SOUTH HILL RECREATION WAY
Extension Feasibility Study
Written and Edited by Sarah Fiorello and Hector Chang, URS ‘15
with help from
Chris Hayes, MRP ‘12
Jeanne Lecesse

aerial imagery and GIS data provided by
New York State GIS Clearinghouse
Tompkins County GIS Division

DesignConnect Web Version (Updated 2012-08-22)
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LEGEND

- South Hill Recreation Way
- (proposed extension)
- Other multi-use trails
- (proposed multi-use trails)
EXECUTIVE SUMMARY

Community interest exists to extend the South Hill Recreation Way two miles east from its current terminus on Burns Road in the Town of Ithaca to Banks Road in the Town of Caroline. An integral part of the trail network in Tompkins County, the South Hill Recreation Way is a non-motorized, multi-use trail that follows the route of a former railway. The extension would greatly improve the accessibility of the existing trail corridor to residents of the towns of Caroline, Ithaca, Dryden, and Danby.

Recent efforts to extend the trail corridor started in 2007 when the Caroline Trails and Natural Areas Committee, a subcommittee of the Caroline Town Planning Board, began investigating the feasibility of an extension of the trail from its current terminus to the hamlet of Brooktondale. When the committee approached the current landowners of the extension, New York State Electric and Gas (NYSEG) encouraged the committee to gauge the support of landowners adjacent to the former railroad corridor throughout its length in Caroline. While the residents that lived along the proposed extension were generally favorable of the project, the committee was met with vocal opposition from residents that primarily resided east of the proposed extension. The Caroline Town Board subsequently passed a resolution that relinquished its support to extend the South Hill Recreation Way into Brooktondale until a set of 11 questions were answered (see Appendix A). Three members of the Committee successfully answered the 11 questions with an extensive compilation of research in the spring of 2009, which gained back the support of the Town Board for the extension. Since then, all four towns along the proposed extension have since passed resolutions indicating their support for the project (see Appendix C).

Despite the support, challenges remain until the extension can be built. The towns do not have control over the railbed as it remains under the ownership of NYSEG, and more ownership questions surround key parcels within the proposed extension. Community input must be garnered and concerns must be addressed throughout the process. Furthermore, four jurisdictions must agree on issues of construction, cost, and maintenance. To facilitate the conversation between multiple partners over these issues, this feasibility study was created to provide a central source of background information about the extension project, its rationale, and its next steps.

This feasibility study outlines the scope of this project — focusing on how it aligns with current county-wide plans and goals — and identifies the milestones required to accomplish this project.
LOCATION

From the terminus of the current South Hill Recreation Way, the proposed trail extension would follow the former Delaware, Lackawanna and Western Railway (DL&W) east and terminate at the intersection of Banks Road in the town of Caroline. The extension will pass through the towns of Ithaca, Danby, Dryden, and Caroline. The current South Hill Recreation Way follows the former rail corridor from Hudson Street in the City of Ithaca to Burns Road in the Town of Ithaca.

HISTORY

The railbed was first constructed in 1834 by the Ithaca and Owego Railway, using horsepower to tow rail cars up the steep grades, and was the second railroad chartered in New York State. In 1843 it became the Cayuga and Susquehanna Railroad until 1855 when it was purchased by the DL&W Railroad and operated until 1956.

SETTING

As a former railroad bed, the terrain of the corridor is ideal for the development of a pedestrian and bicycle trail which meets each road intersection at a gentle grade, enabling easy access to all users as well as sustaining a grade that allows for people to travel with relative ease. With the exception of road crossings, the trail corridor passes through scenic woodlands, numerous woodland streams, and charming glens. Adjacent to the buffer of woodlands that parallel the trail are private properties and homes dispersed at a low density.

CURRENT CONDITION

The majority of the two-mile section of the extension is continually cleared by adjacent landowners who currently use the trail for recreation. There have been no modifications to the packed soil surface and the corridor does not require any major regrading or water diversion.

In Spring 2008, the section of this proposed extension was examined by George Frantz, former planner for the Town of Ithaca. Aside from replacing a handful of small culverts, he did not see any major construction projects. He also estimated the cost it would take to extend the South Hill Recreation Way to Burns Road if it were match the conditions and amenities found on the existing trail corridor (See Appendix D).

CURRENT OWNERSHIP

The corridor for the proposed extension of the South Hill Recreation Way is currently owned by NYSEG. Aside from a small portion owned by private landowners, the current corridor of the South Hill Recreation Way is owned by the City and Town of Ithaca.
The proposed trail project is uniquely positioned to achieve the established goals of several local municipalities and would fulfill the expressed interests and desires of local residents.

