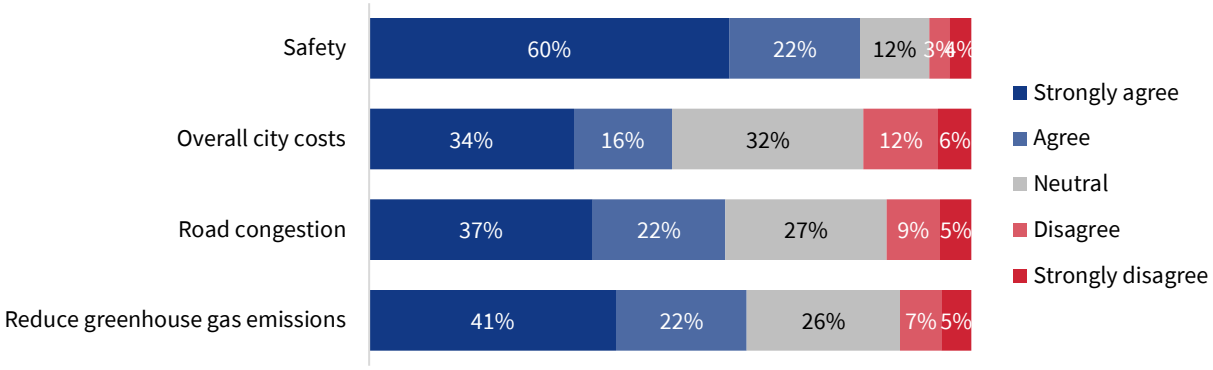
Stakeholders also indicated that improved and consistent lighting will help create physical and personal safety, thus encouraging more people to cycle.

Online Survey Insight

Related to safety, online survey respondents were asked to consider the strategic approach of making roads safer and more accessible for vulnerable users and whether they feel the strategy could advance progress on the four key issues facing the City's transportation network:

Graph 21: Strategy 6.3 Make roads safer and more accessible for vulnerable users - Do you believe this strategy will support improvements to...

615 responses



The majority of respondents (65 percent) feel this proposed strategy would either have a strongly positive or positive change on their life. 26 percent of respondents feel this would have a neutral change on their life, 6 percent feel it would have a negative or strongly negative impact on their life and 3 percent are unsure (Appendix M).

When asked about the potential implementation of a bike share program and its benefits and challenges, many indicated such a program would not be a high priority, but conceded it could be successful as it would eliminate the need for secure bike parking.

We heard the Perimeter Highway is a major physical barrier to a regional cycling network, but participants were clear that they would like to see the cycling network developed within the City before beyond its borders.

5.2.6.5 CORRIDORS

Participants were provided a list of select corridors identified as challenging for active transportation users. Many agreed the corridors are in fact challenging places to cycle and walk, and indicated they feel many Winnipeggers currently avoid using active modes on these routes because they are unsafe and uncomfortable.

Participants noted the following routes as missing from the map:

- Roblin Boulevard / Grant Avenue
- Disraeli Freeway
- Route to Transcona
- Graham Avenue
- Corydon Avenue

Throughout their respective workshops, participants were presented with potential solutions to address known issues on the pre-identified corridors and were asked to consider how they may affect nearby neighbourhoods.

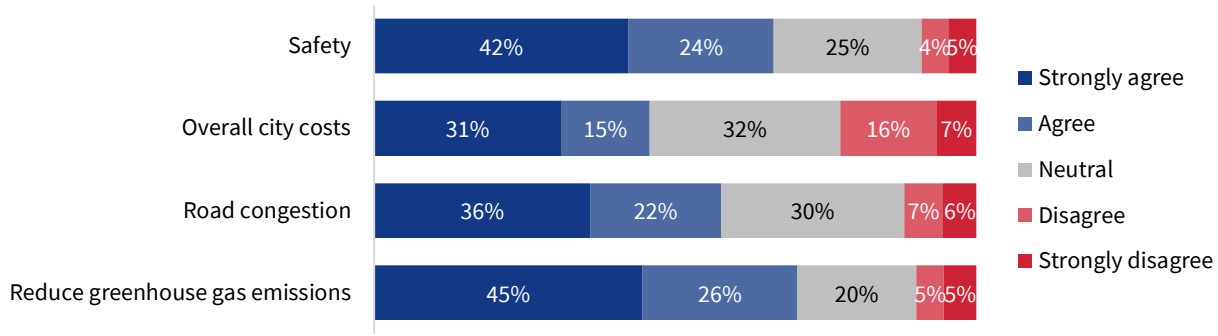
Participants generally supported reallocating road space from cars to bicycles. Most supported reallocation on the identified corridors with some noting the associated parking removal could negatively affect businesses along the corridors and suggested any changes should ensure business access. Neighbourhood advisory group members prioritized integrating active transportation on the corridors despite anticipated public opposition as they feel doing so would reduce traffic congestion in the long-term and have a positive environmental impact.

Online Survey Insight

Online survey respondents were asked to consider whether a strategic approach that creates more vibrant communities through attractive streetscapes and healthy built environments could support action on the four key issues facing the City's transportation network:

Graph 22: Strategy 6.5 Create more vibrant communities through attractive streetscapes and healthy built environments - Do you believe this strategy will support improvements to...

615 responses



Further to this, respondents were asked to consider what impact such a strategy would have on their own lives. The majority of respondents (71 percent) feel this proposed strategy would either have a strongly positive or positive change on their life. 22 percent of respondents feel this would have a neutral change on their life, 6 percent feel it would have a negative or strongly negative impact on their life and 1 percent are unsure (Appendix M).

5.2.6.6 PREFERRED INFRASTRUCTURE

There was no consistently preferred cycling infrastructure. Some prefer to cycle on a quieter parallel route, even if it means taking a longer route, but noted that if parallel routes are chosen as formal network routes, safe crossings would be required at major roadways. Other participants indicated that they prefer to cycle on the most direct and convenient route and want to do that safely.

5.2.6.7 EDUCATION AND OUTREACH

Participants across methods discussed what type of education and promotion would be needed to support a widespread shift to more active modes of transportation. Identified potential education opportunities included:

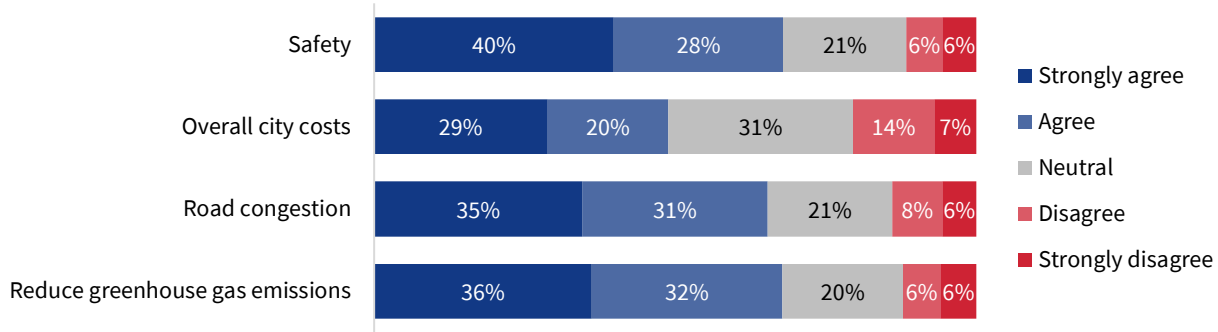
- Creating awareness about existing and new active transportation routes including through wayfinding information
- Educating on why a widespread shift to active modes is key for environmental sustainability
- Working with workplaces and schools to encourage switch to active transportation modes
- Informing Winnipeggers where secure bike parking is located
- Teaching cycling skills in schools (B.E.S.T. program).

