

# Town of Bristol

## Accessible Designs for Town Parks



February 2025



The goal of this Accessible Designs for Town Parks project is to offer enjoyable outdoor experiences in Bristol that are welcoming and easy to use for people of all abilities.

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**This project was guided by an energetic Steering Committee of local leaders, including:**

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Recreation Club

**Kristen Underwood**

Conservation Commission

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Director, Recreation Department

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Foreman, Public Works Department

Funding for this project was approved by the Selectboard, based on the ARPA Advisory Committee Report to the Selectboard, which can be read here: [https://bristolvt.org/wp-content/uploads/2024/01/FINAL\\_ARPA\\_Advisory\\_Committee\\_Report\\_to\\_Selectboard\\_March2023.pdf](https://bristolvt.org/wp-content/uploads/2024/01/FINAL_ARPA_Advisory_Committee_Report_to_Selectboard_March2023.pdf)







# INTRODUCTION



# What is This Project?

Bristol is always working to expand accessibility in our town parks for all people, with expanded opportunities for enjoyment at Eagle Park and Sycamore Park along the New Haven River, and Memorial Park along Baldwin Creek. These parks are beautiful, and the Town is working to increase access and enjoyment of this beauty for all visitors.

The goals of this project are to:

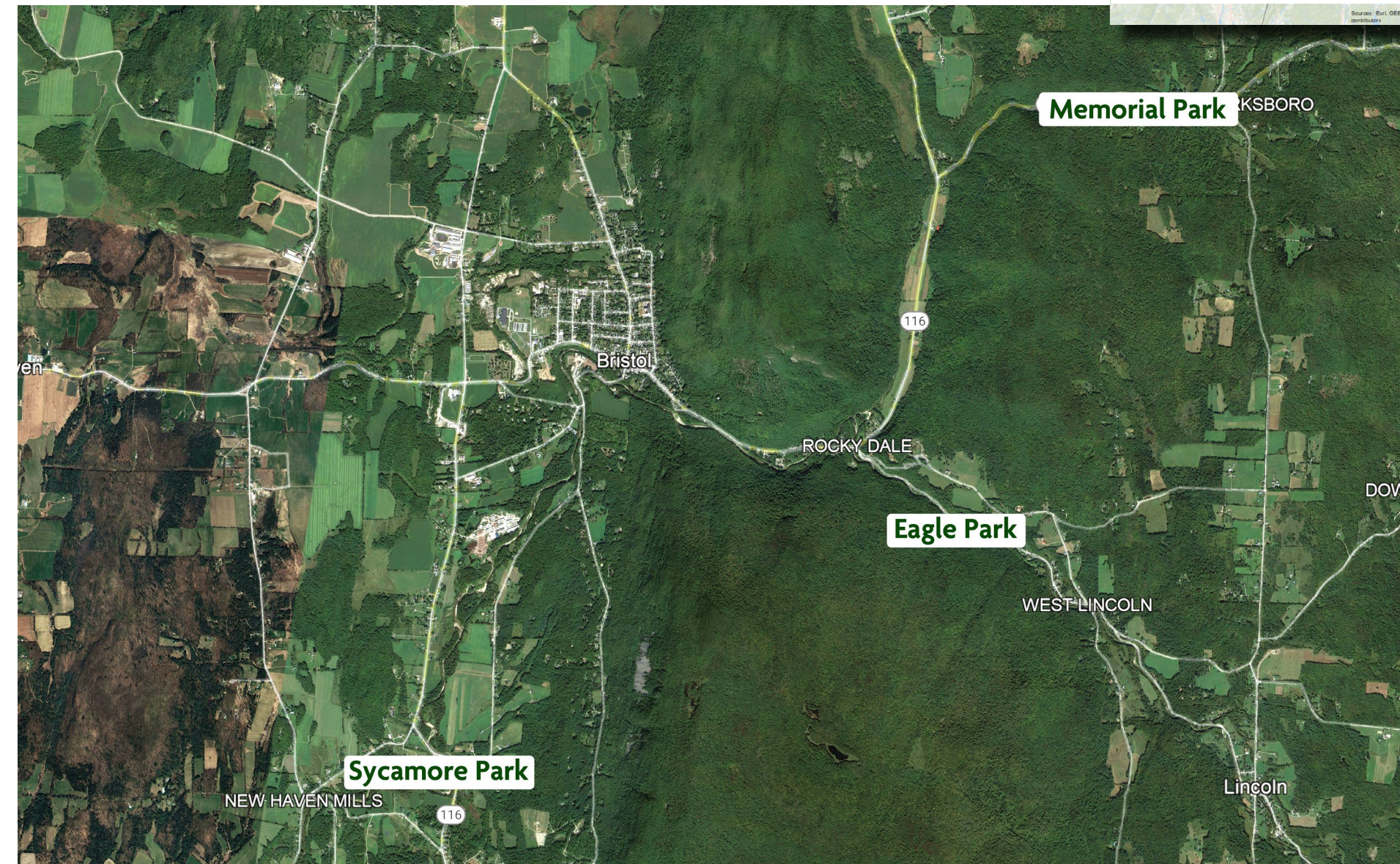
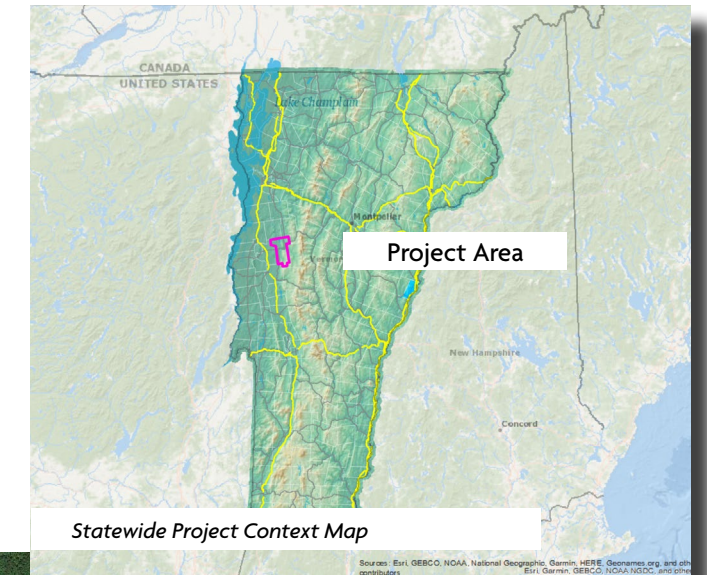
- + Connect with people of diverse abilities: those who visit these parks, and all those who wish to.
- + Understand the barriers to park use and enjoyment, and how we may overcome them.
- + Shape a vision for more welcoming, and ecologically healthy parks.
- + Develop detailed plans to strengthen and maintain the park experience.

As detailed further in this report, this project featured wide ranging conversations, presentations and discussions during a five-hour public street fair event, visits to Bristol's Farmer's Market, and numerous meetings of the project Steering Committee composed of town residents, staff, and leadership.

## Project Area

**Eagle Park**, 908 Lincoln Road  
**Memorial Park**, 5 miles east on Route 17  
**Sycamore Park**, south of River Road on Route 116.

These Parks are also gateways from surrounding communities, in particular Lincoln (Eagle Park), Starksboro (Memorial Park) and New Haven (Sycamore Park).





Building on Prior Work

Previous studies and plans identify the goal of improved accessibility to Bristol's parks as a priority for public health and enjoyment. This project draws on ideas and input from past efforts to present designs to achieve this priority. Recent work in Bristol includes:

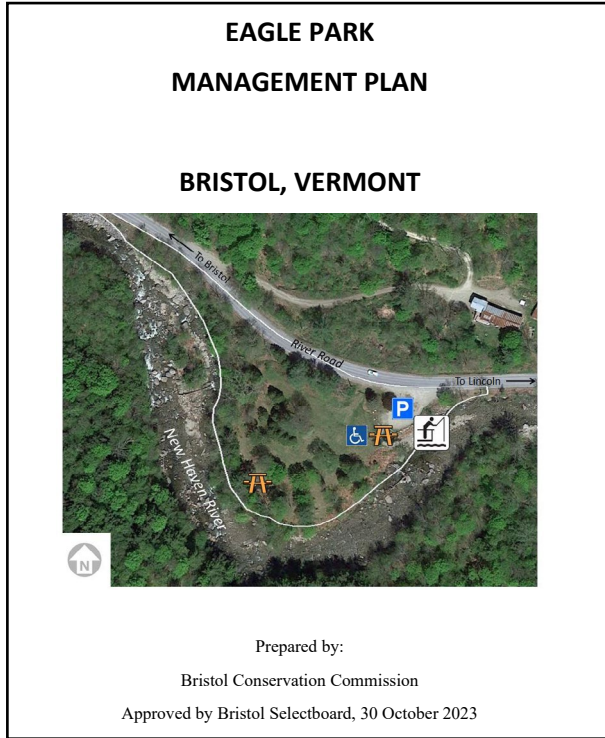
1, 2, 3) Management Plans for Eagle Park, Memorial Park, and Sycamore Park (prepared by the Bristol Conservation Commission, October 2023);

4) Vermont Health Equity and Community Design Technical Assistance Pilot for the Town of Bristol (2023); and

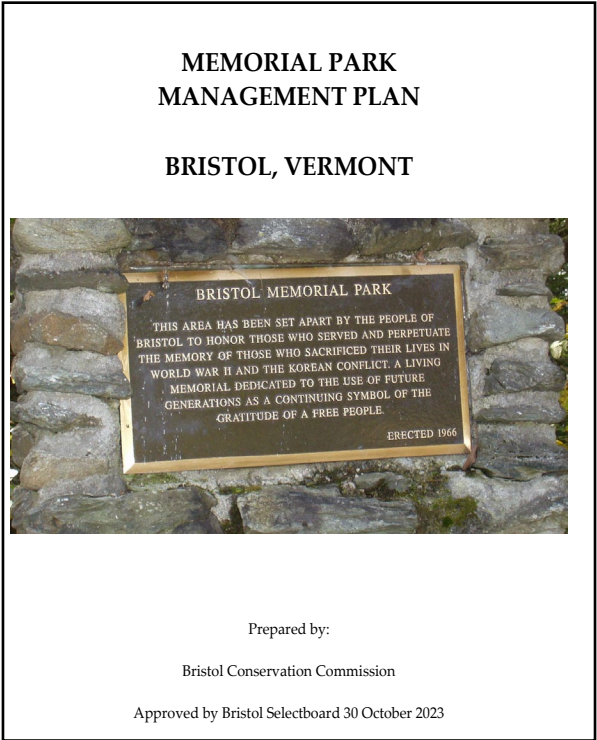
5) Accessible Town Parks presentation to the Bristol Selectboard (prepared by Porter Knight, 2023).

See the following pages for more information on this work.

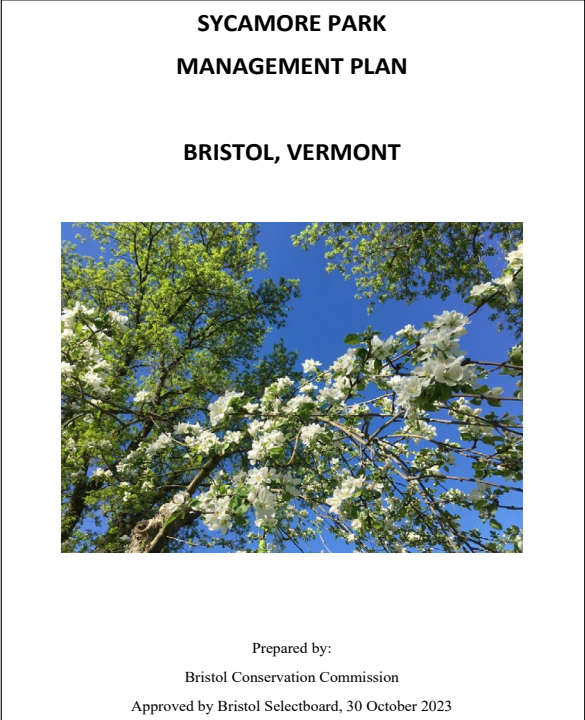
1



2



3



4



5





Building on Prior Work:

Park Management Plans

The Bristol Conservation Commission prepared [Management Plans](#) for Eagle, Memorial and Sycamore parks.

These Plans discussed park history, geology and hydrology, plant and wildlife communities and ecology, current and potential park uses, and the structural condition of amenities.

The Plans also addressed management concerns such as invasive plant control.

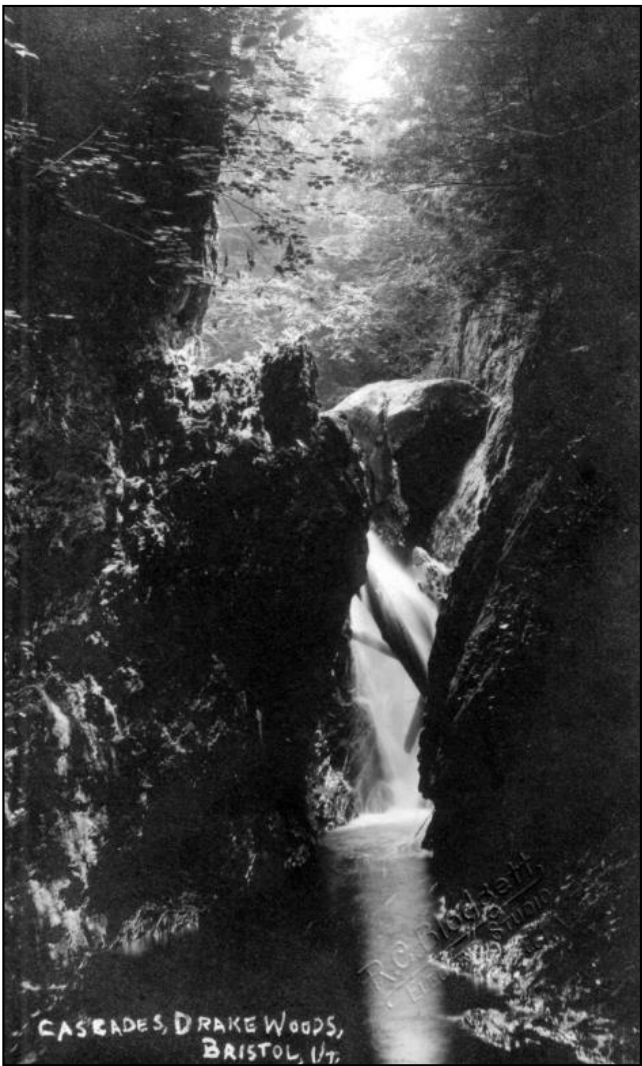
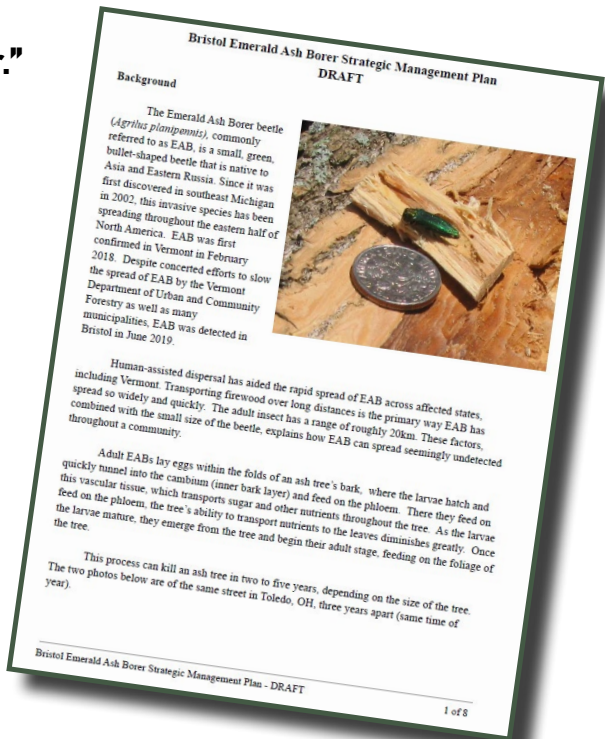
With specific reference to accessibility, these Plans state that **“Enhancements to accessibility at the park should be pursued whenever possible,”** while all management practices should be **“carefully balanced with the resource concerns and scenic nature of the river.”**

At right are images from these three Plans that relate to park history.

Bristol’s [Emerald Ash Borer Strategic Plan Committee](#) has also prepared this draft April 2021 [Emerald Ash Borer Strategic Management Plan](#). This is excellent and necessary guidance to addressing the threat to our ash trees, which are common at Eagle Park and Sycamore Park.



Above: Buildings previously on the Eagle Park site after damage from the 1998 flood. Source: History of Bristol, Vermont: 1762 – 2012, 4th Ed., Bristol Historical Society, 2012



Above: Historic photograph of the falls at Memorial Park. This c.1911 postcard refers to the waterfall as the Cascades at Drake Woods, Bristol, VT. Source: UVM Landscape Change Program

Below: Workers rescue a resident of Palmer’s Court, now the location of Sycamore Park, during the 1998 flood. Source: Burlington Free Press, June 28, 1998





**Building on Prior Work:**

***Vermont Health Equity and  
Community Design Technical  
Assistance Pilot***

The purpose of the Health Equity and Community Design Technical Assistance Pilot project was to gather community input, to assist Bristol in creating places for healthy activity and social gathering.

