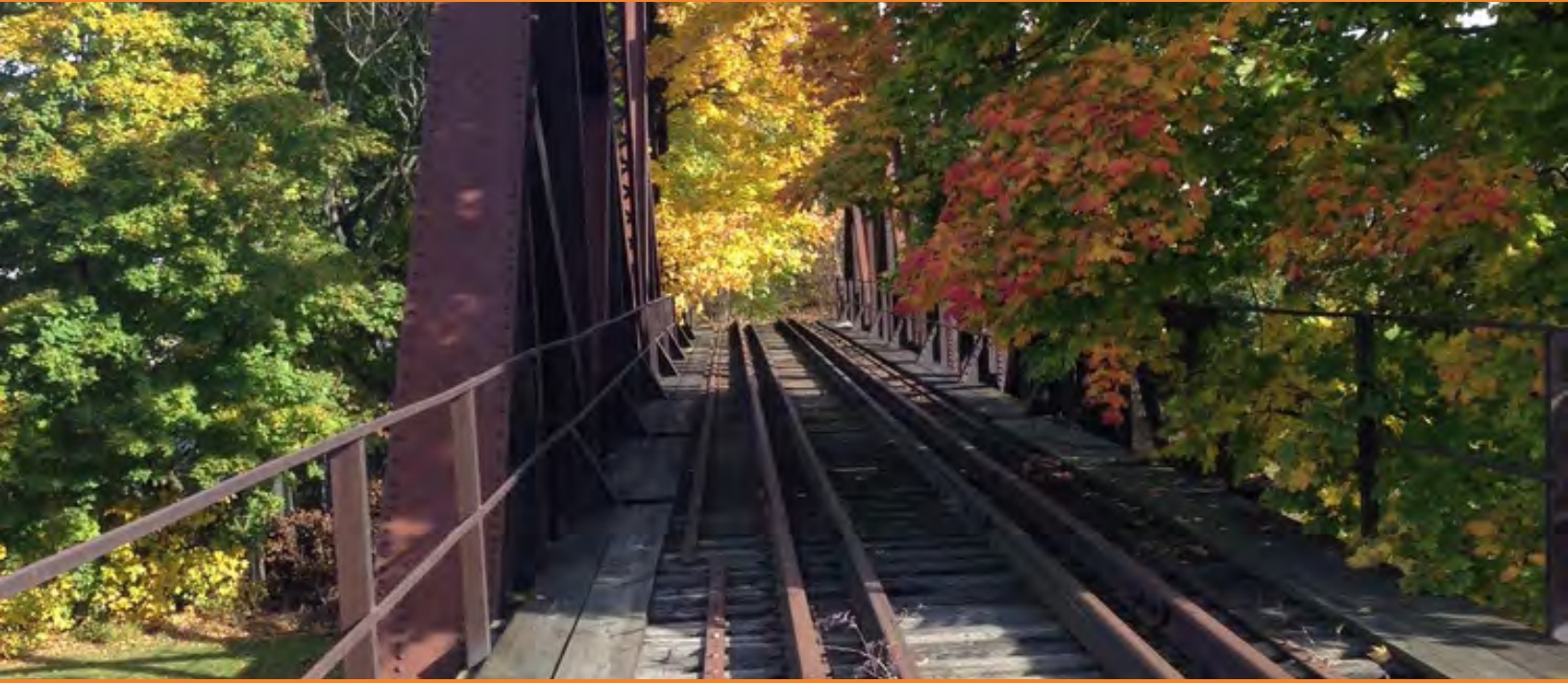


"Do not go where the path may lead, go instead where there is no path and leave a trail."

Ralph Waldo Emerson



JOSANA

Rail-to-Trail Feasibility Study

Prepared by Bergmann Associates and RAVI
Engineering for the City of Rochester and
Genesee Transportation Council

June 2015

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The Genesee Transportation Council assures that no person shall, on the grounds of race, color, national origin, disability, age, gender, or income status, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. GTC further assures every effort will be made to ensure nondiscrimination in all of its programs and activities, whether those programs and activities are federally funded or not.

En Español

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Acknowledgments

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Executive Summary

Overview

The purpose of the JOSANA Rail to Trail Feasibility Study was to evaluate the feasibility of converting a former rail bed, including four rail bridges, into a multi-use trail. The City of Rochester received funding from the Genesee Transportation Council (GTC) to explore the feasibility of an approximately 1-mile trail that traverses the JOSANA neighborhood in the city's northwest quadrant. The trail, when constructed, would serve as a non-motorized transportation facility which connects neighborhoods, parks, schools, retail and service establishments, as well as other existing and planned trails in the larger regional trail network.

