EAST BRANCH TRAIL

Erie County, Pennsylvania

Pennsylvania Environmental Council

Technical Memo, Winter 2018

ACKNOWLEDGMENTS

Debra Frawly - Trails & Recreation

Pennsylvania Environmental Council

Consultant Team

Melissa Miklus, PLA, ASLA

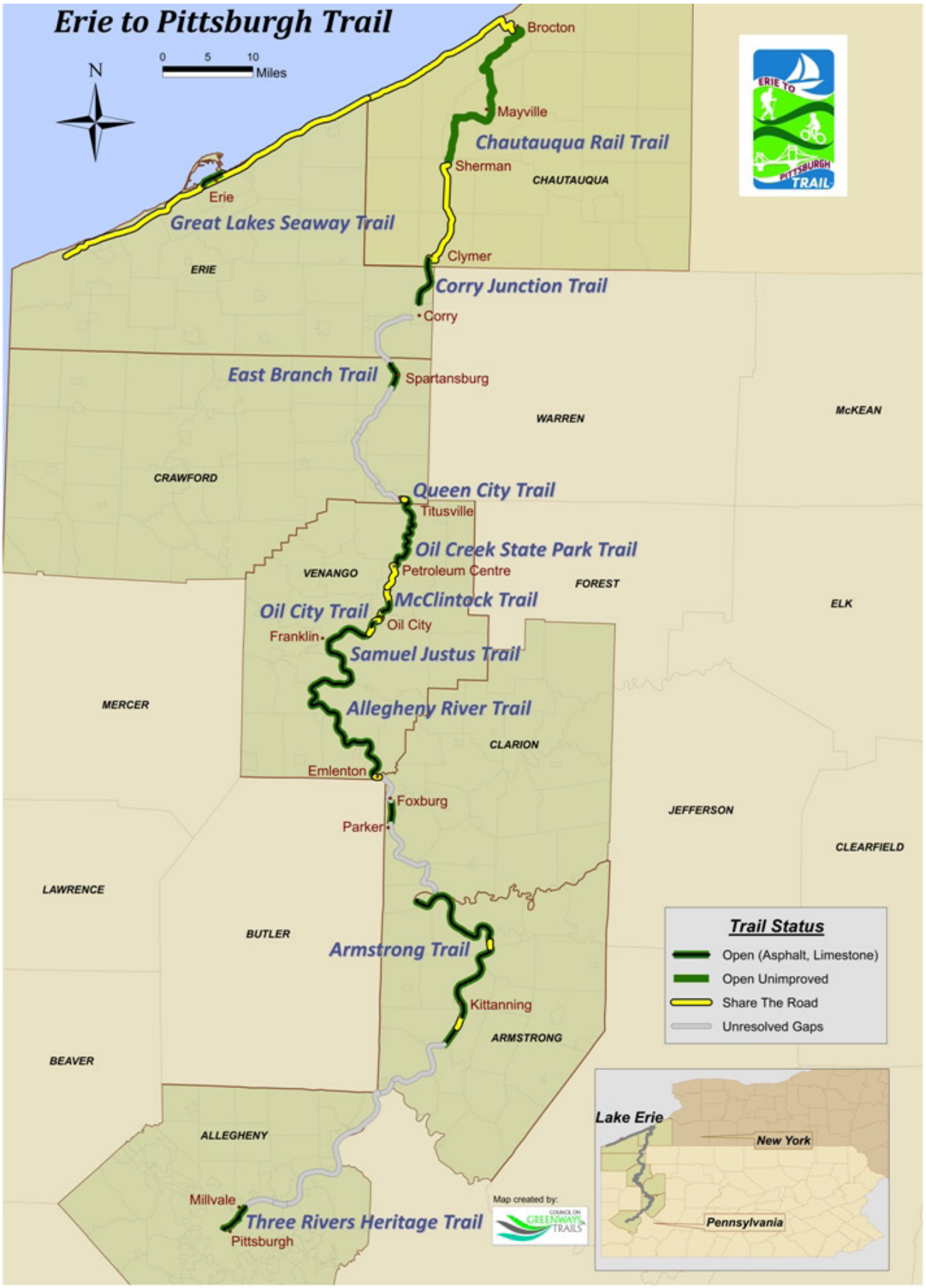
Adam Supplee, PLA,ASLA

Philip Schweiger, ASLA

alta

PLANNING + DESIGN

TABLE OF CONTENTS



Map from Erie to Pittsburgh website: http://eriepittsburghtrail.org

Introduction

Since the first phase of the East Branch Trail (EBT) was completed in 2010, it has been a recreational asset and economic driver for local communities and local businesses. The EBT is part of a regional mega-greenway called the Erie to Pittsburgh Trail (EPT), which will eventually connect both cities. The regional trail system will pass through six western Pennsylvania counties and one southwestern New York County, totalling 270 miles. The mission of the Erie to Pittsburgh Trail Alliance (EPTA), is to advocate for the development of the continuous trail; to assist our local partners by sharing expertise and resources; to promote the trail for its regional significance; and encourage local and broader connections.

