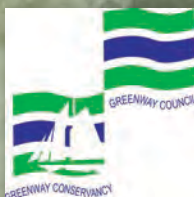
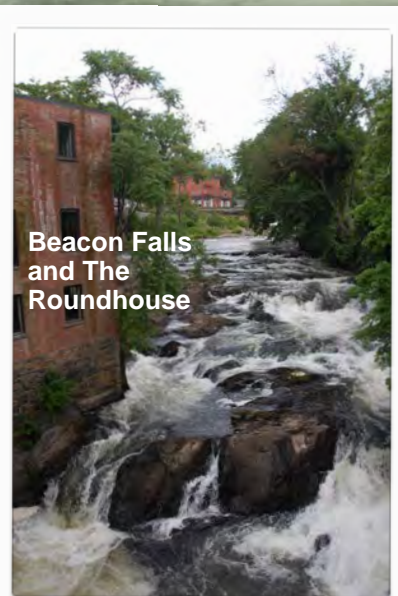
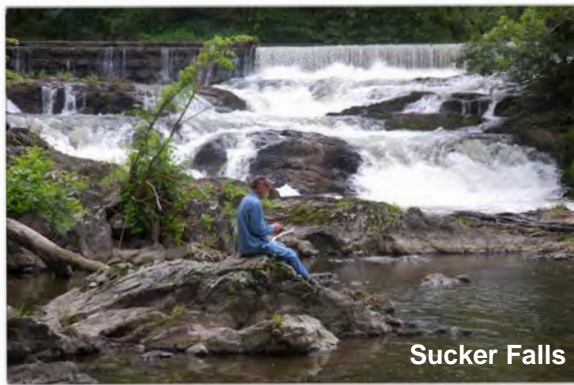
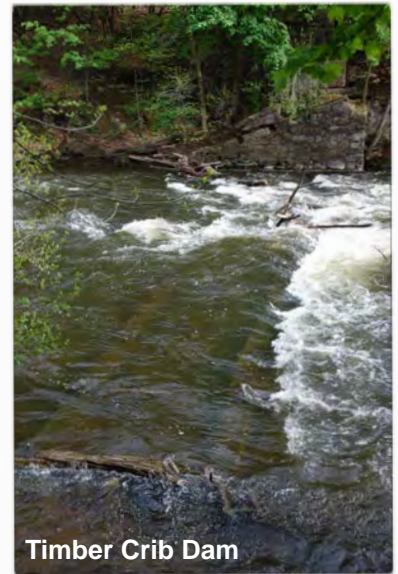


Fishkill Creek Greenway & Heritage Trail Master Plan



This master plan document was funded in part by the Hudson River Valley Greenway

June 2013



Fishkill Creek Greenway & Heritage Trail Master Plan



Adopted by the City of Beacon City Council on June 17, 2013.

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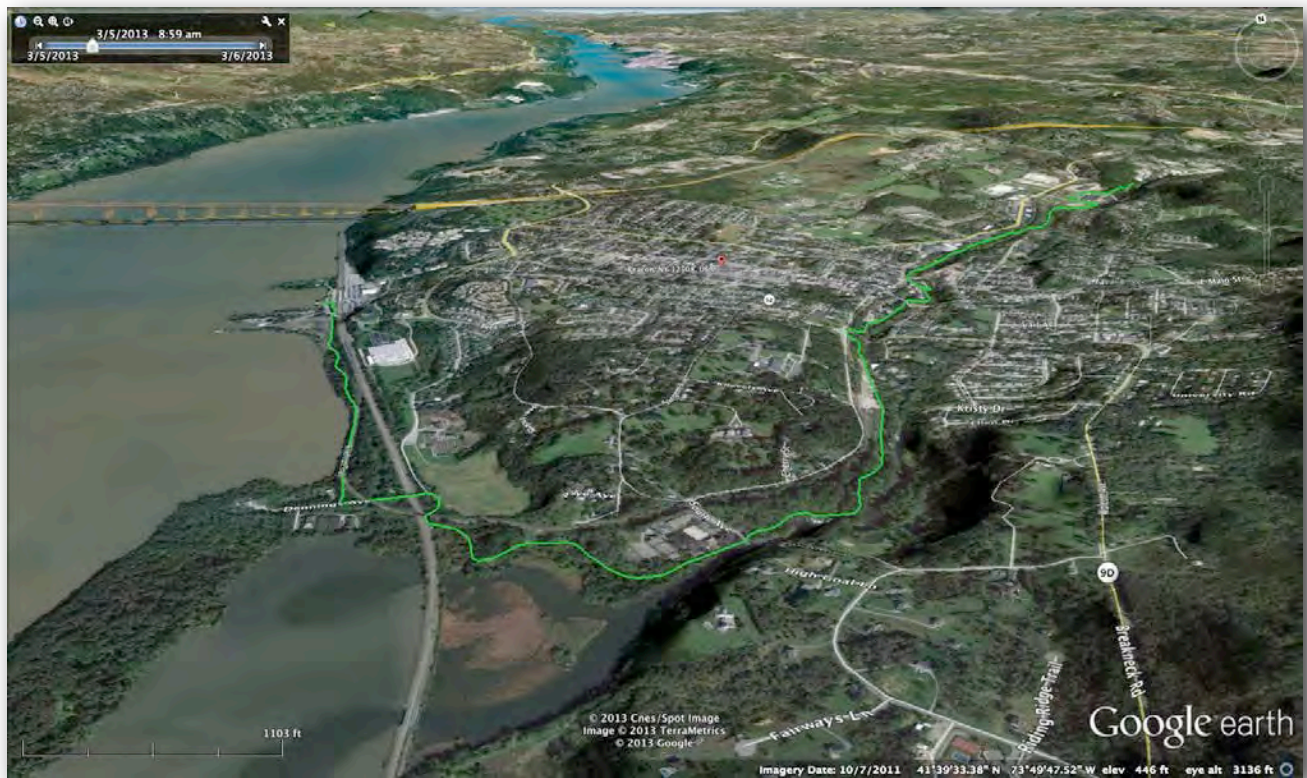
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Proposed Fishkill Creek Greenway & Heritage Trail

EXECUTIVE SUMMARY

The Fishkill Creek Greenway & Heritage Trail (FCGHT) will be a continuous trail connecting the Beacon Metro-North train station to the town of Fishkill through the city of Beacon, reconnecting citizens with the entire length of the Fishkill Creek. The FCGHT is envisioned as a vital arterial connection within Beacon, much the same way as the creek itself has always been a vital part of the city. An essential trail project goal is to shift perception of the city's relationship to the creek from an exploitative one that served industry to a contemporary one that respects the sensitivity of the natural environment and encourages positive interaction with Beacon residents.



Regional Map

The Fishkill Creek Greenway & Heritage Trail will:

- *Be continuous, uniform and fluid along its entire length*
- *Connect the existing regional Hudson River Valley Greenway and other trail networks to the scenic, historic, and recreational areas within Beacon*
- *Be located on or over the bank of Fishkill Creek, yet above the high-water mark*
- *Have appropriate width, construction and elements that clearly demarcates the trail as a unique path and place*
- *Strive for universal accessibility to all segments with the understanding that not all sections will be appropriate for all uses and that physical constraints at select locations may prevent complete continuity for some user groups*
- *Exhibit continuity of design along its entire length and throughout all included amenities such as structures, benches, lighting and signage*
- *Incorporate architectural elements that enhance the trail and complement the built landscape of Beacon*

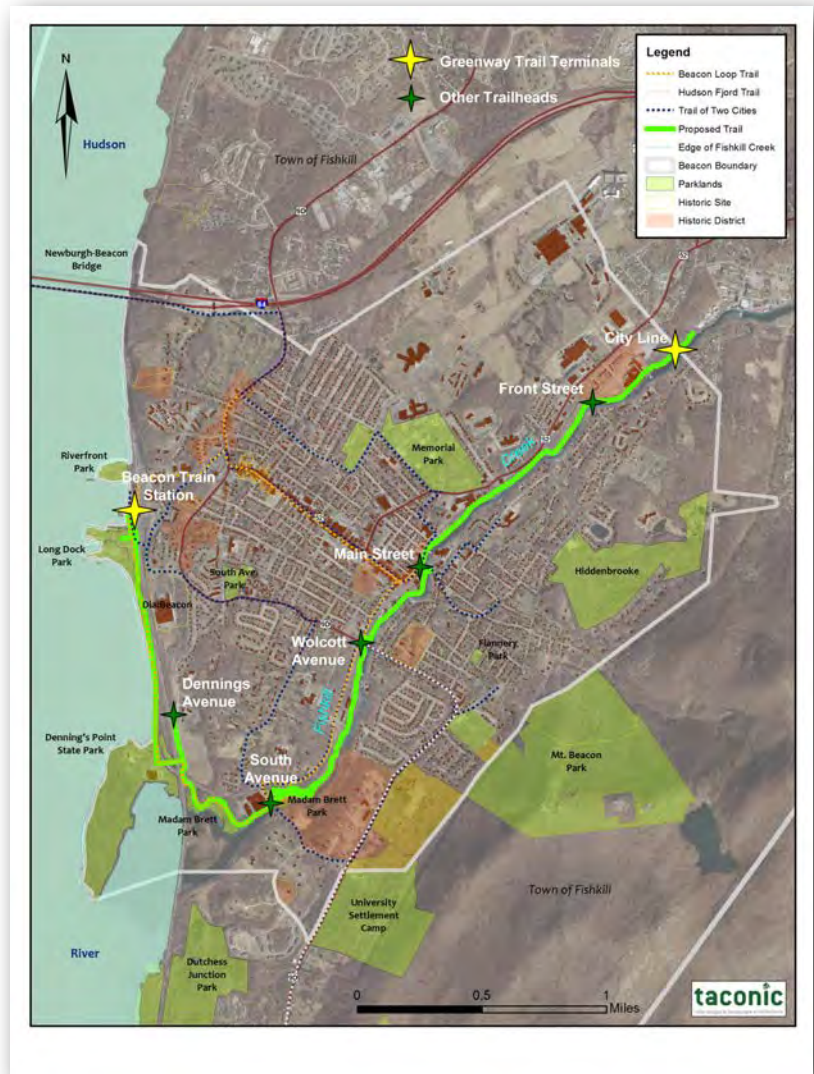
The FCGHT will also become an integral part of a broader vision for open space within Beacon and the greater Hudson River valley by encouraging use of and engagement with the natural, historical and cultural landscape. The FCGHT will foster stewardship of its own corridor and the open spaces and cultural resources it connects. Regionally, the FCGHT is one element of the expanding Hudson River Valley Greenway trail network. Other trail projects in the area include the "Trail of Two Cities" connecting Newburgh and Beacon, the Klara Sauer Trail, Beacon Loop Trail, Mt. Beacon Park, and the Hudson River Water Trail. Other proposed regional trail projects include the Hudson Fjord Trail, a hike/bike trail connecting Cold Spring and Beacon along Route 9D, the Mt. Beacon Incline Railway, and the continuation of The Fishkill Creek Greenway & Heritage Trail into the town of Fishkill (this last element is an ongoing initiative of the Fishkill Greenway Trail Committee).

The central celebrated feature of the FCGHT is the Fishkill Creek itself and its impact on Beacon's landscape and history. The Fishkill Creek provided waterpower and a transportation route for industrial development for three centuries. The creek corridor contains many historically significant bridges, buildings, dams, and factory sites. These historic resources could be used to interpret several important themes in American history through a variety of traditional and virtual methods and educational programming.

This Master Plan provides a framework for city leaders, private property owners and developers to successfully plan for the FCGHT not to be just another trail, but a an exciting and meaningful way to experience the great city of Beacon. In order to begin implementing the FCGHT Master Plan, the City of Beacon must take the following steps:

- *Formally adopt this Master Plan, implement suggested changes to City Zoning Code and take other statutory actions necessary to establish a foundation for the trail's development over time*
- *Administer supportive planning policy and work with private landowners on trail implementation as individual parcels are considered for redevelopment*
- *Support the formation of a potential "Friends" group similar to Walkway Over The Hudson that can take the lead in fundraising, trail construction, marketing and long term stewardship*
- *Be prepared to apply for and/or provide support in the application for grants and other funding for trail implementation, programming and maintenance*

The Beacon Greenway Trail Committee asks that this Master Plan be officially adopted by resolution of the Beacon City Council.



Proposed Overall Trail Map

EXISTING CONDITIONS AND RESOURCE INVENTORY

The Fishkill Creek was an axis of industrial development and settlement for over 300 years. The Fishkill Creek's story is a typical American river story that reflects many themes in U.S. industrial history. The fortunes of the Creek's mills and factories were tied to universal boom-and-bust economic cycles caused by "crashes," tariffs, wars, and changing technology. The dams on the creek provided water power for factories processing grain, wood, fabric, metals, rubber and other materials. The villages of Matteawan and Fishkill Landing grew up around these industries and eventually merged to form the City of Beacon.

The Beacon area was originally part of the Rombout Patent, purchased from the Wappinger Native American bands in 1683. The first European settlers on Fishkill Creek were Roger and Catharyna



Brett, who built a grist mill in 1709. During the eighteenth century, Fishkill Landing became a small, busy Hudson River port. The first textile mill on the creek was built in 1814 by Peter Schenck. During the first half of the nineteenth century Fishkill Creek industry grew to include foundries, tool and machine shops. During the Civil War textiles and brick making experienced significant growth. By the 1870s the Dutchess & Columbia Railroad built along the creek improving regional transportation for materials and goods, and Fishkill Landing became a vital freight transfer point between New England and the West. Beacon's most significant industry, hat making,

emerged after the Civil War, with the formation of the Matteawan Manufacturing Company in 1864 and Dutchess Hat Company in 1873. Beacon ultimately became the second-largest hat making district in the U.S. after Danbury, CT. Other post-Civil War industries included the New York Rubber Co. and Groverville Carpet Mills. The Carroll Electric Light Company constructed one of the first commercial electric power plants in the U.S. in 1887, and powered factories, a street railway and the Mount Beacon Incline Railway. Fishkill Landing's brick industry expanded in 1880 when massive deposits of brick clay were discovered on Denning's Point.



In 1913, Fishkill Landing and Matteawan incorporated as the City of Beacon. Beacon's last major industry was the 1929 Nabisco plant, now the home of the world-class Dia:Beacon contemporary art museum. Beacon's manufacturing base remained steady through the mid-twentieth century but eroded steadily during the 1970s and 1980s. Today some surviving industrial buildings house residential redevelopments or artist studios, and the creek corridor still includes a number of significant historic buildings, dams, factory sites and bridges.

See Appendix A for more detailed history of the project area.

Existing Public & Social Trails

The Fishkill Creek Greenway & Heritage Trail corridor contains a series of existing public and social trails that are currently used by the public for active and passive recreation. However, large gaps exist between these areas of use that currently limit connectivity through the proposed trail corridor. An inventory of existing trails yields heavy use along the Hudson River, the southern end of the Fishkill Creek and in the vicinity of lower Main Street. Existing trails are categorized as follows:

Public Trails – The proposed trail corridor contains a significant amount of existing, active trails. These existing trails are currently open to the public and receive a good deal of regular use. The majority of the existing public trails are located on the western side of the proposed trail corridor and include the Klara Sauer Trail (from Beacon Train Station to Denning's Point State Park) and the trail network within Madam Brett Park. There is also a small section of trail open to the public in the context of a small pocket park at the end of Herbert Street above the Beacon Falls dam.

Social Trails - The trail corridor also contains several sections of social trails. Social trails are informal traveled ways across private property that are actively used by the public for various purposes. These social trails are usually access short cuts to interesting points or popular locations. Social trails within the project corridor exist just north of Sucker Falls, on the south side of Churchill Street (to behind the current Beacon Salvage), adjacent to The Roundhouse along the Metro-North Beacon Line and north of the Groveville Mill to the Town of Fishkill boundary and beyond.

Trail Gaps – Although the trail corridor contains many existing developed public trails and undeveloped social trails, there are some significant gaps that between these existing trails that need to be filled. These gaps include a connection between the Klara Sauer Trail to Madam Brett Park, from Madam Brett Park to Beacon Falls (Roundhouse), and from Herbert Street to and through the Groveville Mill.

The **Existing Trail Segment Map** illustrates the location of existing public trails, social trails and trail gaps within the trail corridor.



Existing Trail Segment Map

Existing Trail Use Types and User Groups

Currently the public is using the proposed trail route in a variety of ways and for a variety of uses. While most of the activity is happening on existing trails within existing parks, activity is happening along the entire trail route. Observed and/or documented use types that are taking place within the project area include:

- Active physical uses such as walking, hiking, dog-walking, running and biking.
- Passive enjoyment uses such as scenic viewing, photography and bird-watching.
- Transportation uses as an alternative route to Main Street from Route 52 and points north.
- Water uses such as fishing, kayaking and limited swimming.
- Resource interpretation within Long Dock Park and Madam Brett Park.

Specific groups of users currently active in the above use types along the proposed trail route include individuals, families, seniors, fisherman, kayakers and groups of school children (school field trips).

Existing Environmental Conditions

A physical inventory of natural and man-made conditions were documented along the FCGHT corridor in order to establish an understanding existing infrastructure, community resources and any obstacles and constraints that would need to be addressed in the trail's design. The project team reviewed current GIS data provided by Dutchess County to build a complete digital base map of the entire city. Team members also made specific field observations from a variety of accessible vantage points along the trail corridor from March to November 2012. Witnessed areas included riparian areas, floodplains, steep slopes, parks, trails, and land ownership boundaries. GIS data was then edited to conform to observed field conditions where necessary. This inventory provides the foundation for the team's trail planning and design decisions.

The following critical natural features and conditions are noted:

Creek Edge and Floodplain - The Fishkill Creek is the dominant physical feature of the FCGHT. The creek follows a well defined channel with mostly flat areas leading up to steep banks down to flowing water. The Creek banks are also defined with bedrock outcrops, sometimes as high as 50', and built infrastructure in the form of building foundations and dams. Also associated with the creek are low areas are subject to seasonal flooding. Trail development within these floodplains may require additional permitting from regulatory agencies.

Surface Hydrology and Wetlands - The confluence of the Fishkill Creek and Hudson River (in the vicinity of Madam Brett Park) is a high functioning ecosystem protected with NYSDEC Coastal Fish & Wildlife Habitat status. There are no NWI wetland areas that impact the trail route. There are 2 potential locations where a small intermittent watercourse crosses the trail route that may require a special crossing element. The first is just north of South Ave.(in Madam Brett Park) and the second is just north of the Tallix Foundry complex.

Steep Slopes - A few areas along the corridor have sections of steep slopes, which poses a challenge to trail construction, due to erosion concerns and the desire to make the trail universally accessible. For this reason, the inventory documents slopes 15% and greater. Generally speaking, slopes are only a concern in limited locations and will not have a significant impact on trail development.



Overall Existing Environmental Conditions Map

Vegetation - The vegetation along the Fishkill Creek includes a variety of native tree species including sycamore, maple, oak and ash. Numerous large specimen Sycamore trees were observed at several locations. Several species of invasive trees have colonized portions of the creek bank including Norway Maple and Alnus. Riparian zones are clearly identifiable and include a variety of shrubs, grasses, and wildflowers. The highest quality vegetated areas include the Fishkill Creek Estuary, Madam Brett Park and the Fishkill Gorge area.

Refer to Appendix B for more detailed existing environmental conditions maps.

The connection of community resources is one of the primary purposes for the development of the FCGHT. The project team documented the type and location of a variety of resources within and adjacent to the Fishkill Creek corridor in order to understand the linkages that should be made.

Parks - The FCGHT will link a number of existing public parks. This network of parks and connections is strong along the Hudson River and Fishkill Creek Estuary with smaller disconnected spaces emerging north and south of East Main Street including a small pocket park at the Wolcott Avenue Bridge and a small pocket park at the end of Herbert Street.

Street Intersections - Running parallel to the Fishkill Creek the FCGHT yields a surprisingly low number of crossing with existing city streets. In most cases, the condition of the intersection where the trail would need to cross a vehicular street is favorable.

The FCGHT will interact directly with the following existing streets: Dennings Avenue, Wolcott Avenue (Route 9D), Chruchill Street, East Main Street and Front Street.

Bridges, Dams & Structures - The FCGHT interacts with a number of high quality industrial, engineering and architectural infrastructure sites. These resources speak to the rich industrial history of the City of Beacon and offer some very unique opportunities to interact with history. Details of these resources can be found in the Historic Resources section below.

Land Ownership - The proposed FCGHT route interacts with 21 individual property owners which includes municipalities, public utilities, not-for-profit organizations and private landowners. Details on these trail impacted parcels can be found in the Trail Impacted Parcels section below.

As the vast majority of the FCGHT route is well suited for trail placement, there are a few locations where trail construction will be slightly more challenging. Although these areas are slightly constrained, trail construction within, around or along any these identified locations is not prohibitive. On the contrary, it is these locations that provide a series of opportunities to enhance the trail experience. With some simple and creative design solutions, these areas are easily navigable. The resource inventory identified eight (8) locations that will require special design attention as follows:

- Trail connection across Metro-North Beacon line between Denning's Point State Park and Madam Brett Park (under existing Metro-North Beacon Line bridge parallel to Metro-North Hudson Line tracks) ***The design of this element has been completed by Metro-North and construction was recently funded with a 2012 NYS Regional Economic Development Council Award grant.***
- Trail connection along Sucker Falls Raceway ruins and around historic railroad bridge abutment to established footpath at bend in Creek above Sucker Falls
- Trail connection through Madam Brett Park to Dutchess Junction site

- Sloped areas north and south of Wolcott Avenue (NYS Route 9D) bridge
- Trail connection behind Rothery File Co (Beacon Auto Salvage) building
- Trail connection through pinch point between Metro-North Beacon line and The Roundhouse/ Beacon Falls Dam infrastructure
- Trail connection through pinch point along Metro-North Beacon line behind Tallix Foundry complex
- Trail connection from Front Street to Fishkill Creek gorge footpath in vicinity of Groveville Mill

Viewpoints of Scenic Quality

There are particular points along the proposed trail corridor that offer users high quality scenic views of various resources. These viewpoints reveal both the natural beauty and industrial heritage of the trail corridor, and most provide a combination of both. The plan highlights the following viewpoints of scenic quality:

- Hudson River at Long Dock Park / Klara Sauer Trail / Denning's Point Park
- Mt. Beacon from Denning's Point Park
- Fishkill Creek Estuary at Madam Brett Park
- Sucker Falls & RR Bridge Abutments at Madam Brett Park
- New York Rubber Factory Dam
- Beacon Falls and Dam from East Main Street Bridge and The Roundhouse
- Mt. Beacon from Metro-North Beacon Line just north of Tallix Foundry complex
- Crib Dam Ruin just north of Tallix Foundry complex
- Fishkill Creek at Bridge Street Bridge
- Groveville Mill Dam
- Fishkill Creek Gorge at Beacon / Fishkill Line

Historic Resources

The Fishkill Creek corridor contains approximately fifty (50) resources of historic interest and significance that are visible from or close to the proposed trail route. These resources include five transportation-related resources, six dams or waterpower sites, fourteen industrial buildings or complexes, seven bridges or bridge sites, and additional resources noted below. The survey included three properties individually listed in the National Register of Historic Places (NR), one NR-eligible bridge, three industrial buildings determined eligible as contributing buildings within a potential NR historic district, and five districts or individual properties located within Beacon's Historic District and Landmark Overlay Zone (HDLO). These resources include:

Transportation

Marine: Fishkill Landing (Long Dock Park) (Survey No. 2)

Railroad: Dutchess & Columbia/New York & New England Railroad Right-of-Way (Survey No. 3)

Wiccopee Junction Site (Survey No. 21)

Newburgh, Dutchess & Connecticut Railroad Station (Survey No. 33)

Highway: East Main Street "Dummy" Traffic Light (Survey No. 38)

Dams/Power Generation

Sucker Falls Dam (Survey No. 20) (HDLO)

Masonry/Earth Raceway Trench at Madam Brett Park (Survey No. 18)

New York Rubber Factory Dam (Survey No. 24)

Main Street Dam (Survey No. 39)

Carroll Electric Light Co. Dam and Power Plant Site (Survey No. 51, includes "Red Rocks" (Survey No. 52))

Groveville Mill Dam (Survey No. 62)

Industry/Manufacturing

National Biscuit Company (Nabisco) Beacon Carton and Printing Plant (Dia: Beacon Museum) (Survey No. 4)
Denning's Point Brick Works (Survey Nos. 5, 6 and 8)
Tioronda Hat Co. (Survey No. 13)
New York Rubber Factory site (Survey No. 23)
Rothery File Co. (Survey No. 30)
Garret-Storm Anthracite Coal Silos & Office (Survey No. 31)
1814 Schenck Cotton Mill/Matteawan Co./Carroll Hat Co. et al. (1 East Main Street) (Survey No. 34)
Swift Machine Shop ("The Roundhouse") (Survey No. 36)
Matteawan Manufacturing Company (Survey No. 40)
Schenck Machine Company (Survey No. 42)
Beacon Lumber & Coal Co. Yard Site (Survey No. 45)
Green Economizer Co. (Tallix Foundry) (Survey No. 46)
Central Hudson Gas & Electric Liberty Street Substation (Survey No. 50)
Rock (shale/slate) Quarry (Survey No. 56)
Groveville Carpet Mill (Survey No. 59 (worker housing), Survey No. 60. (mill complex) (HDLO)

Bridge Engineering

Denning's Avenue Bridge (Survey No. 6)
Metro-North Beacon Line Railroad Bridge (Survey No. 7)
Denning's Point Brick Works clay pit railroad tunnel (Survey No. 8)
Tioronda Bridge (Survey No. 15) (NR 1967, HDLO)
Wolcott Avenue Bridge (Survey No. 26) (NR-eligible)
Former Churchill Street Bridge Abutments (Survey No. 32a)
Bridge Street Bridge (Survey No. 57)

Historic Districts and Properties

National Register of Historic Places-Listed
The National Biscuit Company (Dia:Beacon, Survey No. 4, NR 2003)
Howland Cultural Center (Survey No. 31a)
Tioronda Bridge (Survey No. 15) (NR 1967, HDLO)
National Register-Eligible
Wolcott Avenue (Rte 9D) Bridge (Survey No. 26)
1814 Schenck Cotton Mill (Survey No. 34), the attached 1912 Carroll Hat Co. Mill (Survey No. 34), and the Swift Machine Shop ("The Roundhouse"), Survey No. 36), all eligible as contributing elements in a larger potential National Register historic district.

Beacon Historic District Landmark Overlay Zone

Tioronda Bridge (Survey No. 15)
Sucker Falls Dam (Survey No. 19)
Groveville Carpet Mill (Survey Nos. 59, 60)
Tioronda Estate (Survey No. 16)
Main Street Local Historic District (Survey No. 33)

Refer to Appendix C for more detailed resource inventory maps, full descriptions of inventoried resources and current photographs of historic resources.



TRAIL DESIGN RECOMMENDATIONS

Contained within the City of Beacon, the **Fishkill Creek Greenway & Heritage Trail** will be a continuous trail that will connect the Hudson River and City of Beacon waterfront with the Fishkill Creek, the eastern end of Main Street and beyond to the Town of Fishkill. At 4.3 miles in length from the Beacon Train Station to the Town of Fishkill boundary, the proposed trail will provide direct, uninterrupted creek access to residents and will offer a number of opportunities for active and passive uses. The proposed trail traverses several distinct and very different sections of Beacon and directly interacts with significant historic resources and scenic views that speak to the story of Beacon.

The FCGHT has been placed to fit within the existing landscape conditions with a light footprint and is intended to be active and serve uses in all four seasons. The trail has been designed to accommodate foot traffic primarily, although some sections may accommodate other uses. With the efforts of the Beacon Loop Trail, a concurrent project for the development of a city-wide pedestrian and bicycle trail, the FCGHT intends to serve a more passive purpose. The trail will also provide opportunities for uses beyond the typical active sports including Public Education, Historic Interpretation, Access to Water (Fishing, Wading, Kyacking), Access to Business, and Special Events (rallies, celebrations, etc.).

An important consideration throughout the trail revolves around universal access or ADA accessibility. Based on the analysis of environmental conditions along the trail route, universal access to the vast majority of the trail is achievable. However, there are some very challenging and/or remote areas that may not be suitable for handicap access including the areas surrounding the historic railroad abutment at Sucker Falls, the connection trail from Madam Brett Park to Dutchess Junction, the connection up to Wolcott Avenue bridge and the existing footpath along the Fishkill Creek gorge. From a general planning and design perspective, accessibility is most important at parking areas and trailheads radiating outward. All future trail development should refer to and incorporate latest Federal, State and Local ADA design criteria.

It is important to recognize the over-arching themes that have guided the design of the greenway trail. These guiding principles are common sense planning ideas that provides the framework for the trail to be meaningful and self-sustaining. These guiding principles include:

Make Connections - Ensure that the trail physically connects people to the Creek and their local heritage by intersecting the trail with the maximum number of historic resources. Locate the trail as close to the creek edge as possible.

Enhance Economic Benefit - Harness the economic benefit potential by providing a rich and interesting alternative route for visitors using mass transit to access Lower Main Street and other recreational and cultural assets including the future Mount Beacon Incline Railway.