**MUNICIPAL AND REGIONAL PLANS**

This project is compatible with master plans for towns within Tompkins County as well as a transportation master plan for Tompkins County as a whole.

**1997 Town of Ithaca Park, Recreation, and Open Space Plan**

Through this plan, the Town of Ithaca has made it a priority to further “develop bicycle and pedestrian paths to provide recreational opportunities and convenient commuter routes for safe and attractive bicycle and pedestrian linkages between homes, shops, work and parks.”

**2006 Town of Caroline Comprehensive Plan**

The extension is one of three trails that the Town of Caroline envisions as safe, non-motorized travel routes for residents. The extension will serve as a link to the City of Ithaca since it will directly connect to the existing section of the South Hill Recreation Way, which ends near the downtown commercial area of the city. The extension would also achieve one of the directives in the Town of Caroline’s five-year plan, which aims to secure an easement for a trail that connects the hamlet of Brooktondale to the South Hill Recreation Way at its current terminus on Burns Road.

**2010 ITCTC Map of Planned and Existing Multi-Use Trails in Tompkins County**

The Ithaca-Tompkins County Transportation Council (ITCTC) created a map that included all existing and planned multi-use trail corridors, which was updated in 2010. The proposed extension of the South Hill Recreation Way will be part of a trail identified as the “Coddington Trail” on this map. When built, this trail will become part of a planned multi-use trail network for Tompkins County (see Appendix B).
TOWN AND COMMUNITY SUPPORT

This project has received support expressed by adjacent landowners, users of the current South Hill Recreation Way, and adjacent towns.

2008 Town Resolutions

Resolutions have been passed in support of the proposed extension from all of the towns it will serve: Ithaca, Dryden, Danby and Caroline (see Appendix C).

2009 Town of Ithaca Trail Impact Report

In 2009, the Town of Ithaca administered a survey to gather information of the impact of three existing recreational trails, including the South Hill Recreation Way, on their surrounding communities. The report, titled “The South Hill Recreation Way, the East Ithaca Recreation Way, and the Northeast Ithaca Recreation Way and Their Effect on Adjoining Residential Properties,” showed that an overwhelming 85% of landowners in proximity to the South Hill Recreation Way indicated that they are “satisfied” or “very satisfied” with the trail. Many landowners also expressed interest in extending the trail by writing under the additional comments section on the survey.

“We think the trail is nothing but a positive for our family and neighborhood. We’d love to have it extended.”

“We would love it if the trail extended past Burn’s (sic) Road. As my kids get older, they could use a longer trail... maybe even to Brooktondale. ... The trail gives us access to “wild space” and we live 10 minutes walk from downtown. We love it!"

2010 DesignConnect Phone Survey

In May 2010, the Cornell student group DesignConnect conducted a phone survey of adjacent landowners along the proposed extension of the trail to gauge their support. Of the 16 landowners along this corridor, thirteen were contacted and eleven were willing to discuss their thoughts on the project. Nine landowners expressed their support for the trail and only two expressed their opposition (see Appendix E).
ANTICIPATED BENEFITS

INTERCONNECTEDNESS

The proposed trail will safely connect residents east of the existing South Hill Recreation Way to a network of multi-use trails throughout the greater Ithaca area. Currently, there are several proposed trail connections to the existing trail. Ithaca College is planning a connection to the South Hill Recreation Way allowing Ithaca College employees a direct route to work. The proposed East-South Trail will connect the South Hill Recreation Way to the Pew Trail, which then leads to the East Hill Recreation Way and Cornell University. At its western terminus, the South Hill Recreation Way will connect to the proposed Gateway Trail, which will link it to two popular scenic parks and the popular waterfront area of Ithaca. Altogether, these trail connections will make the South Hill Recreation Way a “hub” of multi-use trails, and the extension will provide access to the trail to more people.

SAFETY

The proposed trail extension will provide a safer commuter route to non-motorized commuters from all four towns. The trail, and its proposed extension, run parallel to NYS Route 79 and Coddington Road, both heavily used roads with high speed limits. The trail is the only non-motorized travel corridor in the area and the safest route to walk or bike on from areas southeast of Ithaca, such as the Town of Caroline. A survey of Caroline residents conducted in 2004 showed that 6 percent either walk or bike to work. As these 6 percent likely work in the business district of the City of Ithaca or Cornell University, the extension will offer a safe, quiet, and scenic travel route to work from Caroline to Ithaca. Additionally, the survey indicated that 21 percent of Caroline residents have a commute to work of fifteen minutes or less, short commutes which could be traversed by bike. The development of this trail would increase the number of people that walk or bike to work as the extension will provide a safer and more pleasant alternative for commuters in Caroline.

Anecdotal evidence through conversations with residents support this interpretation of the survey results. Two serious bike-car collisions within the last several years on Coddington Road also point to both the demand for a bikeway and the dangers of the existing roadways for that mode of transportation.

