

Caledonia Spirits and the City of Montpelier
River Access Gin Lane
Montpelier, VT



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Project Considerations

Intended Users and Times of Use

- All Ages
- ADA - strollers, wheelchairs, walkers
- Animals - dogs
- Outdoor recreation: kayakers, canoers, swimmers, bikers
- Students (size of group?)
- Tourists

Maintenance

- Weed trimming (poison ivy control)
- Riparian care - clearing competing vegetation for the first 2 years until plants establish
- Intended planting care
- Trail maintenance
- Garbage control
- Pet clean-up
- Snow/Ice
- Mud
- Signs

Legal

- ADA trail for public access should comply with standards (parking space)
- No net increase in the “fill” within the floodway - a net decrease has community resilience & environmental benefits
- Zoning Approval
- Liability

The Greater Landscape Downstream

- Riparian Plantings Continue West
- Connection with Bike Path and Caledonia
- Connecting it to the rest of the river access points in Montpelier

Why does it matter?

Users

- Liability
- All ages - no poisonous or thorny plants along trails or seating area
- ADA - need to comply with standards
- Site has ADA capability unlike other sites
- Dogs - affect river wildlife and birds, need leash rules
- Swimmers - water testing and when is it unsafe to swim with water levels
- Bikes and other trail users - affects the rate of erosion and maintenance needs, bike rack outside of entrance needed if not allowed
- Will classes need to give warning before visiting or are regular tours expected

Times of Use

- Winter maintenance - plowing, salting
- Dust to Dawn hours - deter camping
- Mud season - prevent trail damage (mainly at river access points)
- Times of high water or flooding - who makes the decision

Why does it matter?

Maintenance

- Cost - up front and future/annual
- Responsibility - will it change
- Crew - volunteer vs. trained
- Timing - how often depends on use and natural factors such as flooding
- Regulation of rules such as garbage (Caledonia or City)

Why does it matter?

Legal

- What is allowed in the floodway from ANR and the City?
- Keeping all construction out of the Railroad Right of Way
- Discuss the herbicide spraying done by railroad - no spraying if City and Caledonia maintain

Why does it matter?

The Greater Landscape Downstream

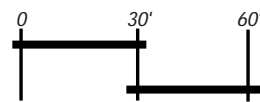
- The focus area is part of a larger parcel that has the same needs of riparian restoration
- Traffic here may come from Caledonia customers or visitors here may choose to explore what Caledonia has to offer but carrying the style through the site will create consistency in the landscape
- Visitors to this river access should be aware of other similar trails and parks (signs)
- Tool to teach about Vermont’s indigenous or invasive plants and wildlife
- Could have plantings that are edible or used in Caledonia’s products



Site Analysis Sketch

Landscape Factors Considered for Conceptual Designs:

- Steep slopes
- Flood way
- Plateau
- Riparian area needs to be .7 acres for grant
- Existing vegetation (some desirable, some invasive)
- Future design and use beyond this scope of work

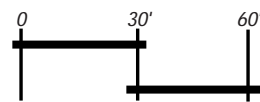


Conceptual Design 1: Minimal Construction

Design 1 offers minimal site construction with a loop path that allows visitors to view the river while surrounded by riparian plantings.

