



Active Travel Trail Feasibility Study

Municipality of Killarney

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1. Study Purpose

The Municipality of Killarney is undertaking a feasibility study to determine if the concept of an active travel (non-motorized) trail between the Village of Killarney and the main entrance to Killarney Provincial Park is feasible.

An active travel trail would provide Killarney residents, park visitors, cottagers and tourists a safer option of active transportation between the Village and the Park, including a defined location for the safe crossing of Highway 637.

In addition to providing users with a safer transportation route to access the Park and all it has to offer; a trail will promote more people in the community becoming active. The approximate length of the trail would be 10 kilometers.

2. Review of Peer Trails

Peer active travel trails in the Central and Northeastern Ontario Region have been reviewed to determine features and best practices that may be considered for the Killarney Active Travel Trail. The trails that have been reviewed for this study include:

- Hunters Bay Trail (Huntsville)
- Kivi Park Trails (Sudbury)
- Kate Pace Way (North Bay)
- Granite Ridge Trail (Killarney Provincial Park)

A description of the facilities and activities associated with the peer trails is provided in Appendix A.

3. Active Travel Trail Best Practices

3.1 Trail Construction

Following are the best practices from the active travel trails reviewed that may be considered for the Killarney Active Travel Trail. Final selection of the best practices to be implemented will depend on many factors including budget, trail alignment, seasons of use and trail activities.

- Trail Construction – Typically 3 meters wide surfaced with crusher dust/screenings for active travel use, hard surfaced (paved) over shorter sections to assist with use by Accessibility for Ontarians with Disabilities Act (A.O.D.A.) requirements. Natural forest ground surfaces can also be provided for a more rustic user experience.
- Water and Wetland Crossings – Typically culverts for small intermittent streams and bridges for wider rivers are used for water crossings. Also, elevated boardwalks or floating trails are used to cross bays or wetland areas.

3.2 Trail Surfaces



Photo 1 : Natural



Photo 2 : Screenings

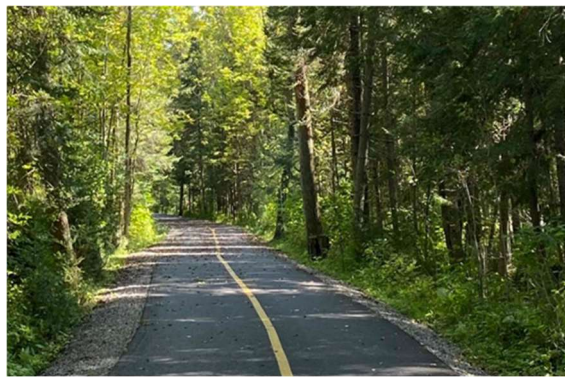


Photo 3 : Paved



Photo 4 : Curb at Embankment

3.3 Trail Operations and Activities

Typical operations and activities of the trails reviewed are described below:

- Trail Operation – 2 season use (summer and fall) or 4 season use (entire year).
- Promoted Trail Activities (Summer) - Walking, running, A.O.D.A. (all or sections of the trail), biking, pets on leash, natural and cultural education.
- Promoted Trail Activities (Winter) – Walking (if plowed), snowshoeing, skiing, skating, pets on a leash, natural and cultural education.
- Connectivity – Trails typically connect the trailhead with areas of interest or public use. In the case of the Killarney Active Travel Trail such areas could include Perry Avenue, Killarney Outfitters and Killarney Provincial Park.

3.4 Trail Facilities

The following best practices for facilities of trails similar to the proposed Killarney Active Travel Trail have been provided by one or more of the peer trails reviewed:

- Trailhead – Well marked with trail sign at street entrance and parking.
- Wayfinding signage – At trailhead and along trail at regular intervals.
- Restrooms – Typically at trailhead with or without water bottle filling station.
- Lighting – Typically the parking lot is lit, some short sections of the trail could also be lit, particularly if winter use is proposed.
- Education Stations – Typically education kiosks, if provided, are at viewing locations or at locations of significant natural or cultural heritage.
- Rest Stations – Typically provided along the trail at regular intervals and/or viewing locations. Benches, bike stands, and waste receptacles are typical furniture and fixtures.
- Exercise Stations – Such as chin-up bars can be combined with rest stations but should be near or at Trailhead for access should the promoted exercise result in injury.



Photo 5 : Trailhead Sign



Photo 6 : Education Stations



Photo 7 : Rest Stations



Photo 8 : Exercise Stations

3.5 Special Features

Several special features may be required by the Killarney Active Travel Trail in order to ensure safe and enjoyable use of the trail by all active travel users. Some of the special features that may be required are identified below.



Photo 9 : Bridge Over the Chikanishing River



Photo 10 : Highway Crossover



Photo 11 : Access Control Gate



Photo 12 : Public Rest Rooms

3.6 Recreational Trail Accessibility Requirements

Accessibility for Ontarians with Disabilities (AODA) should be considered in all public space design including trails and parking. The following features are required to meet AODA requirements for a Recreational Trail:

- Provision of Accessible Parking.
- Wayfinding Signage Listing Trail Slopes, Amenities, etc.
- Firm and Stable Surface Treatment.
- Maximum Running Slope Typically 10%.
- Accessible Bridges and Ramps.
- Edge Protection at least 50mm high adjacent to water or elevation drop-off.



Photo 13 : Accessible Parking



Photo 14 : Wayfinding Signage



Photo 15 : Accessible Bridges and Ramps



Photo 16 : Stable Surface Treatments

4 Alternative Route Options

Several alternative route options were assessed during the initial stages of this study. The following three options were identified for further review and assessment based on their potential to meet the requirements of the study. Potential trail features that have been used to describe the pros and cons of each alternative trail option are provided below. Ultimately, one preferred route option will be recommended to Killarney Council following further detailed assessment. Features to be considered:

- Ease of constructing a 3-meter-wide trail to accommodate active trail users.
- Four Season use vs. Two Season use.
- Ability to meet Accessibility for Ontario with Disabilities (AODA) requirements.
- Safety related to number of highway crossings.
- Impact of the route to construction costs.
- Impact of the route to operational costs.

Route Option 1 – Four Season Active Travel Trail along Highway 637

- Length 9.0 km.
- Pros: Safety, access, four season use, low operational costs, use existing parking lot.
- Cons: High construction cost, river crossing structure required.

Route Option 2 – Two Season Active Travel Trail primarily following existing Snowmobile Trail C107D

- Length 9.8 km
- Pros: Low construction cost, existing river crossing bridge.
- Cons: Limited to 2 season use, access, operational costs, new parking lot is required.

Route Option 3 – Active Travel “Hybrid” Trail using west section of Option 1 and east section of Option 2.

- Length 10.6 km.
- Pros: Low construction cost, existing river crossing bridge, use existing parking lot.
- Cons: Limited to two season use, multiple highway crossings required.

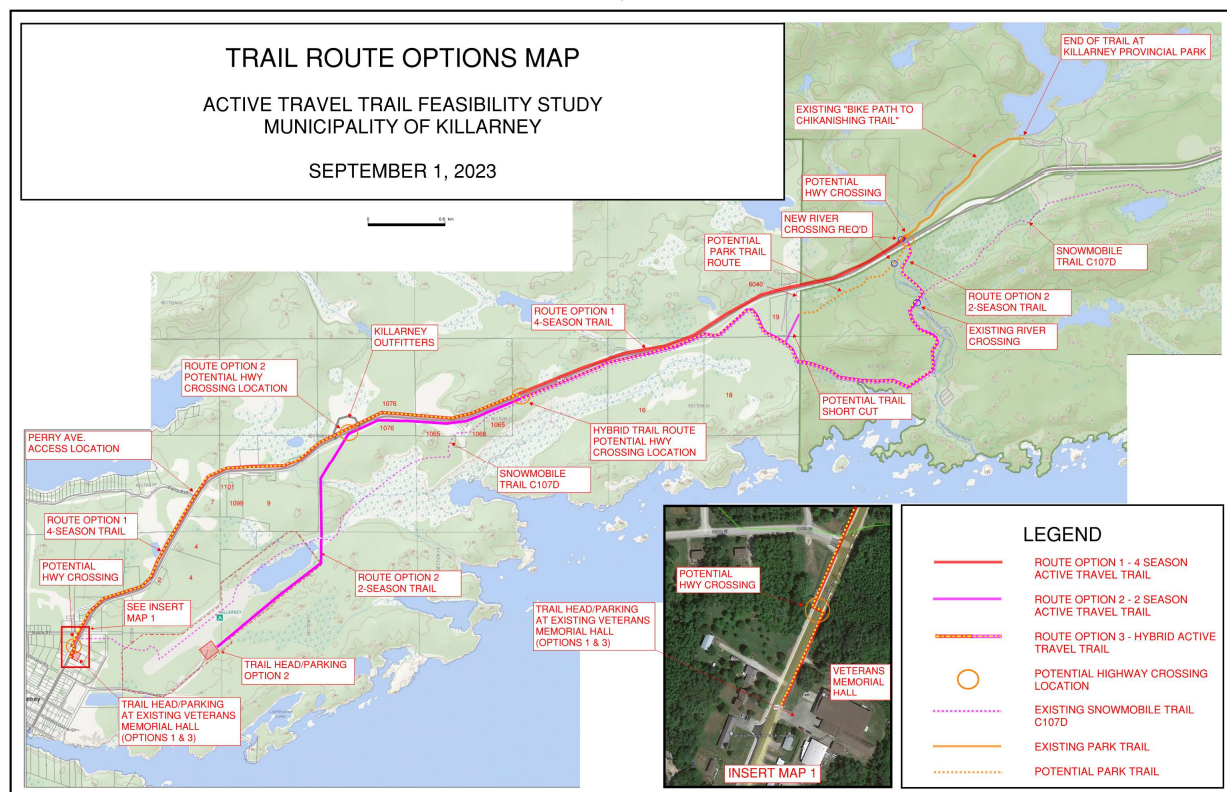


Figure 1 : Trail Route Options Map

5 Land Analysis

Lands along the alternative trail route options have been assessed for property ownership, existing rights-of-way, easements, corridors and existing trails. Following is a summary of land analysis:

- **Public Property Ownership:** Public property ownership consists of provincial lands including MTO, Killarney Provincial Park and Crown ownership. Approval and permits with government agencies will be required should the preferred trail alignment be located on public property.
- **Private Property Ownership:** Private property ownership in the area the proposed route options has been identified. Rights of use contracts will be required with property owners should the preferred trail alignment cross private property.
- **Existing rights-of-ways:** Highway 637 right-of-way is the primary corridor of land that may be used for the trail.
- **Easements:** Bell Canada appears to have easement rights along portions of the Highway 637 corridor. Some of Bells poles are shared with HydroOne.
- **Corridors:** No corridors are known to exist in the area of the proposed trail route.
- **Existing Trails:** Ontario Federation of Snowmobile Clubs Trail C107D traverses the area and has been reviewed as a possible route. Should the Killarney Active Travel Trail be shared with the OFSC trail route, the Municipality of Killarney will be required to enter rights of use contracts of their own with impacted land owners. Logistics for connecting to existing park trails will require coordination with, and approval from, Killarney Provincial Park.

