



CHENANGO CANAL TOWPATH TRAIL

Hamilton, New York

FINAL REPORT

Design Connect
Cornell University



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Introduction:

Basic information of Hamilton

The village of Hamilton is located in Southern Madison County and is well known for the Colgate University. According to the US Census, the Village of Hamilton had a population of 4676 as of 2016. The village lies in the Chenango Valley and is south to the headwaters of the Chenango River. The total area of the village is 2.5 square miles with elevations ranging around 1,020 feet above sea level.^[1]

Climate and geography

In terms of the climate, snowfall is the most notable characteristic in Hamilton. According to the NYS DEC, the average annual snowfall is around 88 inches. Due to the lake-effect from Lake Ontario located north of Hamilton, intense snow storms can be quite common ranging anywhere between 2 and 5 feet per storm.^[2]

As for the surrounding geographical characteristics, the village is located within the Chenango valley which is primarily used for agricultural purposes.^[3]

The surrounding area is sparsely populated with small villages and hamlets scattered throughout the region. The closest cities and are Syracuse and Utica, 40 and 30 miles away, respectively.

Chenango Canal Trail

The Chenango Canal was built during the early 1800s and operated between the 1850s and 1950s. It was 97 miles long and acted as a major source of economic revenue and powered industrial development in the region. The canal connected the Susquehanna River to the Erie Canal and acted as an important connection between northern and southern New York State.^[4]

The towpath was originally built to accommodate the mules that pulled the boats through the canal from one end to the other. Today, that towpath continues to be used, but instead as a bike/ hiking trail. It stretches about 6 miles from Village of Hamilton in the south to the north end at Oriskany Creek. While the canal is no longer actively used as an industrial mode of transportation, many parts of the canal can still be seen along the trail. Since the abandonment of the canal in the 1900s, the area has been taken over by grass and trees and acts as a valuable natural area for wildlife.^[5]

As a result, trail users can enjoy the rich diversity of wild plants and animals (i.e bird-watching) along the trail and thus have an enhanced natural experience.

Past Projects

The restoration of the Towpath Trail was initiated by the Chenango Canal Association in 1994 and was meant to promote outdoor recreation for the local community as well as for tourists visiting the area. The five-mile Chenango Canal Project was approved and began in 2001.^[6]

In 2015, the Partnership for Community Development (PCD) in Hamilton started a recreation programme with three purposes: physical improvements to the Chenango Canal Towpath Trail, a comprehensive signage system, and a website for all area recreational amenities in the local area. In 2016, Cornell University's Professor of City Planning George Frantz conducted a workshop with students which served the purpose of creating a concept plan for the Towpath Trails' physical improvements. While signage was an aspect considered during this workshop, there was no detailed analysis and design recommendations. Thus, the purpose of this semester's efforts was to focus just on signage design and provide PCD a proposal that would supplement the conceptual physical improvements plan^[7]

Reasons for Hiring Design Connect

As already mentioned above, PCD's primary objective and goal for this project was to have Design Connect create an attractive and consistent signage system which would improve the user's experience by providing adequate and clear directional instructions and information. In addition to clear directional information, PCD also requested to design the signage in a way that would promote the GoSoMad brand which was originally created to promote outdoor recreation in Southern Madison County. Finally, the client also requested Design Connect to provide cost estimates for the project which could then be used to better determine the feasibility of the trail development project as a whole.^[8]

Methodology

In order to better understand the project and the community as a whole, the Design Connect team conducted the following exercises:

- 1) Organized site visits to research conditions of the trail and possible locations of the signs. The first one was in mid-February.
- 2) Conducted several conference calls in which the team was able to update the progress of the project to the client. In addition, during these meetings, any questions or concerns by either party were addressed.
- 3) Multiple community outreach sessions were conducted during different parts of the semester. In March, students visited businesses within the village and interacted with local business owners to better understand and figure out how to effectively promote the trail. Then in April, a group of students formally presented the work that the team had done so far. The feedback gathered from the community members was then used to modify and refine the existing designs. A final community presentation was conducted in mid-May.

^[1]"Hamilton (village), New York." Wikipedia. May 16, 2018. Accessed May 19, 2018. [https://en.wikipedia.org/wiki/Hamilton_\(village\),_New_York](https://en.wikipedia.org/wiki/Hamilton_(village),_New_York).

^[2]"Hamilton (village), New York." Wikipedia. May 16, 2018. Accessed May 19, 2018. [https://en.wikipedia.org/wiki/Hamilton_\(village\),_New_York](https://en.wikipedia.org/wiki/Hamilton_(village),_New_York).

^[3]Comprehensive Plan Committee. *Town of Hamilton, Comprehensive Plan Appendix*. 2015.

<http://www.townofhamiltonny.org/wp-content/uploads/2013/08/Draft-Plan-Appendix-August-2015.pdf>

^[4]"Chenango Canal." Wikipedia. May 10, 2018. Accessed May 19, 2018. https://en.wikipedia.org/wiki/Chenango_Canal.

^[5]Diane Van Slyke. *Chenango Canal Review*. 2016.

http://www.chenangocanal.org/History/Chenango_Canal_Review_by_Diane_Van_Slyke.pdf

^[6]Chenangocanal.org. (2018). History. [online] Available at:

<http://www.chenangocanal.org/History/history.html> [Accessed 19 May 2018].

^[7]Partnership for Community Development. *Chenango Canal Towpath Trail Signage System Scope of Work*. 2018,

^[8]Partnership for Community Development. *Chenango Canal Towpath Trail Signage System Scope of Work*. 2018,

Project Overview:

Existing conditions

The team's initial site visit in February allowed students to examine the existing conditions of the Chenango Canal Towpath Trail in the Hamilton area. Prior to visiting the site, students were debriefed on elements of the trail that needed particular attention. Starting the site visit at the Montgomery Street Trailhead, next to the Sunoco Gas Station, the team first noticed that the primary signage for the trailhead, as pictured below, was lacking vibrancy. Because the sign, shaped to resemble a shoe print, was designed in brown tones with black text, the trees and foliage in the background caused the sign to blend in with its environment. Additionally, the primary signage was situated under the overhanging of a tree, causing the sign to be obstructed from various angles.



