Township of Tiny
Transportation Master Plan

Presentation to:
Township of Tiny Council

November 24, 2021

Agenda

- Introductions
- Transportation Master Plan Process and Timeline
- What We've Heard
- Existing Transportation Network
- Traffic Growth and Modal Split
- Active Transportation Infrastructure
- Road Classifications and Cross Sections
- Other Network Modifications
- Speed Calming Guidelines
- Special Study Areas
- Implementation Plan
- Q & A

Tiny Stantec

Introductions

John Heseltine
Project Manager

Jean-Francois Robitaille
Engineering Manager

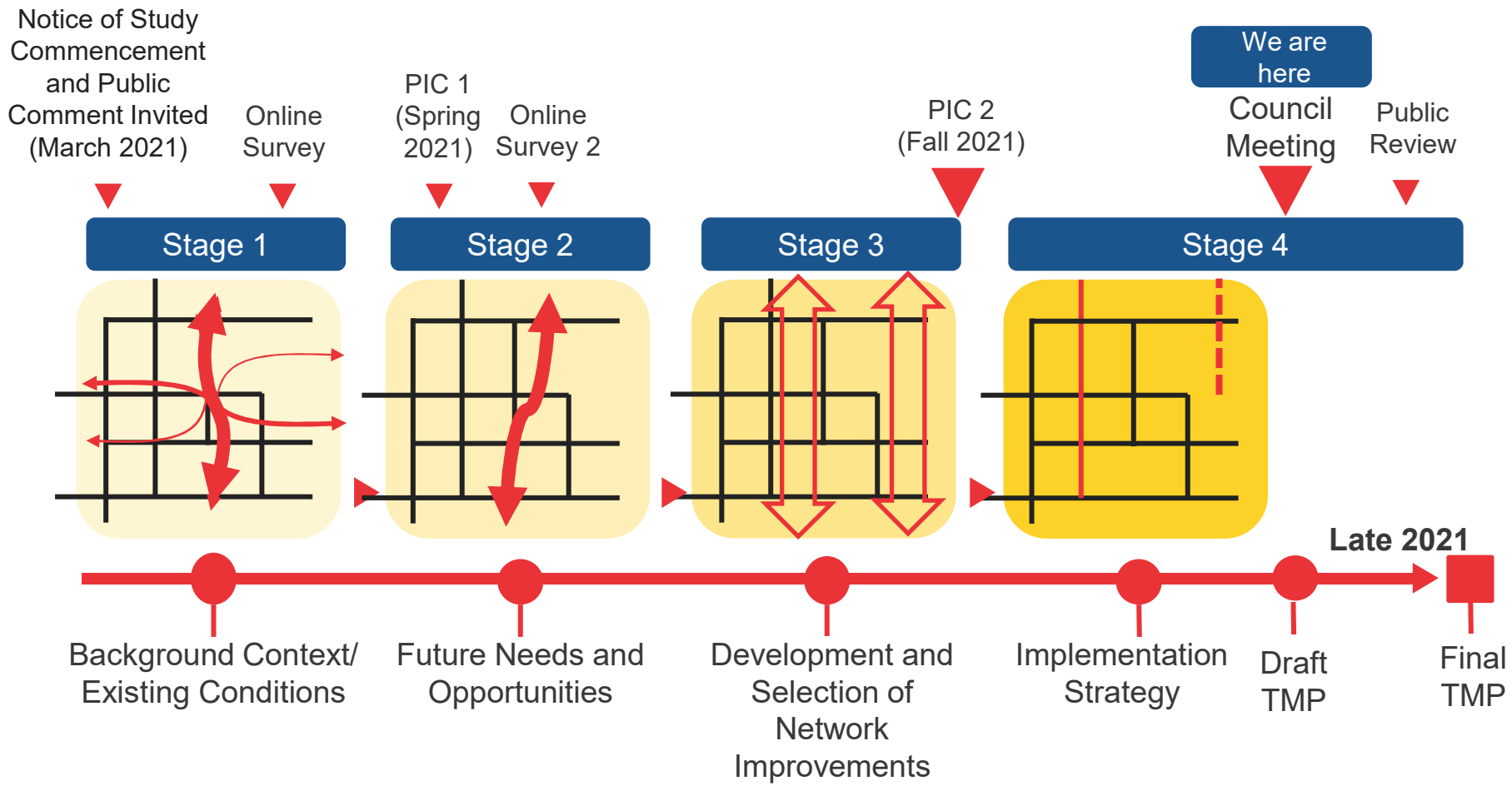
Joe Olson
Transportation Engineer

Tim Leitch
Director of Public Works

Nevena Gazibara
Engagement/Consultation Lead

Transportation Master Plan Process and Timeline

Process & Timeline



What We've Heard

Round 1 – Stakeholder Engagement

Study Commencement and Online Survey # 1

- Notice of Study Commencement for TMP issued on March 17, 2021
- Public was invited to participate in an online survey and web mapping activity
- A total of **148 survey responses** were received

Public Information Centre # 1

- Online pre-recorded presentation via Articulate Storyline
- June 3 to June 30, 2021
- **198 unique visitors** to the presentation

Online Survey # 2

- Second online survey was hosted during the online PIC 1 period
- June 3 to June 30, 2021
- **272 survey responses**

Round 2 - Stakeholder Engagement

Public Information Centre # 2

- Live virtual meeting hosted online via Microsoft Teams on September 23, 2021, from 6:30 PM to 8:00 PM
- Moderated Q & A Session
- Five attendees at the meeting
- Eight comments submitted following PIC # 2

Comments and Themes

- Traffic calming measures should be implemented on Tiny Beaches Road
- Improvements to trail links for ORVs ORV use on Township roads should be considered
- Support for a multi-use path on Tiny Beaches Roads
- Stop signs as traffic calming measures on Tiny Beaches Road
- Community Safety Zones should be reviewed as part of TMP
- Accessibility should be consideration during this TMP

What We've Heard: Public Information Centre # 1 & 2

Safe cycling routes

Upgrades to Tiny Beaches Road South and North, Champlain Road, Lafontaine Road, Wilson Road, County Road 6, Balm Beach Road

Safety improvements for pedestrians on Tiny Beaches Road

Speeding and traffic calming measures

Accessibility improvements to beaches and waterfront

Street parking improvements

Improvements to trail links for ORVs, support for multi-use trail on Tiny Beaches Road

What We've Heard:

Public Information Centre # 1 & 2

"If people feel safe on the roads then they will use them for - cars/biking/walking."

"The major roads that allow traffic into Tiny need OPP on summer weekends and photo radar."

"For local cottage owners Jackson Point has great value and it is important that the boat launch is maintained and even improved."

"Looking ahead, public transportation is a wise choice for our environment and aging population."

"We don't need more traffic on Tiny Beaches Road- widening it will lead to more problems and less safety as well as destroying the charm of a relatively unspoiled part of our province."

"Our roads need to be able to accommodate Heavy Agricultural Equipment."

"We don't have the density to support public transit."

"Stop signs should be considered at Tiny Beaches Road."

"Some street parking along Tiny Beaches Rd S would be nice for our guests."

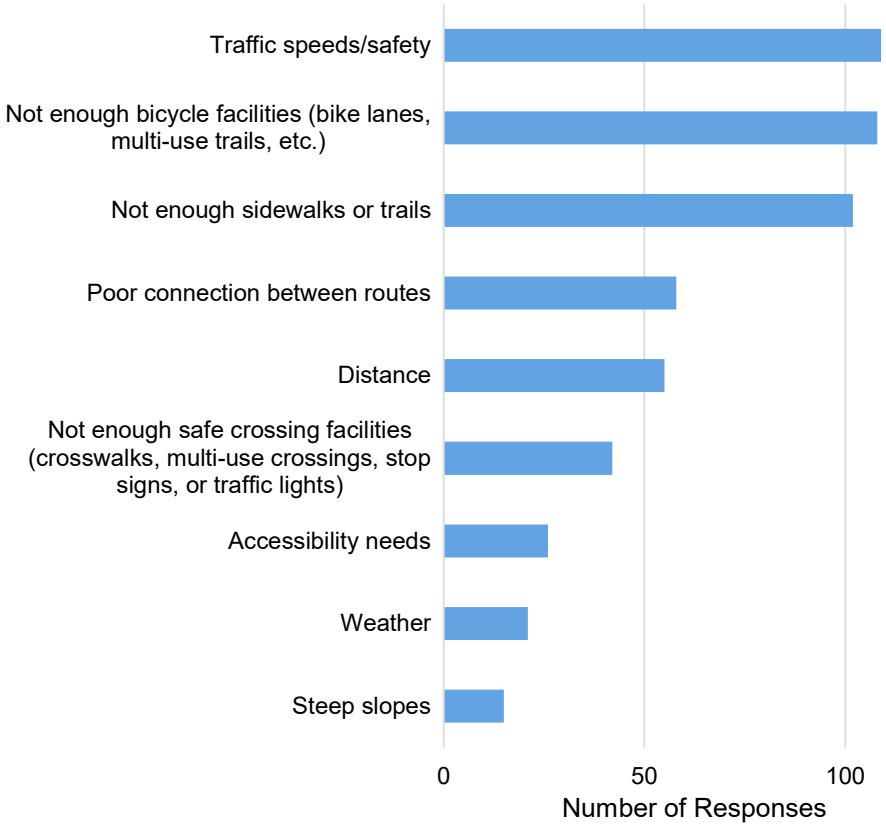
"Beach accessibility for wheelchairs-at some designated beaches."

"It seems that many roads in Tiny are old and narrow. Time to modernize. Roundabouts seem like a good idea and have worked in Collingwood."

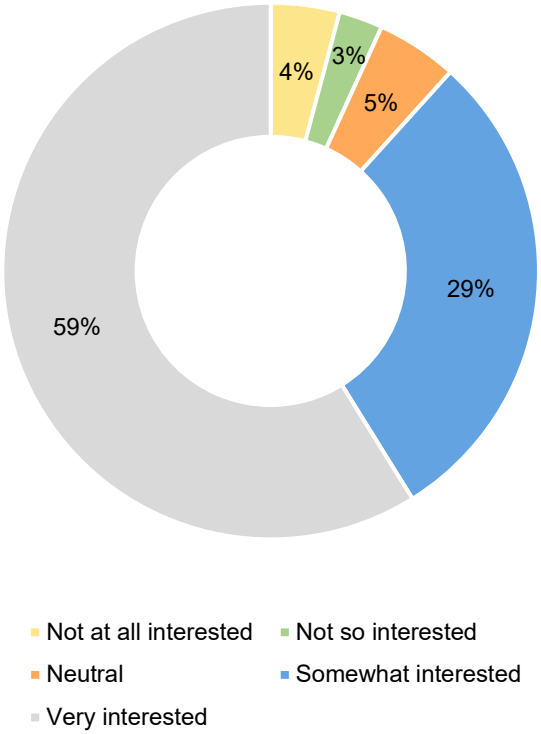
"ORVs should be considered ."

What We've Heard about Active Transportation

What barriers currently prevent you from using active transportation more often?



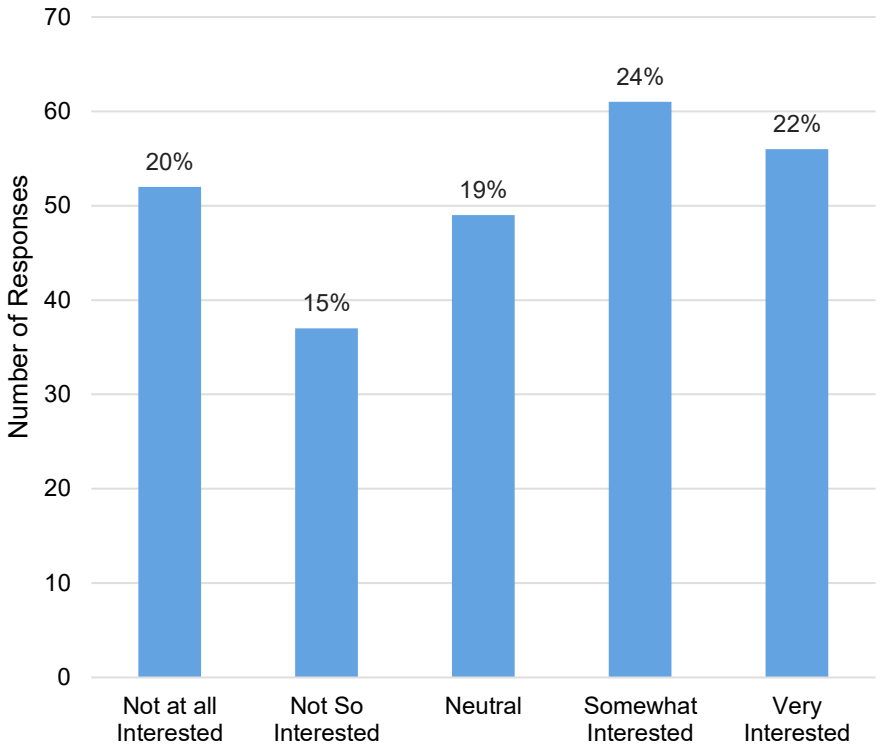
What is your level of interest in improving the active transportation network in the Township of Tiny?



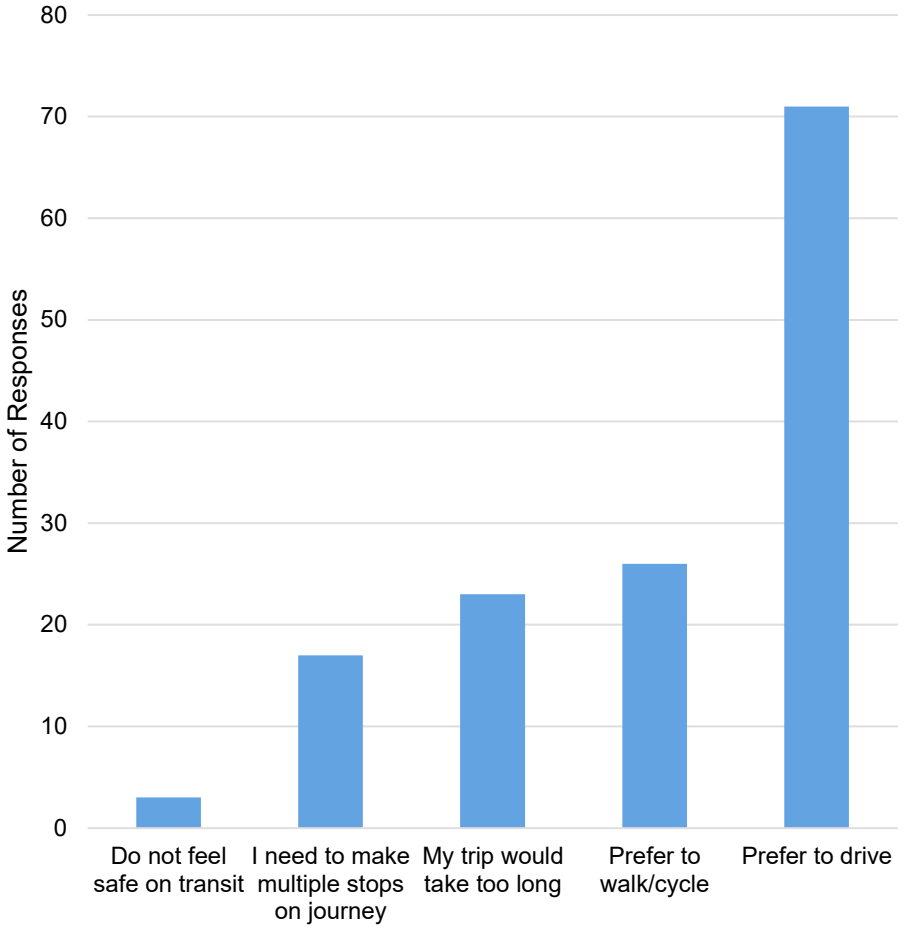
11 Source: PIC 1 Online Survey, Tiny TMP

What We've Heard about Transit

What is your level of interest in a local transit service between destinations within Tiny and to/from regional connections (Simcoe LINX, Midland-Penetanguishene Transit, Chimnissing Transit, Wasaga Beach Transit, etc.)?