6 Usership Analysis

Current and potential future trail usership groups have been identified through assessment of current local populations and visitor groups. Following is a summary of usership analysis:

- The permanent population of the Municipality of Killarney is 397 according to the 2021 StatsCan Census. The gender proportion is divided approximately 50-50 between men and women. The age group between 15 and 64 years which would typically be the main users of an active travel trail account for more than 50% of the total permanent population. Census figures are provided in Appendix B.
- Tourists and visitors frequent the Village of Killarney and Killarney Provincial Park during all four seasons of the year. Pedestrians and cyclists travelling from the Village to the Park, and to points in between, are a common occurrence during the summer and fall months. Points of interest along the route include Perry Avenue and Killarney Outfitter, both of which are located north of Highway 637.
- Summer users would include pedestrians, cyclists, dog walkers and users with mobility disabilities. Potential winter use would include similar groups identified for summer use if the trail is plowed and may also include cross-country skiers and snowshoe users over portions of the trail that are not plowed.
- Active travel participation levels can be expected to increase with the growing trends of cardio exercising and the life-long objective of good health. Popularity of tourist overnighting facilities such

as Killarney Park, Killarney Mountain Lodge and the Sportsman Inn can also be expected to increase which will have a similar effect on vacation activities such as the use of active travel trails.

- An active travel trail would be compatible with adjacent land uses and users with the exception of motorized activities such as snowmobiles in the winter and four-runners and dirt bikes in the summer months. For this reason any active trail route that is shared with motorized use, such as a snowmobile trail, would be limited to the “off” season of the trail’s motorized use.
- Route Option 1 would serve to improve community safety by providing an alternative to use of the highway shoulders by pedestrians and cyclists. The proposed highway crossing location of Route Option 1 also provides for a location of low vehicle speeds (50 km/hr) and minimal driver distractions.

7 Natural Heritage, Physical and Environmental Inventory

A Natural Heritage, Physical and Environmental Inventory for each alternative route option has been prepared by FRI Ecological Services and is provided in Appendix C.

8 Trail Operations, Maintenance and Security

At this point in time it is anticipated that the active travel trail operations for the section west of Killarney Provincial Park will be the responsibility of the Municipality of Killarney. It is expected that the eastern section of the proposed active travel trail would be connected to the existing trail which is entirely within the boundaries of Killarney Provincial Park. There may be opportunities, however, for sharing of maintenance duties should either the Municipality or the Park have active trail expertise and equipment.

In regard to the section of the trail under the responsibility of the Municipality, operation and maintenance would typically be performed by Municipality’s Public Works Department. In this way the Municipality’s existing expertise and equipment can be leveraged to the full extent possible. The trail operational structure would typically be led by the Public Works Department, similar to other municipal road, park and outdoor facilities.

For both two season and four season trails, surface granular material would typically be added in the spring and graded to ensure an even and stable surface. This is particularly important if the trail is being promoted as an AODA compliant Recreational Trail requiring a smooth and stable surface. The extent of annual maintenance, and therefore the annual operational cost, will be significantly higher if the trail is shared with snowmobile use that would require a significant level of effort every spring to renew the trail surface suitable for active travel.

Trail use bylaws are typically created to support the operation and security of a municipal trail system and as a result the enforcement of trail rules would be provided by municipal bylaw enforcement personnel. It is anticipated that enforcement of “No Motorized Vehicles” would be supported by the trail use bylaw and related enforcement methods.

Future assistance to the Municipality to support trail operations and costs could be assisted by the creation of new local interest groups such as the “Friends of Killarney Trail” providing day to day trail user assistance and/or leading fundraising events which could be associated with the trail.

9 Risk, Risk Management and Liability

It is anticipated that the active travel trail would be covered under the Municipality's liability insurance policy. To support safe and enjoyable use of the trail, and at the same time mitigating risk, the following best practices in regard to planning and operation of the trail may also be considered:

- Trail engineering design that is focused on safety, security and emergency access.
- Good trail wayfinding and mapping signage and clear location markers along the trail.
- "Use at Own Risk" signage visible at all trail access points.
- Trail is kept in good condition with regular inspections to identify new hazards.
- Communication of current trail conditions and potential hazards provided at trail access points.

10 Trail Construction and Financial Analysis

Physical inventories for each alternative trail option have been identified in the Natural Heritage, Physical and Environmental Inventory report. The physical features of each route option will require varying types of construction techniques in order to provide safe use, efficient operation and economical maintenance of the trail. Although the scope of this study does not include detailed design, planning and engineering strategies for solving potential construction challenges have been provided. Based on these strategies, Class "C" construction cost estimates have been prepared for each alternative route option.

10.1 Trail Cross Section

The typical trail cross section for Option 1 and for the west section of Option 3 located along Highway 637 will require greater attention to detailed design than a trail using the route of the existing snowmobile trail. An active travel trail within the highway corridor will require detailed drainage assessment and maintenance of the clear zone between the highway and trail. A typical trail cross section within the Highway 637 right of way is shown in Figure 2.

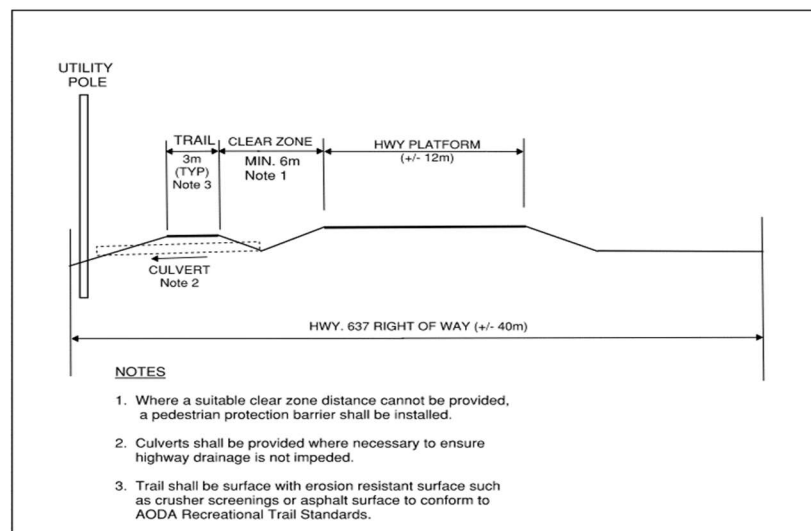


Figure 2 : Typical Trail Cross Section Along Highway

10.2 Highway Crossings

A pedestrian crossing of Highway 637 may be required at one or more locations depending on the preferred trail route. In Ontario, the legal framework for a pedestrian crossing is covered in the Highway Traffic Act (HTA). Under the HTA, categories of highway crossings include:

- Uncontrolled Crossings with the absence of traffic signals, pedestrian signals or a pedestrian crossover may be applicable for pedestrian crossing of roadways with low vehicular traffic volumes and speed limits posted at 50 km per hour or less.
- Controlled Crossings such as Traffic Control Signals, Intersection Pedestrian Signals, Mid-Block Pedestrian Signals, Pedestrian Crossovers, STOP Sign and YIELD Sign may be applicable to roadways with high traffic volumes.
- Typically, controlled crossings such as Pedestrian Crossovers are only installed on roadways with speed limits posted at 50 km per hour or less. As a result, a controlled crossing may be most suitable within the Village of Killarney where the speed limit is posted at 50 km per hour. This method supports the required location of a highway crossing for Route Option 1 and is illustrated in Figure 3.

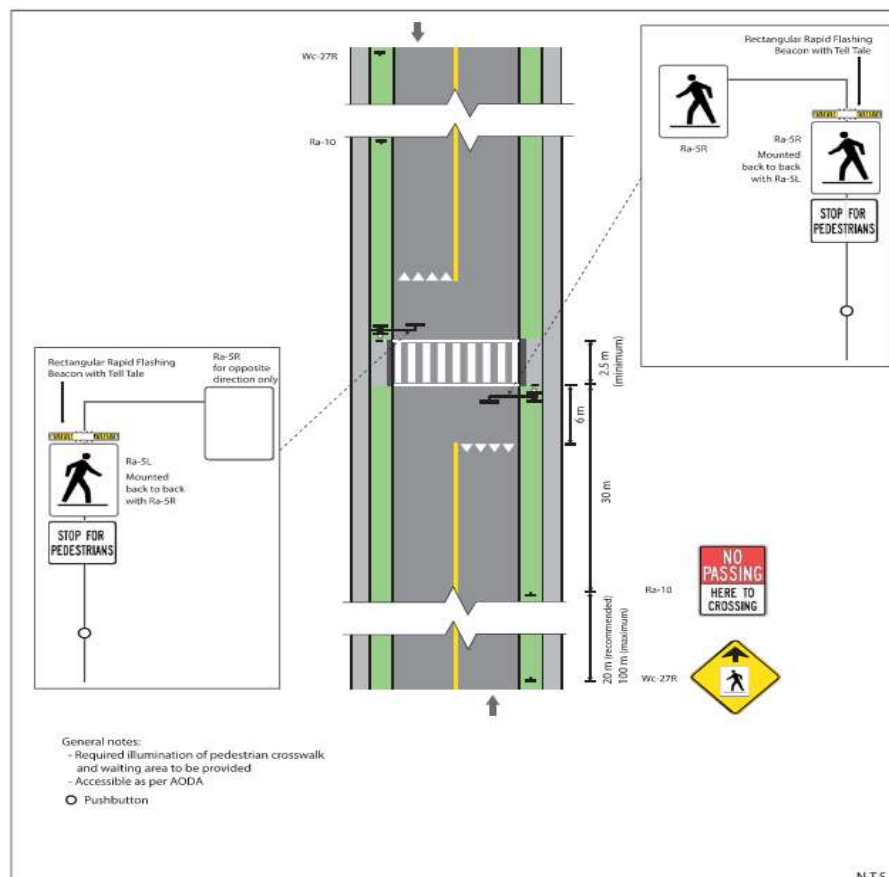


Figure 3: Pedestrian Crossover

10.3 Water Crossings

An active travel trail linking the Village of Killarney to Killarney Provincial Park will be required to cross the Chikanishing River. There are three potential options for crossing the river, listed from least costly to most costly:

- Utilize the existing bridge on snowmobile trail C107D which will require a portion of the proposed active travel trail route to be located south of Highway 637. This option may be utilized for Route Options 2 and 3.
- Utilize the unused length capacity of the existing Highway 637 concrete box culvert, with the best location appearing to be north of the highway. This option may be utilized for Route Option 1.
- Construct a new single span bridge on the north side of Highway 637 right-of-way. The drainage area of the river at the location of Highway 637 is approximately 68 square kilometers. Although the detailed design of a bridge is not within the scope of this study, the span is expected to be in the range of 10 – 15 meters which is similar to the span of the adjacent box culvert under Highway 637. A typical pedestrian bridge is illustrated in Figure 4. This option may be utilized for Route Option 1.

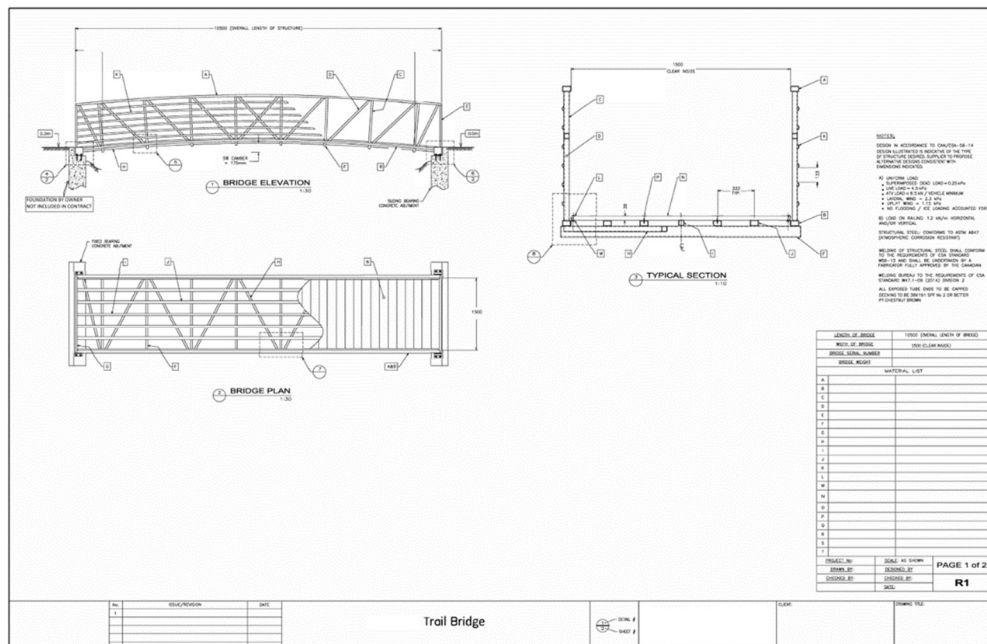


Figure 4 : Typical Pedestrian Bridge

Once a river crossing method is determined, a detailed design will require hydrologic and hydraulic analysis of the crossing conditions. The Ontario Watershed Information Tool has identified the crossing location as serving a drainage area of 68 square kilometers as shown in Figure 5.