The study was identified as a priority by the City after being approached by the current owner of the right-of-way, CSX, regarding the sale of the corridor. At the time the Feasibility Study was prepared, negotiations were ongoing between CSX and the City of Rochester.

The Feasibility Study involved an analysis of: recently completed and ongoing related planning studies;

- the existing conditions along the CSX corridor and larger context area;
- opportunities and constraints, including land ownership issues;
- bridge conditions to ensure suitability for trail development;
- trail and open space programming to fill gaps and needs within the study area;
- trail design and alignment alternatives;
- the integration of public comment and feedback into the design alternatives;
- the selection of a preferred alternative; and
- the development of an implementation plan for future construction of the trail.

Project Oversight

The City of Rochester established a Steering Committee to oversee the development of the JOSANA Rail to Trail Feasibility Study. The Steering

Committee included representatives from various City departments, as well as representatives from the Genesee Transportation Council, Monroe County Department of Transportation, NYS Department of Transportation, Genesee Land Trust, Charles Settlement House, Rochester Cycling Alliance, Garden Aerial, Finger Lakes Health System, Rochester Police Department, and local residents.

Bergmann Associates was hired as the prime consultant to assist with trail feasibility, concept design, and public outreach. Ravi Engineering assessed the condition of rail bridges to ensure they could be utilized for a multi-use trail in the future.

Understanding of Community Need

The surrounding neighborhood, which is home to many residents as well as two elementary schools, lacks an adequate amount of programmed recreational options, as well as opportunities to educate and interpret the unique history of the surrounding context area.

To ensure the trail design and programming responds to the needs of community members adjacent to and in the neighborhoods surrounding the trail, a number of outreach activities were held over the course of the feasibility study planning process. The first public meeting, held at Charles Settlement House, introduced the project and provided a forum for attendees to share their ideas about important considerations in the trail design. The second public meeting was held at School #17 after conceptual design options were developed. The conceptual designs were presented to attendees, who were asked to provide additional feedback. Both meetings proved to be very useful in providing the project team direction related to the recommended trail design and programming elements.

Community members highlighted important considerations for future trail development, including: safety, enhanced open space amenities – such as pocket parks and community gardens, educational programming and interpretive kiosks, utilization of adjacent open spaces for special events, the Broad Street bridge as an iconic element, and corridor “clearing.”

Trail alignment alternatives were identified and evaluated according to several criteria, including land ownership, neighborhood need, and cost effectiveness. Research into land ownership along the corridor identified the need for continued engagement of adjacent property owners, particularly business owners at the western end of the trail route who, today, rely on portions of the trail right-of-way for access to their businesses. Many adjacent property owners were engaged in this phase of the project. As the project moves forward, continued outreach will be important.

Furthermore, while trails exist to the east and west of the neighborhood, there are no designated off-road east-west connections. The connections made by the JOSANA Trail (rebranded as the “TrailRoad”) would enhance the quality of life enjoyed by residents, as well as other trail users, connecting to the Genesee Riverway Trail to the east and Canalway Trail to the west.

Preferred Trail Alternative and Programming

The trail corridor was divided into six segments based on natural boundaries where the trail intersects with roadways. The six segments include:

- Hague Street to Murray Street
- Murray Street to Child Street
- Child Street to Whitney Street
- Whitney Street to Orchard Street
- Orchard Street to Broad Street
- Broad Street to Oak Street

In addition to conceptual design plans for each segment, intersection treatments were also addressed to ensure safe and cohesive crossings along existing roadways. General design guidelines and considerations were also provided, addressing topics such as trail width, accessibility and ADA compliance, lighting, signage, materials, neighborhood linkages, and maintenance.

Recommendations for general trail treatments that tie into the rail history were also identified and include zigzag fencing, rail ties embedded in pavement, and custom designed kiosks and benches. The Steering

Committee agreed on re-branding the trail from JOSANA Rail to Trail to the “TrailRoad”, which is a more universal name for a trail that will ultimately serve many users beyond JOSANA residents, and also directly ties back to its railroad origins.