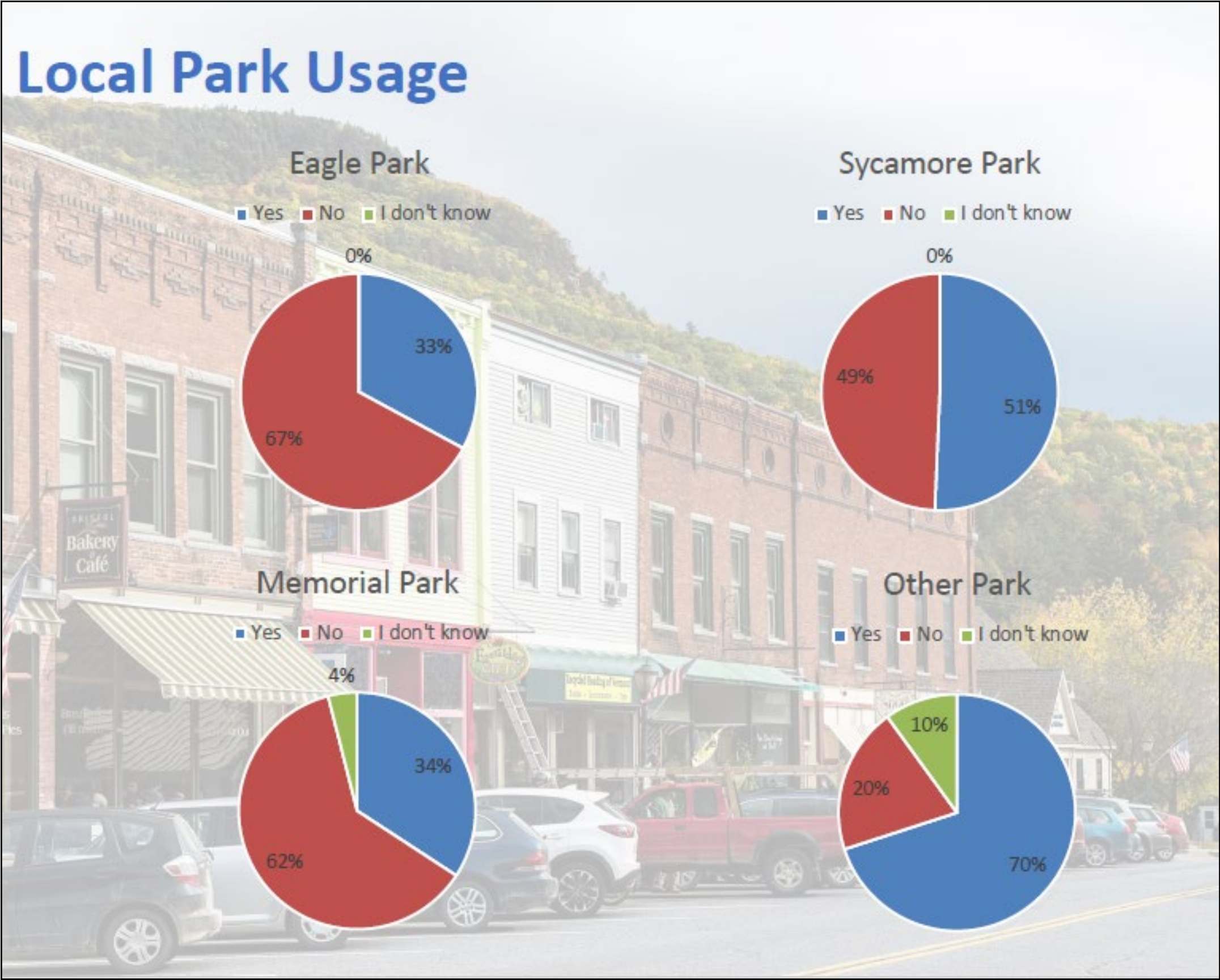
This project was funded in part by the Vermont’s Department of Health and Department of Housing & Community Development, and the Centers for Disease Control and Prevention.

For information about this program, visit <https://healthycommunitiesvt.com/technical-assistance-opportunities/>

With respect to park accessibility, survey respondents said that they would feel more likely or comfortable using Town parks in if there were greater access to water, and outdoor seating areas.

As shown at the right, another survey “takeaway” was the relatively low proportion of respondents who visited Eagle, Memorial or Sycamore parks as compared with other Town parks.

More accessible features, including parking, seating, signage, can increase park usage.





**Building on Prior Work:**

*Accessible Town Parks  
Selectboard Presentation*

This Accessible Designs for Town Parks project has been spearheaded by Porter Knight, Bristol Trails Network. Ms. Knight gave a presentation to the Selectboard on August 14, 2023, discussing the rationale for making Town Parks more accessible, a vision in development since 2017.

Ms. Knight presented survey results and images from the Vermont Health Equity and Community Design Technical Assistance Pilot (discussed on the previous page). Images from that project’s report are shown at the right.

During the presentation, Ms. Knight noted that several town-wide surveys have indicated that the Bristol’s parks are important to residents, and that phased accessibility plans could be developed for Eagle, Memorial and Sycamore parks, in consultation with the Recreation Department as well as other parties.

Following the presentation, the Selectboard passed a motion “committing to a vision of genuine accessibility at Eagle, Sycamore, and Memorial Parks” and authorized Ms. Knight to “gather information necessary to bring an appropriate ARPA request to the Board.”



*Above and right, renderings of a more accessible Eagle Park, prepared by design firm Street Plans, as included in the report of the Vermont Health Equity and Community Design Technical Assistance Pilot. These images offered guidance for this current Accessible Designs for Town Parks project.*





# EXISTING CONDITIONS





## Existing Conditions

This existing conditions chapter illustrates relevant details of the three parks, including property boundaries, and natural and constructed park features that have influenced this project's design recommendations.

Information about these parks has been adapted from the [October 2023 Management Plans](#) prepared by the Bristol Conservation Commission, as further informed by in-person visits.

Imagery is from the Vermont ANR Natural Atlas, along with site photographs by DuBois & King. (Note: The Vermont ANR obtains the parcel boundary dataset via [Vermont Center for Geographic Information](#)).





## Eagle Park

Eagle Park is a 5.5-acre parcel located at 908 Lincoln Road approximately 0.7 mile east of Bartlett's Falls near the Bristol-Lincoln town line. It features the Chuck Baser Memorial Universal Fishing Platform, which provides ADA compliant access to the river for fishing.

Bristol acquired the property in 2000 following the July 1998 flood. Grant funding from the VT Agency of Commerce & Community Development supported site cleanup and buyout of these lands.

A condition of the buyout was that the site remain undeveloped and part of Bristol's park system. There are restrictions as well on the type and materials of amenities that can be installed within the mapped floodplain.

Eagle Park's ecology is tied to the New Haven River and its flooding history. Habitats include Riverine, Riparian, Floodplain Forest, and Maintained Meadow. Trees include Eastern Hemlock, White Pine, Ash, Yellow and White Birch, Sugar Maple and Red Maple.





## Memorial Park

Memorial Park includes 19.3 acres that straddle the Baldwin Creek, and its forested areas are accessed off the south side of VT Route 17 just west of the Starksboro town line. A scenic waterfall, known as Burnham Falls, is the focal point of Memorial Park.

While the park's parking area is on the north side of the Baldwin Creek (within the road right of way), most of the park property is to its south. A bridge over the Creek is no longer structurally viable. There is a gravel drive by which the south side of the park is accessible, and which also accesses a private property to the west. After leaving the VT Route 17 right of way, this gravel drive traverses private property before entering the Memorial Park property.

Park lands were acquired by the town in the 1950s, and it was determined at Town Meeting in 1959 that it would honor Bristol's World War II and Korean Conflict veterans. Acquisition of the park was also supported as a means to address a state mandate for creation of town forests.

Natural community types found at Memorial Park are typically Hemlock - Northern Hardwood Forest. Tree species include Eastern Hemlock, White Pine, Yellow and White Birch, Sugar Maple and Red Maple.





## Sycamore Park

Sycamore Park consists of approximately 8.4 acres which, like Eagle Park, was acquired as part of an agreement between Bristol and the Federal Emergency Management Agency after the summer flood of 1998, likewise with the condition that the site remain undeveloped as part of Bristol's park system, with restrictions on the type and materials of amenities allowed within the floodplain. Locals remember the cluster of homes that used to be at this site, "Palmer's Court." It is now named for its many Sycamore trees.

The state GIS parcel lines at right do not match the current course of the New Haven River, or of the park itself. However, the park property does extend to the shore. A private parcel that abuts the park to the west is accessed through the park.

The parking at Sycamore Park is off of VT Route 116 on lands owned by the State of Vermont (approx. 2 acres), on a parcel created in 2017 during construction of the new VT Route 116 bridge over the river.

Also like Eagle Park, the ecology of Sycamore Park is closely tied to the New Haven River. There is mature floodplain forest south of the entrance, which includes Sugar Maple, Ash, and Basswood, with a diverse herb layer dominated by Ostrich Fern, though with a significant presence of invasive Japanese knotweed as well.





## Topography / Slope

The degree to which a design is practical, and sensitive to natural features, depends greatly on the topography, or slopes. Slope guides the feasibility of construction and maintenance, and their short and longer term costs.

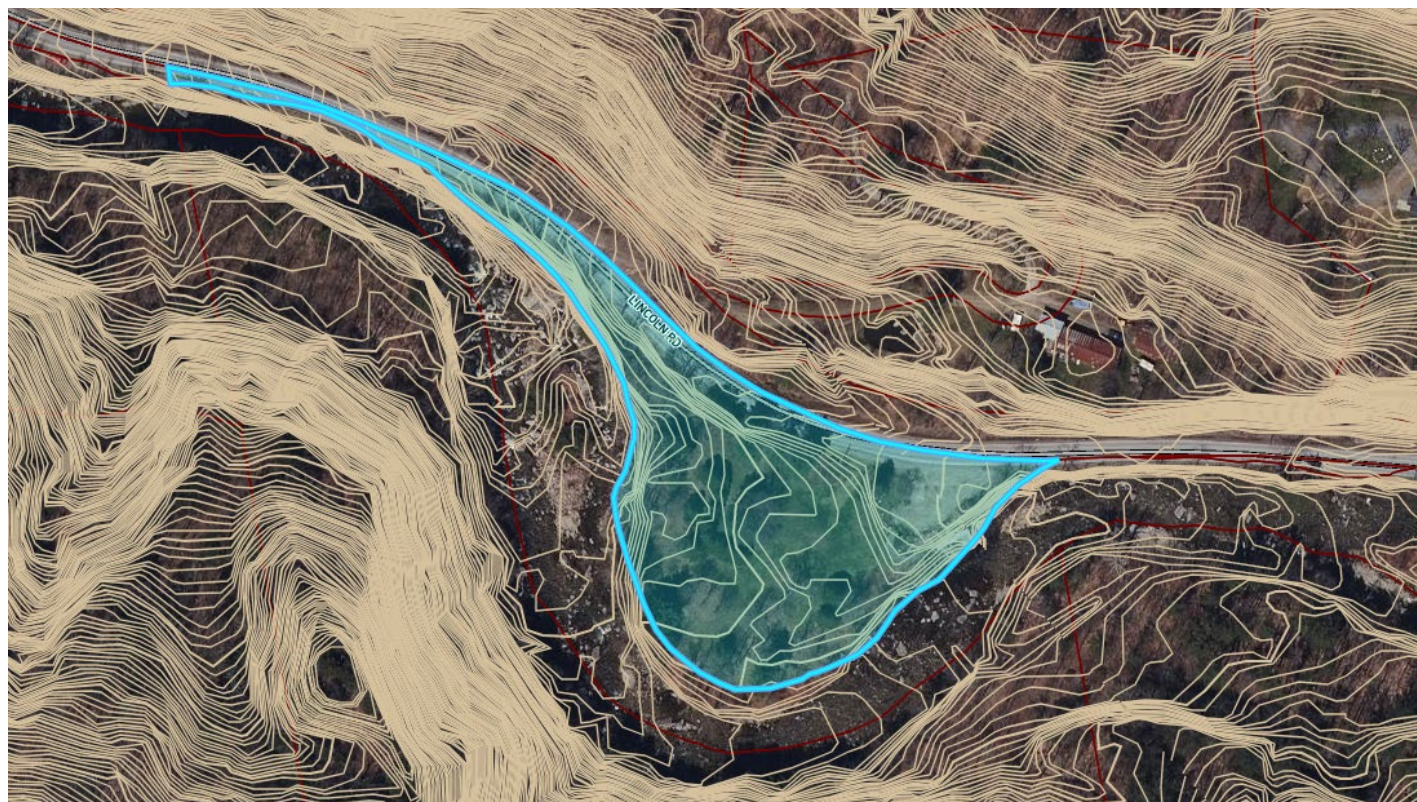
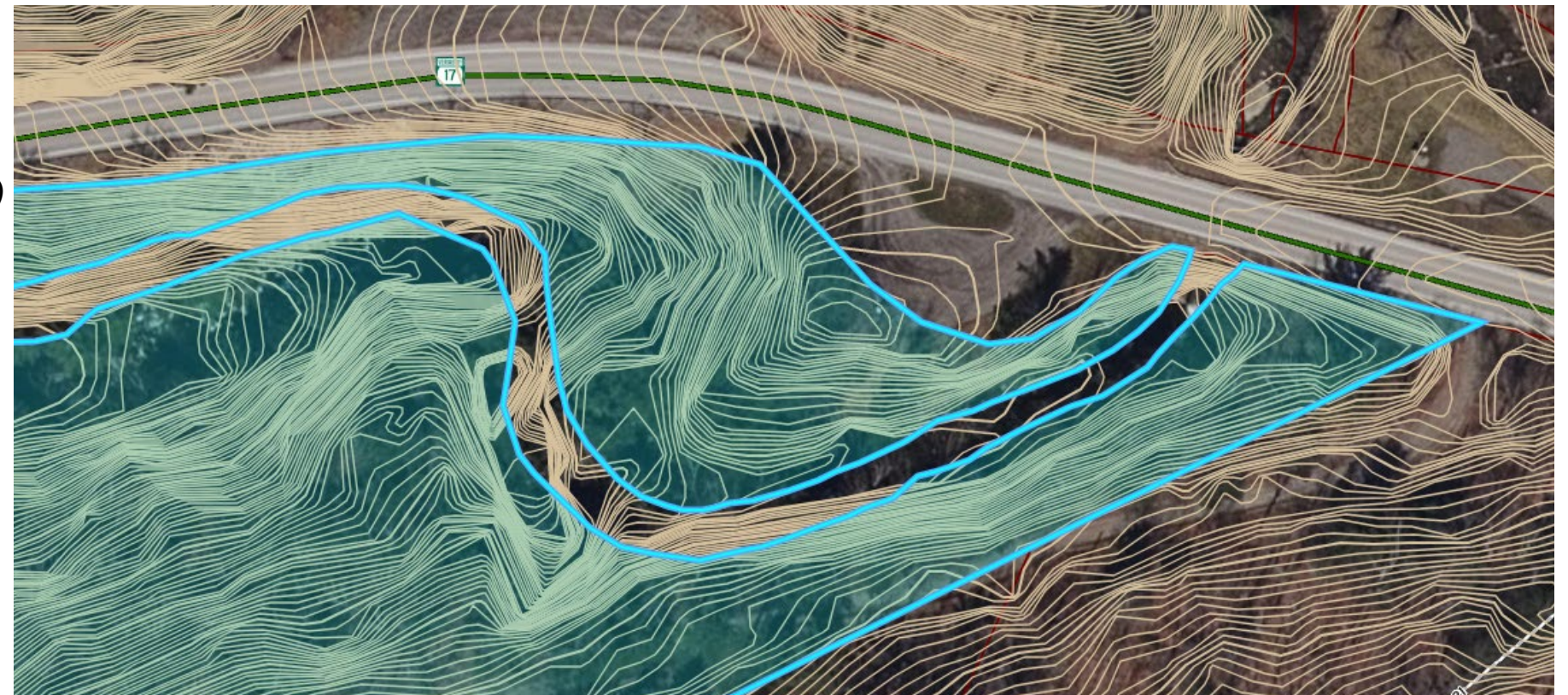
How paths might traverse varied topography is central to user accessibility and comfort, and to route efficiency.

In each of these images, the yellow contour lines are at 1-foot intervals, meaning adjacent lines are one foot of elevation apart. The closer together the lines, the steeper the slope. (Note: images are not at the same scale.)

*Right:  
Memorial Park  
(eastern portion)*

*Below Left:  
Eagle Park*

*Below Right:  
Sycamore Park*





# DESIGN DEVELOPMENT





# Accessibility 101

## What is Accessibility?

Parks and recreational areas serve as communal hubs that provide opportunities for relaxation, physical activity, and socialization. For individuals with physical, mental or emotional challenges, access to these spaces can profoundly affect their quality of life.

Therefore, design for open space should support accessibility for everyone, so that all people can experience the mental and physical health benefits of enjoying the outdoors.

A primary focus of this project has been strengthening opportunities for physical mobility: navigation by wheels, walker, stroller, or cane.

However, when we say “accessible,” we also recognize the many abilities and sensory differences that people have, and the diverse ways in which we hope people may enjoy our Town parks. In this way, our definition of “accessibility” can be broadened to include opportunities for all people to interact more fully with the park environment.

We further recognize that most people will experience need for mobility assistance at some point in their lives, whether after surgery, due to old age, or with children when using a stroller.

## Americans with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal law that prohibits discrimination against people with disabilities in everyday activities. The ADA ensures that people with disabilities have the same opportunities as everyone else.

The ADA’s passage and implementation has made it possible for individuals with mobility issues, visual and hearing impairments, and other challenges to enjoy these benefits.

Despite the clear guidelines provided by the ADA, implementing these standards in parks and recreational areas can pose several challenges. Budget constraints often make it difficult to fund the necessary modifications to slopes or new constructions required for accessibility. There’s also the need for continuous maintenance, to ensure that accessible features remain functional and safe.

Fortunately, state and national funding is increasingly directed towards efforts to improve outdoor accessibility. In 2023, for the first time, the Vermont Department of Forests, Parks, and Recreation’s Vermont Outdoor Recreation Economic Collaborative (VOREC) Community Grant Program offered an “Equity” track and awarded grants to organizations or towns seeking to make trails more accessible to people of all mobilities. This project comes at a great time!

## The Basics

Accessible parks promote inclusivity, a sense of community, and provide equitable opportunities for recreation and exercise, contributing to overall public health. With respect to design, basic considerations address Parking, Paths, and Signs.