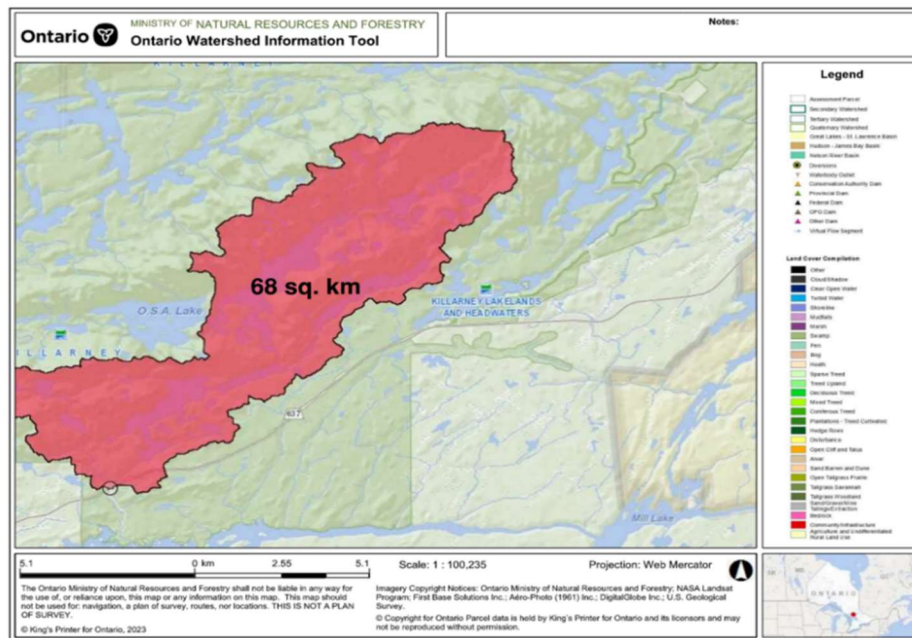


Figure 5 : Watershed Map

10.4 Construction and Operational Cost Estimates

Class “C” (+/- 30%) construction cost estimates and yearly operational cost estimates have been prepared for each alternative route option described. Cost estimates are based on typical 2023 costs for projects of a similar size and scope. The cost estimates provided are based on professional judgement, however EXP has no control over the future cost of labour, equipment or materials, or market conditions that may be applicable at the time of tendering. Following is a summary of the cost estimates provided in Appendix D.

	Route Option 1	Route Option 2	Route Option 3
Trail Construction Cost Estimate (including Contingency)	\$2,400,000	\$1,500,000	\$2,100,000
Trail Operational Cost Estimate (20 Year Time Horizon)	\$400,000	\$1,400,000	\$900,000
Parking Lot Cost Estimate (including Contingency)	N.A.	\$200,000	N.A.
Total Combined Costs * (HST not included)	\$2,800,000	\$3,100,000	\$3,000,000

* Note: Cost estimates rounded up to the nearest \$100,000. Land acquisition costs are not included.

The cost estimates provided have been prepared at a level of detail consistent with the current stage of the trail design. The following details are provided to support the cost estimates prepared:

Accessibility for Ontarians with Disabilities

At the current level of trail design detail, the cost associated with providing a “Recreational Trail” as defined in the AODA regulation has been accounted for in the current design which provides a firm and stable traveling surface, suitable signage and a moderate trail profile slope. It is expected that any additional requirements can be accounted for in the contingency costs provided with each cost estimate.

Parking Lot Construction

Route Option 1 and 3 will use the existing parking lot at Veterans Memorial Hall and therefore will not require the costs associated with construction of a new parking lot. Route Option 2 will require a new parking lot to be constructed. The preliminary requirement of parking stalls for 30 vehicles has been used in the cost estimate.

Trail Operation Cost Estimate

Operational Cost Estimates are based on new surface material being reinstated once every 20 years for the 4-season trail and four times every 20 years for the 2-season trail being shared with snowmobile use. This reflects the extra maintenance effort that would be required prior to active travel use of the trail following the snowmobile season.

Furniture and Fixtures

Furniture and fixtures that are typically provided for public trail facilities include bike racks, waste receptacles and rest benches. Costs for furniture and fixtures have been accounted for in the contingencies provided with each cost estimate.



11 Evaluation of Alternative Route Options

The impact of each alternative route option on the environment has been identified in the Natural Heritage, Physical and Environmental Inventory report prepared by FRi Corp. The environmental impact has been assessed along with other functional criteria determined from the scope of the study. Based on the results of the Alternative Route Options Evaluation Matrix the preferred option is Route 1 with a total of 90 points. Route Option 3 ranks second with 55 points, Route Option 2 ranks third with 40 points.

CRITERIA	ROUTE OPTION 1	ROUTE OPTION 2	ROUTE OPTION 3
NATURAL ENVIRONMENT - From Natural Heritage, Physical and Environmental Inventory Report Low Risk/Reward = 20 Points Low/Moderate - Risk Reward = 30 Pts Moderate/High - Risk/Reward = 40 Pts	40	20	30
USER SAFETY (HIGHWAY CROSSINGS) 3 Crossings Required= 0 Points 2 Crossings Required = 10 Points 1 Crossing Required = 20 Points	20	10	0
LAND ANALYSIS - LAND OWNERSHIP RISK Land Owner Approvals/Coordination Multiple Property Owners = 0 Points Medium Number of Property Owners - 5 Points Minimal Property Owners = 10 Points	10	0	5
USERSHIP ANALYSIS 4 Season vs. 2 Season Use Limit to 2 Season Use (Entire Trail) = 0 Points 2 Season/4 Season Split = 5 Points 4 Season Use Entire Trail = 10 Points	10	0	5
RIVER CROSSING REQUIREMENTS New Bridge Required= 0 Points Existing Bridge Provided = 10 Points	0	10	10
ESTIMATED COST (CONSTRUCTION + OPERATONAL) Based on a 20 Year Time Horizon Highest Cost = 0 Points Middle Cost = 5 Points Lowest Cost = 10 Points	10	0	5
TOTAL POINTS	90	40	55
RANKING	1	3	2

Figure 6 – Alternative Route Options Evaluation Matrix

It should be noted that the alternative trail route options identified are intended to present the routes at a level of detail allowing a general environmental and functional comparison of each option. During the detailed design process, deviations from the baseline preferred route should be encouraged to take advantage of opportunities that may be “off the beaten path” of the preferred route. For instance, Route Option 1 along Highway 637 has many opportunities for “side routes” such as utilizing the “Charles Street Extension” to allow for a short section of the trail being off the highway right of way.

12 Requirements for Future Development

The project is being planned under **Schedule B** of the **Municipal Class Environmental Assessment**. The first Public Information Centre was held on July 26, 2023, to review and receive input from the public about the identified opportunity, the active travel trail route options and preferred trail facilities. Public input and comment were invited and received, for incorporation into the planning, design, and implementation of this project.

Subject to the necessary approvals and comments received, the Municipality of Killarney intends to proceed with the detailed design and construction of this project should the results of this feasibility study be supportive and appropriate funding be secured. Following the PIC and after the public response has been collected and assessed, the project team has identified Trail Route Option 1 as the preferred solution that will be recommended to Killarney Council. Documentation of PIC #1 and Public Comments are provided in Appendix E.

Based on preliminary assessment of the requirements for implementation of Route Option 1, the following tasks, approvals and permits are anticipated to be required prior to construction:

1. Endangered Species Act Permit (potentially required depending on final route).
2. Topographical Survey of final route (level of detail to be determined).
3. Geotechnical Investigation at select locations (potentially required).
4. Detailed Design of Trail – Plan, Profile and Details.
5. Detailed Design of Highway Crossing (potentially required if controlled crossing is implemented).
6. Stormwater Management Report for final route (required by MTO).
7. Detailed Design of Chikanishing River Crossing (bridge or alternate method) – Hydrologic, Hydraulic and Structural Design (if bridge is required).
8. Ministry of Transportation Highway Occupation Permit.
9. Ministry of Natural Resources and Forestry Work Permit (if Crown Land is used).
10. Department of Fisheries and Oceans Approval (potentially required).
11. Killarney Provincial Park Approval (potentially required if on park lands).
12. Broder-Dill Snowmobile Association Coordination (potentially required).

Appendix A

Peer Trail Review

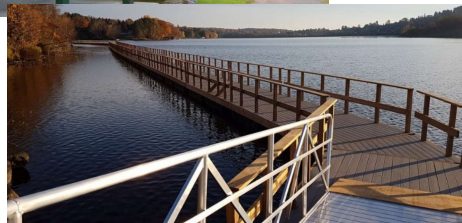
- Hunters Bay Trail (Huntsville)
- Kivi Park Trails (Sudbury)
- Kate Pace Way (North Bay)
- Granite Ridge Trail (Killarney Provincial Park)

PEER TRAILS

FACILITIES	
LENGTH	4.6 km
SURFACE	Screenings
WIDTH	2-3m
SIGNAGE	Yes
LIGHTING	No
PARKING	Yes
EDUCATION	No
WASHROOMS	No
ACTIVITIES PROMOTED	
WALKING	Yes
A.O.D.A.	Part
BIKING	No
SKIING	No
SNOWSHOE	No
SKATING	No
PETS	On Leash

Hunters Bay Trail, Huntsville

- 4.6 km in length and includes floating dock



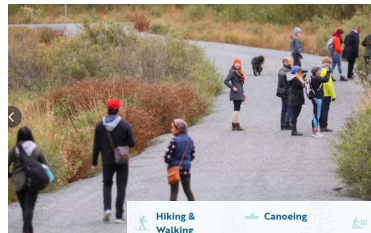
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PEER TRAILS

FACILITIES	
LENGTH	7 km
SURFACE	Screenings
WIDTH	2-3m
SIGNAGE	Yes
LIGHTING	No
PARKING	Yes
EDUCATION	Yes
WASHROOMS	Yes
ACTIVITIES PROMOTED	
WALKING	Yes
A.O.D.A.	Partially
BIKING	Yes
SKIING	Yes
SNOWSHOE	Yes
SKATING	Yes
PETS	On Leash

Kivi Park Trails, Sudbury

- 5 hiking trails ranging from 1 to 7 km in length
- Also includes biking trails and cross country skiing trails



Hiking & Walking	Canoeing	Soccer Field
Running	Biking	Playgrounds
Kayaking	Nordic Skiing	Basketball Courts
Paddle Boarding	Snow Shoeing	Disc Golf Course
Swimming	Ice Skating	Picnic
Fishing	Hockey Rink	Kivi Café

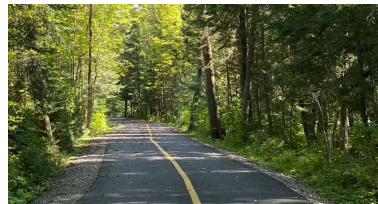
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PEER TRAILS

FACILITIES	
LENGTH	12 km
SURFACE	Paved
WIDTH	3.5m
SIGNAGE	Yes
LIGHTING	No
PARKING	Yes
EDUCATION	Yes
WASHROOMS	Yes
ACTIVITIES PROMOTED	
WALKING	Yes
A.O.D.A.	Partially
BIKING	Yes
SKIING	Yes
SNOWSHOE	Yes
SKATING	Yes
PETS	ON LEASH

Kate Pace Way, North Bay

- 12 km in length and includes paved surface throughout entire length.
- speed limit is 20 km/hr
- E-bikes and/or power-assisted bikes are allowed in pedal mode only
- cyclists and inline skaters must yield to pedestrians
- travel in a single file; walk, run, or stroll in a safe, consistent, and predictable manner
- move completely off the walkway when stopping
- keep to the right except when passing
- sound your bell or call out "passing on your left" before passing
- please do not litter
- keep your pets on a leash within your lane and remember to clean up after them
- users are encouraged to use the appropriate safety gear



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PEER TRAILS

FACILITIES	
LENGTH	2 km
SURFACE	Natural
WIDTH	Varies
SIGNAGE	Yes
LIGHTING	No
PARKING	No
EDUCATION	Yes
WASHROOMS	No
ACTIVITIES PROMOTED	
WALKING	Yes
A.O.D.A.	No
BIKING	No
SKIING	No
SNOWSHOE	No
SKATING	No
PETS	ON LEASH

Granite Ridge Trail Killarney Provincial Park

- Very picturesque trail with multiple vista views.
- Natural rock surfaces predominate trail surface.



