MIDDLETON TOWN COUNCIL
Town Hall – Council Chambers & Facebook Live
Tuesday May 21, 2024
7:00 p.m.

AGENDA

1. CALL TO ORDER

2. APPROVAL OF THE AGENDA

3. PROCLAMATIONS

3.1 Parks & Recreation Month
3.2 National Indigenous History Month & National Indigenous Peoples Day – June 21

4. PRESENTATIONS

4.1 Final Master Transportation Plan – Englobe
4.2 Save Our Old Forests Presentation – Ann Morrow
4.3 Accessibility Advisory Committee – John Smith

5. APPROVAL OF THE MINUTES

5.1 Council Meeting Minutes – April 15, 2024
5.2 Public Hearing Minutes – May 6, 2024
5.3 Special Council Meeting Minutes – May 6, 2024

6. ANYTHING BY CITIZENS

Procedure: A thirty-minute period will be provided for members of the public to address Council regarding questions, concerns and/or ideas. Each person will have a maximum of two minutes to address Council with a second two-minute period provided there is time remaining within the thirty-minute "Anything by Citizens" period.

7. NEW BUSINESS

7.1 RFD 026-2024: Transportation Master Plan – PSC, MPAL, DRCD
7.2 RFD 027-2024: Capital Project Sewer Line Replacement – CAO/DPW

8. REPORTS

8.1 Management Report – CAO
8.2 Middleton Fire Department Dispatch Report for April – CAO
8.3 Annapolis County Inter-Municipal Working Group Apr 25/24 DRAFT Minutes – Councillor Fairn
8.4 IMSA Board Special Meeting Apr 10/24 DRAFT Minutes – Mayor Atkinson
8.5 IMSA Board Apr 17/24 DRAFT Minutes – Mayor Atkinson
8.6 Accessibility Advisory Committee May 7/24 DRAFT Minutes – Councillor Fairn
8.7 Mayor's Report

9. ANYTHING BY MEMBERS

10. ADJOURNMENT

Proclamation

PARKS & RECREATION MONTH
JUNE 2024

WHEREAS parks and recreation are an integral part of communities throughout this country; and

WHEREAS parks and recreation promote health and wellness, improving the physical and mental health of people who recreate and live near parks; and

WHEREAS parks and recreation promote time spent in nature, which positively impacts mental health by increasing cognitive performance and well-being, and alleviating illnesses such as depression, attention deficit disorders, and Alzheimer's; and

WHEREAS parks and recreation encourages physical activities by providing space for popular sports, hiking trails, swimming pools and many other activities designed to promote active lifestyles; and

WHEREAS parks and recreation programming and education activities, such as day camps, youth sports and environmental education, are critical to childhood development; and

WHEREAS our parks and natural recreation areas ensure the ecological beauty of our community and provide a place for children and adults to connect with nature and recreate outdoors.

THEREFORE, I, Sylvester Atkinson, Mayor of Middleton do hereby proclaim June 2024 as Parks and Recreation Month in the Town of Middleton.

Dated at Middleton, Nova Scotia
this 21st day of May 2024.

_____
Sylvester Atkinson, Mayor

Proclamation

NATIONAL INDIGENOUS HISTORY MONTH AND NATIONAL INDIGENOUS PEOPLES DAY

JUNE 2024

WHEREAS in 2009, June was declared National Indigenous History month by the passing of a unanimous motion of the House of Commons; and

WHEREAS recognizing National Indigenous History Month is an opportunity for citizens to learn more about the history of the Indigenous peoples in Canada – the first peoples of Canada; and

WHEREAS in cooperation with Indigenous People' national organizations, the Government of Canada designated June 21 as National Indigenous Peoples Day; and

WHEREAS June 21 was chosen because it corresponds to the summer solstice, the longest day of the year, and for generations many Indigenous Peoples' groups have celebrated their culture and heritage at this time of year; and

WHEREAS National Indigenous Peoples Day is wonderful opportunity to become better acquainted with the cultural diversity of First Nations, Inuit, and Metis peoples and to discover the unique accomplishments of Indigenous Peoples; and

WHEREAS the Town of Middleton is a community that celebrates its cultural diversity,

THEREFORE, I, Sylvester Atkinson, Mayor of Middleton do hereby proclaim June 2024, as National Indigenous History Month and June 21 National Indigenous Peoples Day.

Dated at Middleton, Nova Scotia
this 21st day of May 2024.

_____
Sylvester Atkinson, Mayor

Town of Middleton
Transportation Master Plan

Town of Middleton
Final Report

March 22, 2024
02211198.000

Town of Middleton
Client No. 0032344

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Revisions and publications log

REVISION No.	DATE	DESCRIPTION
01	March 8, 2024	Draft Report
02	March 22, 2024	Final Report

Executive Summary

The Town of Middleton (the Town) initiated the development of a Transportation Master Plan (TMP) in order to re-envision the Town's transportation networks and identify new infrastructure priorities for the coming decades. This TMP will aid in better facilitating equitable and sustainable transportation through alternative modes such as active transportation (AT) and balancing these needs and desires against future growth, right-of-way availability, and budget constraints.

The TMP has five key objectives: understanding existing conditions, estimating future growth, planning network improvements, revising transportation policies, and engaging with the community. In the context of Middleton, it is also critical to build the TMP upon the foundations laid through the Town's existing plans and policies, including the results of the Blue Route Community Hubs project.

Public and Stakeholder Engagement

The project team organized a series of engagement activities, inviting community members to share their vision for the future of transportation in Middleton. The engagement activities conducted yielded a well-rounded collection of thematic feedback. Engagement activities included a public information session, stakeholder engagement, and correspondence via email, social media/phone to ensure a comprehensive understanding of the diverse perspectives shared. The project team summarized the input received into a brief "What We Heard" report. Key takeaways from engaging with the public and stakeholders were support for:

- A downtown one-way loop;
- Enhanced pedestrian, cycling and accessibility treatments;
- Downtown parking and truck policy; and
- Traffic calming on residential streets.

These elements were further explored during the TMP analysis.

Town Growth

Town growth has been more modest for Middleton compared to the region as a whole. After a growth assessment for the area based on data from traffic collection, Stats Canada, NSDPW, and planned development, traffic is expected to grow by 10% to the 2040 horizon year. Minimal traffic delays are expected through the Town network as a result of this growth.

Road Network Improvements

Two sets of recommended cross sections were developed for the Town road classifications. One set of cross sections was designed to define the current road classifications and the second set provide AT options which include cycling facilities.

A traffic calming assessment was performed on Bridge Street, Connaught Avenue, and King Street at the request of the Town. Recommendations were made based on the street classification, speed limit, and street environment (i.e. residential, commercial). Recommendations consisted of speed humps, road narrowing measures, and mini roundabouts after a detailed traffic review and intersection design as needed.

A high-level review of a one-way Commercial St coupled with one-way School St was made in an attempt to direct the Town with the initial planning of a downtown one-way loop. A one-way loop could enhance the downtown atmosphere in Middleton making it more pedestrian friendly and creating open public space. The conversion of Commercial St specifically into a one-way roadway would mean a number of things for Middleton:

- Traffic would flow more efficiently, and volumes would decrease in a very active stretch of Commercial St;
- One travel lane could potentially be removed and replaced with wider sidewalks, AT, and/or accessible parking; and
- A unique opportunity is presented to provide public spaces such as parkettes with benches or full bus shelters at transit stops.

A one-way downtown loop (Commercial St coupled with School St) should be assessed in greater detail to ensure that the proposed network is a good fit prior to implementation. Should a one-way loop be applied downtown, one side of on-street parking should be removed in order to provide ample space for other modes of travel.

AT Network Improvements

Our team reviewed the existing AT facilities and the road network of the Town to identify routes and corridors where improved AT connectivity would have the greatest impact on residents. A recommended AT network for the Town is provided in Figure 7-4.

Once the AT network was established, we identified AT treatments for each segment. There were three types of cycling facilities that were recommended throughout the Town: **Unidirectional Bike Lanes** (protected/buffered), **Bidirectional Bike Lanes** (protected), and **Shared Facility**. Commercial Street between Main Street and Marshall Street, and Main Street where a protected facility (protected unidirectional or bidirectional bike lanes) is recommended require a more detailed study to identify a solution due to the various constraints in these areas. The following are the recommended AT facilities with the road classifications in Town.

Road Classification	Recommended AT Facilities
Arterial 1 (Commercial St south of Marshall St)	Protected 2-way bikeway with two sidewalks
Arterial 2 (All other arterial roadways)	Protected 1-way bike lanes with two sidewalks
Collector	Protected 1-way bike lanes with one sidewalk
	Local street bikeway with one sidewalk
Local	Local street bikeway with one sidewalk

The total capital cost to implementing the proposed AT treatments (including sidewalk) would be between $7.7 million and $22.4 million excluding incidental costs. An implementation plan is proposed in Section 7.7 where street projects were ranked from highest priority (1) to lowest priority (3) for construction. Highest priority projects should be installed in the next 3 years; 2nd highest priority projects should be installed in 3-5 years; and lowest ranked projects (3) may be installed in 5-10 years.

Parking and Truck Policy

Parking Policy recommendations were developed to establish guidelines for the operation of parking within the Town limits. On-street parking from one side of Commercial St (south of Marshall St) and one side of School St (south of the high school) is recommended for removal to provide additional room for AT facilities and accessible parking improvements.

Truck Policy recommendations were developed to establish guidelines for the operation of trucks within the Town limits. A truck route map was developed to provide a complete picture of how trucks are recommended access to the downtown area.

Property and Confidentiality

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Table of Contents

TABLES

FIGURES

APPENDICES

1 Introduction

Founded in 1810, the Town of Middleton is known as "the Heart of the Valley" due to its central position in the Annapolis Valley. The town is graced by the Annapolis River flowing through its southern end, adding natural beauty to the area. With a population just below 2,000 people, Middleton has a sense of historic charm about it. Notably, the Town's history is intertwined with its past as a hub for two main rail lines, which have since been abandoned and repurposed into recreational trails, adding a touch of nostalgia to the town's character and providing opportunities for outdoor activities.

Generally, expectations about transportation infrastructure are shifting. In previous decades, the focus of transportation agencies across North America has been primarily on the automobile and ensuring that travel by automobile was as efficient as possible, but recent shifts in economic means and environmental consciousness have put more emphasis on promoting walkable, bike-friendly, and accessible communities with public transit as an alternative to personal vehicles. The Town of Middleton is taking the initiative to improve their infrastructure in this direction for the citizens of the Town and their future.

To re-envision what the Town's transportation priorities should be moving forward, the Town of Middleton retained Englobe Corp. to undertake the development of a new Transportation Master Plan (TMP). Developing a TMP is a multifaceted process that involves understanding existing conditions, estimating future growth, planning network improvements, revising transportation policies, and engaging with the community. Through this process, the gaps in the existing and future networks can be identified and a plan can be developed to address these gaps over the coming years.

1.1 Town Transportation Master Plan Scope

The scope of work for the TMP includes a broad review of several areas of the Town's transportation network and how they should be addressed moving forward to create the system that is ultimately desired by residents. This means developing a network that facilitates the use of active modes of travel, improves overall mobility, is well maintained, and works for all residents now and into the future.

The Town retained Englobe Corp. to undertake the development of the TMP. The following objectives outline the greater purpose of the TMP and guide the Town in achieving a whole and complete Transportation network. Furthermore, the scope of each objective is defined by tasks undertaken by the Study team:

1.1.1 Background Study

- Develop a profile of the community;
- Review the existing plans and policies that influence the transportation network;
- Identify the existing network infrastructure and assess its performance;
- Assess the connectivity of key destinations in Town to the network;

1.1.2 Public Engagement

- Engage the community through an open house to understand the wants and needs of residents;
- Engage with local stakeholders in the system to understand their challenges in operating and/or using the system;
- Develop a What We Heard report to summarize the input received from engagement activities;

1.1.3 Street Network

- Develop a road classification strategy;
- Develop traffic growth for planned developments and manage future impacts;
- Review and prioritize traffic calming opportunities for key active areas in Town;

1.1.4 Active Transportation Network

- Create an Active Transportation (AT) network plan by identifying AT deficiencies and design a connected plan;
- Explore transit opportunities for existing service;
- Develop cost estimates and implementation plan; and

1.1.5 Trucking and Parking Policy

- Develop a truck and parking policy to better manage the flow of vehicle movement.

2 Existing Plans and Policies

In the preparation of this document, the Town's Municipal Plan, Active Transportation Plan, Traffic Calming Policy, and Asset Management Plan were reviewed to understand how they will influence and interact with the development of a Transportation Master Plan for the Town.

2.1 Municipal Planning Strategy & Land-Use Bylaw

The Town Planning Strategies and Land-Use Bylaw consider transportation in general with a few specific remarks to the Town's network. The overarching goal for Middleton is to establish a highly efficient travel network, including ensuring that traffic from new developments seamlessly integrates into this well-designed system. In May of 2023, an amendment was made to the Planning Strategy that included bicycle traffic consideration. Where parking and pedestrian access is required for new developments, bicycle access and bicycle parking are encouraged as well.

Moreover, it is worth noting that businesses located in the commercial downtown areas along Main St, Commercial St, Church St, and School St are not subject to on-site parking and loading requirements.

2.2 Active Transportation Policy

In 2018, the Town assembled an AT Policy which included guiding principles to abide by, goals to achieve, and policy statements through which to enforce AT. This short document defines AT as any form of self powered movement that promotes an active and healthy lifestyle for the community while also being environmentally conscious.

The Policy acknowledges the opportunity AT provides for the Town for all ages, through all means of active travel. It is a call to action for the Town to better plan for AT through policy making, capital

budget reviews, creating an infrastructure maintenance program, and performing an annual review for improvement opportunities to AT in Town.

2.3 Blue Route Hubs Report

The Blue Route Hubs Project is a collaborative initiative between Bicycle Nova Scotia and towns connected to the provincial Blue Route cycling network. The Hubs Project aims to establish active transportation network plans within communities. Given the small size of Middleton and residents' close proximity to key destinations, there is a high potential for increased walking, rolling, and cycling with the introduction of safe and convenient active transportation infrastructure. In the initial phase, Bicycle Nova Scotia worked in conjunction with the Town of Middleton to develop an inclusive active transportation network suitable for people of all ages and abilities.

Main Street was identified as the priority route, advancing to the concept design phase. The recommendation is for the Town to adopt the Blue Route Hubs Active Transportation Network, with a focus on prioritizing the implementation of Main Street.

In total, three (3) routes were considered and recommended by Bicycle Nova Scotia for an active transportation network in Middleton. The three routes (purple - Route 1, red - Route 2, green - Route 3 shown in the figure below) were also recommended in phases. Connecting to the Blue Route provincial cycling network, these routes aim to provide safe and convenient travel options for people of all ages and abilities. The phased implementation ensures a connected network, facilitating residents' access to key destinations.

Figure 2-1: Bicycle Nova Scotia Primary Recommended AT Routes

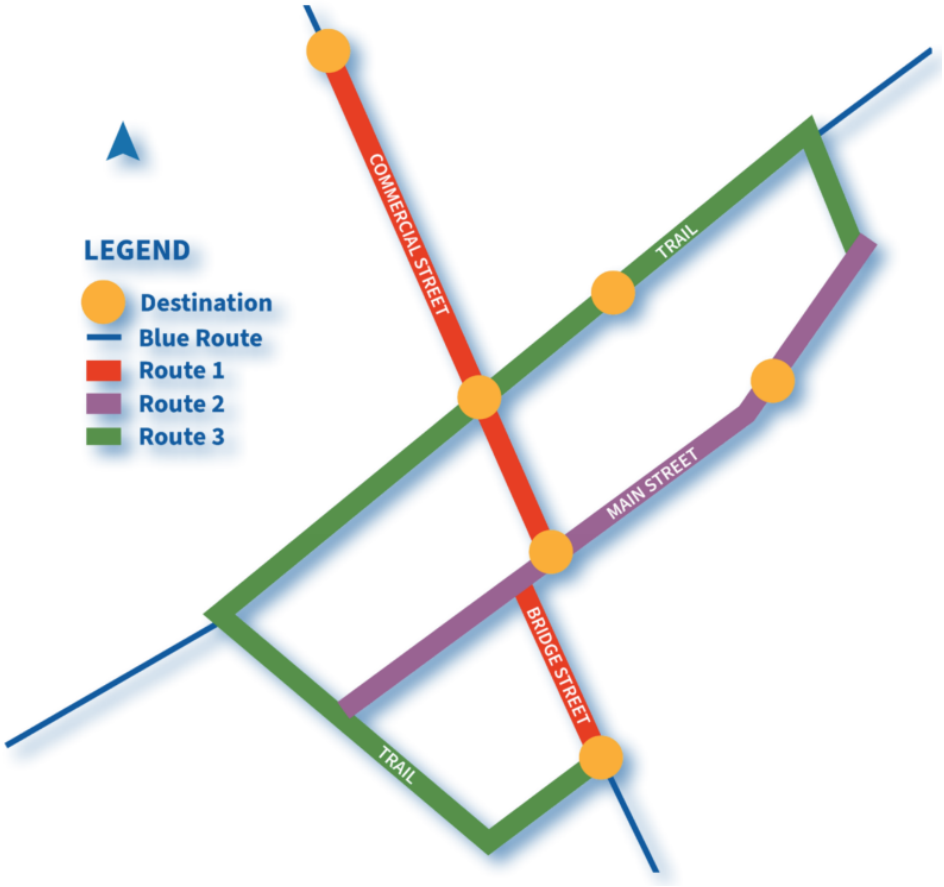


Photo credit: Blue Route Hubs Project - Phase 1

3 Existing Networks and Performance

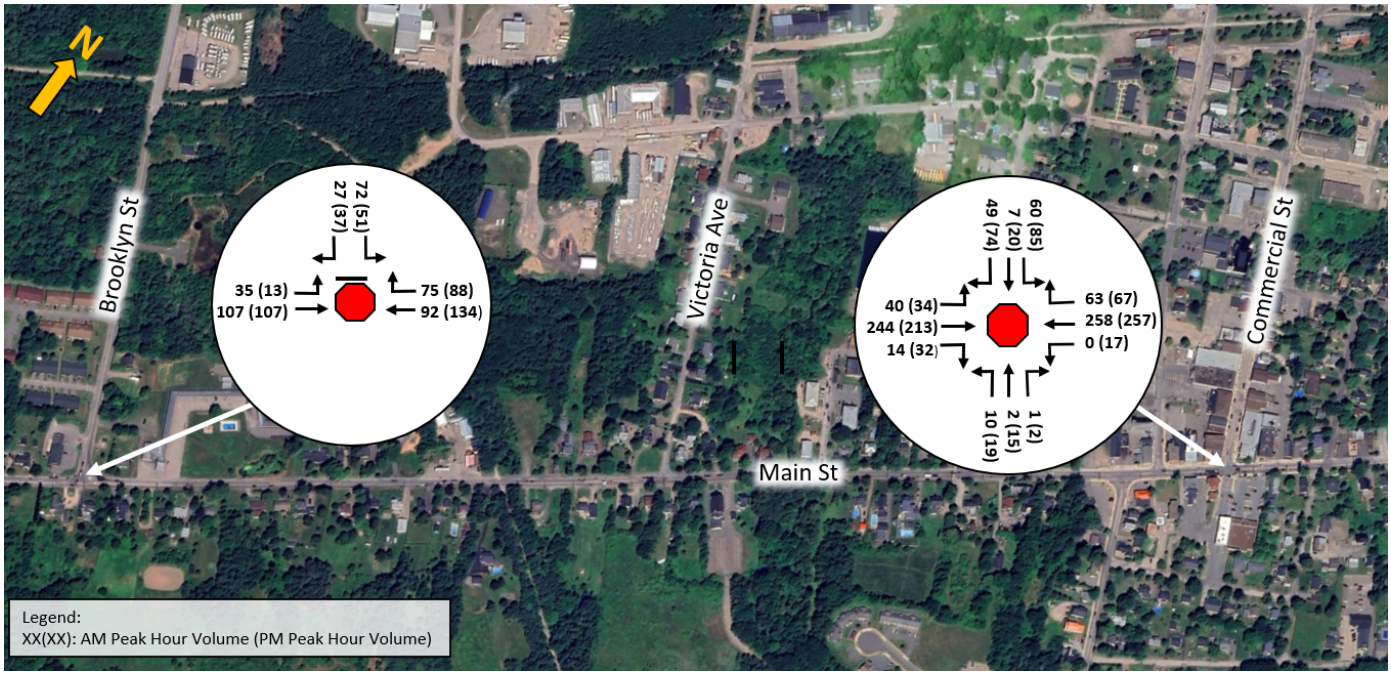
3.1 Transportation Network

The Town of Middleton features a limited trail system and several sidewalks, providing some pedestrian infrastructure. The town is primarily served by two main streets, Main Street and Commercial Street. Both are owned by Nova Scotia Department of Public Works (NSDPW). Additionally, there is a single public transit system (King's Transit Authority Service) that operates between municipalities, offering residents a connection to neighboring areas. Overall, the town's transportation network is relatively modest, with a focus on pedestrian and vehicular movement, and potential opportunities for expansion and enhancement in the future.

3.2 Traffic Volumes

Road segment traffic volumes and speed data recorded in April of 2022 were received from the Town. These were reviewed and additional data was collected at key intersections in June of 2023 to supplement the data provided by the Town. The traffic movement counts recorded in 2023 are shown in Figure 3-1 below.

Figure 3-1: Turning Movement Volumes



The primary traffic corridors through Middleton are Main St (Highway 1) and Commercial St (Route 362). The traffic volumes for these routes are summarized in Table 3-1 below with the highest Average Annual Daily Traffic (AADT) recorded on each route in bold. In order to calculate AADT, adjustment factors received by NSDPW were applied to traffic volumes on provincial roadways.

Table 3-1: Town of Middleton's Key Roadway AADT

ROADWAY	BETWEEN		2022 AADT	2023 AADT
Main St	Victoria St	Hollow Dr	5721	-
	School St	Commercial St	7944	-
	Jones Ave	Taylor Dr	**8519**	6000
Commercial St	Main St	Marshall St	**2116**	2115
Bridge St	Commercial St	Connaught Ave	**4162**	-
Brooklyn Rd	Main St	Freeman St	-	**1990**

3.3 Key Intersection Volumes and Level of Service

New traffic counts were collected at the Main St @ Brooklyn Rd and Main St @ Commercial St intersections in the Town between Monday, June 19 to Tuesday, June 20, 2023. The traffic counts were used to assess the traffic operations at each intersection. The intersection performance was evaluated mainly in terms of the level of service (LOS), which is a common performance measurement of an intersection. The LOS is determined based on vehicle delay and is expressed on a scale of A through F, where LOS A represents very short delays and LOS F represents very long delays. A LOS D is often considered acceptable in urban locations; however, some jurisdictions will accept a LOS E. The LOS criteria for signalized intersections, stop-controlled intersections, and roundabouts are shown in Table 3-2. The following sections detail the results for the two intersections in Middleton. LOS results are shown in Table 3-3 and detailed LOS results can be found in Appendix B.

Table 3-2: Level of Service Definitions

LOS	LOS DESCRIPTION	CONTROL DELAY (SECONDS PER VEHICLE)	
		Signalized	**Stop Controlled / Roundabout**
A	Very low delay; most vehicles do not stop (**Excellent**)	less than 10.0	less than 10.0
B	Higher delay; more vehicles stop (**Very Good**)	between 10.0 and 20.0	between 10.0 and 15.0
C	Higher level of congestion; number of vehicles stopping is significant, although many still pass through intersection without stopping (**Good**)	between 20.0 and 35.0	between 15.0 and 25.0
D	Congestion becomes noticeable; vehicles must sometimes wait through more than one red light; many vehicles stop (**Satisfactory**)	between 35.0 and 55.0	between 25.0 and 35.0
E	Vehicles must often wait through more than one red light; considered by many agencies to be the limit of **acceptable** delay	between 55.0 and 80.0	between 35.0 and 50.0
F	This level is considered to be unacceptable to most drivers; occurs when arrival flow rates exceed the capacity of the intersection (**Unacceptable**)	greater than 80.0	greater than 50.0

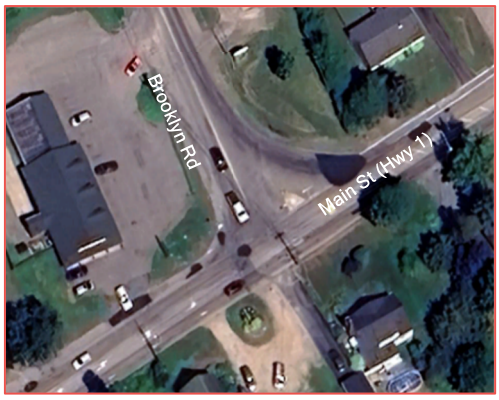
The 95th percentile queue length and volume to capacity ratio were also reported in Table 3-3. A brief description of the key intersections in Middleton and the LOS results for the 2023 existing conditions (if available) is provided below. Overall, traffic is flowing smoothly through Middleton with little delays or queueing reported at the key intersections during peak hours.

3.3.1 Main Street (Highway 1) @ Commercial Street (Route 362)

The Main St @ Commercial St intersection is the only signalized intersection in Town. Surrounded by commercial and retail development, it is a tight intersection in the heart of town. Each roadway features a combination of left turn lanes, on-street parking, and crosswalks at the intersection. The north leg of the intersection, Commercial St, is an arterial roadway providing the main access to the northside of town while the southern leg dead ends into the grocery store parking lot. Main St is situated in the east-west direction and is an arterial roadway. Sections of Main St and Commercial St within the town limits are owned and maintained by the Town.

Traffic signal timings were assumed for this intersection based on site observations. Main St @ Commercial St intersection is the busiest in the Town and operates at LOS B during the AM and PM peak. The eastbound thru and westbound thru movements on Main St have heavier traffic flow than all other movements. Both perform at LOS B during the peak periods. All other movements operate at LOS A during both peak periods.

3.3.2 Main Street (Highway 1) @ Brooklyn Road



Main St @ Brooklyn Rd intersection is a three-legged intersection and stop-controlled toward Brooklyn Rd, the southbound approach. Brooklyn Rd is an arterial roadway providing access to Middleton's industrial park. There is one shared lane in each direction and a crosswalk is located across the north leg of the intersection. In the westbound direction, off Main St, a wide channelized right turn with a curbed island can be seen.

The Main St @ Brooklyn Rd intersection operates at LOS A during both peak periods. Brooklyn Rd operates at LOS B during both peak periods while all other movements perform at LOS A. Traffic flows are fairly balanced between the approaches in the AM peak and become heavier in the westbound direction on Main St during the PM peak.

3.3.3 Main Street (Highway 1) @ Bridge Street (Trunk 10)

Main St @ Bridge St intersection is a three-legged intersection and stop-controlled in the north approach. Bridge St is an arterial roadway providing the main access to the southside of town and toward the Community of Nictaux. There is one shared lane in each direction and crosswalks are located across the west and south leg of the intersection. Bridge St within the town limits is owned and maintained by the Town.

Synchro analysis was not performed at this intersection however it is expected to perform similarly to Main St @ Brooklyn Rd. Traffic flows are expected to be heavier on Main St than Bridge St.

Table 3-3: 2023 Existing Level of Service Results

Intersection			Overall LOS // Delay (sec/veh)	Movement LOS // Average Delay (sec/veh) // [Volume to Capacity Ratio (v/c)] // 95th Percentile Queue (m)											
				Eastbound			Westbound			Northbound			Southbound		
Main Street @ Minor Street	Traffic Control	Peak Period		L	T	R	L	T	R	L	T	R	L	T	R
Main St/ Commercial St		AM	LOS B 10.5	A 9.6 [0.12] 6	B 11.1 [0.37] 28	Shared	A 0.0 [0.00] <1	B 11.6 [0.47] 34	Shared	Shared	A 8.3 [0.02] 3	A 0.0 [0.00] <1	Shared	A 9.2 [0.12] 9	A 3.6 [0.08] 4
		PM	LOS B 10.1	A 9.4 [0.10] 6	B 10.5 [0.36] 26	Shared	A 8.6 [0.04] 3	B 11.6 [0.47] 34	Shared	Shared	A 8.7 [0.06] 5	A 0.0 [0.00] <1	Shared	A 10.0 [0.19] 13	A 3.3 [0.12] 5
Main St/ Brooklyn Rd		AM	LOS A 3.3	A 7.5 [0.03] <1	Free Flow [0.07] <1	-	-	Free Flow [0.11] <1	Shared	-	-	-	B 11.1 [0.15] 4	-	Shared
		PM	LOS A 2.4	A 7.5 [0.01] <1	Free Flow [0.07] <1	-	-	Free Flow [0.14] <1	Shared	-	-	-	B 10.7 [0.13] 3	-	Shared

For an example of reading through the top row of Table 3-3:

- During the AM peak period, the intersection operates at LOS B with an average delay of 10.5 seconds/vehicle (see Table 3-2 for more detail on the letter grades)
- The two movements with the worst LOS at this period are the Eastbound through and Westbound through movements, which are LOS B
- The Westbound Thru movement has:
  - An average delay of 11.6 seconds/vehicle;
  - A Volume-to-Capacity ratio of 0.47 (which suggests that the movement could handle about twice as many vehicles before being fully congested); and
  - A 95th percentile queue of 34m, which is the queue length of vehicles at the intersection that would only be exceeded 5% of the time.

3.4 Collision Analysis

3.4.1 Data Collection

The Town received collision records from the RCMP to the study team for the project study area. The records included collisions between the years 2022 and 2023. The records contained details on collision severity, street name and street type, and some varying details for each incident. The total number of recorded incidents within the Town limits was 21 with twelve (12) in 2022 and nine (9) in 2023. Collisions recorded on Highway 101 were excluded from the analysis.

3.4.2 Collision Statistics Overview

Figure 3-2 shows the number of collisions per street during the study period of 2022-2023 within the Town of Middleton. The data shows the highest number of collisions were on Main Street (10 incidents in 2 years) with Marshall Street having the second highest number of incidents (3 incidents in 2 years).

Figure 3-2: Location of Incidents from 2022 to November 2023

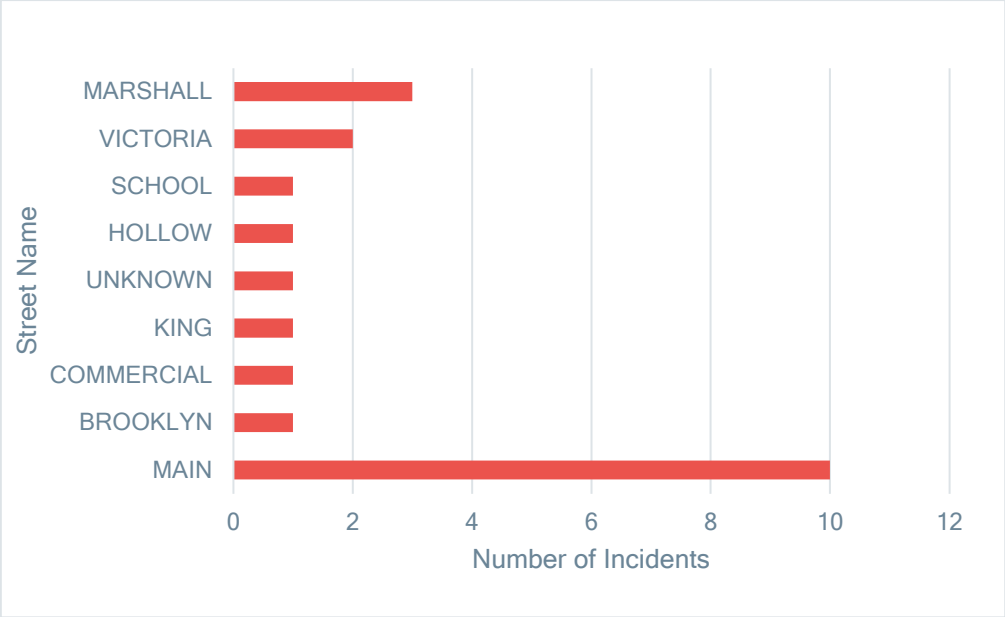
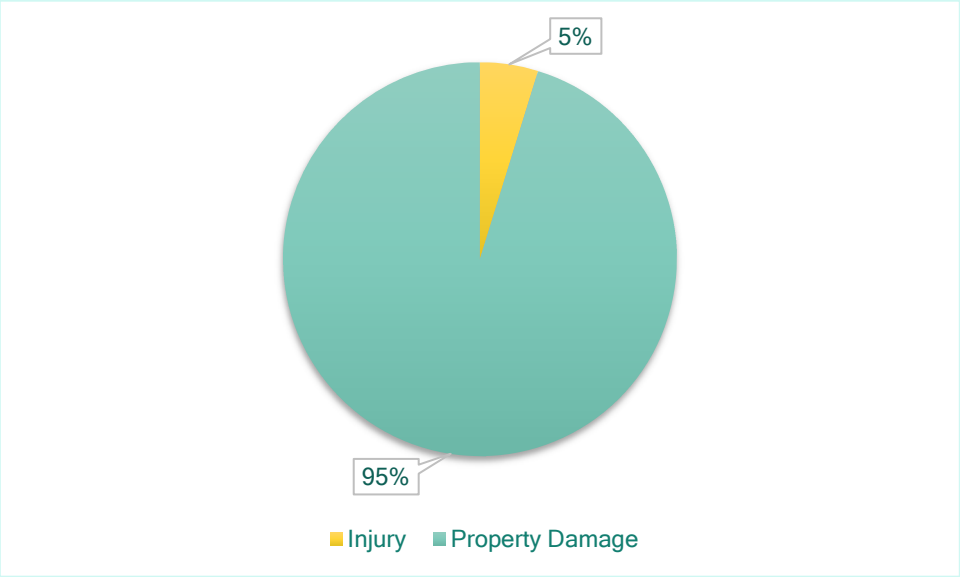


Figure 3-3 shows the distribution of collision severities for collisions that occurred on the study area roadways from 2022 through 2023. Notably there were no reported fatal collisions during this period, though fatal collisions are rare events and there is no reason to believe that fatal collisions would not occur on these roadways. ‘Injury’ collisions include all non-fatal injuries, with no further breakdown of the severity of injuries available. ‘Property Damage’ collisions include incidents in which property damage occurred with the vehicles involved.

Figure 3-3: Distribution of Collision Severities from 2022 through 2023



The data did not show any evidence of collisions involving pedestrians or cyclists. These types of collisions are often under reported and the statistics may be underrepresented though there is no reason to believe otherwise.

Overall, the collision review did not point to any obvious concerns in the study area. Main St. experience the most collisions by far; however, this is to be expected because of the higher traffic volumes on the road and because it is a longer road in the Town.

3.5 Active Transportation Network

The AT network in the Town is mostly composed of two trails, sidewalks, and few locations with paved shoulders delineated by striped line from the travel lane.

Photo credit: Google Maps

Middleton is fortunate to have 2 former rail lines that have been turned into recreational trails: the Harvest Moon Trail (or Annapolis Valley Trail) and the South Shore Annapolis Trail. The Harvest Moon Trail runs east-west through the northern side of Town and is established as a Blue Route by Bicycle NS. The South Shore Annapolis Trail starts at the Harvest Moon Trail and runs south out of Town. The trails are popular around recreation, tourism, provincial travel, and getting through Town.

Sidewalks are sporadic throughout Middleton. Commercial Street and Bridge Street, both arterial roadways, have sidewalk on both sides over a short stretch before continuing as sidewalk on one side and a paved shoulder on the other. Some collector streets have sidewalk on one side of the roadway. Generally, local streets do not have sidewalk and sometimes have gravel shoulders.

The 2022 *Blue Route Hubs Report* on the Town of Middleton provides more detail about the history of travel through Middleton and the existing demographics prone to using AT.

3.6 Transit Network and Ridership

King's Transit Authority Service (KTA) is the local transit service that connects King's County, Annapolis County, and the Municipality of Digby as well as neighboring Towns in between such as Middleton. Middleton is currently serviced by Route 3 of the King's Transit Authority Service.

The route makes numerous stops between Bridgetown and Greenwood, Nova Scotia. Coming from Bridgetown to the west, Route 3 uses Main St (Highway 1) to head east where it heads through downtown on Commercial St to reach NSCC campus. From NSCC campus, Route 3 heads south on Commercial St down to the community of Nictaux on Bridge St. The route then loops through Nictaux to head back north on Bridge St and head east on Main St toward the hospital and out of Town. Bus stops are generally located at popular destinations such as NSCC, Soldier's Memorial Hospital, and the grocery stores in Town. Route 3 runs every two hours through Town Monday-Friday from 6:00AM-7:00PM. On Saturdays it runs every two hours from 8:00AM-5:00PM. There is no service on Sundays.