**Parking.** Accessible parking spaces are different than standard parking spaces. They have features that make it easier for people with disabilities, such as a smoother surface, closer proximity to destinations, access aisles to maneuver, and signage to reserve such spaces for those that need them. [Visit page 40 for more information about parking.](#)

**Paths.** Pathways should be firm, stable, and slip-resistant, with adequate width to accommodate wheelchairs. The “running slope,” the lengthwise slope of a trail parallel to the direction of travel should not exceed 1:20 (5 percent). [Visit page 41 for more information about paths.](#)

**Signs.** Signs offer directions, and information that may be vital to public safety. They can also provide educational interest. In all cases, the placement, configuration, and legibility of signs are critical design considerations. Accessible signage can also include Braille and other tactile elements, audio, and other interactive digital features. [Visit pages 42-43 for more information about signs.](#)





# Thinking Beyond the Standards

Compliance with the Americans with Disabilities Act is frequently not practicable, or not reasonably doable. This may be due to terrain or the viability prevailing construction practices. Or, doing so would fundamentally alter the function or purpose of the facility or the setting. Principles of Universal Design offer useful perspective on “accessibility for all,” while Vermont Adaptive Ski & Sports is at the forefront of promoting places and program for people of all abilities.

## Universal Design

We may have some idea of who may be “disabled,” but there isn’t a diagnosis for disability. Lots of people live with impairments that affect their bodies and/or minds. They might not all use wheelchairs or mobility devices, but that doesn’t mean they don’t benefit from accessibility in public spaces like our Town parks.

Depending on the particulars of a certain site or interests in expanding opportunities beyond the focus of ADA Standards, parks are often designed with the principles of Universal Design in mind. **“Universal design is design that is usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”**

Something designed “for all” will work for as many people as possible, including those with any impairment of the body or mind. Ideally, a place is functional for everyone, including those with:

- Difficulty interpreting information
- A reliance on walking aids or mobility devices
- A susceptibility to fainting, dizziness, or seizures
- Difficulty processing sensory input
- Blindness (loss of sight)
- Low vision (limited sight)
- A hearing impairment
- A mental health impairment
- Difficulty moving the neck or head
- Limited stamina
- Difficulty sitting
- Limited coordination
- Limited sensation
- Limited balance
- Loss of extremity motor control
- Difficulty manipulating items
- Chemical sensitivities
- An extreme height or weight
- A need for caregiver assistance

Working with people that have these challenges, and their caregivers, can inform more accessible designs for Bristol’s parks.

# Working with Vermont Adaptive

Vermont Adaptive Ski & Sports is a nationally recognized organization that empowers people of all abilities through inclusive sports and recreational programming.

Vermont Adaptive believes that “participating in outdoor sports and recreation provide[s] a physical, mental and social experience that is immeasurable in promoting self-confidence and independence in an individual.”

Learn more at <https://www.vermontadaptive.org/>

In order to gain their valuable perspective, the project team connected with Vermont Adaptive to discuss this Accessible Designs for Town Parks project, and to get feedback regarding our designs.

Valuable insights from Vermont Adaptive about this project include:

- Accessibility exists on a spectrum, and includes mental, emotional, and physical considerations. Therefore, design should not be “one size fits all.”
- Find opportunities to say “yes” to park users.
- Create year-round accessibility.

- Engage people of all abilities and perspectives in the maintenance and programming part of recreation, not only as end-users.
- Promoting access to simple equipment, like hiking poles or snowshoes, can make a huge difference in fostering a more diverse user base.
- Continuously assess results and make incremental improvement, which in the long term will offer better results than larger but irregularly timed capital outlays.
- Maintaining fewer accessible amenities is better than having many amenities that cannot be maintained adequately.
- Take a short, medium and long view in design, and build on success.





# Floodway Planning & Design

## FEMA “Conditions and Restrictions”

Eagle Park and Sycamore Park were both inundated during the summer 1998 floods, which led to these properties being acquired by the Town in collaboration with FEMA.

Specific “conditions and restrictions” were placed on the properties as part of the FEMA Agreements:

**“a. Compatible Uses.** The land shall be used only for purposes compatible with the open space, recreational, or wetlands management practices; in general, such uses include parks for outdoor recreational activities, nature reserves, unimproved pervious parking lots and other uses described in 44 C.F.R §206.434\*, as it reads now and may be amended in the future.

[\* 44 C.F.R §206.434, which can be read [here](#), refers to the portion of the Code of Federal Regulations (CFR) governing the Federal Emergency Management Hazard Mitigation Program.]

**b. Structures.** No new structures or improvements shall be erected on the property other than 1). A public facility that is open on all sides and functionally related to the open space use, 2) A public restroom, 3) A structure that is

compatible with the [compatible] uses described in Paragraph a. above, and approved by the Director in writing prior to the commencement of construction of the structure.

Any structures built on the property according to this paragraph shall be flood-proofed or elevated to the Base Flood Elevation plus one foot of freeboard.”

## Advice of the District Floodplain Manager

So that this project’s designs met the subject FEMA requirements, the project team worked with Kyle Medash, the Western District Floodplain Manager, VT Agency of Natural Resources. The following guidance from Mr. Medash has been helpful in refining the accessible designs:

### Location in the River Corridor

- All of the parks are fully within the ANR River Corridor (RC). Bristol does not regulate RC in their bylaws; however, River Corridors may be considered if an Act 250 permit is involved or possibly as provision from funding sources.
- Base Flood Elevations (BFE) come from the 1986 FEMA Flood Insurance Study for the Town of Bristol.

- The FEMA floodplain would only be of concern at Sycamore and Eagle parks; Memorial Park is not in the floodplain.

### Structures

- It would be good practice to not develop anything closer to the river bank than what already exists. Don’t create new investments that may be threatened by erosion beyond existing developed area.
- Park structures – small unwalled pavilions, tables, benches, signs, minor play equipment, charcoal grills, etc. will have to be made of flood resistant materials and anchored into the ground to prevent lateral movement during high water.

### Path Surfacing

- Asphalt paving would not be considered a structure but would generally have to maintain the existing grades/drainage patterns (i.e. no fill that could divert floodwaters to adjacent property).
- Asphalt paving doesn’t typically do well in flooding conditions – water tends to get underneath and cause it to collapse which can be much more costly to repair and adjust in the event of erosion.

- Gravel can be more easily reconfigured in the event of erosion, access can be restored more quickly, not as much of an issue/hazard if it ends up in the river.

## Conclusions for this Accessible Design Project

Based on the original legal requirements governing the property acquisitions, and guidance from the Western District Floodplain Manager Mr. Medash, the project team came to the following core conclusions relative to accessible designs:

1. Limit the use asphalt paths within the floodplains.
2. Do not put structures in the floodplains that are not anchored into the ground to prevent lateral movement.
3. Take a phased approach to improvements.



## Floodway Planning & Design: FEMA Guidance for Structures

When not properly supported or anchored, floodwaters can displace or damage these components so that they become water borne debris, creating a threat of damage. [FEMA's Fact Sheet 5.1: Parks and Recreational Facilities](#), describes mitigation solutions available for various components that are part of parks and recreational facilities, including benches, tables, bicycle racks, and BBQ grills, as well as surfaces that could be damaged by flooding such as turf and trail.

The options for anchoring these structures described below can help prevent this.

### Option 1: Surface Mounts

Surface mounts consist of clamps or brackets that can be bolted to concrete.

- Place the clamp, bracket or mounting flange over the bottom part of the structure's frame.
- Drill holes into the concrete and use a wedge lock anchor or epoxy to anchor the clamp or bracket to the concrete.
- To resist corrosion outdoors, use hot-dipped galvanized or stainless steel brackets and anchors.
- Use wedge lock anchors in concrete.



*Option 1: Bolted brackets or clamps can be used to anchor some structures.*

### Option 2: Chaining

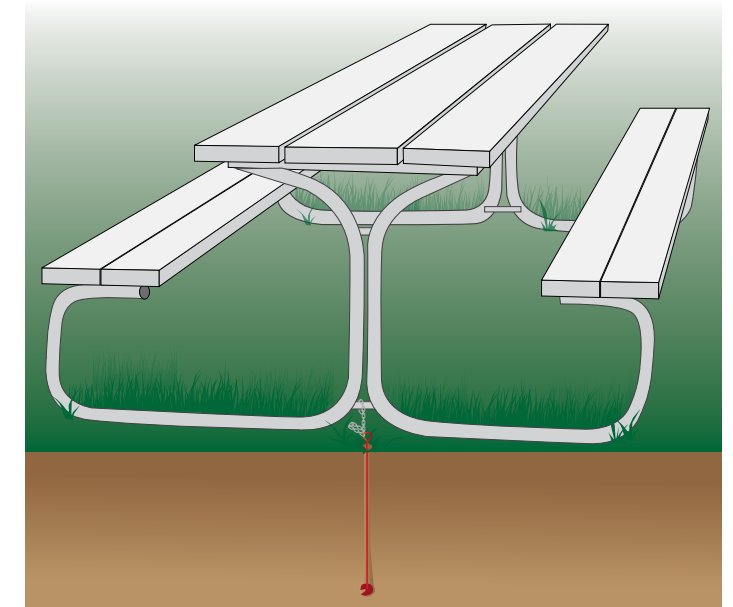
Attach chains or steel cables to helical ground anchors to help anchor tables, benches, other park objects.

- Install the ground anchor flush with the ground.
- Locate the anchor and chain so that they do not present a tripping hazard.
- Install the anchor deep enough to resist uplift forces.
- The cable or chain should be corrosion resistant.

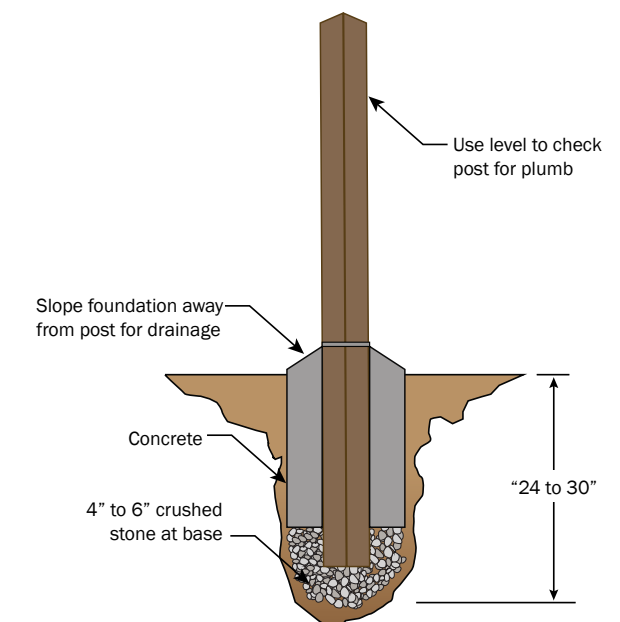
### Option 3: Embedding

Embed the foundations or bottoms of some structures deep enough in soil to prevent them from becoming dislodged by flood waters. If the soil is not strong enough to support the structure, install it in concrete.

- Embed poles and posts deep enough to prevent toppling failures.
- If on-site soils have enough strength, backfilling with soil is likely to be less expensive than backfilling with concrete.
- Place sign posts, bicycle racks, etc., in excavated holes and backfill the holes with concrete.



*Option 2: Chains or steel cables attached to ground anchors can be used to anchor structures.*



*Option 3: Poles and posts embedded in concrete can help resist movement.*



# COMMUNITY INPUT





# Community Input

This project included multiple tracks of engagement that directly guided the designs for each park. The following pages summarize how we sought to reach people, and “what we heard.”

## Elevator Pitch

An elevator pitch is a brief description of its purpose, goals, process, and intended outcome. The elevator pitch for the Accessible Designs for Town Parks project is as follows:

Bristol is working on designs for accessible recreation at three of our town parks: Eagle Park and Sycamore Park along the New Haven River, and Memorial Park along Baldwin Creek. Though beautiful, with access to local rivers, these town parks are underutilized by the public and are nearly impossible to access for people with varied mobility. Specifically, the goals of this project are to:

1. Assess the existing park conditions to determine options for accessible visits and recreation (parking, paths, signs and other features).
2. Create concept plans for each park illustrating possible recreation options that are aligned with environmental stewardship.
3. Develop detailed site design drawings and construction documents, with construction estimates, so that Bristol is well positioned to move toward construction.

By “accessible,” we mean with a wheelchair, walker, stroller, or cane. We also recognize the many differing abilities and ways people hope to enjoy our town’s outdoor spaces. The ultimate designs for these parks will reflect the desires of Bristol residents, and respect and strengthen the role of these parks in their riverine ecosystems.

## Flyer

The elevator pitch text was adapted to a flyer about the project. This flyer was put up around town, at businesses, civic buildings, and at each of the three project parks.

### Accessible Designs for Three of Bristol’s Town Parks

Bristol is embarking on a collaborative, community-led planning and design project to improve accessibility at Sycamore Park and Eagle Park, which are along the New Haven River, and at Memorial Park on Baldwin Creek.

Guided by members of the Bristol Trail Network, Conservation Commission, the Recreation Department, and other community members including you, and along with the landscape architects and engineers at DuBois & King, this project will:

- + Connect with people of diverse abilities, those who visit our parks, and those who wish to.
- + Understand the barriers to park use and enjoyment, and how we may overcome them.
- + Shape a shared vision for more welcoming, accessible and ecologically healthy parks.
- + Develop detailed plans to maintain, strengthen and expand the park experience.

We will be building on past town planning projects, such as the October 2023 Management Plans for each of these three parks that were prepared by the Conservation Commission.

Making connections will be a big part of a successful project, so please stay tuned for more information and opportunities to share your ideas. At any time, please feel free to email your thoughts and suggestions to the Town Administrator Valerie Capels at [townadmin@bristolvt.org](mailto:townadmin@bristolvt.org).

Thank you!



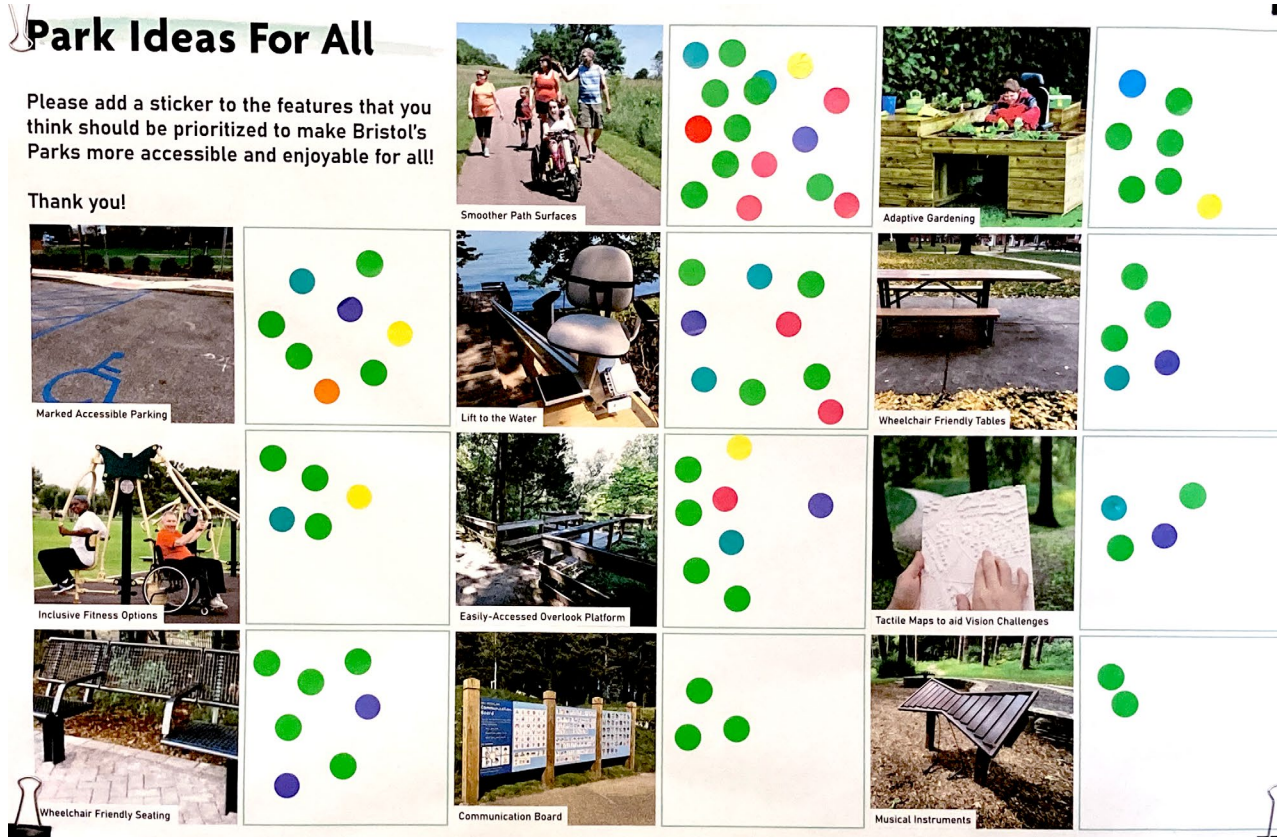
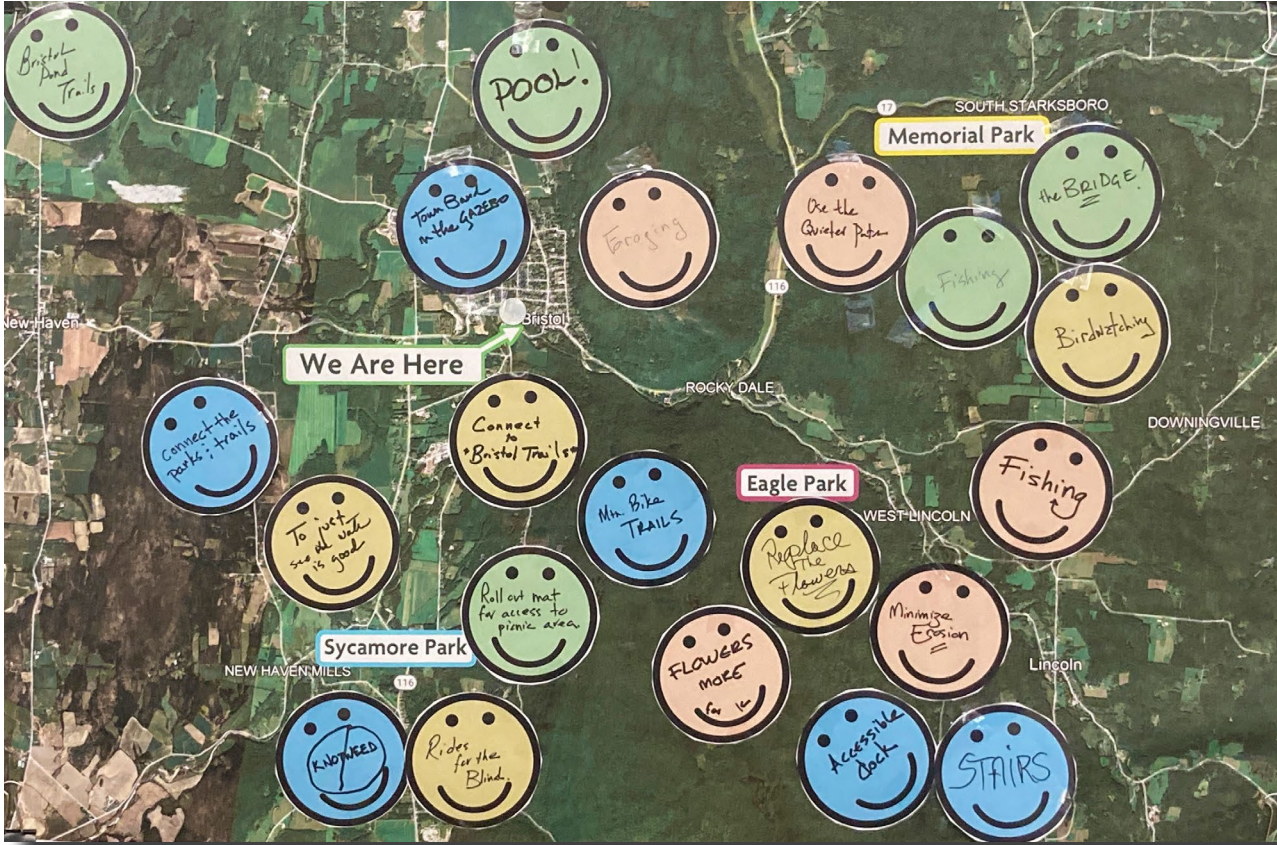
# Community Input

Many people offered thoughts about recreation opportunities throughout Bristol, which are included here for general reference and the Town broader recreation planning work.

