



Edson Transportation Study **DRAFT – Volume 1: Key Directions**

September 13, 2023



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1. Introduction

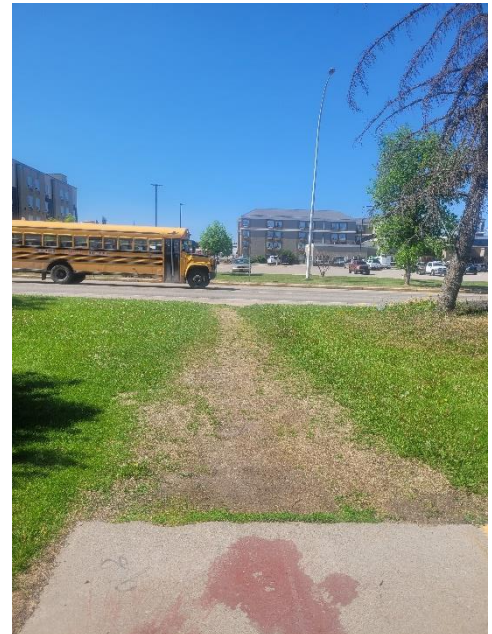
The Town of Edson is seeking opportunities to provide robust and equitable transportation opportunities for its residents. Those who can and choose to drive private vehicles are well served with a well-connected street network and easy access to the provincial highway system. However, for those who cannot drive, cannot afford to drive, or choose not to drive, the options are limited. Unfortunately, those who don't drive are often most in need of reliable mobility and access to services.

The Edson Transportation Study is focused on the active transportation and public transportation needs of those who live in Edson. While the purpose of the study is to address the needs of those who do not drive, the solutions will serve all residents.

A second volume of this study, the Background Analysis Report, provides the context and input used to create the Edson Transportation Study. From the background analysis and engagement input, three key directions for the Study were identified:

1. Explore opportunities to expand the existing ESTS service to a broader base of users and potentially to include services for the public.
2. Address gaps in the active transportation network, with an emphasis on routes to schools and connectors identified in the Trails Master Plan.
3. Identify opportunities to develop a core active transportation “spine” that supports crossing of Highway 16 and connections to popular destinations.

This first volume provides guidance on how the Town of Edson can address mobility and access for all residents of Edson through these three key directions. This is not an action plan and does not include specific implementation steps – they will need to come later. It is a guiding document that highlights aspirational direction and some immediate next steps to help develop a transportation system for Edson that is accessible to all residents.



2. Public Transportation

Edson does not have a formal public transportation system, but the Edson Seniors Transportation Society operates a specialized service that provides accessible transportation for older residents in Edson and for residents with physical and intellectual challenges.

2.1 Overview

Through the engagement program, public transportation needs for a broader range of the Edson population were identified. Many noted that seniors are well-served with the ESTS service (with some notable gaps) but that others in the community needing access to transportation are not well-served. This highlights two concerns. The first is the misconception that ESTS service, or the “Seniors Bus” as it is commonly known in the community, only provides mobility services for seniors. As noted above, ESTS provides services to a wider range of residents with a variety of needs. Secondly, it highlights that despite the range and level of service offered by ESTS, gaps in accessibility to public transportation exist.

ESTS Branding

The formal (ESTS) and informal (“Seniors Bus”) branding do a disservice to the efforts of ESTS and potentially leave some residents that might be eligible to access the ESTS services not knowing that they are eligible, or even hesitant to use the service because they are uncomfortable with being identified as a senior.

A review of the ESTS branding provides an opportunity to update public perceptions and better reflect the full range of services that extend beyond seniors, and to reflect potential future services. Branding should reflect the values and vision of the organization and is more than a name and logo. As part of future strategic planning, ESTS should consider exploring the need for rebranding and opportunities to update the public-facing elements of ESTS to fully reflect current operations and a long-term vision. At the same time, it will be important for ESTS to retain its image as a community service organization and not appear to be a company or even Town department so that fundraising opportunities are not jeopardized.



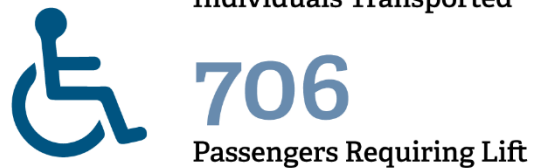
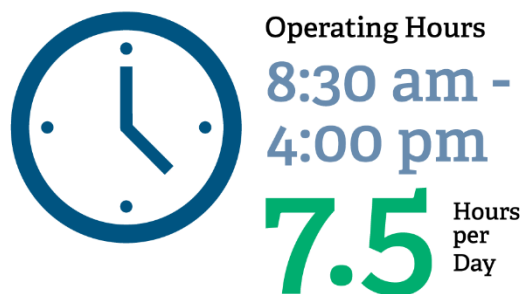
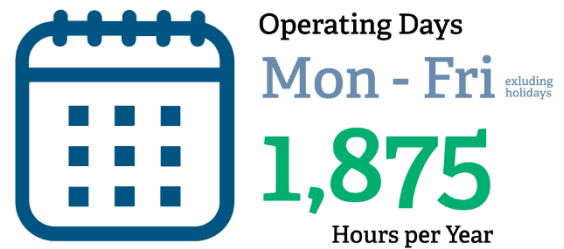
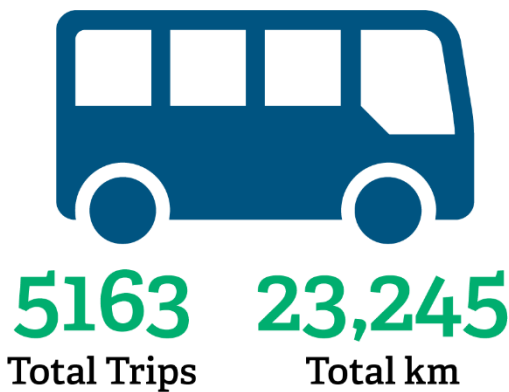
Public Transportation Needs

Several needs have been identified for public transportation services in Edson that include the specialized services offered by ESTS and the mobility needs of the broader population.

ESTS does not offer service on weekends, evenings, or holidays with the service operating on weekdays from 8:30 am to 4:00 pm. This limits availability for users to attend weekend events, religious activities, evening dinners, and other activities.

While ESTS serves a broader population than seniors, it is not a full public transportation system. There is a significant portion of the population without affordable public transportation, including many who are unable to drive for a variety of reasons. Taxis are available in Edson but are relatively expensive with a flat rate of \$10/trip within Edson. This is about two to three times a typical transit fare. The taxi fare is consistent with the fare that would typically be found in other communities, but not an affordable option for those with financial challenges. The taxi services in Edson have an important role within the broader set of transportation services, but they are not a replacement for public transportation.

The Background Analysis highlighted that the large majority (87%) of the labour force living in Edson also commute to work in Edson. Not every job is appropriate for commuting by transit, but many are. Based on the 2021 Census, almost one-quarter of Edson’s labour force is employed in sales and service occupations. These jobs are often lower paying and workers in these, and many other sectors would benefit from having access to public transportation. Additionally, teens who do not yet have a driver’s license are limited to active transportation (e.g., walking and cycling) for independent travel.