Specific design elements for each of the trail segments include:

Hague Street to Murray Street: The western end of the trail would feature a trailhead, parking spaces for trail users and a standard trail flanked by green space and vegetation. Special programming in this segment includes a small skateboard park, which was identified as a neighborhood need in a number of parallel planning processes.

Murray Street to Child Street: This section of the trail considers access needs of adjacent property owners and winds through the corridor with interpretive rail elements incorporated throughout.

Child Street to Whitney Street: This segment is the centerpiece of the trail, both from the perspective of its location and its programming. In addition to the standard trail, this segment boasts a natural play area, expansive passive green space (the Trail Yard), community garden plots and a small parking area along Whitney Street.

Whitney Street to Orchard Street: This segment provides a basic trail extension flanked by green space, which slopes up to an improved Orchard Street Railroad Bridge.

Orchard Street to Broad Street: Orchard to Broad Street is a short section between the two bridges that is elevated on top of the railroad embankment, with linkages to the Broad Street bridge, as well as a secondary inclined access down to street level.

Broad Street to Oak Street: The final trail segment extends from the Broad Street bridge to the trail terminus at Oak Street / Sahlen’s Stadium parking lot, offering views to downtown,. The terminus includes an improved trailhead with landscaping and an accessible approach ramp from street level to the elevated portion of the trail.

Opinion of Probable Cost

The following opinion of probable cost is presented for planning purposes, to allow the City of Rochester to gauge the approximate costs for implementing the TrailRoad design described in this study. The opinion of probable cost is presented in phases for ease of manageability for seeking potential funding sources. A detailed breakdown of the opinion of probable cost can be found in Appendix D. This estimate is organized by TrailRoad segment with each item being color coded to identify which phase it falls in.

The actual design of the trail may change once the project reaches the design stage and construction costs are subject to change over time. Dollar figures included are from 2015; escalation due to inflation or other factors is not included.

Below are the simplified costs for each phase of the project rounded up to the nearest whole number. These include all soft costs such as, mobilization, basic work zone protection, survey operations, erosion and sediment control, design, inspection, incidentals and contingency. A detailed opinion of probable costs can be found in Appendix D.

Phase 1 -	\$2,585,000 +/-
Phase 2 -	\$1,500,900 +/-
Phase 3 -	\$587,000 +/-
Phase 4 -	\$48,200 +/-
Phase 5 -	\$130,000 +/-
Phase 6 -	\$222,000 +/-

GRAND TOTAL: \$5,073,100 +/-

Implementation and Next Steps

The “TrailRoad” represents a significant opportunity for the City to turn a vacant and underutilized corridor into an exciting recreational and transportation amenity that benefits both local residents and regional trail users. The preferred alternative offers improved:

- connectivity to surrounding trail networks;
- safety;
- options for alternative off-road transportation;
- recreational and open space programming options;
- quality of life enhancements;
- opportunity to integrate schools into the neighborhood;
- opportunity to create activity nodes.

The Feasibility Study addresses the challenges to the project and identifies necessary actions and next steps to mitigate these challenges. The challenges addressed in the Study include both design and administrative topics, including:

- Corridor encroachment by adjacent land owners;
- Acquisition of the rail corridor by CSX and other privately held lands;
- Multiple grade changes along the route;
- Access points and trailheads;
- Street intersections and rail crossings;
- Bridge repairs and design considerations; and
- ADA compliance.

Moving forward, project success will hinge upon the successful negotiation of the sale of the land that comprises the corridor between the City of Rochester and CSX. Once the City has land ownership, they will need to evaluate funding options for final design and construction. Outreach with adjacent property owners will be an important component of the final design process to address encroachment and easement issues. Further, the City should continue to have discussions with the neighborhood schools to identify education programming opportunities and internal neighborhood linkages between the schools and future trail.



Introduction

The JOSANA Rail-to-Trail Feasibility Study follows on and augments several recent planning efforts within the City of Rochester. In partnership with the Genesee Transportation Council (GTC), the City of Rochester conducted this feasibility study to evaluate the conversion of a decommissioned CSX rail corridor into a public multi-use trail, approximately 1-mile in length, in the Northwest Quadrant of the city centered within the JOSANA neighborhood.