COMMUNITY

This proposed trail will generate invaluable community benefits as shown from similar trail projects nationwide. The Rails-to-Trails Conservancy, a not-for-profit organization which helps communities create multi-use trails from abandoned railways, have found through extensive surveys that show trail projects such as the South Hill Recreation Way can preserve wildlife and history while promoting local economies, tourism, active commuting, and active lifestyles for all ages.
PROJECT CHALLENGES

TRAIL NEIGHBOR CONCERNS

Adjacent landowners may have fears about having a public trail adjacent to their property. The 2009 report by the Town of Ithaca is a source of reliable and relevant local information on landowner sentiments of trail expansions. According to the report, the concerns usually raised by landowners opposed to trail projects include “decreased property values, liability, vandalism, litter, privacy, and safety.” However, the report adds that these concerns are often perceived problems rather than actual problems, and that current neighbors of trails experience relatively low rates of trail-related problems, especially when compared to the positive experiences that neighboring landowners will gain from the nearby trail. The report recommends that neighbor concerns must be addressed with local knowledge so that they can be evaluated fairly by the town.

CURRENT OWNERSHIP AND USE

The land of the proposed trail corridor must be leased or bought from NYSEG by each of the towns in order to start the development of the trail extension. However, contacting NYSEG remains elusive and the costs and conditions on the land are still unknown.

In addition, one landowner living adjacent to the eastern terminus of the existing trail currently uses a section of the proposed trail corridor as a driveway. The landowner is also strongly opposed to the extension. In 2007, the Caroline Trails and Natural Areas Committee identified arranged a meeting with said landowner to discuss the issue on site. During this meeting, it was said that another adjacent landowner offered to consider allocating a portion of their property as a trail easement as an alternative to the trail corridor currently used as a driveway. Shared trail-driveway case studies have also been compiled in a separate handbook if an alternate route in not feasible.

Additional uses of interest on the proposed trail corridor have been received by unconfirmed anecdotes and during the 2010 DesignConnect phone survey. Uses of the proposed trail corridor by neighboring landowners should be examined during a community outreach and accommodations should be arranged then.
NEXT STEPS

ESTABLISH MUNICIPAL AND COMMUNITY SUPPORT

Initial discussions between the current trail planning committee and town leaders from Ithaca, Caroline, Danby, and Dryden have resulted in renewed support for the project from the municipalities. As momentum for the project increases, the trail planning committee has identified strategies to garner additional support. These strategies include inviting adjacent landowners and other community members to become part of the “Friends of the South Hill Recreation Way” group, and working with community partners to advocate for the extension.

SECURE THE USE OF THE RIGHT-OF-WAY FOR A TRAIL

With the support of the towns and the community, the task of leasing or purchasing the right-of-way from NYSEG will be more feasible. A point-of-contact at NYSEG must be found and the towns will have to negotiate the terms for the use of the right-of-way.

COMMUNITY SUPPORT AND OUTREACH

Immediately after NYSEG agrees to lease or sell the right-of-way, project partners must contact adjacent landowners to address their concerns one-on-one. Further community outreach can come in the form of public meetings and workshops in order to discuss and provide input to the design of the trail.

SECURE FUNDING

The current trail planning committee must ensure that the towns are able to contribute to the project financially and may apply for grants to raise additional funds for trail design and construction, if needed. The committee has a relatively clear understanding of the physical improvements required to construct the proposed trail and the costs associated with them. According to estimates provided by George Frantz, the estimated cost in 2008 dollars was estimated at close to $120,000 per mile, totaling $240,000 for the extension (see Appendix D).

PLAN, DESIGN, AND BUILD THE TRAIL

The extension to the South Hill Recreation Way will begin to take shape as construction starts thanks to funding from project partners and other agencies. Construction of the trail will follow designs that have taken into consideration the concerns of adjacent landowners and users of the trail from other areas. The construction of the trail should be followed by the improvement in amenities at trail entry points, such as increased parking spaces and signage. Many of these recommendations have been addressed in a handbook created by a previous DesignConnect team that worked on the extension.
APPENDIX B

2010 ITCTC MAP OF PLANNED AND EXISTING MULTI-USE TRAILS IN TOMPKINS COUNTY

Ithaca-Tompkins County Transportation Council
TOWN OF DRYDEN
TOWN OF LANSING
TOWN OF DANBY
TOWN OF NEWFIELD
TOWN OF CAROLINE
TOWN OF GROTON
TOWN OF ENFIELD
TOWN OF ULYSSES
TOWN OF ITHACA
CITY OF ITHACA
VILLAGE OF LANSING
VILLAGE OF DRYDEN
VILLAGE OF GROTON
VILLAGE OF CAYUGA HEIGHTS
VILLAGE OF FREEVILLE
VILLAGE OF TRUMANSBURG