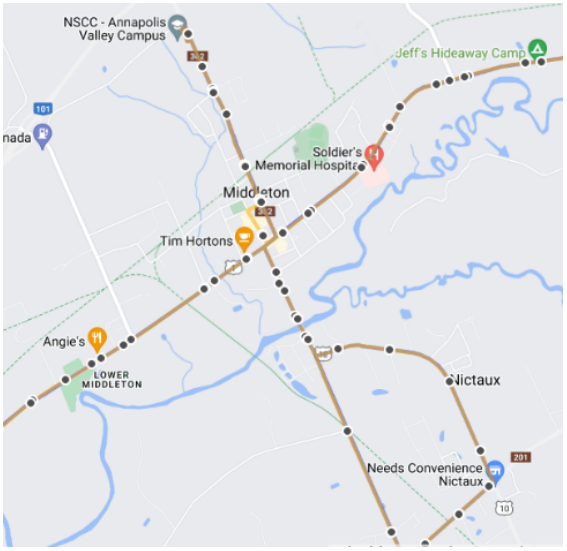


Photo Credit: King's Transit Authority 'Track My Bus!' Tracker

Historical ridership information on KTA's Service is limited and therefore was not reviewed.

4 Key Destinations

Several key destinations were identified in Middleton that are popular destinations within the transportation network. These destinations, and the ways in which people can access them, are summarized over the following pages. Key destinations are outlined and highlighted in yellow for reference. A map of these key destinations (among others for the town) is available in Appendix A.

4.1 Middleton Business Park

The Middleton Business Park is a 32-hectare area with a variety of industrial, business, and commercial facilities. It is accessible by Exit 18 off Highway 101 and located between Brooklyn Rd and Victoria St on the east and west, and Veterans Ln and Main St to the north and south. Approximately 50 percent of the park is developed with 40 percent more planned. It is primarily zoned for industrial and manufacturing, with commercial along the perimeter.

The Middleton Wetland Restoration Project is located in the southwest corner of the park. Clean Annapolis River Project (CARP) partnered with the Town of Middleton to restore a previously disturbed wetland area back to a natural state with walking trails throughout. The Wetlands Restoration area is estimated at 1.85 ha with plans to eventually connect more wetlands for a 3.0 ha wetland park. The project connects a natural environment with human activity by providing a space for animal habitat and recreational use. See the image below for an aerial overview of the Middleton Business Park.

Figure 4-1: Middleton Business Park

AT MODES Two major trail connections are located through the Middleton Business Park. The Harvest Moon Trail is oriented east/west and passes through a number of Town streets. To the south, the South Shore Annapolis Trail heads north before it forks towards both the east and the west making a triangle. The eastern leg of the South Shore Annapolis Trail travels through Marshall Street and the western leg trails just along the Wetland Restoration Project.

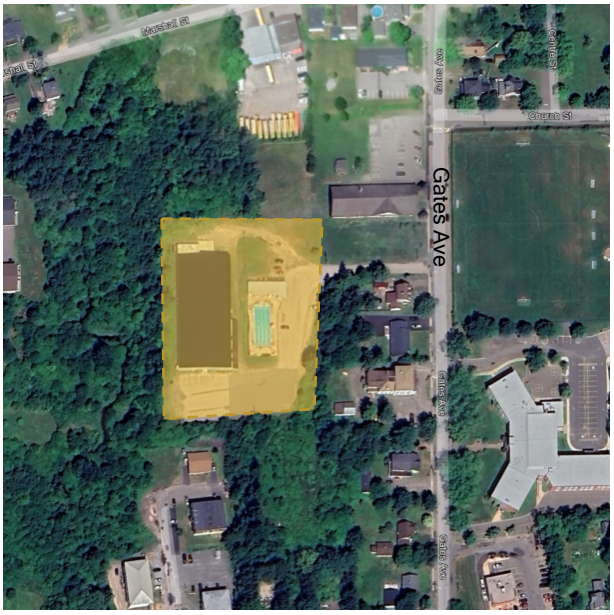
Brooklyn Rd features 0.5m paved shoulder and gravel shoulders on either side of the roadway. No sidewalks are provided. Main St features a sidewalk on the north side of the road. No other sidewalks are provided throughout the park.

AUTO Brooklyn Rd, Victoria St, and Veterans Ln all border Middleton Business Park. Marshall St, Marshall Dr, and Freeman St provide further access to through the park. Brooklyn Rd is classified as an arterial roadway within Town and provides access to Main St (Highway 1) and Highway 101. All other roadways are classified as collector roads with the exception of Marshall Dr which is local. Each site provides its own parking for staff and visitors. Truck access to Victoria Rd is currently restricted.

4.2 Middleton Arena and Swimming Pool

The Middleton Arena and Swimming Pool is multi-purpose arena, paired with the Middleton Swimming Pool. Both host many recreational events for the area. The indoor arena is an ice-skating rink that hosts skating and hockey events through the winter months and hosts an equipment loan program through the year. In the summer months, the outdoor pool hosts a number of lessons, open swims, and events for the community. The arena and swimming pool is located off Gates Avenue and approximately 0.83 ha of developed space. See the image below for an aerial overview of the centre.

Figure 4-2: Middleton Arena and Swimming Pool



AT MODES A sidewalk on Gates Ave provides access to the Centre. A crosswalk is located just north and south of the entrance across Gates Ave. The Harvest Moon Trail is located a few blocks north of the centre.

AUTO Gates Avenue is a local roadway that connects to Main St and Marshall St to the north and south. There is on-street parking located on Gates Ave as well as a parking lot provided on site. The location on Gates Ave is well connected to the center of Town and is conveniently located next to the Middleton Regional High School.

4.3 Middleton Regional High School (MRHS)

MRHS is a Grade 6-12 school with approximately 700 students and staff serving most of Middleton. The school's location between School St and Gates Ave makes it central to its catchment area. See the image below for an aerial overview of the Middleton Regional High School area.

Figure 4-3: Middleton Regional High School

AT MODES Both Gates Ave and School St have sidewalks and painted crosswalks for pedestrian access to the school property. The Harvest Moon Trail is located a few blocks north of the school but no connection to the trail is currently provided. No other AT facilities are provided in the area.

AUTO The school is well connected to the road network in Town. Gates Ave and School St both have on-street parking and there is parking provided on site.

TRANSIT School busses are permitted via the driveway entrance on Gate Ave from 8:45-9:15AM and 3:00-3:30PM. A bus route appears to be in place at the school for drop-off and pick-up times. Generally, school bus service is provided to students who live more than 1.0 km from the school.

4.4 Annapolis East Elementary School

Annapolis East Elementary School is a Pre-Primary – Grade 5 school with 400 students and staff serving Middleton. The school's location on Marshall Street, between McKenzie Drive and King Street, makes it central to its catchment area. The school is located adjacent to the Rotary Raceway Park and Middleton Skate Park. See the image below for an aerial overview of the Annapolis East Elementary School area.

Figure 4-4: Annapolis East Elementary School

AT MODES The Harvest Moon Trail is located just north of the school. Informal paths are seen between the school, the Rotary Raceway Park and the trail. Pedestrians have access to sidewalks on the north side of Marshall St, with painted/signed crosswalks along both driveways to the school. Pedestrians also have access to a sidewalk on east side of King St.

AUTO Vehicle access to the school is provided off Marshall St, with parking areas behind and in front of the school.

TRANSIT School bus service is provided and uses the same access as regular vehicle traffic. Generally, school bus service is provided to students who live more than 1.0 km from the school.

4.5 Rotary Raceway Park

The Rotary Raceway Park, the original site for the horse racing facility for the Town, is located at the end of Marshall St, adjacent to Annapolis East Elementary School. It is a multi-purpose outdoor recreational facility with ballfields, tennis and basketball courts, soccer fields, and the original racetrack. It also features a pavilion and washrooms. The Park hosts numerous events for the community and is also a rentable space for private events/sports. A playground for children in pre-school and up is located in the park and a skatepark has recently been added. The Park is approximately 6.8ha and the track measures a distance of 880m.

Figure 4-5: Rotary Raceway Park

AT MODES The Harvest Moon Trail is located just north of the Rotary Raceway Park. Informal paths are seen between the school, the Rotary Raceway Park and the Rail Trail. Pedestrians have access to sidewalks on the north side of Marshall St, with painted/signed crosswalks at McKenzie Dr.

AUTO Vehicle access to the Park is provided off Marshall St which dead ends into the parking lot which features ample parking space.

4.6 Riverside Park

Riverside Park is located on the southern side of town off of Bridge St (Highway 10). The Park is approximately 0.4ha and is located just along the banks of the Annapolis River. Walking trails through the park provide recreational activity as well as access to the river. A parking lot and boat launch are also available on site. In the summertime, the Town offers a bike and kayak/canoe loaning program from the park. See the image below for an aerial overview.

Figure 4-6: Riverside Park

AT MODES Just outside the Park, Bridge St consists of a two-lane roadway, a paved striped shoulder on the west that appears to be used both for cycling and as a sidewalk, and a gravel shoulder on the east. Paths are located within the park, but these do not lead to further connections outside the park. Additionally, the South Shore Annapolis Trail is located west of the park. Currently the trail is inaccessible from the park due to Lily Lake Brook bordering the park to the west. The park is also accessible to kayakers and canoers on the Annapolis River.

AUTO Vehicle access to the park is provided off Bridge St and ample parking space is provided.

TRANSIT A bus stop is located outside of Riverside Park on Bridge St, which is serviced by King's Transit Authority Service, Route 3. Route 3 runs every 2 hours on weekdays (13-hours) and Saturdays (9-hours) along Bridge St, Commercial St, and Main St (Highway 1).

4.7 Soldiers Memorial Hospital

Soldiers Memorial Hospital is located on Main Street, towards the east side of Town. The hospital is a full-service community facility including an emergency care site. It features private and semi-private hospital rooms, a lobby, a cafeteria, gift shop, and spiritual spaces and quiet rooms. It has a pay-to-park lot on site. See the image below for an aerial overview.

Figure 4-7: Soldiers Memorial Hospital

AT MODES Pedestrians have access to sidewalks on Main St. No other AT facilities are present.

AUTO Vehicle access to the hospital is provided off Main St. The hospital has a dedicated pay-to-park lot.

TRANSIT A bus stop is located outside of the hospital on Main St serviced by King's Transit Authority Service, Route 3. Route 3 runs every 2 hours on weekdays (13-hours) and Saturdays (9-hours) along Bridge St, Commercial St, and Main St (Highway 1).

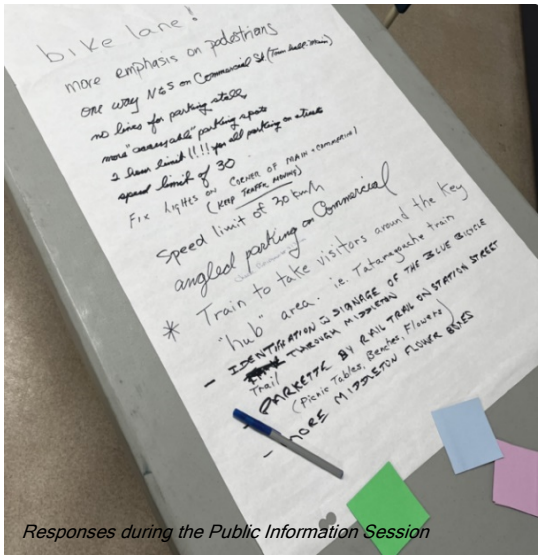
5 Community Engagement

Gathering input from staff, residents, and stakeholders is critical to understand the current state of transportation in Middleton. Recognizing this, the project team organized a series of engagement activities, inviting community members to share their vision for the future of transportation in Middleton.

The engagement activities conducted yielded a well-rounded collection of thematic feedback. Engagement activities included a public information session, stakeholder engagement, and correspondence via email, social media/phone to ensure a comprehensive understanding of the diverse perspectives shared. The project team summarized the input received into a brief “What We Heard” report. The report is organized into two sections, for public engagement and stakeholder engagement with a summary of both “What We Did” during the engagement phase and “What We Heard” from residents and stakeholders along the way. The report reflects a cohesive narrative from the various engagement activities for informational purposes rather than act as a binding directive to Town.

The information in the “What We Heard” report serves the purpose of providing readers with an opportunity to discover what the community has shared so far and to see their own input reflected if they were a participant themselves. The content presented in the “What We Heard Report”, paired with the more detailed findings from both the engagement phase and background review phase of this project established an informed foundation for this Transportation Master Plan. The final “What We Heard” report is included in Appendix C. Key takeaways from engagement included support for:

- Downtown one-way loop;
- Enhanced pedestrian, cycling and accessibility treatments;
- Downtown parking and truck policy; and
- Traffic calming on residential streets.



Responses during the Public Information Session

6 Transportation Network

6.1 Travel Demand Forecasting

A review of the Town of Middleton's growth was performed for a defined horizon year. The horizon year used in this document is 2040. This section examines the town's evolution in terms of population, traffic, and development, carefully considering and projecting growth rates to 2040.

6.1.1 Population Growth

Understanding where demand for new trips in the Town will be generated requires an understanding of how the traffic volumes have evolved in the Town over time. Starting with the transportation network user, Statistics Canada census data was collected from 2016 to 2021 to profile the population growth in the Town of 2.2%, an average rate of about 0.44% per year. Comparatively, the provincial average is 5.0% and the national average 5.2% during that 5-year period. Additionally, occupied dwelling units in Middleton increased by 3.4% (922 privately occupied units in Town) over 5 years. This data demonstrates that Town growth has been more modest for Middleton compared to the region as a whole.

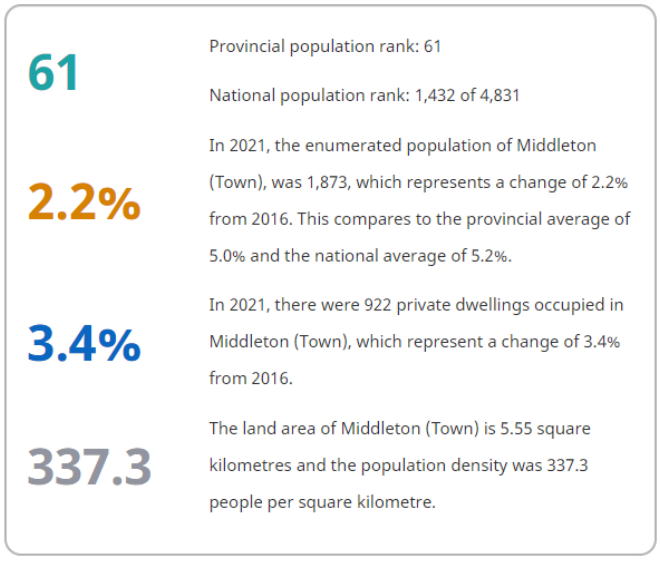


Photo credit: Statistics Canada

6.1.2 Traffic Growth

Knowing that the Town of Middleton has not seen significant growth over the last decade sets an interesting context for reviewing traffic volume growth on select roadways. Data for this was available from NSDPW for provincial routes. Table 6-1 summarizes the growth rates observed on provincial roadways through the Town. Data observed were for the years 2012 and 2018. Data beyond 2018 were either unavailable or erratic due to Covid-19 pandemic. Overall, the data from 2012 to 2018 ranges from increasing up to 2.3% to decreasing by 9.6% annually. This indicates that the road network is not seeing consistent growth just outside Town borders.

Table 6-1: Provincial Historical Traffic Growth Rates

Roadway	Years		Annual Growth Rate
	From	To	
Highway 1/Main St (Middleton Town Line - East)	2012	2018	0.9%
Highway 1/Main St (Middleton Town Line - West)	2012	2018	-0.2%
Trunk 10 (Middleton Town Line – South)	2012	2018	2.3%
Route 362 (Middleton Town Line – North)	2012	2018	-9.6%

6.1.3 Development Growth

The Town provided our team with a list of proposed developments to be opened by 2040. Most upcoming developments in Town are for residential uses (single family and multi-unit housing), while a few include mixed-use with commercial retail. The key destinations map, shown in Appendix A, outlines the planned developments within Town in blue. The following is a list of these items:

- Northlands Development: 100+ acres of residential and commercial
- NS Housing Development: 30 acres of residential
- Magee Rd expansion: 40-unit apartment building(s)
- Main St Apartments: 32-unit apartment building(s)

Overall, these developments have the potential to increase the development growth by approximately 20%; far more than would likely be developed through the 17-year horizon in this study based on historical growth trends. Most of the projected units are spread through the undeveloped rural zone areas of the Town, though some undeveloped parcels within the urban core were also highlighted for higher density development. The corridors with the most potential for growth included:

- Commercial Street
- Main Street
- Bridge Street
- Junction Road
- Meadow Lane

The Town does not anticipate significant industrial, institutional, or other developments. Junction Rd and Main St may see some retail along the roadway as part of the Northlands Development. Any significant industrial, commercial, institutional, or other developments should be reviewed on a case-by-case basis to understand their impacts on the Town's growth and transportation network capacity.

Our team assessed the generated traffic from the proposed developments, the likely change in population growth from Stats Canada, and NSDPW traffic data. Based on this assessment an overall growth of 10% was used to project traffic growth to the 2040 horizon year. This is an average of the data analyzed and is a best estimate of expected Town growth in the next 17 years.

6.1.4 Travel Mode Split

Much like the rest of Nova Scotia, personal vehicles are the travel mode of choice in Middleton. This is likely driven by the low density, suburban/rural nature of the Town, the lack of AT and transit options, and the population being of an age where they are likely to own their own vehicles and spend more money for convenience of shorter and more direct trips.

Commuting mode choice data from the 2021 Census comparing Middleton to the rest of Nova Scotia is shown in Table 6-2.

Table 6-2: Commuting Mode Split in the Town and Province

Mode	Town of Middleton	Province of Nova Scotia
Personal Vehicle	76.2%	79.7%
Carpool	12.3%	7.7%
Transit	1.6%	3.5%
Walked	6.6%	5.6%
Cycled	0%	0.5%
Other	3.3%	2.3%

Table 6-2 shows that the Town of Middleton has very similar modal splits compared to the province as a whole. A larger share of Middleton residents choose to carpool to work as compared to Nova Scotians. For both regions, most people drive themselves to work. These results make sense in the Middleton commuting context, where 54.8% of people in Middleton work outside of Town. Shining this light on the data also makes the walking mode share look good by comparison (6.6%) to the rest of the province (5.6%).

From a commuting standpoint, the most room for growth in mode share is within transit trips. Given the number of people who commute away from Middleton, there should be sufficient density of trips for a wider reaching service. Challenges to this include the KTA service schedule which only offers bus pick-up/drop-offs every 2 hours. Supply and demand are likely both a factor to serviceability which the Town has no authority over. Some gains could likely be made in active transportation mode usage, specifically cycling, but the infrastructure to key destinations in Town are lacking.

6.2 Future Road Network

6.2.1 2040 Future Level of Service Conditions

The projected traffic volumes for 2040 conditions were used to assess the traffic operations at each Main St @ Brooklyn Rd and Main St @ Commercial St intersections. LOS and expected increases in delays were minimal showing 0.1-0.7 seconds increase at the approaches and intersections overall. Each movement is still expected to perform at a very good LOS of B or higher. LOS results are shown in Table 6-3 and detailed LOS results can be found in Appendix B.

Table 6-3: Future 2040 Level of Service Results

Intersection			Overall LOS // Delay (sec/veh)	Movement LOS // Average Delay (sec/veh) // [Volume to Capacity Ratio (v/c)] // 95th Percentile Queue (m)											
				Eastbound			Westbound			Northbound			Southbound		
Main Street @ Minor Street	Traffic Control	Peak Period		L	T	R	L	T	R	L	T	R	L	T	R
Main St/ Commercial St		AM	LOS B 10.9	A 9.8 [0.14] 7	B 11.4 [0.41] 30	Shared	A 0.0 [0.00] <1	B 12.2 [0.51] 37	Shared	Shared	A 8.7 [0.02] 3	A 0.0 [0.00] <1	Shared	A 9.7 [0.14] 10	A 3.7 [0.09] 5
		PM	LOS B 10.4	A 9.4 [0.12] 6	B 10.7 [0.38] 28	Shared	A 8.5 [0.05] 4	B 12.1 [0.51] 37	Shared	Shared	A 9.3 [0.06] 6	A 0.0 [0.00] <1	Shared	B 10.7 [0.22] 16	A 3.5 [0.13] 6
Main St/ Brooklyn Rd		AM	LOS A 3.4	A 7.5 [0.03] <1	Free Flow [0.08] <1	-	-	Free Flow [0.12] <1	Shared	-	-	-	B 11.5 [0.18] 5	-	Shared
		PM	LOS A 2.5	A 7.6 [0.01] <1	Free Flow [0.08] <1	-	-	Free Flow [0.16] <1	Shared	-	-	-	B 11.1 [0.15] 4	-	Shared

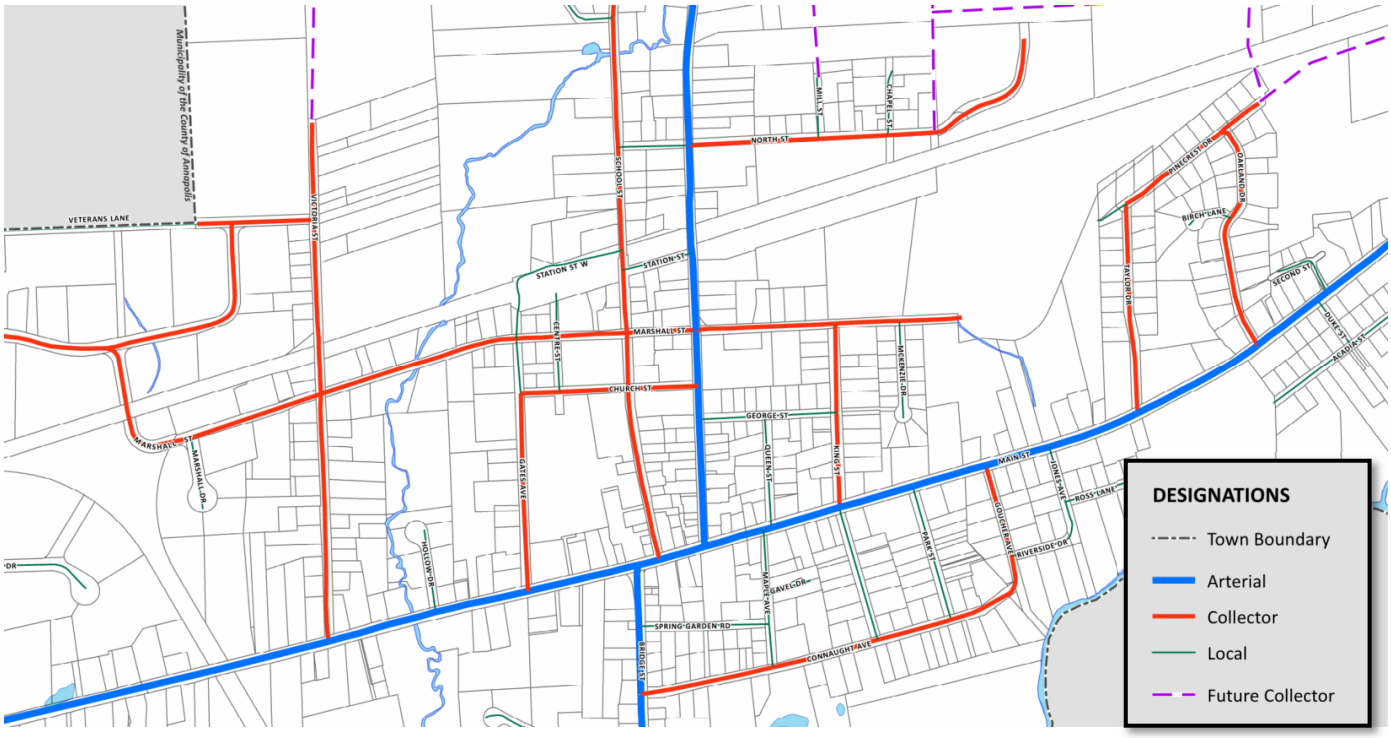
6.2.2 Updates to Classification Framework

Our team reviewed the Town's existing road classification framework from the Town's Municipal Planning Strategy. Generally, the map is well laid out for future growth; however, standard cross sections to define each road designation do not exist. A section of the Town's "Transportation and Street Hierarchy Map" is shown in Figure 6-1 with the full map found in Appendix D.

Two sets of recommended cross sections were developed for the three road classifications. A standard set of cross sections was designed to define the current road classifications and give an understanding of what elements should be provided at a minimum. This included changing roadway widths, adding curb, and adding a minimum of one sidewalk to the roadside. The second set of cross sections provides an AT option which includes a cycling facility. Note that more discussion on the AT facilities recommended will be provided in Section 7.5. Cross sections can be found in Appendix E, with a summary of the key changes outlined below.

- A standard road classification cross-section for each existing designation in Town;
- One to two AT options for each street classification which includes cycling facilities;
- Lane widths reduced in some cross sections to make more space for AT infrastructure;
- Addition of sidewalks to one side of the roadway (at minimum) for each street classification; and
- Sidewalk widths were increased when necessary to meet TAC guidelines.

Figure 6-1: 2018 MPS Transportation and Street Hierarchy Map

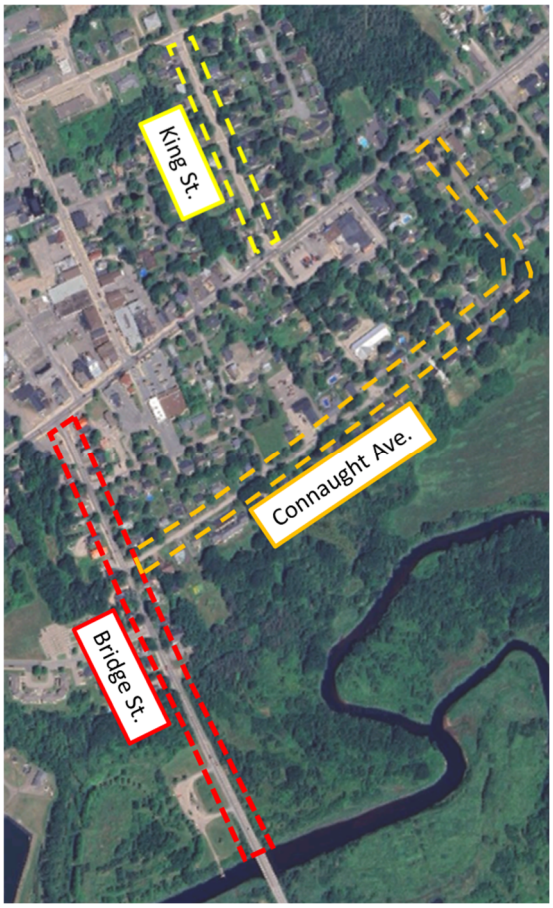


6.2.3 Traffic Calming

During our meetings with Town staff, we were informed of requests for traffic calming on Bridge Street, Connaught Avenue, and King Street. These areas are illustrated in the figure to the right.

When assessing public requests for traffic calming, it is often helpful to undertake data collection (vehicle speed and traffic volume) to understand the nature of the request. Public perception is often driven by noticing outliers (i.e. the few speeding vehicles on a road) and not necessarily the true traffic conditions on the roadway. Specific traffic data was not collected for these three locations, so the following discussion will outline the likely merits of each request and identify countermeasures that could address the issues.

Figure 6-2: Traffic Calming Areas



6.2.3.1 Bridge Street

Through the Town, Bridge Street is a collector roadway that has a 2-lane cross section and a posted speed limit of 50 km/h. The roadway has different characteristics in the developed and undeveloped parts of the Town. From the north end of the bridge up to the start of the residential area of the Town, Bridge Street has a rural feel with a bicycle accessible shoulder on the west side and an unpaved shoulder on the east side. Through the residential area up to Main Street, the roadway has curb and gutter, monolithic sidewalk on the west side throughout, and monolithic sidewalk on the east side to the north of Spring Garden Road.

The traffic calming issue identified on Bridge Street is speeding. To address this issue on a collector roadway, changes to the driving environment that make the road feel narrower and introduce lateral shifts in the roadway that require steering input are typically recommended. The northern half of the roadway is already narrow due to the existing lane widths, curb and gutter, and roadside trees and development. The southern half could be made to feel narrower by adding a **flexible delineator** buffer alongside the bicycle accessible shoulder. Additionally, a **gateway treatment** could be added to the roadway near the existing “Town of Middleton” sign to further reinforce the change in driving environment. Examples of these measures are shown in the figures below.

Photo credit: Develotech Flexible Delineators (Left) and Google Maps Gateway Treatment (Right)

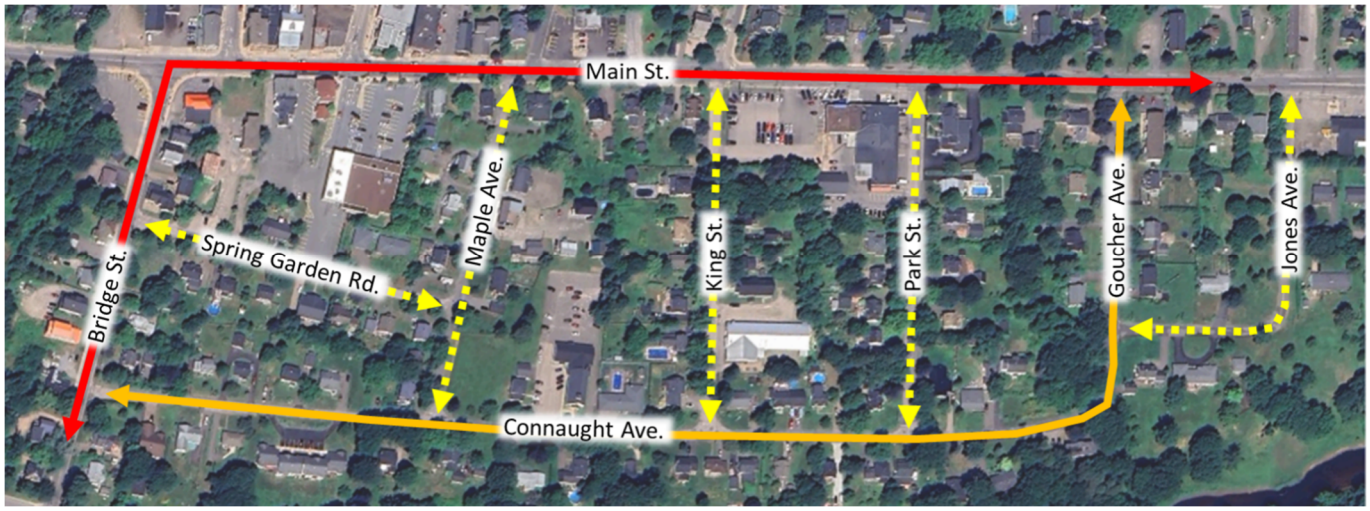
The more commonly requested traffic calming measures like speed humps and mini roundabouts are not recommended for collector roadways because they impede the function of the roadway as a corridor for vehicles to move through, especially for trucks and larger vehicles. Further, it is recommended that speed data be collected along Bridge Street prior to implementing either of these measures to validate the need for them based on the 85th percentile speed.

6.2.3.2 Connaught Avenue

Connaught Avenue is a 2-lane local road with a speed limit of 50 km/h. The roadway runs parallel to Main Street and turns into Goucher Avenue at its east end, turning towards the north to intersect with Main Street.

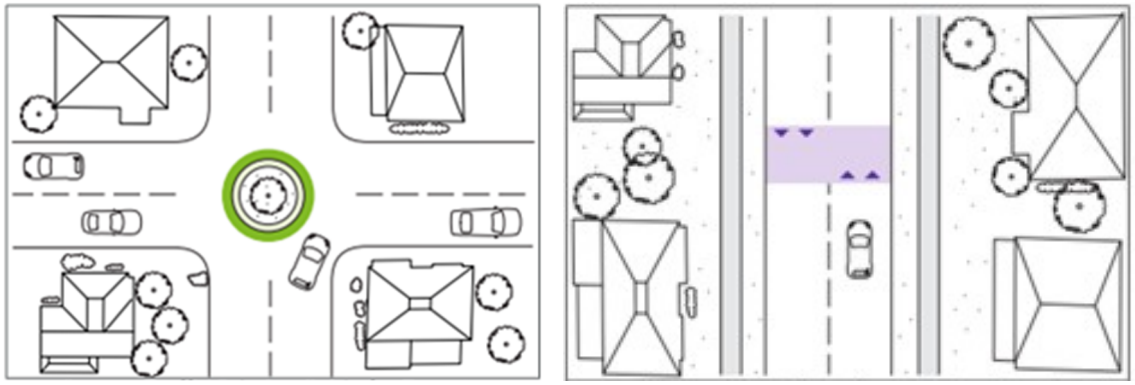
The main traffic calming issue raised around this street is that of cut-through traffic, with lesser concerns around speeding. Given the road network in the area, it is expected that some traffic would use Connaught Avenue / Goucher Avenue to divert around downtown. The main challenge in addressing cut-through traffic is that there are multiple paths through the neighbourhood for drivers to take to divert around downtown. The figure below shows the primary route through downtown (red line), the path along Connaught Avenue (orange line), and the potential alternate routes for diverting vehicles (yellow lines). In areas like these it is important to take a neighbourhood approach to traffic calming to ensure that the diverting traffic stays on the main roads and does not just move to another route through the neighbourhood.

Figure 6-3: Connaught Avenue Neighbourhood with Cut-Through Routes Identified



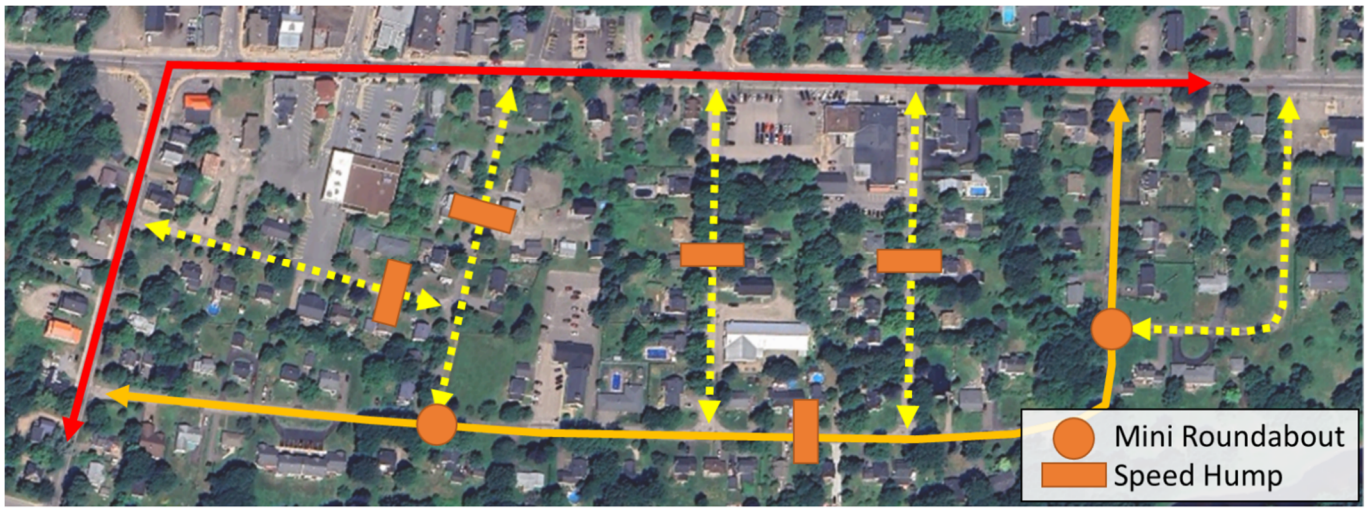
To address this issue, it is generally recommended that **mini roundabouts** and **speed humps** be integrated to the road network to create extra friction for drivers trying to divert through the area. Examples of these measures are shown in the figure below. More extreme measures like access restrictions and diverters are not recommended due to the impacts that they would have on residents in the neighbourhood.

Figure 6-4: Mini Roundabout (left) and Speed Hump (right) [Source: Traffic Calming Guide for Toronto]



Best placement for mini roundabouts and speed humps were reviewed through the network and the approximate locations shown in the figure below are recommended. The mini roundabouts were located at intersections that did not conflict with a driveway, though both are at three leg intersections so there will likely be some need to widen these intersections to create the required deflection for through vehicles. Prior to implementing these measures, a more robust review of the thru traffic volumes on Connaught Avenue and a preliminary design study to review the specifications required for the mini roundabouts should be performed.

Figure 6-5: Connaught Avenue Neighbourhood Traffic Calming Recommendations



6.2.3.3 King Street

Between Main Street and Marshall Street, King Street is a 2-lane local road with a speed limit of 50 km/h, curb and gutter on both sides, and a monolithic sidewalk on the east side. The Annapolis East Elementary School is at the north end of King Street, making this road a popular connection between Main Street and the school.

