

Winter Sidewalk Maintenance Considerations



Overview of Presentation

1. Winter Maintenance Overview
2. Presentation of Sidewalk Clearing Options



“Winter is Coming”



WINTER MAINTENANCE

By the Numbers



1,200 Road Lane km

600 km of Sidewalks

200 km receives Winter
Maintenance

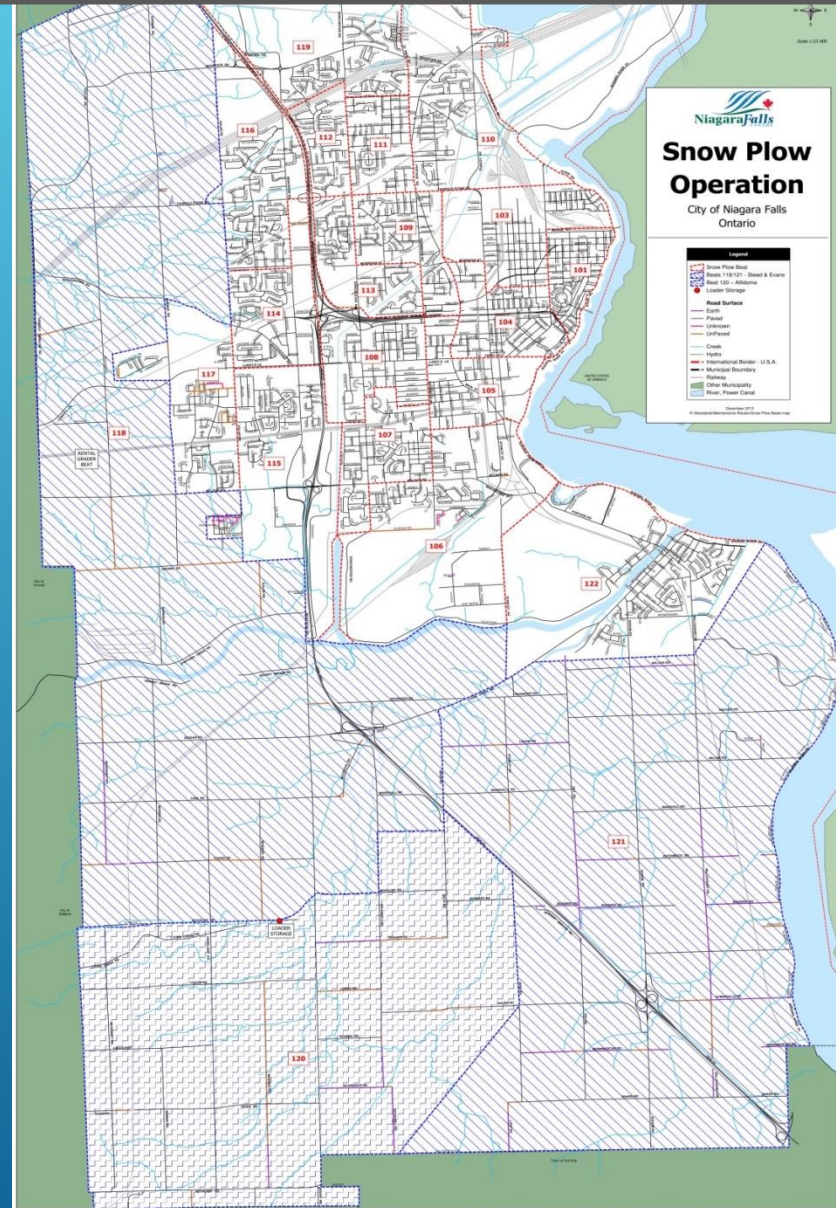
Snow Fence

1,162 rolls or 1.16 km installed

Fiberglass Snow Markers

608 installed City-Wide

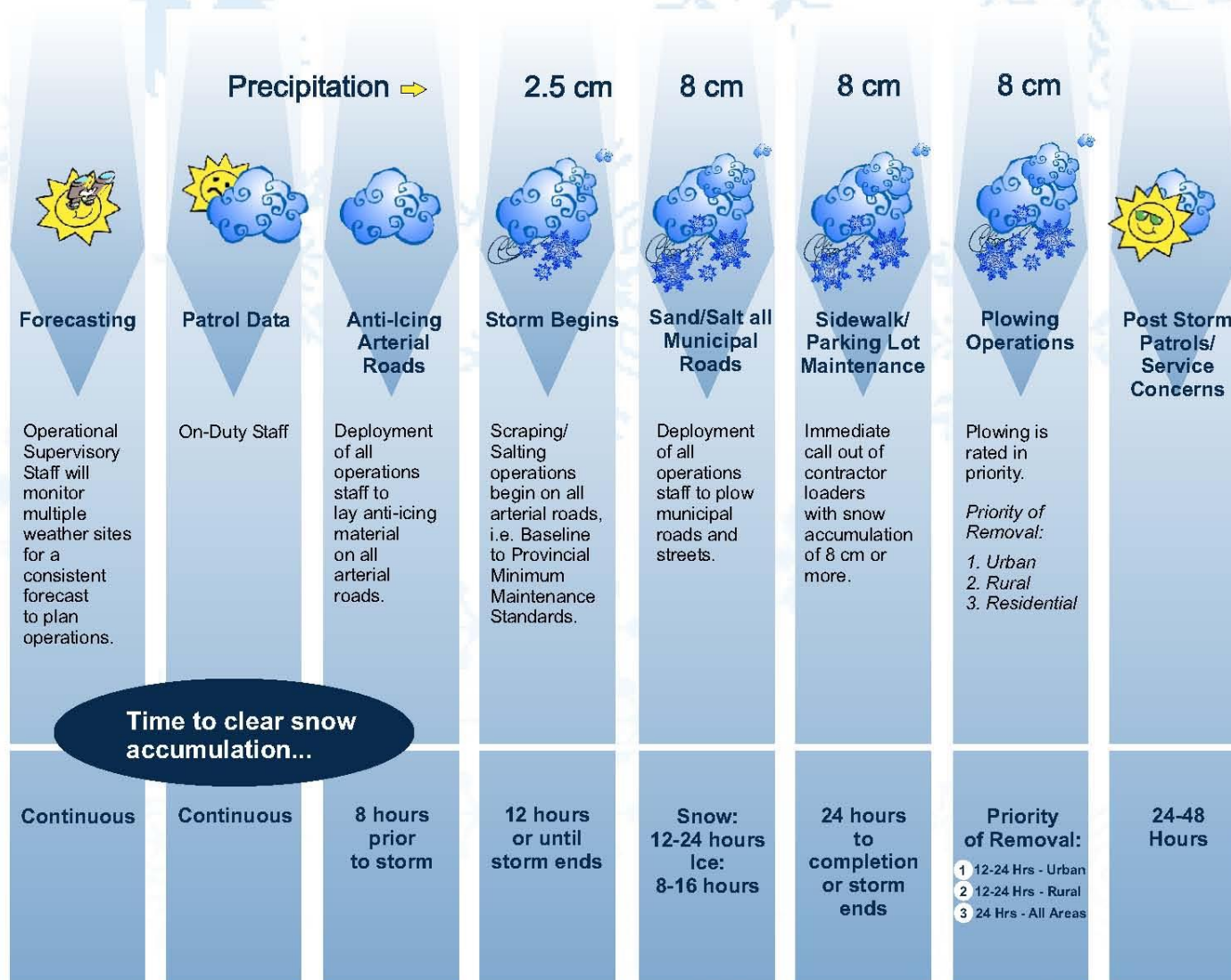
Minimum Maintenance Standards



VARIOUS WEATHER PORTALS



Storm Protocol and Procedure



Time to clear snow accumulation...



Expecting a STORM?

When a winter storm blows into town, it's everybody's responsibility to do their part.

This chart will help you remember what is expected of you when the snowflakes start to fall.



Winter Program



Provincial Regulations on Deployment - Roads

Minimum Maintenance Standards

Snow Accumulation (Ont Reg. 239/02/10)

Class of Highway	Depth	Time
Class 2 Dorchester Rd, Kalar Rd, Portage Rd, Morrison St, Ferry St.	5 cm	6 hours
Class 3 Riall St, Morrison St, Valley Way, Beaverdam Rd.	8 cm	12 hours
Class 4 Residential Subdivisions	8 cm	16 hours
Class 5 Cul de Sacs, dead ends,	10 cm	24 hours

Winter Program



Provincial Regulations on Deployment - Sidewalk

Minimum Maintenance Standards

Snow Accumulation (Ont Reg. 239/02/10)