The EPT is currently 65% complete with intermittent gaps remaining in the trail network. One of the next logical steps for both the regional and local trail network is to bridge the gap between Corry and Spartansburg. In order to fill this gap, the existing EBT will be extended from Spartansburg to Corry by way of an old rail bed and the proposed Western New York & Pennsylvania Railroad corridor. This connection will serve both local and regional communities by filtering more people into the trail network. In 2013 a Trail User Survey and Economic Impact Analysis showed that a nearby completed segment of the EPT attracted 158,507 users per year with an impact of $6.9 million to the local economy, which has grown since the 2006 Trail User Survey. These results make filling the gaps in the EPT even more imperative for the growth of local economies and communities. [1]

In preparing to extend the EBT and connect Spartansburg to Corry, the Pennsylvania Environmental Council worked with Alta Planning + Design to carry out professional consulting services that will assist the Pennsylvania Environmental Council in better understanding the requirements of Western New York and Pennsylvania Railroad to build a rail-with-trail for the EBT.

This technical memo provides a framework to: provide a safe and accessible rail-with-trail environment for all ages and abilities; transform the rail corridor into an active and healthy space for all modes of travel; connect residents and visitors to important destinations; beautify the public realm, and stimulate investment.

1. Erie to Pittsburgh Trail Brochure

RAIL TRAILS

Rail Trails typically describes a condition where a bikeway or multipurpose trail (usually paved) is located on retired rail lines or adjacent to an active railroad corridor. Current rail lines adjacent to multipurpose trails range from slow-moving short haul freight trains, to 100 mile per hour speed trains.

Communities looking to expand or improve conditions for bicyclists and pedestrians are frequently seek opportunities in rail corridors. Rail corridors usually provide prime connections to and from town centers, provide smooth and safe passage through otherwise steep or challenging terrain, traverse picturesque scenery, and are unbroken by streets and waterways. Unlike street corridors, Rail Trails are separated from the conflicts associated with automobile traffic (with the exception of road crossings), and provide a safe space for pedestrian and bicycle travel. These combined benefits make rail corridors prime opportunities for safe connections and economic catalysts in communities across America and around the world.

Since 1986 there has been a large increase in rail-trails, growing from less than 200 to now more than 1,800 rail-trails spread across 50 states and totaling more than 21,000 miles. Rail-with-trails although slightly different than rail-trails are experiencing similar growth and popularity. Rails-with-trails represent approximately 9% of the total number of rail-trails and there are at least 60 more known rails-with-trails in various stages of development now. The mileage for rails-with-trails has also increased from 523 miles to 1,397 miles since the year 2000. [1]

With the continued expansion of trail planning combined with the decline of the railroad industry, opportunities to acquire and use abandoned or high use rail corridors are becoming increasingly plentiful.

1. America's Rails-with-Trails. GrAccessible online at: https://www.railstotrails.org/resourcehandler.ashx?id=2982

BENEFITS

As the prevalence of trails and greenways expands across the country, several studies have been conducted to measure benefits. These range from discrete local data to national statistics and qualitative observations. These benefits, combined with other regional efforts, establishes a wellness package that improves livability, enhances human health, supports conservation, and stimulates economies in the immediate and the long term.

Health

Trails and Greenways provide safe, attractive, and accessible places to walk, run, hike, skate, and bike. This creates opportunities for users of all ages to take part in healthy recreational activities every day whether it be for fun or for journeying around town. By incorporating these active modes of transportation into the daily lives of communities, individuals will experience an increase in physical and mental health by exercising and being outdoors. Connecting Spartansburg to Corry and finally Erie to Pittsburgh will stimulate active transportation choices and increase recreational use thereby having the potential to activate thousands of people living along the trail corridor. [1]

Transportation

Trails and Greenways also function as valuable transportation corridors for cities and towns. By avoiding congested streets and highways, trails give people a more attractive, fun, and healthy alternative to driving to and from work or going to school. They also help reduce the number of vehicles on the road, contributing to a more "livable" community. Less vehicles on the road also means safer streets, and quieter neighborhoods. Trails assist in creating seamless regional and urban multi-modal transportation systems. Many towns rely on trail networks to assist with local public transportation by getting people to and from rural areas, urban areas and transit hubs. The EBT connection between Spartansburg and Corry will serve many Amish who commonly do not use motorized vehicles for leisurely travel and conducting business. The trail will also serve snowmobilers, making the trail an all season trail. [1]

Environment

Since Trails and Greenways are usually extensive corridors consisting of plant life, open space, and water bodies, they provide links to fragmented habitats and help preserve local natural landscapes. Trails can also bring awareness to local animals, native plant life, and other preservation benefits. Trail networks are also helping reduce carbon emissions by providing an alternative to the automobile. When more people are using non-vehicular modes of transportation, cities and towns are less polluted and air quality improves. The existing landscape around the EBT ranges from hillside to wetlands. The awareness gained by EBT users about the surrounding natural environment will lead to support for the conservation of natural resources and wildlife habitat.

1. Benefits of Greenway's. Accessible online at: http://www.greenways.com/benefits-of-greenways


night light
LOUNGE
SE 21ST AV
MAY USE
BUMPS
AHEAD
20
Tuesdays at 7pm
OPEN
CLINTON

Economy

Trails provide many economic benefits for large and small towns. For smaller towns, Trails are considered a major driver for tourism. When tourists visit a trail they are usually investing in local businesses such as hotels, restaurants, and shops. This consumer spending taps into a new and growing revenue stream for the town. A recent study along the 150-mile Great Allegheny Passage showed the trail provides an annual benefit of $50 million to adjacent communities New trails also require a variety of professionals to design, engineer, and eventually construct. This in turn creates jobs in several professional and trade fields that usually last an extended period of time. Trails even aid the federal budget by lowering health care costs, and provide less expensive transportation options. The government spends more than a quarter of its budget on health care, and billions on expensive transportation infrastructure. The East Branch Trail and neighboring trails will boost local economies by attracting tourists to the scenic areas that consist of beautifully wooded hillsides, Amish homesteads, farms, fields, and wetlands.