Create Community Support and Provide Accessibility- Create and nurture partnerships to build on volunteer and community support activities revolving around the trail. Design the trail to provide accessibility to outdoor enjoyment and education for users of all abilities.

Provide Environmental Protection and Sustainability - Do no harm. Develop within areas that are already influenced by human activity including the use of existing trails where possible. Use natural infiltration and other low impact development practices for stormwater management.

Provide High Quality Infrastructure - Strive to construct high quality trail facilities that are affordable, safe, easy to maintain, and will perform over time.

Minimize impact and Reestablish Natural Conditions- Align the trail with the existing grade as much as possible to minimize disturbance areas. Vary the buffer width along the trail by increasing the setback in non-critical areas along the creek bank to offset necessary trail development in close proximity to sensitive areas. Preserve mature trees and ensure stability of creek bank by limiting major disturbance within 10 feet of the top of creek bank to the maximum extent possible. Mitigate construction impacts by strategically including tree plantings and naturalization areas.

Guiding principles will not apply uniformly to every section of trail. The proposed trail route does include a few short sections where trail development options are constrained and/or the preferred trail alignment is very close to the top of the creek bank. While this does not limit the viability of trail development, employment of the above principles will ensure the long term stability of the trail in close proximity to the creek bank.

Proposed Trail Route

The FCGHT has been segmented into 5 distinct sections to more easily and clearly describe the trail and its proposed features. These sections begin and end at logical points in the context of existing environmental conditions and trail implementation. The sections are as follows:



SECTION 1

KLARA SAUER TRAIL
(Beacon Train Station to Denning's Point Park)

SECTION 2

ESTUARY AND CREEK TRAIL
(Denning's Point Park to Knevels Avenue Crossing)

SECTION 3

CITY CENTER
(Knevels Avenue Crossing to Herbert Street Park)

SECTION 4

RAIL WITH TRAIL
(Herbert Street Park to Bridge Street Bridge)

SECTION 5

MILL AND GORGE
(Bridge Street Bridge to Town of Fishkill Boundary)



Proposed Overall Trail Map

Klara Sauer Trail Section

The FCGHT begins at the existing trailhead kiosk at the Beacon Train Station, where users can obtain information regarding all trails and routes within and through Beacon. From the train station, the FCGHT turns south on the Klara Sauer Trail. The Klara Sauer Trail is an existing 1-mile multi-use trail owned and operated by Scenic Hudson, that runs south along the eastern edge of the Hudson River. Within this 1-mile stretch, the FCGHT connects with Scenic Hudson's Long Dock Park and passes below Dia:Beacon. With sweeping views of the Hudson River, the Klara Sauer Trail makes its way to Denning's Point State Park, a large 64-acre park operated by the Hudson Highlands State Park system. At this point, the Klara Sauer Trail ends and the FCGHT crosses easterly over the Dennings Avenue Bridge.

As a secondary starting point, the FCGHT also begins at the Dennings Avenue parking area and trailhead at the south end of Dennings Avenue. Heading south along Dennings Avenue (the existing access driveway to Beacon Institute of Rivers and Estuaries, the trail meets at the eastern side of the Dennings Avenue Bridge. To this point, all trail infrastructure is existing and open to the public.

See Proposed Trail Map (Section 1 - Klara Sauer Trail) below.

Estuary and Creek Trail Section

Beginning at the eastern side of the Dennings Avenue Bridge, the FCGHT turns southerly again along a new section of trail to the Beacon Line bridge. This new trail will hug the east side of the existing tree edge that separates the railroad tracks and landfill, until just before the Beacon Line bridge abutment. The trail will then proceed downslope to the bottom of the bridge abutment, under the Beacon Line bridge within a short 'contained' section designed by Metro-North, to the existing gravel access road just south of the Beacon Line bridge.

Once on the existing gravel access road, the FCGHT enters Scenic Hudson's Madam Brett Park with sweeping views of the Fishkill Creek Estuary and Hudson Highlands beyond. The trail continues south along the existing Madam Brett Park main trail turning northeast along the north bank of the Fishkill Creek. Continuing across the existing elevated boardwalk, the FCGHT intersects South Avenue at the north side of the Tioronda bridge. The trail crosses South Avenue into the eastern portion of Madam Brett Park, where there is an existing parking area and trailhead. Just beyond the parking area, the trail splits with the main (accessible) FCGHT trail turning left and gently rising across the slope to the former Dutchess Junction intersection. The secondary FCGHT continues straight along the existing Madam Brett Park trail to the existing viewing platform at the Sucker Falls Raceway outlet. It is at this point that the trail transitions across the raceway outlet and onto the top of the existing concrete raceway wall as an elevated boardwalk. This new boardwalk will continue to the historic Tioronda Railroad Bridge abutment directly adjacent to the historic dam at Sucker Falls. The boardwalk will then cross over the raceway channel and connect with an existing footpath continuing around the creek bend and up the steep slope where it reconnects with the main (accessible) FCGHT. The reconnected FCGHT then continues northeast along the top of the creek bank. This section of the FCGHT ends in the vicinity of the existing Beacon Line vehicle crossing across from Knevels Avenue, which will serve as an important emergency access connection.

See Proposed Trail Map (Section 2 - Estuary and Creek Trail) and Sucker Falls Raceway Boardwalk Concept below.

City Center Section

Continuing northeast along the top of the creek bank, the FCGHT makes its way to the base of the Wolcott Avenue Bridge. Through this short section, the trail intersects with the historic NY Rubber Co. factory dam and the calm section of creek behind it. At the base of the bridge, the trail turns northwest and continues under Wolcott Avenue parallel to the Beacon Line railroad tracks similar to the beginning of Section 2 and then back to the edge of the creek on the north side of the bridge. This intersection with Wolcott Avenue is an important connection point to other trails, however, the FCGHT sits well below the elevation of Wolcott Avenue and the pocket park that it includes. To make this connection, the FCGHT proposes a set of simple metal outdoor stairs similar to those in Mt. Beacon Park that would float just above and ascend the slope between the main FCGHT and Wolcott Avenue.

The FCGHT continues northeast along the creek bank to the historic Rothery File Co. building. The concept at this location is to attach the trail directly to the southeast side of the existing structure as an elevated boardwalk similar to the elevated boardwalk at Madam Brett Park. This new elevated boardwalk will connect to an existing social trail on the northeast corner of the Rothery File Co. building. The trail continues along top of the creek bank until it intersects with the north end of the Churchill Street Bridge. The trail crosses Churchill Street and continues along the creek bank to East Main Street. This section of trail between Churchill Street and East Main Street has been designed into the recently approved 1 East Main Street development and will be constructed in association with the larger development construction.

At East Main Street, the FCGHT turns right onto the existing sidewalk and across the East Main Street Bridge. The trail then crosses East Main Street on the south side of the bridge and turns left back across the East Main Street bridge to take advantage of the impressive scenic view of Beacon Falls. The trail continues along the existing sidewalk in front of The Roundhouse to Beacon Line railroad tracks, just south of Main Street. At this point, the trail turn right and continues along the creek between the railroad tracks and The Roundhouse outdoor terrace to the existing public trail and viewing platforms within the Herbert Street pocket park. Within the short section of trail, the trail interacts with the historic Beacon Falls dam raceway infrastructure and the trail will require a similar form of elevated boardwalk as proposed at the Sucker Falls raceway. The FCGHT continues along the existing wood chip path to the north side of the Herbert Street pocket park.

See Proposed Trail Map (Section 3 - City Center) below.

Rail with Trail Section

From the end of the existing trail, the FCGHT continues northeast along the top of the creek bank between the railroad tracks and the edge of the creek. The trail runs parallel to the Beacon Line railroad tracks passing behind the historic Tallix Foundry industrial complex and other Route 52 commercial sites until it reaches Front Street just south of the Groveville Mill industrial complex.

Within this section of FCGHT, two (2) important elements are proposed to carry the trail. First, there is an existing section of railroad tracks that directly contacts the top of the creek bank, which this Master Plan refers to as the 'Pinch Point'. This section of trail is approximately 200' long. With the use of helical piles, the concept to carry the trail through the 'Pinch Point' is an elevated boardwalk that will float above the steepest portions of the existing grade. Second, just north of the 'Pinch Point' are the ruins of the historic Carroll Electric Company Dam and Power Plant Site. At this

location, an elevated viewing platform is proposed that will reach out over a section of steep slope and provide a bird's eye vantage point to view and interpret this stunning historic relic.

Trail construction within this section of trail will need to address the location of any railroad related infrastructure and be sensitive to those elements should they exist.

See Proposed Trail Map (Section 4 - Rail with Trail), Pinch Point Boardwalk and Crib Dam Overlook Concept below.

Mill and Gorge Section

This final section of the FCGHT begins at the Bridge Street Bridge, a brilliant example of a 19th century bridge engineering with very scenic view of the Fishkill Creek. The trail continues northeast along the top of the creek bank to the Groverville Mill industrial complex. At this point, there are two route options, First, the trail could turn right and extend out to Front Street, running around the mill buildings and reconnect with the creek at the mill dam. Second and preferably, the FCGHT would be incorporated into the redevelopment of this site and continue through the mill complex to the north side of the mill dam. From the mill dam, the trail connect with an existing footpath that climbs to the top of the Fishkill Creek gorge to the Town of Fishkill town line.

See Proposed Trail Map (Section 5 - Mill and Gorge) below.



Proposed Trail Map (Section 1 - Klara Sauer Trail)

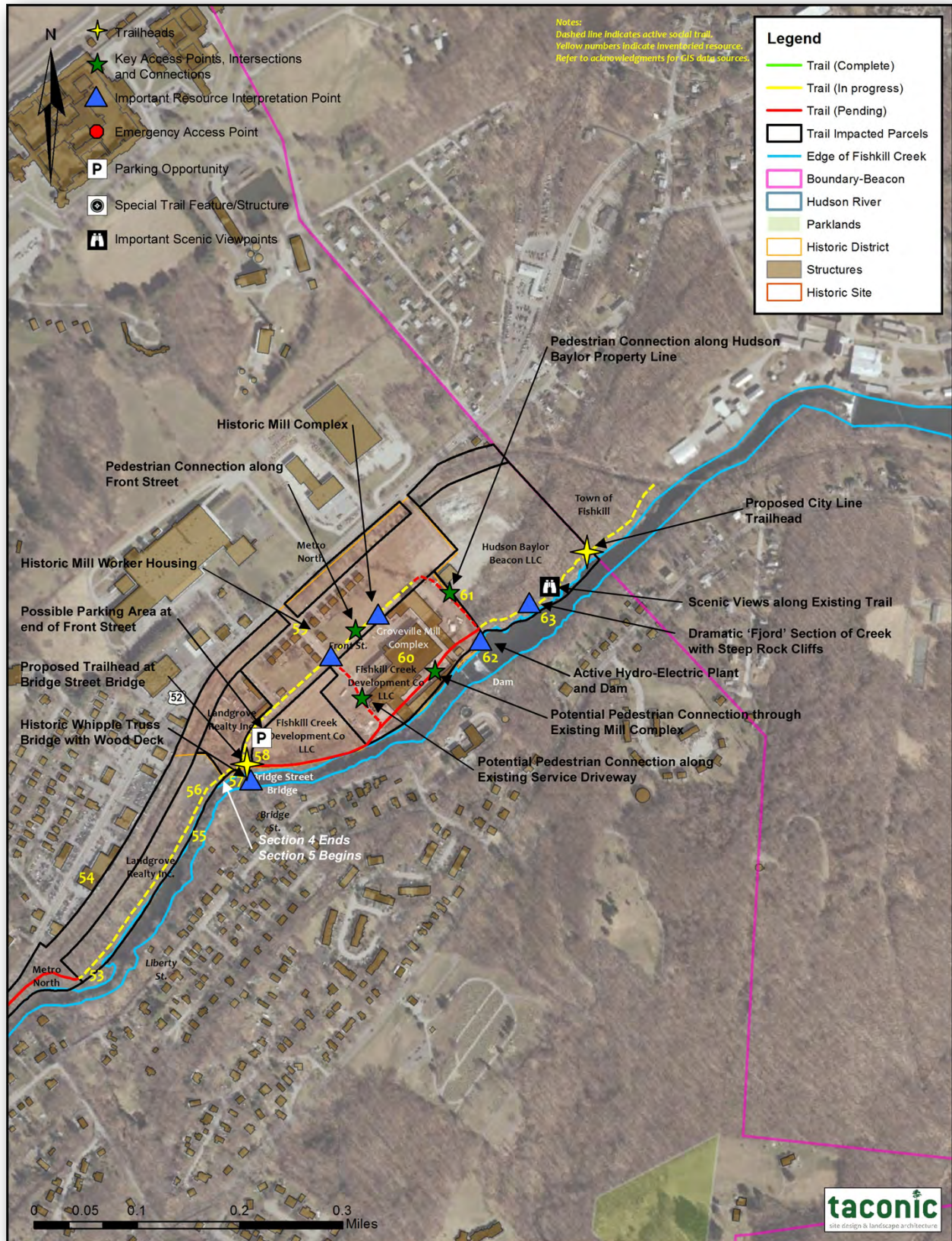




Proposed Trail Map (Section 3 - City Center)



Proposed Trail Map (Section 4 - Rail with Trail)



Proposed Trail Map (Section 5 - Mill and Gorge)

Key Access Points, Intersections and Connections

The FCGHT may be reached by train, bus, car, bicycle, and on foot, and will, in turn, connect with these. Potential points for emergency access along the trail corridor have also been noted.

Public Transportation - Metro-North Railroad Hudson Line (Beacon Station), Dutchess Loop Bus, and Beacon Loop Bus (Route G).

Existing Public Parking Areas – Public parking is currently available at the following locations along the proposed trail corridor: Beacon Train Station, Long Dock Park, Madam Brett Park, Tioronda Avenue (at Knevels Avenue), Tioronda Avenue (north of Wolcott Avenue), Main Street and surrounds, Verplank Avenue parking lot.

Proposed Parking Areas – Parking opportunities exist at the following locations: Churchill Street (1 East Main Street development), Front Street (both north by self-storage facility and south by Bridge Street bridge)

Existing Trailheads – Trailheads exist at the following locations: Beacon Train Station, Long Dock Park, Dennings Avenue, Madam Brett Park

Proposed Trailheads - Trailheads are proposed at the following locations: Wolcott Avenue Park, Main Street, Herbert Street Park, Front Street, Beacon/Fishkill municipal line

Road Intersections (Trail Crossings) – The proposed trail will intersect with the following roads: Dennings Avenue, South Avenue, poss. Wolcott Avenue, Churchill Street, East Main Street, Front Street

Bridge Intersections - The proposed trail will intersect with the following bridges: Dennings Avenue Bridge, Beacon Line RR Bridge, Tioronda Bridge (Out of Service), Wolcott Avenue Bridge, Churchill Street Bridge, East Main Street Bridge, Bridge Street Bridge (Out of Service)

Connections with Existing Trails – The proposed trail will connect with other existing trails at the following locations: Long Dock Park, Denning's Point State Park, the Beacon Loop Trail, the Trail of Two Cities, Wolcott Avenue sidewalk (Mt. Beacon Park Trails, Hudson Highlands State Park, Fishkill Ridge Trails, University Settlement Camp Trails, and other points south)

Connections with Proposed Trails - The proposed trail will potentially connect with the following trails under development: Extension of this Fishkill Creek Greenway & Heritage Trail (into Town of Fishkill), Hudson Fjord Hike/Bike Trail (Wolcott Avenue to points south), Hudson River Trail (from Beacon Train Station to points north along the Hudson River)

Existing Emergency Access Points - Emergency access points exist at the following locations: Metro North parking lot (Red Flynn Drive), Long Dock Park parking lot (Red Flynn Drive), City Of Beacon Sewage Treatment Plant parking lot (Denning's Avenue), Madam Brett Park (South Avenue), Wolcott Ave. (Tioronda Avenue), Beacon Highway Garage (Creek Road), Churchill Street, Main Street (Herbert Street), East Main Street

Proposed Emergency Access Points - Emergency access points should be established at the following locations: Proposed developments along Tioronda Avenue (Knevels Avenue / Tioronda

Avenue), Tallix Foundry (Fishkill Ave.), STS Automotive (Fishkill Avenue), Cervone (Fishkill Avenue), Healy Bros. (Fishkill Avenue), Bridge Street, Groveville Apartments (Mill Street / Front Street), and Groveville Mill (Mill Street / Front Street).

Trail Impacted Parcels and Status

Understanding the individual ownership of land is very important to the development of a linear greenway trail. The FCGHT corridor includes both publicly and privately owned parcels. The committee has identified all trail impacted parcels including publicly-owned land, easements that currently allow for use of private land for public access and use, and privately owned land, which would require some form of legal acquisition or permission before a trail could be constructed.

The trail impacted parcels are:

<u>Property Alias</u>	<u>Name of Owner</u>	<u>Parcel Address</u>	<u>Full Tax Parcel ID Number</u>	<u>Section *</u>
Landfill	City of Beacon	196 Dennings Ave	130200-5954-15-660374-0000	2
Landfill	City of Beacon	200 Dennings Ave	130200-5954-15-679329-0000	2
Metro-North Hudson Line	Conrail	33 Railroad Dr	130200-5954-33-549777-0000	2
MTA Spur Line	Metro-North Commuter RR Co	517 Main St	130200-6054-37-096715-0000	2
Madam Brett Park	Scenic Hudson Land Trust Inc	South Ave Rear	130200-5954-15-705263-0000	2
Beacon Terminals	Beacon Terminal Associates	555 South Ave	130200-5954-16-751258-0000	2
Madam Brett Park	Scenic Hudson Land Trust Inc	560 South Ave	130200-5954-16-830270-0000	2
MTA	Metro-North Commuter RR Co	517 Main St	130200-6054-37-096715-0000	2
Sisters Property	Sisters Properties LLC	Tioronda Ave Rear	130200-5954-16-894286-0000	2
Scenic Hudson	Scenic Hudson Land Trust Inc.	Tioronda Ave	130200-5954-16-910293-0000	2
Sisters Property	Sisters Properties LLC	Tioronda Ave	130200-5954-16-951357-0000	2
248 Tioronda	Beacon 248 Development LLC	Tioronda Ave	130200-5954-16-993482-0000	3
Central Hudson	C H G & E Corp.	465 Wolcott Ave	130200-6054-45-012574-0000	3
Highway Dept	City of Beacon	23-28 Creek Dr	130200-6054-37-037625-0000	3
Salvage Yard	3 Churchill Street Inc.	9-11 Creek Dr	130200-6054-37-066670-0000	3
BCDA	Beacon Community Development Agency	Churchill St	130200-6054-37-113702-0000	3
1 East Main Street	East Main Mills LLC	E Main St	130200-6054-38-131711-0000	3
1 East Main Street	East Main Mills LLC	E 7 Main St	130200-6054-38-140733-0000	3
1 East Main Street	East Main Mills LLC	E 1 Main St	130200-6054-38-143746-0000	3
The Roundhouse	10 Boulevard LLC	E 8 Main St	130200-6054-30-168772-0000	3
MTA	Metro-North Commuter RR Co.	517 Main St	130200-6054-37-096715-0000	3
Lumber Yard	581 Main St Beacon LLC	581 Main St	130200-6054-30-204843-0000	4
Lumber Yard	581 Main St Beacon LLC	581 Main St	130200-6054-30-236870-0000	4
MTA	Metro-North Commuter RR Co.	517 Main St	130200-6054-37-096715-0000	4
Central Hudson	C H G & E Corp.	241 Fishkill Ave Rear	130200-6054-23-323928-0000	4
MTA	Metro-North Commuter RR Co.	517 Main St	130200-6054-37-096715-0000	4
Gravel Mine	Landgrove Realty Inc.	365 Fishkill Ave Rear	130200-6055-80-459057-0000	4
Junk Yard	Landgrove Realty Inc.	71 Front St	130200-6055-04-502133-0000	5
Groveville Mill	Fishkill Creek Dev Co LLC	51 Front Street	130200-6055-04-535128-0000	5
Groveville Mill	Fishkill Creek Dev Co LLC	3-39 Front St.	130200-6055-04-590165-0000	5
Hudson Baylor	Hudson Baylor Beacon LLC	508 Fishkill Ave	130200-6055-04-639223-0000	5

Trail Impacted Parcels Table

The FCGHT within Section 1 utilizes existing trails currently in legal use by the public. It is assumed that all necessary agreements are in place to allow continued public use of these trails as the FCGHT. Therefore,

parcels within Section 1 have been purposefully excluded from the above list as there will be no impacts to existing parcels within Section 1.

Refer to the *Proposed Trail Maps* above for trail impacted parcel locations along the proposed trail route.

Proposed Trail Amenities

In order to accommodate the needs of trail users, certain facilities are needed to support the trail's use. Trailheads provide the largest amount of amenities to trail users and are recognizable access points to the trail. They are essentially pocket parks along the trail that may include parking areas, shelters, kiosks, benches, trash receptacles, bicycle racks, trail signage, and landscaping.

Major trailhead opportunities exist at the Klara Sauer Trail Trailhead at Beacon Train Station, Denning's Point State Park Trailhead at Dennings Avenue, Madam Brett Park at South Avenue, Wolcott Avenue pocket park, Intersection of Main Street and East Main Street or Herbert Street pocket park, and Bridge Street Bridge at Front Street.

Below is a list of key locations of existing and proposed trail amenities along the proposed FCGHT. This list is intended to provide a summary of structural elements envisioned along the trail route.

Bolded items are further studied in the Proposed Structures section. Key trail amenities include:

- Existing trailhead kiosks at Beacon Train Station, Long Dock Park and Denning's Point State Park
- New information kiosk along Klara Sauer Trail
- New connection trail (fence enclosure and boardwalk) at Metro-North Beacon line overpass (Klara Sauer Trail to Madam Brett Park connection) – in development
- Existing fishing/viewing platform at Madam Brett Park
- Existing connection boardwalk at Madam Brett Park (south of Tioronda Bridge)
- **New boardwalk at Sucker Falls raceway (See Sucker Falls Raceway Boardwalk Concept below)**
- New viewing platform at historic New York Rubber factory dam
- New information kiosk at new creek edge picnic area (south of Wolcott Avenue bridge)
- New connection stairway to Wolcott Avenue elevation (south side preferred)
- New trailhead kiosk at Wolcott Avenue pocket park
- New boardwalk along south side of Beacon Salvage building (similar to Madam Brett Park)
- New information kiosk at new Churchill Street picnic area (north side of bridge)
- New trailhead kiosk at the intersection of Main Street and E. Main Street
- New boardwalk around/over Beacon Falls raceway (along Metro-North Beacon line between The Roundhouse and Herbert Street pocket park trail)
- Existing viewing/fishing platforms at Herbert Street pocket park
- New information kiosk at Herbert Street pocket park
- **New boardwalk at pinch point between Metro-North Beacon line and creek bank (See Pinch Point Boardwalk Concept below)**
- New small footbridge over drainage ditch
- **New viewing platform at timber crib dam (See Crib Dam Overlook Concept Design below)**
- New secondary footpath trail down to "red rocks" outcrop at creek edge
- New trailhead kiosk at north side of Bridge Street bridge
- New viewing platform at Groveville Mill dam
- New viewing platform and picnic area at Fishkill Creek gorge (north of Groveville Mill)
- New trailhead kiosk at Beacon/Fishkill boundary

Proposed Structures

To more clearly identify main trail connection points and interpretive areas, the FCGHT should include some basic structures. These structures will act as a data depository for both permanent and changing information about the trail. And with an interesting architectural design and use of common materials, they can help the trail establish a unique identity and maintain a cohesiveness of design across the distinct trail sections. Structures for the FCGHT shall consist of 4 major elements: Trailhead Kiosks, Information Kiosks, Boardwalks and Viewing Platforms, and Rehabilitated Structures

Trailhead Kiosks - As part of this master plan, a conceptual trailhead kiosk has been developed as a starting point for the development of this important architectural feature. As the FCGHT is an urban trail, this simple yet modern kiosk design speaks to that urban environment. The kiosk basically creates an 8' hollow cube with four pillars supporting either a solid or slated roof. Depending on the kiosks location, ideas of sustainability and green technology can be incorporated to dramatic affect. For example, the basic kiosk design could easily support a green roof for stormwater management or solar panels for electric supply for use by the kiosk for interactive signage, charging stations, etc.



FCGHT Trailhead Kiosk Concept



FCGHT Trailhead Kiosk Concept

Information Kiosks - Utilizing the same materials and basic design character of the larger trailhead kiosk, a smaller complimentary kiosk should be incorporated into the overall trail route. This smaller kiosk is particularly suited to display interpretive signage at important resource interpretation points and to display information such as trail rules/policies and sponsorships at non-trailhead connection points.



FCGHT Information Kiosk Concept



Other Kiosk Examples

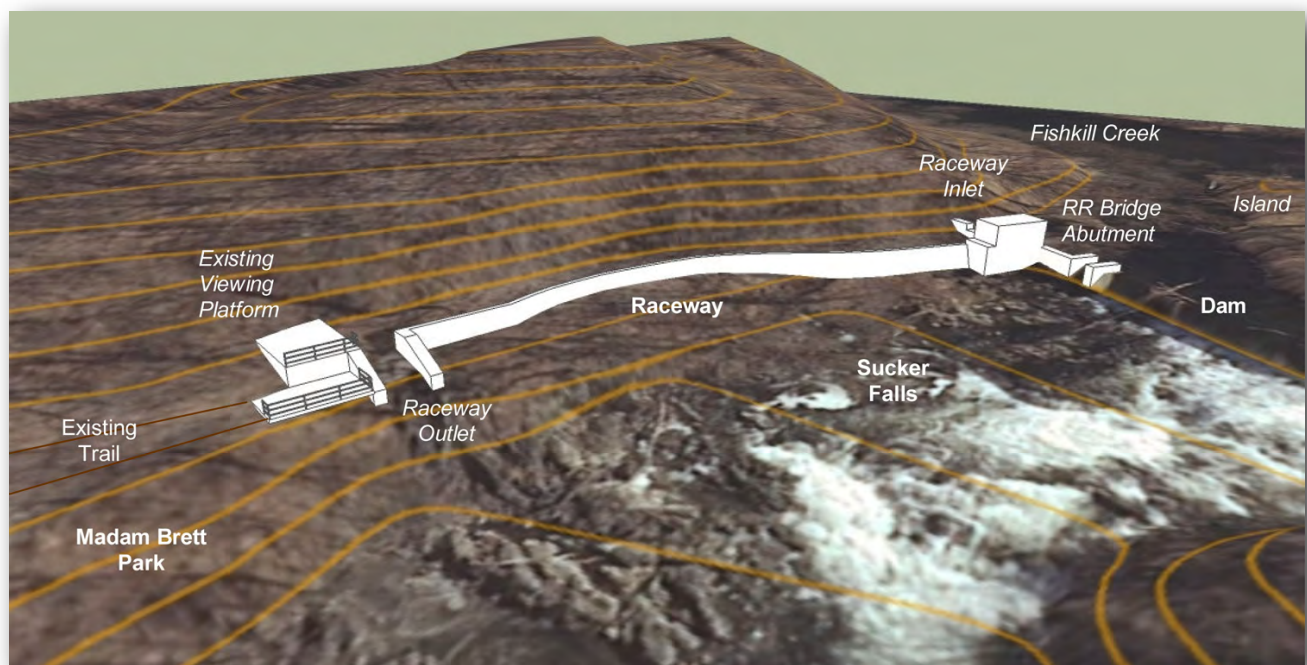
Proposed Boardwalks and Viewing Platforms

Some areas along the FCGHT corridor will require an elevated trail treatment that will allow the trail to traverse some constrained areas and minimize impact to sensitive slopes. Three highlighted where the use of an elevated boardwalk or viewing platform is necessary or would allow for unparalleled access to a particular significant resource include:

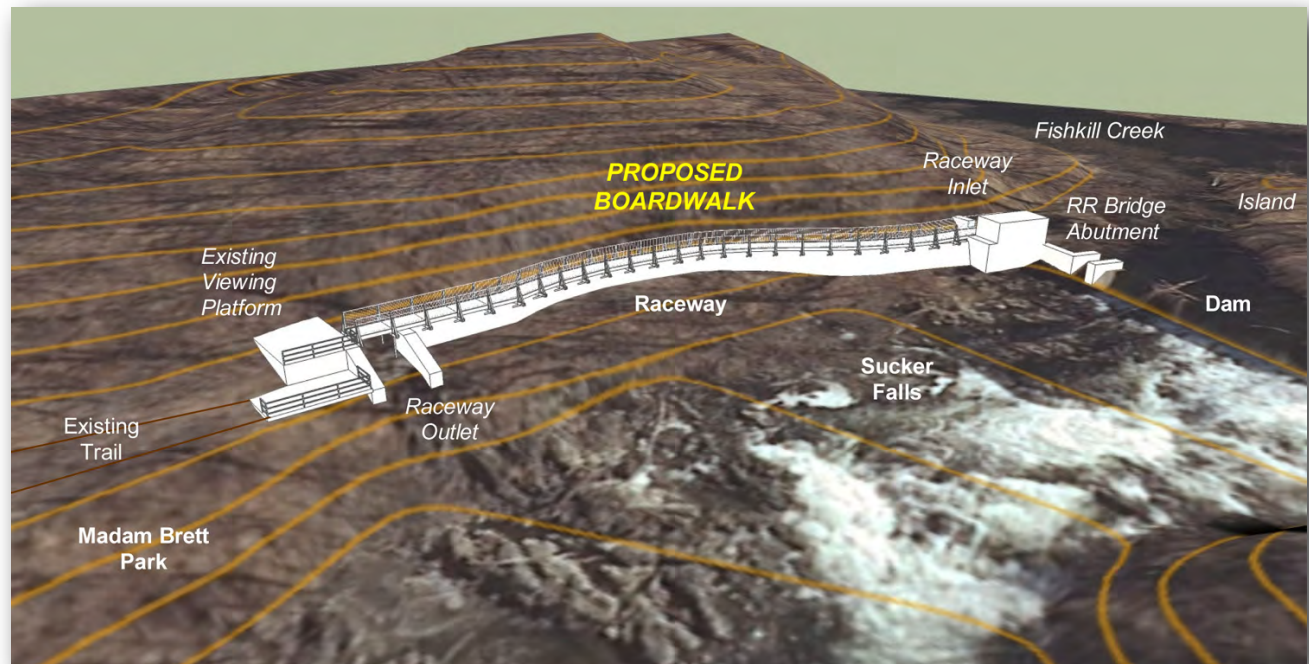
Sucker Falls Raceway Boardwalk – Traversing the historic mill raceway infrastructure at Sucker Falls provides a unique opportunity for the FCGHT to safely experience one of the more dramatic waterfalls and one of the oldest dam sites in the Hudson Valley. Currently the public trail ends at an existing viewing platform built around the raceway outlet. Envisioned is an elevated boardwalk that would follow the top of the existing masonry raceway wall from the existing viewing platform to the creek bank adjacent to the historic railroad bridge abutment. Using the raceway wall as the boardwalks foundation, a modular truss system could easily be centered along the raceway wall cantilevering equally over each side with connecting decking and railings. The boardwalk would be approximately 200' long and constructed with a combination of metal and wood using a modular method of construction. As this location is inaccessible to most mechanical equipment in its current condition, placement of the boardwalk structure and finishes as proposed could be easily completed without the use of heavy machinery.