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Appendix B

Demographic Information

Characteristic	Killarney, Municipality (MU) Ontario [Census subdivision]		
	Counts		
	Total	Men +	Women +
Population and dwellings			
Population, 2021 ¹	397	...	...
Population, 2016 ¹	386	...	...
Population percentage change, 2016 to 2021	2.8	...	...
Total private dwellings ²	443	...	...
Private dwellings occupied by usual residents ³	193	...	...
Population density per square kilometre	0.3	...	...
Land area in square kilometres	1,469.40	...	...
Age characteristics			
Total - Age groups of the population - 100% data	400	200	195
0 to 14 years	20	15	10
0 to 4 years	10	5	5
5 to 9 years	5	5	5
10 to 14 years	10	5	5
15 to 64 years	215	110	110
15 to 19 years	15	10	5

Characteristic	Killarney, Municipality (MU) Ontario [Census subdivision]		
	Counts		
	Total	Men +	Women +
20 to 24 years	10	5	5
25 to 29 years	15	10	10
30 to 34 years	10	10	5
35 to 39 years	10	5	5
40 to 44 years	20	10	10
45 to 49 years	20	15	15
50 to 54 years	25	20	5
55 to 59 years	45	15	25
60 to 64 years	45	25	20
65 years and over	155	80	75
65 to 69 years	45	20	25
70 to 74 years	40	25	20
75 to 79 years	30	10	25
80 to 84 years	20	10	10
85 years and over	20	15	5
85 to 89 years	20	10	5
90 to 94 years	0	0	0

Characteristic	Killarney, Municipality (MU) Ontario [Census subdivision]		
	Counts		
	Total	Men +	Women +
95 to 99 years	0	0	0
100 years and over	0	0	0
Total - Distribution (%) of the population by broad age groups - 100% data	100.0	100.0	100.0
0 to 14 years	5.0	7.5	5.1
15 to 64 years	53.8	55.0	56.4
65 years and over	38.8	40.0	38.5
85 years and over	5.0	7.5	2.6
Average age of the population	55.8	55.2	56.4
Median age of the population	60.0	60.0	61.6

Appendix C

Natural Heritage, Physical and Environmental Inventory

Municipality of Killarney

Active Travel Trail Feasibility Study – Trail Route Options
Natural Heritage, Physical and Environmental Inventory



August 2023



Introduction

FRi was retained as subconsultant under EXP to complete a physical and environmental inventory for an Active Travel Trail Feasibility Study for the Municipality of Killarney. This first step in the process to establish an active trail system includes identifying the existing natural heritage features and ecological values along at least two (2) trail alignment options.

The Municipality identified the area between the main entrance of Killarney Provincial Park to the Village of Killarney as the corridor for an active (non-motorized) trail. This represented the study area and associated area of interest for route options. Figure 1 shows the approximate 10 km stretch between the Village and provincial park, with Highway 637 serving as the 'anchor' for the proposed routes.

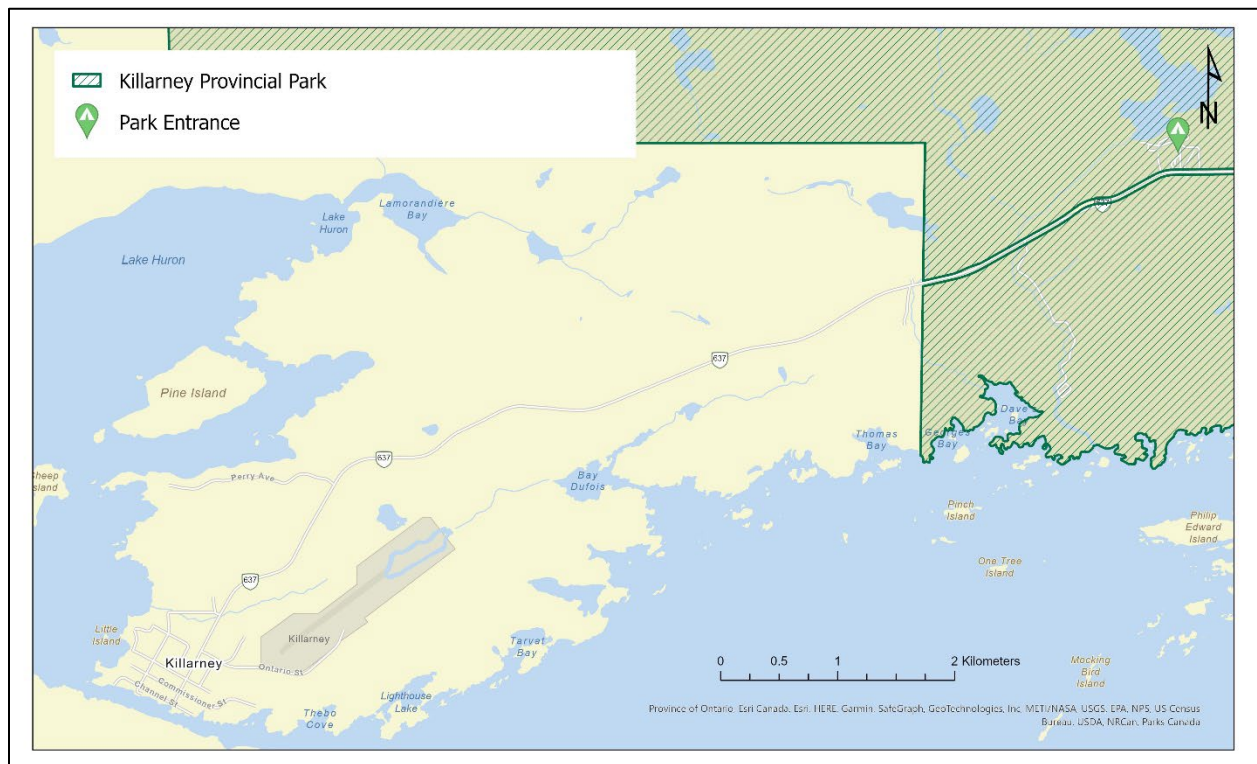


Figure 1: Approximate study area considering an active trail system between the village of Killarney and the provincial park main entrance. The study area generally follows the Highway 637 corridor.

FRi completed desktop information consolidation and field investigations in May, June and July 2023. Initially, trail route options included slightly different routes than those presented below. It was determined that remote routes that crossed extensive wetland areas were not feasible as a route consideration.

The three route options for consideration are shown in Figure 2 below.

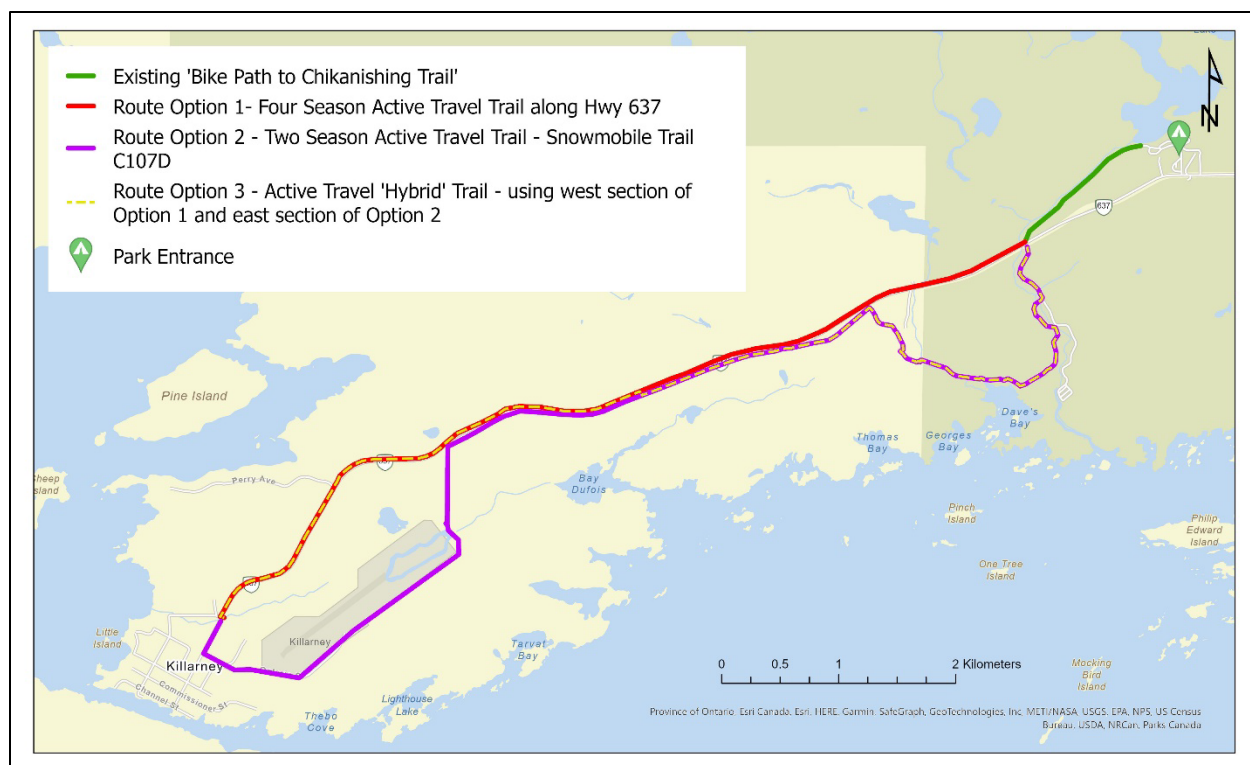


Figure 2: Three formal route options for consideration. Detailed descriptions of the route paths are included below.

Route Options

Three route options were formally considered. All three routes include a section of the existing Trout Creek multi-use trail (shown in green) which runs through Killarney PP and meets Highway 637. The routes diverge after this point and are described beginning here through to the village of Killarney. The natural heritage considerations for the routes do not include any portion of Killarney Provincial Park. If the preferred route includes Park property, Ontario Parks will undertake an environmental assessment process consistent with their *Class Environmental Assessment for Provincial Parks and Conservation Reserves*.

