4.0 Precedents

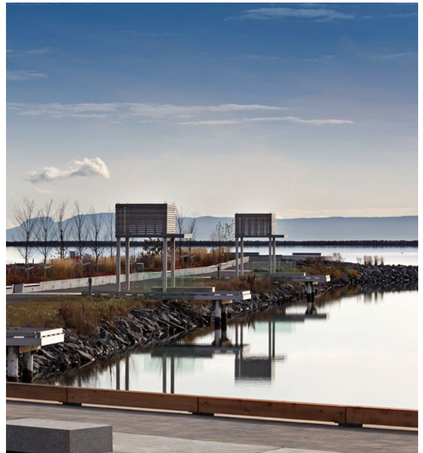
PRINCE ARTHUR'S LANDING THUNDER BAY WATERFRONT

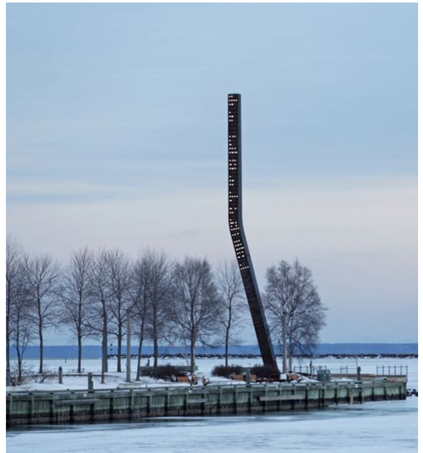
Designed by Brook McIlroy and opened to the public in 2011, Prince Arthur's Landing is an animated, mixed-use waterfront park that re-establishes the connection between downtown Thunder Bay and Lake Superior. The project sought to provide residents and tourists with a recreational and cultural waterfront destination. The creation of spaces and places for activities that reflect and integrate local culture and history through contemporary, sustainable site design enhances the waterfront experience. The site features an arts centre, a marina, a picnic area, playground equipment, recreational trails, a skateboard/BMX plaza, a skating rink, and a splash pad, providing year-round recreational activities. It is also the venue for numerous city events, including celebrations, movie nights, and Winter Fun-days. The integrated design approach includes interpretive signage relating the indigenous and natural history of the area and functional art installations scattered throughout the site.

The Labrador West Parks and Trails Masterplan will integrate within the existing natural site while establishing a connection between Labrador City and Wabush, as well as reclaim the waterfront as a place of recreation and leisure. The design will feature interpretive signage and art installations that reflect the history of this place both before and since the founding of Labrador City. The project will connect residents and tourists alike with its stunning natural setting through interpretive signage and art installations that will enhance and expand existing recreational and cultural opportunities.

[RIGHT]
Prince Arthur's Landing,
Thunderbay, Ontario
Designed by Brook McIlroy

Photos by David Whittaker





LEISURE CENTRE OF MADINE'S LAKE, FRANCE

The Madine Lake Outdoor Leisure Centre is a 'playground for all ages' designed by Urbicus and completed in 2014. Located at the foot of the Meuse Hills in the Lorraine region of France, Lake Madine is an 1,100 hectare lake with a 42km long shoreline and surrounded by 250 hectares of forests only steps from the town of Nonsard. The buildings, gathering spaces, and trails were designed to be in symbiosis with the topography of the site and a symbol of the revitalization of the Madine area. The main programmatic elements on site are recreation-focused, with water sports, a marina, angling, swimming, and biking opportunities.

Like the Al Thoms Recreation Area and Tanya Lake design proposal, the Madine Lake Outdoor Leisure Centre has a boardwalk and marina as a focal point with paths leading from parking areas down to the marina via trails through naturalized and forested areas. This project also connects users to the lake through both passive and active recreational programming. In addition to the recreational opportunities, the sites provide year-round cultural and ecological interest as both a local and tourist attraction.

[RIGHT]
Madine Lake Outdoor Leisure Centre, Madine, France
Designed by Urbicus

Photos by Urbicus

5.0 Objectives and Guiding Principles

Objectives

1. Connect and make accessible existing outdoor community assets
2. Establish a gateway experience
3. Centralize recreational resources
4. Enhance and celebrate cultural and natural heritage of the region
5. Design for seasonality
6. Create special places that serve neighbourhood, community, and regional needs for recreation, gatherings, and events

GUIDING PRINCIPLES

- Implement improvements in accordance with the overall masterplan vision to ensure a cohesive end result.
- Create special places within the open space network that serve neighbourhood, community, and regional needs for active and passive recreation, gatherings and events.
- Provide a variety of options for recreation and active transportation throughout the region, connecting key destinations and recreational amenities.
- Enhance the trail and open space network to encourage tourism in the region, and celebrate the heritage and natural beauty of Labrador West.
- Promote healthy lifestyles through encouraging active transportation.
- Increase opportunities for all ages and abilities to use the recreational and active transportation amenities throughout the region.
- Prioritize safety for all modes of transportation, particularly where different modes interface.
- Create a connected network of trails and public open spaces that minimizes road crossings or creates safe crossings where they are unavoidable.
- Protect environmentally sensitive areas by limiting development, providing buffers, and/or providing amenities that allow for enjoyment of and contact with nature, without causing damage or disturbance.
- Ensure that non-developable land is not acceptable for parkland dedication to ensure the best land is preserved for public purposes.

6.0 Labrador West Parks and Trails Masterplan

6.1 FRAMEWORK PLAN

In March of 2019, a draft Framework Plan was presented to the public, city council and senior management with the goal of gathering initial feedback and revising based on community and municipal recommendations. A Framework Plan is the high-level design strategy that forms the vision for the trail network and key connections to both existing trail infrastructure and community destination hubs. The Framework Plan has been developed over the course of several site investigations, public engagement sessions, and an online survey. Along with this process of analysis and consultation, the final outcome of the masterplan has been guided by the project steering committee and the Town of Labrador City to ensure it addresses all needs and expectations of the community. The Framework Plan shows some of the key moves which create the backbone for the Parks and Trails Masterplan, including:

- Design and formalization of connections to key destinations within the urban core and Labrador West region. This includes:
  - Continuous trail loop around Quartzite Lake
  - Continuous connection along Little Wabush Lake Waterfront
  - Trail and bike path connections to key local destinations such as Gateway Labrador, Labrador City Arena and Recreation Area, Warbler's Walk Park, Centennial Park, and Rotary Peach park
  - Connections to key regional destinations such as Crystal Falls, Menihek Cross Country Ski Trails, and Jean Lake Park and Trail
- Incorporation of important public space and public amenity sites into the regional trail network. These sites include: Tanya Lake Park, Gateway Labrador, Al Thoms Recreation Area, Warbler's Walk Park, Centennial Park, Rotary Peace Park, Labrador City Arena, and Jean Lake Park and Trail.
- Consolidation of sports recreation into one centralized recreation hub at the Labrador City Arena.
- Establishing a gateway sequence along the Trans Labrador Highway between Tanya Lake and Gateway Labrador.
- Establish gateway art installation along highway at Tanya Lake Park
- Creation of a multi-use natural recreation area within the urban core between Tanya Lake and Quartzite Lake.
- Identification of trail types within the Regional Trail Network to connect and relate to existing trail and city infrastructure.
- Active transportation corridor connecting Labrador City Arena Complex and Wabush.
- Accommodation of multiple user types including pedestrians, bicycles, snowmobiles, and ATVs, though trail layout and key intersection design guidelines.
- Designing for multi-season use

[RIGHT]
Framework Plan Diagram

6.2 OVERALL STRATEGY

The Labrador West Parks and Trails Masterplan provides a vision for the future. The final masterplan is a culmination of earlier site visits, analysis, public consultation, city council input, and steering committee recommendations.

While the region has many high-quality parks and natural recreation areas, up until now there has not been a guiding vision for creating cohesive connections between these assets. The Labrador West Parks and Trails Masterplan seeks to provide a world-class trail and active transportation system that builds upon existing infrastructure and highlights key community destinations, some already well-used and others which have been previously unaccessible. The Masterplan is designed to accommodate Labrador West's diverse local user group which includes pedestrians, cyclists, snowmobiles, and ATVs; as well as tourists passing through along the highway or staying longer to explore some of the many natural gems Labrador West has to offer.

This section of the Parks and Trails Masterplan has been broken down into the following components:

- Labrador West Parks and Recreation System
- Building on Existing Infrastructure
- Gateways and Community Connections
- Multi-use Trail Network Design Guidelines
- Designing for Seasonality
- Interpreting Labrador West
- Trail Brand
- Parks and Trail Policy and Planning Framework

[RIGHT]
Overall Parks and Trails Masterplan

PLAN KEY

01. Tanya Lake Park Schematic Design Site
02. Future Community Centre
03. Gateway Feature
04. Quartzite Lake Trail Loop
05. Warbler's Walk Trail Connection
06. Waterfront Trail Connection
07. Natural Recreation Zone
08. Al Thom's Recreation Area Schematic Design Site
09. Gateway Labrador Schematic Design Site
10. Menihek Cross-Country Ski Trail
11. Labrador City Arena / Centralized Recreation Hub
12. Centennial Park
13. Rotary Peace Park
14. Harrie Lake Park
15. Crystal Falls Trail Connection
16. Crystal Falls Trail
17. Active Transportation Corridor
18. Wabush Arena
19. Bev Martin Softball Field
20. Jean Lake Trail
21. Jean Lake Park
22. J.R. Smallwood Park and Playground
23. Snowmobile Trails

6.3 LABRADOR WEST PARK AND RECREATION SYSTEM

Labrador City and Wabush are well served with open park spaces, outdoor recreation facilities, and an abundance of natural scenery. The Labrador West Parks and Trails Masterplan is designed to improve upon existing park infrastructure and centralize recreational resources. As recommended in the Labrador City Municipal Plan (2018), "Labrador City will offer public spaces that are attractive and offer opportunities for interaction, encouraging people to linger, and increase the level of human activity in the area. Open spaces shall be connected using trails, greenways, widened sidewalks, linear parkways, and/ or staggered park spaces (p. 40)." The major move of the Labrador West Parks and Trails Masterplan is the relocation of soccer fields and baseball diamonds to the Labrador City Arena recreation area. In this section you will find a comprehensive list of existing parks that offer the most potential for becoming community destination nodes with specific park improvement recommendations for each site. This section is meant to provide initial guidelines and generate ideas for the potential refurbishment and expansion of Labrador West's park system. It is essential that landscape architectural services be enlisted to ensure efficient layout, high quality materials, and a desirable aesthetic character is achieved for all future parks improvements.

Lab City Municipal Plan Open Space Objectives (p. 40):

- Encourage the creation of a wide variety of park types and sizes from active recreation parks to passive use parks.
- Locate sufficient open space and recreational facilities conveniently accessible to all residential area.
- Provide opportunities for motorized and shared use trails for bicycles, snowmobiles, ATVs, walkers, and joggers.
- Protect access to trails and wilderness from inside town boundaries.

PROPOSED PARKS IMPROVEMENTS

Booth Street Recreation Hub (Approx. 6.0 ha)

The Booth Street Recreation Hub is one of the centre pieces of the Labrador West Parks and Trails Masterplan. The hub is envisioned to develop in tandem with the proposed renovation and expansion of the existing Labrador City Arena. The recreation hub is also coordinated with the redesign of both Al Thoms Recreation Area and the freeing up of land for development adjacent to the Labrador City Mall. The new recreation hub, has approximately 6 hectares of open space which will be dedicated to outdoor recreational facilities. This is sufficient space to for one baseball diamond and up to three soccer fields, with additional outdoor parking and storage areas. Findings from the Community Recreation Assessment undertaken as part of the masterplanning process (see section 2,.2, p. 9), reveal that Labrador West scores above average, in relation to other communities of similar size, for availability of soccer fields and baseball diamonds. The relocation of baseball diamond amenities from Al Thoms Recreation Area to centralized recreation hub, will not significantly impact the recreational needs of the Labrador West community.