Legend

Multi-Use Trails

STATUS
existing (built facility)
in progress (funding secured)
proposed (planned, not funded)

City and State Parks / Forests

0 7,900 15,800 23,700 31,600 3,950 Feet

Prepared by the Ithaca-Tompkins County Transportation Council - 11/10/10
THE SOUTH HILL RECREATION WAY

Legend
Multi-Use Trails in Tompkins County, NY

- **Existing (built facility)**
- **In progress (funding secured)**
- **Proposed (planned, not funded)**
- **City and State Parks / Forests**

Prepared by the Ithaca-Tompkins County Transportation Council - 11/10/10
APPENDIX C

2008 TOWN RESOLUTIONS FOR THE SOUTH HILL RECREATION WAY EXTENSION PROJECT

Town of Ithaca
Town of Dryden
Town of Danby
Town of Caroline
REGULAR MEETING OF THE ITHACA TOWN BOARD
MONDAY, APRIL 7, 2008

TB RESOLUTION NO. 2008-092: SUPPORT FOR CODDINGTON TRAIL INITIATIVE
BY THE TOWN OF CAROLINE

WHEREAS:

• Trails provide an important recreational outlet; and
• Trails built to bicycle riding standards provide alternative commuter routes, reducing traffic on local roads; and
• Trails support the public health of communities by providing opportunities for residents to engage in physical exercise; and
• Trails can support economic development and a richer sense of community and (http://www.railtrails.org/whatwedo/trailadvocacy/2010Campaign.html); and
• abandoned railbeds are ideally suited to multi-purpose trails; and
• The abandoned Lackawanna Railroad bed continues eastward and southward through the Towns of Ithaca, Dryden, Caroline and Danby (under the ownership of NYSEG), beyond the current end of the Town of Ithaca’s South Hill Recreation Way, offering a potential connection between the city of Ithaca and the hamlet of Brooktondale, as well as the possibility of connecting Ithaca and Owego in the longer term; and
• The residents of the towns of Ithaca, Dryden, Danby and Caroline will benefit from a continuation of the South Hill Recreation Way into Caroline; and
• The Ithaca Tompkins County Transportation Council (ITCTC) Planning Committee at its February 12, 2008 meeting directed its Staff Director to include extension of the South Hill Recreation Way to the hamlet of Brooktondale on ITCTC plans and maps as part of the countywide multi-use trail network; and
• the Town Board of the Town of Caroline has, at its January 8, 2008 meeting, unanimously resolved that:

"The Town of Caroline be the lead agency in providing direction and momentum for this project, acting with the Natural Areas and Trails Working Group to establish shared goals with the Towns of Ithaca, Dryden and Danby in the establishment of an extension to the South Hill Recreation Parkway to the hamlet of Brooktondale;

And Be It Further Resolved that Linda Adams, a member of the Caroline Town Board, has the responsibility to conduct negotiations and discussions on behalf of the Caroline Town Board with the Natural Areas and Trails Working Group, other Towns, the County, NYSEG, and landowners in a timely manner so that the [Caroline] Town Board can apply for state or federal grant funding with a June 2008 deadline.", and

WHEREAS, the Town of Ithaca Planning Committee at its meeting on March 13, 2008 supported the Town of Caroline’s leadership in this project, and recommended that the Town Board adopt a resolution in support of the concept of the trail extension;
May 29, 2008

To Whom It May Concern:

The Town of Dryden fully supports the initiative by the Town of Caroline to construct a trail along a former railroad right of way currently owned by New York State Electric and Gas. The Planning Board of the Town of Dryden met with project sponsors and recommended that the Town Board express support for the construction of the trail and the links it will provide with other trail initiatives in Tompkins County.

The Town Board passed the attached resolution on May 14, 2008 supporting the Town of Caroline’s application to develop a trail that would follow the railroad right of way. The trail will provide an important off road link between the Ithaca urbanized area and the outlying town of Caroline as both an alternative transportation option as well as a recreational and tourism opportunity.

Sincerely,

Mary Ann Sumner, Supervisor

Enc.

RESOLUTION #83 – AUTHORIZE LETTER OF SUPPORT FOR CAROLINE TRAIL PROJECT

Cl Makar offered the following resolution and asked for its adoption:

RESOLVED, that this Town Board hereby authorizes the Town Supervisor to send a letter of support to be included in the Town of Caroline’s application to develop a trail along the former railroad right of way linking the Ithaca urbanized area and the Town of Caroline.