Another aspect the team noticed was a shortage of wayfinding elements on the trail, this includes maps on primary signage and signage along the trail for orientation. On primary signage, located at trailheads, there were no maps displaying the length and orientation of the trail as a whole. On the trail path, there was a shortage of wayfinding signs that could facilitate navigation. Moreover, the trail did not offer information that promoted the area's beautiful wildlife and rich local history of the trail and town.

Lastly, as an amenity that is used for a wide variety of activities throughout the seasons, the trail was lacking a series of easily identifiable trail-use symbol signs, one's that designated various stretches of the trail to sets of appropriate activities. This would include bicycle, snowmobile or walking/running signs that could indicate areas where specific activities could take place within safe parameters.

Site Analysis

Based on the existing conditions of the sight, we concluded that the improvement of signage throughout the course of the trail was the key to promoting the use of the Chenango Canal Towpath Trail as a recreational amenity. To do so, one main objective was to provide directional signage to guide people in the center of Hamilton to the two trailheads in the Village. And vice versa; there would be signage that directs people already interested in the Towpath Trail to other recreational amenities in the Hamilton area. Another facet to relaying more facts about the trail itself could be achieved by the incorporation of information on local history and wildlife to add another dimension of interest to the trail.

Another main objective was to use signage to make the trail itself easy to navigate. One thing that could be done to make the trail more attractive for people of all ability levels is to ensure that distances and landmarks are laid out along the trail with maps for orientation. This includes the addition of more

wayfinding signs on the trails, such as mile-markers and mid-trail checkpoint maps would better facilitate the navigation of trail visitors and primary signage at trailheads should be vibrantly redesigned to capture the public's attention.

SIGNAGE DESIGNS:

* Primary Signage *

Colors:

For this project, PCD specifically asked Design Connect to use three color hex codes to work with:

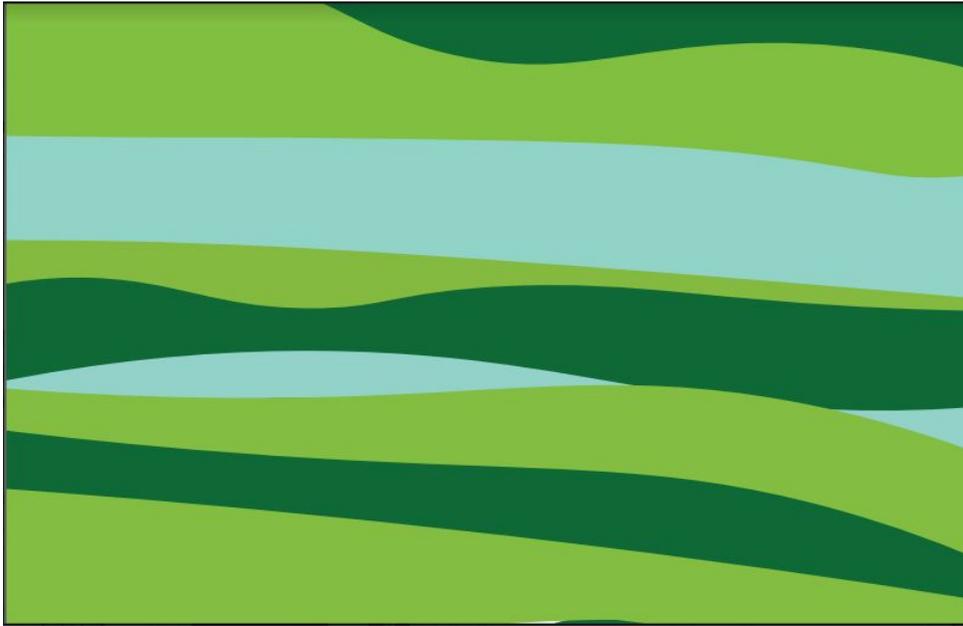
126B37, 8AC4E, 92DC9

These colors are from GoSoMad's brand new logo.



BACKGROUND DESIGN:

The designers used the assigned hex color codes to create various samples for the background of the primary signages. The concept of the designs was to make the sense of nature relevant to the water flow of canal. As the historical and bird information, images, and maps were to be placed on the signage, the visibility of the texts and images was the main goal when the design sub-team was designing the background.

DESIGN 1

- Mid Visibility
- Colorful

DESIGN 2

- High visibility
- Colorful
- Partially white makes the signage highly visible considering that the timeline being placed on the bottom

DESIGN 3

- darker than other designs
- Low visibility
- Unable to see the images and texts
- Too complicated; distracts the viewer's attention to other information

TEXT:**MAIN FONT: STIX-GENERAL**

As requested by the client to have historical information on the signages considering the Chenango Canal's deep history back to the 19th century, the designers wanted to incorporate some elements of traditional design as well as modern design elements. So, the main focus was to come up with a font that could incorporate both styles: Times New Roman, old fashioned but also modern and simplistic font.

Also, to add more sense of modernity in signage, the design team chose white for the color of the font. As eyes tend to perceive white as the color that

ABCDEFGHIJKLM

NOPQRSTUVWXYZ

abcdefghijklm

nopqrstuvwxyz

1234567890

promotes cleanliness and simplicity.

While all other texts are white, we aim to accentuate the title from the rest of the sign by using yellow outline for the font.

For all the information placed on the primary signages, the green boxes with yellow outline makes the texts visible and easily readable by making high contrast from the background.

Layout:

The layout of the design was composed with logical reasonings. The team tempted to apply the strong and clear composition that could attract attention, clarify understanding, and engage the viewer. Major contents in this layout are:

- **Introduction:**

Considering that people's eyes tend to have visual scanning from left to right, introduction was placed on the far left upper corner to guide the viewers to read the introduction first when they see the sign.