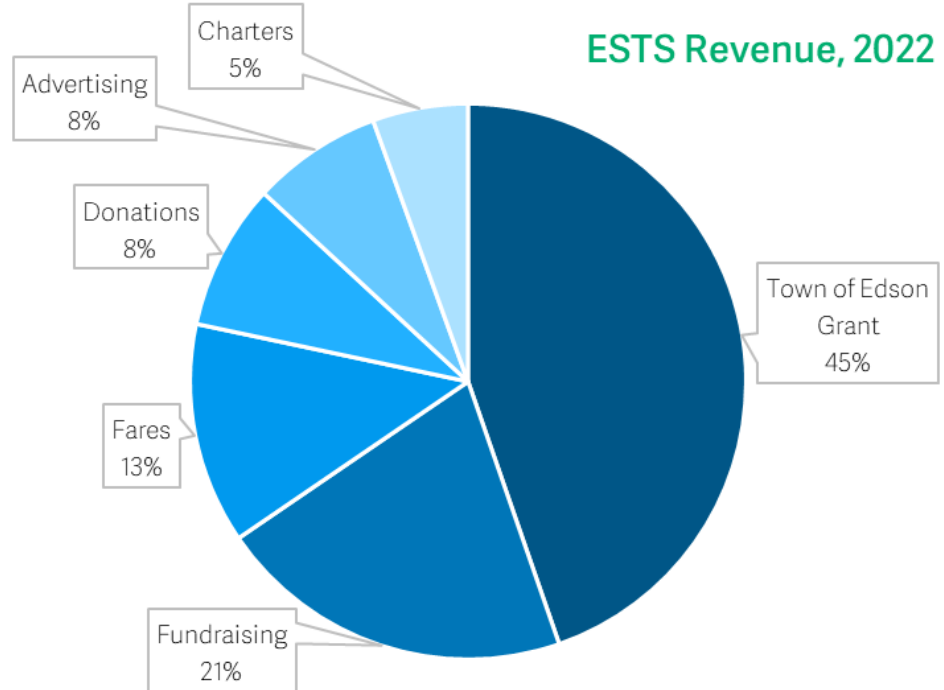


2.1 Current ESTS Operations

ESTS services are provided by paid, professional drivers and a full-time executive director. ESTS has attempted to maintain an affordable service while generating sufficient revenue to cover costs and sustain a fund for future investments such as new vehicles. Current fares are as follows:

Member, book of 10 trips	\$30.00 (\$3.00 per trip)
Member, single trip	\$4.00
Non-member, single trip	\$5.00
Annual membership	\$20.00

In 2022, the ESTS total revenue was \$147,000 and expenses \$123,153, leaving almost \$25,000 for a reserve fund for a new vehicle purchase.



The following summarizes some of the ESTS key operating metrics.

Cost per service hour	\$65.68
Cost per km	\$5.30
Cost per trip	\$23.85
Fares Revenue as % of costs	15.4%
Fares Revenue as % of revenue	12.9%
Fares + Charter as % of revenue	18.4%

The cost per service hour (\$65.68/hour) is comparable to on-demand transit services (for example, the cost per service hour for Edmonton’s on-demand transit service is approximately \$65/hour), but fare revenue as a percent of costs is low (15.4%), noting that in addition to the Town of Edson grant, ESTS relies heavily on fundraising and donations. Operating revenue comprised of fares, charters and advertising represent about one-quarter of the total revenue.

Fundraising and donations revenue has a ceiling. ESTS will not be able to rely on significantly increasing these sources of revenue to offset the costs of expanded service. Similarly, there is a limit to the level of funding contribution that can be expected from the Town of Edson. While some additional public funding may be available from other sources, ESTS will need to increase the proportion of revenue from fares to offer service expansions, which will come from increased ridership to keep fares affordable.



2.2 Building Ridership for ESTS

Based on the review of current operations, service expansions will require additional revenue, which may initially come from alternative public funding, but will ultimately need to include increased ridership to generate a long-term and sustainable revenue stream. At a \$3.00 per ride fare, ESTS would need to attract an additional 22 rides to offset the operating cost of each additional service hour.

Partnerships - ESTS has built strong relationships with partner organizations that have helped to expand usage of the service beyond seniors. These partnerships also help to leverage other funding sources. Most of the feasible partnerships are already in place, but other opportunities may emerge in the future.

Older Residents - In 2022, ESTS transported 286 individuals. There are approximately 2,300 people in Edson that are 55 years or older, meaning only 12% of the population that could be using the service are doing so. There is an opportunity to market to this group as many may not even know that they are eligible to use the service.

Marketing - Marketing is a key element in expanding ridership. The ESTS buses are highly visible in the community and the service is generally well known to residents of Edson. Marketing efforts may help increase awareness to the older population that the ESTS services is available to them. Booking and tracking apps as discussed below may also help attract new riders.

2.3 Evolution to Public Transit

Although the Town wants to improve public transportation particularly for the segment of the population that cannot or chooses not to drive their own car, the expense of introducing a traditional public transportation system at this time is beyond the financial capabilities of the Town. There may be a desire to consider public transit in the longer term as Edson grows.

Although a traditional transit system may be beyond the current reach of the Town, there may be opportunities to evolve ESTS over time to support service to a wider range of the community.

Booking and Bus Tracking Apps

The use of smartphone applications is becoming an expectation for most mobility services and will be an important element of any type of public transportation service.

The ESTS on-demand service is currently accessed by phoning the driver and booking a ride. This simple approach works reasonably well if the driver has gaps in the day to take bookings while not driving or is able to pull over and record the booking.

There are several systems being used for on-demand transit to manage bookings, live bus tracking, fare collection, and pick-up/drop-off route optimization. Some of the more robust software like RideCo (www.rideco.com) and Pantonium (www.pantonium.com) are widely used in Canadian communities to support on-demand services. These software products are well-supported by software developers. Pricing is specific to the service and features desired and includes an up-front purchase plus annual maintenance. There are other products that are considerably less expensive but lack the support provided by the main software providers and typically require some website building and maintenance skills.

Use of an app for booking and fare payment has the primary advantage of significantly reducing that task for the driver. Most on-demand services continue to allow bookings via telephone and payment by cash or tickets, which could continue with ESTS for those who prefer. The use of an app would also allow customers to track the bus, which is becoming a growing expectation as people become familiar with companies like Uber. For those customers who use the app, it allows them to travel without cash or having to purchase tickets in advance.

The introduction of an app would help to modernize the ESTS service and make it more attractive to some potential customers.

New Markets

Providing services to new markets would be a departure from the current focus of ESTS, which is on seniors and those with some form of disability. A move in this direction would require a change in

direction by the ESTS Board and would begin to evolve ESTS into a public transportation service. This is a decision that would require careful consideration. While there may be opportunities to expand the service with additional revenue, there are risks to maintaining the same level of service for the current ESTS customers.

Evolution of ESTS into a public transit service is probably the lowest cost approach to introducing public transit to Edson as it can be implemented incrementally over time allowing ridership to build with each step. If this is not the direction ESTS wishes to go in the long term, there are other options available to Edson, such as contracting the service as is the case in many smaller communities in Alberta or operating service as a Town department. Both options are expensive and not easily implemented in a community the size of Edson. Currently, continued support for ESTS is the best approach to provide the majority of transportation requirements for at-need residents.

Should there be a desire to evolve ESTS, the following are possible opportunities for an evolution from the current service to one that serves a broader cross-section of Edson's population.

Low Income Individuals - Providing service to low-income individuals may be a natural next step for ESTS as there is a need for affordable transportation for low-income individuals. In many communities where services, or discounted services are offered to low-income individuals, there is an application process through the municipality.

Employer Partnerships – Partnerships with employers in Edson would provide a means to help get workers to their jobs. With labour shortages, particularly for service industries, availability of affordable transportation may be an incentive for workers. For ESTS, this could be a method to stretch service hours with confidence that there will be customers for those extended hours. Many workers require affordable and reliable transportation but may not qualify as low-income.

On-Demand Public Transit – A final step in the evolution would be a public on-demand transit service. Through the engagement process, there was a desire to see a fixed route system by many. In one case it was noted that some individuals with cognitive disabilities would have challenges using a service that required a booking and would prefer to have a regular schedule. There are ways that on-demand transit can be implemented, including hybrid approaches that have some regular scheduled stops or even routes. On-demand transit provides the flexibility to create a service model that best suits Edson.