[RIGHT]
Possible Recreation Spatial Configuration for the Booth Street Recreation Hub

[RIGHT]
Parks and Recreation Diagram

Centennial Park (Approx. 1.72 ha)

Centennial park is located at the heart of Labrador City. It's central location make it a priority for park improvements including a full renovation of the playground to be fully accessible as well the permanent site for the skating loop. Because of it's centrality and adjacency to City Hall, the library and Labrador West Arts and Culture Centre, this park has the potential to support larger outdoor arts and culture themed events such as concerts, festivals, movie screenings, and so on.

Rotary Peace Park (Approx. 0.65 ha)

Rotary Peace Park is located at the entry to Labrador City's urban core at the corner of Highway 500 and Avalon Drive. The park is located at the point of entry for the proposed active transportation trail, which connects Labrador City to Wabush. This park has the potential to become a secondary gateway for Labrador City, act as major active transportation hub as well as a neighbourhood pocket park. Improvements to this park may include adding and improving planting beds, planting additional trees, renovation to existing hardscape paving and addition of pathways and hardscape plaza.

Harrie Lake Park and Rink (Approx. 0.57 ha)

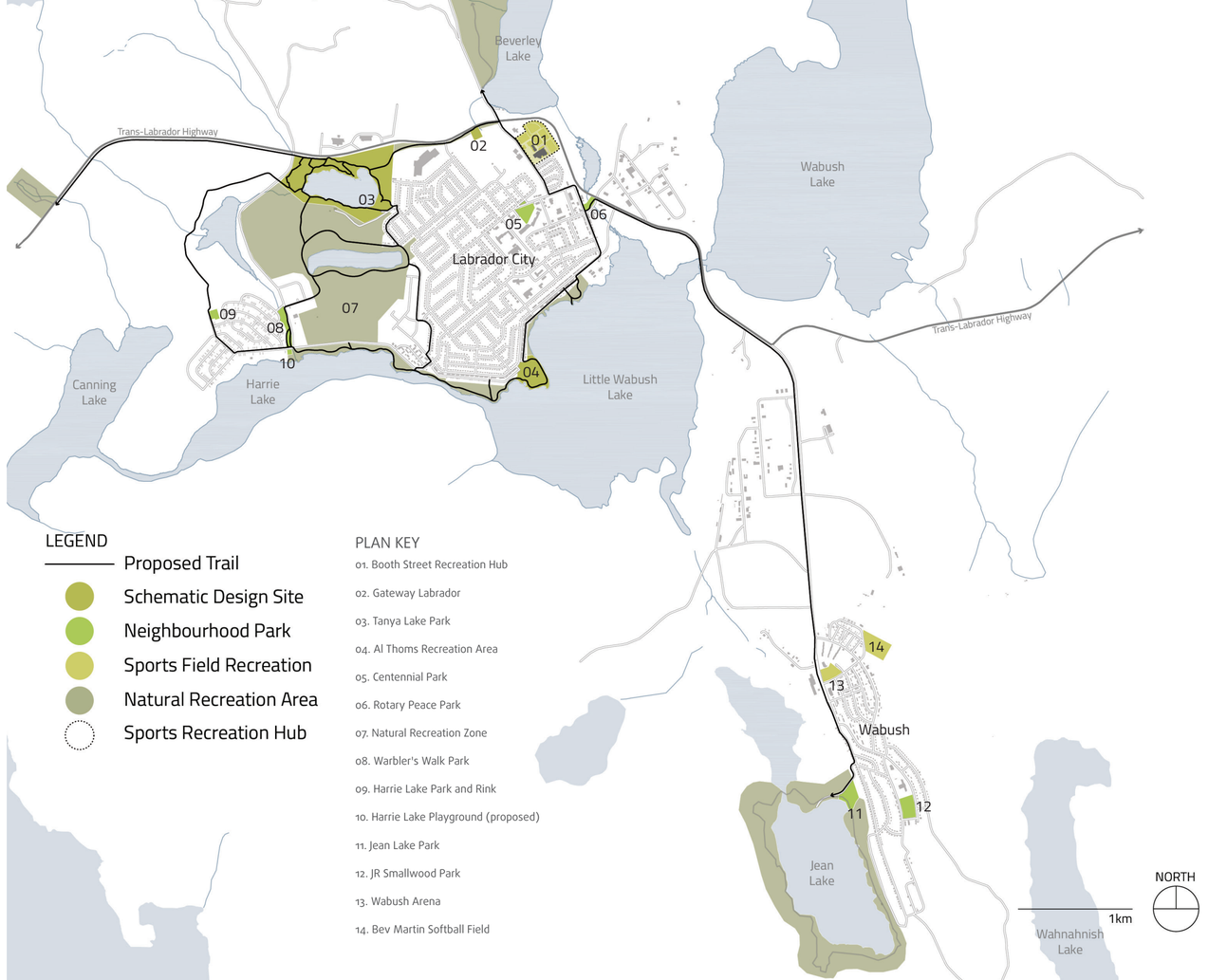
Harrie Lake Park is located to the north of the Harrie Lake subdivision. The park features a playground and skating rink. The park has the potential to become a major winter destination as it is the only outdoor hockey rink in Labrador West. However, the park is currently in need of renovation and upgrading - while the play equipment is relatively new, the park lacks organization in its layout, pathway hierarchy, and placement of site features. The Labrador West Parks and Trails Masterplan proposes to relocate the playground to the south of Harrie Lake along the waterfront, allowing it to be easily accessible for both residents of Harrie Lake Subdivision and those who live in the Labrador City urban core. Once the playground is relocated, the park space will be freed up for other recreational and passive programming. Site design may feature increased tree planting, picnic areas, open flexible grass area, improvements to the rink including bleacher seating, and warming huts.

Harrie Lake Playground (proposed) (Approx. 0.3 ha)

A new playground is proposed to be located along the waterfront of Harrie Lake and accessed off of Bartlett Drive. The new waterfront location has the advantage of being more accessible to a larger number of residents as it has the potential to service both residents of Harrie Lake Subdivision and Labrador City urban core. The new playground, due to its location, is more likely to become a major destination within the community as the waterfront siting will create a more aesthetically pleasing experience for both children and adults.

Warbler's Walk Park (Approx. 1.55 ha)

Warbler's Walk Park is located along the south end of Circular Road, where it abuts Bartlett Drive. The open space follows small creek which is a feeding tributary to Harrie Lake and the larger Labrador West lake system. The site is currently maintained, but not well used due to lack of program and accessibility. The Frontier 53 trail is proposed to connect through the park, linking the trail from Quartzite Lake to the waterfront, which will significantly increase the numbers of park visitors. The park has potentially to act as a secondary gateway for the trail network and provide passive programming, such as picnic areas and gardens, for hikers and the local community.



[RIGHT]
Jean Lake, Wabush

Jean Lake Park (Approx. 1.4 ha)

Jean Lake Park is located in the western side of Wabush. The park is accessed via Grenfell Drive, and features a large open green space, naturalized areas, hiking trails, and the Labrador West Regatta Association. The park is already a regional destination and has tremendous potential to become a major tourism draw thanks to its natural setting.

Currently the park lacks gateway and signage features, which make it difficult for visitors to find their way. Segments of the trail continue to be well kept and accessible during the summertime, however the are long stretches of the trail that have not been maintained and are unaccessible. It is recommended that these segments of the trail be brought back and maintained to allow for a continuous circuit around Jean Lake.

Jean lake Park features a larger open field area, which has potential to become a space for both small group activities, such as picnicking, as well as larger gathering activities such as outdoor concerts or weddings.

JR Smallwood Park (Approx. 2.22 ha)

Jr Smallwood Park is located adjacent to Jr Smallwood Middle School. The park functions as the school's playground and sports recreation area, which features a softball field and tennis court. The park is also well used by the local community when school is not in session.

The park is centrally located and has great potential to become a major local community hub as well as a destination within Labrador West. The playground and sports facilities are in need of renovation as most of the equipment is old and out of date. The park is well situated along a residential street and next to the schoolyard, but the edge condition lacks pathway connectivity and clear gateway elements. This would help to create a welcoming atmosphere, inviting the public into the park. Pathways would also make the park accessible to a more diverse range of abilities and help to connect the disparate recreation amenities found within the park.

Tree canopy is also a lacking element. Currently there are no trees in the park. This may contribute to the park not being used to its full capacity during the summer. Trees create much needed shade in the summer and enhance the overall aesthetic value of the open space. As an alternative to tree canopy shade, a shade structure may be installed.

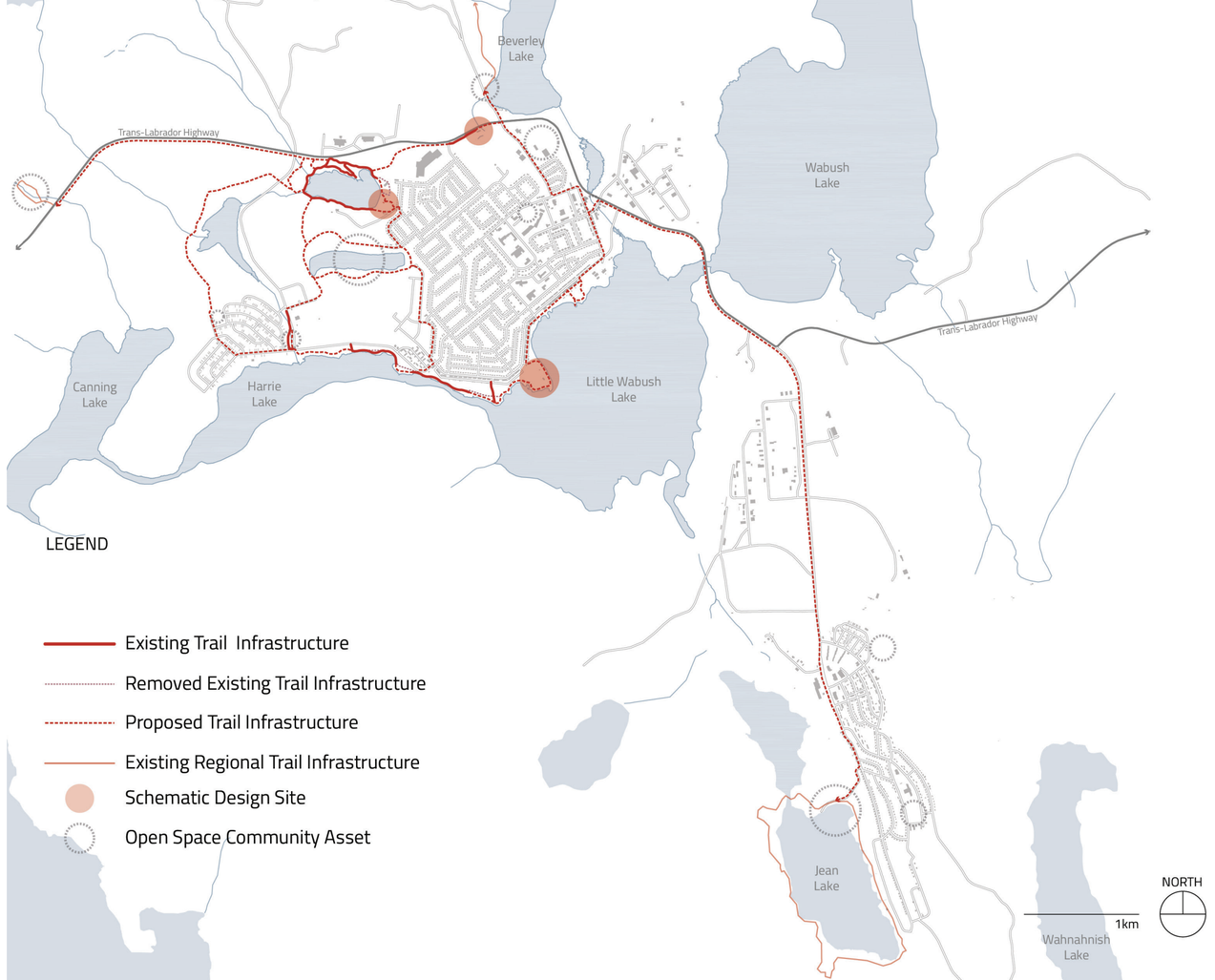
6.4 BUILDING ON EXISTING INFRASTRUCTURE

A once-fragmented pedestrian trail system becomes a seamless connected trail network by building upon existing trail and city infrastructure. Proposed trail connections make accessible lesser known community assets such as Quartzite Lake and Crystal Falls, as well as more popular recreation areas that were previously only accessible by car.