PAST PLANNING EFFORTS

Multiple efforts have been made already by public and private entities to secure and expand the East Branch Trail from Spartansburg to Corry Pennsylvania. In November 2013, a feasibility study was completed by Mackin Engineering to investigate and assess the entire proposed trail corridor between Spartansburg and Corry, which includes the adjacent rail line, existing 4.6 miles along the proposed trail corridor from PA Route 89 to downtown Corry. Since the feasibility study was released in 2013, the Western New York & Pennsylvania Railroad, LLC (owners of the adjacent rail line) has pledged its support of the East Branch Trail, and has worked with grant applicant “Impact Corry,” and East Branch Trail extension project partners. The WNYP also sold Impact Corry a parcel in downtown to continue efforts to increase downtown community greenspace and the East Branch Trail to Corry’s downtown center. The parcel includes two buildings, one of which was a former railroad depot. The land and its two buildings is suitable for a future trailhead.

1. Industrial Heartland Trails Coalition Brochure


CORRY

Alignment Selection + Coordination

Since the Mackin feasibility study in 2013 the Western New York & Pennsylvania Railroad has agreed to work with the Pennsylvania Environmental Council to move into engineering development of the rail right of way for a trail and sold a small parcel in downtown Corry which will also serve as a future trailhead for the East Branch Trail. As a result of the coordination with WNYP for the development of this memo, a preferred alignment has been refined to reflect the discussions with the rail company. The following map illustrates the preferred alignment for the trail and recommendations for a connection into and through Corry.

COORDINATION

Pennsylvania Environmental Council + Western New York & Pennsylvania Railroad

Since the Mackin study the PEC has been working diligently with the WNYP to secure a trail alignment for the EBT. A letter sent in 2015 from the WNYP to the Department of Community & Economic Development and PEC, states the level of commitment from the WNYP to assist in the completion of the EBT. The letter explains the support for Impact Corry and the willingness to sell a parcel for a future trailhead in downtown Corry.

WESTERN NEW YORK & PENNSYLVANIA RAILROAD, LLC
3146 Constitution Avenue
Olean, NY 14760
Phone: (908) 625-7776 Fax: (716) 372-8178
www.wnyprr.com

June 17, 2015

Dennis M. Davin, Secretary
Department of Community & Economic Development
400 North Street, 4th Floor
Commonwealth Keystone Building
Harrisburg, PA 17120

Dear Secretary Davin:

The Western New York & Pennsylvania Railroad welcomes the possibility of working with grant applicant "Impact Corry" and the East Branch Trail extension project partners to establish a rail/trail initiative from the City of Corry south 4.5 miles to Black Bridge as part of the larger extension project connecting to Spartansburg Borough. We strongly support Impact Corry's application to DCED's Greenways, Trails, and Recreation Grant Program to create the engineering, design, construction and related documentation for this project.

To facilitate the project, the WNY&PA is willing to sell Impact Corry a property parcel in downtown Corry that includes two buildings, for $35,000 in support of the rail/trail project. One of these buildings, a former railroad depot, would be ideally suited to establishing a trail head for the initiative. The appraised value of this property is $43,000, so as you can see we are willing to sell the property for less than its appraised value to help make this project a reality.

We look forward to continuing our partnership with Impact Corry and the trail extension partners and wish you success in this endeavor. Please let us know if you should need any further information or assistance.

Sincerely,

Carl P. Belke
President and Chief Operating Officer

Cc: Lucas Brewer, Assistant Chief Engineer
Steve Bishop, Impact Corry
Debra Frawley, Council on Greenways & Trails

Pennsylvania Environmental Council + Western New York & Pennsylvania Railroad+ Alta

To coordinate a future Rail-With-Trail design, Alta Planning + Design met with the Pennsylvania Environmental Council to review project goals, discuss existing conditions, and address future concerns.