- **History:**

Historical information of the trail was placed next to the introduction(right), historical information is on the upper middle part. This was meant to guide readers to read the historical info after reading the introduction.

- **Trail Regulation:**

Trail regulation part was a specific request from PCD to indicate the etiquette of the towpath.

- **Historical Timeline:**

One of the objectives of the design team is to effectively attract new trail users. A visual timeline with several historical images entertain and inform the users with useful knowledge. The friendly graphic image of the narrowboat and canal on the timeline effectively depicts the

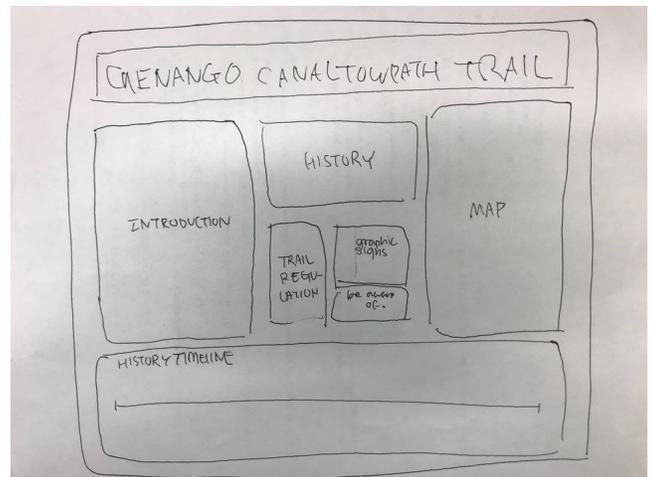
resemblance of the history of the towpath trail.

- **Graphic Signs + “Please Be Aware of”:**

Just a friendly but important reminder of what to do and what to be careful of. Unlike other boxes, these boxes are yellow to stand out regardless of the logical order because they are important announcement to warn the audience while using the trail. This visual emphasis using different colors help readers to quickly identify “be aware” signs from other contents.

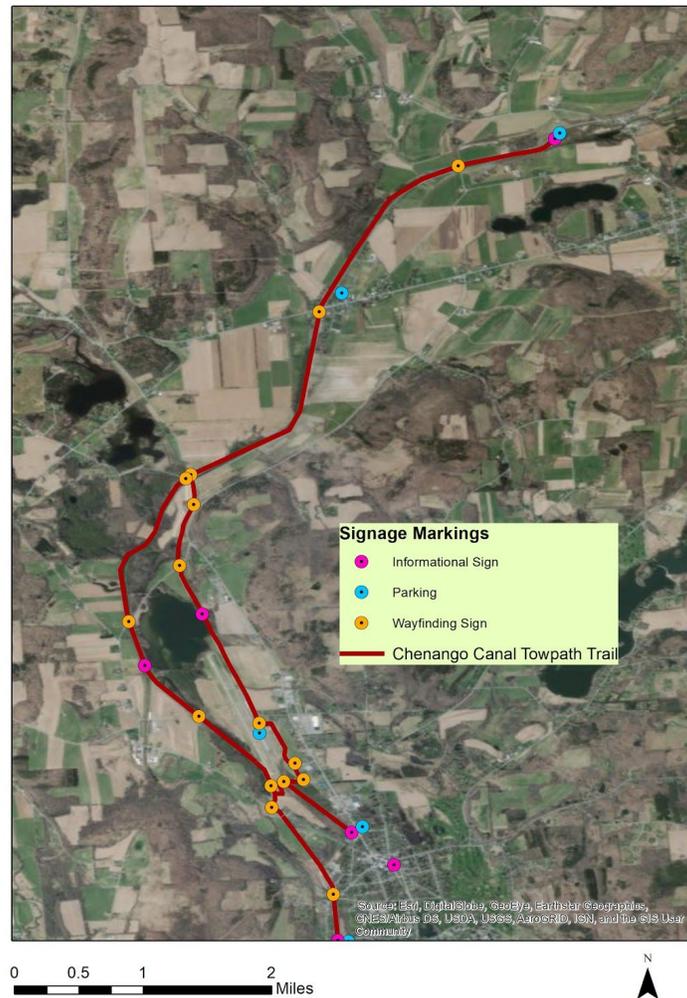
- **Map:**

The map contains the graphic illustration of the towpath itself to indicate the entrances. The illustration has a table of legend. The designers made the map as simple as possible to make it easily approachable to the potential users. Moreover, the Gosomad logo is placed on the map to confirm the brand identity.



LOCATIONS OF THE SIGNS:

Informational/ Wayfinding Signage Location



Four types of signs were created: Primary/Informational signs, wayfinding signs, mile markers, and a Woodman Pond bird-watching information sign. The primary signs would be placed at the termini of the trail to announce its presence and give detailed information about the trail to its users. The wayfinding signs shall be placed at all other intersections to provide directional information. The Woodman Pond sign shall be placed on either side of Woodman Pond. The mile marker signs shall be placed at even intervals to assure the trail's users of their location and distance from major points of interest. The way the trail splits into

two branches at the airport and Woodman Pond presented a challenge: how should the branches be labeled and mile-marked? We decided to designate the west branch as the main trail, and the east branch would be a secondary trail with its own mile count.