Online Survey Insight

Online survey respondents were asked to consider a strategic approach that increased education and awareness around walking and cycling as safe, attractive modes of travel, and whether such a strategy could support improvements to the four key issues facing the City's transportation network:

Graph 23: Strategy 6.6 Increase education and awareness around walking and cycling as safe, attractive modes of travel - Do you believe this strategy will support improvements to...

615 responses



Further to this, respondents were asked whether such a shift would have an impact on their own lives. The majority of respondents (58 percent) feel this proposed strategy would either have a strongly positive or positive change on their life. 32 percent of respondents feel this would have a neutral change on their life, 8 percent feel it would have a negative or strongly negative impact on their life and 2 percent are unsure (Appendix M).

5.2.7 KEY DIRECTION 7: CONNECT THE CITY WITH FREQUENT AND RAPID TRANSIT

This key direction was not directly engaged upon due to the vast public engagement undertaken as part of the recent Council-approved Transit Master Plan and the integration of transit themes into other key directions' discussions.

That said, online survey respondents gave feedback and commented on three specific strategies related to transit service:

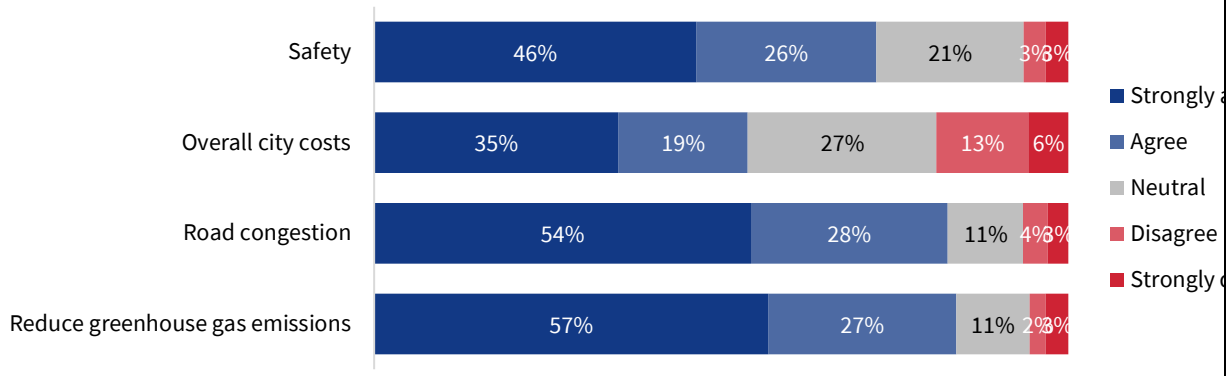
5.2.7.1 STRATEGY 7.1: EXPAND THE REACH AND CONVENIENCE OF WINNIPEG TRANSIT SERVICES

Online Survey Insight

Online survey respondents were asked if they believe such a strategy could support improvements to the four key issues facing the City's transportation network:

Graph 24: Strategy 7.1 Expand the reach and convenience of Winnipeg Transit services - Do you believe this strategy will support improvements to...

606 responses



When asked to consider the impact such a strategy would have on their personal quality of life, most respondents (70 percent) said it would lead to either a strongly positive or positive change in their life. 24 percent of respondents feel this would have a neutral

impact, four percent feel it would have a negative or strongly negative impact on their life and two percent are unsure (Appendix M).

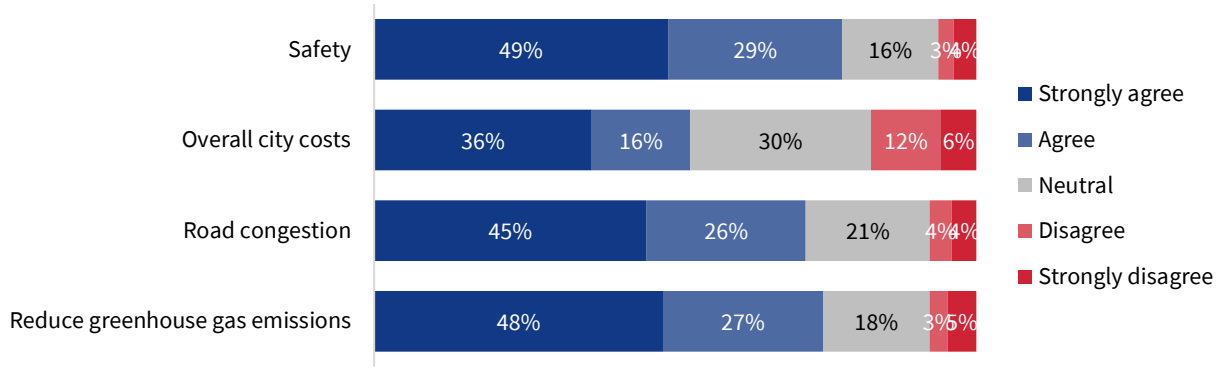
5.2.7.2 STRATEGY 7.2: MAKE TRANSIT ACCESSIBLE FOR PEOPLE OF ALL AGES AND ABILITIES

Online Survey Insight

Online survey respondents were asked if they believe this strategy could support improvements to the four key issues facing the City's transportation network:

Graph 25: Strategy 7.2 Make Transit accessible for people of all ages and abilities - Do you believe this strategy will support improvements to...

606 responses



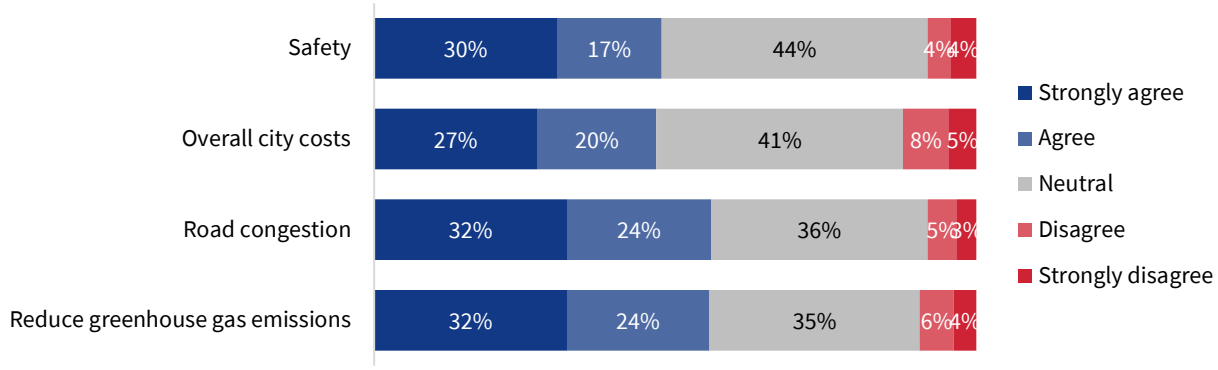
When asked to consider the impact such a strategy would have on their personal quality of life, most respondents (61 percent) indicated the change would be either strongly positive or positive. 33 percent of respondents feel the change would be neutral, five percent feel it would be negative or strongly negative and one percent are unsure (Appendix M).