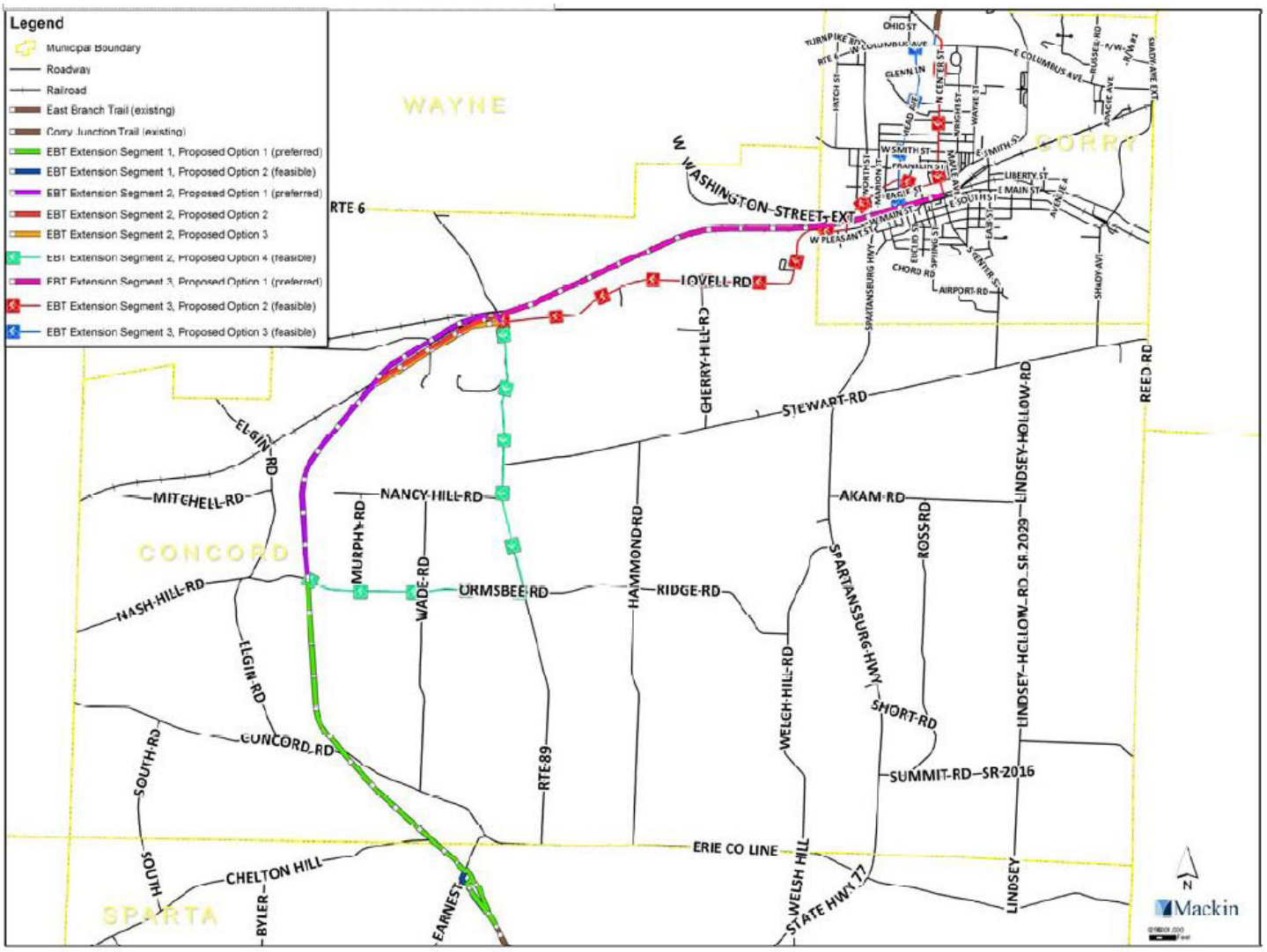
Goals include, filling the 10-mile gap from Spartansburg to Corry which includes the 4.6 miles rail corridor. This void, along with others, will be filled to eventually connect Erie to Pittsburgh by trail. Presently 65% of the trail from Erie to Pittsburgh is complete. From prioritizing the remaining gaps, it was found that the section between Spartansburg and Corry was the "most ready to go," as it follows an existing linear rail corridor and WNYP is willing to grant access and/or consolidate their rail line leaving a vacant alignment that can be converted to a trail.

The rail property measures between 0'-10' higher than the existing grade. It is also important to mention that bringing the trail through wetland areas will present future design challenges if the trail were to exist outside the railroad property. It is possible that in the next two years efforts for rail consolidation will take place through the project area. The Western New York and Pennsylvania Railroad is contemplating switching to the Buffalo and Pittsburgh Railroad alignment (vacating the southern rail alignment). If the Pennsylvania Department of Transportation consolidates the rail lines it would also eliminate 7 public crossings at grade, which would in turn benefit PennDOT and the Railroad. This would also need the involvement and cooperation from Genesee & Wyoming Inc., the parent company of B & P Railroad. Otherwise, plans can move forward with a rail-with-trail section along the current WNYP line. If rail line consolidations were possible, it would allow use within the entire WNYP rail corridor. This consolidation with B & P could allow for a 200' distance between the active rail line and a new trail.

One of the biggest concerns for the rail corridor is keeping people off of the tracks. The tracks tend to be an attractive hazard for kids and adults. ATV's must also be kept off of the trails. There are not enough resources for local authorities to patrol the trails for ATV's. Other concerns include the 25 mile per hour rail speed limit, and derailment, which is always a concern when dealing with an active rail corridor. These concerns are to be considered during the design phase of the trail. Due to these concerns, the trail should be positioned as far away from the tracks as possible on the south side, with a fence separating the tracks from the trail. During the construction phase there are to be flagman present (required by the Federal Railroad Administration). The flagman would be at the expense of the project. It would also be prudent to install the fencing first, to avoid needing protection for the trail construction workers.

Progress Since 2013 Mackin Study

Following the Mackin study, new developments in coordination have provided an opportunity to select a final preferred alignment for the future trail. As suggested in the Mackin study, the EBT may connect to Corry by way of the old rail corridor until reaching State Route 89. Then the trail will exist on the southern rail line until terminating in downtown Corry. In addition to locating a preferred route, Alta has also proposed a new Corry Bicycle Circulation Plan.



Map from 2-3 in the Mackin Study 2013

East Branch Trail Alignment

Erie County, PA| 2018

Opportunity to connect downtown Corry with Mead Park and the Corry Junction Greenway Trail via Bike Boulevards and Bike Lanes

Segment 2
A right-of-way has been secured with the cooperation of the adjacent landowner to Black Bridge.