2nd Cl Leifer

<table>
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<th>Roll Call Vote</th>
<th>Cl Stelick</th>
<th>Cl Solomon</th>
<th>Supv Sumner</th>
<th>Cl Makar</th>
<th>Cl Leifer</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</table>
RESOLUTION NO. 37 OF 2008
IN SUPPORT FOR CODDINGTON TRAIL INITIATIVE BY THE TOWN OF CAROLINE
By: Supervisor Dietrich; Seconded by Leslie Connors
WHEREAS:
* Trails provide an important recreational outlet; and
* Trails support the public health of communities by providing opportunities for residents to engage in physical exercise; and
* Trails can support economic development and a richer sense of community and (http://www.railtrails.org/whatwedo/trailadvocacy/2010Campaign.html; and
* abandoned railbeds are ideally suited to multi-purpose trails; and
* The abandoned Lackawanna Railroad bed continues eastward and southward through the Towns of Ithaca, Dryden, Caroline and Danby (under the ownership of NYSEG), beyond the current end of the Town of Ithaca’s South Hill Recreation Way, offering a potential connection between the city of Ithaca and the hamlet of Brooktondale, as well as the possibility of connecting Ithaca and Owego in the longer term; and
* The residents of the towns of Ithaca, Dryden, Danby and Caroline will benefit from a continuation of the South Hill Recreation Way into Caroline; and
* This proposed trail continuation of the South Hill Recreation Way along the former Lackawanna Railroad Bed into Caroline is not currently on the Tompkins County Planning Map for trail development within Tompkins County; and
* Putting the trail on the Ithaca Tompkins County Transportation Council Planning map requires a formal request from the affected towns (Ithaca, Dryden, Danby and Caroline);
* The Town Board of the Town of Caroline has, at its January 8, 2008 meeting, unanimously resolved that

“The Town of Caroline be the lead agency in providing direction and momentum for this project, acting with the Natural Areas and Trails Working Group to establish shared goals with the Towns of Ithaca, Dryden and Danby in the establishment of an extension to the South Hill Recreation Parkway to the hamlet of Brooktondale;

And Be It Further Resolved that Linda Adams, a member of the Caroline Town Board has the responsibility to conduct negotiations and discussions on behalf of the Caroline Town Board with the Natural Areas and Trails Working Group, other Towns, the County, NYSEG, and landowners in a timely manner so that the [Caroline] Town Board can apply for state or federal grant funding with a June 2008 deadline” (see attached copy of the Town of Caroline’s full resolution).
* The Town of Danby Planning Board resolved to recommend that the Town Board support this resolution at its meeting on February 21, 2008.

Therefore, now let it BE IT RESOLVED, that the Town of Danby endorses the Town of Caroline’s leadership in this project to extend the South Hill Recreation Parkway to the hamlet of Brooktondale.
And be it Further Resolved that we support the Town of Caroline’s request that this trail extension be added to the Tompkins County Planning map for trail development within Tompkins County; that we support the Town of Caroline’s negotiations with NYSEG and neighboring landowners; and support applications by the Town of Caroline for county, state or federal funding for this project.

And Be It Further Resolved that Dan Klein, a member of the Town of Danby Town Board, will serve as the contact person for the Town of Danby for future discussions related to this project.

A roll call vote on the resolution resulted as follows:
(Joseph Salino excused)

<table>
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<th>Name</th>
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<tr>
<td>Beavers</td>
<td>Aye</td>
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<tr>
<td>Connors</td>
<td>Aye</td>
</tr>
<tr>
<td>Klein</td>
<td>Aye</td>
</tr>
<tr>
<td>Dietrich</td>
<td>Aye</td>
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Carried

STATE OF NEW YORK )
COUNTY OF TOMPKINS ) SS:
TOWN OF DANBY )

Carol W. Sczepanski, Town Clerk in the Town of Danby, a Municipal Corporation of the County of Tompkins, State of New York, hereby certify that the foregoing resolution is a true and exact copy of a resolution duly adopted by the Town Board of said Town of Danby at a Regular meeting held on the 14th day of April 2008.

IN WITNESS WHEREOF, I have hereunto set my hand and the Seal of the Town of Danby, this 15th day of April 2008.

[Signature]

Carol W. Sczepanski, Town Clerk
APPENDIX D

PRELIMINARY COST ESTIMATES FOR THE PROPOSED TOWN OF CAROLINE BICYCLE-PEDESTRIAN PATH

George R. Frantz, AICP, George R. Frantz & Associates
PRELIMINARY COST ESTIMATE - Proposed Town of Caroline Bicycle-Pedestrian Path  (DRAFT)
Section No. 1 - Burns Road to German Cross Road (+/-6,310 linear feet)

Prepared by George R. Frantz, AICP, George R. Frantz & Associates

Primary data source: Sweets Facilities Cost Guide

June 14, 2008

NOTE: The figures shown below are preliminary estimates based on field observations and verbal descriptions of the proposed project scope. They are preliminary estimates only and subject to change as the proposed project scope and design are finalized.