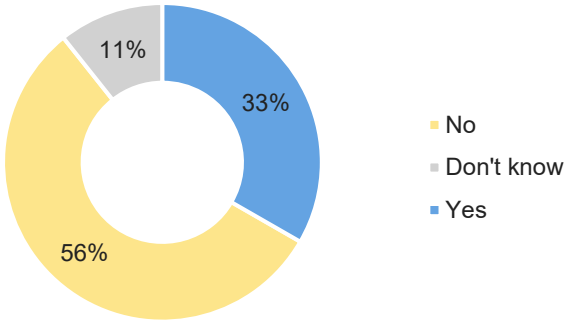
If you are not interested in a local transit service, why not?



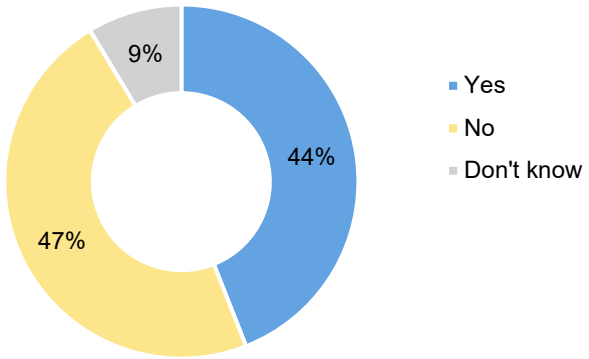
Source: PIC 1 Online Survey, Tiny TMP

What We've Heard about Speed Management and Traffic Calming

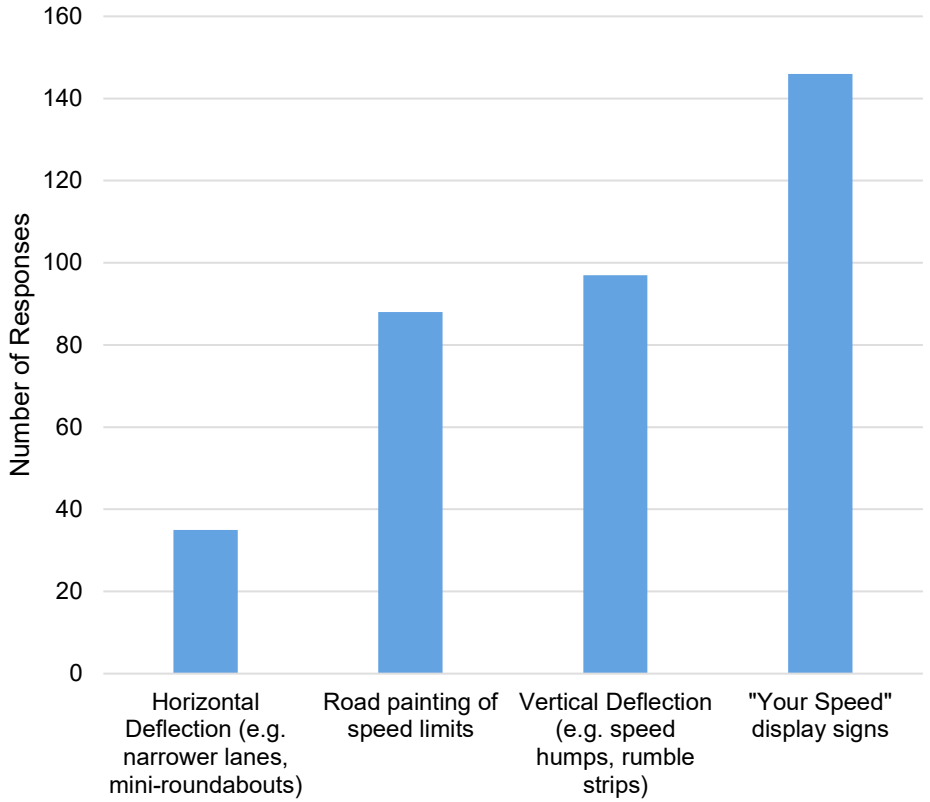
Would you support increases in Township taxes to have an increased police presence on Township roads?



Would you support the use of photo radar/automated speed enforcement cameras on Township roads?



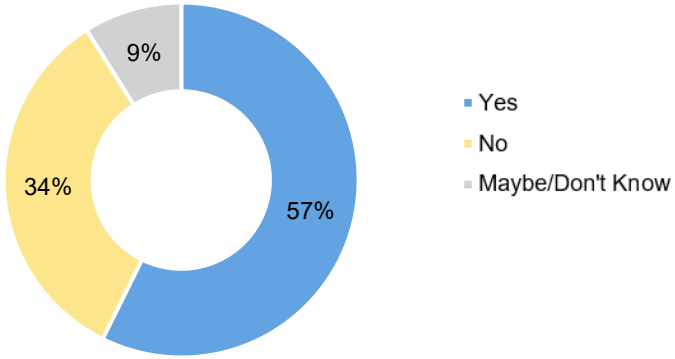
Which speed suppression (traffic calming) devices would you like to see on Township roads?



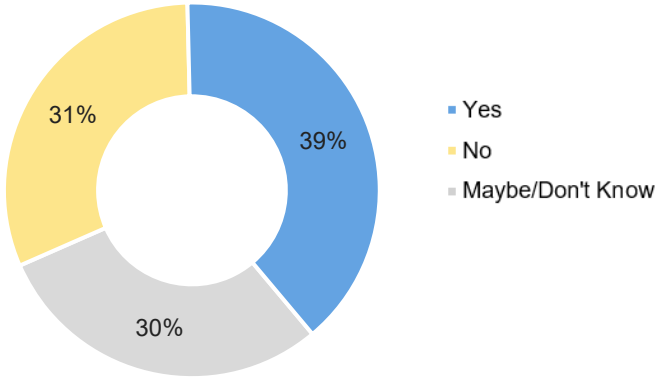
13 Source: PIC 1 Online Survey, Tiny TMP

What We've Heard about Network Improvements

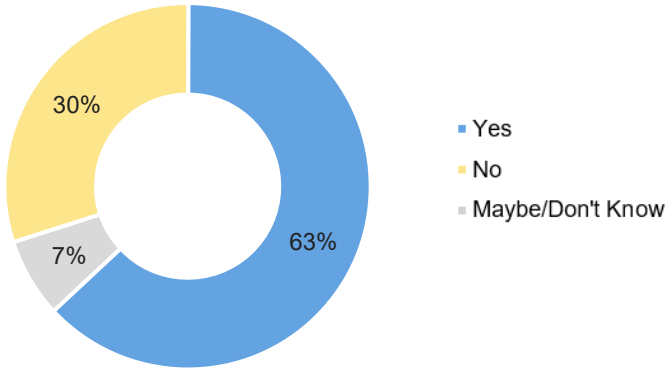
Do you think Tiny Beaches Road should be widened where possible to accommodate multi-use paths (cycling/walking path)?



Would you support increases in Township taxes to improve the maintenance of road surfaces, sidewalks, multi-use trails, and street lighting?



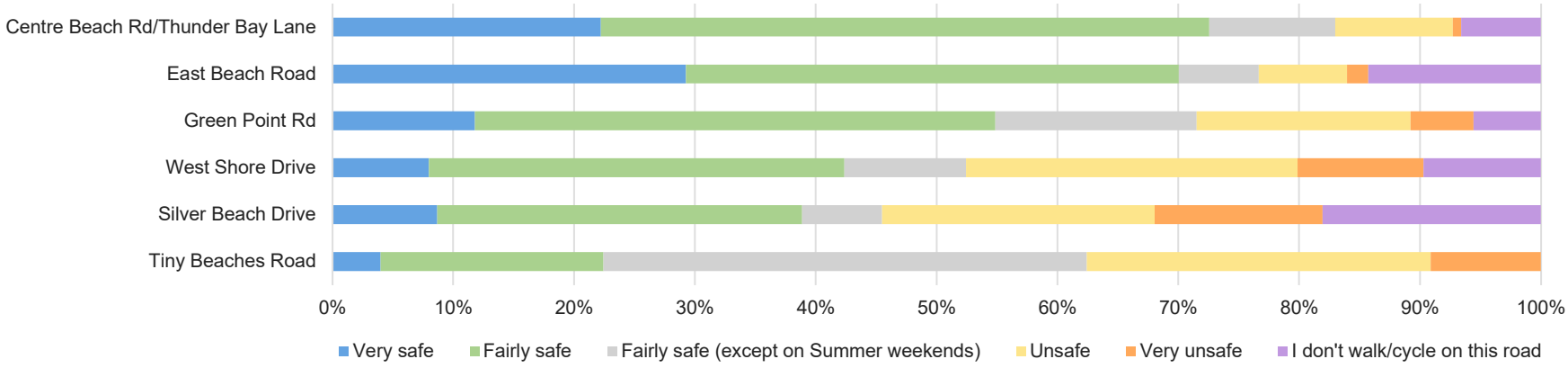
Do you support crosswalks at public beach access points?



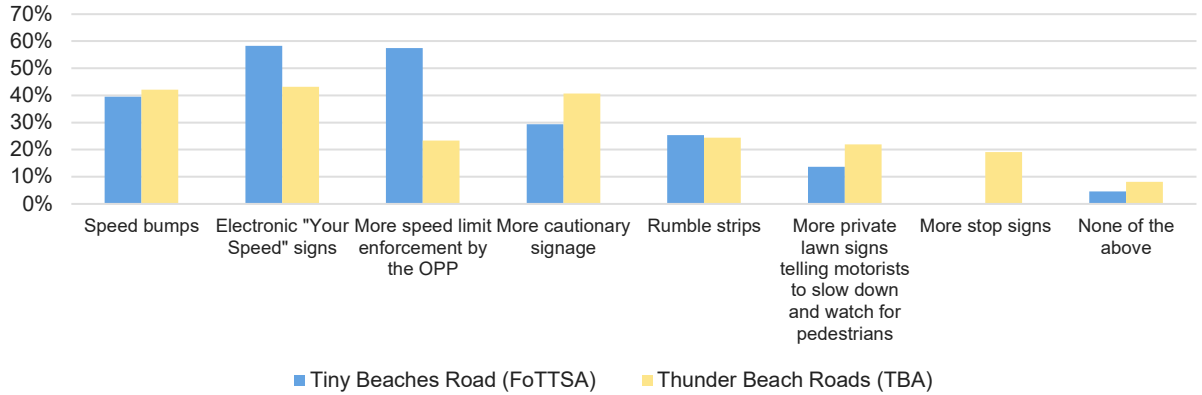
Source: PIC 1 Online Survey, Tiny TMP

What We've Heard: Other Surveys

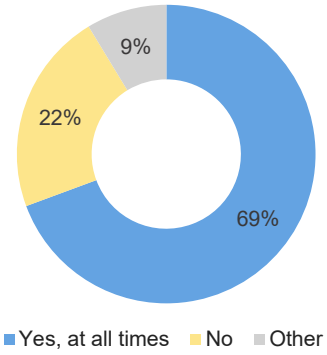
How safe do you feel when you use each street as a pedestrian (or cyclist, or with a mobility device, etc.)?



What kinds of traffic calming measures do you think would help improve safety?



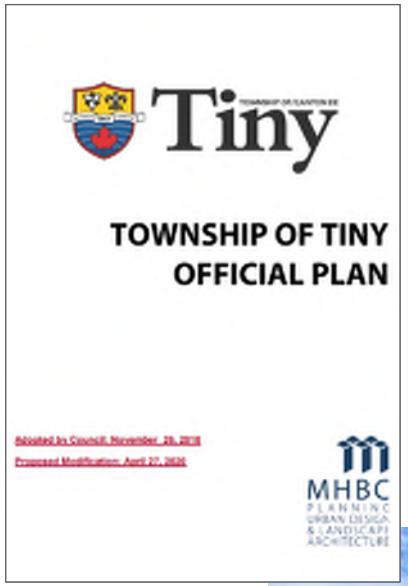
Should the speed on the Thunder Beach roads be reduced to 30 KPH?



* 'More stop signs' was not included as an option for this question on FoTTSA's survey. A separate question indicated that 53% of residents think all-way stop signs would slow down drivers and increase safety on Tiny Beaches Road.

Other Information Sources to Inform TMP Development

- Official Plan
- Roads/Bridge Needs Study
- Parks & Recreation Master Plan
- Council Strategic Plan
- Council Motions
- Committees of Council – TTAT, SAC, AAC
- Resident Input
- Associations – FoTTSA, Thunder Beach
- Council and Staff Input



Tiny Stantec

The TMP Vision

Final Vision Statement

*Tiny's transportation network will offer **efficient travel options** that **prioritize safety for all road users**, ages, and abilities. The future network will provide **active and sustainable transportation connections** within and between its beaches, landmarks, and other local destinations. Provision of these alternative travel options will **reduce auto-dependency** (and associated noise, congestion and pollution) and **enhance the natural beauty of Tiny**.*

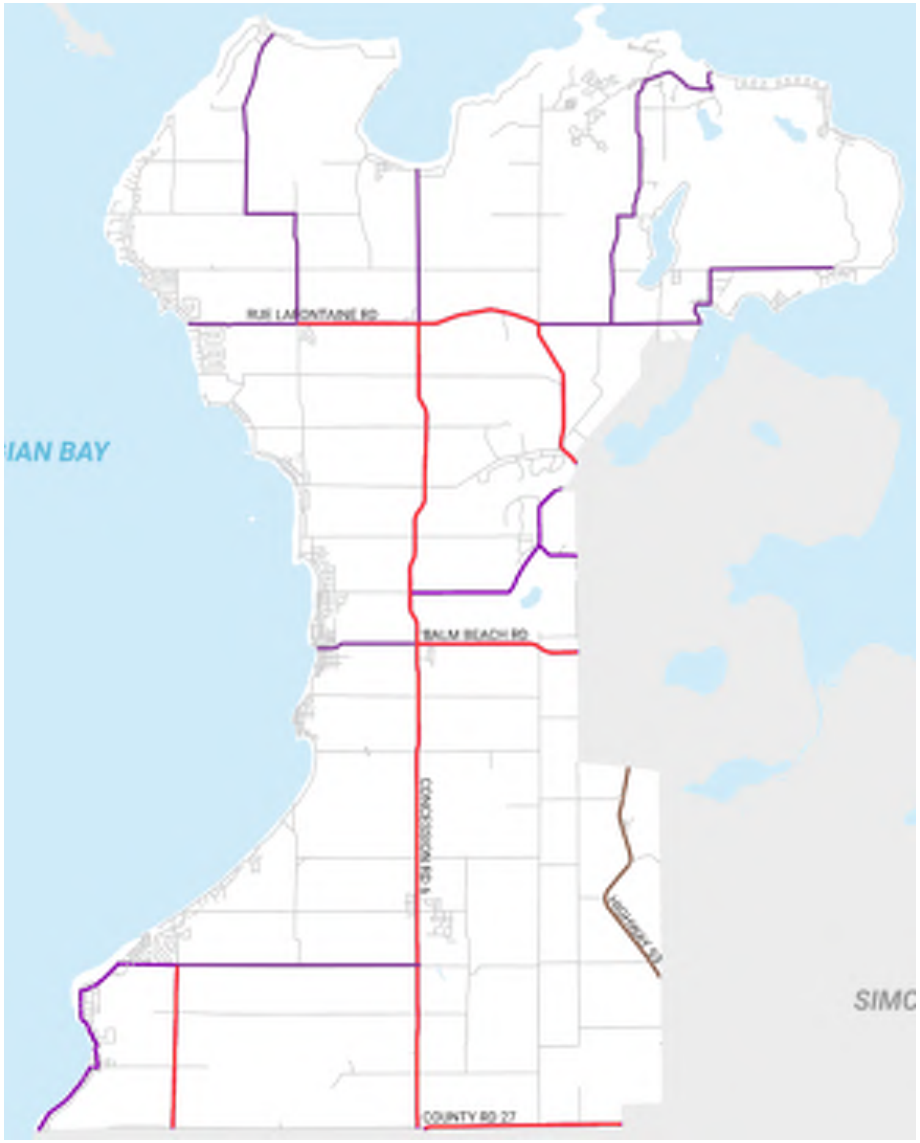
Existing Transportation Network

Existing Road Classifications

The transportation network consists of different road types that are intended to serve and meet different objectives. The Township's road classification system consists of the following:

ROAD CLASSIFICATION

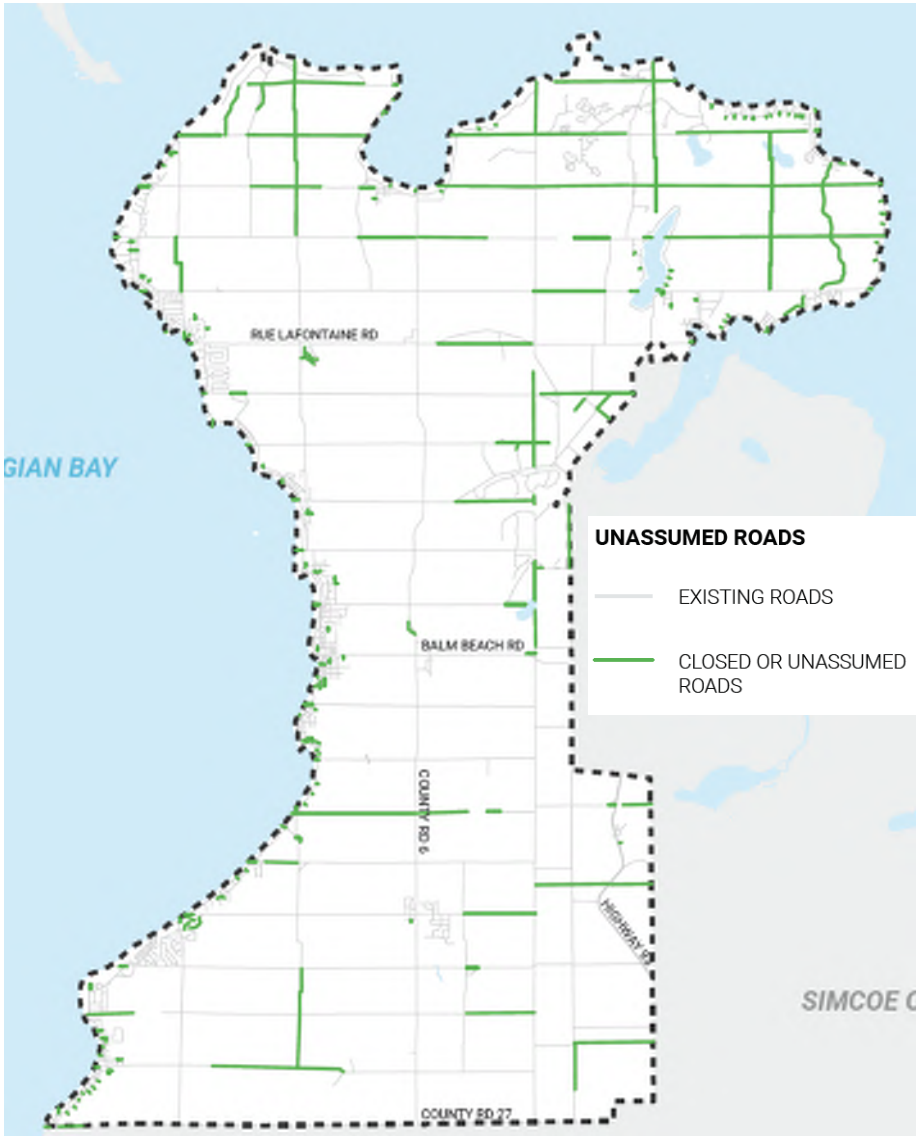
- PROVINCIAL HIGHWAY
- SIMCOE COUNTY ROAD
- TOWNSHIP ARTERIAL ROAD
- TOWNSHIP LOCAL ROAD



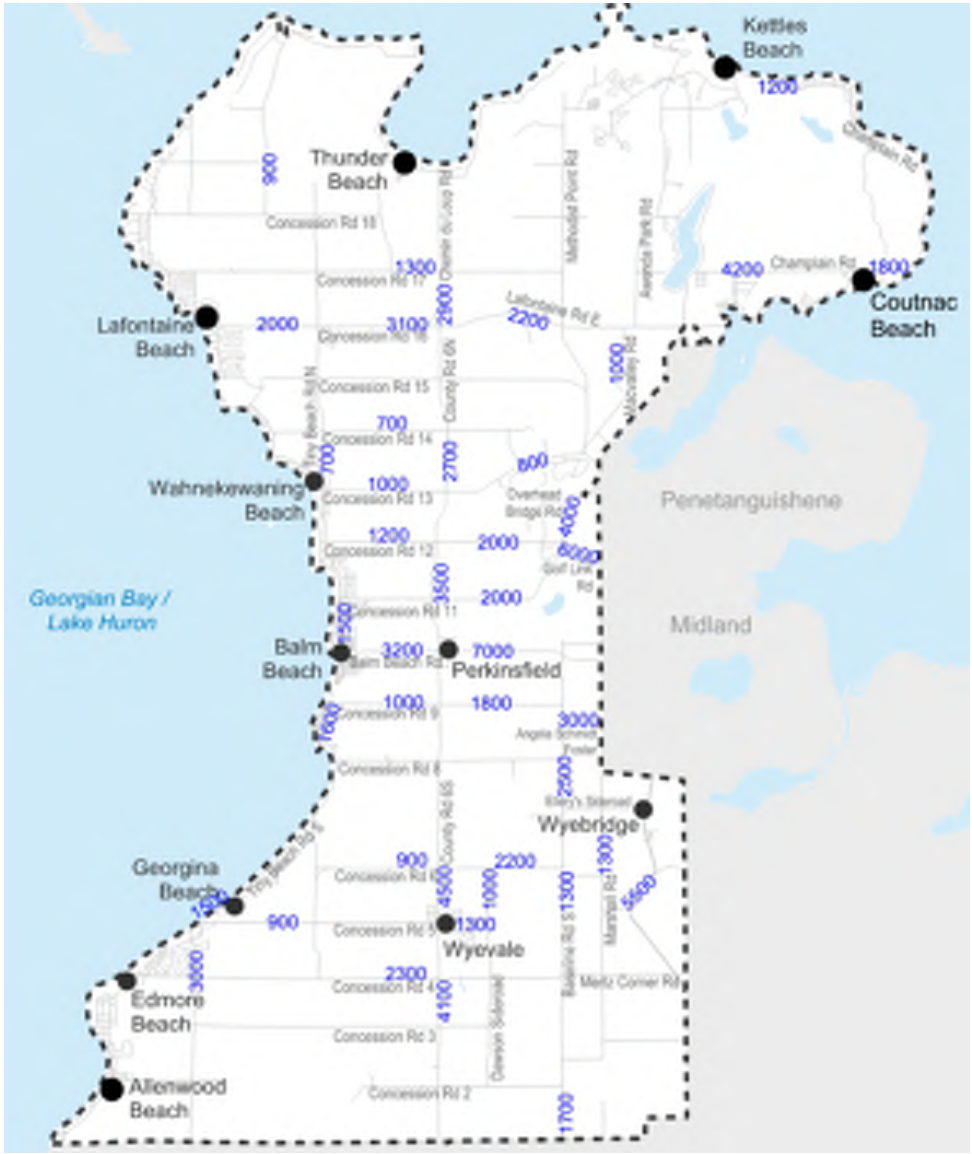
Upon further review of the characteristics of the current street classifications, a Township "collector" road classification was introduced at part of PIC#1. A revised version of that map is discussed later in this presentation.

Unopened Road Allowances

- Unopened road allowances are publicly owned corridors in the Township reserved for future access to land parcels.
- They are typically 66 feet (20 metres) wide, and often have a trail from historical use, etc.
- Many in the Township haven't been opened due to little redevelopment or physical barriers (e.g., swamps, steep hills)
- The potential opening of some of these road allowances to permit better connectivity is discussed later in this presentation.



Existing Traffic Volumes (Summer 2019)



This figure shows average daily (24 hour) traffic volumes throughout the Township prior to the pandemic. Summer values are an average of typical June, July, August counts. They can be 25-50% higher than fall average daily traffic volumes.

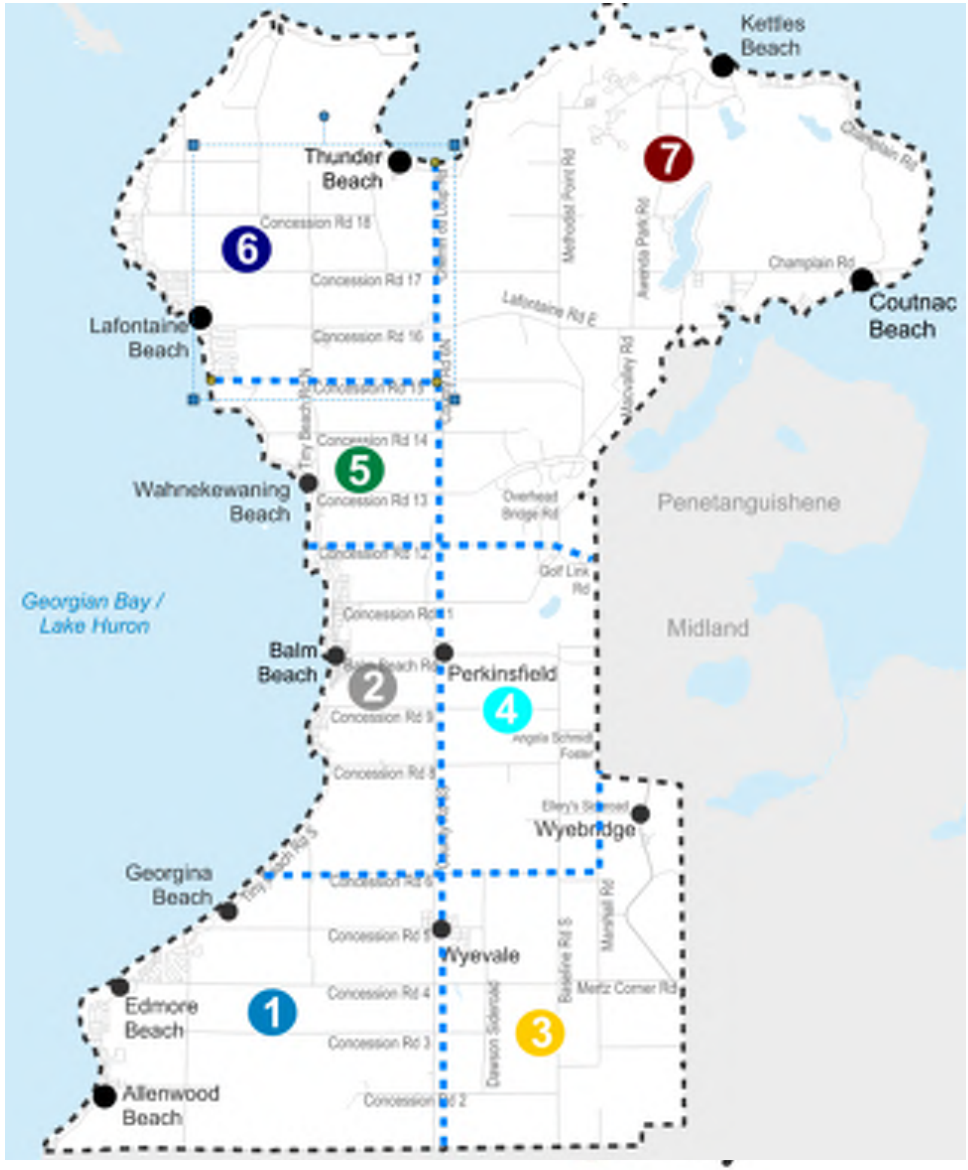
Existing Traffic Volumes (Fall 2019)

This figure shows average daily (24 hour) traffic volumes throughout the Township prior to the pandemic. Fall values are an average of typical September, October, November counts. They can be 25-50% lower than summer average daily traffic volumes.

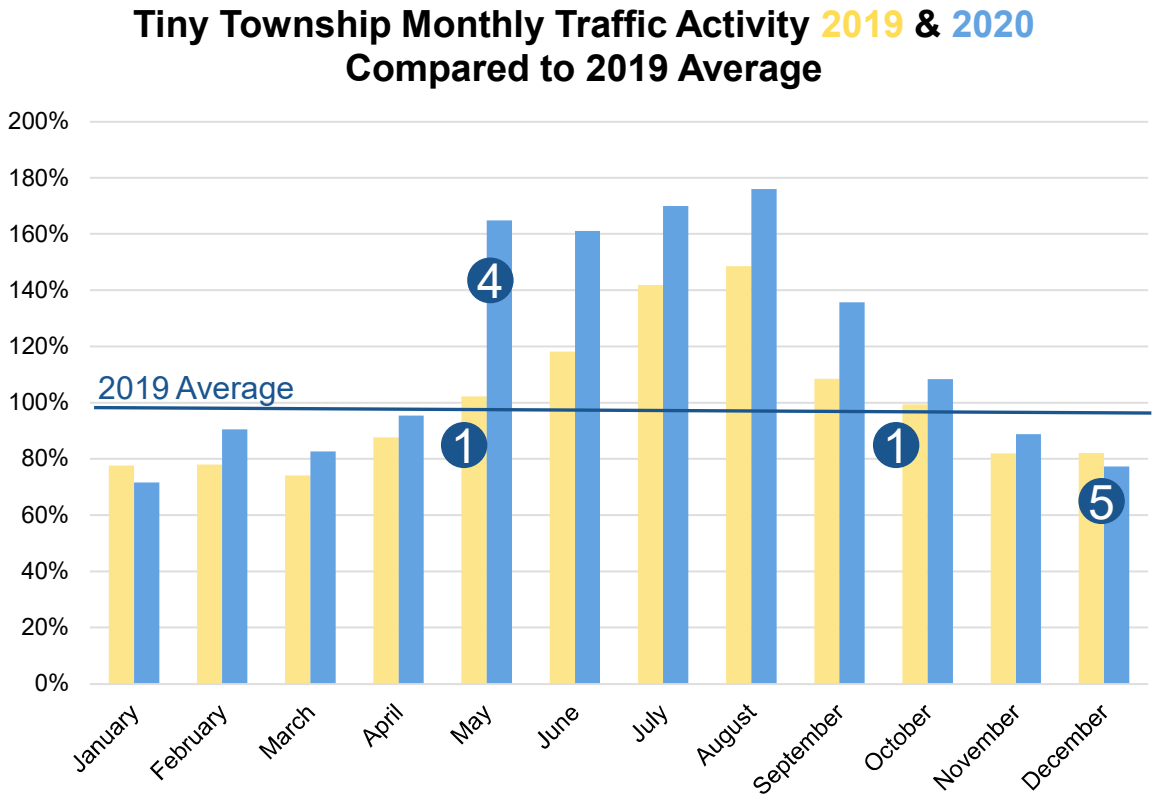
Traffic Volume Variation

Traffic Data Zones:

1. West of County Rd 6 South of CR 6
2. West of County Rd 6 Between CR 6 & CR 12
3. East of County Rd 6 Between CR 1 & CR 6
4. East of County Rd 6 Between CR 6 & CR 12
5. West of County Rd 6 Between CR 12 & CR 15
6. West of County Rd 6 North of CR 15
7. East of County Rd 6 North of CR 12



Impacts of COVID-19 on Traffic Activity



(1) The months in 2019 closest to the annual average were May and October (this is typical)