4 km of
Existing Trail

20 km of
Proposed Trail

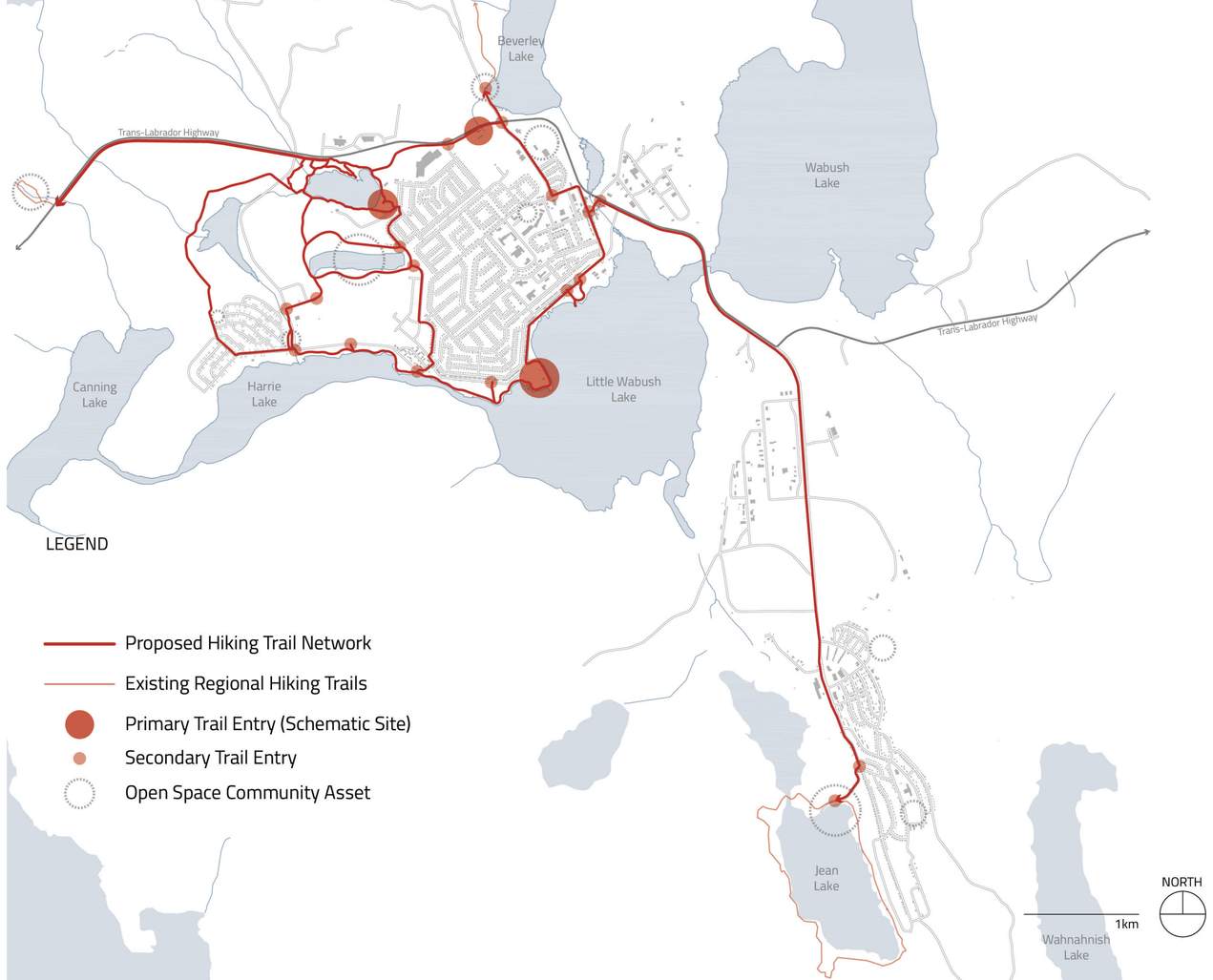
[RIGHT]
Existing And Proposed Trail Network Diagram



6.5 GATEWAYS AND COMMUNITY CONNECTIONS

The Parks and Trails Masterplan places emphasis on three primary trail gateway sites: Gateway Labrador, Tanya Lake, and Al Thoms Recreation Area. These sites are the most accessible from main roads and offer the most opportunity to provide a diversity of programs. Secondary entry points are proposed throughout the trail within walking distance of the local community.

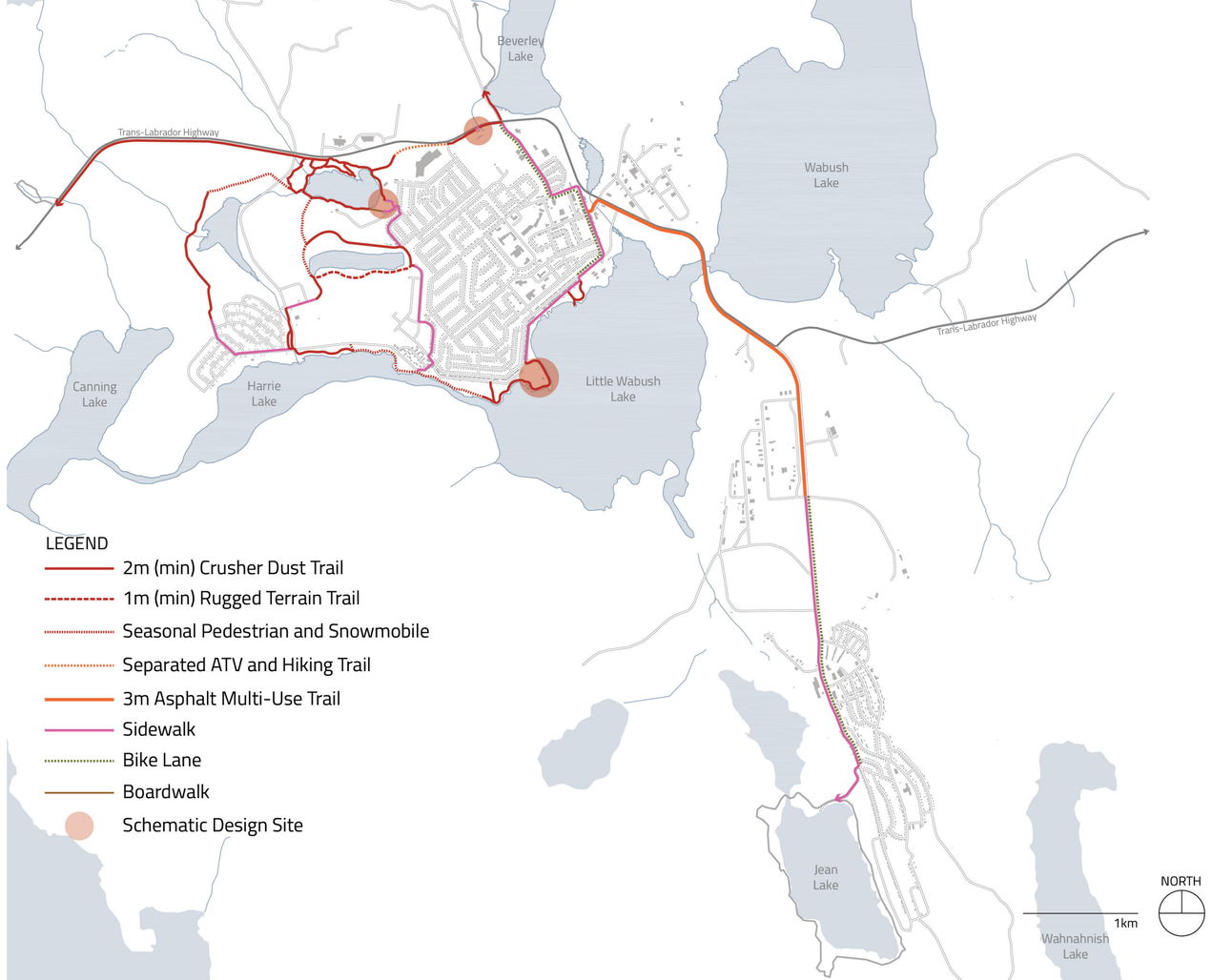
[RIGHT]
Trail Access Diagram



6.6 MULTI-USE TRAIL NETWORK DESIGN GUIDELINES

The trail network has been broken down into a number of different surface treatments and programs in order to create seamless connection from naturalized areas to more urban areas of the community, as well as accommodate for seasonal changes in user types. Trail types include: 2 m (min.) pedestrian crusher dust trail, 1 m (min.) rugged terrain trail, seasonal pedestrian and snowmobile trail, separated ATV and hiking trail, sidewalk with bike lane, boardwalk, as well as a 3 m wide asphalt multi-use trail.

[RIGHT]
Trail Type Diagram



MIXED-USE TRAIL NETWORK

The main goal of the Parks and Trails Masterplan is to create a unified trail system which builds upon existing hiking trails, neighbourhood sidewalks, maintained snowmobile trails, and informal ATV trails. The Parks and Trails Masterplan seeks to establish clear design guidelines in keeping with contemporary trail design and safety standards. These guidelines are meant to be understood as a "kit of parts" that may be referenced for future trail expansion projects. While the trail network is designed primarily for pedestrian use, much thought has gone into designing to accommodate for recreational motor vehicle traffic to be certain the trail system is safe for all users. As a general rule, where possible, trail incline should be kept under 5% slope and all cross slopes should be 2% or less.

DESIGN ELEMENTS

Crusher Dust Hiking Trail

Crusher dust trail surfacing shall be used for portions of the trail that fall within public parks and existing naturalized areas. Trails are recommended to be a minimum of 2 meters in width to create improved accessibility for hiking groups, two-way pedestrian traffic, as well as wheelchairs and strollers. It is recommended to have 0.6 m of shoulder clearance on either side of the trail to provide enough space for groups to pull to the side of the trail without trampling vegetation. The shoulder will also serve to prevent erosion as well as buffer encroaching vegetation and other obstructions along the trail.

