

The Corporation of the Town of Fort Erie



Infrastructure Services

2024-2028 Winter Operations Plan

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Purpose

This plan sets out a standard operational procedural framework for ensuring that the Town of Fort Erie continuously provides for the effective delivery of winter maintenance operations that meet the level of service as set out in this plan and the expectations of those living in our community.

This Winter Operations Plan for the Town of Fort Erie was endorsed by council on the ____ day of _____ 2024.

Definitions

Anti-icing: The application of liquid de-icers directly to the road surface in advance of a winter event.

De-icing: The application of solids or pre-treated material to the road surface at the onset of and during a winter event.

Highway: Includes a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

MMS: Refers to Ontario Regulation 239/02 Minimum Maintenance Standards for Municipal Highways as amended from time to time.

Paved Road: A road with an asphalt surface, concrete surface, composite pavement, or portland cement.

Pre-treat: The application of liquids (calcium chloride, sodium chloride, etc.) to dry sand or salt prior to being loaded for storage or applied to the road surface.

Pre-wetting: The application of liquids (calcium chloride, sodium chloride, etc.) at the spinner of the truck just prior to application to the road surface.

Significant Weather Event: An approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality.

Surface Treated Road: A road with bituminous surface treatment comprised of one or two applications of asphalt emulsion and stone chips over a gravel road.

Unpaved Road: A road with a gravel, stone or other loose traveling surface.



Winter Event: A weather condition affecting roads such as snowfall, wind blown snow, freezing rain, frost or ice to which, a winter event response is required.

Winter Event Response: A series of winter control activities performed in response to a winter event.

Winter Event Response Hours: The total number of person-hours per year (plowing, salting/sanding, winging back, etc.) to respond to winter events.

1.0 Winter Operations – Goal

The Town of Fort Erie’s roads staff will strive, insofar as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in this Winter Operations Plan and within the resources established by the Council of the Town of Fort Erie.

2.0 Winter Operations – Objective

The Town of Fort Erie will provide efficient and cost-effective winter maintenance to ensure, insofar as reasonably practicable, compliance with applicable provincial legislation and accepted standards while striving to minimize adverse impacts to the environment. These commitments will be met by:

- Adhering to the procedures contained within the Winter Operations Plan.
- Optimizing the use of winter maintenance materials containing chlorides on all municipal roads to minimize negative impacts to the environment.
- Committing to ongoing winter maintenance staff training and education.
- Annually monitoring winter maintenance operations, as well as the effectiveness of the Winter Operations Plan to allow the municipality to evaluate and phase-in any changes, new approaches and technologies in winter maintenance activities in a fiscally sound manner.
- Ensuring that any modification to winter maintenance activities do no compromise roadway safety while confirming the management of road salt used in winter maintenance operations, complies with Environment Canada’s Code of Practice for the Environmental Management of Road Salts.

3.0 Winter Maintenance Program

3.1 The System Maintained

The Town of Fort Erie is responsible for winter maintenance on municipal roads, alleyways, sidewalks, parking lots and school crossings. Table 1 provides a summary of the system maintained. Maps of the system maintained showing the various routes and locations are included as follows:

- Appendix 1 – Sand and Salt Routes Map
- Appendix 2 – Snow Plowing Routes Map
- Appendix 3 – Sidewalk Plowing Routes Map
- Appendix 4 – Parking Lots, Alleyways and School Crossings List

Table 1 – The System Maintained

Asset Type	Number of Locations	Total Length (Lane Kms)	Total Length (Kms)
Roads		403	
Sidewalks			160
Parking Lots	16		
Alleyways	6		
School Crossings	12		
Bicycle Lanes			6

3.2 Winter Maintenance Season

The winter maintenance season with which the Town of Fort Erie will perform winter maintenance operations commences on November 1st through to March 30th of the following year. Winter events may occur prior to the start date or after the end date listed above. If an early or late winter event were to occur, the Town of Fort Erie will be prepared for the winter event by complying with sections 3.3.3, 3.3.4, 3.6.1 and 3.6.2 of this plan.

3.3 Winter Preparations

In the months prior to the start of the winter maintenance season, as identified in section 3.2, the Town of Fort Erie undertakes the following tasks to prepare for the upcoming winter season.

3.3.1 Once Every Four Years

The Manager of Roads and Fleet or designate will:

- Prepare and call tenders for contract equipment to complete the plowing, sanding and salting of roads, sidewalks, parking lots, alleyways and school crossings to supplement town equipment.

3.3.2 Two Months Prior to the Winter Maintenance Season

The Manager of Road and Fleet or designate will:

- Confirm the supply of winter maintenance materials through the Niagara Public Purchasing Committee (NPPC).
- Confirm the provision of value-added meteorological services (VAMS) through the Region.
- Ensure replacement parts for town owned equipment are replenished.

- Inspect equipment to ensure proper working order. All repairs will be completed one month in advance of the start of the winter maintenance season.

3.3.3 One Month Prior to the Winter Maintenance Season

The Manager of Roads and Fleet or designate will:

- Conduct a mandatory training session for all supervisors, patrolpersons, operators, contract operators and call centre operators where all policies, procedures, schedules, reporting procedures for callout, route maps, record keeping, equipment training, and safety precautions will be discussed. Any issues resulting from the meeting regarding the policies, procedures, schedules, reporting procedures for callout, route maps, record keeping, equipment training, and safety precautions will be resolved either at the meeting or prior to the winter season.
- Ensure patrolpersons will receive additional training on the route of representative roads and sidewalks to be patrolled, their duties during a winter event, record keeping requirements, callout procedures and the de-icing chemicals to be applied for the forecast weather conditions.
- Confirm that staff have inspected guiderail, catch basin and fire hydrant markers, steep hill, sharp curve ahead warning signs, bridge ices first signs, if any, are in place. Missing or damaged signs and markers will be replaced prior to the winter maintenance season.
- Confirm the winter patroller schedule and assignments.
- Ensure all operators are given sufficient time to familiarize themselves with any new equipment, material application rates, material application equipment and any route changes.
- Arrange for the delivery of winter maintenance materials and fill storage facilities if not already completed at the end of the previous season.
- Assign staff to monitor and record weather forecasts as per the requirements of the MMS.
- Have the town's winter operations equipment ready to respond to a winter event.
- Have sufficient staff available to operate winter operations equipment if conditions warrant a winter event response.
- If weather monitoring indicates that there is a substantial probability of snow accumulation on roadways, ice formation on roadways or icy roadways, a patrol of representative highways will be undertaken at intervals deemed necessary by the supervisor, to check for such conditions.

3.3.4 At the Start of the Winter Maintenance Season

The Supervisor of Roads and Drainage Services will:

- Have the full complement of winter operations equipment ready to respond to a winter event.
- Ensure that weather monitoring, patrolling and the response to winter events are completed as per this winter operations plan.

- Have staff available to operate the required complement of winter operations equipment if winter conditions warrant a winter event response.

3.4 Level of Service

The Town of Fort Erie provides a level of Service in response to a winter event that meets the requirements of Ontario Regulation 239/02 Minimum Maintenance Standards for Municipal Roads as amended from time to time. By-law 40-04 was adopted by Council confirming the Minimum Maintenance Standards as the level of service for the Town.

Class 6 roadways, alleyways and parking lots are not subject to provincial minimum maintenance standards for winter operations. The Town sets the standard for maintenance at these locations.

Table 2 – Level of Service Summary

Road Class / Facility Type	Snow Accumulation		Ice Prevention	Ice Treatment
	Depth (cm)	Time (hours)	Time (hours)	Time (hours)
Class 3 Roads	8	12	16	8
Class 4 Roads	8	16	24	12
Class 5 Roads	10	24	24	16
Class 6 Roads	10	24	24	24
Bicycle Lanes Class 3	8	24	16	8
Bicycle Lanes Class 4	8	24	24	12
Bicycle Lanes Class 5	10	24	24	16
Parking Lots – Primary	2.5	*	*	*
Parking Lots – Secondary	2.5	24	24	24
Alleyways	10	24	24	24
Sidewalks	8	48	48	48

* Contractor to provide a high level of service at these locations due to the nature of the business conducted at these locations.

3.4.1 Winter Patrol

Upon the forecast of an approaching winter event and at the discretion of the supervisor or designate, a patrol of the route of representative roads and sidewalks will be conducted to monitor and record observed weather and road conditions. The route of representative roads and sidewalks will be the priority for the patroller. The condition of alleyways and school crossings will be inspected, and a winter event response initiated, if required, as soon as practicable during the winter event.

At the discretion of the supervisor and/or patroller, the direction in which the route of representative roads and sidewalks is patrolled will be, based on the direction from which

the forecast winter event is coming. Sidewalks on the route of representative roads that are monolithic with the curb will be observed from the patrol truck. Sidewalks that are in the boulevard will be physically inspected by walking upon the sidewalk to observe conditions at intervals of at least once per sidewalk section. The route of representative roads and sidewalks may be modified depending on the type and severity of winter event or the direction from which the winter event approaches. The patroller will request permission from the supervisor or designate to modify the patrol. A copy of the Town of Fort Erie Winter Road and Sidewalk Patrol sheet is attached as Appendix 1.

Prior to the winter event the patroller will:

- Patrol the route of representative roads and sidewalks.
- Record on the Winter Patrol Record all weather, road and sidewalk condition observations as well as any actions taken.
- If the patroller identifies that a response to a winter event is required, the patroller will initiate a callout.
- Notify the supervisor or designate that winter operations have started.

During the winter event the patroller will:

- Verify that operations are proceeding as planned.
- Notify the supervisor or designate of the status of operations.
- Note if alternative strategies may be required due to a change in the type of event, severity of event or change in wind direction or intensity.
- Monitor parking lots, alleyways and school crossings to determine if a winter event response is required.

At the end of the winter event the patroller will:

- Confirm that the level of service has been achieved.

During the winter maintenance season winter patrols are completed a minimum of once per day.

3.4.2 Operations

The major activities related to winter maintenance operations are:

- Placing and removing snow fence
- Snow-plowing roads, sidewalks, bike lanes, parking lots, alleyways and school crossings.
- De-icing roads, sidewalks, bike lanes, parking lots, alleyways and school crossings.
- Salt and sand storage.
- Snow removal.

Service Area	Service Description
Roads	De-icing
	Plowing
	Snow Removal
Integral Bike Lanes	De-icing
	Plowing
Sidewalks	De-icing
	Plowing
Parking Lots	De-icing
	Plowing
School Crossings	De-icing
	Plowing

3.4.3 Staffing and Hours of Work

Roads staff work a scheduled 0700 to 1700 shift Monday to Friday. Winter patrollers work a schedule of 2100 to 0700 Monday to Thursday and 1800 to 0600 Friday to Sunday, from December 1st to March 30th each year. For winter events that begin during a normal shift, staff will remain on duty until the lesser of reaching the level of service or their hours of service as per Ontario Regulation 55/06 has been reached. Winter events that are forecast to begin overnight prior to the next scheduled shift or on weekends, the patroller will call staff out as needed or work with the supervisor to arrange for staff to start their shift early.