Project Overview

This trail would serve a dual purpose as an alternative transportation network and a recreational amenity for residents, visitors, and travelers. The trail would connect users to nearby destinations and open space amenities and strengthen the city and region's trail network. The proposed Rail-to-Trail project could establish a direct link to the Genesee Riverway Trail, Canalway Trail and to local destinations such as Sahlen's Stadium, Frontier Field, and High Falls.

The proposed trail is located in close proximity to neighborhood schools, parks, and services, making it an amenity that could be used on a daily basis by residents as a means of transportation and exercise. With the continual rise of obesity rates amongst both adults and children, incorporating easily accessible recreational opportunities is particularly needed in distressed neighborhoods with high rates of young residents. The Strategic Plan for The Prevention of Childhood Overweight and Obesity in Monroe County, NY 2007-2017, cites "the physical environment and the lack of affordable and safe recreational venues for many children," as a factor in childhood obesity. The neighborhoods surrounding the proposed trail have below average rates of car ownership. The trail would improve the transportation opportunities for those without access to a car while providing the health benefits of active transportation.

Figure 1 Potential JOSANA Rail-to-Trail Corridor. Full size image can be found in Appendix A: Map 2



Defining the Study Area

There are six distinct neighborhoods that surround the proposed Rail-to-Trail corridor. From the western terminus of the rail corridor, the trail begins at Hague Street in Dutchtown, and passes through JOSANA, ending in the Brown Square neighborhood at Oak Street. While the rail corridor does not run through the Lyell-Otis and Edgerton neighborhoods to the north and High Falls to the east, these neighborhoods would be positively impacted by the additional transportation options, recreational amenity, and improved connectivity to the City and region's existing trail network.

A larger Study Area, See Map 1 Study Area Boundary in Appendix A, that encompasses the corridor was defined for this project in order to assess the accessibility and recreational needs of nearby neighborhoods, identify opportunities to enhance the active transportation network, and capitalize on the existing recreational and open space amenities by connecting them to the proposed Rail-to-Trail project. This larger Study Area boundary does not encompass the entirety of the six impacted neighborhoods, but includes many key, nearby recreational and open space amenities.

The neighborhoods surrounding the proposed Rail-to-Trail project have several direct opportunities for pedestrians traveling north to south, but fewer streets running east to west. The proposed trail would act as a central east to west spine that would better connect many of the area's origins and destinations.

The Study Area totals 644 acres as it extends from Hague Street east to the Genesee River to include a connection to the Genesee Riverway Trail. There are a mix of land uses within the Study Area, including residential, industrial, commercial, and public lands. The decommissioned rail corridor abuts primarily industrial and commercial uses. There are four elevated rail bridges along the rail line that will offer both challenges and opportunities for design and accessibility.

Local & Regional Significance

There are many community resources within and adjacent to the trail corridor. Within the neighborhoods surrounding the proposed Rail-to-Trail project, there are three municipal parks, two community centers, three elementary schools with adjoining playgrounds, Frontier Field Baseball Stadium, Sahlen's Stadium, and connections to both the Genesee Riverway Trail and the Pont de Rennes Pedestrian Bridge. While these resources are widely used by residents and visitors alike, there is little that connects these various resources into a cohesive active transportation network.

The implementation of the proposed Rail-to-Trail project will result in a highly connective "active living" resource for both residents surrounding the trail and the larger region. The proposed trail will service the local residential population for practical and recreational purposes, provide improved accessibility for the many school aged children who travel by foot or bicycle to and from school, and connect the neighborhood and its open space amenities to other trails in the larger regional trail network.

The Planning Process

The Rail-to-Trail Feasibility Study was guided by participation through a Project Advisory Committee (PAC), stakeholder interviews, and public meetings.

The PAC was formed with input from the City of Rochester and GTC. The PAC included City, County, and State DOT representatives as well as neighborhood and local stakeholders with multi-use trail experience. The committee met five times over the course of nine months to oversee the development of the project and provide feedback to the project team.

Bergmann Associates, along with Ravi Engineering & Land Surveying, was hired by the City of Rochester as the consultant team to assist with trail feasibility, conceptual design, coordination with potentially affected agencies and property owners, and public outreach. The Project Team met with various stakeholders, including adjacent property owners, several times over the course of the project period.

Two public meetings were held over the course of the planning process. The first public meeting, on October 3, 2014, introduced the project concept, explained the purpose of the study, and provided a forum for attendees to provide feedback regarding conceptual trail design. As part of the public meeting, interested attendees walked a portion of the rail corridor and were encouraged to provide input on how to best integrate the trail into the existing urban fabric.