## Pocock Rocks Music Festival & Street Fair - August 17, 2024

The project team had a booth at 2024's Pocock Rocks Music Festival & Street Fair, with in-progress plans, as well as maps and boards to solicit input about the emerging designs and accessible amenities. Topics of interest include:

- Care about the upkeep of town parks, including limiting soil erosion and controlling invasive plants.
- The Recreation Department and volunteers such as the Boy Scouts do good work maintaining the parks.
- Birdwatching is increasing in popularity, and these parks (especially Sycamore Park) are great for birdwatching.
- Sycamore Park has the most opportunity for diverse activities, with a larger parking lot, and potentially easier access to water.
- Memorial Park is nice, but the parking is close to a busy road and most of the site is difficult to access, especially without the bridge..
- Rides to the park would be a great way to increase accessibility.



## Results from the Smiley Face Board:

- Parks and trails throughout Bristol should be better connected.
- Just seeing and hearing the water can be enjoyable, year-round.
- Plant more flowers at the parks, restore and add birdhouses.
- Work to control the knotweed.

## Results from the Park Ideas for All Board, in order of preference (multiples are ties):

- 1 - Smoother Path Surfaces
- 2 - Lift to the Water
- 3 - Marked Accessible Parking
- 3 - Easily Accessed Overlook Platform
- 4 - Wheelchair Friendly Seating
- 4 - Adaptive Gardening
- 5 - Wheelchair Friendly Tables
- 5 - Inclusive Fitness Options
- 6 - Tactile Maps to Aid Vision Challenges
- 7 - Communications Board
- 8 - Musical Instruments





Community Input

Farmers Markets

The project team visited the Bristol Farmers Market on two Monday afternoons during the summer of 2024 (July 15th and August 5th), speaking with patrons and vendors.

While documenting informal conversations, the team also had a fill-in sheet for consistency of data about residency and visitation to one or more of the three project parks.

Results of the canvassing are at the right.



July 15th, 2024

Total Canvas: 27

Where do you live?

- Bristol 9
- Nearby Town 11
- Elsewhere 7

All but 3 had not visited any of the project parks. These 3 had all visited Eagle Park.

Select comments:

- Important to maintain parking.
- At Eagle Park, it is difficult to get from the parking area to the rest of the park with a stroller; likely similar for users of wheelchairs, canes.
- Investments in new infrastructure or amenities will require investment in their maintenance.
- Accessibility for some people may solely mean seeing/hearing/feeling something pleasant or interesting.
- Good wayfinding is useful for people who would simply prefer the least challenging route.
- Support for places at these parks to get into the water.
- Support for diverse sign types, including with Braille text.
- It is important to know what is available, at our parks.

August 5th, 2024

Total Canvas: 34

Where do you live?

- Bristol 15
- Nearby Town 9
- Elsewhere 10

Six (6) had visited one or more of the project parks: 4 to Eagle Park, 2 to Sycamore Park, 1 to Memorial Park.

Select comments:

- Fast moving water can be off-putting for some, especially if they have experienced flooding first-hand.
- There is a great deal of knotweed at Sycamore Park, which can make it disorienting.
- There doesn't have to be a lot of stuff at a park to make it enjoyable.
- It would be great to get to the rest of Memorial Park.
- Fishing at the parks would be fun.
- Hold classes like yoga or Bone Builders at Sycamore Park to get more people to go.
- Consider a "rank" or "score" for routes in terms of their relative ease of use.
- It would be nice to get to these parks by bicycle.





# THE PLANS





## Design Concepts Overview

The project team considered several options for accessible design at these parks. However, some designs that were initially explored with the community are less practical due to:

- High cost or maintenance needs;
- Being unsuited to flood-prone areas;
- Possible harm to natural features; and/or
- Lack of public support at this time.

As Bristol seeks greater accessibility and enjoyment at its parks, all ideas are welcome as part of a community-wide conversation. For example, while these parks are open “dawn to dusk,” some people have suggested lighting be added near park entrances and parking, in case individuals are making their way back to their cars under lower light conditions. These parks are living places that should grow and change with public interests and needs!

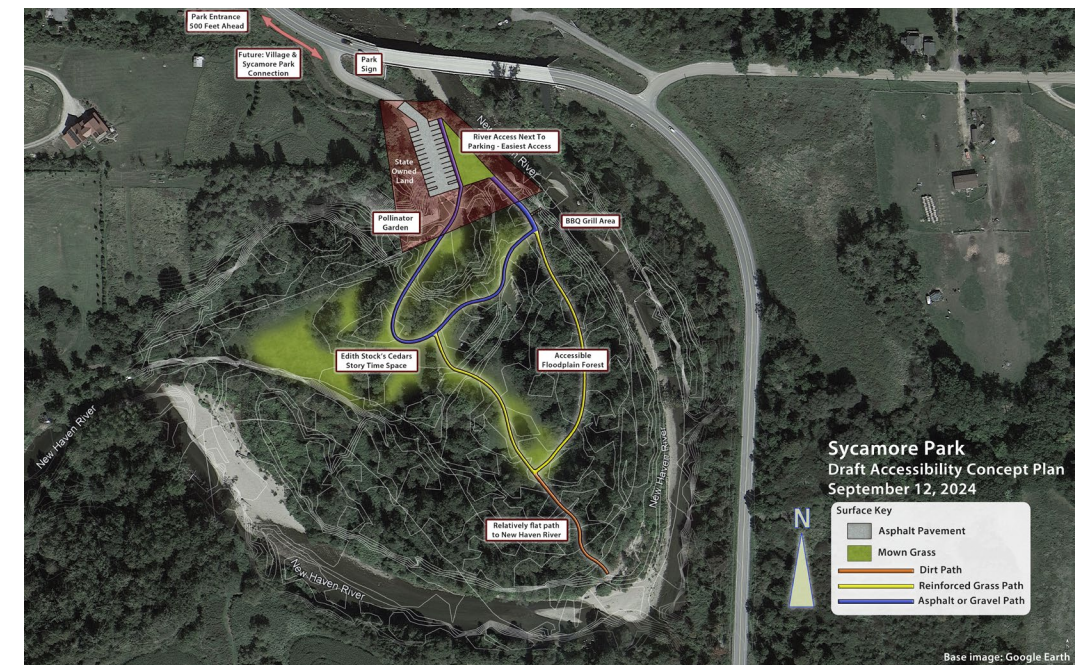
## The 4 Plans

The following pages include four versions of plans for each of the three project parks.

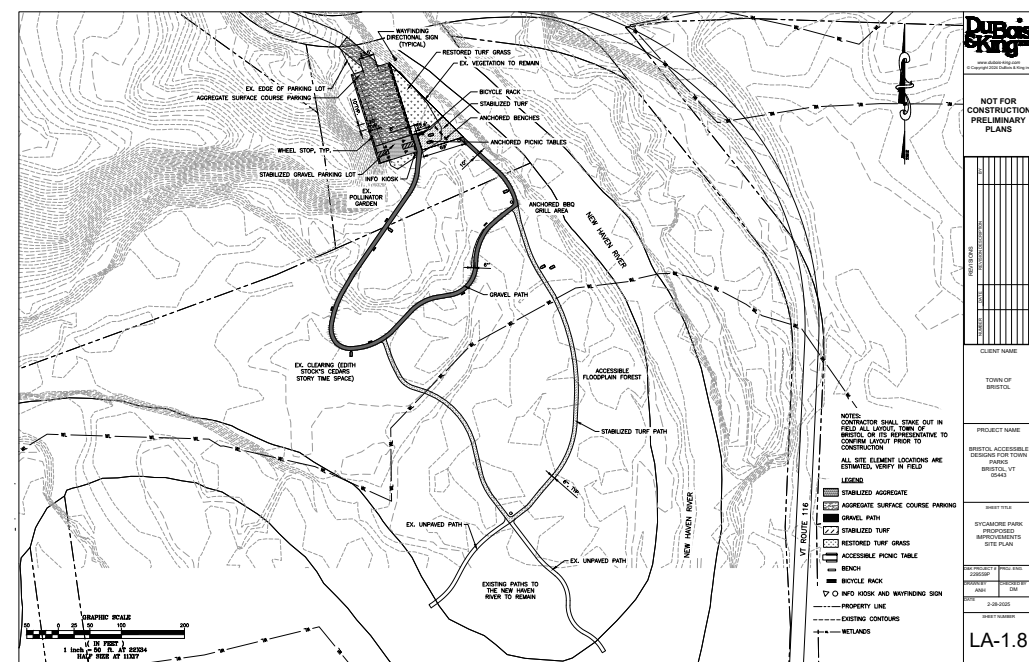
- Preliminary Concept Plan.
- Revised Concept Plan
- Proposed Improvements Site Plan
- Final Illustrated Plan



### 1. Preliminary Concept Plan



## 2. Revised Concept Plan



### 3. Proposed Improvements Site Plan



#### 4. Final Illustrated Plan



# Eagle Park Preliminary Concept Plan

The Preliminary Design Concept for Eagle Park emerged out of site visits, analysis of existing conditions, and the desire to work with the existing cleared landscape as much as possible, as the mown areas already offer reasonable routes around the site.

Significant work went into offering a parking design that would maximize parking and to create a new accessible entrance where the current maintenance access gate is.

This design was displayed and discussed at the Pocock Rocks Music Festival & Street Fair in August 2024, and revised based on public feedback, the guidance of the project Steering Committee, and further engineering analysis by the project team.

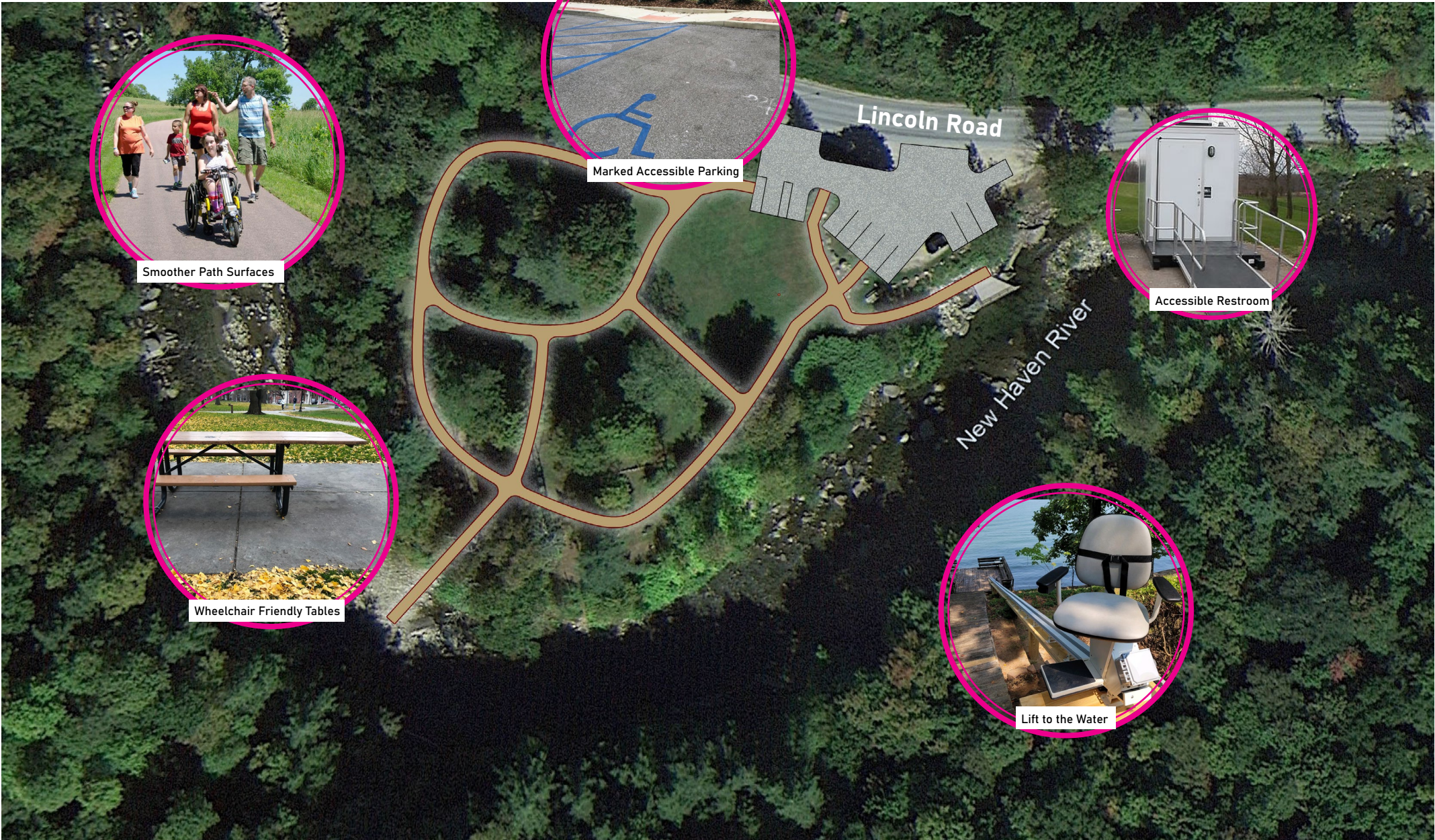
## What Worked -

The Final Designs would retain aspects of the path network among the trees, but with more focus on materials.

## What Didn't Work -

The parking design was deemed too complex, and did not adequately use space efficiently. The Final Designs did not include a separate accessible entrance.

# Eagle Park Ideas





# Eagle Park Revised Concept Plan

Based on public input and guidance from the steering committee and District Floodplain Manager, the project team visited Eagle Park again and revised the Preliminary Concept Plan (previous page) as described below. This Revised Concept Plan also includes site topography obtained from the Vermont Center for Geographic information (VCGI).

- 1. Parking design changed to single entrance.
- 2. Location of asphalt accessible parking spaces
- 3. Path surfaces refined to be either asphalt/gravel or mown stabilized grass.

This design was revised again, with greater detail with respect to amenities, in order to prepare the final Proposed Improvements Site Plan (included on the next page).





The full set of plans which also includes existing conditions documentation and construction details, is included as an appendix to this report (under separate cover).