0.400

AC = acres; CY = cubic yard; LF = linear feet; LB = pound; SF = square feet; EA = each; BDL = bundle

<table>
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<tr>
<th>CSI CODE</th>
<th>ITEM</th>
<th>QTY.</th>
<th>UNITS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
<th>NOTES</th>
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<td>02-11010-1800</td>
<td>Clear and grub vegetation - heavy density</td>
<td>2.6</td>
<td>AC</td>
<td>$8,820.00</td>
<td>$22,997.60</td>
<td>18' avg. clearance x 6,310 linear feet = acres, includes 3-4 car parking areas at Banks, G-C Rd, Middaugh entrances</td>
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<tr>
<td>02-21010-0120</td>
<td>Purchase and haul #2 crushed bank run from source</td>
<td>778</td>
<td>CY</td>
<td>$41.50</td>
<td>$32,287.00</td>
<td>purchase at $33.80/ CY and haul from University Sand &amp; Gravel avg. distance 5 mi.</td>
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<td>02-22070-3000</td>
<td>spread 8&quot; #2 crushed bank run stone</td>
<td>778</td>
<td>CY</td>
<td>$2.95</td>
<td>$2,295.10</td>
<td>8&quot; lift 10 ft. wide x 6,310 LF = 778 CY</td>
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<tr>
<td>02-22070-3100</td>
<td>roll and compact</td>
<td>778</td>
<td>CY</td>
<td>$3.95</td>
<td>$3,073.10</td>
<td>grade off and compact with vibratory roller</td>
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<tr>
<td>02-24005-0000</td>
<td>Stabilized construction entrance trail entrances during construction</td>
<td>1</td>
<td>EA</td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>Needed for State required stormwater pollution prevention control during construction 1 total for section west side German Cross Road.</td>
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<td>02-24005-0100</td>
<td>Straw bale sediment traps secured with rebar</td>
<td>384</td>
<td>LF</td>
<td>$3.30</td>
<td>$1,267.30</td>
<td>Install strawbale sediment trap barriers across RR bed drainage swales where they intersect streams (8 locations x 4 bales x 4 barriers each stream crossing)</td>
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<td>02-24005-0120</td>
<td>Soil erosion/sedimentation filter barrier</td>
<td>200</td>
<td>LF</td>
<td>$6.05</td>
<td>$1,210.00</td>
<td>Install during construction trap sediment in various locations as warranted</td>
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<td>02-84030-4000</td>
<td>8”x8” wood bollard, 4’ in ground/4’ exposed</td>
<td>50</td>
<td>EA</td>
<td>$49.60</td>
<td>$2,480.00</td>
<td>Assume 28 - 30 needed to separate trail from Hiker driveway at Burns Road entrance; 8 at German Cross Rd. end of section; 12 others as needed elsewhere on trail section</td>
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<td>02-84060-1030</td>
<td>Stop signs at trail/road intersections</td>
<td>2</td>
<td>EA</td>
<td>$98.50</td>
<td>$197.00</td>
<td>24&quot;x24&quot; reflectorized - MUTCD</td>
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<td>02-84060-1140</td>
<td>Pedestrian X-ing signs for roads</td>
<td>2</td>
<td>EA</td>
<td>$110.00</td>
<td>$220.00</td>
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<td>02-84060-1160</td>
<td>Misc. informational signs</td>
<td>8</td>
<td>EA</td>
<td>$57.00</td>
<td>$456.00</td>
<td>12&quot;x18&quot; metal reflectorized signs - specific text to be determined</td>
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<td>02-86040-0000</td>
<td>miscellaneous site amenities</td>
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<td>$4,000.00 Allowance for miscellaneous site features such as farm gates, fences, additional signs</td>
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<td>02-86040-2140</td>
<td>bench, 6” long all steel construction</td>
<td>4</td>
<td>EA</td>
<td>$490.00</td>
<td>$1,960.00</td>
<td>total of 5 benches placed at selected locations along path</td>
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<td>02-93030-2040</td>
<td>Seed trail surface and disturbed areas to grass</td>
<td>2.6</td>
<td>AC</td>
<td>$3,420.00</td>
<td>$8,892.00</td>
<td>mechanical seeding at rate of 175 lb per acre</td>
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</table>

Subtotal $86,335.00

10% Contingency $8,633.50

25% Allowance for professional design fees $21,583.75

Subtotal adjusted for contingencies and professional fees $116,552.25

Inflation Adjustment

Project Total Cost

NOTE: does not include $10,000 allowance for survey work

$0.00 allowance for possible STORMWATER MANAGEMENT facilities that may be required by state due to amount of site disturbance
PRELIMINARY COST ESTIMATE - Proposed Town of Caroline Bicycle-Pedestrian Path  (DRAFT)
Section No. 2 - German Cross Road to Banks Road (+/-3,410 linear feet)

Prepared by George R. Frantz, AICP, George R. Frantz & Associates
Primary data source: Sweets Facilities Cost Guide

June 14, 2008

NOTE: The figures shown below are preliminary estimates based on field observations and verbal descriptions of the proposed project scope. They are preliminary estimates only and subject to change as the proposed project scope and design are finalized.