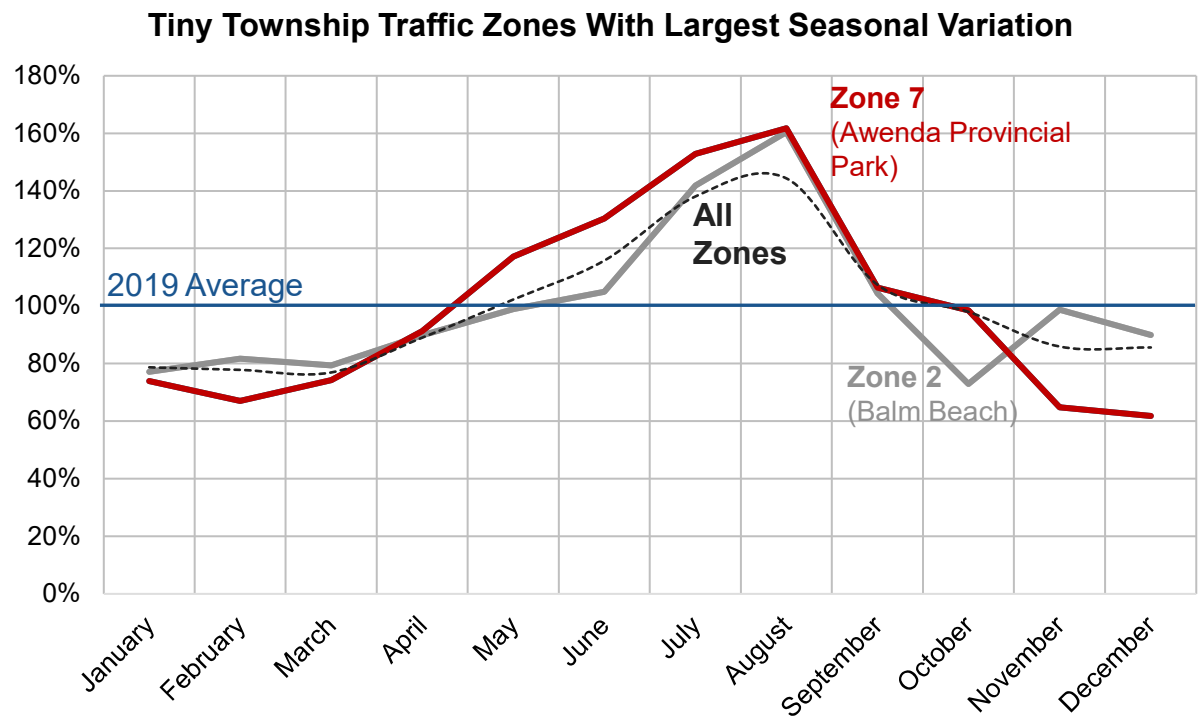
(2) Overall, 2020 was 20% busier than 2019

(3) Comparing summers, 2020 was 30% busier than 2019

(4) 65% increase in traffic in response to COVID-19 initial restrictions

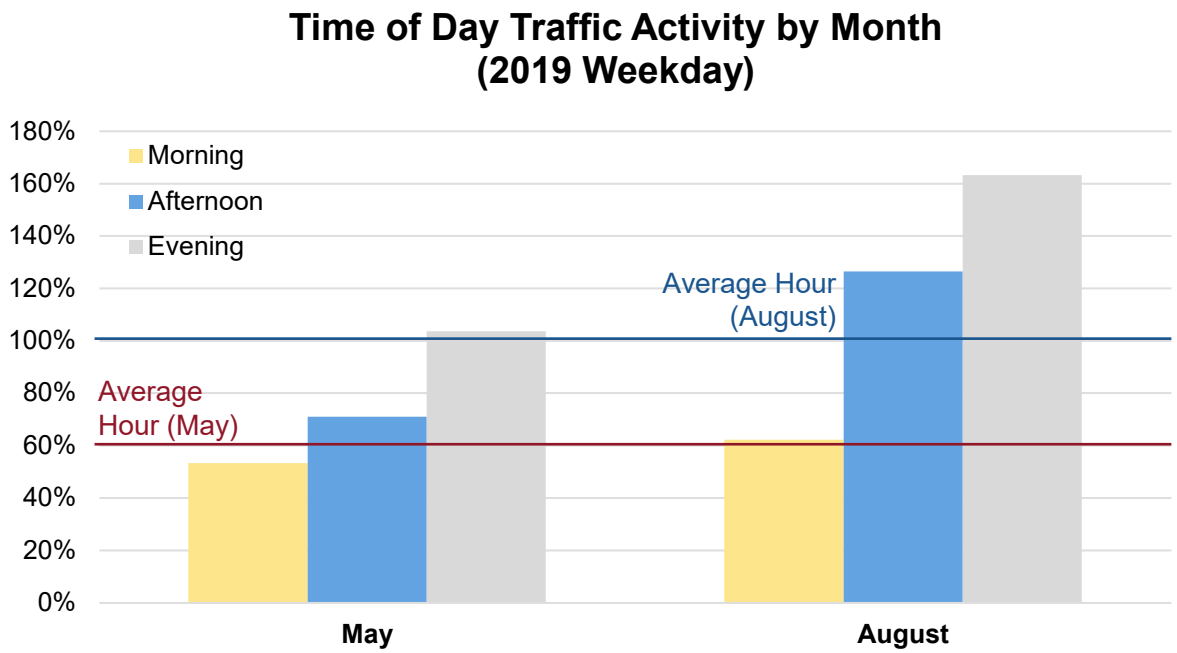
(5) Traffic activity returned to normal by the end of 2020

Traffic Zones and Seasonal Variability



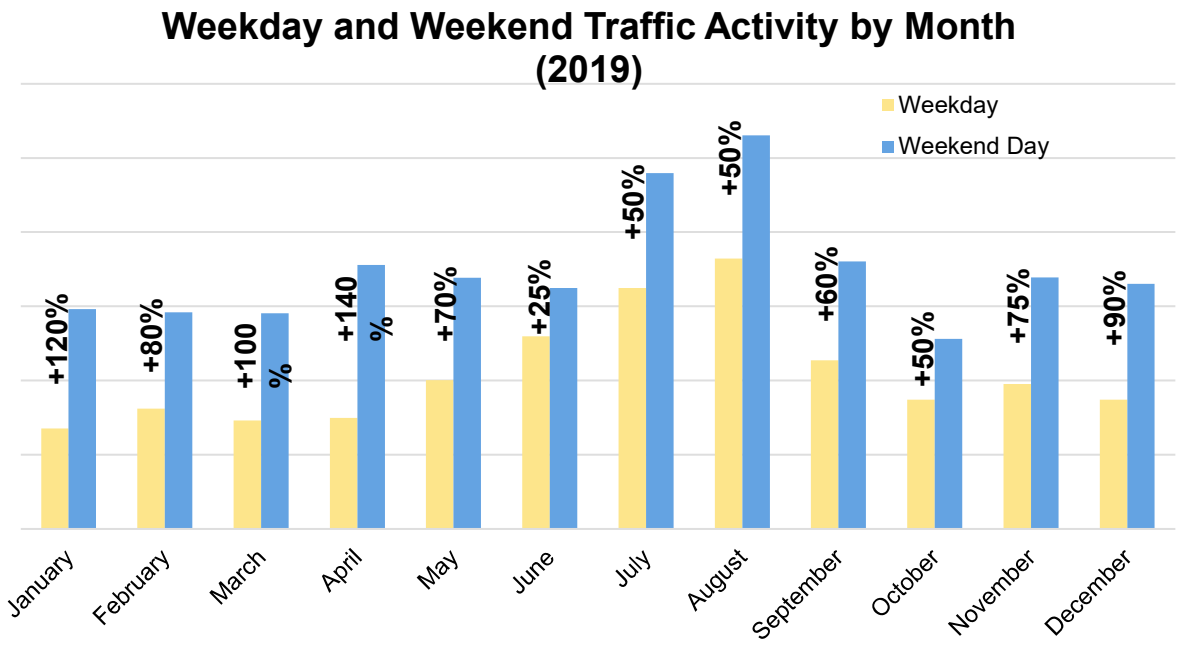
- Zone 2 (Balm Beach area) and Zone 7 (Awenda Prov Park) are the two Tiny traffic zones showing the highest seasonal variation
- Both zones have 60% higher traffic activity in August than the average month.
- Grouping all zones, Tiny has 45% more traffic activity in August than the average month

Time of Day



- Average daily traffic hour in May 40% less than average daily traffic hour in August
- Morning traffic activity is lower than afternoon, and afternoon lower than evening
- Morning traffic activity does not vary very much over the months
- Afternoon and evening hours have significantly more traffic activity in August

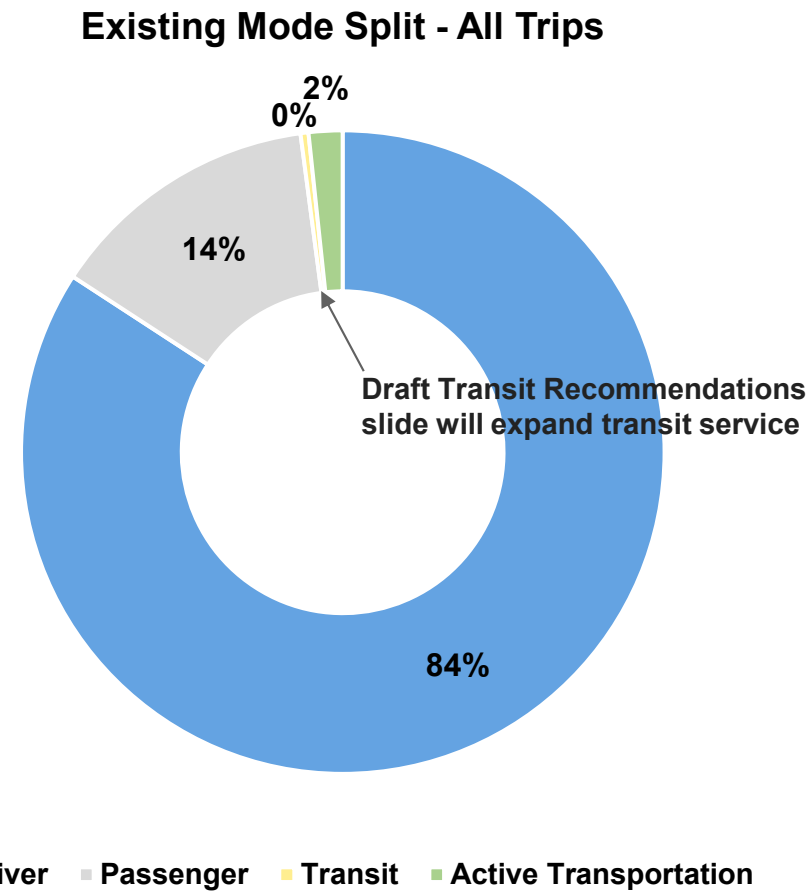
Day of Week

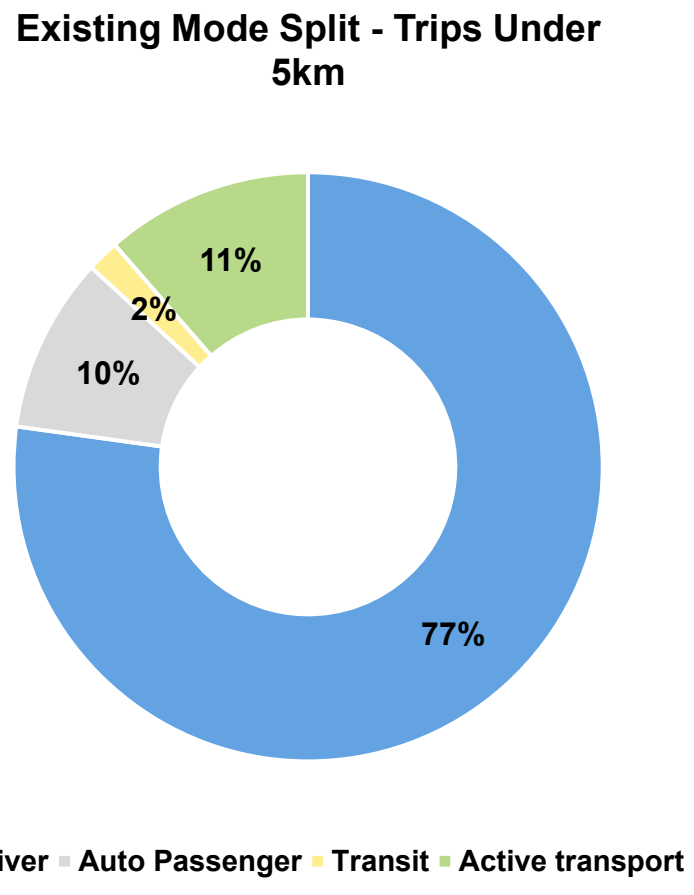


- Weekends are busier than weekdays every month of the year.
- During the winter months, there is almost twice as many weekend trips than weekday trips
- During the summer months, there is 50% more weekend trips than weekday trips
- This suggests that there are fewer weekday visitors and part-time residents to the area during the winter months