Segment 3
As per discussions with the Western New York & Pennsylvania Railroad the southern rail line may be consolidated to the north and the southern rail line will become the East Branch Trail. The northern Alleghany & Eastern Railroad line will remain operational.

Segment 1
Will need cooperation with the adjacent landowners so trail construction has the least impact on agriculture, timber and other adjacent land uses.

East Branch Trailhead Location - Corry PA

CORRY JUNCTION GREENWAY TRAIL

MEAD PARK

CORRY

SOTHERN TIER EXTENSION RAILROAD

ALLEGHENY & EASTERN RAILROAD

WESTERN NEW YORK & PENNSYLVANIA RAILROAD

EAST BRANCH TRAIL

SPARTANSBURG

ERIE

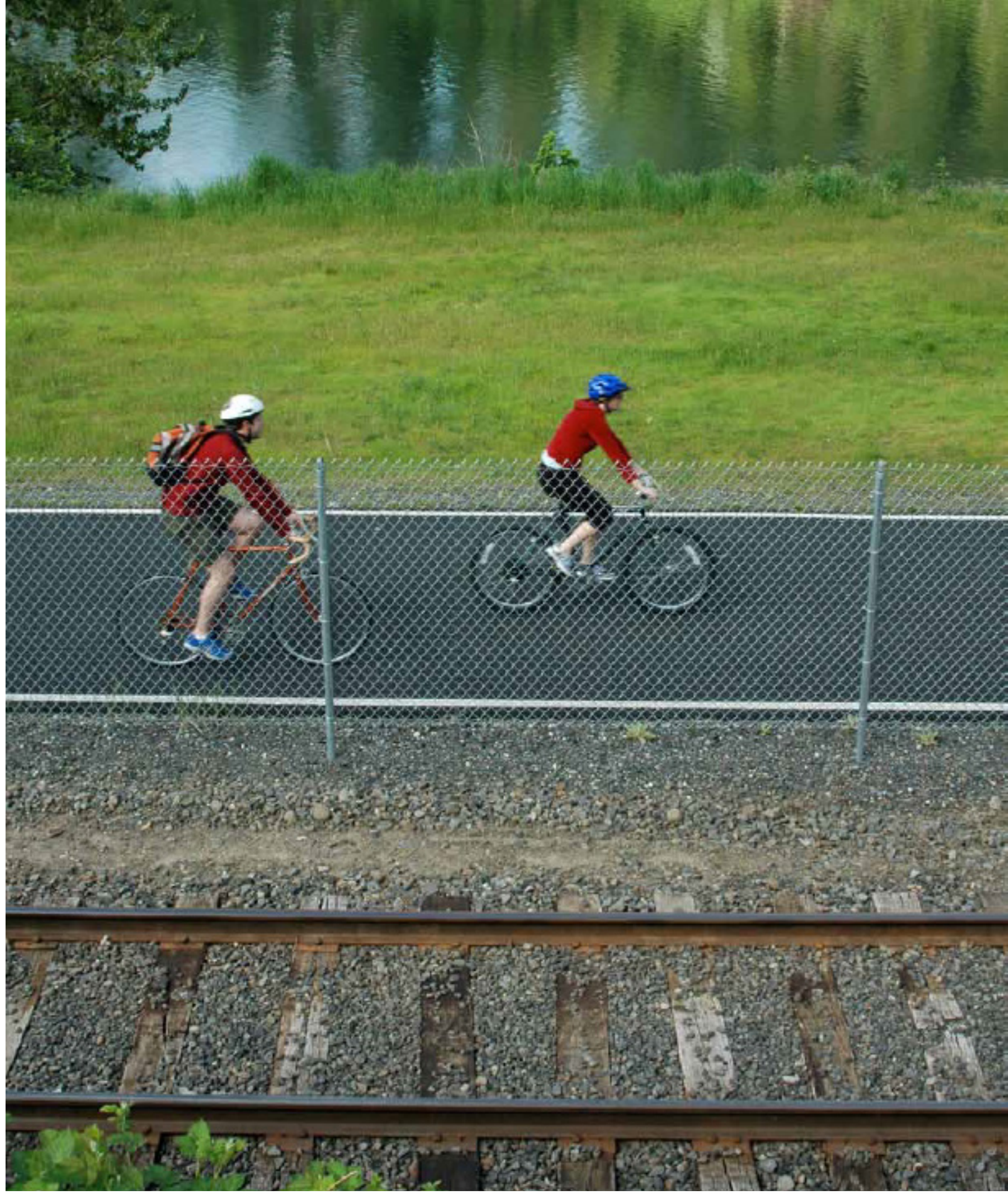
CRAWFORD

WARREN

Existing Trail
Proposed Bicycle Circulation
Proposed Segment 1
Proposed Segment 2
Proposed Segment 3
Allegheny & Eastern Railroad
Southern Tier Extension Railroad Authortiy
Western New York & Penssylvania Railroad
Local Roads
State Roads
Water
Parks
Proposed Trailhead
Wetlands

0 0.75 1.5 3 Miles

N



Springwater Corridor, OR - “America’s Rails-with-Trails” - rails-trails-conservancy

Design Guidelines + Corry Connection

This section provides a map with recommendations that have advanced since the last planning study in 2013. Recommendations include the addition of bicycle boulevards and bike lanes to improve the bicycle circulation in Corry. This section also includes design guidelines for rails-with-trails and a design concept for the trailhead in Corry.