5.2.7.3 STRATEGY 7.3: SIMPLIFY WINNIPEG TRANSIT'S FARE STRUCTURE AND POLICIES

Online Survey Insight

Online survey respondents were asked if they believe this strategy could support improvements to the four key issues facing the City's transportation network:

Graph 26: Strategy 7.3 Simplify Winnipeg Transit's fare structure and policies - Do you believe this strategy will support improvements to...
606 responses



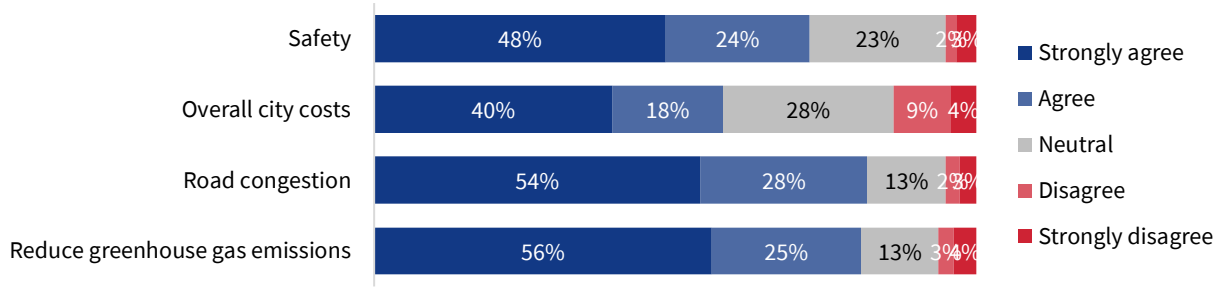
When asked to consider the impact such a strategy would have on their personal quality of life most respondents (51 percent) feel it would have either a strongly positive or positive impact. 41 percent feel the change would be neutral, five percent feel it be negative or strongly negative and three percent are unsure (Appendix M).

5.2.7.4 STRATEGY 7.4: ENHANCE THE TRANSIT USER EXPERIENCE BY IMPROVING PREDICTABILITY, RELIABILITY, AND COMFORT

Online Survey Insight

Online survey respondents were asked if they believe this strategy could support improvements to the four key issues facing the City's transportation network:

Graph 27: Strategy 7.4 Enhance the transit user experience by improving predictability, reliability, and comfort - Do you believe this strategy will support improvements to...
606 responses

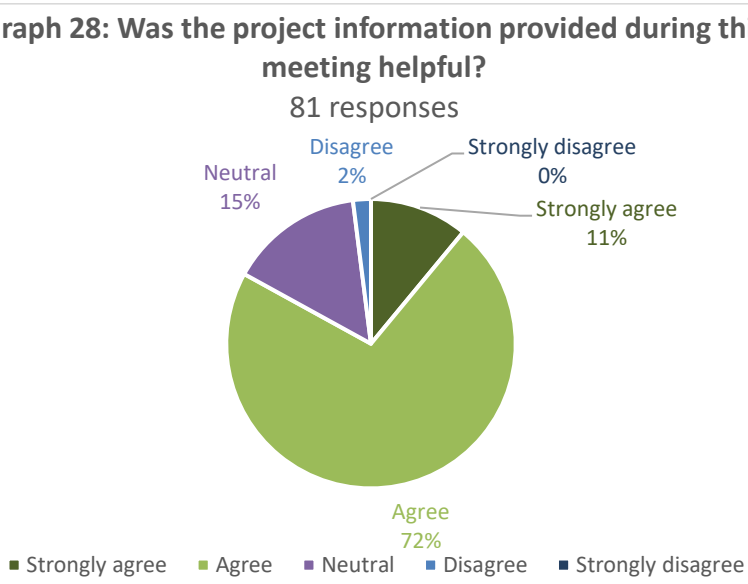


When asked to consider the impact such a strategy would have on their personal quality of life, most respondents (72 percent) feel the change would be strongly positive or positive. 24 percent feel the change would be neutral, two percent feel it have a negative or strongly negative impact, and one percent are unsure (Appendix M).

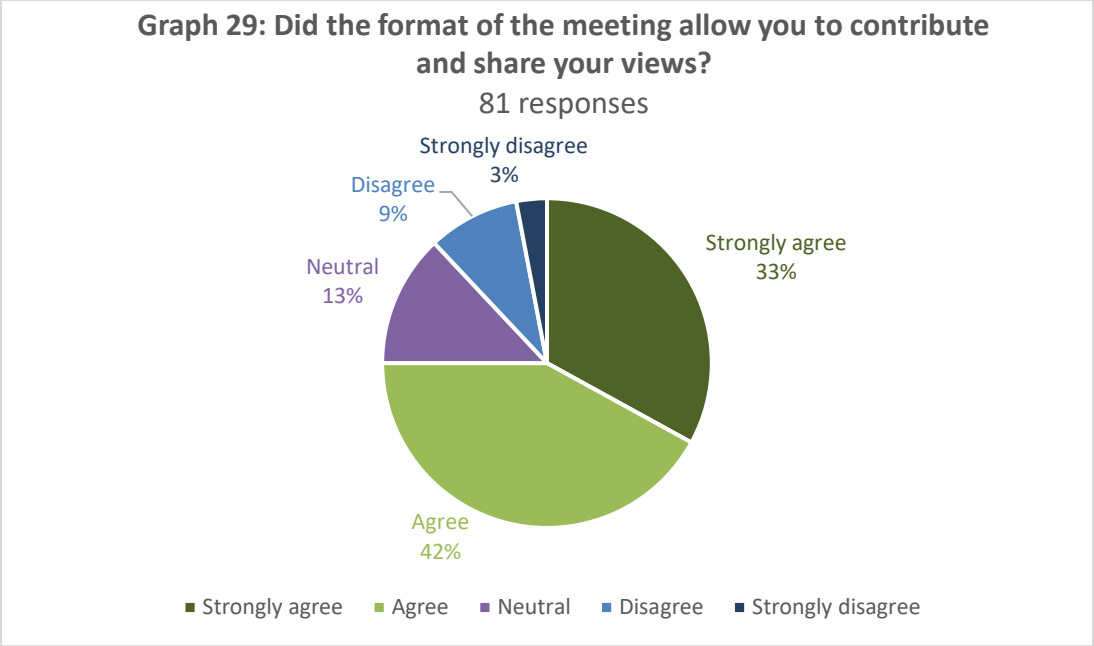
5.3 OVERALL FEEDBACK ON THE ENGAGEMENT PROGRAM

Of 81 exit survey respondents, 83 percent (including stakeholders and public), indicated that the information provided during the meeting was helpful.

