



Integrated Transportation Master Plan 2022

Summary Report



October 2022





Integrated Transportation Master Plan Summary

The Integrated Transportation Master Plan (ITMP) envisions how Strathcona County (the County) will manage and invest in transportation to best support and connect a safe, accessible, healthy community and a strong economy over the next 25 years. The previous ITMP was adopted by the County in 2012 and has since experienced a population growth by almost 10%. Since that time, the County has also utilized an updated Municipal Development Plan (MDP) and seen the implementation of several road improvements and plans that impact local and regional travel. Recognizing these changes and evolving mobility trends, the County has identified a need to update its ITMP to support future growth and development, as well as changing mobility needs.



PLAN OVERVIEW

The ITMP update outlines the demands and needs within the County and establishes a vision for transportation that aligns with current and on-trend land use plans, community needs and corporate and regional strategic objectives (which includes consistency with Strathcona County's current plans). The ITMP update was developed through a three-phase approach between January 2021 and June 2022. It incorporates several streams of technical evaluation and extensive public and stakeholder engagement necessary to develop a plan that guides transportation planning and infrastructure investments over the next 25 years.



PHASE 1 WHERE ARE WE NOW?

This phase focused on developing the foundational understanding of current issues, needs and opportunities. Key activities included **measuring, observing, and listening.**

Winter / Spring 2021



PHASE 2 WHERE DO WE GO?

This phase focused on establishing a common vision for how the County's resources and assets will evolve alongside growth and what we want to accomplish. Key activities include **assessing, forecasting, and exploring.**

Summer / Fall 2021



PHASE 3 HOW DO WE GET THERE?

This final phase will focus on **creating a prioritized and staged plan** that aligns with other County policies and guides growth-related initiatives, efforts, and investments.

Spring 2022



PLAN VISION AND GUIDING PILLARS

The direction of the ITMP builds upon the County's vision of becoming Canada's most liveable community and is informed and aligned with the goals and vision defined in the County's MDP and other relevant plans. Through feedback received from the community, an Action Statement was defined along with a Common Thread that will guide the priorities set out within the ITMP.