AC = acres; CY = cubic yard; LF = linear feet; LB = pound; SF = square feet; EA = each; BDL = bundle

<table>
<thead>
<tr>
<th>CSI CODE</th>
<th>ITEM</th>
<th>QTY.</th>
<th>UNITS</th>
<th>UNIT PRICE</th>
<th>TOTAL PRICE</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>02-11010-1800</td>
<td>Clear and grub vegetation - heavy density</td>
<td>1.4 AC</td>
<td>$8,820.00</td>
<td>$12,348.00</td>
<td>18' avg. clearance x 3,410 linear feet = 1.4 acres, includes 3-4 car parking areas at Banks Road &amp; German Cross Road entrances</td>
<td></td>
</tr>
<tr>
<td>02-21010-0120</td>
<td>Purchase and haul #2 crushed bank run from source</td>
<td>953 CY</td>
<td>$41.50</td>
<td>$39,649.50</td>
<td>purchase at $33.80/ CY and haul from University Sand &amp; Gravel avg. distance 5 mi.</td>
<td></td>
</tr>
<tr>
<td>02-22070-3000</td>
<td>spread 8&quot; #2 crushed bank run stone</td>
<td>420 CY</td>
<td>$2.95</td>
<td>$1,239.00</td>
<td>$1,239.00 8'' lift 10 ft. wide x 3,410 LF = 420 CY spread 8&quot; #2 crushed bank run stone to raise path through low, wet area</td>
<td></td>
</tr>
<tr>
<td>02-22070-3100</td>
<td>roll and compact</td>
<td>533 CY</td>
<td>$2.95</td>
<td>$1,572.35</td>
<td>965 east of German Cross Rd and extending 400 feet eastward, bottom lift 24 ft. wide, top 12 ft. wide with 1:3 side slopes</td>
<td></td>
</tr>
<tr>
<td>02-24005-0000</td>
<td>Stabilized construction entrance trail entrances during construction</td>
<td>2 EA</td>
<td>$5,000.00</td>
<td>$10,000.00</td>
<td>needed for State required stormwater pollution prevention control during construction at both Banks Rd. and German Cross Road trail entrances.</td>
<td></td>
</tr>
<tr>
<td>02-24005-0100</td>
<td>Straw bale sediment traps secured with rebar</td>
<td>200 LF</td>
<td>$3.30</td>
<td>$660.00</td>
<td>install strawbale sediment trap barriers across RR bed drainage swales where they intersect streams (4 locations x 4 bales x 4 barriers each stream crossing)</td>
<td></td>
</tr>
<tr>
<td>02-24005-0120</td>
<td>Soil erosion/sedimentation filter barrier</td>
<td>200 LF</td>
<td>$6.05</td>
<td>$1,210.00</td>
<td>install during construction to trap sediment in various locations as warranted</td>
<td></td>
</tr>
<tr>
<td>02-72040-6060</td>
<td>Install 24&quot; culvert pipe +/-1,065' east of G-C Rd</td>
<td>30 LF</td>
<td>$63.10</td>
<td>$1,893.00</td>
<td>corrugated metal pipe, coated w/paved invert, includes trenching to 4', backfill</td>
<td></td>
</tr>
<tr>
<td>02-72040-6060</td>
<td>Install 24&quot; culvert pipe +/-1,460' east of G-C Rd</td>
<td>30 LF</td>
<td>$63.10</td>
<td>$1,893.00</td>
<td>corrugated metal pipe, coated w/paved invert, includes trenching to 4', backfill</td>
<td></td>
</tr>
<tr>
<td>02-84030-4000</td>
<td>8&quot;x8&quot; wood bollard, 4' in ground/4' exposed</td>
<td>40 EA</td>
<td>$49.60</td>
<td>$1,984.00</td>
<td>assume 8 at German Cross Rd. &amp; Banks Rd trail/road intersections; 12 Banks Rd. parking lot; 12 others as needed elsewhere on trail</td>
<td></td>
</tr>
<tr>
<td>02-84060-1030</td>
<td>Pedestrian X-ing signs for roads</td>
<td>2 EA</td>
<td>$98.50</td>
<td>$197.00</td>
<td>24&quot;x24&quot; reflectorized - MUTCD</td>
<td></td>
</tr>
<tr>
<td>02-84060-1140</td>
<td>Misc. informational signs</td>
<td>8 EA</td>
<td>$57.00</td>
<td>$456.00</td>
<td>12x18 metal reflectorized signs - specific text to be determined</td>
<td></td>
</tr>
<tr>
<td>02-86040-0000</td>
<td>miscellaneous site amenities</td>
<td></td>
<td></td>
<td></td>
<td>$2,000.00 Allowance for miscellaneous site features such as farm gates, fences, additional signs</td>
<td></td>
</tr>
<tr>
<td>02-86040-2140</td>
<td>bench, 6' long all steel construction</td>
<td>4 EA</td>
<td>$490.00</td>
<td>$1,960.00</td>
<td>$1,960.00 total of 12 benches placed at selected locations along path</td>
<td></td>
</tr>
<tr>
<td>02-93030-2040</td>
<td>Seed trail surface and disturbed areas to grass</td>
<td>1.4 AC</td>
<td>$3,420.00</td>
<td></td>
<td>$4,788.00 mechanical seeding at rate of 175 lb per acre</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal | $87,627.20 | NOTE: does not include $10,000 allowance for survey work |
10% Contingency | | $8,762.72 |
25% Allowance for professional design fees | | $21,906.80 |
Subtotal adjusted for contingencies and professional fees | $118,296.72 |
Inflation Adjustment | |