Designing Process:

Primary Sign

1)

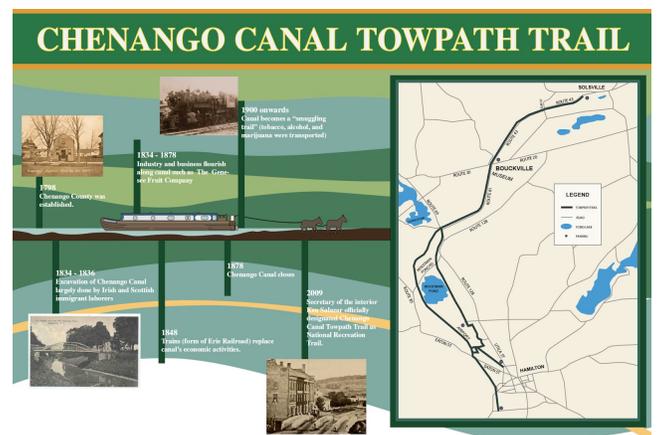
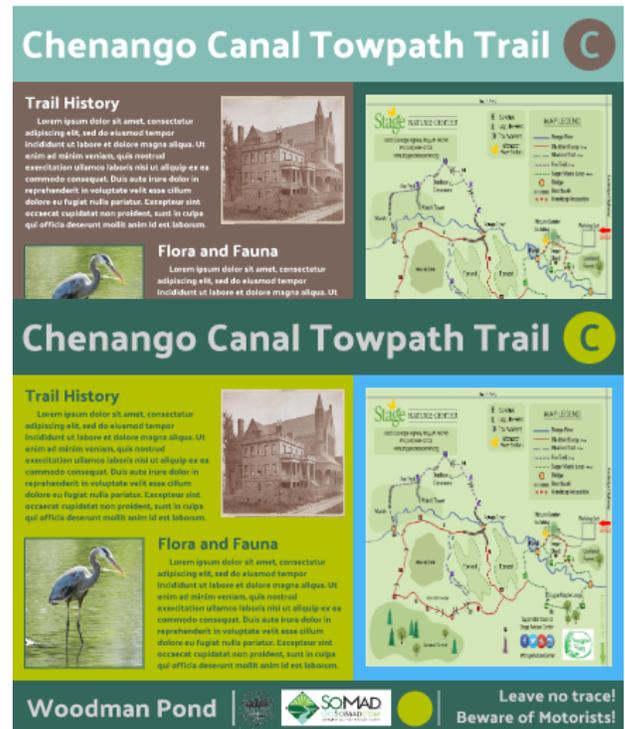
Initial design layouts for primary signages

The designers produced these two primary signages composition using our initial color schemes. However, the composition was somewhat simple and the audience had hard time identifying the trail and the sign even though the sign contains full of relevant context. The images and texts were present to inform the audience, but the sign was lacking visual aspects that could attract and entertain the viewers.

2)

Adjustments to the primary signage:

After receiving the feedbacks from the team members and the professors about lack of visuals, the designers applied more design elements to the sign to amplify the visuality and simplicity of information. The historical timeline was one of the ideas to cover the lack of visuals from the previous designs. However, it was rather disappointing because the new designs lacked solid and informative texts. Moreover, the white text was not visible at all on the background. In order to



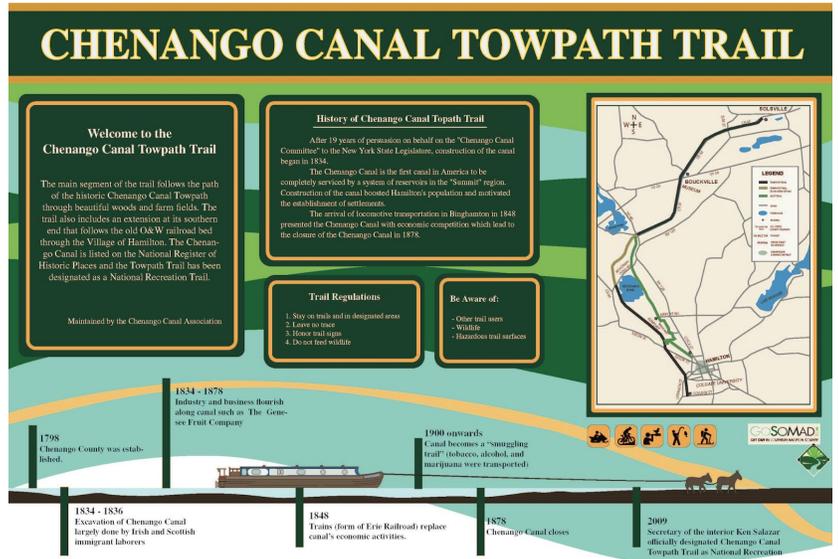
make it visible, the designers lowered the opacity of the background, reluctantly lowering the color definition. Additionally, the colors looked darker and gloomy.

3)

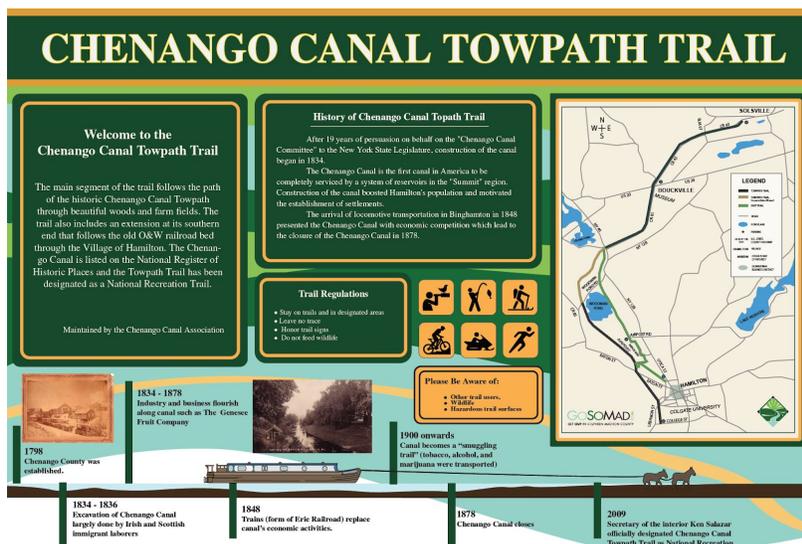
Third adjustments:

Maintaining the historical timeline as the visual attraction, the designers found a way to create a well-balanced design consists of the information text and visual elements. The green boxes helped the white text to be easily readable and

approachable and distinguished various sub-topics of the information. As the client requested, the designers also placed the warning signs and trail regulations as well. By placing the historical timeline underneath the texts, the timeline became visible by the contrasting with the bright colors.