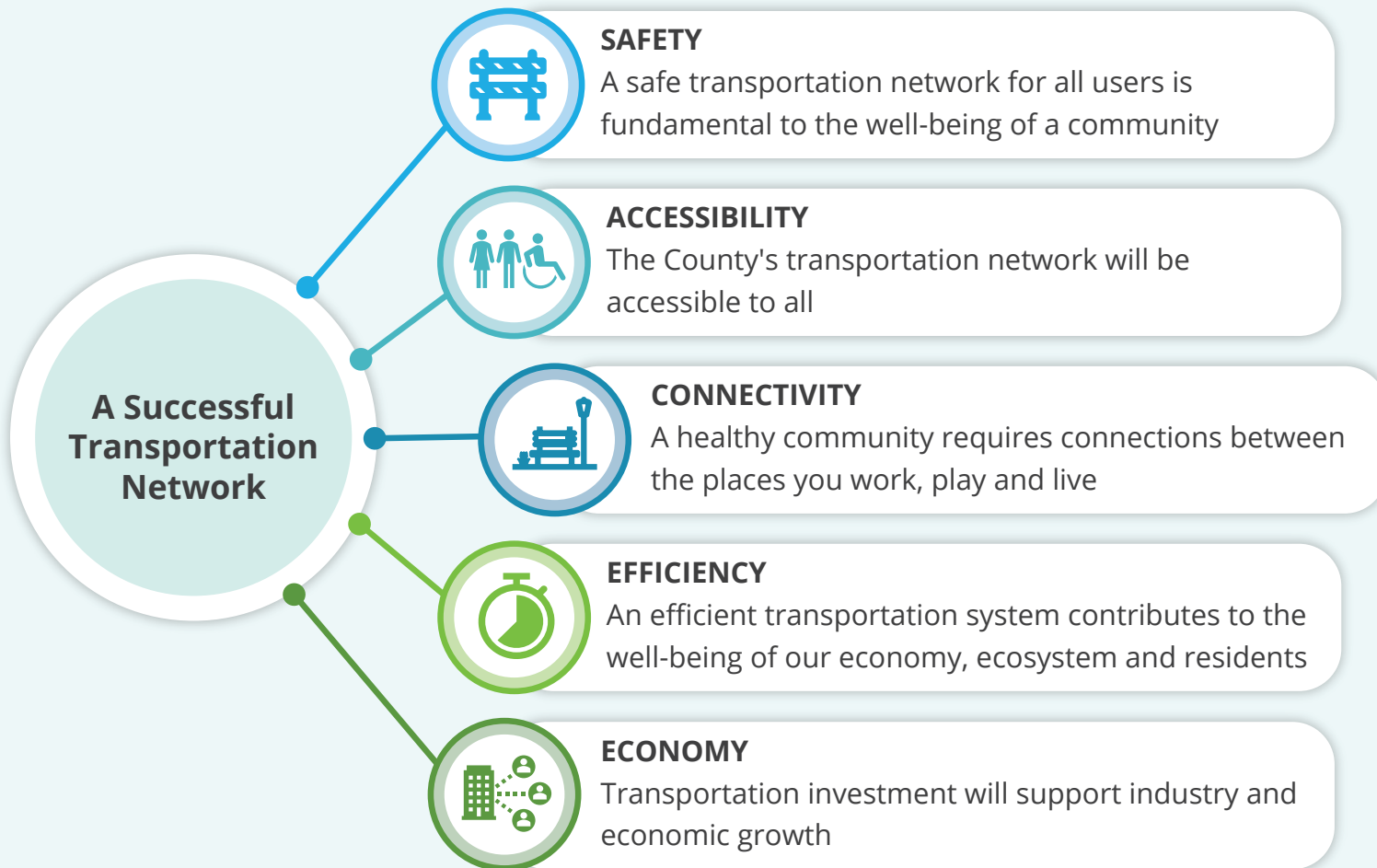


Strathcona County's vision is to become Canada's most livable community. An effective and accessible transportation network is an integral component that promotes a safe, healthy community and strong economy.

COMMON THREAD

Using Strathcona County's planning documents as its foundation, the Strathcona County ITMP will retain common County themes and ensure all relevant plans are integrated. Health and Wellness is a common thread that will guide the priorities of the ITMP.

Five priorities have been identified to guide investment in the County's transportation network: *Safety, Accessibility, Connectivity, Efficiency and Economy*. These priorities reflect the community values as well as the County's Strategic Goals.





PUBLIC AND STAKEHOLDER ENGAGEMENT

Public and stakeholder consultation played an essential role in identifying the transportation priorities for the County as well as establishing the themes for the ITMP, which became foundational to the overall development of the plan. Various forms of communication were used to promote opportunities for engagement, convey clear and concise information in a timely way, respond to inquiries, provide the means to report on participant feedback, project progress and updates.

Overall, the values expressed by the community reflected major themes that were consistent among all responses. The majority of participants were also supportive of the Action Statement and Common Thread defined for the ITMP. The input received from the community confirmed the County's proposed direction for transportation planning and investments.



EXISTING AND FUTURE CONDITIONS

Strathcona County has experienced a steady population growth over the past 15 years with an average growth rate of approximately 1.4% per year. The County's population is approaching 100,000 people today and is projected to grow to over 160,000 people by 2045. At the same time, employment in the County is forecasted to increase to over 69,000 jobs by 2045 from 40,000 jobs today.

Strathcona County encompasses a mix of urban and rural service areas, with distinct land uses in each area. The Urban Service Area (USA) features a relatively high proportion of single detached residential dwellings and some industrial and agricultural development. A large portion of the County's current land base in the Rural Service Area (RSA) contains agricultural uses, with some rural residential and low density multiple residential. The Alberta Industrial Heartland is also part of the RSA. Almost 90% of County residents commute to work by driving; with approximately 60% of work trips located outside of the County, but within the Edmonton Census Metropolitan Area (CMA). These patterns indicate the importance of regional travel in Strathcona County.



Population and employment growth will influence how the County will plan and invest in transportation over the next 25 years. Major growth areas including Cambrian Crossing, Bremner and the Local Employment Area (LEA), as well as the continued expansion of the Alberta Industrial Heartland will result in moderate to significant future traffic generation. This will provide the County opportunities to better integrate transportation and land use, resulting in well-connected and inclusive communities and greater economic development.

Strathcona County's existing roadway system is efficient and well-connected within a network of provincial highways. Overall, most of the County's roadways operate with low to moderate congestion today. The existing road network generally supports the forecasted growth over the next 25 years, with some minor improvements to address specific areas. There are several locations where the projected travel demand slightly exceeds available road capacity; these locations are mostly along Highway 16 and Highway 21 and is generally governed by the rate of development in the Bremner and LEA area.





Goods movement through the County is also accommodated through the provincial highway system and the connecting arterials and collectors within the County. Both Canadian Pacific and Canadian National Railways operate rail lines through Strathcona County and are supported through numerous at-grade and a few grade-separated rail crossings. The at-grade crossings will become a greater barrier for travel as both rail operations and development increases. There is a need to continue providing efficient and safe movement of goods, services and freight within and through the County to facilitate and foster economic growth.