Section 16.3 – Sidewalk Winter Maintenance

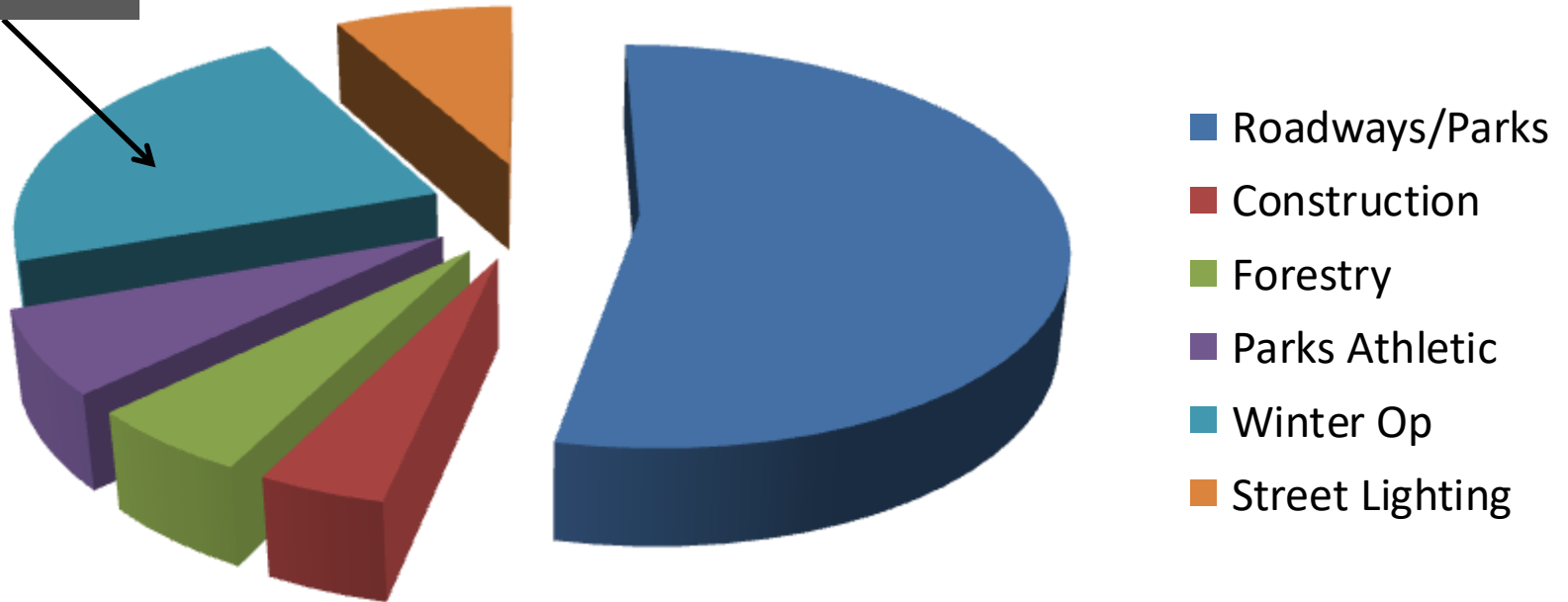
- **Snow** accumulations shall be reduced to **8 centimeters** (3.1 inches) within **48 hours** of the **end** of the snow event.
- Treat for **ice** formation within **48 hours** of the probability of ice formation, or becoming aware of ice formation.
- Minimum Maintained Width = 1.0 metres

Budget Breakdown



Road Services

\$3.7 Million



Total Road Services Budget Approx. - \$14.5 million

Response to Full Scale Event



50 City Pieces of Equipment

4 Contractor Pieces of Equipment

54 Total Pieces of Equipment

58 Staffing

(Operators, Mechanics, Supervisors, Stores, Clerical)

Operators work in shift rotation abiding by HWY Traffic Act driving hours.

\$29,000 - \$50,000

Cost for one event, pending duration.