The second public meeting was held on January 27, 2015. Meeting attendees were invited to review the conceptual designs for the trail and trail amenities and offered their input and feedback which included:

- Visibility and safety are important,
- Tying the curriculum of neighboring schools into the trail was desired, and
- The history of the corridor should be interpreted throughout the trail with educational kiosk, etc.

See Appendix B for meeting summaries.



Meeting attendees generate ideas during brainstorming sessions at public meeting #1.



Meeting attendees and the project team explore the western terminus of the proposed trail at Hague Street.

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Inventory & Analysis

The following section provides a description of the Study Area's physical and demographic features, a summary of existing and ongoing reports and initiatives, and an analysis of the existing conditions related to the potential Rail-to-Trail corridor.

Existing & Ongoing Reports & Initiatives

A number of studies have been undertaken in recent years for the neighborhoods surrounding the rail corridor. Each of these has noted the potential of the corridor to serve as a recreational asset and alternative mode of transportation for the community. Each of these relevant studies is summarized on the following pages.

High Falls Pedestrian Access Improvement Study (Ongoing)

In 2014 the City of Rochester requested proposals for the preparation of a Pedestrian Access Improvement Study for the High Falls District. The purpose of the project will be to complete conceptual planning, design, and feasibility of potential public access improvements into and through the High Falls District and Genesee River Gorge.

The Rail-to-Trail project has the potential to provide pedestrian access to and from the High Falls District and the project study area.



Figure 2 High Falls Pedestrian Access Improvement Study Project Area

Rochester Bicycle Boulevards Plan (Ongoing)

A follow-on initiative of Rochester’s 2011 bicycle Master Plan is the Bicycle Boulevards Plan, a prioritized list of arterial and collector streets for on-street bicycle improvements. These improvements are targeted for a series of the city’s streets that possess high traffic volumes, high parking demand, or constrained rights-of-way that inhibit safe access for bicyclists. The implementation of bicycle boulevards will offer connections between key destinations within the city while providing bicyclists with safer, lower volume routes.

The routes planned for in the Rail-to-Trail study area create the opportunity to link the proposed trail corridor with other neighborhood and city-wide destinations as well as the greater Rochester trail network.

