

# Lewis County Non-Motorized Winter Recreation Plan



OCTOBER 2025

# Contents

|  |    |
|--|----|
| ACKNOWLEDGMENTS .....                    | 4  |
| INTRODUCTION .....                       | 5  |
| COUNTY CONTEXT .....                     | 6  |
| EXISTING CONDITIONS .....                | 8  |
| COMMUNITY ENGAGEMENT .....               | 24 |
| RECOMMENDATION OVERVIEW .....            | 28 |
| PRIORITY RECOMMENDATIONS .....           | 30 |
| SUPPORTING RECOMMENDATIONS .....         | 52 |
| IMPLEMENTATION MATRIX.....               | 66 |
| APPENDIX A: TRAIL KIOSK DIMENSIONS ..... | 70 |
| APPENDIX B: COST ESTIMATES .....         | 73 |

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# Acknowledgments

## LEWIS COUNTY RECREATION, FORESTRY, AND PARKS

Jackie Mahoney | Director

Ryan Battles | Crew Leader

## LEWIS COUNTY PLANNING AND COMMUNITY DEVELOPMENT

Laurn Tabolt | Community Development Specialist

## CONSULTING TEAM

Dayton Crites | SE Group

Lydia Jankowski | SE Group

Elena Juodisius | SE Group

Margaret Carlin | SE Group

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- » Lewis County Board of Legislators
- » Lewis County Public Health
- » New York State Department of Environmental Conservation
- » Naturally Lewis, Inc.

Additional thanks to Brantingham Station LLC and Pine Tree Inn for generously providing space for public engagement events and discussions.

# Introduction

The Lewis County Non-Motorized Winter Recreation Master Plan offers recommendations for promoting and managing non-motorized winter recreation, with a focus on the County-owned property known as the Commons.

This report examines existing conditions at the Commons site, highlights community interests in non-motorized winter recreation, and proposes design recommendations at the Commons that include enhancing winter trail grooming, improving access through upgraded trailheads, expanding and refining wayfinding, and investing in four-season amenities and unique features such as ice ribbons and winter art installations.

While winter recreation encompasses both motorized and non-motorized activities, demand for non-motorized options is steadily increasing. According to the Outdoor Industry Association's 2023 Annual Trends Report, snowshoeing and cross-country skiing rank among the fastest-growing outdoor activities nationwide<sup>1</sup>. These activities are accessible, low-impact, and provide meaningful ways to experience winter landscapes.

Lewis County is widely recognized as a premier destination for outdoor recreation, particularly snowmobiling and other motorized sports. Receiving an impressive 200–300 inches of snow annually — up to 25 feet — the county supports extensive trail networks that attract thousands of snowmobile riders each year, generating substantial economic activity.



ATV and OHV riding continue to dominate during warmer months, with statewide ATV/OHV recreation contributing \$387 million to New York's GDP. Yet non-motorized activities such as hiking and tent camping are not far behind, contributing \$370 million in economic impact to the state's GDP<sup>2</sup>. These figures underscore a compelling opportunity: while Lewis County has long been known for its motorized recreation, expanding non-motorized offerings could further diversify and strengthen the region's outdoor economy.

<sup>1</sup> Outdoor Foundation, and Outdoor Industry Association. "2023 Outdoor Participation Trends Report," 2023.

<sup>2</sup> Bureau of Economic Analysis, Regional Data: New York Summary Sheet, U.S. Department of Commerce, 2023, accessed March 24, 2025, <https://apps.bea.gov/regional/orsa/>.

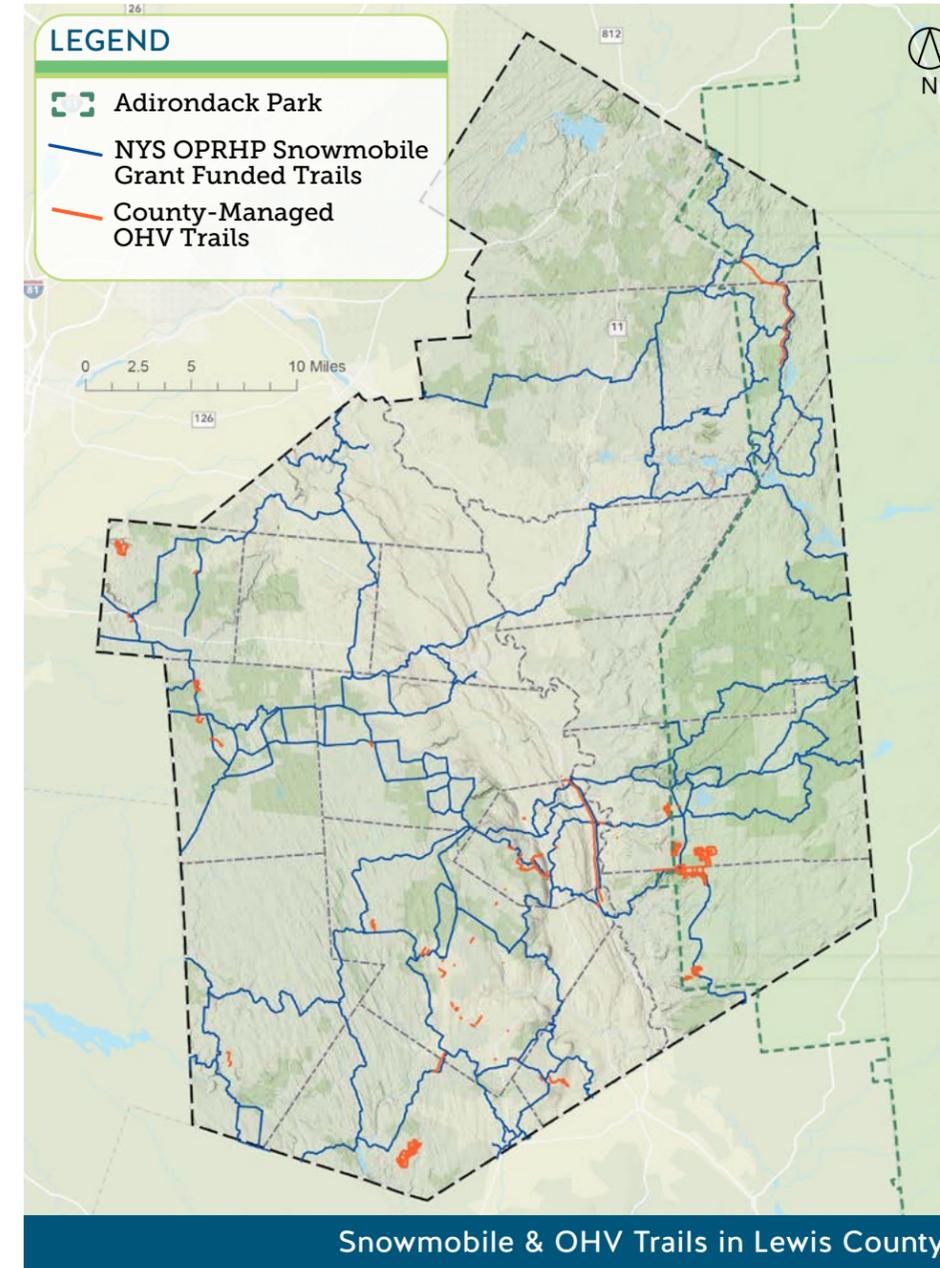
# County Context

## Background

Expanding non-motorized recreation is both an economic opportunity and a strategic response to changing conditions. As winter temperatures fluctuate and snow pack becomes less predictable, winter motorsport recreation may become less feasible. By contrast, non-motorized winter sports offers more resilient, lower-impact, and flexible options that can support year-round use. Lewis County also faces a clear demand for more accessible, family-friendly opportunities. Strengthening non-motorized recreation can improve access to nature for all ages and income levels, support active transportation, and help retain and attract residents who value outdoor lifestyles.

Lewis County Recreation, Forestry, and Parks (LCRFP) currently owns and manages roughly 4,586 acres across the county, oversees 506 miles of NYS OPRHP Snowmobile Grant funded trails and 97 miles of County-managed OHV trails. LCRFP also operates the Singing Waters Campground in the Town of Greig. The western edge of the Adirondack Park runs through Lewis County, giving it a unique position to connect local residents and visitors with one of New York's premier outdoor recreation landscapes.

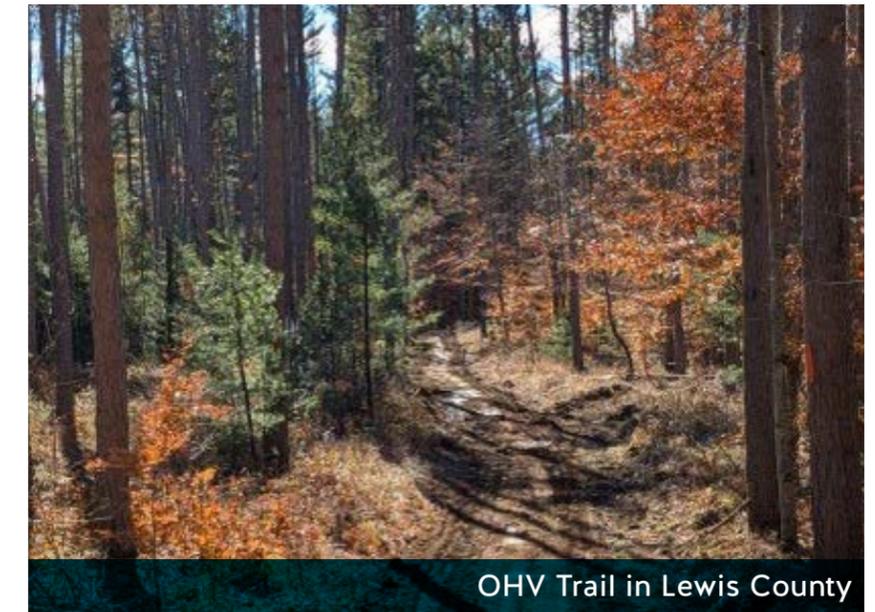
This plan builds on Lewis County's strong foundation of outdoor winter recreation. By focusing on non-motorized winter trail management, improved trailhead design, and enhanced wayfinding, the county can improve non-motorized winter trail systems. Expanding and strengthening non-motorized opportunities will not only improve quality of life for residents but also generate economic returns by attracting new visitors, supporting local businesses, and reinforcing Lewis County's growing outdoor recreation economy.



Snowmobile & OHV Trails in Lewis County



Snowmobile Trail in Lewis County

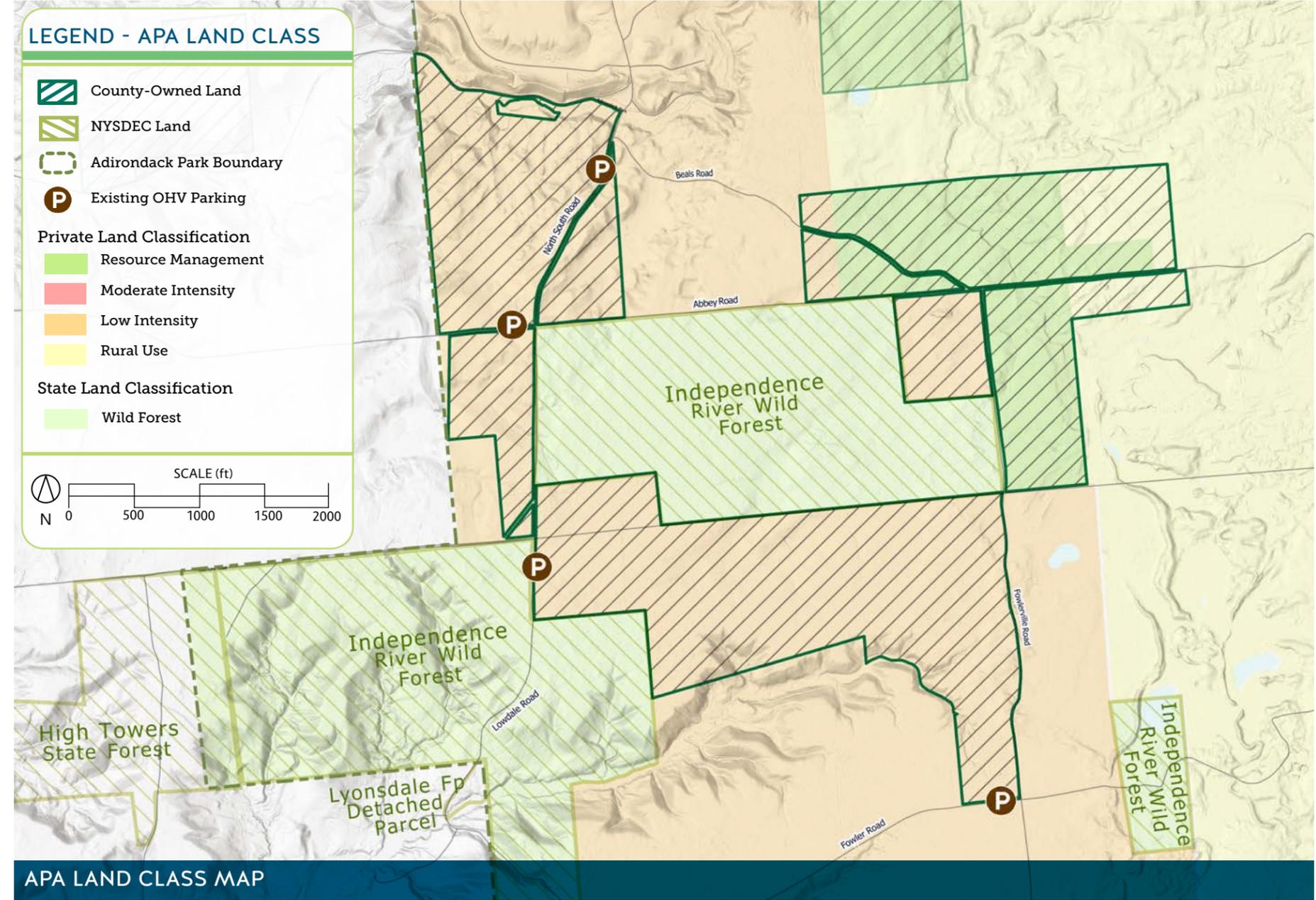
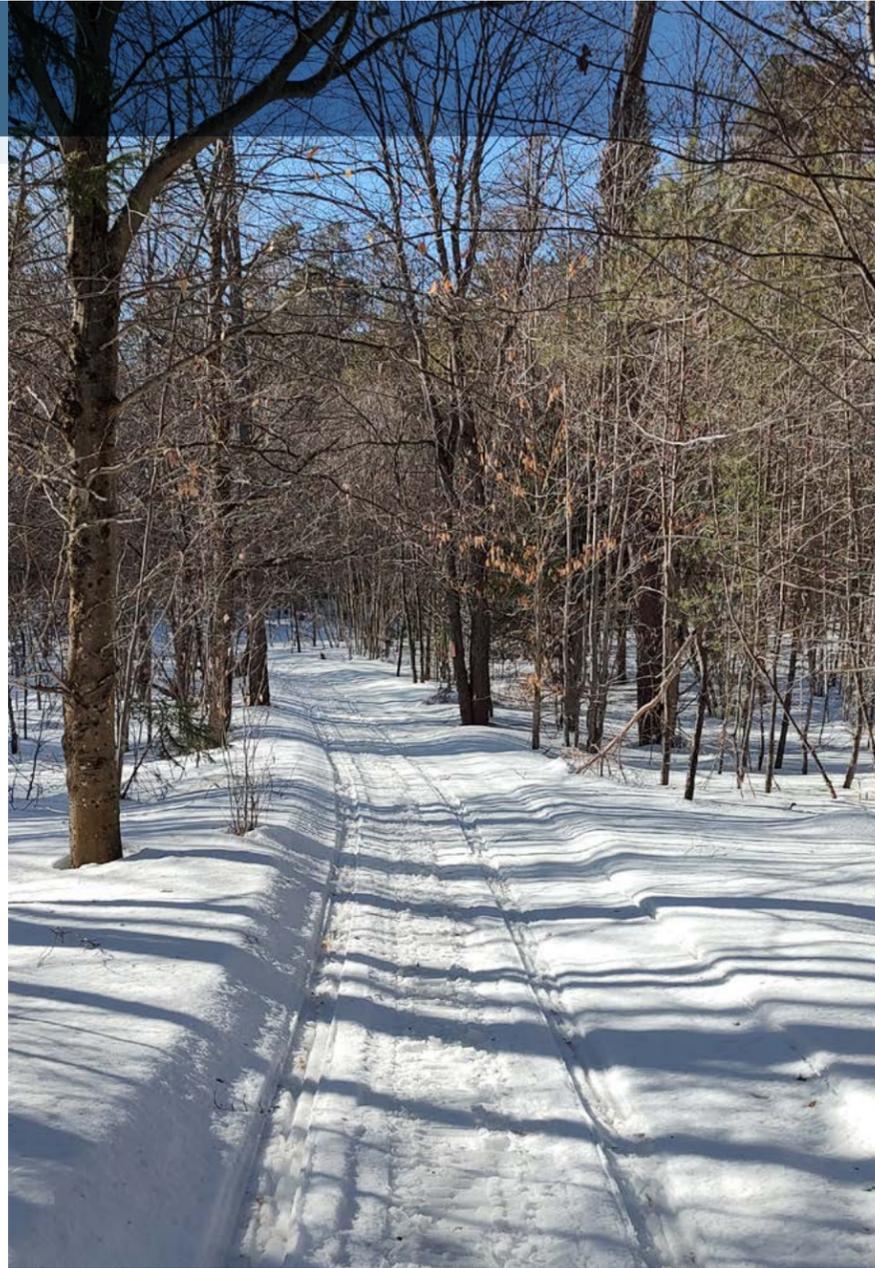


OHV Trail in Lewis County

# Existing Conditions

## Land Use & Management

The site of the Lewis County Non-Motorized Winter Recreation Plan is the County-owned land and associated trail network known as The Commons. Located in the southeastern corner of Lewis County, the southern portion of the trail network lies in the Town of Lyonsdale, while the northern portion is in the Town of Greig, just south of the Hamlet of Brantingham. The site is made up of approximately 1,226 acres of County-owned land. The site also surrounds about 430 acres of New York State Department of Environmental Conservation (NYSDEC) Forest Preserve Lands at its center, with an additional 548 acres of NYSDEC Forest Preserve Lands adjacent to its southwest corner.



The Commons is located just inside the Western boundary of Adirondack Park. According to the Adirondack Park Association’s (APA) Adirondack Land Use and Development Plan, approximately 208 acres (74%) of the Commons is classified as “Low Intensity Land.” The northeastern corner of the site contains about 249 acres (20%) of “Resource Management” designated land, and roughly 69 acres (6%) of the site is classified as “Rural Use”. The adjacent and enclosed NYSDEC lands are classified as “Wild Forest.” Descriptions of these classifications are in the Adirondack Park Agency Land Classification table.

This portion of the Adirondack Park falls within the NYSDEC Independence River Wild Forest management. The NYSDEC-owned parcels adjacent to The Commons are relatively small, isolated land holdings, separated from the larger contiguous blocks of state-owned land holdings that make up the majority of this management area<sup>1</sup>.

Additionally, there is approximately 554 acres of County-owned parcels located north of The Commons. These lands are separated from the existing trail network by one or more privately owned parcels.

The Commons features a patchwork of private, County, and NYSDEC lands. This land ownership pattern presents both opportunities and constraints for future winter recreation, as outlined in the tables shown to the right.

<sup>1</sup> Although NYSDEC lands are not part of The Commons site, it is important to consider any land classifications and regulations that apply to these adjacent parcels. Given their potential recreational value and connectivity to county lands, future actions may recommend working with NYSDEC to allow for changes in the Recreation Management Plan to allow potential connections through these parcels.

### ADIRONDACK PARK AGENCY LAND CLASSIFICATION<sup>1</sup>

| CLASSIFICATION             | DEFINITION  |
|----------------------------|---|
| <b>Private Land</b>        |   |
| <b>Low Intensity Land</b>  | Most uses are permitted; residential development at a lower intensity than hamlet or moderate intensity is appropriate.   |
| <b>Rural Use</b>           | Most uses are permitted; residential uses and reduced intensity development that preserves rural character is most suitable.  |
| <b>Resource Management</b> | Most development activities in resource management areas will require an Agency permit; compatible uses include residential uses, agriculture, and forestry. Special care is taken to protect the natural open space character of these lands.  |
| <b>State Land</b>          |   |
| <b>Wild Forest</b>         | A wild forest area is an area where the resources permit a somewhat higher degree of human use than in wilderness, primitive or canoe areas, while retaining an essentially wild character. A wild forest area is further defined as an area that frequently lacks the sense of remoteness of wilderness, primitive or canoe areas and that permits a wide variety of outdoor recreation. |

<sup>1</sup> [Adirondack Park Agency Land Use Area Classification](#)

### LAND USE & MANAGEMENT CONSTRAINTS

|                                |   |
|--------------------------------|---|
| <b>Land Use Restrictions</b>   | The presence of state classified “Resource Management” land may impose limitations on infrastructure development and recreational uses. Coordination with the Adirondack Park Agency and NYSDEC may be required for new trails or facilities. |
| <b>Private Land Boundaries</b> | Portions of the site border private land, which may limit access and restrict the expansion of trails. Coordination with landowners will be necessary.  |

### LAND USE & MANAGEMENT OPPORTUNITIES

|  |   |
|--|---|
| <b>Recreation Potential</b>                                    | The mix of “Low Intensity,” “Rural Use,” and “Wild Forest” on DEC land suggests potential for cross-country skiing, snowshoeing and hiking.   |
| <b>Relationship to Adirondack Park</b>                         | The site’s location within Adirondack Park offers potential to integrate with regional recreation networks.   |
| <b>Expanding Trail Connections to Nearby County-Owned Land</b> | The site’s proximity to additional County-owned lands provides an opportunity to expand the trail network. Collaboration with NYSDEC and private landowners, could improve recreational access and create a more extensive, trail system. |

# Existing Non-Motorized Winter Recreation

These tables highlight the non-motorized recreation opportunities already available within Lewis County. NYSDEC also permits cross-country skiing on portions of its trail system in Lewis County. Future efforts to develop recreation at the Commons should be designed to complement this existing network of public and private offerings.