The County's transportation network also supports alternative forms of transportation including walking, cycling and public transportation. The County's active transportation network is comprised of a diverse trail system and featured cycling routes that utilizes the existing trail network. In addition, Strathcona County Transit provides local, commuter and accessible transit service, while Park and Ride facilities are available at two transit terminals. As the County continues to grow and change, there is a greater need to establish an inclusive transportation system that supports various mobility options to meet the diverse needs of the community.



ITMP PRIORITIES

Strategic policies and initiatives were developed for each of the five priorities of this ITMP: Safety, Accessibility, Connectivity, Efficiency and Economy. These policies and initiatives use directive terms that are aligned with those defined in other County planning documents and provide clear intentions and direction for action, which will enable the County to deliver an inclusive and connected transportation network to serve residents and businesses of Strathcona County over the next 25 years.

INTENTION

REQUIRE

Is a compulsory obligation

ENCOURAGE

Provides direction for what is expected

CONSIDER

Provides criteria for when actions may be suitable

ACTION

ENSURE

To make sure of a result through a requirement

PROMOTE

Shows active County encouragement

SUPPORT

Shows passive County support through conditional consideration



SAFETY

A safe transportation network for all users is fundamental to the well-being of a community

Safety is one of the five priorities identified for the ITMP by the community. Establishing a safe transportation network for all users is fundamental to the well-being of Strathcona County and encourages use of non-motorized transportation choices for commuting and recreation.

Several strategies have been recommended to establish and maintain a safe and inclusive transportation system in the County. Strathcona County is committed to taking a proactive approach in implementing road safety strategies and have been exercising the Safe Systems approach in planning and designing the County's transportation network. Define Safe Systems: The focus of the Safe System approach is to reduce death and serious injuries through designs that accommodates human mistakes and injury tolerances. The Safe System approach addresses the safety of all road users regardless of their mode of transportation. The County will continue to employ this approach in future road improvements and construction to ensure safety is a key factor.

The protection of County right-of-way for transportation facilities will also help to maintain and enhance network safety. Another proactive approach to address transportation safety is to continue monitoring the network to identify and address existing safety issues through in-service road safety reviews, as well as regular updates of the Traffic Safety Strategic Plan. Opportunities to collaborate with industry partners can also be identified to enhance the safe interaction of rail activity with other modes of transportation. Lowering speed limits in urban residential areas to align with neighbouring municipalities and industry best practice should continue to be considered to address overall network safety.

Safety Investment Strategies

- S1. Provide a safe and inclusive transportation experience for all users of the transportation system, regardless of their transportation choice.
- S2. Ensure safety is foundational and apply the Safe Systems approach in transportation network planning and design.
- S3. Through planned rehabilitation projects, identify and incorporate safety improvements, specifically as it relates to more vulnerable users such as pedestrians and cyclists.
- S4. Protect right-of-way for transportation facilities to maintain and improve network safety.
- S5. Complete in-service road safety reviews at high collision locations and following major incidents. Implement recommendations from the safety review as soon as possible and prioritize improvements over any other planned transportation activities.
- S6. Update the Traffic Safety Strategic Plan (TSSP) every ten (10) years to ensure road safety policies and strategies address current safety trends and apply these strategies within the County.
- S7. Work with industry partners to identify opportunities to improve infrastructure, such as signage and illumination, as well as grade-separated crossings at strategic locations to enhance the safe interaction of rail activity with other modes of transportation.
- S8. Continue to consider lowering speed limits in urban residential areas to align with neighbouring municipalities and industry best practice.



