

Chapter 8.0 Maintenance

The maintenance costs and liabilities involved with the installation of a public Pedestrian System and Cycling Network must be acknowledged. Poor quality roadways and other infrastructure can present a major risk to users. Effective route and system design can decrease maintenance costs and deter liability risks.

Diligence is required when managing any asset. The pedestrian systems and cycling network and their amenities should be inspected on a regular basis as a minimum through an annual audit including structures such as bridges and culverts. These inspections will identify hazardous conditions as well as issues related to maintenance, repairs and events of vandalism.

In the spring, summer and fall months, priority consideration should be given to debris removal on arterial roads with bicycle route facilities and sidewalks. Trails should be inspected each spring prior to the anticipated peak season when high use is expected.

The following sections describe more detailed maintenance procedures for on-road and off-road networks that the Region of York (and off-road partners) should consider for maintaining existing and future facilities.

8.1 Maintenance Issues Affecting On and Off-Road Routes

Trash Clean-Up and Grass Cutting

Trashcans should be emptied on a weekly basis. This maintenance can occur in conjunction with the grass cutting. The grass should typically be cut down to approximately two inches on either side of a trail or in boulevard spaces adjacent to sidewalks.

Vegetation

Vegetation should be routinely cut back since overgrown shrubs and low-hanging branches can obscure signs and pose a hazard to users. Adequate clearance and sight distances should be maintained at driveways and intersections so that users are visible to motorists. Installing root barriers during trail and sidewalk construction may assist in preventing premature break-up of the surfaces. Maintenance of vegetation originating on private property should be required through other Region of York by-laws.

Surface Maintenance

Asphalt trails are most suitable for intense high traffic multi-use areas. Asphalt has a life span of approximately eight to 15 years and requires a

base of properly compacted granular 'A'. Asphalt trails must be cross-sloped at a minimum of two percent to allow for drainage. Asphalt should be used on all slopes greater than 10% to prevent erosion. Drainage swales are also required next to asphalt trails. Inspection of asphalt trails should be undertaken once per year, especially for potholes and cracks in the spring. This is particularly true given the extreme freeze thaw cycles that the York Region experiences.

Litter Removal

Perhaps one of the most difficult tasks in maintenance is collecting the increasing amount of litter in open spaces and along road sides. While the task of litter collection is primarily a municipal responsibility, in recent years it has become common practice to encourage citizens' groups to assist in litter control and vegetation management.

Leaf Removal

Piles of wet leaves present a serious obstacle to users when encountered on trails, sidewalks or in roadway gutters. It is difficult for cyclists to stop on leaves, and falls can occur. Pedestrians and those requiring mobility aides may also have a difficult time maintaining their footing on slippery leaf covered surfaces. Leaves can also hide potholes, debris and drainage inlets. It is recommended that excessive fallen leaves be removed from the travelled portion of the pedestrian and cycling facility as soon as possible to prevent accidents. Leaf removal is especially important in older sections of the Region of York due to the full tree canopies that are prevalent on many streets.

Sign Maintenance

Sign markers and other facility signing should also be properly maintained throughout the year as frequently as other regulatory signs in the Region of York.

Liability:

Through the implementation of an asset replacement program, the risk of liability can be significantly reduced if the Region of York provides adequate resources and co-ordinated programs for good network design, construction, monitoring, maintenance and repairs.

A well-constructed network that is free of potholes, ruts and obstructions allows the user to travel safely. Regular inspection and repair will keep the surface in a smooth and level condition.

Signing, as a warning mechanism, could also reduce liability concerns. Signing throughout the network should be designed to warn the off-road users of road crossings, steep grades and low clearance underpasses. The ultimate goal for limiting liability is to provide a safe system through effective design, construction, monitoring and maintenance techniques.

An annual review and inspection of on-road facilities and off-road trails that comprise part of the cycling network should occur after a major weather event. Staff representing the jurisdiction or property owner through which a route or system passes should be cognizant of potential hazards such as broken tree limbs and damaged signs. Trail erosion is a result of high water and the undermining of off-road trail structures. Extra care should be taken with respect to ensuring sight lines are not compromised. Acts of vandalism should be addressed as soon as possible. Ensuring the system is safe and litter free will help promote its use to residents and visitors.