1 m Rugged Terrain Trail

The portion of the proposed trail running along Quartzite Lake presents design challenges that are not present elsewhere in the trail network. It is steep, with slopes approaching 20%, and superficial geology of bedrock sitting under less than 6" of native soil. The proposed trail design in this area needs to be sensitive to these constraints and reflected in the trail design's average/maximum longitudinal slope, cross-slope, width, surface material and sub-base material.

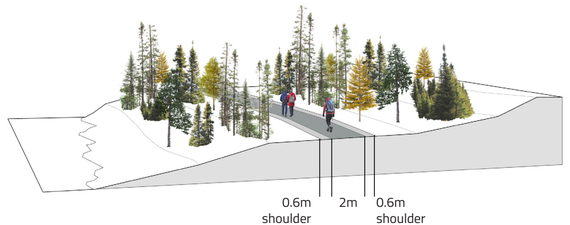
No standards from government departments or private agencies within Newfoundland and Labrador were available. As such, prescribed guidelines from several agencies operating elsewhere in Canada and the United States were used to develop standards for this project. The average of the values provided in the literature for each criterion have been used as the standard for this portion of the report.

Following from these criteria, the surface of the rugged trail will be either stabilized native soils or soil cement and will be 0.75 meters wide with a 0.5 meter cleared shoulder on either side to allow for access while minimizing disturbance to the natural environment. The average maximum slope of the trail will be approximately 10%, with the steepest portions having a slope not exceeding 30% over a maximum distance of 30 meters. The cross-slope of the trail will be approximately 2% throughout the trail and will not exceed 8% maximum. In areas where these criteria cannot be reasonably met, switchbacks will be incorporated to reduce the maximum slope of the trail, and/or waterbars will be used to mitigate against erosion.

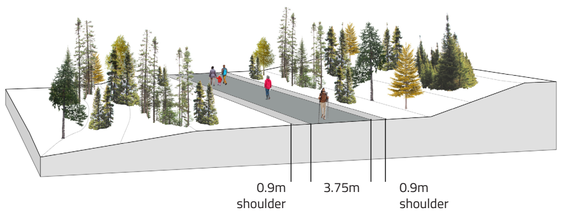
Seasonal Hiking and Snowmobile Trail

Labrador West has an extensive snowmobile trail network maintained by the local White Wolf Snowmobile Club. During the summer months the trails are free for hikers to use safely. It is recommended that sections of the existing snowmobile trail that are included in the Regional Trail Network are designed to accommodate for pedestrian use during periods of the year when snowmobiling is not possible. Because the sections of the existing snowmobile network provide key connections from Tanya Lake all the way to Al Thoms Recreation Area, it is expected that pedestrian traffic along these segments of the trail will be high. Trail surfacing in these areas shall be crusher dust paving to allow for ease of travel, durability, drainage, and provide design and wayfinding continuity throughout the trail network. It is also recommended that trail longitudinal slopes are under 10% for accessibility and all cross slopes are 2% or under for drainage.

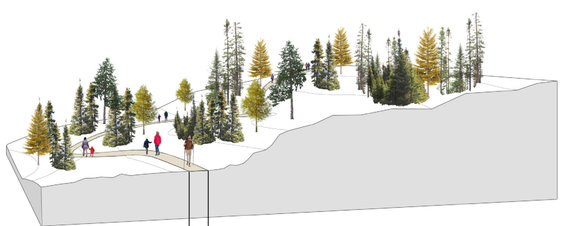
Standard snowmobile trail design designates a minimum of 2.44 meter and maximum of 3.66 metre travel width and a 0.9 shoulder on either side, accumulating to an overall minimum width of 4.25 meters. The White Wolf Snowmobile Club currently clears and grooms the trails regularly during the winter months and maintains overall trail widths of 4.25 to 4.9 meters. Sections of the snowmobile trail which will be used by pedestrians during the warmer months should allow for a 2.5 m wide crusher dust trail with a 0.9 m shoulder on either side.



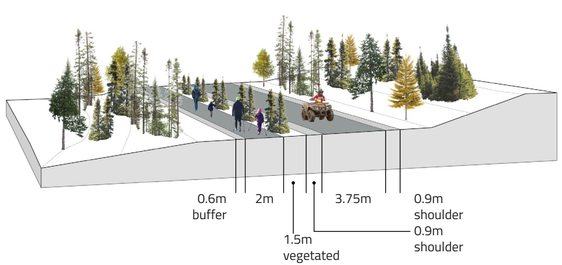
2 m (min) Crusher Dust Hiking Trail



Seasonal Hiking and Snowmobile Trail



1 m (min) Rugged Terrain Hiking Trail



Separated ATV and Hiking Trail

Accessible Boardwalk

There are certain areas of the trail where it is unsuitable to construct a trail at grade, such as through a wetland, along waterfrontage, or in areas with sudden grade change, a boardwalk may be constructed in order to ensure accessibility for all users. Accessible boardwalk design criteria recommends that boardwalk width be a minimum of 1.6 m, however widths are 2 m are more comfortable in allowing two persons in wheelchairs as well as groups to pass easily. Boardwalk planks should be laid perpendicular to the path of travel and have a joint width no greater than 6 mm. Where grade drops more than 0.2 m, a edging 0.15 m high and 0.15 m wide edging is recommended. If the grade drop is more than 0.46 m or more, the boardwalk will require protective railings.

Pedestrian approaches to the boardwalk, such as trails, roads, and sidewalks, should allow for level transition or be suitably ramped for wheelchairs, strollers, and persons with mobility impairments. Other amenities such as benches and waste receptacles should be located one side of the boardwalk on level and firm surfaces at the same elevation.

Separated ATV and Hiking Trail

Sections of the Regional Trail Network also run along areas that are popular ATV routes. These ATV routes are informal and change seasonally as drainage patterns make certain routes unusable. In order to make sure that these sections of the trail are safe for both pedestrians and ATVs, a more formalized separated trail is recommended.

Trail design criteria for a separated ATV and hiking trail comprises of 3.75 m wide path of trail for ATVs, a 2 m minimum path of path of travel for pedestrians, with a 1.5 m vegetated buffer for separation and a 0.9 m shoulder on either side. Crusher dust paving may be used for both the hiking trail and the ATV trail. However, the ATV trail will require a more substantial sub-base to ensure durability for more heavy traffic. For ease of construction and maintenance, both the ATV trail and hiking trail should be graded to a similar longitudinal slope no greater than 12% for accessibility, and both trail types should have a 1-2% cross slope for drainage.

Active Transportation Corridor

A key priority that came out of the community consultation, was a strong need for an active transportation link from Labrador City to Wabush. Currently, there is no pedestrian connection along the highway that joins the two municipalities. A multi-use trail is essential in promoting active healthy living in Labrador West and is the first step in shifting away from a car dependent community by allowing residents the choice to commute safely between the two communities.

For the section of the trail proposed along the highway connecting Labrador City and Wabush, a 3 m wide asphalt multi-use trail is recommended to make sure trail surfacing is accessible to residents of all abilities. This section of the trail spans 5 km and will most likely be used for recreational runners and cyclists as well as more adventurous local commuters. Longitudinal slopes should ideally be kept under 5% for greatest accessibility. In locations where this may not be possible, longitudinal slopes should be no greater than 12%. Slopes greater than 12% for lengths longer than 60m are not recommended. Finally, all cross slopes shall be within the 1% to 2% range to provide proper drainage.

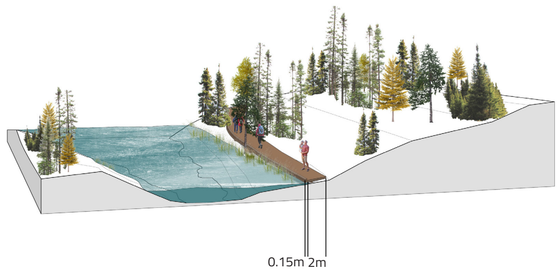
Multi-use trail design should also allow for 0.6 m shoulder on either side of the trail, to accommodate for passing, prevent erosions, and protect from obstruction along the side of the trail. Additionally, a buffer of 9 m (min.) is suggested between the trail and road to protect trail users from potential collateral collisions with highway traffic. Often the 9 m buffer also includes a ditch to serve as additional protection from vehicular collisions and to divert water away from both the road and trail.

Sidewalk and Bike lane

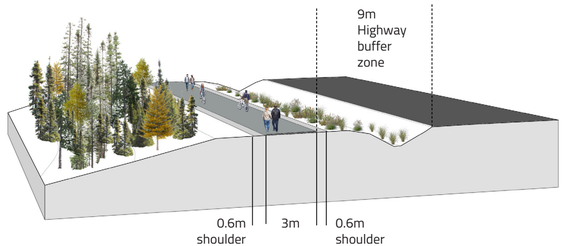
Certain parts of the regional trail network pass through more urbanized areas of Labrador West, such as the residential areas between Quartzite Lake and the Waterfront trail, between Al Thoms Recreation Area and the Booth Street Recreation Hub, as well as along the road connecting to Jean Lake Park and Trail. Where possible, it is recommended to take advantage of existing sidewalk infrastructure.

In areas where there are roads, but no sidewalks, it is suggested that the municipality follow the appropriate planning procedures and conduct community consultations to implement sidewalks and bike lanes to create better pedestrian and cyclist connectivity at the scale of the neighbourhood as well as regional trail network.

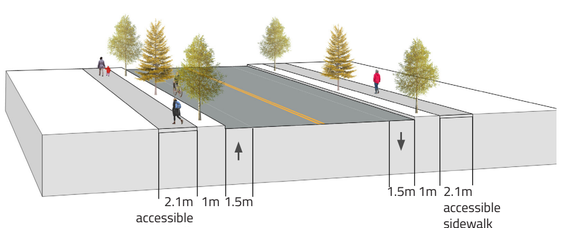
It is recommended that new sidewalks be built to comply with barrier free accessibility standards, with a minimum width of 2.1 m to create enough space for wheelchairs and passing. Longitudinal slopes should be under 5% whenever possible but slope up to 8% are acceptable. All cross slopes shall be between 1% and 2% to allow for drainage. Ideally, a grass boulevard strip with tree plantings at a minimum of 1 m is considered best practice for street design. This provides a protective buffer from vehicular traffic and enhances the overall streetscape aesthetic. To encourage healthy and active communities as well as enhance connectivity and safety for a variety of trail users, it is recommended that bike lanes be installed on either side street. One-way direction bike lanes shall be demarked with road line painting and directional bike symbols and have a minimum of 1.5 m width. Where traffic is heavy, protective barriers should also be installed between the bike lane and the roadway to create additional protection.