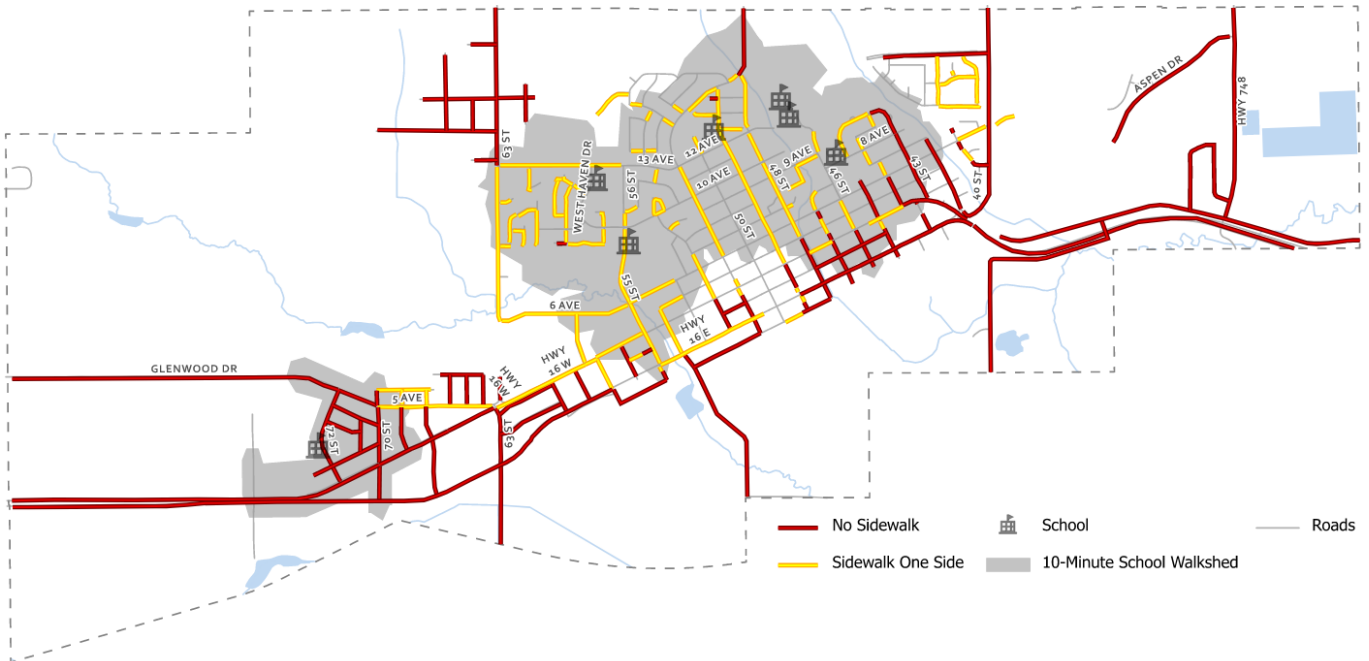
3. Pedestrian Network Gaps

In general, the pedestrian and trail networks north of the highway are well developed. The street network is well-connected and generally provides direct connections to important destinations. However, the background analysis and engagement identified several gaps in these networks. This section addresses key gaps with a particular emphasis on routes leading to schools and side street connectors outlined in the Trails Master Plan.

3.1 Sidewalk Gaps

An assessment of the current sidewalk availability was completed through most of the Town. The analysis identified sections with inadequate or absent sidewalks, and inadequate street crossings. Most of the area north of the highway and between 43rd Street and 63rd Street has a sidewalk on at least one side.

The seven schools in Edson are important destinations, particularly for walking and cycling as youth rely on active modes for independent travel. To focus efforts where the need is highest, gaps and discontinuities in the walking and cycling networks that are within walking distance of schools have been prioritized. The map below shows the area within an 800m walking distance, or about a 10-minute walk to any school within Edson along with the current sidewalk availability.



3.2 Priorities

The priorities outlined address a range of measures to enhance safety through improvements to pedestrian and cycling facilities, focused within the 10-minute walking distance of schools, but not exclusively to this area. Among the priorities are pedestrian crossing improvements, new and/or improved sidewalks, multi-use pathways, and curb extensions.

Each improvement was assessed in terms of its urgency and potential impact and placed into three priority levels.

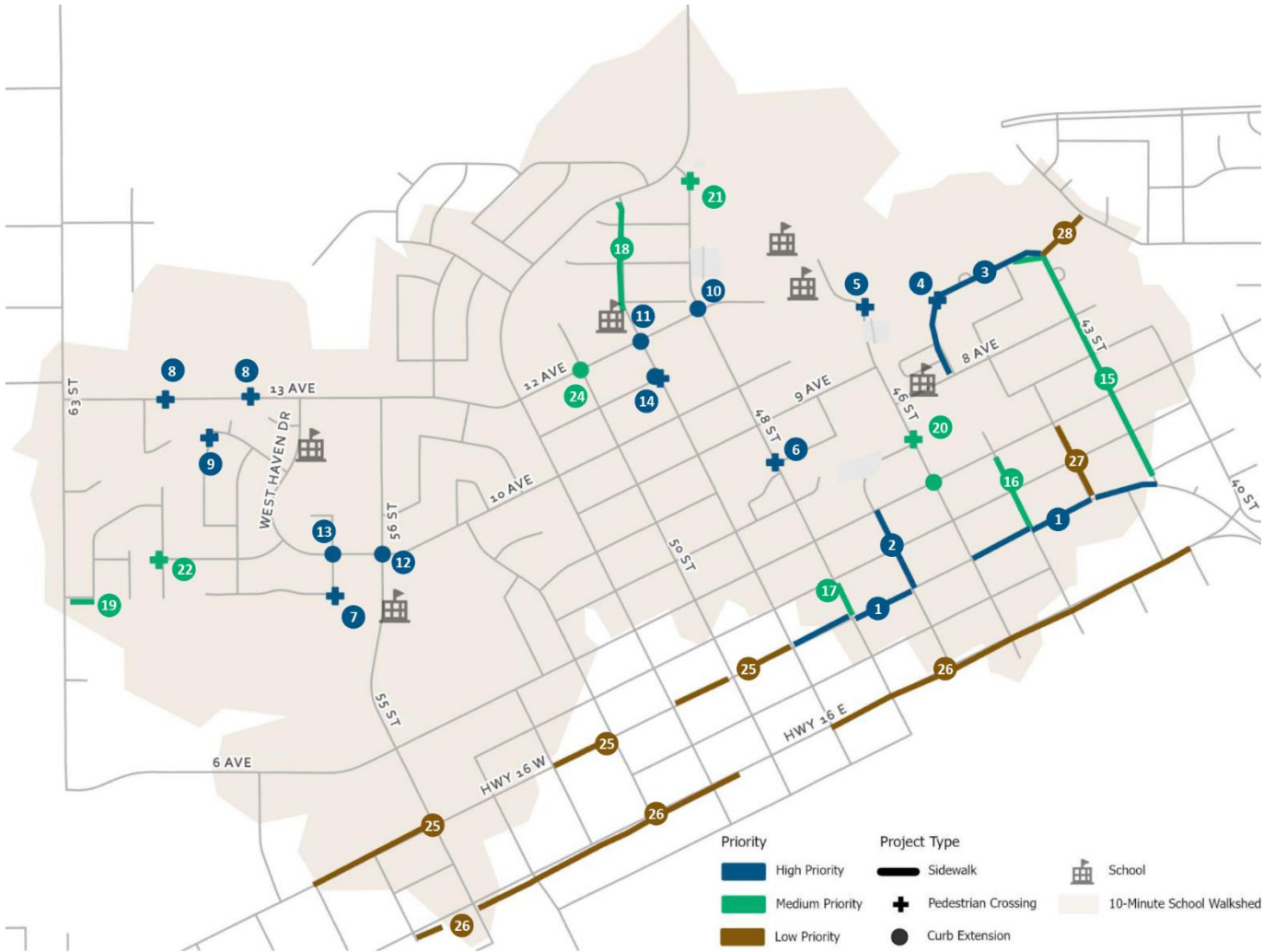
High priorities represent the investments that will generate immediate benefits, especially those in close proximity to schools, filling critical missing links, and addressing immediate safety concerns. These are generally low-cost improvements that can be readily implemented.

Medium priorities, while not as urgent, help to complete the overall active transportation system.