View of Sucker Falls from Existing Viewing Platform



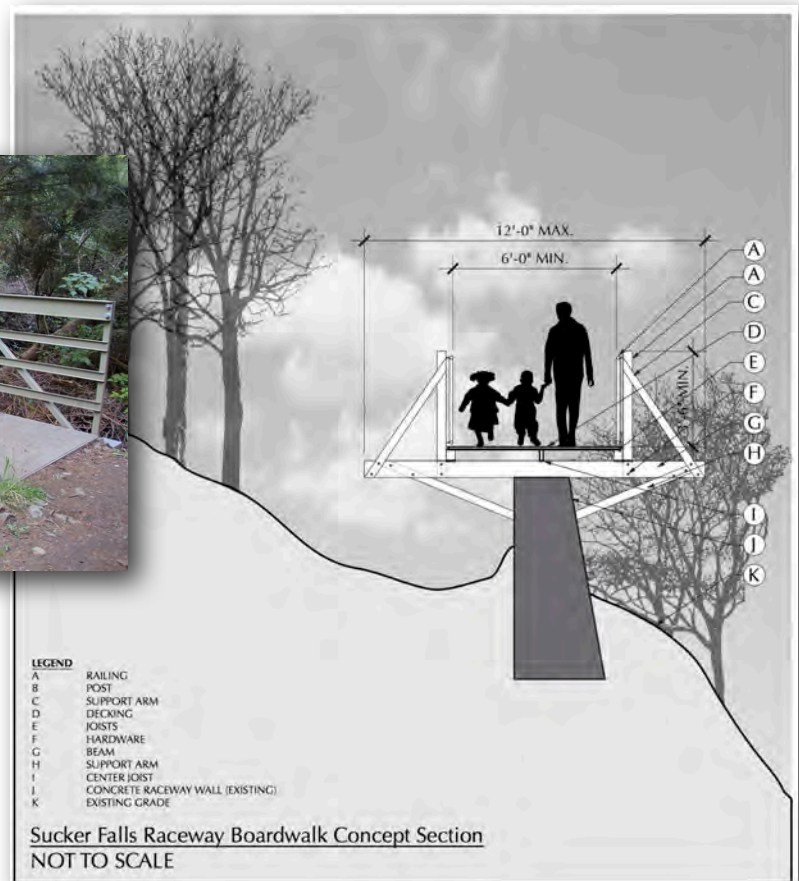
Sucker Falls Raceway Existing Conditions



Sucker Falls Raceway Boardwalk Concept



Boardwalk Construction Example



Sucker Falls Raceway Boardwalk Concept Section



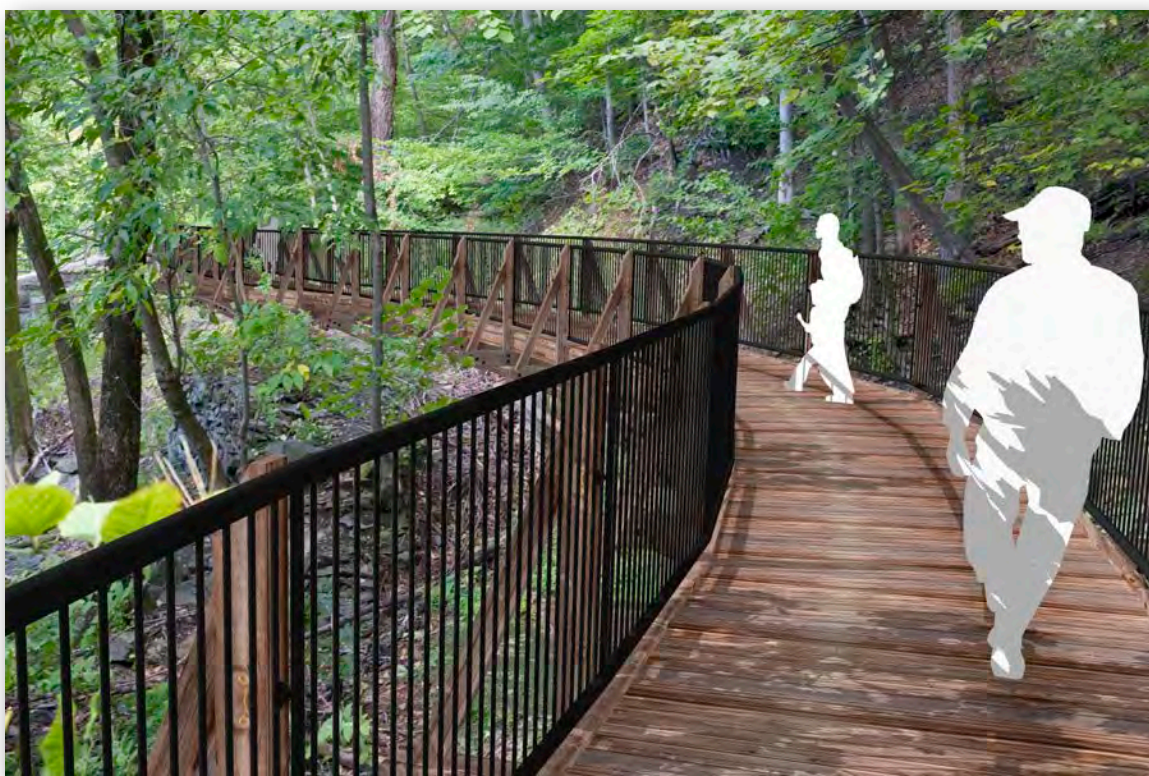
Existing Conditions View along Sucker Falls Raceway Wall (looking north)



Proposed View of Sucker Falls Raceway Boardwalk (looking north)



Existing Conditions View along Sucker Falls Raceway (looking south)



Proposed View of Sucker Falls Raceway Boardwalk (looking south)

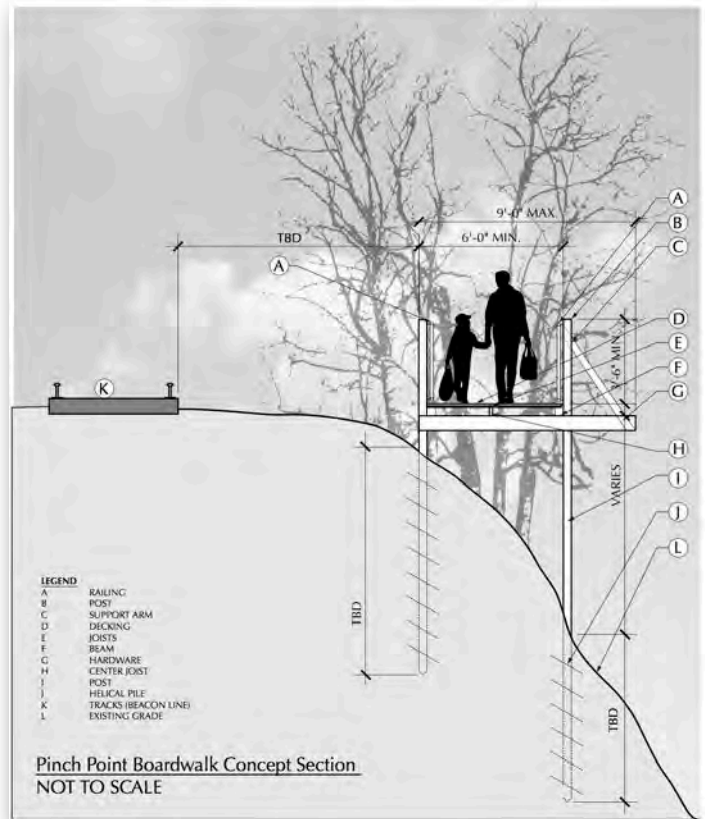
Pinch Point Boardwalk Concept - Another important point along the FCGHT that will likely require a connecting structure is a small 200' section behind the Tallix Foundry complex, which the plan refers to as the Pinch Point. With a little planning and creative design, this section of trail corridor that appears difficult to traverse becomes easily negotiable with the use of an elevated boardwalk.



Birds-Eye View of Pinch Point Boardwalk Concept

With a similar modular truss design as the Sucker Falls Raceway Boardwalk, this elevated boardwalk that would be located approximately 10' from the railroad tracks would be approximately 6' wide and protected with safety railings. The boardwalk would be set level or slightly below the elevation of the railroad tracks and ride above the existing grade. Foundations would be provided in the slope with the use of helical piles. The boardwalk would be constructed of the same combination of metal and wood using a modular method of construction. This location is accessible with the type and size of mechanical equipment that would be necessary to install the foundation piles.

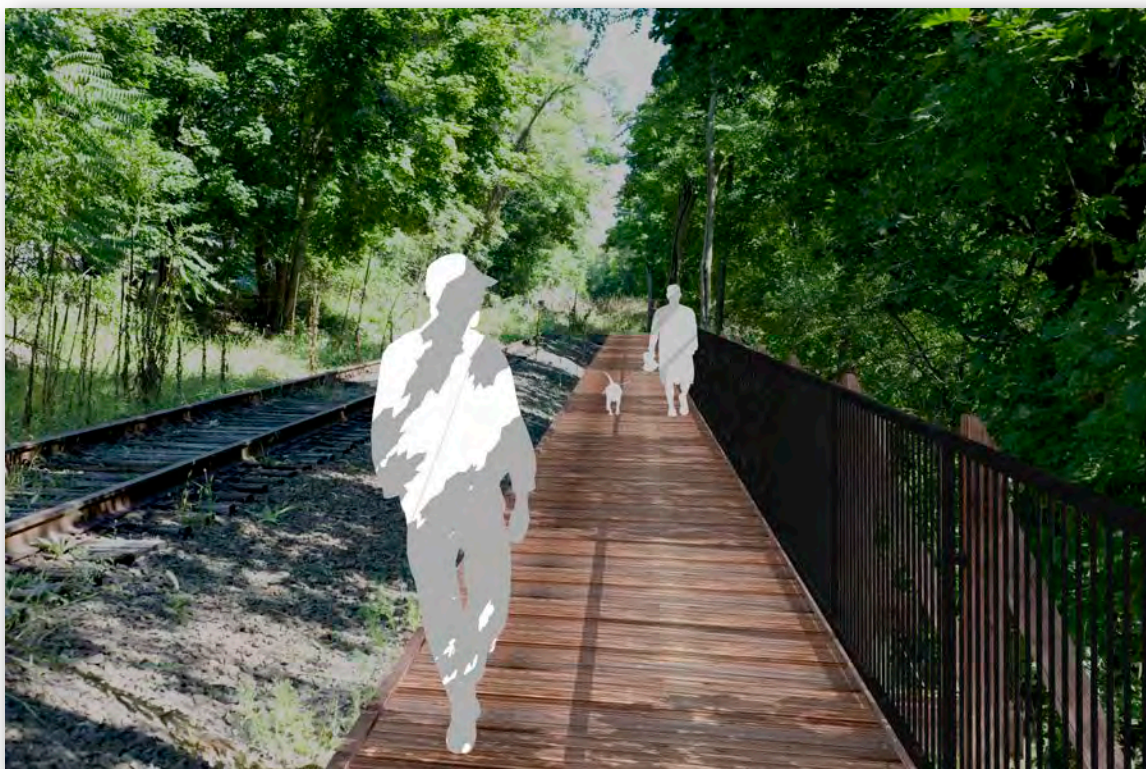
It is important to note that the above is a concept only and any boardwalk would need to be designed for specific site conditions.



Pinch Point Boardwalk Concept Section

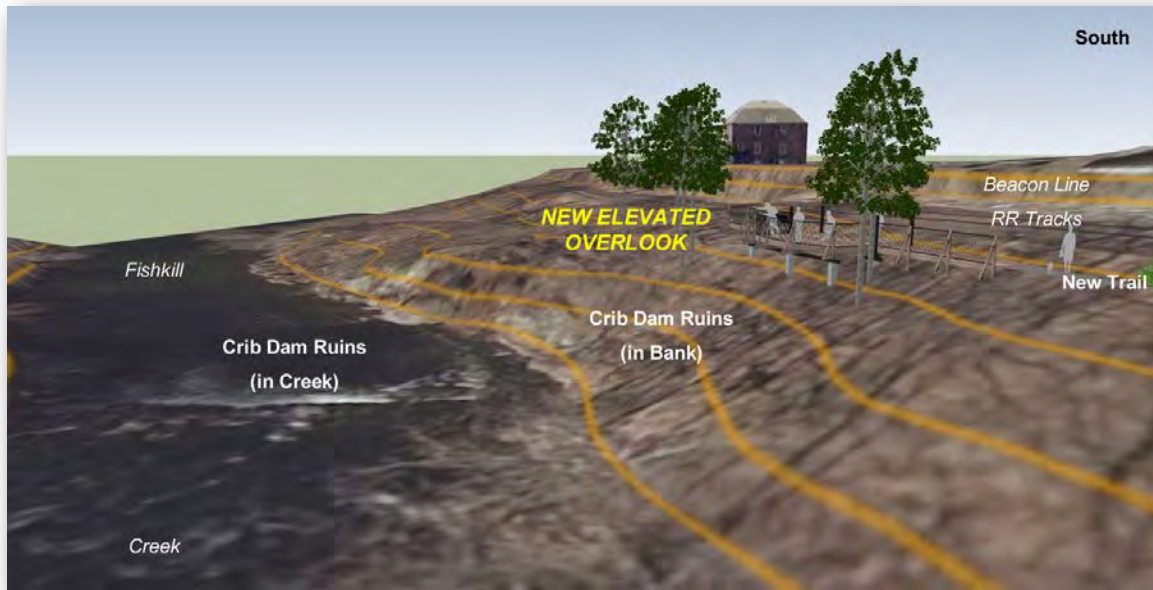


Existing Conditions View at Pinch Point (looking north)

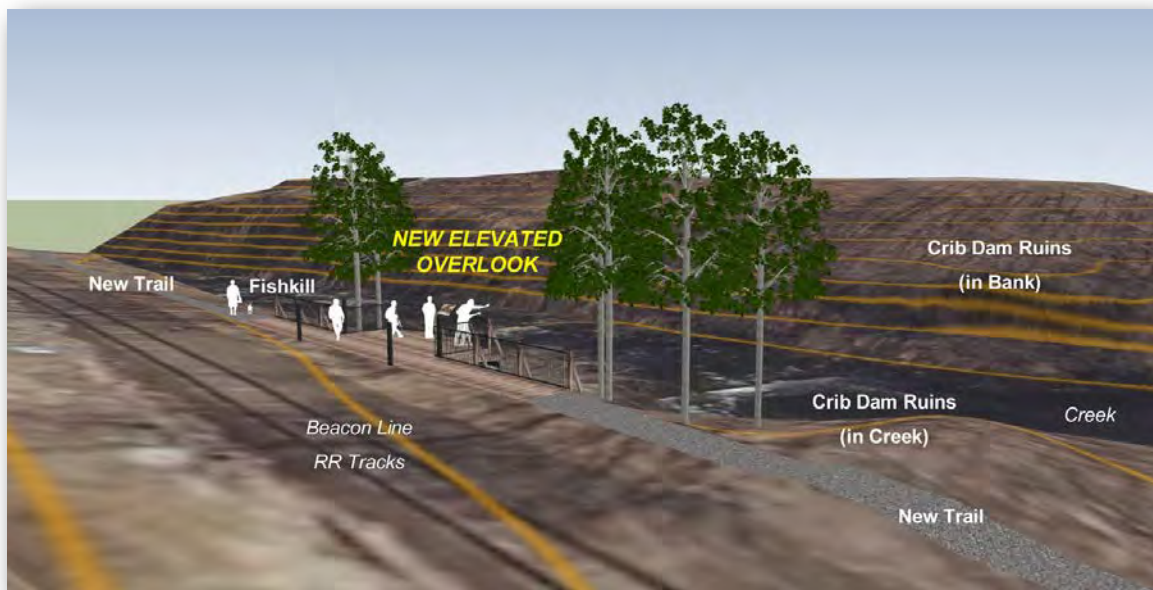


Proposed View of Pinch Point Boardwalk

Timber Crib Dam Overlook Concept - Similar to the proposed elevated boardwalk concept, a viewing platform is an elevated structure acting as a deck over challenging terrain to give trail users a bird's eye view of an important trail element. At this location, the FCGHT is proposing a viewing platform at the location of a historic Carroll Electric Company hydro-electric timber crib dam located north of the Tallix Foundry complex. The new platform would create a small trailside 'pull-off' where users would get a bird's eye view of the crib dam ruins within the creek bed and along the southern bank. The platform is envisioned at approximately 20' long and extending 12' beyond the trail edge. Integrated into the platform would be interpretive signage describing what users are seeing, its engineering and function, and its historical significance.



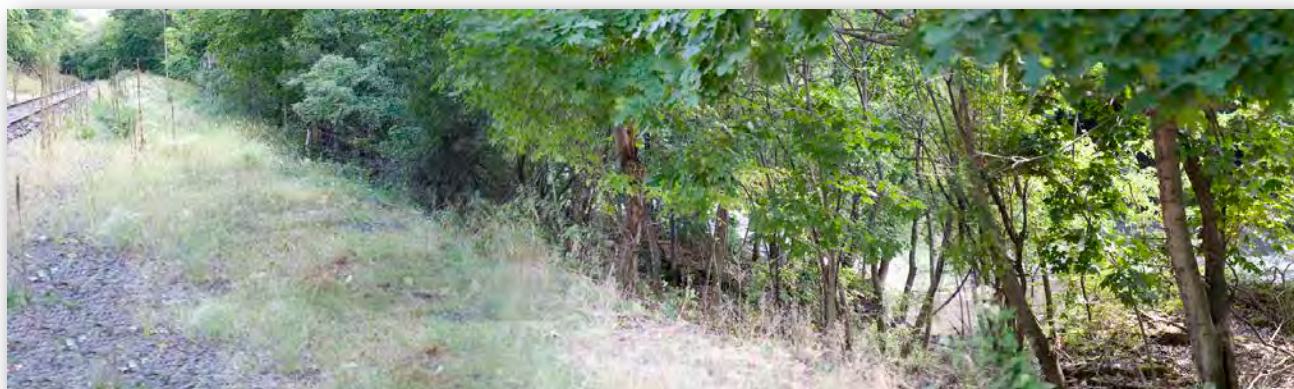
Bird's Eye View of Crib Dam Overlook (Concept)



Elevated View of Crib Dam Overlook (looking north)



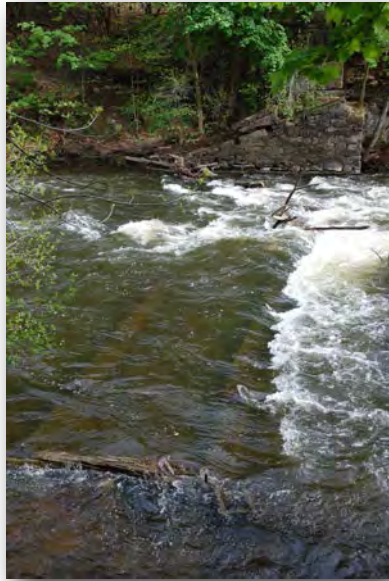
Elevated Viewing Platform Example (Kent Falls State Park, CT)



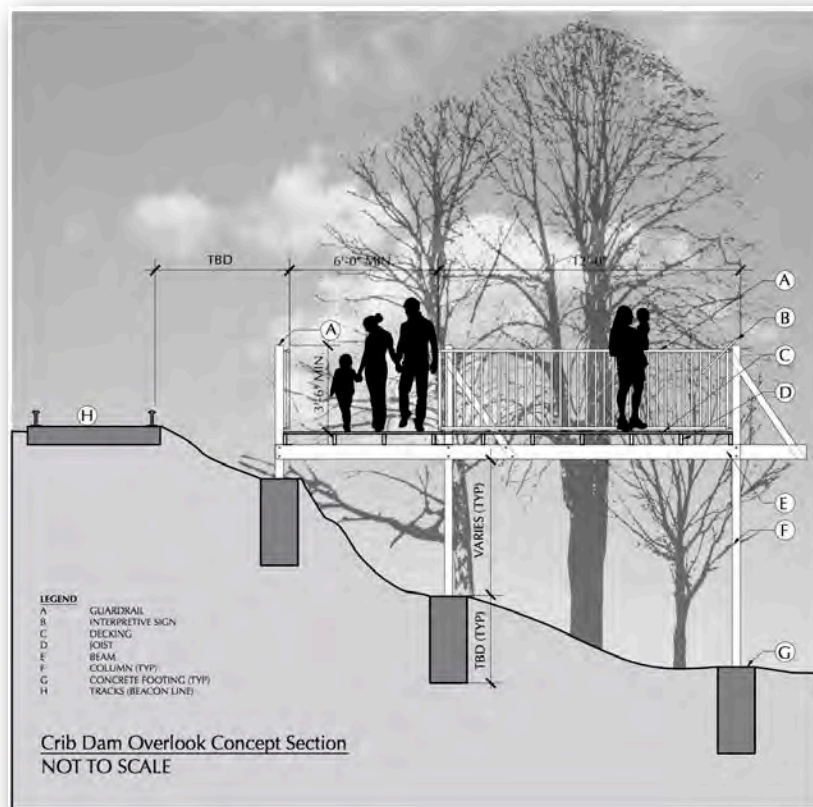
Existing Conditions View at Crib Dam Overlook (looking north)



Proposed View of Crib Dam Overlook



View of Timber Crib Dam and Infrastructure from Overlook



Crib Dam Overlook Concept Section

Boardwalks and Overlook Structures should go through an extensive design process to ensure they can withstand and do not contribute to flooding hazards, are ADA compliant, and minimize impact to the surrounding environment. The concepts shown in this master plan are intended to describe a

solution and aesthetic flavor and should be used for reference only. Actual boardwalk design and construction details must be developed for each specific boardwalk area to be constructed. Helical or 'screw' piles are recommended for building boardwalks and viewing platforms along the FCGHT. They are less disruptive to existing topography and soils, they bed better than concrete footings in slopes and they are more environmentally sensitive than using chemically treated lumber.

Rehabilitated Structures

There are 2 significant bridge sites along the FCGHT that serve as important historic resources. Although they are not imperative to the establishment of the FCGHT, their rehabilitation would provide vital greenway connections to the western part of the City and points south. These bridges are:

The *Tioronda Bridge* is located on South Avenue and is a rare multiple-span, wrought iron, riveted tubular bowstring arch truss bridge type built between 1869 and 1873. The intact structure was listed in the National Register of Historic Places in 1976.



The reconstruction of this bridge in any form would provide a critical connection to the major recreational resources to the east and south including Mt. Beacon Park, the University Settlement Camp and the Hudson Highlands State Park.

The *Bridge Street Bridge* is located at the end of Front Street and is a single-span, Whipple-type truss built by the New York Bridge Company in 1879.



The rehabilitation of this bridge for pedestrian traffic would provide a great access point to the trail from the northeastern most part of the City and would provide a direct connection the City's Hiddenbrooke Park.

Other Proposed Physical Elements

In order for the FCGHT to appeal to a wide variety of users, it should be designed to incorporate as many user conveniences as possible. Recommended trail amenities include the following:

Roadway Crossings - Each trail/street intersection should be examined individually as each has unique characteristics. Uniformity in the use of traffic control devices is critical to encourage proper and predictable behavior at intersections. The Manual on Uniform Traffic Control Devices (MUTCD) will be followed for size, shape, color and placement of traffic related signage on both the trail and the street at intersections. In addition, coordination with the City of Beacon and New York State Department of Transportation will ensure the proper design and layout of traffic control devices and/or signage necessary to warn users of public streets of trail crossings.

All street crossings will occur at grade. Where the trail crosses a public street, the street traffic will have the right-of-way and trail users will stop and yield to traffic on the public street. Signals may also need to be integrated into existing signalization, especially at Wolcott Avenue.

The physical improvements to be considered for designing safe crossings where the FCGHT crosses public streets fall into two broad categories: trail improvements and street improvements.

Trail Improvements - Consistency in design of the trail as it approaches an intersection is important to establish proper and safe use. The following improvements may be appropriate to alert trail users to be aware and concentrate on safely negotiating each street intersection:

- Warning signs of upcoming intersections should be placed well before the intersection.
- Cross rails and/or bollards forcing trail users to come to a complete stop before crossing the street.
- Stop sign along trail placed approximately 10 feet from the edge of the street.

Street Improvements - Although improvements to streets at trail crossings will vary according to the particular characteristics of the intersection, certain features will remain consistent:

- Advance warning signs placed before the trail crossing and identification signs at crossing point.
- Crosswalk pavement markings at crossing point and/or other "Trail Xing" markings on the roadway.
- No Motor Vehicles signs placed facing the street at all trail intersections if necessary.

Street crossings which will require some or all of these types of crossing improvements include **Wolcott Avenue (Route 9D), Churchill Street, East Main Street and Front Street**. *Street crossings should be designed in accordance with AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (July 2004 edition).*

Metal Staircase - One area of the trail is the proposed connection to Wolcott Avenue. Wolcott Avenue sits approximately 25' above the top of the Fishkill Creek bank where the FCGHT will be located. This elevation change is in the form of a steep abutment fill section associated with the Wolcott Avenue Bridge. This location is an important connection to the City sidewalk system and recreational points south.

In order to traverse this steep grade and make the pedestrian connection up to Wolcott Avenue, the most economical solution is the construct a light, metal frame staircase. It is envisioned that this

staircase would contain several overlook landings and safety railings. This proposed method and material of traversing this connection has the ability to be modular in design, carry a light footprint relative to ground disturbance withstand extreme conditions.



Outdoor Metal Staircase Examples (Mount Beacon Park)

Benches - Seating opportunities should be integrated along the route. Opportunities for seating exist at scenic viewpoints and transition areas such as trailheads. As a simple and affordable seating vocabulary has already been established within Madam Brett Park, the FCGHT should adopt that as the trail standard for targeted seating along the entire route.



Wood Bench at Madam Brett Park as standard for FCGH Trail

Bike Storage Racks – Bicycle storage racks should be an integral part of all trailheads designs. Storage racks provide another opportunity to blend the common identifying elements into their

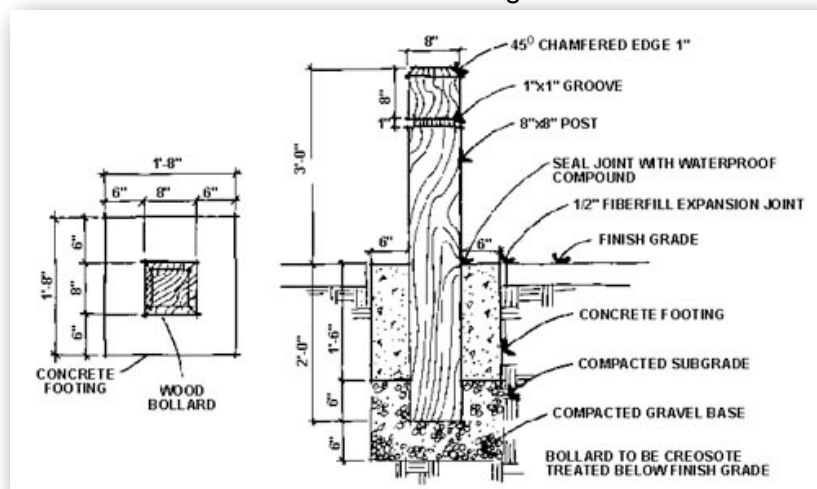
design. Bike racks should be constructed of sturdy materials able to withstand harsh conditions, both physically and elementally.