Project Total Cost | |
APPENDIX E

2010 DESIGNCONNECT PHONE SURVEY SUMMARY

Travis Conaway
Laura Durgeria
Heather Harris
Will Hibbs
Anders Lindquist
Hayden Stebbin
and Prof. Daniel Krall
Adjacent Landowner Phone Interview Responses

Property Owners Adjacent Trail Between Burns Road and Banks Road Called: 16

Property Owners Reached: 13

Property Owners Who Talked: 11

Property Owners Who Declined to Talk: 2

Property Owners in Support: 9

Property Owners in Opposition: 2

Red text = Landowner from Burns to German Cross Road
Blue text = Landowner from German Cross to Banks

1. What are your feelings about the existing recreation ways and trails in your community? Do you use any trails or recreation ways?

- Yes - use the South Hill trail a lot
- Yes - use them all the time for biking and skiing
- They’re good - used them from time to time
- Aware that lots of local government effort goes into creating/maintaining them
- They’re fine
- Many people benefit from them
- Occasionally used them (but now too old)
- There are too many of them

- Super, Great! Use them all the time.
- They are very nice
- Walk on them
- Being able to bike, ride horses, etc. off a main road is a good thing.
- There are several trails in the area - they are an asset to the community

2. Roughly how far away is your home from this railroad bed?

- 100 feet
- 500 feet
SUMMARY OF FINDINGS

OPINIONS ON EXISTING TRAILS

Most surveyed use the existing trails with varying frequencies and find them to be beneficial “assets to the community.” Elderly respondents say they use the trail less frequently now due to old age, while one respondent said that “there were too many [trails].”

USE OF EXISTING RAILROAD BED

Most respondents west of German Cross Rd do not use the railroad bed in its current state due to their old age; only one respondent uses it frequently as his driveway. Most respondents east of German Cross Rd use the existing railroad bed as a walking trail.

OPINIONS ON THE EXTENSION OF THE SOUTH HILL RECREATION WAY

West of German Cross Rd, a majority of respondents highly approve of an extension. However, two respondents are opposed to the extension, saying that there are enough trails in the vicinity (one behind the community center) and affirming their belief that most property owners throughout the length of the railbed are opposed to an extension.

East of German Cross Rd, all respondents approve of an extension as it would provide safer points of access and formalize the railroad bed’s existing use as a foot trail.

POTENTIAL CHALLENGES FOR THE EXTENSION

Respondents raised the existence of a vocal opposition as a possible challenge for the extension. They can sympathize with those who believe the trail could sacrifice the privacy of homes as it has the potential to bring trespassers to people’s properties. However, most believe these worries are unfounded as such issues have not occurred along existing trails. Another concern raised was the possible loss of hunting grounds.

RECOMMENDATIONS TO THE TOWNS PRIOR TO TRAIL EXTENSION

Respondents from both sides expressed their concerns about the cost of construction and the responsibility of future maintenance of the trail. Resources should be made available to construct an extension that will be as good as the existing trail. Local government should also be aware of the approval rate of the project and mitigate the impacts to neighbouring landowners, such as the perceived loss of privacy and the foreseeable rise in property value when the trail is built.