4) Final Design



Bird watching signage



Woodman Pond along the trail is notable for birdwatching. In order to make the trail user experience more enjoyable, the team has added a birdwatching signage (above) that would include the 14 most seen birds near the pond. The signage is the exact same format as the above informational signage, but instead would be placed on either side of the pond (refer to signage location map on pg. 12). The source of this information is Cornell University's Lab of Ornithology eBird database and can be found at <https://ebird.org/places>. While the top 14 most seen birds has been chosen as the default list of birds, the client is more than welcome to modify the list.

Similar to the informational signage, the birdwatching signage lists the trail's usage as well as a larger map of the trail.

“You are Here” Marker



While locational markers can be placed on a map after they are printed and manufactured, the design team highly recommends adding this marking beforehand. This marker can be placed on all the maps and is available as an Adobe Illustrator file.

Mile Markers

The second signage system that would be used on the trail are mile markers. As the goal of this project is to create a helpful and informal signage system, mile markers are a key to informing the user the distance and direction traveled. Today, many newer trails have mile markers that depict the distance traveled from the beginning of the trail. In this specific project, the client specifically wanted a signage system that was integrated, consistent, and branded the trail with the GoSoMad logo.

The original designs created at the beginning of the semester were numbered markers. In other words, a marker would be placed at every mile, starting at mile 0, or the beginning of the trail. While this sign's role is to specifically depict the number, it also includes the logo of GoSoMad, Chenango Canal Association, and an optional 3rd logo that could be specifically dedicated to the Towpath Trail. The middle of the sign would depict the direction and distance to specific destinations along the trail. As for color scheme, the team decided to create many different options that could be chosen by the client. It is important to note that these color schemes are not all the same as the GoSoMad logo, which was then later requested to be changed by the client after completing the designs of these signs. Additionally, more natural looking colors were chosen to integrate the signage into the natural scenery.



After meeting with faculty members and consulting with the client, the team later on came to realize that these mile markers would have to be more helpful to the user. In other words, rather than marking each mile, it would be more helpful to have the distance directly written on the sign. While many trails use numbers rather than the actual distance to simplify the markings, the team came to realize that this methodology would not be the best choice for this circumstance. The primary reason for this was that this trail had multiple routes rather than a single one which made this system more complex. This will be discussed in further detail below. Additionally, the mile marking was changed to depicting the actual distance to increase the number and thus the frequency of the markings from one every mile to one every quarter mile, or four per mile.

As another goal of this signage project was to make the trail more interactive with its users, the design team also decided to include a QR code on designated mile markers which would connect the trail user to an audio guide of the trail. This audio guide was originally developed by the Chenango Canal Association and has been used on the trail. Unfortunately however, due to the lack of consistent signage, the audio guide signage has over the course of time been lost in amongst the trees and brush. The new mile markers would not only make the audio guide more readily accessible to the trail's users, but would integrate the guide in a more consistent manner.

Lastly but not least, the signage color was replaced with the color hex codes of the GoSoMad logo. As already mentioned above, this signage system is aiming for consistency in between signs. The consistent use of the logo colors would make it easier for the trail users to better identify the trail signages and decipher them from other signage systems. In other words, the colors themselves would act as a method for branding the trail.

Mile Marker System

In order to successfully integrate the mile markers into the trail system, the team had to come up with a system that allowed for multiple routes. In other words,

while the trail starts with one route on the northern end, the trail splits at approximately the halfway point. This complicates the mile marker system, as they are usually made for a single route, rather than multiple route systems. In order to solve this problem, the team came up with a system in which the main route (marked in bold red below) starts at the northern terminus and goes southwest and then comes back southeast towards the end. The mile markers would show the distance to both the northern and southern terminus from both the red and green trail (side trail-next map- pg 21) in the northern end of the trail (before the division) and then divide and only show the distance to the northern and southern terminus on either the main (red) or side (green) trail.

For example; walking down from the northern terminus, one will see mile markers that will show the distances to both the northern and southern terminus. Once the path splits, the markers will only show the distances to the northern and southern terminus of the designated path (main or side), and will continue to the end.

In terms of the QR codes, those would be located along 17 different locations along the path, 16 of which will be placed directly on the mile markers, and one which will be placed within Bouckville. The final locations of these QR codes shall be determined by the client.

mile **0.25**

◀ Northern Terminus 0.25 mi
Village of Hamilton 7.0 mi ▶
Southern Terminus 7.5 mi ▶