Traffic Growth & Modal Split

Existing Mode Split

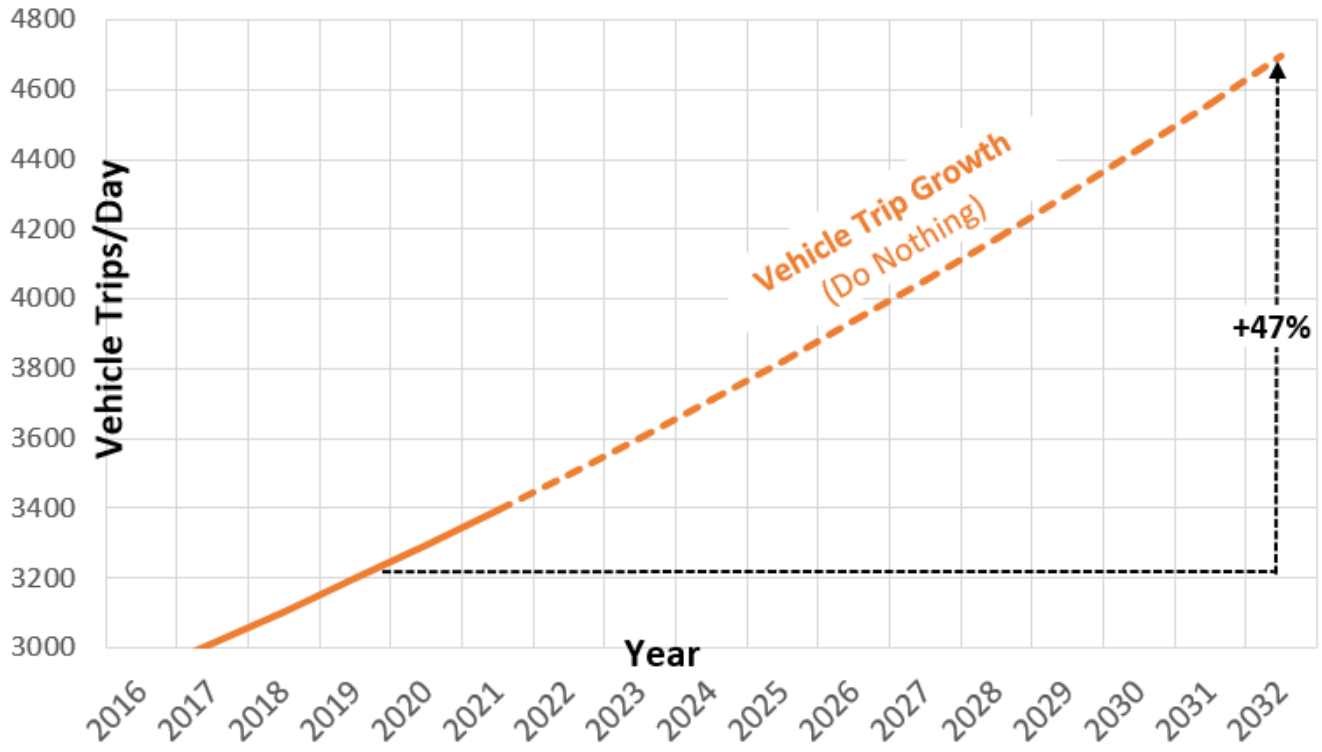




Source: Transportation Tomorrow Survey, 2016

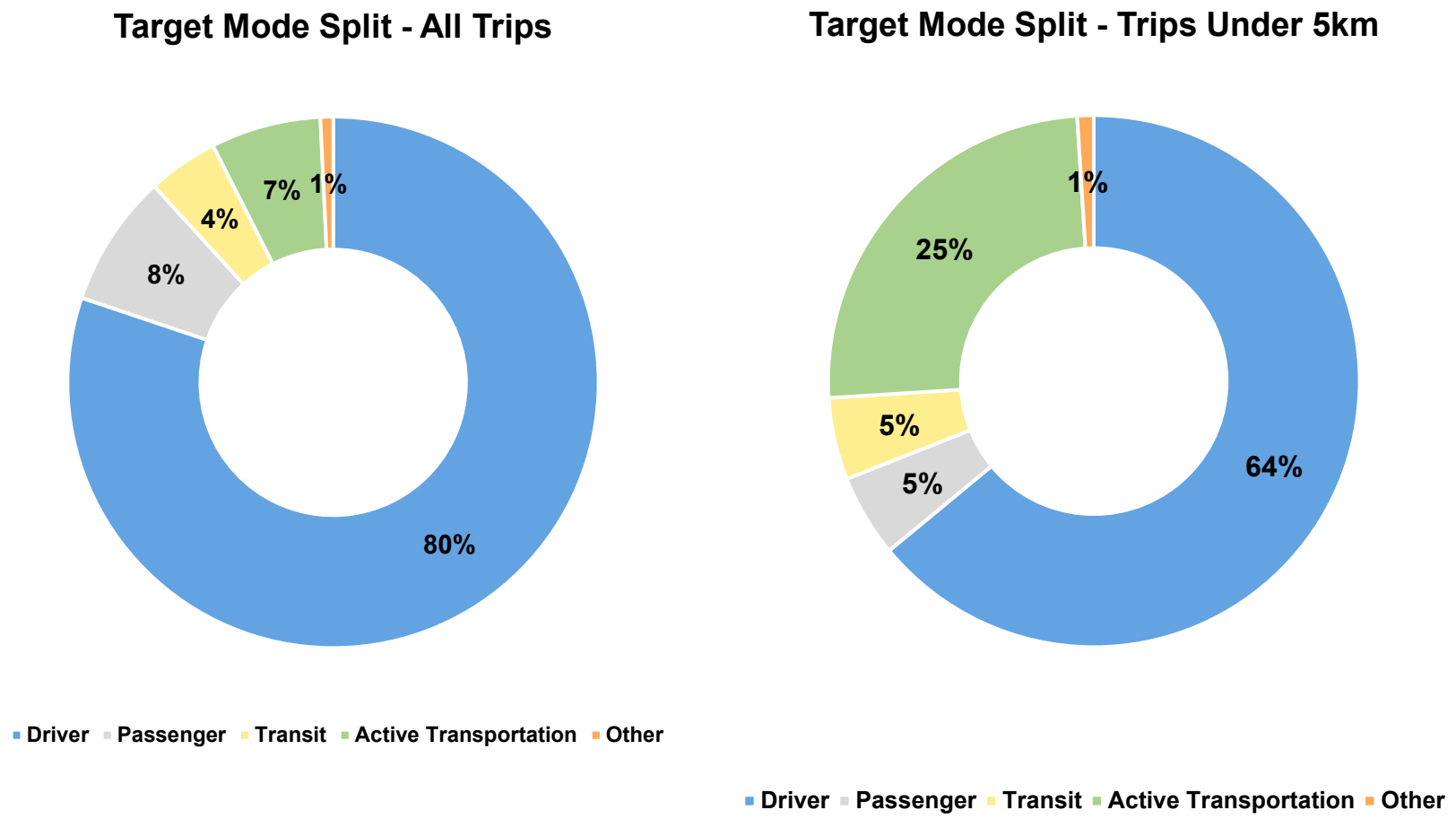
Traffic Growth to 2032 (Current Network)

EXAMPLE: Balm Beach Road West of Country Road 6



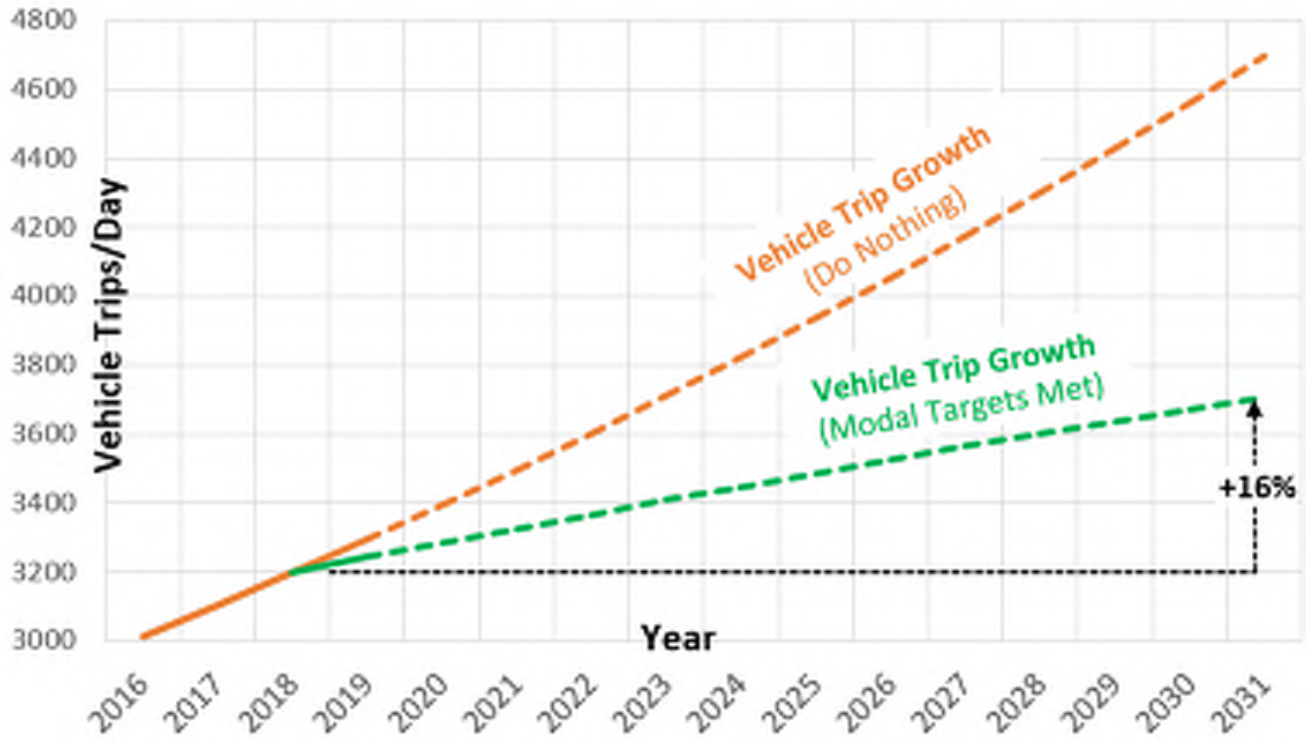
- Based on an estimated 3,200 trips/day in summer 2019
- Assumes 3% annual traffic growth (matches historical trend)
- By 2032, there will be an estimated growth of 1,500 vehicle trips, a **47% increase**

Target Mode Split (2032)



Traffic Growth to 2032 (Multi-modal network)

EXAMPLE: Balm Beach Road West of Country Road 6



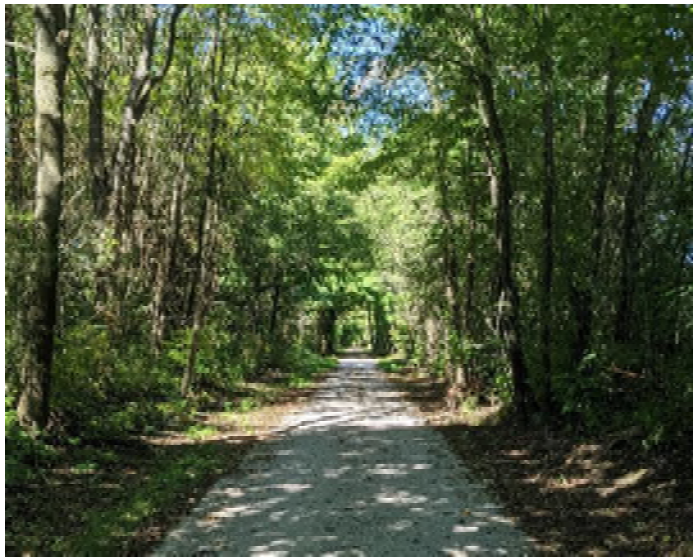
- By introducing active transportation and transit infrastructure, we can suppress the growth in vehicle trips
- If modal targets are met, we can limit vehicle trip growth to 500 trips (or 16%). This is 1/3rd of the Do-Nothing scenario.
- This effectively limits an additional 1,000 vehicle trips off Balm Beach Road

Note: Similar projections can be calculated for other roads

Active Transportation Infrastructure

Existing Active Transportation Facilities

Multi-use Trail (Tiny Trail)



Sidewalk (Balm Beach Road)

Narrow paved shoulder (County Road 6)

Separated path (Balm Beach Road)

Type of Bicycle Rider

We are focused on these groups

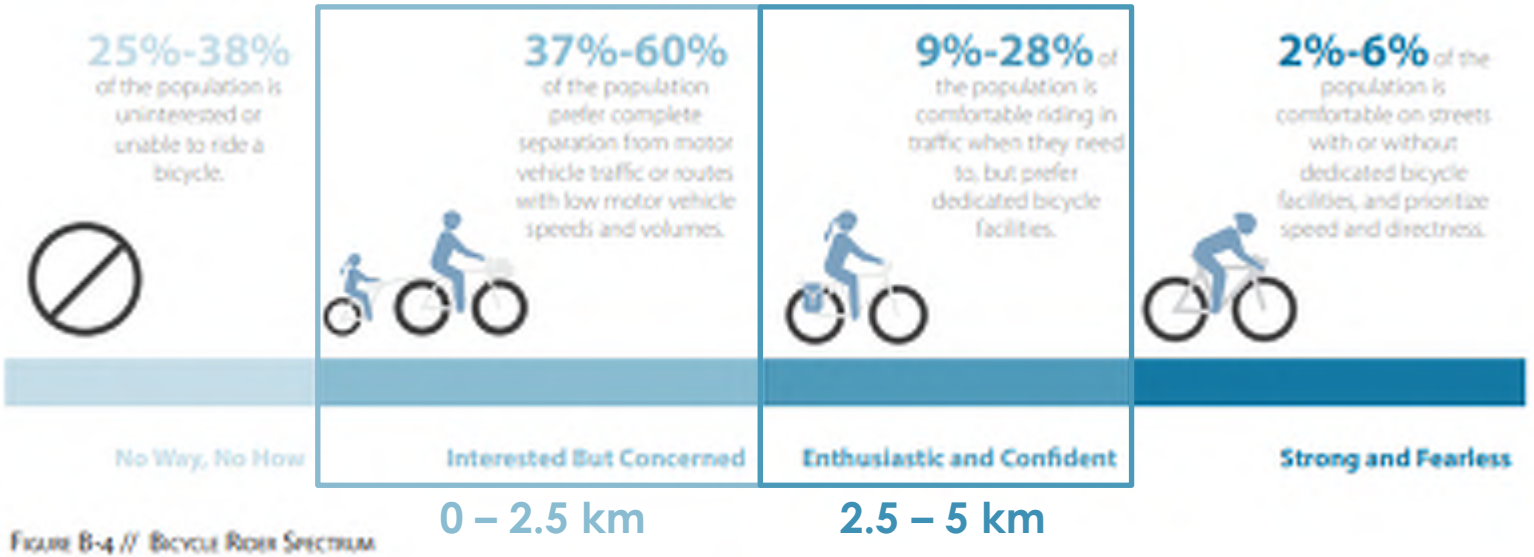
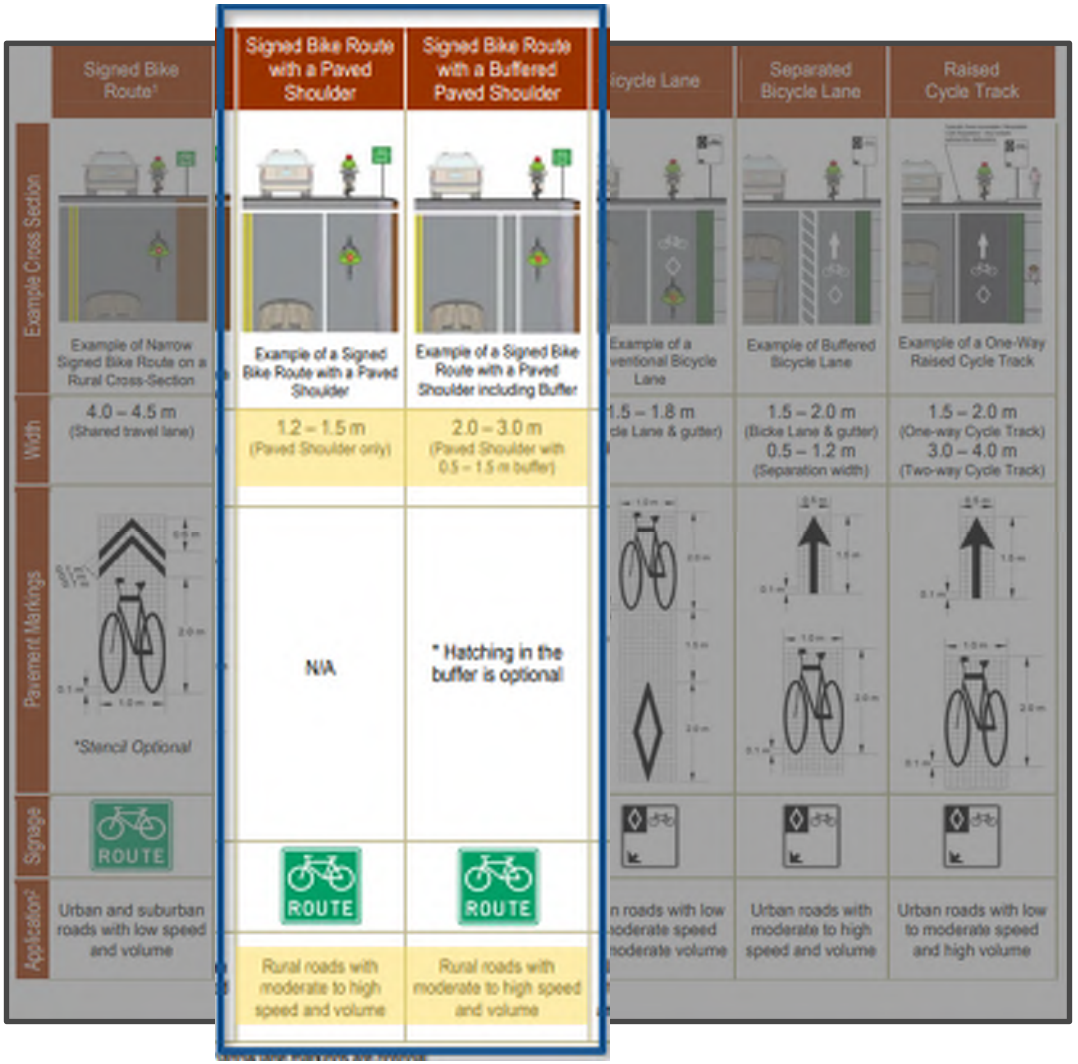


FIGURE B-4 // BICYCLE RIDER SPECTRUM

Tiny Stantec

Rural Road Design Guidance (Cycling)

- Design speed of roadway affects shoulder width for cycling
- Minimum width for lower speed/lower volume roads: **1.2 metres**
- Minimum for moderate speed/moderate volume roads: **1.5 metres + 0.5 metre buffer**



Source: Ministry of Transportation of Ontario

Rural Road Design Examples (Cycling Only)

Bollard-separated cycle track along paved shoulder of Waterloo Regional Road 42 near Cambridge.