2 m Accessible Boardwalk



3 m Asphalt Multi-Use Trail

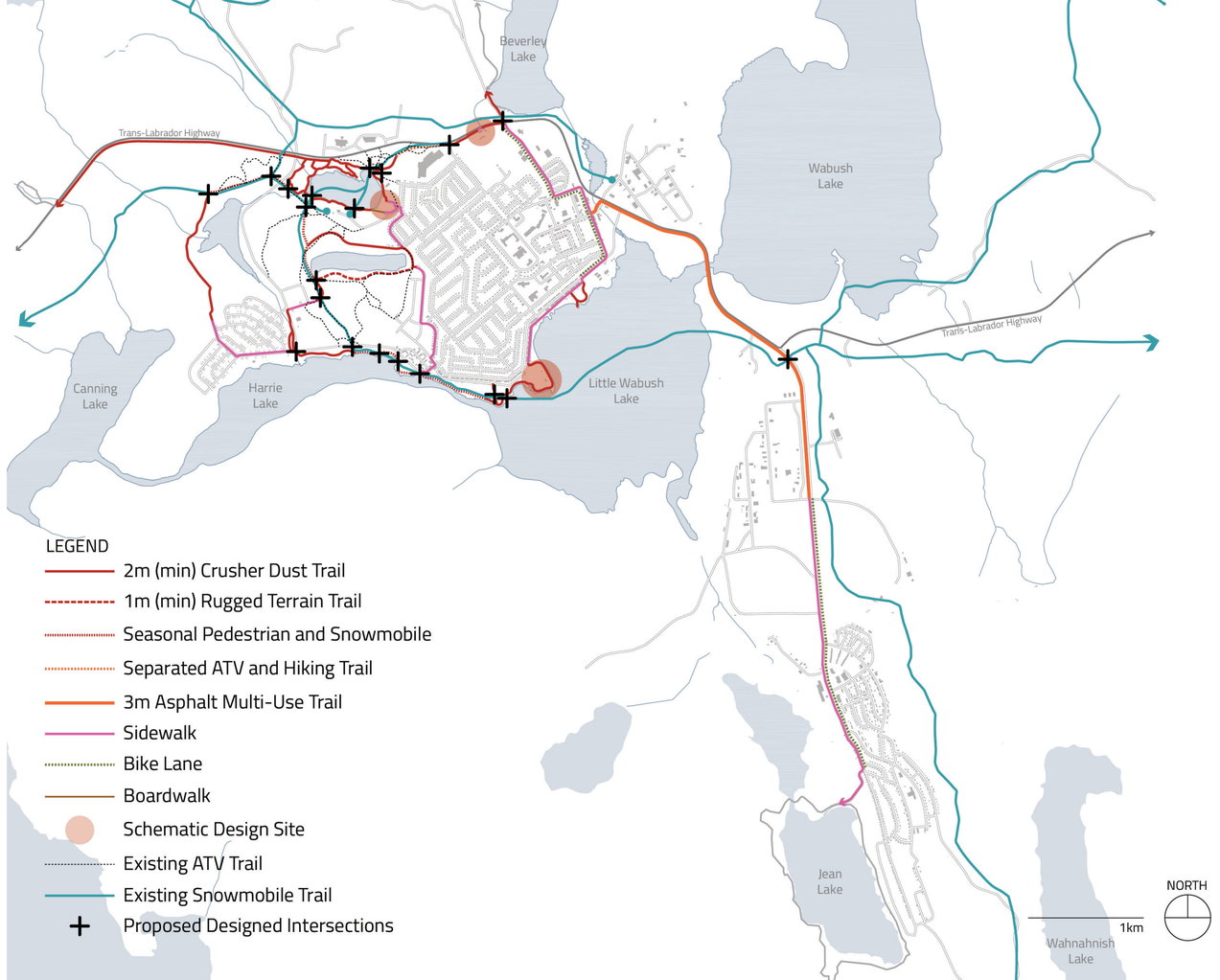


Sidewalk and Bike Lane

DESIGNING FOR MULTIPLE USERS

Key intersections of user conflict have been identified along the trail network. These are locations in the regional trail network where the trail intersects with either snowmobiles during winter months, or ATVs in the summer. This diagram shows both groomed snowmobile trails as well as more informal ATV trails. In order to ensure safety for all user groups, it is imperative that the regional trail network be designed with consideration of these intersections. Guidelines for snowmobile and ATV intersections at pedestrian zones are further elaborated pages 67 to 68 of this document.

[RIGHT]
Trail intersections diagram

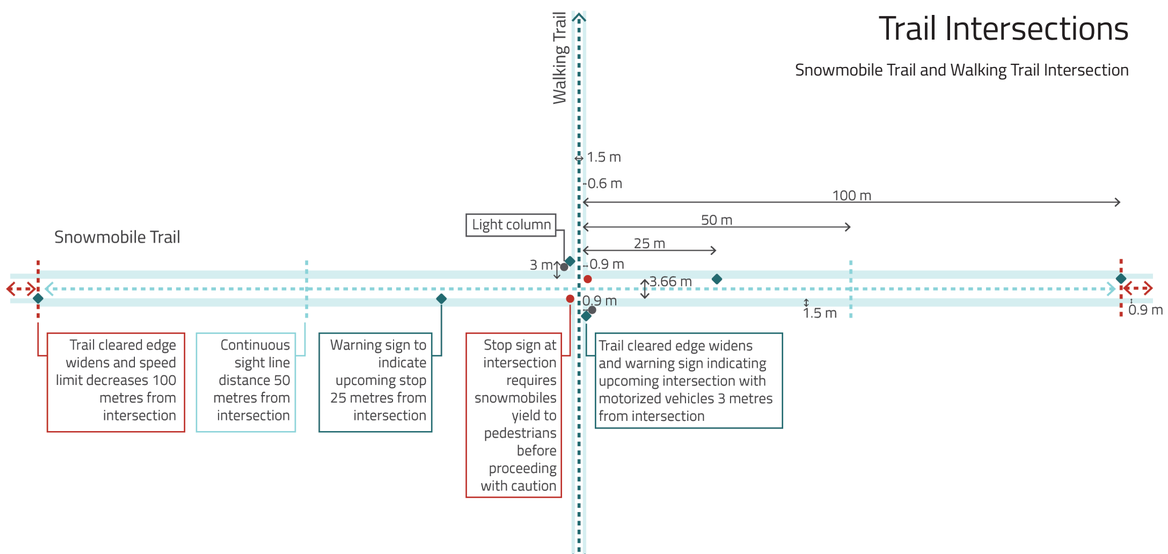


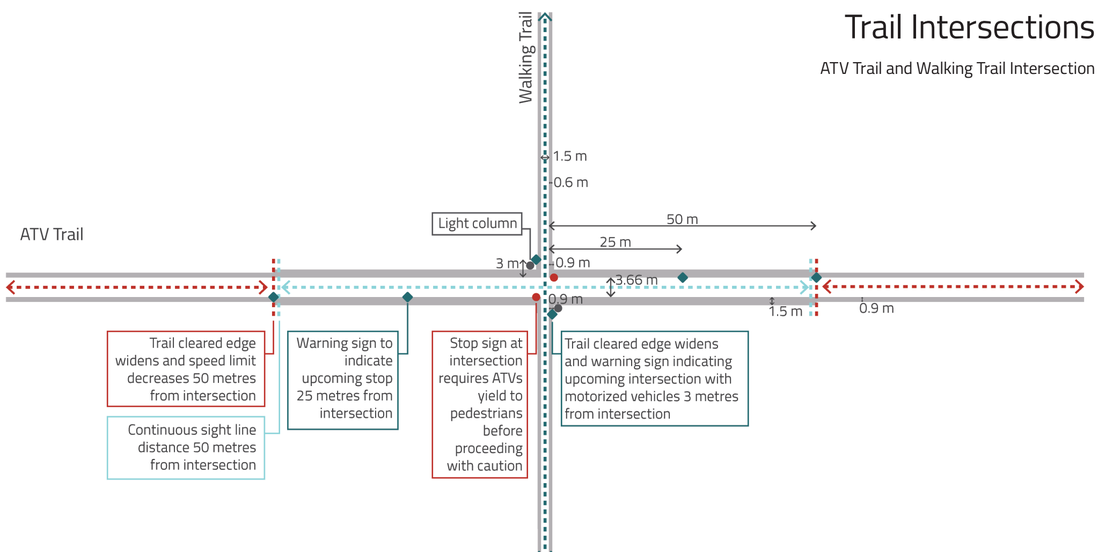
TRAIL INTERSECTIONS

Safe intersections where pedestrians and motorized vehicles cross paths is a key consideration. Trail design, grooming practices, and signage are important elements in indicating upcoming intersections and improving safety at the points for all users. Snowmobiles and ATVs reach different speeds and therefore the treatment of intersections varies for each vehicle type.

Snowmobile trails begin to have trail grooming adjustments 100m from the intersection. The cleared edge on the shoulder of the trail increases from 0.9 m to 1.5 m. At this point, the speed limit also decreases to 20km per hour. A minimum sight distance of 50m should be maintained in both directions from the intersection.

Areas where trails can be straight or allotting additional space for the cleared edge are design considerations to make when planning where intersections should occur. Warning signs to indicate an upcoming stop sign should be located 25 m from intersection. Finally, a stop sign at the intersection requires snowmobilers come to a complete stop before proceeding with caution. Snowmobilers are to allow pedestrians to cross on trails that intersect walking trails. Snowmobiles are to maintain the reduced speed limit of 20 km per hour until signage 100 m from intersection indicates increased speed limit.





[RIGHT]
Existing snowmobile and walking path intersection

ATV trails begin to have trail grooming adjustments 50m from the intersection. The cleared edge on the shoulder of the trail increases from 0.9m to 1.5m. At this point, the speed limit also decreases to 20km per hour. As with snowmobile trails, a minimum sight distance of 50m should be maintained in both directions from the intersection. Located 25m from the intersection, a warning sign indicates an upcoming intersection. At the intersection, a stop sign requires ATVs come to a complete stop before proceeding with caution. ATVs are to allow pedestrians to cross before proceeding. The reduced speed limit is to be maintained until signage 50m from intersection indicates that higher speeds can be resumed.

Walking trails will have a wider cleared edge, increasing from 0.6m to 0.9m, 3m from the intersection to improve visibility for both pedestrians as well as oncoming motorized vehicles. A warning sign at this point indicates an upcoming intersection with motorized vehicles. Although vehicles are expected to come to a complete stop and yield to pedestrians before proceeding, warning signs on walking trails recommend that pedestrians ensure it is safe to cross before entering the intersection.

In addition to design interventions and trail signage, major access points should have information signage posted. These signs could include emergency numbers, trail maps, and rules and regulations for trail safety. This helps to ensure users are aware and expect to adjust speeds and stop at intersections.