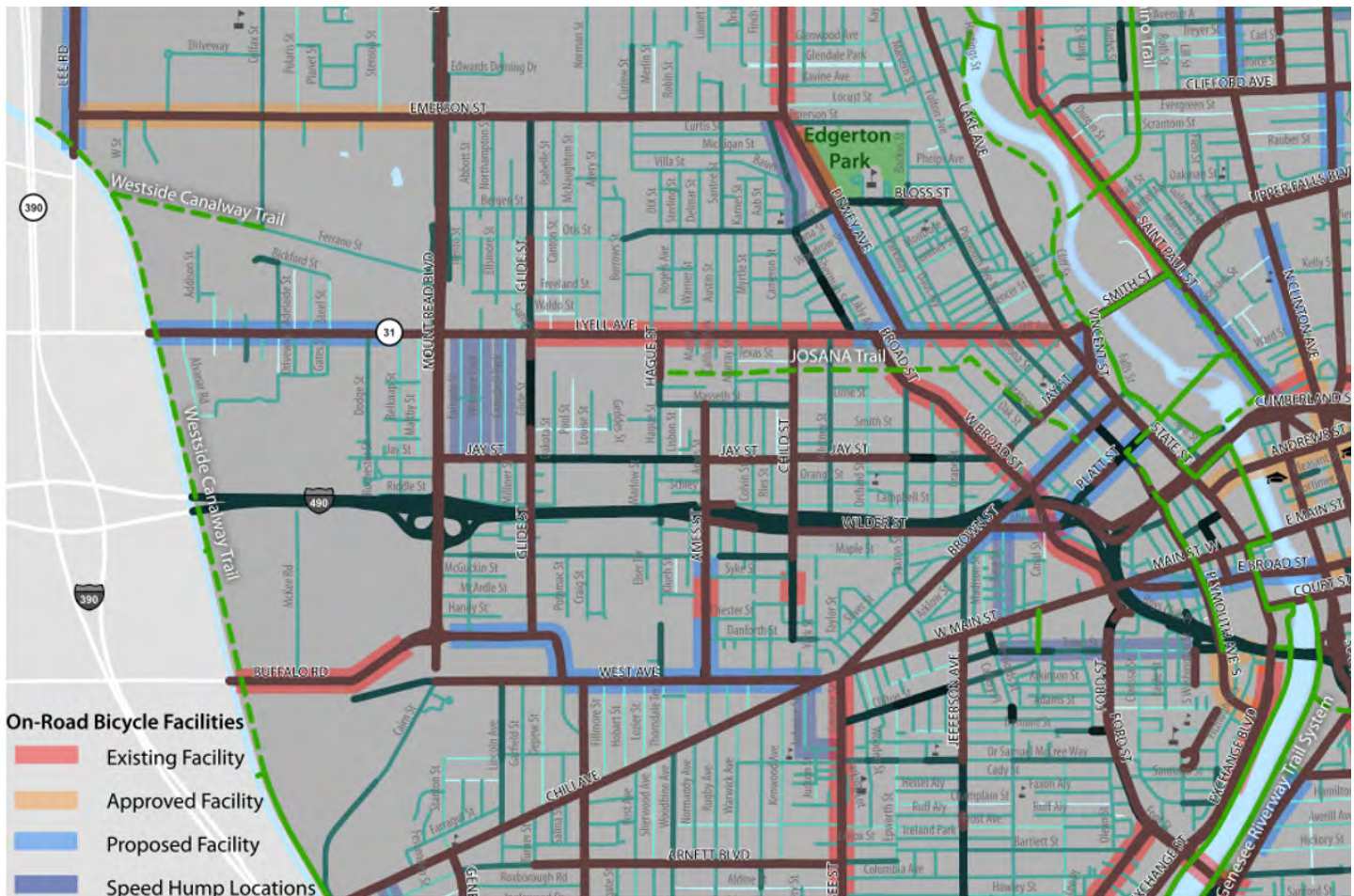
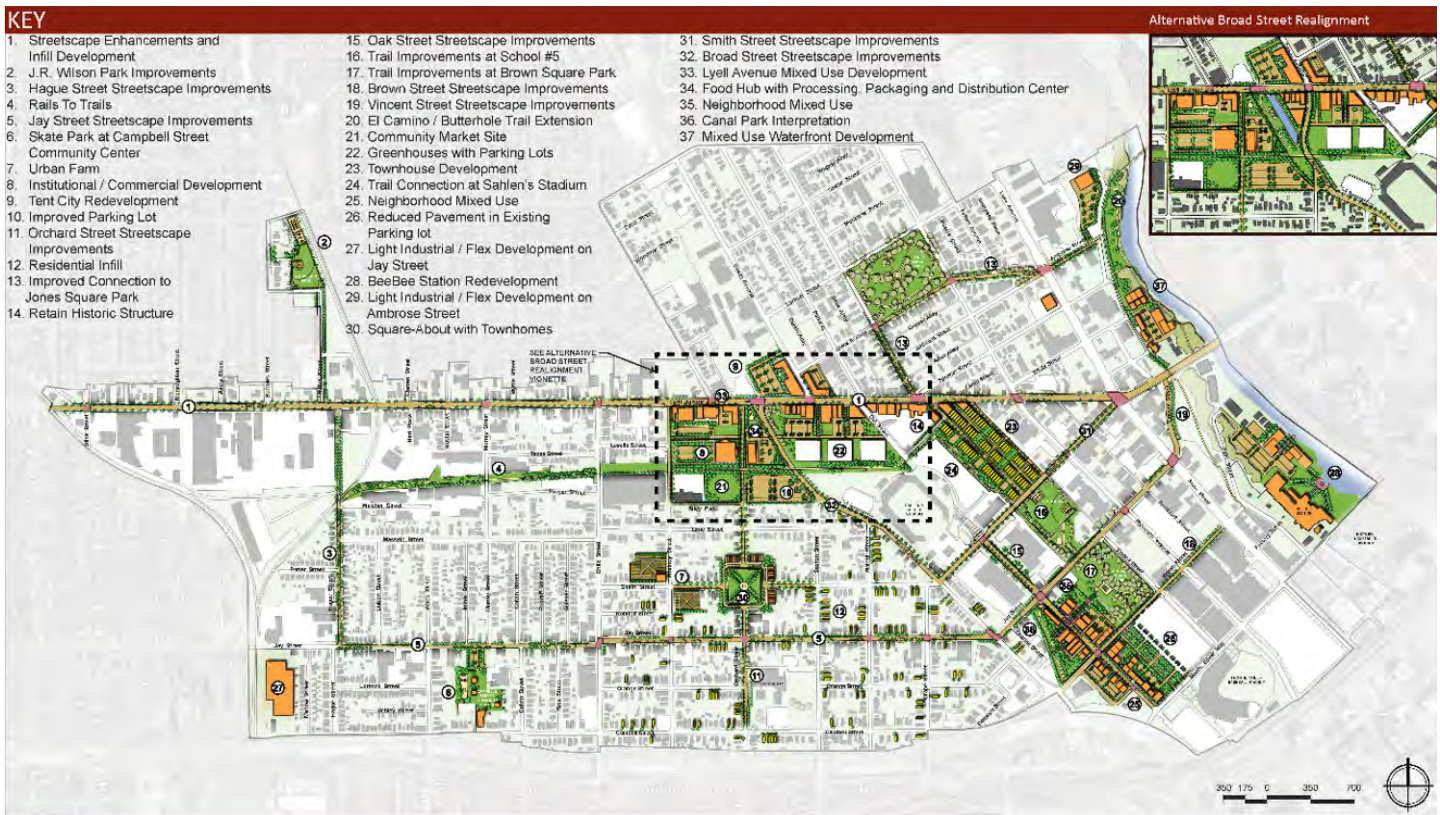