Staffing for Winter Maintenance			
Job Title	Hours	Contact Information	Unit / Truck Assigned
Supervisor	M-F 0700-1700	906-871-1600 or Supervisor's Cell	R133
Winter Patroller	M-Th 2100-0700 F-Su 1800-0630	Roads Midnight Cell	R130
On-Call Supervisor	M-Th 1700-2100 F 1700-1800 S-Su 0630-1800	Roads On-Call Cell	R130

3.4.4 Application Rates

Application Rates kg/2 lane km		
Condition	Salt	Sand
Frost	100	200
Light Snow	130	300
Heavy Snow	150	400
Freezing Rain	195	570

3.4.5 Equipment – Winter Maintenance Operations Fleet

2024-2028 Winter Operations Equipment List		
Unit #	Description	Owner
R423	International Tandem Axle Plow with Sander	Town
R430	International Tandem Axle Plow with Sander	Town
R431	Freightliner Single Axle Plow with Sander	Town
R432	International Single Axle Plow with Sander	Town
R433	International Single Axle Plow with Sander	Town
R434	International Tandem Axle Plow with Sander	Town
R435	International Tandem Axle Plow with Sander	Town
R436	Freightliner Tandem Axle Plow with Sander	Town
R509	Case Loader with Reversible Plow	Town
R510	Volvo Grader	Town
R520	Case Backhoe Loader	Town
Beam Loader 1	Loader Plow	Contractor
Beam Loader 2	Loader Plow	Contractor
Anthony's Loader 1	Loader Plow	Contractor
Anthony's Loader 2	Loader Plow	Contractor
Anthony's Loader 3	Loader Plow	Contractor
Anthony's Loader 4	Loader Plow	Contractor

Anthony's Sidewalk 1	Sidewalk Plow / Spreader	Contractor
Anthony's Sidewalk 2	Sidewalk Plow / Spreader	Contractor
Anthony's Sidewalk 3	Sidewalk Plow / Spreader	Contractor
Anthony's Sidewalk 4	Sidewalk Plow / Spreader	Contractor
Anthony's Sidewalk 5	Sidewalk Plow / Spreader	Contractor

3.4.6 Snow Removal and Storage

Snow removal is completed when the accumulation of snow impedes traffic on the road and/or sight lines at intersections. Following each winter event, the supervisor or designate will review each area identified in the snow removal location list to determine if snow removal is required.

Snow removal will commence once the accumulation of snow exceeds one (1) metre in height, and the accumulation presents a drainage or sight line problem.

Snow removal will be being only after all other winter maintenance activities have been completed following a winter event. Under normal circumstances, snow removal will be completed during the overnight hours to limit the impact on vehicle and pedestrian traffic. Every effort will be made to notify the affected property owners in the snow removal areas of the plan to complete snow removal. Roads will also engage the assistance of Bylaw to remove any illegally parked vehicles that will prevent snow removal operations.

Snow Removal Locations			
Street Name	From	To	Side(s)
Jarvis Street	Mack Street	Niagara River Parkway	Both
Niagara Boulevard	Bertie Street	Queen Street	Both
Central Avenue Sidewalks	Wintemute Street	Courtwright Street	Both
Central Avenue Sidewalks	Garrison Road	Queen Street	Both
Ridge Road	Dominion Road	Farr Avenue	Both
Ridgeway Road	Graebar Avenue	Erie Road	West
Erie Road	Ridgeway Road	Ashwood Avenue	Both
West Main Street	May Avenue	Stevensville Road	Both
East Main Street	30m East of Stevensville Road	Stevensville Road	Both

Snow Storage Locations								
Location	Surface		Drainage		Surrounding Land Use			
	Paved	Unpaved	Controlled	Uncontrolled	West	East	North	South
Gibson Centre 1818 Pettit Road	X	X	X		C/I	C/I	C/I	C/I
Oaks Park 373 Central Avenue		X		X	R	C/I	C/I	R
Crystal Ridge Community Centre 109 Ridge Road South	X		X		R	R	R	R
Bay Beach Parking Lot 4168 Erie Road	X		X		R	R	R	P

3.4.7 Vulnerable Areas

The town does not currently have any identified salt vulnerable areas. Salt use throughout the town is limited to those routes and weather conditions as identified in this operations plan.

3.4.8 Weather Monitoring

To prepare for an effective response to winter events and allocate the appropriate resources, the manager, supervisor and patrollers receive forecasts from a Value-Added Meteorological Service, through the Region of Niagara’s agreement with WSP Meteorological Services. Observations and forecasts are provided four (4) times per day (0300, 0900, 1500 and 2100hrs) during the winter maintenance season and once per day for the remainder of the year. The forecast received is reviewed and saved by roads staff. The patrollers log of observed weather conditions acquired during a patrol supplements the weather forecasts.

3.4.9 Significant Weather Events

A significant weather event will be declared when a winter event is either forecast or occurring and meets the threshold(s) stated in the town’s Significant Weather Event Operating Procedure. The Town’s Significant Weather Event Operating Procedure is attached as Appendix 6 to this plan.

3.4.10 Communications

All winter operations equipment is equipped with two-way radio communications. All operators are responsible for providing periodic updates on the road and weather conditions and the status of the assigned work.

The Gibson Operations Centre is staffed all years round, except for holidays, from 0730 to 1630 Monday to Friday and is the primary contact location for incoming and outgoing calls from staff, emergency services and the public. Outside of regular business hours, a call service receives and distributes calls made to the standard town contact number (905-871-1600). The call service contacts the patroller as detailed in the schedule provided.

All communications received will be logged as service requests in the Citywide system and any emergency or urgent requests will be passed to the supervisor or patroller.

Periodic updates are provided to senior staff and Communications by the supervisor during winter events using the Winter Operations Report (Appendix 8) via email. Large winter event responses will be advertised to the public on the Town's social media channels.

3.4.11 Call Out Procedures

When it is determined that a response to a winter event is required, the patroller will contact town staff and contractors as necessary to respond with the equipment that they determine is sufficient to deal with the winter event.

3.4.12 Road Closure Procedures

Upon receiving a request from the Niagara Regional Police to close a road to traffic, the supervisor or designate will organize labour and equipment to place signs and barricades as soon as practicable. The supervisor or designate will provide an update per 3.4.10 advising of the road closure. Roads will be deemed to be closed to traffic once the signs and barricades are placed.

When a winter event affects all roads and it is physically impossible to place signs and barricades to close all roads, the manager will consult with the director to make a decision on restricting traffic on town roads.

3.5 Yard Facilities

Winter operations are conducted from a single location, the Gibson Operations Centre located at 1818 Pettit Road.

Location	Equipment Storage			Material Storage		
	Description	Equipment Washing	Site Drainage	Sand	Salt	Liquids
Gibson Operations Centre 1818 Pettit Road	Combined department operations centre with covered sand and salt storage	Indoor Wash Bay	Treated	3,000mt	1,600mt	N/A

3.6 Decommissioning Winter Operations

When the winter season identified in 3.2 expires Public Works will undertake the following tasks to decommission winter operations.

- The regular winter shift schedule will cease.
- Staff will continue to monitor and record weather forecasts once every shift or 3 times per day, whichever is more frequent until April 30th.
- If the weather forecast identifies an approaching winter event, the supervisor or designate will schedule a patrol of the route of representative roads.
- The fleet of town equipment will remain ready to respond to a winter event.
- Contractor equipment will be released.
- Staff will be available on call after normal work hours if conditions warrant a winter event response.

3.6.1 One Month After the Winter Season Ends

One month after the winter season ends cease all winter maintenance operations and decommission the remainder of the equipment providing weather forecasts warrant the decommissioning.

3.7 Training

The Town of Fort Erie provides winter operations training for all Town staff involved in the delivery of winter operations. The content of the training delivered to town staff is shared with the contractors who are in turn responsible for providing the training and information to staff assigned to the winter operations contract(s).

3.8 Record Keeping

Full and accurate completion of the documents listed below and included in Appendix 4 ensures that the municipality is protected from liability by providing solid documentation that procedures have been followed.

Staff are responsible for keeping the following records:

Equipment Operators:

- Operators Log – Appendix 9

Patrolperson

- Patrol Record – for routine patrols
- Winter Patrol Record

Supervisor

- Personal Diary
- Service Requests
- Work Orders
- Sand and Salt Tracking Sheet

Administration Staff

- Service Requests

The Town continues to transition to a fully digital documentation environment using PSD citywide. Some logs and reports will still be completed manually with the goal of transitioning to a completely digital format in the 4-year span of this plan.

On all logs, the date will be recorded as Day/Month/Year written in a numerical format (27/01/23). The time shall be documented using the 24-hour clock format.

The original copy of documents will always be retained regardless of their appearance. Writing must be legible and written in ink. Stains or dirt on the documents are not an issue.

If a document requires correction, line out the incorrect information with a single line leaving the incorrect information legible and continue writing on the original document. Initial all corrections.

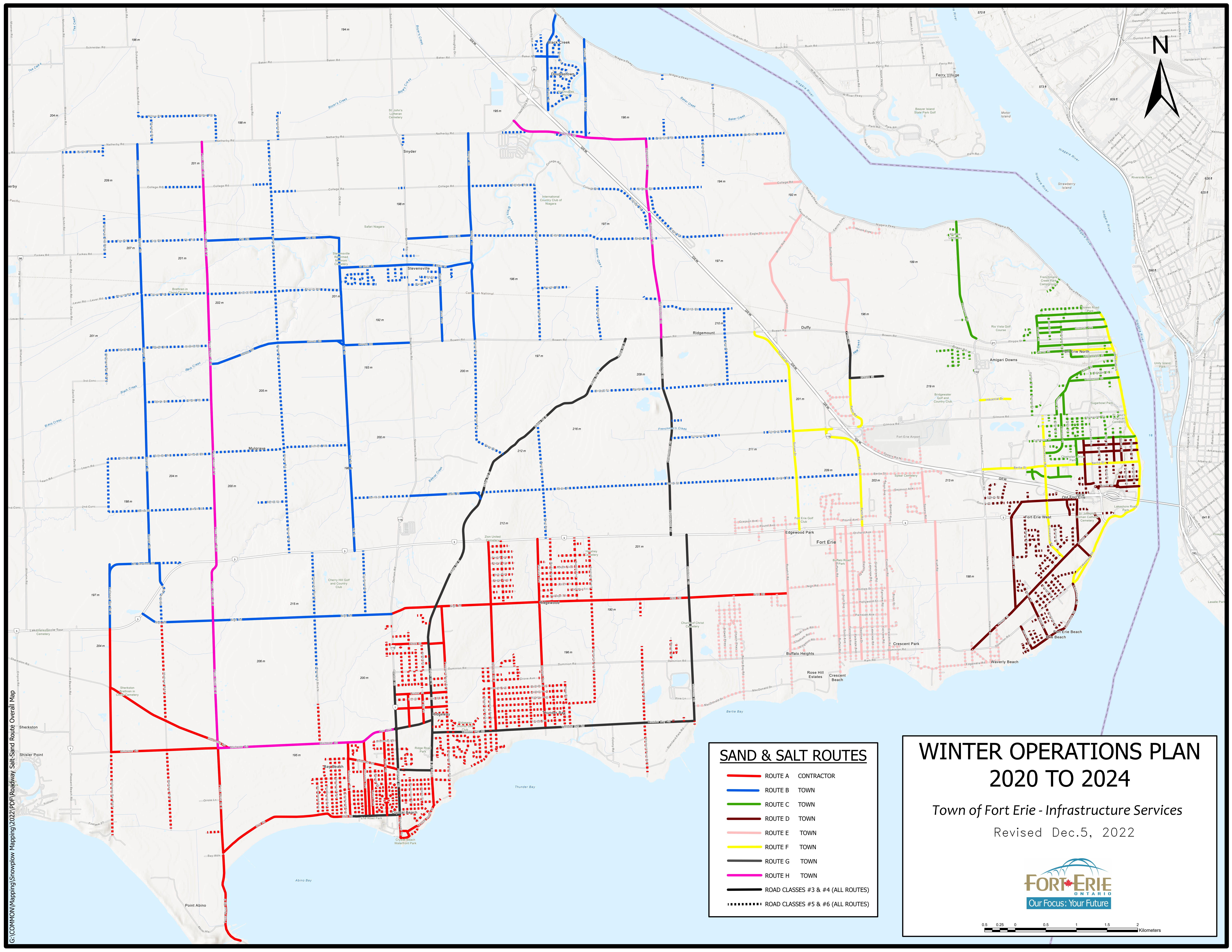
Records will be completed daily and forwarded to the Supervisor weekly for retention.