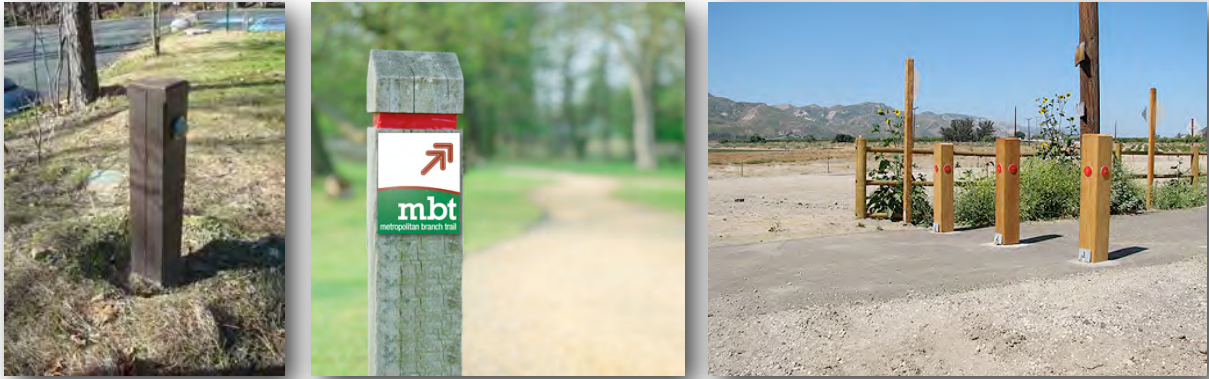
Urban Bicycle Racks Examples

Bollards - Posts or bollards at roadway-trail intersections and trail entrances will be necessary to keep vehicles from entering the Fishkill Creek Trail. Posts will be designed to be visible to trail users, especially at nighttime, with reflective materials and appropriate striping. Certain bollards will also be designed to be removable by emergency and maintenance vehicles.

- Fixed bollards: Should be used at roadway-trail intersections. Bollards should be heavy timber structures and spaced at five feet on center.
- Removable bollards: Install center removable bollards at intersections that can be keyed and locked to allow maintenance and emergency service vehicle access to the trail. Recommend use of metal connections and locking mechanism.



Typical Wood Bollard Detail



Wood Bollard Examples (with integrated lighting and signage)

Lighting – Adequate lighting at transition and other important locations is critical for public safety. Lighting should be placed at trail access points, in and around any enclosed spaces and at any road crossings. This will help facilitate security surveillance of the trail by police and other trail authorities. Full cutoff luminaries should be used to minimize unwanted light onto private property and employ dark sky lighting strategies. Lighting could be phased in along with larger trail development projects and/or as funding becomes available. At a minimum, lighting should be planned for during all phases of trail construction for ease of installation (i.e. installation of conduit).

Initial areas for site lighting should be at trailheads and around to Main Street (city center). Trail lighting within existing lighting districts should be incorporated into those districts and should coincide with the development of individual trail sections. For more remote reaches of the trail, advances in LED, solar and battery technology, installing remote solar-powered LED area lighting is entirely possible and should be incorporated whenever possible.



Pole Mounted LED Lighting Example (with or without solar power for remote areas)

Guiderail and Fencing – Boundaries are an important physical element that helps trail users understand and stay on the trail, protect sensitive areas and provide screening and security. Although the public often perceives elements such as guiderail and fencing as a means of assuring safety by prevention of unwanted access, too much hard screening can have the opposite effect by impairing informal trail surveillance. Inappropriate fencing can also degrade the experience of trail users, obscure views, and create a “tunnel” effect that makes users feel trapped. Some general rules to follow when considering the the use of guiderails and fencing include:

- A maximum fence height of six feet is generally sufficient to provide adequate privacy and security for adjacent private landowners. A lower fence height of four feet is sufficient to clearly denote private property ownership or will deter most unwanted access by trail users.
- Along the trail, a simple 2 or 3-row cedar post and rail fence or single row guiderails is generally adequate to direct users along an appropriate route.
- Should adjacent property owners choose to build fences, a variety of fencing applications can be considered.
- Solid fencing that does not allow any visual access to the trail should be discouraged.
- Fencing that allows a balance between adjacent residents’ privacy and informal surveillance of the trail should be encouraged.
- If fencing is desired purely for privacy reasons, vegetative buffers are recommended.



Wood Guiderail Examples



Wood Post and Rail Fence Example

Landscaping and Vegetative Buffers – Whenever possible, landscaping is the first choice for creating separation between the trail and adjacent properties. Vegetative buffers have the dual purpose of creating a natural privacy screen, providing habitat for some of the wildlife that live in the creek corridor, and stabilizing the creek bank. Landscaping can also be an effective barrier to unwanted access where needed.

There are several sections of creek bank have been disturbed from dumping of debris and past vegetation clearing. A sustainable method of restoring some of the areas along the creek is to re-establish native vegetation to provide bank stabilization, stream shading to improve water quality, and riparian habitat for wildlife.

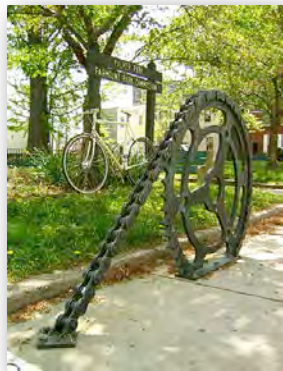
A key to establishing native vegetation is controlling non-native species such as Norway Maple, Alienhus, Japanese Barberry and Burning Bush. These aggressive species have invaded many impacted areas in the corridor and prevent the recruitment of native vegetation by monopolizing soil nutrients and space. While complete eradication of invasive species is not feasible, local control and removal would be necessary to allow the successful establishment of native plantings.

Recommended Native Trees: American Sycamore (*Platanus occidentalis*), Red Maple (*Acer rubrum*), Shagbark Hickory (*Carya ovata*), White Basswood (*Tilia heterophylla*), Ironwood (*Carpinus carolinia*), Dogwood (*Cornus alternatfolia*), Eastern Redbud (*Cercis canadensis*)

Recommended Native Small Trees / Shrubs: Witchhazel (*Hamamelis virginiana*), Serviceberry (*Amelanchier*), Silky Dogwood (*Cornus amomum*), Winterberry (*Ilex verticillata*),

Restrooms – The only potential for a fully functioning public restroom with water supply would be at a potentially repurposed highway garage structure. It is known that in the long term, the City Highway facility is slated for relocation. Conceivably the repurposing of the existing highway structure (or portion thereof) would be part of a larger redevelopment of this parcel as a public park. An alternate method for providing at least some kind of restroom opportunity would be a strategically located composting toilet station such as a Clivus Multrum. In any event, the inclusion of public restroom facilities would need to be part of a larger maintenance program and commitment.

Public Art - Local artists should be encouraged to produce artwork in a variety of materials for sites along the FCGHT corridor that reflect the Beacon Community and the Hudson Valley at-large. Public art can be aesthetic or functional, doubling as sitting or congregation areas. Providing opportunities for public display of art, the trail adds interest to the trail experience. And depending on the type and scale, unveilings can become large events and could serve to expand the trail user group bases.



Public Art Examples (Permanent and Temporary)

Refuse / Recycling / Pet waste pickup stations - The trail should establish the National Park Service ethic of “pack it in, pack it out”. However, should refuse and recycling containers be provided, they should be placed at proposed trailhead locations. Dog waste pickup stations (bag dispensers) should also be placed at trailheads and key neighborhood access points along the route. Signs should be placed along the trail notifying pet owners of the local City leash law and to pick up after their dogs. Local grocery stores may be willing to donate rolls of produce bags for these stations. The City should also modify the local leash law to include picking up after pets while using this and/or other trails within the City.

Trail Signage

There are many different issues to consider in the design of trail signage. Signs along the FCGHT will need to serve a variety of purposes, including control of pedestrian traffic, provide warning of potential hazards to users, identify connection points, provide educational content or historic information, and mark distances. Signs will need to be designed so they are legible, properly placed and made of durable materials that are resistant to vandalism and easy to maintain. The need for signage must be balanced with the idea of creating a visually pleasing landscape and should not interfere with the intended use of the trail.

Signage Types

The design of signage will vary depending of the type of information is trying to be conveyed.

Signage types include:

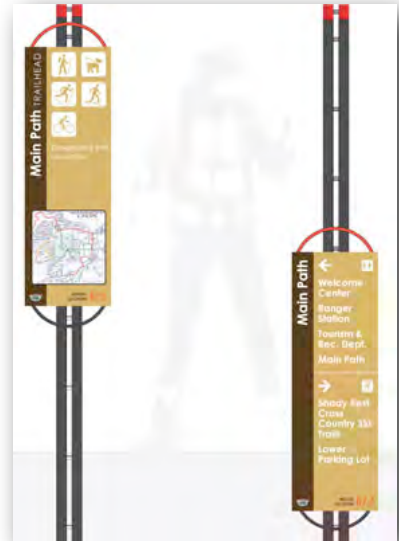
- *Trail Identity Signage* should be designed in concert with the development of trail branding and incorporated into all developed signage.
- *Trail Directional Signage* should follow established standards for control of traffic and warnings including AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities July 2004 ed. and the New York State Manual for Uniform Traffic Control Devices, latest edition.
- *Interpretive and Educational Signage* can be established using context and themes such as environmental and historical topics. For example:
 - *Environmental* - The Fishkill Creek is designated as a Coastal Fish and Wildlife Habitat (New York State Department of State, Coastal Resources). As such, it is recognized as a rich ecosystem (ecosystem rarity, species vulnerability) and is considered irreplaceable. This designation can be represented in the education programming of the trail through interpretive signage, tours or other user engagements.
 - *Historical* - The Fishkill Creek was historically an important manufacturing and transportation corridor. The trail route passes many buildings, sites and structures representing important themes in local and American architectural engineering, industrial and transportation history, including several resources listed in the National Register of Historic Places. These resources could be interpreted to the public using traditional or contemporary virtual methods.
- *Way-finding Signage* (GPS coordinates, Mile-markers, etc.) serve to orient trail users and mark traveled distances. They also serve as important field markers for emergency personnel. Distance along the trail should be marked in quarter-mile intervals by a mileage marker sign placed off the side of the trail. Information included on the makers should be distance in miles and the FCGHT logo. Mile markers should also be incorporated into all trail maps.



Informational Signage



Directional Signage



Way-Finding Signage



Honorary Signage



Interpretive Signage



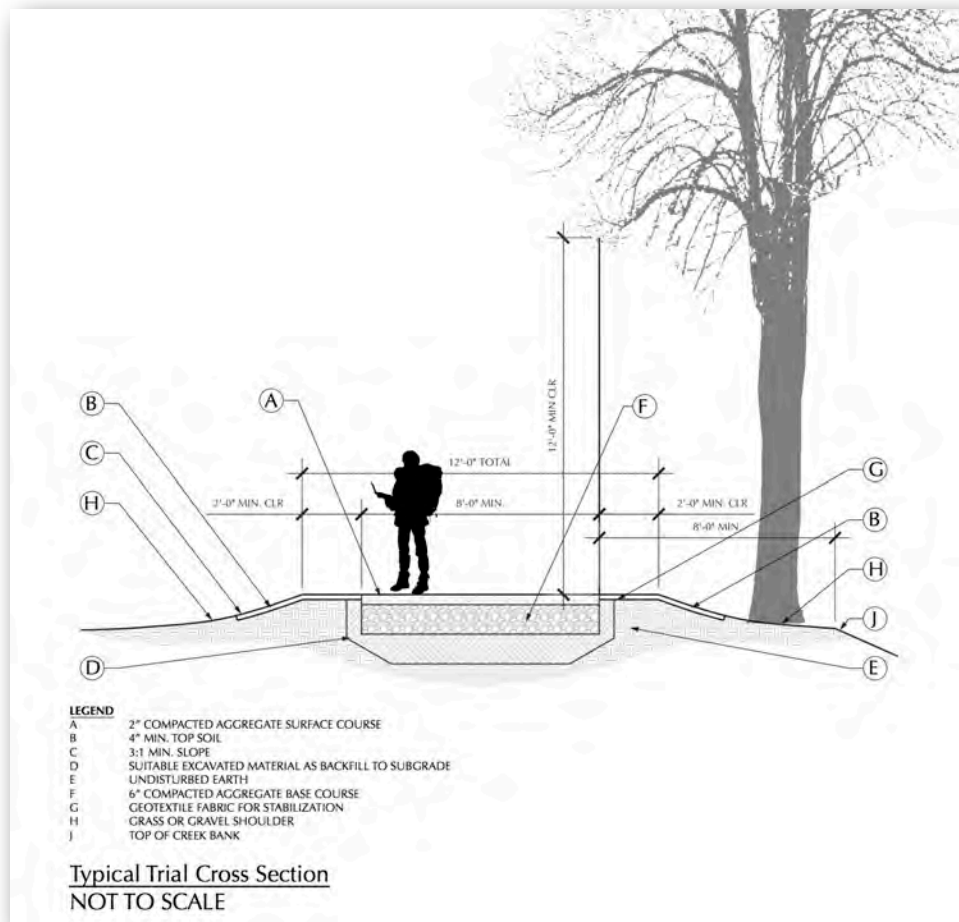
Ground Signage

Trail Signage Examples

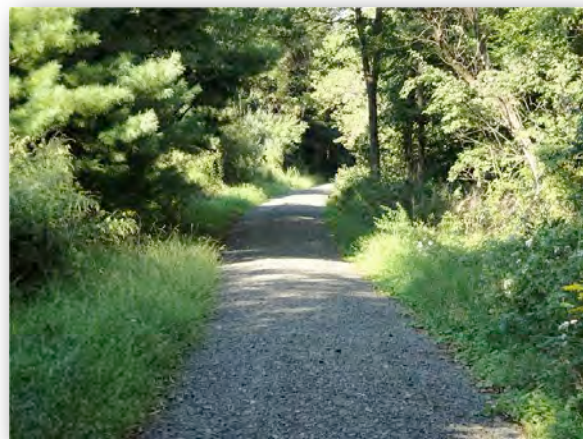
Proposed Trail Design Standards

The trail standards that follow are intended to direct the detailed design and construction of recreation facilities along the FCGHT as gaps in the trail are completed and facilities are added or upgraded. These standards will help create and ensure a unique identity for the trail corridor by maintaining consistency in materials and trail features. Over time, these standards allow trail users to become familiar with the characteristics of the trail, including their location, within the greater context of the trail corridor and the surrounding urban setting, what types of facilities to anticipate, and where to locate additional information. The described standards are intentionally simple and consistent.

The trail will be constructed using similar methods to sidewalk or residential driveway construction. The typical trail Soil conditions through particular section of the trail should be analyzed and specific trail layer specified to respond to soil conditions.



Trail Geometry - Based upon the analysis of existing environmental conditions and considering the proposed trail use groups, **the optimal recommended trail width is 8-feet wide**. This width appears to be achievable along most of the project corridor with the exception of a few select 'pinch-point' locations.



Gravel Trail Surface Examples

Grades - The FCGHT corridor is relatively flat for most of its alignment. The recommended maximum trail slope is 1:20 or 5%. Steeper grades (8.33%) can be tolerated for short distances, however, railings and landings every 30 feet would be required in order to maintain ADA accessibility. There is only one potential area where a ramp will need to be built to provide ADA-compliant access: the connection to Wolcott Avenue.

Trail Width	8 Feet typical; 6 feet for Boardwalk
Trail Surface	Compacted Stone Dust, Asphalt or Wood
Trail Shoulder	2' wide each side, wood Chips or Pea Gravel
Clearances	Vertical - 10' Minimum , Horizontal - 2' beyond shoulders
Trail Slope	1.0% (1:100) minimum; 5.0% (1:20) maximum
Trail Cross Pitch	1/4" per foot minimum; 2.0% maximum

Typical Trail Design Recommendations Table

Trail Surfaces – It is recommended that the vast majority of the FCGHT corridor will benefit from a compacted gravel trail surface. Construction would include a compacted gravel subbase and surface coarse similar to a residential driveway. This is the most cost effective trail surface and with proper installation and maintenance, the compacted gravel base will last indefinitely. Should any 'soft' areas be encountered, the inclusion of a geo-fabric may be required or even a short section of asphalt top course may be warranted.

Trail Shoulders - Two-foot wide soft shoulders should be provided on both sides of the trail giving a minimum clear distance of 12' for the trail before any impediments. This setback and also serves as a tactile warning device for anyone inadvertently swaying off the trail. Wood chips or ¾-inch minus crushed aggregate are both suitable materials for the trail shoulders.

Slope setbacks - Development setbacks are important for maintaining creek bank integrity, preserving habitat, and reducing the potential for erosion. In general, the larger the trail setback from the creek bank, the greater the benefit; however, large setbacks are not always feasible within developed areas or conducive to the intended experience. The final location of the proposed trail should be as close to the top of the Creek bank as possible, however, this should be balanced with areas of greater setback in critical areas. The major goal is to be within viewing distance of the moving water.

Clearances - There are only a handful of places along the proposed trail route where horizontal clearance is a consideration. In general, the vertical clearance along the trail should be kept at a minimum of 12 feet and should extend 2-feet beyond the trail shoulder.

IMPLEMENTATION

Approvals and Action Items

PLAN ADOPTION BY CITY COUNCIL

The first step in implementing the FCGHT is for the City of Beacon to formally adopt the plan. This formal adoption must be taken by the City Council. In New York State, most projects or activities proposed by a state agency or unit of local government, and all discretionary approvals (permits) from a NYS agency or unit of local government, require an environmental impact assessment as prescribed by [6 NYCRR Part 617 State Environmental Quality Review \(SEQR\)](#). [Statutory authority: Environmental Conservation Law Sections 3-0301(1)(b), 3-0301(2)(m) and 8-0113].

SEQR requires the sponsoring or approving governmental body to identify and mitigate the significant environmental impacts of the activity it is proposing or permitting. On completing an Environmental Assessment Form, the lead agency determines the significance of an action's environmental impacts. The agency then decides whether to require (or prepare) an Environmental Impact Statement and whether to hold a public hearing on the proposed action.

SUGGESTED CHANGES TO CITY ZONING CODE

The primary focus of this Master Plan is to identify the preferred route of the FCGHT, considering proximity to the Fishkill Creek, topographical opportunities, scenic viewpoints, and environmental and historic resources.

To help facilitate the implementation of this Trail, the Plan recommends the following changes to the zoning code.

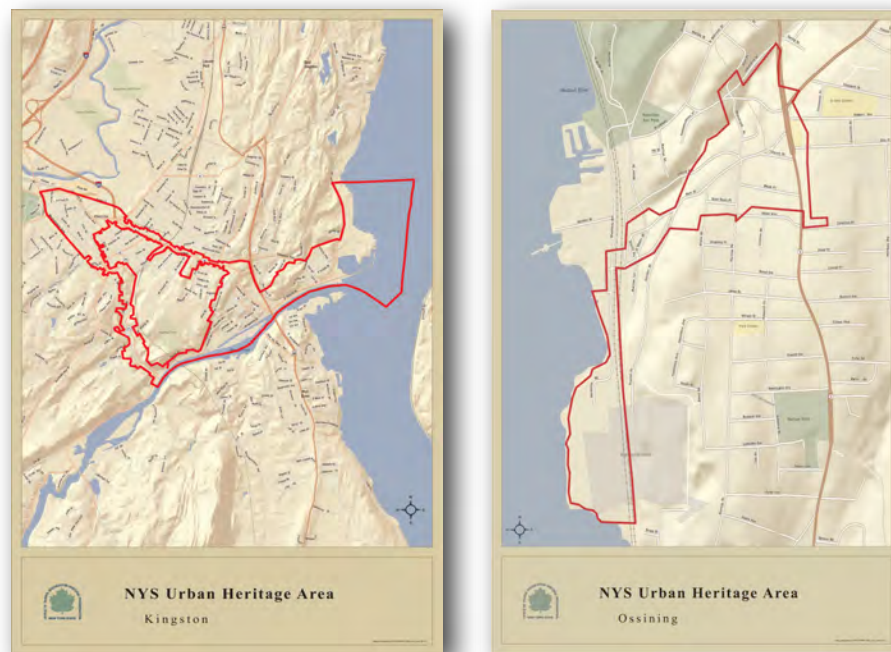
- Amend section 223-41.13.I.(11).(b) (Fishkill Creek Development District) to require an easement or right-of-way be adjacent to the Fishkill Creek, and greater than the required 20 feet if the preferred alternative of the route identified herein this plan extends greater than 20 feet from high water mark of the Fishkill Creek.
- Amend the aforementioned section to include a provision that the trail specifications (width, material, etc.) follow the recommendations within this plan.
- Amend the aforementioned section to include a provision requiring the developer to provide a lateral access to the trail if:
 - i. There are no other access points provided within (TBD) feet of the property boundary; or
 - ii. The property has been identified as a recommended site for access. Lateral access will serve as emergency access and be designed as such.
- Amend the aforementioned section to ensure trail is open to the public from dawn to dusk.
- Amend the aforementioned section to require the developer to either
 - i. provide at least one architectural/educational/landscaping amenity (other than the trail itself) as described in the preceding chapters of the Plan; or
 - ii. pay into a fund for amenities/improvements made by a friends group (see "Maintenance/Stewardship" chapter).
- Applicable principles of the Fishkill Creek Development (FCD) District, as amended, should be applied to the parcels between the north side of Fishkill Creek and Tioronda Avenue, Main Street, and Fishkill Avenue (north of Wolcott Avenue continuing northeast to the City boundary with the Town of Fishkill).

- Right-of-way or easement: The aforementioned section should specify the intended recipient of the easement and/or identify the details of the right-of-way agreement (see “Stewardship” chapter).

POSSIBLE APPLICATION TO NEW YORK STATE FOR URBAN HERITAGE AREA STATUS

The City of Beacon could also improve its eligibility for obtaining grants by applying to the State of New York for the Hudson River Waterfront and FCGHT corridor to become a certified NYS Heritage Area. The Heritage Area System is a state-local partnership established to preserve and develop areas that have special significance to New York State. Heritage Areas encompass some of the state's most significant natural, historic, and cultural resources, as well as the people and programs that keep them vital. Heritage development is a revitalization strategy that incorporates smart growth principles to promote sustainable development and enhance quality of life through programs and activities in historic preservation, resource conservation, recreation, interpretation, and community capacity-building that demonstrate respect for the people, the place, and the past.

Similar examples of a NYS Urban Heritage Area exist along the Hudson River that link waterfronts with downtowns include the City of Kingston and the Village of Ossining.



NYS Urban Heritage Area Examples (City of Kingston and Village of Ossining)

For more information, refer to the NYS Heritage Development Resource Guide at:

<http://nysparks.com/historic-preservation/documents/HeritageDevelopmentResourceGuide.pdf>

Deeds and Easements

The FCGHT will most likely consist of a combination of different kinds of legal agreements between the City of Beacon and property owners on whose land the proposed trail may run.

While the exact legal implementations might vary from parcel to parcel, the agreements must include language that not only defines an unambiguous boundary for the trail but also keeps the

trail in perpetuity so that as each title of a specific parcel changes owner over time, the passage rights, terms and boundaries of the trail remains fixed and constant.

Should any parcel's agreement be too vague in definition or not guarantee perpetuity, the entire integrity of the trail is at risk because a large segment could suddenly become inaccessible.

The success of this trail very much depends on the strength of these agreements. Every subsequent agreement actually encourages further adoption as both social pressure from within the community increases but so does perceived value. As higher land value is connected to proximity to public parks, landscaped shorelines, ponds, streams, waterfalls, etc., as this particular trail becomes more defined, cared for, landscaped, and developed in positive way, each parcel owner's land value naturally rises accordingly. Contrarily, should the agreements be weak and allow for destructive development or even complete withdrawal from easement, the negative impact on neighboring parcels trickles down.

Several types of agreements are commonly used throughout the region and include: *Public Access Easements* and *Conservation Easements with Passage*.

Liability and Insurance

Property owner liability is addressed in New York State's Recreational Use Statute (General Obligations Law § 9-103). The following excerpt is from the Hudson River Valley Greenway document entitled "NEW YORK STATE'S RECREATIONAL USE STATUTE: "THE GENERAL OBLIGATIONS LAW" - *"The Recreational Use Statute (General Obligations Law § 9-103) was established to encourage landowners to open up their land to the public for certain specified recreational uses, by indemnifying these landowners from liability."*

As is planned, so long as the FCGHT is free and open to the public, landowners are protected from liability through the above statute.

Refer to Appendix D for copy of NYS General Obligations Law § 9-103.

Suggested Phasing and Priority Areas

The primary purpose for a trail phasing plan is to ensure a logical sequence of implementation that provides a high degree of success as each phase is built, thereby building momentum for each future phase of the project. Success is directly correlated with a substantial level of use, strong public and political support, and proven effective management of the trail as each phase is implemented.

There are many variables that will dictate trail implementation and many different approaches the City could take to acquire rights for trail development. This item should also include temporary and alternate routes as the main trail is constructed over time. The following are suggested pilot projects:

- Integrate Greenway Trail signage from Beacon Train Station to Denning's Point State Park
- Connector Trail from Dennings Avenue (Klara Sauer Trail) to Madam Brett Park - Metro North / City of Beacon (under development)
- Front Street to Beacon/Fishkill line - Hudson Baylor (existing social trail)
- Wolcott Avenue Pocket Park through Beacon Highway Department property to Creek Drive (within City control)

It is assumed that the majority of funding for implementation will be acquired through grants from various agencies and organizations and private fundraising and donations. Grant amounts are unknown at the time of this master plan. Success of the first built phase is critical to securing future funding. The first phase must be well received by the public and become a model for all other future phases.

Refer to Appendix F for a complete list of potential funding resources avenues.

LONG-TERM MANAGEMENT

Stewardship, Public Safety, and Maintenance

Stewardship - The Beacon Greenway Trails Committee envisions that the committee will continue as the immediate overseeing organization for the implementation of the FCGHT.

The best course for stewardship of the trail will be to gain easements in perpetuity on FCGHT trail impacted parcels of land, as well as commitments from land owners to support the FCGHT through ongoing maintenance of the trail and its surroundings. These easements should be held and administered by the City of Beacon with input from the Greenway committee or other overseeing management body. As parts of the FCGHT are developed and opened to the public, either through the efforts of developers or landowners working in concert with the Greenway committee, or through the activities of the Greenway committee itself, those sections would be added to the trail.

Public Safety - Although it is envisioned that the FCGHT will be safer through its establishment than not, the committee understands the community is concerned about public safety and, should access to the trail be necessary, that the access to the Trail be thought out ahead of time. To this end the committee has identified along the trail points of likely access to it. These points might be used by emergency responders if the need should arise. Subsequent phases of the project should note the mileage along the trail, what vehicles might be accommodated and other information helpful to emergency access. A Trail Ambassador program could be established to work with the appropriate agencies - police, fire, EMS, etc., to create and keep this information current.

Maintenance - Although many of the sections along the trail will be maintained by individual property owners as part of the overall maintenance of a redevelopment project, the Beacon Greenway Trails committee will work with volunteer organizations to undertake both regular and specific maintenance activities of the FCGHT. Programs would include:

- 'Adopt A Trail' sponsorships, where local businesses and organizations claim a section of the trail, and maintain it through performing or underwriting periodic clean-ups.
- Coordination with organizations like the Boy Scouts, Boys and Girls Club, and Beacon School programs, like Green Teens.

To the degree possible, the overseeing trail management body should creatively work with land owners and developers to maintain the FCGHT. We are also hopeful the the City of Beacon itself will recognize the value of the FCGHT and provide good faith services and materials as necessary.

Branding and Marketing

Trail branding would apply to the full breath of informational and promotional material and would consist of a logo, typography, and color themes. Branding of the trail should begin in the earliest stage. As the trail is undoubtedly going to be developed in discrete sections with independent sources of funding and under various umbrella organizations, it is crucial to maintain a cohesive brand. Additionally, as branding is important for the communication, fundraising, and public relation needs, having a branding strategy in place early, will further inform the design decision with the website(s) and fundraising/awareness campaigns that will take place.

Logo - The logo should connect the trail to the city of Beacon as well as connect any state-wide greenway branding that may exist. The logo should be quick to identify and be distinct enough from other local logos in use within the city. Furthermore, the logo will undoubtedly be applied to large format signage, letterhead and brochures, as well as small icons on websites, mobile devices, and

social media sites; accordingly, the logo shall be designed in such a way as to scale proportional within all contexts and maintain its core integrity.



Trail Logo Examples

Colors & Typography - Part of any branding strategy includes coming up with complementary color palettes and typefaces. As with the logo, the choices of color and typography need to scale properly on large format signage, brochures and letterhead, and websites, mobile devices, and social media sites.