The primary traffic calming concern raised about King Street was cut-through traffic, particularly trucks cutting through to bypass the downtown commercial area. King Street and Marshall Street both have relatively wide paved surfaces that are well suited to truck movements; however, this is not the intended use of King Street as a local road. Speed bumps were installed in past on King Street temporarily to address speeding vehicles. However, they were removed once more complaints came

from citizens about vehicles bypassing the speed bumps by “off roading” or simply speeding over them making loud sounding thuds through the street.

Figure 6-6: Speed Cushion

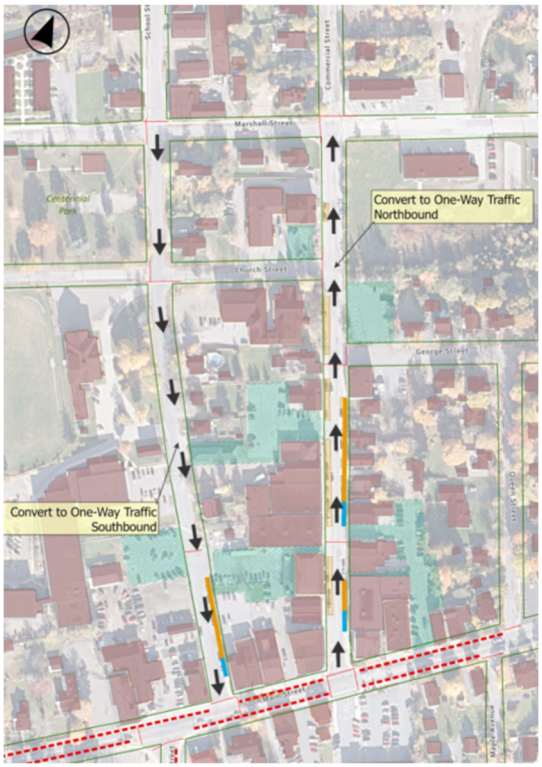
Source: Traffic Calming Guide for Toronto

To address this concern, **speed humps** are recommended on King Street between both Marshall Street and George Street and George Street and Main Street. Speed humps will significantly slow truck traffic through the corridor, which will make them more likely to stay on the primary roadways. Speed humps are quieter than temporary speed bumps by design. Education around speed humps could also be provided to the Town that explain how to safely maneuver through King Street and the repercussions of disobeying traffic law. Mini roundabouts would not be advised since this corridor likely needs to allow for school bus movements. If speed humps are too challenging for busses to navigate, **speed cushions** could be used, which are effectively speed humps with gaps for the track width of large vehicles; however, this would also make it easier for trucks to navigate the corridor.

6.2.4 Downtown One-Way Loop

Discussions of the transformation of Commercial St into a one-way thoroughfare from George St/Church St to Main St has been ongoing for several years. There has been notable public support for this conversion to enhance safety and traffic flow. The Accessibility Advisory Committee are also in support of converting Commercial St to allow room for more AT, accessible parking, and a safer downtown experience. The Blue Route Hubs Report even mentions it briefly in the assessment of AT routes through Town. A one-way Commercial St could enhance the downtown atmosphere in Middleton making it more pedestrian friendly and creating public space for interacting with the surrounding environment and socializing with the community.

Figure 6-7: One-way Loop in Downtown Middleton



The conversion of Commercial St into a one-way roadway would mean a number of things for Middleton:

- Traffic would flow more efficiently, and volumes would decrease in a very active stretch of Commercial St;
- One travel lane could potentially be removed and replaced with wider sidewalks, AT, and/or accessible parking; and
- A unique opportunity is presented to provide public spaces such as parkettes with benches or full bus shelters at transit stops.

Quite often, one-way streets are coupled with an adjacent one-way street in the opposite direction. The clear pairing in downtown Middleton would be Commercial St with School St which also provides access to some commercial and institutional businesses within this section. The question of which direction the loop would travel (clockwise or counterclockwise) still remains.

The following is a comparison of a one-way loop with a northbound or southbound Commercial St.

Table 6-4: One-Way Loop Directional Comparison

Clockwise: Southbound Commercial Street (with a northbound School Street)	Counterclockwise: Southbound School Street (with a northbound Commercial Street)
Traffic can easily depart Commercial St as they are headed in the direction of Main St.	Traffic can easily access Commercial St from Main St.
Maintain easy access to business parking lots off School St from Main St.	Maintain easy access to business parking lots off Commercial St from Main St.
Commercial St does not provide access to Highway 101 and so the majority of Commercial St visitors are there for the businesses in this stretch. Visitors then depart via Main St.	May be more instinctual for Commercial St (further east) to be northbound and School St (further west) to be southbound based on driving behaviour.
Traffic signal (if still warranted) will help the minor approach (Commercial St) enter Main St.	On-street parking would be on the right side of the street on Commercial St which is more typical as recommended in the parking plan.
On-street parking would be on the right side of the street on School St which is more typical as recommended in the parking plan.	

Should a one-way loop be applied downtown, one side of on-street parking on both streets should be removed in order to provide ample space for other modes of travel. Strategic planning with KTA is necessary so a future transit route through Town and transit stops can be properly planned for.

This high-level review of a one-way Commercial St was made in an attempt to direct the Town with the initial planning however, a one-way downtown loop (Commercial St coupled with School St) should be assessed in greater detail to ensure that the proposed network is a good fit prior to implementation. An alternative option with fewer implications is that one-way roadways could also be explored on narrow residential streets (i.e. George St, Queen St) for active transportation users where volumes and speeds are lower.

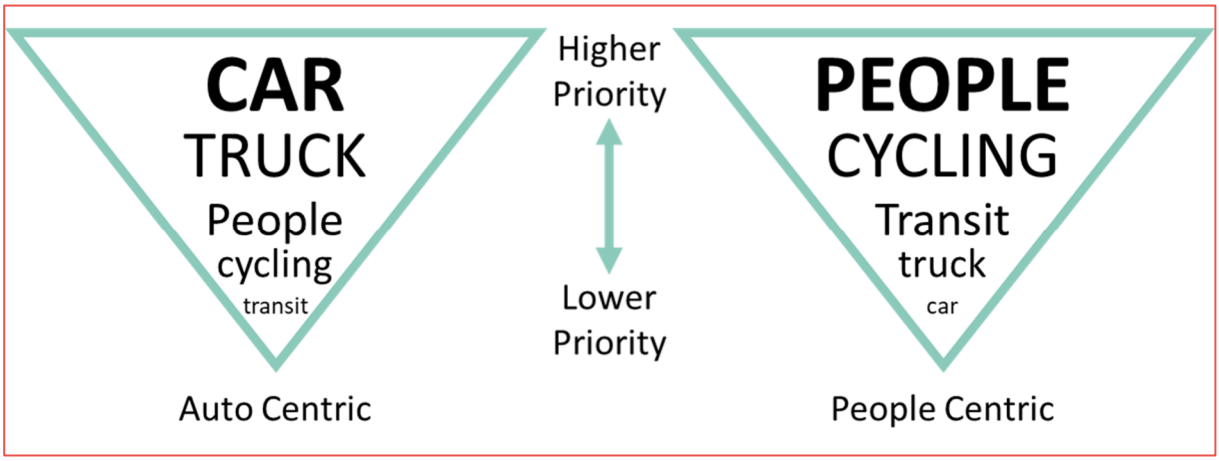
7 Active Transportation Network Best Practices

Developing a new network plan requires understanding how to implement AT the right way by following best practices. These best practices begin with an understanding of how the way in which transportation facilities in the Town are designed and planned will have to change and then moves into details on how to select and design specific types of AT facilities.

7.1 Transportation Mode Hierarchy

The first component to developing an effective AT network is understanding that a significant change in the way right-of-way is prioritized is required. Traditionally, transportation networks have been personal vehicle focussed first and people (pedestrian, cyclist, etc.) focussed last. To create an AT network that truly serves the community, that hierarchy needs to be flipped on many of the roads in the Town. This is visualized in Figure 7-1, which provides examples of auto centric and people centric transportation hierarchies.

Figure 7-1: Example Transportation Mode Hierarchies



Within Middleton there will always be some roads that give vehicles the higher priority, such as Main St (Highway 1). This corridor is integral to the movement of vehicles over long distances within the province and maintaining that flow of traffic is critical to the Provincial economy. However, a combination auto and people centric can still be developed for Main St, especially through Town. Most of the other roads in the Town could either be considered "people centric" or lie somewhere between the two.

It is also important to consider what being "people centric" means in the context of Middleton. Most roads in the Town are 2-lane roads that cannot be substantially narrowed to accommodate new AT facilities. What a road being "people centric" in Middleton could include things such as:

— Restricting on-street parking to keep people from parking in bike lanes or on shared roads;

— Being accepting of lower vehicle Levels of Service and lower posted speed limits at intersections and along road segments as traffic volumes increase;

  - The space that would be used to widen a road or add turning lanes is prioritized for AT facilities; and

— Incorporating AT improvements in ongoing road projects as they align with the Town's Future AT map.

7.2 Dedicated Pedestrian Facilities

Modern guidelines on pedestrian facility width are based on the physical needs of sidewalk, walkway, and trail users. Table 7-1 outlines some of the typical design widths that are assumed for pedestrian facility users. Note that the operational width of multiple adults includes additional personal space that people generally maintain while walking. To generally be accommodating of two adults or two wheelchair users passing each other, **the preferred minimum sidewalk width for new facilities is 1.8 m**. The minimum recommendation for a trail is generally 3.0 m to allow for the ease of movement between multiple types of trail users.

Table 7-1: Pedestrian Operational Widths

Pedestrian	Operational Width
Adult	0.75 m
Adult with Child, Service Animal, or Wheeled Luggage	1.20 m
2 Adults	1.50 to 1.80 m
3 Adults	2.25 to 3.00 m
Wheelchair User	0.90 m
Wheelchair User - 180° Turn	1.50 to 2.25 m
2 Wheelchair Users	1.80 m

While most urban pedestrian facilities run alongside a roadway, ideally these facilities are offset from the side of the street (furnishing zone) and buildings or other property structures (frontage zone) by 0.5 to 3.0 m. Both zones provide more space for pedestrian amenities along the right of way and provide buffers from potential hazards on the roadway (i.e. vehicles) and properties. The furnishing zone, or boulevard, helps provide separation from traffic, making the pedestrian environment safer and more welcoming to users of all ages and abilities. Maintaining a furnishing zone should be a priority on roads with high traffic speeds and/or high traffic volumes (e.g. Arterial – Urban roads).

It should be noted that not all roads in urban areas need to have a sidewalk on both sides of the roadway in order to create a safe space for people to walk. Roads with lower traffic volumes and lower speeds, such as residential local roads, are well suited for sidewalk along one side of the road and for the other side, pedestrians can walk along the roadside and share the road/shoulder environment with vehicles and cyclists.

The grade of pedestrian facilities can also have a large impact on their accessibility and friendliness to all road users. While sidewalks generally follow the grade of the adjacent roadway, most guidelines recommend that pedestrian facilities maintain a grade of 5% or flatter to accommodate users of all ages and abilities without requiring handrails or landings. While these criteria should not limit the application of sidewalk along steep sections of roadway, they should be considered when implementing priority AT corridors throughout the Town.

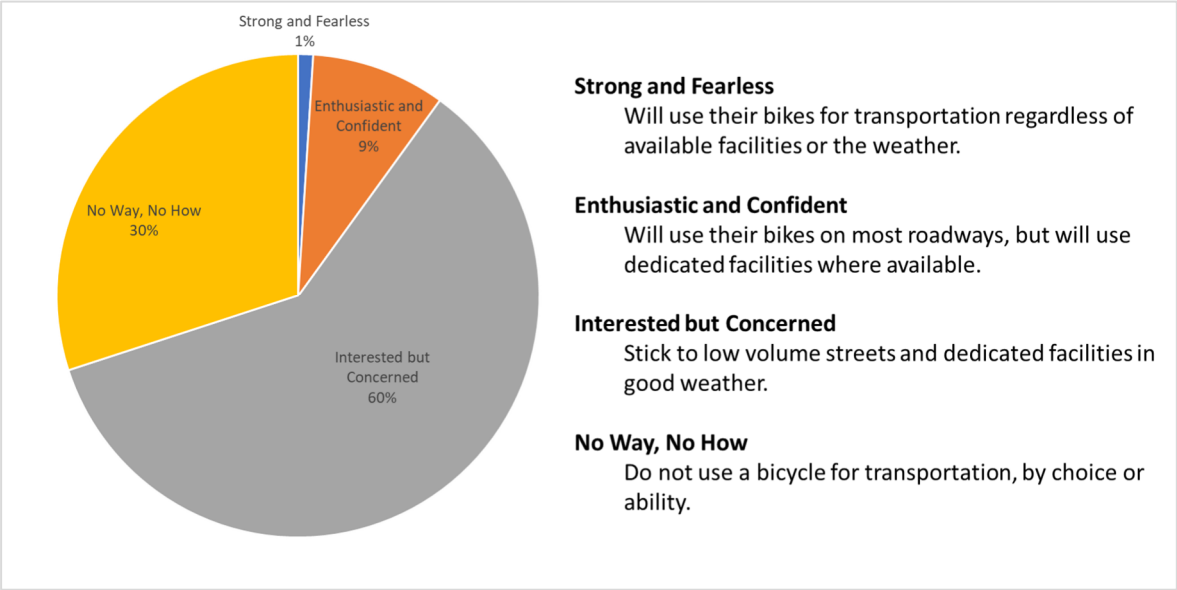
In addition to the paved/maintained surface, there are a variety of amenities that can be included alongside pedestrian infrastructure to make the environment more welcoming and accommodating. These include lighting, benches, garbage cans, scenic lookouts, and so on. The implementation of street furniture, lighting, and other roadside amenities should be determined on a case-by-case basis with an emphasis on well furnished pedestrian destinations and making safe pedestrian corridors.

7.3 Dedicated Bicycle Facilities

7.3.1 Types of Cyclists and Levels of Traffic Stress

Before discussing the types of cycling facilities that should be included within AT corridors, it is important to understand the levels of comfort that varying types of cyclists have. In 2006, Roger Geller presented a classification of four types of cyclists based on information he collected in Portland, OR. These classifications of cyclists, and their approximate proportions in the population of Portland at the time, are illustrated in Figure 7-2.

Figure 7-2: Geller's Four Types of Cyclists



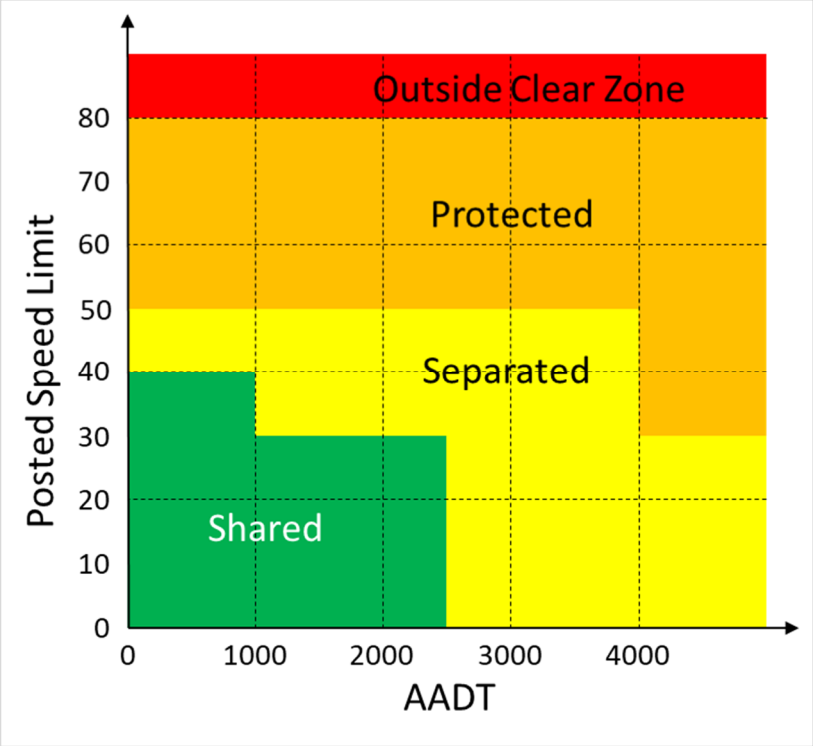
Most jurisdictions that are developing master plans for cycling facilities do so around a concept of Levels of Traffic Stress (LTS) that was developed by the Mineta Transportation Institute at San Jose State University. There are four levels (LTS 1 through LTS 4), which correspond to the four types of cyclists outlined in Figure 7-2. These levels are summarized as follows:

- **LTS 1 (No Way, No How)**: Presents little traffic stress and demands little attention from cyclists, allowing for cyclists of a broad range of ages and abilities. Facilities are either physically separated from vehicles, in an exclusive lane next to low speed vehicles, or shared with vehicles on a very low volume road.
- **LTS 2 (Interested but Concerned)**: Presents little traffic stress but requires more attention than LTS 1, to the point where routes may not be comfortable for children. Facilities are generally not physically separated and are along roadways with slightly higher speeds and volumes than LTS 1.
- **LTS 3 (Enthusiastic and Confident)**: Presents more stress than LTS 2 but is lower than integrating with multilane or high-speed traffic. This level would be accommodating to the majority of current road cyclists but would not be a first choice of new riders. Facilities are generally adjacent to busier streets with larger speed differentials between bicycles and vehicles or shared with vehicles on 2-lane roads with moderately low speeds.
- **LTS 4 (Strong and Fearless)**: Presents the highest level of stress and complexity and encompasses all facilities above LTS 3 (shared lanes on multilane roadways, adjacent to high speed roads, etc.).

7.3.2 Facility Selection Guidelines

With the above classifications in mind, the Transportation Association of Canada (TAC) also provides guidelines on what types of bicycle facilities are appropriate along roadways of varying posted speed limit and traffic volume. These guidelines are not a standard, but instead outline good practice to be followed when constructing new facilities. The TAC guidelines generally correspond to facility selection for an LTS 2 route, as outlined in the previous section. The broad classifications of these facilities (Shared, Adjacent, Separated/Protected, Outside Clear Zone) are summarized in Figure 7-3.

Figure 7-3: TAC Bicycle Facility Classification by Traffic Volume and Speed Limit



7.3.2.1 Shared Facilities

Shared facilities are those where vehicles and cyclists both make use of the same space for transportation. Due to the potential risk to cyclists in this scenario, these types of facilities are most appropriate on low speed and low volume roadways. Some types of shared facilities are as follows:

Bike Boulevard: This type of facility is a shared roadway that emphasizes a continuous corridor for cyclists, typically integrated with traffic calming measures to slow and deter vehicle traffic. Stop controlled intersections should give the right-of-way to the bike boulevard and signalized intersections should have bicycle detection or bike friendly actuation.

Shared Roadway/Lanes: These facilities are similar to bike boulevards, but without the prioritization for bicycle traffic. Roadways are signed for shared use through roadside signs and pavement markings (sharrows). While the traffic calming measures of a bike boulevard are not necessarily present, these should also only be used on low volume, low speed roadways.

Advisory Bike Lanes: This type of facility is a hybrid between a shared roadway and bike lanes. Advisory bike lanes feature dashed lines that demarcate the space for cyclists on the side of the road, but as they are dashed lines, they also allow for vehicle encroachment when safely passing other vehicles or cyclists. The roadway itself is not necessarily made any wider to accommodate the lanes, which is why vehicles are allowed to enter the advisory lanes for passing. The advisory bike lane should be 1.8 to 2.1 m wide.

7.3.2.2 Separated Facilities

Adjacent facilities feature distinct spaces for vehicles and cyclists within the road environment, but there is limited other protection afforded to cyclists. These types of facilities include:

Bike Lanes: These are exclusive travel lanes for bicycles that are located alongside the vehicle lanes and are delineated by pavement markings. Bike lanes are generally 1.8 to 2.1 m wide and can also include a hatched buffer between the vehicle and bike lanes that is 0.3 to 0.9 m wide.

Bike Accessible Shoulders: This type of facility is effectively a bike lane for rural environments. The shoulders of roadways are not typically designed to be a travelled portion of the right-of-way, but if they are well maintained they can be used by cyclists much like a bike lane in an urban environment. For shoulders to be bike accessible, they should be 1.8 to 3.0 m wide. These shoulders can also be buffered from vehicle lanes, if space permits. Unlike bike lanes which are reserved exclusively for cyclists, bike accessible shoulders may also be used by pedestrians especially in rural areas where other pedestrian facilities such as sidewalks do not exist.

7.3.2.3 Protected Facilities

Separated and protected facilities provide additional protection to cyclists over adjacent facilities by either increasing the space between the vehicle and bicycle rights-of-way or by providing a physical barrier between them. Some types of separated and protected facilities include:

Protected Bike Lanes: This type of bike lane is an exclusive bicycle travel lane that is generally alongside a roadway but has a 0.3 to 1.0 m wide physical barrier separating the lane from vehicle traffic. Barriers can include a wide range of treatments, spanning from flexible delineators to concrete bollards/barriers. Protected bike lanes may also be raised and protected by a curb and buffer from vehicle lanes. The bike lane component of a protected bike lane is generally 1.8 to 2.5 m wide; if bidirectional bike lanes are being accommodated then the combined bike lane width is generally 2.8 to 3.6 m.

Multi-Use Paths: Like a bike path, a multi-use path is located within the roadside but is not exclusively for cyclists, instead being a shared AT facility. To accommodate the varying combinations of uses, multi-use paths are often wider than other bicycle facilities at 3.0 to 6.0 m, depending on the scenario.

7.3.2.4 Outside Clear Zone Facilities

This type of facility does not add any additional facility categories, but instead moves protected facilities further away from the road to the point they are outside the clear zone for the roadway. These are almost exclusively **protected bike lanes** or **multi-use paths/trails**, as detailed in the previous section.

7.4 Signage and Pavement Markings

In terms of signage and pavement markings there are two key components that need to be considered: facility designation and wayfinding.

Facility designation is a broad term that encompasses all of the signs and pavement markings that are used to convey to road users which parts of the right-of-way are designated for use by different road users (drivers, cyclists, pedestrians, etc.). These signage and marking requirements are specified in the TAC Manual of Uniform Traffic Control Devices for Canada or the TAC Geometric Design Guide for Canadian Roads (Chapters 5 and 6). Some notes on facility designation signage are provided below:

— Shared facilities are often designated primarily through a combination of longitudinal (dashed) and special pavement markings (sharrows). Signage becomes important in constricted environments where side-by-side travel is not possible, such as on narrow bridges.

— Adjacent and protected facilities in urban environments use a combination of signs, markings, and in some cases barriers. At a minimum they use pavement markings to delineate the bike lane, with hatching designating a buffer zone (if applicable). Regulatory signage is also used to designate bike lanes. In some cases, a fixed or flexible barrier is installed between the vehicle right-of-way and the bike lanes.

— Adjacent and protected facilities in rural environments typically forgo the signage found in urban areas but will still have pavement markings delineating or buffering the shoulder.

— Trails and bike paths have a separate set of signs and markings that can be applied depending on the intended use of the facility. Many will have a centreline suggesting a directional split between users and some may have signage indicating speed limits, pedestrian vs. cyclist zones, and other features depending on their design. Trails also require special signage at road crossings to provide advance warning (if sight distances are limited) and to confirm who has the right-of-way at the crossing (typically the trail user is required to stop/dismount before crossing).

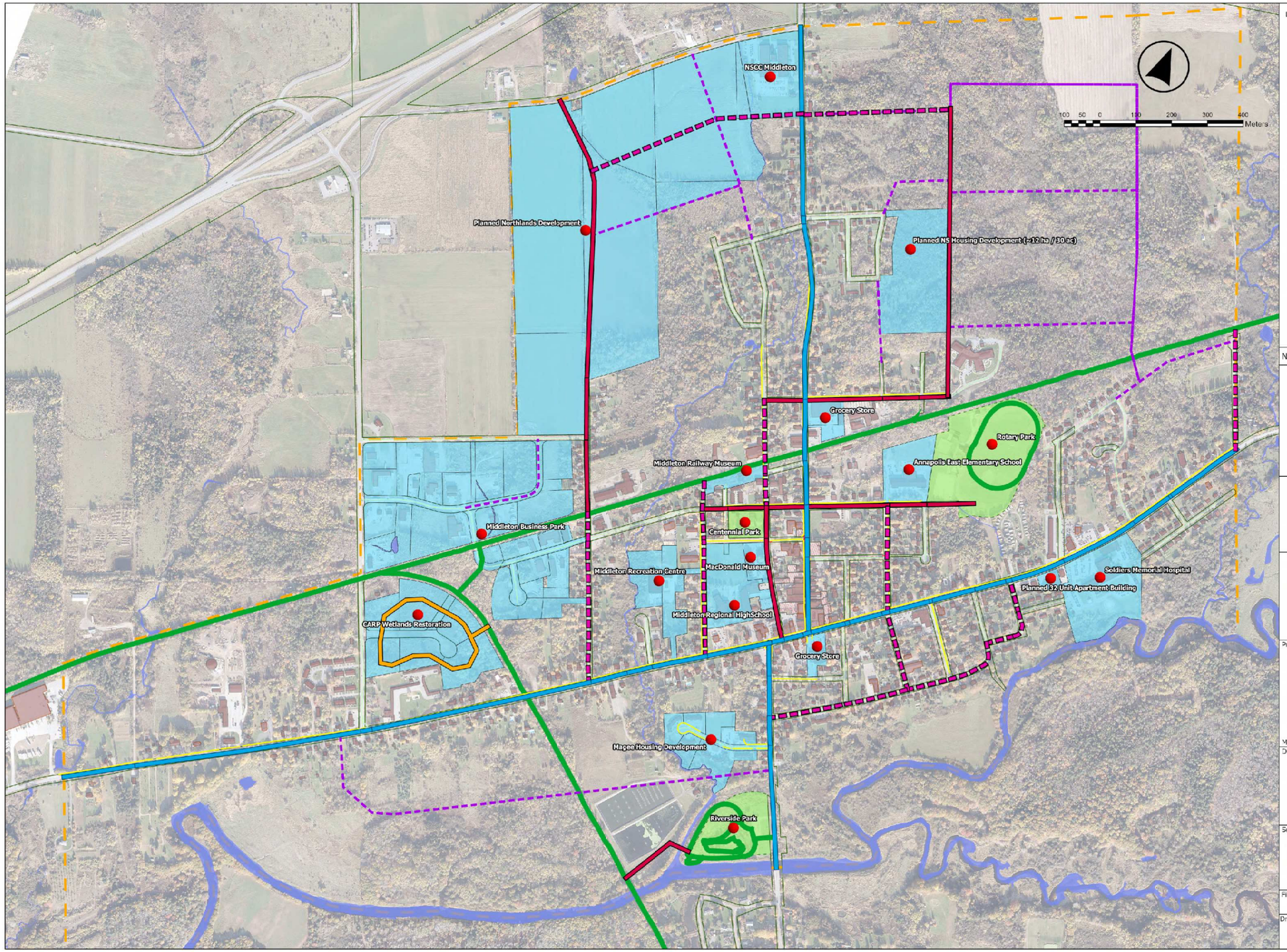
Wayfinding signage helps AT facility users stay on course to their destination. Often this takes the form of signs at junctions between facilities that point users towards destinations and indicates the distance to the destination. In some locations where a trail or facility can be disjointed, such as between South Shore Annapolis Trail and Harvest Moon Trail where multiple paths have been formed, wayfinding signs should be used to tell users how to keep going forward on the facility. The most important design factor for these signs is to remain consistent in their design and application across the network. Care should also be taken that the size, colour, and placement of wayfinding signage does not conflict with regulatory and warning signage.

7.5 Recommended Future Active Transportation Infrastructure

7.5.1 Proposed AT Network

In order to start identifying AT network improvements, our team reviewed the existing AT facilities and the road network of the Town to identify routes and corridors where improved AT connectivity would have the greatest impact on residents. Once this was established, we identified treatments for each segment that are generally consistent with the best practices outlined in Section 7. A map showing the proposed facilities for each segment is provided in Figure 7-4. Note that these recommendations were made at a high level in an attempt to identify technically feasible treatments; however, each segment should be assessed in greater detail to ensure that the proposed treatment is a good fit prior to implementation.

In general, there were three types of cycling facilities that were recommended throughout the Town: **Unidirectional Bike Lanes** (protected/buffered), **Bidirectional Bike Lanes** (protected), and **Shared Facility**. The main objective in limiting the number of treatments recommended was to promote consistency through the network and reduce confusion by road users. Commercial Street between Main Street and Marshall Street, and Main Street where a protected facility (protected unidirectional or bidirectional bike lanes) is recommended require a more detailed study to identify a solution due to the various constraints in these areas.



Legend:

- Municipal Boundary
- Water
- Street Right of Way
- Proposed Collector Street
- Crosswalk
- Sidewalk
- Park
- Building
- Building With FSP
- Parking Lot
- Key Locations

Active Transportation Routes

- Blue Route Cycling Facility
- Local Street Bikeway
- Planned Trail
- Protected Cycling Facility
- Existing Walking Trail

No.	Date	Revisions	By	Appr

Town of Middleton
Heart of the Valley®

eNGLOBE

Project Title:

Town of Middleton
Transportation Master Plan
(2023)

Middleton NS

Drawing Title:

Active Transportation (AT) Routes

Scale:	Drawn By: JTGB	Design By:
1 : 5000	Checked By: AT	
	Sheet of	

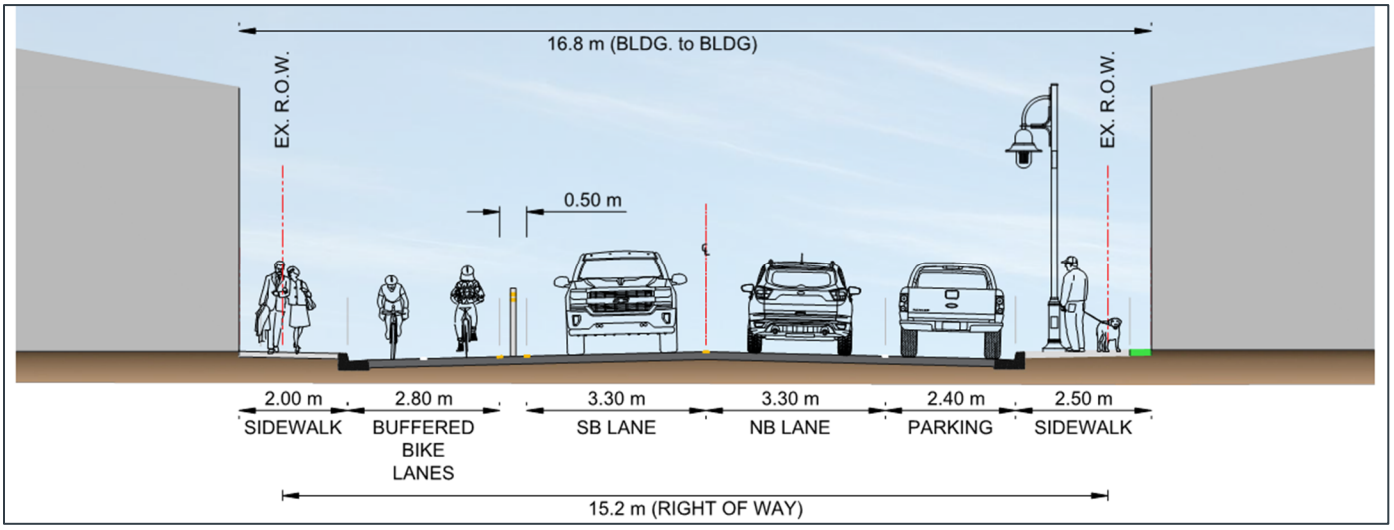
File Name:
221198 Middleton TMP

Drawing No.:
Figure 7-4

7.5.2 Proposed On-Street AT Improvements

Our main objective with the proposed on-street facilities is to provide a higher order of protection for pedestrians and cyclists where there is demand for AT facilities in Middleton. One proposed option is striped bike lanes with a 0.5-0.6m painted buffer or a physical barrier. Cross section T103 shown in the figure below (and provided in Appendix E) shows a vertical delineator such as a bollard between the bike lanes and vehicle traffic. Precast concrete curb could also be considered on Commercial Street in this section which gives more of a physical protection to cyclists. However, concrete curbs require additional maintenance in the winter including removal or the use of a specific snow removal machinery; therefore, the Town should perform a detailed design for AT with a barrier through this section.

Figure 7-5: Commercial St between Main St and Marshall St with Bidirectional Bike Lanes (T103)



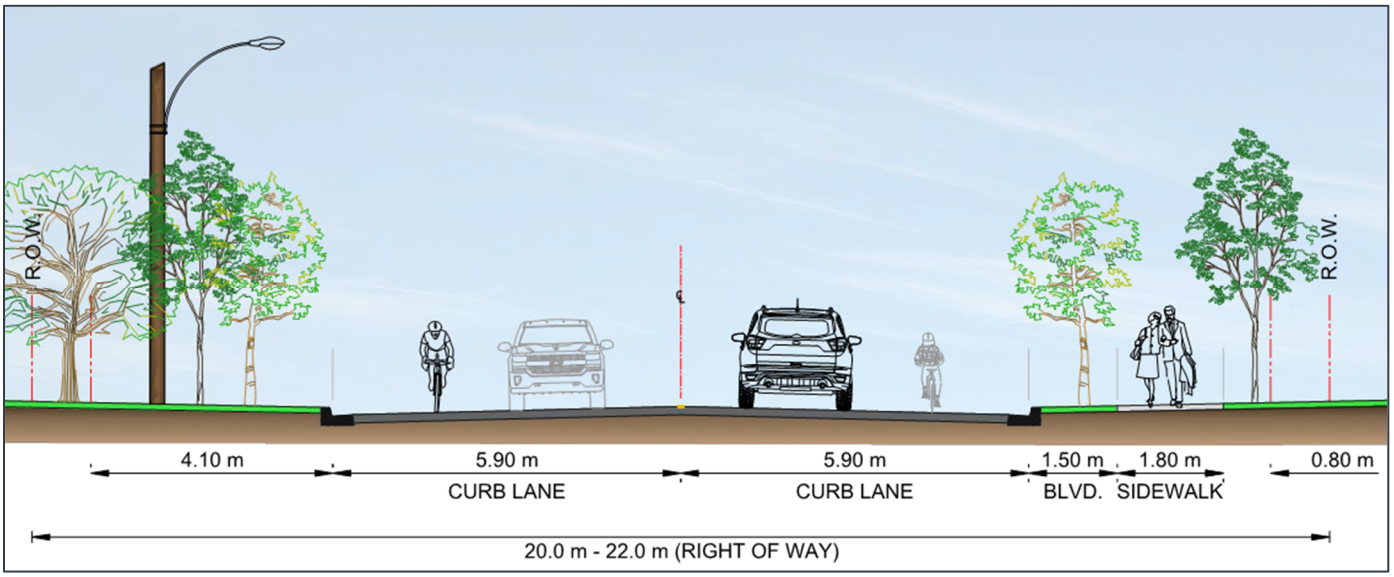
An option for a raised cycle track on Commercial Street, south of Marshall St, is shown in cross section T104. This option provides an added vertical separation for cyclists from vehicle traffic. The improvements of a cycle track through a downtown area for such a short stretch (0.35 km) may only slightly exceed the effects of protected bidirectional bike lanes for an added cost, therefore the raised cycle track is not recommended.

Unidirectional bike lanes with striped buffers are recommended for all roadways classified as arterial roads (excluding Commercial St south of Marshall St). Main St between Bridge St and Maple Ave is a constrained roadway section with turn lanes, on-street parking, and also connects AT facilities on Bridge St to Commercial St. Designing effective transitions between different types of AT facilities (i.e. bike lanes to bidirectional bike lanes) is critical to ensuring that AT users can efficiently and safely travel the network. A detailed design for this section should consider protected intersection applications at Bridge St/Main St and Commercial St/Main St intersections. As a part of this planning effort, removal of on-street parking in this section of Main St is recommended. Guidelines that can be referred to in the design of facility transitions includes the TAC *Geometric Design Guide for Canadian Roads* and various publications by the National Association of City Transportation Officials (NACTO).

Shared facilities (local street bikeways) and striped bike lanes with striped buffers are recommended for collector roads while only one local street (King St south of Main St) is recommended for AT facilities which includes a local street bikeway. It is recommended all roadways have a minimum of one sidewalk adjacent to a boulevard when possible. The striped bike lanes keep cyclists and pedestrians separated as well as vehicle traffic from cyclists along roadways with expected higher traffic demands that act more as a thoroughfare. Local street bikeways are recommended on

roadways with low speeds and low traffic volumes. The cross section for a collector roadway with local street bikeway facility is shown in below.