## CROSS-COUNTRY SKIING IN LEWIS COUNTY

| ACTIVITY/RECREATION FACILITY                        | LOCATION |
|---|----------|
| <b>GROOMED CROSS-COUNTRY SKIING AND SNOWSHOEING</b> |          |
| Osceola Ski & Sport Resort                          | Osceola  |
| Osceola-Tug Hill Cross-Country Ski Center           | Camden   |

## UNGROOMED CROSS-COUNTRY SKIING AND SNOWSHOEING

|   |                |
|---|----------------|
| Osceola Ski & Sport Resort  | Osceola        |
| Osceola-Tug Hill Cross-Country Ski Trails                           | Camden         |
| Maple Ridge Center/Lewis County Fairground Cross-Country Ski Trails | Lowville       |
| The Rodman-Barnes Corners Cross-Country Ski Trails                  | Barnes Corners |
| The Carpenter Road Cross-Country Ski Trails                         | Turin          |
| Whetstone Gulf State Park   | Lowville       |
| DEC Demonstration Center  | Lowville       |
| Great Lot Sportsman's Trails  | West Leyden    |



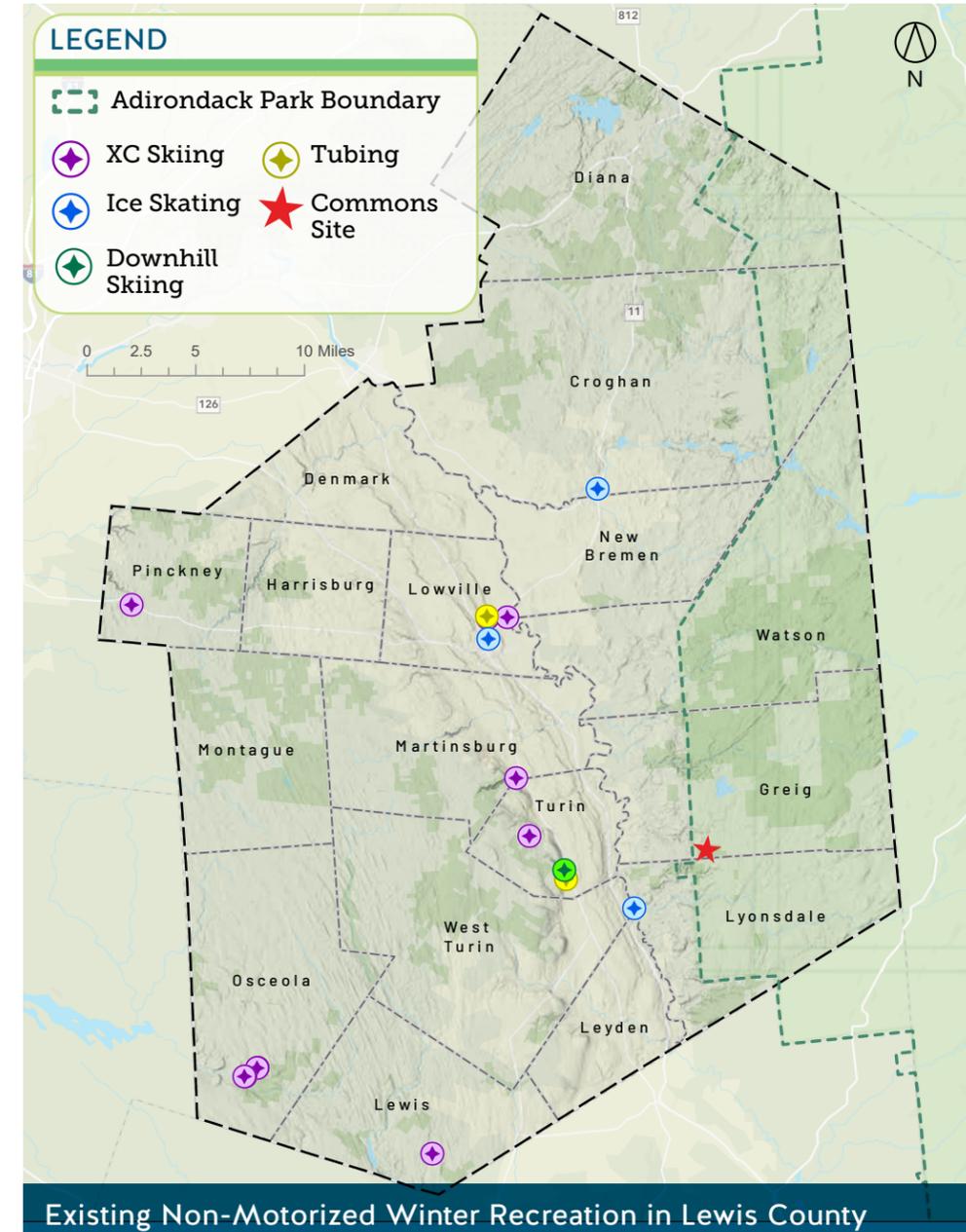
BREIA (Black River Environmental Improvement Association) operates a collection of groomed and ungroomed cross-country skiing and snowshoeing trails just south of Lewis County around the town of Boonville in Oneida County.

## OTHER NON-MOTORIZED WINTER RECREATION ACTIVITIES IN LEWIS COUNTY

| ACTIVITY/RECREATION FACILITY              | LOCATION |
|---|----------|
| <b>DOWNHILL SKIING &amp; SNOWBOARDING</b> |          |
| Snow Ridge Resort                         | Turin    |

| <b>TUBING</b>         |          |
|-----------------------|----------|
| Snow Ridge Resort     | Turin    |
| Maple Ridge Snow Park | Lowville |

| <b>ICE SKATING</b>            |             |
|-------------------------------|-------------|
| Forest Park Pavilion Ice Rink | Lowville    |
| Croghan Ice Rink              | Croghan     |
| Riverside Park                | Lyons Falls |



# Environmental Considerations

## TERRAIN & HYDROLOGY

The terrain of The Commons is predominantly flat across most of the site with slopes between 0-10% grade. However, the northwest corner features the most dynamic topography, characterized by a series of undulating hills and berms with slopes up to 35% grade. Another notable terrain feature is located at the southern boundary, where the county land intersects with a steep ravine with a slope of around 25-35% that descends to an unnamed stream and adjacent wetland area.

The site's hydrology is relatively minimal, with only a few notable water features. Fish Creek and its associated wetlands are located in the northwest corner, while an unnamed creek and wetland area are present on the eastern side of the site. However, most of the county land adjacent to the wetlands is at an elevation that makes it less susceptible to flooding and ice formation risks.

### ENVIRONMENTAL CONSTRAINTS

|                     |  |
|---------------------|--|
| <b>Steep Slopes</b> | Although not a main challenge of the site, the existing areas of notable terrain change may pose risks for erosion and grooming, especially with varying freeze-thaw cycles. |
|---------------------|--|

### ENVIRONMENTAL OPPORTUNITIES

|                                     |  |
|-------------------------------------|--|
| <b>Scenic &amp; Unique Features</b> | The steep ravine and water features can serve as natural focal points for scenic viewpoints, rest areas, or interpretive signage about the site's ecology and hydrology. |
| <b>Flat, Accessible Terrain</b>     | The flat terrain across most of the site is ideal for cross-country skiing, snowshoeing, and fat biking, as it provides an accessible and beginner-friendly environment. |

## HABITAT & WILDLIFE

The Commons lies within the Western Adirondack Foothills. This region is a subregion of the larger Adirondack Mountains Ecoregion located in northern New York. This ecoregion serves as a transition zone between the high-elevation Adirondack Mountains to the east and the lower, flatter St. Lawrence and Mohawk River Valleys to the north and the Black River Valley to the west.

The region is dominated by reforestation lands planted by the Civilian Conservation Corps around the turn of the century and comprises mainly plantation softwood forests, which is seen through the density of wooded area throughout the site.

According to the *NYSDEC Environmental Resource Mapper*, there are no significant natural communities within or adjacent to the site area.

The Commons site is under the 6J Wildlife Management Unit of the state. This area is popular for big game hunters seeking white-tailed deer and black bear. All the County reforestation land and the NYSDEC lands and waters within the Independence River Wild Forest are open to hunting.

### HABITAT & WILDLIFE CONSTRAINTS

No noted constraints due to wildlife or habitat.

### HABITAT & WILDLIFE OPPORTUNITIES

|                                  |   |
|----------------------------------|---|
| <b>Ecological Interpretation</b> | Educational signage along trails could promote ecological awareness, such as habitat conservation, winter adaptations of wildlife, and tracking techniques.                               |
| <b>Snow Cover</b>                | The region's cold climate and frequent snowfall creates a reliable winter recreation season. Coniferous forests help retain snow cover, providing longer-lasting ski and snowshoe trails. |



## EXISTING TRAIL NETWORK

The Commons includes 3.5 miles of County-funded snowmobile trails connecting from the southwest, southeast, and northwest areas of the site. These trails, typically 8–15 feet wide, feature snowmobile-specific signage such as speed limits, stop signs, and ‘Stay to the Right’ signs. Skiers, fat-bikers, and winter hikers also travel on unmaintained winter trails that follow the 22.5-mile summer ATV/OHV trail network. This network contains numerous intersections and parallel routes, and while snowmobiles are technically restricted to the designated snowmobile trails, there is currently no signage directing non-motorized users away from this existing trail network.

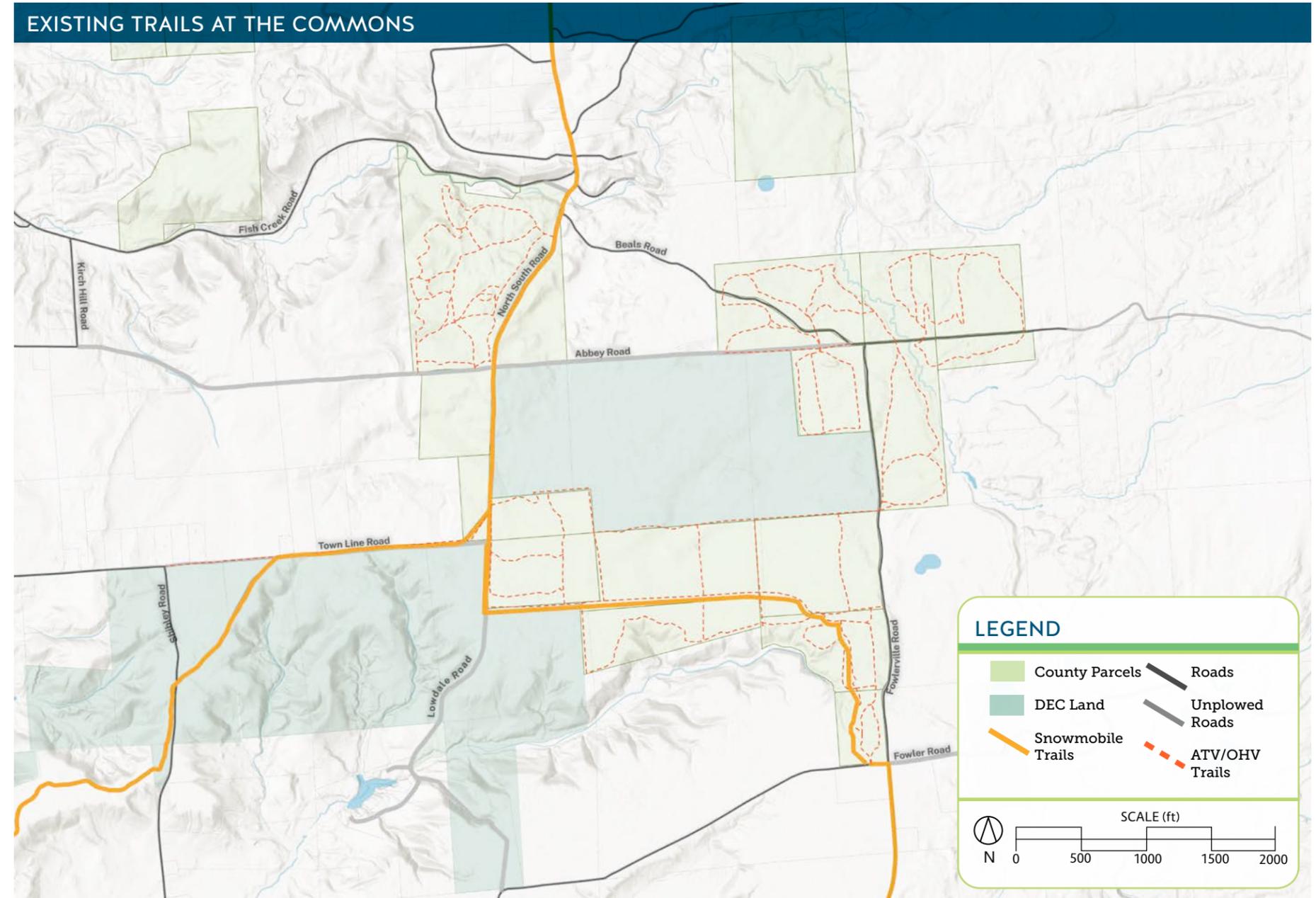
### EXISTING TRAIL NETWORK CONSTRAINTS

|   |  |
|---|--|
| <b>Shared Use Conflicts</b>                       | Non-motorized users share plowed and unplowed trails with snowmobiles and follow pathways on existing OHV trails that sometimes see snowmobile use. These environments create potential conflicts in speed, trail conditions, and user expectations. |
| <b>Limited Dedicated Non-Motorized Trails</b>     | While non-motorized users can use existing trails, there are limited designated, separate pathways for activities like cross-country skiing or snowshoeing, which may impact safety and trail quality.   |
| <b>Snowmobile and OHV-Specific Infrastructure</b> | Signage and winter grooming are oriented towards motorized users, meaning non-motorized recreationists may lack clear wayfinding.  |

### EXISTING TRAIL NETWORK OPPORTUNITIES

|  |  |
|--|--|
| <b>Multi-Use Trail Designation</b>                             | Identifying and marking specific non-motorized routes within the existing trail network could improve accessibility and minimize conflicts with snowmobiles and OHVs.                    |
| <b>Utilizing the Multi-use Trail Network in Winter Seasons</b> | Since the maintained multi-use trails are not in use during the winter, some could be repurposed for non-motorized winter recreation, reducing conflicts on unplowed roads.              |
| <b>Reducing Trail Complexity</b>                               | Reducing the number of intersections and maintained / signed trail segments in the winter may be one way to create a more legible and beginner friendly trail experience at the Commons. |

## EXISTING TRAILS AT THE COMMONS



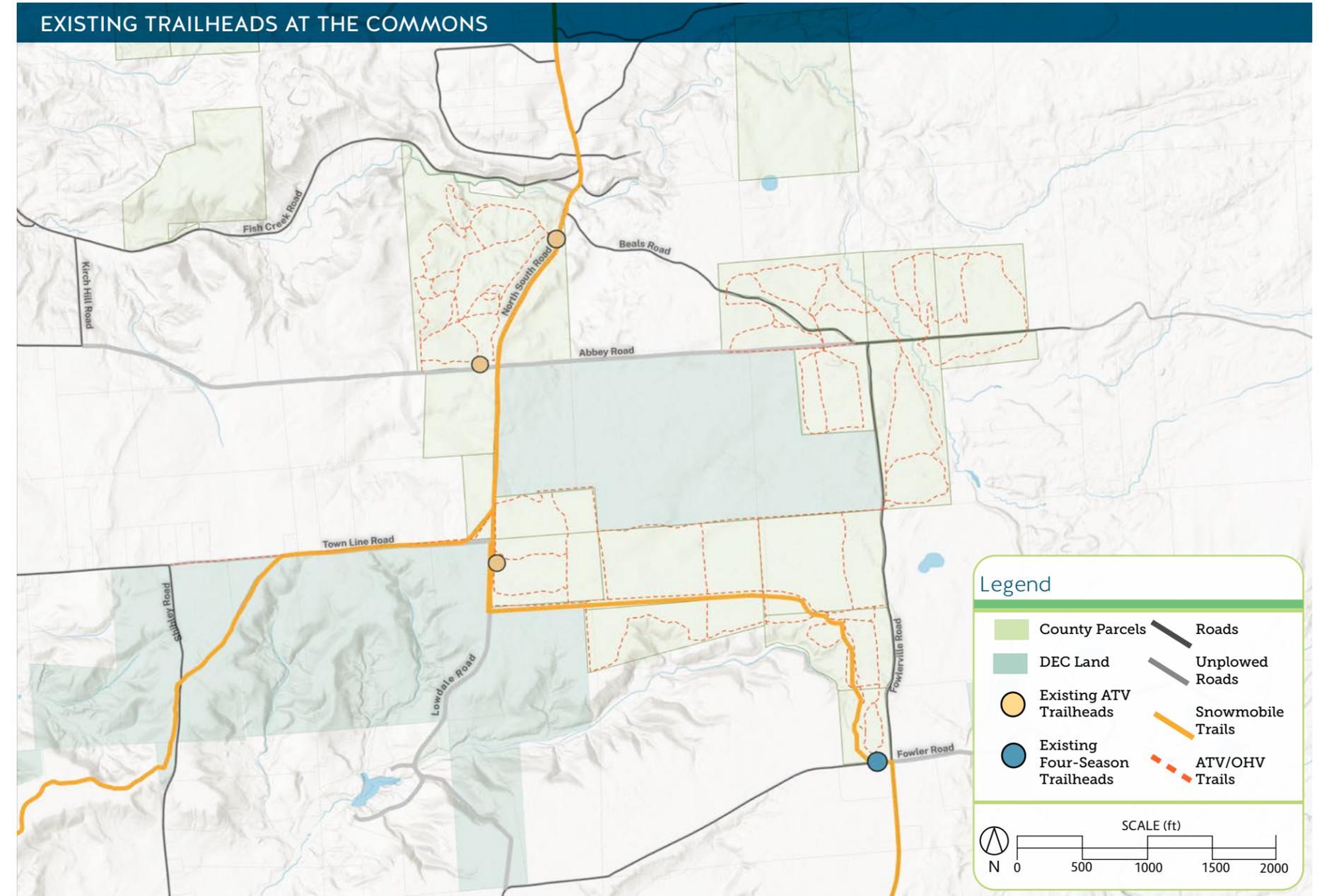
# Access, Circulation, & Amenities

## TRAILHEADS & PARKING

Key opportunities and constraints related to trailheads at the Commons are listed below. Currently, of the four, only Fowler Road trailhead is plowed and available as a winter access site.

| TRAILHEAD & PARKING CONSTRAINTS        |   |
|--|---|
| <b>Limited Winter Access</b>           | Only one of the four parking areas is plowed in winter, restricting entry points.   |
| <b>Dependence on Road Plowing</b>      | The unplowed access roads to the other trailheads reduce winter access.   |
| <b>Lack of Wayfinding to Trailhead</b> | There is a lack of wayfinding and signage directing users to the Fowler Road Trailhead in an area with limited cell coverage. |
| <b>Existing Kiosk Content</b>          | The current kiosk primarily displays Summer multi-use trails, including ATV/OHV, which may not adequately serve winter users. |

| TRAILHEAD & PARKING OPPORTUNITIES     |   |
|---------------------------------------|---|
| <b>Expanded Winter Access</b>         | Plowing additional parking areas or designating alternative parking areas for winter-accessible entry points could improve access for non-motorized recreation.                   |
| <b>Main Trailhead Improvements</b>    | Improvements to the Fowler Road trailhead could be made to increase accessibility, wayfinding and user comfort.   |
| <b>Seasonal Management Strategies</b> | Identifying key winter access needs could allow for strategic investments in plowing and maintenance, balancing recreational use with environmental and budgetary considerations. |



# Signage & Wayfinding

Non-motorized signage and trail markings at the Commons are limited and largely designed for motorized users, such as snowmobiles and ATVs/OHVs. While some skier symbols and homemade signs appear along the network, they are inconsistently placed and often unclear. Property boundary and road crossing markers are in place, but broader wayfinding for non-motorized users is minimal. Access is also challenging, as the winter trailhead does not appear on Google Maps or other navigation platforms, and GPS directions can mislead visitors onto unplowed roads. Outside of a single sign on Fowler Road, there is little external wayfinding to guide travelers to the site.

| SIGNAGE & WAYFINDING CONSTRAINTS |   |
|----------------------------------|---|
| <b>Inconsistent Signage</b>      | Trail markings are primarily designed for motorized users, with only scattered signage for non-motorized recreation, leading to potential confusion for hikers, skiers, and snowshoers. Some intersections feature non-standard, homemade signage, which may lack clarity or durability, reducing overall wayfinding effectiveness. |
| <b>Lack of Named Trails</b>      | Currently, no trails within the Commons are formally named beyond the perimeter trail and the color-coded blue, red, and green routes. This lack of clear naming can make navigation across the network challenging.  |
| <b>GPS Navigation Issues</b>     | The winter trailhead is not listed on Google Maps or other public platforms, making it difficult for new visitors to locate the site. Users relying on GPS may be misdirected onto unplowed roads, potentially leading to accessibility challenges, especially in winter conditions.  |

| SIGNAGE & WAYFINDING OPPORTUNITIES       |   |
|--|---|
| <b>Improved and Consistent Signage</b>   | Standardizing signage across the trail system, including clear route markers and updated intersection signage would improve navigation and the user experience.                               |
| <b>Enhanced Digital Mapping</b>          | Listing the winter trailhead on Google Maps and other navigation platforms would improve accessibility and help visitors reach the site more reliably.  |
| <b>Clearer Road and Access Markings</b>  | Placing signs at key road intersections to indicate plowed vs. unplowed roads would prevent users from being misdirected by GPS.  |
| <b>Multi-Use Wayfinding Enhancements</b> | Adding more detailed maps at trailheads, color-coded trail markers, and directional signage for different user groups (e.g., skiers, hikers, snowmobiles) would improve safety and usability. |



Official & Unofficial Existing Signage at the Commons

# Other Existing Amenities

In addition to the existing trailheads, parking areas, and trail networks, the Commons features two designated picnic and camping areas.