Low priorities can be described as “nice to have” or may involve more substantial investment and further investigation. A low priority does not necessarily imply low importance, but when compared to other initiatives their implementation can be delayed.

In some cases, improvements may be contingent on other developments or projects. The following map highlights three types of improvements (project type) and their priority levels. The subsequent tables provide additional details on each improvement, including benefits.





High Priority

New/Repaired Sidewalk

1. 4th Avenue, 43rd Street to 47th Street
2. 47th Street, east side add new to missing sections 4th Avenue to 6th Avenue

Multi-Use Pathway

3. 10th Avenue (on-street with curb and delineators) north side

Pedestrian Crossings

4. 45 Street/10 Avenue at pathway
5. 46th Street at pathway (Pine Grove School)
6. 48th Street at 8th Avenue (north side)
7. 57th Street at 9th Avenue (north side)
8. 13th Avenue at Poplar Place (2 crossings)
9. 60th Street at 12th Avenue (south side)

Curb Extensions

10. 12th Avenue at 48th Street
11. 12th Avenue at 49th Street
12. 10th Avenue at 56th Street
13. 10th Avenue at 57th Street

Pedestrian Crossing and Curb Extension

14. Crossing and Curb Extension- 11 Ave and 49 St

Medium Priority

New/Repaired Sidewalk

15. 43rd Street, 4th Avenue to 19th Avenue, west side
16. 45th Street, 4th Avenue to 6th Avenue, west side
17. 48th Street, 4th Avenue to 5th Avenue, east side
18. 49th Street, Edson Drive to Holy Redeemer School, west side
19. 9th Avenue, 63rd Street to 62A Street, south side

Pedestrian Crossings

20. 46th Street at 7th Avenue, signage at existing crossing
21. 48th Street at Pathway
22. 61st Street at 10th Avenue, south side

Curb Extensions

23. 6th Avenue at 46th Street
24. 12th Avenue at 50th Street

Low Priority

New/Repaired Sidewalk

25. 4th Avenue, various locations
26. 2nd Avenue, various locations
27. 44th Street, 4th Avenue to 6th Avenue, east side

Multi-Use Pathway

28. Upgrade Hillendale to 10th Avenue/43rd Street

High Priority

Project	Description	Within School Walkshed	Sidewalk Missing Link	Connects to a School	In Trails Master Plan	Stakeholder Identified	Connects to south of highway	Street Crossing to Sidewalk/Path	Traffic Calming	Other Benefits
New/Repaired Sidewalks										
1	4 th Avenue, 43 rd Street to 47 th Street <ul style="list-style-type: none"> 43rd to 44th Street; 47th to 48th Street – new both sides 44th to 46th Street – new south side; removal and reconstruction north side 48th to 49th Street- removal and reconstruction north side 	✓	✓	✓	✓	✓	✓			Connects with important destinations along the highway
2	47 th Street, east side <ul style="list-style-type: none"> Add new sidewalk to missing sections 4th Avenue to 6th Avenue 	✓	✓							
Multi-Use Pathway										
3	10 th Avenue, north side <ul style="list-style-type: none"> On-street with curb and delineators 	✓	✓	✓					✓	Connection to Hillendale
Pedestrian Crossings										
4	45 th Street/10 th Avenue at pathway	✓		✓		✓		✓		
5	46 th Street at pathway (Pine Grove School)	✓		✓		✓		✓		Includes wheelchair ramp
6	48 th Street at 8 th Avenue (north side)	✓	✓					✓		Direct connection to library
7	57 th Street at 9 th Avenue (north side)	✓		✓		✓		✓		
8	13 th Avenue at Poplar Place (2 crossings) <ul style="list-style-type: none"> Crossings at each trailer park access 	✓				✓		✓		13 th geometry allows for high vehicle speeds
9	60 th Street at 12 th Avenue (south side)	✓				✓		✓		
Curb Extension										
10	12 th Avenue at 48 th Street	✓		✓					✓	
11	12 th Avenue at 49 th Street	✓		✓					✓	
12	10 th Avenue at 56 th Street	✓	✓	✓		✓			✓	Fatal pedestrian collision at this location
13	10 th Avenue at 57 th Street	✓							✓	
Crossing and Curb Extension										
14	11 th Avenue and 49 th Street	✓		✓					✓	Connects to Leisure Centre

Medium Priority

Project	Description	Within School Walkshed	Sidewalk Missing Link	Connects to a School	In Trails Master Plan	Stakeholder Identified	Connects to south of highway	Street Crossing to Sidewalk/Path	Traffic Calming	Other Benefits
New/Repaired Sidewalks										
15	43 rd Street, 4 th Avenue to 19 th Avenue, west side	✓	✓					✓		
16	45 th Street, 4 th Avenue to 6 th Avenue, west side	✓	✓					✓		
17	48 th Street, 4 th Avenue to 5 th Avenue, east side	✓	✓					✓		
18	49 th Street, Edson Drive to Holy Redeemer School, west side	✓	✓	✓				✓		
19	9 th Avenue, 63 rd Street to 62A Street, south side	✓	✓			✓		✓		
Pedestrian Crossings										
20	46 th Street at 7 th Avenue, signage at existing crossing	✓		✓						
21	48 th Street at Pathway	✓		✓				✓		
22	61 st Street at 10 th Avenue, south side	✓						✓		
Curb Extension										
23	6 th Avenue at 46 th Street	✓		✓					✓	
24	12 th Avenue at 50 th Street	✓		✓					✓	

Low Priority

Project	Description	Within School Walkshed	Sidewalk Missing Link	Connects to a School	In Trails Master Plan	Stakeholder Identified	Connects to south of highway	Street Crossing to Sidewalk/Path	Traffic Calming	Other Benefits
New/Repaired Sidewalks										
25	4 th Avenue, various locations <ul style="list-style-type: none"> Install sidewalk gaps between 53rd Street and 51st Street 	✓	✓		✓	✓				
26	2 nd Avenue, various locations <ul style="list-style-type: none"> Sidewalk one side for much of the corridor 		✓		✓	✓	✓			
27	44 th Street, 4 th Avenue to 6 th Avenue, east side	✓	✓							
Multi-Use Pathway										
28	Upgrade Hillendale to 10 th Avenue/43 rd Street <ul style="list-style-type: none"> Widen and straighten to improve directness and visibility as Hillendale develops 	✓		✓				✓		

3.3 High Priority Curb Extensions

Curb extensions are an effective method to slow traffic and reduce crossing distances. They also allow pedestrians waiting to cross the road to see and be seen where there are parked cars. Temporary curb extensions make use of adaptable and re-useable materials to quickly implement curb extensions and to test effectiveness before investing in permanent infrastructure.



Curb extension with traffic calming blocks, Calgary (Source: City of Calgary)



Curb extensions with curbing and delineators, Edmonton (Source: Google Streetview)

Four high priority curb extension locations have been identified. The images on the following page show potential configurations for these high priority locations.



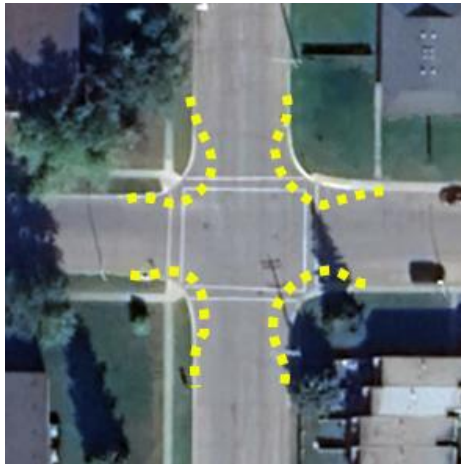
12th Avenue at 48th Street

- Reduce turning speeds
- Tightens radius around corner and removes channelized right turn



12th Avenue at 49th Street

- Reduce crossing distance, improve visibility, and reduce turning speeds
- Tightens radius around corner
- Narrows vehicle travel lane width



10th Avenue at 56th Street

- Reduce crossing distance, improve visibility, and reduce turning speeds
- Tightens radius around corner
- Narrows vehicle travel lane width



10th Avenue at 57th Street

- Reduce turning speeds
- Tightens radius around corner and removes channelized right turn

4. Primary Active Transportation Network

Through the engagement process, the Highway 16 one-way couplet (2nd Avenue and 4th Avenue) was repeatedly identified as one of the most significant impediments to travel in Edson for all modes. The majority of residential land uses and community services are north of the highway, while many of commercial destinations and employment are between 2nd and 4th Avenues or south of the highway entirely.