Figure 7-6: Collector Roadway with Local Street Bikeway



The proposed AT network also provides AT facilities to the planned developments mentioned in Section 6.1.3. Existing roadways such as Victoria St and School St are planned to extend into the Northlands development while new proposed collectors are meant to connect to the planned NS Housing development. All planned roadways are meant to be collector roadways and therefore striped bike lanes, or local street bikeways are recommended here.

7.5.3 Proposed 'Outside Clear Zone' AT Improvements

As Middleton is fortunate to benefit from two existing trails, the proposed AT network shows the addition of only one trail between Riverside Park and South Shore Annapolis Trail. The desire to connect the South Shore Annapolis Trail with Riverside Park was evident through engagement and consultation with the Town. Riverside Park is a huge asset to the Town as it features access to the water, walking trails, bike and kayak loaner programs in the summer, and parking on site. However, it is currently isolated from the rest of the Town by the bordering Lily Lake Brook and the lack of AT facilities on Bridge St. A trail is proposed between Riverside Park and the South Shore Annapolis Trail. This trail will require a structure over Lily Lake Brook bordering the park and will encroach onto private right-of-way. The town should perform a detailed design which includes an environmental analysis for the trail's brook crossing.

The need for better crossing treatments at trail and roadway crossings came up during engagement with the public and stakeholder consultation. Trails require advance warning signage 100m before a crossing and crossing signage at the intersection such as a "STOP" sign to enforce who has the right-of-way at the crossing (as mentioned in Section 7.4). Roadways should also have advanced warning signage and signs notifying the location of the trail crossing. Though South Shore Annapolis Trail does not cross many roadways in Middleton, it does cross Main St with heavy traffic volumes, and the Harvest Moon Trail crosses Middleton's business park where heavy loaded trucks are frequently passing, as well as through the northside of Town. All road crossings should be cleared of foliage in both directions and meet minimum sight

WC-46R

Photo credit: MUTCD Canada

distances and consideration should be given toward crossing treatments such as traffic control signs and bollards on the trails.

7.5.4 Stakeholder Consultation

In addition to community stakeholders contributing during the engagement phase, Nova Scotia Department of Public Works and Cycle Nova Scotia were consulted during the planning phase of the project. A meeting was held to discuss the Blue Route priority street routes (Main St, Bridge St, and Commercial St) and the provincial roadways leading into Middleton. Overall, both groups agreed that the proposed cross sections were a needed improvement for Town. Key points from the meeting were:

- Consider the Town's snow maintenance plan around AT facility types and specifically permanent and temporary barriers; and
- The Harvest Moon Trail crossing treatments should include lighting, clearing the area of brush, and traffic control signs for trail users.

7.6 Improvement Cost Estimate

Our team developed concept-level cost estimates for each of the proposed AT treatments. Capital cost estimates were calculated on a per-kilometre basis, following the values shown in Table 7-2. These cost estimates include the infrastructure shown in the notes, but notably the cost estimates do not include engagement, engineering, mobilization, contingency, property, utility, tax, or other incidental costs. The range of values was provided to account for the variation between different levels of effort that might be required to install the facility. The capital cost estimate for each segment of the proposed sidewalk network is shown in Table 7-3 and the proposed AT network is shown in Table 7-4. Based on the costs in Table 7-2, **the total capital cost to implementing the proposed AT treatments (including sidewalk) would be between $7.7 million and $22.4 million excluding any of the incidental costs listed above.**

Table 7-2: AT Facility Per-Kilometre Cost Estimates

Facility	Range	Capital Cost ($/km)	Notes
Shared Facility (bidirectional)	Low	$2,100	Painted sharrows only at 100m spacing
	High	$42,000	Thermoplastic sharrows with green background at 100m spacing
Bike Lanes (unidirectional and bidirectional)	Low	$21,000	No curb impacts, add paint and signs only
	High	$842,000	Assume ONE sidewalk relocation added to widen road for bidirectional lanes and precast concrete barrier
Trail (single bidirectional)	Low	$100,000	Top dress rail to trail conversion, no structures, minor culvert work and road crossing improvements
	High	$400,000	Rural environment with clearing required but no major challenges or structures, some crossing improvements
Sidewalk (single side)	Low	$420,000	Just a S/W in available ROW, minor curb cuts
	High	$735,000	As above but move curb, round up for storm reconnections (existing storm assumed), road restoration

It is also important to consider that beyond the capital expenditure, these facilities will have ongoing operational and maintenance costs. The proposed AT map adds an additional 14.1 km of AT facilities to the network. Additionally, repainting the pavement markings for the Bike Lanes and Shared Facilities would cost approximately $29,4000, at an assumed rate of $2,100/km. Implementing the entire proposed AT network would require an annual commitment in AT facility operation/maintenance and line painting.

Table 7-3: Sidewalk Facility Capital Cost Estimates

Street	From	To	Length (km)	Cost (2024) Low	Cost (2024) High
Commercial Street*	Marshall St	Junction Rd	2.66	$ 1,117,200	$ 1,955,100
Bridge Street	Town Limit	Main St	1.20	$ 504,000	$ 882,000
Connaught Avenue	Bridge St	Riverside Dr	0.68	$ 285,600	$ 499,800
Gates Avenue	Main St	Harvest Moon Trail	0.48	$ 201,600	$ 352,800
Jones Avenue	Riverside Dr	Main St	0.15	$ 63,000	$ 110,250
King Street	Connaught Ave	Marshall St	0.53	$ 222,600	$ 389,550
Main Street	Town Limit	Senator St	6.92	$ 2,906,400	$ 5,086,200
Marshall Street	Gates Ave	Rotary Park	0.65	$ 273,000	$ 477,750
North Street	School St	End	0.53	$ 222,600	$ 389,550
Proposed Collector E-W	Victoria St Extension	Proposed Collector N-S	1.00	$ 420,000	$ 735,000
Proposed Collector N-S	Main St	Proposed Collector	1.38	$ 579,600	$ 1,014,300
Victoria Street Extension	Harvest Moon Trail	Junction Rd	1.18	$ 495,600	$ 867,300
Riverside Drive	Bridge St	Jones Ave	0.10	$ 42,000	$ 73,500
School Street	Main St	Marshall St	0.36	$ 151,200	$ 264,600
School Street	Marshall St	North St	0.31	$ 130,200	$ 227,850
Senator Street	Main St	Harvest Moon Trail	0.32	$ 134,400	$ 235,200
Victoria Street	Main St	Harvest Moon Trail	0.46	$ 193,200	$ 338,100
Totals			**18.9**	**$7,942,200**	**$13,898,850**

Table 7-4: AT Facility Capital Cost Estimates

Street	From	To	Facility	Length (km)	Cost (2024) Low	Cost (2024) High
Bridge Street	Town Limit	Main St	Bike Lanes	0.60	$ 12,600	$ 505,200
Commercial Street	Main St	Marshall St	Bike Lanes	0.35	$ 7,350	$ 294,700
Commercial Street	Marshall St	Junction Rd	Bike Lanes	1.33	$ 27,930	$ 1,119,860
Connaught Avenue	Bridge St	Riverside Dr	Shared Facility	0.68	$ 1,428	$ 28,560
Gates Avenue	Main St	Harvest Moon Trail	Shared Facility	0.48	$ 1,008	$ 20,160
Jones Avenue	Riverside Dr	Main St	Shared Facility	0.15	$ 315	$ 6,300
King Street	Connaught Ave	Marshall St	Shared Facility	0.53	$ 1,113	$ 22,260
Main Street	Town Limit	Senator St	Bike Lanes	3.46	$ 72,660	$ 2,913,320
Marshall Street	Gates Ave	Rotary Park	Bike Lanes	0.65	$ 13,650	$ 547,300
North Street	School St	End	Bike Lanes	0.53	$ 11,130	$ 446,260
Proposed Collector E-W	Victoria St Extension	Proposed Collector N-S	Shared Facility	1.00	$ 2,100	$ 42,000
Proposed Collector N-S	Main St	Proposed Collector	Bike Lanes	1.38	$ 28,980	$ 1,161,960
Victoria Street Extension	Harvest Moon Trail	Junction Rd	Bike Lanes	1.18	$ 24,780	$ 993,560
Riverside Drive	Bridge St	Jones Ave	Shared Facility	0.10	$ 210	$ 4,200
Riverside Park Trail**	S Shore Annapolis Trail	Riverside Park	Trail	0.19	$ 19,950	$ 79,800
School Street	Main St	Marshall St	Bike Lanes	0.36	$ 7,560	$ 303,120
School Street	Marshall St	North St	Shared Facility	0.31	$ 651	$ 13,020
Senator Street	Main St	Harvest Moon Trail	Shared Facility	0.32	$ 672	$ 13,440
Victoria Street	Main St	Harvest Moon Trail	Shared Facility	0.46	$ 966	$ 19,320
Totals				**14.1**	**$ 234,087**	**$8,515,020**

* The cost analysis assumed the replacement of all sidewalks except along downtown Commercial Street as most sidewalk can be salvaged depending on the project pursued.
** The Riverside Park Trail will require a bridge facility to cross the river bordering Riverside Park in order to access the South Shore Annapolis Trail. The cost estimate for a bridge was not included as the structure type (i.e. steel bridge, concrete culvert) and environmental feasibility of a bridge installation is unknown at this time.

7.7 AT Implementation Plan

For an implementation plan, our team reviewed the proposed AT facilities as a whole and ranked on a 3-point scale the highest (1) to lowest (3) priority improvements to the network. In developing these rankings, we considered the likely AT user volumes, availability of existing facilities, and network connectivity objectives including objectives the Blue Route through Middleton. The rankings directly correlate to the planned implementation period for the AT facility. Projects ranked with the highest priority should be installed in the next 3 years; 2nd highest priority projects should be installed in 3-5 years; and lowest ranked projects (3) may be installed in 5-10 years. These rankings are illustrated in Table 7-5.

Notably, the prioritization did not consider the cost of each element or the feasibility of implementation. In designing and installing the infrastructure, most of the shared lane treatments could likely be implemented by making changes to pavement markings and signage. Higher order treatments that expand the existing roadway, like bike lanes or shared facilities, are best implemented alongside reconstruction/resurfacing of the rest of the roadway. This hierarchy plan is intended to be a starting point for a future study on more detailed costing and phasing of AT network improvements.

Table 7-5: AT Network Implementation Priority List

Street	From	To	Facility	Priority
Bridge Street	Town Limit	Main St	Bike Lanes	1
Commercial Street	Main St	Marshall St	Bike Lanes	1
Commercial Street	Marshall St	Junction Rd	Bike Lanes	1
Connaught Avenue	Bridge St	Riverside Dr	Shared Facility	2
Gates Avenue	Main St	Harvest Moon Trail	Shared Facility	3
Jones Avenue	Riverside Dr	Main St	Shared Facility	2
King Street	Connaught Ave	Marshall St	Shared Facility	2
Main Street	Town Limit	Senator St	Bike Lanes	1
Marshall Street	Gates Ave	Rotary Park	Bike Lanes	1
North Street	School St	End	Bike Lanes	3
Proposed Collector E-W	Proposed Victoria St	Proposed Collector N-S	Shared Facility	3
Proposed Collector N-S	Main St	Proposed Collector	Bike Lanes	3
Proposed Victoria Street	Harvest Moon Trail	Junction Rd	Bike Lanes	3
Riverside Drive	Bridge St	Jones Ave	Shared Facility	2
School Street	Main St	Marshall St	Bike Lanes	2
School Street	Marshall St	North St	Shared Facility	2
Senator Street	Main St	Harvest Moon Trail	Shared Facility	3
Victoria Street	Main St	Harvest Moon Trail	Shared Facility	3

Some projects are dependent on the development growth proposed in Town including the Northlands Development planned for the northwest side of Middleton and the Nova Scotia Housing development on the northeast side of Middleton. Discretion should be used for the construction of the AT facilities with the opening of the proposed collector roadways should the developments not be opened through these routes.

8 Parking and Loading Zone Policy

8.1 Parking and Loading Zone Policy Scope

Designated parking and loading zones are essential for maintaining a smooth flow of traffic and ensuring convenient access for businesses, residents, and visitors in the downtown. Space is at a premium in Middleton's downtown and so efficient parking and loading management is vital to prevent congestion and facilitate easy navigation for vehicle traffic.

Loading zones are particularly crucial for businesses, allowing for the swift and organized unloading of goods and supplies which supports a seamless operation of commercial activities. Additionally, well-planned parking areas ideally contribute a positive economic impact by encouraging foot traffic and boosting local commerce. By providing well-organized and easily accessible parking and loading zones, Middleton downtown can enhance its overall attractiveness, fostering a vibrant and sustainable urban environment for everyone.

A review of the downtown area was undertaken to identify on- and off-street parking. The evaluation of on-street parking locations also took into consideration AT routes identified as a part of this study. Additionally, parking availability through the downtown was critically evaluated against existing capacity and future needs. Loading zones should be permitted in restricted parking spaces so long as these sections do not restrict vehicles stopping as well. Loading activity is also provided and recommended off-street in the business parking lots.

Policy recommendations were developed based on this evaluation. Recommendations provided are designed to establish guidelines for the operation of parking within the Town limits. Appendix F includes mapping to assist with developing a complete picture of how loading trucks and passenger vehicles access the downtown area for available on-street parking. On-street parking from one side of Commercial St (south of Marshall St) and one side of School St (south of the high school) is recommended for removal to provide additional room for AT facilities and accessible parking improvements.

8.2 Parking Inventory

Approximately 26 on-street parking spaces are striped on Commercial St and 7 spaces are striped on School St. A section of parking is outlined on Main St between School St and Commercial St that can fit up to 3-4 vehicles as well. More unmarked parking is available on-street in Town especially along most residential roadways.

Most businesses have on site parking available including those located off Commercial Street. However, it is unclear if the parking lots along Commercial St are for staff and local parking only or if they are available to the public. The map below from the Town's Tourism site, shows 6 parking lots available in the downtown area.

Figure 8-1: Town of Middleton Tourism Map

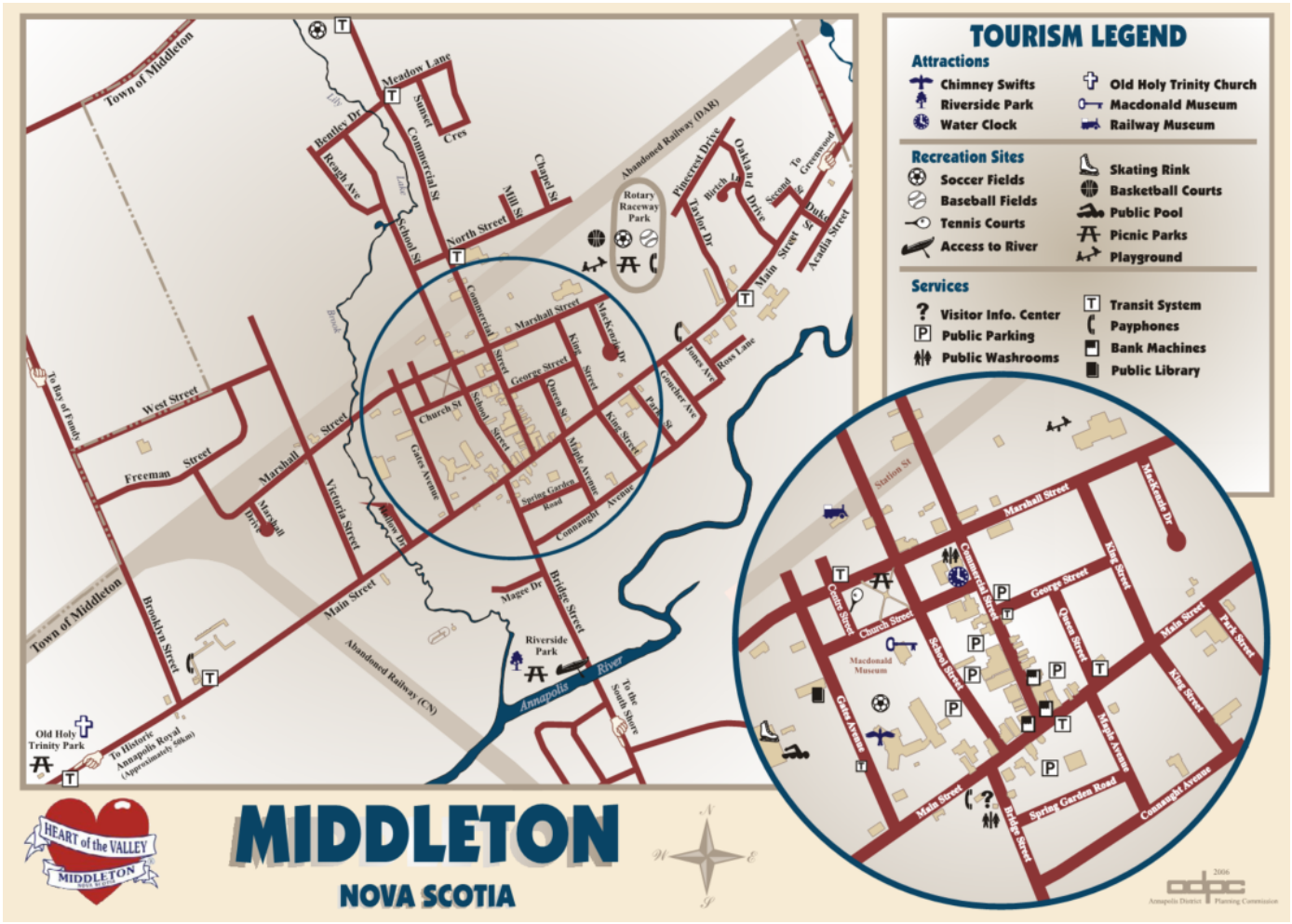


Photo credit: Town of Middleton Website

8.2.1 Accessible Parking

Accessible parking is often lacking in such active downtown areas across the region. Unfortunately, Middleton is no exception. There are no accessible on-street parking spaces on Town streets. A few designated spaces are identified in business parking lots such as Independent Grocer and Tim Horton's on Main Street. Government facilities such as Town Hall and Middleton Regional High school appear to have designated accessible spaces.

8.2.1.1 General Requirements

The following is a guide for the Town when developing new accessible parking spaces.

Accessibility guides typically suggest a 20% accessible parking rate to standard parking for private business parking lots. Best practices for accessible on-street parking for public roadways are undefined, however. Stakeholders such as the Accessibility Advisory Committee and business owners' association should be consulted to determine the need for accessible spaces when new on-street parking spaces are constructed or when existing spaces are redeveloped. The number of accessible spaces should be determined on a case-by-case basis and may vary depending on factors such as:

- Current demand for accessible parking in the area;
- Current supply of accessible parking in the area (including both on-street and off-street spaces);
- The type of developments in the immediate area; and
- Specific requests that have been received from the public.

The Town should consider prioritizing accessible parking on Commercial Street and School Street since: these streets have some of the only identified on-street parking in Town, they are bordered with commercial and institutional businesses, and locals have requested accessible parking for this area.

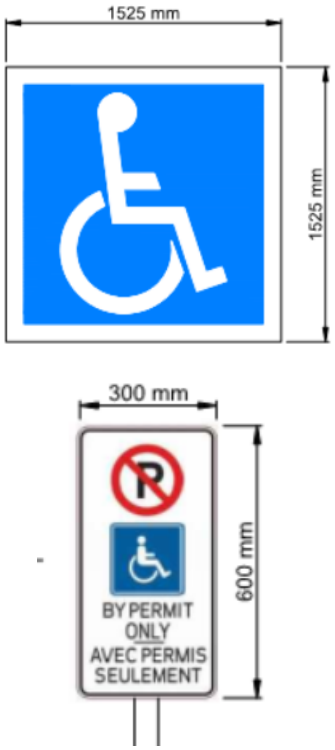
8.2.1.2 Design Standard

Three types of accessible parking spaces are discussed further in this section: on-street parking (including parallel parking stalls), perpendicular parking stalls, and angled parking. The standards recommended for Town use meet Canadian Standard Associations' (CSA) Accessible Design for the Built Environment standards.

8.2.1.2.1 PARALLEL ACCESSIBLE PARKING STALL (TYPE A)

Parallel on-street parking stalls shall have a minimum width of 2.6m (measured to the face of curb) and a typical length of 6.5m (minimum of 5.5m). An access aisle shall be provided adjacent to the parking space with a minimum length of 2.0m. The overall length of the parking space, including the access aisle shall be a minimum of 7.5 m. One access aisle may be shared between two adjacent stalls. A minimum 2.0 m x 2.0 m clear area shall be provided adjacent to the parking stall to accommodate a passenger exiting the vehicle. A curbed pedestrian ramp shall be provided at the end of the access aisle meeting the requirements described in Section 8.2.1.2.4. Signage and pavement markings shall be provided as described in Section 8.2.1.2.5. Additionally, accessible spaces should have a firm, slip-resistant and level surface of asphalt, concrete or compacted gravel.

Figure 8-2: Signage and Pavement Markings



8.2.1.2.2 PERPENDICULAR ACCESSIBLE PARKING STALL (TYPE B)

Perpendicular on-street parking stalls shall be a minimum of 2.6m wide and 5.5m in length (measured to the face of curb). An access aisle with a minimum width of 2.0 m shall be provided adjacent to the parking space. The access aisle may be shared between two adjacent accessible parking spaces. A curbed pedestrian ramp shall be located at the end of the access aisle meeting the requirements described in Section 8.2.1.2.4. Signage and pavement markings shall be provided as described in Section 8.2.1.2.5. Additionally, accessible spaces should have a firm, slip-resistant and level surface of asphalt, concrete or compacted gravel.

8.2.1.2.3 ANGLED ACCESSIBLE PARKING STALL (TYPE C)

Angled on-street parking stalls shall be angled at 45 degrees from the curb line, shall have a minimum width of 2.6m, and shall extend 5.2m from the curb line when measured perpendicular to the curb line. An access aisle shall be provided adjacent to the parking space with a minimum width of 2.0m. This space may be shared between no more than two stalls. A curbed pedestrian ramp shall be located at the end of the access aisle meeting the requirements described in Section 8.2.1.2.4. Signage and pavement markings shall be provided as described in Section 8.2.1.2.5. Additionally, accessible spaces should have a firm, slip-resistant and level surface of asphalt, concrete or compacted gravel.

8.2.1.2.4 CURB RAMPS

A pedestrian curb ramp shall provide access to the sidewalk from the access aisle provided next to each accessible parking space. It is best practice to provide a tactile walking surface indicator on the ramp. The ramp shall have a minimum width of 1.5m; however, it is best practice that the ramp (excluding the flared sides) be the same width as the access aisle (2.0m typical for parallel and perpendicular or 2.8m for angled parking). The slope on the ramp shall range from 1:10 to 1:15. The turning area at the top of the ramp shall have a minimum depth of 1.35m and be as wide as the pedestrian ramp. A curb ramp detail from the Saint John Uptown Barrier Free Parking Project is shown on Drawing T1 of Appendix G. This detail meets CSA design standards and can guide the Town in their own accessible parking design.

8.2.1.2.5 SIGNAGE AND PAVEMENT MARKINGS

Each accessible parking space shall have signage and pavement markings to identify the stall as an accessible space. The signage shall include a no parking symbol with the International Symbol of Access mounted directly below. Pavement markings shall include the International Symbol of Access painted in white on a blue background. Painted lines shall be white, solid, and 100mm in width unless otherwise noted on the standard drawing. Full details of the pavement markings and signage from the Saint John Uptown Barrier Free Parking Project are shown on Drawing T1 of Appendix G. This detail meets CSA design standards and can guide the Town in their own accessible parking design.

8.2.2 Parking/Loading Zone Planning and Active Transportation

Despite the importance of parking and loading zones in downtown areas, pedestrians and cyclists often face significant challenges navigating these spaces. Sidewalks can become congested and unsafe for pedestrians due to vehicle doors swinging in/out of a parking space and cyclists seeking refuge on sidewalks from vehicles. Cyclists may find it challenging to share the road or use dedicated cycling facilities which still require careful maneuvering around parking spaces and loading zones. Unfortunately, drivers are often focussed on other vehicles during parking maneuvers and pay less attention to the rest of their surroundings.

Addressing these challenges requires thoughtful urban planning that prioritizes the safety and convenience of non-motorized transportation modes, incorporating features such as dedicated bike lanes, clear pedestrian pathways, and proper signage to enhance the coexistence of pedestrians, cyclists, and vehicular traffic around parking and loading zones in downtown areas.

Appendix F includes a mapped plan for parking and accessible parking in Middleton’s downtown.

8.3 Recommended Parking and Loading Policy Changes

8.3.1 Parking Policy Considerations

Parking policies are essential for maintaining order and accessibility in urban areas. This Parking Policy outline is a tool for the Town to use to create their own policy. It highlights regulations that should apply to all designated parking and accessible parking within the Town of Middleton.

8.3.1.1 Designations

- Parking Zone Designation: Clearly designate parking zones, including areas for short-term, long-term, and accessible parking. Install visible signage indicating parking regulations, time limits, and penalties for violations.
- Accessible Parking Spaces: Allocate a reasonable percentage of parking spaces for individuals with disabilities, in compliance with local accessibility regulations for business parking lots. Ensure accessible parking spaces are strategically located near building entrances and feature proper signage and markings.
- Accessibility Standards: Design parking facilities in accordance with accessibility standards, including proper ramp gradients, curb cuts, and pathway widths to accommodate individuals with mobility challenges.
- Permit System: Issue accessible parking permits to individuals with disabilities, allowing them priority access to designated spaces.
- Time Limits and Rotational Parking: Introduce time limits (2-hour) for parking in high-demand areas such as downtown streets to encourage turnover and maximize availability.
- Enforcement and Penalties: Establish a robust enforcement system to deter parking violations. Impose fines for unauthorized use of accessible parking spaces and ensure swift enforcement.
- Public Transportation Integration: Encourage the use of public transportation by strategically locating park-and-ride facilities and offering incentives for individuals who choose alternative transportation options.
- Green Parking Initiatives: Introduce initiatives to promote eco-friendly transportation, such as preferential parking for electric vehicles (EV), bike-sharing stations, and carpooling programs. Provide public EV charging parking spaces and limit time of use.
- Community Engagement: Engage with the community to gather feedback on parking policies and make adjustments as needed. Educate the public on the importance of adhering to parking regulations and respecting accessible parking spaces.
- Accessibility Upgrades: Periodically assess and upgrade parking facilities to meet evolving accessibility standards and address the needs of individuals with disabilities.
- Collaboration with Accessibility Advocates: Collaborate with local disability advocacy groups to ensure that parking policies align with the needs of individuals with disabilities. Seek input from accessibility experts during the planning and development stages of parking facilities.

By implementing and consistently enforcing a parking policy based on the above designations, urban areas can create a more inclusive, accessible, and efficient parking environment that accommodates the diverse needs of the community.

8.3.2 Loading Zone Policy Considerations

This Loading Zone Policy Outline is a tool for the Town to use to create their own Loading Zone Policy. It highlights regulations that should apply to all designated loading spaces for truck and vehicle access operating within the Town of Middleton. Additional loading zone recommendations is provided in the Truck Policy provided in Section 9.

8.3.2.1 Designations

- Signage: Clearly designate loading zones in strategic locations throughout the downtown area such as Commercial St. Install prominent signage indicating loading zone hours, restrictions, and penalties for violations.
- Operating Hours: Establish specific operating hours for loading zones to minimize disruption during peak pedestrian and traffic times. Consider flexible timing to accommodate various business needs (quick deliveries, heavy loads, passenger drop off/pick up). Implement time restrictions for loading and unloading activities to prevent prolonged use of loading zones. Specify a maximum duration for vehicles to occupy loading zones.
- Alternative Loading Spaces: Identify and designate alternative loading spaces or off-peak hours for businesses that require extended loading periods. Encourage businesses to coordinate deliveries with the Town to reduce the overall demand on loading zones.
- Accessibility and Safety: Ensure that loading zones are designed with safety and accessibility in mind, providing adequate space for pedestrians and cyclists. Regularly assess the impact of loading zone operations on traffic flow and safety, making adjustments as needed.

The Town should plan to collaborate with local businesses, the province regarding provincial roadways, and community groups to gather input and address specific loading zone needs. Regularly review and update the loading zone policy based on feedback and evolving urban dynamics.

By implementing and consistently enforcing a loading zone policy, the downtown area can ensure a harmonious balance between the needs of businesses, pedestrians, and cyclists, promoting safety and efficiency in the urban environment.

9 Truck Policy

9.1 Truck Policy Scope

Situated within the town limits, Middleton maintains minimal restrictions to driving trucks to/from truck destinations. A free flow of goods is permitted to support operational needs of businesses within downtown or the industrial zone. A few “NO TRUCKS” signs can be found through the residential roadways with little acknowledgment and enforcement. However, beyond Town borders, the province imposes trucking regulations which serve to ensure standardized safety measures and logistical efficiency in the broader regional transportation network. The interplay between Middleton's lenient truck policies and provincial regulations reflects an opportunity to effortlessly implement regulations through Town.

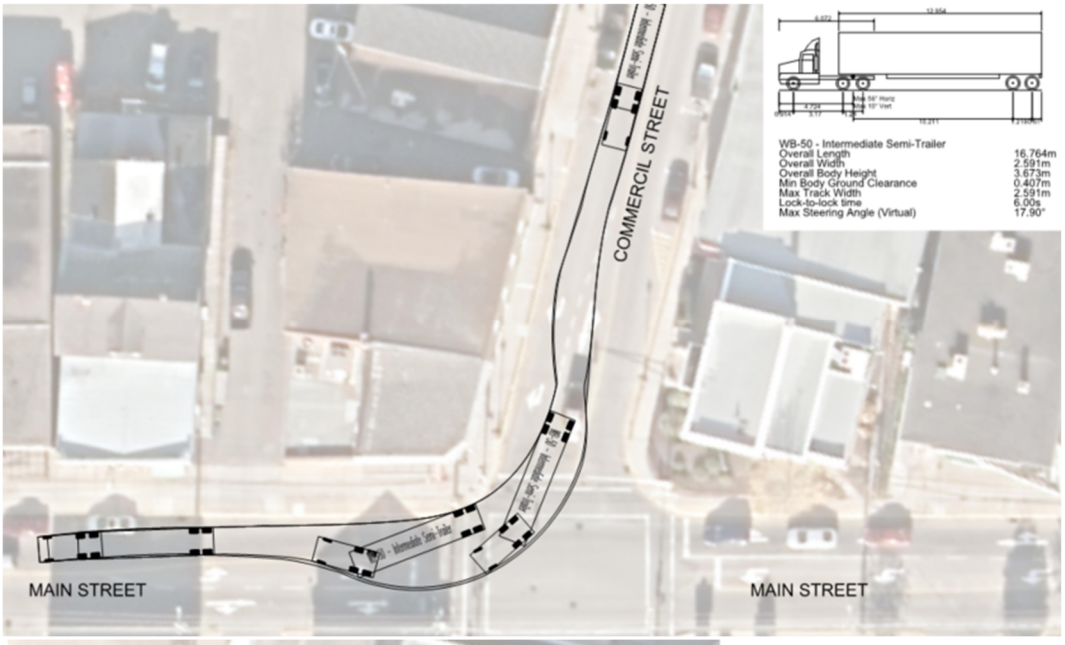
The Town of Middleton recognizes the importance of regulating truck traffic within its jurisdiction to ensure the safety and well-being of residents, pedestrians, and road infrastructure. A Truck Policy can promote the efficient and safe operation of trucks within Town while minimizing disruptions to the community. Compliance to the policy is essential for maintaining a secure and livable environment for all residents and visitors.

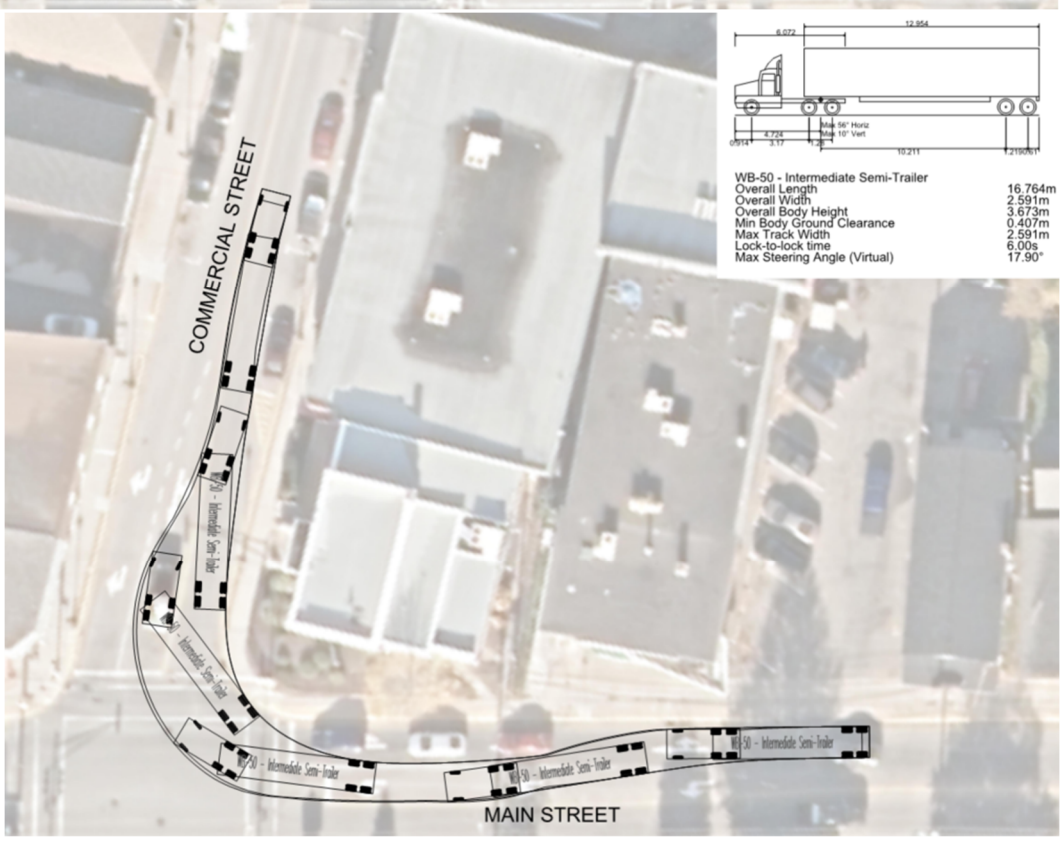
A review of Town was undertaken to identify truck routes/destinations. The evaluation of truck routes also took into consideration active transportation routes identified as a part of this study. Policy recommendations were developed based on this evaluation. Recommendations provided are designed to establish guidelines for the operation of trucks within the Town limits.

It was often heard during stakeholder engagement the challenges delivery trucks face turning and parking in downtown. Figure 9-1 below depicts the challenges a 16.8 m (55.1 ft) semi-trailer (similar to those used at downtown businesses) has turning right between Main St and Commercial St. The driver needs to use both travel lanes, encroaches into oncoming traffic, and the rear axle of the trailer comes onto the curb to make both right turns. In a few instances, trucks have struck the traffic signal heads turning through this intersection. It was noted truck traffic is cutting through residential streets (such as King St and Victoria St) to avoid turning at this intersection. This highlights the need to guide truck access through Town as well as provide loading zones for quick deliveries so as to not impede the flow on Commercial St. The Town

should consider loading zone locations on Commercial St and School St (behind commercial businesses) to provide a dedicated space for truck deliveries as well as vehicles idling in the downtown. Additionally, the Town could consider parking time restrictions such as a two-hour limit to encourage the movement of vehicles and ideally provide more opportunity for parking/loading. A time restriction in the loading zones could also be considered to keep the flow of traffic on Commercial St moving. Appendix H includes the full drawings of the southbound and westbound right turn movements at the Main St/Commercial St intersection.

Figure 9-1: WB-50 Right Turn Movements between Main St and Commercial St





9.1.1 Existing Truck Route Network

There is no existing trucking bylaw or policy for the Town. A few “NO TRUCKS” signs are posted through the residential roadways (at Connaught Ave and School St) with little acknowledgment and enforcement. However, beyond the Town's borders, the province imposes specific trucking regulations, including weight limitations, size constraints, and designated routes. These provincial directives serve to ensure standardized safety measures and efficiency in the broader regional transportation network. The following is a list of the road and vehicle weight designations for the provincial roadways routed into Town.