Off-road trails should be swept once a year, following winter and prior to special events. Trails that are not maintained in the winter should be signed accordingly and spring sweeping should be a major priority for these facilities. Trails that are intended to be challenging and that would be compromised by sweeping should be exempt from this policy.

Guidelines:

- 8.1 When possible, especially in the spring, summer and fall months, priority consideration should be given to debris removal on arterial roads with cycling facilities and sidewalks.*
- 8.2 Off-road trails should be swept at least once a year following winter and / or prior to special events except those that are designed to be challenging and would be compromised by sweeping.*
- 8.3 The maintenance of pedestrian and cycling facilities should be based on the Region of York's road, sidewalks and trails maintenance standards.*
- 8.4 In the spring, summer and fall months a program of litter, debris and leaf removal for facilities should be implemented.*
- 8.5 Other maintenance guidelines set out in this report should be adopted by the Region of York as the basis for a maintenance regime for on and off-road network maintenance in the Region.*

8.2 Snow Clearing

Currently, we understand the priority of snow clearance in the Region of York is as follows:

Class 1 – First Priority

- Arterial roads;
- Roads that serve as connectors/collectors between areas and routes;
- Roads that serve as emergency routes to hospitals and fire equipment;
- Roads that serve as snow routes in major hilly terrain during weather situations; and
- Roads that serve major bus routes.

Class 2 – Second Priority

- Roads with medium to low volume of traffic including residential and rural routes.

Pedestrian and cyclists are active year round, though their numbers are typically reduced during winter months (more so cyclists than pedestrians). Nevertheless, measures should be taken to ensure that active transportation in the winter can remain a realistic transportation alternative, especially as the network is expanded.

The Region of York should continue its practice of clearing roads of snow as soon as possible after a snowfall. As the network is expanded, roads with designated on-road cycling facilities or signed-only cycling routes that are part of the network should receive priority for snow clearing and removal with priority given to roads that have been designated as the “spine” or “community” tier of the network. This means that paved shoulders or bike lanes on these roads should be cleared of snow to accommodate cyclists. Similarly, segments of the pedestrian system that form the “spine” and “community” systems should receive snow clearance to accommodate pedestrians.

During the winter months, snow and ice should be regularly removed from the network with a priority placed on the primary routes and systems of the network. Liability is limited when ice is eliminated due to good drainage design and efficient snow removal schedules.

Other Surface Types

The Region of York will regulate the maintenance of the other surfaces, mirroring the priorities given to adjacent routes unless specified

differently for a particular activity. Items within this classification include:

- Sidewalks;
- Bus stops;
- Walkways and overhead crosswalks;
- Parking lots;
- Handicap parking; and
- Private roads and lanes provided winter maintenance under agreement.

Since bus stops and sidewalks are considered to be a lower tier in terms of snow removal, it can be quite difficult for pedestrians to access public transit or to use walking or cycling for their travelling needs. If it were easier for people to do this after a snowfall, they may be less likely to use a car to reach their destinations, reducing the amount of traffic on the road network after a snowfall and making it easier to clear the snow. Hence, the Region of York should ensure that bus stops and connections to bus stops are given a higher snow-clearance priority.

Following the end of winter, the use of pedestrian or cycling facilities can be delayed due to accumulated piles of snow that may still be present in locations where the sun does not reach until later in the season. Should a small section of the network be blocked by snow and debris accumulation, it could affect an entire area. Several weeks of system use could be added to the year with one well-timed snow and debris cleaning per year.

Although it may not be feasible or necessary to clear all multi-use trails in the winter, consideration should be given to clearing trails that provide key connections or links to “spine” segments of the network.

Guidelines:

- 8.6 In the winter months, on and off-road systems that serve as part of the primary cycling network should receive priority for snow clearing and removal.*
- 8.7 The Region of York should ensure that bus stops and sidewalks, particularly those that connect to bus stops, receive the highest priority during snow clearing efforts.*
- 8.8 Consideration should be given to clearing trails during the winter that provide key connections or links to “spine” segments of the network.*