Graph 28: Was the project information provided during this meeting helpful?



The majority of participants (75 percent) indicated they were able to contribute to the meeting and share their perspectives and options. However, of the interest-specific stakeholders, there was a group of participants (27 percent) who felt they were unable to share their perspective and give feedback, due to limited time for certain topic discussions and some group sizes were too large.



Most respondents felt the meeting format was good, well structured, easy to follow and very informative. There was a general sentiment that people are experiencing virtual meeting fatigue and that it does not replace an in-person meeting and is not quite as effective. However, several respondents said the virtual meeting format is accessible for them in a way an in-person meeting would not be due to physical challenges.

Participants appreciated smaller group discussions but offered some critical feedback for future meetings. Some participants felt:

- Presentation slides were hard to read and would appreciate receiving presentation material prior to workshop
- Time was too limited on certain group discussions
- Group sizes were too large for some discussions and needed more breakout rooms
- Discussions were occasionally taken over by single-issue activists and lobbyists that pushed their agenda and detracted from the broader discussion
- Issues and topics for discussion were limited and very structured
- Participants should have been able to add content to the Jamboards for more productive discussions
- That technical experts and City planners should have been at the meetings to listen, respond to feedback, and participate

6.0 Conclusions and Next Steps

This report has been shared with the project team to use in the refinement of the draft Transportation Master Plan: 2050. Further information on how what we heard was considered will be included in our report to Council in mid 2024.

Table 13: What We Heard and How it Was Considered

What We Heard	How it Was Considered
There is support for long-term mode shift from predominantly single-occupant vehicles to more sustainable and active modes of transportation.	Mode shift to 50% sustainable transportation is a central focus of TMP2050 and its policy recommendations.
TMP2050 should make it less convenient to drive a car and disincentivize single-occupant vehicles.	Before disincentivizing single-occupant vehicles, TMP2050 must first focus on developing reliable alternatives to single-occupant vehicles such as improved transit and provision of bike lanes and sidewalks. We will review measures and policies to ensure language reflects that disincentivizing single-occupant vehicle use is a potential next step.
Land use planning and transportation needs to be better integrated to increase density, create more mixed-use development, and create a more people-oriented city.	TMP2050 will contain policies that promote and foster cooperation between the City and developers. We hope the plan encourages sustainable land use as well as green and inclusive development while also planning for alternative and sustainable modes. The final document will support better transit and robust active transportation, creating a balance between economic growth, environmental stewardship, and a livable city.
Upfront and ongoing cost and access to technology are major barriers to create a more equitable transportation system for all Winnipeggers.	TMP2050 will recommend strategic enhancements to the citywide transportation system that includes reviewing the needs of all users and focusing on equitable transportation.

There is a desire for complete streets that balance the needs, safety, and efficiency of all modes of transportation.	TMP2050 supports the recommendations of the City's Road Safety Strategic Action Plan. This plan focuses on safe mobility for people of all ages and abilities. TMP2050 is also guided by OurWinnipeg 2045 and Complete Communities, which take into account the Complete Streets approach. This means considering the needs of all users in the planning and design stages. There is no one-size fits all design solution for streets; however, in the context of corridor analysis, a complete streets approach may mean accommodating certain modes on parallel routes to achieve equity and accommodation.
All future roadway projects (new or existing) should incorporate and accommodate space for all active transportation modes, even it if means reducing space for vehicles.	TMP2050 is guided by OurWinnipeg 2045 and Complete Communities, which take into account the Complete Streets approach. This means considering the needs of all users in the planning and design stages. There is no one-size fits all design solution for streets; however, in the context of corridor analysis, a complete streets approach may mean accommodating certain modes on parallel routes to achieve equity and accommodation
TMP2050 needs to help Winnipeggers understand the importance of goods movement to the overall function of the city.	Commercial trucks and emergency vehicles are critical parts of the City’s transportation system. Goods movement is important to the economy and for economic growth; TMP2050

	and its policies recognize the importance of planning for and managing truck movements as well as increasing public education and awareness around goods movement.
The City should prioritize maintenance of existing roadways before expanding, extending, and adding new roads and bridges.	Managing the infrastructure deficit, prioritizing existing infrastructure and strategic capital investment for the future are key elements of TMP2050.
Enhanced, reliable, and prioritized winter maintenance of sidewalks, paths, and bike lanes is key to achieve year-round mode shift to sustainable and active modes of transportation.	Winter maintenance is governed by the Council-approved snow clearing and ice control policy. TMP2050 will make recommendations for policies and strategies that support year-round use of infrastructure while also considering Winnipeg's subarctic climate and past lessons learned.
Real or perceived safety issues are a major barrier for many Winnipeggers to shift to transit use.	Efficient, safe, and reliable public transit is a key component of mode shift. TMP2050 supports the Council-approved Transit Master Plan and will recommend that Transit and Public Works work cooperatively on developing future high-capacity transit infrastructure as part of the transportation network.

Phase 2 public engagement helped the project team understand how Winnipeggers view the strategies, options, and opportunities presented in the draft TMP2050. The project team gained an understanding of the public and stakeholder interest in these strategies, learned about potential challenges the City may face in implementing them, and gathered input from residents on their desire to shift to more sustainable and active modes of transportation.

What we heard will be combined with technical findings and analysis to develop the draft Transportation Master Plan: 2050.

This draft plan will be presented during Phase 3 public engagement.

TRANSPORTATION MASTER PLAN: 2050

Phase 3
Public Engagement Report

Prepared by the City of Winnipeg

JULY 2024

APPENDIX B

PUBLIC ENGAGEMENT REPORT - PHASE 3

In Phase 3 of the project, Winnipeggers were invited to learn about the final draft *TRANSPORTATION 2050* plan through a public information process.

We released the final draft of *TRANSPORTATION 2050* to the public on July 15, 2024.

The goals of the public information program were to:

- Share how *TRANSPORTATION 2050* could change how stakeholders and the public move around Winnipeg
- Answer questions about how the plan reimagines mobility
- Document any major concerns with the plan

City-wide awareness with critical for this final information phase. The release of the draft plan was promoted using the following methods:

- Project webpage with 13,000 + visits after July 15, 2025
- Radio advertising on all major local stations – running four weeks from July 15, 2024
- News release –July 15, 2024
- Digital advertising – running four weeks from July 15, 2024
- Email to 166 project subscribers – July 15, 2025
- Email to stakeholders and previous phase participants – July 15, 2024
- City of Winnipeg Public Engagement Newsletter with over 5,800 subscribers – July 16, 2024



The contents of the plan were communicated using a three-tiered approach:

Short graphic summary presented at community pop-ups

- *906 in-person interactions*
- *50 downloads*
- Our public information boards offered the most at-a-glance look at the plan, but opened the door to conversation with our project team who were on site at a series of six pop-up public information events.