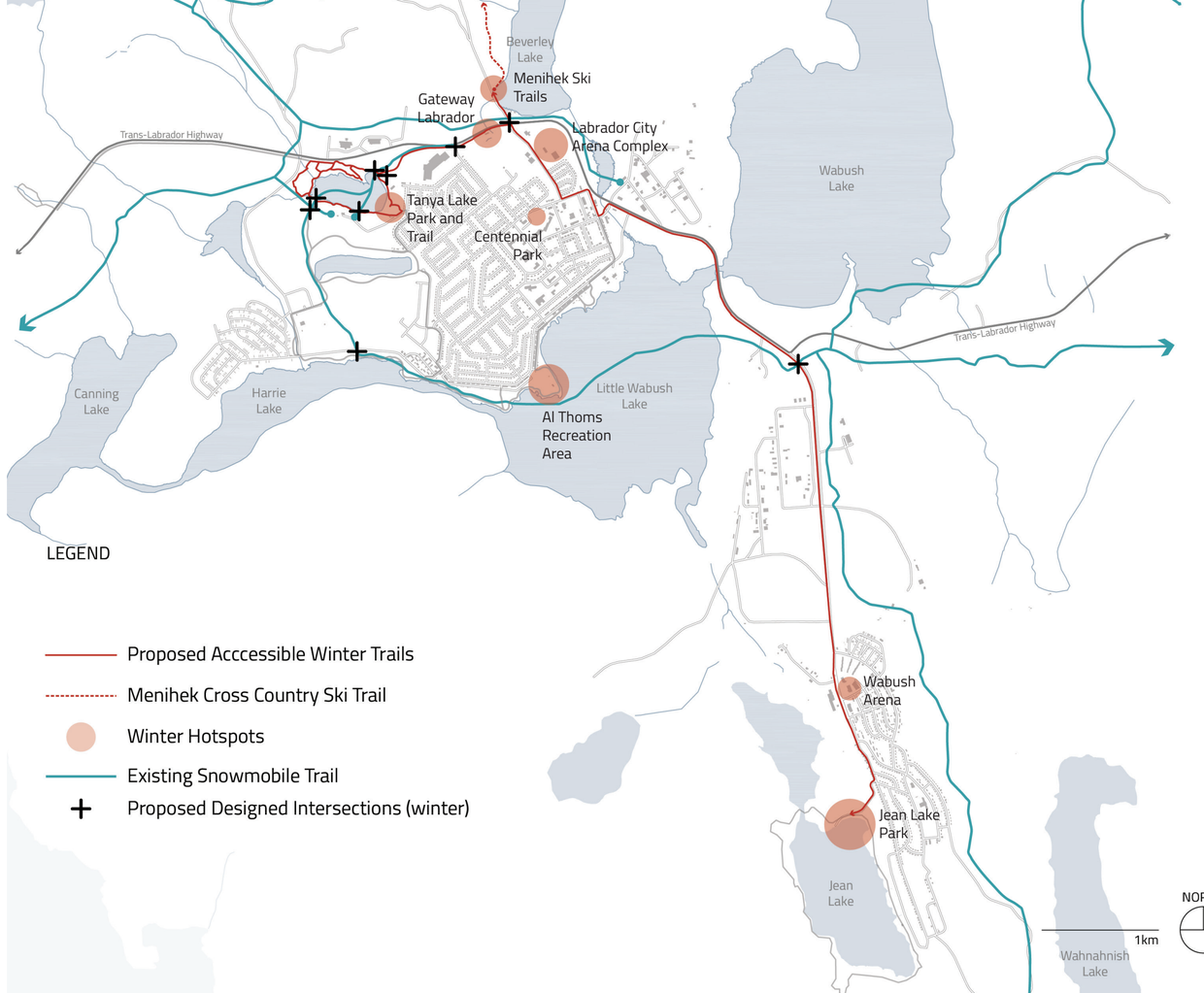
6.7 DESIGNING FOR SEASONALITY

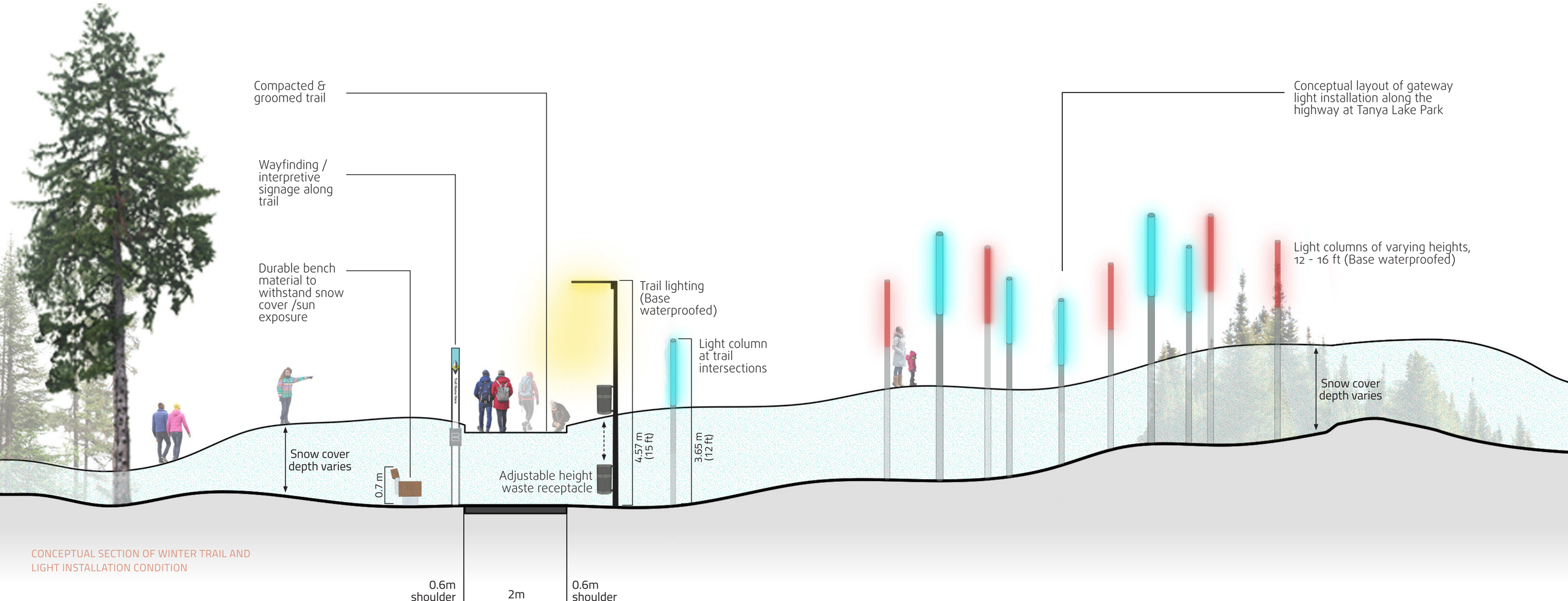
Labrador West is home to a vibrant, active community that makes use of its surrounding landscapes for recreation and cultural activities year-round. In recognition of this, the masterplan has focused on highlighting and facilitating existing seasonal programming and introducing new programming through tactical design interventions that will also attract tourists to the Labrador West region throughout the year. These interventions include: temporary art installations, a gateway light installation, increasing the safety of the existing sledding hill, and seasonal warming huts.

The proposed temporary art installations consist of 3 m high posts covered with graphic designs in reflective materials that will increase safety while introducing a sense of playfulness to the winter trail network. The existing sledding hill will be programmed to ensure a safe sledding experience for both trail users and sledders alike. This would involve ongoing maintenance of a snow embankment to prevent sledders from colliding with trail users. The light installation will consist of colourful light columns of varying heights that evoke the northern night sky. Proposed seasonal warming huts will provide a destination in winter as well as activating and increasing the playfulness of the trail network. The design of the huts could also become a yearly design competition, a feature that has proven to be very successful and a major source of tourism in both Winnipeg, Manitoba and Toronto, Ontario.

Finally, as mentioned in previous sections, snowmobiling is an integral part of winter life in Labrador West. Special attention must be paid to implementing safe pedestrian and snowmobile crossing where areas of the regional trail and the White Wolf Snowmobile Trails intersect.

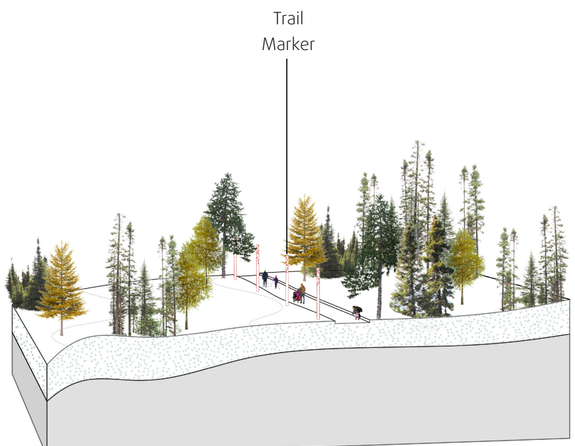
[RIGHT]
Winter Seasonal Trail Diagram





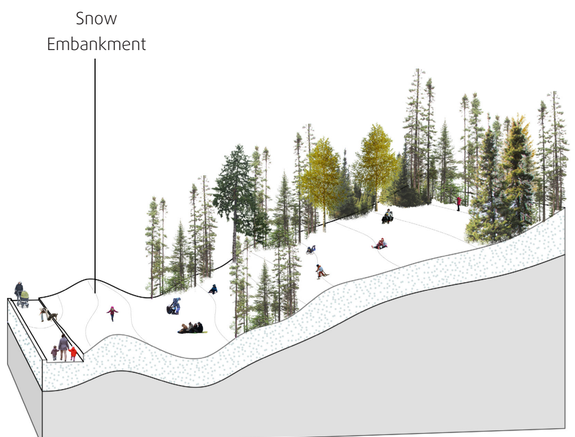
CONCEPTUAL SECTION OF WINTER TRAIL AND LIGHT INSTALLATION CONDITION

SEASONAL INTERVENTIONS



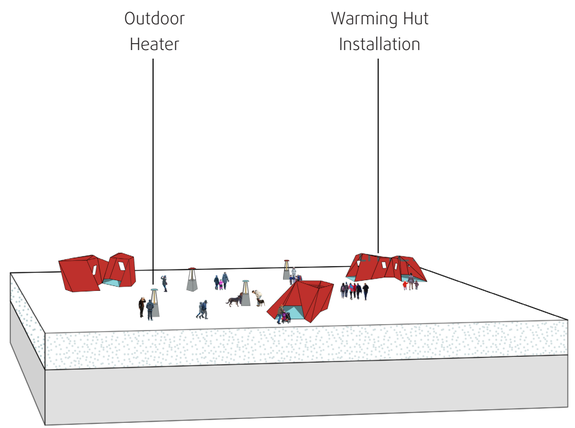
Temporary art installations/ trail markers

This art installation will consist of 3m high posts covered with a graphic design made from reflective materials installed along the edge of the trail to create a playful, interactive experience. The design on each post will vary slightly, but there will be commonalities of shape, colour and material. The reflective designs will be decorative and will also increase safety by reflecting snowmobile headlights in the dark.



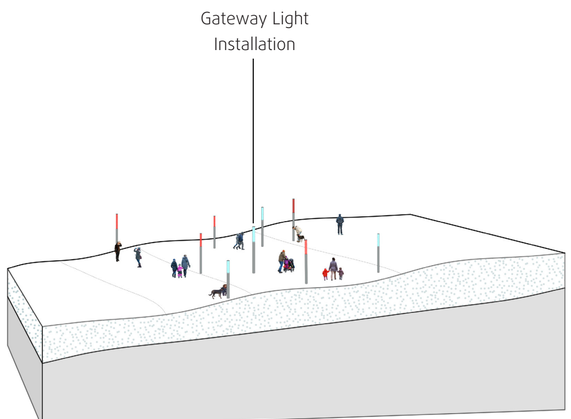
Sledding hill

It was clear through the consultation process that it was important to preserve the existing sledding hill at Tanya Lake. However, for safety reasons it was necessary to buffer the sledding area from those walking on the trail. This design will create a safe space for both sledders and pedestrians through the maitenance of a snow embankment that will help prevent sledders from entering into the trail area.



Warming huts

Warming huts serve the practical function of providing shelter during cold winter days and nights. They also present the opportunity for innovative and artistic design and the creation of destinations that activate the trails in playful and engaging ways. The temporary warming huts would also be a winter tourist attraction and could serve as the focus for a yearly design competition. Recommended sites for these huts are parks sites where no building facility is provided to allow park goers to warm up indoor, such sites include Al Thoms Recreation Area and Jean Lake.



Light installation

This gateway installation along the highway will consist of lights scattered randomly in the landscape and is intended to evoke the Northern Lights and the stars of the northern sky. This installation will use light columns of varying heights that can be programmed to change colour. The light columns will be clustered tightly and will be consistently lit while it is dark outside to avoid having snowmobiles colliding with the installation.