Figure 3 Existing and Proposed Bicycle Facilities Surrounding the Rail Corridor

LYLAKS Step 2 BOA (2014)

The LYLAKS Brownfield Opportunity Area Step 2 Revitalization Strategy describes a phased implementation strategy for recommended projects to revitalize the LYLAKS area. The LYLAKS BOA Study Area encompasses six distinct neighborhoods including Brown Square, Edgerton, High Falls, JOSANA, Lyell-Otis and Dutchtown. The LYLAKS BOA identified the Rail-to-Trail project as a priority short-term project as it would act as a central spine to make safer, easier connections for residents on foot and bicycle to reach several existing open space and recreational amenities in the area including J.R. Wilson Park, Campbell Street Community Center, Jones Square Park, School #5, Brown Square Park, Sahlen's Stadium, Frontier Field, and the High Falls District. Enhanced streetscaping along many of the roadways that would connect the trail to these amenities are identified in order to create dedicated pathways for pedestrians and cyclists. The plan notes that the implementation of the Rail-to-Trail and associated streetscape enhancements would not only serve to better connect and highlight the area's amenities, but would also link LYLAKS to the existing Genesee Riverway Trail and the future proposed El Camino/Butterhole Extension Trail.



LYLAKS Brownfield Opportunity Area Revitalization Strategy // City of Rochester, New York

THE LONG-TERM PLAN (15+ YEARS)

MAP 18

This effort was made possible with the guidance and financial assistance provided by the New York State Department of State Brownfield Opportunity Area Programs.

Figure 4 Long-Term Master Plan for the LYLAKS BOA

City of Rochester Bicycle Master Plan (2011)

Rochester’s Bicycle Master Plan creates a framework for investment in future bicycle infrastructure and services. The plan identified best practices for bicycling infrastructure and services and assesses their feasibility for application in Rochester. The plan identifies appropriate locations for bicycle facilities and recommended bicycle-supportive policies. The Bicycle Master Plan addresses universal, citywide challenges and opportunities, rather than addressing specific locations for improvements. While the proposed JOSANA Rail-to-Trail is not mentioned in the plan, several of the plan’s recommendations are relevant to the proposed JOSANA Rail-to-Trail, such as creating bicycle routes with wayfinding signs that link to destinations such as stadiums, parks, and trail networks.

In the Bicycle Master Plan, the bicycle level of service analysis produces, for each study network segment, an objective score and “grade” which measures bicycle accommodations on that section of roadway. Lyell Avenue immediately adjacent to the Rail-to-Trail corridor is graded an ‘A’, which means it provides adequate bicycle facilities. In the Josana Rail-to-Trail study area, Child Street, Broad Street and Lyell Avenue East of Dewey Avenue were graded a ‘D’, indicating a lack of or inadequate bicycle facilities.