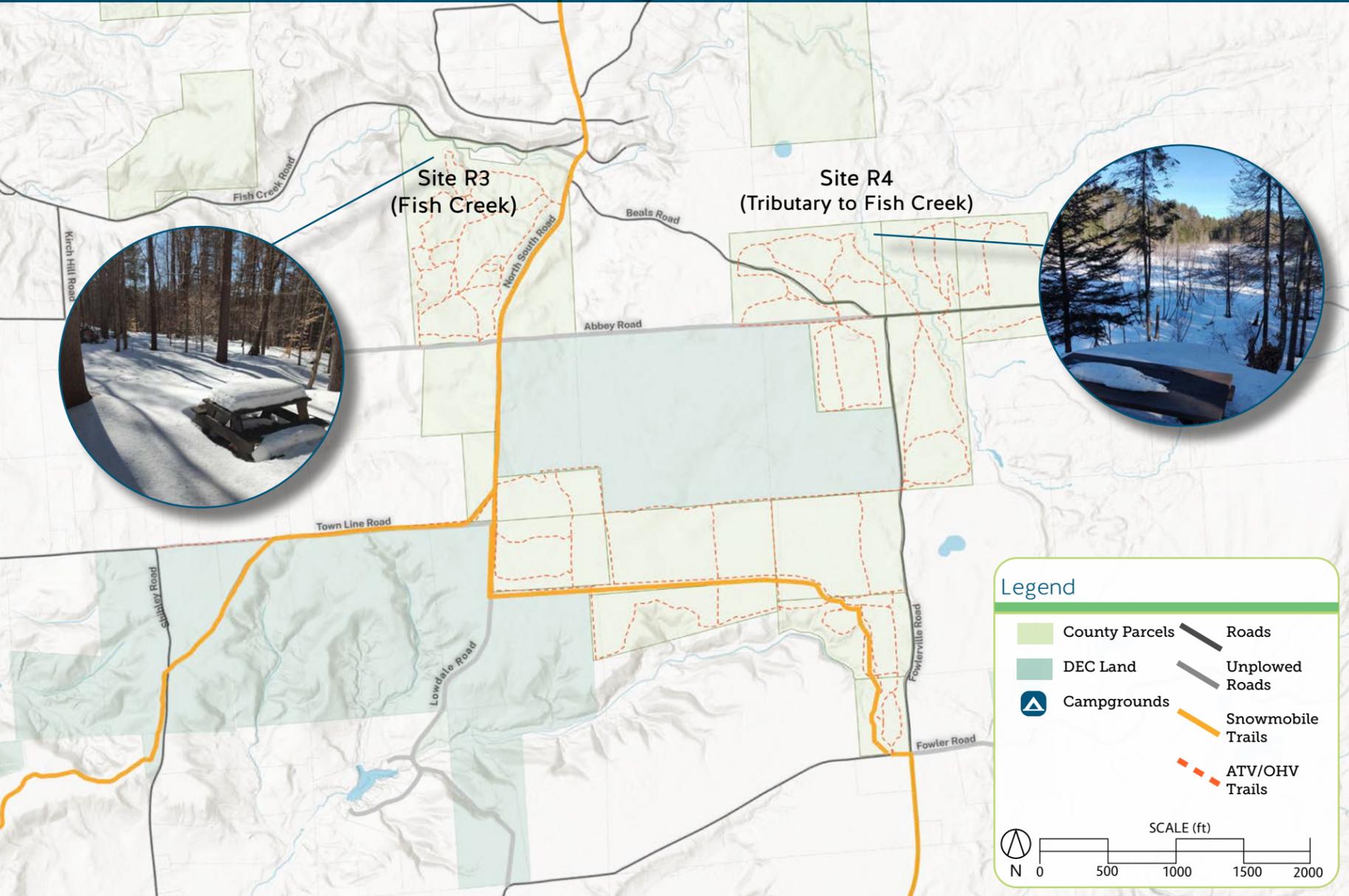
- 1. Remote Tent Site – (Fish Creek) Site R3**, located in the northwestern corner of the site, offers scenic views overlooking Fish Creek with a tent clearing, fire pit, and picnic table.
- 2. Remote Tent site – (Tributary to Fish Creek) Site R4**, situated in the northeastern corner, provides a picturesque setting overlooking a stream bed and wetland area with a tent clearing, fire pit, and picnic table.

Both sites are elevated, minimizing the risk of flooding, and include a designated picnic area along with a cleared space for tent camping. Access to both sites is currently walk-in only.

| AMENITY CONSTRAINTS                       |  |
|---|--|
| <b>Seasonal and Weather Constraints</b>   | While both sites are elevated to reduce flood risk, wet conditions or snow accumulation may still impact accessibility during certain times of the year. |
| <b>Lack of Signage and Awareness</b>      | If these sites are not well-marked or promoted, visitors may be unaware of their location or availability, leading to under use.                         |
| <b>Lack of Shelter or Other Amenities</b> | The lack of shelter or pit toilets nearby make these functional day use sites with limited overnight stay potential                                      |

| AMENITY OPPORTUNITIES                   |   |
|---|---|
| <b>Improved Amenities</b>               | Exploration of winter camping amenities at these sites, included shelter and amenities.   |
| <b>Promotion and Trail Integration</b>  | Continuing to incorporate these sites into trail maps, signage, and digital platforms could increase awareness and attract more users.  |
| <b>Seasonal Programming</b>             | These locations could be used for guided nature walks, outdoor education programs, or small group camping experiences, further expanding recreational opportunities in the Commons. |
| <b>Site Identification &amp; Naming</b> | Identifying these sites better on county maps and wayfinding, and providing more place-based names could lead to more interest in their use.  |

## EXISTING AMENITIES AT THE COMMONS



# Community Engagement

To inform the future of the Commons Trail Network and non-motorized winter recreation in the county, Lewis County undertook a two-season public engagement process in winter and summer 2025. These efforts included a mix of in-person tabling sessions, open houses, stakeholder sessions, and online surveys aimed at gathering community input on trail use patterns, infrastructure needs, community vision and long-term winter recreation goals. The winter engagement drew insights from over 165 people, while summer efforts engaged an additional 80 participants. Feedback revealed both widespread enthusiasm and clear challenges — especially around trail access, signage, and the balance between motorized and non-motorized use. Together, these engagement sessions provided critical guidance for shaping a more inclusive, sustainable, and user-friendly trail system at the Commons.



## WINTER 2025 ENGAGEMENT

- **Public Tabling at Brantingham Station**

Tuesday, March 11, 2025 | 7:30am–11:00am  
In-depth discussions with 7 members of the public

- **Open House at Pine Tree Inn**

Tuesday, March 11, 2025 | 6:00pm–8:00pm  
Open house and presentation with approximately 20 attendees

- **Public Website and Survey**

Launched March 4, 2025 – Closed April 1, 2025  
139 responses recorded during active engagement period

## SUMMER 2025 ENGAGEMENT

- **Open House at Pine Tree Inn**

Tuesday, June 17, 2025 | 6:30pm–8:00pm  
Approximately 10 attendees

- **Open Discussion at Brantingham Station**

Wednesday, June 18, 2025 | 7:30am–11:00am  
Roughly 4 community members participated

- **Concept Draft Survey**

Open June 3–July 21, 2025  
76 responses (53 completed), 70% completion rate

## STAKEHOLDER ENGAGEMENT

During both in-person engagement sessions, a meeting was held with a group of key stakeholders to further provide local insight and perspectives to the development of the plan.

These stakeholders included individuals from the following organizations:

- Recreation, Forestry and Parks Department
- Lewis County Planning & Community Development
- Naturally Lewis, Inc.
- Lewis County Public Health
- County Legislators
- NYSDEC

## Community Input: Key Findings by Season

### WINTER 2025 ENGAGEMENT SUMMARY Reflections on Current Conditions

#### Trail Awareness and Use Patterns

- Most respondents (~80%) had limited familiarity with the Commons Trail Network, suggesting a strong need for better signage, maps, and public outreach.
- Winter use of the Commons is relatively low, with snowmobiling being the dominant activity. Hiking and classic-style cross-country skiing followed behind.
- In contrast, summer and fall are busier seasons at the site, largely due to high ATV and OHV use.

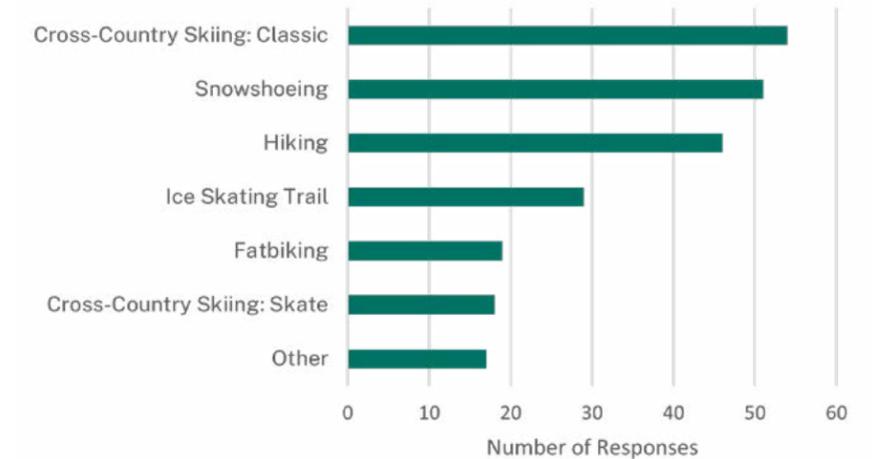
### Desired Winter Recreation Improvements

Respondents expressed strong interest in expanding non-motorized winter recreation, particularly:

- » Groomed cross-country ski trails (particularly classic skiing)
- » Snowshoeing routes and hiking access
- » Ice skating opportunities, such as a trail or rink
- » Warming huts, lean-tos, and family-friendly amenities, including sledding hills and art installations

Many called for trail features that support a wide range of skill levels and create more opportunities for families and beginners.

WHAT WINTER ACTIVITIES WOULD YOU LIKE TO SEE BE CREATED OR MADE MORE ACCESSIBLE AT THE COMMONS TRAIL AREA?



### Trail System Challenges

Participants frequently noted that:

- » Trailheads are difficult to find and access, especially in winter.
- » Wayfinding is limited, with minimal and sometimes confusing signage.
- » Shared use creates conflicts between motorized and non-motorized users.
- » Winter maintenance and grooming are inconsistent.

### Tensions and Trade-Offs

Feedback reflected a clear divide between trail user groups:

- Motorized users highlight the economic value of ATV and snowmobile access.
- Others raise concerns about safety, noise, and environmental impacts, calling for more non-motorized spaces and stronger enforcement.
- Opinions are split between supporting shared-use models and advocating for separated trail systems.

### Common Suggestions for Future Planning

- Improve trail navigation with color-coded loops, numbered intersections, and interactive maps
- Expand the trail network with:
  - » New access points, especially to the north and toward Brantingham
  - » Dedicated trails by use (e.g., ski-only, snowshoe-only)
- Ensure long-term sustainability with:
  - » Regular maintenance and grooming
  - » Clear rules and enforcement for shared-use areas

## SUMMER 2025 ENGAGEMENT SUMMARY

### Preferred Trail Concept

Two plans for winter use of the commons were presented as part of the summer 2025 engagement. Concept A was overwhelmingly preferred (85% survey support), and was favored for its:

- » Dedicated non-motorized trail network
- » Ice skating ribbon
- » Rerouted snowmobile trail access
- » Amenities like warming huts, restrooms, and rental sheds

### Top Trail Features (Ranked)

1. Dedicated snowshoeing and fat biking trails
2. Groomed classic and skate ski trails
3. Future trail connections to DEC lands
4. Ice skating ribbon
5. Rest areas and rental opportunities

### Top Trailhead Priorities

- Warming huts/seating areas (86–96% of respondents)
- Restrooms (90% of respondents)
- Separate trail entrances for different uses (66% of respondents)

### Feedback on Design and Amenities

- Strong desire to separate activities to reduce conflict and enhance safety
- Interest in art installations, but ranked as lower priority than natural features
- Mixed enthusiasm for Concept B elements like racing loops and art-focused trail design

## Cross-Cutting Themes from All Engagement



### ACCESS & WAYFINDING

- Expanded access points and northern connections
- More and better signage, maps, and interactive navigation tools
- Clear trail usage rules to avoid confusion and conflict
- Accessible, family-friendly options should be a priority



### MOTORIZED AND NON-MOTORIZED USE

- Many value the economic benefits and access provided by motorized vehicles (ATVs/snowmobiles)
- Others worry about trail damage, noise, safety, and enforcement
- Some called for better trail designation, signage, and enforcement, rather than changing any uses



### MAINTENANCE, GROOMING, AND FUNDING

Concern about:

- Ongoing maintenance (especially for groomed nordic ski trails)
- Funding for trail upkeep
- Clear responsibility for operations in expanded areas



### ECONOMIC AND COMMUNITY IMPACT

- Motorized recreation is seen as a key driver of local tourism revenue
- Non-motorized users seek better access and infrastructure to support year-round tourism and recreation

# Recommendation Overview

The Commons trail system is envisioned as a multi-use, non-motorized winter recreation area that balances groomed cross-country skiing, snowshoeing, backcountry access, fat biking, and unique experiences like an ice skating trail through the forest. Trail design prioritizes user separation by speed, surface, and experience to minimize conflicts while maximizing safety, access, and enjoyment. Long-term connections to NYSDEC lands and additional trailheads and amenities are envisioned to support activation of the site through events and family-friendly recreation.

## Recommendation Structure

The following recommendations are structured under the following categories:

### Priority Recommendations

These recommendations are the most critical to launch first. They provide the foundation for a successful and sustainable winter trail system.

### Supporting Recommendations

These additional recommendations are important for long-term growth and enhancement. They should be addressed after the priority actions are underway.

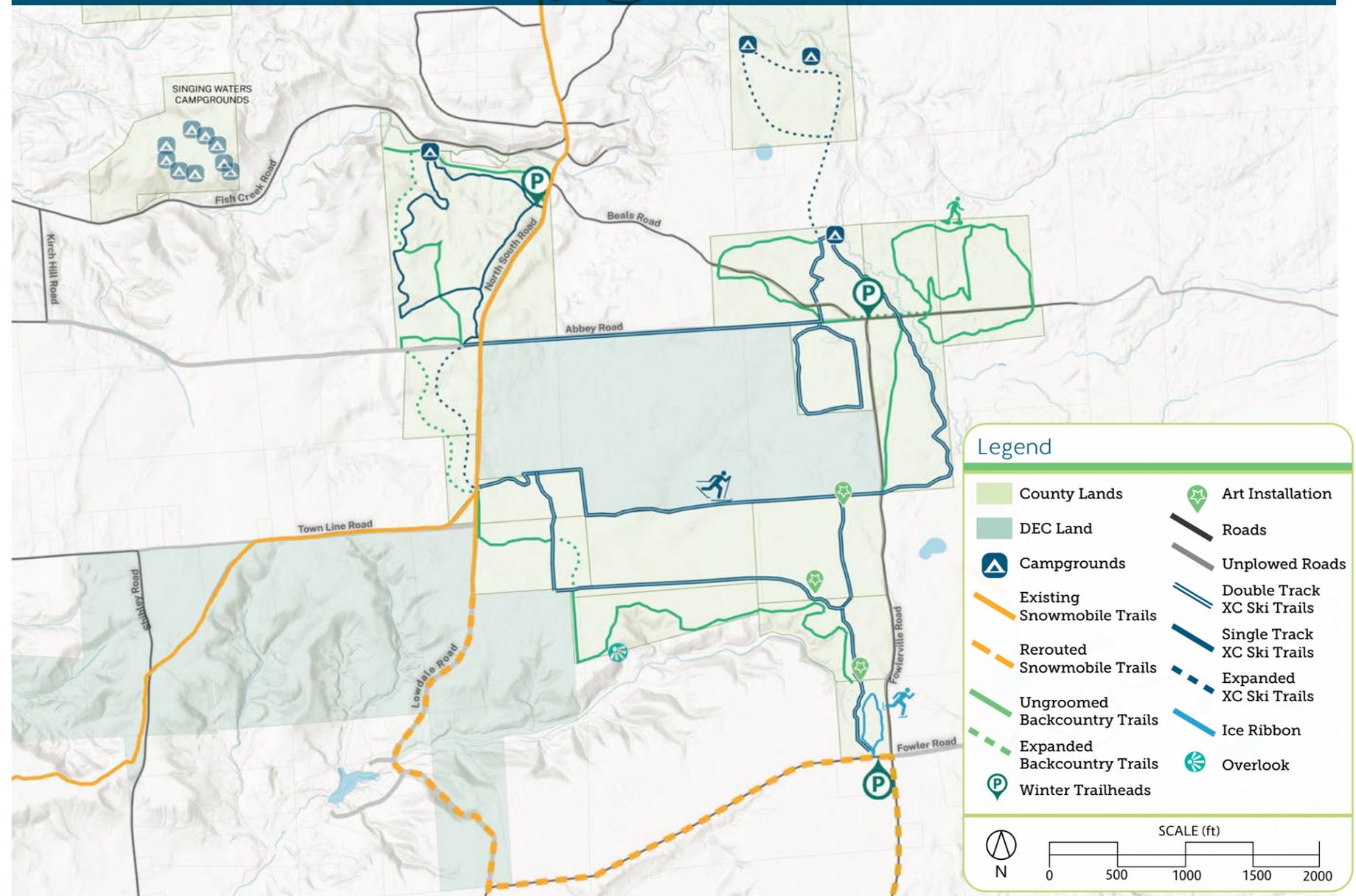
Each recommendation section also includes the following:

- » Strategic/Design Considerations
- » Implementation Actions
- » Estimated Costs/Phasing
- » Potential Partners
- » Funding Sources

## RECOMMENDATIONS

- 1 Improve Existing Winter Trailhead
- 2 Reroute Snowmobile Access
- 3 Groom Cross-Country Ski Trails
- 4 Plow Northwest Trailhead for Winter Access
- 5 Update and Improve Wayfinding & Signage
- 6 Activate Space and Engage Community
- 7 Expand Backcountry Trails & Amenities
- 8 Establish New Northeast Trailhead
- 9 Build Ice Ribbon
- 10 Support Future Trail Connections
- 11 Track Success Through Key Indicators

## WINTER TRAILS AT THE COMMONS - FULL DESIGN CONCEPT



# Priority Recommendations

## Improve Fowler Road Trailhead

### (NEAR TERM & LONG TERM IMPROVEMENTS)

This trailhead design emphasizes a welcoming, multi-use environment that accommodates access to groomed and ungroomed trails. Near term and long term improvements are presented here, with long term improvements including a more structured built environment that can create warming hut spaces and opportunities for public-private partnerships through building rental and concessionaire agreements to rent snow sport equipment or similar.

### IMPLEMENTATION

This master plan should be utilized as a guiding document to express design direction for future phases of work which are anticipated to include:

- Fundraising & Grant-writing
- Detailed design and permitting
- Construction

The estimated cost for near term improvements for the Fowler Road trailhead is in the \$200-570k range, depending on the level of improvements sought. Long term improvements will vary widely depending on the complexity of improvements and the timeframe in which these improvements are sought.

*Additional conceptual cost estimates can be found in Appendix B.*

### POTENTIAL PARTNERS

It is anticipated that the construction costs for a project at this location would be borne primarily by Lewis County, but activating the space with events and community gathering could be supported by many partners, including but not limited to:

- NYSDEC
- Local youth-serving schools & groups
- Naturally Lewis, Inc
- Nordic Ski Clubs
- Local biking clubs and shops

### FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)
- Public-private partnerships for amenities like pro shops or food services
- Foundations or philanthropic contributions



Existing Trailhead (Facing South)



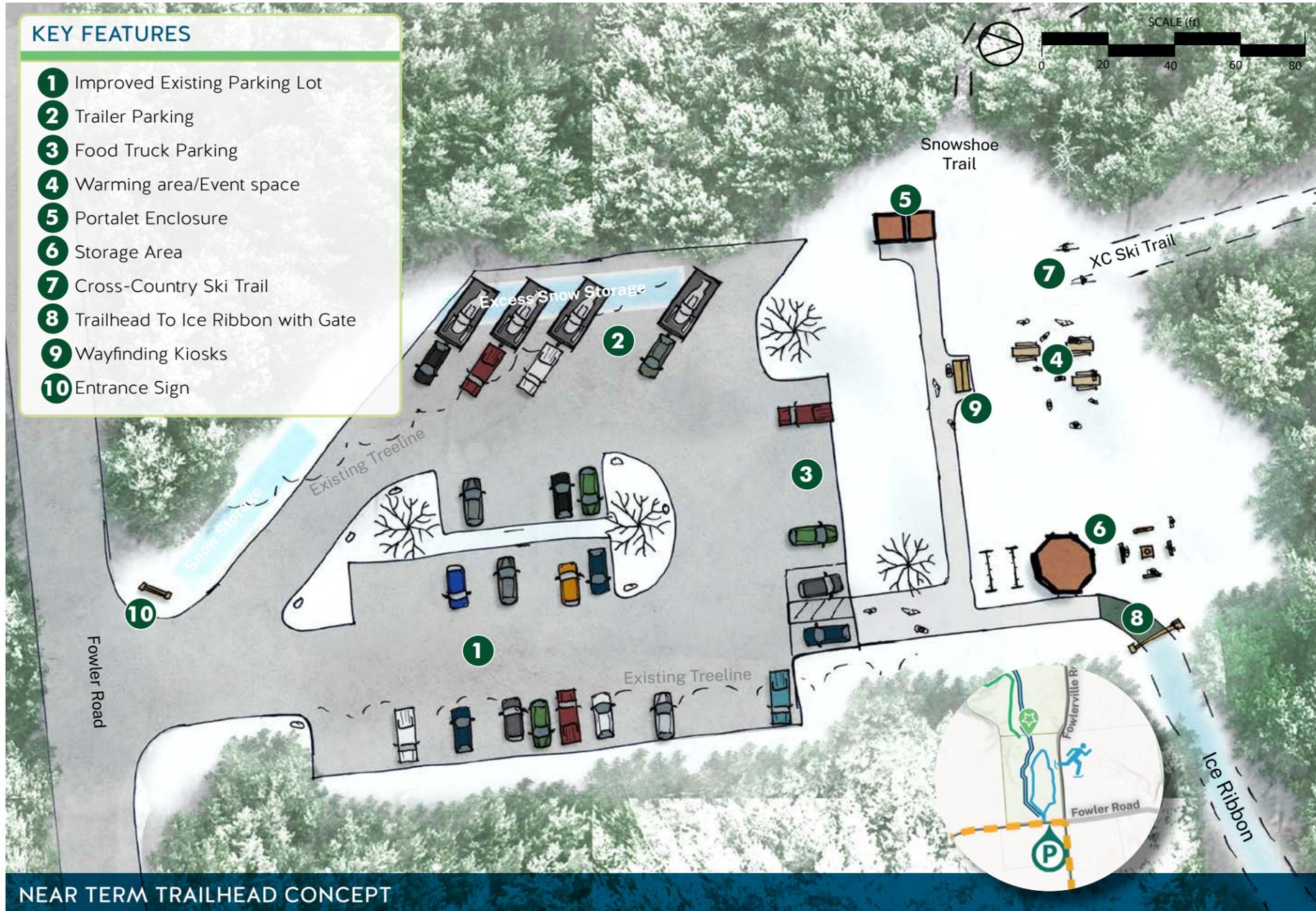
Existing Trailhead (Facing North)



Existing Trailhead (Facing South)



Existing Trailhead (Facing West)



NEAR TERM TRAILHEAD CONCEPT

- KEY FEATURES**
- 1 Improved Existing Parking Lot
  - 2 Trailer Parking
  - 3 Food Truck Parking
  - 4 Warming area/Event space
  - 5 Portalet Enclosure
  - 6 Storage Area
  - 7 Cross-Country Ski Trail
  - 8 Trailhead To Ice Ribbon with Gate
  - 9 Wayfinding Kiosks
  - 10 Entrance Sign

**NEAR TERM TRAILHEAD CONCEPT**

The near-term trailhead concept envisions simple improvements adding amenities and gathering spaces, clear wayfinding demarcating trail entry, and a refined parking lot structure. All near term improvements *do not* require power or water to the site.