SO.MAD.
GO.SOMAD.COM
GET **OUT** IN SOUTHERN MADISON COUNTY



Mile Marker before and after split

mile **7.5**

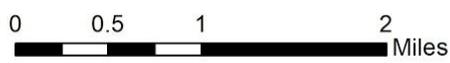
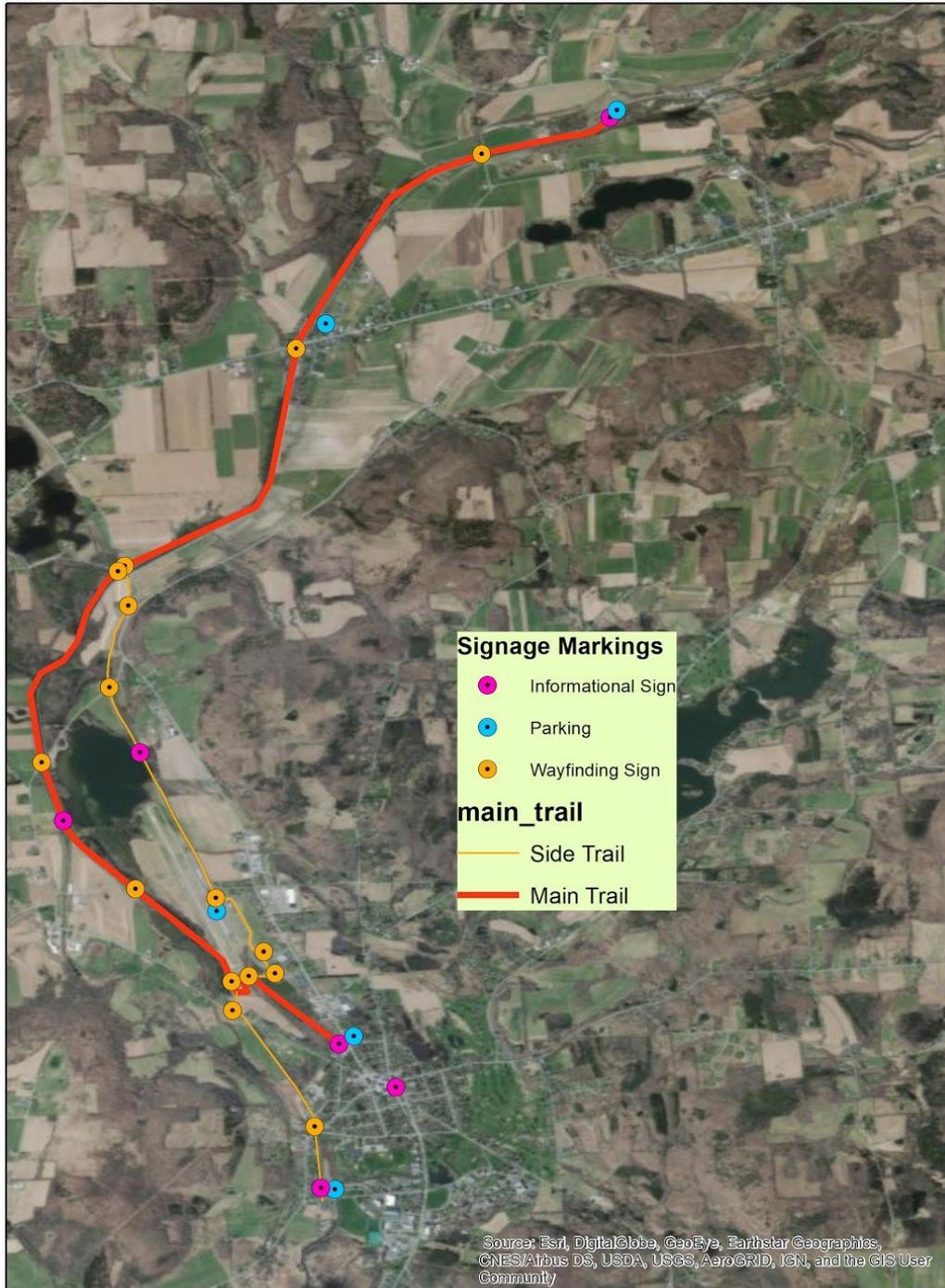
◀ Northern Terminus 7.5 mi
Southern Terminus 0.25 mi ▶



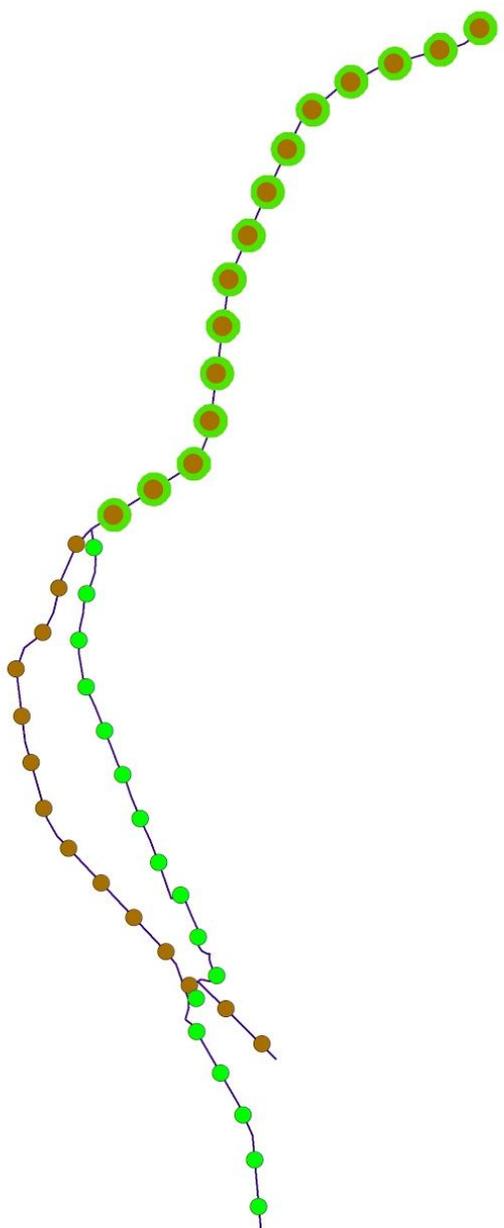
SO.MAD.
GO.SOMAD.COM
GET **OUT** IN SOUTHERN MADISON COUNTY



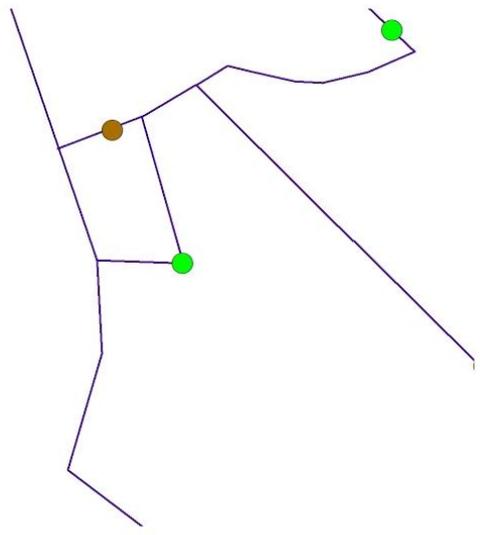
Main/Side Trail



Towpath Trail Mile Marker Map



Created By : Cornell Design Connect
Date Creaed: 5/27/18
Credits: Village of Hamilton, CUGIR
Projection: State Plane Central



Wayfinding Signage

The wayfinding signage (as listed on the map on pg. 21) is simply meant to guide trail users at all road and trail intersections. While most trails are marked with mile markers and will be quite obvious and visible, it can be dangerous to assume that all trail users will see these connections. Additionally, the signage assists those who wish to locate themselves, enter, and exit at any midpoint of the route. In order to make the signage more easy to identify, this wayfinding signage is marked with the GoSoMad logo.