SIDEWALK WINTER MAINTENANCE REVIEW



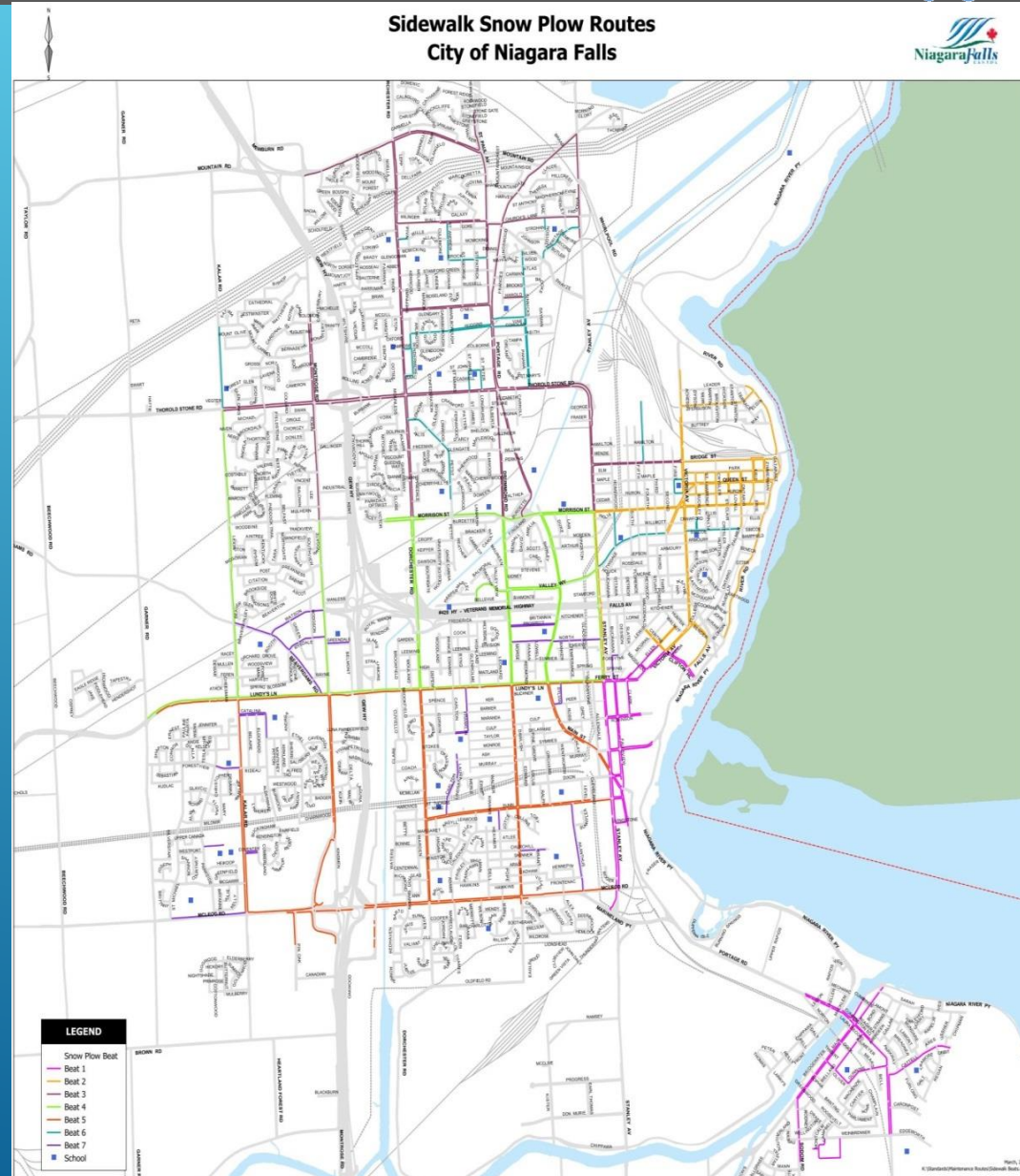
Sidewalk Winter Maintenance



600 km of Sidewalks

200 km receives
Winter Maintenance

7 Trackless Sidewalk
Plows
+ two (Track & spare)



CHALLENGES



- ❖ Matching the Deployment of Resources to Meet the Public's Expectations
- ❖ Aging population
- ❖ Urban expansion
- ❖ High Volume Tourist/Pedestrian Activity
- ❖ Hours of Work Legislation
- ❖ Older Undersized Sidewalk
- ❖ Obstructions – Poles, Walls, Landscaping, etc.
- ❖ Aging Equipment

LIABILITY



The Municipal Act, 2001 requires a municipality to maintain a “*highway*” which includes sidewalks in a legal sense, in a state of repair that is “*reasonable in the circumstances*”. Municipalities have a duty to keep highways, and therefore sidewalks, in a state fit for pedestrian use. This state of repair includes remedying snowy or icy conditions however, it does not require us to keep them free from ice and snow.

Gross Negligence is a greater degree of neglect than simple negligence.

Minimum Maintenance Standards (MMS) has no defined guidelines That would allow the municipality to provide a service level that could be used to consistently defend itself in the claims process.

No municipality has a consistent approach to winter maintenance of sidewalks.