4.0 Monitoring and Updating

The purpose of monitoring and updating winter operations is to provide a basis for continuously improving winter maintenance policies, practices, and procedures. To ensure consistent monitoring of operations, a series of performance measures, as shown in the table below, will be used to determine whether the objectives of the Winter Operations Plan and/or winter maintenance policies, practices, and procedures have been met. The performance measures will be used to demonstrate year over year changes in policies, practices, and procedures have improved operations.

At the end of the winter season, as identified in 3.2, a meeting to review winter operations will be held each year with all winter operations staff. The purpose of this meeting is to itemize all issues that arose during the winter season and discuss how these issues may be resolved. Prior to the start of the next winter season and with sufficient lead time to implement any changes, the Manager or Roads and Fleet will:

- Revise policies, practices, and procedures in accordance with changing legislation and input received from staff.
- Revise this plan to reflect the changes to policies, practices, and procedures.
- Have changes to policies, practices, procedures, and plan circulated for information.
- Train staff on changes to policies, practices, procedures, and plan.



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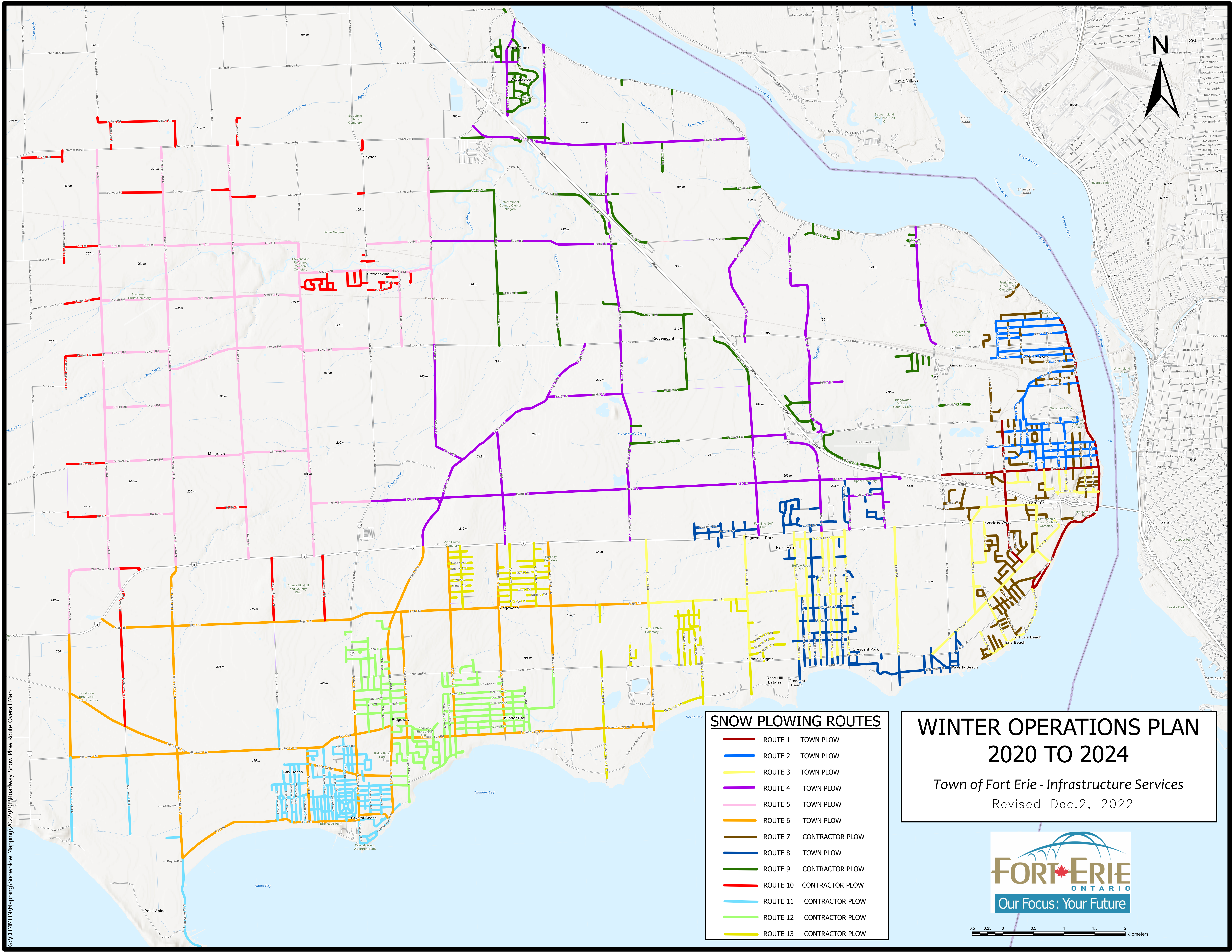
SAND & SALT ROUTES

- ROUTE A CONTRACTOR
- ROUTE B TOWN
- ROUTE C TOWN
- ROUTE D TOWN
- ROUTE E TOWN
- ROUTE F TOWN
- ROUTE G TOWN
- ROUTE H TOWN
- ROAD CLASSES #3 & #4 (ALL ROUTES)
- - - - - ROAD CLASSES #5 & #6 (ALL ROUTES)

**WINTER OPERATIONS PLAN
2020 TO 2024**

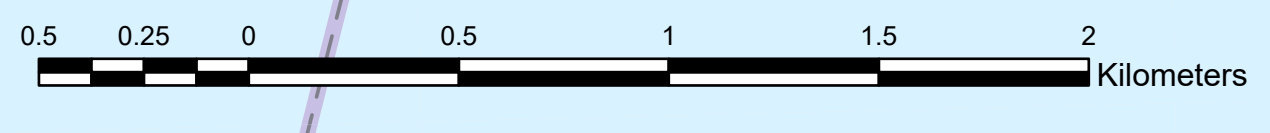
Town of Fort Erie - Infrastructure Services
Revised Dec.5, 2022

0.5 0.25 0 0.5 1 1.5 2
Kilometers



SNOW PLOWING ROUTES	
—	ROUTE 1 TOWN PLOW
—	ROUTE 2 TOWN PLOW
—	ROUTE 3 TOWN PLOW
—	ROUTE 4 TOWN PLOW
—	ROUTE 5 TOWN PLOW
—	ROUTE 6 TOWN PLOW
—	ROUTE 7 CONTRACTOR PLOW
—	ROUTE 8 TOWN PLOW
—	ROUTE 9 CONTRACTOR PLOW
—	ROUTE 10 CONTRACTOR PLOW
—	ROUTE 11 CONTRACTOR PLOW
—	ROUTE 12 CONTRACTOR PLOW
—	ROUTE 13 CONTRACTOR PLOW

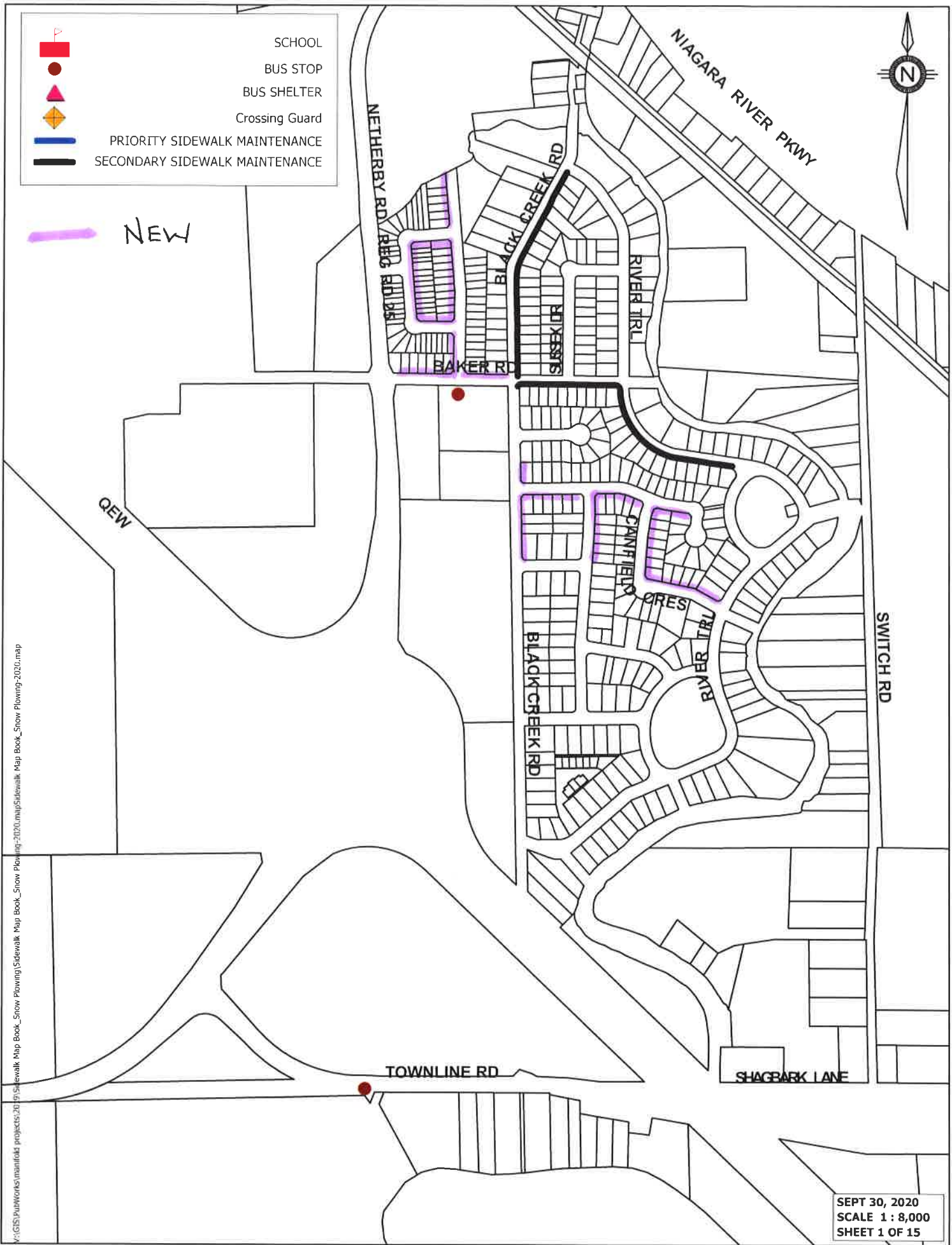
**WINTER OPERATIONS PLAN
2020 TO 2024**
Town of Fort Erie - Infrastructure Services
Revised Dec.2, 2022