**Trail Access**

- Direct access to groomed nordic skiing, ungroomed backcountry/ snowshoe trails, and a trial of a forest ice skating ribbon
- Snowmobile trail rerouted to Fowler Road
- Update Google Maps to clearly identify the Commons Trail Network and the Fowler Road Trailhead. A simple “add missing place” interface is present on Google Maps and should be leveraged to ensure the general public is clearly aware of these resources when navigating through the region.

**Parking Lot Design**

- Strategic plantings and boulders define snow storage and parking areas
- Separate parking areas for OHV trailers and single occupancy vehicles

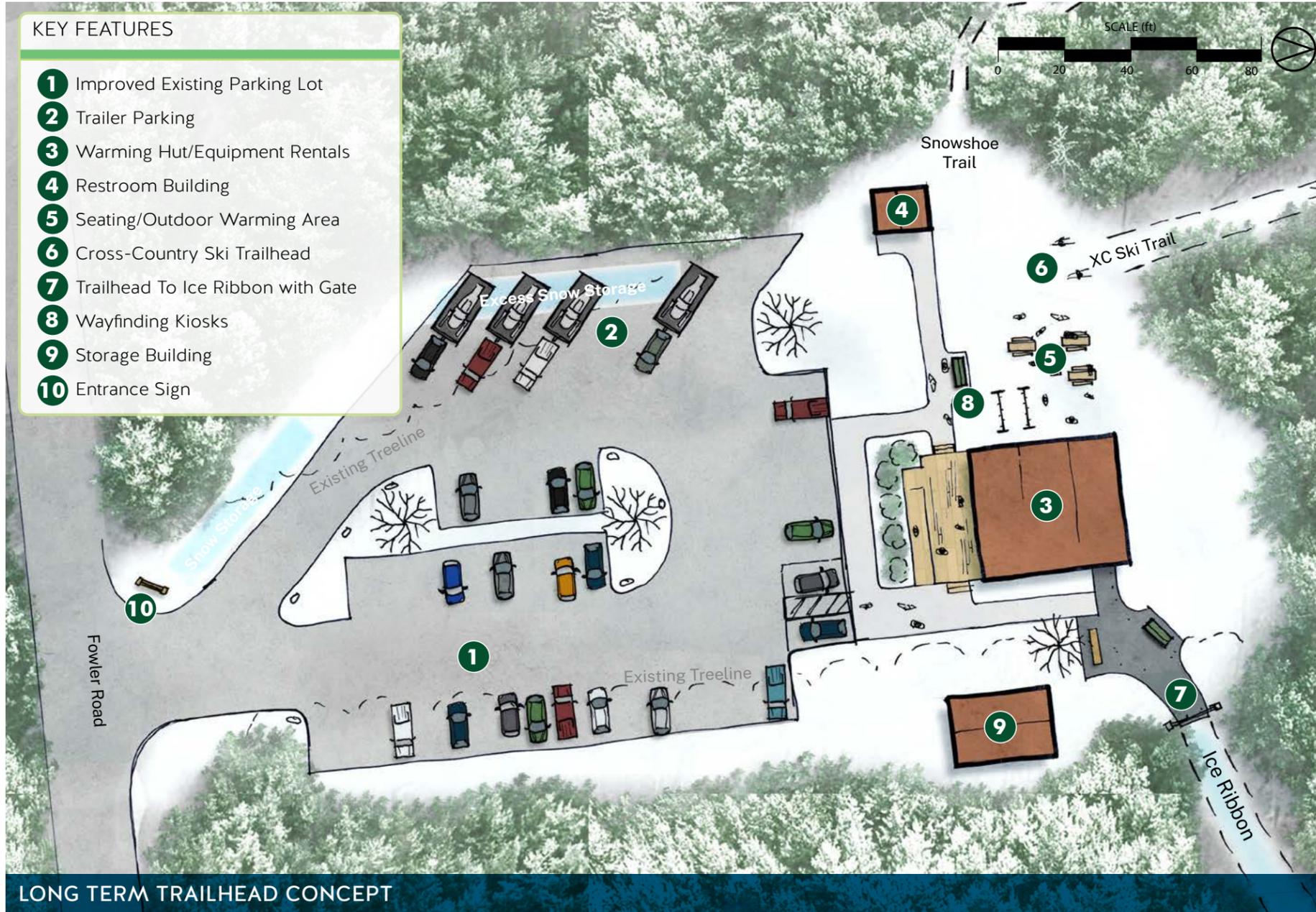
**Community Amenities**

- Central gathering area includes benches and tables, and fire pit
- Flexible open space for food trucks, community events, etc.

**Facilities**

- Covered structure for port-a-let toilets or future investment in composting toilets
- Storage shed for grooming and maintenance equipment
- Minimal solar-powered lighting



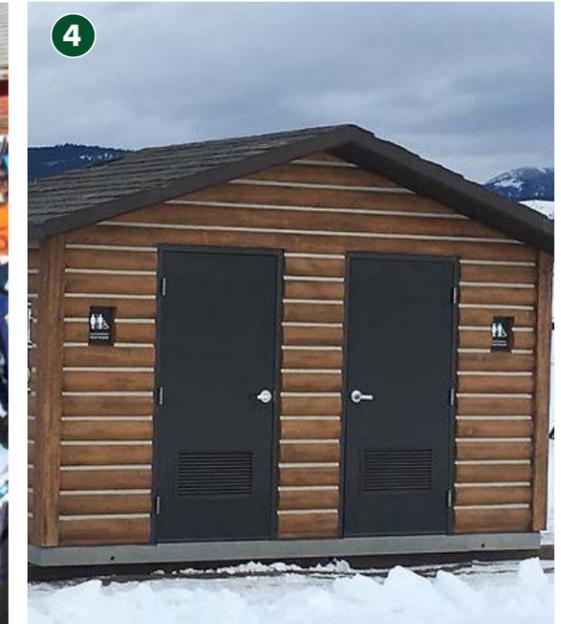


## LONG TERM TRAILHEAD CONCEPT

The long term concept is envisioned to be achieved when and if significant use and demand at the Commons trail network makes such investments needed and worthwhile. Future expansions of buildings with composting toilets and expanded storage, improved gathering areas, and enhanced public art could create opportunities for public/private partnerships to rent gear or host events.

Long term improvements would require power and water connections. Lighting would involve solar or generator-powered fixtures. Future studies would help determine cost and feasibility of these improvements, as well as approximate costs for architectural components envisioned here.

This design is envisioned to position the site as a regional destination for daily recreation and community celebrations.



# Reroute Snowmobile Access

## DESIGN/STRATEGIC CONSIDERATIONS

Re-routing snowmobile access away from the Commons' non-motorized trails is a strategic step to reduce user conflicts, improve safety, and enhance the visitor experience for everyone. The realignment will maintain overall connectivity to points north and south, but focus Snowmobile traffic on North/South and Lowdale road as opposed to trails within the Commons network which will be prioritized for non-motorized uses.

## IMPLEMENTATION

This master plan should be used to gain the necessary approvals with Lewis County and municipalities of Grieg and Lyonsdale, as well as build buy-in with The Lewis County Area Snowmobile Association and other advocate groups.

With appropriate approvals in place, the Lewis County Recreation Forestry and Parks department, in conjunction with municipal partners should begin by providing public awareness signage advertising the proposed change ahead of any construction by at least 6 months.

Budgeting for this project should allow for sufficient funding to clear and construct a sidepath snowmobile trail along Fowler and Lowdale road to connect to existing snowmobile trails in the area, making a complete link.

While construction is underway, updates to all town trail maps should be sought, both in digital and physical forms to better communicate with visitors. Temporary wayfinding signs at the Fowler Road trailhead, and clear prohibitory signage for the closed trail segment should also be considered.

The rerouted trail segment would fall under the regulations of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) snowmobile program, and should be managed in partnership with a local snowmobile club.

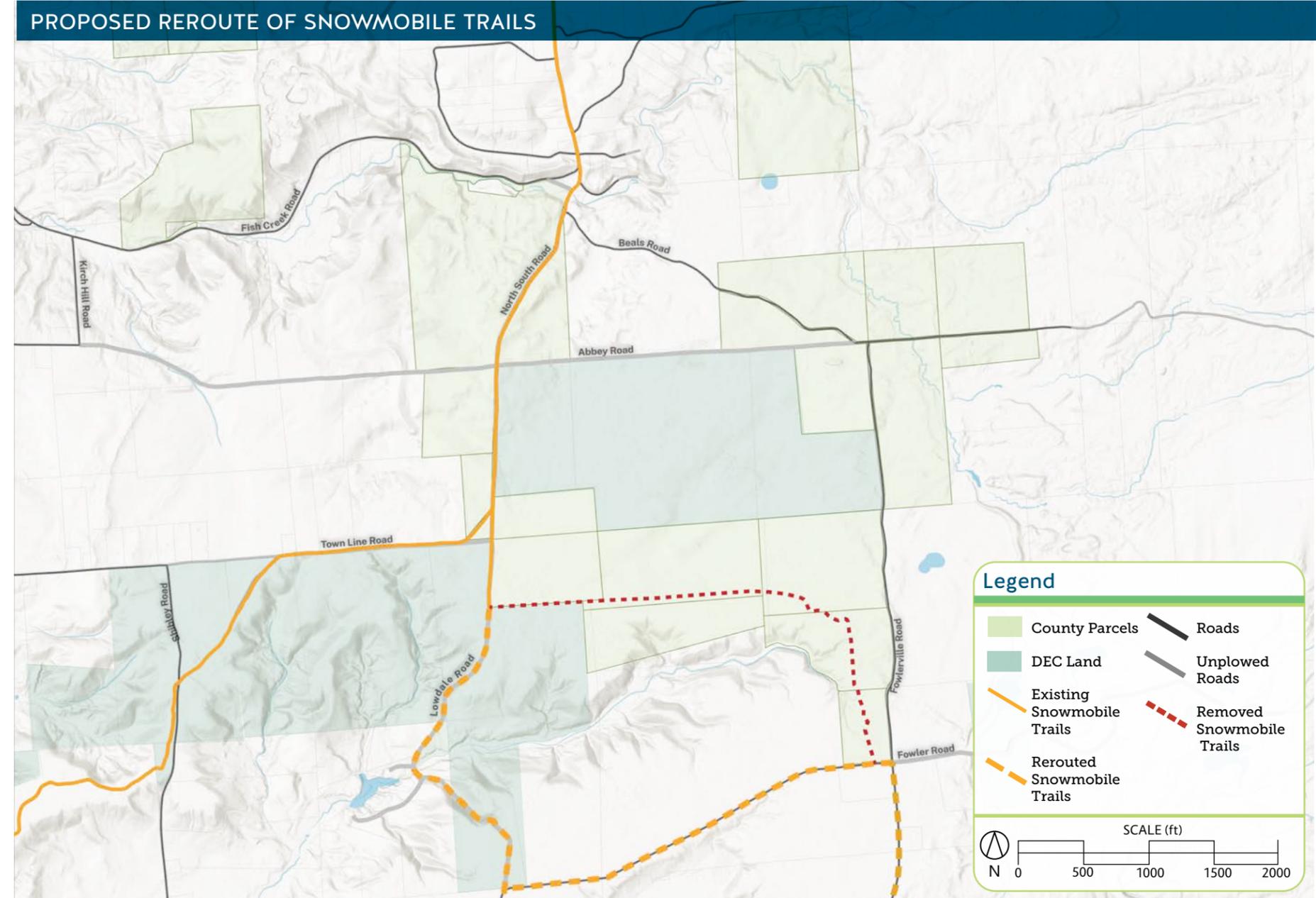
Costs for this work will primarily be the costs of county employees and the construction costs for approximately four miles of trail alongside Fowler and Lowdale roads.

## POTENTIAL PARTNERS

- Local snowmobile clubs (route design, construction, maintenance support, and public engagement)
- Municipal officials (snow plow contracts for parking lots)

## FUNDING SOURCES

- [NYS Snowmobile Trail Grant Program](#)
- [Recreational Trails Program \(RTP\)](#)
- Snowmobile club partnerships and fundraising



# Groom Cross-Country Ski Trails

## DESIGN/STRATEGIC CONSIDERATIONS

This plan proposes a series of stacked loop trails designed specifically for groomed classic skiing. Trails are designed to avoid motorized corridors and roadways, creating a quiet and safe environment for skiers of all ages and abilities. These loops can accommodate general recreation, skill development, and have the potential to be used for competitive events.

- » Trail design prioritizes appropriate widths and surface grades for Nordic skiing, ensuring safe and enjoyable experiences for both classic and skate skiers.
- » Many of the planned groomed trails build on existing cleared ATV Trails. Expanded groomed cross-country ski trails are noted on the map.
- » Routes are carefully aligned with terrain that offers reliable snow retention and allows for consistent grooming operations throughout the season.
- » The stacked loop design allows for progressive difficulty and varied distances, supporting beginner through advanced users and accommodating group instruction or events.
- » Trails will include clearly marked signage for navigation, skill level indicators, and etiquette reminders

## IMPLEMENTATION ACTIONS

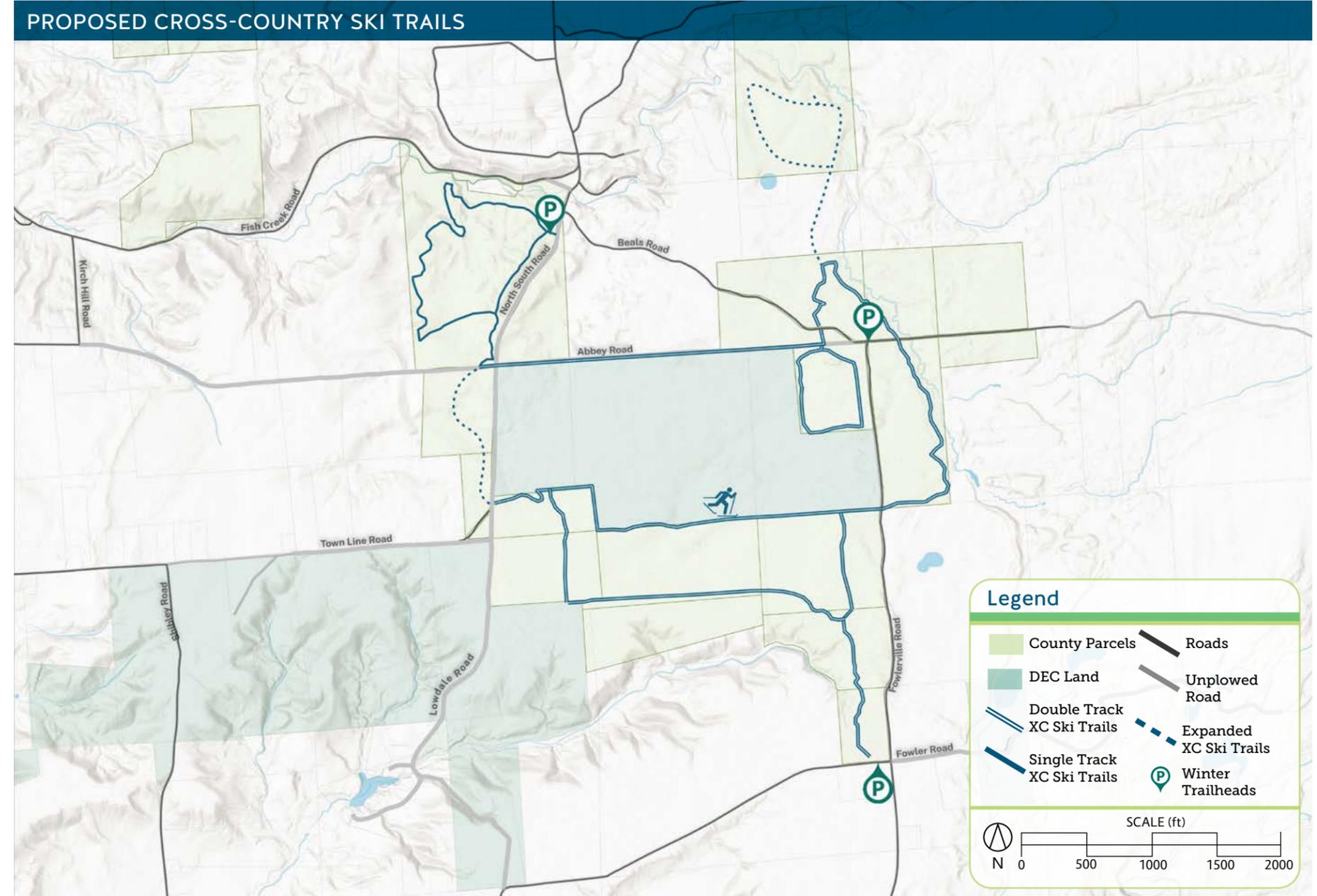
1. Prepare and Construct Trails
  - » Complete minor grading, clearing, and drainage improvements.

2. Build and mark all loops.
  - » Install wayfinding signage, kilometer markers, trailhead connections, and rest areas.
3. Acquire and deploy grooming equipment
  - » Purchase versatile grooming equipment (e.g., snowmobile with drag groomer or compact track vehicle, advancing to permanent equipment as resources allow).
  - » Train staff or volunteers in safe operation and routine maintenance.
  - » Implement grooming across the full trail system. Groom double tracks where noted.
4. Assess and Refine
  - » Monitor trail conditions, grooming effectiveness, and usage
  - » Collect structured feedback from users.
  - » Make adjustments such as rerouting or adding signage where needed.
5. Grow Visibility & Capacity
  - » Host competitive or regional ski events to increase visibility and tourism impact.
  - » Invest in permanent grooming equipment, maintenance/storage facilities, and supporting infrastructure.
  - » Establish a long-term operations and maintenance plan with staffing and budget.

Conceptual cost estimates can be found in Appendix B.

## FUNDING SOURCES

- [Recreational Trails Program \(RTP\)](#)
- Local tourism and economic development funds
- Potential private sponsors for events or equipment





## CROSS-COUNTRY SKIING: TRAIL DESIGN PRINCIPLES

### Trail Design Standards

The following is a summary of recommended components of cross-country ski specific trail design for recreational use:

| DESIGN COMPONENT    | DIMENSION                               | NOTES  |
|---------------------|---|--|
| CLASSIC TRAIL WIDTH | Min 4 feet wide clear, preferred 6 feet | Classic tracks to be set at center                   |
| INNER TRAIL RADII   | Min 15 feet                             | Measured from inside of the curve                    |
| UPHILL GRADE        | Max 18% hill climbs                     | At least 2 tracks recommended for sustained climbs   |
| DOWNHILL GRADE      | Max 20% downhills                       | No tracks recommended for greater than 15% downhills |

### Horizontal Components

Classic-specific trails are narrower than skate trails and less constrained by width on flat sections. A typical classic trail, including groomed tracks, is at least 4 feet wide with tracks set in the center. Multiple track lanes can be added for passing or two-way traffic, with two-way trails prioritized in high-use areas such as short (1-1.5 km) loops near trailheads.

Tracked classic trails are often disrupted by foot or fat bike traffic, so shared-use trails should include dedicated track widths and bypass lanes. Snowshoe lanes can be as narrow as 3 feet, while fat bike lanes can be 4 feet. However, “classic skiing only, no dogs” designations are most effective for preserving track integrity.

Classic trails should have inner turn radii of at least 15 feet, with intersections set perpendicular when possible; tracks are typically not set through intersections. Trail design should consider exposure, aspect, and vegetation. Mature vegetation helps retain snow by providing wind protection and shade, while hill sections should avoid southern exposure. Snow fencing may be installed in fields or near roads and water bodies to reduce snow transport.

### Vertical Components

Cross-country ski trails should maximize elevation gain and terrain variability, with rolling hills and turns creating effective routes. Classic trails generally should not exceed 18% grade on climbs or 20% on descents, which are considered advanced runs. Beginner trails typically feature 8-12% climbs and descents. Two tracks should be set on climbs when possible, while descents over 8% do not require tracks. Artificial climbs and snow berms can be created to shape terrain.

Cross-country trails use the same difficulty ratings as downhill resorts: green circle, blue square, and black diamond. Designations may be rated as follows:

| RATING       | CLIMB     | DOWNHILL  |
|--------------|-----------|-----------|
| BEGINNER     | 0% - 8%   | 0% - 10%  |
| INTERMEDIATE | 8% - 15%  | 10% - 20% |
| ADVANCED     | 15% - 18% | 20% - 25% |

## MAINTENANCE & OPERATIONS

The following is a summary of recommended components of cross-country ski specific trail design under 20k+ of maintained trails for recreational use:

| EQUIPMENT                       | COST RANGE               | NOTES   |
|---------------------------------|--------------------------|---|
| GROOMER                         | \$11,500-\$12,000        | From companies like Snowgroomers.net or Tidd Tech                                       |
| SIDE BY SIDE WITH TRACKS & PLOW | \$39,950-\$41,000        | Snowmobile system, single pull behind assembly  |
| STORAGE TRAILER                 | \$16,000-\$20,500        | Storage of grooming equipment (i.e. Patriot Trailer Solutions, North South Connections) |
| <b>Total</b>                    | <b>\$67,500-\$74,000</b> |   |

Additional conceptual cost estimates can be found in Appendix B.

### Grooming & Surface Maintenance

For snowmobile attachment grooming, especially during low snow seasons, the trail surface needs to be cleared of non-grassy, woody materials and graded to be as flat with minimal rutting and/or wet areas. Snowmobile groomers can traverse over snow bridges and wetland areas but these trails will degrade and lose snow first throughout the season. Culverts, ditch turnouts, and rolling dips can all be installed to mitigate trail erosion particularly on hill.

It is recommended that dedicated long term space, such as an enclosed trailer, is allocated for snowmobile storage at trailheads with easy access to trail network.