There are only two signalized intersections on 4th Avenue, plus the new pedestrian crossing at 46th Street. On 2nd Avenue, the only signalized crossing is at 50th Street. This places significant pressure on these locations as they are the easiest crossing locations for all modes (vehicles will take advantage of the pedestrian crossing at 46th Street stopping highway traffic, making it more popular than other unsignalized crossings).

Pedestrians and vehicles are accommodated at these crossing points. Bicycles can cross at these locations but there is no dedicated infrastructure for bicycles. The cycling mode represents a small portion of travel in Edson, which is due in part to a lack of infrastructure. Provision of cycling infrastructure provides dedicated space for bicycles and other wheeled forms of transportation improving safety and comfort for this mode particularly if separated from traffic. But, cycling infrastructure generates other benefits as well, such as:

- Reducing the potential for conflicts and allowing for better pedestrian and traffic flow by removing bicycles from sidewalks and roadways;
- Providing an alternative to sidewalks for those using mobility devices such as electric scooters;
- Creating a traffic calming effect without significantly reducing capacity for vehicles; and
- Creating awareness of cycling in the community.

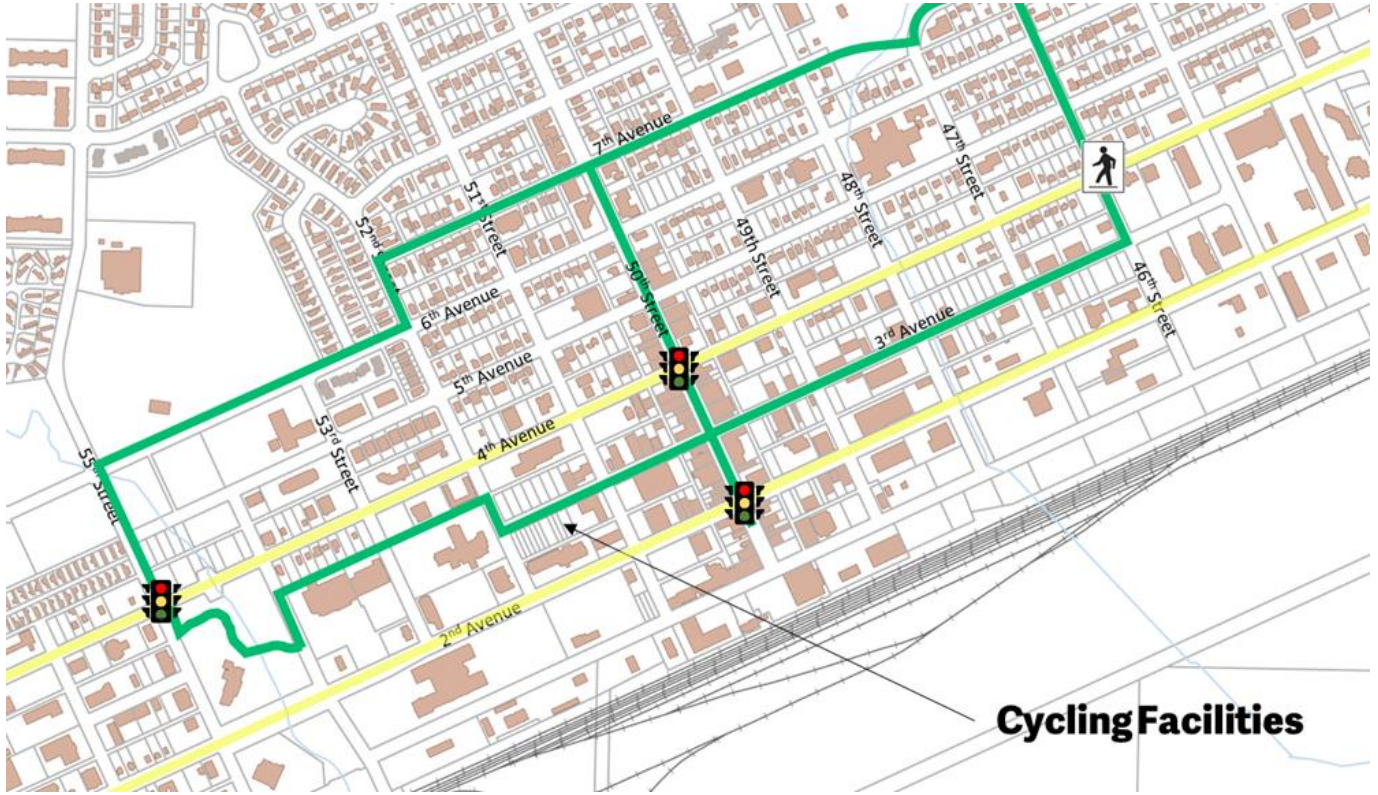
This section outlines a potential core active transportation network that will support utilitarian trips within Edson and will complement the existing and planned trail system for recreational travel.

4.1 Routes

Cycling connectivity in Edson will need to take advantage of the highway crossing opportunities that exist as creating new crossings will impact the flow of traffic on the highway and are under the jurisdiction of Alberta Transportation and Economic Corridors (ATEC).

Enhancing crossings of 4th Avenue for bicycles at 55th Street, 50th Street, and 46th Street is relatively straightforward. However, provision of east-west routes to allow for connections to key destinations is more challenging. The highway in both directions includes combined parking and turn lanes on both sides of the street that are underutilized. While conversion of one of these lanes presents an opportunity to allow for east-west connectivity, conversion of a highway lane to accommodate active transportation would represent a major departure in direction for ATEC. It is likely not practical as a short-term option (see Potential Future Options at the end of this section). This leaves 3rd Avenue as the only east-west route, although does not provide a continuous connection between 46th Street and 55th Street.

The following map shows a core initial active transportation network including crossings of 24th Avenue. Although this network does not provide a connection to every noted key destination, it is a good starting point for Edson's active transportation network. The network can be implemented in phases and can be developed through a series of pilot projects using adaptable and re-useable materials.



Potential Initial Core Active Transportation Network

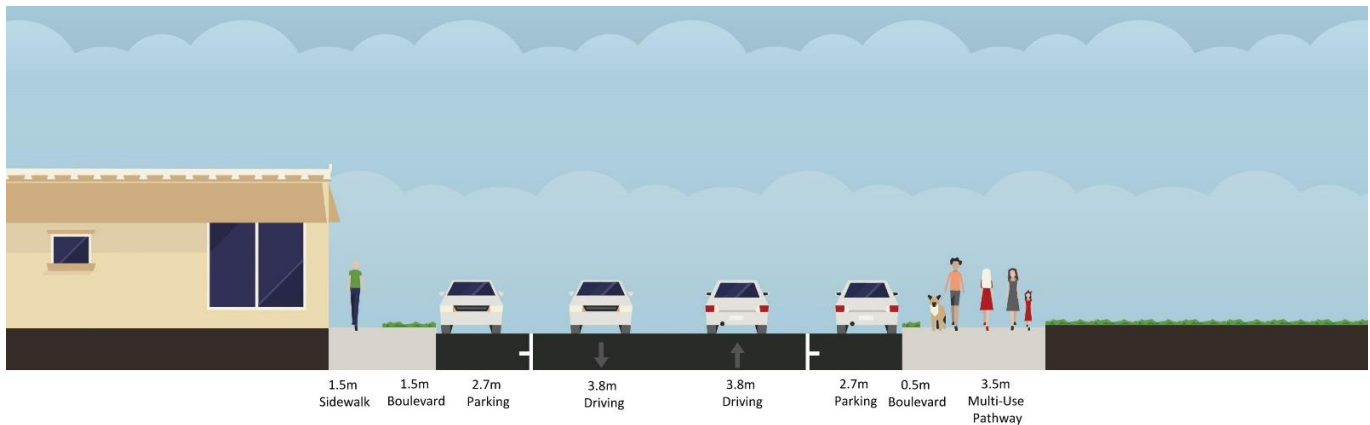
4.2 Active Transportation Facilities

55th Street, 6th Avenue to Centennial Park

Recommended Facility Type: **Multi Use Pathway**

A multi-use pathway can connect Griffiths Park, the skateboard park, and Centennial Park with a safe and comfortable off-street facility. A pathway on the east side of 55th Street would connect the signalized crossing of 4th Avenue with the parks north and south of 4th Avenue. To the south, the existing pathways can be used to ultimately connect to 54th Street. There are potentially other routes through the parks that could be used, but an alternate routing should connect to the signal across 4th Avenue.