ACCESSIBILITY

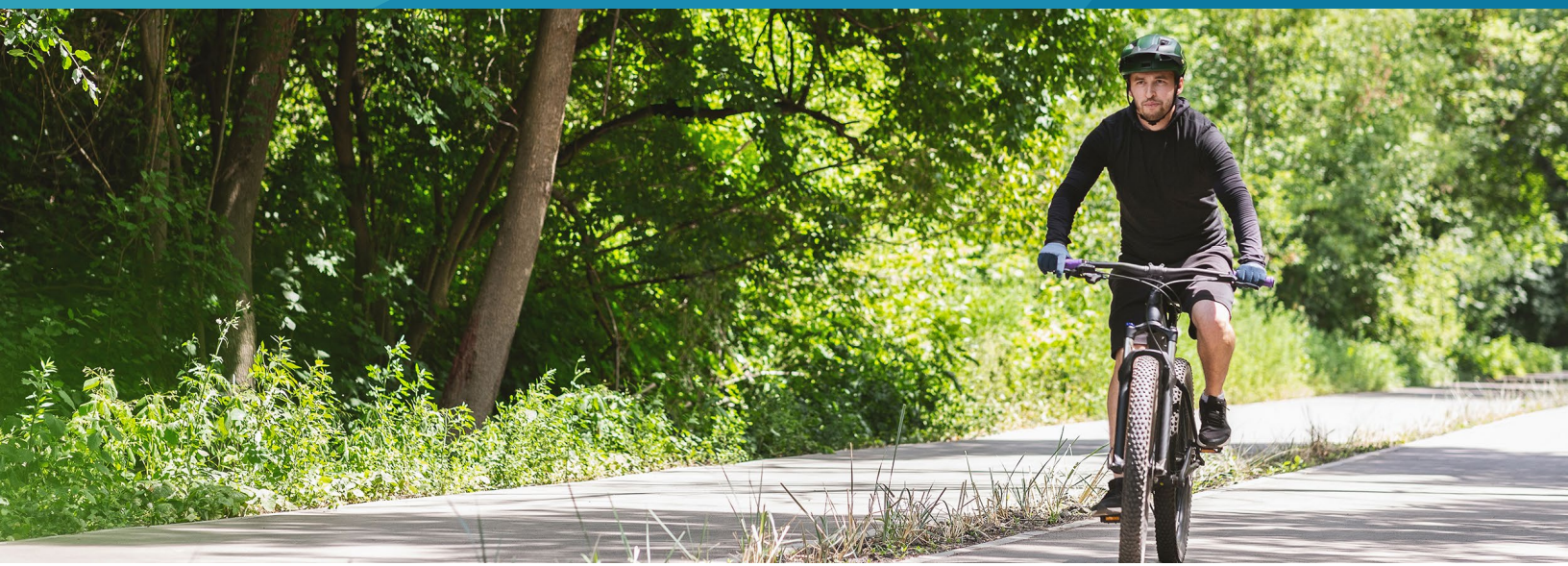
The County's transportation network will be accessible to all

An integrated transportation network will consider the needs of all users. As the County continues to grow and evolve, it is imperative that the transportation network is accessible to all users and can accommodate various forms of mobility options. An accessible transportation network can be achieved through improving the County's transit system to apply principles of universal design, vehicles and services in accordance with the Transit Master Plan. In addition, with the increase in non-motorized users, there is a need to expand street design standards to accommodate multi-use transportation options, especially in urban areas within the County. Transportation innovations and strategic partnerships to deliver alternative services such as car-sharing and ride-sharing can also be explored to address evolving mobility needs. Finally, continued investment in accessible and integrated active transportation infrastructure is to be considered to encourage efficient and convenient access to all facilities.

Accessibility Investment Strategies

- A1. Continue to improve the County's transit system to provide universally designed facilities, vehicles and services in accordance with the Transit Master Plan to maximize accessibility regardless of age, income and ability.
- A2. Review street design standards to assess their impact on all users and adjust and adapt to future multi-modal needs.
- A3. Explore transportation innovations and strategic partnerships to deliver effective and efficient alternative options (car-sharing, ride-sharing and car-pooling) to the County's businesses, services and residents.
- A4. Continue to invest in active transportation infrastructure that is accessible to all transportation network users and integrated with other transportation modes.





CONNECTIVITY

A healthy community requires connections between the places you work, play and live

A safe and accessible transportation network also requires effective connections to foster community well-being and economic growth. This will require continued collaboration with key stakeholders and regional partners to coordinate transportation improvements and multi-modal integration as well as to enhance connections to places of work, live and play. In addition, new development whether within the USR or RSA, should consider opportunities to incorporate connections to the transit and active transportation network where possible.

Connectivity Investment Strategies

- C1. Collaborate with key stakeholders within the Edmonton Metropolitan Region, including the Edmonton Metropolitan Region Board, City of Edmonton, City of Fort Saskatchewan and Alberta Transportation, to continue supporting regional transportation projects that improve network connectivity.
- C2. Work with regional partners to coordinate multi-modal transportation options to provide access to places of employment, education and services in urban and rural areas.
- C3. For all new Area Structure Plans, ensure connections to the County's trail network and cycling routes are supported as well as encourage opportunities for future transit service.
- C4. Collaborate with the Edmonton Metropolitan Transit Service Commission to support regional transit to promote connectivity.
- C5. Identify opportunities to enhance transportation connections to, from and within the Rural Service Area to access employment areas, services and destinations.
- C6. Improve and expand access to transit in accordance with the policies, service standards and initiatives outlined in the Transit Master Plan.
- C7. Strategically prioritize construction of active transportation infrastructure where opportunities exist to efficiently connect communities with commercial areas and/or transportation hubs.