	SCHOOL
	BUS STOP
	BUS SHELTER
	Crossing Guard
	PRIORITY SIDEWALK MAINTENANCE
	SECONDARY SIDEWALK MAINTENANCE

NEW

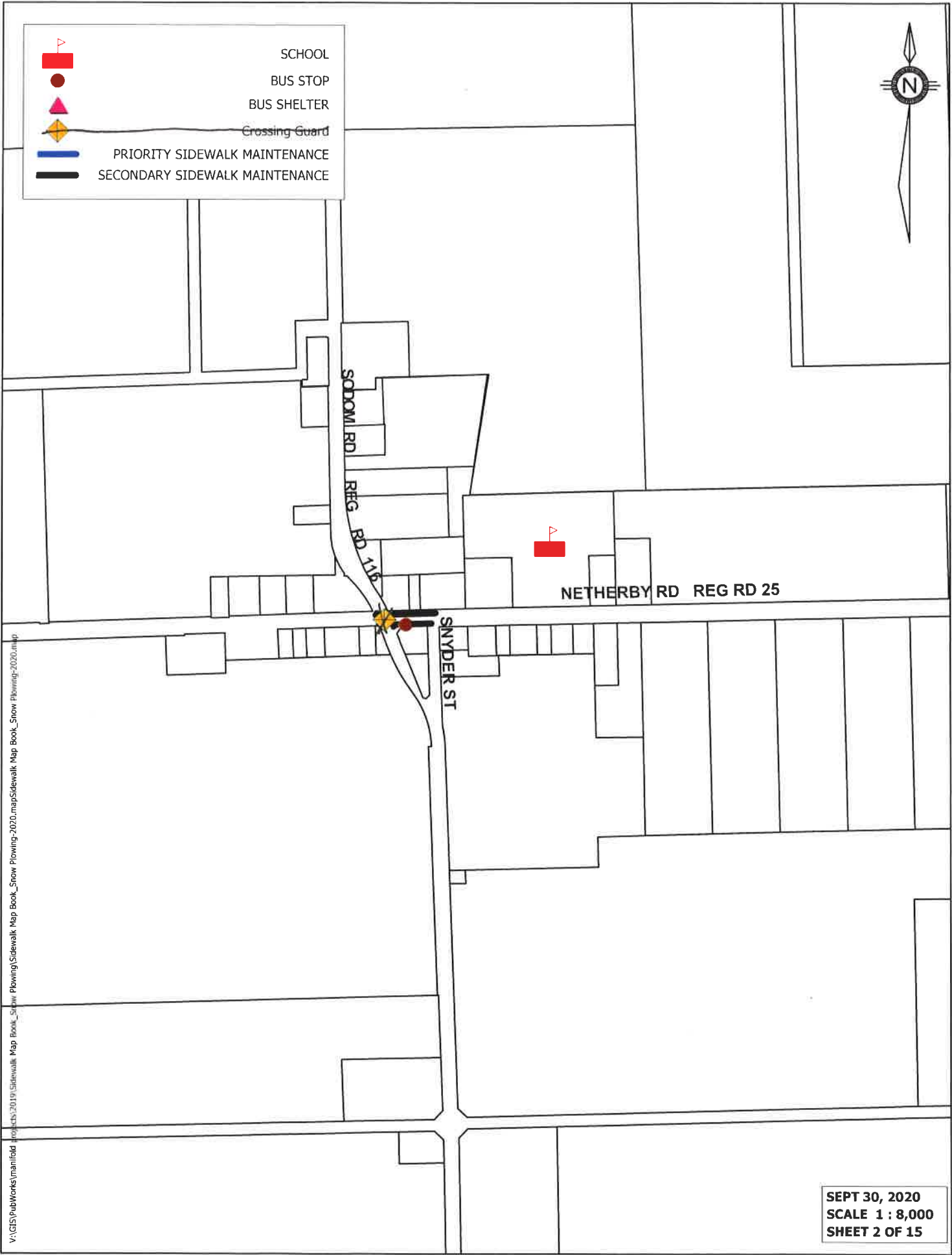


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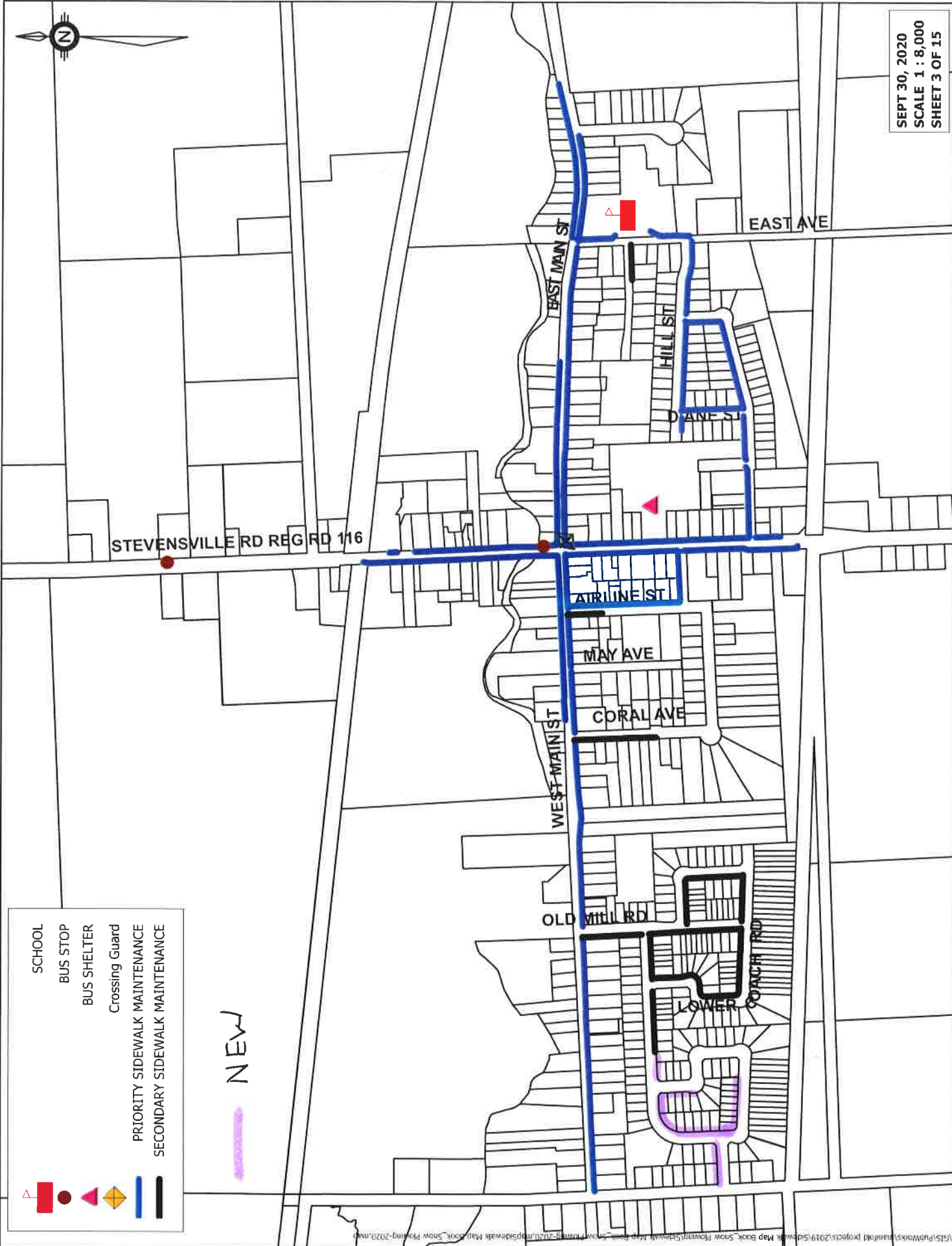


	SCHOOL
	BUS STOP
	BUS SHELTER
	Crossing Guard
	PRIORITY SIDEWALK MAINTENANCE
	SECONDARY SIDEWALK MAINTENANCE

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SEPT 30, 2020
SCALE 1 : 8,000
SHEET 2 OF 15



- SCHOOL
- BUS STOP
- BUS SHELTER
- Crossing Guard
- PRIORITY SIDEWALK MAINTENANCE
- SECONDARY SIDEWALK MAINTENANCE

NEW

projects\2019\Sidewalk Map Book_Snow Plowing\Sidewalk Map Book_Snow Plowing-2020\map\sidewalk Map Book_Snow Plowing-2020.map

	SCHOOL
	BUS STOP
	BUS SHELTER
	Crossing Guard
	PRIORITY SIDEWALK MAINTENANCE
	SECONDARY SIDEWALK MAINTENANCE



SEPT 30, 2020
SCALE 1 : 8,000
SHEET 4 OF 15

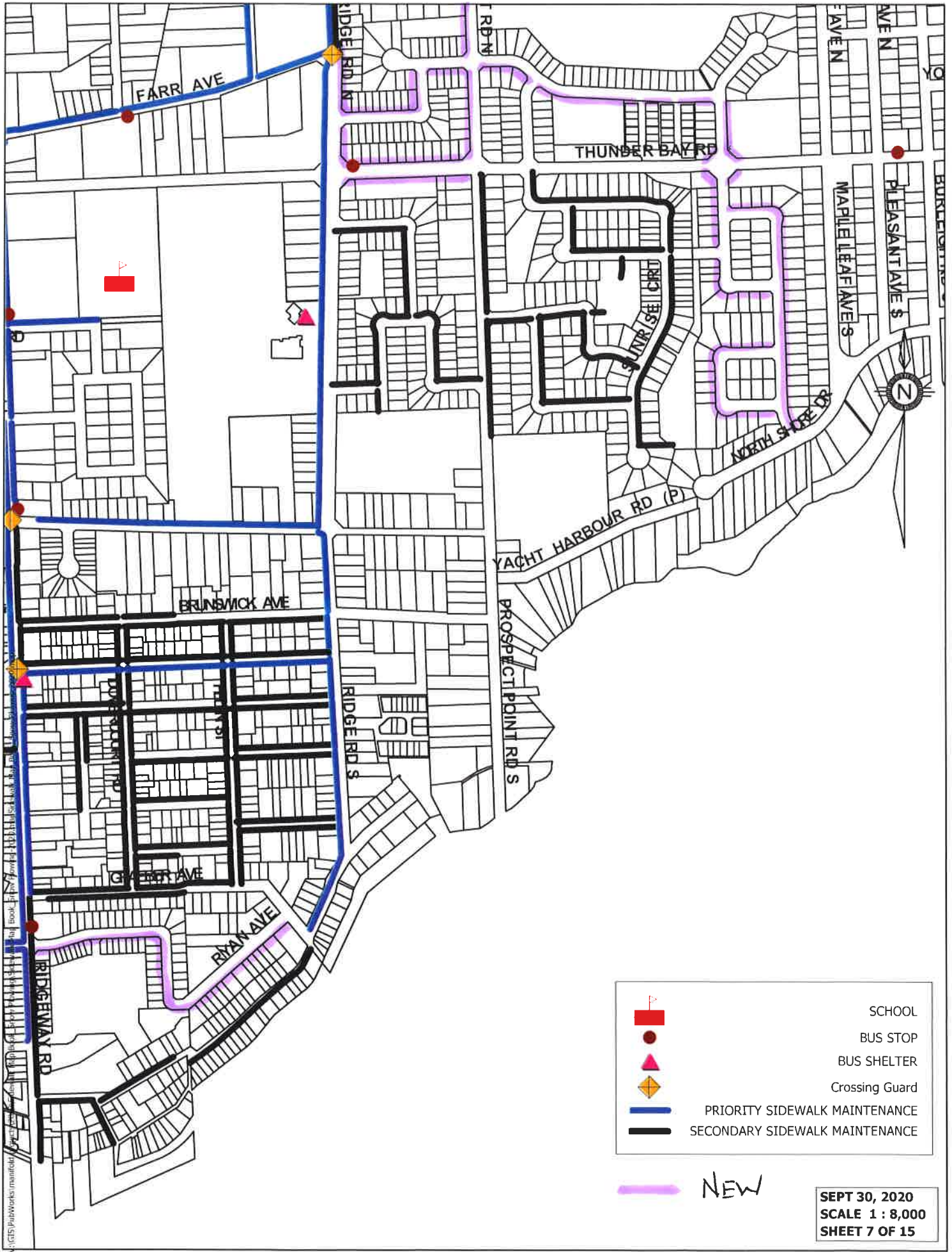
	SCHOOL
	BUS STOP
	BUS SHELTER
	Crossing Guard
	PRIORITY SIDEWALK MAINTENANCE
	SECONDARY SIDEWALK MAINTENANCE