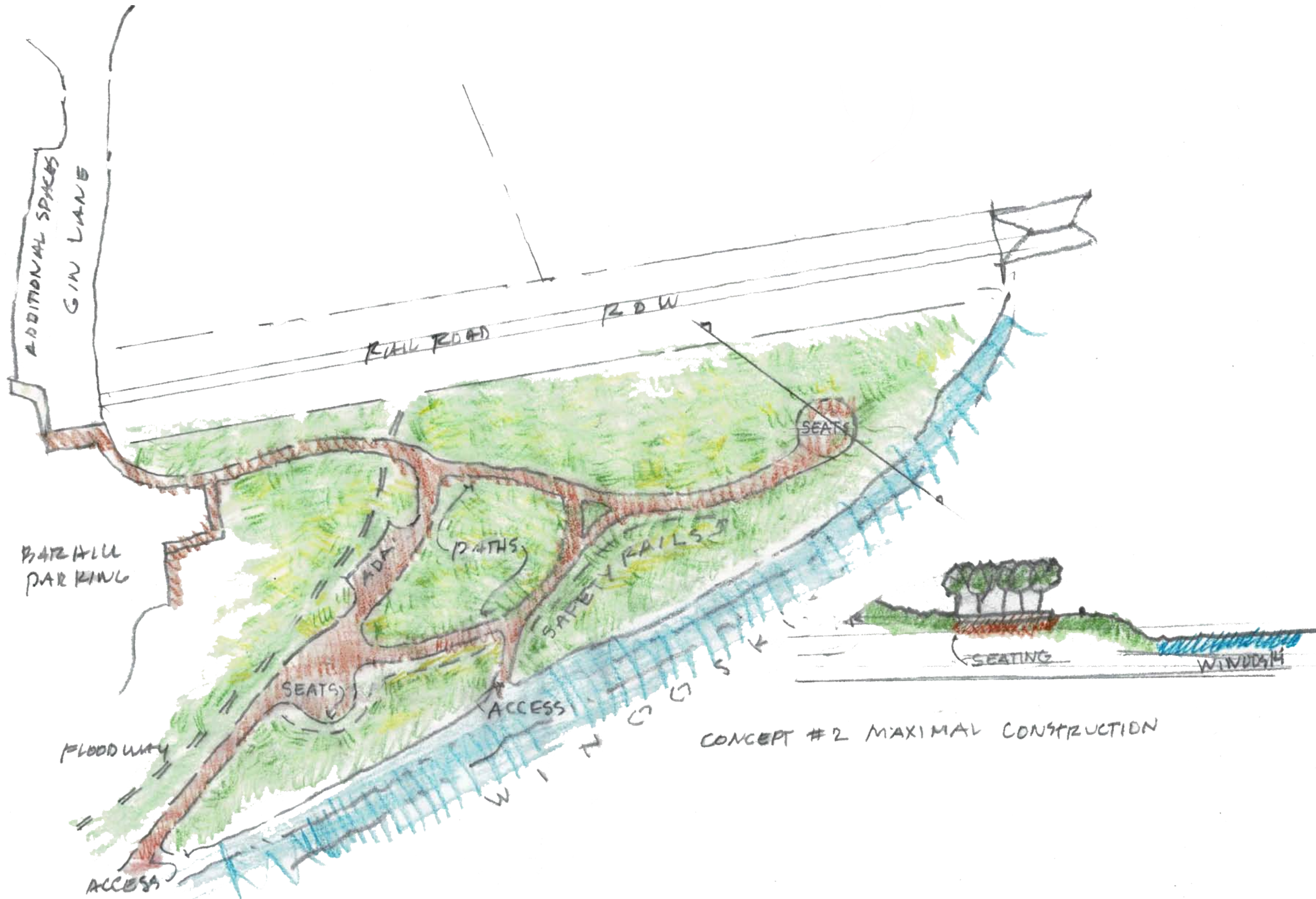


- Pros:
- Terrain allows for ADA trails to be created
 - Significant riparian planting areas create a robust buffer from erosion
 - Non-developed eastern side of site near bridge is better able to absorb flooding due to vegetation and non-use
 - Intentional plantings could be used to frame views along path
- Cons:
- Experience is not close to the river
 - The path alone would not invite visitors to stay long, but rather move through the site



Conceptual Design 2: Maximal Construction

Design 2 offers multiple options for visitors with ADA parking, two areas for seating, looped trails and river access. Riparian plantings (seen in green) provide bank stability and overall river ecosystem's health.

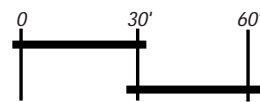


Pros:

- Vehicular access and additional parking lessens the stress on Caledonia's parking lot while encouraging visitors who need ADA accessibility
- Multiple seating areas allow for more visitors and encourage a longer experience
- One seating area is directly accessible from the path/parking while the other allows experiencing the path through plantings
- Numerous paths options allow for more visitors at one time
- Loop design gives more space and less potential for passing of visitors

Cons:

- Seating area draws visitors to the area most in need of protection and robust planting, so a barrier and railing would be necessary to prevent user paths
- Vehicular access requires more maintenance and greater up front expense to create
- Hidden parking could be unsafe or invite unwanted visitors. Installing a gate which closes at dusk may be required



Precedents

Trail Examples

Trail material commonly used to create ADA compliant trails is 3/8 minus, which has the appearance of a paved surface, but is a natural crushed gravel. While some of the precedents show trails with other materials, the natural crushed gravel is preferable in our region.