At the beginning of the semester when the Design Connect team went on its first sit visit, many team members identified the lack of directional signage during any junction of a trail and road or trail and trail.



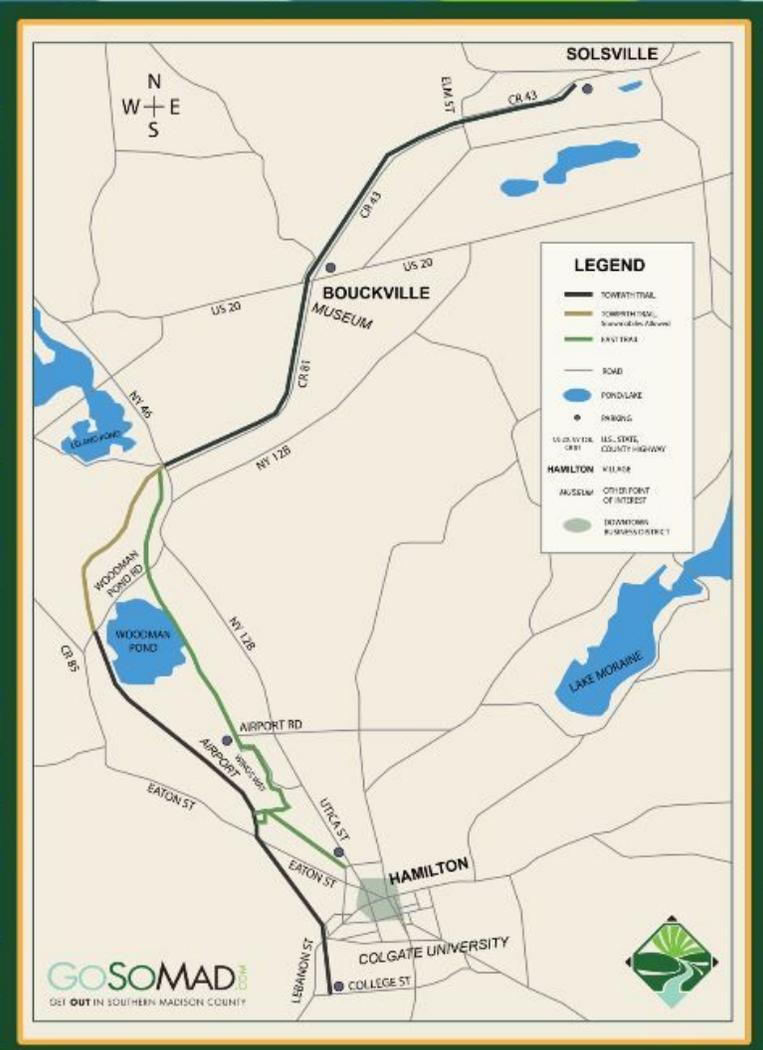
While the trail itself is luckily not so overly complex, there are times at which it can be unclear to new users where they are located, or which direction they have to go to stay on the trail. The airport parking lot is one example where the trail can get particularly confusing, as there is no actual trail nor is there any

trailhead visible within the vicinity. In this case, adding a wayfinding sign will not only reinforce the sense of direction to new users, but will also give them a better idea of how much further they might have to walk to get to their final destination.

The pictures below are the original designs/ color schemes that the design team made. However for consistency, the team decided to use the same colors as the GoSoMad logo. Additionally, the trail usage signage at the bottom was the same as other state park usage signs, but was changed to the GoSoMad usage markings to assimilate the new signage system with the website. Finally, the distance markings at the bottom of the sign depict the distance to different major destinations along the trail; primarily Bouckville, the northern end, and the southern end of the trail. Please note that the designs shown below contain a placement map and does not depict the Towpath itself. The final design can be seen on the next page.

Final Wayfinding Signage Design (shown on next page)

Chenango Canal Towpath Trail



Village of Hamilton 0.1mile ▲

Eaton St.



Possible Stand Materials :

Possible materials for these signages are steel, aluminum, and wood.

[Steel]

U-channel durable dry coat steel sign posts keep signs standing straight and last a lifetime. Strong steel U-Channel sign posts are available in a variety of lengths and gauges for professional, long-lasting sign installations. U-channel posts, the most commonly used, are both economical and functional for bi-directional signage. Square and round galvanized posts provide more strength and installation versatility.

[Aluminum]

Aluminum is available in a wide variety of colors and sizes. Most colored aluminum sheets are color on one side, white on the reverse side. Aluminum is a fantastic outdoor material. It will not rust – which is the nature of aluminum. It will hold up as long as, if not longer than, any other sign material. The only downside of aluminum is its flexibility.

[Wood]

The main advantage of wood is that it doesn't flex and therefore, is very sturdy in a post-&-panel application. The main disadvantage is that, being a wood product, it will soak in water over the years and begin to warp. Despite of limitation that wood carries as a materials for the signage post, community members of Hamilton and the majority of trail users prefer to have natural

materials for these signage post. Thus, any of the above options are possible, the team as a whole recommends wood as the main material for the sign stand material.