NEW



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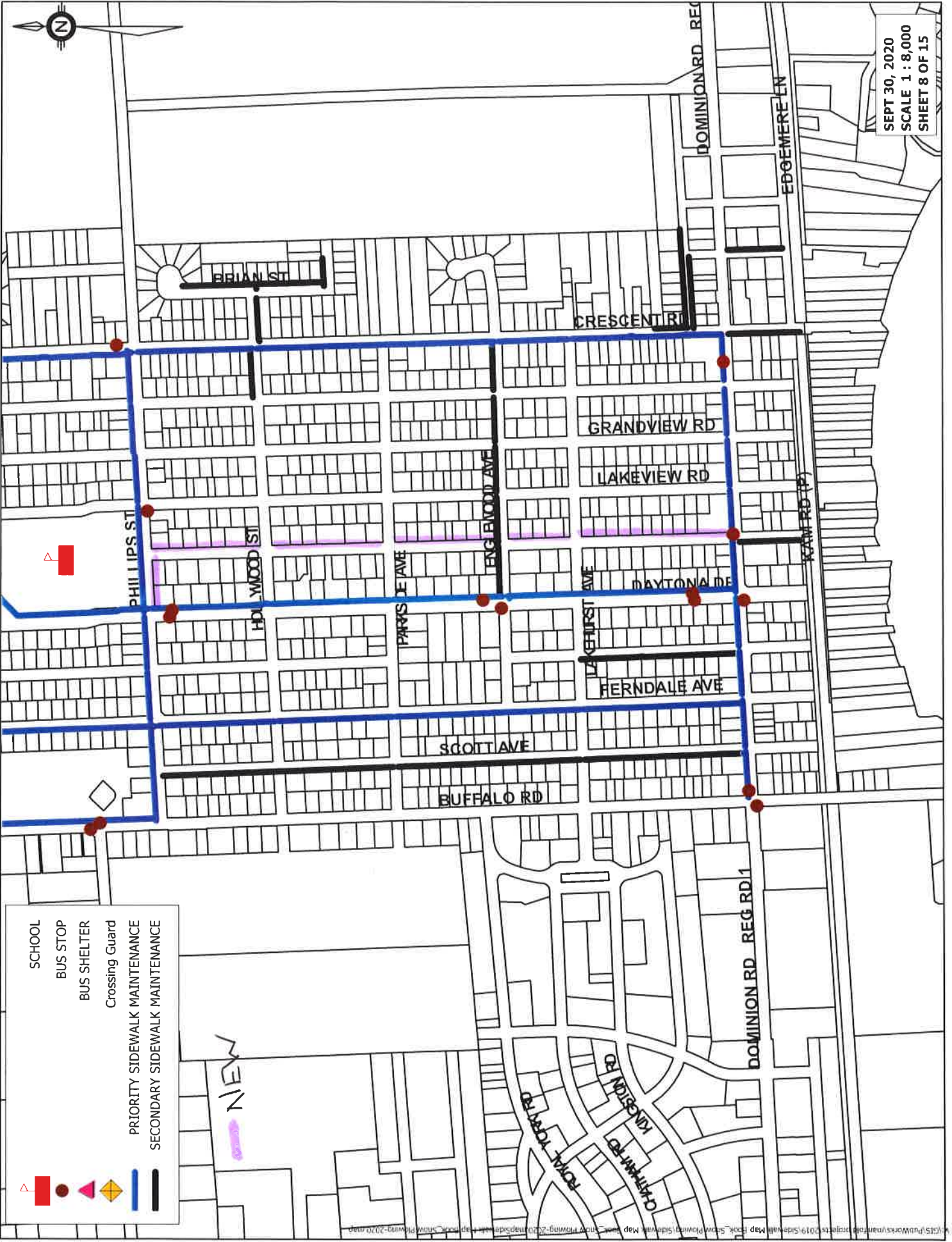
SEPT 30, 2020
SCALE 1 : 8,000
SHEET 6 OF 15

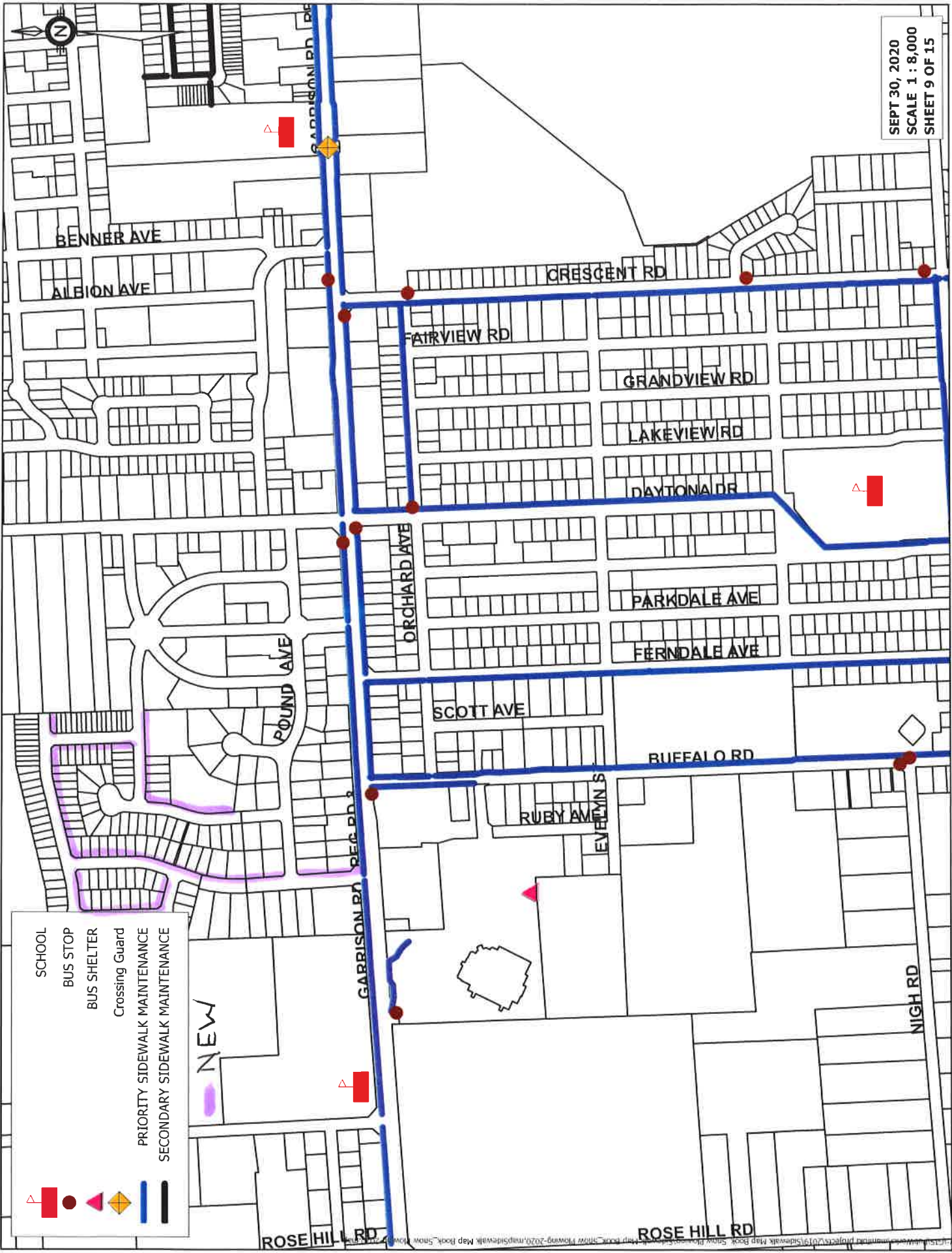


-  SCHOOL
-  BUS STOP
-  BUS SHELTER
-  Crossing Guard
-  PRIORITY SIDEWALK MAINTENANCE
-  SECONDARY SIDEWALK MAINTENANCE