High level summary

- *3,394 downloads*
- Our Guide to Reimagined Mobility document told the story of the plan at a higher level. It took readers through the main themes and details, but focused less on technical details and more on how Winnipeggers could be personally affected by the plan's outcomes. This guide was also available online, and in print in limited numbers at our public events.

Full report and transparency

- *2,267 downloads*
- The plan itself offered the most in-depth information on the entirety of the plan. Winnipeggers could download it online.

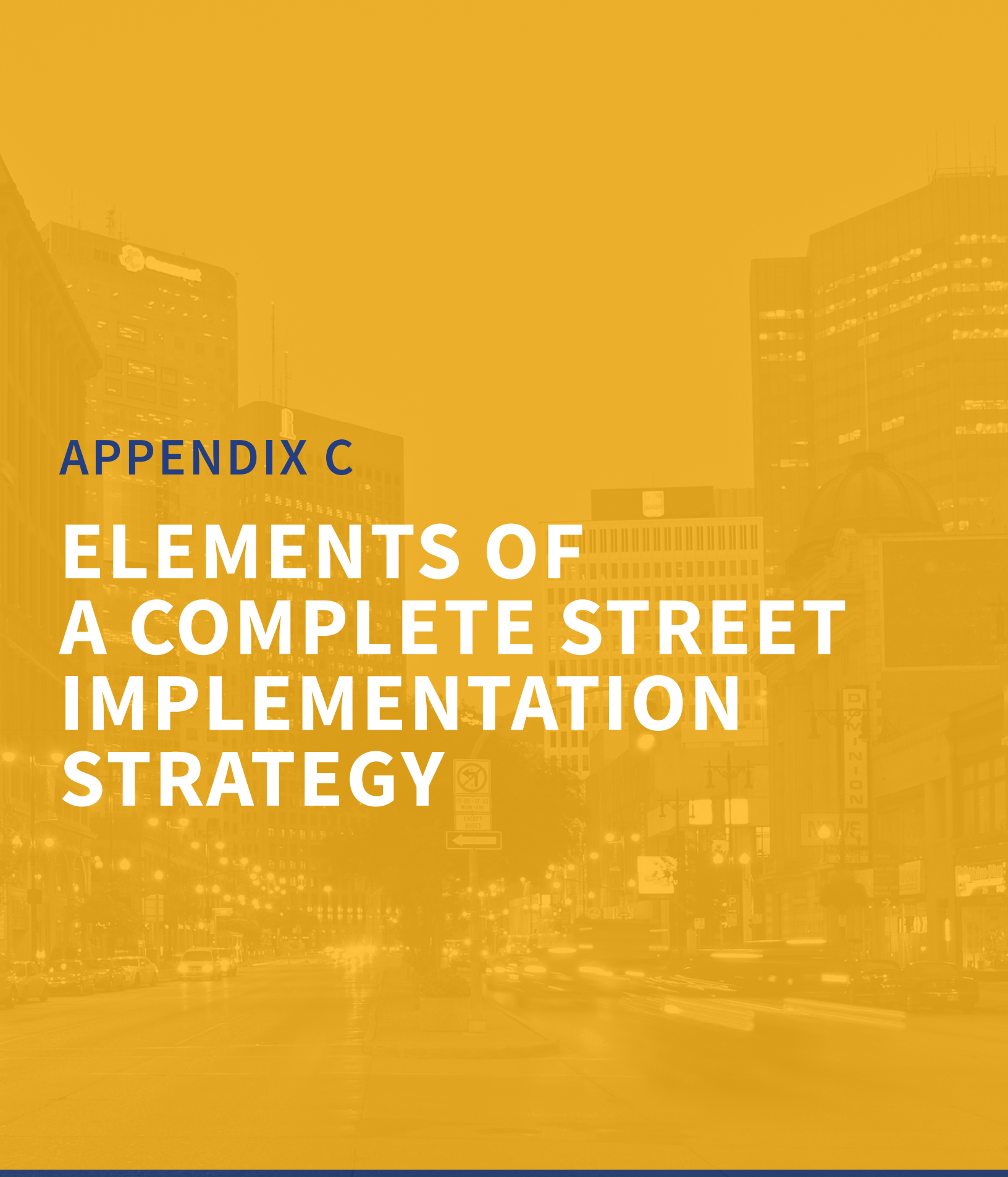
Pop-up Events		
Date	**Activity**	**Details**
Tuesday, July 16, 2024	**Pop-Up Event at St. Vital Centre**	104 interactions
Wednesday, July 17, 2024	**Pop-Up Event at Outlet Collection Winnipeg**	163 interactions
Thursday, July 18, 2024	**Pop-Up Event at Garden City Shopping Centre**	143 interactions
Monday, July 22, 2024	**Pop-Up Event at Kildonan Placea**	86 interactions
Tuesday, July 23, 2024	**Pop-Up Event at CF Polo Park**	312 interactions
Thursday, July 25, 2024	**Pop-Up Event at The Forks Market**	98 interactions

Attendees at the pop-up events had the opportunity to provide their final thoughts on their concerns, wants, needs, and interests on sticky-notes. While the intent of this phase was not to gather rigorous feedback on the draft report, we heard several key themes:

- **Mode choice:** Winnipeggers appreciate how the plan considers multiple modes of transportation. Physically separating infrastructure and increasing safety for active modes is a priority.
- **Transit support:** Many attendees were interested in expanded bus service, both in terms of schedule and routes. This interest was noted particularly in residential areas that currently favour personal vehicles. Respondents are eager to see transit equity in every part of the city, and are open to many options for future public transit network systems. Light rail remained a frequent topic of conversation.
- **Bike lane maintenance:** Winnipeg needs to more clearly consider seasonal maintenance for non-automobile modes – particularly on bike lanes in winter.
- **Improved pedestrian environment:** People appreciate better and more sidewalks but need them to include shade and shelter. Transit users also want additional shade at bus stops.
- **Major infrastructure concerns:** People remain concerned about plans for the Route 90 expansion and Arlington Bridge. These concerns related to a larger theme, namely the desire for the City to fix existing roads and bridges before adding new infrastructure to expand transportation networks.

There was a generally positive response among most who engaged with the public information program.





APPENDIX C

ELEMENTS OF A COMPLETE STREET IMPLEMENTATION STRATEGY

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A Complete Streets approach should apply to all city processes related to the planning, design, operation, and maintenance of all existing and future streets. The approach is led by the City of Winnipeg Public Works Department and should involve every department and agency that has a role in the street network. It must aim to accommodate all road users and ensure that the transportation network remains able to carry out key functions including accommodating emergency vehicle access and goods movement.

Notably, a Complete Streets implementation strategy lays out a decision-making process where all road users are considered in transportation decisions but does not prescribe a specific design.