CHALLENGES



Sidewalk Snow Plowing

SIDEWALK WINTER MAINTENANCE



WILLS STREET



CHALLENGES



Parked Vehicles

CHALLENGES



City Sidewalk Depositing

CHALLENGES



Curb Faced Sidewalk



OPTIONS FOR CONSIDERATION

1. Increase City Maintenance Regime for Sidewalk
2. Contract Out
3. “Good Neighbour Bylaw”
4. “Good Neighbour Bylaw” with Assistance Program



CURRENT STATE (STATUS QUO)

- **Annual Review of Routes**
 - City-owned frontage
 - School Routes
 - Commercial Districts
 - Vulnerable Population Locations
 - Parks and Trails
- **Service Levels Maintained at 33%**
- **Negligible Budgetary Impacts**



OPTION 1

EXPAND SCOPE OF CITY MAINTENANCE

**An additional
400+ km**

=

**Capital
Expenditure
9 Sidewalk
Plows**

+

**Increase to
Winter
Operation
Budget**

=

**Annual
Operating
Increase NPV
(10 yr lifecycle)**

Priority I & II Sidewalk
Maintained to bare
Walk

Primarily residential
subdivision

Approx \$1.8 Million
Cost for New
Equipment

Annual Operating
Budget Increase
\$650,000

Cost does not include
additional equipment
storage

\$830,000+ NPV
(Capital + Operating)

Unknown
add'l cost to
remove or relocate
encroachments

OPTION 2

CONTRACT OUT WINTER SNOW CLEARING



Level of Service
Target 18 hours
from start of
plowing
operation

No Additional
Staffing or
Equipment

Competitive
Bidding Process

Equipment availability
and bidder interest is
unknown and highly
vulnerable to change

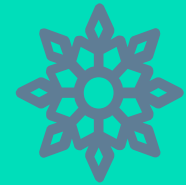
Implement no earlier than
winter 2024/2025

Ongoing
Performance
Monitoring

New Sidewalks to
continually be evaluated

City Staff responsible
for ongoing
performance
monitoring.

Contract cancellation
due to poor
performance is not an
option.



Unknowns/Risks:

1. Contractor Availability
2. Cost
3. Encroachments



OPTION 3

“GOOD NEIGHBOUR” BYLAW

City continues to maintain 1/3 of the sidewalk network

Likely only a small number of locations can be eliminated

Private property owners clear snow & ice from sidewalks

Complaint based enforcement:

1. Clearing required 24hrs after snowfall.
2. If not done, Bylaw issues notice.
3. 48hrs time to comply before fines apply.

Cost recovery for contracted snow clearing for owner or occupant who is non-compliant

1. Admin Fee \$250
2. Cost Recovery for Clearing (approx. \$15 per metre frontage) set annually in the Schedule of Fees subject to fluctuating Contract Prices.