Sources:
TCAT Rural Complete Streets Backgrounder
TCAT Active Transportation Planning (Beyond the Greenbelt)

Rural Design Guidance (Multi-User)

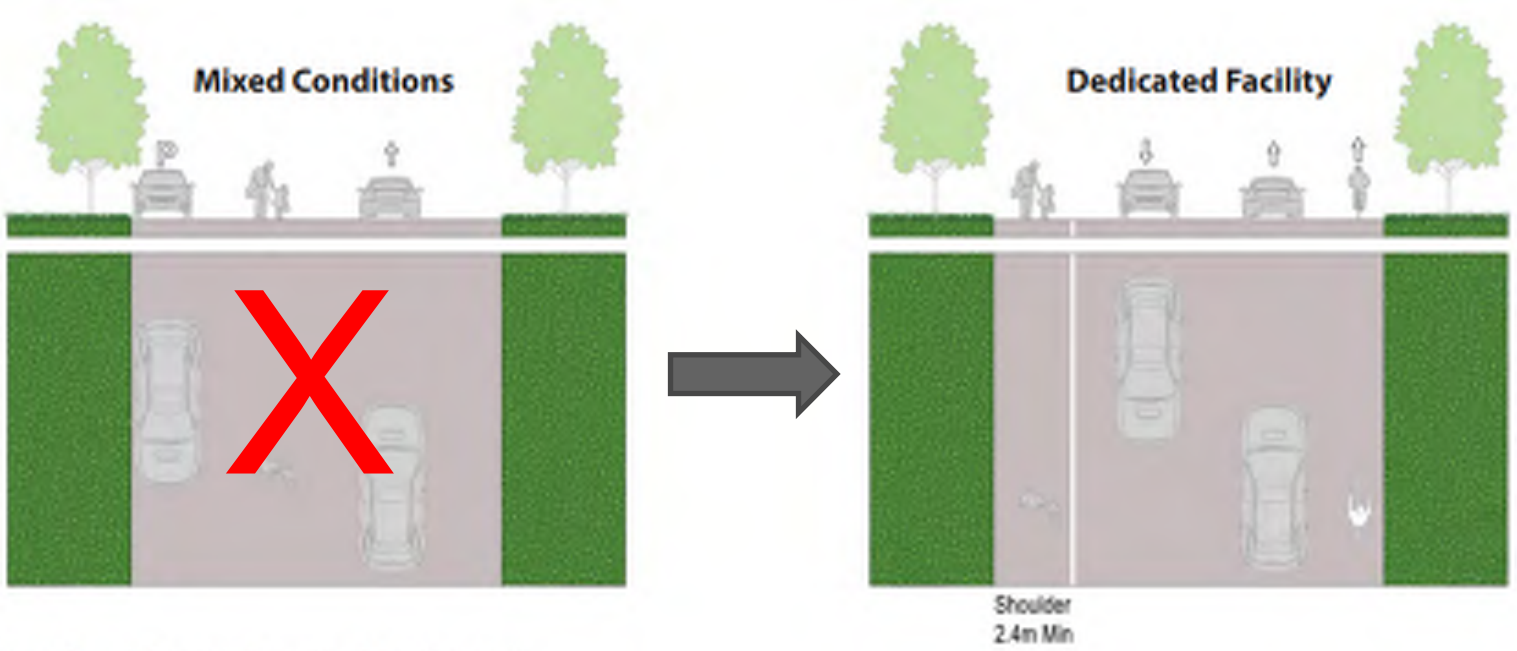


FIGURE C-25 // DEDICATED FACILITY VS. MIXED CONDITIONS

Source: BC Active Transportation Design Guide

Rural Road Design Examples (Multi-User)

Lower Speeds (40-60 km/hr)

Hudson Avenue, Thunder Bay, Ontario

Sources:
TCAT Rural Complete Streets Backgrounder
TCAT Active Transportation Planning (Beyond the Greenbelt)

Rural Road Design Examples (Multi-User)

Higher Speeds (>70 km/hr)

Sources:
TCAT Rural Complete Streets Backgrounder
TCAT Active Transportation Planning (Beyond the Greenbelt)

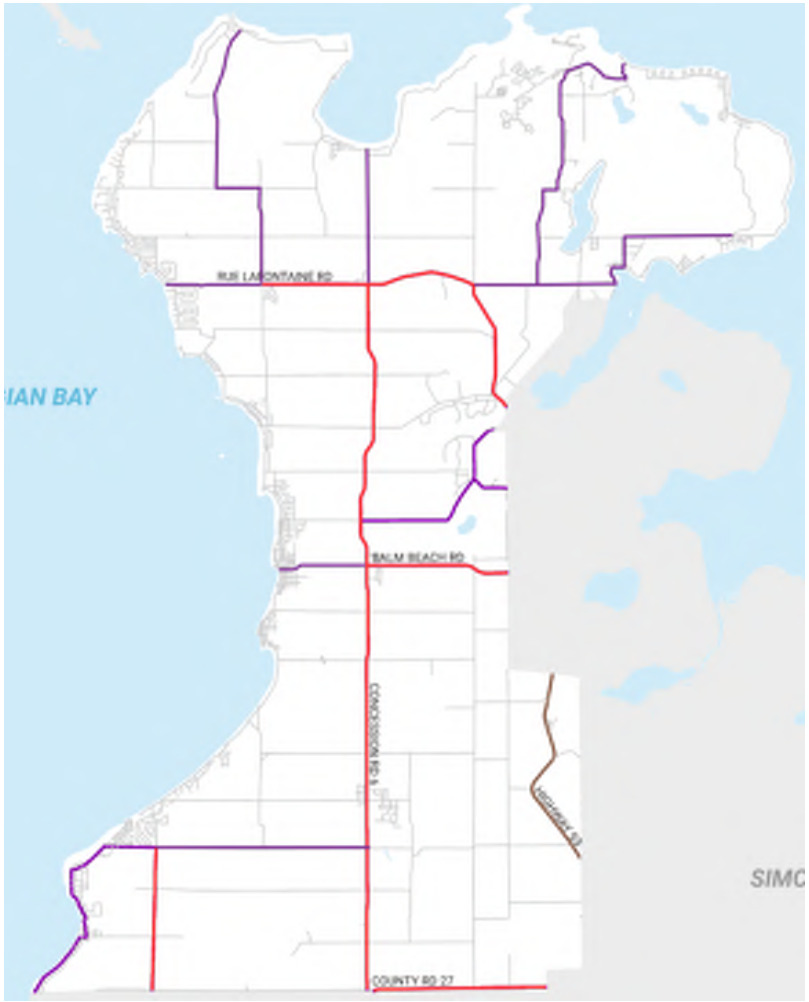
Proposed Road Classifications & Cross Sections

Road Classification Guidelines

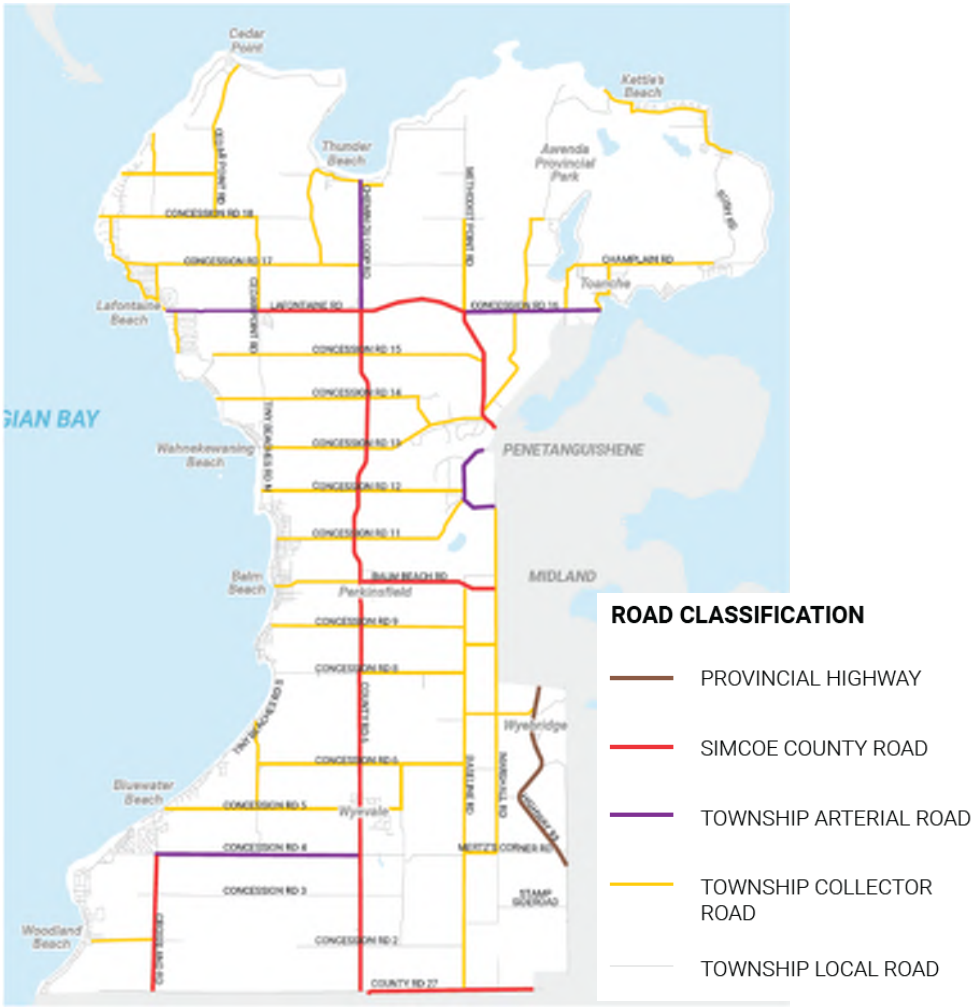
Road Classification	Function	Posted Speed	Volume Range	Road Width	Surface Type	Service Level	Requirements for Bicycle Facilities
Township Arterial (Redefined)	Higher speed, higher volume. Goods movement.	Over 70 km/hr	>4,000 vpd	2-4 lane w/paved shoulders	Paved	2-3	Not recommended for Bicyle Facilities unless separated multi-use trail (e.g. Tiny Trail)
Township Collector (Proposed)	Moderate speed, moderate volume, direct access. Regional transit. Cyclists.	50 to 60 km/hr	2,000 to 4,000 vpd	2 lane w/gravel shoulder	Paved or surface treatment	3-5	1.5m minimum paved shoulder (both sides) + 0.5m minimum buffer. Recommend reflective flexible posts or rumble strips (particularly higher speeds).
Township Local (Redefined)	Low speed, low volume. Direct access. Local/regional transit. Cyclists, pedestrians. Crosswalks.	Less than 50 km/hr	<2,000 vpd	2 lane w/no shoulder	Surface treatment, gravel or pavement	4-6	1.2m minimum paved shoulder (both sides) or minimum 2.4m multi-use paved shoulder

Road Classification Map

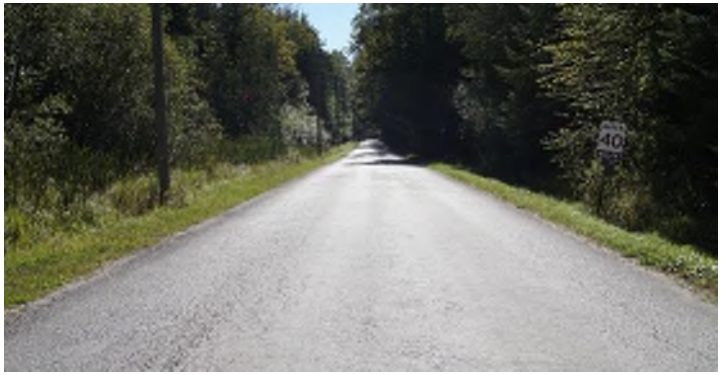
Existing Road Classification (Official Plan)