A Complete Streets implementation strategy should incorporate:

- **Land Use and Neighbourhood Context** - Acknowledge that streets serve many roles and that neighbourhood/land use context is an important determining factor in the design of a street.
- **Design Guidelines** - Refer to existing Complete Streets design guidelines and/or update current City of Winnipeg design guidelines to reflect Complete Streets best practices when planning and designing road projects.
- **All Users** - Direct that the needs of all road users, as well as the needs of different ages and abilities be considered when implementing all road projects.
- **Maintenance Standards** - Direct that maintenance standards be updated to accommodate year-round mobility for all road users and that streets are designed for this (e.g., adequate snow storage).
- **Network** - Emphasize the need for a multi-modal network and that not every street can perfectly accommodate every road user, but the network should provide options for all modes in all parts of the city.
- **Process** - Document a process for identifying what Complete Streets elements are required on a given street.
- **Evaluation** - Define and document a multi-modal level of service evaluation process to measure how each street serves each mode.
- **Exceptions** - Identify a process for allowing necessary exemptions to the Complete Streets policy.

The Complete Streets implementation strategy should be developed in collaboration with all City departments to ensure that each incorporates Complete Streets principles into their processes as well as with the public and stakeholders.

DECISION-MAKING FRAMEWORK

A systematic decision-making process is important for consistently applying Complete Streets principles to all road projects including existing and new roads. The decision-making process presented here is intended to provide an overview of what to include in a decision-making process – it should be refined in consultation with internal stakeholders through the development of the Complete Streets implementation strategy.

The decision-making process recognizes that each street presents unique circumstances that must be considered when determining the ideal design whether it is an existing or new street. While typical road designs associated with road classifications can be a good place to start, evaluating the specific conditions and priorities is an important part of designing a street that will best serve that particular location.

The Complete Streets implementation strategy should outline what triggers the Complete Streets process and the associated responsibilities. The Complete Streets decision making process should include:

Identifying the land use and neighbourhood context - The surrounding land use and neighbourhood context is a vital component of determining a design that is appropriate for the needs of that specific location. For example, an arterial road running through Downtown likely has different needs and requires different design treatments than an arterial road running through a medium density suburban location.

Identifying the breadth of current and potential users and the required level of accommodation - Understanding who is currently using a street and who is not and why is important in the planning stage of a Complete Street. Further, who can or should be using the street in the future may be different that what is currently happening. This step is key in considering the needs of all road users and determining what level of accommodation is appropriate for each. This should be reviewed interdepartmentally, in line with existing plans and policies and with the public and stakeholders.

Defining the vision and goals for the street - For each project, defining a vision and goals in collaboration with relevant internal and external stakeholders where necessary helps to identify the users of the street and what the ideal future would look like.

Identifying opportunities and constraints - In the project planning stage opportunities and constraints on the street should be identified. Opportunities can include a discussion of how the street can contribute to Winnipeg's multi-modal transportation network by, for example, filling an important gap in the cycling network, or ensuring that the needs of trucks, buses and service vehicles are fully accommodated.

Constraints can include a variety of factors from right-of-way constraints to community concerns. Road classification guidance can be helpful to understand what the ideal characteristics of a street are, and where parallel or nearby streets can be utilized to fill a gap where constraints exist.

Identifying infrastructure needs of the street - At the design phase specific infrastructure requirements above and below ground should be identified based on the street's typology and modal hierarchy (if applicable), general level of service targets, and general guidance provided by the road classification.

Utilizing design guidelines - The most up-to-date design guidelines that incorporate Complete Streets principles should be utilized to identify design best practices that can appropriately balance the needs of a street. Current best practices include the Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads* and National Association of City Transportation Officials (NACTO) *Urban Street Design Guide.*

Evaluating design alternatives - Design alternatives should be evaluated to determine which one best accommodates the needs of the street based on multi-modal level of service indicators. Complete Streets are not a one-size-fits-all solution and the design in each street is likely to be different based on the context and needs of that specific street. Community and stakeholder consultation should also take place at this point.

Monitoring outcomes post-implementation - The street should be monitored after changes are implemented to measure progress towards desired outcomes and to determine if any operational changes to the street, such as additional signage or changes to signal timing. Multimodal level of service indicators should be used. This process also helps to identify Winnipeg Complete Streets best practices that can be applied to other streets in the future.



STREET TYPOLOGIES AND DESIGN CONSIDERATIONS

Street typology categories recognize that the needs of a particular street are not only determined by the functional road classification of a street. Needs are also determined by the land use context and the street's intended role as a public space and also by its intended role in the overall transportation network. Street typologies help to determine what modes should be prioritized on a given street and therefore what design features are required to achieve the street's function.

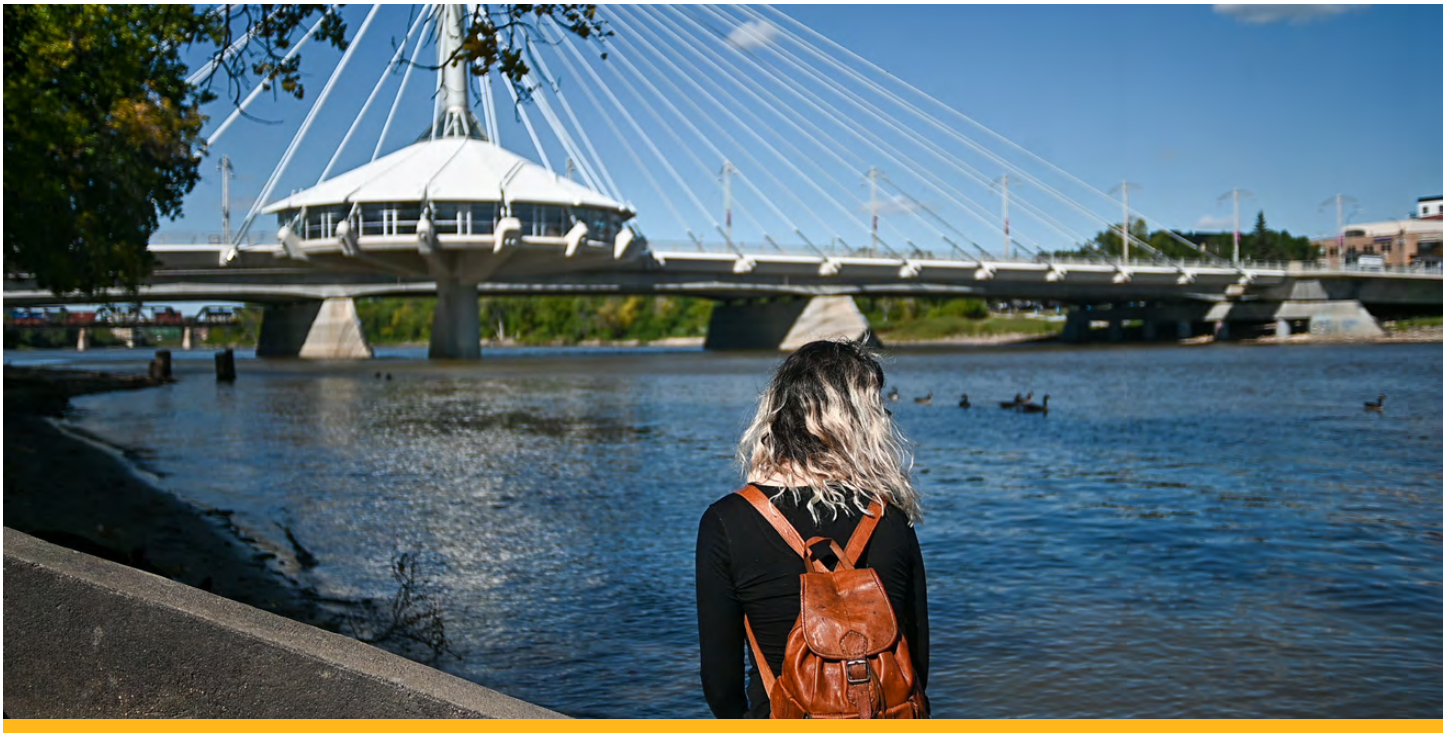
While all streets should provide minimum accommodation for all road users, some streets prioritize some modes over others by providing additional accommodation generally through additional design interventions. A street typology helps to determine which streets will have a distinct modal hierarchy. The street typology for Winnipeg is determined by three factors:

Land use context – Refers to the street's surrounding land use context and the street's relationship with the surrounding land use (e.g., a main street with sidewalk fronting businesses, big box retail set back from the street, single-family residential, etc.).

Network context – Refers to the street's role in the overall transportation network as defined by *TRANSPORTATION 2050* (e.g., primary cycling corridor, goods movement corridor, etc.).

Functional road class – Refers to the functional road class defined as part of this *TRANSPORTATION 2050* and provides important input to the Complete Streets process including right-of-way width and general guidance on modal accommodation.

When these factors are combined street typologies will emerge that will then help to guide how each mode should be accommodated on a given street.



MODAL HIERARCHY

Streets with a distinct modal hierarchy are streets where one or more modes should be prioritized over others based on its land use context and intended role in the transportation network; the safety of all modes is always accounted for, but priority modes are designed for above minimum safe accommodation.

Streets with a distinct modal priority include:

- **Transit Corridors** prioritize transit because of a high volume of transit service and/or the presence of high frequency routes. Transit corridors should also prioritize active modes to facilitate good access to transit. Transit corridors are identified in the *Winnipeg Transit Master Plan* and in *TRANSPORTATION 2050*. Prioritizing transit on these corridors helps improve the speed and reliability of transit service making it more convenient for existing users and more attractive for potential users.
- **Cycling Corridors** comprise the primary and secondary cycling network in the Pedestrian and Cycling Plan. These corridors can include a variety of cycling facilities depending on the individual street and the infrastructure required to maintain safety and comfort. For example, if traffic volumes and posted speed are low on local roads, a cycling corridor may consist of a signed route. A road with higher vehicle speeds and volumes would generally require a dedicated facility. In cases where a separate cycling facility is required, and the right-of-way is not wide enough to accommodate on-street parking, on-street parking should be restricted.
- **Pedestrian-Oriented Corridors** are usually local and collector streets, in addition to arterial roads that function as commercial main streets with sidewalk-fronting businesses. Pedestrian-oriented corridors on arterial roads often have specific design features for pedestrians including benches, plants, and street furniture. Pedestrian corridors nearly always have separate facilities for pedestrians, but shared space can be appropriate in certain contexts.
- **Truck Routes** are mostly expressways and arterials that are identified in the truck route network updated as part of this *TRANSPORTATION 2050*. These corridors are designed to serve trucks moving to/from major freight generators and the provincial highway network. In order to facilitate the delivery of goods, loading areas are also an important component of truck routes. Separated facilities for cyclists and pedestrians are typically necessary for providing safety and comfort in the presence of higher volumes of trucks often present on these corridors. It is important to evaluate truck volumes and the types of trucks that use a corridor when determining the needs of a given corridor. Truck volumes and the types of trucks that travel on a corridor are typically more significant factors than solely the street's designation as a truck route.

Exhibit 2.1 outlines an example of what level of accommodation could be provided for each mode based on the network context or road classification. It is meant to act as a starting point when determining how to balance the needs of each mode and which mode(s) should be prioritized based on the network context. A more detailed analysis should be undertaken for each street when determining specific needs.

Three levels or accommodation are outlined in **Exhibit 2.1** including basic, high and highest. Note that safe facilities for all users are essential no matter the level of accommodation. The three levels are defined as follows:

- **Basic accommodation** provides for the most basic needs of a transportation mode including providing a space to use that is safe, however additional amenities or services to improve the quality of the experience may not be provided. For example, providing sidewalks in the boulevard of a high volume and high-speed roadway, and controlled crosswalks at intersections enable pedestrians to use the street when necessary, however additional accommodations such as benches or lower automobile travel speeds are not provided.
- **High accommodation** includes features or modifications that improve the mobility of a mode of transportation. However, these can never come at the expense of the safety of another road user. This could include features such as signal prioritization for pedestrians or queue jump lanes for transit that enable buses to advance through intersections before general traffic.
- **Highest accommodation** includes features or modifications that significantly improve the mobility of a mode of transportation. However, these can never come at the expense of the safety of another road user. An example of high accommodations could include exclusive rights-of-way for priority vehicles such as a transit- or truck-only lane where needed to improve the efficiency and reliability of travel by that mode.

EXHIBIT 2.1: EXAMPLE LEVELS OF ACCOMMODATION BY MODE BASED ON THE NETWORK CONTEXT OR ROAD CLASSIFICATION

CONTEXT	MODE				
	Transit	Cycling	Pedestrian	Goods Movement	Personal Vehicles
NETWORK CONTEXT					
Transit Corridor	Highest	High	Highest	High	High
Cycling Corridor	High	Highest	Highest	Basic	Basic
Pedestrian Corridor	Highest	High	Highest	Basic	Basic
Truck Route	High	Basic	Basic	Highest	High
ROAD CLASSIFICATION					
EXPRESSWAY					
Expressway	High	Basic	Basic	Highest	Highest
ARTERIAL*					
Major Arterial	Highest	High	High	Highest	High
Minor Arterial	Highest	High	High	High	High
COLLECTOR					
Industrial/Commercial Collector	High	High	High	Highest	High
Residential Major Collector	Highest	Highest	Highest	Basic	High
Residential Minor Collector	High	Highest	Highest	Basic	Basic
LOCAL					
Industrial/Commercial Local	High	Basic	Basic	Highest	High
Residential Local	Basic	Highest	Highest	Basic	High
PUBLIC LANE					
Public Lane	N/A	Highest	Highest	Basic	Basic

*The land use context of a major arterial should impact the level of accommodation by mode. For example, levels of accommodation will be different on a traditional main street with sidewalk fronting businesses compared to an arterial in an outer suburban location. This needs to be incorporated during the development of the Complete Street implementation strategy.