Table 9-1: Provincial Road Weight Designations

ROAD NAME	VEHICLE	WEIGHT DESIGNATION
Trunk 1 (East of Town)	All Vehicles	Max (62,500 kg)
Trunk 1 (West of Town)	All Vehicles B Trains	Intermediate (49,500 kg) B Train (62,500 kg)
Highway 362 (Commercial St)	All Vehicles B Trains	Intermediate (49,500 kg) B Train (62,500 kg)
Trunk 10 (Bridge St)	All Vehicles B Trains	Intermediate (49,500 kg) B Train (62,500 kg)
Brooklyn Rd	All Vehicles	Max (62,500 kg)
Junction Rd	All Vehicles B Trains	Intermediate (49,500 kg) B Train (62,500 kg)

All provincial roadways except Brooklyn Rd and Trunk 1, east of town limits, permit B Train size trucks (a semitrailer towing another semitrailer) into and out of Town. Within the town limits, these trucks are permitted to travel any street to access or depart from their destination, save for a few streets that have a posted “NO TRUCKS” sign (i.e. Connaught Ave, School St).

9.1.2 Truck Route Planning and Active Transportation

Section 7 refers to the challenges cyclists and pedestrians have on high speed and busy roads with vehicle traffic. For this reason, traffic calming has been recommended along certain roadways in Town. Additionally, our truck route map shows that trucks are prohibited from these streets specifically. Appendix F includes the proposed truck route plan which also depicts which roadways have restricted truck access in Town.

9.1.3 Truck Policy Considerations

This Truck Policy outline is a tool for the Town to use to create their own Town Truck Policy. It highlights regulations that should apply to all trucks, including but not limited to, commercial trucks, delivery trucks, and oversized vehicles, operating within the Town of Middleton.

9.1.3.1 Designations

Designated Truck Routes: Trucks are required to use designated truck routes as specified by the Town of Middleton. Deviation from these routes is only allowed for delivery purposes to addresses within the town limits. Appendix F provides the designated truck route network for the Town.

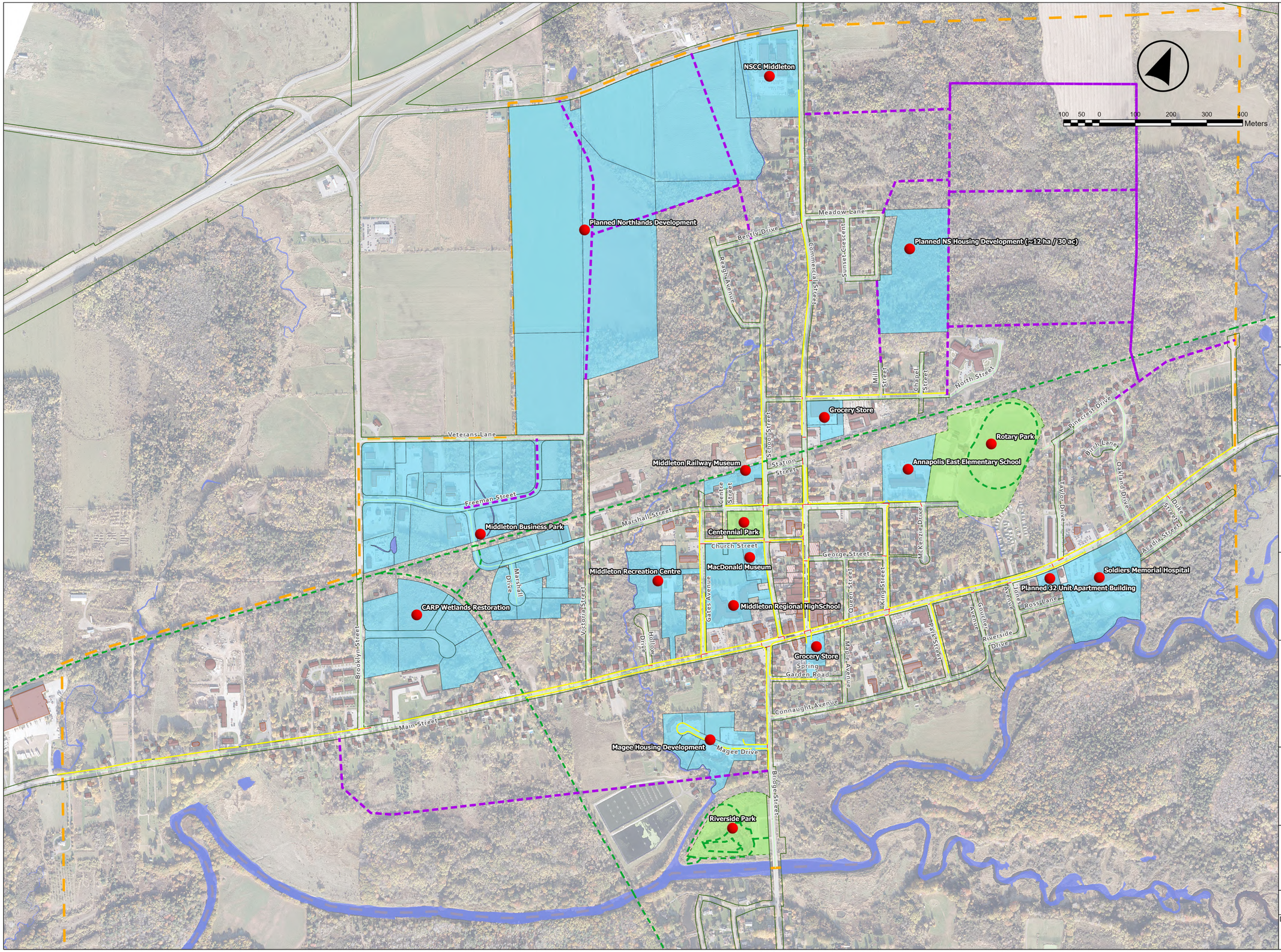
9.1.3.2 Restrictions:

- Weight restrictions: Trucks must comply with posted weight limits on roads within the town. Overweight vehicles must obtain the necessary permits from the Town before operating within the jurisdiction.
- Oversized Vehicles: Vehicles exceeding the standard dimensions must obtain special permits from the Town prior to entering. The permits will outline specific routes and times during which oversized vehicles are permitted to operate.
- Time Restrictions: To minimize traffic congestion and enhance safety, certain roads may have time restrictions on truck traffic. Time-restricted zones include daytime truck routes permitting access from 6:00AM-7:00PM, and complete restricted access to trucks otherwise. Truck operators must adhere to these limitations.
- Noise Regulations: Trucks must comply with noise regulations established by the Town. Excessive engine idling, loud exhaust systems, and unnecessary honking are strictly prohibited.
- Parking Restrictions: Trucks are prohibited from parking in residential areas, unless for loading and unloading purposes. Designated truck parking zones will be at the discretion of the Town.
- Loading Restrictions: Trucks are to load/unload in predetermined loading areas, as approved by the Town with each business owner. All vehicle loading and unloading shall comply with downtown loading zones and restrictions. Designated truck loading areas will be at the discretion of the Town.

The Town should enforce the policies through routine patrols, inspections, and collaboration with relevant authorities and violators should be fined, penalized, or have their permits suspended. The Town should also conduct outreach programs to educate truck operators about the policy such as through the distribution of informational materials, announcements posted through Town and organized Town meeting to facilitate compliance.

Appendix A
Key Destinations Map

ENGLOBE



Legend:

- Municipal Boundary
- Water
- Street Right of Way
- Walking Trail (Middleton)
- Proposed Collector Street
- Crosswalk
- Sidewalk
- Park
- Building
- Building With FSP
- Parking Lot
- Key Locations

No.	Date	Revisions	By	Appr

Town of Middleton
Heart of the Valley ®

eNGLOBE

Project Title:

Town of Middleton
Transportation Master Plan
(2023)

Middleton NS

Drawing Title:

Key Destinations

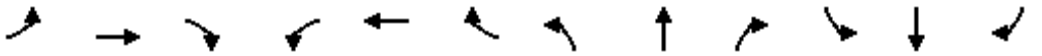
Scale:	Drawn By:	Design By:
1 : 5000	JTGB	
	Checked By: AT	
	Sheet of	

File Name:
2211198 Middleton TMP

Drawing No.:
Figure 3

Appendix B
Level of Service Reports

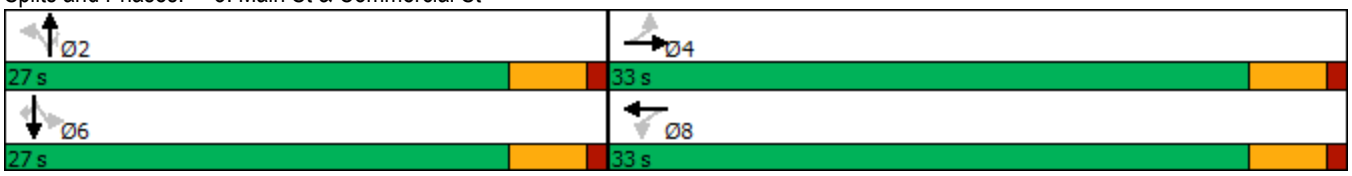
ENGLOBE

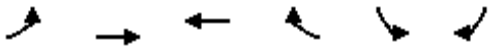


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	244	14	0	258	63	10	2	1	60	7	49
Future Volume (vph)	40	244	14	0	258	63	10	2	1	60	7	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	24.4		0.0	30.5		0.0	0.0		0.0	0.0		29.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Satd. Flow (prot)	1789	1868	0	1883	1829	0	0	1806	1601	0	1802	1601
Flt Permitted	0.492							0.863			0.797	
Satd. Flow (perm)	927	1868	0	1883	1829	0	0	1625	1601	0	1501	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			28				27			53
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1280.9			230.4			30.0			449.7	
Travel Time (s)		92.2			16.6			2.2			32.4	
Lane Group Flow (vph)	43	280	0	0	348	0	0	13	1	0	73	53
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0		33.0	33.0		27.0	27.0	27.0	27.0	27.0	27.0
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Act Effct Green (s)	18.0	18.0			18.0			18.0	18.0		18.0	18.0
Actuated g/C Ratio	0.40	0.40			0.40			0.40	0.40		0.40	0.40
v/c Ratio	0.12	0.37			0.47			0.02	0.00		0.12	0.08
Control Delay	9.6	11.1			11.6			8.3	0.0		9.2	3.6
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Delay	9.6	11.1			11.6			8.3	0.0		9.2	3.6
LOS	A	B			B			A	A		A	A
Approach Delay		10.9			11.6			7.7			6.9	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	2.0	14.3			17.2			0.6	0.0		3.4	0.0
Queue Length 95th (m)	6.4	27.7			33.6			2.7	0.0		9.0	4.3
Internal Link Dist (m)		1256.9			206.4			6.0			425.7	
Turn Bay Length (m)	24.4											29.0
Base Capacity (vph)	587	1185			1168			812	814		750	827
Starvation Cap Reductn	0	0			0			0	0		0	0
Spillback Cap Reductn	0	0			0			0	0		0	0
Storage Cap Reductn	0	0			0			0	0		0	0
Reduced v/c Ratio	0.07	0.24			0.30			0.02	0.00		0.10	0.06

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Main St & Commercial St

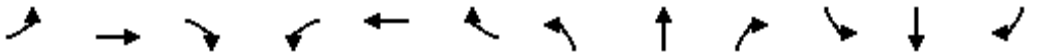




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	107	92	75	72	27
Future Volume (Veh/h)	35	107	92	75	72	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	116	100	82	78	29
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	100				333	141
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	100				333	141
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				88	97
cM capacity (veh/h)	1493				645	907

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	38	116	182	107
Volume Left	38	0	0	78
Volume Right	0	0	82	29
cSH	1493	1700	1700	700
Volume to Capacity	0.03	0.07	0.11	0.15
Queue Length 95th (m)	0.6	0.0	0.0	4.1
Control Delay (s)	7.5	0.0	0.0	11.1
Lane LOS	A			B
Approach Delay (s)	1.8		0.0	11.1
Approach LOS				B

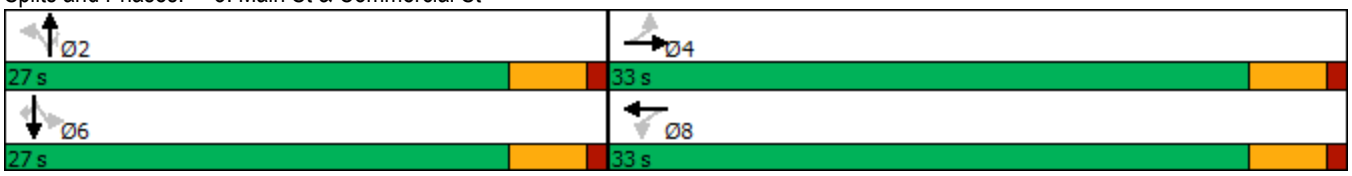
Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	28.4%	ICU Level of Service	A
Analysis Period (min)	15		

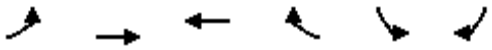


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	213	32	17	257	67	19	15	2	85	20	74
Future Volume (vph)	34	213	32	17	257	67	19	15	2	85	20	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	24.4		0.0	30.5		0.0	0.0		0.0	0.0		29.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Satd. Flow (prot)	1789	1846	0	1789	1825	0	0	1831	1601	0	1810	1601
Flt Permitted	0.487			0.588				0.866			0.778	
Satd. Flow (perm)	917	1846	0	1107	1825	0	0	1631	1601	0	1465	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			30				27			80
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1280.9			230.4			30.0			449.7	
Travel Time (s)		92.2			16.6			2.2			32.4	
Lane Group Flow (vph)	37	267	0	18	352	0	0	37	2	0	114	80
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0		33.0	33.0		27.0	27.0	27.0	27.0	27.0	27.0
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Act Effct Green (s)	18.0	18.0		18.0	18.0			18.0	18.0		18.0	18.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	0.40
v/c Ratio	0.10	0.36		0.04	0.47			0.06	0.00		0.19	0.12
Control Delay	9.4	10.5		8.6	11.6			8.7	0.0		10.0	3.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	9.4	10.5		8.6	11.6			8.7	0.0		10.0	3.3
LOS	A	B		A	B			A	A		A	A
Approach Delay		10.4			11.5			8.3			7.2	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	1.7	12.8		0.8	17.4			1.7	0.0		5.5	0.0
Queue Length 95th (m)	5.7	25.7		3.4	33.9			5.4	0.0		13.1	5.3
Internal Link Dist (m)		1256.9			206.4			6.0			425.7	
Turn Bay Length (m)	24.4			30.5								29.0
Base Capacity (vph)	580	1174		701	1166			815	814		732	840
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.06	0.23		0.03	0.30			0.05	0.00		0.16	0.10

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Main St & Commercial St

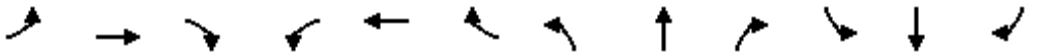




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	13	107	134	88	51	37
Future Volume (Veh/h)	13	107	134	88	51	37
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	116	146	96	55	40
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	146				338	194
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	146				338	194
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				92	95
cM capacity (veh/h)	1436				651	847

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	14	116	242	95
Volume Left	14	0	0	55
Volume Right	0	0	96	40
cSH	1436	1700	1700	722
Volume to Capacity	0.01	0.07	0.14	0.13
Queue Length 95th (m)	0.2	0.0	0.0	3.4
Control Delay (s)	7.5	0.0	0.0	10.7
Lane LOS	A			B
Approach Delay (s)	0.8		0.0	10.7
Approach LOS				B

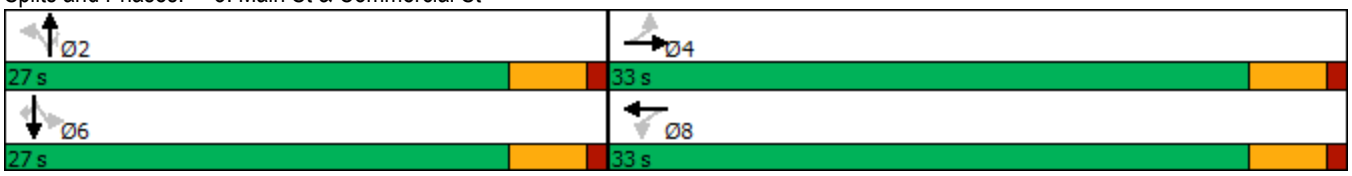
Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	24.2%	ICU Level of Service	A
Analysis Period (min)	15		

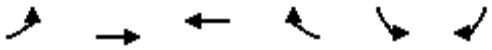


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	268	15	0	284	69	11	2	1	66	8	54
Future Volume (vph)	44	268	15	0	284	69	11	2	1	66	8	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	24.4		0.0	30.5		0.0	0.0		0.0	0.0		29.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Satd. Flow (prot)	1789	1868	0	1883	1829	0	0	1806	1601	0	1802	1601
Flt Permitted	0.452							0.856			0.791	
Satd. Flow (perm)	851	1868	0	1883	1829	0	0	1612	1601	0	1490	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			28				27			59
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1280.9			230.4			30.0			449.7	
Travel Time (s)		92.2			16.6			2.2			32.4	
Lane Group Flow (vph)	48	307	0	0	384	0	0	14	1	0	81	59
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0		33.0	33.0		27.0	27.0	27.0	27.0	27.0	27.0
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Act Effct Green (s)	18.3	18.3			18.3			18.0	18.0		18.0	18.0
Actuated g/C Ratio	0.40	0.40			0.40			0.40	0.40		0.40	0.40
v/c Ratio	0.14	0.41			0.51			0.02	0.00		0.14	0.09
Control Delay	9.8	11.4			12.2			8.7	0.0		9.7	3.7
Queue Delay	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Delay	9.8	11.4			12.2			8.7	0.0		9.7	3.7
LOS	A	B			B			A	A		A	A
Approach Delay		11.2			12.2			8.1			7.1	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	2.3	15.9			19.7			0.6	0.0		3.8	0.0
Queue Length 95th (m)	7.0	30.2			37.3			3.0	0.0		10.3	4.8
Internal Link Dist (m)		1256.9			206.4			6.0			425.7	
Turn Bay Length (m)	24.4											29.0
Base Capacity (vph)	535	1177			1161			801	809		740	825
Starvation Cap Reductn	0	0			0			0	0		0	0
Spillback Cap Reductn	0	0			0			0	0		0	0
Storage Cap Reductn	0	0			0			0	0		0	0
Reduced v/c Ratio	0.09	0.26			0.33			0.02	0.00		0.11	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.3			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Main St & Commercial St

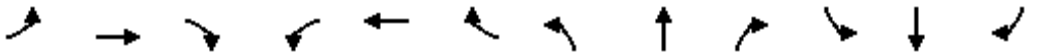




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	39	118	101	83	79	30
Future Volume (Veh/h)	39	118	101	83	79	30
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	42	128	110	90	86	33
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	110				367	155
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	110				367	155
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				86	96
cM capacity (veh/h)	1480				615	891

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	42	128	200	119
Volume Left	42	0	0	86
Volume Right	0	0	90	33
cSH	1480	1700	1700	673
Volume to Capacity	0.03	0.08	0.12	0.18
Queue Length 95th (m)	0.7	0.0	0.0	4.9
Control Delay (s)	7.5	0.0	0.0	11.5
Lane LOS	A			B
Approach Delay (s)	1.9		0.0	11.5
Approach LOS				B

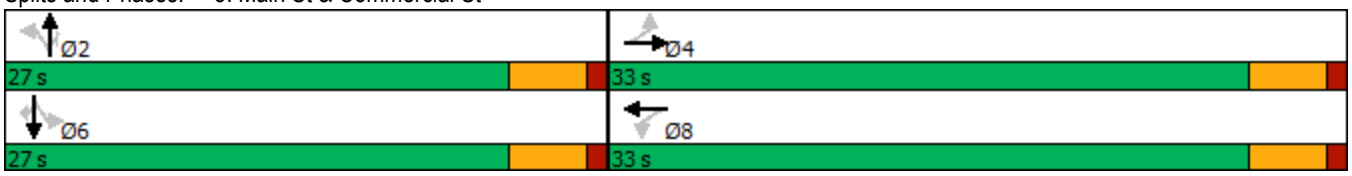
Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	29.9%	ICU Level of Service	A
Analysis Period (min)	15		

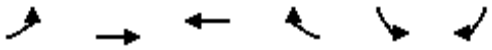


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	234	35	19	283	74	21	17	2	94	22	81
Future Volume (vph)	37	234	35	19	283	74	21	17	2	94	22	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	24.4		0.0	30.5		0.0	0.0		0.0	0.0		29.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6			7.6			7.6			7.6		
Satd. Flow (prot)	1789	1846	0	1789	1825	0	0	1833	1601	0	1810	1601
Flt Permitted	0.448			0.558				0.860			0.769	
Satd. Flow (perm)	844	1846	0	1051	1825	0	0	1620	1601	0	1448	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			30				27			88
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1280.9			230.4			30.0			449.7	
Travel Time (s)		92.2			16.6			2.2			32.4	
Lane Group Flow (vph)	40	292	0	21	388	0	0	41	2	0	126	88
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0		33.0	33.0		27.0	27.0	27.0	27.0	27.0	27.0
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	4.5
Act Effct Green (s)	18.5	18.5		18.5	18.5			18.0	18.0		18.0	18.0
Actuated g/C Ratio	0.41	0.41		0.41	0.41			0.40	0.40		0.40	0.40
v/c Ratio	0.12	0.38		0.05	0.51			0.06	0.00		0.22	0.13
Control Delay	9.4	10.7		8.5	12.1			9.3	0.0		10.7	3.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	9.4	10.7		8.5	12.1			9.3	0.0		10.7	3.5
LOS	A	B		A	B			A	A		B	A
Approach Delay		10.5			11.9			8.9			7.7	
Approach LOS		B			B			A			A	
Queue Length 50th (m)	1.9	14.3		1.0	19.8			1.9	0.0		6.1	0.0
Queue Length 95th (m)	6.0	27.7		3.7	37.4			6.5	0.0		15.7	6.0
Internal Link Dist (m)		1256.9			206.4			6.0			425.7	
Turn Bay Length (m)	24.4			30.5								29.0
Base Capacity (vph)	528	1162		658	1154			801	805		716	836
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.08	0.25		0.03	0.34			0.05	0.00		0.18	0.11

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.5			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 47.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Main St & Commercial St





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	118	147	97	56	41
Future Volume (Veh/h)	14	118	147	97	56	41
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	128	160	105	61	45
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	160				370	212
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	160				370	212
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				90	95
cM capacity (veh/h)	1419				623	828

Direction, Lane #	EB 1	EB 2	WB 1	SB 1
Volume Total	15	128	265	106
Volume Left	15	0	0	61
Volume Right	0	0	105	45
cSH	1419	1700	1700	696
Volume to Capacity	0.01	0.08	0.16	0.15
Queue Length 95th (m)	0.2	0.0	0.0	4.1
Control Delay (s)	7.6	0.0	0.0	11.1
Lane LOS	A			B
Approach Delay (s)	0.8		0.0	11.1
Approach LOS				B

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix C
What We Heard Report

Upland Studio

ENGLOBE

Middleton Transportation Master Plan
What We Heard Report

March 2024

Middleton Transportation Master Plan

What We Heard Report

March 2024

This report was prepared by ENGLOBE and UPLAND Planning + Design Studio for the Town of Middleton.

UPLAND ENGLOBE

Town of Middleton
Heart of the Valley ®

Table of

Contents

Background and Context

1.1 About the Project

The Town of Middleton is developing a Transportation Master Plan (TMP), presenting an exciting opportunity to re-envision how residents and visitors move through and interact with the Town.

While maintaining a safe and efficient road network is important to facilitate local travel, goods movement, and economic activity, there has been a growing desire in the Town to better facilitate equitable and sustainable transportation through alternative modes such as active transportation. Balancing these needs and desires against future growth, right-of-way availability, and budget constraints is a challenge. A thoughtfully developed TMP can provide a guiding vision for what that balance should be over the coming decades.

Developing a strong TMP will be guided by the following 5 key objectives:

1. Engaging with community
2. Understanding existing conditions
3. Estimating future growth
4. Planning network improvements
5. Revising transportation policies

1.2 How this Report Will be Used

This report encompasses a summary of both "What We Did" during the engagement phase of this project and "What We Heard" from residents and stakeholders along the way. The reporting in this document does not utilize direct quotes or provide location-specific examples, instead, it reflects the efforts of the project team to construct a cohesive narrative from the various engagement activities and the diverse range of information received.

The information in this report serves the purpose of providing readers with an opportunity to discover what the community has shared so far and to see their own input reflected if they were a participant themselves. The content presented in the "What We Heard Report", paired with the more detailed findings from both the engagement phase and background review phase of this project, will establish an informed foundation for the final Transportation Master Plan.

1.3 Engagement Overview

Gathering input from staff, residents, and stakeholders was critical to understand the current state of transportation in Middleton. Recognizing this, the project team organized a series of engagement activities, inviting community members to share their vision for the future of transportation in Middleton. Engagement activities included a public information session, stakeholder engagement, and correspondence via email, social media or phone. This approach ensured a comprehensive understanding of the diverse perspectives shared, enriching the draft plan development phase of the project with a more informed and inclusive foundation.

The engagement activities conducted yielded a well-rounded collection of thematic feedback. The subsequent two sections in this report delve into that feedback.

1.4 What is Active Transportation?

Active transportation (AT) is a broad term that refers to all modes of human-powered transportation, including walking and wheeling (referring to the use of assistive devices, cycling, roller blading and skateboarding, seasonal activities such as kayaking, canoeing, skiing and snowshoeing, and some motorized forms of transportation like e-bikes and electric wheelchairs.

Some people depend on active transportation to get where they need to go due to lack of alternative transportation, while others choose to use active transportation as a preferred form of commute, exercise, recreation, or leisure. AT is typically used for two purposes:

» **Utilitarian active transportation** includes trips where active transportation is used to get to a destination, such as work, school, the store, or appointments.

» **Recreational active transportation** includes leisure, recreational pursuits, and fitness (e.g. hiking, paddling, etc.) and often takes place in off-road locations. In some cases, both utilitarian and recreational active transportation can occur at the same time.

Encouraging greater participation in active transportation (AT) can...

Improve the mental and physical health of users

Attract visitors and boost local businesses through increased foot traffic

Reduce carbon footprints and overall environmental impact

Create safer and more livable communities for everyone

Improve the equity of travel options and contribute to an accessible public realm

Public Information Session

2.1 What We Did

On Tuesday, January 23, the project team hosted a Public Information Session at the Middleton Fire Hall, attended by approximately 20-25 Middleton residents. This session served as a platform for participants to delve into the project, offer feedback, and engage in casual conversations while enjoying light refreshments. The session adopted an "open house" format, featuring information panels that provided a digestible overview of the project, including results from the background analysis.

Complementing the panels, the project team arranged various stations where participants could freely navigate and respond to prompting questions. Attendees had the flexibility to choose stations aligning with their specific interests or could provide feedback on multiple aspects. For those preferring direct interaction with a project team member, that option was also made available through one-on-one conversations.

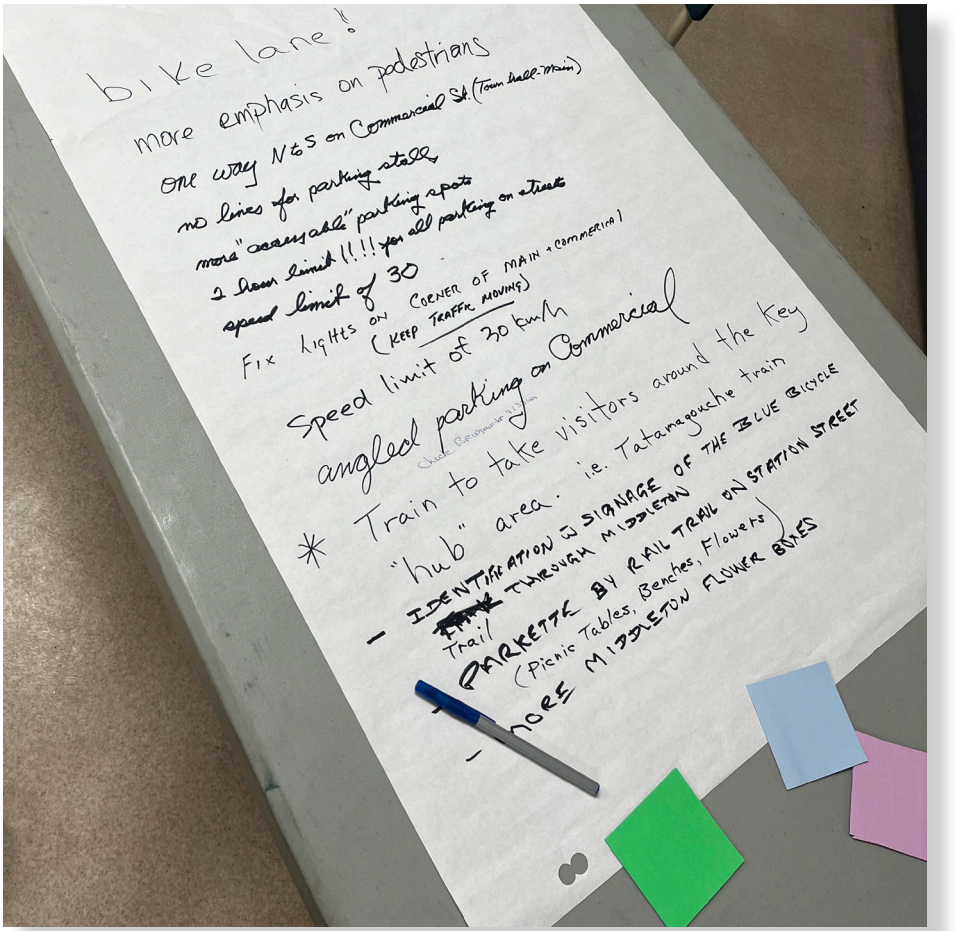


Fig 1. Responses to "What are your priorities for Downtown Middleton?" received during the Public Information Session

2.2 What We Heard About the Expansion of the Active Transportation Network

Residents expressed a strong desire for the expansion of the Active Transportation Network, emphasizing the need for increased accessibility and connectivity. There was notable public support for transforming Commercial Street into a one-way thoroughfare to enhance safety and traffic flow. Residents voiced a desire for dedicated bike lanes and improved infrastructure to promote safer walking and cycling experiences overall. Specific recommendations included separated cycling lanes, improved accessibility of sidewalks, and addressing concerns about the safety of AT users lanes due to inattentive drivers.

Residents also highlighted the importance of improved sidewalk and trail maintenance, and improved signage. We also heard about improving relationships between diverse trail users (e.g., between those walking versus using off-highway vehicles on the Harvest Moon Trail). Finally, there was a suggestion to explore restrictions on motorized vehicles passing through environmentally significant areas, highlighting the community's desire to see the natural environment and important recreation spaces protected throughout this process. Furthermore, we heard about a desire to see designated areas for buses to pull off without causing traffic delays.

The Town recently undertook a network planning study through the Blue Route Community Hubs project. The Transportation Master Plan will expand upon the network planning study to develop actionable solutions that improve accessibility of the Town via active modes of transportation. Wider sidewalks, enhanced pedestrian and accessibility treatments, and separated cycling facilities are some examples of possible components in an updated AT strategy. Ideally, these types of improvements would be coordinated with other roadway renewal efforts.

2.3 What We Heard about Downtown Middleton

Participants provided insightful feedback on how the Transportation Master Plan could enhance downtown Middleton. We heard about the need for more gradual curbs, and improved overall accessibility sidewalks. There is a strong desire for improved parking options, including the consideration of one-side parking with an angled approach on Commercial Street. However, contrasting views surfaced as some participants expressed concerns based on challenges faced by other communities with angled parking. Suggestions also arose for the removal of parking stall lines, implementing a two-hour limit for on-street parking, creating more accessible parking, and removing minimum parking standards for businesses to optimize space usage.

Strong support was voiced for making Commercial Street a one-way thoroughfare, while the community advocated for the implementation of bike/multi-use lanes and restricted vehicle traffic. There was a collective desire for defined hours allowing vehicles in the downtown area and establishing pedestrian-only hours. Additionally, there was a consensus on focusing on traffic calming measures in the Downtown.

A unique proposal involved exploring the possibility of a train system, inspired by the Tatamagouche Train, to transport visitors around the Hub area. Residents also called for increased signage trails and the creation of more parkettes along AT routes. Suggestions for additional flower boxes, picnic tables, benches, and rest areas further reflected the community's vision for a more vibrant and pedestrian-friendly Downtown Middleton.

The downtown core of Middleton, centered on the intersection of Main Street and Commercial Street is the central hub for much of the activity in the Town. This means that there are competing demands from active transportation, personal vehicles, transit buses, and delivery trucks that all need to be balanced within a small area. Developing a plan to address how people and things get to and stay in the downtown core that balances these demands for parking, transportation facilities, truck routes, etc. within the available right-of-way will be a key output for this TMP.

2.4 What We Heard About Neighborhood Traffic

Participants voiced multiple concerns regarding neighborhood traffic, with a specific emphasis on the downtown core. The community expressed a desire for the implementation of traffic calming initiatives across the entire town. Suggestions included identifying intersections, such as School and Station, requiring stop signs to improve safety. Throughout conversations, there was a particular focus on pedestrians, especially along school routes. Residents also expressed a preference for restricting trucks on residential streets, advocating for limitations on Commercial Street, permitting them only if necessary, and urging the establishment of clear markings for designated truck routes. Additionally, there was a call for better enforcement of speed limits for ATVs on the through town, and a suggestion was made to explore one-way traffic on narrow residential streets as an alternative for active transportation users.

The Town receives many resident complaints about traffic and speeding issues on residential streets. Some of the Town's priority neighborhood issues will need to be addressed through this study in a way that sets an example for how traffic calming should be applied in the Town on a case-by-case basis.

2.5 Additional Comments

- Inquiry about where the funding is coming from for this project
- Emphasis on prioritizing densification and planning more generally before delving into the Transportation Master Plan (TMP)
- A call to address the very present car culture that currently exists in Middleton
- Advocacy to keep accessibility, particularly sidewalks, at the forefront of all planning efforts.
- Concern about fixing infrastructure properly, avoiding temporary solutions that lead to repetitive maintenance, as it is deemed unsustainable
- A desire for the creation of walking, cycling, and roadways that accessible to everyone, including those using bikes, wheelchairs, and walkers
- A request to ensure that the final Transportation Master Plan aligns with other plans, for a coordinated and sustainable development approach
- An appreciation for the town Staff and the work they are currently doing to maintain and enhance trails
- Complaints about lack of enforcement for noisy vehicles
- Concerns about community members inappropriately using accessible parking spaces

Stakeholder Engagement

3.1 What We Did

Community stakeholders are integral to this process, offering diverse insights and potential involvement in implementing the resulting Transportation Master Plan, whether directly or indirectly. The project team organized interviews with identified stakeholders, primarily conducted via video calls and over the phone. In cases of scheduling conflicts or limited time, an alternative questionnaire was provided. These activities allowed the project team to gain a deeper understanding of participant priorities, while also helping to disseminate project information through the stakeholders' respective networks.