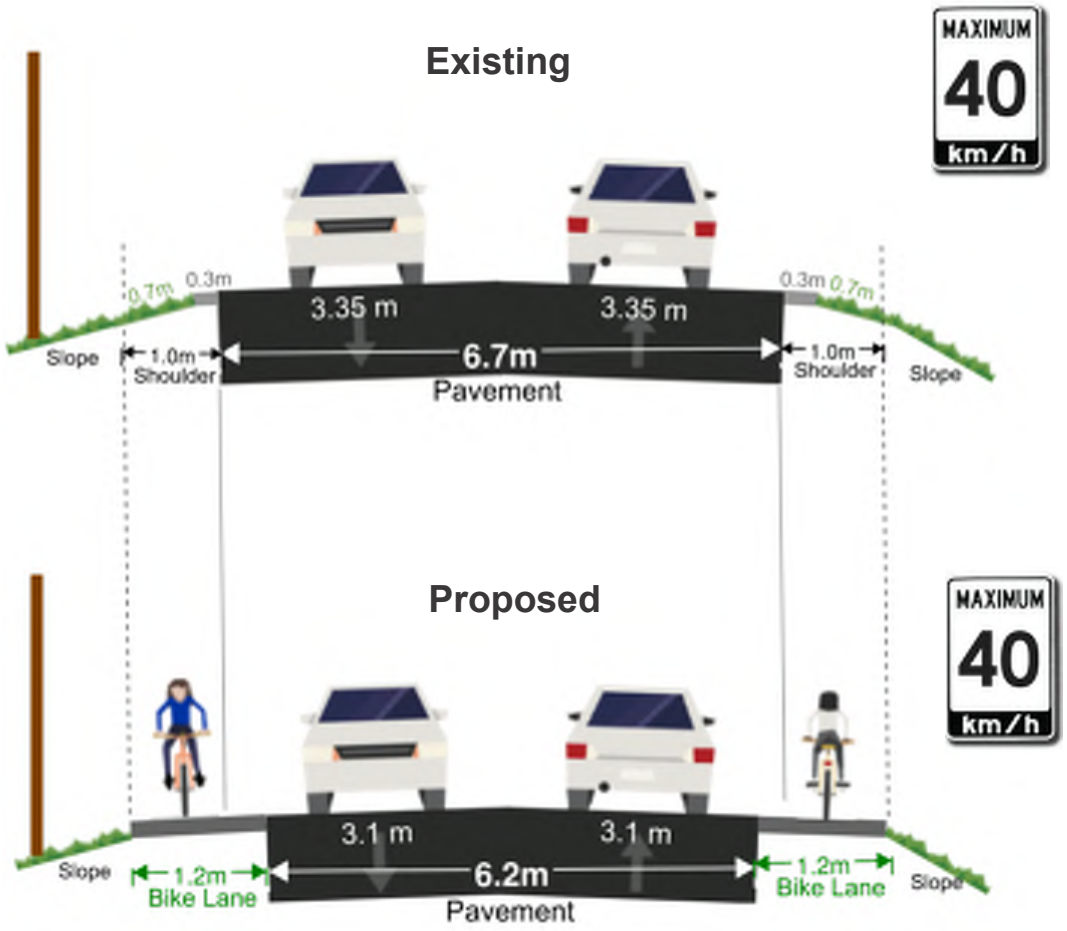


Draft Proposed Classification

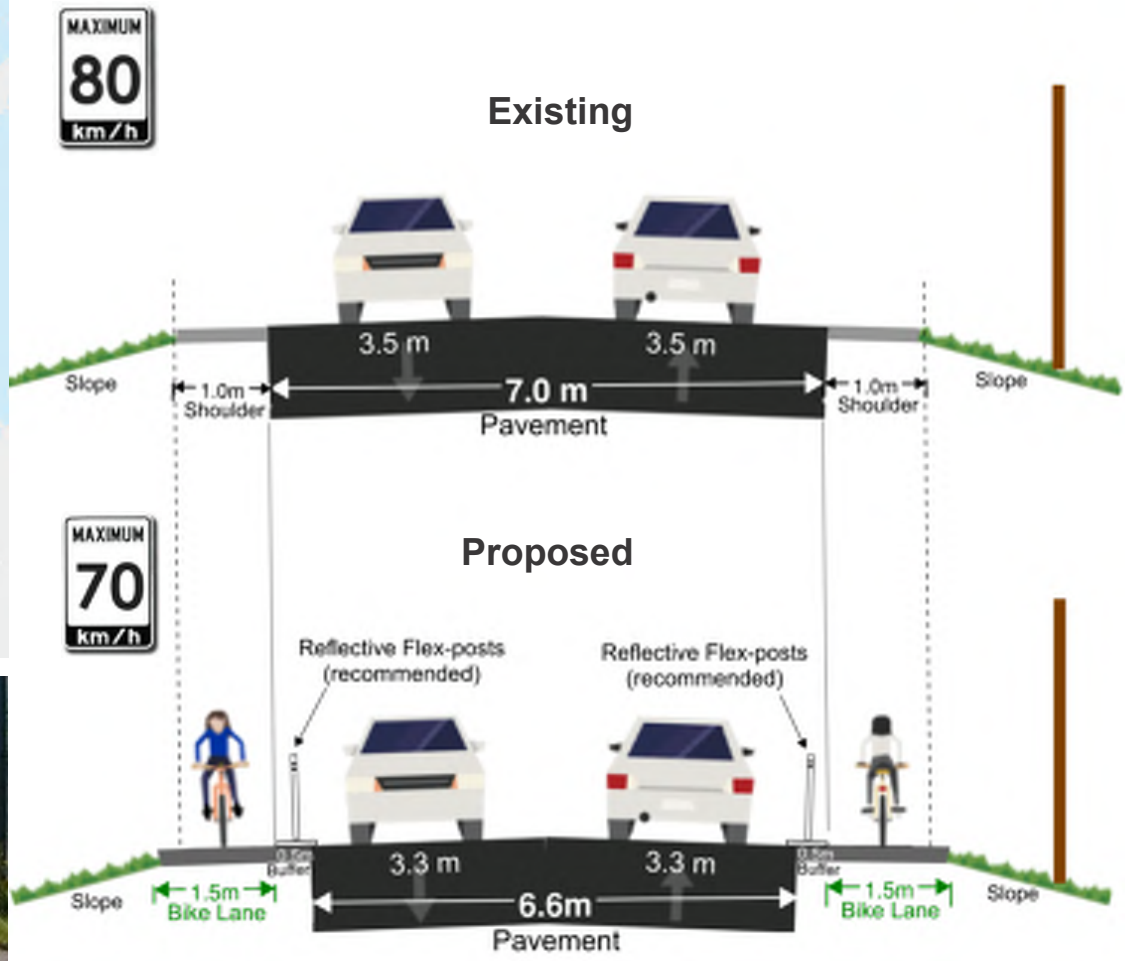


Proposed Cross Section: Local Road Example (50kph or less)

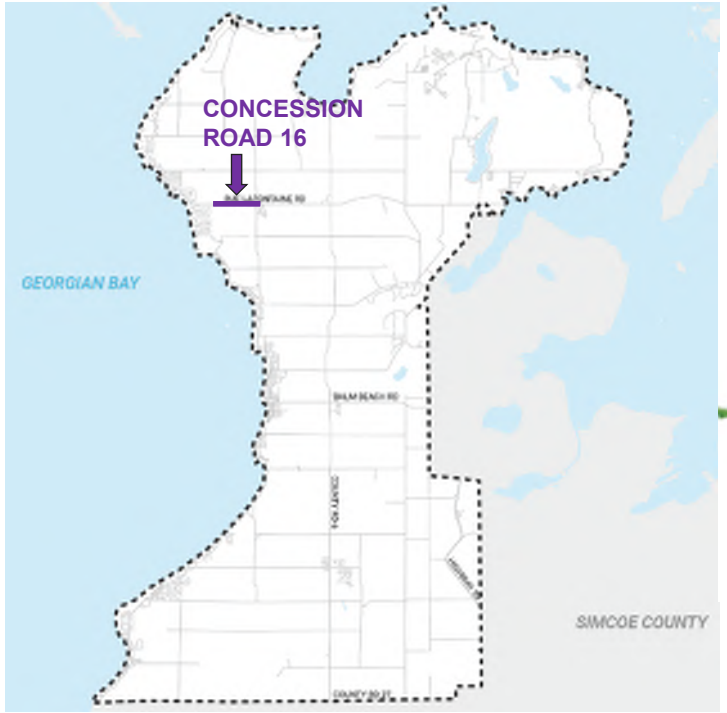


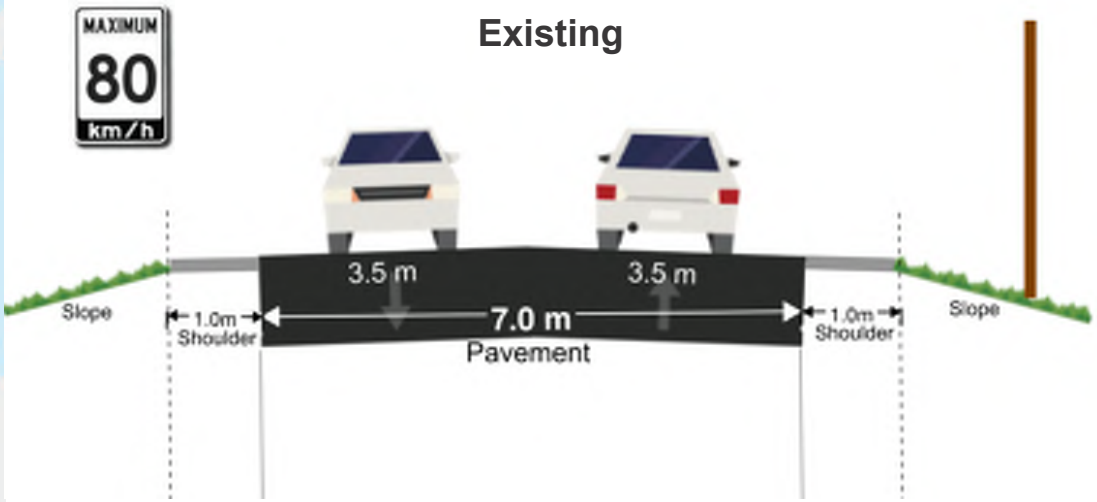


Proposed Cross Section: Collector Road Example (60-70 kph)



Draft Cross Section: Arterial Road Example (80+ kph)





MAXIMUM
80
km/h

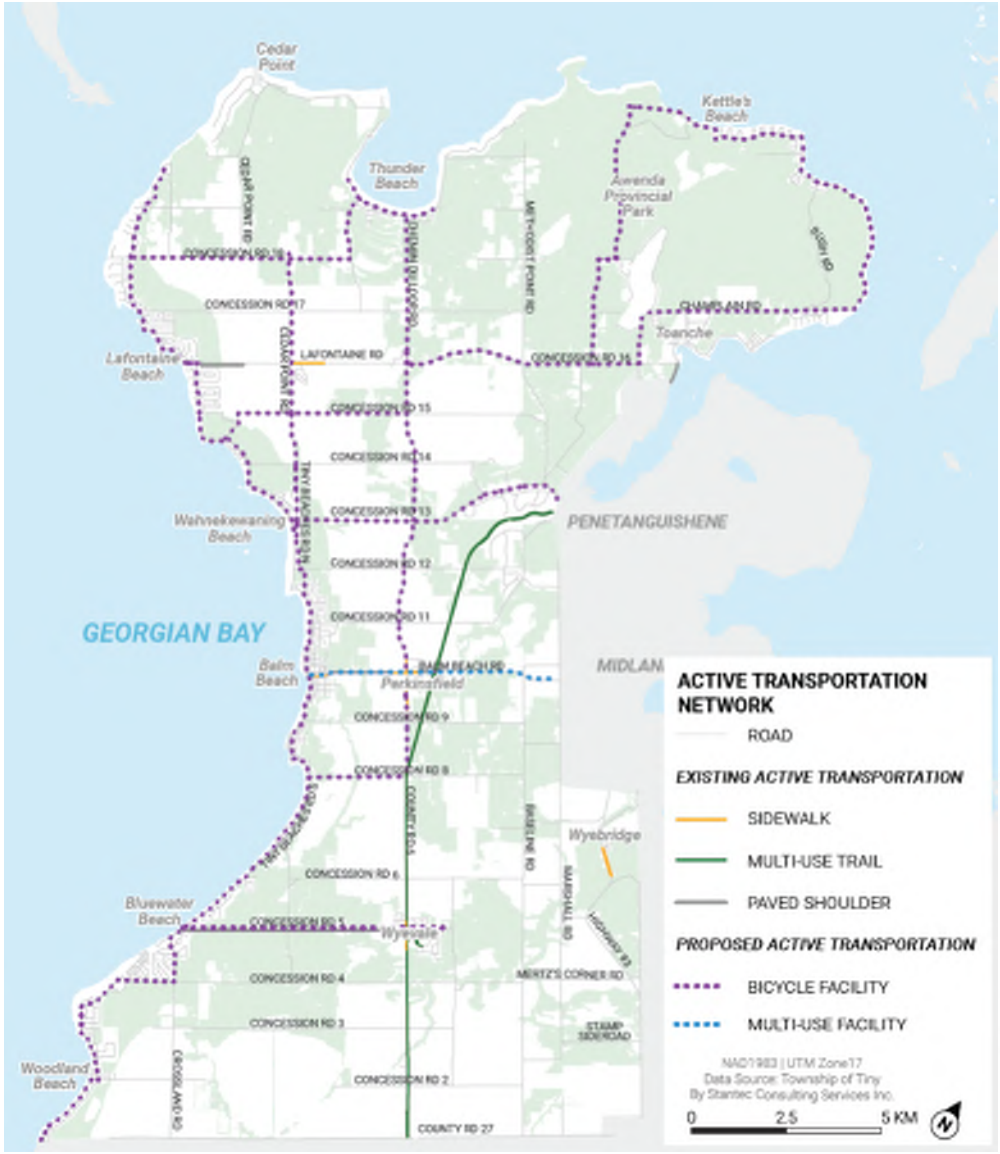
***Not Recommended for Bicycle Facility**

Other Network Modifications

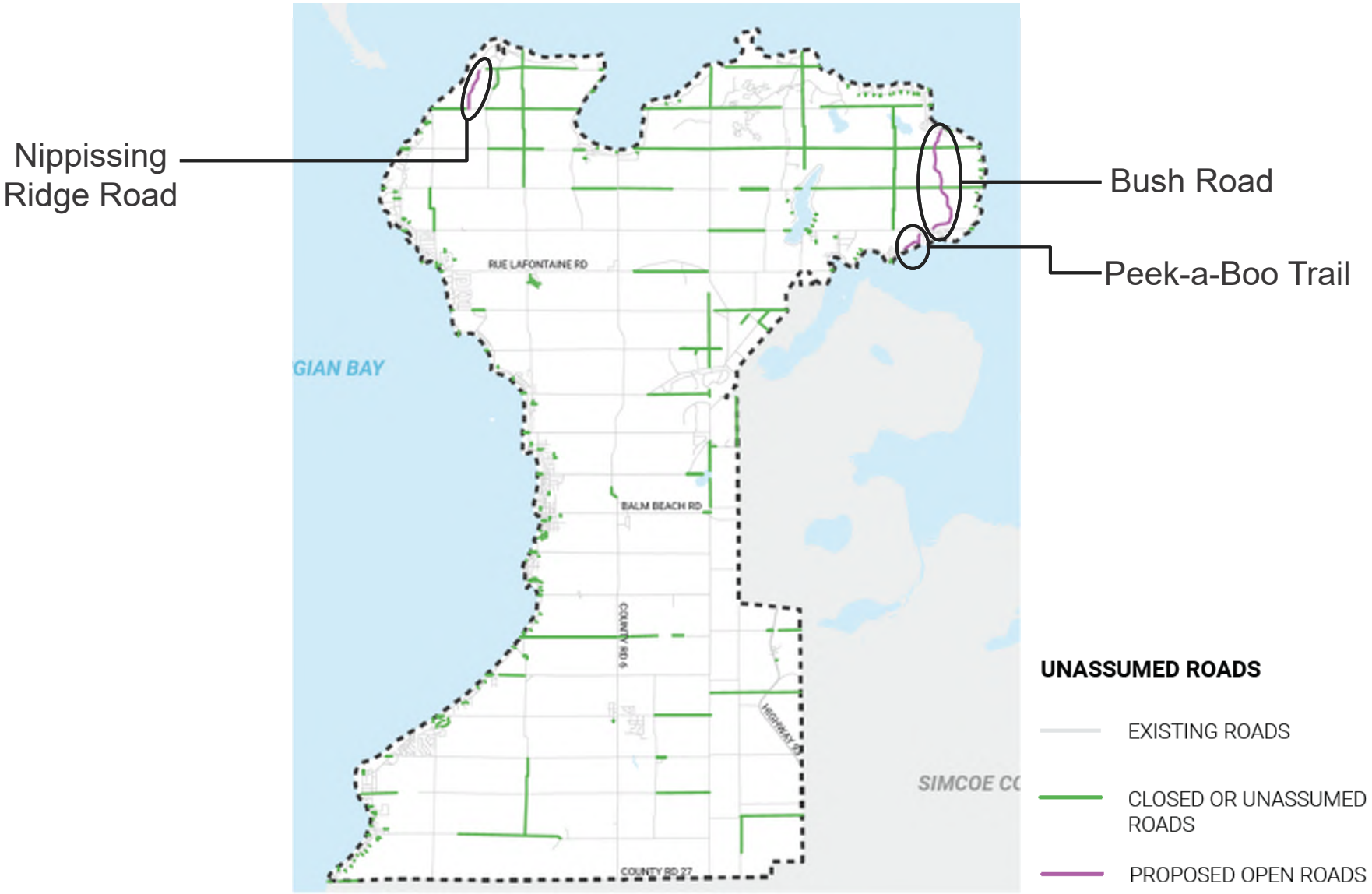
Proposed Active Transportation Network

Proposed Design Principles:

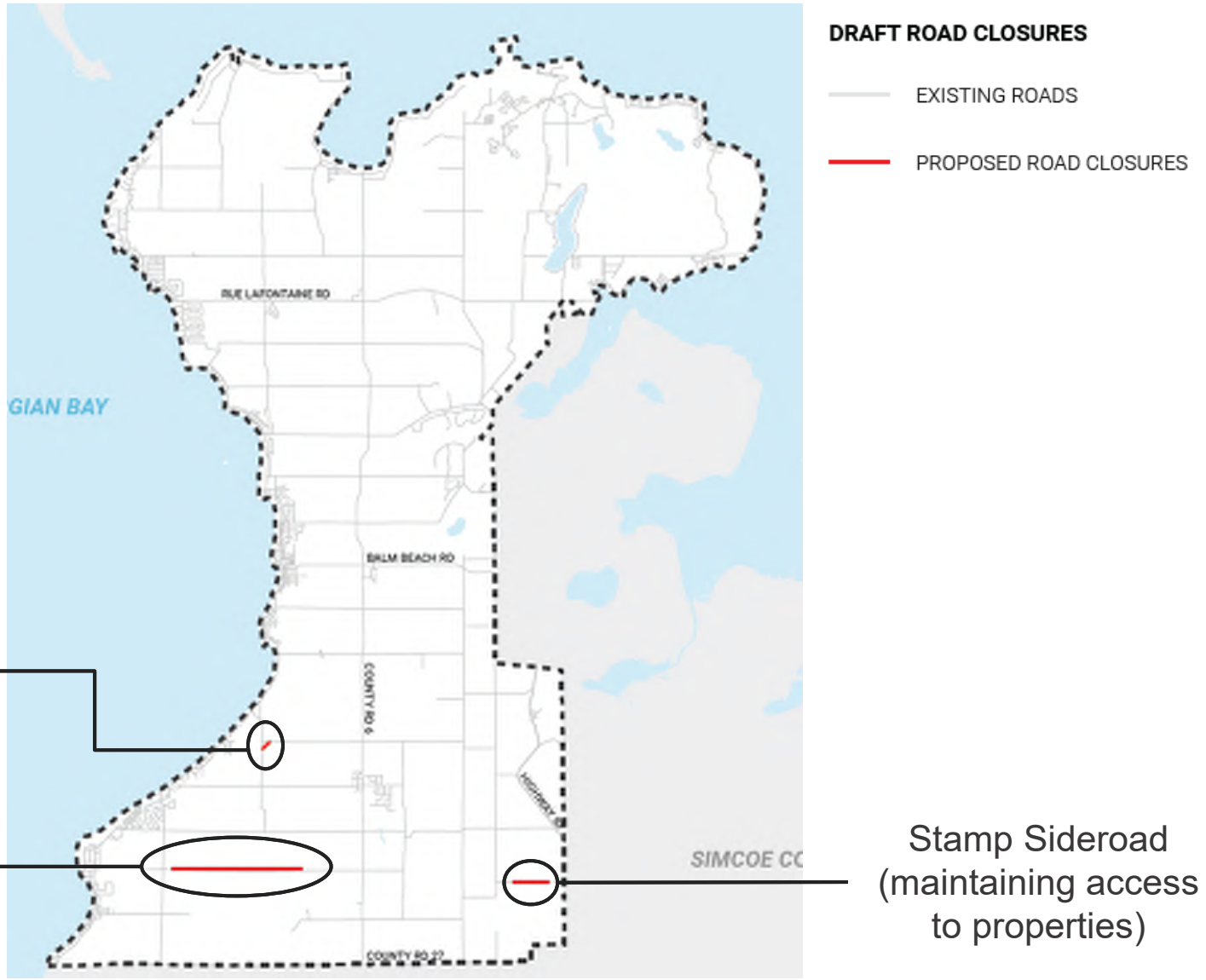
- ✓ N-S & E-W connectivity
- ✓ Connect towns/hamlets/destinations
- ✓ Connect to Tiny Trail
- ✓ Multi-use trails in busier communities
- ✓ Lower speed (70 km/hr or less) for bike routes
- ✓ Lower volume (<4,000 vpd) for bike routes
- ✓ Utilize shoulder space
  Minimum requirements are:
  - 40 km/hr: 1.2 metre width
  - 60-70 km/hr: 1.5 metre width + 0.5m buffer (posts, curb)



Proposed Road Allowance Openings



Proposed Road Closures

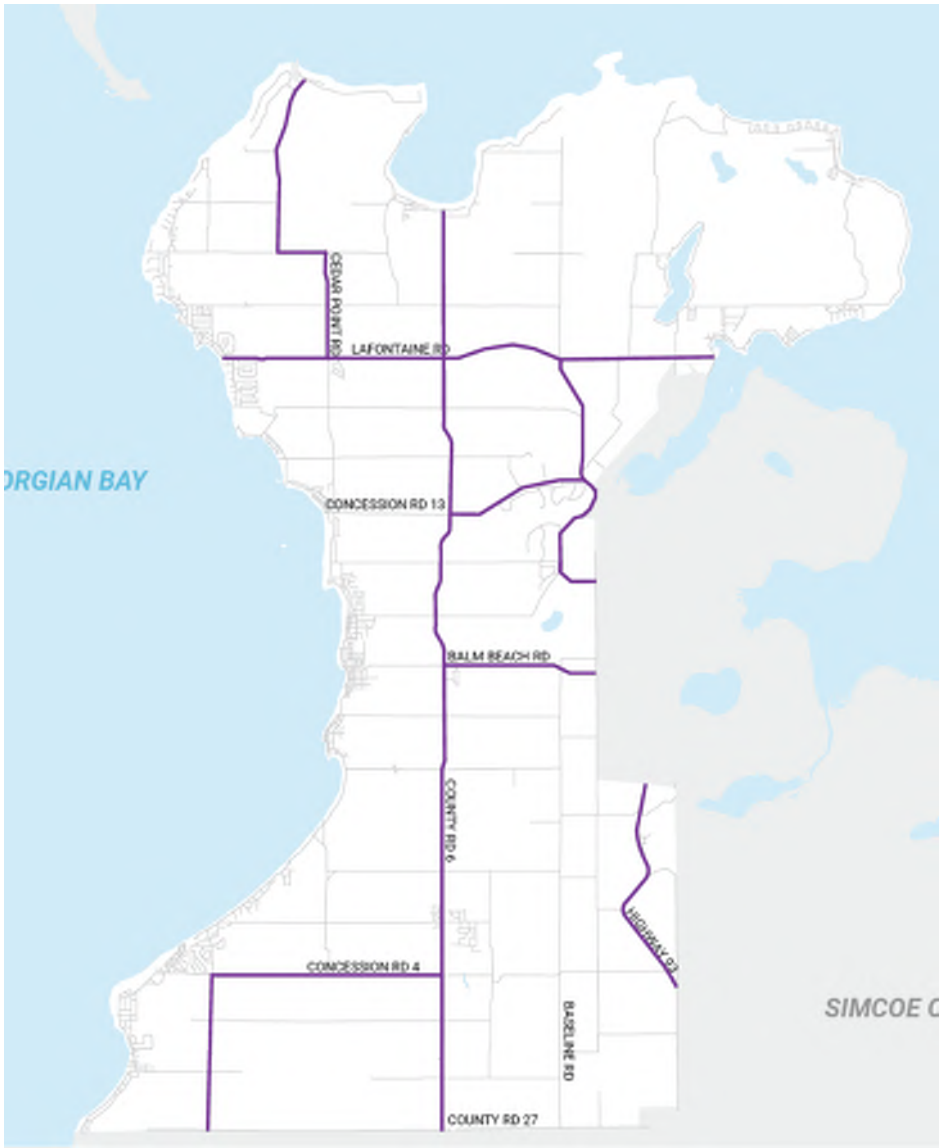


Hall Road

Concession Road 3
(maintaining access
to properties)

Stamp Sideroad
(maintaining access
to properties)

Proposed Truck Network



Transit Recommendations

- Density, land use, and travel patterns in Tiny do not support creation of an in-house transit system that is owned and operated by the Township

- Instead, consider partnerships with Wasaga Beach Transit, Midland-Penetanguishene Transit Service, Simcoe LINX and/or Chimnissing Transit – Beausoleil First Nation to extend into Tiny
  - Extend Wasaga Beach Transit north to Tiny Beaches South to give Tiny residents access to shops
  - Extend Simcoe County LINX to Balm Beach to provide regional connections

- Tiny should continue its participation on the Midland/Penetang Transit Committee

- Tiny should actively participate in the Simcoe County TMP to provide input on regional transit planning

Speed Calming Guidelines

Speed Calming Measures

Potential Community Measures

Speed hump
(most effective, but operational concerns)

Rumble strips
(creates driver discomfort)

Traffic button or mini-roundabout

Community Safety Zone (CSZ)
(Council Motion)

Speed hump
(most effective, but operational concerns)

Pedestrian Safety zone (PSZ)

Speed Calming Measures

Potential Corridor Measures

Reduced Posted Speed

Watch your speed signs

Intersection Improvements

Automated Speed Enforcement
(Council Motion)

Shoulder Bicycle Facilities

Speed Calming Review

- Majority of speed issues are along Tiny Beaches Road (north and south)
- Majority of pedestrian and bicycle related safety concerns focused at beach communities

Speed Calming Review

- Speed Calming review covered all communities and several corridors within Tiny Township
- Objective was to cover all areas with known safety/speed issues and proposed routes for the bicycle network

Speed Calming Guidelines

Intersection Improvement Guidelines

1. Consider all-way stops for pedestrian crossings.
2. Enhanced crosswalk pavement markings (ladder style).
3. Intersection illumination (especially for pedestrians).
4. Stop sign, stop bar, STOP pavement markings at all stops.
5. Rumble strips, flashing stop signs, overhead red flasher for problematic intersections.
6. Reflective posts to delineate pavement edges.
7. Realign skewed intersections.
8. Reduce corner radii to slow turning speeds.
9. Advanced signage to warn of intersections, driveways.

Speed Calming Guidelines

Speed Limit Reduction Guidelines

Location	Recommended Speed
Near schools and playgrounds	30 km/h
Areas of higher pedestrian or bicycle activity	40 km/h
Community areas	40-50 km/h
Intersection Approaches	50 km/h (max)
Narrow or missing sidewalks	50 km/h (max)
History of speed-related collisions	50 km/h (max)
Shoulder Bicycle Facility (Local)	40 km/h (max)
Shoulder Bicycle Facility (Collector)	60 km/h
Shoulder Bicycle Facility (Arterial)*	70 km/h

* Though on-street bicycle facilities are not recommended on Arterials, if it can't be avoided for network connectivity, it recommended that the posted speed be limited to 70 km/h. Alternatively implementation of a separated multi-use pathway should be investigated.

Speed Calming Guidelines

Other Guidelines

Community Safety Zone Guidelines
- All communities, 40 km/hr, prioritize issue areas

Pedestrian Safety Zone Guidelines
- 30 km/hr
- Balm Beach and other busy beach locations
- Schools, higher ped traffic or known safety issues

Watch Your Speed (WYSP) Guidelines
- Long distance 50 km/hr or less corridors
- High ped traffic, safety issues, or high collisions

Automated Speed Enforcement (ASE)
- Areas with high collision history
- Areas with pedestrian or bicycle safety issues
- Areas where speed reduction from 70 km/hr or 80 km/hr planned

Special Study Areas

Special Study Area

Balm Beach

Special Study Area

Balm Beach

Special Study Area

Intersection of Tiny Beaches Road South & Concession Road 9

Implementation Plan

Implementation Plan

Short Term Actions

Action #	Location Ref	Action	Time-Frame	Cost
1	All community areas (see Fig 69)	Implement community area and intersection speed calming measures as summarized in Table 11 of this TMP	Short-term	~$100k to $130k
2	Balm Beach Area	Design and implement recommended improvement measures as per Figure 72 of this TMP.	Short-term	~$100k to $130k
3	TBRS & Concession Rd 9	Implement recommended improvement measures as per Figure 77 of this TMP.	Short-term	$7k to $10k
4	C9 – Balm Beach Road	Implement speed calming and multi-use facility improvements on Balm Beach Road from Tiny Beaches Rd S to County Rd 6	Short-term	$80k to $100k
5	C5 – Tiny Beaches Road S	Undertake feasibility/concept design of bike lane facilities on TBRS from Concession Rd 4 to Balm Beach	Short-term	~ $50k
6	C13 – Tiny Beaches Road N	Undertake feasibility/concept design of bike lane facilities on TBRN from Balm Beach to Concession Road 13	Short-term	~ $50k

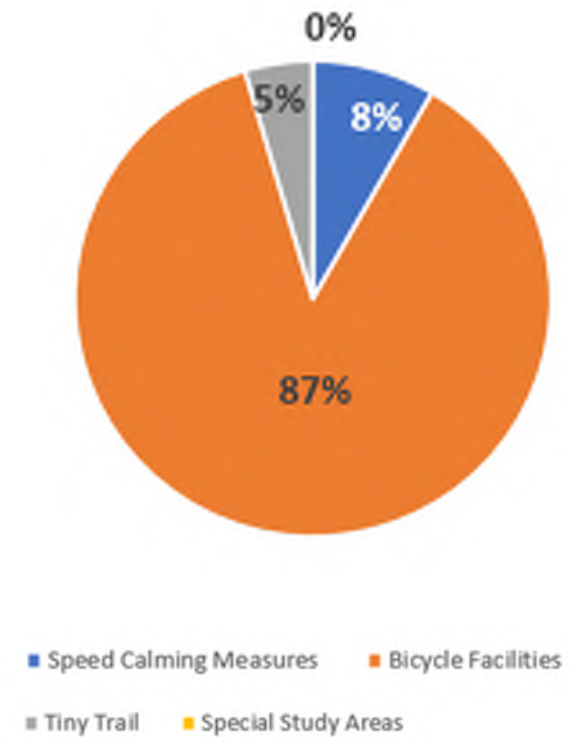
Total: $400k - $500k

Implementation Plan

High Level Costs – Full Implementation

Measures	Cost
Speed Calming Measures (Corridors)	$700k
Bicycle Facilities (Corridors)	$7M - $10M
Tiny Trail Paving	$300k - $600k
Speed Calming Measures (Community Areas) including intersection improvements	$100k - $130k
Balm Beach Area Improvements	$100k - $130k
Tiny Beaches Rd South & Concession Rd 9	$7k - $10k

Total: $8M - $11.5M



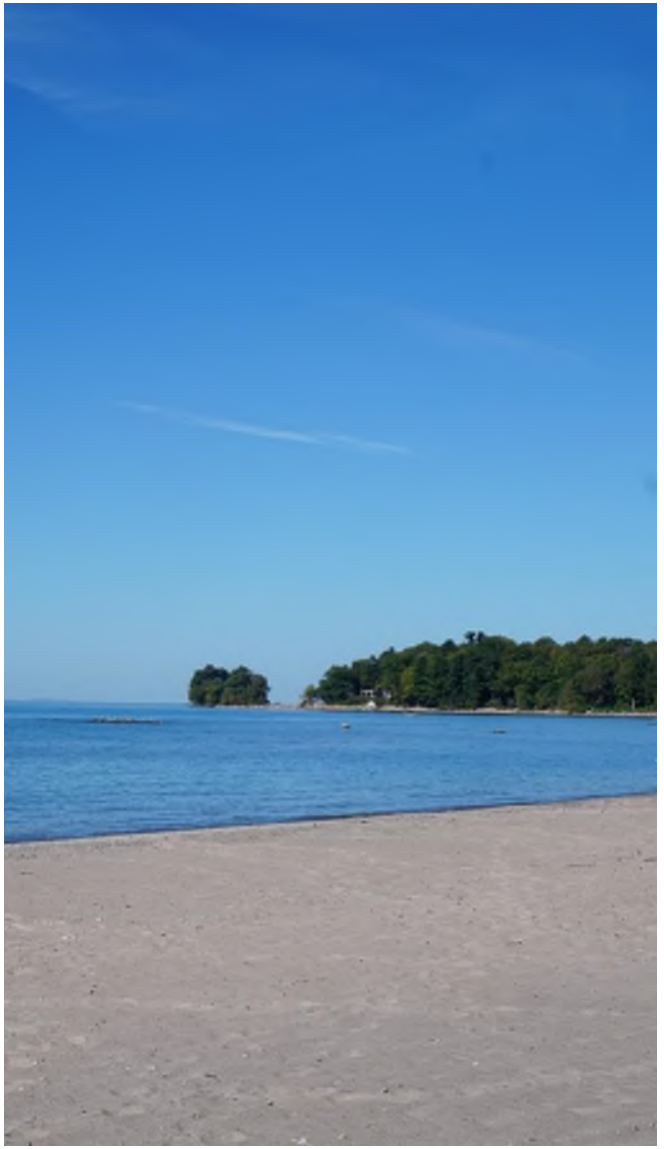
Recommendations & Next Steps

Recommendations to Council:

- Receive the Final Draft TMP for Information.
- Provide direction on any major revisions.
- Release to public for a 30-day review period.

Next Steps:

- Secure funding for select short-term actions.
- Develop concept designs and cost estimates for short-term improvements.
- Engage affected stakeholders on designs.
- Proceed to detailed design and construction of short-term improvements.
- Review and revise TMP in 5 years.



Questions?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For more information about this project, visit www.tiny.ca/tmp
Tiny
Stantec