BICYCLE FACILITIES

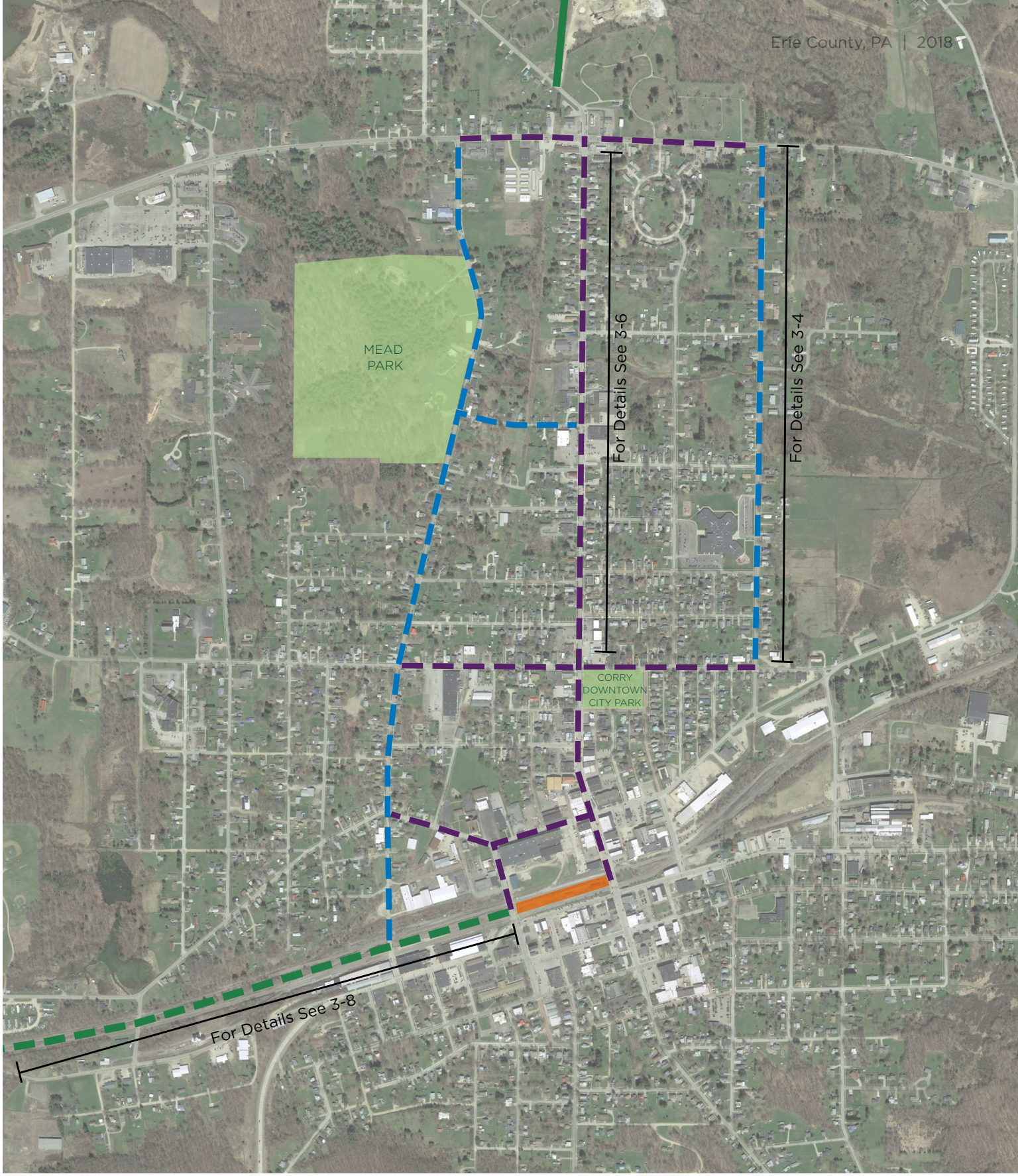
Bicycle facilities must be carefully selected to ensure they are compatible with the surrounding environment. The main considerations for identifying the most appropriate pedestrian and bicycle facilities include: Rural Vs. Urban, Vehicle Speed and Volume, Roadway Functional Class, Land Use, and Accessibility.

Bicycle Boulevard

Bicycle boulevards are low-stress shared roadways that prioritize the mobility of bicyclists. These facilities offer convenient access to local destinations and are often characterized by traffic calming measures, access management, and crossing treatments, all of which help manage motorist speeds and volumes. Traffic calming measures include: curb extensions, chicanes, traffic diverters, speed humps, and mini roundabouts. Bicycle Boulevards are most appropriate in urban areas.

Traffic Calming

Motor vehicle speeds affect how automobiles pass pedestrians and bicyclists as well as the severity of crashes that occur between motorist and non-motorists on a roadway. Slower motor vehicle speeds improve motorists' ability to see and react to non-motorized users, minimize conflicts at driveways and other turning locations, and in many cases, improve vehicular movement. Maintaining slower motor vehicle speeds and reducing traffic in areas where pedestrian and bicycle traffic is regularly expected can greatly improve comfort and safety for non-motorized users. Traffic calming devices are engineered measures with the intent of decreasing motor vehicle speeds, reducing motor vehicle volumes, and reducing conflicts. Other approaches to traffic calming include educational, enforcement, and placemaking measures. Not all treatments listed here are appropriate for all roadways.