During the engagement phase, we heard from stakeholders representing the following organizations:

- Middleton Railway Museum
- Royal Canadian Mounted Police (RCMP)
- South Shore Annapolis Valley Recreational Trail Association
- Annapolis East Archery Club
- Middleton Accessibility Committee
- Rowan's Room Developmental Society
- Valley Chiropractic Services
- Capitol Pub
- Valley Flaxflour Ltd
- Middleton Home Hardware
- Middleton Home Furniture
- Middleton Area Business Association

3.2 What We Heard About Existing Challenges

- Limited and inconvenient public transportation services
- Accessibility challenges across all forms of transportation
- Challenges with taxi services, including reliability and issues with some (but certainly not all) drivers
- Cost-prohibitive options for alternative transportation services
- Vandalism, crime, and safety issues
- Difficulty in understanding feasible and beneficial active transportation possibilities due to the town's small size
- Parking challenges, particularly on Commercial Street
- High tax rates
- Limited opportunities for town expansion
- Poor road maintenance and cracked sidewalks
- Lack of understanding of sharing the road
- Car culture and resistance toward active transportation from community members
- Misconception about off-highway vehicle use and lack of awareness of the benefits that they can provide to a community
- Transportation challenges for organizations with clients from across the Valley
- Enforcement issues with off-highway vehicles and a need for improved communication between all trail users (e.g., cyclists, ATV users, dog walkers, etc.)
- Business property taxes discouraging new growth
- Concerns about trail surface conditions on the Harvest Moon Trail impacting visitor traffic and potential impacts on tourism
- Challenges with truck offloading for deliveries
- Inadequate sidewalk and curb infrastructure, posing challenges for wheelchair users and individuals with other varying mobility challenges
- Insufficient visibility of crosswalks, particularly in areas near the hospital, leading to difficulties for pedestrians, suggesting the need for improvements such as flashing lights or reflective paint or enhanced safety at night

3.3 What We Heard about Opportunities and Expected Outcomes

- Enthusiasm for increasing overall accessibility throughout the town
- Excitement about the potential to attract new families
- Hopes for improved bicycle safety and enhanced opportunities for e-bikes
- Opportunities for the town to promote tourism and develop the trail into a tourist attraction
- Recognition of multi-faceted positive outcomes of the project, including social interaction, healthier residents, economic benefits, and a revitalized town
- Increased visitor traffic and enhanced supporting infrastructure
- Interest in more frequent and available resources for AT users
- Increased equitable opportunities, resulting in overall positive outcomes (e.g., reduced crime, increased employment, etc.)
- Improved signage and rest stops along trails
- Potential to attract new families and residents in general
- Improved accessibility of trails and enhanced opportunities to use the trails
- Excitement for improvements that enable individuals to access their needs and desires safely

3.4 Additional Comments

- Suggestions for free or discounted shuttle services, particularly for vulnerable populations
- General encouragement for the project and appreciation for the work being done
- Concerns about one-way streets and potential negative impacts on residents
- Caution against hasty decisions, emphasizing the need for community outreach
- Recognition of the positive economic impact of off-highway vehicles and the importance of connections
- Highlighted the importance of incorporating EV chargers in downtown areas, particularly along Commercial Street
- Suggested establishment of designated offload areas (15-20 min) for standard deliveries
- Proposed implementation of 2-hour parking zones near businesses to deter employees from monopolizing prime parking spots all day
- Desire for the parking lot near the theatre to remain available for overflow parking on busy days
- Acknowledgment of the potential impact of changing trail policies on the broader community and the need for community enthusiasm and leadership
- Appreciation for trail groups and Town staff for their efforts to improve and maintain existing active transportation options
- Desire for strategic placement of truck routes, avoiding residential streets, and ensuring clear signage and enforcement to prevent trucks from cutting through inappropriate areas like near schools and residential neighborhoods
- Expressed concerns about designated “times” for truck deliveries being unrealistic
- Importance of consideration for truck turning radii and maneuverability, especially concerning curbing and potential roundabouts. Requests for specific streets to remain available for truck access
- Desire to see the final plan be forward-thinking
- Gratitude extended to the workers and staff making these changes happen
- Enthusiasm for the project and the potential to breathe new life into Middleton

Appendix D
Map B Transportation and Street Hierarchy Map

Town of Middleton Municipal Planning Strategy

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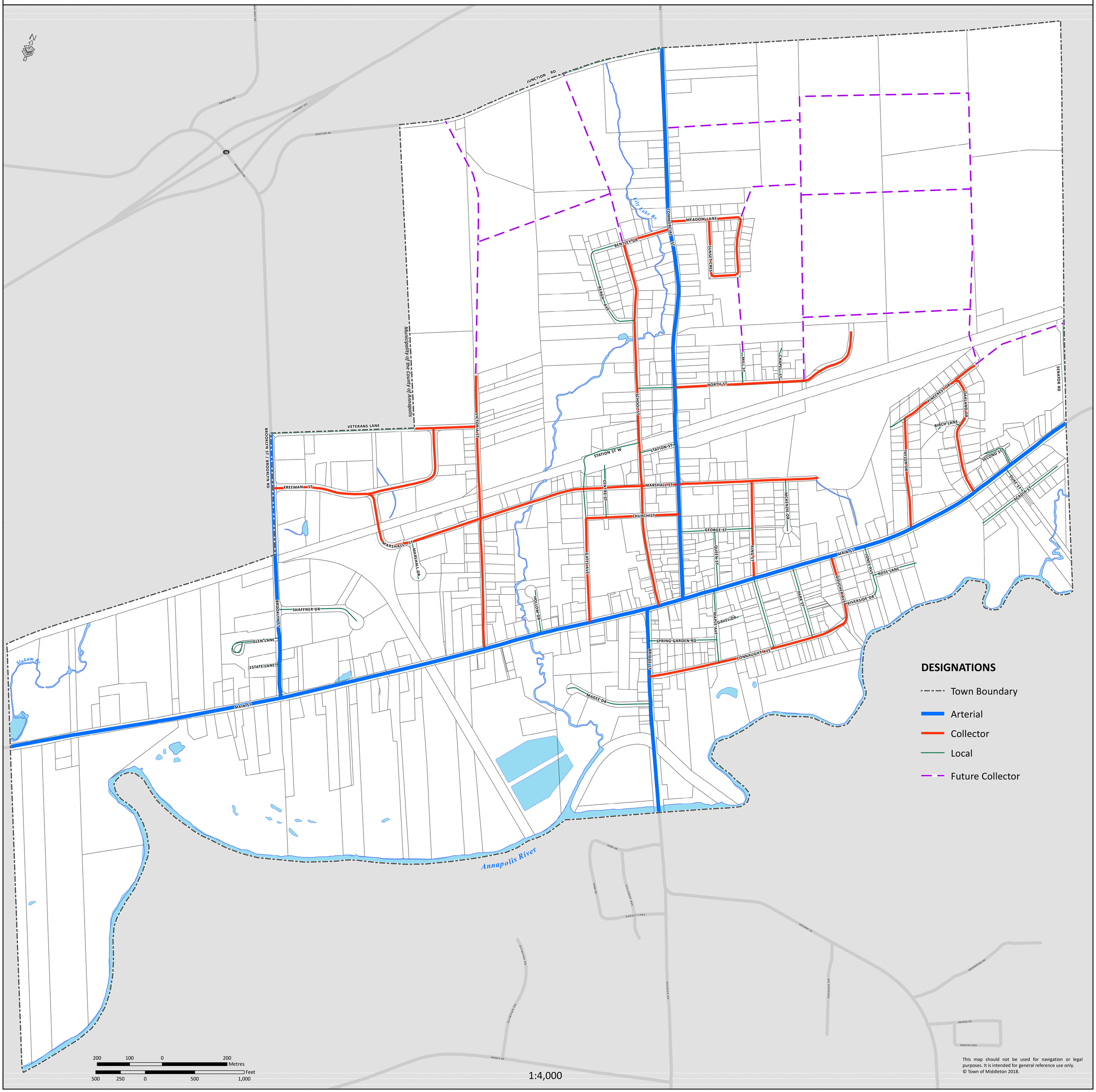
Town of Middleton
Heart of the Valley ®

MUNICIPAL PLANNING STRATEGY MAP B - TRANSPORTATION AND STREET HIERARCHY MAP

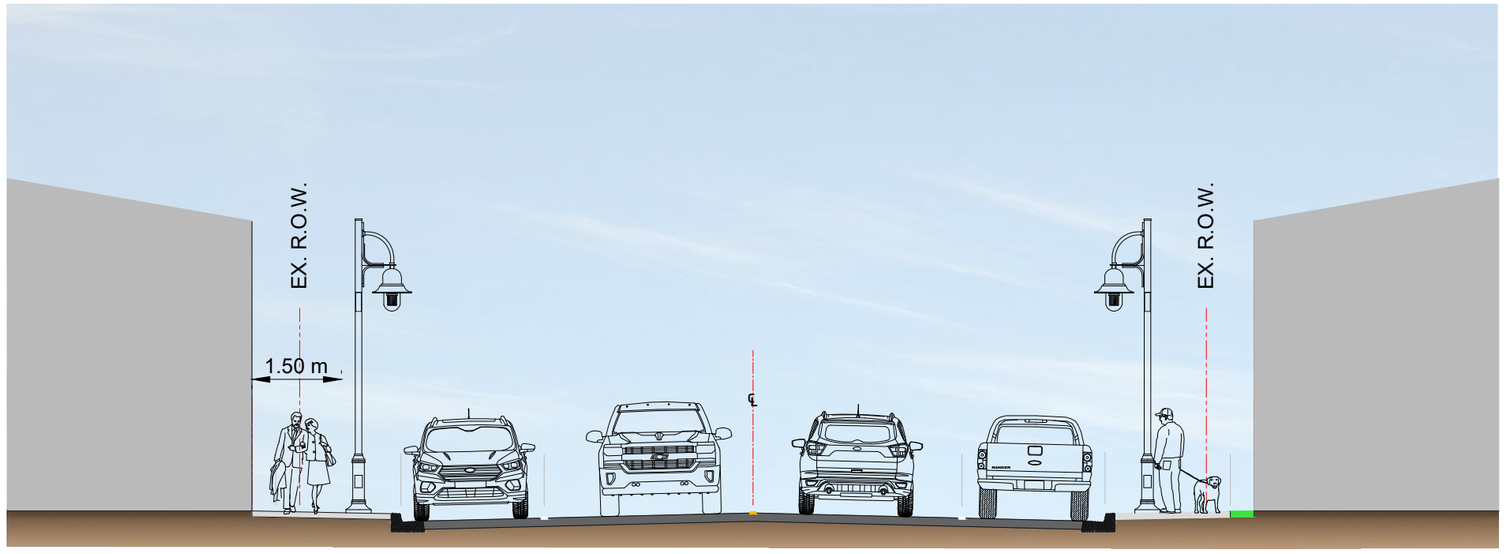
AUGUST 20, 2018



This map should not be used for navigation or legal purposes. It is intended for general reference use only.

Appendix E
Proposed Road Cross Sections for the Town of Middleton

ENGLOBE



ARTERIAL 1 - URBAN (2 LANE, PARKING)

Commercial St.: Main St. to Marshall St.

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Drawing Title:	PROPOSED CROSS-SECTION #1		
Cad Checked By:	JTGB		
Drawn By:	JTGB	Checked:	AT
Scale:	1 :100	Date:	Feb 26/24
Drawing No:	T102		

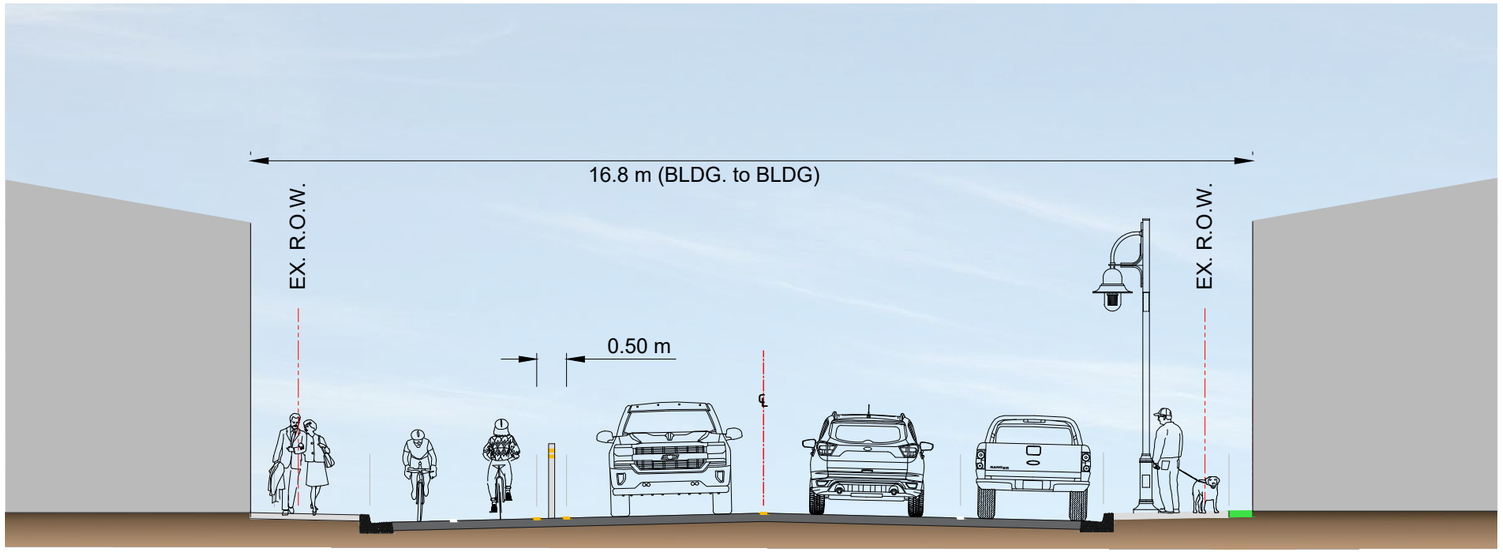
ENGLOBE

Town of Middleton
Heart of the Valley ®

Q:\2022\2211198 - MIDDLETON TRANSPORTATION MASTER PLAN\CAD\DESIGN\PRESENTATION DWGS\2211198-1 PROPOSED STREET X-SECTIONS.DWG, 26/02/2024 10:41 AM

NOTE

ACCESSIBLE PARKING SPACES SHALL BE 2.6m WIDE. SIDEWALK MAY BE NARROWED TO A MINIMUM OF 1.8m OPPOSITE PARKING.



PROPOSED ARTERIAL WITH ACTIVE TRANSPORTATION
(BUFFERED BIKE LANES)
Commercial St.: Main St. to Marshall St.

Project Title:	TOWN OF MIDDLETON TRANSPORTATION MASTER PLAN		
Drawing Title:	PROPOSED CROSS-SECTION #2		
Cad Checked By:			
Drawn By:	JTGB	Checked:	AT
Scale:	1 : 100	Date:	Mar 04/24
Drawing No:	T103		

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Town of Middleton
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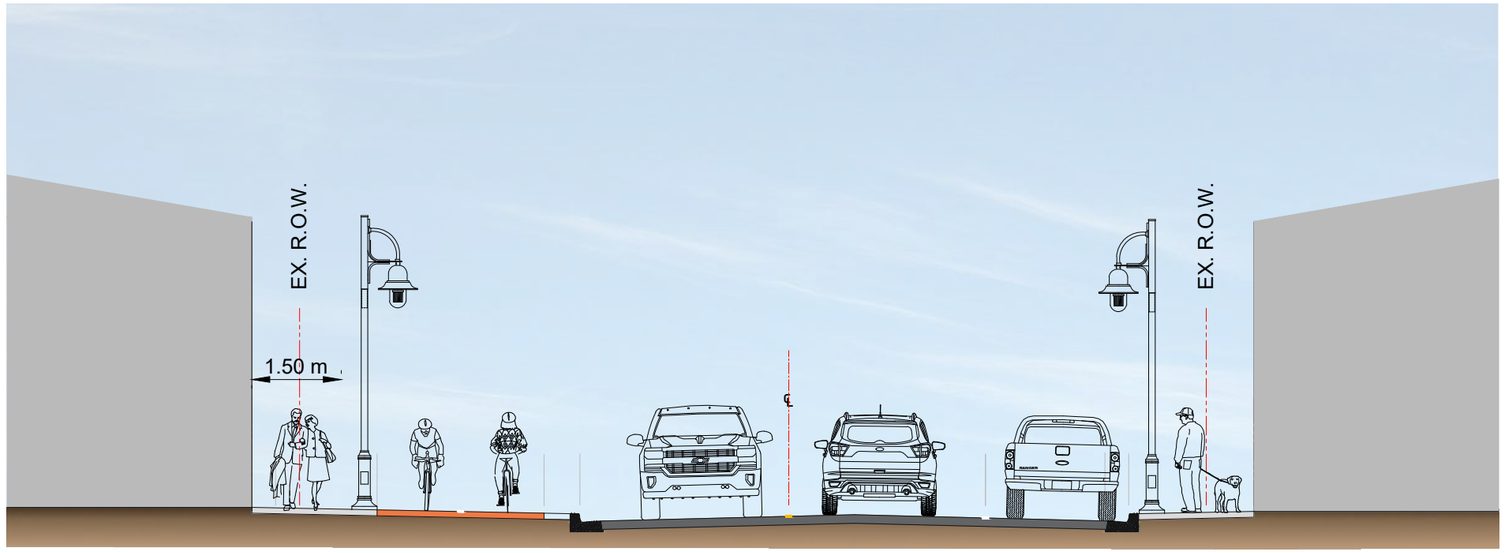

PROPOSED ARTERIAL WITH ACTIVE TRANSPORTATION
(RAISED CYCLE TRACK)
Commercial St.: Main St. to Marshall St.

Project Title:	TOWN OF MIDDLETON TRANSPORTATION MASTER PLAN		
Drawing Title:	PROPOSED CROSS-SECTION #3		
Cad Checked By:	- - -		
Drawn By:	JTGB	Checked:	AT
Scale:	1 : 100	Date:	Feb 26/24
Drawing No:	T104		

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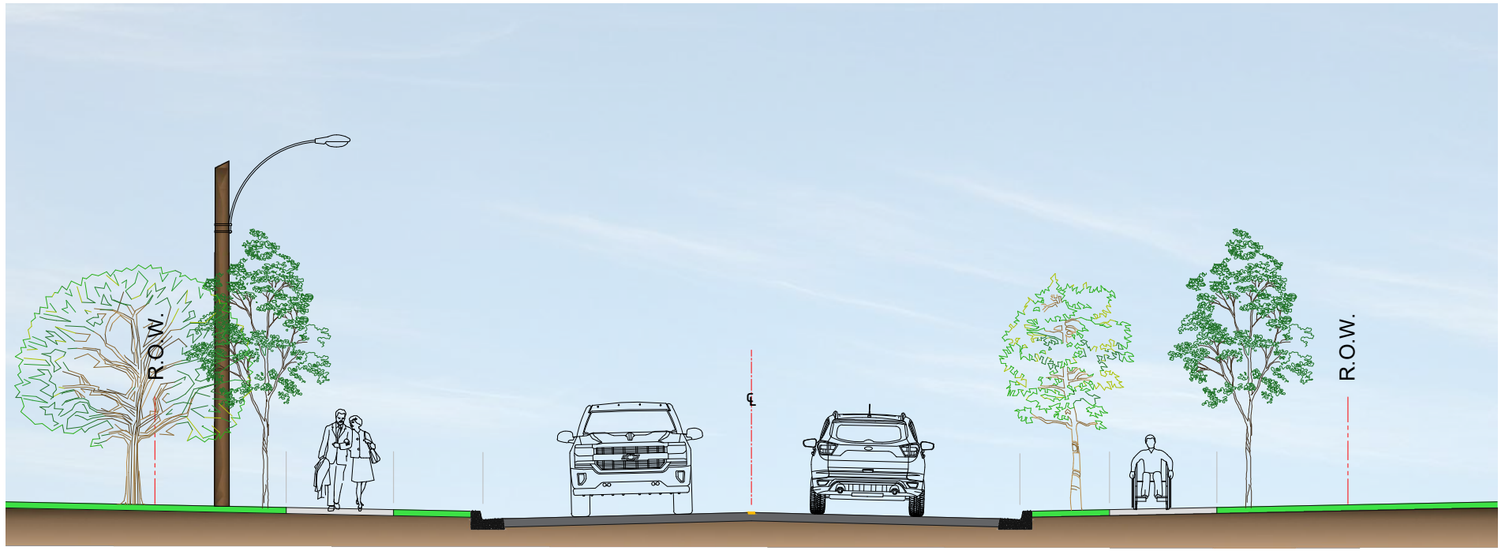
Town of Middleton
Heart of the Valley ®

NOTE

CONSTRAINED SECTIONS MAY USE 2.1m MONOLITHIC SIDEWALK(S).



ARTERIAL 2 - URBAN (2 LANE, NO PARKING)

Bridge Street: Main St. to Riverside Park
Main Street: Brooklyn Rd. to Senator St.
Commercial St.: Marshall St. to Junction Rd.

Project Title:	TOWN OF MIDDLETON TRANSPORTATION MASTER PLAN		
Drawing Title:	PROPOSED CROSS-SECTION #4		
Cad Checked By:			
Drawn By:	JTGB	Checked:	RE
Scale:	1 : 100	Date:	Mar 05/24
Drawing No:	T105		

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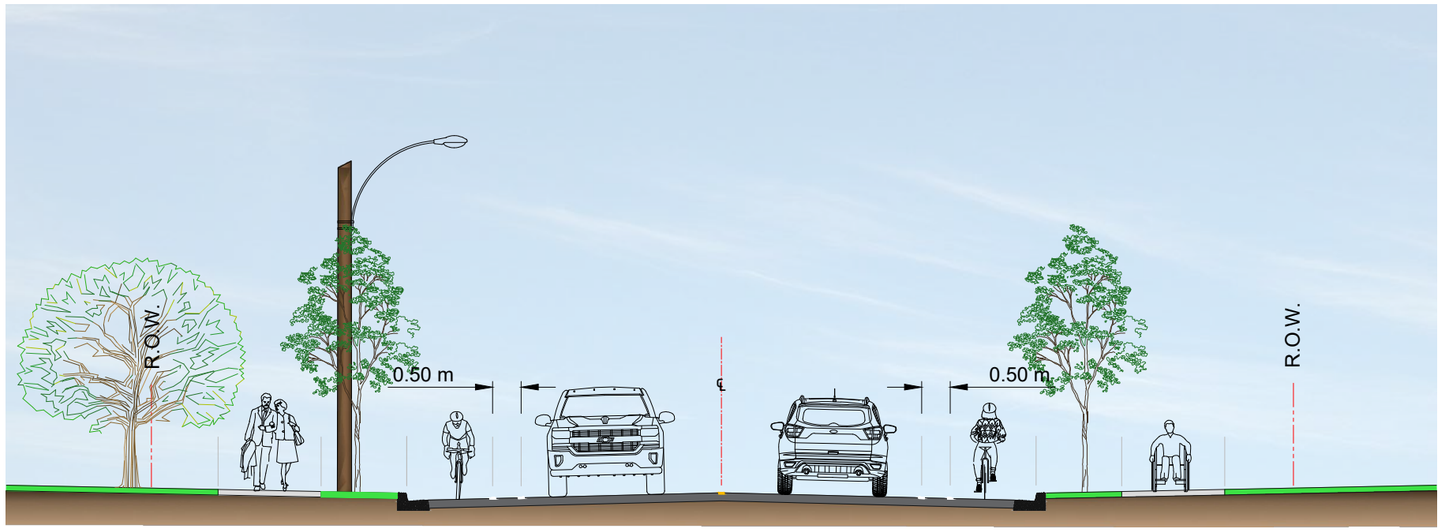
Town of Middleton
Heart of the Valley ®

NOTE

CONSTRAINED SECTIONS MAY USE 2.1m MONOLITHIC SIDEWALK(S).



PROPOSED ARTERIAL WITH ACTIVE TRANSPORTATION
(BUFFERED BIKE LANES)

Bridge Street: Main St. to Riverside Park
Main Street: Brooklyn Rd. to Senator St.
Commercial St.: Marshall St. to Junction Rd.

Project Title:	TOWN OF MIDDLETON TRANSPORTATION MASTER PLAN		
Drawing Title:	PROPOSED CROSS-SECTION #5		
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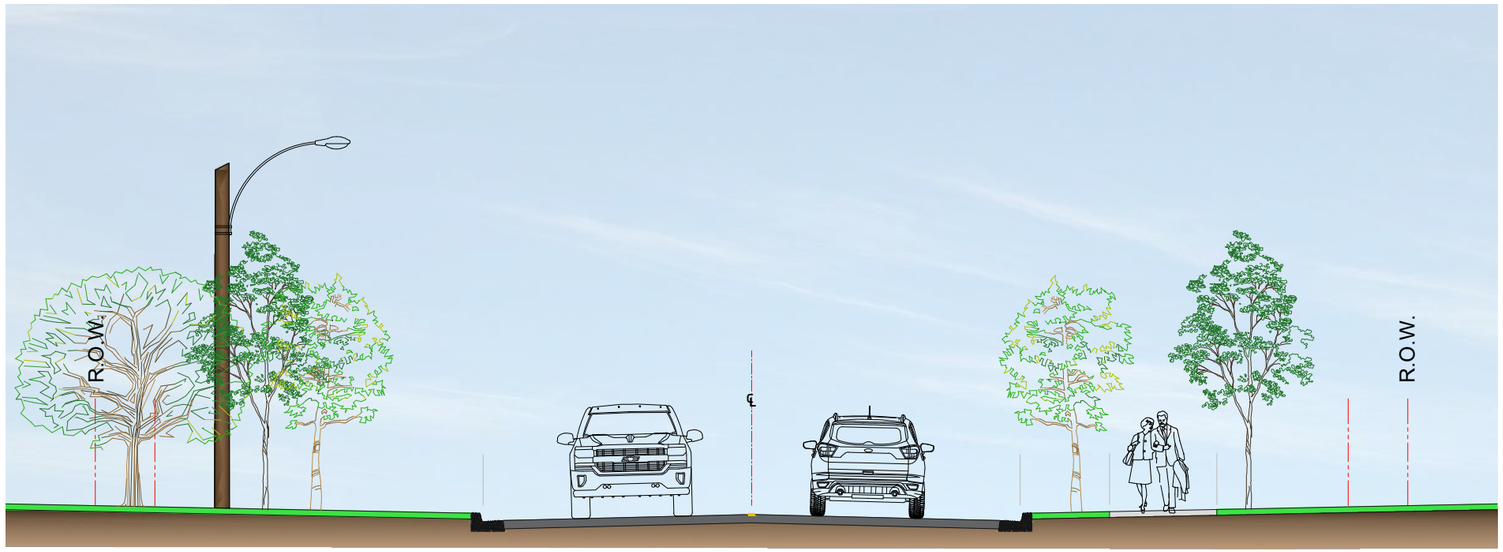
Drawing No:	T106		

ENGLOBE

Town of Middleton
Heart of the Valley ®



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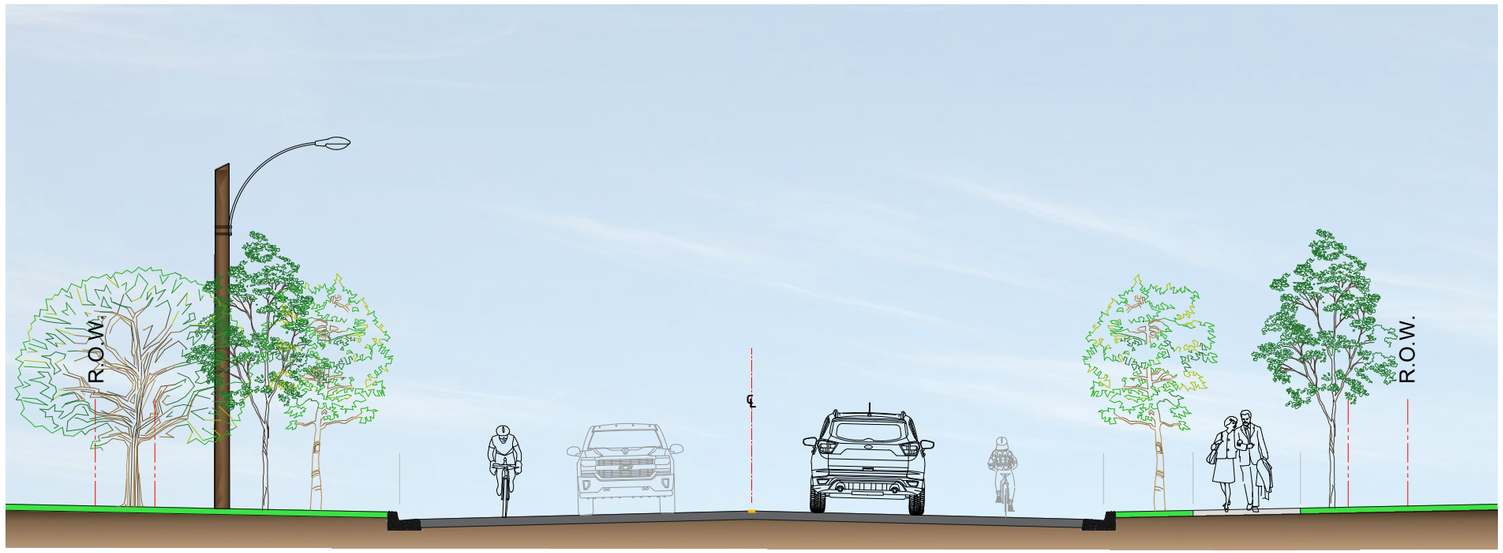

PROPOSED COLLECTOR WITH ACTIVE TRANSPORTATION
(LOCAL STREET BIKEWAY)

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Drawing Title:	PROPOSED CROSS-SECTION #7		
Cad Checked By:			
Drawn By:	JTGB	Checked:	AT
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Drawing No:	T108		

ENGLOBE

Town of Middleton
Heart of the Valley ®

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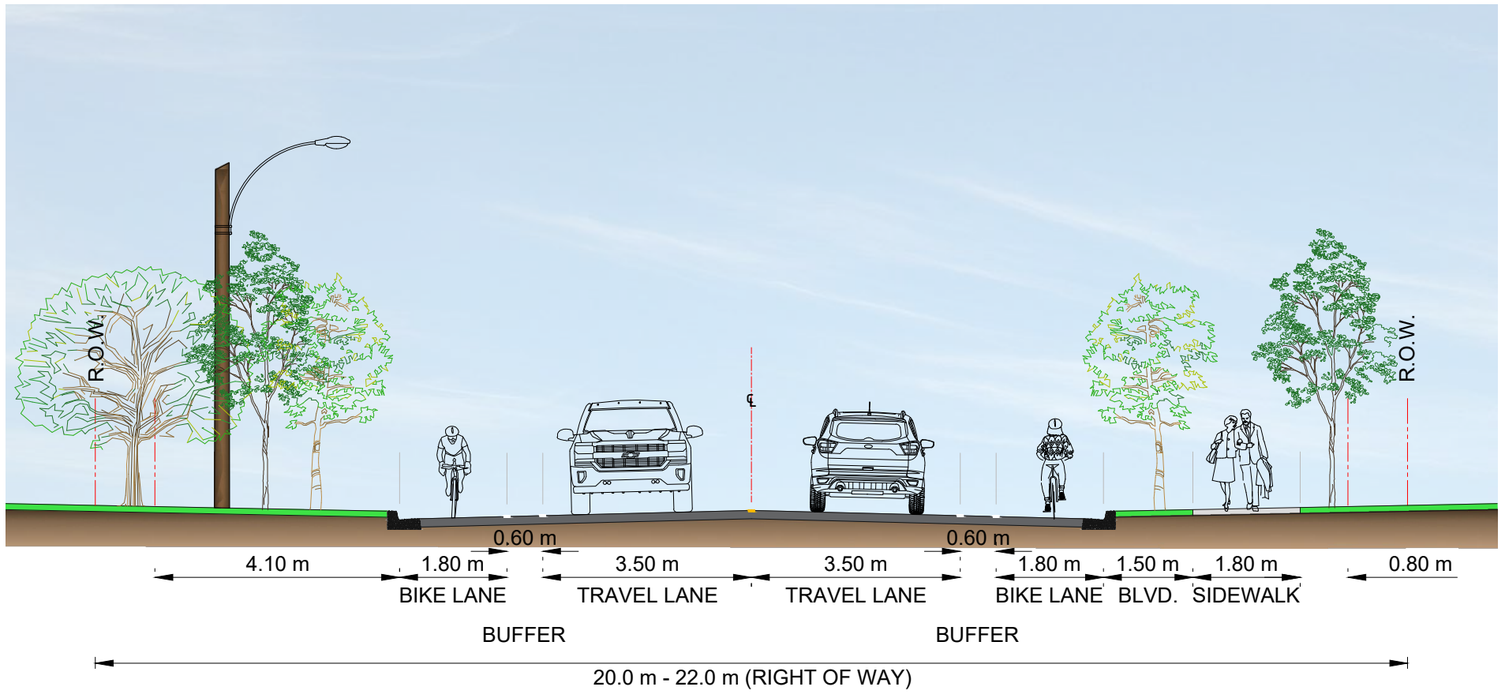

PROPOSED COLLECTOR WITH ACTIVE TRANSPORTATION
(PAINTED, BUFFERED BIKE LANES)

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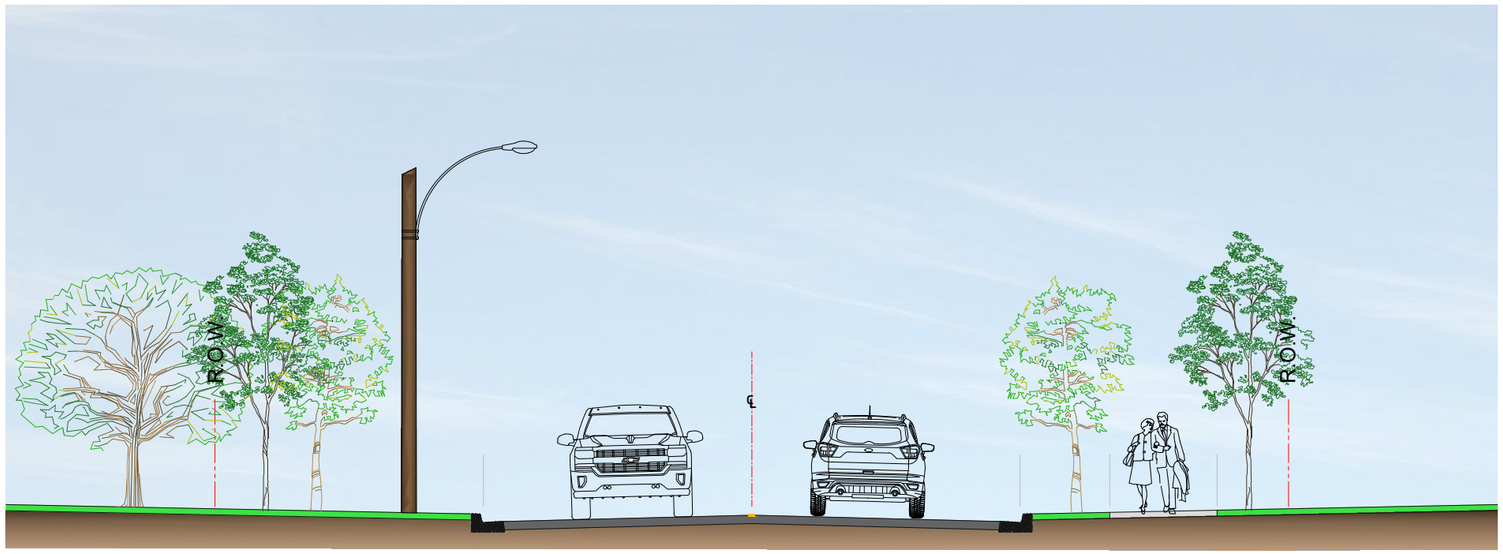
Heart of the Valley ®



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Town of Middleton
Heart of the Valley ®

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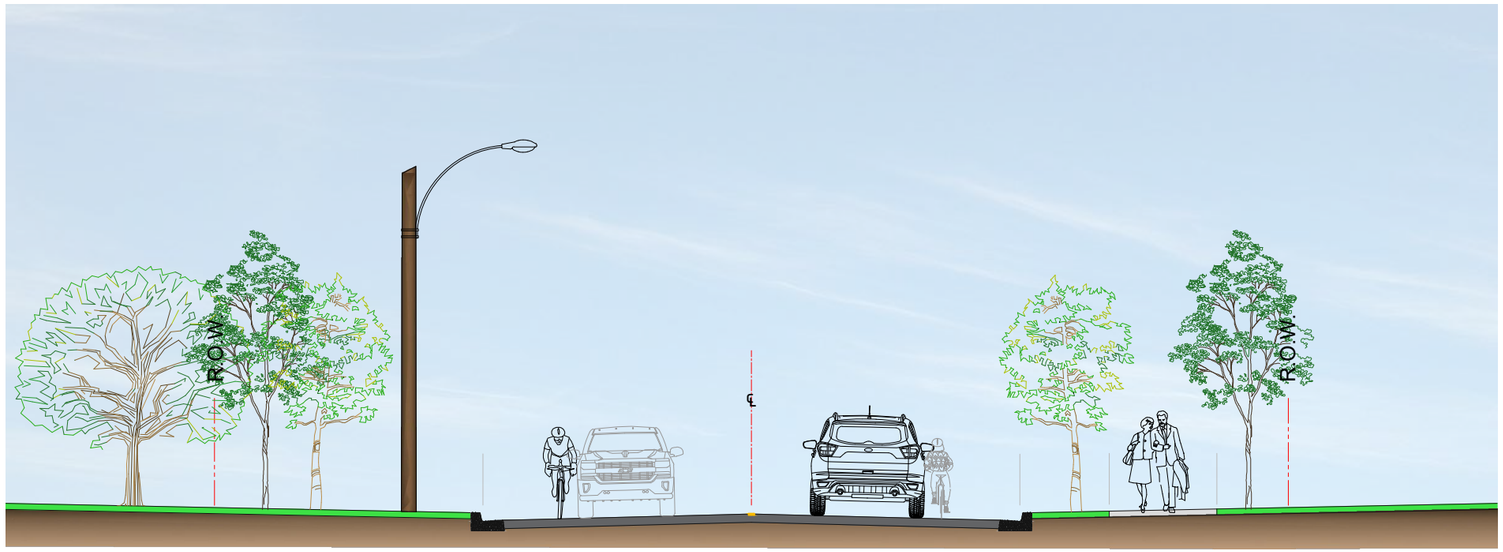