Average Summer Daily Traffic: 6,500 vehicles/day
Heavy Vehicle Proportion: 4.3%
On-Street Parking: Yes
Posted Speed: 50 km/h
Pavement Width: 13m
Right-of-way Width: 20m



54th Street to 52nd Street

This section would be somewhat unique. On 55th Street and 52nd Street, short connections can be provided with signage providing directions and indicating to drivers that they are on a bike route. This routing uses the existing laneways, which would require hard surfacing of these laneways with signage and pavement markings indicating that the laneway is a shared space.



3rd Avenue, 52nd Street to 46th Street

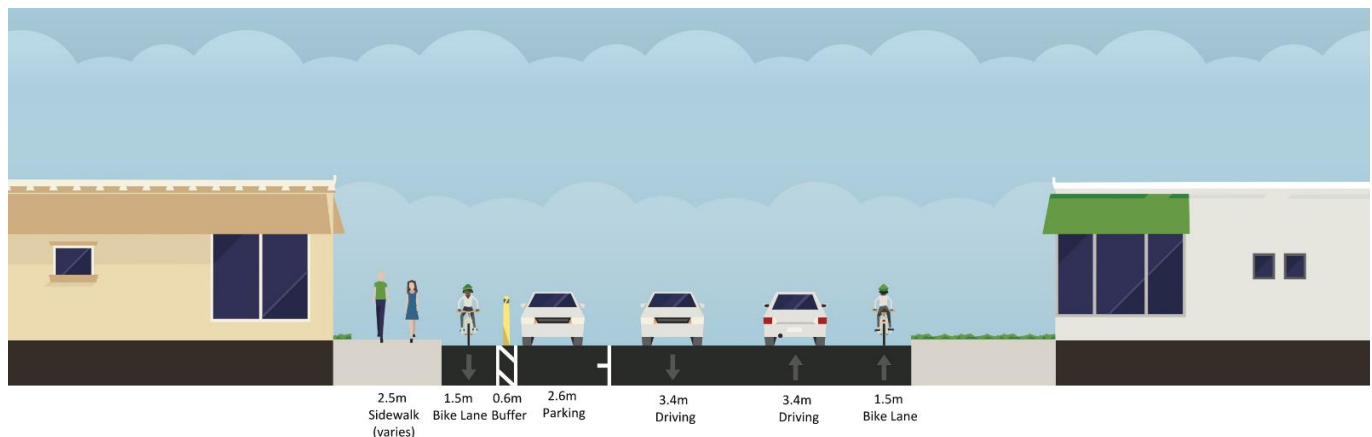
Recommended Facility Type: **Painted Bicycle Lane/Buffered Bicycle Lane**

While 3rd Avenue is a relatively continuous east-west route, most traffic uses 2nd Avenue or 4th Avenue for east-west travel in Edson with 3rd Avenue mostly used for parking or to access properties and businesses. Traffic volumes tend to be relatively low and traffic is slow moving because of the frequency of stop signs along the corridor. The street width varies slightly, but there is generally 13m of pavement. To provide bike lanes, on-street parking would need to be removed on one side of the street but would have only a minor effect on the net parking supply. There appears to be a slightly higher demand for parking on the north side of the street, therefore the removal of parking should be on the south side. On the north side where on-street parking is retained, a buffered bike lane would be next to curb, with the buffer between the parked cars and bike lane to protect cyclists from car doors being opened. The buffered bike lane could initially be implemented using adaptable materials such as curb block with plastic delineators or just delineators.

- On-Street Parking:** Yes
- Posted Speed:** 50 km/h
- Pavement Width:** Variable (lowest 13m)
- Right-of-way Width:** 20m



Rubber curb blocks with delineators



50th Street, 7th Avenue to 2nd Avenue

Recommended Facility Type: **Buffered Bicycle Lane**

50th Street serves as Edson’s “main street” and as such has a wider right-of-way than many other streets. There has been some streetscape work completed including curb extensions at intersections. However, the sidewalks are quite narrow and as a result the driving lanes are unusually wide. The addition of bicycle lanes will create some “enclosure” on the street and will help it feel more welcoming. The addition of buffered bicycle lanes provides a safe and comfortable cycling route that allows crossing of both directions of the highway.

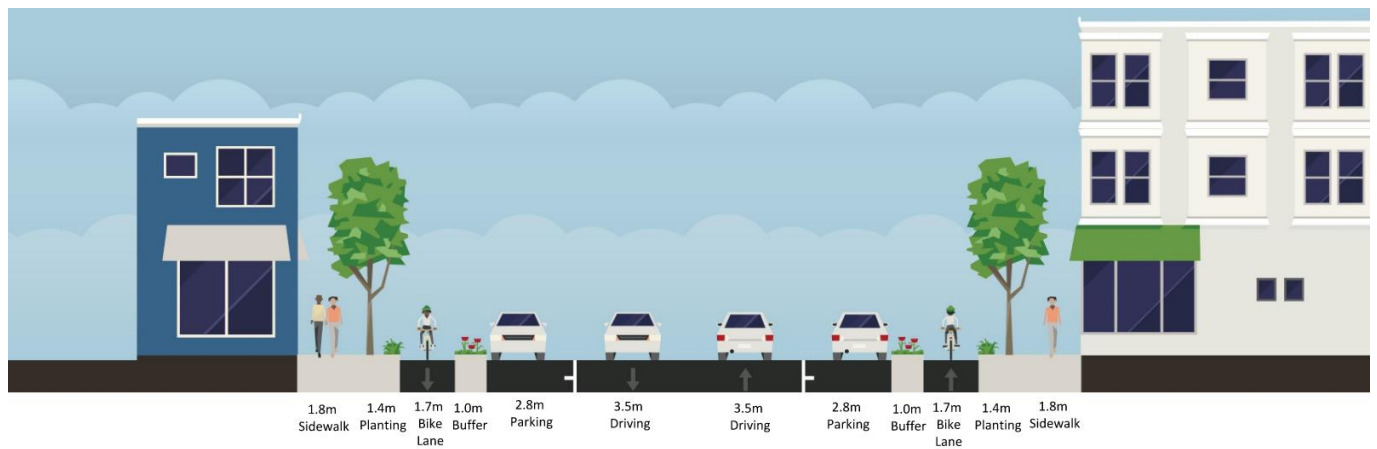
The buffered bike lanes could be created with adaptable or temporary materials like curb blocks or planters. While bicycling lanes create many benefits, south of 4th Avenue this street would be better served with more pedestrian and public realm space. The assessment of public realm needs on 50th Street is beyond the scope of the Edson Transportation Study, but considerations for improved pedestrianization of 50th Street are discussed in the “Potential Future Options” section.

The cross-section below is an adaptation of an idea generated by Grade 9 students at Holy Redeemer Junior Senior High School as part of the engagement for the Edson Transportation Study.