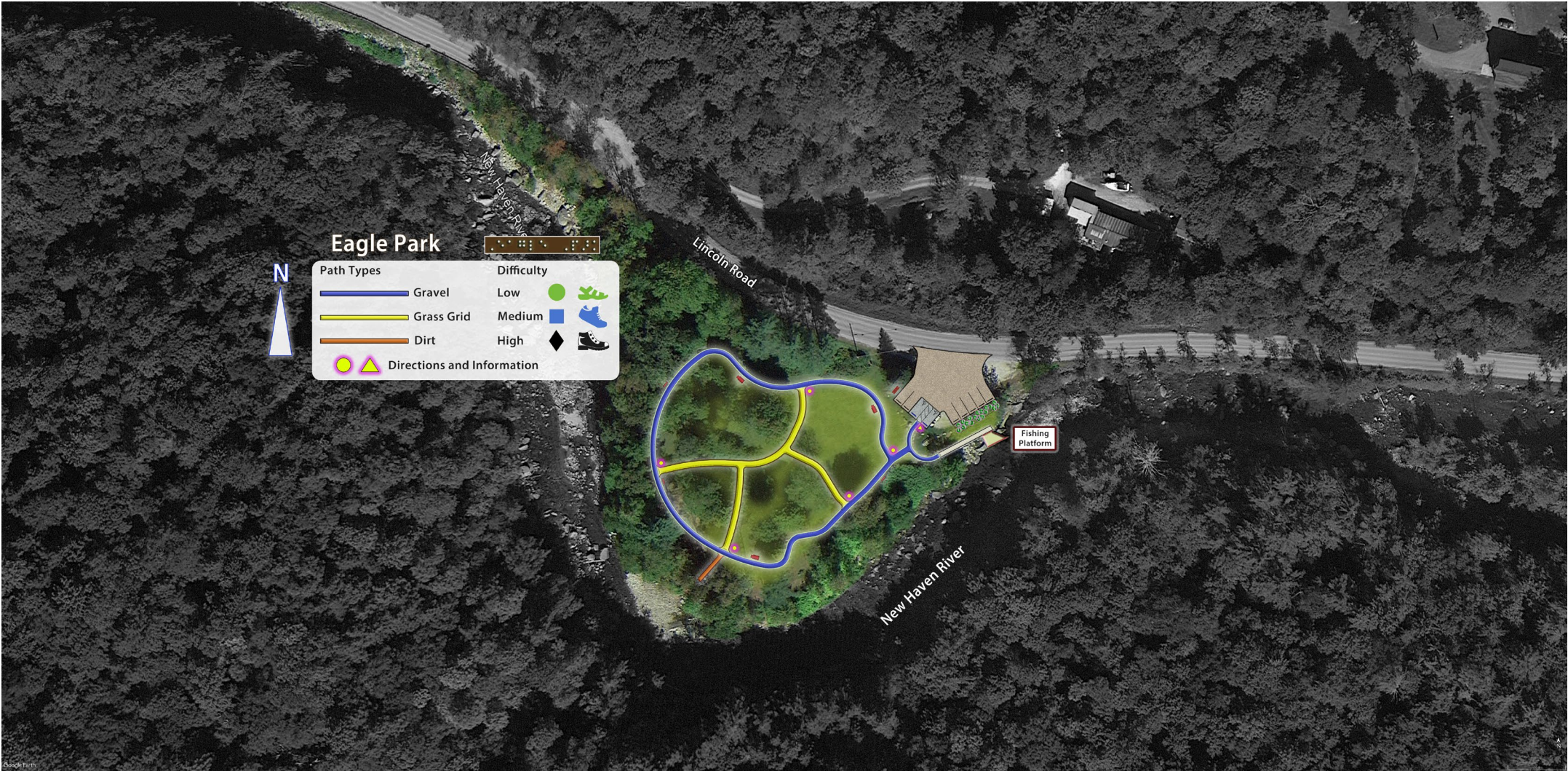
# Eagle Park

## Final Illustrated Plan

On this page, and illustrated version of the Eagle Park Final Plan, consistent with the construction drawings on the previous page. This illustration could be printed and used as a map at the parks, in a paper brochure, and online.

This Illustrated Plan does not include all of the technical details of the construction drawings on the previous page. This is intended to “keep it simple” to quickly identify routes. However, it does include a Key indicating the trail types, and their relative level of difficulty using words, shapes, and symbols.

The colors chosen for the paths are intended to offer high contrast and to be legible for those that have color deficient vision.





# Memorial Park Preliminary Concept Plan

The Preliminary Design Concept for Memorial Park emerged out of site visits, analysis of existing conditions such as site distances, and the desire to offer access to the south side of the park independent of a bridge.

Significant work went into accessible parking, with opportunities to enjoy the falls without having to traverse steep slopes.

What Worked -

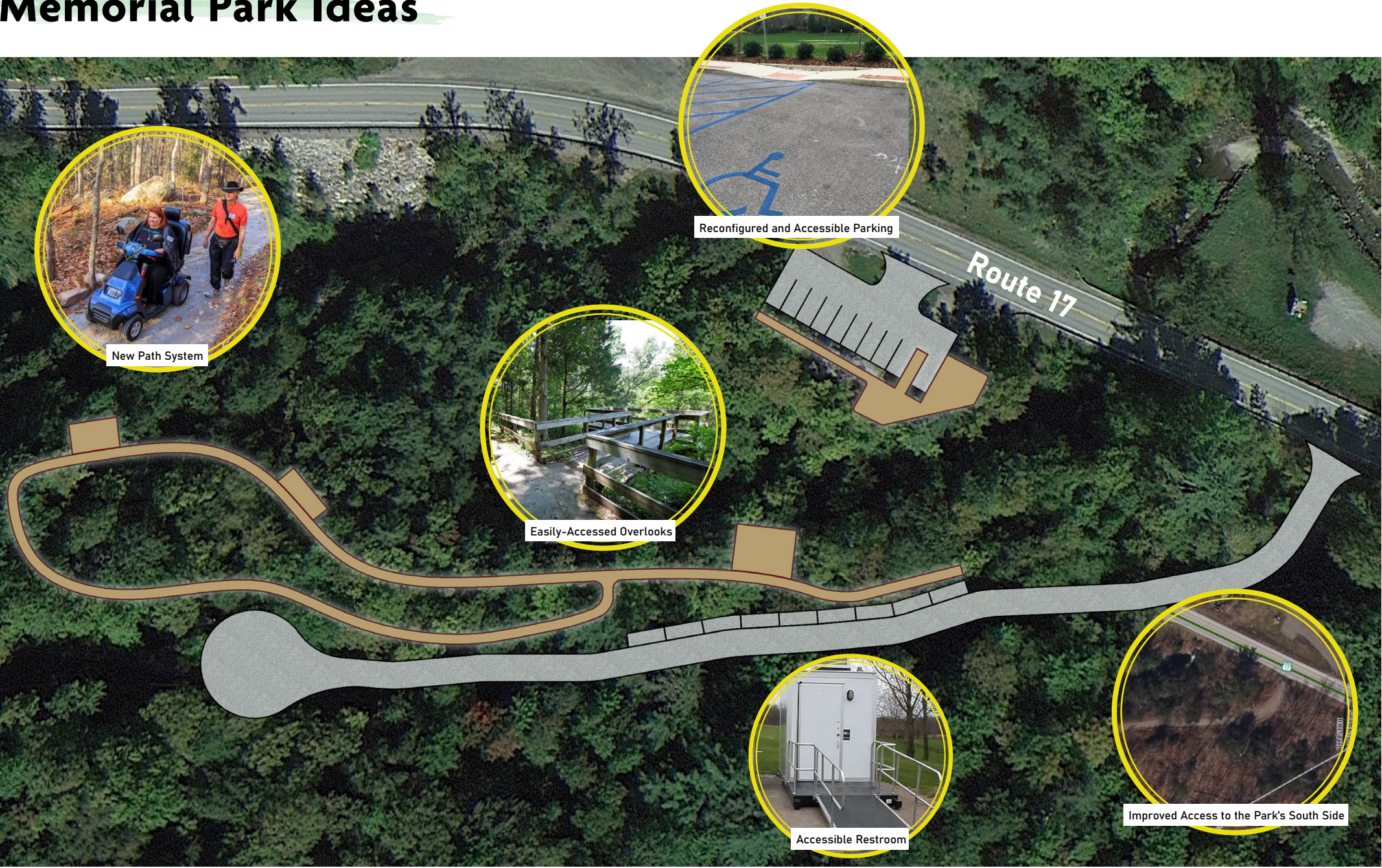
The Final Designs would retain the single-entrance from VT Route 17 , and the overlooks on the north and south side of Baldwin Creek.

What Didn't Work -

The continuous row of parallel parking along the south side access road needed to be revised based on conditions, along with the locations of the overlooks to be more consistent with grades.

The Path extension to the west was also deemed infeasible at this time due to the extensive grading required, with corresponding necessary vegetation disturbance.

# Memorial Park Ideas





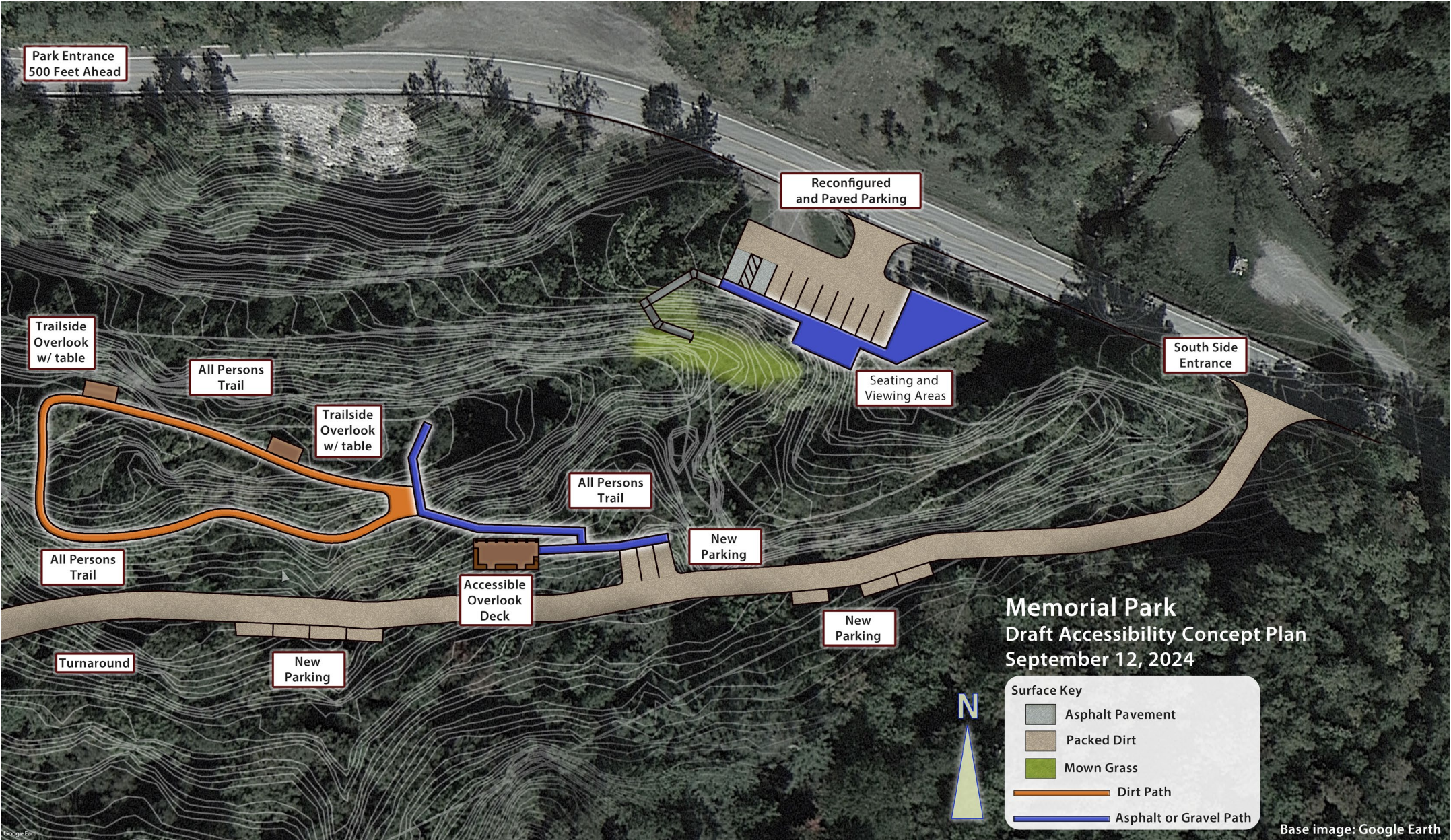
# Memorial Park

## Revised Concept Plan

Based on public input and guidance from the steering committee and District Floodplain Manager, the project team visited Memorial Park again and revised the Preliminary Concept Plan (previous page) as described below. This Revised Concept Plan also includes site topography obtained from the Vermont Center for Geographic information (VCGI).

- 1. Location of asphalt accessible parking spaces at the VT Route 17 entrance.
- 2. Revised parking along the south side drive.
- 3. Path surfaces refined to be either asphalt/gravel or dirt.
- 4. Addition of the Accessible Overlook Deck.

This design was revised again, with greater detail with respect to amenities, in order to prepare the final Proposed Improvements Site Plan (included on the next page).





The full set of plans which also includes existing conditions documentation and construction details, is included as an appendix to this report (under separate cover).





# Memorial Park Final Illustrated Plan

On this page, and illustrated version of the Memorial Park Final Plan, consistent with the construction drawings on the previous page. This illustration could be printed and used as a map at the parks, in a paper brochure, and online.

This Illustrated Plan does not include all of the technical details of the construction drawings on the previous page. This is intended to “keep it simple” to quickly identify routes. However, it does include a Key indicating the trail types, and their relative level of difficulty using words, shapes, and symbols.

The colors chosen for the paths are intended to offer high contrast and to be legible for those that have color deficient vision.





# Sycamore Park Preliminary Concept Plan

The Preliminary Design Concept for Sycamore Park emerged out of site visits, analysis of existing conditions such as of the floodplain and vegetation, and the desire to offer accessible access to the river.

A hierarchy of diverse experiences through path design, redesigned parking, and amenities close to parking given the regular flooding.

## What Worked -

Smoother river access, including immediately adjacent to the redesigned parking, will be fundamental to enhanced accessibility at Sycamore Park.

A hierarchy of diverse experiences through path design, redesigned parking, and amenities close to parking given the regular flooding.

## What Didn't Work -

While Sycamore Park is relatively large with many flat areas for amenities, those that require additional maintenance or limited longevity, such as fitness equipment, were not supported by the public.

# Sycamore Park Ideas



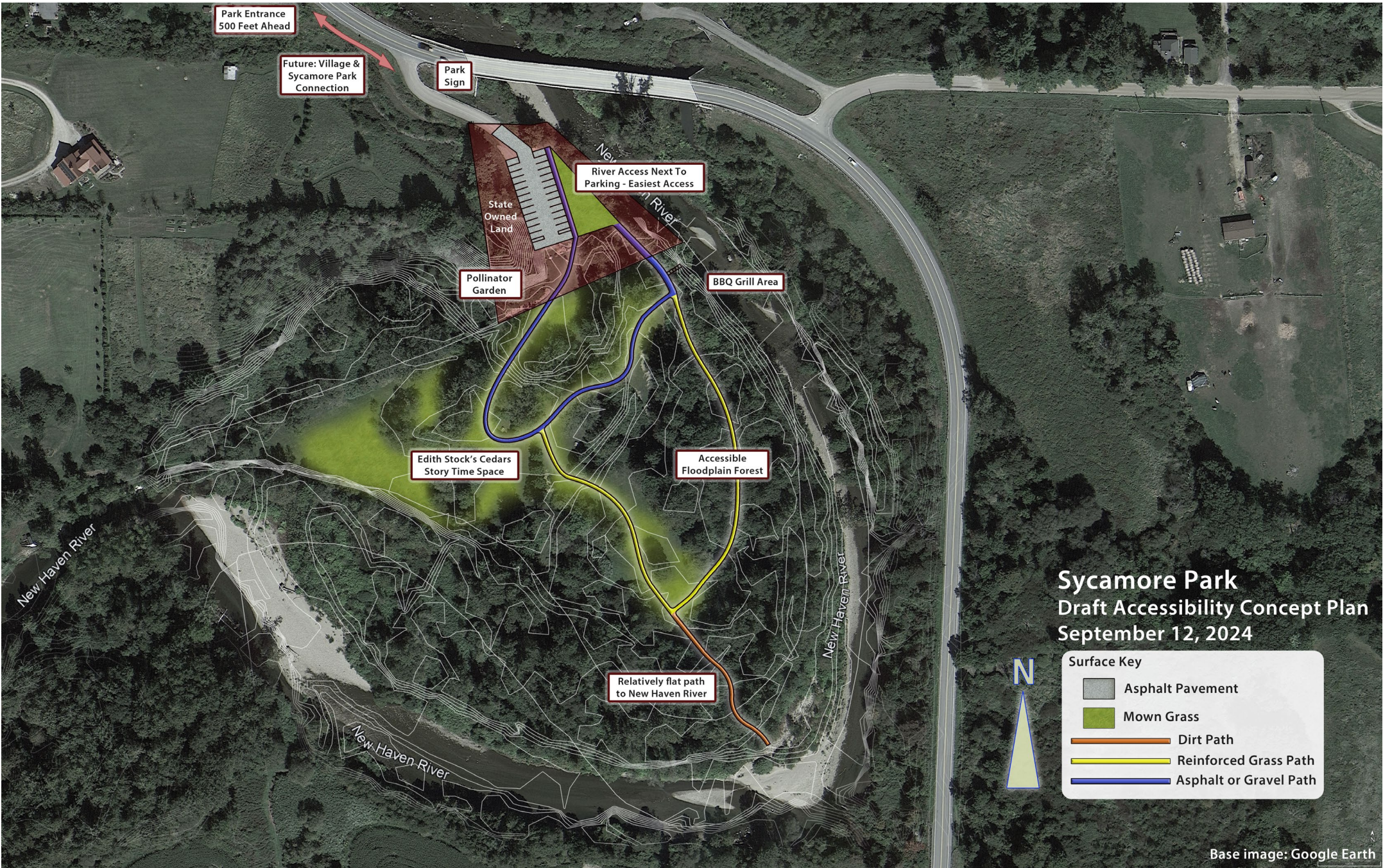


# Sycamore Park Revised Concept Plan

Based on public input and guidance from the steering committee and District Floodplain Manager, the project team visited Sycamore Park again and revised the Preliminary Concept Plan (previous page) as described below. This Revised Concept Plan also includes site topography obtained from the Vermont Center for Geographic information (VCGI).

- 1. Revised path design based on site topography.
- 2. Revised path location through the floodplain forest based on site conditions.
- 3. Confirmed the location of state-owned parcel.
- 4. Path surfaces refined to be either asphalt/gravel, mown stabilized grass, or dirt based on proximity to regularly flooded areas.

This design was revised again, with greater detail with respect to amenities, in order to prepare the final Proposed Improvements Site Plan (included on the next page).









# Sycamore Park Final Illustrated Plan

On this page, and illustrated version of the Sycamore Park Final Plan, consistent with the construction drawings on the previous page. This illustration could be printed and used as a map at the parks, in a paper brochure, and online.