Digital Assets - The branding should culminate in a deliverable of master files of the logo, companion assets, and a style guide that should be kept in multiple locations and provided to designers and volunteers as needed through the lifetime of the brand.

DIGITAL MEDIA

Having a website is important for any entity or organization that needs to continually communicate and interact with the public. For the purposes of this FCGHT, a website can function in several key ways. As technology and associated media continual evolve, it's important for the FCGHT to keep pace and utilize the technology that best suites it needs; thus, the digital / media strategy should be broken down into several discrete modes.

Domain Name - A top level domain should be reserved such as “fcght.org” or some other variant. The choice of the domain name would emerge during the overall branding strategy.

Brochure Website - The FCGHT “brochure website” should be created as early as possible, but after the branding strategy has been completed to avoid the requisite changes and the associated cost. As more and more internet use is taking place via a mobile phone (or smart phone), it is crucial to have a website that work equally well on both large monitors as well as small hand-held devices including tablets.

The website can function early to build awareness, advocacy, fundraising, and volunteer recruitment. It can also function in an informational capacity with trail maps, photographs, historical and archeological guides, etc.

Social Media - Popular websites such as *FaceBook*, *Twitter*, *Google+*, and *Pinterest* should be leveraged as another way of connecting and build awareness with the public. As the above are all proprietary platforms, there use should always be secondary to a more typical “brochure website”;

however, at various times and with specific segments of the population, these social media sites can be very effective ways to speak to a particular cross-section of the community.

Mobile Opportunities - In addition to the functioning as a “brochure website”, there are interesting ways in which mobile devices that are increasingly “always connected” can be leverage to expand and enhance the trail experience.

GPS Trail Guide - As mobile devices continually evolve with better performance and specific sensors such as GPS chips (Global Positioning System), it becomes very possible to provide users of the trail with immediate up-to-date information such as: direction finding, personalized points-of-interest, editorialized tours, etc.

Interactive Educational Applications - Applications could be developed that make use of the specific features of a mobile device that could provide a rich educational experience. By simply photographing or pointing ones phone at a particular structure, sign, or even generalized direction, a trail visitor could enter into an experience that might teach them about local flora & fauna, specific history, or ecology. Local schools could take advantage of these types of applications for use on field trips. Conservation groups and organizations could lead tours specifically tailored to their particular missions and point of view.

Social Media Applications - Trails and park can become great assets to the surrounding community. A community begins to value its land and natural resources when they are cared for and become part of the very fabric of daily life. Encouraging frequent usage of the trail is vital to its long term sustainability - one way to build community is through sharing experience through social media postings, photos, and other interactions such as “check-ins”.

PRINT MEDIA

While digital media is very powerful and growing in influence, traditional print media continues to play an important role.

Brochures - A brochure can be a very valuable part of building awareness as well as providing useful information. It also has the added advantage of being portable and reliable as it can be folded and placed into a backpack or pocket.

Brochures can also be distributed in a wide variety of locations both locally as well as regionally and can help increase usage. As with the digital media, the design of the brochure should follow the branding strategy. The brochure should contain a trail map, photographs, and other pertinent information such as trail rules, hours of operation and donation outlets.

Trail Guide - Smaller more compact trail guides might be important to have available along different parts of the trail as well as in local establishments. This guide would function more in a utilitarian role than an advocacy or marketing role. It might only need to be black & white and printed on very inexpensive paper. A larger more colorful trail guide with more points of interest can be made available for download on the website or for sale which could offset various printing costs.

Public Education

While the trail user’s experience is primarily one of motion, , there is a great opportunity to provide pausing points along the trail to highlight a scenic view and/or educate the user of the surrounding landscape. The word “heritage” in the Fishkill Creek Greenway & Heritage Trail’s name reflects the variety of historic buildings, sites and structures located along the trail route. These historic

resources could be included in public interpretation to educate trail users about several historic themes common to Beacon and the Hudson River valley. Themes and examples include:

- *Architecture* - Urbanized sections of the trail route include the Main Street Local Historic District which demonstrates the late nineteenth-century economic growth of the village of Matteawan fueled by manufacturing at the falls that made it the civic and institutional center of the area. Joseph Howland's Tioronda Estate and the Howland Cultural Center represent Victorian-era estates and philanthropy.
- *Manufacturing* - Fishkill Creek's industrial sites reflect two hundred years of manufacturing that fostered growth of Matteawan and Fishkill Landing. Surviving resources demonstrate the variety of products including bricks, machinery, tools, rubber, etc. associated with the creek. The 1814 Schenck Cotton Mill is a rare early surviving Hudson River valley textile mill. The Matteawan Manufacturing Company and Tioronda Hat Co. are surviving examples of Beacon's flagship hat manufacturing industry.
- *Water Power* - Fishkill Creek was dammed at several places providing mechanical and electric power, impacting Beacon's economy and natural landscape. Sucker Falls Dam is associated with the 1709 Brett grist mill, Beacon's first water-powered industry. The Carroll Electric Light Co. Site is an early Beacon electric utility that provided power for manufacturing, lighting, and transportation.
- *Transportation* - The trail incorporates historic marine and rail infrastructure reflecting the role of Matteawan and Fishkill Landing in regional transportation patterns. The trail follows the right-of-way of the Dutchess & Columbia/New York & New England Railroad which was a vital New England rail link. Fishkill Landing was an important rail and ferry transfer point between New England and the Midwest.
- *Engineering* - Fishkill Creek is crossed by several bridges representing the evolution of bridge engineering and design. These include the 1879 Bridge Street Bridge, a rare surviving example of a metal truss designed by New York engineer Squire Whipple. The 1933 Wolcott Avenue Bridge is a "City Beautiful" era decorated reinforced concrete arch designed to complement its surroundings.

Scenic Hudson currently organizes an environmental education module with the City of Beacon schools. Students learn about the Hudson River and Fishkill Creek ecosystem in the classroom and then are afforded a hands-on opportunity during a field trip to the site. Scenic Hudson also hosts other schools and groups interested in learning more about the Fishkill Creek and volunteer work days.

In addition to interpretative signage, activities such as Scenic Hudson's "Nature Notes" program allow users a digital and remote opportunity to experience and learn about the Trail.

Volunteer Plan

While construction of the FCGHT is envisioned to take place as part of the larger redevelopment of FCGHT impacted parcels, there are certain sections of the trail where volunteers may take the lead on trail implementation in partnership with the City and/or other private organizations. This is particularly true within Madam Brett Park, the connection to Wolcott Avenue and sections of trail within lands owned by Metro-North. The committee will work with local organizations and businesses to help in the construction of the FCGHT. This will include groups such as:

- The Boy Scouts, Boys and Girls Club, and Beacon School programs such as 'Green' Teens,
- Recreation-oriented groups interested in the use of FCGHT for biking, hiking, fishing, and boating, such as Bike Beacon,

- Groups interested in supporting Beacon's Greenway and open space projects such as Friends of Hiddenbrooke and Beacon Streets,
- Environmental, historical and educational oriented groups interested in preserving and sharing the natural environment, and the historic artifacts along the FCGHT tract, and the educational opportunities they offer. These groups could include the Beacon Institute for Rivers and Estuaries, Scenic Hudson, and the Beacon Historical Society.

Volunteer workshops should be organized around various trail development and maintenance activities, along with coordination with other organizations, individuals and businesses on their involvement and the plans for the application of their labor. The committee plans to involve community organizations to support various work projects.

APPENDIXES

- A Detailed Project Area History
- B Detailed Environmental Conditions Maps
- C Detailed Resource Inventory Maps, Table and Descriptions
- D NYS Recreational Use Statute (Liability)
- E Sample Trail Easement
- F Funding Opportunities

APPENDIX A - PROJECT AREA HISTORY

The Fishkill Creek was an axis of industrial development for over 300 years. The dams at a half-dozen mill privileges along Beacon's stretch of the creek provided water for power generation, industrial processing and waste disposal for factories processing grain, wood, fabric, metals, rubber and other materials. The banks provided a favorable route for a railroad line that provided transportation for raw materials and finished goods. The industrial village of Matteawan expanded around the largest falls and industrial node on the creek and eventually became a major part of the City of Beacon. Fishkill Creek's story is a typical American river story that reflects many themes in U.S. industrial history.

The fortunes of the Creek's mills and factories were tied to universal boom-and-bust economic cycles caused by "crashes," tariffs, wars, and changes in technology, geography and, in the case of Beacon's flagship hat-making industry, style. Although there is no longer any manufacturing on Fishkill Creek, which has largely reverted to nature in places, the mill privileges remain, and include historic cultural resources ranging from industrial archeological sites to fledgling commercial and residential redevelopments. Compared to other small mill towns in the Hudson River valley, Beacon is unusual in the number of historic industrial buildings that survive; however, many of these are underutilized or threatened.

Seventeenth-Century Beginnings

The area that now includes Beacon, NY was originally part of the Rombout Patent, 85,000 acres of land on the east side of the Hudson River between Fishkill Creek and Wappingers Creek. This land was purchased from the Wappinger Native American bands by Francis Rombout and Gulian Verplanck in 1683. During the first decade of the eighteenth century, the area now known as Beacon was settled by about a dozen European families in two small villages; Fishkill Landing on the east bank of the Hudson River, and Matteawan just inland on the Fishkill Creek. Archaeological evidence shows that prior to arrival of European settlers, the Fishkill Creek was an important Native American route between the estuary at the Hudson River and the interior hills to the northeast.

The first European settlers on the lower reaches of Fishkill Creek were Roger Brett and his wife Catharyna Rombout Brett (1687-1764), Francis Rombout's daughter. The Bretts were granted a mill privilege on the lower third of the creek in 1708. The following year they built their homestead, which still stands at 50 Van Nydeck Avenue in Downtown Beacon, just several hundred feet west of the proposed trail route. This house, which is the oldest surviving building in Dutchess County, was listed in the National Register of Historic Places in 1976 and is operated as the Madam Brett Homestead museum by the Daughters of the American Revolution.

Roger and Catharyna Brett also built a grist mill near the mouth of Fishkill Creek at a location somewhere between the privilege at what is now called Sucker Falls and the present site of the Tioronda Bridge and hat factory ruins at Madam Brett Park. Roger Brett drowned in 1726 and his wife carried on his affairs. Catharyna Brett held a monopoly on milling rights in the area through deed restrictions she placed on her upstream land sales. Her mill became an important destination for area farmers from both sides of the Hudson River who needed grain milled, and the Frankfort Storehouse was established to support the industry in 1743. Increasing demand for construction lumber prompted the conversion of some grist mills including Brett's to hybrid grist/saw operations. By 1776 there were small settlements clustered around the Fishkill Creek mills at the creek mouth and a mile or so upstream at Matteawan.

During the Revolutionary War, the Fishkill Creek corridor was the site of the Fishkill Supply Depot, which was the primary operations center for the northern battles of the Revolution and also the site of a massive Continental Army burial ground. Established in Fishkill by George Washington, it hosted thousands of soldiers for seven years and was a key support facility contributing to victory over the British. By the mid-eighteenth century, Fishkill Landing became a small but busy Hudson River port

village of inland Fishkill Village, which was located east on the Albany Post Road. By 1780 there were two dozen cargo sailing vessels operating out of Fishkill Landing.

Early Nineteenth-Century Growth

The first mill upstream at Matteawan Village was a grist mill constructed by Abraham Schenck at some point between the Revolutionary War and 1800. This mill was located at a dam (no longer extant) just upstream of the Churchill Street Bridge. Grain was milled at this site until 1915. Madam Brett's privilege near the mouth of the creek was expanded and hosted a succession of mills that lasted until the 1860s including a grist mill and white lead factory. At one point in the early nineteenth century there were four grist mills in as many miles at the waterfalls along the creek. Little surface evidence of these mills is visible today.

The first textile mill concern on Fishkill Creek, and one of the earliest in New York, was the Matteawan Company, founded in 1812 by Abraham Schenck's son Peter A., Philip Hone and early American fur and real estate magnate John Jacob Astor. This company was part of the wave of American textile manufacturers that sprang up during the Napoleonic Wars to satisfy the demand for domestically-produced textiles created by international trade embargoes. The Matteawan Company constructed a stone mill based on British precedents on the creek at the east end of Main Street in 1814. This building, now much altered and slated for demolition as part of site redevelopment, may be the earliest and/or last surviving textile mill of its generation and type remaining in the Hudson River valley.

After the War of 1812 foreign textile goods were allowed into the U.S. again and the American cotton industry shrank. Peter A. Schenck's nephew Peter H. reorganized the Matteawan Co. as the Matteawan Manufacturing and Machine Co. and expanded and diversified their concerns around the falls at East Main Street. Their properties included a foundry and machine shop that made cotton machinery and, in the late 1840s, two early American steam locomotives for the Hudson River Railroad. That railroad was completed between Troy and New York City in 1851, offering faster, ice-free, all-season transportation. Completion of the HRRR, along with the completion of the Erie Railroad's Newburgh Branch in 1850, soon made Fishkill Landing a strategic location for railroads attempting to link New England with the West. Another notable metalworking concern established in Matteawan at this time was the Rothery File Company, reportedly the first to make new files in America, in 1835. The original file works burned, but its 1886 replacement still stands inside an auto salvage yard just downstream of the Churchill Street Bridge.

Favorable trade tariffs in the early 1840s made cotton manufacturing attractive again. Between 1841 and 1842 Robert G. Rankin built a dam and cotton factory for making blue cotton "jeans" fabric at Wiccopee, a privilege between Matteawan Village and the Sucker Falls Dam. Cotton tariffs were lowered again in 1844 and many new, marginal companies like Wiccopee Mills failed in the face of overproduction. The Wiccopee factory was purchased by Charles M. Wolcott, and in 1857 became the home of the New York Rubber Company, originally established in 1848 in Staten Island, NY to make rubber belting and toys under Goodyear patents. This rubber factory continued in operation through World War II, when it made rubber life rafts, and was a major Beacon employer until 1960. The last tenant was the Tuck Tape Company. The vacant mill complex was destroyed by fire in 2005.

Civil War Boom and Hat Making

Like manufacturing communities in other Union states, Fishkill and Matteawan prospered during the Civil War, when area manufacturing including textiles and brick making experienced significant growth. The transportation situation for area industries improved during the post-Civil War-era national "railroad fever" when the Dutchess & Columbia Railroad was completed between Fishkill Landing and western Connecticut in 1871. The D&C RR established railroad car floats to cross the Hudson River to exchange freight with the Erie, the West Shore and the Ontario & Western railroads at Newburgh. The New York & New England Railroad leased the D&C in 1881 and built an improved connection between Wiccopee Jct. and Fishkill Landing, which became a vital freight transfer point between New England and the West. Fishkill Landing's waterfront became a bustling terminal for trains, ferries, and barges.

These improved transportation links to New England and the west fostered greater and more diverse industrial activity on the waterfront and along Fishkill Creek.

As the industrial bases of Fishkill and Matteawan grew, the villages crept toward each other along Main Street. Fishkill Landing incorporated in 1864 and Matteawan followed suit in 1886, with the political boundary located at Chestnut Street. Local industries suffered during the Panic of 1873. New York City dry goods magnate A.T. Stewart subsequently acquired a cluster of small mills at Groveville, the northernmost upstream privilege in what is now Beacon, along with additional cotton and woolen mills just upstream in Fishkill at Rocky Glen and Glenham. In 1876 Stewart replaced the Groveville mills with an extensive and modern carpet making plant that included worker housing blocks of brick construction. The new Groveville Carpet Mills prospered only to close during the panic of 1893. The mill complex survives and has housed a variety of light industrial tenants to the present day.

Beacon's most significant and character-defining industry, hat making, emerged after the Civil War. Credit for the "first" hat making concern in Beacon can be split between the two first concerns in the two original constituent communities. In Matteawan, the Matteawan Manufacturing Company (not to be confused with the Schencks' ca. 1812 Matteawan Co. or reorganized Matteawan Manufacturing and Machine Co.) was formed in 1864 for making fine wool hats. This company established what became one of the largest hat factory complexes in New York State on the south side of the creek and the Main Street dam. This property is currently undergoing mixed commercial and residential redevelopment. In Fishkill Landing, Lewis Tompkins established the Dutchess Hat Company on lower Main Street near Bank Street in 1873. This operation quickly outgrew its Main Street location and Tompkins established the Tioronda Hat Factory near the original 1709 Brett grist mill site at Tioronda in 1878. This factory is now in ruins. Many other smaller hat making concerns sprang up in the immediate area and made a variety of wool, cotton, and straw hats for men and women.

Matteawan hosted a notably early example of the electric power generation and distribution systems that revolutionized manufacturing and transportation at the end of the nineteenth century. The Carroll Electric Light Company constructed one of the first commercial electric power plants constructed in the U.S. at the "Clay Mill" privilege between the Groveville and Main Street dams in 1887. Subsequent incarnations of this plant powered the Citizens Street Railway between Fishkill Landing and Village, the Mount Beacon Incline Railway, as well as factories and homes. Only ruins of the plant and dam survive, however, the original stone Switch House remains and are now operated by Central Hudson Gas & Electric.

Fishkill Landing's brick industry expanded significantly in 1880 when massive deposits of brick clay were discovered on Denning's Point. Homer Ramsdell purchased the point for his Denning's Point Brick Works, which lasted almost 60 years before the clay was exhausted and the company moved upriver to Brockway in 1939. The extensive clay diggings left a major mark on the surrounding landscape and resulted in much of the overall topography along the Madam Brett Trail south of Tioronda. Several restored brickworks buildings are now the home of the Beacon Institute for Rivers and Estuaries.

Another notable late nineteenth-century industry was the Green Fuel Economizer Company, constructed on Fishkill Avenue. This company, a division of Pennsylvania steam locomotive builder Baldwin-Lima-Hamilton, made industrial steam boiler equipment in a series of large brick shop buildings, many of which survive within the Talix Foundry art studio complex.

Twentieth-Century Continuity and Decline

Fishkill Landing and Matteawan merged and incorporated as the City of Beacon on May 15, 1913. By then Beacon was the second-largest hat making district in the U.S. behind Danbury, CT. Upper Main Street and East Main Street were lined with multi-story brick commercial and institutional buildings, forming the streetscapes that are still relatively intact today and are included in Beacon's Historic District and Landmark Overlay Zone.

A notable addition to the industrial building stock was the building erected by the Carroll Hat Company adjacent to the 1814 Schenck Cotton Mill. This large example of World War I-era reinforced concrete frame industrial construction with large steel-sash windows dominated upper Main Street when it was constructed in 1912. Together these two buildings reflect one hundred years of industrial architecture and mill engineering.

In 1918, Beacon's major manufacturers included the New York Rubber Co., Ellrodt & Lynch Silk Works, the William Carroll Hat Co., Henderson Hat Co., Mills Paper Box Co., Ludwig-Littauer Silk Mill, Green Fuel Economizer, Glenham Embroidery Co., Tompkins Hat Works, Beacon Tire Co., Dutchess Tool Co., and Gotham Hat Works. Hat making reached its peak in the 1920s. One of the last major manufacturing investments in Beacon was in 1929 when the National Biscuit Company constructed their 1/4-million sq ft Beacon Carton and Printing Plant on former brickyard land adjacent to the former Fishkill Landing docklands. This complex, listed in the National Register of Historic Places in 2003, is now home to the world-class Dia: Beacon contemporary art museum.

Beacon's manufacturing base remained steady through the mid-twentieth century. In 1933 there were 38 major industries in Beacon employing 2,570 people; in 1963 there were 36 industries employing 5,715 people. Most of these concerns were housed in the older industrial buildings lining Fishkill Creek and the Hudson River waterfront. Beacon's primary industry, hat making, declined after World War II, when sartorial tastes changed and hats, particularly for men, gradually fell out of favor. In 1963, only one hat company, Dorel, Inc. was left in Beacon. Beacon's manufacturing base eroded steadily during the 1970s and 1980s, compounded by the stiffer national environmental regulations and international manufacturing and trade changes that affected U.S. industry elsewhere.

Today in 2012 there is no activity that can truly be called "industrial" along Fishkill Creek.

Some surviving industrial buildings house light manufacturing or artist studios. Perhaps only the Central Hudson Switch House and the former Tallix Foundry complex, with its metalworking studios, continue to function in a manner similar to their original purpose.

(NOTE: Research for this historical context was limited to the holdings of the Beacon Historical Society archives, Beacon Public Library and the World Wide Web. This context and the subsequent individual resource histories that follow were largely extracted from late nineteenth- and early twentieth-century county histories and subsequent reiterations. Additional research would be required to insure the most accurate information appropriate for any proposed interpretive materials).

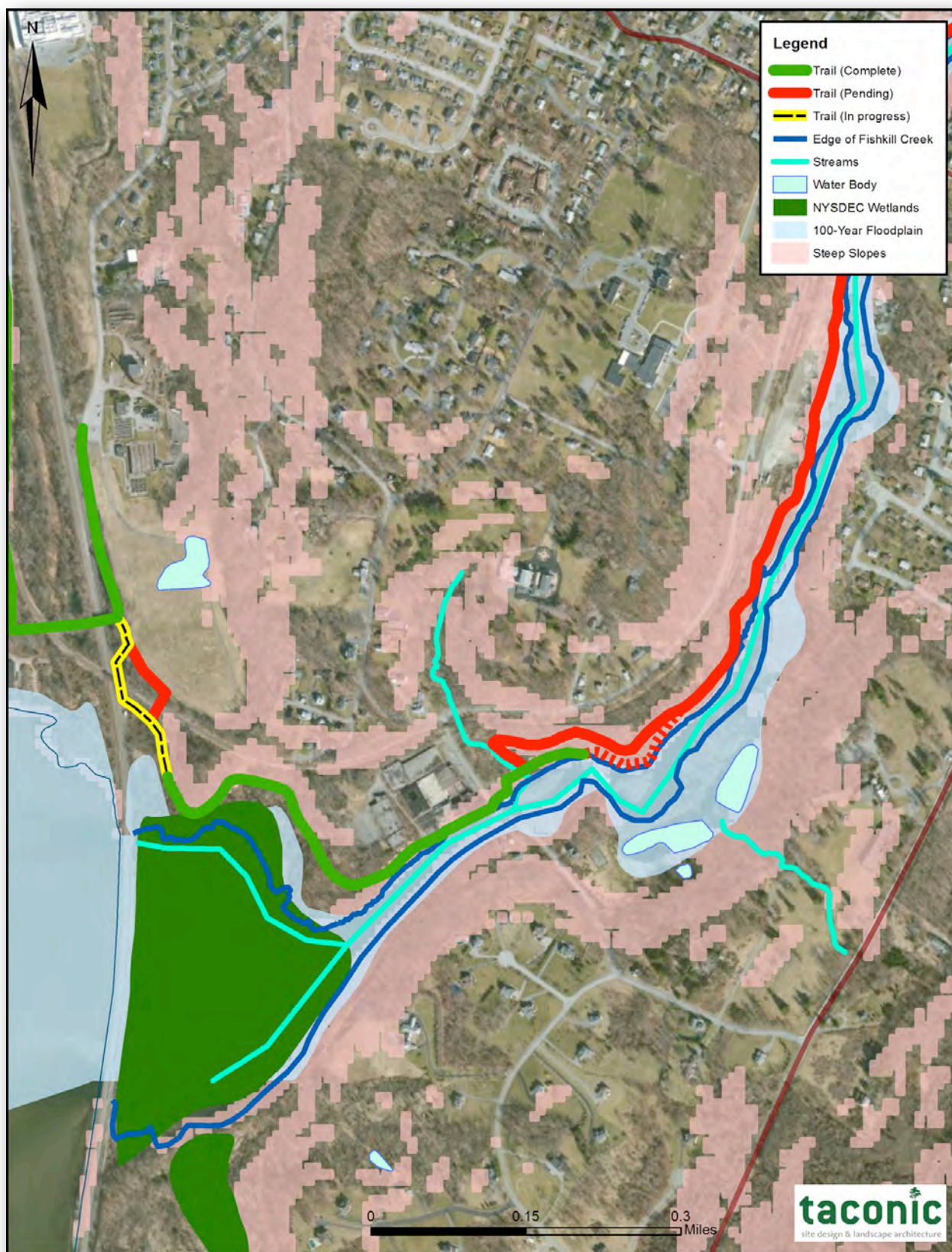
APPENDIX B - DETAILED ENVIRONMENTAL CONDITIONS MAPS

Below are enlarged environmental conditions maps prepared for each trail section. These maps show existing trail status, the edge of the Fishkill Creek and other watercourses, bodies of water, NYSDEC regulated wetland areas, the 100 year floodplain limit and areas of steep slopes greater than 15%.

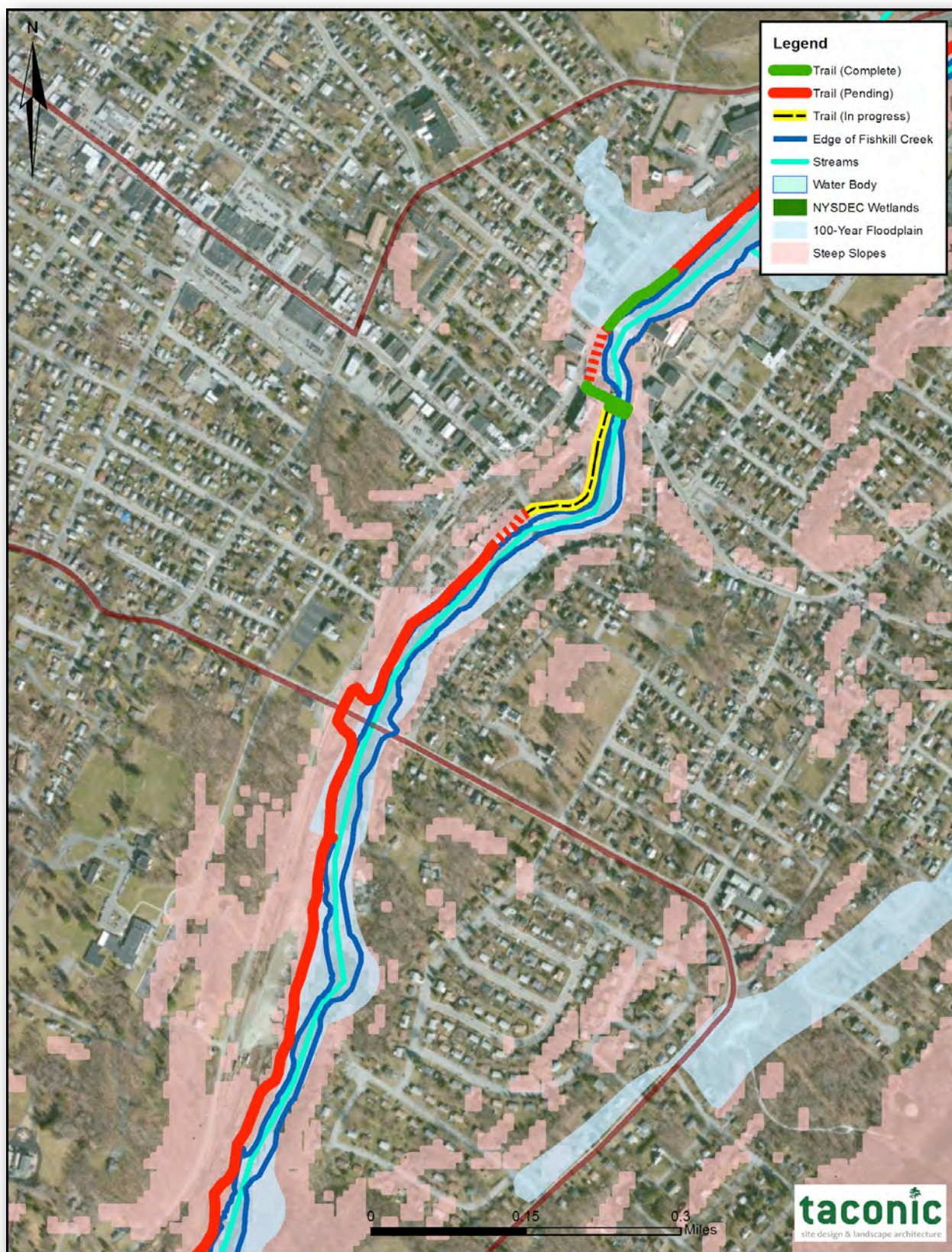
These maps are intended to serve as a broad analysis of the existing conditions that may impact the placement of the FCGHT. As the trail is developed, more detailed survey base mapping will likely be required in order to properly design the trail to address the current existing conditions.