Route Option 1 – Four Season Active Travel Trail along Highway 637

This route generally follows the north side of the Highway 637 corridor. It takes advantage of the existing highway right-of-way and the proposed route would run approximately parallel to the highway with an intervening vegetated buffer or similar distance to ensure the safety of trail users.

This route allows for four-season use and includes crossing of the Chikanishing River and at least two permanent watercourse crossings. It avoids large wetland areas and provides easy and safe access to Killarney Outfitters, an anticipated destination and rest stop which is situated approximately halfway between the Park and the Village.

This route would be situated entirely within Crown land, Ministry of Transportation Right-of-Way (ROW) and cooperative private land partners.

Route Option 2 – Two Season Active Travel Trail – Snowmobile Trail C107D

This route follows the existing Ontario Federation of Snowmobile Clubs (OFSC) trail C107D. The existing trail is part of the provincial system and is used by snowmobiles during the winter months. It would be available to non-snowmobile users during the months of approximately May – June through September – October, only in the snow-free seasons.

The trail begins by crossing Highway 637 from the north side to the south side at the Chikanishing Trail Road. It then crosses the Chikanishing River via an existing snowmobile bridge. Like Route Option 1, it crosses other watercourses which have existing culverts and/or bridges. This route traverses alongside or through relatively large wetlands and would require a significant crossing structure near the municipal airport property to cross from the north to south side of a large open marsh wetland.

To access Killarney Outfitters, trail users would have to cross from the south side of Highway 637 to the north, and back again to get back on the trail. This route skirts the south side of the Municipal Airport and uses Village streets (gravel and paved) for the final approximately 1 km of trail. This route is situated on Crown land, MTO right-of-way, private land including some private land partners and municipal land.

Route Option 3 – Active Travel ‘Hybrid’ Trail

This route option uses the east section of Option 2; the snowmobile trail from the park through to approximately Killarney Outfitters. At this point the trail crosses from the south side of Highway 637 to the north side and follows the Route Option 1 alongside Highway 637.

This route would provide a combination of two-season and four-season use. The easterly route would be limited to two-season use because of the shared route with motorized snowmobiles, while the westerly route could be used all year. Route option 3 takes advantage of the existing Chikanishing River bridge crossing on the easterly section, and avoids large wetland crossings at the westerly sections.

This route overlaps all of Crown land, MTO right-of-way, cooperative and other private landowners and municipal land.

Natural Heritage, Physical and Environmental Inventory

Killarney Provincial Park

For all three proposed route options, they connect to and seek to take advantage of the existing trail connectivity to Killarney Provincial Park and associated values. The Friends of Killarney Park (Friends) have been an active and integral part of understanding the natural environment and values in the study area. Continued partnership and collaboration with the Friends' will help realize the Municipality's goal of an active travel trail system connecting the Village and the Park.

From the Park's website, Killarney is an *"iconic 645 square kilometre wilderness landscape that showcases Georgian Bay Coast of pink granite; the LaCloche Mountains' white quartzite ridges and over 50 exceptionally clear, sapphire lakes set among Jack Pine hills."* The area is famous for extensive backcountry canoeing and camping as well as inspiration for The Group of Seven artists including A.Y. Jackson, Franklin Carmichael, and A.J. Casson. These artists are reported to have persuaded the government to make Killarney a protected park.¹

Killarney Provincial Park is one significant protected area that will be highlighted as part of the active travel trail.

Village of Killarney

Equally famous to the renowned Group of Seven, is Herbert Fisheries fish and chips which is located in the heart of the Village of Killarney, about 10 km from the Park. According to the Village's website, there are about '405 year-round permanent residents' that live and work in Killarney. This population swells to over 10,000 or more people in the summer when tourists and seasonal residents visit. These people are taking part in a host of outdoor activities including hiking, biking, canoeing, kayaking, camping, cottaging, fishing, hunting, backcountry exploring and general sight-seeing.²

The Village of Killarney is seeking to accommodate active travel within its boundaries and to and from the Park and points in between.

Wiikwemkoong Unceded Territory – Point Grondine Park

From the Wiikwemkoong website: *'Wiikwemkoong Unceded Territory is the fifth largest First Nation in Canada in terms of geographical land mass at a total of 55,781.1 hectares. We are centred on Odawa Mnis (Manitoulin island) and the surrounding islands in Lake Huron, and included in our territory is Point Grondine land holdings on the north shore near Killarney Provincial Park...Our large land base offers plenty of opportunity for wilderness exploration at your own pace while enjoying the culture and traditions of the Anishinabek people.'*

¹ <https://www.ontarioparks.com/park/killarney>

² <http://www.municipalityofkillarney.ca/visiting-killarney/killarney-ontarios-amazing-little-secret>

Point Grondine Park attracts eco-tourists and offers an excellent range of recreational and authentic indigenous experiences in a First-Nations owned and operated park. While this park is not within the immediate active trail corridor, it is another major local tourist attraction offering outdoor recreational experiences. Visitors to Point Grondine Park by extension, would use the active travel trail.

All Routes

As noted, all routes will take advantage of the existing 'Trout Creek Trail' within Killarney Provincial Park. This existing bike path is suitable to accommodate two-season or four-season active travel, and the existing infrastructure can be seamlessly incorporated with a new trail.



Figure 3: Existing Trout Creek Trail in Killarney Provincial Park. This approximate 1km stretch is anticipated to be the start of the east section regardless of route chosen.

The Trout Creek Trail is an established ~ 1km trail that will be the start of the east active travel trail section. It is presently used during all four seasons; hiking, walking and biking in the spring, summer and fall, and for cross-country skiing in the winter. Its present use will be extended and enhanced through the addition of a connection to the Village of Killarney.



Figure 4: View of the existing Trout Creek Trail within Killarney Provincial Park. This trail is shown in green and will form the eastern connection of all options.

Route Option 1: Four Season Active Travel Trail along Highway 637

Route option 1 generally runs parallel to Highway 637 on the north side. This route will take advantage of the existing highway corridor and associated right-of-way. It traverses through or alongside a variety of forested, rock barren and wetlands.

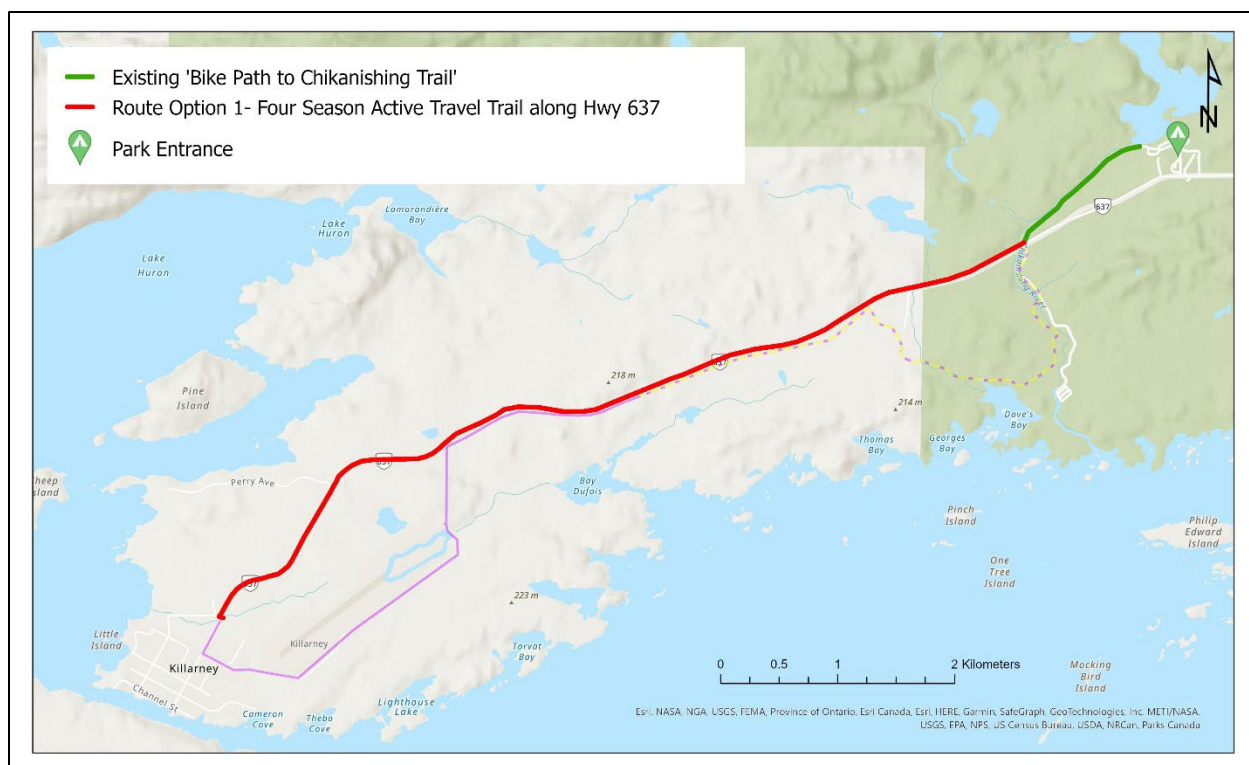


Figure 5: Route Option 1 highlighted in bold red.

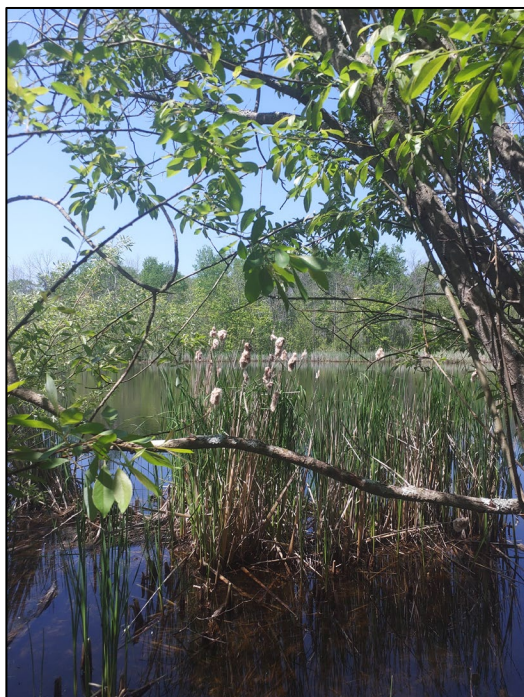


Figure 6 (left): Open water wetlands along route option 1 offering wildlife viewing and photography opportunities. Figure 7 (right): Forested habitats where breeding birds and other wildlife thrive; offering opportunities for observation and enjoyment.



Figure 8 (left): Mature forest along the existing Hwy 637 corridor represents the existing condition where the travel trail would be situated.



Figure 9 (right): Example of unique rock barren habitat that would accommodate the trail. This presents an opportunity to highlight the unique geology of the Killarney region.



Figure 10: White pine treed rock barren habitats; home to unique species including at-risk reptiles; opportunity to highlight conservation and protection efforts



Figure 11: Killarney Outfitters is situated on the north side of Highway 637 and offers a variety of adventure supplies and experiences and ‘refueling’ and rental options to cold treats



Figure 12: Unnamed watercourse along route option 1 where a crossing (likely a culvert) would be required. This stream drains into a large wetland on the south side of Highway 637, eventually to Bay Dufois.

There are a number of natural heritage features and highlights in the physical environment that will add interest and enjoyment to active travel trail users.