Post Installation

In order to successfully install the signage, it is necessary to correctly install the sign post (legs). Below** is a chart for the ground depth necessary to solidify the signage stability.

| Description | # of recommended feet to be buried |
|---|------------------------------------|
| Wood Posts, Southern Yellow Pine | |
| 4" x 4", direct burial | 2 |
| 4" x 4" with two 1" holes, in 24" diameter, 30" deep concrete foundation | 2 |
| 4" x 6" with two 1.5" holes, direct burial | 2 |
| 4" x 6" in 18" diameter, 30" deep concrete foundation | 1 |
| 4" x 6" with two 1.5" holes, in 24" diameter, 30" deep concrete foundation | 2 |
| 6" x 6" with two 2" holes, in 24" diameter, 30" deep concrete foundation | 1 |
| 6" x 8" with two 3" holes, in 24" diameter, 30" deep concrete foundation | 1 |
| U-Channel, 80 ksi Steel (Marion Steel) | |
| 3-ppf and less, direct burial | 2 |
| 3-ppf and less with 6" splice and two grade 9 bolts and spacers on 4" centers | 3 |
| 4-ppf and less with 6" splice and two grade 9 bolts and spacers on 4" centers | 2 |
| Steel Square Tube, 33 ksi (Unistrut Corp.) | |
| 1.75" square in a 2" square 12-gauge (Ga.) anchor | 3 |
| 2.0" square and smaller, 12-gauge post in the next larger size anchor | 2 |
| 2.5" square and smaller, 10-gauge post in the next larger size anchor | 1 |
| 2.5" square and smaller, 10-gauge post with triangular slip base | 3 |
| Steel Square Tube, A570, 12 or 14 gauge (Allied Tube) | |
| 2" square and smaller 14 gauge in a 12-gauge anchor | 2 |
| 2.25" square 14-gauge post in a 12-gauge anchor | 1 |

**Source for all of the above information: *Sign Posts and Supports* by Arthur Breneman
 More information can be found at: <http://ctre.iastate.edu/pubs/itcd/signposts.pdf>

Based on the above information, the following is recommended:

| Material Description: | Measurements |
|---------------------------------------|--|
| 4"x4" wood burial (6 ft above ground) | Between 3-4 feet underground (2-3 feet with concrete foundation) |
| U Channel (6 ft above ground) | Approximately 4 feet underground |
| Steel Tube (6 ft above ground) | Approximately 4 feet underground |
| Steel Square Tube (6 ft above ground) | Approximately 4 feet underground |

The following source can be used for further information on installation:
<http://ctre.iastate.edu/pubs/itcd/signposts.pdf>

Manufacturing and Costs:

The following sign manufacturing companies were contacted and considered for making the various wayfinding and informational signs for the project:

| Company Name | Types of signs manufactured |
|----------------------------------|---|
| FASTSIGNS | Many different types of freestanding signs which look suitable for the outdoors and parks. |
| Rapp Signs Inc | They do like signs you would see along a highway (illuminated, huge, on walls etc.). Not correct |
| Kassis Superior Signs Inc | Website is down, unable to contact |
| Allied Sign Co | They do post and panel signs |
| Signarama Absolute Sign & Awning | They do post and panel signs, not very sophisticated |
| Bob's Signs | They do banners and signs that are not fixed |
| Signs Of Paradise | Not freestanding |
| Absolute Sign & Awning | Not freestanding |
| Valley Signs | Vehicle signs/stickers |
| Prolifiq Sign Studio | Not freestanding |
| Cayuga Signs Inc | Not freestanding |

The most promising of them was FASTSIGNS. This is because while other companies were capable of printing the signs needed, they did not have the types of frames and hardware that was necessary for the project at hand. For example, many sign companies were able to make simple post and panel signs. However, these signs were often very flimsy and intended for short-term use for

special events. Other companies would often only make signs for mounting onto walls for branding purposes.

FASTSIGNS is not only able to print the signs, but also work with another company to produce the types of durable, outdoors, user-friendly and suitably dimensioned signs. With a catalogue with over 70 pages of options¹, the Design Connect team was able to work backwards and change the dimensions of the designs accordingly. The approximate quantities stated below were given to the FASTSIGNS for a rough estimate :

| Type of sign | Dimensions | Quantity |
|------------------------------------|------------|----------|
| Milemarker | 5"x4" | 30 |
| Wayfinding | 20"x30" | 7 |
| Primary Signage | 36"x24" | 2 |
| Woodman Pond Informational Signage | 36"x24" | 1 |

From the community meetings, Design Connect realized that the community wanted Milemarker and Wayfinding signs mounted on posts sourced from local lumber and so FASTSIGNS would only have to get these printed. However, for the four 24"x36" signs, the team looked at two mounting options as a group:

¹<http://nebula.wsimg.com/b9e61afc631726add8fca2c1cc1579c0?AccessKeyId=98CD9C8BFD79373B294D&disposition=0&alloworigin=1>

Option 1: "Interpretive Displays" on page 12 of the catalog



Option 2: design on page 57



The main difference between the two is that the first is tilted while the other is not. This means that Option 1 is easier to read but can be subject to harsh sunlight and quicker fading, as well as snow piling up during the winter while Option 2 may be harder to read but not react as much to the environment. That being said, Option 2 may have to be raised higher above ground in order to be raised to a legible level and so could obstruct the views such as at Woodman Pond.

| Type of sign | Dimensions | Quantity | Unit Cost | Total |
|------------------------------------|------------|----------|-----------|----------|
| Milemarker | 5"x4" | 30 | \$2.29 | \$68.72 |
| Wayfinding | 20"x30" | 7 | \$74.79 | \$523.53 |
| Primary Signage | 36"x24" | 2 | \$112.26 | \$224.52 |
| Woodman Pond Informational Signage | 36"x24" | 1 | \$112.26 | \$112.26 |

The above costs are all calculated assuming the material is printed and laminated 3mm DiBond material.

As for Option 1 and Option 2 for the actual framing of the printed signs, the costs are as follows:

| Option | Unit Price | Total for 3 |
|-----------------------------------|------------|-------------|
| Option 1: "Interpretive Displays" | \$923.08 | \$2769.24 |
| Option 2: RF23-43 | \$576.92 | \$1730.76 |

The printing as well as the frames would cost \$5429.02, with an additional \$100 for shipping and \$442.32 for taxes, for a complete total of \$5971.34

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