PROPOSED LOCAL WITH ACTIVE TRANSPORTATION
(Local Street Bikeway)

Project Title:	TOWN OF MIDDLETON TRANSPORTATION MASTER PLAN		
Drawing Title:	PROPOSED CROSS-SECTION #10		
Cad Checked By:			
Drawn By:	JTGB	Checked:	AT
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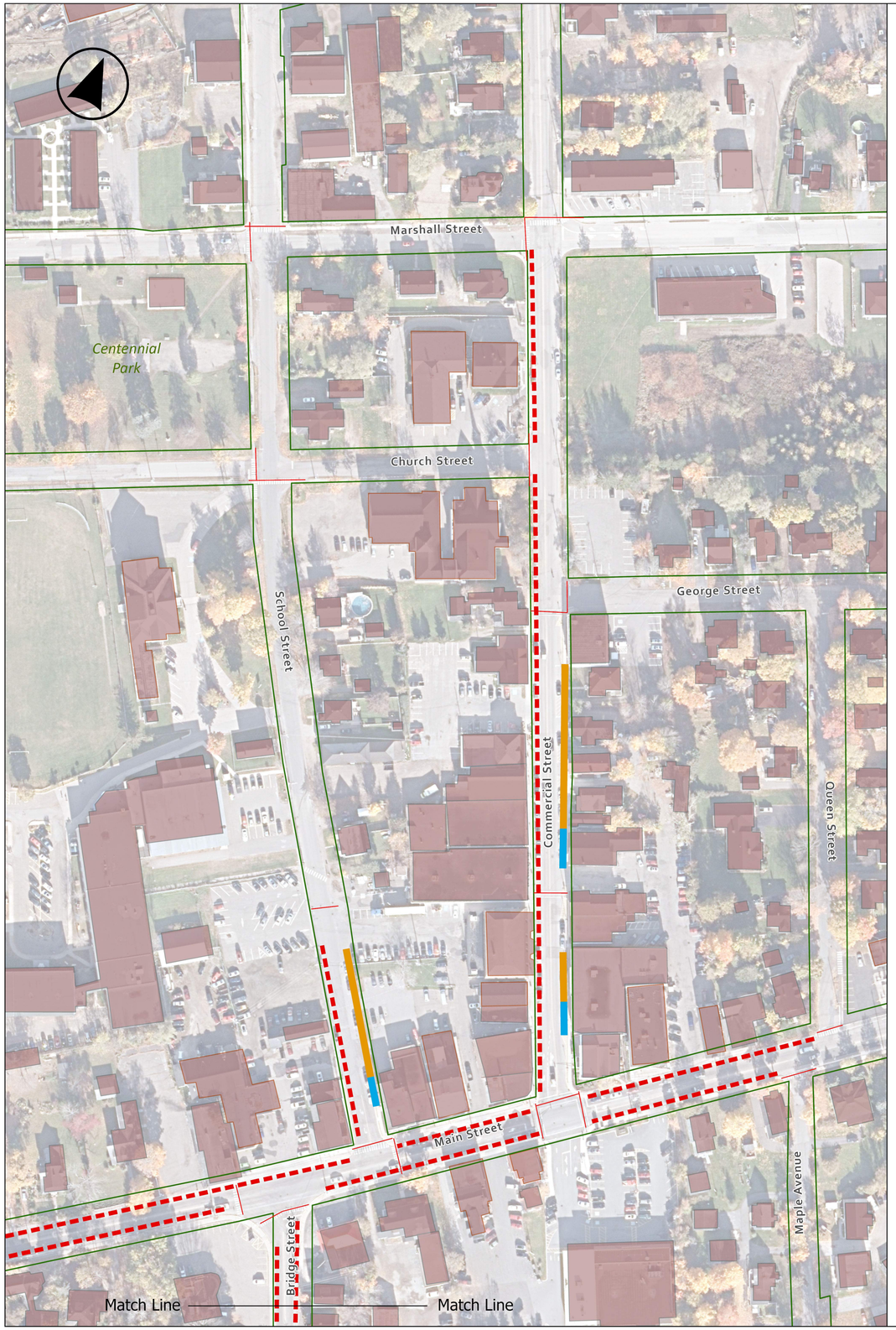
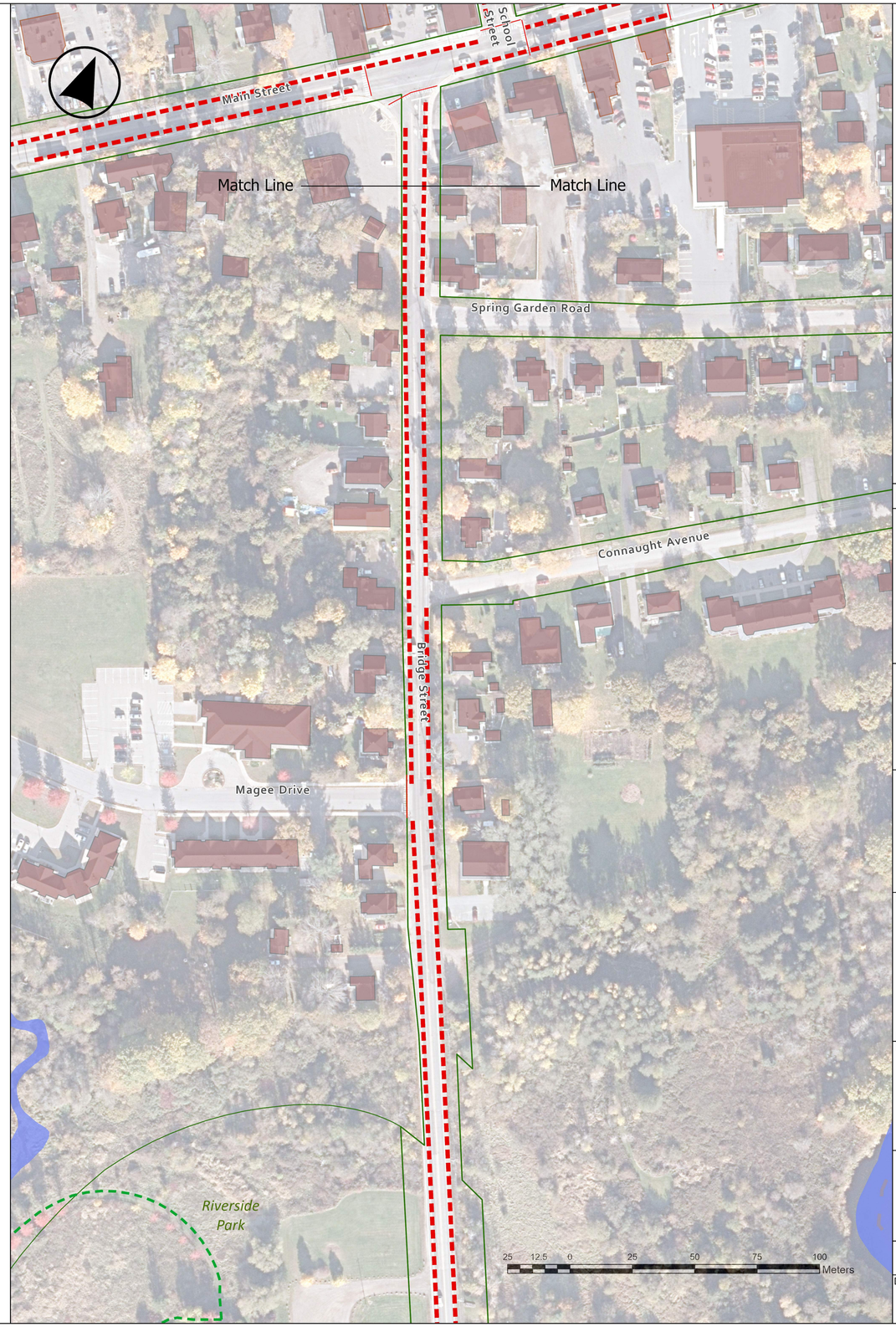
Drawing No:	T111		

Appendix F
Parking and Truck Route Plan

ENGLOBE





Legend:

- Right of Way
- Walking Trail (Middleton)
- Crosswalk
- Water
- Park
- Building
- Building With FSP

Proposed Parking

- On-Street
- On-Street Accessible
- No Parking

No.	Date	Revisions	By	Appr

Town of Middleton
Heart of the Valley ®

eNGLOBE

Project Title:

Town of Middleton
Transportation Master Plan
(2023)

Middleton NS

Drawing Title:

Proposed Parking
and
Parking Restrictions

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	Checked By:	AT
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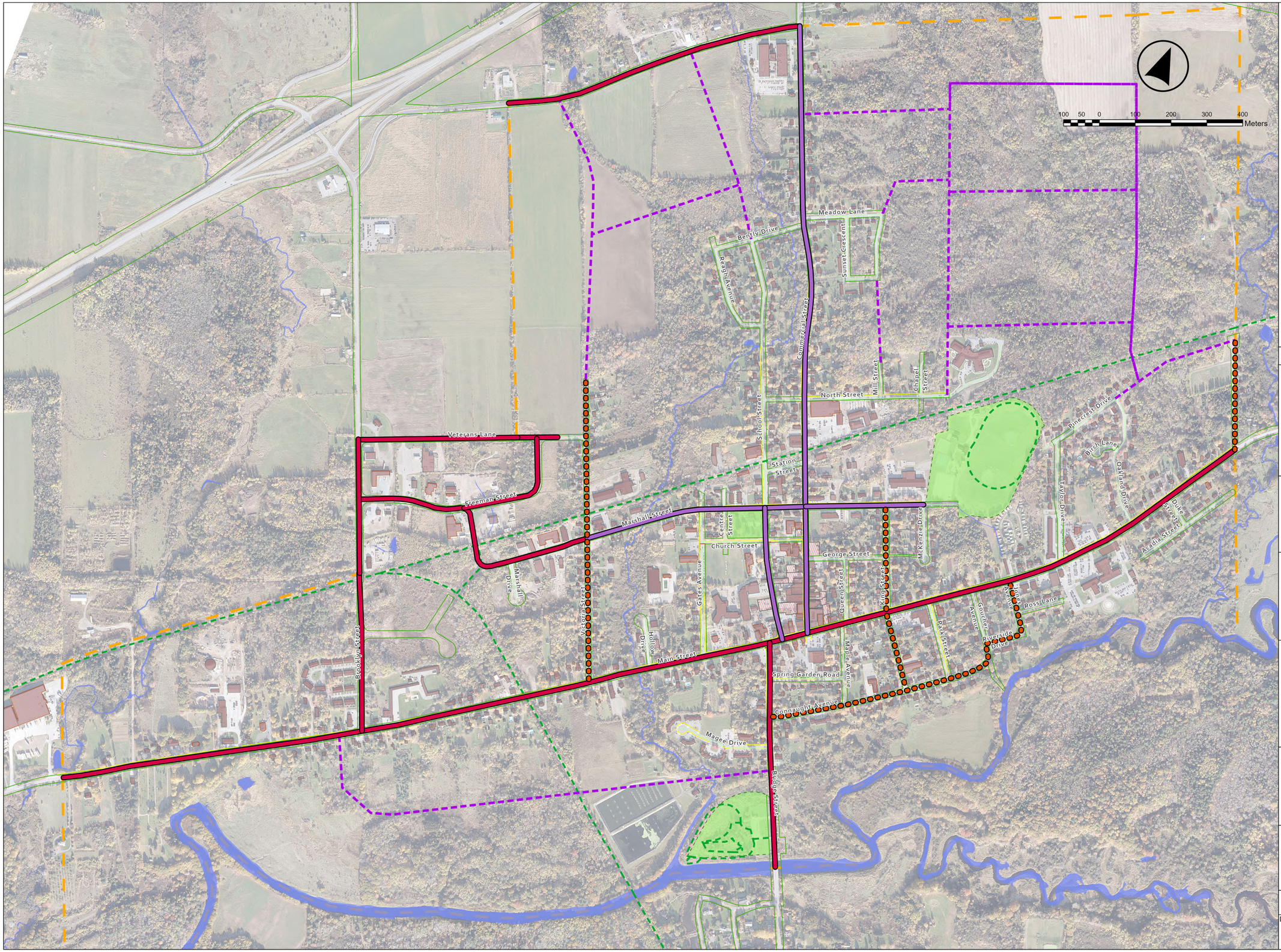
File Name:
2211198 Middleton TMP

Drawing No.:

Figure 5



Legend:

- Municipal Boundary
- Water
- Street Right of Way
- Walking Trail (Middleton)
- Proposed Collector Street
- Crosswalk
- Park
- Building
- Building With FSP
- Parking Lot

Truck Routes

- Full Truck Route
- Daytime Truck Route
- No Truck Access

No.	Date	Revisions	By	Appr

Town of Middleton
Heart of the Valley ®

ENGLOBE

Project Title:

Town of Middleton
Transportation Master Plan
(2023)

Middleton NS

Drawing Title:

Proposed Truck Routes

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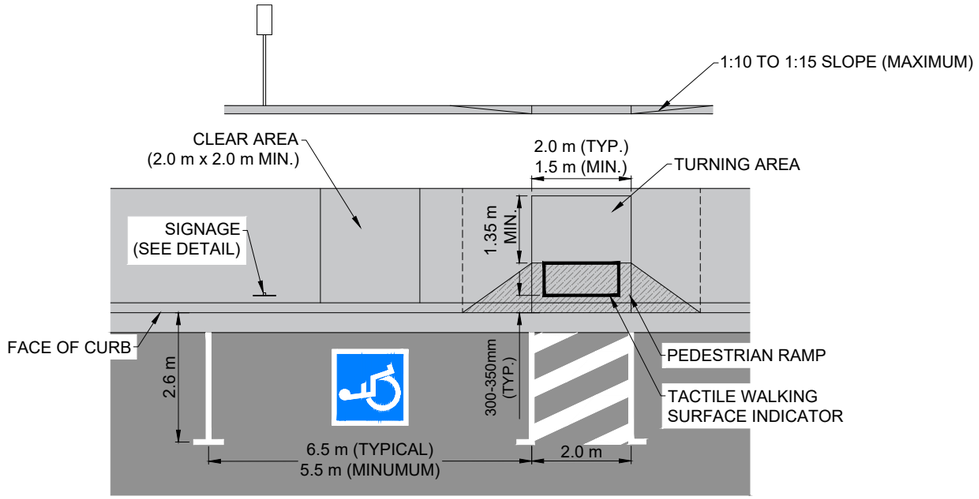
	Sheet	of

File Name:
2211198 Middleton TMP

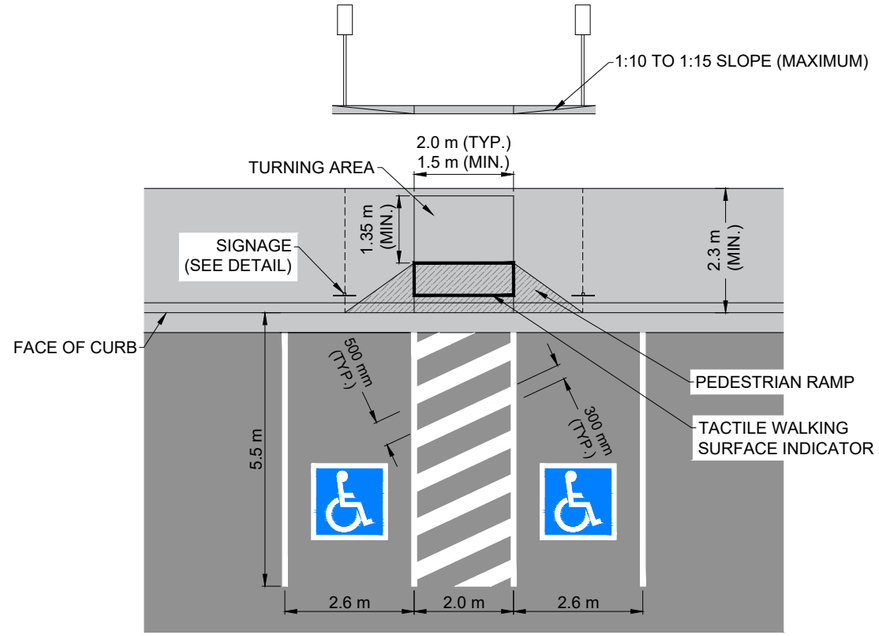
Drawing No.:
Figure 4

Appendix G
Accessible Parking Drawings

ENGLOBE



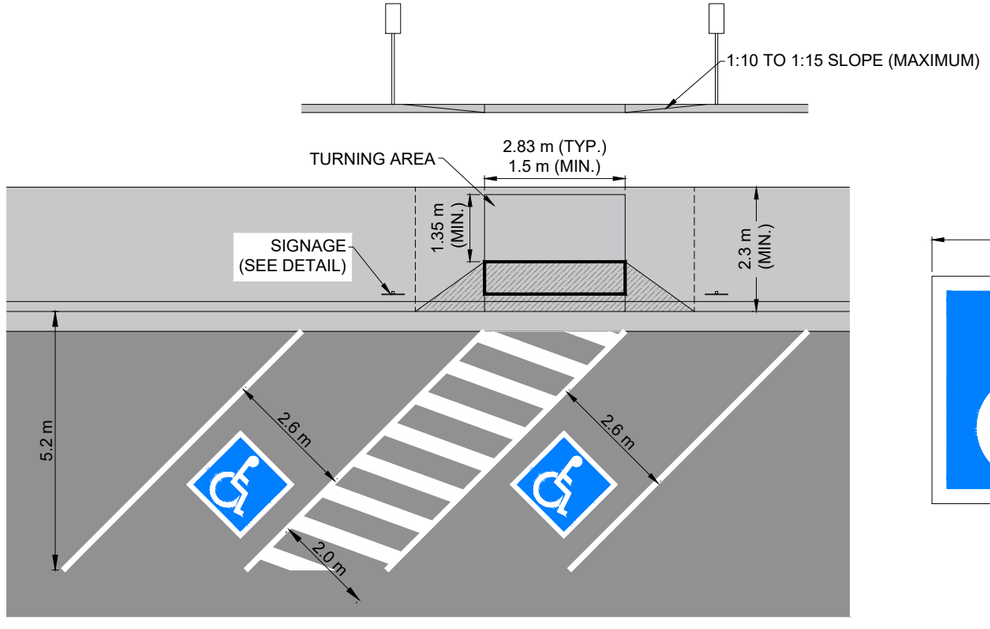
TYPE A PARKING STALL
(PARALLEL)



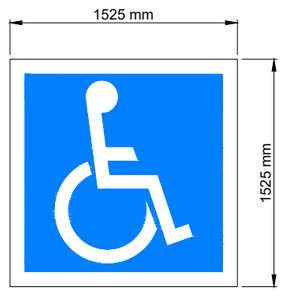
TYPE B PARKING STALL
(PERPENDICULAR)

NOTE:

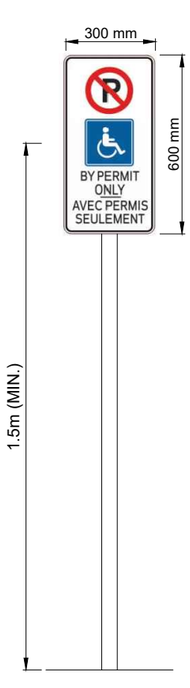
1. ALL PARKING METERS SHALL BE PLACED IN AN ACCESSIBLE LOCATION ON THE SIDEWALK WITHIN 2.5M OF THE RAMP WHEN POSSIBLE.
2. PARKING STALLS SHALL HAVE A MINIMUM WIDTH OF 2.4M FOR FOR LIMITED MOBILITY USER PARKING SPACES.
3. PAINTED LINES SHALL BE WHITE, SOLID, 100mm WIDTH, UNLESS OTHERWISE NOTED.
4. WHERE SIDEWALK IS NOT PRESENT, CURB CUTS TO ACCOMMODATE PEDESTRIAN RAMPS ARE NOT REQUIRED.



TYPE C PARKING STALL
(ANGLED)



PAVEMENT MARKING
SYMBOL DETAIL



SIGN DETAIL

NOTES

NO.	DATE	REVISIONS	BY	APPR.
0.0	NOV 08/21	ISSUED FOR INFORMATION	JTGB	RE

SAINT JOHN

Englobe

PRELIMINARY ONLY
DATE PLOTTED: Nov 08, 2021
NOT TO BE USED FOR CONSTRUCTION

PROJECT TITLE

SAINT JOHN UPTOWN
ACCESSIBLE PARKING STUDY

SAINT JOHN NB

DRAWING TITLE

ACCESSIBLE PARKING
DESIGN OPTIONS

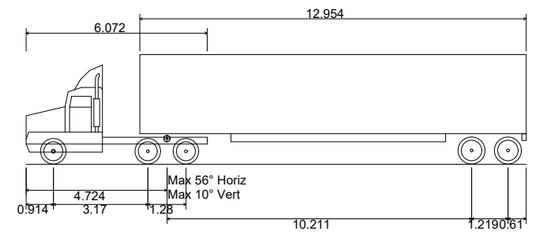
Scale	Drawn By	Design By
.6m 0 1.2m (1:60 FULL SCALE)	JTGB	JTGB
	Checked By: AT	Cadd Check: JTGB
	Sheet 01 of 01	

File Name: 2104710-1 BF PARKING OPTIONS.DWG

Drawing No.: T1

Appendix H
WB-50 Right Turning Movements between Main St and Commercial St

ENGLOBE



WB-50 - Intermediate Semi-Trailer	
Overall Length	16.764m
Overall Width	2.591m
Overall Body Height	3.673m
Min Body Ground Clearance	0.407m
Max Track Width	2.591m
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	17.90°

COMMERCIAL STREET

WB-50 - Intermediate Semi-Trailer

WB-50 - Intermediate Semi-Trailer

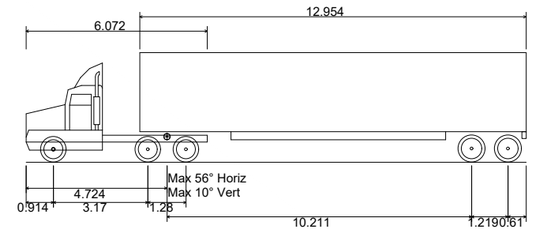
WB-50 - Intermediate Semi-Trailer

WB-50 - Intermediate Semi-Trailer

WB-50 - Intermediate Semi-Trailer

MAIN STREET

MAIN STREET



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Max Steering Angle (Virtual)	17.90°

Save Our Old Forests: Protecting Wilderness Areas

Town of Middleton

Tuesday, May 21, 2024

Save Our Old (SOOF) Forests Association

The Save Our Old Forests (SOOF) Association is a registered nonprofit based in Kespukwitk, Mi'kma'ki. SOOF has two primary objectives:

- To engage the public in helping to protect the forests in keeping with the Government of Nova Scotia's commitment to protect 20% of Nova Scotia's lands and waters by 2030; and

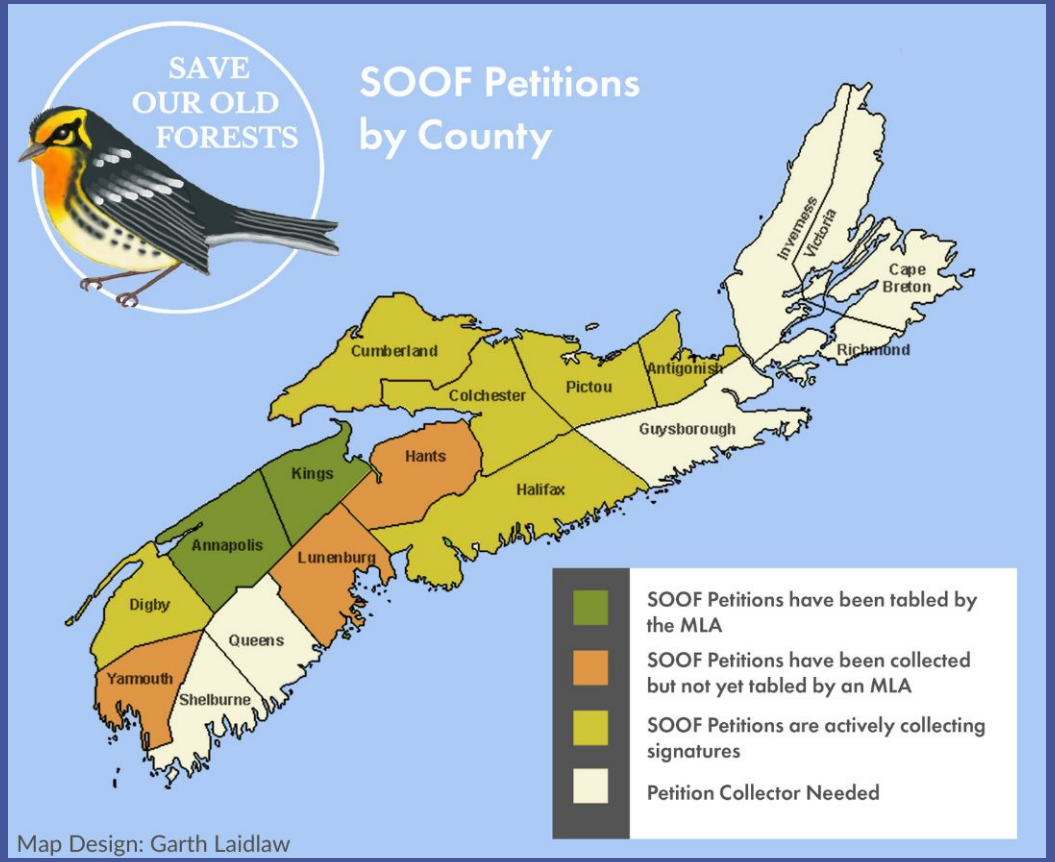
- To raise awareness of the ecological importance of protecting forests over 80 years old in particular.

Protecting 20% by 2030

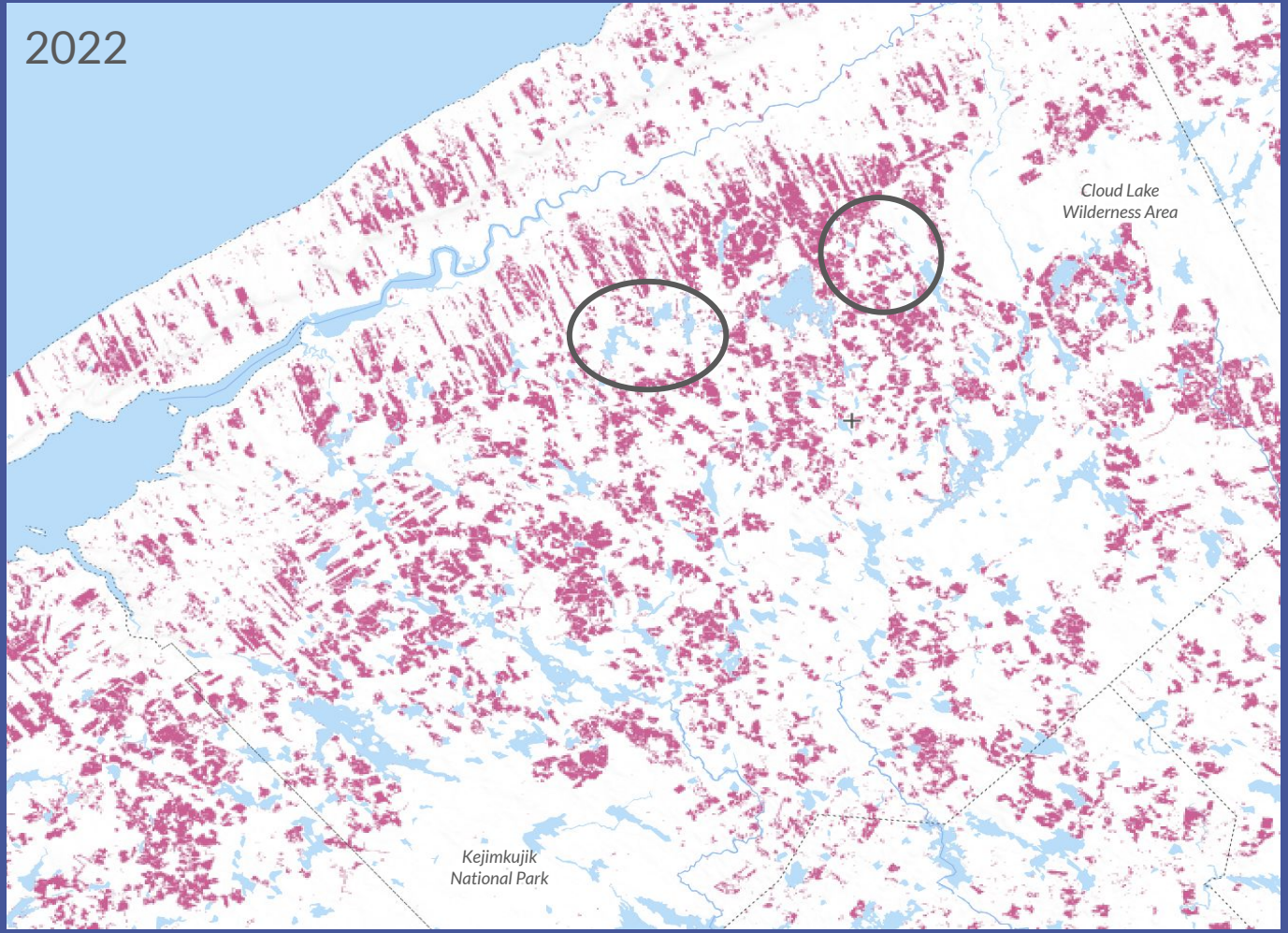
- 2021: *Environmental Goals and Climate Change Reduction Act* is passed including the commitment *"to conserve at least 20% of the total land and water mass of the Province by 2030 as protected areas and other effective area-based conservation measures."*
- December 2023: Province releases *Collaborative Protected Areas Strategy*
- December 2023: Announcement of protected areas that had been under consideration for year bringing the total area protected to 13.45% (740,000 hectares)
- Additional 360,000 hectares needs to be protected to reach 20%

Save Our Old Forests - Engaging the Public

- SOOF Petitions - Annapolis County and beyond
- *For the Love of Lichens & OLd Forests* art show (May - June 2023) ArtsPlace
- Community Events: SOOF Soup Sundays, Old Time Country & Music Dances, RiverFest, Ice Cream Social, Christmas Markets, and more…
- Annual SOOFSTOCK Music Festival in August at West Dalhousie
- Interactive theatre game *Moving A Forest"* - international collaboration with Blooming Ludus (UK & Korea)



Petition to Protect Wilderness Areas



Forest Cover Loss 2001 - 2022 Source: Global Forest Watch

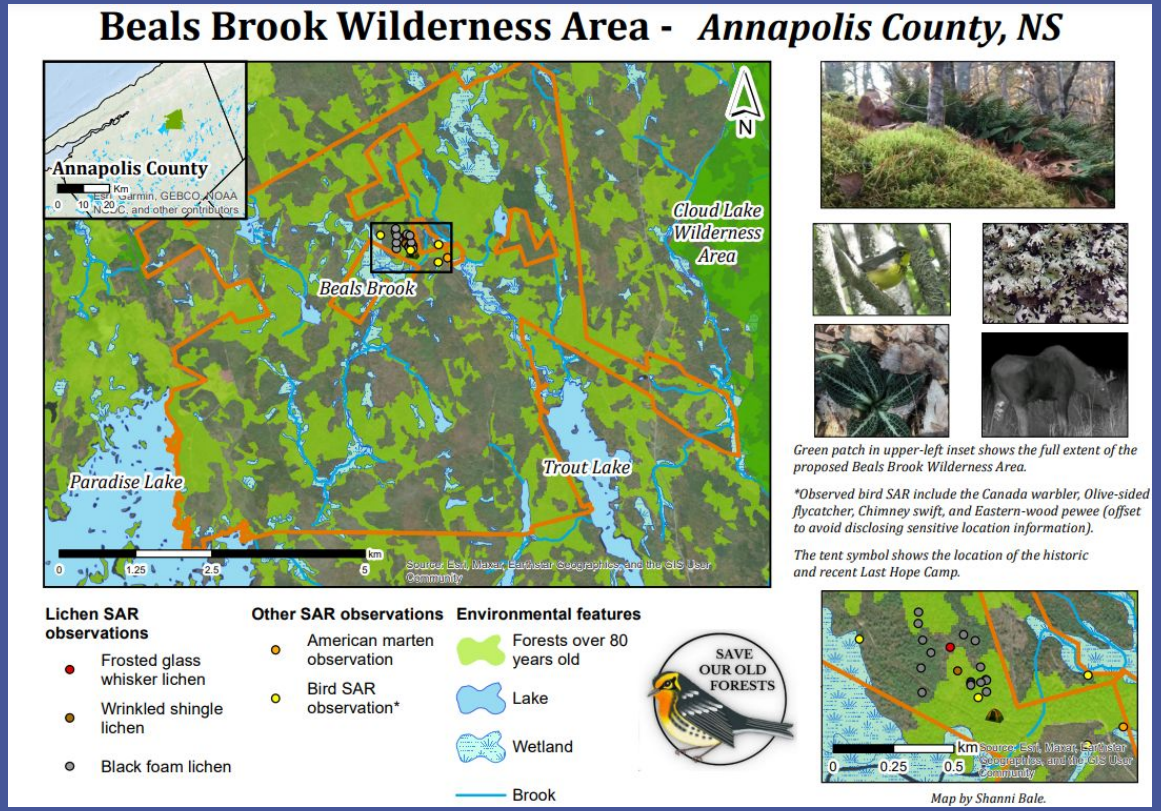
Petition to Protect Wilderness Areas

THEREFORE we, the undersigned residents of Nova Scotia, call upon the Government of Nova Scotia to designate for protection Beals Brook and Goldsmith Lake Wilderness Areas, two areas of 3900 hectares each on Crown land in Annapolis County. We request that the Government place a moratorium on all forestry, road building and industrial activities within the proposed Wilderness Areas while they are in the process of being designated for protection.