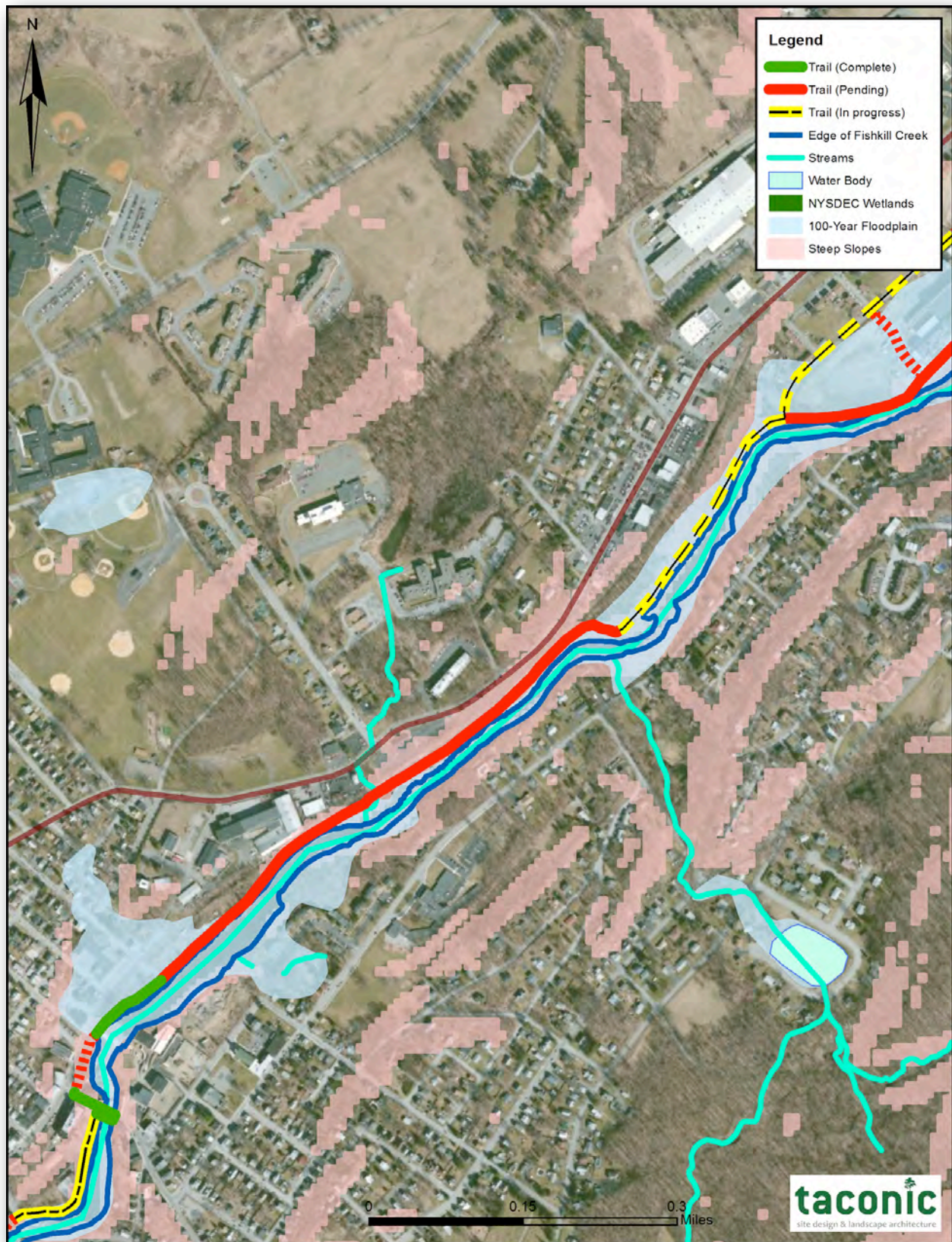
Existing Environmental Conditions Map (Section 1 - Klara Sauer Trail)



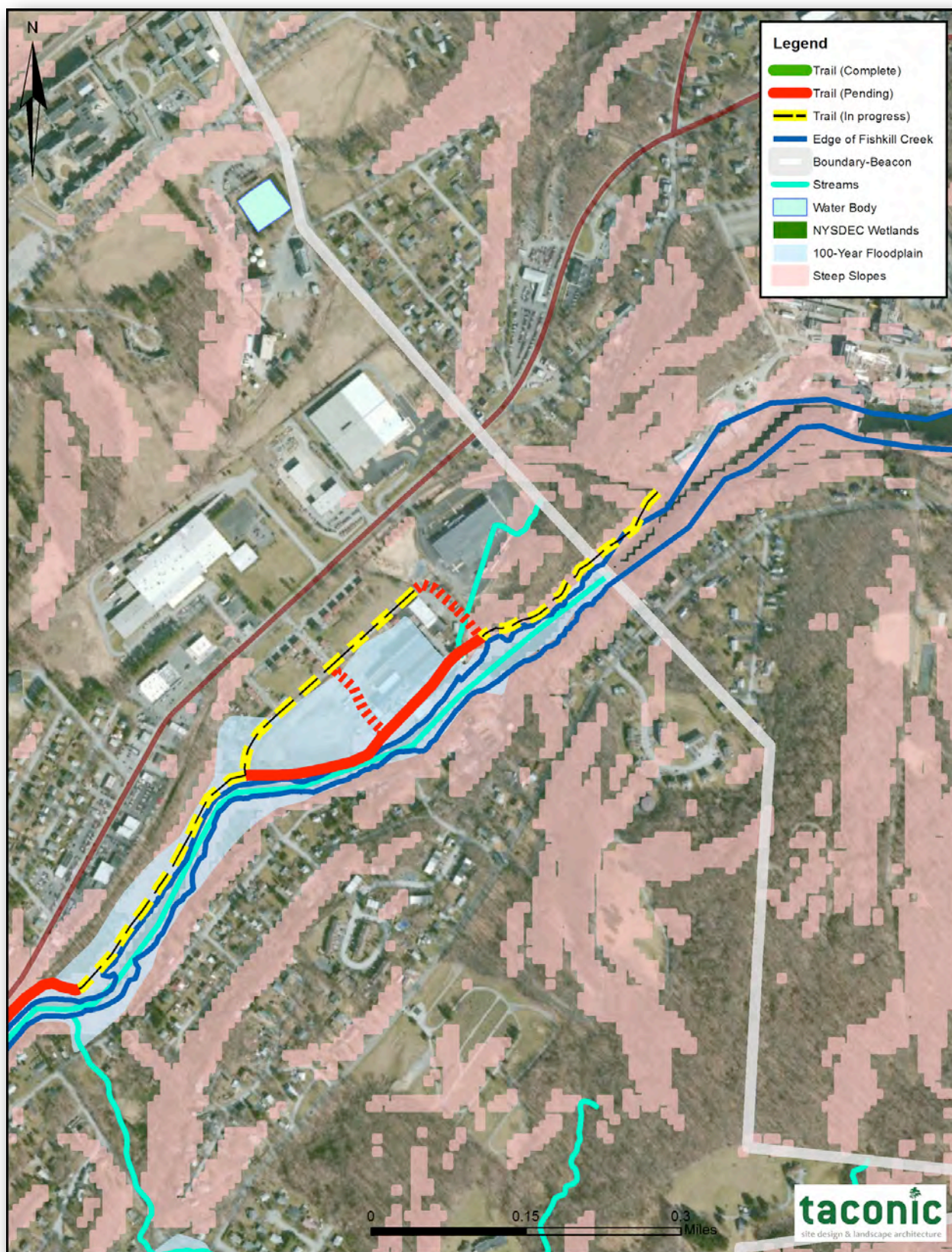
Existing Environmental Conditions Map (Section 2 - Estuary and Creek Trail)



Existing Environmental Conditions Map (Section 3 - City Center)



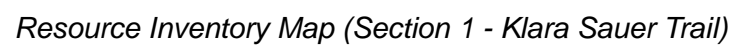
Existing Environmental Conditions Map (Section 4 - Rail with Trail)



Existing Environmental Conditions Map (Section 5 - Mill and Gorge)

APPENDIX C - RESOURCE INVENTORY

The Fishkill Creek corridor contains approximately fifty (50) resources of historic interest and significance that are visible from or close to the proposed trail route. These resources include five transportation-related resources, six dams or waterpower sites, fourteen industrial buildings or complexes, seven bridges or bridge sites, and additional resources noted below. The survey included three properties individually listed in the National Register of Historic Places (NR), one NR-eligible bridge, three industrial buildings determined eligible as contributing buildings within a potential NR historic district, and five districts or individual properties located within Beacon's Historic District and Landmark Overlay Zone (HDLO).





Resource Inventory Map (Section 2 - Estuary and Creek Trail)



Resource Inventory Map (Section 3 - City Center)



Resource Inventory Map (Section 4 - Rail with Trail)



Resource Inventory Map (Section 5 - Mill and Gorge)

FISHKILL CREEK CORRIDOR & HERITAGE TRAIL
WATERFORD TOWNSHIP BOARD OF SUPERVISORS

Appendix

Appendix

FISHKILL CREEK GREENWAY SURVEY TABLE									
Legend: 1. Greenway/Heritage Trail (Greenway/Heritage Trail) 2. Greenway/Heritage Trail (Greenway/Heritage Trail) 3. Greenway/Heritage Trail (Greenway/Heritage Trail) 4. Greenway/Heritage Trail (Greenway/Heritage Trail) 5. Greenway/Heritage Trail (Greenway/Heritage Trail) 6. Greenway/Heritage Trail (Greenway/Heritage Trail) 7. Greenway/Heritage Trail (Greenway/Heritage Trail) 8. Greenway/Heritage Trail (Greenway/Heritage Trail) 9. Greenway/Heritage Trail (Greenway/Heritage Trail) 10. Greenway/Heritage Trail (Greenway/Heritage Trail)									
Station	Side	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail	Greenway/Heritage Trail
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34	Left								Greenway/Heritage Trail
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100	Left								Greenway/Heritage Trail

Appendix

Line at Dykemans, NY and the Danbury Line in Danbury, CT. The railroad right-of-way and its infrastructure between the Beacon Metro-North station and the Fishkill town line can be considered a historic resource (cultural landscape) in itself. This rail line was chartered as the Dutchess & Columbia Railroad in 1866. It originally crossed Fishkill Creek at Sucker Falls Dam (Survey No. 19) and met the Hudson River Railroad at Dutchess Jct. This line went through a complicated series of mergers with larger regional railroads during the second half of the nineteenth century, when it became an important rail link connecting inland and southern New England communities and manufacturers with railroad links to the west and Hudson River marine traffic. Under the New York & New England Railroad the connection to Fishkill Landing was improved in 1881 with construction of a curving access line between Wicoppee Jct. (Survey No. 21) and the Fishkill Landing docks (Survey No. 2). The NY&NE was ultimately absorbed by the giant New York, New Haven & Hartford Railroad in 1905. Freight service later dwindled under Penn Central and Conrail in the 1970s and 1980s, and the line was acquired by Metro-North in 1995 as a strategic secondary route connecting their three north-south commuter rail lines on the east side of the Hudson River. The right-of-way includes several original signs and signals including cast concrete "W" grade crossing whistle posts and an automatic block signal mast and box at MP 10.7 (Wolcott Avenue).

Wicoppee Jct. Site (Survey No. 21)

Located just northwest of Sucker Falls Dam (Survey No. 19), this point on the Beacon Line tracks was the site of the 1881 junction between the original 1860s rail line that carried the Dutchess & Columbia RR line across Fishkill Creek to Dutchess Jct., and the New York & New England Railroad's improved 1881 connection to the Fishkill Landing docks (Survey No. 2). The original D&C RR right-of-way can be followed directly south to the dam and granite block abutments for the iron deck truss railroad bridge (no longer extant).

Newburgh, Dutchess & Connecticut Railroad Station (Survey No. 33).

Located on the Dutchess & Columbia RR right-of-way and Main Street in downtown Beacon (see above), this prominent, three-story, board-and-batten-sided, clipped gable roof railroad station is a rare surviving 1873 D&C RR structure. It was originally a two-story building, with the third story added later to make room for railroad company offices, a configuration that makes the building all the more unusual for its type. The building is in good condition and is currently occupied by commercial concerns.

Bridge Engineering

Dennings Avenue Bridge (Survey No. 6).

This bridge is a short-span Warren-type pony truss structure connecting Beacon with the former Dennings Point Brick Works (Survey No. 6) and carrying Dennings Avenue over the formerly four-track wide main line right-of-way of the former New York Central Railroad "Water Level Route," now the Metro-North Railroad "Hudson Line." The bridge incorporates some unusual features including the steel lattice approach railings and side-grain wood plank decking.

Metro-North Beacon Line Railroad Bridge (Survey No. 7).

This bridge is a short span, skewed, pony girder bridge carrying the Metro-North "Beacon Line" (Survey No. 3) over the Hudson Line. The right-of-way is part of the 1881 New York & New England improved line between Wicoppee Jct. (Survey No. 21) and the Fishkill landing docks. The bridge and flanking embankments were constructed as part of a later grade separation project that raised the Beacon Line railroad tracks over the Hudson Line. The bridge is typical example of this common twentieth-century engineering solution for short, heavy load bearing spans.

Dennings Point Brick Works clay pit railroad tunnel (Survey No. 8).

This structure is a short masonry block and concrete tunnel that once provided the nearby Dennings Point Brick Works with narrow gauge railroad access between its clay pits and manufacturing plant, which were separated by construction of the embankment carrying what is now the Beacon Line railroad tracks in a Hudson Line grade crossing elimination project. The tunnel is currently buried beneath the embankment and is not visible.

Tioronda Bridge (Survey No. 15)

This site consists of the rough uncoursed mortared stone abutments and piers for the Tioronda Bridge. The piers have concrete cutwaters on their upstream sides and carry two deep rolled steel girders and two cast iron water or sewer pipes. The three-span bridge superstructure was dismantled in 2006. This was a rare multiple-span, wrought iron, riveted tubular bowstring arch truss bridge type built by the Ohio Bridge Company between 1869 and 1873. The intact structure was listed in the National Register of Historic Places in 1976. Although altered, the bridge is still technically listed in the NR for planning purposes. The deteriorated components are being stored by the City of Beacon. The bridge site is included in the City Historic District Landmark Overlay Zone.

Wolcott Avenue Bridge (Survey No. 26)

This bridge (NYDOT Bridge ID No. 1006340) is a 98 ft span, reinforced concrete, spandrel-wall arch bridge carrying Wolcott Avenue (Route 9D) over Fishkill Creek. It incorporates sidewalks cantilevered out from the spandrel walls on brackets and paneled parapet railings in excellent condition. Remarkably, the bridge retains its original bronze lamp posts and lanterns as well as its dedication plaque. It was constructed in 1933 by the City of Beacon with aid from the PWA-era NY Work Relief Bureau and is an intact, surviving, unaltered example of a "City Beautiful" movement highway bridge. The bridge has been determined eligible for listing in the National Register of Historic Places by the NYDOT.

Former Churchill Street Bridge Abutments (Survey No. 32a)

This site, located immediately downstream of the current modern Churchill Street Bridge (Survey No. 32) includes one intact (south) and one ruined (north) abutment for the earlier bridge at this creek crossing. The intact south abutment is a tall granite block wall with angled wingwalls. The abutment on the north bank has collapsed and the stone blocks are scattered in the creek below.

Bridge Street Bridge (Survey No. 57).

This structure is a single-span, Whipple-type truss built by the New York Bridge Company in 1879. It connects the south end of the Groveville Carpet Mill (Survey Nos. 59, 60) with a historic residential neighborhood on the south side of the creek. It incorporates pin-connected members in the deck structure, ornate tracery in the portal braces, a wood plank deck and it still retains its original builder's plate. The structure appears to be unaltered. The bridge is currently closed to all but foot traffic. This bridge may have been built in collaboration with the Village of Matteawan at the behest of Charles M. Wolcott, who owned the adjacent Groveville Carpet Mill, as a means of mill worker access across the creek. Squire Whipple (1804-1888), who lived much of his life in New York, is considered the father of American iron bridge building and was the first to apply mathematics to calculate bridge member stresses. This is a rare surviving unaltered 1870s highway bridge, of an unusual proprietary bridge design, designed by a known and important bridge designer, and possibly a hybrid material structure containing both wrought iron and steel members. The Bridge Street Bridge is not listed in the NYS DOT Historic Bridge Inventory.

Highway

East Main Street "Dummy" Traffic Light (Survey No. 38).

The "dummy" is a functioning 3-way traffic light mounted to a small concrete base at the center of the T-intersection of Main Street and East Main Street. This structure is an increasingly scarce example of a so-called "dummy" light, which were installed in the mid-twentieth century to replace manned traffic direction at moderately busy intersections.

Power Generation

Dams

Five historic mill dams were identified during the survey. Only one of the five is located adjacent to surviving industrial buildings directly associated with it, therefore the dams are discussed as a separate group:

Sucker Falls Dam (Survey No. 20).

This structure is a vertical spillway, masonry block gravity dam that incorporates water power and transportation infrastructure. The north abutment includes a power canal intake headworks including a vertical slide gate mechanism made of bolted wood planks in a concrete headwall. The headgate bay is flanked by a granite block abutment and pier for a bridge for the Dutchess & Columbia RR line between Wiccopee Jct. (Survey No. 21) to Dutchess Jct. which crossed Fishkill Creek on an iron deck truss (no longer extant). The lip of the dam incorporates a row of deteriorated timber flashboards. This infrastructure is included in the Historic District Landmark Overlay Zone.

This privilege may have been the site of, or at least provided the water for, the 1709 Brett grist mill. Historical accounts place the Brett mill at the site of the downstream Tioronda Hat Factory (Survey No. 13), however, the creek is still tidal at that location. Since it is unlikely that the Brett mill was a complex "tide mill" operation relying on periodic release of impounded high tide flow, the mill may well have been located upstream of the Tioronda Hat Factory, toward or at Sucker Falls, and out of the tide zone.

Masonry/Earth Raceway Trench at Madam Brett Park (Survey No. 18)

This power canal extends from the Sucker Falls Dam (Survey No. 20) headworks along the north bank to a point several hundred feet downstream. It consists of a sinuous concrete wall incorporating two wasteways along its south edge and a parallel, deteriorated drywall and earth bank along the north side. The power canal ends at another downstream gate structure with a trash rack and cast iron gate wheel mechanism. Presumably the water was routed from here to the Tioronda Hat Company (Survey No. 13) mill in a flume or penstock that has been washed out or removed. An earth trench extends beyond the headworks but eventually becomes indistinct. The waterpower canal sections are located within the east portion of Madam Brett Park.

The last operator of Catharyna Brett's mill was Ezekiel Schofield. In 1792 the Brett Mill land sold to William Byrnes of New Windsor. In 1812 Byrnes and Robert Newlin reportedly constructed a power canal from the Sucker Falls Dam to a location about one quarter-mile downstream and built a grist mill at the head of navigation on the creek. This mill burned about 1830. Each man then built a brick mill, one at the lower, downstream end of the trench continuing to mill grain, and the one at the upper end making litharge (lead oxide, or white lead), presumably as a white paint pigment, and possibly using crude smelted lead from the then newly-opened Sullivan County Shawangunk Ridge lead mines. Tariffs enacted after 1840 made cotton manufacturing attractive and many grist and saw mills converted to spinning and/or weaving. The Newlin and Byrnes mills were converted for cotton manufacturing by George Pine and John Brown and Epenetus Crosby. After the tariffs were lowered again in 1844, these mills became uncompetitive and lay idle. They were refitted for grain milling under Sleight, then Coleman, and finally burned in 1862, never to be rebuilt. No surface evidence of these mills is visible. Based on the presence of extensive concrete work, the power canal and Sucker Falls Dam headworks were apparently adapted to provide water for the Tioronda Hat Company (Survey No. 13) at some point in the twentieth century.

New York Rubber Factory Dam (Survey No. 24).

This structure is a vertical spillway, granite block gravity dam. The north abutment includes a long riveted sheet iron penstock tube extending downstream from a granite block headgate structure on the north bank. This dam provided power and process water for the New York Rubber Company plant (see Survey No. 23).

Main Street Dam (Survey No. 39).

This structure is a vertical spillway, masonry block gravity dam that includes industrial water power intake headgate structures on the north and south banks and a short section of open headrace channel on the north bank. This dam historically provided water for mechanical and later hydroelectric power to industries on both sides of the creek. The ruins of a turbine wheelhouse for the Matteawan Manufacturing Company hat works (see Survey No. 40) are visible on the south bank at the rapids below the dam. This privilege first powered other earlier mills operated by the Schencks (Survey No. 34), H. N. Swift (now "The Roundhouse," Survey No. 36), and others before providing power and process water for the Matteawan Manufacturing Co. and later concerns in the other mill buildings in this area from the Civil War era to the mid-twentieth century.

Carroll Electric Light Co. (et seq.) Dam and Power Plant Site (Survey No. 51).

This privilege was the site of what was once known as the "Clay Mill," an early grist mill built by Sylvester Pine about 1800. The mill privilege was later occupied by Jabez Olmstead, the Matteawan Company's cotton batting factory, Dean Carver's bobbin, headle and reed (textile machine parts) factory, and Churchill's auger factory. The mill buildings at the site burned in 1862. No surface evidence of these mills is visible.

This site now includes the ruins of an early local hydroelectric generating station including masonry, metal and wood elements of a 160 ft long, 18 ft high timber crib dam; stone dam abutment walls; a power canal; and a riveted sheet iron penstock tube, cast iron valve gear and turbine drive shaft mechanisms.

This is the site of a notably early hydroelectric concern, the Carroll Electric Light Company, founded by William Carroll, founder of Beacon's Carroll Hat Company, in 1887. This was one of the first commercial electric power plants constructed in the U.S., shortly after Edison's invention of the incandescent light bulb. The first plant at this site, which contained the first Heisler system dynamo in the eastern U.S. for street and commercial and residential illumination, was said to be the largest system of its kind in New York at the time. In 1892 John T. Smith organized the Fishkill Electric Railway Company and streetcars were put in operation between Fishkill Landing, Matteawan and Fishkill Village in June 1895. Smith was also a promoter of the Mount Beacon Incline Railway that began to use the electricity from the plant in 1900. Increasing demand for electric power by the street railway and manufacturers prompted expansions and, in 1901, consolidation of the power and transportation companies into the Citizens Railroad, Light and Power Company. In 1901 the plant contained six dynamos, two for powering the streetcar lines. This plant burned in 1917 and was reconstructed. It was leased to the Southern Dutchess Gas and Electric Company in 1922 and taken over by Central Hudson Gas and Electric Company in 1925. An original stone walled Switch House (Survey No. 50) adjacent to the site is still owned and operated by Central Hudson.

Groveville Mill Dam (Survey No. 62).

This structure is a modern inclined concrete spillway dam and headworks associated with the adjacent historic 1876 et seq. Groveville Carpet Mill (Survey No. 60). The dam, the tallest on Fishkill Creek, is a component of a small operating hydroelectric generating facility that provides water via three penstock tubes to generators housed in the mill's historic brick wheelhouse building.

Manufacturing Industrial Complexes

Sixteen historic manufacturing resources were identified, including sites of demolished mills, standing vacant mill buildings, mill complexes occupied by mixed-use commercial tenants and clusters of mill buildings undergoing or slated for redevelopment. Most of these buildings or complexes were built in the mid- to late nineteenth century and are of masonry brick construction, with some stone, steel-frame or reinforced concrete examples as well.

National Biscuit Company (Nabisco) Beacon Carton and Printing Plant (Dia: Beacon Museum) (Survey No. 4)

This 240,000 sq ft plant was built on a former brickyard clay pit site by the National Biscuit Company in 1929 to manufacture packaging for Nabisco's baked goods. It is a large example of an early twentieth-century "Second Industrial Revolution" factory constructed with a reinforced concrete frame, designed to utilize materials handling innovations made possible by electricity and the forklift, incorporate climate control, and admit light through a large roof field of sawtooth monitor windows. The plant, which was one of Beacon's last major industrial employers, closed in 1990. The building was listed in the National Register of Historic Places in 2003. It is now home to Dia: Beacon, a large-scale modern art museum, world-class cultural institution and widely-noted example of adaptive reuse.

Dennings Point Brick Works (Survey Nos. 5, 6 and 8).

Denning's Point was a private estate for much of the nineteenth century. Significant landscape changes began in the 1870s with abortive New York & New England Railroad efforts at track and dock construction. The land was purchased by Homer Ramsdell in 1872 and in 1881 Ramsdell's Dennings Point Brick Works commenced operations. The DPBW had a major impact on the topography on the point and on the adjacent river banks and Fishkill Creek Bay, which were dug and dredged for brick clay. DPBW became a significant addition to the expansive Hudson River brick industry, at that time the world's largest. The plant was improved by Hudson River brick industry expert David Strickland in 1925. The clay deposits were exhausted in 1939, and DPBW removed upriver to Brockway, just north of Beacon. The brickworks buildings were subsequently used and added to by Durisol, a building materials concern, and the Noesting Pin Ticket Company. The land was purchased by NY State in 1988, and in 2003 it was chosen as the location for the Beacon Institute for Rivers and Estuaries, which has adaptively re-used some of the surviving brickworks buildings. The Beacon Water Treatment Plant (Survey No. 5) is located on former DPBW clay pits, and the works' narrow gauge clay pit railroad tunnel (Survey No. 8) is buried under the Beacon Line railway embankment.

Tioronda Hat Co. (Survey No.13)

This site contains the sprawling and partially demolished remains of the Tioronda Hat Company. Historic accounts place Catharyna Brett's 1709 grist mill at this location. The tidal nature of the creek at this point suggests that the Brett mill was located upstream, out of the tide zone. This location was the site of several early to mid-nineteenth century grist and cotton mills powered by a canal descending from the Sucker Falls Dam (see Survey Nos. 18 and 19). The site lay unused after these mills burned in 1862. In 1873 Lewis Tompkins established his Dutchess Hat Company in Fishkill Landing. They quickly outgrew that site and constructed this factory at Tioronda in 1878. In the 1940s it was operated by the Merrimac Hat Company, which employed 250 people in 1941. The plant was later occupied by Atlas Fibers. It is currently owned by Beacon Terminal Associates, who are slowly demolishing the buildings.

New York Rubber Company factory site (Survey No. 23).

This mill site is now a long, narrow vacant lot along the north side Fishkill Creek. The only surviving

structure is the New York Rubber Company Dam (see Survey No. 24). The only building remains are some areas of concrete slab floor and demolition debris. The first mill on this site was the Wiccopee Cotton Mill, established for making heavy blue cotton "jeans" fabric by Robert G. Rankin in 1841 to take advantage of favorable trade tariffs. The tariffs were lowered again in 1844 and the mill closed by 1850. The Wiccopee factory was purchased by Charles M. Wolcott, who sold it in 1857 to the New York Rubber Company, originally established in 1848 in Staten Island, NY to make rubber belting and toys under Goodyear patents. This factory also made balls, dolls and during the Civil War, false limbs. It was later known for its ability to make very long composite fabric and rubber conveyor belts. The mill continued in operation through World War II, when it made inflatable rubber life rafts, and was a major Beacon employer until a protracted strike in the 1950s. The rubber plant finally closed in 1960. The last occupant was Technical Tape Corp (Tuck Tape), which closed in 1989. The building with its ornate tapestry brick tower burned in August 2005 and the site has been cleared. The site includes the dam immediately upstream (Survey No. 24) and a pile of associated rubber waste on the parcel downstream in the vicinity of the former Wiccopee Junction (Survey No. 22).

Rothery File Co. (Survey No. 30).

This resource consists of a multi-story, flat-roofed, brick ca. 1886 mill building divided into several different height sections. It includes a prominent elevator tower, and a short brick chimney and tailrace tunnel on the creek side of the buildings. The building is currently located within the Beacon Auto Salvage yard. This building is located on the site of the first Rothery File Works. John Rothery, originally from the British iron and steel center of Sheffield, England, was persuaded to leave Paterson, NJ for Matteawan in 1828. In 1835 he established what is reportedly the first new file manufacturing plant in America on this site. He built a factory in 1853 which burned in 1886 and was reconstructed. The Rothery's business ultimately failed about 1888 as they failed to mechanize production. The extant buildings housed a number of other manufacturing concerns including the Dutchess Tool Co. and several silk textile makers including Rockwell & Sons and Ellrodt & Lynch.

Garret-Storm Anthracite Coal Silos & Office (Survey No. 31)

This resource includes one structure and one building. The most prominent element is the silo cluster, which consists of four, 55 ft high, 18 ft diameter nested cylindrical reinforced concrete hollow cylinders. These silos were constructed in 1931 for the Garret-Storm Company (est. 1870) to store 320 tons of domestic anthracite. This hard coal fuel from the eastern Pennsylvania coal fields was the primary domestic heating fuel for the northeastern U.S. before the advent of oil and natural gas after World War II. Coal was delivered by rail onto a siding and dumped from the bottom of hopper cars into an endless bucket conveyor that raised the coal to the top of the silos and distributed it according to size. The dwelling immediately north of the silos was the Garret-Storm Company office building. Although difficult to demolish, examples of this type of coal depot silo complex are becoming scarce and many have been removed as they are located on valuable commercial urban real estate. Other nearby examples survive in Newburgh and Callicoon, NY.

1814 Schenck Cotton Mill/Matteawan Co./Carroll Hat Co. et al. (1 East Main Street) (Survey No. 34).

This site contains several attached and freestanding buildings, including a rare surviving 1814 cotton mill, that reflect over 100 years of mill architectural and engineering.