### Seasonal & Long-Term maintenance

Seasonal maintenance includes vegetation management such as routine mowing, overgrowth trimming, and removing dead fall from trails. Maintenance can be as limited as seasonal mowing when grass is too long for summer activities and trail preparation in the fall.

Long term maintenance includes larger trail restoration and regrading, larger woody growth removal for trail widening, and reestablishing culverts and ditches. Most effective trail networks have a seasonal and long-term maintenance plan that they adhere to and update regularly with feedback from both the operators and frequent trail users.

### Operational Considerations

Maintenance staffing and cost implications should be considered from the outset. Grooming requires skilled operators in addition to special machinery, and regular scheduling to meet guest expectations. Operators can be volunteers that opt into a training period in lieu of part-time or full-time staff. Personnel requirements must account not only for grooming but also for signage upkeep and off-season maintenance. Budgeting should anticipate fuel, equipment replacement, and potential overtime during extreme weather events.

Clear policies and signage for off-season uses, combined with trail surface designs that tolerate year-round activity, help maintain the network's quality. Some facilities also designate seasonal use, such as mud or spring season closures, and specific multi-use corridors to minimize conflicts.

### Capital Investment Considerations

For classic low-cost Nordic track grooming, grooming operations can use tracked utility terrain vehicles (UTVs). Tracked UTVs offer several advantages, including higher towing capacities, greater stability on variable terrain, and compatibility with grooming attachments designed for Nordic skiing trails.

Key considerations when investing in a tracked UTV for grooming include:

- **Vehicle specifications:** Look for a UTV with sufficient towing capacity to handle grooming attachments, high-low transmission for varied trail conditions, and a long, wide track system for optimal snow compaction.
- **Grooming attachments:**
  - » **Track setters:** Standard widths start around 20 inches, with optional weight kits to increase compaction and wing sets to manage snow along trail edges.
  - » **Towbar assemblies:** For grooming two-track trails, a parallel track setter attachment allows for a single grooming pass, reducing time and fuel costs.
  - » **Storage and maintenance:** Attachments can be detached from the UTV for storage. Whenever possible, store both UTVs and grooming attachments indoors. If indoor storage is not available, use weather covers to protect equipment.

Tracked UTVs provide sufficient capacity for efficient grooming while remaining cost-effective for smaller Nordic trail systems.



Example Trakor Product



Example Towbar Assembly Product

# Plow North/South Road Trailhead for Winter Access

## STRATEGIC/DESIGN CONSIDERATIONS

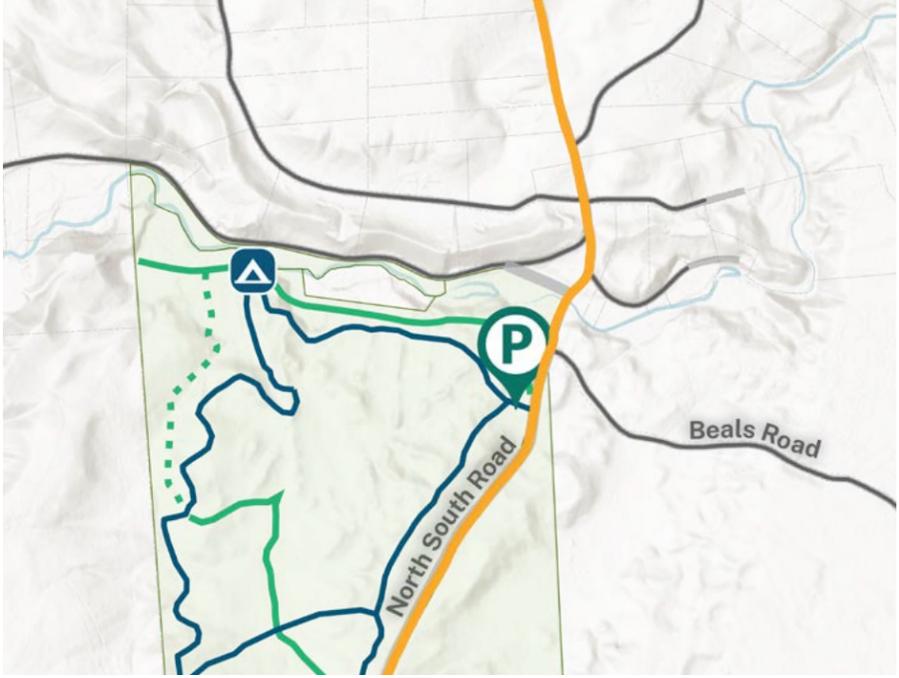
Plowing the North/South road trailhead will provide a more direct entry point for residents north of the site and directly connect to snowmobile and cross-country ski trails. Two winter maintenance strategies are highlighted here to illustrate how a different plowing approach can create a smaller or larger trailhead. Outside of plowing, basic wayfinding signage and seating are recommended for this site. Costs for those amenities are included as part of the wayfinding cost estimate.

## IMPLEMENTATION

This effort will begin by coordinating closely with Brantingham and Grieg staff and elected officials to discuss partnership agreements that could allow for extended snow plow service to plow this trailhead during the winter. Once those agreements are in place, budgeting for the necessary cost sharing will be key. In time, use levels should dictate if the smaller or larger plowing strategy will be most appropriate for this site.

Suggested amenities such as trailhead kiosks, seating, restrooms, and more clearly defined trail entries can come as a phase two once this trailhead becomes accessible during the winter months.

*Conceptual cost estimates can be found in Appendix B.*

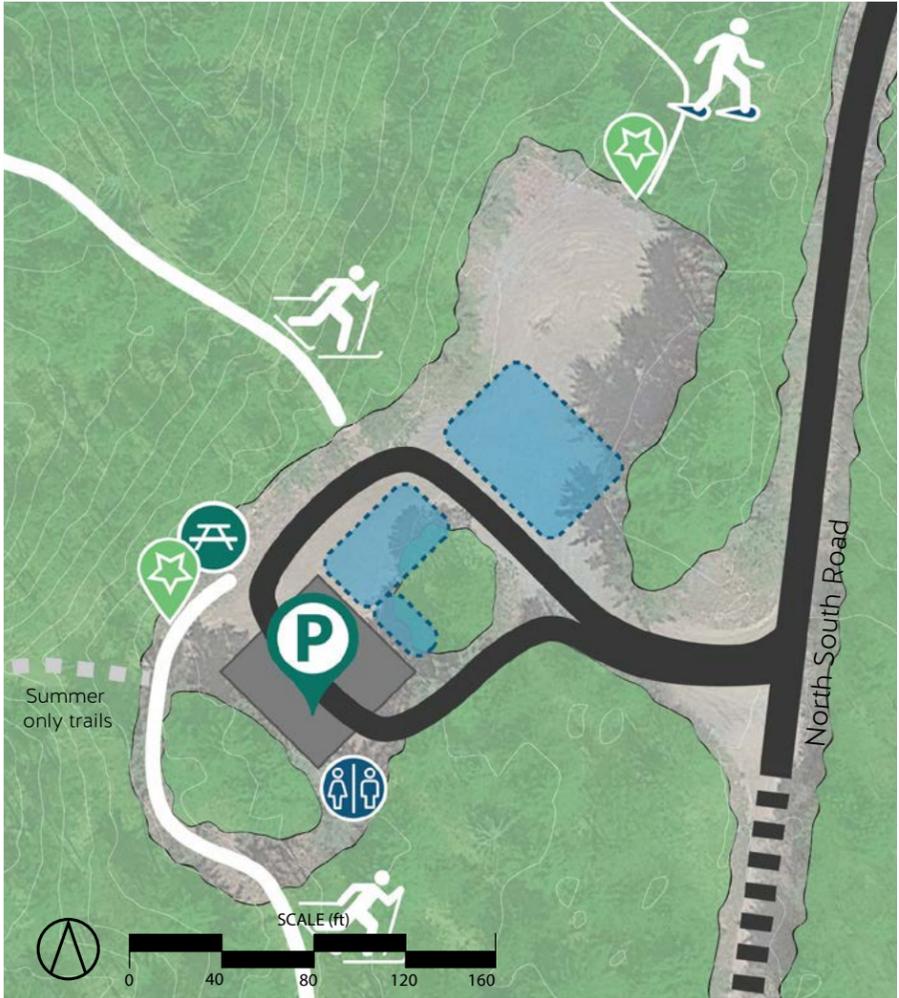


## POTENTIAL PARTNERS

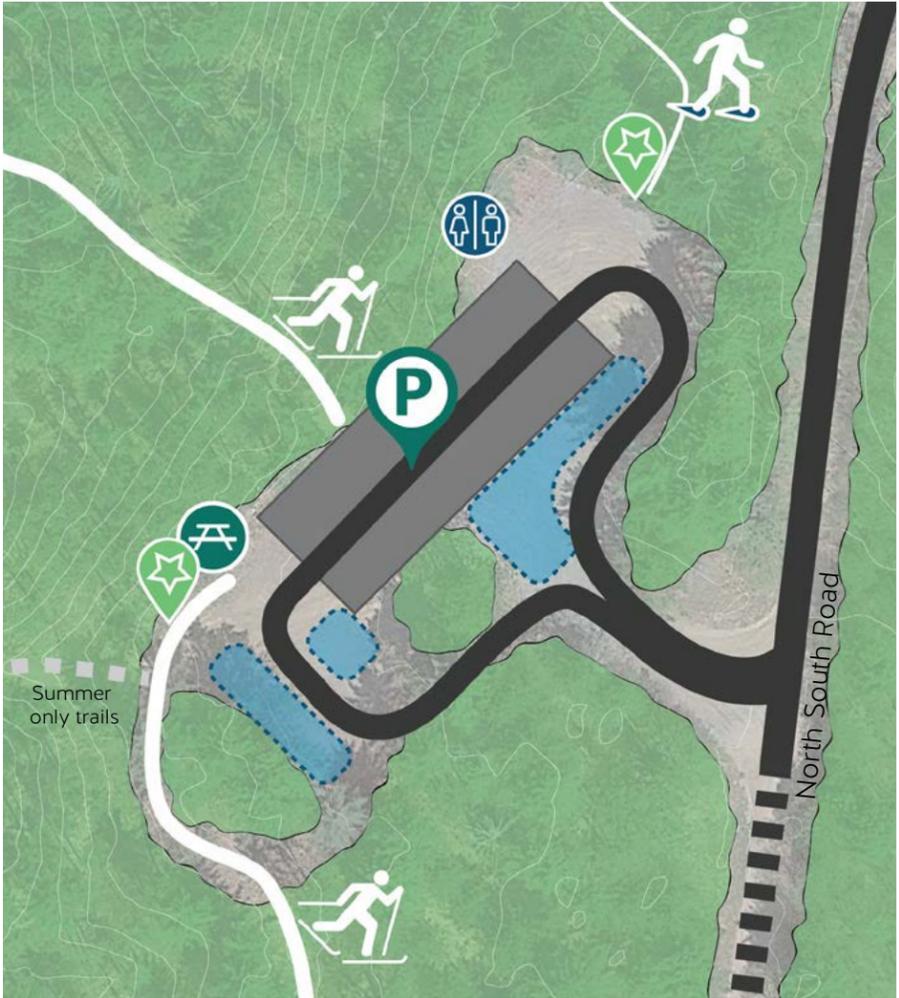
- Town of Grieg

## FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)
- [Land Water Conservation Fund](#)



**NORTHWEST TRAILHEAD MAINTENANCE STRATEGY 1 - APPROX 12 PARKING SPACES**



**NORTHWEST TRAILHEAD MAINTENANCE STRATEGY 2 - APPROX 30 PARKING SPACES**

**KEY FEATURES**

|               |                   |               |             |
|---------------|-------------------|---------------|-------------|
| PLOW ROUTE    | PARKING AREA      | TRAILHEAD/MAP | PORT-A-LETS |
| UNPLOWED ROAD | SNOW STORAGE AREA | SEATING AREA  |             |

# Update and Improve Wayfinding Signage

This wayfinding sign family is designed to create a consistent and intuitive experience beginning at the trailhead and continuing along the trail network. The entire sign system has been designed with winter non-motorized recreation as the primary focus while still accommodating year-round use for all trail users. Materials and colors will minimize confusion on the trails and stay cohesive with Lewis County branding standards. *Conceptual cost estimates can be found in Appendix B.*

**KO** Trailhead kiosks serve as the main orientation point, welcoming visitors with maps of routes, distances, and key features. Signs may also include interpretive panels on natural or cultural highlights, along with seasonal updates, safety tips, and guidance on responsible recreation.



**M** **Directional Signage** is divided into two tiers: major and minor intersection signs.

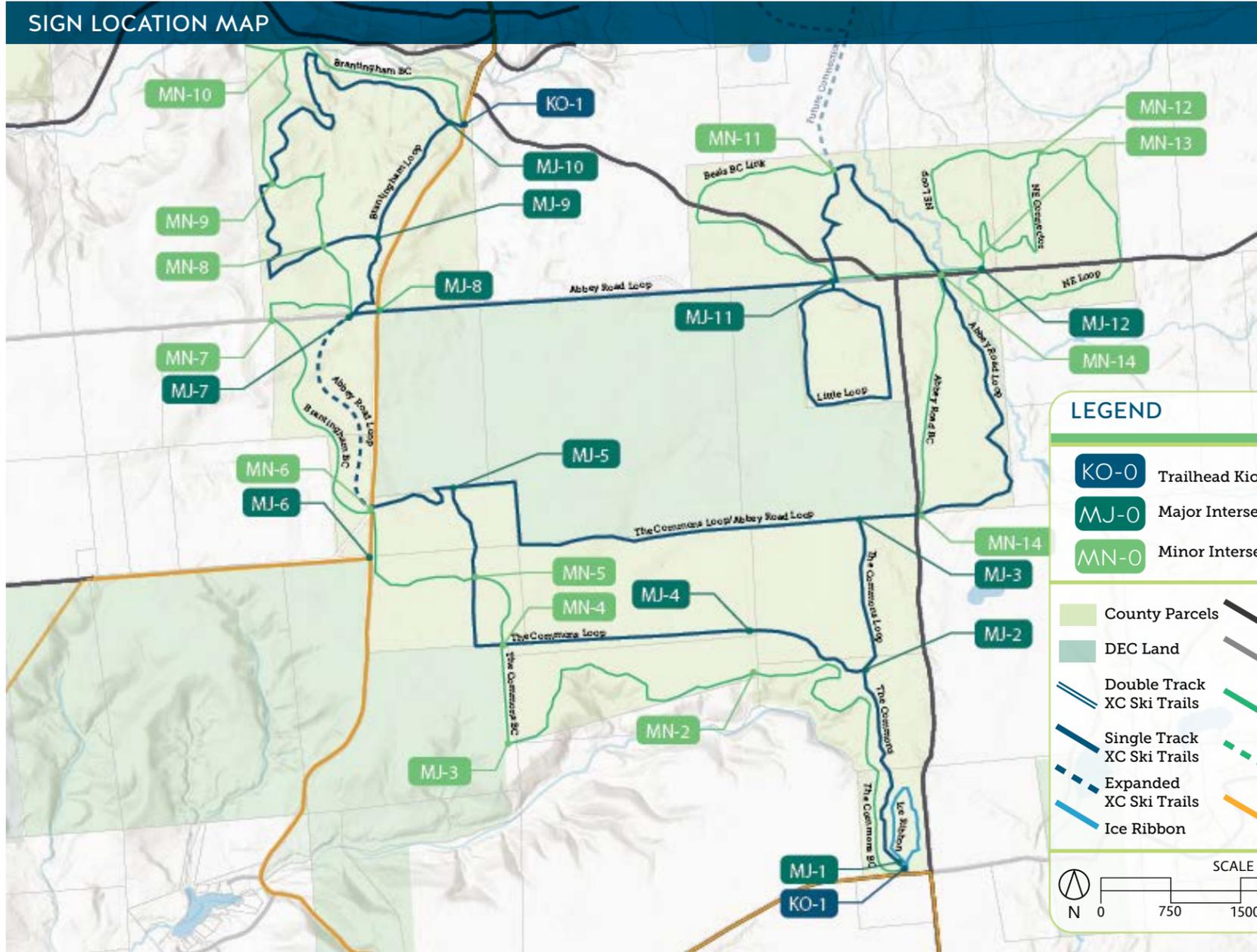
**MJ** **Major Intersection Signs** clearly identify trail names, directions, and distances to connect to other routes or points of interest. They also identify the skill level of each route.

**MN** **Minor Intersection Signs** provide simplified versions of the major intersection signs. They provide the user with directional cues and reassurance to make quick navigation decisions without interrupting their momentum.

**CM** **Confidence (Mile) Markers** are placed at regular intervals along the trails. These small signs confirm that the user is on the correct path and informs them on the distance traveled.

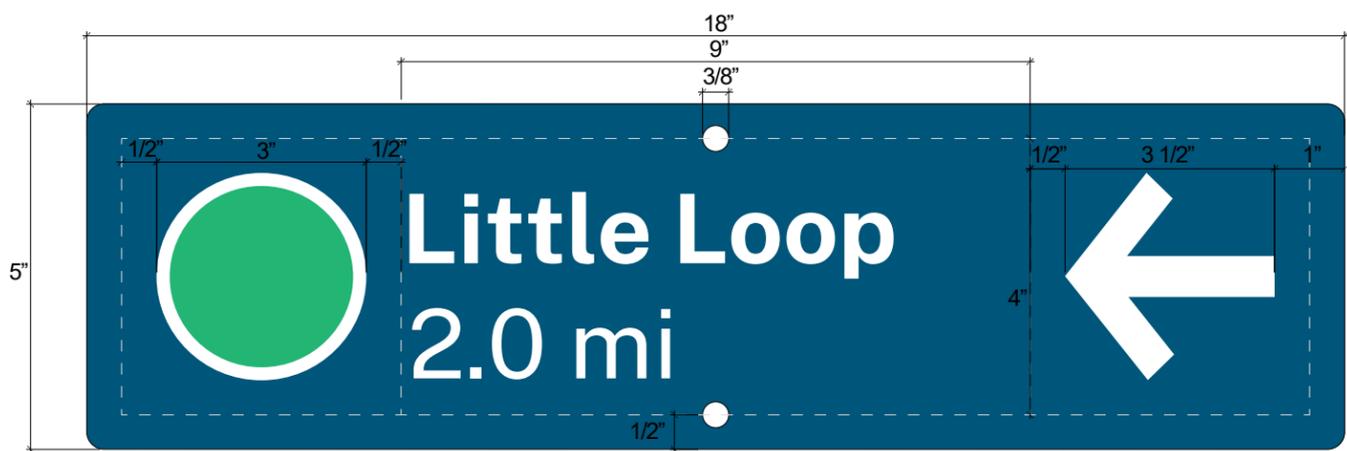
## ESTIMATED QUANTITIES

| Item                           | Qty |    |
|--------------------------------|-----|----|
| Confidence Marker              | 209 | ea |
| Trail Major Intersection Signs | 12  | ea |
| Trail Minor Intersection Signs | 14  | ea |
| TH Kiosks (new)                | 2   | ea |

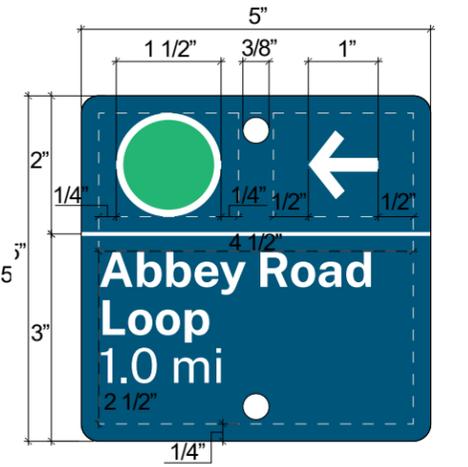


## SIGN PANEL DESIGN

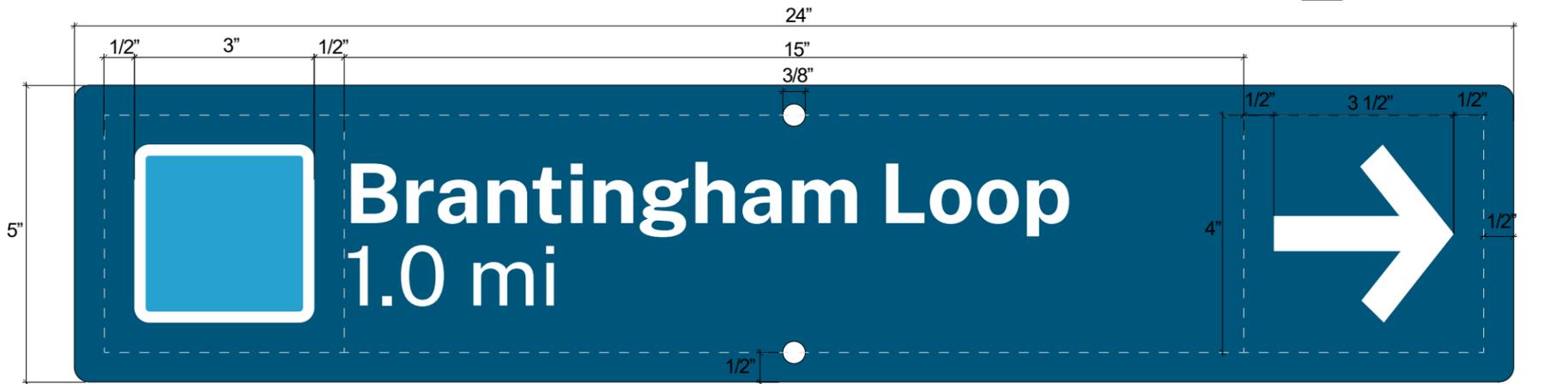
MJ- Major Intersection Sign Panel Small



MN- Minor Intersection Sign Panel



MJ - Major Intersection Sign Panel Large



M - Intersection sign panels - logos and icons



CM - Confidence Marker Sign Panels



# Supporting Recommendations

## Invest in Public Art and Placemaking

This plan proposes developing a public art walk and other installations at the Commons to activate user year round, but particularly celebrate the winter season. Building a permanent or rotating art program into the site is a way to celebrate place and attract new users to outdoor recreation on Lewis County trails.

### IMPLEMENTATION

Use this master plan to coordinate with partners such as local arts councils, public health organizations, and local philanthropies to secure funding for future art installations.

Engage partners to collaborate on an Request for Proposals (RFP) for public art and placemaking installations. These could be seasonal and rotated out every year, or permanent, depending on siting and funding potential.