Beals Brook Wilderness Area

"This isn't lumber country - it's Moose country."
Perry Munro, Master Guide

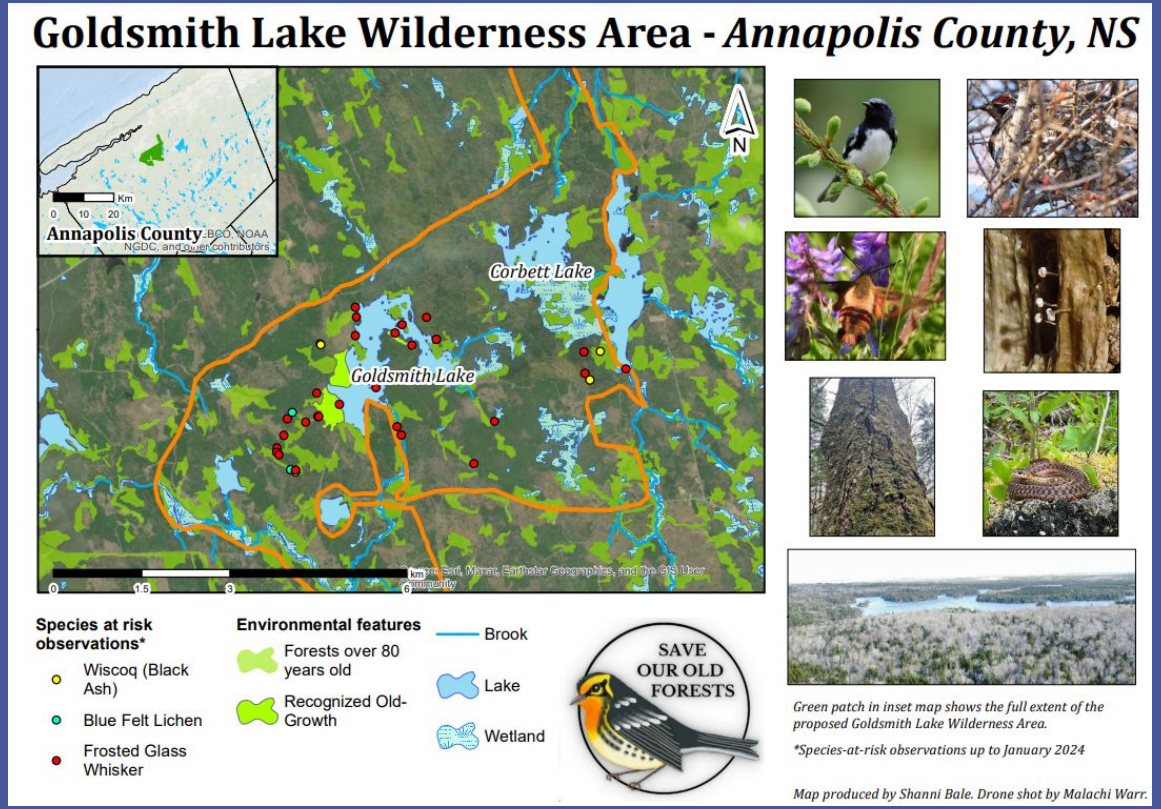
- Proposal to protect 3500 hectares of mature to old forests
- Connection to Cloud Lakes Wilderness Area
- Habitat for Species at Risk and Endangered Species



Goldsmith Lake Wilderness Area

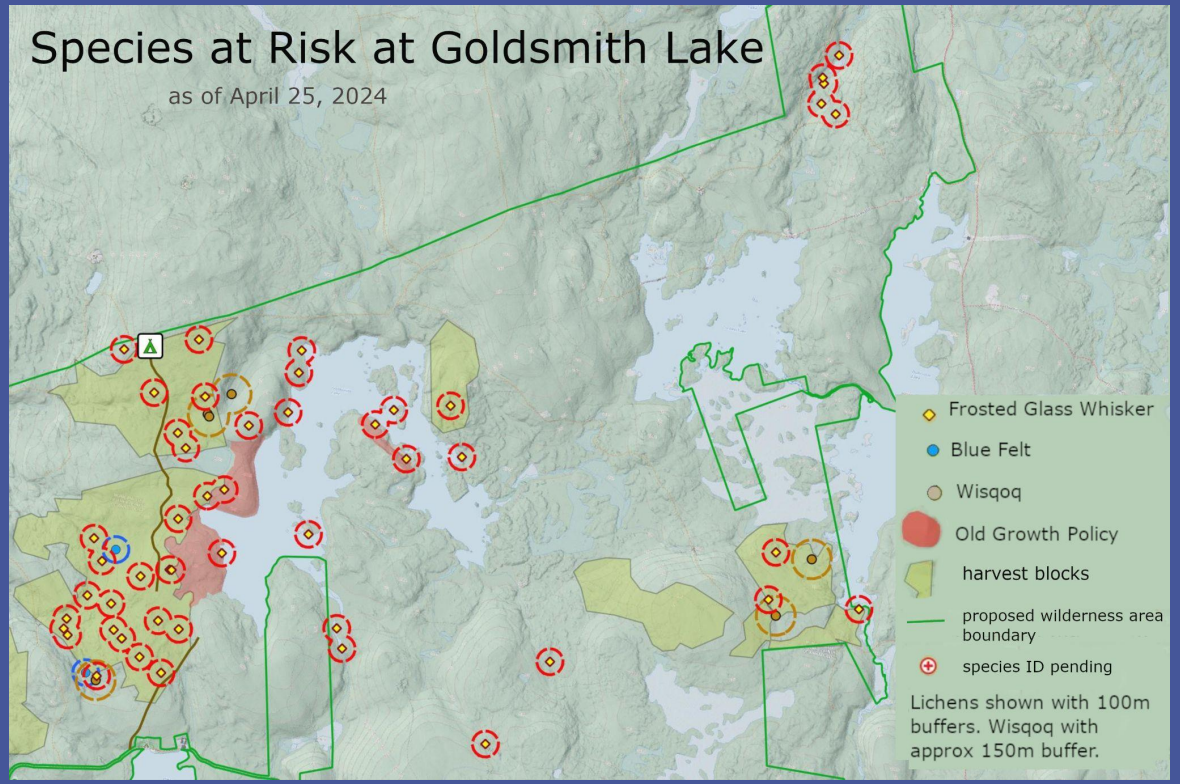
The Jewel of Annapolis County

- Proposal to protect 3900 hectares including Goldsmith And Corbett Lakes,
- Headwaters of the Round Hill River and Tupper Brook
- Recognised old growth
- Habitat for Species at Risk



Goldsmith Lake Wilderness Area

- 57 confirmed Species at Risk as of April 25, 2024
- Statement from DNRR (Feb 29, 2024) "*There are no full blocks removed from the harvest approval in the Goldsmith Lake Area. However Portions of some blocks were removed after species at risk were identified and confirmed.*"



Request to the Town of Middleton

SOOF is asking that the Mayor and Council make the following request of the Government of Nova Scotia on behalf of the Town of Middleton:

“to designate for protection Beals Brook and Goldsmith Lake Wilderness Areas, two areas of 3900 hectares each on Crown land in Annapolis County. We request that the Government place a moratorium on all forestry, road building and industrial activities within the proposed Wilderness Areas while they are in the process of being designated for protection.”

Thank you

MIDDLETON ACCESSIBILITY ADVISORY COMMITTEE

MIDDLETON'S ACCESSIBILITY PLAN

- The Town of Middleton's Accessibility Plan was created by the Accessibility Committee and approved by Council on May 16, 2022
- The plan was created after a comprehensive survey of the community and several working groups met to discuss the six areas of focus for our plan.
- The Nova Scotia Government's mandate is that Nova Scotia will become accessible by 2030 leaving us less than 6 years to remove the barriers impacting people in our Town-owned buildings, parks, infrastructure and in the services we deliver.

Year One

- In the first year of the Accessibility Plan a new pool lift was purchased and crosscuts were completed with tactile markers on the corner of Main and Commercial St.

Projects

- Several other projects were completed throughout the year including beginning the removal of the bricks along Commercial St. and grinding down high spots on sidewalks that were pointed out as hot spots by community members.
- Pathways were extended to the table tennis and chess tables in Centennial Park
- Additional benches were added in Rotary Park and wheelchair-friendly picnic tables added around town.
- Sidewalk work was completed on various streets in town including parts of Main St., Gates and Church.

Community Events and Education

- Accessibility Week was a great opportunity for us to engage our community through a series of activities and events.
- We had a coloring contest for students grade 6 and under, Red Shirt Day, a Story in the Park written by a local student, an accessible movie night and we partnered with various municipal organizations and neighboring municipalities to share our Accessibility Plan at our first Accessibility Awareness Day hosted at the Bridgetown Sports Hub.

ACCESS INCLUDES EVERYONE

Accessibility Awareness Week

Year Two

- Unfortunately, weather interfered with our Accessibility Day events in 2023
- Additional benches were purchased with the intention of adding them to the four corners of Centennial Park and adding some to the downtown core area.
- The goal is to make the town a more walkable, barrier free community for people of all abilities.

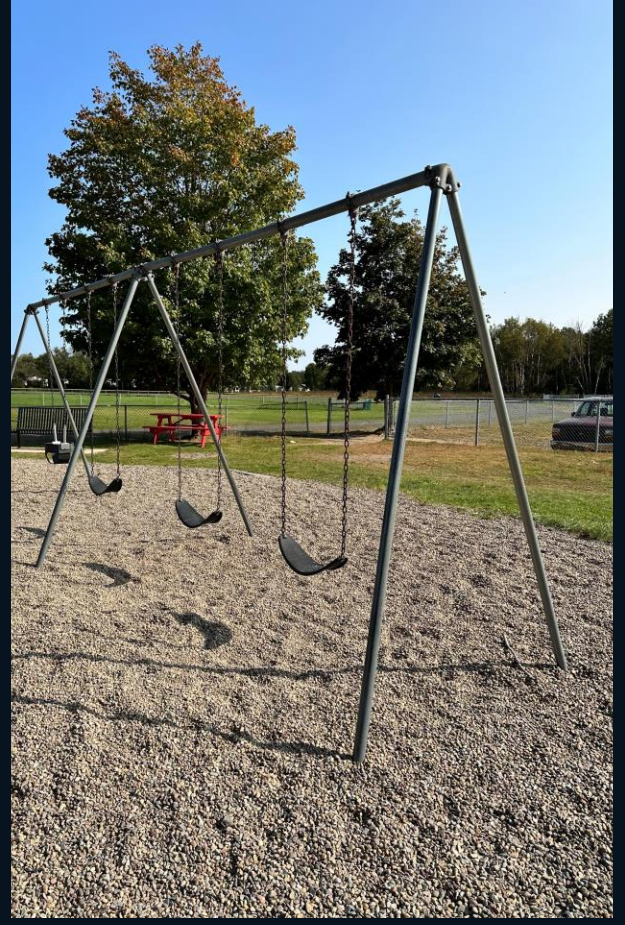
Year Three

- A new Provincial audit tool was presented for Built Environment which will allow us to audit our town buildings and parks to create a priority list of how to move forward.
- The NS Government updated the Built Environment Standards which we received in early 2024. This provided us with enough information to feel confident moving forward with our audits.
- They also released the new standards for Employment and Education, and they are working on the Goods and Services Standards. Public Transportation Standards are also in the works.

Where We Are Now…..

- With 2030 fast approaching we are in the process of looking closely at our buildings, parks, infrastructure, goods and services.
- We have done a lot, but we have a LONG way to go…
- Things like signage, door handles, light switches, doorways, ramps, sidewalks and pathways, our parks and playgrounds all need evaluation. Training for staff, our website, online delivery system and print materials are all things that fall under the umbrella of “Town-owned and operated” and will need updating.

Rotary Park Playground



If a child or parent can't reach the playground or access it, the pieces are irrelevant.

Some of the individual pieces could be considered "accessible" However, the surface is not.

If a playground is accessible all children and families can play

Example of a (more) Accessible Playground (Video)

Cost of the accessible playground

- The Dandelion Playground in the video is in Greenwood – by the post office.
- It is one of three playgrounds with the rubberized surface, and it is the middle-sized one of the three. The park was opened in 2019 and is right next to a sheltered bus stop.
- The cost of this playground was $350,000

The other two playgrounds are about two blocks away beside the Greenwood Outdoor Pool.

A sheltered, accessible picnic area is in between the two playgrounds

Our Ask

- To request $25,000 for capital project costs to put towards funding for a multi-year project towards an accessible playground. Utilizing whatever equipment we can salvage from the current playground.
- This would include partnering with community organizations and applying for grant funding to complete the project over a 3–5-year plan.
- $5,000 in operational budget monies for community events, professional development, educational funds, tools needed for us to continue the operation of the advisory committee.

THANK YOU!

REQUEST FOR DECISION
Transportation Master Plan (TMP)
RFD#: 026-2024

To: **Town Council**
From: **Sharon McAuley, Planning Services Coordinator**
Andy Kerr, Director of Recreation & Community Development
Lisa Fenton, MPAL
Date: **May 21, 2024**
Subject: **Transportation Master Plan**

Guiding Principles for Decision-Making

Accountability	Transportation	Diversity	Sustainability	Engaged	Informed

References/Attachments

- Transportation Master Plan
- Government of Canada Agreement
- Funding Application.

Recommendation

That Town Council accepts the recommendations of the Middleton Transportation Master Plan and:

1. refers the report to the Planning Advisory Committee for recommendations on changes required to the Municipal Planning Strategy and Land Use Bylaw;
2. refers the report to the Accessibility Committee for recommendations on changes required to the Middleton Accessibility Plan;
3. refers the report to staff to incorporate recommendations into the capital budget and research funding opportunities.

Background

In 2022, the Town applied for funding with the Government of Canada to develop a Transportation Master Plan that would help prepare and support the Town of Middleton for future growth and address current issues and increased traffic of all modes in the most sustainable way possible.

The Town received approval and funding in 2022/23 and issued a Request for Proposals. Englobe was chosen to develop the report and make recommendations to Council and staff on developing a transportation network that will work for both businesses and citizens of Middleton.

Consultations with businesses, citizens and staff were incorporated into the process with the findings captured in the final report.

The Transportation Master Plan re-envisions the Town's transportation networks and identifies new infrastructure priorities for the coming decades. This TMP will aid in better facilitating equitable and sustainable transportation through alternative modes such as active transportation (AT) and balancing these needs and desires against future growth, right-of-way availability, and budget constraints.

Financial Implications

The TMP will require funding to implement its recommendations, some of which can be done through grant funding. Implementation can be over a number of years and should be reviewed during budget deliberations. The search for funding availability should be ongoing.

Strategic Plan/Operating Plan Alignment

Check Applicable	Strategic Priority Area	Comments
	Environment	
X	Infrastructure	Recommendations from the report have implications on the Town's infrastructure including roads and sidewalks.
	Economy	
X	Community	A public open house was conducted to gather feedback. Businesses were approached for input.
	Governance	The process for Development Agreements is outlined in the MGA and internal policies and bylaws.
	Council Strategic Initiative	

Alternatives

N/A

REQUEST FOR DECISION
Transportation Master Plan (TMP)
RFD#: 026-2024

Community Engagement/Communication

The Report involved extensive consultation with the public and businesses in Middleton and reflects their views.

CAO Comments

The CAO supports the recommendation of staff and Englobe, subject to funding availability.

CAO Initials: AC Target Decision Date: May 21, 2024

REQUEST FOR DECISION
Capital Project – Sewer Line Replacement
RFD#: 027-2024

To:	**Town Council**
From:	**Adam Verran, Director of Public Works**
	Ashley Crocker, CAO
Date:	**May 21, 2024**
Subject:	**Capital Project – Sewer Line Replacement**

Guiding Principles for Decision-Making

Accountability	**Transportation**	**Diversity**	**Sustainability**	**Engaged**	**Informed**

References/Attachments

- Capital Budget Project Sheet 24-13 created for the draft 2024/25 Capital Budget
- Quote from Mid Valley Construction
- Quote from VJ Rice Concrete Limited

Legislation

- *Municipal Government Act*

Recommendation

That Town Council approve utilizing up to $20,000 plus HST from the Sewer Capital Reserve, to fund the replacement of the sewer line by Bridge Street and install a new manhole.

Background

In approximately 2010, a new sewer main was installed between a manhole off Bridge Street to the Sewer Treatment Plant.

Recently, Public Works received a call from a resident about a bad odor coming from a pipe down in the old riverbed. It turns out this is an old sewer overflow, and whenever there is high flows (heavy rain falls or snow melting because of the combined sewer storm) the manhole backs up and raw sewer is discharged.

Loomer's was called to inspect the pipe with a camera, which revealed a couple of issues:

1) The wrong diameter pipe was used in 2010. An 8" pipe was used to hook into the existing 18" pipe with a reducer and dropped the diameter down to a 8" pipe for approximately 2 meters and then went back up to the 18" pipe.
2) The larger pipe is picking up debris (rocks and waste) which is getting lodged in the 8" pipe
3) Approximately 20 meters away from the manhole, an elbow was put in the main sewer line creating the potential for more flow issues in the future. This should be replaced with a manhole.

Solutions:

1) Remove the 2-meter section of the 8" pipe and replace it with 18" pipe to eliminate the main flow issues. **$3,500 plus HST**
2) Remove the 2-meter section of the 8" pipe and replace it with 18" pipe. Replace an elbow in in the main sewer line with a manhole. **$14,632 plus HST**

To ensure the Town doesn't have future issues on the bend, and because this is the main line handling the bulk of the flow from Connaught Avenue, the hospital, Acadia Street and Taylor Drive, staff recommend Option 2. The total estimated project cost including the Town's portion of HST is $15,259. Staff recommend that Council approve utilizing up to $20,000 plus HST from the Sewer Reserve, in case there are any other small costs that arise during the repair.

Unfortunately, due to staffing vacancies, the budget process has been delayed this year. Capital projects must be approved by Council, and there is no 2024-2025 Approved Capital budget yet. Given this line needs to be replaced immediately due to raw sewage being discharged at high flows, staff are requesting Council approval now so this sewer line issue can be repaired immediately.

Financial Implications

Staff recommend using the Sewer Capital Reserve to fund the project, which currently has $638,000 in it as of March 31, 2024.

The project will be part of the 2024/25 Capital Budget.

REQUEST FOR DECISION
Capital Project – Sewer Line Replacement
RFD#: 027-2024

Strategic Plan/Operating Plan Alignment

Check Applicable	Strategic Priority Area	Comments
x	Environment	Ensure sewer operations continue uninterrupted
	Infrastructure	
	Economy	
	Community	
X	Governance	Ensure legislative requirements are met
	Council Strategic Initiative	

Alternatives
N/A

Community Engagement/Communication
N/A

CAO Comments
The CAO supports the recommendation of staff.

CAO Initials: AC Target Decision Date: 21 May 2024

Town of Middleton

Capital or Special Project Budget Information
For the Fiscal years from 2024/25 to 2028/29

Heart of the Valley

Project Name: SANITARY SEWER MAIN - BRIDGE STREET TO STP

Project # 24-13

Department: Sewer **Unit:** Town **Asset Class** Sewer mains

Type of Asset: New & replacement **Reason:** Critical level of service **Expected Useful Life:** 50 years

Project Description: Replace a 2 metre section of 200mm (8") diameter sewer pipe with 450mm (18") diameter pipe to be consistentent with the pipe diameter before and after this 2 metre section. Replace an elbow in the main sewer line with a manhole.

Need for Project: When this section of pipe was replaced in 2010, the wrong diameter pipe was used. This created a restriction in the flow through the 2 metre section, which is causing sewer backups and forcing raw sewage to be discharged. Likewise, the elbow in the main sewerline needs to be replaced to prevent flow issues. This is the main line handling the bulk of the flow from the hospital, Connaught Ave., Acadia St., and Taylor Dr.

Project Funding: Drawdown sewer reserve

Carry-over Project n/a. However, because of the emergency nature of this project, Council approved an RFD on May 21

Additional Operating Expense n/a

Annual Operating Impact:	**Total up to 3/31/2023**	**Budgeted for 3/31/2024**	**Total up to 3/30/2024**	**New Spending 2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**Total**	**Project Total**
Operating Expenses	-	-	-	-	-	-	-	-	-	-
Interest expense	-	-	-	-	-	-	-	-	-	-
Interest expense - interfund	-	-	-	-	-	-	-	-	-	-
Depreciation expense	-	-	-	305	305	305	305	305	1,526	1,526
Loan principal	-	-	-	-	-	-	-	-	-	-
Loan principal - interfund	-	-	-	-	-	-	-	-	-	-
Total Operating Impact	-	-	-	305	305	305	305	305	1,526	1,526

Capital Budget:	**3/31/2023**	**3/31/2024**	**3/30/2024**	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**Total**	**Project Total**
Capital cost	-	-	-	15,259	-	-	-	-	15,259	15,259
Funding:										-
Operating	-	-	-	-	-	-	-	-	-	-
Grants	-	-	-	-	-	-	-	-	-	-
Drawdown Reserves	-	-	-	15,259	-	-	-	-	15,259	15,259
Borrow from Reserves	-	-	-	-	-	-	-	-	-	-
Long-term debt	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Total funding	-	-	-	15,259	-	-	-	-	15,259	15,259

VJ RICE CONCRETE LIMITED
Specialist in concrete products.

Phone (902) 665-4444
Fax (902) 665-4017
Box 399, Bridgetown
Nova Scotia, B0S 1C0

May 17, 2024

Re: Sanitary Manhole Project
Town Of Middleton, NS

I am pleased to quote you prices on our reinforced concrete products for the above referenced project.

Description	At Plant (Bridgetown)

Reinforced Concrete Sanitary Manhole

Including Precast Base, Complete With Benching and Preformed Holes; Intermediate Sections Sealed With Tylox SuperSeal Gasket at Joints; Capping Ring With Hole For Vent Pipe.

SAN MH, 48" ID, Top Elev 10.5, Inv Out Elev 0 $ 2,549.85 ea

This quotation is given in good faith based upon information at time of bid, and is subject to receipt of approved shop drawings.

Steel Frame and Grates/Cover

R-12 Frame and Bolt Down Cover (Watertight) $ 643.50 ea

**Minimum Delivery Charge For Product On A Combined Full Load Is $250.00*

A fuel surcharge shall be applicable to all delivery cost in addition to costs shown. ***This rate is currently set at 20% and may be adjusted accordingly when there is a substantial increase or decrease in fuel costs.***

Delivery will be made in the largest units possible and maximum load sizes unless otherwise specified.

Where required, Traffic Control will be the responsibilty of the customer.

The contractor is responsible for verifying the number, size and type of manholes or concrete pipe required for the project.

Should chambers intersect the water table, the customer shall be responsible for taking normal precautions such as (but not limited to) wrapping the unit with water resistant membrane and using a butyl rubber sealant.

Stamped construction drawings by a Professional Engineer licensed to practice in Nova Scotia can be supplied for $1500.00 + HST.

Materials and services supplied shall not be subject to any retention or holdback provisions.

All concrete products quoted, are manufactured using Type GU or Type GUb/S cement

Estimated production times must be verified prior to ordering product.

All taxes are extra, if applicable. Prices are subject to any increase or decrease in government taxes.

The prices for the above listed products will remain firm until *31-May-24*

Allow a 6% increase on "at plant" and "Delivery" pricing for 2025.

Pricing on 3rd party products, (eg. IMP frames and grates/covers) may change without notice.

Should you have any questions, please do not hesitate to contact me.

Yours very truly,

V. J. RICE CONCRETE LIMITED

Scott Ritchie

TERMS AND CONDITIONS

All Government Taxes extra. All quotations are subject to modification to the extent of any change in freight rates, import duties, excise taxes or foreign exchange rates.

TERMS AND CONDITIONS OF PAYMENT

Payment for all products must be made within 30 days of the date of purchase. Credit is conditional upon satisfactory arrangements being made with respect to payment and/or security. All overdue accounts shall bear interest at the rate of 2% per month (24% per annum).

Where payments are not made or honoured on their due dates, the Vendor reserves the right to stop shipments, and cancel any existing contract, the whole without prejudice to such other rights which the Vendor may have in the circumstances.

WAITING TIME

The Vendor reserves the right to make an extra charge for delay of more than one hour in unloading or releasing its vehicles.

DELIVERY

In the event that the customer or his representative orders delivery beyond the curb line, V.J. Rice Concrete Limited does not assume liability for damages which may be caused by delivery inside the curb line.

The customer agrees to indemnify and to hold V.J. Rice Concrete Limited harmless against all liability, loss or expense for damaged curbs, driveways, water or sewer lines or other property or environmental damage by the truck or trucks.

Jobsite and access roads will be kept in good condition so as to allow free movement of loaded delivery vehicles operating under their own power, without risk of accident, injury or undue delay. The Vendor shall not be responsible for any fines which may be levied against the Vendor, where in the performance of its duties the public thoroughfares are dirtied by the Vendors trucks exiting the jobsites.

Any increased cost of delivery of materials occasioned by half-load restrictions shall be borne by the customer. Transport rates are based on full truck and wagon loads. Transport rates are based on deliveries being made in normal working hours.

PALLETS

Unless otherwise noted on this form, products may be delivered on pallets at an additional charge.

The reimbursement of this charge will be credited to the customer for each pallet returned in good condition. The customer is solely responsible for the safe-guard of the said pallets on the jobsite. The customer binds himself to return the said pallets after their use. In order to accelerate the return of the said pallets we offer to the customer a pick-up service.

In order to benefit from this service, the customer must 1. Advise us to this effect. 2. Stockpile the said pallets adjacent to a carriageable road in order to facilitate the loading.

GENERAL CONDITIONS OF SALE

The Vendor shall not be liable for delay or non-performance caused by the failure of transportation facilities, strikes, differences with workmen, fires, flood, war, accidents or any other cause beyond its control. The customer shall advise the Vendor as to its delivery schedule giving the Vendor at all times no less than twenty-four hours notice in advance. Any and all crating charges shall be borne by the customer.

The Vendor shall not be responsible for any change of colour of the products resulting from time, age, natural, or fortuitous causes. The quantity and quality of our products shall be accepted by the customer, his representatives, employees or agents at the time of delivery and thus shall be final.

The purchaser will inspect the concrete products and other goods purchased at the time of the delivery and any claims in respect thereto must be made at that time. If any such concrete products or other goods are found to be defective, the Vendor will deliver new goods to the purchaser at the site of the work in lieu thereof, but it is a condition of sale that this will be the limit of the Vendor's liability and he will not be liable for any labour costs or other consequential damages.

The customer is solely responsible for the interpretation of the plans and specifications. Please verify all quantities, calculations, specifications, etc. as the Vendor assumes no liability in this regard.

No products are to be returned to the Vendor unless prior approval is obtained from the Vendor, and the customer shall pay all transportation costs resulting from such returns. All products returned are subject to inspection by the Vendor. If after the inspection in the sole opinion of the Vendor, (a) the products are damaged, no credit will be given, (b) the products are in new or reasonable condition, the customer will be given a credit for the returned products, less a handling charge of 20% plus transportation costs.

Special Precast Concrete Products ordered by the customer are not subject to cancellation. Any special products not taken will be charged to the customer. A credit of 80% will be issued only if and when the Special Precast Concrete Products are resold.

Any and all waivers and or renunciations to liens, privileges and the like, shall not be binding upon the Company unless signed by a member of the Board of Directors.

From: Adam Verran
To: Ashley Crocker
Subject: Fwd: Bridge Street sewer repairs
Date: Friday, May 17, 2024 11:16:39 AM

Here's price from John.

Still waiting on cost of a MH from rice concrete though.

Sent from my iPhone

Begin forwarded message:

> **From:** Adam Verran <adamtverran@gmail.com>
> **Date:** May 17, 2024 at 11:15:24 AM ADT
> **To:** Adam Verran <pwdirector@town.middleton.ns.ca>
> **Subject: Fwd: Bridge Street sewer repairs**
>
>
>
> ---
>
> ---------- Forwarded message ---------
> From: **John Parsons** <john.parsons@mvc1997.ca>
> Date: Fri, May 17, 2024 at 11:08 AM
> Subject: Bridge Street sewer repairs
> To: Adam Verran <Adamtverran@gmail.com>
>
> Gentlemen,after meeting on site with Adam Verran and Stan Walker to assess the repairs we are pleased to provide you with a quote to do the work.
> To excavate and repair line by removing and replacing restriction. $3500.00 hst extra.
> To install manhole supplied by others including labor and equipment. $10,500 hst extra.
> Sincerely,John Parsons.

Management Report

May 21, 2024

To keep the report short, but informative, only strategic priorities and capital projects that have an update will be mentioned in this report. A complete update on the strategic priorities and capital projects will be delivered quarterly in the future.

COUNCIL'S STRATEGIC INITIATIVES

#	STRATEGIC INITIATIVE	UPDATE
1	**Community Centre & Fire Hall** To build a new accessible and inclusive Community Centre & Fire Hall	• Staff have explored three different grant programs to help fund the new Community Centre Fill Hall • The CCFHC instructed staff to explore a phased approach with JOST and the low bidder. • Received phased approach. Exploring funding options.
2	**New Reservoir** To build a new reservoir to serve the customers of the Middleton Water Utility	• A grant application for DMAF for the new reservoir was submitted July 19th. Expecting to hear in the January/24 timeframe • Land swap for reservoir is now complete • A grant application for the MCGP program for the new reservoir was submitted on December 13th.
3	**Economic Development Initiatives** To concentrate on economic development initiatives that support business park growth, brand awareness and small business	• **COMPLETE** – the final plan document on the Business Park Expansion Study was received and presented to Council on Nov 21st
4	**Public Safety** To address public safety concerns in the downtown and public spaces	• Concerns that are brought forward by Mayor and Council during COTW and Council meetings continue to be communicated to public works for investigation. Many of these concerns relate to safety of sidewalks, crosswalks, and roads.
5	**Infrastructure Maintenance** To develop an asset management plan focused on improving the maintenance of town infrastructure	• Final Asset Management Report was received from AIM in 2020 • Staff have completed 3/5 courses through AIM • The Asset Management Plan is being updated as the courses are taken, and the Working Group is meeting to review the updates that were made • A maintenance plan is in the process of being drafted and will be finalized after the AMP is complete

Management Report

May 21, 2024

OPERATIONAL PRIORITIES

#	STRATEGIC INITIATIVE	UPDATE
1	**Boundary Review** Prepare RFP and Award RFP	• **COMPLETE:** the UARB have approved Council's request to maintain the Council size at 7, with 6 Councillors and 1 Mayor, all elected at large
2	**Secondary Plan** Finalize scope of work and award work to third party	• Land swap has been executed with the developer • Developer submitted a request to amend the MPS/LUB via a Secondary Planning Strategy • Staff have applied to the Housing Accelerator Fund – this was unsuccessful, and no grant money was awarded • Jan 9th - Kick-off meeting • Feb. 1st – Public Workshops • Feb 20th – presentation to Council • May 28th – draft final plan to be presented to staff
3	**Main Street/Taylor Drive Crosswalk** Move crosswalk	• **COMPLETE:** The Crosswalk Light has been installed, and the overhead light is now working.
4	**Second Lake** Agree on key points for partnership agreement with AEA Club	• No further update - staff have met with the AEA Club to further build the draft of the new lease agreement

Management Report

May 21, 2024

OPERATIONAL UPDATES

ADMINISTRATION		
Completed	**In Progress**	**Issues**
Staffing: • Proposal for union negotiations • Discussions with staff on formalizing employment contracts	**Staffing:** • Working on formalizing employment contracts for some staff • Management and the union are preparing for contract negotiations May 23-24 • Contracts, recruitment, and training for multiple positions	**Staffing:**
Project Work: • ICIP Status report for Community Centre Fire Hall – this funding expires March 31, 2024, have requested an extension • Kick-off meeting completed with Clean Foundation who will be creating a county-wide Climate Change Action Plan	**Project Work:** • Working on 2024-25 Operating Budget due to no Director of Finance	**Project Work:** • Three leaks at Town Hall need to be further addressed in the Spring

Other Items:
• Met with Dan McDougall to discuss Kings Transit and Valley Waste governance
• Met with the Chair and new CEO of the Valley REN
	Other Items:
	• High Risk Action Plan items
	• Management team reviewing priorities, policies, by-laws
		Other Items:
		• Affordability Study of keeping certain assets and services will be completed after:
		  ○ Asset Management Plan is updated
		  ○ Standard maintenance schedules for all assets are created
		  ○ Agreements and legislation have been reviewed

Management Report

May 21, 2024

FINANCE

Completed	In Progress	Issues
• Review of bank accounts to determine which ones to keep and which ones to close has been completed and accounts are now closed • Water bills for Jan – Mar 2024 were issued in April • Interim tax bills were issued to taxpayers in April • New pricing agreement has been negotiated with RBC for banking services. They are proposing removing some of the interest we earn on accounts which we have opposed to. Waiting to hear back. • 2022-23 FIR was due March 7th. Staff have completed the report, and it was submitted to the Province on April 19th. • Insurance renewal is complete • 2023 Annual Information Return (AIR) for the Town's pension plan was submitted in addition to Form-3 for 2024.	• Recruitment for Director of Finance is underway • Recruitment for Accounting Clerk is underway • HST remittance for April to September • AP & AR reconciliations • 2024/25 Operating and Capital Budgets • Inputs for Water Rate Study • Bank recs for January and February • Corrections to September to December bank recs • Preparation for year-end audit in July • Training of new Finance staff • Review of new Payroll software for consideration • Councillor and CAO expense reporting	• Update financial policies to reflect actions of High-Risk Action Plan • Creation of consolidated balance sheet, income statement and FCI calculations to use as part of strategic decision-making process • Director of Finance is vacant putting pressure on other staff. A contract accountant is helping in the interim but only part-time.

Management Report

May 21, 2024

RECREATION & COMMUNITY DEVELOPMENT

Completed	In Progress	Issues
• Recreation application completed for 2024 Canada Summer Jobs • Master Transportation Plan • All washrooms plus an extra Port-a-Potty open early • Walking with our seniors at CORAH has wrapped up for the season but walking challenge still ongoing	• Staff continues to participate in Homelessness meetings with peers from other municipalities • Master transportation final plan received and to be presented to Council • Preparing wetland for official launch. Signposts in, signage is next as soon as ground in proper shape. One more signpost to complete. • We hosted our first NS Walks Day at the Middleton Wetland Park and had 12 people in attendance (this was in partnership with Hike NS) • The final report for our provincial grant funding has been submitted and approved, we are now in the process of writing the grant for this coming year. • Participation in Accessibility Committee • Open Gym continues at the two schools • Staff REMO training and participation in launch of the new “Alertable” app	• Vandalism has started at Town parks: ○ Vulgar and racist graffiti at skatebowl • Only 2 of 7 Canada Summer Jobs grants received

Management Report

May 21, 2024

PLANNING

Completed	In Progress	Issues
• Building and fire inspection files have been transferred to the County of Annapolis and processes are being fine tuned	• Voysey Development Agreement (DA) - application to convert a building from four residential units to five residential units. • Planner working on draft (DA) • Applicant working on consolidation of lots.	
• New Subdivision Bylaw has been approved by the Province and was effective on April 25,2024	• Griff DA - application for grouped dwellings on School Street was approved by Council on July 17 and no appeals were lodged. • Due to health reasons, the applicant is not going to proceed with the project but is looking to sell the land and the project.	
• 3 Development and Building Permits issued • 5 building inspections conducted • 16 fire inspections conducted, and deficiency letters sent • 13 fire inspections were closed out	• IF Holdings DA – application for a development on Commercial Street which will add one commercial unit and 6 residential units to an existing building was approved by Council on July 17 and no appeals were lodged. • Revised agreements have been approved by Planner and solicitor and sent to applicant for signing.	
	• 438 Main Developments Ltd. has requested an amendment to the DA for 438 Main Street. • Council conducted a Public Hearing and 2nd Reading on May 6 and approved the amendment. • The Notice of Approval Ad published on May 16 with the appeal period ending on May 30.	
	• The closing date for the Province's Property Opportunity Notices was March 30. • They have received proposals for all three properties and are in the process of evaluating them.	

Management Report

May 21, 2024

PUBLIC WORKS

Completed	In Progress	Issues
General Public Works: • Debris from snowplow cleaned up	**General Public Works:** • Concrete repairs on sidewalk • RFP for Infrastructure Capacity Review	**General Public Works:** • Fix areas that have poor drainage due to heavy rains and snow melting
Public Works Equipment: • Repaired hose backhoe • Lawn mower blades sharpened, and mowers serviced	**Public Works Equipment:** • Lawn Tractors getting prepped and serviced for spring • Ordered new line painter	**Public Works Equipment:**
Roads, Streets, Sidewalks: • Completed cold patching	**Roads, Streets, Sidewalks:** • Sweeping streets and sidewalks • Pave and Patch	**Roads, Streets, Sidewalks:** • Streetlight on Gates
Water & Equipment • Repairing and replacing meters as part of meter upgrade plan	**Water & Equipment** • Booster Station Pump Repair • Painting Hydrants • Reservoir Monitoring ongoing	**Water & Equipment** • Well #1 Pump needs to be cleaned. Possibly replace pump (2024-25 Budget) • Leak on Veteran's Lane – it's isolated and needs to be repaired
Wastewater & Equipment • Cleaned UV lights • Ordered new UV lights	**Wastewater & Equipment** • Replace UV sensor and UV light wiper motor	**Wastewater & Equipment** • Sewer between Bridge St and STP has a reducer that is affecting flow needs to be excavated and repaired ASAP

Management Report

May 21, 2024

FIRE DEPARTMENT

Completed	In Progress	Issues
• Attended three (3) county meetings on the new budget • Attended Police Day at Rotary Park • Did a presentation to Moms and Tots on fire prevention • Truck inspections • Held training on drafting and pumps • Training on drafting and pumps • Med level pack test at Rotary Park for wildland fires • Members attended a Mental Health Wellness day at Kingstec • Members attended MFR updates and training days	• Working on a capital budget plan	• None to report

Valley Communications Inc.

217 Belcher St. Kentville NS B4N 1E2
PH : 902-678-4962 FAX : 902-678-0162

Incident Summary
From Apr 1 24 to Apr 30 24

Date/No.		Address/Type	Minutes	Responders	Injuries	Fatalities
Apr 5 24 24-02306	10:28:12	30 Victoria St, MIDDLETON **CO GAS - Carbon monoxide**	36	0		
Apr 7 24 24-02352	13:29:39	443-04 Main St, MIDDLETON **Medical**	0	0		
Apr 20 24 24-02681	14:59:29	204 Commercial St, MIDDLETON **Residential Fire Alarm**	0	0		
Apr 26 24 24-02835d	07:17:53	313 Granville St East, BRIDGETOWN **Mutual Aid to the Scene**	336	0	Assistance to 24-02835	
Apr 27 24 24-02914	20:03:00	230 Victoria Rd, WILMOT **MVA - Confirmed Entrapment / Unknown**	31	0		
Apr 28 24 24-02927	06:07:00	501 Main St, MIDDLETON **Medical**	7	0		
6 incidents for		Middleton	6 hrs 50 mins	0		
			6 hrs 50 mins	0		

MAYOR'S REPORT – MAY 2024

April 14	Council Meeting
April 19	Geralyn's retirement of 41 years faithful service
May 6	Public Hearing
May 6	Special Council Meeting
May 6	Committee of the Whole Meeting
May 15	IMSA Board
May 21	Council Meeting