The 1814 Schenck Cotton Mill was constructed by the Matteawan Company, established by Peter A. Schenck (husband of Madam Brett's daughter), Philip Hone and noted early American fur and real estate magnate John Jacob Astor in 1812. This company was one of the first established in the Hudson River valley to meet demands for cotton textiles created by trade embargos associated with the Napoleonic Wars. This building was among the very first generation of masonry textile mills built on British precedent in the Hudson River valley. Peter A. Schenck died in 1824 and his nephew Peter A. and a succession of Schenks carried on the business for several decades. The Schenks reorganized the Matteawan Co. in 1825, renaming it the Matteawan Manufacturing and Machine Co. The Schenck

concerns grew to include textile concerns, foundries, wood working and machine shops that eventually occupied all four quadrants in the area divided by the creek and what is now east Main Street. The foundry, on the east side of the creek, made cotton machinery and, in 1848-1849, two steam locomotives for the new Hudson River Railroad. A complicated series of workshop openings, closures and relocations took place in the pre-Civil War decades. To add confusion to the similar corporate names, in 1864 the Schencks sold off their property east of the Main Street Dam (Survey No. 39) to a newly-formed Matteawan Manufacturing Company (Survey No. 40), a separate corporate entity organized by Charles M. Wolcott to manufacture fine wool hats. The 1814 Mill later housed John Falconer's Seamless Clothing Mfg. Co. from 1860 to 1879, then Carroll & Company's National Felt Works in 1879. This company became the William Carroll & Co., maker of wool & straw hats by 1907, and lasted until ca. 1924.

The physical integrity of the 1814 Mill has been impacted. The original gable roof with trapdoor monitor windows was replaced with an additional story and flat roof in 1888, likely to meet industrial fire insurance regulations which prohibited flammable roof structures. The front stair tower with its ornate mansard roof was destroyed in a Penn Central freight train derailment in 1976. Despite these alterations, the building still expresses its original function and design in its massing, fenestration, parged rubblestone walls and brownstone quoins and lintels. The building reportedly incorporated a stone inscribed with the date "1814," however the location and survival of this stone are unconfirmed. This unusual surviving early nineteenth-century masonry textile mill building may be the last, or among the last remaining example of its type in the Hudson River valley. The building is slated for demolition as part of site redevelopment.

In 1912 The Carroll Hat Company built a massive four-story addition to the 1814 Mill. This was reportedly the most modern straw hat factory in the U.S. when completed. This building is an excellent representative example of the new generation of early twentieth-century "daylight" factories incorporating reinforced concrete or masonry-clad steel frames which allowed narrow piers, wide windows, and heavy floor loading capacities, served by electric elevators. After the Carroll Hat Company, subsequent tenants included Hedstrom-Union (baby carriages) in 1936; Bobrich, and, later, Stankolls (electric blankets), 1946-1961; and later, Three Star Anodizing, which subdivided the buildings and rented out space. Duramatic aluminum boats and Dorel Hat Co., Beacon's last hat manufacturer, were among last manufacturing tenants.

Together these buildings reflect one hundred years of industrial architecture and mill engineering. The 1814 Mill in particular reflects the important and pervasive U.S. contexts of early cotton mill construction in response to War of 1812 embargos, subsequent industrial boom-and-bust and diversification responses, and continued adaptive reuse through mid-twentieth century industrial decline. The property also includes a ca. 1832 two-story brick factory building south of the 1814 Mill, as well as the potential archaeological site of the ca. 1800 Schenck grist mill.

Swift Machine Shop ("The Roundhouse") (Survey No. 36)

This unusual semi-circular brick industrial building has been nicknamed "The Roundhouse," although it never served a railroad or streetcar function. Originally part of the original early nineteenth-century Schenck concerns around the Main Street Dam, this pre-1858 building and its 1828 rectangular portion overlooking the creek were long occupied by machinery manufacturers. Tenants include the H. N. Swift Machine Shop, which purchased the building in 1861 for making cotton and hat machinery, wood planers, pumps, and reportedly the first lawn mowers manufactured in the U.S. The shop turned out 3,000 mowers a year in 1873. The semicircular shape may be an expression of an internal pivoting jib crane used to move heavy metal objects and machines between heating ovens, forges and work stations, or may simply have been chosen to maximize useable space on the small lot in at a bend in the creek. The building was later absorbed by the Matteawan Manufacturing Company concern across the creek. It became that company's felt napping shop, and was connected to the main plant by a small utility truss bridge over the creek.

Matteawan Manufacturing Company (Survey No. 40)

This resource consists of the surviving buildings of the Matteawan Manufacturing Company (not to be confused with the 1812 Schenk's Matteawan Co. or reorganized Matteawan Manufacturing and Machine Co.), established in 1864 and incorporated in 1868 to manufacture fine wool hats. This property was sold to Charles M. Wolcott's Matteawan Mfg. Co. in 1864 by the Schenck concerns which owned industrial properties surrounding the main Street dam. This was the first known hat maker in Matteawan, and predates Louis Tompkins' 1873 Dutchess Hat Company in adjacent Fishkill Landing. This factory was later also occupied by Willard H. Mase's Hat Shop owned by John C. and Charles R. Henderson and W.H. Mase, which employed over 350 people making 2,000 dozen hats a week until the 1930s. The complex then became Braendly's Dye Works, a dyer and finisher of natural and synthetic fabric piece goods, which lasted until the mid-1980s. A number of historic mill buildings have been demolished and the remainders are being redeveloped as part of "The Roundhouse at Beacon Falls."

Schenck Machine Company (Survey No. 42).

This resource consists of an L-plan, one-story, brick-walled masonry building with a moderate-pitch gable roof. The building housed Henry B. Schenck's machine shop making wood planers in 1878. The building was later occupied by an early incarnation of the Green Fuel Economizer Co., which moved to what is now known as the Tallix Foundry complex (Survey No. 46) in 1891. In the 1890s it housed the Carrington Air Brake Co. (railroad car brakes), and subsequently the Littauer Silk Mill, Colonial Panama (hats) in 1919, Matteawan Silk Mills in 1927 and Werber Leather Coats in 1929. This building is currently occupied by automotive and woodworking concerns.

Beacon Lumber & Coal Co. Yard Site (Survey No. 45).

This overgrown parcel includes concrete slab floors, foundation walls and piers associated with its former use. According to Sanborn Fire Insurance maps, this lot was occupied by the Beacon Lumber & Coal Co. coal and lumber yard as early as 1919, and at least until 1946.

Green Economizer Co. (Tallix Foundry) (Survey No. 46).

This site contains several large brick erecting shop and metalworking buildings that were part of the Green Fuel Economizer Company's Beacon Works. First housed in the Schenck Machine Shop (Survey No. 42), Green Economizer constructed and occupied this plant in 1892. The buildings exhibit characteristic elements of late-nineteenth-century masonry-walled metalworking shop buildings including long narrow proportions, shallow-pitch gable roofs, large doorways, and restrained decorative brickwork. Green was a division of Pennsylvania steam locomotive and industrial equipment manufacturer Baldwin-Lima-Hamilton. Economizers are power generation equipment components of steam boilers that re-circulate used hot firebox exhaust gases to preheat incoming boiler water. The first successful example of this early "green" technology was patented by Edward Green in 1845. B-L-H/Green made Green-patent units, also known as feedwater heaters, for stationary industrial heating and power boiler systems. This plant was still operating in 1963. It was later taken over by Pollich-Tallix, an art foundry casting company. Although Tallix no longer operates out of this complex, there are several different artisans working in metal and glass working in the buildings.

Central Hudson Gas & Electric Liberty Street Substation (Survey No. 50)

This building is the only functional surviving historic component of the early twentieth-century hydroelectric generating complex on this site (See Survey No. 51, Carroll Electric Light Co. (et seq.) Dam and Power Plant Site).

Rock (shale/slate) Quarry (Survey No. 56)

This long narrow parcel begins at the Bridge Street Bridge (Survey No. 57) and stretches for several hundred feet along the north bank of the creek. The character-defining feature is a sloping gray

outcrop of Hudson River Slate that has been excavated along its length for road or construction aggregate. This extractive industrial landscape retains associated machinery including two tracked backhoe excavators and mobile conveyor and screening equipment.

Groveville Carpet Mill (Survey No. 59 (worker housing), Survey No. 60. (mill complex).

The Fishkill Creek mill privilege at what is now the Groveville Carpet Mill complex was the site of several earlier small grist and fulling mills. These properties as well as mills at Rocky Glen and Glenham, now in Fishkill, closed after the Panic of 1873 and were acquired by New York City dry good magnate A.T. Stewart. In 1876 Stewart constructed a modern carpet mill and worker community consisting of several rows of sturdy houses of brick construction. This complex employed over 700 people in the 1880s, but the carpet works closed on the eve of the Panic of 1893 and relocated to Yonkers, NY. Subsequent early to mid-twentieth-century tenants included the Glenham Embroidery Works in 1913, Beacon Bronze Co. in 1922, Beacon Piece Dyeing Co. and Beacon Rayon Fabrics Co. in 1935, Groveville Furniture Co. in 1937 and Lewittes Furniture Co. in 1939. The complex is now occupied by a storage facility, residential and art studio units, and the Beacon Fine Art Foundry. Notable features of this mill complex include the freestanding mill gate office building, one surviving row of unusual individual trap door/sawtooth roof monitors on one building, the intact and occupied (low income) worker housing (Survey No. 59), and the active hydroelectric dam (Survey No. 62). This complex is located within the City Historic District Landmark Overlay Zone.

Historic Properties and Districts National Register of Historic Places

The survey included three properties listed in the National Register of Historic Places (NR). The National Biscuit Company (Dia:Beacon, Survey No. 4, listed 2003) and the Tioronda Bridge (Survey No. 15, listed 1976) are discussed elsewhere in this section.

Howland Cultural Center (Survey No. 31a).

The Howland Cultural Center (NR listed 1973) is located at the east end of Main Street. Originally the Howland Library, it was given to Matteawan in 1872 by local benefactor Joseph P. Howland (see Survey No. 16) and built in a Norwegian Gothic style by noted architect Richard Morris Hunt. Hunt also built a similarly-styled church in Matteawan (no longer extant). This building, which is home to the Beacon Historical Society, is obscured from the current proposed trail route but may be close enough and significant enough to be considered for inclusion in trail interpretation.

The survey also identified properties that show possibility of being determined eligible for NR listing. These properties are discussed elsewhere and include:

- Wolcott Avenue (Rte 9D) Bridge (Survey No. 26), determined individually eligible by the NYDOT, and
- 1814 Schenck Cotton Mill (Survey No. 34), the attached 1912 Carroll Hat Co. Mill (Survey No. 34), and the Swift Machine Shop ("The Roundhouse"), Survey No. 36), all eligible as contributing elements in a larger potential National Register historic district that also includes, and is more or less congruent with, the Main Street Local Historic District (Local Historic Landmark Overlay Zone).

Other surveyed resources may have been determined NR eligible through project review and would need to be confirmed through research at the New York State Historic Preservation Office.

Beacon Historic District & Landmark Overlay Zone

The survey includes five areas or resources located within Beacon's Historic District & Landmark Overlay Zone. Three of these, the Tioronda Bridge (Survey No. 15), Sucker Falls Dam (Survey No. 19) and Groveville Carpet Mill (Survey Nos. 59, 60) are described elsewhere in this section.

Tioronda Estate (Survey No. 16)

This expansive landscaped private estate is located within Beacon's Local Historic Landmark Overlay Zone. "Tioronda" was the nineteenth-century home of Civil War hero and NY State Treasurer General Joseph P. Howland. He was also founder of Poughkeepsie's Hudson River State Hospital for the Insane, and donated several public buildings and institutions in Beacon, including the Howland Library (Survey No. 31a), designed by his brother-in-law, Richard Morris Hunt. The 1859 Gothic stone house, "Glynnhurst," along with the Poughkeepsie hospital and two other Beacon churches, was designed by former Calvert Vaux partner Frederick Clarke Withers, and has a library addition by Hunt. The grounds were designed by noted landscape architect Henry Winthrop Sargent. The house later became the first licensed private psychiatric hospital in the U.S. The estate's Gothic stone and brick school and two small brick residences are located close to Madam Brett Park, across Fishkill Creek. The estate now belongs to an absentee owner and several vacant architecturally significant associated outbuildings have been demolished, including the carriage house. The future of this historic estate property is uncertain.

Main Street Local Historic District (Survey No. 33).

This densely-built up urban area at the east end of Main Street is included in Beacon's Historic District Landmark Overlay Zone. This visually cohesive area at the former civic and manufacturing core of Matteawan Village and Beacon includes several dozen intact architecturally significant examples of mid-nineteenth to early twentieth-century Italianate and Victorian urban masonry commercial, institutional and industrial architecture. The District's industrial buildings include the 1814 Schenck Cotton Mill (Survey No. 34), the attached 1912 Carroll Hat Co. Mill (Survey No. 34), the Swift Machine Shop ("The Roundhouse," Survey No. 36). The District also includes the Howland Cultural Center (Survey No. 31a), which is individually listed in the National Register of Historic Places. The boundaries and included contributing resources within this District differ from the boundaries and resources recommended in the draft National Register Historic District nomination prepared for the City of Beacon in 2007.

Natural History

"Red Rocks" (Survey No. 52). Several small but dramatic and colorful outcrops of red, blue and purple slate along the creek bank in the vicinity of the Carroll Electric Light Co. Dam and Power Plant Site (Survey No. 51). One rock outcropping is integrated into the north end of the remains of the dam structure. This slate is also exposed in railroad rock cuts in this vicinity.

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#6 - Dennings Point State Park



#6 - Beacon Institute of Rivers & Estuaries



#7 - Dennings Avenue Bridge



#7a - Beacon Line Railroad Bridge



#8 - Dennings Point Brick Works Clay Pit Railroad Tunnel (Buried)



#9 - Madam Brett Park - Fishkill Creek Estuary



#13 - Tioronda Hat Company (from Madam Brett Park Boardwalk)



#13 - Tioronda Hat Company (from South End of Tioronda Bridge)



#14 - Madam Brett Park Boardwalk



#15 - Tioronda Bridge





#19 - Sucker Falls Dam



#19 - Dutchess & Columbia Railroad Bridge Abutment

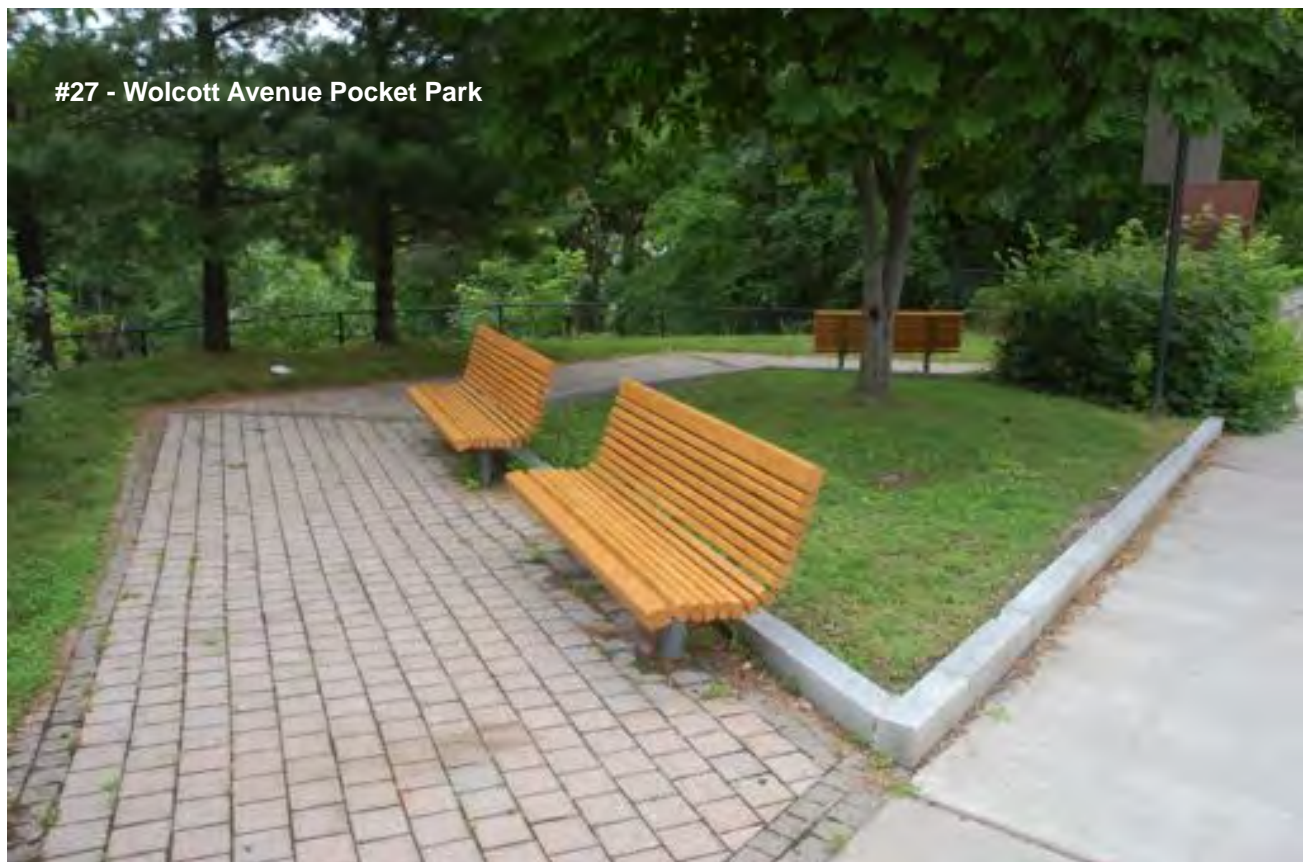


**#24 - New York Rubber
Company Dam**



#26 - Wolcott Avenue Bridge







#28 - Beacon Highway Garage Building



#30 - Rothery File Company Building



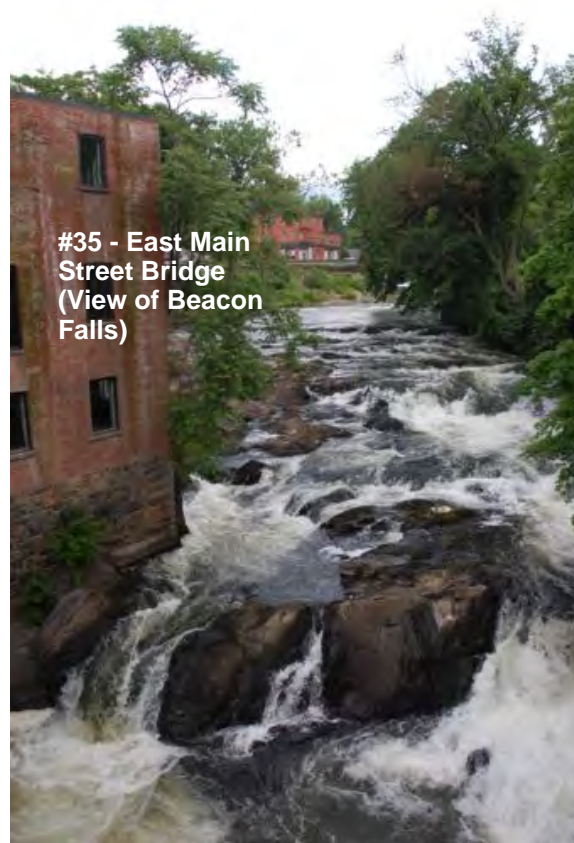
#32 - Churchill Street Bridge



#33 - Main Street Local Historic District







**#35 - East Main
Street Bridge
(View of Beacon
Falls)**



Beacon Falls

**#36 - Swift
Machine Shop
(now The
Roundhouse at
Beacon Falls)**



**#38 - East Main
Street Dummy
Traffic Light**



#39 - Main Street Dam



**#40 - Mattaewan Manufacturing Company Hat Factory Complex
(Now part of The Roundhouse at Beacon Falls)**



**#40 - Mattaewan Manufacturing Company Hat Factory Complex
(Now part of The Roundhouse at Beacon Falls)**





#41 - Pocket Park



#45 - Beacon Lumber & Coal Company Yard Site

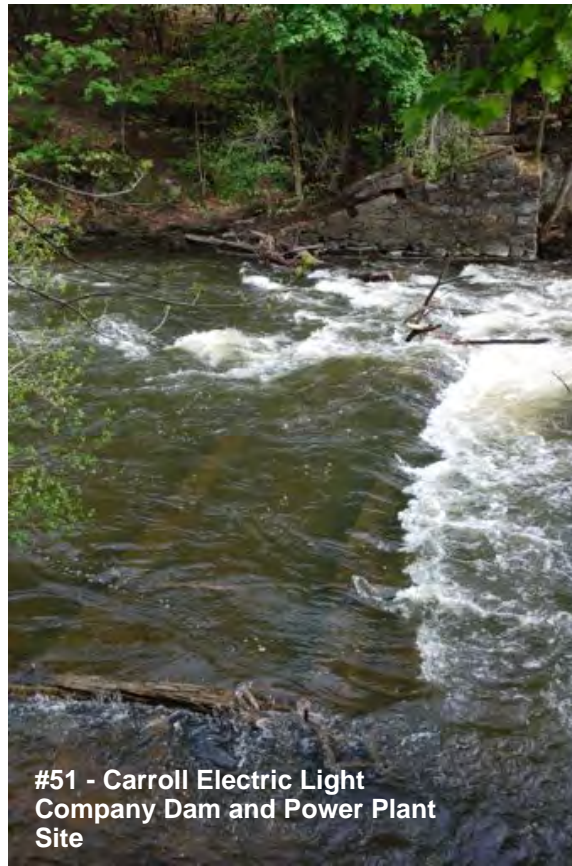




#50 - Liberty Street Substation



**#51 - Carroll Electric Light
Company Dam and Power Plant
Site**







#57 - Bridge Street Bridge



#59 - Groveville Mill Worker Housing



#60 - Groveville Carpet Mill

APPENDIX D - NEW YORK RECREATIONAL USE STATUTE

(NYS General Obligations Law § 9-103)

**New York Consolidated Laws
GENERAL OBLIGATIONS LAW**

ARTICLE 9: Obligations of Care

TITLE 1: Conditions on Real Property

§ 9-103. No duty to keep premises safe for certain uses; responsibility for acts of such users

1. Except as provided in subdivision two,

a. an owner, lessee or occupant of premises, whether or not posted as provided in section 11-2111 of the environmental conservation law, owes no duty to keep the premises safe for entry or use by others for hunting, fishing, organized gleanings as defined in section seventy-one of the agriculture and markets law, canoeing, boating, trapping, hiking, cross-country skiing, tobogganing, sledding, speleological activities, horseback riding, bicycle riding, hand gliding, motorized vehicle operation for recreational purposes, snowmobile operation, cutting or gathering of wood for non-commercial purposes or training of dogs, or to give warning of any hazardous condition or use of or structure or activity on such premises to persons entering for such purposes;

b. an owner, lessee or occupant of premises who gives permission to another to pursue any such activities upon such premises does not thereby

(1) extend any assurance that the premises are safe for such purpose, or

(2) constitute the person to whom permission is granted an invitee to whom a duty of care is owed, or

(3) assume responsibility for or incur liability for any injury to person or property caused by any act of persons to whom the permission is granted.

c. an owner, lessee or occupant of a farm, as defined in section six hundred seventy-one of the labor law, whether or not posted as provided in section 11-2111 of the environmental conservation law, owes no duty to keep such farm safe for entry or use by a person who enters or remains in or upon such farm without consent or privilege, or to give warning of any hazardous condition or use of or structure or activity on such farm to persons so entering or remaining. This shall not be interpreted, or construed, as a limit on liability for acts of gross negligence in addition to those other acts referred to in subdivision two of this section.

2. This section does not limit the liability which would otherwise exist

a. for willful or malicious failure to guard, or to warn against, a dangerous condition, use, structure or activity; or

b. for injury suffered in any case where permission to pursue any of the activities enumerated in this section was granted for a consideration other than the consideration, if any, paid to said landowner by the state or federal government, or permission to train dogs was granted for a consideration other than that provided for in section 11-0925 of the environmental conservation law; or

c. for injury caused, by acts of persons to whom permission to pursue any of the activities enumerated in this section was granted, to other persons as to whom the person granting permission, or the owner, lessee or occupant of the premises, owed a duty to keep the premises safe or to warn of danger.

3. Nothing in this section creates a duty of care or ground of liability for injury to person or property.

Recreational access and owner liability - Tommy L. Brown

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Introduction

With the rising interest of the general public in year-round recreation activities, landowners increasingly face questions such as these:

- What are my rights, and how do I exercise them to control recreational use of my property?
- What is the extent of my liability to recreationists, and how can I protect myself against liability suits?
- What does posting do, how does it affect liability, and how do I post my land?

Answers to these questions often are not simple. However, by understanding the laws relating to trespass and liability and the safeguards you can take to lessen your liability, you, the landowner, can make more informed decisions. This publication is intended to help you better understand your rights, responsibilities, and alternatives related to the recreational use of your property. In conjunction with the information contained in this publication, we recommend that you consult with your attorney about legal questions, and with your insurance agent about insurance related to recreational uses of private property.

Property Rights of Landowners and Recreationists

New York laws provide a framework in which landowners have the means to control recreational use of their property. Landowners, by their actions, can allow blanket permission for anyone to use their property; they can exclude all recreational use; or they can decide whether to allow recreationists on a case-by-case basis.

Two sections of New York law, Penal Law 140.00-140.10 and Environmental Conservation Law (ECL) 11-2111-2117, define the rights of landowners versus recreationists or others who might enter or use private property. Penal Law 140.10 states (in part):

A person is guilty of criminal trespass in the third degree when he knowingly *enters or remains unlawfully* in a building or upon real property which is fenced or otherwise enclosed in a manner designed to exclude intruders.

Note that in Penal Law 140.00, which defines the terms used above, the term "enter or remain unlawfully" is explained as follows:

A person who enters or remains upon unimproved and apparently unused land, which is neither fenced nor otherwise enclosed in a manner designed to exclude intruders, does so with license and privilege unless notice against trespass is personally communicated to him by the owner of such land or other authorized person, or unless such notice is given by posting in a conspicuous manner.

ECL 11-2113 makes it illegal for persons to trespass on private lands that are properly posted under ECL 11-2111. ECL 11-2115 makes it illegal if hunters, trappers, or anglers do not leave private lands, whether posted or not, immediately upon the request of the landowner. Finally, ECL 11-2117 makes it illegal for hunters, trappers, or anglers to kill or injure dogs or livestock (including poultry), or to damage gates, fences, vehicles, farm equipment, or buildings on private lands.

Violations of any of the above laws for which you wish to press charges should be reported to the proper law enforcement authorities. If the violation involves hunting, fishing, trapping, or disturbing wildlife, it may be reported to an environmental conservation officer or to your local sheriff. Environmental conservation officers are not required to enforce trespass laws that do not involve fish and wildlife activities. Other forms of trespass should be reported to your local sheriff.

Controlling Recreational Use of Your Property

Studies show that relatively few of New York's landowners wish to totally reserve their properties for their own use. Most landowners are willing to let some recreationists use their property. However, most landowners want some measure of control over who uses their property and when it is used. Below are some access policy options for landowners to consider.

Leaving your property unposted. If you are one of the majority of landowners who are willing to let others use your property for recreation, and if you are seldom inconvenienced by others who use your property, consider leaving it unposted. By doing so, you may be providing a welcome service to neighbors and others who do not have sufficient property of their own for recreation. You would still have considerable control over recreational use of your property; for according to New York law, any person must leave your property upon request, even if it is not posted. Also, the results of previous court cases indicate that your recreational liability is no greater on unposted than on posted property.

A possible disadvantage to not posting your land is that although the State strongly encourages all recreationists using private lands to first request permission, this is not a legal requirement on open (unfenced), nonposted rural lands. Often property boundaries of rural lands are not apparent to recreationists. In addition, not all recreationists take the time to request permission. Thus, at any given time, recreationists may be using your property without your knowledge. If this poses a frequent problem, you may wish to consider posting your property.

Posting with By Permission Only signs. For landowners who are generally sympathetic to recreationists, but who wish to control the number of recreationists on their property at any given time, signs indicating such messages as "Hunting by Permission Only", or "Permission May Be Granted: See Landowner" may be an attractive option. Unfortunately, these signs are not readily for sale in the usual retail outlets. However, hunting and fishing clubs in some areas of New York are making such signs and erecting them for cooperative landowners who permit their use. Also, the State Fish and Wildlife Management Board sponsors an "Ask" program in which these signs are made available to landowners. Your regional Department of Environmental Conservation Office, local hunting and fishing club, or Cooperative Extension Office may have information on the availability of these signs.

Other alternatives to posting. If a limited number of recreationists whom you can identify are causing you problems, there are several steps to consider in addition to posting. First, you may approach these recreationists and try to work out a solution. Second, a local hunting and fishing club or snowmobile club may be willing to help you reach and inform the recreationists who are causing problems. Third, if you wish, you may ask these recreationists to leave; and by law, they must. Finally, if you can identify those who are causing you problems, New York's Environmental Conservation Law states that you can serve a written notice to these individuals, which will have the effect of posting the property against their presence. The written notice should provide a description of the property and the activities (any or all) for which these individuals are not welcome. The law does not specify how the notice is to be delivered; but for proof of delivery, consider sending it by certified mail.

This type of limited exclusion takes action against offending individuals without penalizing responsible recreationists.