These include:

- Open water wetlands and associated flora and fauna; presenting opportunities for photography and observation along the trail.
- Rock barrens outcrops offering an opportunity to highlight the areas' unique geology and inspiration for Group of Seven artists.
- Mature mixedwood and hardwood forests are home to several large and small mammals as well as a suite of breeding birds.
- The trail meets Killary Outfitters, a rest and 'refuel' stop for users at approximately the halfway point.

Pros:

- The existing highway corridor offers straightforward access for trail construction, thereby reducing both temporary impact of construction and risk of longer-term impacts.
- The proximity to the highway corridor offers a measure of safety to users, likely reducing human-wildlife conflict as the highway itself is a deterrent and/or source of disturbance already.
- The impact of the trails new footprint is minimized because it is alongside an existing anthropogenic use.
- Destinations enroute that compliment the active travel trail e.g., Killarney Outfitters
- Trail users are not required to cross Highway 637, the entirety of the trail follows the north side of the highway corridor.

Cons:

- A bridge crossing the Chikanishing River will be needed to make the non-motorized connection between the Trout Creek Trail (Killarney Provincial Park) to the proposed Route Option 1.
- A trail system running parallel to the highway will experience more traffic noise and associated disturbance to the natural experience.
- Assumed reduction in wildlife viewing opportunities given the proximity to the highway corridor.

Route Option 2: Two Season Active Travel Trail, Snowmobile Trail C107D

Route Option 2 generally follows the existing Ontario Federation of Snowmobile Trail C107D feeder trail. This trail option takes advantage of the existing cleared corridor which crosses both Crown and private lands but would be limited to two-season use to avoid user-conflicts with existing winter motorized use. It traverses through extensive wetland areas, forests and rock barren habitats and uses already-built bridges and water crossings.

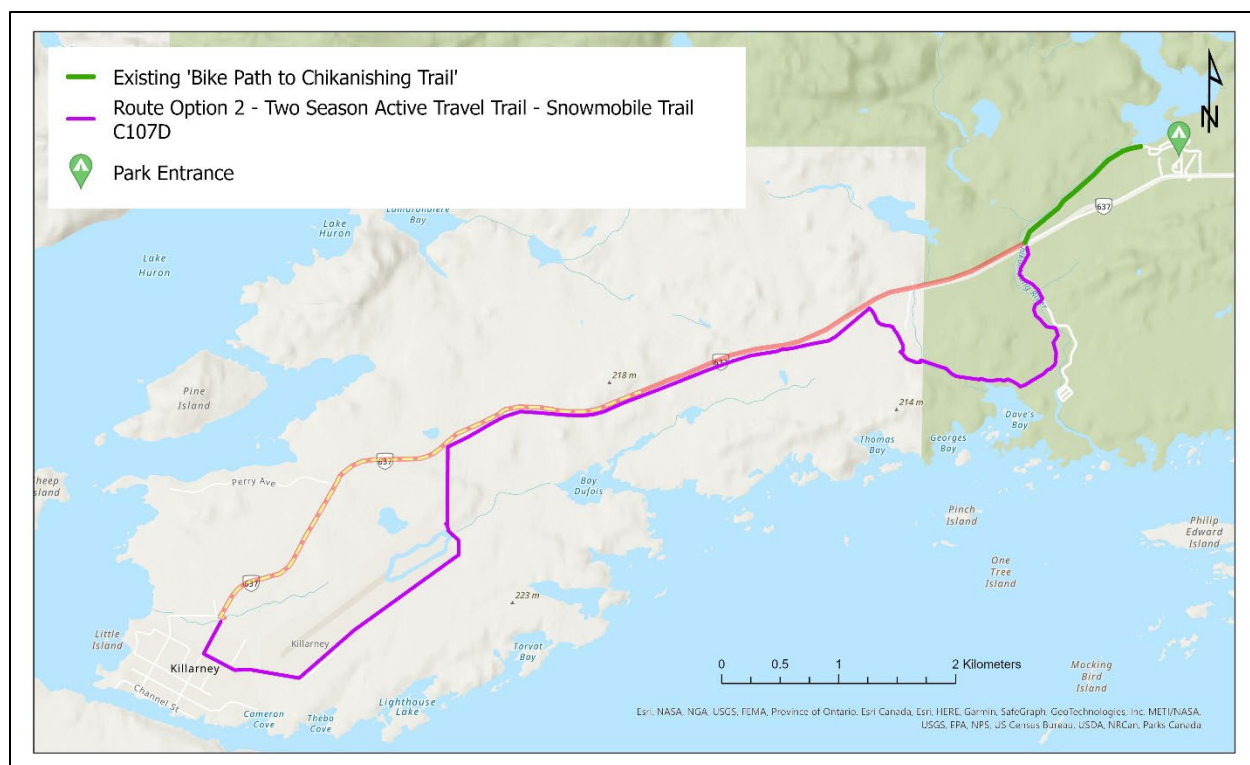


Figure 13: Route Option 2 highlighted in bold purple.



Figure 14: OFSC Trail and example of proposed Route Option 2 through a forested area.



Figure 15: Route Option 2 takes advantage of existing infrastructure such as bridges and other water crossings.



Figure 16: Route Option 2 follows alongside large open water wetlands and also proposes to cross the same.



Figure 17: Example of existing snowmobile trail, Route Option 2 and the spring conditions of wetland areas of the trail.

For Route Option 2, there are several natural heritage features and highlights in the physical environment that will add interest and enjoyment to active travel trail users.

These include:

- Extensive open water wetlands and associated flora and fauna; presenting excellent, somewhat remote wildlife viewing and photography opportunities.
- Viewing platforms and boardwalk structures would add high-value natural experience opportunities along this route.
- Rock barrens outcrops offer an opportunity to highlight the areas' unique geology and inspiration for Group of Seven artists.
- Mature mixedwood and hardwood forests are home to several large and small mammals as well as a suite of breeding birds.
- The extensive open water wetland at the southern end of the proposed trail system where it meets the municipal airport provides waterfowl stopover for rest and feeding during spring and fall migration. This would allow trail users the opportunity to observe and enjoy avian species that are not local breeders, that they would otherwise not get the opportunity to see.

Pros:

- The existing snowmobile trail infrastructure offers an excellent head start for an active travel trail; reducing the amount of construction needed and the amount of time needed to open up a two-season trail to users.
- The impact of the trails' new footprint is minimized because it is an established winter use.
- There is an existing bridge which crosses the Chikanishing River, eliminating the need for another bridge; reducing or eliminating impacts to flora and fauna.
- A trail system away from Highway 637 will provide a more 'natural' experience and wildlife viewing opportunities for users.

Cons:

- Despite the existing trail system, use during the spring and summer will require additional infrastructure and trail management, particularly to cross wetlands and wet areas. Wetlands freeze in the winter, and snowmobile trails travel across the frozen ground with little to no impact on the wetland beneath. Travel through these areas during the snow-free/frost-free season can have significant negative impacts.
- More remote trail corridor increases the risk of negative human-wildlife encounters.
- Year-round use of the snowmobile trail represents a disturbance to many wildlife during their active and breeding seasons. This could represent a negative impact on the existing natural heritage features.
- The trail crosses both Crown and private lands.

Route Option 3: Active Travel 'Hybrid' Trail

The 'hybrid' trail combines the east section of Route Option 2, following the snowmobile trail from the Trout Creek Trail to about the halfway point, where at Killarney Outfitters, the trail crosses from the south side of Highway 637 to meet the north side. From there, the trail follows the west section of Route Option 1, running parallel to the highway corridor.

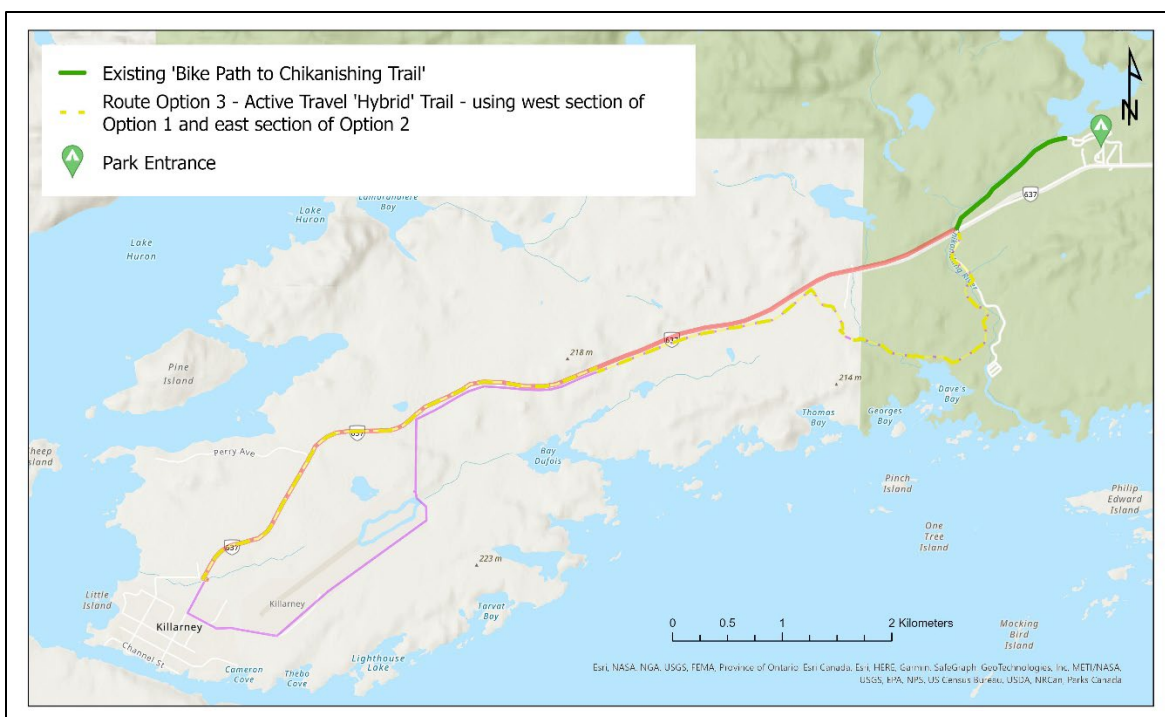


Figure 18: Route Option 3 highlighted in yellow dashed line. Route Option 2 is shown on the east side underneath in purple, while Route Option 1 is shown on the west side shown underneath in red.



Figure 19: Typical treed rock barren habitats rich in flora and fauna along the snowmobile (eastern section) of route option 3.

For Route Option 3, there are several natural heritage features and highlights in the physical environment that will add interest and enjoyment to active travel trail users. This route combines the above noted routes and their associated highlights.

Pros:

- Route Option 3 provides a natural, scenic and ecologically rich route for the eastern portion.
- Wildlife viewing opportunities including glimpses of Georgian Bay present along this route.
- The existing Chikanishing River Bridge and other smaller culvert/bridge crossings are existing and can be utilized, eliminating the need to construction and maintain duplicate crossings, minimizing or eliminating impacts to flora and fauna.

Cons:

- Route Option 3 is limited to two-season use for about half of the trail, effectively disconnecting active travel from Killarney Provincial Park to the Village of Killarney for half of the year.
- Constraints associated with very wet wetland areas during the spring; which would need to be avoided e.g., new trail around, or built over e.g., boardwalk. Boardwalks are not a compatible use with motorized vehicles.
- Trail users are required to cross Highway 637.

Summary

For all of the route options, there are anticipated positive and negative impacts to the natural environment as they relate to the use and enjoyment of the trail system.