 NEW

SEPT 30, 2020
 SCALE 1 : 8,000
 SHEET 7 OF 15





- SCHOOL
- BUS STOP
- BUS SHELTER
- Crossing Guard
- PRIORITY SIDEWALK MAINTENANCE
- SECONDARY SIDEWALK MAINTENANCE

NEW

ROSE HILL RD

ROSE HILL RD

GARRISON RD

BENNER AVE

ALBION AVE

CRESCENT RD

FAIRVIEW RD

GRANDVIEW RD

LAKEVIEW RD

DAYTONA DR

ORCHARD AVE

PARKDALE AVE

FERNDALE AVE

SCOTT AVE

BUFFALO RD

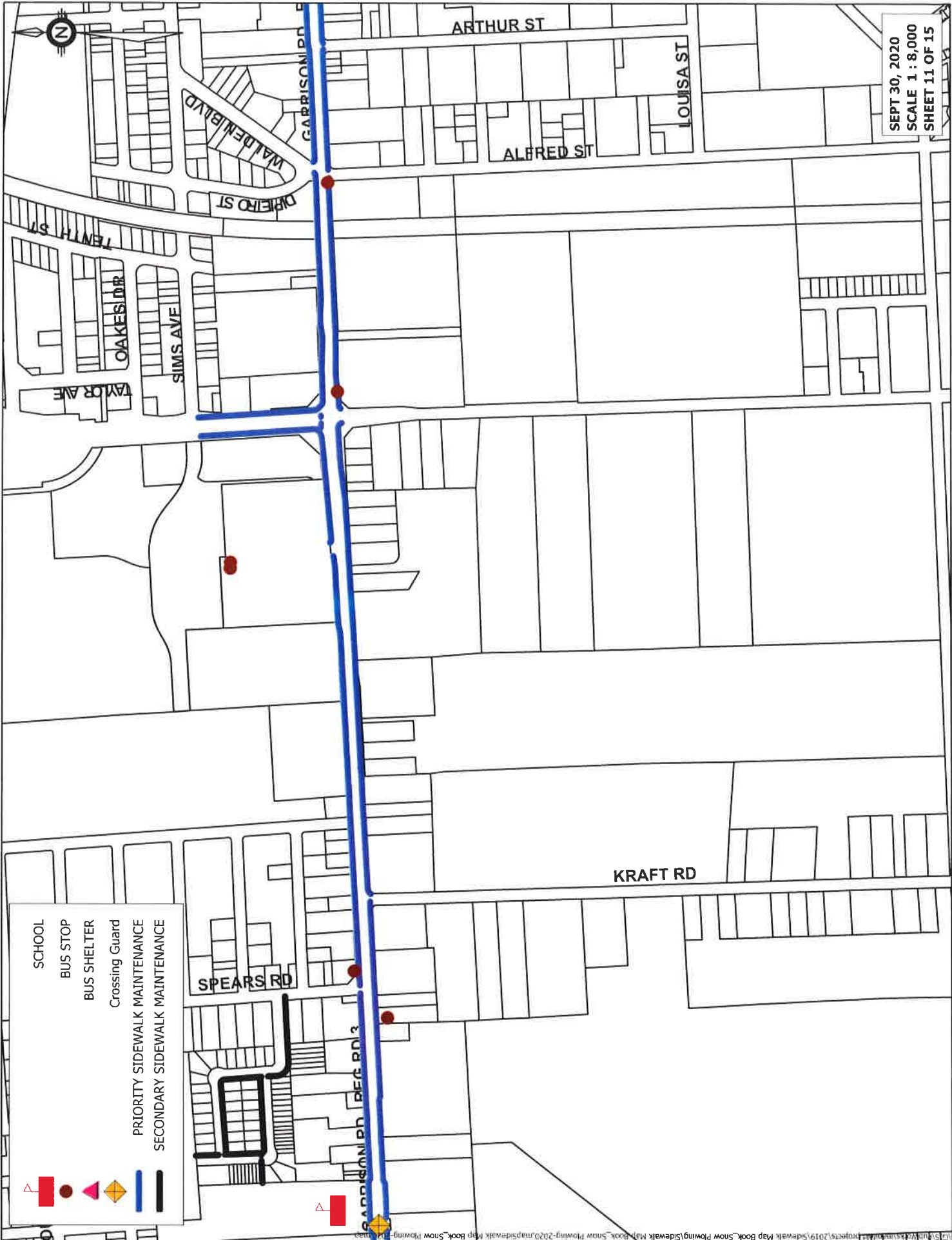
RUBY AVE

EVERMANS

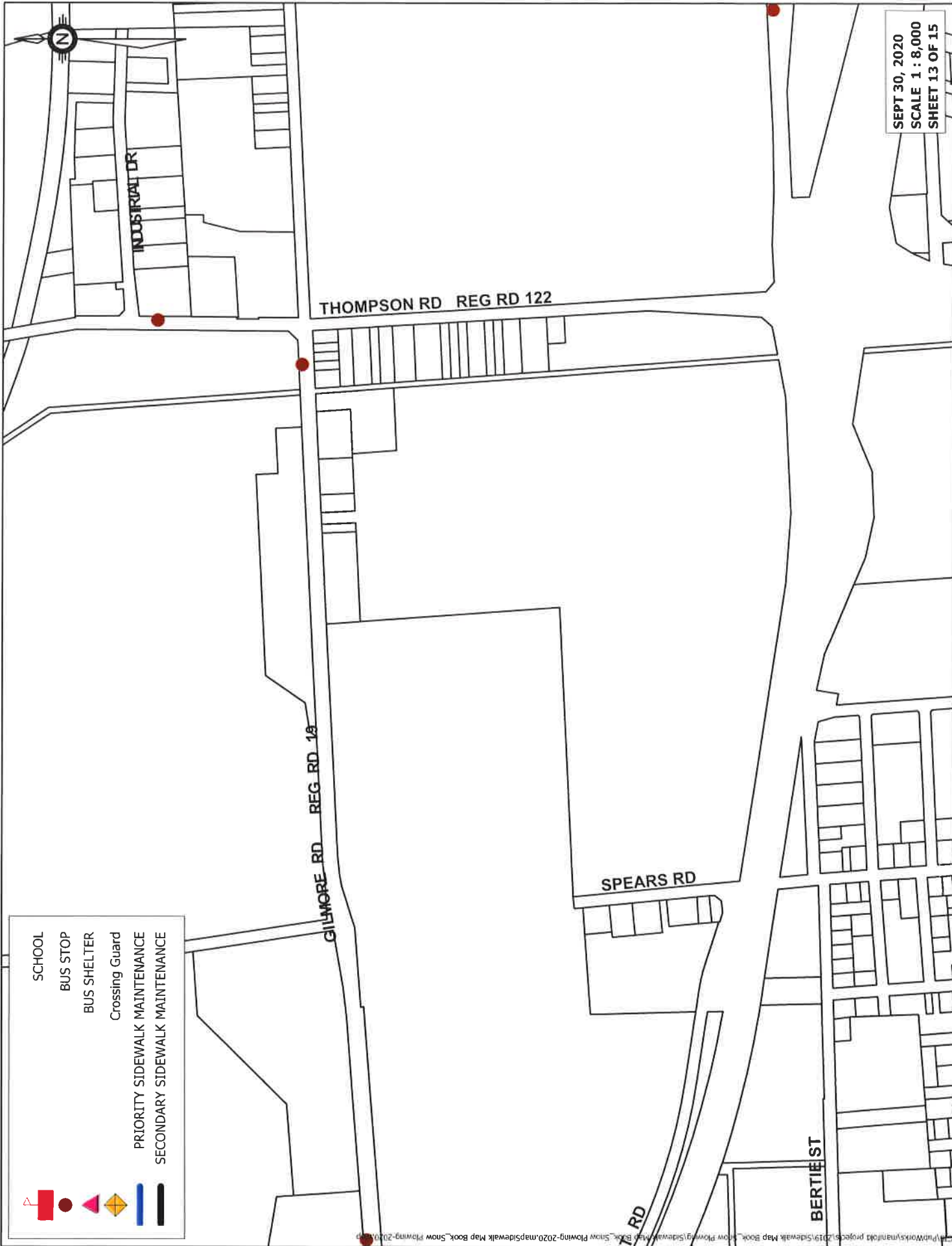
NIGH RD

ROSE HILL RD

ROSE HILL RD









	SCHOOL
	BUS STOP
	BUS SHELTER
	Crossing Guard
	PRIORITY SIDEWALK MAINTENANCE
	SECONDARY SIDEWALK MAINTENANCE



- SCHOOL
- BUS STOP
- BUS SHELTER
- Crossing Guard
- PRIORITY SIDEWALK MAINTENANCE
- SECONDARY SIDEWALK MAINTENANCE



-  SCHOOL
-  BUS STOP
-  BUS SHELTER
-  Crossing Guard
-  PRIORITY SIDEWALK MAINTENANCE
-  SECONDARY SIDEWALK MAINTENANCE



Contractor Maintained Locations	Address / Location Description	Priority	Work	Time To Complete Plowing / Accumulation
Central Fire Station	444 Central Avenue, Fort Erie	Primary	Plowing / Sanding / Salting	2.5cm
Fire Station #3	1015 Dominion Road, Fort Erie	Primary	Plowing / Sanding / Salting	2.5cm
Fire Station #4	148 Ridge Road South, Ridgeway	Primary	Plowing / Sanding / Salting	2.5cm
Fire Station #5	2654 Stevensville Road, Stevensville	Primary	Plowing / Sanding / Salting	2.5cm
Museum and Old Fire Station	402 and 398 Ridge Road North	Secondary	Plowing / Sanding / Salting	8:00am
Stevensville Hall & Library	2508 Stevensville Road, Stevensville	Secondary	Plowing / Sanding / Salting	9:00am
EJ Freeland Community Centre	1555 Garrison Road, Fort Erie	Secondary	Plowing / Sanding / Salting	6:00am
Mentholatum Building	20 Lewis Street Fort Erie	Secondary	Plowing / Sanding / Salting	8:00am
Courtwright Street Parking Lot	62 Courtwright Street, Fort Erie	Secondary	Plowing / Sanding / Salting	8:00am
Jarvis Street Parking Lot	97 Jarvis Street, Fort Erie	Secondary	Plowing / Sanding / Salting	8:00am
Erie Road Parking Lot	Between 3930 and 3916 Erie Road, Crystal Beach	Secondary	Plowing / Sanding / Salting	8:00am
Ridge Road Parking Lot	Between 282 and 266 Ridge Road North, Ridgeway	Secondary	Plowing / Sanding / Salting	8:00am
Courtwright / Jarvis Alleyway East	Central Avenue to Klauck Street	Secondary	Plowing / Sanding / Salting	8.0cm
Jarvis / Dufferin Alleyway East	Central Avenue to Klauck Street	Secondary	Plowing / Sanding / Salting	8.0cm
Dufferin / Phipps Alleyway East	Central Avenue to Klauck Street	Secondary	Plowing / Sanding / Salting	8.0cm
Dufferin / Phipps Alleyway West	Crooks Street to 50m East of Robinson Street	Secondary	Plowing / Sanding / Salting	8.0cm
Jarvis / Dufferin Alleyway West	Crooks Street to 25m East of Robinson Street	Secondary	Plowing / Sanding / Salting	8.0cm
Jarvis / Dufferin Alleyway West	Central Avenue to 115m West of Central Avenue	Secondary	Plowing / Sanding / Salting	8.0cm
Gibson Operations Center Staff Parking	1818 Pettit Road, Fort Erie	Secondary	Plowing / Sanding / Salting	6:00am
Fort Erie Leisureplex Parking Lots	3 Municipal Centre Drive, Fort Erie	Secondary	Sanding/Salting Only	6:00am
Fort Erie Town Hall	1 Municipal Centre Drive, Fort Erie	Secondary	Sanding/Salting Only	6:00am
Crystal Ridge Arena & Library	89 Ridge Road South, Ridgeway	Secondary	Sanding/Salting Only	9:00am



Town Maintained Locations	Address / Location Description	Work
Fort Erie Leisureplex Parking Lots	3 Municipal Centre Drive, Fort Erie	Plowing
Fort Erie Town Hall	1 Municipal Centre Drive, Fort Erie	Plowing
Crystal Ridge Arena & Library	89 Ridge Road South, Ridgeway	Plowing
Greenwood Cemetary	1900 Thompson Road, Fort Erie	Plowing
Ridgeway Memorial Cemetary	3900 Farr Avenue, Ridgeway	Plowing
Ridgeway Mausoleum	3320 Garrison Road, Ridgeway	Plowing
Battle of Ridgeway Park	3388 Garrison Road, Ridgeway	Plowing
United Empire Loyalist Park	2700 Ott Road, Stevensville	Plowing
Ferndale Park	865 Ferndale Avenue, Fort Erie	Plowing
Oakes Park	373 Central Avenue, Fort Erie	Plowing