This Illustrated Plan does not include all of the technical details of the construction drawings on the previous page. This is intended to “keep it simple” to quickly identify routes. However, it does include a Key indicating the trail types, and their relative level of difficulty using words, shapes, and symbols.

The colors chosen for the paths are intended to offer high contrast and to be legible for those that have color deficient vision.





# DESIGN DETAILS





# Accessible Parking

Reserved parking for people with disabilities promotes safer and equal access to our parks, making it possible for individuals with a disability, or their companions, to use and enjoy these places more readily.

The Accessible Designs for Eagle and Memorial parks include two accessible parking spaces, Sycamore Park has four. They are located closest to the park paths and surfaced with stabilized aggregate to differentiate them from the packed dirt of the remainder of the parking lot and to offer a firmer surface for wheelchair users. This surface is also pervious, allowing for direct infiltration of stormwater and meltwater. These accessible parking spaces are also signed in accordance with ADA standards.

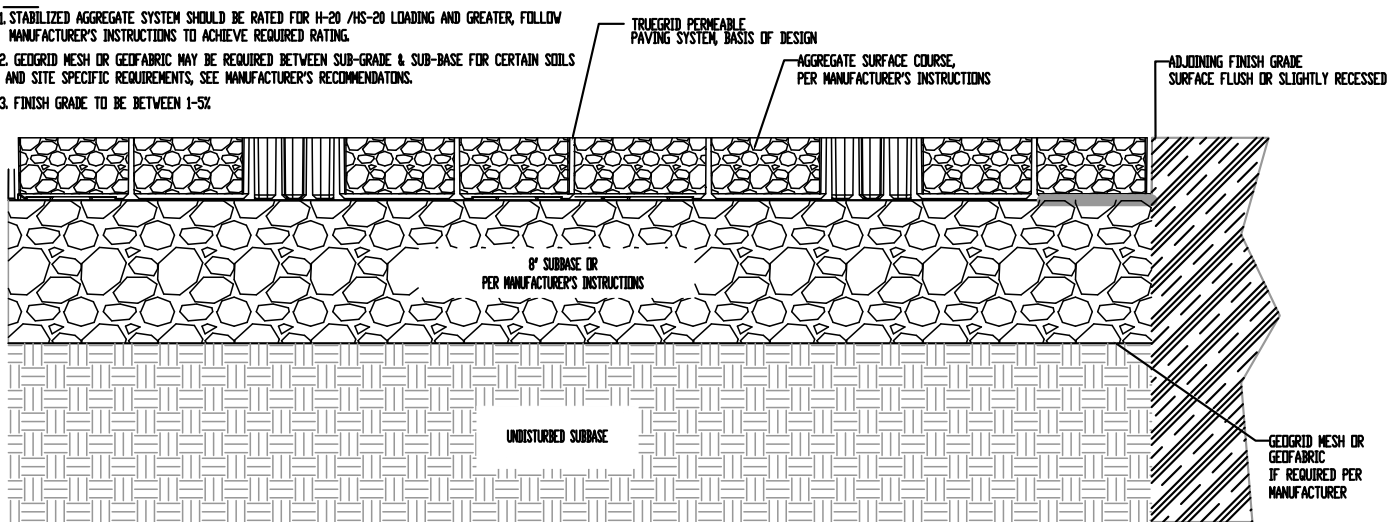
Each of the three parking areas at the project parks have been redesigned to be more efficient in their arrangement of vehicles. However, all redesigns and reconstruction of parking areas should be undertaken in collaboration with Bristol’s Department of Public Works.

In addition, it is not assumed that a redesign of parking will change the current plowing practices at these parks:

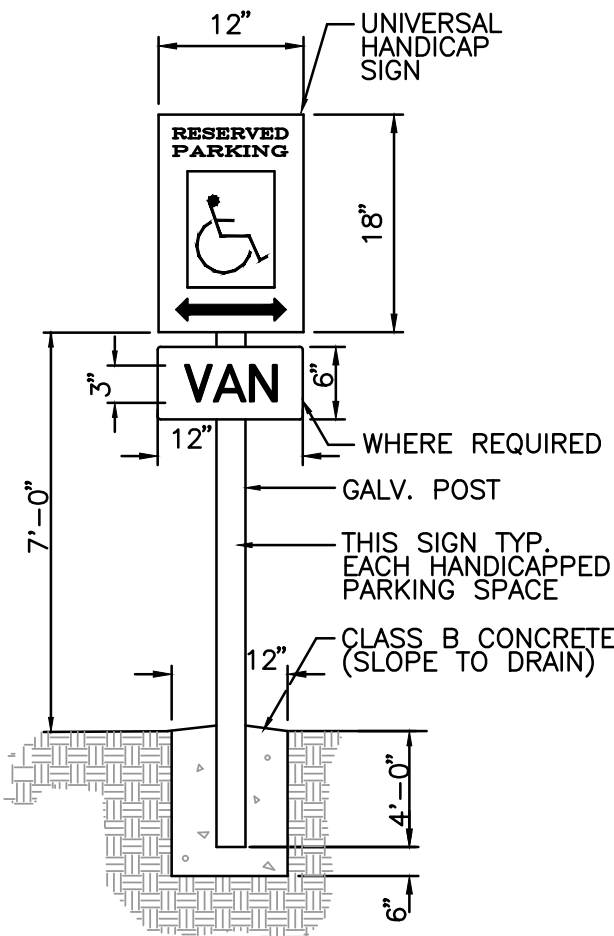
- The parking at Eagle Park is plowed in the winter, once primary roads are clear.
- The parking at Memorial Park is not currently plowed, and the park itself is not open.
- Sycamore Park is open for day use throughout the year. However, the Public Works Department may not consistently plow or maintain the parking lot during winter months, depending upon maintenance needs for Bristol’s primary road network which takes priority.



Proposed stabilized aggregate surface of accessible parking spaces



STABILIZED AGGREGATE DETAIL  
NOT TO SCALE



HANDICAP SIGN DETAIL  
NOT TO SCALE



Path Surfacing

To the extent possible given the flooding at particularly Eagle Park and Sycamore Park, surfacing for accessibility should be stable-- more than just mown grass. Therefore, four path surfaces are proposed at the project parks, based on a hierarchy of circulation and the extent of flooding.

**Bituminous Concrete.** At Memorial Park adjacent to parking areas, not within a floodway.

**Aggregate (Crushed Gravel).** Proposed at all three parks for primary accessible circulation routes. Gravel may be displaced by flood waters, but is relatively inexpensive to repair, and the natural materials would not disturb natural systems should they wash into the rivers.

**Stabilized Mown Turf Grass.** At Eagle Park and Sycamore Park, for secondary circulation system or closer to the water for additional pervious resilience within the floodway. This system includes an embedded anchored grid, through which turf grass grown and can be mown. This can be installed over existing grass.

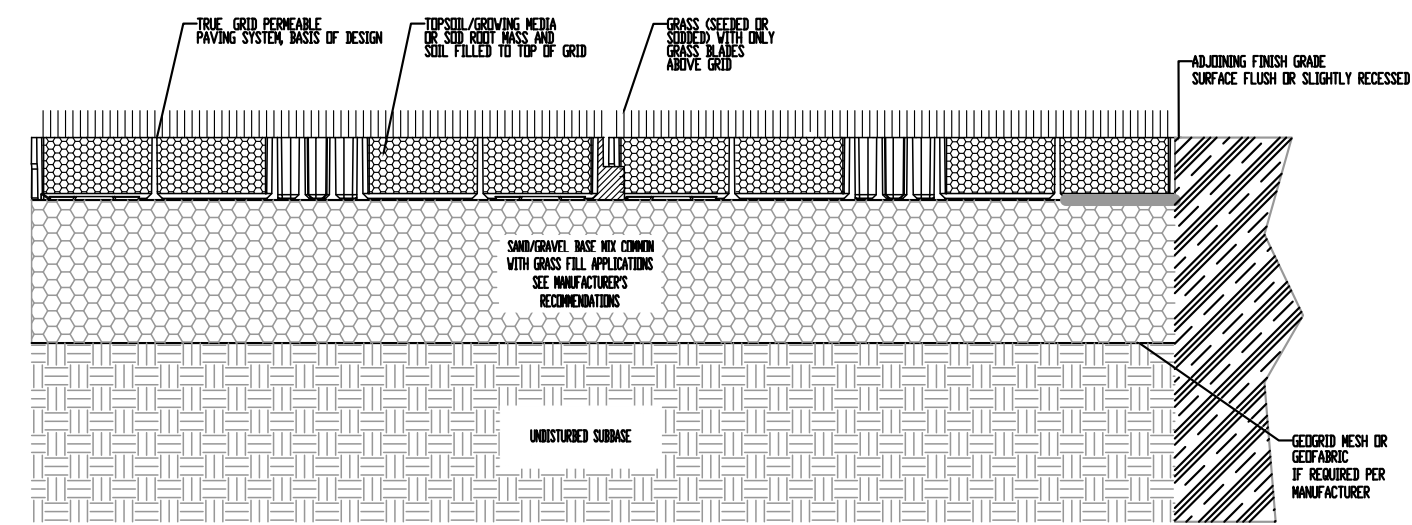
**Dirt.** At Eagle and Sycamore parks, for paths closest to the water, given the high degree of surface variability. Essentially, this is the existing surface proposed to be maintained as-is, or flattened as necessary after flooding events to maintain a relatively even surface.

Initial designs also included asphalt paths. However, in discussion with the ANR District Floodplain Manager, and the Bristol Recreation Department and Conservation Commission, it was determined that asphalt paths are relatively prone to undermining during floods. Repair would require significant time and expense. In addition, this petroleum-based material could damage the ecosystem if it entered a waterways.



*Proposed stabilized turf surface. True Grid is a brand name utilized as the basis for design.*

- NOTES:
- 1. SUB-BASE: DEPTH AND PREPARATION IS DEPENDENT ON SITE CONDITIONS AND LOADING REQUIREMENTS. CONFIRM WITH MANUFACTURER.
  - 2. SEEDING METHOD: FILL SOIL/GROWING MEDIA TO TOP OF GRID. APPLY SEEDING OR HYDROSEEDING PER MANUFACTURERS' REQUIRED APPLICATION RATES.
  - 3. SOD INSTALLATION METHOD: FILL TOPSOIL/GROWING MEDIA HALF-WAY (-1") WITHIN TRUEGRID AND PRESS IN SOD SO THAT TOP OF GRID IS AT SOIL/ROOT LEVEL AND ONLY THE GRASS BLADES EXTEND ABOVE THE GRID.
  - 4. GEGRID MESH OR GEOFABRIC MAY BE REQUIRED BETWEEN SUBGRADE & SUBBASE, CONFIRM WITH MANUFACTURER
  - 5. NO STAKING NECESSARY WITH TRUEGRID PRO PLUS WHEN SLOPE IS BELOW 20 DEGREES. ASSESS PROJECT, AS NEEDED.



STABILIZED TURF DETAIL  
NOT TO SCALE



*Existing dirt path surface to be maintained at Sycamore Park. See the Management Plan for Sycamore Park for further discussion of the Japanese knotweed, which will require regular cutting and control to maintain a clear path width of the recommended minimum 36 inches.*



Signs: Purposes

Purpose: Directions

The core purpose of directional (“wayfinding”) signs is to make it easier for people navigate around new areas. They are essential in parks as they offer an increased sense of comfort. Visitors may become confused or frustrated in their absence, which can rapidly reduce the desire to stay, or take away from how much fun they had while there.

Therefore, well-designed and placed directional and informational signs are crucial for giving visitors to Bristol’s parks safe, efficient and enjoyable experiences.

In addition, because with good signage park visitors may easily move around a site rather than gather in a small number of locations, they help to maintain travel flow and limit crowding.

Purpose: Safety

Signs play a major role in promoting visitor safety. In areas with natural risks, whether its the steeper slopes at Memorial Park or flood-prone areas at Eagle and Sycamore parks, safety-focused signs are especially valuable. They not only warn visitors of possible dangers but also educate them on responsible behavior, contributing to the overall safety of both people as well as the wildlife that shares the park.

Purpose: Education

Informative signs located at parking areas or along paths can teach visitors about the parks’ history, geology, hydrology, flora, and fauna. For example, signs at Sycamore Park could guide visitors through the many interesting features of its floodplain forest.

Educational signs enhance the visitor experience by turning a simple walk into an engaging and informative journey. They allow visitors to gain a deeper understanding of their surroundings and create a more meaningful connection to the location.



Right:  
Envisioned  
directional  
sign at a path  
junction, at  
Sycamore Park.





# Signs: Design Principles

## Design Principles for Effective Signs

The effectiveness of signs depends largely on their design, which should keep the following principles in mind:

### 1. Visibility and Legibility

Signs must be easy to spot and read, even from a distance. Using contrasting colors, large fonts, and non-glare materials can improve visibility. For example, to make color combinations more accessible, it is important to avoid red/green color combinations and make sure colors have a high contrast against each other.

Signage should include a legend to explain the meaning of all symbols and cues along the trail. Adding Braille and tactile features allows visually impaired visitors to access information.

### 2. Consistent Branding and Theme

Signs should be consistent throughout Bristol's park and open space system, perhaps with some “variation on the theme” for individual parks.

### 3. Clear Messaging

The language on signs should be simple, clear, and to the point. Overly complex wording can confuse visitors, including children, those with dyslexia, or with limited English language proficiency.

Using universally recognized symbols for attractions such as the water’s edge ensures that people who may not understand the local language can still navigate effectively.

### 4. Strategic Placement

Placing signs at decision points—where visitors need to make a choice about which direction to go—helps prevent disorientation and keeps the visitor flow steady.

Signage at the beginning of a trail should describe its length, degree of difficulty and distinguishing features—especially hazards.

Signs should be positioned at accessible heights so that all visitors can read them without difficulty.

### 5. Sustainable Materials

Creating signs from eco-friendly materials, such as recycled wood, metal, or biodegradable plastics, will minimize their environmental impact. Solar-powered digital signs are also becoming more common.

*Right: At the Bob Pettitt Sensory Garden in Melbourne, Australia*





# Information Kiosks

To achieve the maximum benefit from an information kiosk, it is critical that it be accessible by each and every user.

Unfortunately, a major challenge with making a kiosk ADA compliant has been that until very recently, the guidelines for doing so were vague at best.

In addition, when it came to accommodating the disabled, most specific ADA regulations have typically focused primarily on individuals in wheelchairs. While that may be a laudable effort, of the estimated 57 million people in the United States who have some form of disability, only about 4 percent, or 2.2 million, use a wheelchair.

In addition to other considerations regarding color and typeface, kiosks should also be designed with “reach limits” in mind. The maximum height of the tactile component (tactile map or Braille) should be 48 inches and the minimum height 15 inches.

## Tactile Signs and Braille

A large-scale map on a kiosk with tactile components can facilitate navigation for visitors with visual impairments and print disabilities by providing easy to understand park information.

Tactile components can include any embossing, engraving or differences in texture that signify a unique area of a given area, such as:

- Raised lines along paths/trails
- Recessed spots in bodies of water
- Raised shapes to signify benches or tables
- Braille notation of distance, path difficulty, and amenities

The three project parks should have an information kiosk with tactile map that uses contrast in color, raised characters and Braille.

Additional Braille raised print and an audible component can provide information about a trail’s layout and points of interest.



Different types of tactile signs.





**Additional Options for Accessible Signs**

**Audible Signs**

Audible signs use speech technology to present the information typically found on print signs. The speech is an integrated part of a sign that also includes text and pictures; the “accessibility” aspect is not a separate accommodation, but built into the full universal experience. Audible signs have in fact become popular for all users, not just those impacted with blindness or low vision.

Audible signs should be simple and intuitive to use. Ideally they should be audible only when activated, and at a reasonable volume so as to limit wider disturbance.

Audible signs can be manually activated by a button or other control, or automatically activated using technologies such as radio-frequency identification (RFID) or Bluetooth. Automatic activation is preferred, as buttons/controls can be difficult to locate by people impacted by blindness.

**Digital Signs**

In recent years, digital wayfinding solutions have begun to supplement traditional signs. These digital tools, including apps with GPS navigation, interactive kiosks, and QR codes, add a

new level of convenience. Visitors can access maps, receive real-time updates, and find the quickest routes to their desired attractions. They can also learn more about their environment, such as with information about plants and wildlife ecology.

In addition to electricity, much of this technology requires cell service, which is currently not reliably available at Eagle Park and Memorial Park.

**Communication Boards**

Communication boards installed at playgrounds can enhance access and inclusion for all. With pictures, words or phrases in English, Braille, and other languages as appropriate, communication boards promote enhanced communication between people as they gesture to each other using the symbols and words on the board.

In this way, a communication board would allow non-verbal individuals or people experiencing disabilities to share their needs or wants while using the park amenities.”

The communication board would show features of the park, and activities in words and pictures. It should be installed low to the ground so wheelchair users and younger people can easily point to the communication markers.



*Audible Sign*



*Digital Sign*

*Communication Board*





# Typography and Color

Two elements that are vital to accessible signage are typography and color. For graphic design, these are two of the most important features that influence viewer experience

## Typography

Accessible typography should guide the viewer easily through the design, from the most important idea to the least. Along with other aspects of design, the position, size, weight, and color of type can all be used to determine a visual hierarchy.

Overall, when it comes to typography, larger text, shorter line lengths, taller line heights, and increased letter spacing can help viewers.

**Text Size and Font.** ADA guidelines specify minimum and maximum text sizes for signs based on viewing distance. Moreover, fonts should be simple, sans-serif, and non-decorative to optimize readability. Recommended fonts include Helvetica, Arial, and Verdana.

**Readability.** For accessibility, the best practice is to limit the use of variations such as italic, bold, ALL CAPS or other styling that can interfere with readability. Small font sizes, italicized text and all uppercase text tend to be difficult for viewers with low vision. For viewers with reading or vision disabilities, it can be challenging to comprehend type that is close together without a lot of spacing.