Therefore no net budget implications

Year 1 – Education
1st, No Enforcement

Year 2 – Complaint
Based Enforcement

OPTION 4

BYLAW WITH ASSISTANCE PROGRAM

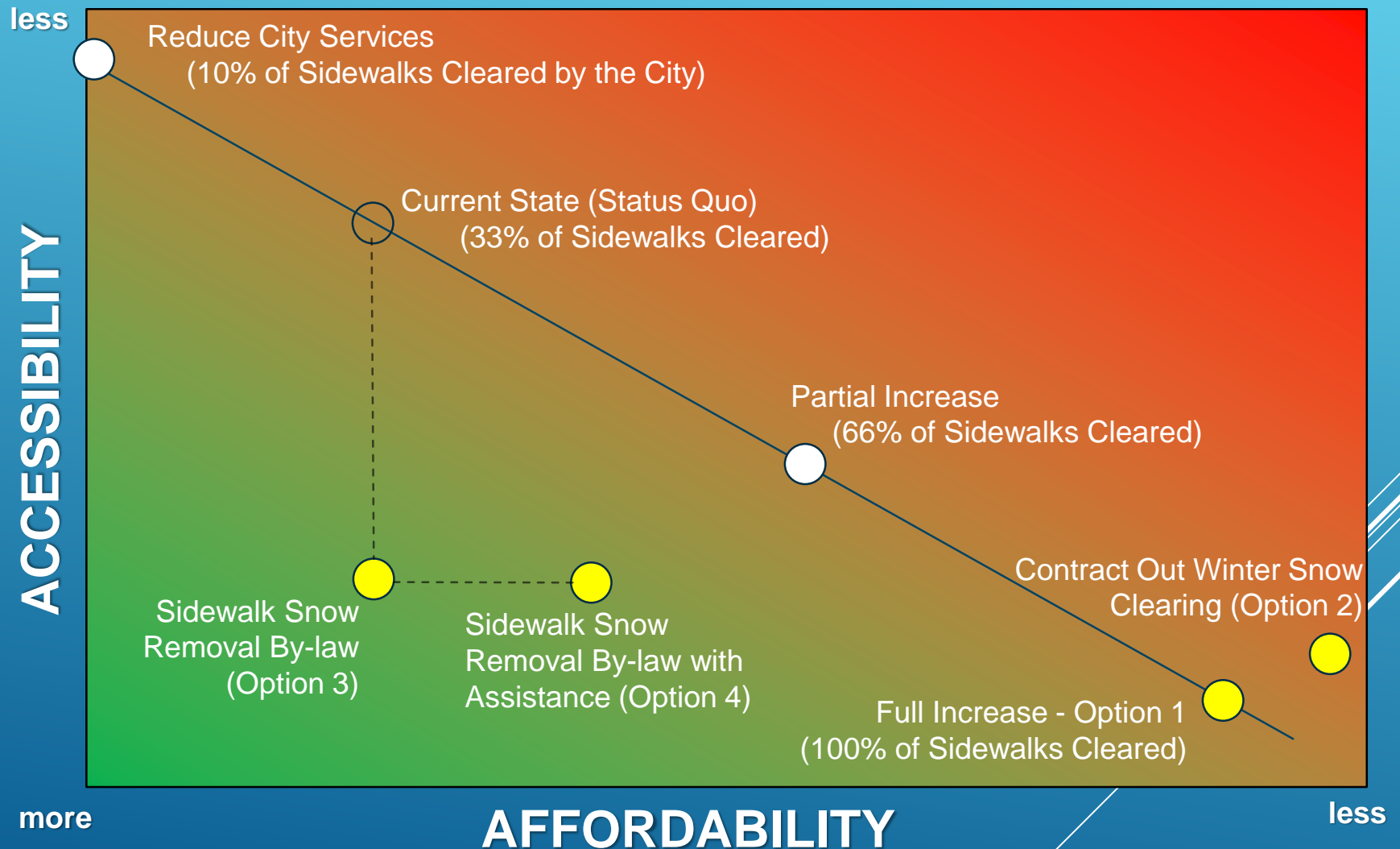


- Same “Good Neighbour Bylaw”
- Annual Assistance Allocation
Suggest \$50,000
- Authorized assistance to clear sidewalks for those who need it the most (Seniors and Disabled)

Pre-Requisite (Typical)

- Statement of physician
- Proof of property ownership
- No other able person residing in the dwelling
- Reside in a single, semi-detached, or duplex in the Urban Area
- Income threshold must be met

LEVELS OF SERVICE CONTINUUM



Municipality 2016 Population	Approach	Length Cleared by Municipal Forces
St. Catharines POP. 133,113	By-law	117 km of 592 km (20%)
Welland POP. 52,293	By-law	51 km of 335 km (15%)
Fort Erie POP. 30,710	Cleared by Town	160 km of 160 km (100%)
Grimsby POP. 27,314	Cleared by Town	95 km of 95 km (100%)
Thorold POP. 18,801	By-law	25 km of 110 km (23%)
Hamilton POP. 536,917	By-law	397km of 2,445 km (16%)
Kingston POP. 123,798	Cleared by City	600km of 600km (100%)

Municipality 2016 Population	Approach	Length Cleared by Municipal Forces
Milton POP. 110,128	By-law	241 km of 408 km (59%)
Waterloo POP. 104,986	By-law	Unknown of 547 km
Pickering POP. 91,771	By-law	Unknown of 331 km
Brantford POP. 97,496	By-law	79km of 555 km (14%)
Newmarket POP. 84,224	Recently phased into Fully cleared by Town	340 km of 340 km (100%)
Sarina POP. 71,594	Partial Clearing No By-law	168 km of 328 km (51%)
Niagara Falls POP. 88,071	Partial Clearing No By-law	200 km of 600 km (33%)

Questions? Comments?



Recommendation Today:

“Council Approve proceeding with Option 4 being the preparation and implementation of a Sidewalk Snow Clearing Bylaw, and related education, communication, and assistance programs for enforcement commencing at the start of 2022/2023 winter season.

Further Information?