The summary tables below include a description and assessment of the natural heritage criteria and associated considerations. The criteria were assigned a value based on the risk and reward of the same as follows:

- 0 = Poor - high risk, low reward
- 1 = Better – moderate risk, moderate reward
- 2 = Best – low risk, high reward

Natural Heritage Related Evaluation Criteria

Criteria	Details
Wildlife Appreciation	Passive viewing opportunities, photography
Accessible	Ability of trail to accommodate all needs/users
Human Wildlife Interactions	Negative human-wildlife interactions e.g. black bear encounters on trail
Year-Round Use and User Conflict	When is it available? Does it avoid conflict with other users? e.g. snowmobiles, hunting
Bridge or Water Crossings	Are these required and what scale?
Construction Impacts to Natural Heritage Features	Impacts both temporary and permanent as a result of the trail route
Maintenance Impacts to Natural Heritage Features	Impacts from maintenance activities?
Impacts to Natural Heritage Features from use	Will the anticipated use of and users negatively impact natural heritage features?

The criteria are assigned a value based on the risk and reward as follows:

- 0 = Poor - high risk, low reward
- 1 = Better – moderate risk, moderate reward
- 2 = Best – low risk, high reward

Route Option 1: Four Season Active Travel Trail		
Criteria	Assessed Details	Assessed Score
Wildlife Appreciation	Moderate opportunity for passive wildlife viewing opportunities including photography	1
Accessible	Entire constructed trail is new and can accommodate the needs of all users	2
Human Wildlife Interactions	Low risk of <u>negative</u> human-wildlife interactions e.g. black bear encounters, on trail given the proximity of the proposed route to the existing highway corridor	2
Year-Round Use and Access	High reward, trail would be available all year; entirely new route avoids conflict with other users e.g. snowmobiles, hunting	2
Bridge or Water Crossings	New water crossings are needed, e.g. corrugated steel or plastic pipe culverts, but no large wetland crossings are required; moderate risk.	1
Construction Impacts to Natural Heritage Features	The entire trail represents a new footprint – moderate temporary risk; however, anticipate it will mostly be within the existing right-of-way of the Highway 637 corridor.	1
Maintenance Impacts to Natural Heritage Features	Low risk anticipated from impacts from maintenance activities based on the route avoiding large wetlands and other sensitive natural heritage features.	2
Impacts to Natural Heritage Features from use	The proposed route is parallel to the existing motorized highway; impacts are minimal relative to other options and represent a slightly larger combined corridor on the landscape rather than two distinct breaks in the natural landscape; assessed low risk to impact natural heritage features based on anticipated non-motorized use.	2
Total Assessed Score		13

The criteria are assigned a value based on the risk and reward as follows:

- 0 = Poor - high risk, low reward
- 1 = Better – moderate risk, moderate reward
- 2 = Best – low risk, high reward

Route Option 2: Two Season Active Travel Trail		
Criteria	Assessed Details	Assessed Score
Wildlife Appreciation	Best opportunity for passive wildlife viewing opportunities including photography as the route is furthest from existing development, roads and settlement	2
Accessible	Poor as the route is largely inaccessible for sections where wetlands and terrain would prevent or prohibit access e.g. wheelchair, stroller	0
Human Wildlife Interactions	High risk of <u>negative</u> human-wildlife interactions e.g. black bear encounters, on trail given the proximity of the proposed route to the existing highway corridor	0
Year-Round Use and Access	Poor as it would be seasonal only, and likely accessible less than half of the calendar year; the route increases the risk of conflict with other users e.g. snowmobiles in the winter precludes use by others; hunting in the fall and spring on Crown and other private land is a current existing use	0
Bridge or Water Crossings	No new water crossings are needed, there are existing culverts and bridges along the snowmobile trail – represents low risk. The exception is the very large wetland near the Village of Killarney and the municipal airport; this crossing is significant and would need to be engineered – represents a high risk.	0
Construction Impacts to Natural Heritage Features	The trail route is existing which represents low risk of impacts to features; however, the trail crosses extensive wetland areas which are frozen in the winter and would require additional construction and engineering to make passable in the snow/frost free seasons. The large wetland crossings	1
Maintenance Impacts to Natural Heritage Features	Moderate risk anticipated from impacts from maintenance activities based on the route crossing large wetlands and associated sensitive natural heritage features	1
Impacts to Natural Heritage Features from use	The existing winter-only use avoids sensitive periods for breeding and active season wildlife; anticipate an increase in negative impacts to wildlife if used during the spring and summer months.	1
Total Assessed Score		5

The criteria are assigned a value based on the risk and reward as follows:

- 0 = Poor - high risk, low reward
- 1 = Better – moderate risk, moderate reward
- 2 = Best – low risk, high reward

Route Option 3: Hybrid Active Travel Trail – west end of Option 1 and east end of Option 2		
Criteria	Assessed Details	Assessed Score
Wildlife Appreciation	Moderate opportunities for passive wildlife viewing and photography as the route includes areas away from existing development, roads and settlement and a portion along the highway corridor	1
Accessible	Moderately accessible for half of the proposed route (west portion); poorly accessible for the easterly portion	1
Human Wildlife Interactions	Moderate risk of <u>negative</u> human-wildlife interactions e.g. black bear encounters, for the easterly portion of the proposed route	1
Year-Round Use and Access	Poor as the easterly section would be seasonal only, and likely accessible less than half of the calendar year; like Option 2, the route increases the risk of conflict with other users for the easterly portion; generally constrained because of the portion of ‘shared’ trail	0
Bridge or Water Crossings	Some new crossings would be required; however no large wetland crossings; moderate risk of impacts	1
Construction Impacts to Natural Heritage Features	The easterly portion of the trail route is existing which represents low risk of impacts to features; and the westerly section avoids large wetlands but does represent a new development footprint.	1
Maintenance Impacts to Natural Heritage Features	Low risk of impacts as this route avoids wetland crossings and sensitive areas during seasons where wildlife are expected to be present.	2
Impacts to Natural Heritage Features from use	The hybrid use avoids sensitive periods for breeding and active season wildlife in the large wetlands; however, anticipate an increase in negative impacts to wildlife for the easterly portion if used during the spring and summer months relative to winter-only use.	1
Total Assessed Score		8

The criteria are assigned a value based on the risk and reward as follows:

- 0 = Poor - high risk, low reward
- 1 = Better – moderate risk, moderate reward
- 2 = Best – low risk, high reward

Table 1: Summary of Assessed Natural Heritage Considerations and Overall Ranking for Route Options

Route Option	Natural Heritage Considerations Assessed Score	Overall Ranking
1	13	1
2	5	3
3	8	2

Conclusions

In conclusion, all three route options have risks and rewards when considering the natural heritage features and landscape context. The Killarney area includes a wealth of natural features that can be highlighted and enjoyed by users of a non-motorized active travel trail system.

Appendix D

Cost Estimates

Killarney Active Travel Trail Feasibility Study
Municipality of Killarney
30 Stall Parking Lot - Class C Cost Estimate (+/- 30%)
Prepared August 22, 2023

Item No.	OPSS	Item	Unit	Tender Quantity	Unit Price	Amount
1	308	Clear and Grub	sq.m	1,000	\$10.00	\$10,000.00
2	206 MUNI	Excavation (Grading) Earth	cu.m	1,000	\$20.00	\$20,000.00
3	511	Geotextile Terratrack 400w	sq.m	1,000	\$15.00	\$15,000.00
4	314	Granular Materials Granular "B" Type II	tonne	1,080	\$30.00	\$32,400.00
5	314	Granular Materials Granular "A" Crushed	tonne	400	\$40.00	\$16,000.00
6	310	Hot Mix Asphalt Surface HL3 (60mm Lift) PG 64-34 with Polymer	tonne	150	\$250.00	\$37,500.00
7	410 MUNI	Culverts 600mm dia. X 20m Long Type: _CSP	each	1	\$4,000.00	\$4,000.00
8	710	Pavement Markings Permanent - Yellow Center line + Stop Bar	each	1	\$2,000.00	\$2,000.00
9	OPSD 989.21	Trailhead and Wayfinding Signage	L.S.	1	\$10,000.00	\$10,000.00
10	804 MUNI	Seed and Cover Seed and Mulch	sq.m	300	\$10.00	\$3,000.00

TOTAL	\$149,900.00
CONTINGENCY (30%)	\$44,970.00
TOTAL WITH CONTINGENCY	\$194,870.00

Killarney Active Travel Trail Feasibility Study

Municipality of Killarney

Class C Cost Estimate (+/- 30%)

Prepared August 22, 2023 (Ver3)

UNIT PRICE ESTIMATES				ROUTE OPTION 1 (West 4.4km/ East 3.3km)		ROUTE OPTION 2 (3.6km/4.9km)		ROUTE OPTION 3 (4.4km/4.9km)	
Item No.	Item	Unit	Unit Price	Quantity	Amount	Quantity	Amount	Quantity	Amount
	<u>WEST SECTION</u>								
1	Clear and Grub (5m wide)	m ²	\$10.00	22000	\$220,000.00	6000	\$60,000.00	22000	\$220,000.00
2	Earth Excavation (5m wide x 0.3m)	m ³	\$12.00	6600	\$79,200.00	1800	\$21,600.00	6600	\$79,200.00
3	Terrafix 270R (25% of Trail)	m ²	\$10.00	5500	\$55,000.00	1500	\$15,000.00	5500	\$55,000.00
4	Granular B Subbase (450mm thick)	tonne	\$15.00	16000	\$240,000.00	13000	\$195,000.00	16000	\$240,000.00
5	Granular A / Crusher Dust Surface (150mm thk)	tonne	\$30.00	5400	\$162,000.00	4400	\$132,000.00	5400	\$162,000.00
6	600mm Diameter Culvert Crossing (6m Long)	each	\$4,000.00	22	\$88,000.00	18	\$72,000.00	22	\$88,000.00
7	Highway Crossing Allowance	L.S.	\$50,000.00	1	\$50,000.00	N/A	\$0.00	2	\$100,000.00
				West Total	\$894,200.00	West Total	\$495,600.00	West Total	\$944,200.00
	<u>EAST SECTION</u>								
1	Clear and Grub (5m wide)	m ²	\$10.00	16500	\$165,000.00	N/A	\$0.00	N/A	\$0.00
2	Earth Excavation (5m wide x 0.3m)	m ³	\$12.00	4950	\$59,400.00	N/A	\$0.00	N/A	\$0.00
3	Terrafix 270R (25% of Trail)	m	\$10.00	4125	\$41,250.00	6200	\$62,000.00	6200	\$62,000.00
4	Granular B Subbase (450mm thick)	tonne	\$15.00	12000	\$180,000.00	18000	\$270,000.00	18000	\$270,000.00
5	Granular A / Crusher Dust Surface (150mm thk)	tonne	\$30.00	4050	\$121,500.00	4400	\$132,000.00	4400	\$132,000.00
6	600mm Diameter Culvert Crossing (6m Long)	each	\$4,000.00	16	\$64,000.00	25	\$100,000.00	25	\$100,000.00
7	Highway Crossing Allowance	L.S.	\$50,000.00	1	\$50,000.00	1	\$50,000.00	1	\$50,000.00
8	River Crossing Allowance	L.S.	\$250,000.00	1	\$250,000.00	N/A	\$0.00	N/A	\$0.00
				East Total	\$931,150.00	East Total	\$614,000.00	East Total	\$614,000.00

CONST. SUBTOTAL (EAST & WEST)	\$1,825,350.00	\$1,109,600.00	\$1,558,200.00
CONTINGENCY (30%)	\$547,605.00	\$332,880.00	\$467,460.00
TOTAL WITH CONTINGENCY (excl. HST)	\$2,372,955.00	\$1,442,480.00	\$2,025,660.00
<u>OPERATION COST ESTIMATE</u>			
OPERATION COSTS (20 YEAR HORIZON)	\$283,500.00	\$1,056,000.00	\$690,000.00
CONTINGENCY (30%)	\$85,050.00	\$316,800.00	\$207,000.00
TOTAL WITH CONTINGENCY (excl. HST)	\$368,550.00	\$1,372,800.00	\$897,000.00
<u>CONSTRUCTION & OPERATION COSTS</u>			
CONST. & OPERATION COSTS (20 YR)	\$2,741,505.00	\$2,815,280.00	\$2,922,660.00

Costing Notes:

-For Option 2 West Section, 2/3 of trail uses existing snowmobile trail and 1/3 of trail requires new construction.