6.8 INTERPRETING LABRADOR WEST

Interpretive Framework

An interpretive framework is a tool to guide and plan interpretation in an area. A strong interpretive framework sets out the themes and topics to be interpreted, helping ensure that interpretive media like panels and signs consider a range of perspectives, and relate to the place the visitor is in.

As an interpretive framework for parks and trails, not every topic will be represented here; there will be many other opportunities, both indoor and outdoor, to address other topics. The focus in this framework is on cultural and natural history, the connection between the people and land of Labrador West.

APPROACH TO LOCATION

The approach to interpretation is informed by several values. First, to not get in the way of what visitors want to see. Interpretation should help visitors understand what they see, and spark curiosity to learn more, but vistas should be kept free of extraneous signage.

Interpretive trails are opportunities to tell stories of the environment, keeping the focus on what visitors are likely to be able to observe—watchable wildlife, geological features, plant and tree life. Historical and cultural stories are best told in more built-up areas, or in gathering places or nodes where people congregate.

TECHNIQUES

The strong seasonality of the Labrador West can be a strength. Take advantage of the snow depth, difference between winter and summer light, and differences in flora and fauna wherever opportunities arise. Make sure interpretive messages make sense year round.

Keep the amount of text to a minimum. People don't come to parks and trails to read; long passages of text can be a distraction.

Avoid clutter. See our opportunities to co-locate interpretation by locating on buildings, street furniture, structures, etc.

POTENTIAL INTERPRETIVE THEMES:

The land and nature

- The boreal forest as ecosystem and its creatures
- Geological uniqueness of the area

Settlement and growth

- Founding
- Development and growth/change of the place
- Iron and mining
- Discovery and exploitation of iron
- Labrador Trough and geology of area
- Mining processes and products

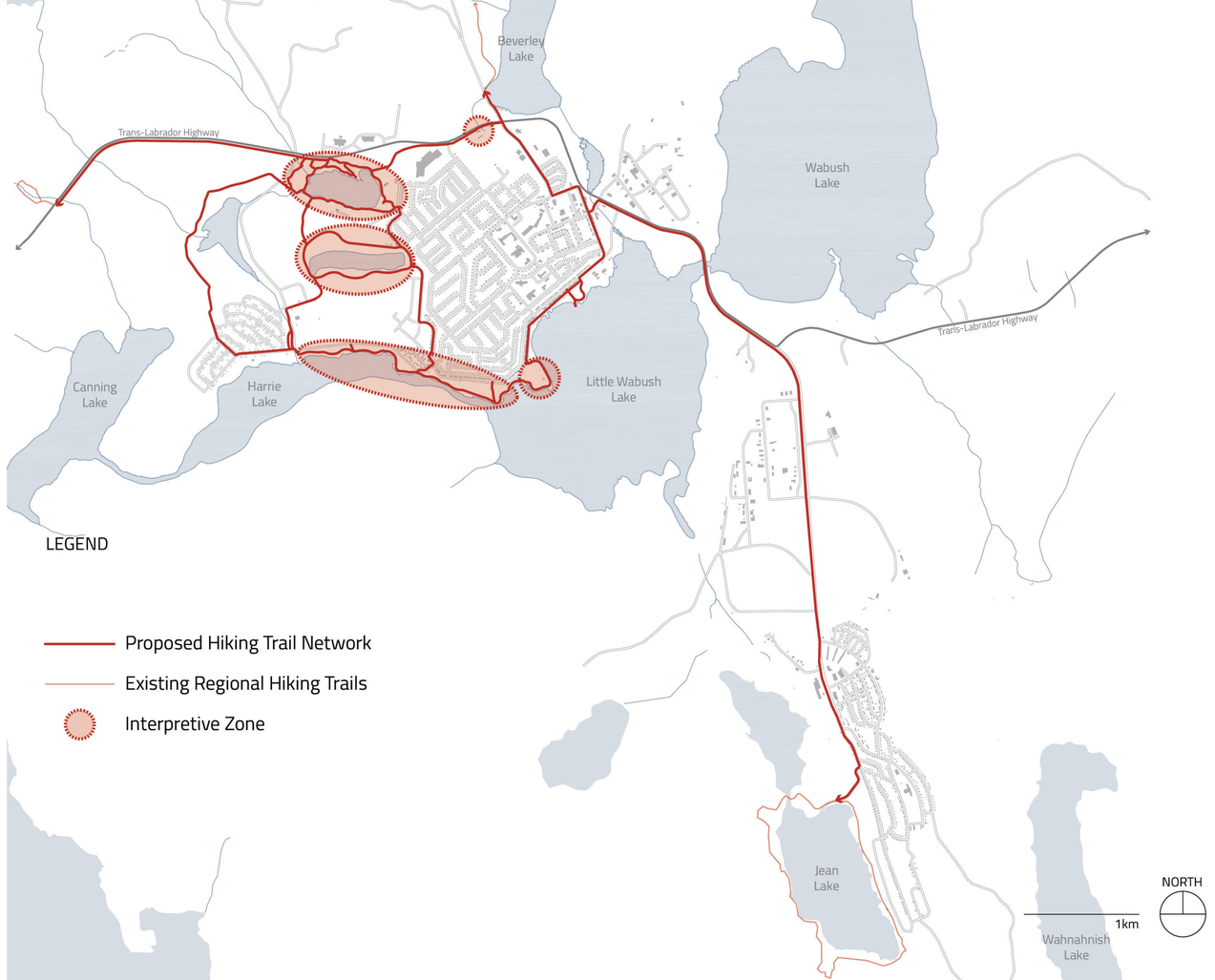
Recreation and cultural heritage

- Legacy of winter sports
- Sports heritage
- Hiking and outdoor recreation

First Nations heritage

- Innu nation
- Language and culture
- Pattern of life: caribou and migration
- First Nations today

[RIGHT]
Thematic Interpretive Zones Diagram



Interpretive Matrix						
Site		The Land	Settlement and Growth	Iron and Mining	Recreation and cultural heritage	First Nations
Tanya Lake	Relevance	High	-	-	-	Med
	Topics	Rock formations				First Nations use of stone?
	Locations					
	Possible media	Cut/carved boulders Conventional panel "dating" the rock				Engravings/art
Site		The Land	Settlement and Growth	Iron and Mining	Recreation and cultural heritage	First Nations
Gateway Labrador		High	-	-	-	Med
	Topics	Overview of local conditions				Overview of FN (Innu, etc.)
	Locations	Nature trail				Nature trail
	Possible media	conventional panels				Connections to FN sculpture
Al Thoms Rec Area	Relevance	-	Med	High	-	-
	Topics		History of area, name	Vista to mine		
	Locations		Viewing tower staircase	Top of viewing tower rail		
	Possible media		Timeline graphics in stair Stair riser interp	Annotated rail		

Interpretive Matrix						
Site		The Land	Settlement and Growth	Iron and Mining	Recreation and cultural heritage	First Nations
Quartzite Lake		High	-	-	-	Med
						First Nations use of stone?
	Topics	Rock formations				
	Locations					
	Possible media	Cut/carved boulders Conventional panel "dating" the rock				Engravings/art
Site		The Land	Settlement and Growth	Iron and Mining	Recreation and cultural heritage	First Nations
Lakefront Trails		High	-	-	-	Med
	Topics	Lake ecosystem Flora and fauna				Multicultural labrador city?
	Locations	Stations along trail				
	Possible media	Bench integrated Conventional panels				Connections to home—words/images related to people who came Quotes along a theme "I came to lab city to..."

INTERPRETIVE MEDIA AND INTERVENTION OPPORTUNITIES

Interpretation can be more than traditional text-heavy panels.
Site-specific interpretive design can be integrated into structures, site furniture, and infrastructure.

Shown here are examples of interpretation that take advantage of local opportunities to tell stories and spark curiosity.

Interpreted vista on viewing tower handrail.

Swing arm interpretation pivots out of the way of bike trail.

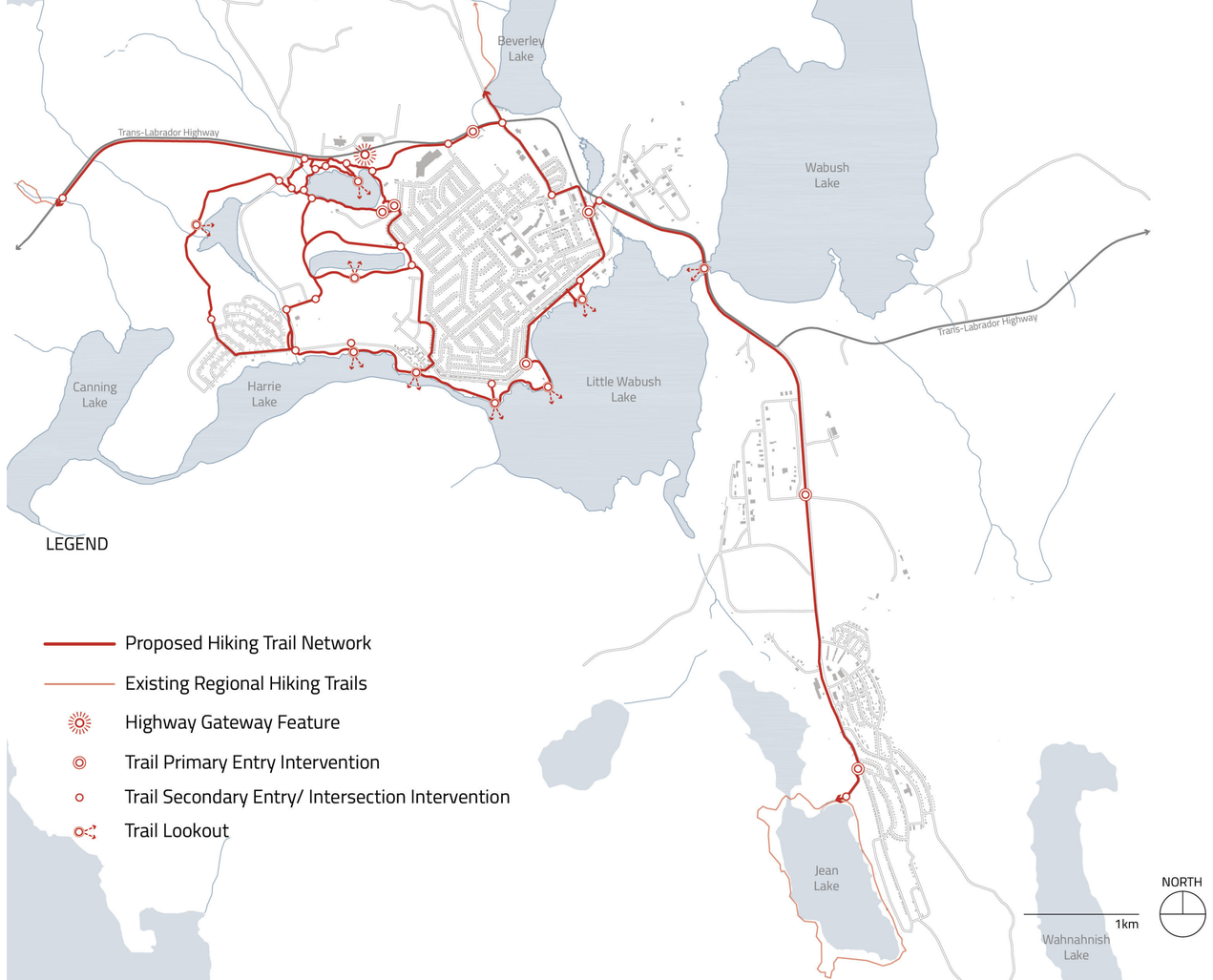
Interpretation embedded in surface.