Average Summer Daily Traffic: 5,500 vehicles/day
Heavy Vehicle Proportion: 1.2%
On-Street Parking: Yes
Posted Speed: 50 km/h
Pavement Width: 18m
Right-of-way Width: 24.4m



Buffered bicycle lane with planters used as the buffer, City of Minneapolis Street Design Guide



46th Street, 3rd Avenue to 7th Avenue

Recommended Facility Type: **Buffered Bike Lanes, Sharrows and Signage**

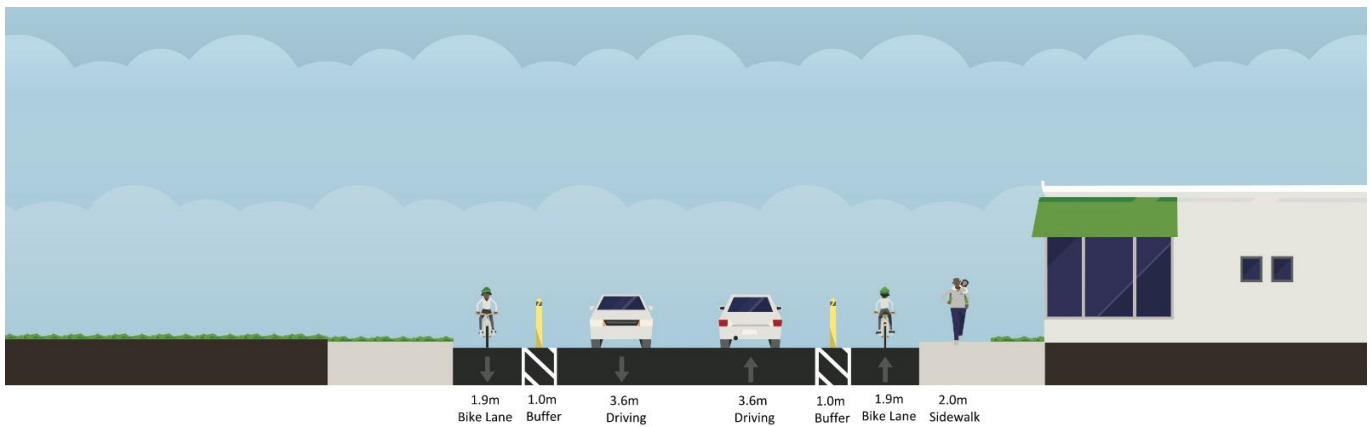
The new pedestrian signal crossing 2nd Avenue on 46th Street connects to a sidewalk on the north side, but there are no pedestrian or cycling facilities on the south side. A new sidewalk should be provided on the east side of the street and new buffered bicycle lanes for the block between 3rd Avenue and 4th Avenue. On-street parking would need to be removed for this block.

Sidewalks already exist north of 4th Avenue, but there are no cycling facilities. The traffic volumes are considerably lower north of 4th Avenue and sharrow street markings with bike route signage would be sufficient.

Average Summer Daily Traffic: 2,500 vehicles/day
Heavy Vehicle Proportion: 14%
On-Street Parking: Yes
Posted Speed: 50 km/h
Pavement Width: 13m
Right-of-way Width: 20m



Street with sharrow paint markings and signage, Kamloops, BC

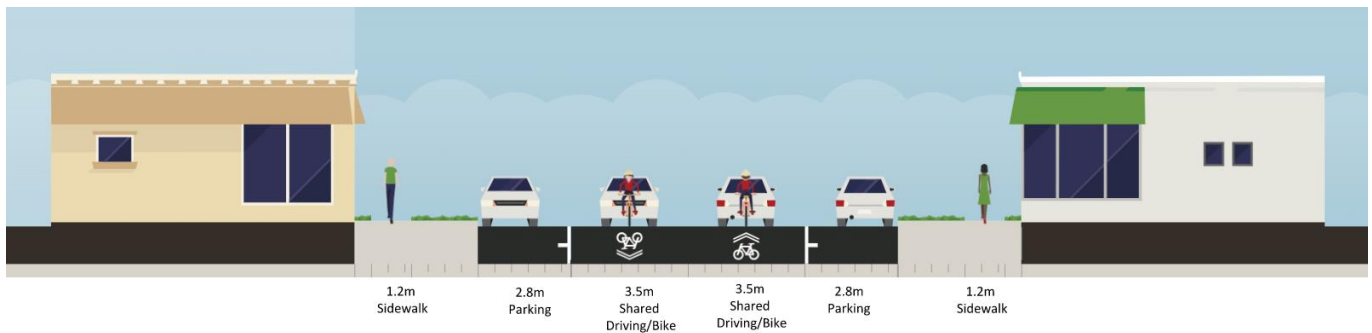


7th Avenue, 46th Street to 52nd Street

Recommended Facility Type: **Sharrows and Signage**

Like 46th Street north of 4th Avenue, volumes and potential conflicts on 7th Avenue are generally low allowing sharrow paint markings and bike route signage to be the appropriate approach for this street. The one exception is a short section of multi-use pathway through Kinsmen Park to connect 7th Avenue between 46th Street and 45th Street, as well as providing better non-vehicle access to the park.

On-Street Parking: Yes
Posted Speed: 50 km/h
Pavement Width: Variable (11.5m narrowest)
Right-of-way Width: 20m

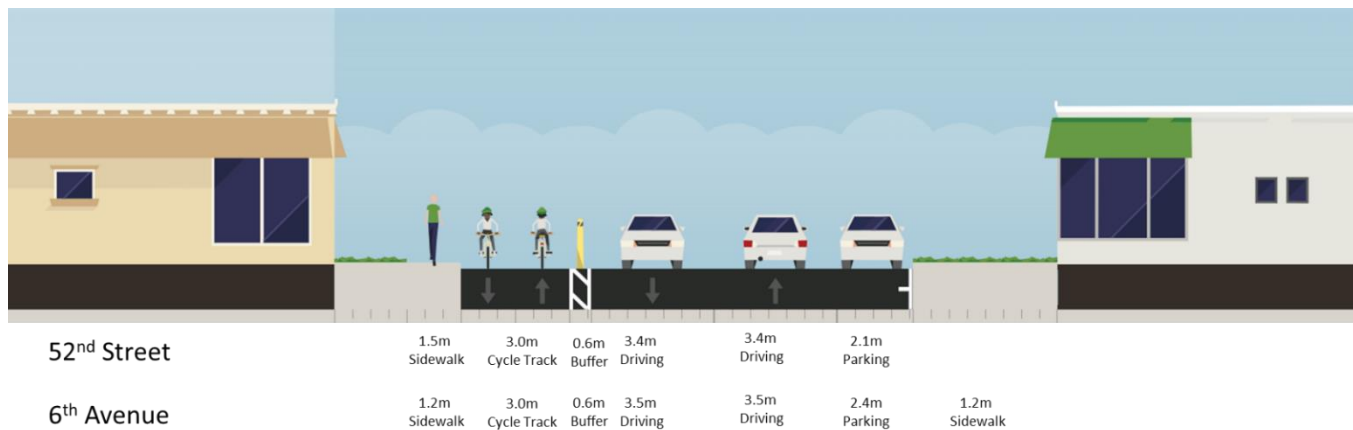


52nd Street, 7th Avenue to 6th Avenue and 6th Avenue, 52nd Street to 55th Street

Recommended Facility Type: **Two-way Cycle Track**

Since 7th Avenue doesn't extend west beyond 52nd Street, a connection is needed along 52nd Street and 6th Avenue. These streets, particularly 6th Avenue, carry more traffic than 7th Avenue. Therefore, cyclists should be provided with some separation from traffic, which can be achieved with a two-way cycle track on the west side of 52nd Street and north side of 6th Avenue. Like other similar treatments, the separation can be provided with adaptable infrastructure like curbing and/or delineators. It may also be desirable to use an off-street multi-use pathway along the park.

On-Street Parking: Yes
Posted Speed: 50 km/h
Pavement Width: 12.5m 52nd Street, 13m 6th Ave.
Right-of-way Width: 20m



4.3 Potential Future Options

As previously indicated, use of street space for cycling may not be the best long-term solution for 50th Street. The recommendation to initially use 50th Street for a north-south cycling connection is based on the availability of traffic signals to cross 4th Avenue and 2nd Avenue.