For readability, the following sizes are suggested for the body text:

- To be legible at 6 feet use 30 point.
- To be legible at 10 feet use 48 point.
- To be legible at 12 feet use 60 point.
- To be legible at 14 feet use 72 point.

**Mounting Height and Location.** Signs should be mounted at specific heights and locations to ensure that they are easy to find and read. Typically, signs should be placed 48 to 60 inches above ground level, depending on the type of sign

**Braille and Tactile Elements:** To aid those who are blind or have severe visual impairments, signage should include Braille and raised tactile text. Braille should be “Grade 2,” a contracted form commonly used in the United States.

## Color

Color is one of the most powerful tools in design, and its application goes beyond aesthetics. The strategic use of color can enhance visibility, convey meaning, and evoke emotions, as color has a psychological impact that can influence how people feel in a space.

Everyone’s eyes are different, therefore everyone perceives color in different ways. Creating an accessible design means considering the audience, people with color blindness, low-visual acuity, those with different cultural backgrounds High contrast between text and

background is essential. This contrast ensures that the information stands out and is easily readable, particularly for individuals with visual impairments. Light-on-dark or dark-on-light color schemes typically provide adequate contrast.

*There are accessible color palette generators available online, such as this one by [Vennage](#), with sample combinations shown below.*

Vibrant paletteDownload

#00BF7D	#00B4C5	#0073E6	#2546F0	#5928ED
Black Text Contrast 8.75:1	Black Text Contrast 8.33:1	White Text Contrast 4.57:1	White Text Contrast 6.54:1	White Text Contrast 7.12:1

Monochromatic paletteDownload

#B3C7F7	#8BABF1	#0073E6	#0461CF	#054FB9
Black Text Contrast 12.43:1	Black Text Contrast 9.19:1	White Text Contrast 4.57:1	White Text Contrast 5.81:1	White Text Contrast 7.43:1

Contrasting palette 1Download

#C44601	#F57600	#8BABF1	#0073E6	#054FB9
White Text Contrast 4.97:1	Black Text Contrast 7.47:1	Black Text Contrast 9.19:1	White Text Contrast 4.57:1	White Text Contrast 7.43:1

Contrasting palette 2Download

#5BA300	#89CE00	#0073E6	#E6308A	#B51963
Black Text Contrast 6.68:1	Black Text Contrast 10.89:1	White Text Contrast 4.57:1	Black Text Contrast 5.15:1	White Text Contrast 6.39:1



## Tables and Benches

Tables and benches should be located close to the accessible path of travel, on a ground surface that's firm and relatively level.

Picnic areas are easier to distinguish by people impacted by blindness when the ground surface contrasts in color and texture to the abutting accessible path. If the table is designed with an extension or space to accommodate a wheelchair, this portion should be closest to the path.

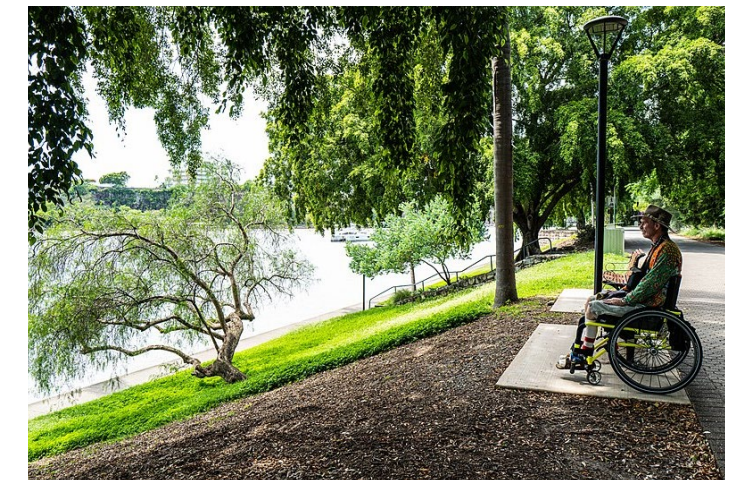
Benches should be installed on the same level as the path, set back approximately 2 feet from the path to ensure that the bench legs are cane detectable.

There should be a clear ground space adjacent to benches, which should color contrast to their surroundings. A tactile change in the area surrounding the bench can also be used to indicate to a pedestrian that a bench is nearby. Tactile and or color change in ground surfaces helps people impacted by blindness and low vision to distinguish from the path of travel.

Benches should include components such as back support and armrests as an aid to individuals who have difficulties sitting and rising.

To accommodate guide dog handlers; situate benches to provide adequate space for a guide dog to lay next to its handler. If benches cannot be situated about 2 feet away from a walkway, provide adequate space behind or next to a bench for a guide dog to rest.

*There are numerous styles of tables and benches that would be suitable for those who use wheelchairs; a selection is included on this page. While consistency is not required across multiple parks, it is recommended that a single style be used within the same park.*



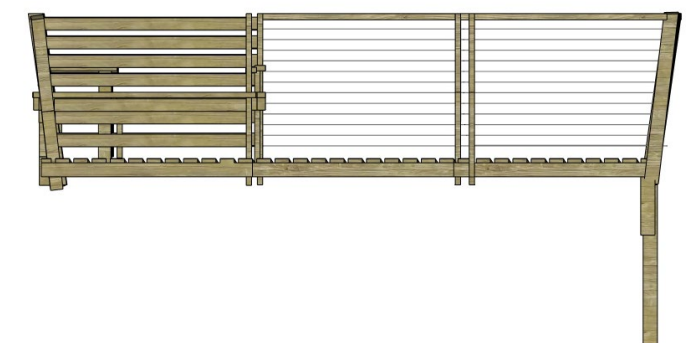
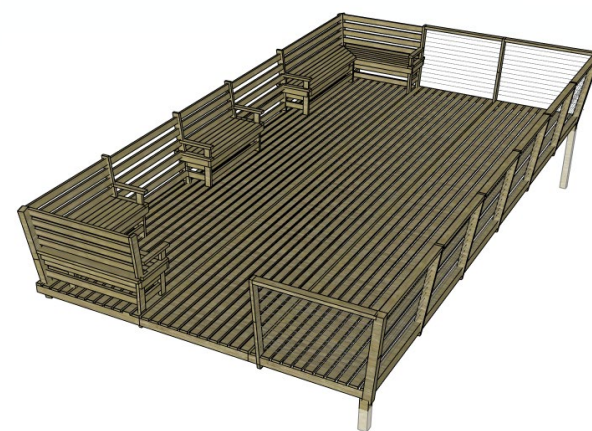
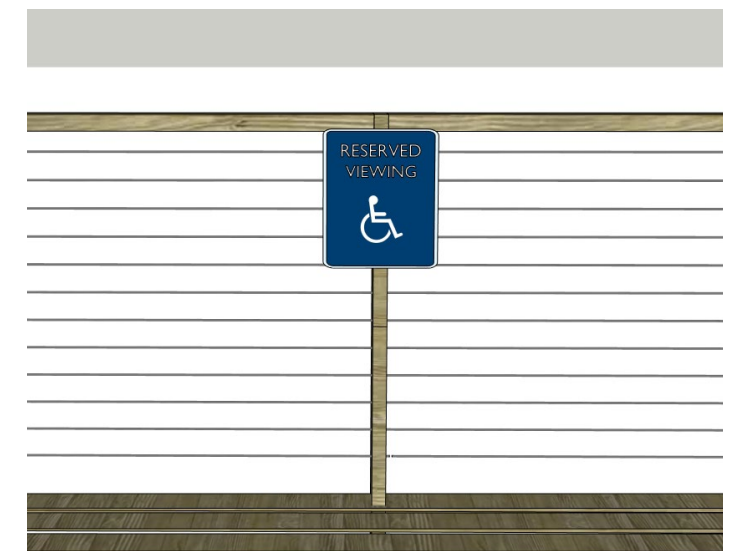
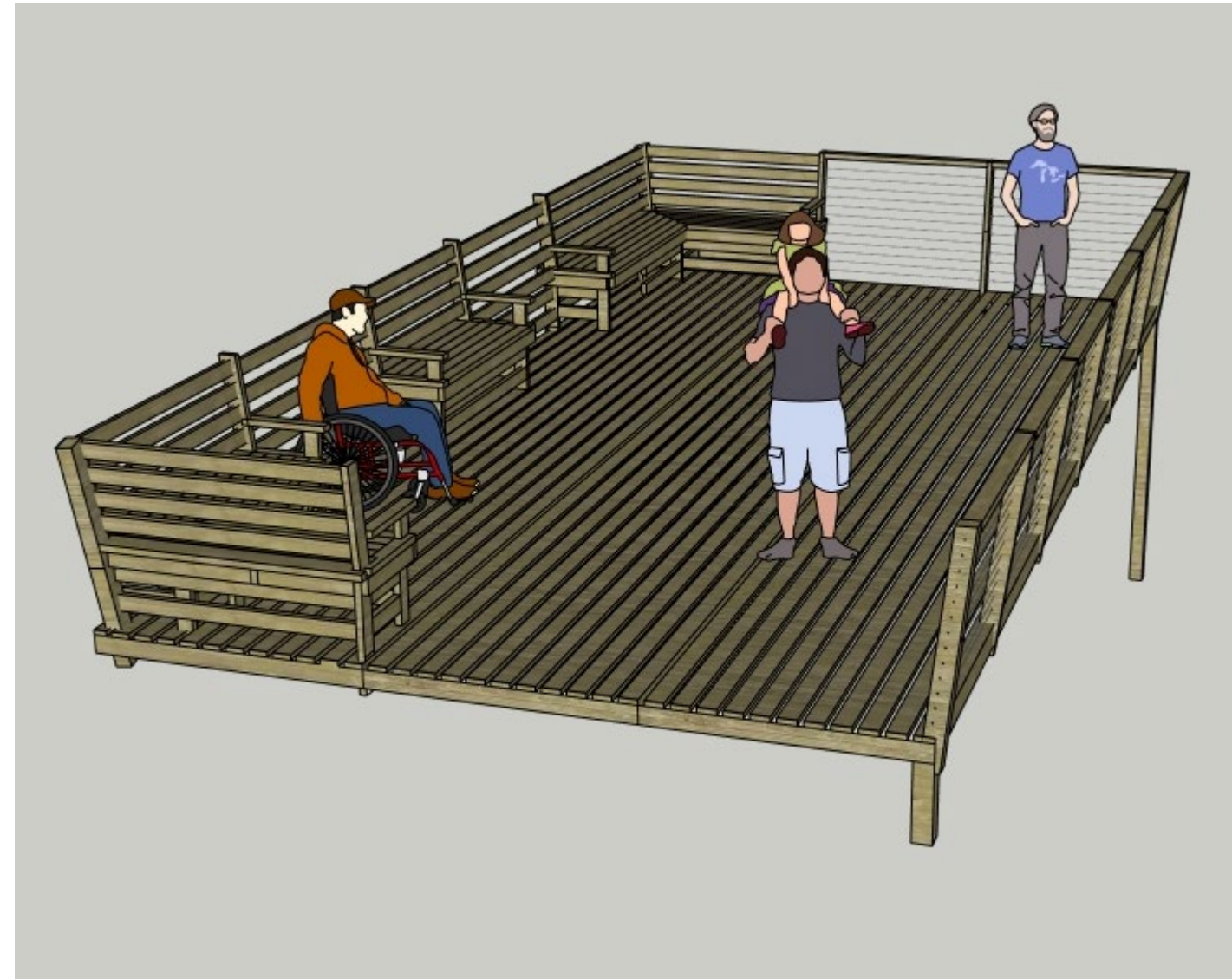


## Accessible Overlook Deck

The south side of Memorial Park, south of the Baldwin Creek, offers very good viewing of Burnham Falls. Should Bristol seek to create more formalized access on this side, the Accessible Overlook Deck is could be its signature feature.

As envisioned, travel to and from the Accessible Overlook Deck, whether on foot or wheels, would be essentially “at grade” with new parking adjacent to the gravel road. As shown in the images on this page, it has been designed, in concept, in accordance with best practices and applicable codes related to structural sizing, seating, fencing, and railings.

Construction document “shop drawings” should be prepared in order to guide construction.





Plant Selection

A small number of plants are indicated on the Proposed Improvements Site Plans: 17 shrubs at Eagle Park (to replace plants that had recently been removed), and 6 shrubs at Memorial Park to separate parking from the gathering area. The three selected shrubs species are shown at the right.

Over time, Bristol may wish to supplement these plants with additional shrubs, or trees, grasses, or other perennial plants. Considerations for planting include:

- Utilizing all-native plants, as these form better ecological relationships with wildlife, including non-harmful insects and birds.
- Sourcing plants as locally as possible, in order to maintain ecological integrity with genetic materials.
- Do not plant shrubs that contain poisonous parts, such as berries or leaves, or that have thorns.
- Do not plant trees or shrubs that have large fruit, seed pods, or peeling bark that may fall on paths, thereby causing a tripping hazard or difficulty for wheelchair users.
- “Right plant-right place” means evaluating sunlight, soils, and moisture levels in plant selection, as well as maintenance capacity.

Eagle Park

QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
8	Aronia arbutifolia	Red Chokeberry	5 GAL./2' HT.	B&B/Cont.	5' O.C.
4	Cornus sericea 'Bailey'	Red Twig Dogwood	5 GAL./2' HT.	B&B/Cont.	6' O.C.
5	Juniperus virginiana 'Blue Mountain'	Blue Mountain Juniper	5 GAL./2' HT.	B&B/Cont.	6' O.C.

Memorial Park

PLANT SCHEDULE (THIS SHEET ONLY)						
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
SHRUBS						
JV	6	Juniperus virginiana 'Blue Mountain'	Blue Mountain Juniper	5 GAL./2' HT.	B&B/Cont.	5' O.C.

Red Chokeberry  
*Aronia arbutifolia*



Red Twig Dogwood  
*Cornus sericea* 'Bailey'



Blue Mountain Juniper  
*Juniperus virginiana* 'Blue Mountain'





# IMPLEMENTATION





Implementation

This Implementation section offers critical guidance to Bristol in planning, budgeting, and fundraising for these transformational projects.

Information in this section pertains to:

- Discussion of next steps “Beyond this Project” and Potential Phasing.
- Potential permitting needs.
- Cost Estimates for the Proposed Improvements Site Plans.
- Grant funding opportunities.

Beyond this Project

This section outlines the general steps needed to move this project toward construction:

- Step 1 - Selectboard Support
- Step 2 - Find a Champion
- Step 3 - Fundraising & Grant Writing
- Step 4 - Permitting
- Step 5 - Construction & Maintenance

Step 1 - Selectboard Support

There are different paths forward available for the components of this project, and support of the community and the Selectboard will be required.

Step 2- Find a Champion

Town Staff or engaged resident, every plan needs a champion. Human resources are needed to use this plan as a tool to communicate public need, project cost, and design intent to federal, state and regional partners. Ongoing conversations and multiple design and permitting projects are a part of bringing any infrastructure project to life, and a local champion plays an out-sized role in making sure projects can be approved, funded, and developed in a timely fashion. The Addison County Regional Planning Commission may be able to offer some assistance to the Local Champion.

Step 3 - Fundraising & Grant Writing

Funding the final design and construction will require town commitment to grant funding. The [Grant Resources table on page 56](#) outlines some of the common funding resources for Vermont towns that are seeking to develop active transportation facilities.

Projects that are funded with federal resources come with requirements that must be followed throughout the project development and implementation process.

Step 4 - Permitting

Once Selectboard approval is in place, and agreements or grant awards are in hand, the Town can then move towards contracting and permitting.

An overview of the permits needed for the elements shown on the Proposed Improvements Site Plans are in the [Permit Overview section on page 55](#).

Step 5 - Construction & Maintenance

Construction is the final step. As the community plans towards this goal, long term (25 year) maintenance must be considered.

Potential Phasing

Portions of this project could be phased. Phasing need, or opportunity, would depend on the availability of funding, and the Town’s ability to realize construction efficiencies by coordinating improvements.

Any individual project phase shall have “independent utility,” in that it has the ability to offer enjoyment to park users.

The following pages include the recommended phases for construction of the features of the Proposed Improvement Site Plans, along with Cost Estimates for each feature.



# Eagle Park: Projects, Costs Estimates & Phasing

The recommended phasing and cost estimates provided in the table to the right are intended to support Bristol in planning, budgeting, and fundraising for improvements at Eagle Park.

As opportunities arise, the phasing recommendations may be adjusted to take advantage of funding timing and to realize cost efficiencies. Cost reductions or efficiencies may also be realized via coordination with other infrastructure work.

Cost estimates are calculated in 2024 dollars.

## Cost Estimate Sources:

- VTrans Report on Shared-Use Path and Sidewalk Costs January 2020
- VTrans 5 Year Averaged Price List 2020-2025
- DuBois & King Project Database

Phase	Eagle Park Recommendation	Conceptual Cost
1	Fabricate and install “Park Entrance 500 Feet” signs (2 total), post mounted	\$4,000
1	Parking area renovation with 2 accessible stabilized gravel parking spaces, signs, wheelstops	\$75,000
1	5-foot wide gravel path around park, 825 linear feet	\$62,000
1	Information kiosk (1)	\$7,500
1	Internal directional signs (5), flood-proof anchored	\$10,000
Estimated Subtotal Phase 1		\$158,500
2	Bicycle rack, flood-proof anchored	\$3,000
2	Accessible picnic tables (3), flood-proof anchored	\$15,000
2	Benches (3), flood-proof anchored	\$12,000
2	New plants (17 shrubs), mulch	\$1,000
Estimated Subtotal Phase 2		\$31,000
3	Stabilized turf path, 380 linear feet	\$38,000
3	Improved dirt path to the river	\$5,000
Estimated Subtotal Phase 3		\$33,000
4	Mechanical lift system to water	\$40,000
4	Accessible Dock for Kayak launch	\$10,000
Estimated Subtotal Phase 4		\$50,000
Estimated Total Eagle Park All Phases		\$272,500



# Memorial Park: Projects, Costs Estimates & Phasing

The recommended phasing and cost estimates provided in the table to the right are intended to support Bristol in planning, budgeting, and fundraising for improvements at Memorial Park.