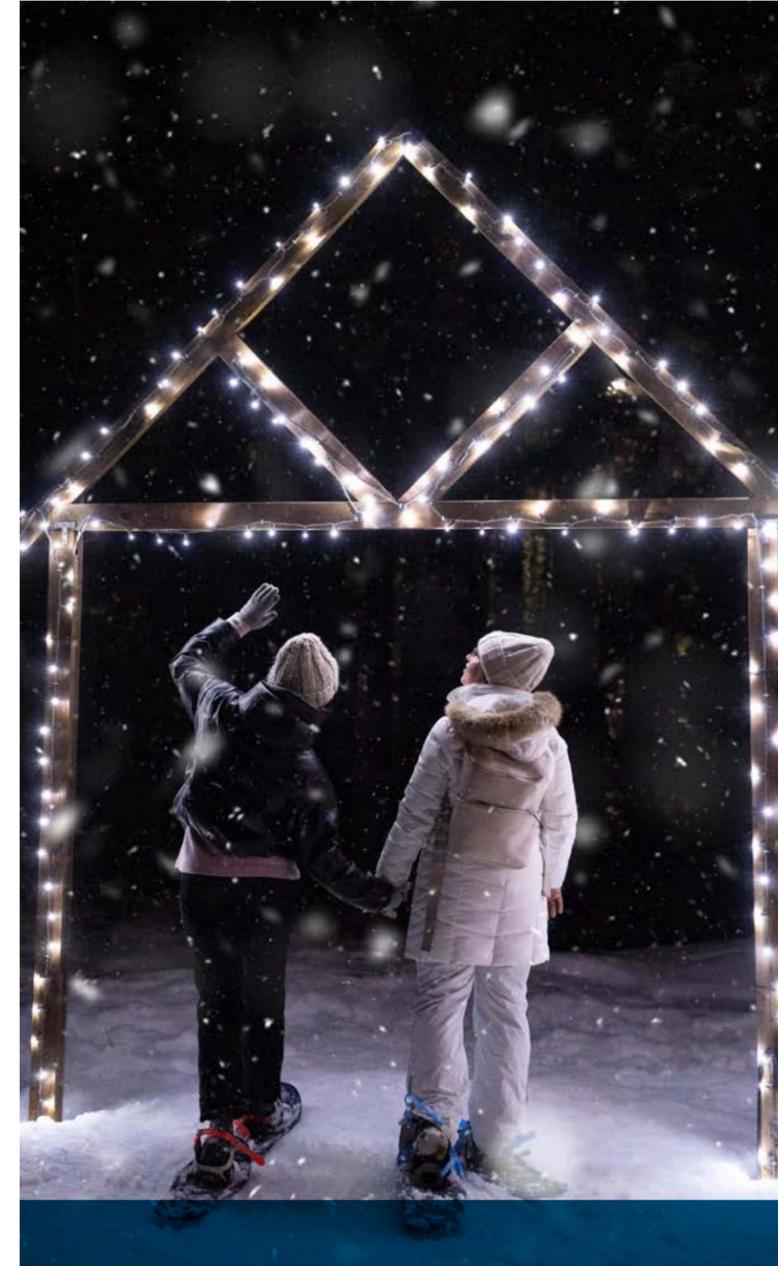
Costs for this effort can vary widely, from community and school supported volunteer projects to high value installations funded by philanthropy - partnership conversations will identify the appropriate scale for this site and Lewis County.

### POTENTIAL PARTNERS

- Local artists, schools, and cultural groups
- Lewis County Historical Society
- Arts councils and cultural nonprofits
- Naturally Lewis, Inc
- Lewis County Public Health

### FUNDING SOURCES

- [NEA Grants for Arts Projects](#)
- [Northern New York Foundation Micro-Grants Program](#)
- Local foundations and donors



Example of Winter Trail Activation

# Enhance Backcountry Amenities

Develop an interconnected backcountry trail system that balances rustic, ungroomed experiences with key amenities that improve safety, comfort, and adventure. Trails will emphasize snowshoeing, ski touring, and optional fat biking, while shelters and overlooks expand adventure opportunities and create opportunities for multi-day outings.

## IMPLEMENTATION

This plan provides the foundation for seeking additional funding to enhance the proposed backcountry amenities both at existing sites and future ones.

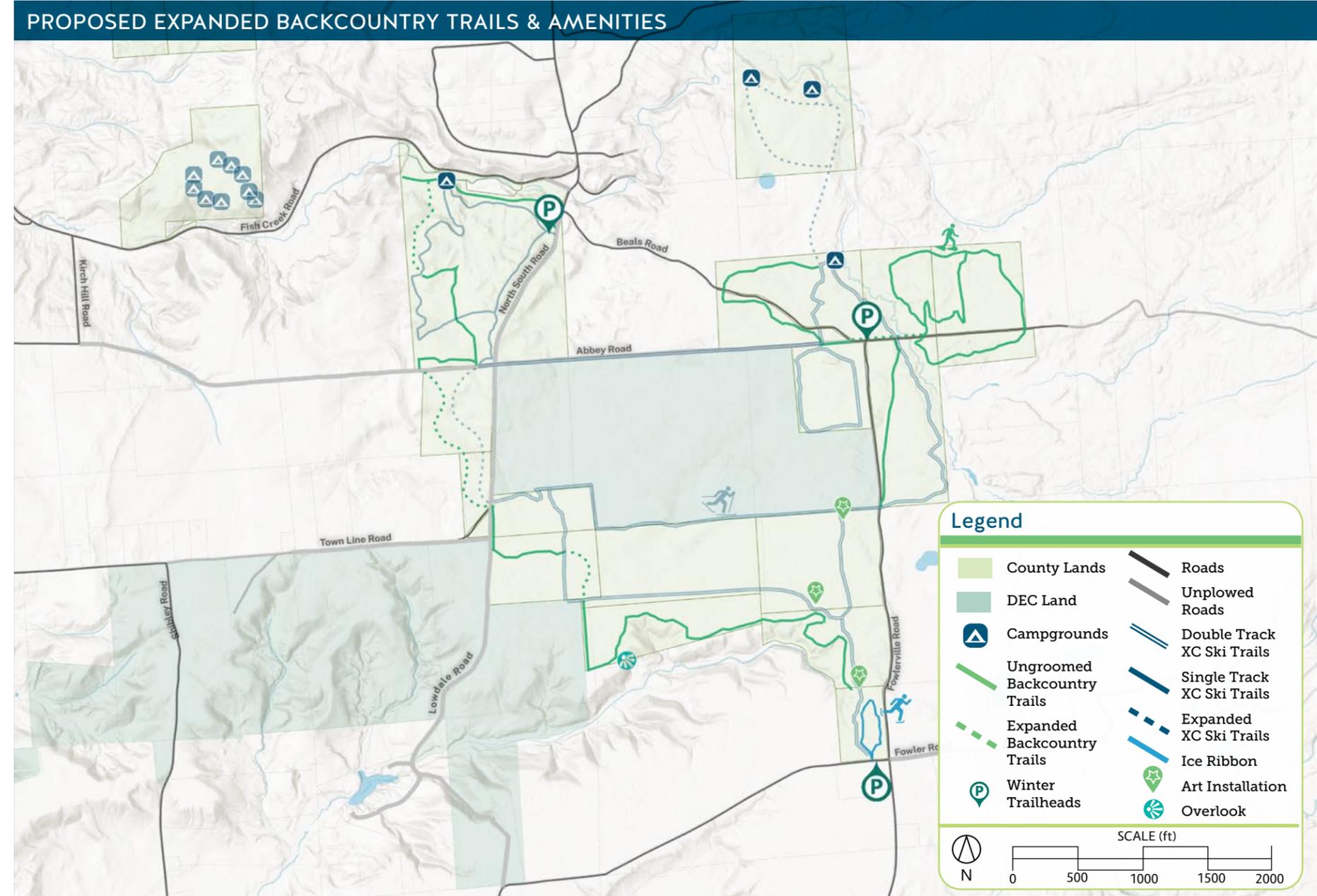
As illustrated at right, funding should be sought to develop lean tos or overnight lodging that could be rented out at the existing backcountry sites, and funding should be sought for development of backcountry structures.

*Conceptual cost estimates can be found in Appendix B.*

Additional schematic and detailed design work should be anticipated for any given site, as well as any needed permitting. These fees typically can be assumed to be 15-20% of the design cost.

## FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)
- Local in-kind volunteer support
- Local biking clubs and shops



# Establish New Northeast Trailhead

## STRATEGIC/DESIGN CONSIDERATIONS

This recommendation is included as a 'as needed' recommendation that could provide increased access to all sides of the commons area in an attempt to both be a family friendly destination with many short trail loops available, as well as potentially reducing future crowding from North/South and Fowler Road Trailheads.

This smaller trailhead, plowed in winter, would provide unmotORIZED access to the northeast corner of the Commons, improve access to future backcountry campsites, and support future trail connections to county parcels north of the Commons.

This master plan proposes a future trailhead in this vicinity, with two possible sites identified:

- » **Site 1:** Direct access to trails north and south of Beals Road, with good sight lines, accommodates roughly 16 parking spaces.
- » **Site 2:** Located at a clearer prominent navigation point (Beals + Fowlerville intersection), requiring minor grading and a short connector trail to reach the existing trail network. Parking would accommodate roughly 16 parking spaces.

## IMPLEMENTATION

As a long-term recommendation, this project should only be pursued if and when trailhead crowding or demand for improved access to the NE segment of the Commons calls for it. As such, this Master Plan will serve at that time as a foundation for detailed design and permitting work, beginning by selecting a preferred site in the vicinity of the two identified.



Once a more clear site design is in hand, additional permitting and construction can follow, along with relevant grant-writing and budgeting.

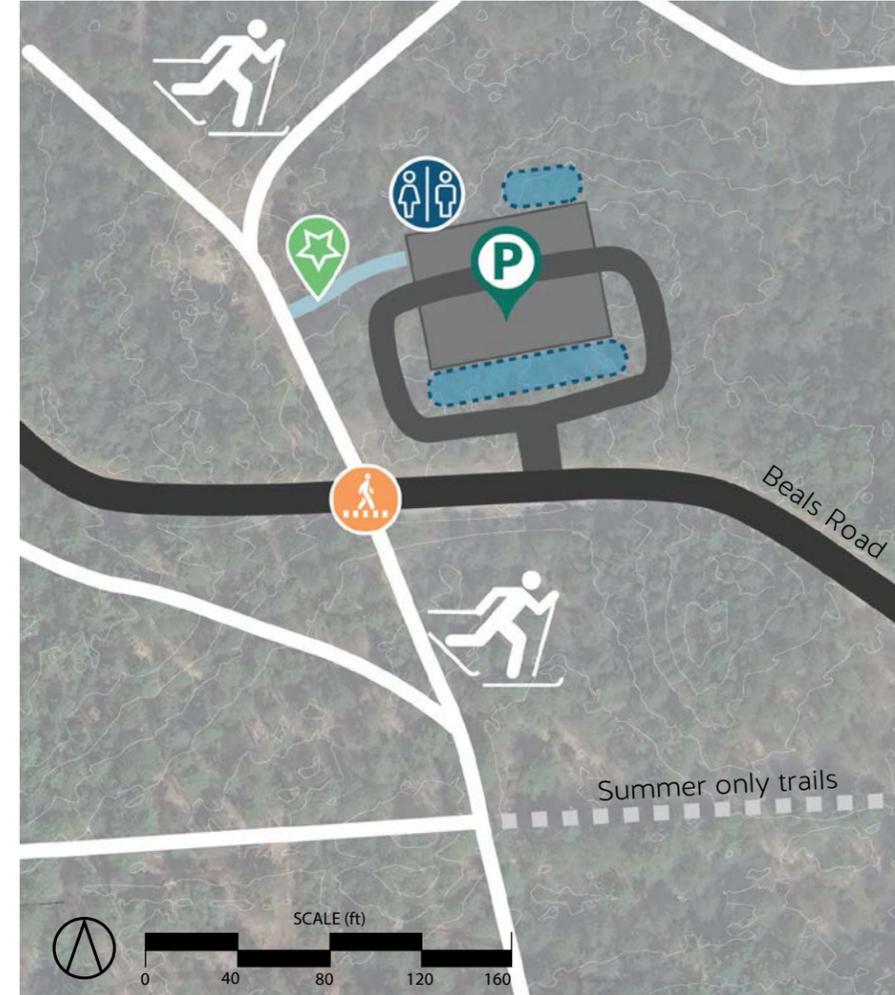
Conceptual cost estimates can be found in Appendix B.

## POTENTIAL PARTNERS

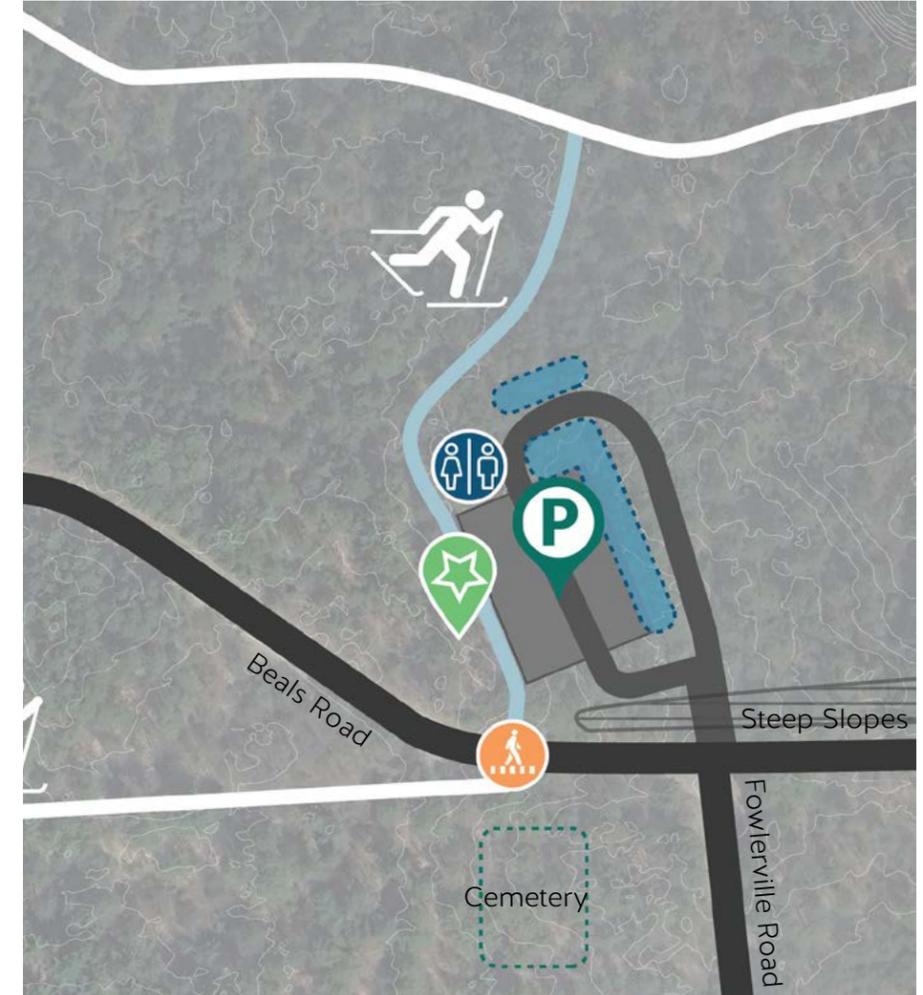
- Town of Greig
- Adjacent landowners (coordination on access and construction impacts)

## FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)
- [Land Water Conservation Fund](#)



NEW NORTHEAST TRAILHEAD OPTION 1



NEW NORTHEAST TRAILHEAD OPTION 2

KEY FEATURES

|                      |                   |               |               |
|----------------------|-------------------|---------------|---------------|
| ACCESS DRIVE         | PARKING AREA      | TRAILHEAD/MAP | ROAD CROSSING |
| NEW TRAIL CONNECTION | SNOW STORAGE AREA | PORT-A-LETS   |               |

# Build Ice Ribbon

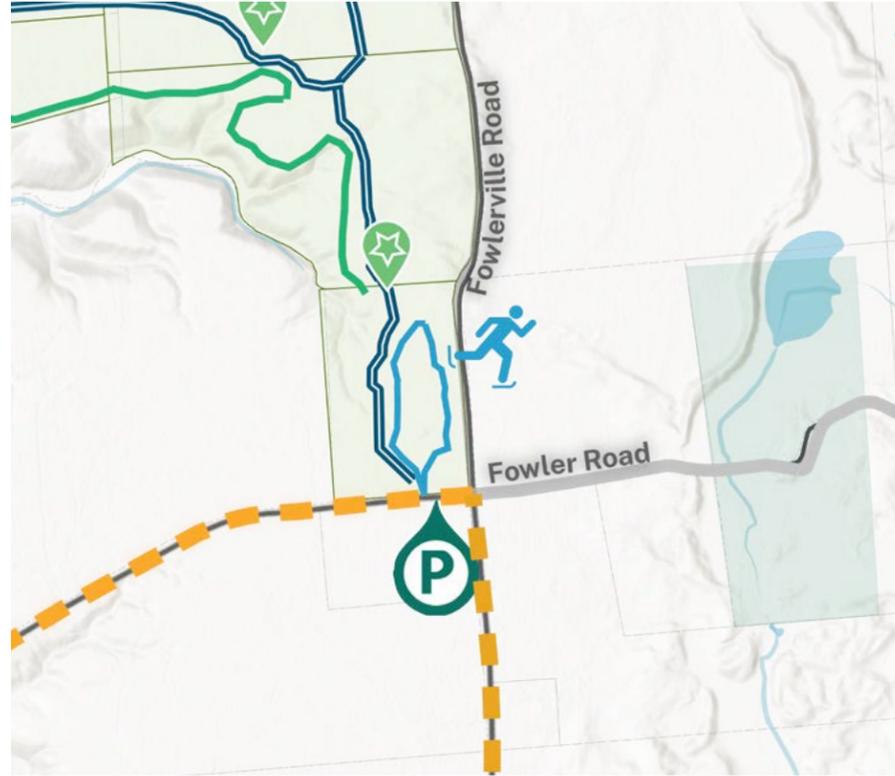
## DESIGN/STRATEGIC CONSIDERATIONS

The ice ribbon offers a snow-independent, low-barrier winter recreation experience designed for families, beginners, and tourists. By siting it near the trailhead, the ribbon complements other facilities and provides a reliable, accessible activity even in marginal snow conditions. More than anything, an ice ribbon offers a unique winter recreation experience, and could act as a magnet to draw new audiences to the Lewis County region.

This design is proposed and sited in this master plan to take advantage of flat terrain adjacent to restrooms, parking, and warming areas for visibility and ease of access.

It should be noted that for an ice ribbon to function, regular maintenance will be required. Key considerations for maintenance include:

- Use natural freeze methods (slow flooding over compacted ground) to minimize infrastructure costs and environmental impact.
- Avoid permanent edging or liners, following best practices from rural examples such as The Glide in Boulder Junction, WI.
- Plan for consistent resurfacing and maintenance after warm weather or heavy use.
- Incorporate solar lighting, benches, and signage to extend usability into evenings and enhance comfort.



## IMPLEMENTATION

Implementation will begin on a trial basis. A small section of the proposed trail will be constructed as a pilot to evaluate the feasibility of a full-scale buildout.

The construction of the ice ribbon corridor is relatively low-tech, involving the preparation of a level surface with compacted ground and basic drainage improvements. Once temperatures reach freezing, the surface is flooded using water tanks in repeated layers until a consistent ice layer forms.

Maintenance by Lewis County staff could be supplemented by a volunteer crew for regular flooding, resurfacing, plowing, and maintenance.

Equipment required for this project would require a pull-behind grooming system for resurfacing and specific equipment storage (as proposed in the Fowler Road trailhead designs). A small plow will be needed to clear snow accumulation.

*Conceptual cost estimates can be found in Appendix B.*

In addition to daily resurfacing and snow removal, time should also be allocated for seasonal grading and drainage work during the off-season to help maintain a level ice ribbon. Summer use of the same area by off-highway vehicles should be avoided, as their impact on the terrain could damage the ice ribbon.

## POTENTIAL PARTNERS

- Local schools and youth organizations
- Naturally Lewis, Inc
- Volunteer groups for flooding and maintenance

## FUNDING SOURCES

- Local parks and recreation funding
- Potential private partnerships
- In-kind community support





## CASE STUDIES: FOREST ICE RIBBONS

During the Master Plan process, the project team consulted with operators of existing ice ribbons to better understand the needs, challenges, and best practices for successful operation and maintenance.

| CASE STUDIES           | LOCATION             | DESCRIPTION   |
|------------------------|----------------------|---|
| The Glide              | Boulder Junction, WI | <ul style="list-style-type: none"> <li>• 0.8 miles, free to the public, volunteer-maintained</li> <li>• Took ~10 days to build via slow flooding</li> <li>• High visitation (200–1,000/day), family-friendly</li> <li>• Contact: Laura Bertch, Park Board Chair (l.bertch@townofboulderjunction.org)</li> </ul> |
| LV Four Season Trail   | Ottawa, Canada       | <ul style="list-style-type: none"> <li>• 0.9-mile trail with string lights, donations encouraged</li> <li>• Free skate lending hub, community-run</li> <li>• Used year-round for walking</li> </ul>   |
| Patinage en Forêt      | Ottawa, Canada       | <ul style="list-style-type: none"> <li>• 6 km forest skating experience, \$10–18/day</li> <li>• Rentals and family sleds available</li> </ul>   |
| Domaine Enchanteur     | Quebec, Canada       | <ul style="list-style-type: none"> <li>• 5 km trail network, food service, warming huts, rentals</li> </ul>   |
| Countryside Adventures | Ottawa, Canada       | <ul style="list-style-type: none"> <li>• 3 km trail, tubing hill, petting zoo, restrooms, multi-colored lighting</li> <li>• Private, family-run, daily maintenance at night</li> </ul>  |
| Icelynd                | Ottawa, Canada       | <ul style="list-style-type: none"> <li>• 2 km trail with bonfires, food vendors, and solar/string lighting</li> <li>• Daily resurfacing; no indoor venue, but highly popular</li> </ul>   |

### Operational Lessons Learned

- Maintenance is labor-intensive: Most sites conduct nightly/morning resurfacing, with plowing after snowfall and rebuilding ice after warm periods
- Season closures are frequent: Warm days or extreme cold require trail shutdowns; communication through websites/Facebook is essential
- User safety: Helmets, wrist guards, and signage are advised; waivers may be required for rentals or ticketed access
- Summer use: Trails convert to walking paths, should be gated to restrict vehicle use.
- Community-driven: Most successful ribbons are volunteer-run or non-profit supported, with basic infrastructure and creative funding

# Expand Trail Network

## DESIGN/STRATEGIC CONSIDERATIONS

Future trail expansions aim to strengthen the overall Commons network by connecting to nearby destinations such as Singing Waters campground, as the county parcel north of Beals Road, and adjacent NYSDEC-managed lands. These connections will improve continuity between trail systems, open up overnight opportunities, and provide both groomed and backcountry experiences.