If your rural lands are entirely fenced, you may be able to prosecute the trespassers under Penal Law 140 without actually posting your lands. However, when prosecuting under this law, the burden of proof is on the landowner to show that the fence was designed to exclude intruders. A well-maintained, tall fence topped with barbed wire is likely to be adequate proof of intent. However, a lower stock fence probably would not qualify.

Posting your property. Posting your property has the effect of making it illegal for anyone (if "No Trespassing" or simply "Posted" is indicated) or any specific type of recreationist (e.g., hunter or angler, if so indicated by the signs posted) to enter your property without your permission. The primary advantage of posting is that it provides the legal means to bring charges against recreationists and others found on your property without your permission, and it therefore discourages recreationists from using your property without permission. Posting is the proper procedure for landowners who do not want their property used by others. However, landowners who simply want to regulate use of their property should consider other options as well as that of posting, because Posted signs often carry the implication that no recreationists are welcome. Again, available legal evidence suggests that posting your property does not lessen your liability for an accident that occurs on the property (see the next section for further information).

For your property to be legally posted, signs must meet the following criteria:

1. They must be at least 11 inches square.
2. They must be posted no more than 40 rods (660 feet) apart, along the boundaries of the area where posting is desired.
3. At least one sign must be posted along *each* border and at *each* corner of the plot.
4. Posting notices must include the name and address of the person posting.
5. Illegal or torn-down notices must be replaced annually in March, July, August, or September.

Recreational Liability When No Fee Is Charged

Liability is a concern that all landowners face in arriving at a policy about recreational use of their property by others. What if a hunter, hiker, or another recreationist is injured on your property? Are you liable?

The New York State Legislature was among the first in the nation to realize how much people depend upon the use of private property for outdoor recreation. To encourage landowners to keep their lands open to recreationists, legislation was passed in 1956 that limited the liability of landowners who allowed hunting, fishing, trapping, and training of dogs on their property when no fee is charged and the landowner receives no other consideration from the recreationist. In the succeeding years, numerous other recreation activities have been added to this list in General Obligations Law (GOL) 9-103: canoeing, hiking, horseback riding, bicycle riding, motorized vehicle operation for recreational purposes, snowmobile operation, cross-country skiing, tobogganing, sledding, hang gliding, speleological activities, boating, and the cutting or gathering of wood for noncommercial purposes.

GOL 9-103 does not totally exclude the liability of landowners toward recreationists. Assuming no fee is charged, the statute states that the landowner owes no duty to keep the premises safe for entry or use by recreationists pursuing the listed activities, or to give warning of any hazardous condition, use of property, structure, or activity on the property to persons entering for recreation. It also states that farm owners or lessees have no duty to keep their farms safe for use by recreationists or to give warning of hazardous conditions or uses of the property. However, landowners are not protected if they intentionally harm a recreationist, or if they "willfully" or "maliciously" fail to guard against, or warn recreationists of, a danger on the property.

In general, New York courts are supposed to decide liability cases on the basis of foreseeability as well as the amount of duty the owner has to a particular type of visitor. Landowners who have obviously hazardous situations on their property may be found liable for injuries to anyone, including trespassers. Thus, if you have such a hazard, you should try to eliminate it. Open wells and old buildings in danger of falling in are examples of these hazards. For a recreation activity listed under GOL 9-103 for which you the landowner receive no consideration from the recreationist, GOL 9-103, if it applies to your situation, has the effect of removing all of your liability except that associated with gross negligence (e.g., having a hazard on your property such as an open well or unsafe building; not warning recreationists of such a hazard, given that you had the opportunity to do so).

When might GOL 9-103 be found not applicable? First, if the landowner receives any fee or other consideration from the recreationist. Second, if the activity is not listed above, GOL 9-103 may not apply. Courts have not been entirely consistent in this regard. Note that swimming is not a listed activity. Also, GOL 9-103 may not apply to lands that are not privately owned, rural, and undeveloped. Some courts have ruled that the statute is also applicable to public lands such as state forests or wildlife management areas that are not supervised or patrolled. Larger tracks of undeveloped private land in urban or suburban settings suitable for recreation may be found to qualify under the statute, but it is clear that back yards and paved areas do not qualify.

We are only able to track recreational liability suits that are decided in the courts. On rare occasions, a suit is decided in a manner that appears to be contrary to decisions reached in similar previous cases. Usually, however, the outcomes of similar suits are consistent and provide good indicators of how courts would rule in future suits. Below, we use the results of these cases to provide an informed opinion on some of the most frequently asked questions involving recreational liability on private lands when no fee is charged. This is intended to help landowners and recreationists be better informed, but is not intended as a substitute for legal advice that can best be provided by your attorney about your specific situation.

Question: Can I be sued for natural situations or hazards, such as if a hunter trips over a rock or falls down a steep slope and is injured?

Opinion: Anyone can be sued, but to be successfully sued if GOL 9-103 applies, the recreationist must prove that you (1) knew of a dangerous condition on your property, (2) realized the possibility of the recreationist encountering it, and (3) willfully or maliciously failed to eliminate or reduce the hazard or to warn the recreationist of it; and (4) he or she must show proof of actual loss or damage. Generally, previous courts have ruled that landowners have no duty to warn about naturally occurring, readily observable natural situations such as lakes, streams, or steep slopes.

Question: Suppose there is a hazard on my property, such as an abandoned well or a fallen-in barn, that a recreationist might encounter. How can I protect myself against someone getting hurt and suing me?

Opinion: 1. Do all you can to eliminate the hazard. Have the well filled in or the building torn down.

2. If you can't eliminate the hazard, enclose it by a high, sturdy fence. If a trail leads to the hazard, reroute the trail or put up a barricade to prevent recreationists from continuing toward the hazard. Be careful that the barricade or fence is obvious and does not itself constitute a hazard. Do not use a single wire or cable that a snowmobiler or other recreation vehicle user may not notice and run into. Post frequent warning signs around the hazard, stating that it is a dangerous area and for all to keep out. Note that even these steps may not be sufficient in every situation. Consult your attorney for further advice on your specific situation.

3. Make sure you have adequate liability insurance.

Question: I can't warn all recreationists because some don't ask permission. Can I lessen my liability by posting my land?

Opinion: Generally, no. Posting your land gives you the ability to prosecute a trespasser, but courts make little if any distinction between trespassers and those who have permission to use the property when it comes to liability. Every landowner is responsible for keeping his or her property safe from *foreseeable* dangers involving others.

Question: Suppose several hunters were hunting on my property, and one accidentally shot another. Could the landowner be found liable?

Opinion: General Obligations Law 9-103 states that by allowing hunting, the landowner does not assume responsibility for or incur liability for any injury to persons or property caused by those to whom permission is granted. The injured hunter might be able to successfully sue only by showing convincingly that you, the landowner, realized that there were so many hunters on your property that this accident was foreseeable, and that you deliberately failed to warn of the hazard. To protect yourself against this possibility, limit the number and general location of hunters on your property at a given time to a level that you feel is safe, and warn hunters of the presence of other hunters on your property.

Question: Some hunting and snowmobile club members claim that they or their clubs have their own insurance, in case someone gets hurt. Will this relieve the landowner of liability?

Opinion: No, although the policy may provide coverage if the landowner is a named insured on the policy. The basic responsibility of the landowner to keep his or her property free of foreseeable danger cannot be purchased by or assigned to someone else. Even if clubs have insurance that can be applied in case of an injury to a recreationist, this is no substitute for primary liability insurance that every landowner should have.

Question: If an accident occurs in which I am found liable, won't my liability insurance rates skyrocket?

Opinion: Generally, no. Unlike automobile insurance, most companies figure general liability insurance rates only on an aggregate basis. Thus, your rate should not increase appreciably as a result of a suit successfully brought against you. Check with your insurance company to be sure.

Liability to Recreationists Who Pay a Fee

In contrast to recreationists who are not charged, the landowner has a stronger duty to protect those who pay the landowner a fee for recreation. Receipt of a fee of any amount, a gift, or work on your property, such as mending fences, could remove a landowner from the special protection of GOL 9-103. When GOL 9-103 is not in effect, landowner liability extends to all known dangers and those that would be discovered with reasonable care.

Court cases on this topic are rare; but to illustrate the difference in liability when a fee is charged, a farmer who charges people to cross his or her lands to fish could be held liable for the hypothetical problems below:

- Damage caused by farming activities not carried out "with reasonable care." *Example: A hunter is cut by flying debris caused by a farmer who is chopping brush nearby.*
- Injuries caused to recreationists by employees. *Example: The farmer's helper tosses a rock out of the way and thereby injures a passing angler.*
- Damage to one patron caused by another. *Example: Excessive brush on an access path causes one angler to slip*

and hook another, injuring an eye.

- Damage caused by known hazards not identified to patrons. *Example: An angler slips and breaks her ankle on a treacherous path she wasn't warned about.*
- Damage caused by hazards that could have been discovered by routine inspection. *Example: An angler falls through some weak boards covering an old well that the farmer could have easily replaced.*

Landowners providing recreation for a fee can minimize possible problems by erecting signs to identify hazards, fencing off hazards, posting open hours, and giving patrons a written statement of known hazards and rules and regulations. Insisting that proper safety equipment is used and supervising the area may not lessen your liability, but it will lessen the likelihood of an accident occurring.

Liability Insurance

As long as the landowner makes no charge to the recreationist, suits resulting from harm suffered by a recreationist, in which the landowner is found to be negligent, will be covered by nearly any standard homeowners or farmowners insurance policy. However, two points should be carefully checked—amount of coverage and parcels covered.

Amount of coverage. The standard homeowners policy in New York contains a limit of \$25,000 per occurrence for liability coverage and \$1,000 for premises medical payments. This amount is insufficient to cover many types of serious accidents. Liability coverage can be upgraded to \$50,000, 100,000, \$300,000, or \$500,000; medical payments can be increased to \$2,000, \$5,000, or \$10,000. The cost of increased coverage on homeowners' policies varies from company to company, but the annual additional premium for increasing your coverage to the next increment listed above is very inexpensive for both liability and medical coverage. While liability insurance protects the policyholder for a claim of negligence, premises medical payments coverage protects the policyholder for any injury that a third party might sustain on the premises, regardless of whether a negligent act or condition occurred. Because these costs are modest, we recommend that rural landowners strongly consider carrying the maximum limits allowed on their homeowner's policy.

Additional liability protection may be afforded under an "umbrella liability policy." Such a policy provides an additional limit of insurance in \$1,000,000 increments. If one already has at least \$300,000 in liability coverage, an insurance carrier will provide an "umbrella policy" for an annual premium of approximately \$150 per million for personal liability exposure, and \$250 per million if there is commercial or agricultural exposure. *Check the extent of your liability insurance and make sure you have enough.*

Be sure to notify your insurance agent of any change in the use of your land that is unusual or involves commercial activities. Failure to do so could result in the denial of a liability claim due to situations or activities not covered in your present policy. Most new uses that you might make of your land can be insured by having your insurance agent append an endorsement to your current policy.

Parcels covered. If your farm or other rural property was all purchased at the same time, your homeowners or farmowners policy will almost certainly cover the entire property. However, if you have more recently purchased an adjacent parcel or some other rural parcel, there is a chance that you did not have it added to your policy. *Double check your policy to see that you have liability insurance on all of your property.*

Riparian Rights and Recreation

The beds of Lakes Ontario and Erie, some other large lakes in New York, and major rivers (the Hudson and the Mohawk) are publicly owned. Thus, recreationists have the right to use these waters. However, they do not have the right to cross private lands to reach these waters without obtaining permission from the riparian landowner. In addition, private ownership along these major waterways typically runs to the mean low water mark; and as a result, recreationists have no right, except in an emergency, to land on the shore where ownership is private.

For most smaller lakes and for some lakes as large as Hemlock of the Finger Lakes, the beds are privately owned. Previously, recreationists could legally boat or canoe these small lakes if there was a public access point or if the recreationist was the guest of a riparian owner. Recreationists could legally boat or canoe rivers and streams with privately owned bottoms only if they had been declared to be navigable. This right of transport did not extend to

the right to fish or to swim except in cases where public access points had been purchased by state or local governments. In nonnavigable streams with no public access points, riparian landowners had the exclusive rights of such activities as fishing, swimming, and boating.

Note that a river or stream does not have to be navigable to commercial transport, and does not have to be navigable throughout the year for the state legislature to declare it navigable. The legislature may consider whether such a river or stream is being used by pleasure boaters, and whether public access points exist in determining whether or not it should be declared navigable.

The question of whether small rivers and streams not previously declared to be navigable should be open to public recreational use is currently in flux. A state Supreme Court judge recently ruled that Adirondack rivers capable of floating a canoe or other recreational boat are open to the public and can not be closed by private clubs or timber companies who own the riparian land and the bottom. This decision is currently under appeal.

Unlike the case on inland waterways, ownership along the tidal waters of Long Island, unless previously sold by the state to private landowners, is public between mean high water and mean low water marks. Although the public may not illegally cross private lands to reach this foreshore, courts have ruled that the public has the right of recreational use of this area below the mean high water mark.

Traditionally, the extent of your rights as a riparian landowner depended upon the extent of your property ownership up to and into the bed of the lake or stream. For current and more specific information on your rights versus those of recreationists, check your deed and consult with your attorney.

Sources for Additional Information

For individual questions of liability and land ownership, contact:

- your attorney,
- your insurance agent.

For specific requirements of the New York State Environmental Conservation Law posting regulations, contact:

- your local Environmental Conservation Officer (in phone book),
- the nearest Regional Office of the New York State Department of Environmental Conservation.

For information on permanent public fishing or hunting areas, contact:

- the nearest Regional Office of DEC.

Acknowledgments

Updated legal research by Anne Adams is greatly appreciated. Robert Lama of the L. A. Lama Insurance Agency, Ithaca, NY, contributed updated information on liability and medical insurance rates.

Source: http://www2.dnr.cornell.edu/ext/info/pubs/LegalFinancial/liability_boundary_posting.htm

APPENDIX E - SAMPLE TRAIL EASEMENT

This is a sample easement provided for discussion and illustrative purposes only.

Easements for each property will need to be customized based upon the needs of the FCGHT and each landowner.

Source: Getting Involved: A Community Handbook for Landowners, a joint publication of Greenway Conservancy for the Hudson River Valley and Parks & Trails New York.

PERPETUAL TRAIL RIGHT OF WAY EASEMENT

This right of way easement is made and entered into this ____ day of _____, 200__, by and between [Grantor] a [describe Grantor's legal status (i.e.: a limited partnership)] having an address at (or whose principal office is at) [address] shall be referred to as the "Grantor," and

[Grantee]

a [describe Grantor's legal status (i.e.: a limited partnership)] having an address at (or whose principal office is at) [address] shall be referred

to as the "Grantee," and

RECITALS

Whereas Grantor is the sole owner in fee of certain real property consisting of approximately ____ acres in the [describe municipality], County, State of New York, known at the time of this grant as ____, Tax Parcel #_____, and more particularly described in SCHEDULE A.

Whereas Grantee is [describe grantee's organizational connection in accepting the easement]

Whereas Grantor desires to grant to Grantee a right-of-way easement across those portions of the Servient Estate (the "Trail") and more particularly described in SCHEDULE B to create a trail (the "Trail"), the Grantee desires to accept said easement.

Whereas the Trail is intended to provide Grantee and the general public with physical and visual access to the economic, cultural, scenic, historic and natural resources of the Hudson River Valley and also to enhance local and regional hiking and recreational opportunities through enjoyment of the [local trail name] as part of the Hudson River Valley Greenway Trail System.

Now, Therefore, The grantor, in consideration of \$10.00 and other good and valuable consideration, given by the grantee to the grantor, receipt of which is acknowledged does agree:

1. Grant of Easement. Grantor hereby grants, transfers and conveys to Grantee, for the benefit of the Grantee, [name associated parties/partners], and the public, a non-exclusive easement and right-of-way (the "easement") for ingress, egress and access by Grantee and the public over and across the parking area of the servient estate for the purpose of gaining access to adjoining properties.
2. Purposes, Conditions, Restrictions, Reserved Rights.

(A) The Easement is established for the sole purpose of right of through access for pedestrian users of the [local trail name] for quiet, non- motorized passive recreational trail purposes by the general public, including but not limited to such activities as hiking, walking, jogging, running, skiing, bird watching, and snowshoeing. Permitted uses shall not include [determined in agreement with landowner] Grantee shall have the right to regulate or restrict uses (including but not limited to those specific uses listed above), which Grantee determines to be unsafe or otherwise detrimental to the continued use, vitality, or condition of the Trail.

(B) The location of the Trail on the Servient Estate may be changed from time to time, with the written consent of both parties. Any such change shall be recorded in the official records of the Office of the Clerk of _____ County, New York State. All costs in connection with such change shall be borne by the party that initiates the change.

(C) The easement does not convey any right for the general public to use parking spaces on the servient estate in order to access to the trail.

3. Term. The easement shall be perpetual in term.

4. Reliance upon State Law. Grantor and Grantee agree that in creating this easement for public access that each party is relying on the protection against liability contained in section 9-103 of the New York General Obligation Law (the recreational use statute), as the same may be amended from time to time, and that for such purposes both the Grantor and the Grantee shall be deemed "occupants" of the area of the easement as designated above. Notwithstanding the foregoing, any repeal or amendment of that section 9-103 which may diminish its protective effect shall not affect the validity of the easement of way herein granted

5. Construction & Maintenance. If and when the Public Access Area shall be opened for public use,

(A) Grantee or its designee(s) in cooperation with the [local designated maintainer] shall at all times be responsible for marking or signing the Trail, at its sole cost and expense, in a manner approved with the written consent of both parties.

(B) Grantee's regulations for the use of same will prohibit [determined in agreement with landowner]

(C) Grantee or its designee, in its sole discretion, shall have the right to suspend public use of the Trail Easement from time to time.

6. Assignment of Duties. Upon written notice to Grantor, Grantee shall have the right to assign its responsibilities for management, maintenance, insurance, and other duties under this agreement to an agency of government or a qualified not-for-profit entity, as the Grantee may determine in its sole discretion, or to another person, association, or organization reasonably acceptable to Grantor. The person(s) or entity accepting such an assignment shall be deemed to have assumed all of Grantee's obligations pursuant to this agreement throughout the period that assignment remains in effect.

7. Insurance and Liability. Grantee agrees to maintain at all times during which the Trail Easement Areas is open for public use a standard policy of general commercial liability insurance with respect to the Trail Easement Areas having a coverage limit not less than

\$ __,000,000, adjusted upon request of the Grantor, not more frequently than every five years, to an amount equivalent to that sum in 200__ Dollars. Grantee shall cause Grantor to be named as an additional insured on its said policy of municipal insurance for the purpose of the Trail.

8. Amendment, Variance, and Waiver. This agreement may be amended from time-to-time upon the written consent of Grantee and Grantor. Consent to any amendment, variance or waiver shall be in the discretion of the Grantee, shall be consistent with the Right of way Easement referred to above; any amendment, variance or waiver which does not comply with these statutes shall be void and shall have no force or effect. 9. Enforcement. The parties may enforce this agreement in law or equity, against any or all persons responsible for any violation thereof. Failure to enforce any provision herein contained shall in no event be deemed a waiver of a right to do so thereafter as to the same violation or breach or as to any violation occurring prior or subsequent thereto.

10. Severability. Invalidation of any provision of this Easement of Way by court order, judgment, statute, or otherwise shall not affect the validity of any other provisions of this agreement, which shall remain in full force and effect.

11. Easement Runs with the Land; Binding Effect on Successors and Assigns. The provisions of this easement shall run with the servient tenement in perpetuity and shall bind and be enforceable by and against the parties and all subsequent owners, successors and assigns of the servient tenement or any portion thereof. As used in this agreement, the term, "owner," includes the owner of any legal or beneficial equitable interest in the subject property or any other portion thereof; the terms, "Grantor," shall include the original Grantor and the heirs, successors, and assigns of the partners, and all future owners of all or any portion of the subject property; and the term "Grantee," includes the original

Grantee and its successors and assigns. Notwithstanding the foregoing, no party shall be liable for a breach of this agreement resulting from acts or conditions occurring prior to or after the period of his or her ownership.

12. Governing Law. This Right of way Easement shall be governed by and construed in accordance with the laws of the State of New York.

APPENDIX F - FUNDING OPPORTUNITIES

- **TEA-21 Transportation Enhancements Program** - Offers communities the opportunity to expand transportation choices. Transportation enhancements (TE) are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the Nation's intermodal transportation system. The transportation enhancements program provides for the implementation of a variety of non-traditional projects, with examples ranging from the restoration of historic transportation facilities, to bike and pedestrian facilities, to landscaping and scenic beautification, and to the mitigation of water pollution from highway runoff.
Note: There will be an announcement in the Spring of 2013 to distribute the remaining TEA-21 funds. The transportation alternatives program of MAP-21 is slated to become the Trails and Recreation funding channel.
- **NYS Environmental Protection Fund (EPF)** - provides mechanisms for open space conservation and land acquisition.
 - **Title 7** - allocates funds to the Department of Environmental Conservation and the Office of Parks, Recreation and Historic Preservation for purchase of land to be included in the Forest Preserve, State Parks, the State Nature and Historical Preserve, State Historic Sites, Unique Areas and other categories.
 - **Title 9** - provides funds for local governments and not-for-profit organizations to purchase park lands or historic resources as well to develop and preserve these resources.
 - **Historic Preservation Grant Program** - available to improve, protect, preserve, rehabilitate, restore or acquire properties listed on the State or National Registers of Historic Places and for structural assessments and/or planning for such projects. Properties not currently listed but scheduled for nomination review at the State Review Board meeting of either June 14, 2012 or September 20, 2012, are eligible to apply for funding.
 - **Heritage Areas Program** - Separate application packages are available for funding, depending on the type of project proposed. The Heritage Areas Program application is to be used for projects to acquire, preserve, rehabilitate or restore lands, waters or structures, identified in the approved management plans for Heritage Areas designated under section 33.01 of the Parks, Recreation and Historic Preservation Law and for structural assessments or planning for such projects.
- **NYS OPRHP Consolidated Funding Application (CFA)** - OPRHP is dedicating up to \$16 million to parks, historic preservation and heritage area projects through the CFA. These programs include the Environmental Protection Fund (EPF) Municipal Grant program offers matching grants for the acquisition, planning, development, and improvement of parks, historic properties listed on the National or State Registers of Historic Places and heritage areas identified in approved plans for statutorily designated Heritage Areas. Funds are available to municipalities or not-for-profits with an ownership interest. The maximum award is \$500,000.
- **NYS DOS Office of Communities & Waterfronts Environmental Protection Fund Local Waterfront Revitalization Program (EPF LWRP) Consolidated Funding Application** - On an annual basis, the Department of State solicits grant applications from local governments for 50/50 matching grants from the New York State Environmental Protection Fund's Local Waterfront Revitalization Program. The City of Beacon is a LWRP community.
- **NYS OPRHP Community Grant Opportunities** - State Parks, through state and federal funding sources, provides a number of grant programs. From historic preservation efforts to playgrounds and trail development, we provide grants to a variety of projects that promote recreation, preserve our historic and natural resources and generally improve the quality of life in communities throughout the state.
All applicants must use the Regional Economic Development Councils online application process, the Consolidated Funding Application (CFA). The CFA is available through our website and the Governor's Regional Economic Development Councils website at <http://nyworks.ny.gov/>. [Regional Grants Administrators](#) are available in the Agency's Regional offices to offer assistance with applications and program details.

- **Hudson River Valley Greenway** - Allocates funds for planning and project implementation for those located within the geographic area of the Greenway, including efforts that support trails and bicycling.
 - [Greenway Communities Grant Program](#) - Financial assistance (approximately \$5,000-\$10,000) to designated "Greenway Communities" within the Greenway Area. Projects funded under this program include those that relate to community planning, economic development, natural resource protection, cultural resource protection, scenic resource protection, and open space protection. Applications are due quarterly.
 - [Greenway Compact Grant Program](#) - Funding for municipalities that develop, approve, and implement a regional compact strategy consistent with the Greenway criteria and the Greenway act. Applications are due quarterly.
 - [Greenway Conservancy Small Grant Program](#) - Annual funding for trail planning, trail constructing and amenities, and trail educational and interpretive projects. Applications usually due in August and grants awarded in June.
- **NYS Department of Health, Healthy Heart Program** - Provides funding for programs that make it easier for New Yorkers to choose healthy lifestyles. The HHP works to create environments where people can be physically active, eat healthy foods, and receive evidence-based health care. Sample interventions include making communities more walkable (for example, having sidewalks, identified crosswalks on street corners, and walking trails), establishing community gardens, and making it safer for children to walk and bike to school.
- **National Park Service Land and Water Conservation Fund Program** - LWCF grants are provided to the States, and through the States to local governmental jurisdictions, on a matching basis for up to fifty percent (50%) of the total project-related allowable costs for the acquisition of land and the development of facilities for public outdoor recreation and for fulfilling the program's planning requirements. Information about the LWCF State Assistance Program including contact information for National Park Service Regional Offices can be found on the Web at www.nps.gov/lwcf or contact lwcf.grants@nps.gov
- **Federal Highway Administration Recreational Trail Program** - The Recreational Trails Program (RTP) provides funds to the States to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses. The RTP is an assistance program of the Department of Transportation's Federal Highway Administration (FHWA). [Federal transportation funds benefit recreation](#) including hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles.
- **Parks and Trails New York Capacity Building Grants Program** - Parks & Trails New York's Growing the Grassroots Capacity Building Grants enhance the long-term sustainability of park and trail not-for-profit organizations by helping them better fulfill their missions; improve their reach, effectiveness, and impact; leverage resources, and increase community support for and involvement in park and trail planning, development and/or stewardship across New York State.
- **Hudson River Estuary Grant Program** - Mini-Grants Program helps fulfill those goals of the Hudson River Estuary Action Agenda that can be implemented most effectively by municipalities, not for profits, and other local partners. Estuary grants are offered based on the following action items: Signature Fisheries, River and Shoreline Habitats, Valley Habitats and Ecosystems, Streams and Tributaries of the Hudson River Estuary Watershed, River Scenery, Forests, Farms and Open Space, Climate Change, Public Access, Education, Waterfront Revitalization, Water Quality, Contaminant Reduction, and Celebrate Progress and Partnerships.
- **NYS Department of State Quality Communities Grant Program** - Funds are designed to assist with planning efforts to encourage community growth, improve community centers, promote inter-municipal growth, enhance mountain communities, preserve open space, and more. Visit <http://www.dos.ny.gov/grants.html> for more information.
- **Hudson River Improvement Fund** - In 1985, the Hudson River Foundation received \$1.5 million from the State of New York to establish the Hudson River Improvement Fund from monies originally paid to New York to settle litigation concerning the out-of-state export of Hudson River water by oil tankers. Through the combined efforts of Hudson River environmental organizations, including Scenic Hudson, the Hudson River

Sloop Clearwater, the Hudson River Fishermen's Association (now Riverkeeper) and the New York State Department of Environmental Conservation, the Improvement Fund was created to support projects that promote the enhancement of public use and enjoyment of the natural, scenic and cultural resources of the Hudson River and its shores - with an emphasis on physical projects that require capital construction, development or improvement. HRIF has a special interest in projects that promote accessibility. Examples of projects that may be considered for funding include:

PUBLIC ACCESS-- Development or improvement of facilities that increase public physical or visual access to the Hudson River, including but not limited to docks, boats, piers and shorefront access points.

HABITAT -- Repair, restoration or creation of habitat.

EDUCATION FACILITIES -- Development or improvement (and equipping) of facilities suitable for Hudson River education programs -- such as interpretive centers, marsh boardwalks or waterfront classrooms.

• **Private Fundraising**

- Membership campaigns. *Establish a park or trail advocacy group that collects dues in an effort to fund park construction projects. The return from this can be significant (The Pikes Peak Area Trails Coalition raises \$18,000 per year), but your effort must be repeated every year.*
- "Buy-a-Foot-of-Trail" and similar fundraising campaigns - *Success depends on trail location, trail type, and local popularity of trails. For example, long rural bicycle trails would be too difficult to fund with this method. But it would be easy to market a short stretch of a very popular, multi-use urban trail.*
- Special Fundraising Events and Programs
 - "Change for the Better" Program - *Local merchant donates 25 cents into jar on counter for every sale he makes, and asks customers to match it. Pikes Peak Area Trails Coalition raises around \$1,000 each month of this program, from only one small outdoor equipment store.*
 - Challenge Grants - *Funders and donors never want to be the first to donate. But once you get that first amount, they love to match it or add to it. Ask a funder or donor to issue their next grant or donation as a challenge. It's a great publicity tool: "If we don't raise \$10,000 by March 31, we'll lose this \$10,000 challenge grant money!" The Pikes Peak Area Trails Coalition raised \$17,000 in addition to the original \$10,000 challenge grant.*
 - Others???
- In-kind services from local businesses (e.g. printing, webhosting)
- Underwriting by businesses, individuals and/or local government (e.g. Cost of mobile application service underwritten by a specific business on a yearly basis)
- Private Donations – *from annual mailings to donation boxes at access points, there are a number of ways to raise money privately for the ongoing trail construction and maintenance. can be awarded with recognition on brochure and website.*
- Hire a fundraiser - *If seed money is not available, some professional fundraisers work on commission. Research and preparation is essential for this strategy.*

This master plan document was prepared by:

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