EFFICIENCY

An efficient transportation system contributes to the well-being of our economy, ecosystem and residents

An efficient transportation network enables the movement of people, goods and services while reducing costs, time and energy. Efficiency can be gained through improved road connectivity, accessible mobility choices, integrated land use and a reliable transportation network in consideration of local and regional destinations. These measures can be achieved by investing in active transportation and public transit and exploring opportunities to reduce congestion, including user incentives and emerging mobility innovation and technology. In addition, maximizing the use of existing infrastructure through regular maintenance can reduce overall costs in the long term.

Efficiency Investment Strategies

- E1. Invest in opportunities that incentivize users who reduce congestion on the transportation system.
- E2. Support alternatives to personal motor vehicles to manage congestion and extend the service life of existing roadways.
- E3. Explore opportunities for the use of micro-mobility innovations.
- E4. Leverage the interdependency of land use and transportation for the benefit of community mobility.
- E5. Utilize cost benefit analysis to evaluate the life cycle cost of proposed improvements and maintenance and invest in timely routine maintenance practices to extend the service life of existing roads, sidewalks and trails.
- E6. Work with airshed partners to monitor emissions in order to assess the impact of transportation decisions on air quality in our community.
- E7. Monitor and protect County right-of-way for higher order transit and implement transit priority measures on key corridors in accordance with the Transit Master Plan.
- E8. Explore the use of On-Demand Transit in accordance with the Transit Master Plan to maximize the efficiency and effectiveness of the transit system.
- E9. Monitor advances in emerging technologies and implement measures that may improve traffic flow efficiency.



ECONOMY

Transportation investment will support industry and economic growth

An integrated transportation system that is safe, efficient and accessible, promotes economic development. Strathcona County's robust economy is shaped by a diversity of leading industries such as agriculture and petrochemicals, in combination with an effective transportation network that supports the efficient movement of goods and services. Continued collaboration with regional and industry partners to promote and maintain a safe, reliable and efficient transportation network will foster continued economic growth in the County and ensure goods are well-connected to markets in Canada and abroad.

In addition, continued investment for transportation facilities and infrastructure, particularly with priority on goods movement corridors will provide industry better access to global markets through road, rail and air. Technology is also changing, growing and developing rapidly and is a key driver of economic growth. Innovative and forward-thinking solutions to transportation services within the County enables efficient movement of people, goods and services, which is vital to economic prosperity.

Economy Investment Strategies

- EC1. Update a long-term capital investment plan for transportation facilities and infrastructure on an annual basis.
- EC2. Prioritize goods movement corridors for investment and development needs. The Industrial Heartland area is recognized as a key economic driver for the County, reliant on the safe and efficient movement of goods and services.
- EC3. Support the provincial highway network through efficient connections between the highway network and industry access.
- EC4. Work with the Edmonton Metropolitan Region Board to support the integration of transportation modes and facilities to ensure economic activities are connected to markets in Canada and abroad.
- EC5. Collaborate with industry partners to explore rail investment to improve inter-modal goods movement.
- EC6. Provide and maintain a network of designated truck routes designed to accommodate large and oversized vehicles.
- EC7. Monitor advances in emerging technologies as the transportation industry evolves, continually assessing the opportunities that these innovations may present on the transportation network.



INVESTMENT STRATEGY

A framework to guide the County in transportation investment over the next 25 years was established based on community input, technical review and the County's overall vision for growth and transportation.

Road Network

The map in **Figure 1** below highlights the proposed road improvements required to address future growth and the corresponding network constraints. These improvements include upgrading several key County arterials from two to four lanes including the widening of Sherwood Drive, Clover Bar Road and 34 Street as well as planned freeway improvements identified by the EMRB such as the widening of Highway 16 from four to six lanes between Sherwood Drive and Highway 21.

Active Transportation

As the County continues to develop, there will be opportunities to expand the existing active transportation network to enhance connectivity and continuity between existing and future infrastructure. This will require various departments within the County to coordinate active modes improvements during annual maintenance, rehabilitation and/or reconstruction projects as well as through various planning and growth initiatives. The County may also engage with advocacy groups for vulnerable users during the planning of active mode improvements to ensure specific needs and opportunities are considered.

FIGURE 1. FUTURE (2045) MAJOR ROAD IMPROVEMENTS