As Edson’s Main Street, pedestrian space should be prioritized to encourage retail development and the space used for the buffered bicycle lanes may better be assigned to pedestrian space. If this happens, the active transportation route would need to shift to either 51st Street or 53rd Street, with one-block connections on 2nd Avenue and 4th Avenue to allow the 50th Street signals to be used. These one-block connections could be either multi-use pathway at the current sidewalk level, or conversion of the existing parking lanes on 4th Avenue and 2nd Avenue to buffered bicycle lanes.



Another longer-term option that may be worthy of consideration is shifting the east-west corridor from 3rd Avenue to 2nd Avenue. Currently, 2nd Avenue has two through lanes, plus parking/turn lanes on either side. These outside lanes are underutilized and there is potential to convert the lane on the north side of the road to a buffered bicycle lane.

Because of the volume and type of traffic on 2nd Avenue, this facility would need physical separation such as curbing and delineators. Despite having higher traffic and truck volumes than the rest of Edson, this type of facility on busier and faster moving streets is common in urban centres and has proven to be successful for attracting cyclists and other wheeled forms of transportation. However, 2nd Avenue is under the jurisdiction of Alberta Transportation and Economic Corridors. This would be a departure from their historical focus for highway corridors. Despite this, there has been recent movement toward accommodating active modes and this could be an options ATEC is open to considering.

4.4 Typical Costs

The following table provides typical costs for various types of facilities. These costs will vary by location and may also depend on availability of materials at the time of implementation. Prices for curb extension will be highly variable based on the location, scale, types of materials used, and drainage considerations.

Facility Type	Cost	Notes
Marked Bicycle Lane	\$17.50/m	Includes line painting, bike and diamond symbol painting, signage
Buffered Bicycle Lane (paint only buffer)	\$26.50/m	Includes line painting, bike and diamond symbol painting, signage
Buffered Bicycle Lane (paint and plastic delineator buffer)	\$42.50/m	Includes line painting, bike and diamond symbol painting, plastic delineators at 5m spacing, signage
Buffered Bicycle Lane (paint, plastic delineator, and rubber curb buffer)	\$146/m	Includes line painting, bike and diamond symbol painting, plastic delineators at 5m spacing, adaptable/reusable rubber curbing, signage
Multi-use Pathway	\$465/m	Assumes 3.5m width
Laneway Paving	\$1,200/m	Assumes 350mm excavation, new granular base, pavement, markings, signage
Pedestrian Crossing	\$1,200 each	Pavement marking and signage
Rectangular Rapid Flashing Beacon	\$10,000 each	
Curb Extensions (temporary)	\$3,000 - \$5,000 per corner	Assumes traffic calming blocks
Curb Extensions (permanent)	\$7,500 - \$10,000	Will be more if there are drainage or utility conflicts

5. Funding

There are several potential streams of funding available. The nature of projects and initiatives addressed in the Edson Transportation Study mean that there is potential to access a variety of transit, green transportation, and social services funding. This section outlines some of the most relevant potential sources and is focused mostly on transportation-related funding but it is not an exhaustive list. Funding programs change regularly, and future programs may differ from those summarized in this section.

This section summarizes key information from each funding source from public websites.

5.1 Infrastructure Canada

Rural Transit Solution Fund

<https://www.infrastructure.gc.ca/rural-trans-rural/index-eng.html>

The Edson Transportation Study was funded under this program.

Eligibility: Municipalities, local and regional governments established under provincial or territorial statute, including local service districts.

Proposed solutions could include a range of modes of eligible transport, including traditional solutions such as fixed-route buses and non-traditional solutions such as ride-share or on-demand services requiring the purchase of minivans, small craft, zero-emission fleets, shared fleets, the construction of intermodal hubs, the installation of charging stations or the purchase of software.

Funding can be up to \$3 million in capital costs for new or expanding transit solutions (purchasing vehicles or digital platforms) with up to 80% project funding for rural and remote communities.

Deadline: Accepting Applications for Capital Projects; Planning and Design Project Stream closed in Oct 2021. Other deadlines will be announced at a later date.

Applicability to Edson: Can be used to purchase software to develop and enhance the existing systems in Edson, including on-demand services.

5.2 Government of Alberta

Healthy Aging Alberta

<https://corealberta.ca/news/providing-seniors-with-accessible-transportation>

ESTS is currently preparing a funding application for a one-time grant under this fund. The application addresses many of the elements related to public transportation as outlined in the Edson Transportation Study.

Eligibility: Funding support will be given to a maximum of ten programs provincially. Community-based senior serving (CBSS) organizations are encouraged to consider implementing a fee-for-service model in their program design, however, other models will also be considered. The following is a summary of the application requirements:

- Identify how the proposed service will positively impact older adults with mental health and addiction issues;
- Include or contribute to providing services known to help older adults live in their own homes and communities, such as; Transportation, Social connection programming, System navigation and supported referrals – includes helping seniors access housing, financial and social programs, complete forms, and accompaniment to appointments;
- Services will be developed or delivered in a community with high needs for the service(s) (e.g., high density of seniors; services do not exist or are insufficient in the community);
- Services will include underserved populations such as LGBTQ2S, immigrant and refugee, and Indigenous older adults;
- Ability to implement evaluation measures to demonstrate results (e.g., positive impact on physical health, mental health, social connection, ability to maintain residence);

- Description of how they currently work with, or plan to work with, other community organizations and health care providers for home and community support service delivery; and
- Have the capacity and willingness to be an active participant in a Community of Practice for the duration of the funding period.

Phase 2 of the program implementation started in August 2023 and will end March 31, 2025. CBSS organizations can apply for funding activities with a budget maximum of \$175,000 (direct and administrative costs included).

Funding Organization: Government of Alberta

Applicability to Edson: This funding has direct applicability to the services provided by the Edson Seniors Transportation Society and ESTS is actively pursuing funding for a variety of initiatives under this fund.

Strategic Transportation Infrastructure Fund

<https://www.alberta.ca/stip.aspx>

Eligibility: Edson may be eligible for funding under the Local Municipal Initiatives funding Stream as follows:

projects that align with the Government of Alberta’s economic, social, environmental and innovation priorities and are not eligible for funding under the other STIP components; and preference will be given to projects that are joint provincial/municipal priorities.

The level of cost-sharing for provincial and municipal contributions varies based on the project. Funding is determined in each budget cycle.

Deadline: Accepting applications until November 30 for funding in the following year.

Applicability to Edson: Can be used for both active transportation and public transportation projects.

5.3 Federation of Canadian Municipalities

Green Municipal Fund

<https://greenmunicipalfund.ca>

Through the Green Municipal Fund, there several funding streams available through the Federation of Canadian Municipalities. The Green Municipal Fund can support sustainability projects in five sectors, including transportation. Funding is available at all stages of a project, from feasibility assessment to capital project implementation.

The transportation and commuting options stream is most applicable to Edson and includes capital projects, pilot projects, and feasibility studies. This stream is for initiatives that encourage people to switch to fewer polluting modes (e.g., active transportation, transit).

Eligibility: Funding is available to Canadian municipal governments and project partners of municipalities, including private-sector entities, not-for-profit organizations, and Indigenous communities. Eligible projects should reduce the number of vehicles on the road, the number of kilometres they travel, or the amount of time they spend transporting people or goods and/or get people to use their vehicles more efficiently or switch to less polluting forms of transportation (i.e., a modal shift to public transit, walking, or cycling).

Funding levels are as follows:

- Capital Projects: low-interest loan of up to \$5 million and a grant worth up to 15% of the loan; cover up to 80% of eligible costs.
- Pilot Projects: up to \$500,000 to cover up to 50% of eligible costs; municipalities with under 20,000 population may qualify for 80% of eligible costs.
- Studies: up to 50% of eligible costs to a maximum of \$175,000

Deadline: Year-round applications until fundings are allocated

Applicability to Edson: Active transportation facilities and on-demand transit are among the examples of eligible project types identified.