This plan specifically envisions unique uses for each DEC parcel:

- » Central NYSDEC parcel is envisioned to host groomed Nordic ski trails which will provide direct links to Commons trail loops and reinforce network connectivity.
- » The Western NYSDEC parcel is envisioned to host a signed, ungroomed backcountry extension for snowshoeing and ski touring, potentially exploring the ravines and sloped terrain on the southern side of the parcel.

## IMPLEMENTATION

Use this master plan to begin collaboration with DEC regarding future trail expansions onto their adjacent parcels for non-motorized trail expansion. Collaborate with NYSDEC and private landowners for easement negotiations, permissions, and trail designation.

With permission from DEC, explore both parcels to determine the most suitable trail routing and to develop pre proposals that can be reviewed by state permitting specialists.

This plan can also be used to review opportunities to connect through private lands to potentially link The Commons with Singing Waters campground to the west.

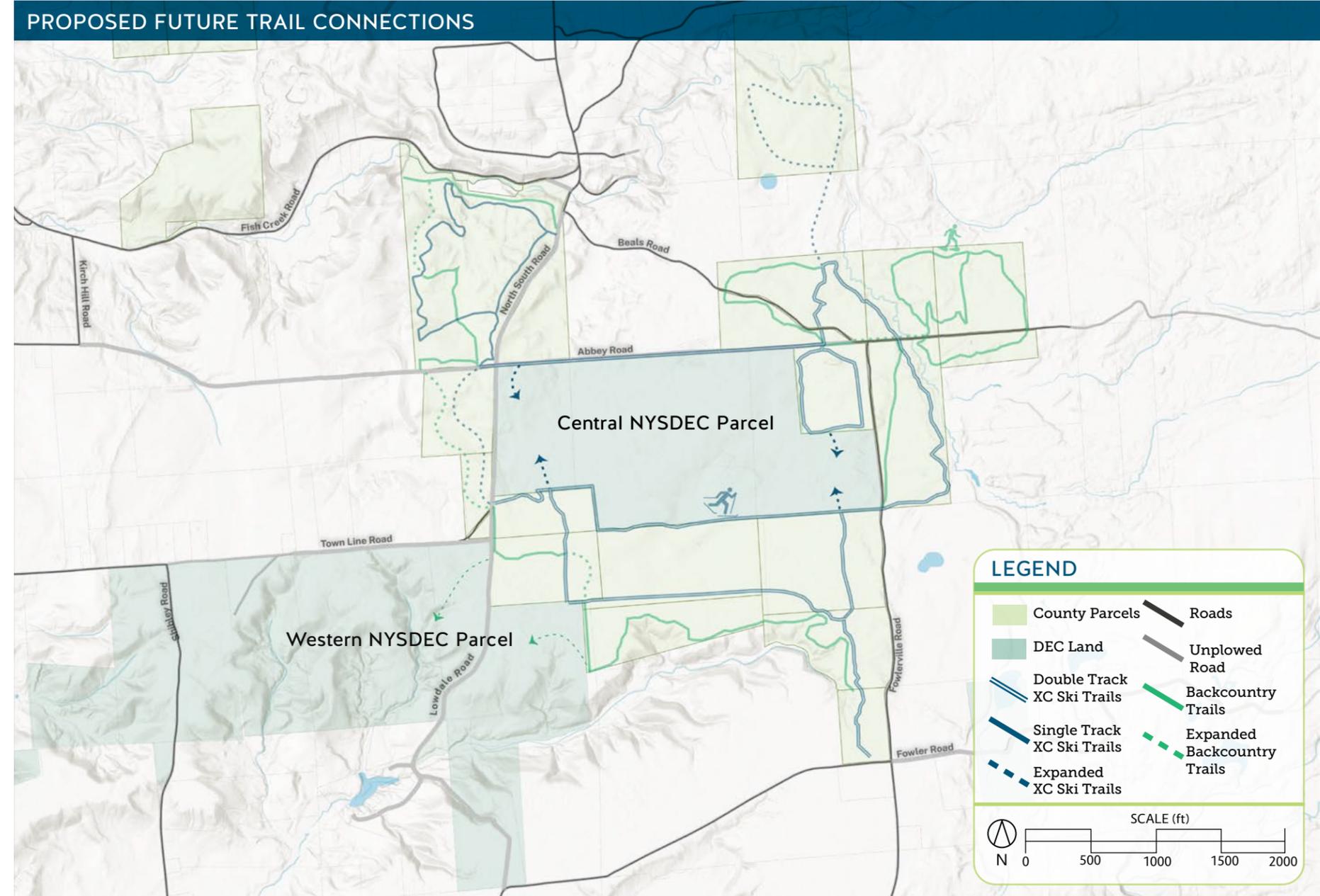
Costs for this effort are assumed to be both staff time invested in trail expansion negotiations and planning, and eventually trail construction costs, which approximately range from \$8-15 per linear foot in 2025.

## POTENTIAL PARTNERS

- NYS Department of Environmental Conservation (DEC)
- Private landowners (easements and access agreements)
- Local volunteer groups. Trail advocates and trail associations

## FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)



# Track Success Through Key Indicators

Tracking success through key indicators ensures that investments in the new non-motorized winter recreation area result in measurable outcomes — such as increased use, improved visitor experience, stronger community engagement, and economic benefits. These indicators will help managers evaluate the effectiveness of implementation, guide future improvements, and demonstrate the value of ongoing maintenance and programming efforts.

## STRATEGIC CONSIDERATIONS

Tracking success through key indicators ensures that investments in the Commons as a non-motorized winter recreation site result in measurable outcomes — such as increased use, improved visitor experience, stronger community engagement, and economic benefits. These indicators will help Lewis County evaluate the effectiveness of implementation, guide future improvements, and demonstrate the value of ongoing maintenance and programming efforts.

Monitoring should focus on indicators that reflect the goals of the Commons — safe, accessible, and engaging non-motorized recreation experiences that serve residents and attract visitors.

## Key Indicators

### *Trail Use and Participation*

- » Install automated trail counters at major access points to track use over time.
- » Supplement with QR code-based surveys or intercept surveys to capture visitor demographics, activity types (skiing, snowshoeing, walking), and satisfaction.

### *Community Activation and Events:*

- » Track participation in community programs, volunteer trail days, and winter events.
- » Record partnerships formed with local schools, recreation clubs, or businesses.

### *Trail Conditions and Maintenance:*

- » Maintain a digital log for grooming frequency, trail closures, and maintenance needs.
- » Evaluate signage clarity and user navigation through periodic field audits.

### *Connectivity and Access:*

- » Assess how new trail connections enhance overall network accessibility and visitor flow by placing trail counters at these areas.
- » Track year-over-year progress toward completing planned connections.

### *Economic and Visitor Impact:*

- » Work with regional partners to estimate economic contributions using visitor spending data and survey responses.
- » Track local business engagement — such as rentals, lodging, or partnerships tied to winter recreation.

## IMPLEMENTATION

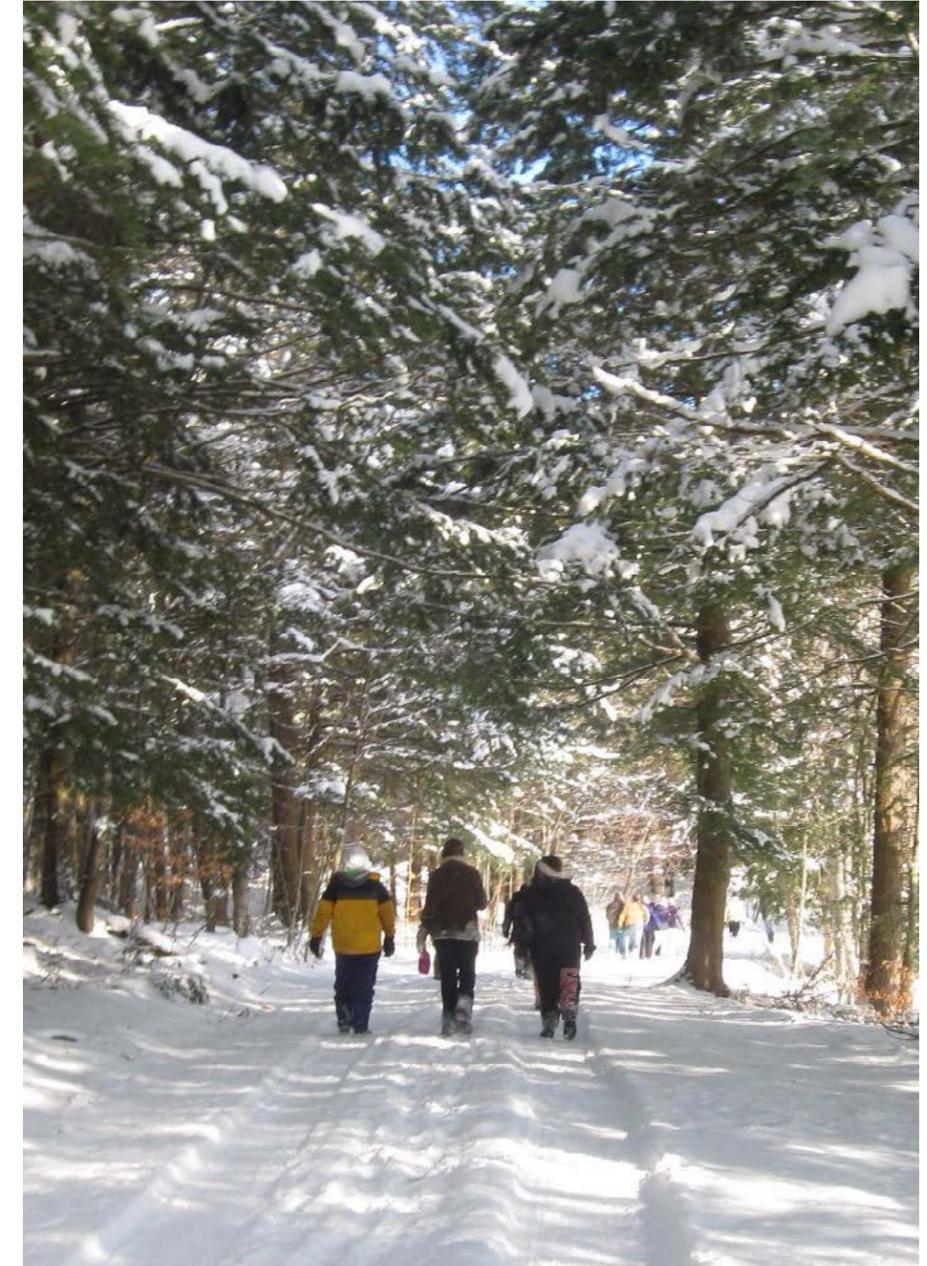
- Integrate data collection into routine maintenance and operations — e.g., checking counters and QR codes during grooming runs.
- Use an annual review process to summarize findings, share outcomes with partners (DEC, county, trail groups), and set priorities for the next season.
- Develop a simple dashboard or report template to visualize trends and communicate success to funders and the community.
- Adjust management strategies based on findings — for example, focusing on trail segments with high use or low satisfaction scores.

## POTENTIAL PARTNERS

- NYS Department of Environmental Conservation (DEC)
- Naturally Lewis, Inc
- Local volunteer groups, trail advocates, and trail associations
- Academic or nonprofit partners for data analysis support

## FUNDING SOURCES

- [DEC Smart Growth Grants](#)
- [Recreational Trails Program \(RTP\)](#)
- In-kind support from volunteer and partner organizations



# Implementation Matrix

## Overview

The Implementation Matrix turns summarized the recommendations presented in this plan into a clear, actionable roadmap. It organizes recommendations into manageable steps, identifying responsible partners, potential funding sources, and tangible measures of success. The matrix is designed to help the project team and community partners coordinate, communicate, and track implementation over time.

### HOW TO USE THE MATRIX

#### Clarify Responsibilities

Each row identifies key partners who should be involved in carrying out the work. Use these listings to guide coordination and ensure everyone understands their role in moving an idea into action.

#### Reference Key Actions

The Key Actions column outlines the specific steps needed to make progress on each recommendation. These can serve as milestones or checklists — helping plan meetings, assign tasks, or prepare funding applications.

#### Identify Funding Opportunities

The Funding Sources column highlights possible programs or partnerships that could support each action. Use this information to match current priorities with available opportunities or to prepare for future funding cycles.

#### Track and Update Progress

The matrix is intended to be a living document that evolves as projects advance. Add notes about what has been completed, who has been engaged, or where additional resources are needed. Regular updates will help maintain momentum and make it easier to report on progress to stakeholders and funders.

#### Communicate Results and Celebrate Wins

Use the matrix as a tool for sharing progress — both internally and with the public. Highlighting completed actions builds confidence in the plan and demonstrates the value of continued collaboration.

By maintaining and using this matrix actively, partners can stay aligned around shared priorities, track achievements, and ensure that implementation remains transparent, coordinated, and achievable.

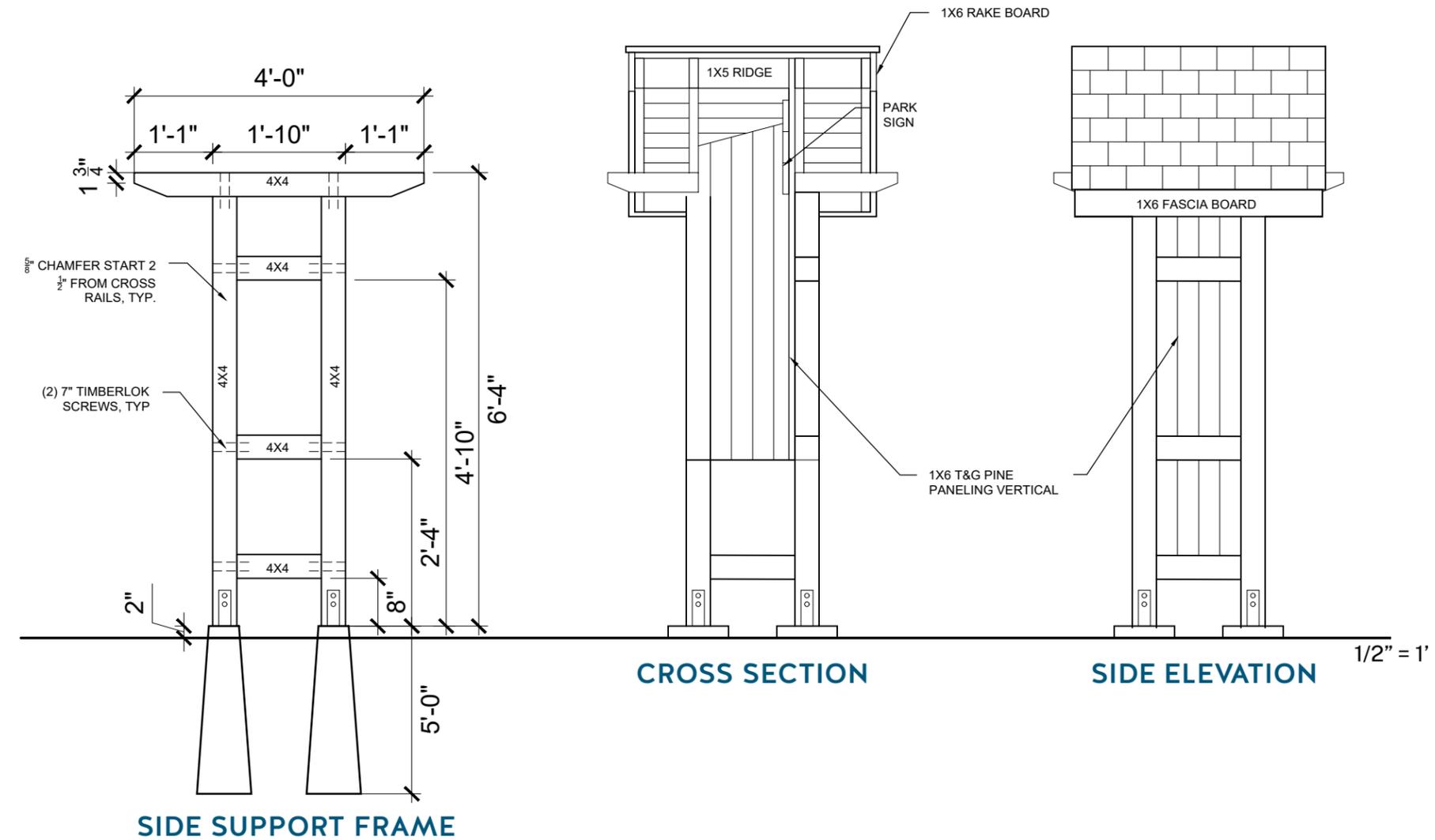
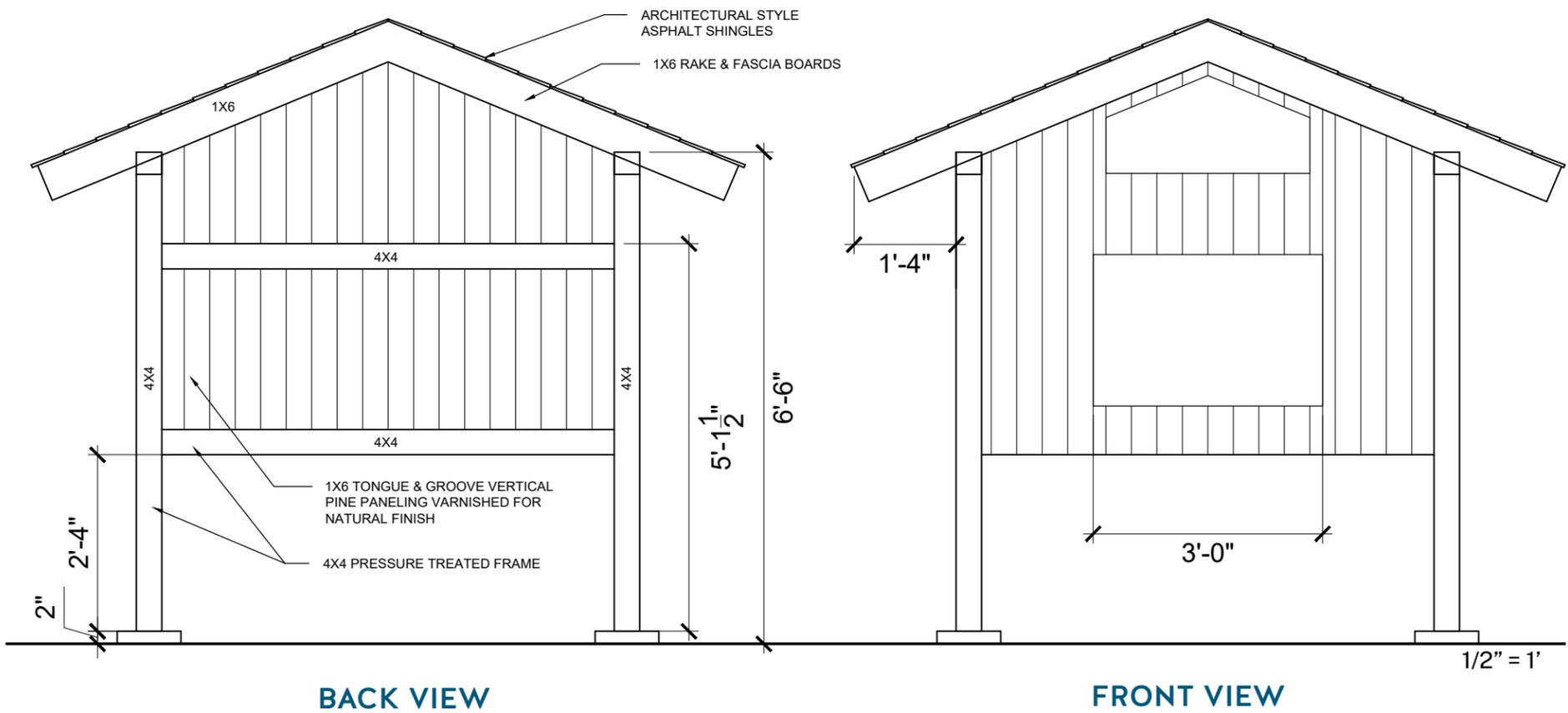
## PRIORITY RECOMMENDATIONS

| RECOMMENDATION   | KEY ACTIONS  | POTENTIAL PARTNERS   | FUNDINGS SOURCES   |
|--|--|--|--|
| <b>Improve Fowler Road Trailhead</b>                     | <ul style="list-style-type: none"> <li>Apply for DEC Smart Growth and RTP funding</li> <li>Conduct permitting and environmental review</li> <li>Construct near-term elements (parking, fire pit, signage, porta-toilets)</li> <li>Install plantings, boulders, and gathering area features</li> <li>Plan for long-term amenities (warming hut, power/water extensions, concession space)</li> <li>Identify private partners for rentals or concessions</li> <li>Update site location on Google Maps and other platforms</li> </ul> | <ul style="list-style-type: none"> <li>Naturally Lewis</li> <li>NYSDEC</li> <li>Local schools</li> <li>Nordic ski clubs</li> </ul> | <ul style="list-style-type: none"> <li>DEC Smart Growth</li> <li>RTP</li> <li>Private partnerships</li> <li>Foundations</li> </ul> |
| <b>Reroute Snowmobile Access</b>                         | <ul style="list-style-type: none"> <li>Meet with Lewis County Area Snowmobile Association to confirm reroute alignment</li> <li>Secure approvals from towns of Grieg and Lyonsdale Public notice and engagement at least 6 months prior to construction</li> <li>Update maps, install temporary signage, and close old trail segments</li> <li>Formalize maintenance plan with snowmobile club</li> </ul>  | <ul style="list-style-type: none"> <li>Local snowmobile clubs</li> <li>Towns of Grieg &amp; Lyonsdale</li> </ul>                   | <ul style="list-style-type: none"> <li>NYS Snowmobile Trail Grant</li> <li>RTP</li> <li>Club fundraising</li> </ul>                |
| <b>Groom Cross-Country Ski Trails</b>                    | <ul style="list-style-type: none"> <li>Clear and grade stacked loop system</li> <li>Install wayfinding, mileage markers, and skill-level signage</li> <li>Train staff/volunteers in safe operation of grooming equipment</li> <li>Implement grooming schedule and maintenance log</li> <li>Host events or lessons to promote use</li> <li>Plan for long-term storage and equipment replacement</li> </ul>  | <ul style="list-style-type: none"> <li>Nordic ski clubs</li> <li>Naturally Lewis</li> </ul>  | <ul style="list-style-type: none"> <li>RTP</li> <li>Local tourism &amp; economic dev. funds</li> <li>Private sponsors</li> </ul>   |
| <b>Plow North/South Road Trailhead for Winter Access</b> | <ul style="list-style-type: none"> <li>Meet with Town of Grieg to confirm shared plowing agreement</li> <li>Establish cost-sharing or service contract</li> <li>Implement plowing</li> <li>Assess use levels and determine need for larger cleared area</li> <li>Add trailhead kiosk and signage</li> </ul>  | <ul style="list-style-type: none"> <li>Town of Grieg</li> </ul>  | <ul style="list-style-type: none"> <li>DEC Smart Growth RTP</li> <li>LWCF</li> </ul>   |
| <b>Update and Improve Wayfinding Signage</b>             | <ul style="list-style-type: none"> <li>Fabricate trailhead orientation panels</li> <li>Install major and minor intersection signs, and confidence markers</li> <li>Integrate interpretive panels and safety information</li> <li>Develop replacement and maintenance schedule</li> </ul>   | <ul style="list-style-type: none"> <li>NYSDEC</li> </ul>   | <ul style="list-style-type: none"> <li>DEC Smart Growth</li> <li>RTP</li> </ul>  |