East Branch Trail Corry Connection

Corry Junction Greenway Trail
Proposed EBT
Proposed Bike Lanes
Proposed Bike Boulevard
Parks
Proposed Trailhead

0 250 500 1000 FEET

N

Curb Extensions

Curb extensions are typically implemented by removing on-street parking and extending the sidewalk into the roadway. This traffic calming device physically and visually narrows the roadway, increases the visibility of pedestrians, reduces crossing distances, and provides additional space for streetscape improvements, such as furniture, plantings, and/or green infrastructure. Curb extensions are effective traffic calming devices at intersections as well as mid-block.

Chicanes

Chicanes are curb extensions arranged in an alternating pattern along the roadway, requiring motor vehicles to slowly weave along a street. Chicanes are most effective on long, straight neighborhood streets where speeding is an issue.

Traffic Diversion

Motor vehicle traffic volumes affect comfort for bicyclists and pedestrians on local streets. Higher vehicle volumes reduce bicycle and pedestrian comfort and can result in more conflicts. Traffic diversion treatments reduce motor vehicle volumes by completely or partially restricting through traffic on select neighborhood streets such as bicycle boulevards.

Speed Humps

Speed humps are raised areas usually placed in a series across both travel lanes. Longer humps reduce impacts to emergency vehicles. Some speed hump designs can be challenging for bicyclists and for plows in northern climates; however, gaps can be provided in the center or by the curb for bicyclists and to improve drainage. Speed humps can also be offset to accommodate emergency vehicles and plows.

Mini Roundabouts

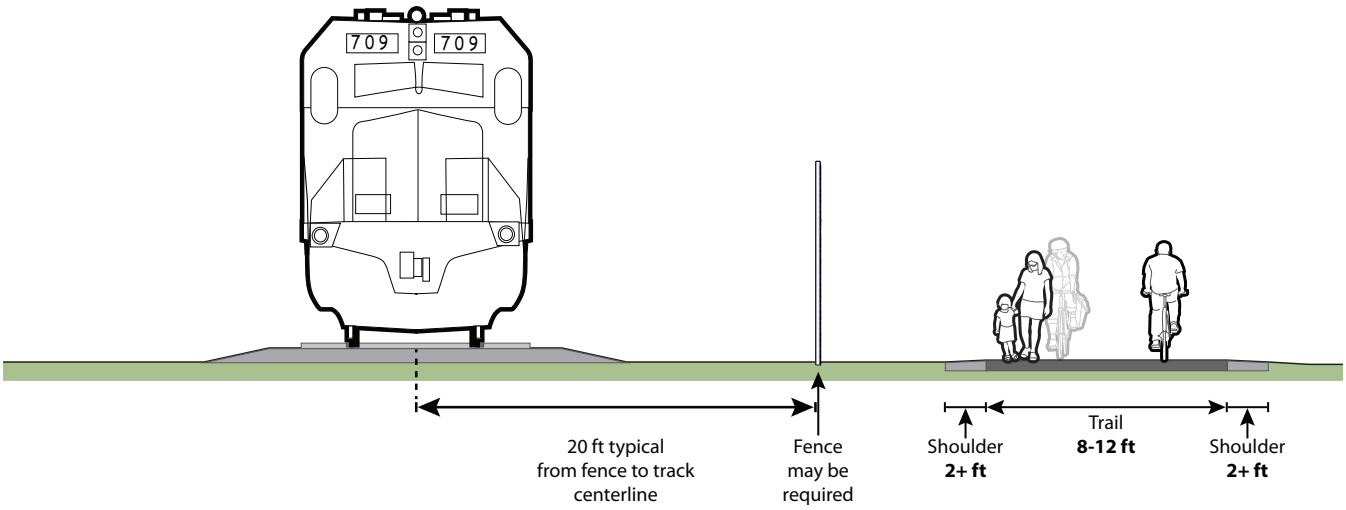
In single lane roundabouts, it is important to clearly communicate the right-of-way and circulation rules to motorists, bicyclists, and pedestrians. Right-of-way and circulation rules can be conveyed via signage, pavement markings, and/or geometric design features.

Bike Lanes

Bike lanes are designated exclusively for bicycle use and are demarcated with pavement markings and signage. They are located on the roadway directly adjacent to motor vehicle travel lanes and follow the same direction as motor vehicles. Bike Lanes provide visual separation from motor vehicles and increase safety and proper riding. A preferred width for bike lanes is 6-feet and the minimum is 5-feet. Bike lanes are enhanced with buffer zones, which further separate the bike lane from adjacent motor vehicle lanes. If buffered bike lanes are used, buffers should be a minimum of 18 inches wide. Buffers that are 3-feet wide or greater should have interior hatching or chevron markings.

RAILS-WITH-TRAILS DESIGN GUIDELINES

"Rails-with-Trails" are shared use paths located adjacent to active rail lines. Rail-with-trail designs vary widely, depending on factors such as their proximity to trains, the frequency and speed of rail service, and the presence of at-grade crossings.



Typical Application

Many rails-with-trails have segments of trail that are within 30 feet of active railroad tracks (RTC 2013).

In some cases space needs to be preserved for future planned freight, transit or commuter rail service. In other cases limited right-of-way width, inadequate setbacks, concerns about safety/trespassing and numerous crossings may affect a project's feasibility.

Design features

Shared use paths along rail corridors should meet or exceed general design standards if additional width allows, wider paths, and landscaping are desirable.

If required fencing should be a minimum of 5 feet in height with higher fencing than usual next to sensitive areas such as switching yards.