Precedents

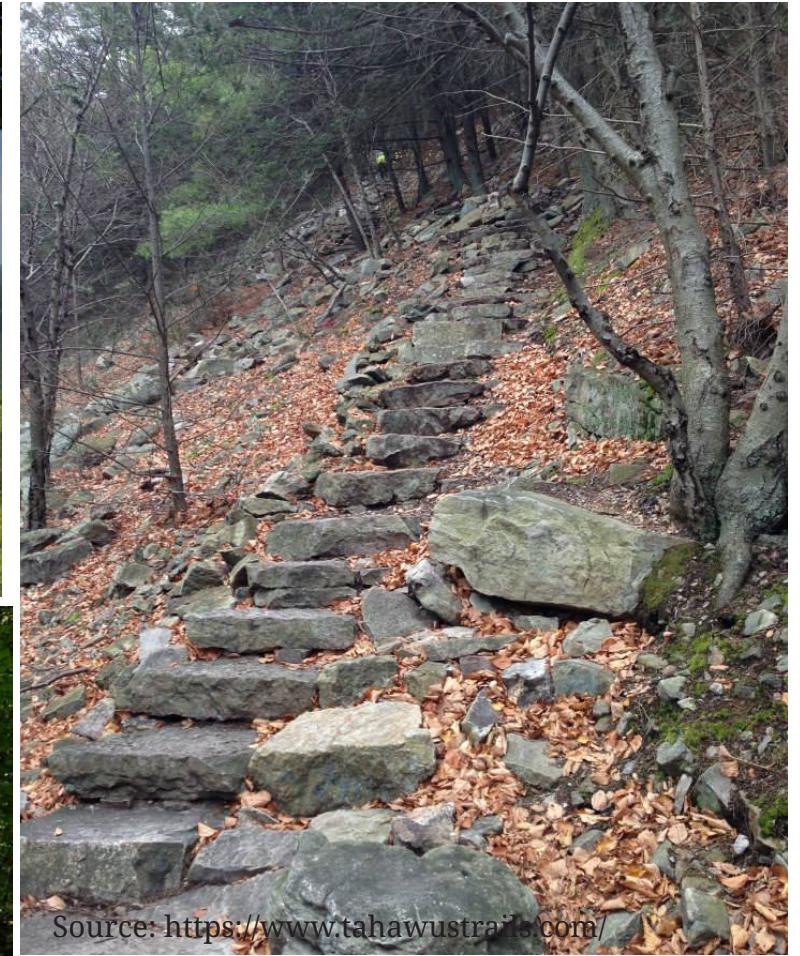
Portage, Stone Steps, Barriers (Gargoyles) and Railings Examples



Source: <https://www.tahawustrails.com/>



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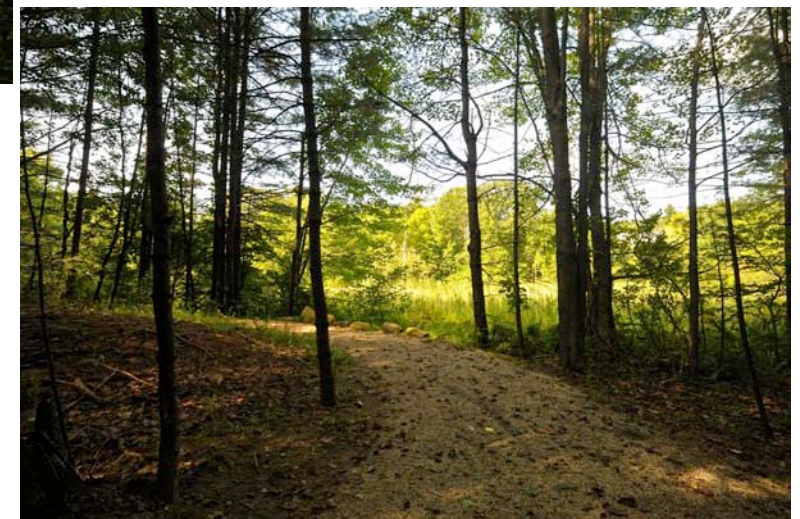
Source: <https://www.tahawustrails.com/>



Source: <https://timberandstonellc.com/portfolio/>



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Precedents

Seating Examples



The seating examples are meant to give conceptual ideas. Any seating beyond large boulders or other heavy material would need to be anchored into a buried concrete or stone layer. Sitting encourages taking in the space and river viewing at a slower pace than moving through the site.



Budget

Estimate for Design Work

Elizabeth 6-10 hours for detailed designs/illustrations

Sarah 6-10 hours for detailed designs/planting plans

Shawn

Plant Costs: *(The cost of the riparian plantings might be covered by the Friends of the Winooski River's riparian restoration grant if the project meets grant requirements)*

Estimated acreage: 0.7

Recommended planting density: 400 woody stems per acre

Total number of woody stems: 280

Average cost per 4-5' stem: \$5.35

Total cost for woody plants: \$1,500

Labor Costs

Project planning (refining planting area, developing species list, procuring plant material): \$250

Project implementation, assuming planting is done by volunteers

(FWR staff time and mileage for recruiting volunteers, delivery of plants and planting equipment, training & supervising volunteers on planting day): \$750

OR

Project implementation, assuming planting is done by a planting crew: \$2000

Total Cost of Riparian Buffer Planting

\$2500 if volunteers plant

\$3750 if Covid-19 prevents volunteers from planting and a crew needs to be hired