As opportunities arise, the phasing recommendations may be adjusted to take advantage of funding timing and to realize cost efficiencies. Cost reductions or efficiencies may also be realized via coordination with other infrastructure work.

Cost estimates are calculated in 2024 dollars.

## Cost Estimate Sources:

- VTrans Report on Shared-Use Path and Sidewalk Costs January 2020
- VTrans 5 Year Averaged Price List 2020-2025
- DuBois & King Project Database

Phase	Memorial Park Recommendation	Estimated Costs
1	Fabricate and install “Park Entrance 500 Feet” signs (2 total), post mounted	\$4,000
1	Route 17 parking area renovation with 2 accessible stabilized gravel parking spaces, signs, wheelstops	\$100,000
1	Asphalt gathering space, 2,200 square feet	\$60,000
1	Information kiosk (1)	\$7,500
1	Internal directional sign (1)	\$5,000
Estimated Subtotal Phase 1		\$176,500
2	Bicycle rack	\$3,000
2	Accessible picnic tables (2)	\$10,000
2	Benches (5)	\$15,000
2	New plants (6 shrubs), mulch	\$350
Estimated Subtotal Phase 2		\$28,350
3	10 parking spaces along south side access drive; clearing and grading, aggregate surface course	\$20,000
3	Accessible Overlook Deck at the south side access	\$50,000
3	5-foot wide gravel path to Accessible Overlook Deck, 80 linear feet	\$6,000
3	5-foot wide extended gravel path and gravel overlook area from the south side access, 200 linear feet	\$15,000
3	Benches (2) at south side gravel overlook area	\$6,000
3	Internal directional sign, south side access (1)	\$5,000
Estimated Subtotal Phase 3		\$102,000
Estimated Total Memorial Park All Phases		\$306,850



# Sycamore Park: Projects, Costs Estimates & Phasing

The recommended phasing and cost estimates provided in the table to the right are intended to support Bristol in planning, budgeting, and fundraising for improvements at Sycamore Park.

As opportunities arise, the phasing recommendations may be adjusted to take advantage of funding timing and to realize cost efficiencies. Cost reductions or efficiencies may also be realized via coordination with other infrastructure work.

Cost estimates are calculated in 2024 dollars.

- Cost Estimate Sources:
- VTrans Report on Shared-Use Path and Sidewalk Costs January 2020
  - VTrans 5 Year Averaged Price List 2020-2025
  - DuBois & King Project Database

Phase	Sycamore Park Recommendation	Estimated Costs
1	Fabricate and install “Park Entrance 500 Feet” signs (2 total), post mounted	\$4,000
1	Parking area renovation with 4 accessible stabilized gravel parking spaces, signs, wheelstops	\$120,000
1	Stabilized turf grass gathering area, 2,000 square feet	\$15,000
1	Restored turf grass, 2,500 square feet	\$5,000
1	5-foot wide gravel path around park, 1,050 linear feet	\$80,000
1	Information kiosk (1), flood-proof anchored	\$7,500
1	Internal directional signs along gravel path (3), flood-proof anchored	\$15,000
Estimated Subtotal Phase 1		\$246,500
2	Bicycle rack, flood-proof anchored	\$3,000
2	Accessible picnic tables (7) at stabilized turf grass gathering area, flood-proof anchored	\$21,000
2	Benches (3) at stabilized turf grass gathering area, flood-proof anchored	\$12,000
2	Benches (6) along gravel path, flood-proof anchored	\$24,000
2	BBQ Grills, (3), flood-proof anchored	\$6,000
Estimated Subtotal Phase 2		\$66,000
3	Stabilized turf path, 950 linear feet	\$95,000
3	Improved dirt path to the river, with invasive plant removal and grading, 500 linear feet	\$10,000
3	Internal directional sign along stabilized turf path (1), flood-proof anchored	\$5,000
Estimated Subtotal Phase 3		\$110,000
Estimated Total Sycamore Park All Phases		\$422,500



Permit Overview

Described below are the permits reviewed for these projects. The table at the right includes a summary. Given the varied and changing permitting structure, future project work should evaluate permitting needs at the outset of the planning and design process, and throughout.

- **State Highway Access (1111).** This permit is required when a project is within the state highway right-of-way.
- **ACT 250.** There are several jurisdiction categories that trigger the need for an Act 250 permit. Note that while a given project may not require an Act 250 permit for the specific project work, if a project area already has an Act 250 permit that permit may need to be amended to reflect the changed site condition.
- **National Environmental Policy Act (NEPA).** The NEPA process needs to be followed if federal funding is involved. Based on this study's review of natural resources in the project area, including wetlands, the NEPA process will be triggered if there is Federal funding for the project. A shorter Categorical Exclusion may be warranted, but NEPA review determinations will guide the level of documentation needed.
- **Construction Stormwater General (3-9020 or INDC).** This permit is triggered when a project exceeds one (1) acre in disturbance.
- **Operational Stormwater General Permit (3-9050 or INDS).** As of June 2022, the threshold for this permit will be a half (0.5) acres of newly constructed impervious material.
- **Stream Alteration.** The Stream Alteration Rule regulates activities that take place in or along streams. A permit is required for movement, excavation, or fills involving 10 or more cubic yards annually in any perennial stream.
- **The United States Army Corps of Engineers (USACOE).** USACOE regulates all wetlands and fill below the Ordinary High Water (OHW).
- **VT Individual Wetland Permit.** A permit would be required if the project impacts any type of wetland, or encroaches on a class I or II 50 foot buffer. The level of state wetland permitting is determined by review process criteria.

Potential Permit Requirements for Bristol's Accessible Park Improvements		
Permit	Permit Needed?	Explanation
State Highway Access (1111)	Yes	Memorial Park: Required for project working intersecting with the VT Route 17 right-of-way  (Eagle Park and Sycamore Park would not intersect with state rights-of-way.)
ACT 250	No	Based on our review of the jurisdiction categories, an Act 250 permit will not be required unless the total project area exceeds 10 acres. However, entities in the project area may need to amend existing Act 250 permits.
NEPA	Maybe	If federally funded, NEPA will be required. Bristol should explore the option for a "categorical exclusion" to forgo an extensive process.
Construction Stormwater General	No	Implementing any of these designs will not likely exceed the one acre disturbance threshold for this permit.
Construction Stormwater Operational	Yes	Sycamore Park: Renovating parking, developing the stabilized turf gathering area, and installing paths will likely exceed the one-half acre disturbance threshold for this permit.  Memorial Park: Renovating the Route 17-side parking, developing the asphalt gathering area, installing south side gravel parking, path, Accessible Overlook Deck, and paths with additional overlook area will likely exceed the one-half acre disturbance threshold for this permit.  (Eagle Park would not likely exceed this one-half acre threshold)
Stream Alteration	No	These projects are not intended to require 10 cubic yards or more of earthworks in or along streams.
USACOE General	No	These projects are not intended to disturb any lands below the ordinary high water line.
Individual Wetland	Yes	Sycamore Park: This project will impact mapped wetlands or buffers.  (The Eagle Park and Memorial Park projects will not impact mapped wetlands or buffers)



Project Funding

**Grant Resources**  
The tables on this contain information for numerous grant resources that can help Bristol plan, design, and develop accessible infrastructure at its parks. If you are viewing this document as a digital pdf, click on any of the grant titles in blue to navigate to online resources to learn more about that grant.

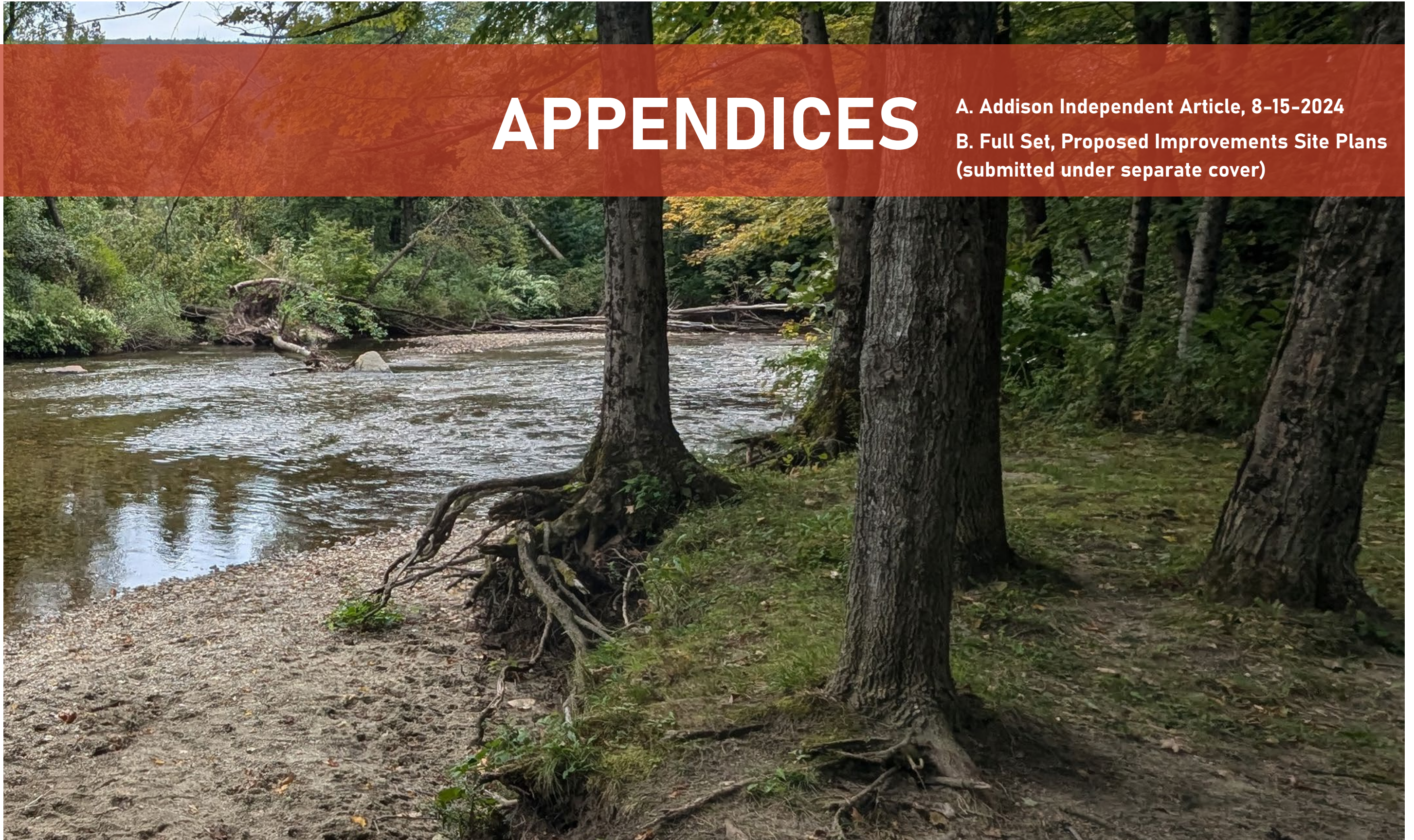
This list is not exhaustive; the Addison County Regional Planning Commission could be a resource to find other sources of project funding.

Grant Resources						
Grant Category	Grant Title	Maximum Fund Amount	Match	Federal Funding	What does it fund?	Application Deadline
Pop Up Projects	<a href="#">VNRC - Small Grants for Smart Growth</a>	\$1,500	None	No	Pop up projects, natural resource inventories, public outreach campaigns, design & planning.	Ongoing
Pop Up Projects	<a href="#">AARP Community Challenge Grants</a>	\$20,000	None	No	Infrastructure, programs, events, and organizations supporting livable communities and smart growth objectives	March
Planning & Design	<a href="#">VT ACCD - Municipal Planning Grants</a>	\$35,000	10%	No	Municipal planning projects of various shapes and sizes.	November
Pop Up/ Demonstration Projects	<a href="#">Better Places Grant</a>	\$40,000	33%	No	Quick build projects, physical activity promotion.	January
Planning & Design	<a href="#">CDBG - Planning Grants</a>	\$60,000.00	10%	Yes	Feasibility studies, marketing plans, engineering & architectural plans, etc	Ongoing - grants awarded 3x a year
Small Scale Construction	<a href="#">VTrans - Bicycle and Pedestrian Program Grants - Small Scale</a>	\$100,000.00	50%	No	Distinguished from Bike/Ped program by smaller maximum funding amount and lack of federal requirements	June
Trail restoration and construction	<a href="#">VT Dept. of Forest, Parks &amp; Recreation, and FHWA - Recreational Trails Program</a>	\$50,000.00	20%	Yes	Development and maintenance of public recreational trails	January
Renovation and Construction	<a href="#">Land and Water Conservation Fund</a>	\$1,000,000	50%	Yes	Development of new outdoor recreation facilities, and renovation of existing facilities	December



# APPENDICES

- A. Addison Independent Article, 8-15-2024
- B. Full Set, Proposed Improvements Site Plans  
(submitted under separate cover)





**Addison Independent Article**  
**August 15, 2024**

**Bristol parks accessibility project progresses**

August 15, 2024  
By Marin Howell

BRISTOL — Town officials and community members in Bristol are continuing to explore options for making three of the town’s parks easier for all to access and enjoy.

The project, which took off last year, is aimed at identifying ways to make Memorial, Sycamore and Eagle parks more accessible. A steering committee made up of several community members has in recent months worked with engineering firm DuBois & King to assess existing conditions at the three parks.

The group has also begun gathering feedback from the community and plans to continue soliciting residents’ input for the project as it unfolds.

“One of the things that I think is really important in the (request for proposals) was that the town wanted to make sure the contractor was engaging with the community at every step,” said Porter Knight, a Bristol resident involved in the project. “We wanted

to make sure there was public input at every step because this is a community envisioning project.”

According to the request for proposals put out by the town, objectives of the project are to:

-- assess existing park conditions and terrain to determine feasibility for accessible recreation,

-- develop conceptual plans for each park illustrating potential recreation options and create detailed site design drawings and construction documents with construction cost estimates.

The Bristol selectboard earlier this year selected Dubois & King as the contractor to help tackle the project and agreed to allocate a portion of the town’s American Rescue Plan Act funds to support the initiative.

“It’s a fascinating project, and when we saw it coming across our desk as a request for proposals, we jumped right on it because it’s at the interface of recreation, accessibility, community vitality as well as ecology,” said Dan Mallach of DuBois & King.

Initial phases of the project have so far included examining existing conditions at each of the parks — Memorial Park is off Route 17 toward South Starksboro, Sycamore Park is off Route 116 on the New Haven

River, and Eagle Park is on Lincoln Road on the New Haven River above Bartlett Falls. DuBois & King visited each park with the steering committee this past spring. Mallach said in addition to looking at things like parking, pathways and way finder signage, the team is also trying to think more creatively and openly.

“The project is both very specific in terms of accessibility, and that is ADA accessibility potentially for wheelchair users or people using strollers or walkers or canes, but we’re also taking a broad view of accessibility in terms of the diverse ways in which people perceive and enjoy places,” Mallach explained.

He noted accessibility starts at home and that part of the team’s work includes looking at examples of other parks where information about the space and its amenities is available online.

“We’ve recognized that many families or individuals who are caregivers of folks with mobility challenges really do want to know what the parking and access experience and facilities and amenities will be like at a place before they leave home,” Mallach said.

He underscored that the project is an opportunity to more broadly consider how all visitors access and experience the three Bristol parks.

“While accessibility often is primarily discussed in terms of mobility challenges, and that is really at the foundation of the impetus for this project, the definition of accessibility is evolving to understand that people interact with the world in numerous, diverse ways,” he said. “That is built into this project; that as we support those with mobility challenges, we’re also trying to support those with other ways of interacting with the world and make them feel comfortable that if they were to visit one of these three parks, they’d have an experience that’s enjoyable in the manner that they find most useful and fun for themselves or those accompanying them.”

Mallach added that there is a “do no harm” aspect to the project in terms of the ecology of the parks, which are located along rivers and a part of river ecosystems.

**GETTING FEEDBACK**  
The team’s work so far has also included efforts to engage with the community around the project. A survey was put together and distributed earlier this year, and Mallach pointed to recent conversations with individuals at the Bristol Farmers Market about their use of the parks and amenities they’d appreciate.

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## Bristol parks accessibility project progresses

“We heard everything from ‘river water sometimes goes very quickly, and I would prefer calmer water,’ ‘I would prefer a place that’s easier to push a stroller around’ was another comment we heard from an individual who recently visited Eagle Park with his family but would like to be able to access more of that park by stroller,” Mallach said. “That’s exactly the kind of feedback and information we’d like to hear.”

The team is currently working to develop specific design concepts for the project.

“In this design concepts phase we’re thinking about circulation that is logical and legible, that promotes a sense of aesthetic appeal while also recognizing that some people with mobility challenges or various environmental sensitivities don’t like to feel isolated,” Mallach said. “Right now, we’re thinking about the nuts and bolts of routes and amenities, and at the same time, still trying to think big.”

The team is also looking to continue gathering feedback from the community. Knight said the group plans to relaunch

its survey through Front Porch Forum and posters around town. Community members can also learn more about the project and provide feedback during the Pocock Rocks Music Festival and Street Fair in Bristol on Aug. 17, where the Bristol Accessible Park Initiative will have a booth.

Mallach said that throughout the design concepts phase the team is working consider the cost of maintenance as well as installation and make sure steering committee members have an opportunity to offer feedback.

After refining and completing design concepts, DuBois & King will then transition into preparing construction documents.

“We want to make sure we get enough public feedback, we want to make sure that we do our due diligence even on the conceptual level, we want to continue to dream big and think of any possibilities at all and put them down on paper,” Mallach said.

DuBois & King hopes to present construction documents and cost estimates to the town this fall.

“Anything that is ultimately recommended through this project will be considered by the selectboard and the people of the town of Bristol when it comes to moving forward, but everything’s on the table right now, and that’s part of what’s exciting about the project.”