School Name	Crossing Location	Morning	Afternoon
Our Lady of Victory Catholic Elementary School	Central Avenue @ School	By 8:00am Mon-Fri	By 3:00pm Mon-Fri
Peace Bridge Public School	Central Avenue @ Murray Street	By 8:00am Mon-Fri	By 3:00pm Mon-Fri
	Catherine Street @ Torrance Street	By 8:00am Mon-Fri	By 3:00pm Mon-Fri
Garrison Road Public School	Garrison Road School @ Traffic Signal	By 7:45am	By 2:45pm
		Mon-Fri	Mon-Fri
Stevensville Public School	Main Street @ Stevensville Road Traffic Signal	By 8:00am	By 3:00pm
		Mon-Fri	Mon-Fri
John Brant Public School	Dominion Road @ Ridge Road Traffic Signal	By 8:00am	By 3:00pm
		Mon-Fri	Mon-Fri
	Highland Avenue @ Ridge Road	By 8:00am	By 3:00pm
		Mon-Fri	Mon-Fri
Farr Avenue @ Ridge Road	By 8:00am	By 2:50pm	
	Mon-Fri	Mon-Fri	
St. George Catholic Elementary School	Ridgeway Road @ Roxborough Avenue	By 8:00am	By 3:00pm
		Mon-Fri	Mon-Fri
	Ridgeway Road @ Rebstock Road	By 8:00am	By 3:00pm
		Mon-Fri	Mon-Fri
	Ridgeway Road @ Wellington Road	By 8:00am	By 3:00pm
Mon-Fri		Mon-Fri	
Gorham Road/Ridgeway Road @ Farr Avenue Traffic Signal	By 8:00am Mon-Fri	By 3:00pm Mon-Fri	



Town of Fort Erie Winter Road and Sidewalk Patrol

Date ___ / ___ / ___ Start Time _____ AM or PM
 yy / mm / dd Finish Time _____ AM or PM

WEATHER		TEMPERATURE (°C)		ROAD CONDITIONS	
Partly Cloudy				Dry	
Overcast				Wet	
Rain		-20 to -10		Loose snow: 0-5 cm	
Snow		-10 to 0		Loose snow: 5-10 cm	
Freezing rain		0 to +10		Loose snow: 10 cm +	
High winds		+10 to +20		Slush	
Clear		+20 to +30		Snow packed	
Visibility - good		Falling		Ice	
- poor		Rising		Centre bare	
Distance				Ice Patches	
				Road Surface Temperature	

ROAD/STREET	CC	NOTE#	SIDEWALK	CC	NOTE#	CC - CONDITION CODE
JARVIS ST.			JARVIS ST.			A- requiring a response To meet MMS
CONCESSION RD.			CONCESSION RD.			
DAYTONA DR.			DAYTONA DR.			
NIGH RD.						X- No response required No action required
RIDGE RD.			RIDGE RD.			
ERIE RD.			ERIE RD.			
POINT ABINO RD.						N/A –Not applicable No action required
WEST MAIN ST.			WEST MAIN ST.			
TOWNLINE RD.						
RIDGEMOUNT RD.						

#	NOTES	TIME
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

NOTE: THIS REPRESENTS A SUMMARY OF CONDITIONS FOUND AND ACTIONS TAKEN BY UNDERSIGNED:

PRINT _____ SIGN _____



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Revision No.: 001	Revision Date: 28 Oct 2024	Original Authorized By: Kelly Walsh

Operating Procedure – Significant Weather Event

1.0 PURPOSE:

- 1.1 This procedure provides direction to all employees within the Town of Fort Erie whose responsibilities include identifying, determining, and addressing significant weather events.

2.0 BACKGROUND:

- 2.1 Ontario Regulation 366/18 (Municipal Act) which amended Regulation 239/02 - Minimum Maintenance Standards for Municipal Highways now includes the opportunity for a municipality to declare a Significant Weather Event and as a result deem all Town roads to be in a state of repair until the Significant Weather Event has ended.

2.1.1 “A Significant Weather Event” means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways within a municipality.

2.1.2 A weather hazard means the weather hazards determined by Environment Canada as meeting the criteria for the issuance of an alert under its Public Weather Alerting Program.

- 2.2 Environment Canada has criteria listed for public alerts.

2.2.1 A Municipality declaring the beginning of a significant weather event or declaring the end of a significant weather event under this regulation shall do so in one or more of the following ways:

1. By posting a notice on the Municipality’s website.
2. By making an announcement on a social media platform, such as Facebook or Twitter.
3. By sending a press release or similar communication to internet, newspaper, radio, or television media.
4. By notification through the Municipality’s Police Service.
5. By any other notification method required in a by-law of the Municipality.

- 2.3 If a Municipality declares a significant weather event relating to one of the events listed below, the standard for addressing that event is :

1. To monitor the weather.
2. If deemed practicable by the municipality to address the event starting from the time that the Municipality deems appropriate to do so.
3. If the Municipality complies with these, the roads within the Municipality are deemed to be in a state of repair until the applicable time in the corresponding table expires following the declaration of the end of the significant weather event by the Municipality.



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Operating Procedure – Significant Weather Event

2.4 Significant Weather Events Include:

- Blizzard
- Blowing Snow
- Extreme Cold
- Flash Freeze
- Freezing Drizzle
- Freezing Rain
- Snow Fall
- Snow Squall
- Winter Storm

The list above is based on the Government of Canada's defined types of weather events.

3.0 PROCEDURE:

3.1 Criteria for Significant Weather Event

- 3.1.1 **Blizzard:** When winds of 40 km/hr or greater are expected to cause widespread reductions in visibility to 400 metres or less, due to blowing snow, or blowing snow in combination with falling snow, for at least 4 hours.
- 3.1.2 **Blowing Snow:** When blowing snow, caused by winds of at least 30 km/hr, is expected to reduce visibility to 800 metres or less for at least 3 hours.
- 3.1.3 **Extreme Cold:** Issued when the temperature or wind chill is expected to reach minus 30 C (degrees Celsius) for at least two hours.
- 3.1.4 **Flash Freeze:** When significant ice is expected to form on roads, sidewalks, or other surfaces over much of a region because of the freezing of residual water from either melted snow, or falling/fallen rain due to a rapid drop in temperature.
- 3.1.5 **Freezing drizzle:** When a period of freezing drizzle is expected for at least 8 hours.
- 3.1.6 **Freezing rain:** When freezing rain is expected to pose a hazard to transportation or property or when freezing rain is expected for at least 2 hours.
- 3.1.7 **Snow fall:** When 15 cm or more of snow falls within 12 hours or less.



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Operating Procedure – Significant Weather Event

- 3.1.8 Snow squall: When, downwind of large bodies of water, like the Great Lakes, snow squalls are imminent or occurring with one or more of the following conditions being produced:
- Localized, intense snowfall producing snowfall amounts of 15 cm or more in 12 hours or less.
 - Reduced visibility (less than 400 metres) caused by heavy snow with or without blowing snow for 3 hours or more. Note that local snow accumulations may be significant. When there is a brief period (less than 1 hour) of very poor visibility (400 m or less), caused by heavy snow and blowing snow, and accompanied by strong, gusty winds or 45 km/hr or greater, is expected to occur with the passage of a cold front.
- 3.1.9 Winter storm: When severe and potentially dangerous winter weather conditions are expected, including: - A major snowfall (25 cm or more within a 24 hour period); and - A significant snowfall (snowfall warning criteria amounts) combined with other cold weather precipitation types such as: freezing rain, strong winds, blowing snow and/or extreme cold. Blizzard conditions may be part of an intense winter storm, in which case a blizzard warning is issued instead of a winter storm warning.

3.2 Declaration of Significant Weather Event Procedure

3.2.1 Supervisor or Patroller:

1. To monitor weather forecasts, current and future.
2. To monitor road and weather conditions throughout the event.
3. To notify Manager, Roads and Fleet Division / Supervisor, Roads & Stormwater Services by phone in real time as a Significant Weather Event starts.
4. To notify Manager, Roads and Fleet Division / Supervisor, Roads & Stormwater Services by phone as a Significant Weather Event ends.
5. To document information on Significant Weather Event Log:
 - a. Location
 - b. Event type
 - c. Start or end of event
 - d. Date, time of declaration
 - e. Signature



**INFRASTRUCTURE
SERVICES**

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Operating Procedure – Significant Weather Event

3.2.2 Manager, Roads and Fleet Division / Supervisor, Roads and Stormwater Services:

1. To convey information regarding start and end of Significant Weather Event to Director, Infrastructure Services.
2. To convey to Supervisor or Patroller of official declaration of start and end of Significant Weather Event and record such on the Significant Weather Event Log.
3. Initiate notification of Significant Weather Event start and end on Town website and social media.
4. Ensure Significant Weather Event is completed and signed.

3.2.3 Director, Infrastructure Services OR in absence Manager, Roads and Fleet Division:

1. Receive information regarding Significant Weather Event and authorize the official declaration of start and end of Significant Weather Event.

Winter Operations Report 2024/2025

Email Subject Line: *Winter Operations Report 000 - Date*

Date: *format to be DD Mmm YYYY (ie. 1 Jan 2022)*

Time: *format to be 0000 using 24 hour clock (ie. 1345)*

Report Number: *000 (consecutive numbering starting with 001)*

Current Weather: *Precipitation (None, Rain, Freezing Rain, Snow, Ice Pellets, Mixed Precipitation), Temperature, Wind Direction, Wind Speed, Visibility (Poor, Fair, Good), Sky Condition (Clear, Partly Cloudy, Overcast)*

Forecast Weather: *a quick synopsis of the forecasted weather for the next 12-24 hours (suggested to use National Weather Service – Buffalo at <https://www.weather.gov/buf/>)*

Road Conditions: *Use one or more of the following to describe current road conditions: Bare and Dry, Bare and Wet, Partly Snow Covered, Snow Covered, Snow Packed, Centre Bare, Slushy, Partly Ice Covered, Ice Covered, Blowing and Drifting.*

Operations: *Use one or more of the following to describe the current operations: Patrolling, Plowing, Sanding, Salting, Snow Removal*

Routes: Sand A-E, Salt F-H, Plow 1-13, Sidewalk (by neighbourhood)

Town Equipment: Yes or No and Number

Contractor Equipment: Yes or No and Number

Sidewalk Equipment: Yes or No and Number

Notes: *Add any additional, relevant notes*

Report Completed By: *Report filler's initials*

EXAMPLE

Winter Operations Report 055 – 35 Jan 2035 *(put in as subject line of email)*

Date: 35 Jan 2035

Time: 1345

Report Number: 055

Current Weather: Snow, -2 Celsius, Wind SW at 20km/h, Visibility Poor, Overcast

Forecast Weather: Snow will continue with 10-15cm of additional snow expected

Road Conditions: Centre Bare, Snow Covered, Snow Packed

Operations: Patrolling, Plowing, Salting

Routes: Routes F, G and H, Plowing All Routes, Sidewalk Plowing All Routes

Town Equipment: Yes 6 plows

Contractor Equipment: Yes 6 plows, 1 spreader

Sidewalk Equipment: Yes 5 plows

Notes: Operations have been on-going since 0600 on 34 Jan 2025

Report Completed By: ABC



Introduction

1.0 General Information

Name:	Town of Fort Erie
Address:	1 Municipal Centre Dr. Fort Erie Ontario L2A 2S6
Population:	32,901
Technical Contact:	Nicholas Chevalier, A.Sc.T., CRS Manager, Roads & Fleet Division
Telephone:	905 871 1600 ext 2463
E-Mail:	nchevalier@forterie.ca
Date Plan was prepared:	February 2005
Date of Full Implementation:	March 2005
Updated:	October 2024

1.1 Overview

The Town of Fort Erie maintains 438 centre line kilometers of road that provide a safe and efficient transportation network for the motoring public. The public relies on this transportation network for year-round access to work, leisure facilities, for the transportation of goods and services and for emergency and security services. Road system user safety is the most important priority within Winter Operations operations. The practices and strategies contained in the Salt Management Plan are developed with that in mind.