Interpretation integrated into outdoor furniture.

Evocative sculpture in the landscape.

First Nations Motifs integrated into landscape features.
Stone carving decoration at Trillium Park photo by Alex Laney, CC-BY-SA-4.0 Int.

[RIGHT]
Trail Intervention and Installation Diagram



6.9 TRAIL BRAND

Labrador West

The Labrador West brand draws upon the nature of the city. On one hand the logo is a reference to industry, the built environment, and the town's reason for being. On the other hand, the logo is a nod to the region: a small city surrounded by the natural environment of black spruce. The shades of grey reference the iron ore that drives the economy of this area. These contrasts represent the dichotomy that is Labrador West: industry nestled in nature.

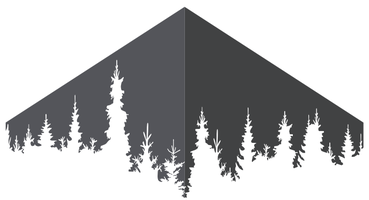
Frontier 53

Labrador City and the neighbouring town of Wabush are located on the 53rd parallel in western Labrador near the Quebec border. These twin communities support a population that enjoys the sense of adventure and exploration, like the explorers and prospectors of the late 20th century. The trail name, Frontier 53 reflects this past.

The trapezoidal form of the Frontier 53 has two primary references. It can be viewed as a compass arrow pointing north, and it shares a similar angle to the roof line of the building in the Labrador West logo. The typeface and grey colour palette is intended to ensure both logos work well together.

Summer and winter are drastically different in this area of the country. The Frontier 53 colour options are a reference to the seasons: a lush green landscape references the summer, and the reverse option a nod to the dark sky and snow covered landscape. A one-colour version is also available for single-colour uses.

The logo was inspired by the black spruce of the vast boreal landscape, shared with the Labrador West logo. The communities of the City of Labrador and the Town of Wabush are represented as two hills, reflecting the appreciation residents have for the outdoors and all that it brings—winter and summer.



LABRADORWEST

6.10 PARKS AND TRAILS POLICY AND PLANNING FRAMEWORK

The Labrador West Parks and Trails Masterplan builds upon previous planning documents that have laid the groundwork for policies and regulations related to built form development, conservation, and general open space guidelines for the region. In many ways, this masterplan is a continuation of the recommendations highlighted in the Labrador West Recreation and Parks Masterplan (2011), Plan Big (2015), and The Town of Labrador City Municipal Plan 2018-2028 (2018). The goal of this masterplan is to provide a clear path moving forward into the implementation phase of both the regional trail network and key open space sites. The masterplan aims to provide specific direction and policy frameworks for conservation and environmental enhancement, open space and parkland, as well as policies concerning the creation of a continuous connected regional trail network.

The following guidelines should be adapted into the future Development Regulations of the Town.

Parkland and Open Space

Land zoned as Recreation Open Space exist throughout Labrador West. These areas can be used as conservation areas or for recreational purposes. The open space designation accommodates recreation uses, such as snowmobile trails and hiking trails, that require large tracts of land. The designated spaces are linear in shape to accommodate trail corridors. Development of new trails in these areas should preserve and protect the natural environment. Wildlife habitat should not be damaged or lost and natural vegetation should be protected and preserved wherever possible. Alternatively, natural buffers or landscaped screens may be required between residential areas and recreational trails for ATVs or snowmobiles.

There are several existing ATV trails within currently undeveloped land located within an area zoned as Residential Medium Density. If this area is to be developed privately, these trails may be preserved for recreational purposes with a natural buffer as recreation open space is a permitted use within this zone. While the land is undeveloped, it is recommended these trails remain as they serve the community as recreation open space.

General parkland development requirements shall include the following.

- All parkland except greenbelts shall have at least 30m of road frontage or 30m of river/watercourse frontage.
- Parks shall be centrally located to service the greatest number of residents in the development or surrounding developments.
- Existing tree cover shall be retained wherever possible.
- Natural buffers or landscape screens may be required for development of walking trails in residential areas.

Parkland Dedication Guidelines

In effort to provide a comprehensive parks and trail system, in certain cases a parkland dedication may be used to guide the municipality in the right direction. It is recommended that development regulations be established such that any land subdivided shall have ten percent conveyed to the Town in the form of dedication of land, fee, or a combination of both. Land dedication upon subdivision is standard practice in most municipalities, however, few smaller municipalities have developed parkland dedication guidelines that set the criteria for acceptance of lands for public purposes. The future development regulations should be updated to define the acceptable criteria for public lands acceptance. The land typically needs to be suitable for parkland use, have adequate road frontage so it is visible and accessible, as well as connected to trail networks and other parks in the system. Often, without the proper guidelines, developers will select land with little or no frontage (due to single loaded roads being of significant cost), lands that have poor suitability for development (such as wetlands or land-locked parcels), or lands which are not coordinated to connect to trail systems to adjacent regional park networks. Dedication guidelines allow for clear development procedures during the concept planning phase of any new open space development.

Labrador City Greenbelt

In planned residential or commercial zones, a network of trails and sidewalks shall be coordinated to provide a full network of connected open space throughout the development linking to existing or future trail systems in the town.

The network shall consist of:

An accessible, linked network of trails with trail and road crossings minimized or located at safe crossing locations. Each cul-de-sac or crescent shall be connected to the trail network wherever possible. Where roads intersect, a combination of 2m concrete sidewalks and trail surfacing shall form an interconnected network throughout the development. Wherever possible, forested lands shall be preserved as part of the Greenbelt dedication.

- Trail network right-of-ways shall vary in width but shall not be less than 5m in width.
- The network shall count towards the parkland dedication.
- Streams and rivers should be included as a backbone of the network provided that the width of the alignment allows no less than 6m of no tree cutting from the edge of the stream or watercourse with enough remaining width for a 3m wide trail corridor to be safely constructed.
- Greenbelts that cross streets shall be connected on each side with a 2m wide sidewalk and crosswalk to provide continuous access.
- Any roads that cross the Labrador Trail shall engineer safe intersection access for cyclists and pedestrians at the developers' expense following TAC and NACTO standards.

Conservation and Ecological Buffers

The region of Labrador West promotes environmental conservation and stewardship through policy that protects natural systems. Open space and conservation land use policies simultaneously support the regional open space network, lakes and waterways, parks and recreational facilities, and natural systems and wildlife habitat. These policies serve to protect vulnerable environmental resources while also providing opportunities for enjoyment, thus supporting the long-term vision of the region.

Currently, conservation areas include all land within 15 metres of the high-water mark along shorelines and watercourses. Little Wabush Lake, Tanya Lakes, Quartzite Lake, Beverley Lake and the brook adjacent to Circular Road are among the areas with conversation designation in the Town of Labrador City. Additionally, areas adjacent to Jean Lake and Harrie Lake in Wabush have Conservation designation.

Protective buffers around watercourses and lake edges are important to water quality and flood protection, wildlife protection, and reducing effects of erosion and sedimentation of water courses. Further legislation should consider widening the existing mandated buffer to a minimum of 30 metres. Furthermore, any debris, structure, or polluting activity within or adjacent to buffer should be moved outside the proposed protective buffer. The Town may impose a deadline by which time the owner of any debris or pollution source must remove and properly dispose of these materials. Finally, new development of trails or recreational amenities such as boat launches, park uses, trails, or boardwalks within riparian buffer shall be designed by a qualified professional prior to implementation, and must use environmental best practices in their design and construction to minimize disturbance within the buffer.

Conservation areas can provide opportunities for passive recreational facilities such as walking trails, snowshoeing trails, scenic lookouts, birdwatching blinds, and interpretive features provided they do not have adverse environmental impacts. Recreational facilities within Conservation areas should preserve and protect scenic attractions and existing vegetation where possible. Interpretive features along walking trails in Conservation areas can give users the opportunity to learn about regional ecosystems during their experience.

Land that cannot be developed shall not be included in the parkland dedication calculations. These lands include:

- Streams and watercourses with a 6m buffer from each side of the stream/ watercourse and 30m on Little Wabush Lake.
- Wetlands or salt marshes with a 3m buffer surrounding the delineated wetland edge. Wetland delineation shall follow the provincial guidelines.
- Lands that exceed 20% slope
- Lands that are prone to flooding with a flood frequency of greater than 1 in 10 years.
- Any provincially endangered habitat areas.
- Lands that cannot be reasonably developed for any reason (hydric soils, contaminated lands, service easements, etc.).
- Areas with a Conservation designation.

[RIGHT]
Conservation and Open Space Diagram

Tree Protection

The town of Labrador City and Wabush are surrounded by the natural beauty of the boreal forest. Trees in the urban areas can add significant ecological and aesthetic value to streetscapes, parks, and private properties. Trees provide shade and shelter, make the town more walkable, and contribute to the overall urban environment. Additionally, trees help provide natural buffers between residential areas and surrounding recreational and mining activities. Given the shorter growing season in Labrador's sub-arctic climate, newly planted trees generally do not reach full maturity for a very long time. It is important to protect trees within urbanized areas in order to ensure their long-term health and longevity.

Disturbance to trees in the form of grade change, excavation, stockpiling of materials, and compaction may be detrimental to the health of a tree. Tree protection guidelines should include when tree protection is required and best practices for tree protection during construction.

Tree protection requirements shall include the following:

- Adopt a tree protection bylaw to protect trees on existing and new public lands and right of ways.
- Tree Protection Plan should be required for construction within 6 metres of public trees growing in the right of way.
- Work undertaken within the root zone or drip line of a public tree, whichever is greater, shall include a tree protection barrier. This barrier shall be a minimum of 2 metres or at a distance of 0.5 metres for every 45mm in diameter at chest height of the trunk, whichever is greater. Despite minimum requirements, as much tree protection as possible should be afforded to trees.
- Siting of new parks, trails, and recreational areas should include a thorough inventory of existing wooded areas.
- Healthy trees and vegetation on private land that is unsuitable for development should be preserved.
- Traditional clearcutting for residential and non-residential development should be avoided whenever possible and healthy, mature trees should be protected during construction.

Passive Property Acquisition for Trail Connections

Municipalities have the authority to assemble lands for public purposes as required. These can include easements across properties for the purpose of connecting trails or the outright purchase of properties to assemble lands for a trail. Some municipalities use a passive acquisition strategy to assemble trail lands as required. Passive strategies set a policy for 'first right of refusal' with specific properties for trail assembly. In this approach, the municipality enters into a basic agreement with specific property owners to purchase lands as they become available for sale at fair market value. In most cases, the land is bought (when the property owner wants to sell), an easement is carved from the property for the trail, and the property is resold for fair market value to the free market. This approach typically means that no money is lost in the purchase and sale because the municipality can recoup any money spent once the trail easement is established on the property. Councils commonly have to adopt the passive acquisition approach through a formal process after identifying the desired trail alignment. When the lands come up for sale, they can purchase, re-survey the easement, and then sell the property.

A similar condition existed around Sullivan's Pond in Dartmouth, Nova Scotia, the 1970's. At that time, the City of Dartmouth adopted a passive acquisition approach to create a continuous trail around the pond. In this strategy, the City agreed to purchase the properties for fair market value only once the properties were put up for sale. This system placed no pressure to sell to the City except when desired by the land owner to sell. The remaining properties around Sullivan's Pond were sold back to the City for fair market value within approximately 10 years—completing the land assembly. It is recommended that Labrador City Council investigate a similar approach for connected trail lands as needed.