| SUPPORTING RECOMMENDATIONS                    |   |  |  |
|---|---|--|--|
| RECOMMENDATION                                | KEY ACTIONS   | POTENTIAL PARTNERS   | FUNDINGS SOURCES   |
| <b>Invest in Public Art &amp; Placemaking</b> | <ul style="list-style-type: none"> <li>• Convene arts and cultural partners to define art walk concept</li> <li>• Develop RFP for public art installations (permanent or seasonal)</li> <li>• Identify locations for installations and lighting integration</li> <li>• Secure funding and sponsorships</li> <li>• Launch first installation and promote through community events</li> </ul>                           | <ul style="list-style-type: none"> <li>• Arts councils</li> <li>• Schools</li> <li>• Historical Society</li> </ul>                       | <ul style="list-style-type: none"> <li>• NEA Grants</li> <li>• Northern NY Foundation</li> <li>• Local donors</li> </ul> |
| <b>Enhance Backcountry Amenities</b>          | <ul style="list-style-type: none"> <li>• Clear/build new backcountry trails</li> <li>• Secure funding for lean-tos/campsite upgrades</li> <li>• Construct structures and install signage</li> <li>• Integrate into trail maps and online info</li> </ul>  | <ul style="list-style-type: none"> <li>• NYSDEC</li> <li>• Local volunteers</li> </ul>   | <ul style="list-style-type: none"> <li>• DEC Smart Growth</li> <li>• RTP</li> <li>• Volunteer support</li> </ul>         |
| <b>Establish New Northeast Trailhead</b>      | <ul style="list-style-type: none"> <li>• Develop detailed design and parking plan (~16 spaces)</li> <li>• Secure landowner coordination and permits</li> <li>• Apply for grant funding; construct trailhead</li> </ul>  | <ul style="list-style-type: none"> <li>• Town of Grieg</li> <li>• Adjacent land-owners</li> </ul>  | <ul style="list-style-type: none"> <li>• DEC Smart Growth</li> <li>• RTP</li> </ul>                                      |
| <b>Build Ice Ribbon</b>                       | <ul style="list-style-type: none"> <li>• Identify pilot section location and prepare level compacted base</li> <li>• Construct trial ribbon using water layering method</li> <li>• Purchase water tank and grooming equipment</li> <li>• Train staff/volunteers for resurfacing and maintenance</li> <li>• Evaluate performance; expand to full corridor</li> </ul>   | <ul style="list-style-type: none"> <li>• Naturally Lewis</li> <li>• Local volunteers and schools</li> </ul>                              | <ul style="list-style-type: none"> <li>• Private sponsorships</li> <li>• In-kind support</li> </ul>                      |
| <b>Expand Trail Network</b>                   | <ul style="list-style-type: none"> <li>• Meet with DEC to discuss expansion onto adjacent parcels</li> <li>• Conduct field review and draft trail routing options</li> <li>• Secure permissions/easements from DEC and private owners</li> <li>• Prepare pre-proposals for state review</li> <li>• Construct trails and install signage</li> <li>• Connect to Singing Waters campground and county parcels</li> </ul> | <ul style="list-style-type: none"> <li>• NYSDEC</li> <li>• Private landowners</li> <li>• Volunteers</li> </ul>                           | <ul style="list-style-type: none"> <li>• DEC Smart Growth</li> <li>• RTP</li> </ul>                                      |
| <b>Track Success Through Key Indicators</b>   | <ul style="list-style-type: none"> <li>• Install automated trail counters and QR-coded signs</li> <li>• Conduct visitor and event participation surveys</li> <li>• Track maintenance logs and grooming frequency</li> <li>• Compile annual summary report and data</li> <li>• Review trends with partners and adjust management plans</li> </ul>  | <ul style="list-style-type: none"> <li>• NYSDEC</li> <li>• Naturally Lewis</li> <li>• Volunteers</li> <li>• Academic partners</li> </ul> | <ul style="list-style-type: none"> <li>• DEC Smart Growth</li> <li>• RTP</li> <li>• In-kind support</li> </ul>           |



# Appendix A: Trail Kiosk Dimensions





**IMPROVE FOWLER ROAD TRAILHEAD (Short-Term Improvements)**

| DESCRIPTION  | Unit  | Qty   | Unit Cost - low | Unit Cost - high | Low Cost            | High Cost           | Notes                                       |
|--|-------|-------|-----------------|------------------|---------------------|---------------------|---|
| <b>Parking Lot Design</b>  |       |       |                 |                  |                     |                     |   |
| Clearing and site prep   | sf    | 1500  | \$ 2.00         | \$ 20.00         | \$3,000.00          | \$30,000.00         |   |
| Earthwork/fine grading   | sf    | 23100 | \$ 0.50         | \$ 3.00          | \$11,550.00         | \$69,300.00         |   |
| Gravel surfacing/re-surfacing                                    | sf    | 21200 | \$ 2.00         | \$ 6.00          | \$42,400.00         | \$127,200.00        |   |
| Boulders   | ea    | 20    | \$ 200.00       | \$ 600.00        | \$4,000.00          | \$12,000.00         |   |
| Tree planting  | ea    | 4     | \$ 1,800.00     | \$ 2,000.00      | \$7,200.00          | \$8,000.00          |   |
| <b>Community Amenities</b>                                       |       |       |                 |                  |                     |                     |   |
| Entry sign   | ea    | 1     | \$ 5,000.00     | \$ 10,000.00     | \$5,000.00          | \$10,000.00         |   |
| Accessible walking trails to amenities                           | lf    | 150   | \$ 60.00        | \$ 90.00         | \$9,000.00          | \$13,500.00         | 6' wide asphalt, gravel, or similar surface |
| Picnic tables  | ea    | 5     | \$ 600.00       | \$ 2,000.00      | \$3,000.00          | \$10,000.00         |   |
| Benches  | ea    | 6     | \$ 300.00       | \$ 2,000.00      | \$1,800.00          | \$12,000.00         |   |
| Ski racks  | ea    | 2     | \$ 1,000.00     | \$ 3,000.00      | \$2,000.00          | \$6,000.00          |   |
| Fire Pit   | ea    | 1     | \$ 350.00       | \$ 2,000.00      | \$350.00            | \$2,000.00          |   |
| Warming hut  | allow | 1     | \$ 40,000.00    | \$ 80,000.00     | \$40,000.00         | \$80,000.00         | yurt on platform, shed, similar             |
| <b>Facilities</b>  |       |       |                 |                  |                     |                     |   |
| Utility Shed   | ea    | 1     | \$ 5,000.00     | \$ 7,000.00      | \$5,000.00          | \$7,000.00          | For grooming equipment                      |
| Port-a-let enclosure   | ea    | 2     | \$ 5,000.00     | \$ 7,000.00      | \$10,000.00         | \$14,000.00         | Estimate sized for 2X single portalet       |
| Portalet - service contract not included                         |       |       |                 |                  |                     |                     |   |
| Subtotal   |       |       |                 |                  | \$144,300.00        | \$401,000.00        |   |
| <i>Civil Engineering, Permitting, &amp; Architectural Design</i> |       |       |                 |                  |                     |                     |   |
| <i>Contingency</i>   |       |       |                 |                  | 10%                 | 15%                 |   |
|  |       |       |                 |                  | \$14,500.00         | \$60,200.00         |   |
|  |       |       |                 |                  | 25%                 | 25%                 |   |
|  |       |       |                 |                  | \$36,100.00         | \$100,250.00        |   |
| <b>Short Term Trailhead Improvements Cost</b>                    |       |       |                 |                  | <b>\$200,000.00</b> | <b>\$570,000.00</b> |   |

**GROOM CROSS-COUNTRY SKI TRAILS**

| DESCRIPTION                                 | Unit | Qty   | Unit Cost - low | Unit Cost - high | Low Cost            | High Cost           | Notes  |
|---|------|-------|-----------------|------------------|---------------------|---------------------|--|
| <b>Trail Improvements</b>                   |      |       |                 |                  |                     |                     |  |
| Existing trail improvements                 | ac   | 9.1   | \$ 500.00       | \$ 2,000.00      | \$4,550.00          | \$18,200.00         | Includes grading and turn radii adjustments, clearing and grubbing                               |
| New cross-country ski trail establishment   | ac   | 0.6   | \$ 25,000.00    | \$ 30,000.00     | \$15,000.00         | \$18,000.00         | Includes clearing, stumping, grubbing, and finish grade of new trails                            |
| Erosion Control + Revegetation              | ac   | 9.7   | \$ 12,000.00    | \$ 15,000.00     | \$116,400.00        | \$145,500.00        | Includes all erosion control and revegetation of existing + new improvements                     |
| Drainage improvements                       | ea   | 20    | \$ 5,000.00     | \$ 8,000.00      | \$100,000.00        | \$160,000.00        | Quantity is an estimate, assume 18' cross culvert installation                                   |
| <b>Grooming Equipment</b>                   |      |       |                 |                  |                     |                     |  |
| Snowmobile                                  | ea   | 1 - 2 | \$ 15,000.00    | \$ 20,000.00     | \$15,000.00         | \$40,000.00         | Recommend 1 snowmobile for every 10k of tracked trails   |
| Track Setter                                | ea   | 1     | \$ 200.00       | \$ 2,200.00      | \$200.00            | \$2,200.00          | Snowmobile system, single pull behind setter   |
| Towbar Assembly                             | ea   | 1     | \$ 8,000.00     | \$ 10,000.00     | \$8,000.00          | \$10,000.00         | Snowmobile system, single pull behind assembly   |
| Subtotal                                    |      |       |                 |                  | \$259,150.00        | \$393,900.00        |  |
| <i>Trail design and permitting</i>          |      |       |                 |                  | 10%                 | 15%                 |  |
| <i>Contingency</i>                          |      |       |                 |                  | 25%                 | 25%                 |  |
|   |      |       |                 |                  | \$26,000.00         | \$59,100.00         | Permitting for new trail development, trail design studies for drainage and grading improvements |
|   |      |       |                 |                  | \$64,790.00         | \$98,500.00         |  |
| <b>Groom Cross-Country Ski Trails Costs</b> |      |       |                 |                  | <b>\$350,000.00</b> | <b>\$560,000.00</b> |  |

**NORTH/SOUTH ROAD TRAILHEAD**

| DESCRIPTION                              | Unit | Qty | Unit Cost - low | Unit Cost - high | Low Cost           | High Cost          | Notes                                   |
|--|------|-----|-----------------|------------------|--------------------|--------------------|---|
| Plowing costs to be negotiated           |      |     |                 |                  |                    |                    |   |
| Portalet - service contract not included |      |     |                 |                  |                    |                    |   |
| Picnic Table                             | ea   | 3   | \$ 600.00       | \$ 2,000.00      | \$1,800.00         | \$6,000.00         |   |
| Bench                                    | ea   | 2   | \$ 300.00       | \$ 2,000.00      | \$600.00           | \$4,000.00         |   |
| Trailhead Kiosk                          | ea   | 1   | \$ 4,500.00     | \$ 15,000.00     | \$4,500.00         | \$15,000.00        |   |
| Trailhead Map                            | ea   | 1   | \$ 1,000.00     | \$ 3,000.00      | \$1,000.00         | \$3,000.00         | For hiking trailhead, simpler map panel |
| Subtotal                                 |      |     |                 |                  | \$7,900.00         | \$28,000.00        |   |
| <i>Trailhead Design</i>                  |      |     | 5%              | 10%              | \$400.00           | \$2,800.00         |   |
| <i>Contingency</i>                       |      |     | 25%             | 25%              | \$2,000.00         | \$7,000.00         |   |
| <b>North/South Road Trailhead Costs</b>  |      |     |                 |                  | <b>\$20,000.00</b> | <b>\$40,000.00</b> |   |

**WAYFINDING SIGNAGE**

| DESCRIPTION                                    | Unit  | Qty | Unit Cost - low | Unit Cost - high | Low Cost           | High Cost          | Notes                            |
|--|-------|-----|-----------------|------------------|--------------------|--------------------|----------------------------------|
| <b>Confidence Markers</b>                      |       |     |                 |                  |                    |                    |                                  |
| Confidence Markers                             | ea    | 209 | \$ 2.50         | \$ 2.50          | \$522.50           | \$522.50           | Spacing every 500 ft             |
| CM Posts                                       | ea    | 209 | \$ 10.00        | \$ 15.00         | \$2,090.00         | \$3,135.00         | Direct buried 2x2 post           |
| Installation - Staff Time                      | hrs   | 209 | \$ 28.00        | \$ 35.00         | \$5,852.00         | \$7,315.00         |                                  |
| <b>Intersection Signs</b>                      |       |     |                 |                  |                    |                    |                                  |
| Small and Large Major Intersection Sign Panels | ea    | 36  | \$ 20.00        | \$ 35.00         | \$720.00           | \$1,260.00         |                                  |
| Minor Intersection Sign Panels                 | ea    | 28  | \$ 20.00        | \$ 35.00         | \$560.00           | \$980.00           |                                  |
| MJ and MN logo and icon panels                 | ea    | 78  | \$ 20.00        | \$ 35.00         | \$1,560.00         | \$2,730.00         |                                  |
| MJ and MN posts (6x6, 12')                     | ea    | 26  | \$ 250.00       | \$ 350.00        | \$6,500.00         | \$9,100.00         | Direct buried                    |
| Installation - Equipment                       | allow | 1   | \$ 500.00       | \$ 6,000.00      | \$500.00           | \$6,000.00         | Truck, trailer, post hole digger |
| Installation - Staff Time                      | hrs   | 130 | \$ 28.00        | \$ 35.00         | \$3,640.00         | \$4,550.00         |                                  |
| <b>Kiosk</b>                                   |       |     |                 |                  |                    |                    |                                  |
| Kiosk  | ea    | 2   | \$ 4,500.00     | \$ 15,000.00     | \$9,000.00         | \$30,000.00        |                                  |
| Installation - Equipment                       | allow | 1   | \$ 500.00       | \$ 6,000.00      | \$500.00           | \$6,000.00         | Truck, trailer, post hole digger |
| Installation - Staff Time                      | hrs   | 48  | \$ 28.00        | \$ 35.00         | \$1,344.00         | \$1,680.00         | Avg. rate                        |
| Subtotal                                       |       |     |                 |                  | \$32,788.50        | \$73,272.50        |                                  |
| <i>Contingency</i>                             |       |     | 25%             | 25%              | \$8,200.00         | \$18,300.00        |                                  |
| <b>Wayfinding Signage Costs</b>                |       |     |                 |                  | <b>\$41,000.00</b> | <b>\$92,000.00</b> |                                  |

**ENHANCE BACKCOUNTRY AMENITIES**

| DESCRIPTION                        | Unit  | Qty | Unit Cost - low | Unit Cost - high | Low Cost             | High Cost            | Notes                               |
|------------------------------------|-------|-----|-----------------|------------------|----------------------|----------------------|-------------------------------------|
| Lean-tos                           | ea    | 5   | \$ 20,000.00    | \$ 35,000.00     | \$100,000.00         | \$175,000.00         | Installed cost                      |
| Site preparation                   | allow | 5   | \$ 5,000.00     | \$ 10,000.00     | \$25,000.00          | \$50,000.00          | Estimate for clearing, grading, etc |
| Outhouses                          | ea    | 5   | \$ 6,000.00     | \$ 12,000.00     | \$30,000.00          | \$60,000.00          | DEC style pit toilet                |
| Fire pits                          | ea    | 5   | \$ 350.00       | \$ 2,000.00      | \$1,750.00           | \$10,000.00          |                                     |
| Picnic Tables                      | ea    | 5   | \$ 600.00       | \$ 2,000.00      | \$3,000.00           | \$10,000.00          |                                     |
| Subtotal                           |       |     |                 |                  | \$ 159,750.00        | \$ 305,000.00        |                                     |
| <i>Design and permitting fees</i>  |       |     | <i>10%</i>      | <i>15%</i>       | <i>\$16,000.00</i>   | <i>\$45,800.00</i>   |                                     |
| <i>Contingency</i>                 |       |     | <i>25%</i>      | <i>25%</i>       | <i>\$39,900.00</i>   | <i>\$76,300.00</i>   |                                     |
| <b>Backcountry Amenities Costs</b> |       |     |                 |                  | <b>\$ 216,000.00</b> | <b>\$ 428,000.00</b> |                                     |

**ESTABLISH NEW NORTHEAST TRAILHEAD**

| DESCRIPTION  | Unit  | Qty   | Unit Cost - low | Unit Cost - high | Low Cost             | High Cost            | Notes  |
|--|-------|-------|-----------------|------------------|----------------------|----------------------|--|
| <b>Parking Lot</b>   |       |       |                 |                  |                      |                      |  |
| Clearing and site prep   | allow | 1     | \$ 15,000.00    | \$ 20,000.00     | \$15,000.00          | \$20,000.00          |  |
| Earthwork/site grading   | sf    | 25000 | \$ 3.00         | \$ 4.50          | \$75,000.00          | \$112,500.00         |  |
| Gravel surfacing   | sf    | 12000 | \$ 6.00         | \$ 8.00          | \$72,000.00          | \$96,000.00          |  |
| <b>Trailhead Amenities</b>                                     |       |       |                 |                  |                      |                      |  |
| Kiosk  | ea    | 1     | \$ 4,500.00     | \$ 15,000.00     | \$4,500.00           | \$15,000.00          |  |
| Bench  | ea    | 1     | \$ 300.00       | \$ 2,000.00      | \$300.00             | \$2,000.00           |  |
| Clearing for new trail connection (if needed)                  | allow | 1     | \$ 3,000.00     | \$ 10,000.00     | \$3,000.00           | \$10,000.00          |  |
| New trail connection (12' wide cleared natural surface trail)  | lf    | 400   | \$ 48.00        | \$ 72.00         | \$19,200.00          | \$28,800.00          | For clearing and establishment of trail, guess on length of trail needed |
| Subtotal   |       |       |                 |                  | \$ 189,000.00        | \$ 284,300.00        |  |
| <i>Civil Engineering, Landscape Design and permitting fees</i> |       |       | <i>10%</i>      | <i>15%</i>       | <i>\$18,900.00</i>   | <i>\$42,600.00</i>   |  |
| <i>Contingency</i>   |       |       | <i>25%</i>      | <i>25%</i>       | <i>\$47,300.00</i>   | <i>\$71,100.00</i>   |  |
| <b>New Northeast Trailhead Cost</b>                            |       |       |                 |                  | <b>\$ 256,000.00</b> | <b>\$ 400,000.00</b> |  |

## BUILD ICE RIBBON

| DESCRIPTION   | Unit  | Qty | Unit Cost - low | Unit Cost - high | Low Cost            | High Cost            | Notes                                 |
|---|-------|-----|-----------------|------------------|---------------------|----------------------|---------------------------------------|
| <b>Build Trails</b>   |       |     |                 |                  |                     |                      |                                       |
| Improvements: Trail clearing and re-grading   | allow | 1   | \$ 8,000.00     | \$ 15,000.00     | \$8,000.00          | \$15,000.00          |                                       |
| Entry gate (vehicle/OHV barrier)  | ea    | 1   | \$ 2,000.00     | \$ 30,000.00     | \$2,000.00          | \$30,000.00          | Higher cost includes decorative arch  |
| <b>Trailside Amenities</b>  |       |     |                 |                  |                     |                      |                                       |
| Solar lighting (string lights with panel at trailhead, tree-mounted individual light options) | allow | 1   | \$ 10,000.00    | \$ 25,000.00     | \$10,000.00         | \$25,000.00          |                                       |
| Benches (moveable to rest on snow-pack)   | ea    | 5   | \$ 300.00       | \$ 2,000.00      | \$1,500.00          | \$10,000.00          |                                       |
| Ice ribbon mat  | sf    | 300 | \$ 10.00        | \$ 20.00         | \$3,000.00          | \$6,000.00           |                                       |
| <b>Grooming Equipment</b>   |       |     |                 |                  |                     |                      |                                       |
| Water tank  | ea    | 1   | \$ 1,000.00     | \$ 2,000.00      | \$1,000.00          | \$2,000.00           |                                       |
| Trailer for water tank  | ea    | 1   | \$ 2,500.00     | \$ 5,000.00      | \$2,500.00          | \$5,000.00           | Assume truck is available             |
| Zamboni   | ea    | 1   | \$ 15,000.00    | \$ 25,000.00     | \$15,000.00         | \$25,000.00          | May be able to use existing equipment |
| Tractor for pulling Zamboni   | ea    | 1   | \$ 10,000.00    | \$ 30,000.00     | \$10,000.00         | \$30,000.00          |                                       |
| Subtotal  |       |     |                 |                  | \$ 53,000.00        | \$ 148,000.00        |                                       |
| Contingency   |       |     | 25%             | 25%              | \$13,250.00         | \$37,000.00          |                                       |
| <b>Ice Ribbon Cost</b>  |       |     |                 |                  | <b>\$ 70,000.00</b> | <b>\$ 190,000.00</b> |                                       |