Winter conditions of snow and ice on the road system can have a dramatic impact on public safety, travel time and economic loss due to failure to achieve time frames for delivery of goods and services or getting to work.

1.2 Organization of Plan

The Salt Management Plan is intended to set the policy and procedural framework that ensures the Town of Fort Erie continues to improve the management of salt usage in its Winter Operations activities.

All modifications to the way Winter Operations activities are delivered to meet the goals of the salt management plan shall always place the emphasis on roadway safety and the mobility of the motoring public.

The Salt Management Plan will be a living document that allows the Town of Fort Erie's Operations Division - Road Section, to investigate and implement new approaches, best practices and technologies to be responsive to fiscal requirements and to ensure that roadway safety is not compromised.

1.3 Format of The Salt Management Plan

Part 2.0 Presents the Policy content, as endorsed by the Council of the Town of Fort Erie, and fulfills the obligations under Provincial and Federal Government legislation.

Parts 3.0 Presents the Winter Operations Standards that are relevant to salt management.

Part 4.0 Presents the summaries of the Operational Procedures and Strategies for snow and ice control as they relate to effective salt management. This section is broken into sub-sections that can be modified as new methodologies and procedures are introduced and refined.

Part 5.0 Is the Salt Management Plan Maintenance Component to be used to monitor and implement the plan, as well as to maintain and update the plan.

1.4 Responsibilities

Director of Infrastructure Services – has overall responsibility for the Town of Fort Erie's Salt Management Plan.

Manager, Roads and Fleet – is responsible for the development, maintenance and consistent implementation of the Salt Management Plan.

Supervisor, Roads and Stormwater Services / Supervisor, Fleet Services – responsible for the purchase, maintenance and calibration of Winter Operations equipment in compliance with the Salt Management Plan.

Manager, Parks and Facilities – is responsible for overseeing the maintenance and upgrading of operations facilities in compliance with the Salt Management Plan

Works Supervisor/Crew Leaders Infrastructure Services – are responsible to ensure that Winter Operations activities are carried out in accordance with the Salt Management Plan.

Winter Operations Personnel – shall carry out their Winter Operations duties in accordance with the Winter Operations Plan and the Salt Management Plan.

Policy Content

2.0 Salt Management Policy

The Corporation of the Town of Fort Erie will take the actions necessary to manage road salts in a manner that protects the environment without compromising the safety of the motoring public in winter conditions.

To accomplish these objectives the Corporation of the Town of Fort Erie will:

- Manage road salts in accordance with the Code of Practice for the Environmental Management of Road Salts.
- Advise and inform the motoring public and employees about our environmental practices relating to road salts.
- Adopt policies and standards to meet local requirements for safe winter driving.
- Conduct regular reviews of the Salt Management Plan to make improvements where possible and remain current with revised best practices, legislation and regulations.
- The Salt Management Plan will meet or comply with all applicable legislation.

2.1 Implementation Guidelines

The Salt Management Plan was developed with the following policies taken into consideration:

General:

- Code of Practice for the Environmental Management of Road Salts, Environment Canada (April 3, 2003)
- Salt Management Guide (TAC 1999) and Syntheses of Best Practices (TAC 2003)

On - roadway Use:

- The Town of Fort Erie will use defined levels of service by Road Classifications to promote safe and efficient salt use.
- The Town of Fort Erie will identify salt sensitive areas.
- The Town of Fort Erie will place salt on roads at rates that are applicable to best salt management practices.

Sand and Salt Storage:

- The Town of Fort Erie will review current storage and handling practices of sand/salt mixture and salt.
- The Town of Fort Erie will develop a guide for storage and handling of material.

Snow Removal and Storage:

- Snow storage sites will be reviewed for environmental impact including site drainage and maintenance.

Training:

- The Town of Fort Erie will implement annual and effective training to foster awareness by all Managers, Supervisors and Operators in administration and improving salt management practices.

Decision Making:

- The decision-making process for snow and ice control will focus on pavement temperatures and weather forecasts.
- The Town of Fort Erie will provide staff with the technology to improve its ability to monitor and interpret weather forecasts.

Record Keeping:

- Staff will improve the record keeping of salt use and salt related impacts.
- The Town of Fort Erie will track its salt management progress by using the performance measures outlined in Section 5 of this document and will report annually to Environment Canada.
- The policies and procedures as set out in the Corporation of the Town of Fort Erie Salt Management Plan apply to all municipal staff and contractors providing Winter Operations services to the Town of Fort Erie.

Winter Operations Standards

3.0 Introduction

The Major activities pertaining to Winter Operations are outlined in the Town of Fort Erie's Winter Operations Plan as follows:

- Snow Plowing
- Sanding
- Salting
- Sidewalk Plowing
- Snow Removal and Storage
- Sand/Salt and Salt Storage

3.1 Level of Service Policy

The Town of Fort Erie has classified all its roadways by using the criteria outlined in the *Minimum Maintenance Standards for Municipal Highways*, O.Reg. 239/02 based on posted speeds and traffic volumes.

The Town of Fort Erie’s road inventory is made up of class 3, 4,5 and 6 roads, with the majority being class 4 and 5. The Town of Fort Erie’s Winter Operations Plan is designed to meet O.Reg. 239/02 as amended.

3.2 Salt

Salt will generally be applied only to Class 3 roads. Operators have the flexibility to adjust the rate to meet specific conditions e.g. black ice, freezing rain.

3.3 Sand/Salt Mixture

The winter sand applied to roads to provide traction is to be mixed at the ratio of 10% salt by volume to prevent the sand from freezing. Natural or manufactured sand may be used depending upon supply.

3.4 Snow Removal and Storage

As a result of plowing operations, windrows accumulate on the sides of roadways. On most streets this is not a concern. However, in business districts and municipal parking lots, snow storage results in poor visibility, restricted access and loss of parking spaces. In such locations snow removal is provided as prescribed in the Winter Operations Plan.

3.5 Sidewalk Snow Clearing

The Town of Fort Erie provides for snow clearing from sidewalks and sanding of sidewalks in accordance with the provisions of the Winter Operations Plan.

Operational Practices and Strategies

4.0 Overview

This section of the plan deals with the practices and strategies related to the effective management of road salt in Winter Operations activities.

Headings	4.1 General Salt Use	4.2 Salt Storage	4.3 Snow Disposal
How Salt enters Environment	<i>Section 4.1.1</i> <ul style="list-style-type: none"> • Ground/surface water • Vehicle spray on vegetation 	<i>Section 4.2.1</i> <ul style="list-style-type: none"> • Location of Operations Yard • Storage of salt and sand/salt • Site drainage • Site Operations and Procedures 	<i>Section 4.3.1</i> <ul style="list-style-type: none"> • Snow dump locations • Snow storage • Site drainage • Site operations and maintenance



The Corporation of the Town of Fort Erie Salt Management Plan

Current practices	<p><i>Section 4.1.2</i></p> <ul style="list-style-type: none"> • Salt applied to Class 3 roads and select Class 4 roads • Sand/Salt 10% mix to Class 4, 5 and 6 roads • All spreaders are Electronic and calibrated annually • GPS tracking of all equipment • Staff trained annually in Winter Operations 	<p><i>Section 4.2.2</i></p> <ul style="list-style-type: none"> • All materials are stored in two (2) domes • Loading is outside • Equipment washing is outside • Drainage is overland with siltation control c/w storm water retention 	<p><i>Section 4.3.2</i></p> <ul style="list-style-type: none"> • Disposal on Municipal Right of Ways and Municipal property • Some runoff control • Minimal site operational guideline or procedures
Improvement Objectives Immediate Actions	<p><i>Section 4.1.3</i></p> <ul style="list-style-type: none"> • Level of Service review • Regular Calibration of equipment throughout winter • Review & monitor application rates • Record amounts and locations for reporting purposes 	<p><i>Section 4.2.3</i></p> <ul style="list-style-type: none"> • Improve housekeeping practices to prevent over - loading • Control run off from washing vehicles 	<p><i>Section 4.3.3</i></p> <ul style="list-style-type: none"> • Eliminate disposing of snow on private property • Acquire Municipal snow dump site and develop with controlled drainage
Short Term Actions	<ul style="list-style-type: none"> • Install infrared thermometers on all spreaders • Review future use of anti-icing technology • Continue Operator training 	<ul style="list-style-type: none"> • Investigate covered loading area • Investigate expansion of existing wash bay 	<ul style="list-style-type: none"> • Acquire secondary municipal dump sites
Long Term Actions	<ul style="list-style-type: none"> • Create Municipal RWIS Site 		
Timelines	<p><i>Section 4.1.4</i></p> <ul style="list-style-type: none"> • This area will require objectives tied to budget and Level of Service changes. • Prepare a 1 to 5 year plan. 	<p><i>Section 4.2.4</i> Same as 4.1.4</p>	<p><i>Section 4.3.4</i> Same as 4.1.4</p>
Responsible Persons	<p><i>Section 4.1.5</i></p> <ul style="list-style-type: none"> • Director of Infrastructure Services • Manager of Roads and Fleet • Fleet Supervisor • Manager Parks and Facilities • Roads Supervisor • Crew Leaders 	<p><i>Section 4.2.5</i></p> <p>DETAILED IN SECTION 1.4</p>	<p><i>Section 4.3.5</i></p> <p>DETAILED IN SECTION 1.4</p>

	<ul style="list-style-type: none"> • Winter Operations Personnel 		
Training	<i>Section 4.1.6</i> <ul style="list-style-type: none"> • Provide updated training to address subject areas set out in TAC Syntheses of Best Practices • Provide refresher training yearly • Provide ongoing training to remain current. 	<i>Section 4.2.6</i> <ul style="list-style-type: none"> • Train staff in loading/unloading • Housekeeping • Equipment Maintenance 	<i>Section 4.3.6</i> <ul style="list-style-type: none"> • Managing the snow dump.
Monitoring and Measurement	<i>Section 4.1.7</i> <ul style="list-style-type: none"> • Based on Annex C of the Code of Practice 	<i>Section 4.2.7</i> <ul style="list-style-type: none"> • Based on Annex C of the Code of Practice 	<i>Section 4.3.7</i> <ul style="list-style-type: none"> • Based on Annex C of the Code of Practice
Review and Revisions	<i>Section 4.1.8</i> <ul style="list-style-type: none"> • The Salt Management plan shall be reviewed and revisions will be documented in the reporting procedure. • Corrective action for areas of the plan that are deemed out of date will be updated and implemented 	<i>Section 4.2.8</i> <ul style="list-style-type: none"> • Same as section 4.1.8 	<i>Section 4.3.8</i> <ul style="list-style-type: none"> • Same as section 4.1.8

5.0 Salt Management Plan Maintenance

The Town of Fort Erie is committed to providing safe and cost-effective winter travel for the general public. This goal will be achieved through the review of the level of service provided in the Winter Operations Plan and the goals and objectives of the Salt Management Plan. Both plans are devised to reduce the impacts of salt on the environment.

An annual report will be submitted in accordance with the Code of Practice. The Salt Management Plan will be reviewed and updated as new salt management techniques become available.