-Operational Cost Estimate based on new surface installation once every 20 years for 4-season trail and four times every 20 years for 2-season trail sharing with snowmobile use.

Appendix E
Documentation of Public Information Centre 1
July 26, 2023



PUBLIC INFORMATION CENTRE

THE MUNICIPALITY OF KILLARNEY

ACTIVE TRAVEL TRAIL FEASIBILITY STUDY

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

PUBLIC INFORMATION CENTRE

The first Public Information Centre has been arranged to review and receive input from the public about the identified opportunity, the active travel trail route options and preferred trail facilities. The time and place of the first Public Information Centre:

Date: Wednesday July 26, 2023
Time: 3:00 pm to 7:00 pm
Place: Veteran's Memorial Hall
56-B Charles Street, Killarney

THE STUDY

The Municipality of Killarney is undertaking a feasibility study to determine if the concept of an active travel (non-motorized) trail between the Village of Killarney and the main entrance to Killarney Provincial Park is feasible. A wilderness trail would provide Killarney residents, park visitors, cottagers and tourists a safer option of active transportation between the Village and the Park, including a defined location for the safe crossing of Highway 637. In addition to providing users with a safer transportation route to access the Park and all it has to offer; a trail will promote more people in the community becoming active. The approximate length of the trail would be 10 kilometers.

The project is being planned under **Schedule B** of the **Municipal Class Environmental Assessment**.

STUDY CONTACTS

For further information on this project please contact:

Municipality of Killarney
Att: Kelly Champaigne
32 Commissioner Street
KILLARNEY, ON
P0M 2A0
Tel.: (705) 287-2424
E-mail: kchampaigne@municipalityofkillarney.ca

EXP Services Inc.
Att: Les Ranta
757 Main Street
NORTH BAY, ON
P1B 1C2
Tel.: (705) 474-2720

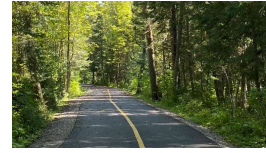
Notice Issued on: June 28, 2023

ACTIVE TRAVEL TRAIL FEASIBILITY STUDY

Municipality of Killarney

PUBLIC INFORMATION CENTRE #1

July 26, 2023



1

STUDY PURPOSE

- The Municipality of Killarney is undertaking a feasibility study to determine if the concept of an active travel (non-motorized) trail between the Village of Killarney and the main entrance to Killarney Provincial Park is feasible.
- A wilderness trail would provide Killarney residents, park visitors, cottagers and tourists a safer option of active transportation between the Village and the Park, including a defined location for the safe crossing of Highway 637.
- In addition to providing users with a safer transportation route to access the Park and all it has to offer; a trail will promote more people in the community becoming active. The approximate length of the trail would be 10 kilometers.

2

PUBLIC INFORMATION CENTRE

- The purpose of this Public Information Centre (PIC) is to identify the opportunity presented by a town to park trail and provide alternative solutions for the trail route and trail facilities.
- Public input and comment are invited, for incorporation into the planning, design, and implementation of this project. Subject to the necessary approvals and comments received, the Municipality of Killarney intends to proceed with the detailed design and construction of this project should the results of this feasibility study be supportive and appropriate funding be secured.
- To help identify the preferred solution, please fill out and return a Public Survey Sheet which is available at the PIC sign-up desk or online at the Municipality of Killarney website.
- Following the PIC and after public response has been collected and assessed, the project team will identify and recommend the preferred solution to Killarney Council.

3

TRAIL USE - COMMON PRACTICES

- Best practices from several active travel trails in the Central and Northeastern Ontario Region have been studied to determine common features and best practices.
 - Trail Construction – Typically 3 metres wide surfaced with crusher dust/screenings for active travel use, hard surfaced (paved) over shorter sections meeting Accessibility for Ontarians with Disabilities Act (A.O.D.A.) requirements.
 - Water and Wetland Crossings – Typically culverts for small intermittent streams and bridges for wider rivers. Also elevated boardwalks (Lilly Creek, Sudbury) or floating trails (Huntsville) are used to cross bays or wetland areas.
 - Trail Operation – 2 season use (summer and fall) or 4 season use (entire year).
 - Promoted Trail Activities (Summer) - Walking, running, A.O.D.A. (partial), biking, pets on leash, natural and cultural education.
 - Promoted Trail Activities (Winter) – Walking (if plowed), snowshoeing, skiing, skating, pets on a leash, natural and cultural education.
 - Connectivity – Trails typically connect the trailhead with areas of interest or public use such as Perry Avenue, Killarney Outfitters and Killarney Provincial Park.

4

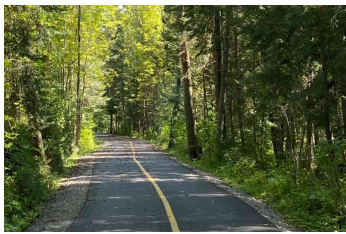
ACTIVE TRAVEL TRAIL SURFACES



NATURAL



SCREENINGS



PAVED



CURB AT EMBANKMENT

5

TRAIL FACILITIES – BEST PRACTICES

- The following facilities and features are best practices of trails similar to the proposed Killarney town to park trail:
 - Trailhead – Well marked with trail sign at street entrance and parking.
 - Wayfinding signage – At trailhead and along trail at regular intervals.
 - Restrooms – Typically at trailhead with or without water bottle filling station.
 - Lighting – Typically the parking lot is lit, some shorting sections of the trail could also be lit, particularly if winter use is proposed.
 - Education Stations – Typically education kiosks, if provided, are at viewing locations or at locations of significant natural or cultural heritage.
 - Rest Stations – Typically provided along the trail at regular intervals and/or viewing locations. Benches, bike stands and waste receptacles are typical.
 - Exercise Stations – Such as chin-up bars can be combined with rest stations but should be near or at Trailhead for access should the promoted exercise result in injury.

6

TYPICAL TRAIL FACILITIES



TRAILHEAD SIGN



EDUCATION STATIONS



REST STATIONS



EXERCISE STATIONS

7

SPECIAL FEATURES



BRIDGE OVER RIVER



HIGHWAY CROSS-OVER



ACCESS CONTROL GATE



PUBLIC RESTROOMS

8

ACCESSIBILITY (AODA) – BEST PRACTICES

- Accessibility for Ontarians with Disabilities (AODA) should be considered in all public space design including trails and parking. Typical requirements:
 - Accessible Parking
 - Wayfinding Signage
 - Stable Surface Treatments
 - Accessible Bridges and Ramps

9

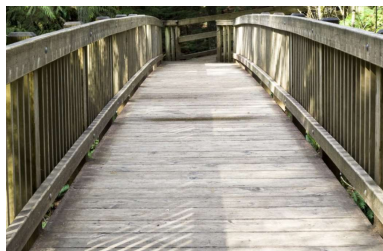
ACCESSIBILITY (AODA) CONSIDERATIONS



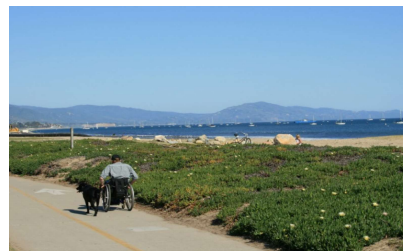
ACCESSIBLE PARKING



WAYFINDING SIGNAGE



ACCESSIBLE BRIDGES AND RAMPS



STABLE SURFACE TREATMENTS

10



PUBLIC SURVEY

ACTIVE TRAVEL TRAIL FEASIBILITY STUDY
THE MUNICIPALITY OF KILLARNEY

CONTACT INFORMATION (OPTIONAL)

TRAIL OPERATION AND USE

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
TWO SEASON USE IS ADEQUATE	1	
FOUR SEASON USE IS REQUIRED	4	
PART OF THE TRAIL SHOULD BE A.O.D.A. COMPLIANT WITH PAVED SURFACE	5	
TRAIL SHOULD BE PET FRIENDLY (ON LEASH)	5	

TRAIL FACILITIES

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
PROVIDE PARKING AT TRAILHEAD	3	
PROVIDE WASHROOMS AT TRAILHEAD	5	
PROVIDE LIGHTING ON PART OR ALL OF TRAIL	3	
PROVIDE EDUCATION KIOSKS	5	
PROVIDE REST STATIONS	5	
PROVIDE EXERCISE STATIONS	4	

TRAIL ROUTE OPTIONS

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
ROUTE OPTION 1 ALONG HWY 637 IS PREFERRED	5	
ROUTE OPTION 2 ALONG SNOWMOBILE TRAIL PREFERRED	1	
ROUTE OPTION 3 (HYBRID) IS PREFERRED	3	

OTHER COMMENTS

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PUBLIC SURVEY

ACTIVE TRAVEL TRAIL FEASIBILITY STUDY
THE MUNICIPALITY OF KILLARNEY

CONTACT INFORMATION (OPTIONAL)

TRAIL OPERATION AND USE

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
TWO SEASON USE IS ADEQUATE	4	3 3 SEASON IS IDEAL.
FOUR SEASON USE IS REQUIRED	4	
PART OF THE TRAIL SHOULD BE A.O.D.A. COMPLIANT WITH PAVED SURFACE	5	
TRAIL SHOULD BE PET FRIENDLY (ON LEASH)	5	

TRAIL FACILITIES

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
PROVIDE PARKING AT TRAILHEAD	5	
PROVIDE WASHROOMS AT TRAILHEAD	4	
PROVIDE LIGHTING ON PART OR ALL OF TRAIL	1	
PROVIDE EDUCATION KIOSKS	4	
PROVIDE REST STATIONS	4	
PROVIDE EXERCISE STATIONS	1	

TRAIL ROUTE OPTIONS

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
		> h f 45

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PUBLIC SURVEY

CONTACT INFORMATION (OPTIONAL)

ACTIVE TRAVEL TRAIL FEASIBILITY STUDY
THE MUNICIPALITY OF KILLARNEY

TRAIL OPERATION AND USE

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
TWO SEASON USE IS ADEQUITE	1	
FOUR SEASON USE IS REQUIRED	5	
PART OF THE TRAIL SHOULD BE A.O.D.A. COMPLIANT WITH PAVED SURFACE	3	
TRAIL SHOULD BE PET FRIENDLY (ON LEASH)	5	

TRAIL FACILITIES

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
PROVIDE PARKING AT TRAILHEAD	3	
PROVIDE WASHROOMS AT TRAILHEAD	5	
PROVIDE LIGHTING ON PART OR ALL OF TRAIL	5	
PROVIDE EDUCATION KIOSKS	2	
PROVIDE REST STATIONS	5	
PROVIDE EXERCISE STATIONS	2	

TRAIL ROUTE OPTIONS

TOPIC	RATING WEIGHT: 1 - DO NOT AGREE 5 - STRONGLY AGREE	COMMENTS
ROUTE OPTION 1 ALONG HWY 637 IS PREFERRED	5	Continue on through old
ROUTE OPTION 2 ALONG SNOWMOBILE TRAIL PREFERRED	2	not used road on Charles street
ROUTE OPTION 3 (HYBRID) IS PREFERRED	3	

OTHER COMMENTS

Maybe use outfilters as restroom
Continue option one through the old
road on Charles street makes
it more convenient and
accessible access control gate.