Note: Emergency vehicles must be accommodated on all road classifications.

MULTIMODAL EVALUATION METRICS

To effectively evaluate the success of a Complete Streets project, evaluation methods and metrics must be updated to reflect the holistic nature of street use – beyond counting vehicles or monitoring intersection level-of-service. Data, including counts and other quantitative metrics should be collected before, during, and after implementation to understand the progress towards streets that work for all users. In this iterative process, data collected will illustrate gaps and can be used to identify and prioritize improvements as well as show progress made on encouraging the use of alternative modes of transport.

Traditionally, peak-period volume to capacity ratio and control delays are measured for automobile performance at segments and intersections respectively. The additional metrics outlined in Exhibit 5.6 should be considered when determining multi-modal level of service.

Each road classification should have an associated level of service target, for each mode, in order to create a cohesive and effective transportation network. Breaking down levels of service by mode allows streets to serve their purpose more effectively – for example, a basic level of service for goods movement is perfectly acceptable on a residential street, while a moderate level of service would be expected for walking and cycling. In contrast, a main street Downtown would see a higher level of service for walking and cycling, and moderate levels of service for automobiles.[15]

EXHIBIT 2.2: ADDITIONAL METRICS TO INCLUDE IN A MULTIMODAL LEVEL OF SERVICE EVALUATION

Mode	Segments	Intersections
Walking	Sidewalk width and separation; traffic volume and speed	Exposure to traffic (signalized, median, corner radius, etc.), delay
Cycling	Level of traffic stress (type of cycling facility, traffic speed, number of travel lanes, bikeway blockage)	Level of traffic stress (turn lanes, approach configuration, number of lanes, traffic speed), delay
Transit *(in addition to automobile metrics)*	Performance relative to automobiles, curb lane width, lay-bys for transit stops	Effective corner and turning radii
Goods Movement *(in addition to automobile metrics)*	Number of lanes; curb lane width for heavy vehicles	Effective corner and turning radii, marked turn lanes through intersection

[15] Niagara Region Complete Streets Vision and Direction for a Changing Region (Appendix D), **Link**



APPENDIX D

ACKNOWLEDGEMENTS

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TRANSPORTATION 2050 PROJECT TEAM
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TRANSPORTATION 2050 STEERING COMMITTEE
Jim Berezowsky - Director of Public Works, Greg Ewankiw - Director of Transit, Hazel Borys - Director of Planning, Lori Nichols – Manager Asset Management Office, David Patman – Manager Transportation, Chris Baker – Senior Active Transportation Planner, and Alex Regiec – Transportation Master Plan Lead.

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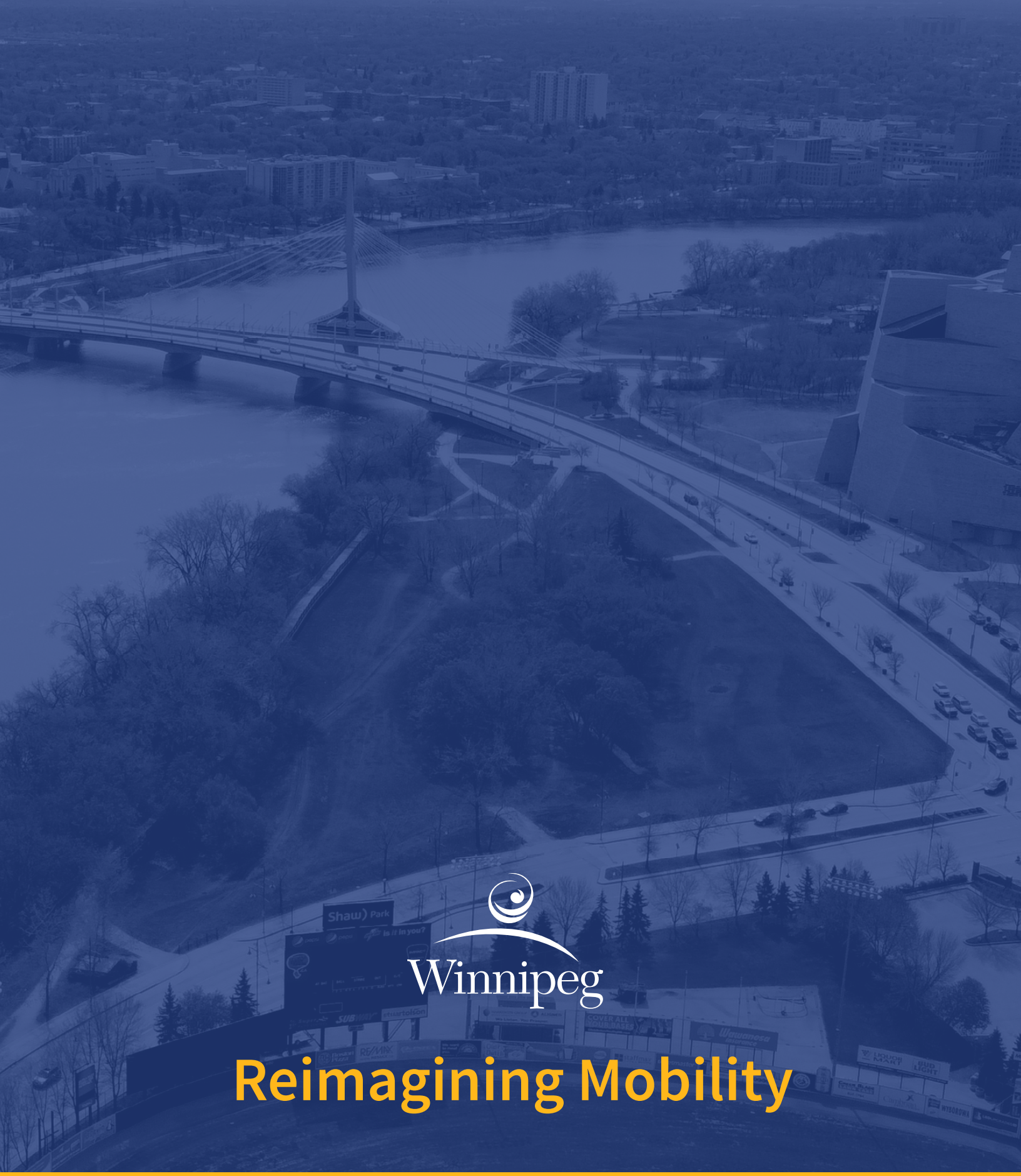
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Core Framework Study:
Arcadis

Goods Movement Study and Pedestrian & Cycling Strategies Update:
MORR Transportation Consulting - Dr. Jeannette Montufar and Stephen Chapman.

Region Transportation Review and The Emerging Technologies & Future Transportation Study:
WSP Canada - Diana Emerson and Ishtiyaq Gull.

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Dillon Consulting - Shawn Doyle, David Wiebe, Adam Prokopenko and Alex Butler.



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