The FHWA Rails-with-Trails document found here has no consensus on an appropriate setback distance between the paved edge of a shared use path and the centerline of the closest active train track. Setbacks from the active rail line will vary depending on the speed and frequency of trains, topography, sight distances, and available right-of-way (FHWA 2002).

Hiawatha LRT Trail, Minneapolis, MN (Source: airbus777, CC BY 2.0 via Flickr)

Rail with trail (Source: Michael Hicks, CC BY 2.0 via Flickr)

Further Considerations

Railroads may require fencing with rail-with-trail projects. Concerns with trespassing and security can vary with the volume and spread of train traffic on the adjacent rail line and the setting of the shared use path, i.e whether the section of track is in an urban or rural setting.

Refer to the AASHTO Bike Guide for guidance for "Railroad Grade Crossings" in (Section 4.12.1), addressing crossing angle, surfaces, bikeway width and flange opening.

Refer to the MUTCD Chapter 8D for guidance on shared use pathways that cross railroad corridors at grade.

Maintenance

Proper management and maintenance is an important factor in creating a safe environment for trail users. Asphalt is the most common surface for bicycle paths. The use of concrete for paths has proven to be more durable over the long term. Saw cut concrete joints rather than troweled improve the experience of path users.

References

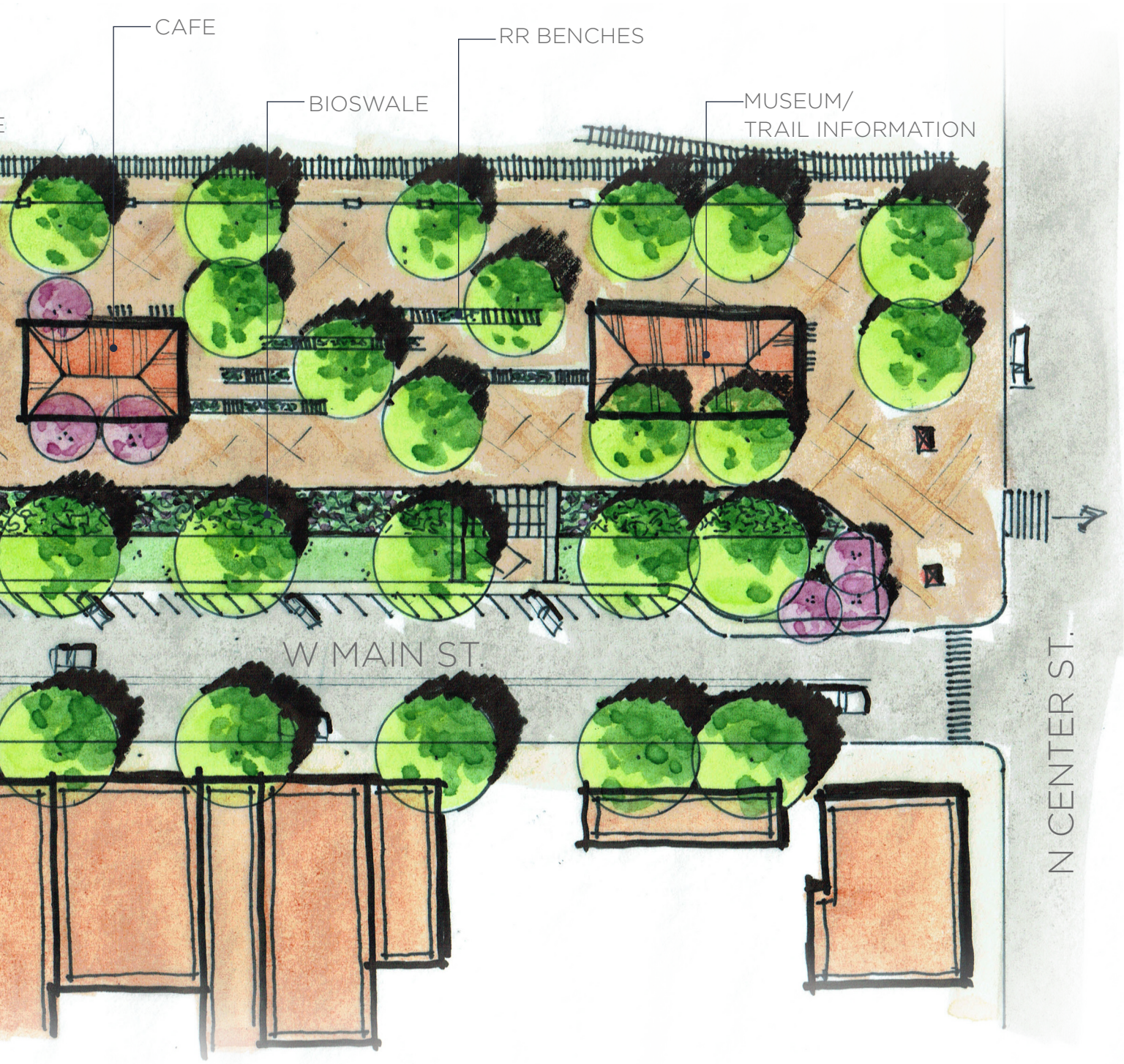
AASHTO Guide for the Development of Bicycle Facilities. 2012

FHWA. Manual on Uniform Traffic Control Devices 2009.

FHWA. Rails-with-Trails: Lessons Learned. 2002.

Rails to trails conservancy (RTC) America's Rails-with-Trails

CORRY TRAILHEAD CONCEPT DESIGN


CAFE
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