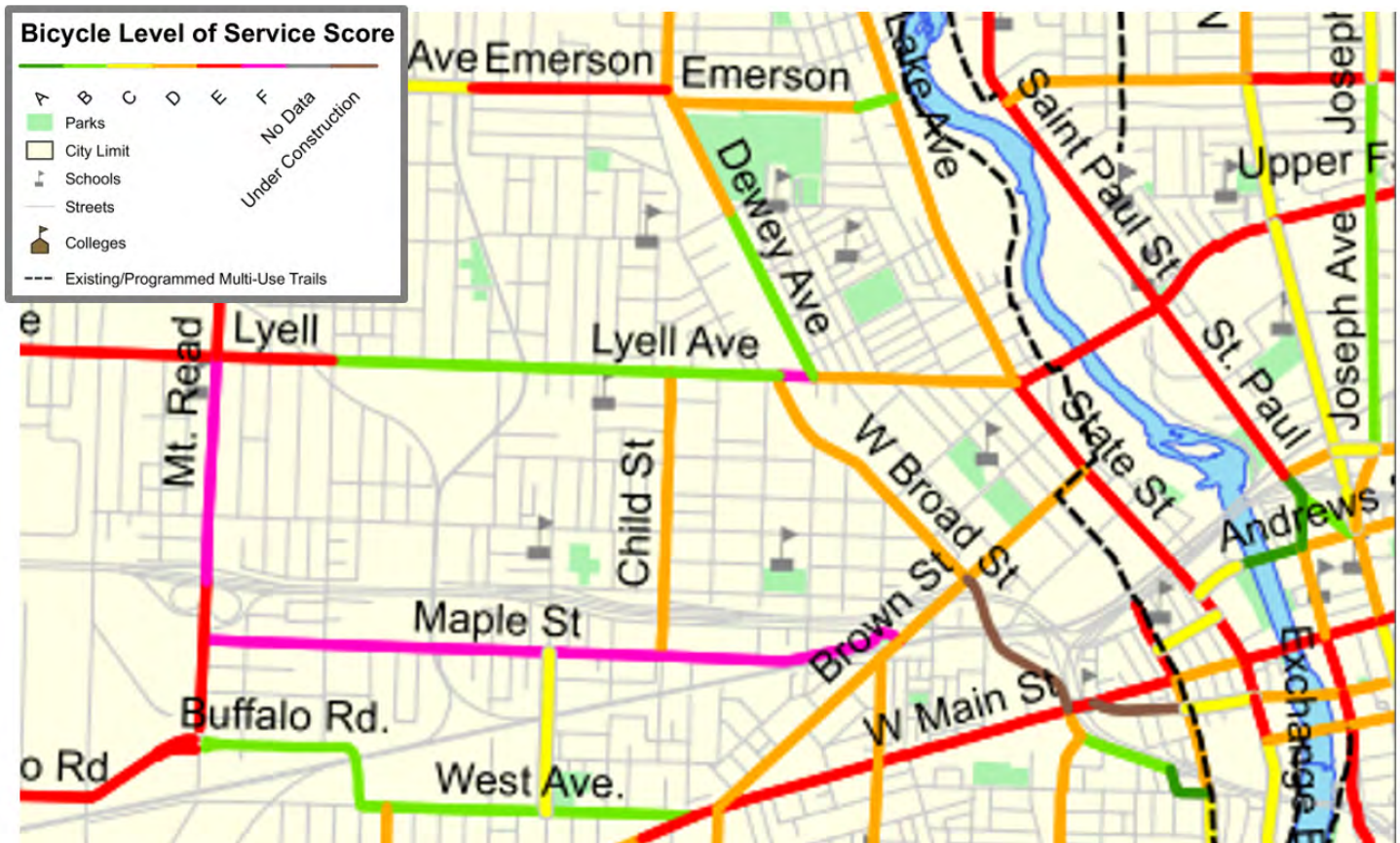


Figure 5 Bicycle Level of Service Score Results from the City’s Bicycle Master Plan

JOSANA Neighborhood Master Plan (2010)

The JOSANA Neighborhood has undergone several planning and revitalization efforts in recent years, most notably a Neighborhood Master Plan completed in 2010. In planning for the future of the neighborhood, residents and stakeholders focused on cultivating the community's growing assets with an emphasis on access to wellness and recreational opportunities, especially for youth. The plan's recommendations are broken into six categories, including green, healthy and safe. Many of the recommendations call for increased recreational opportunities and safe passage for pedestrians and cyclists. The plan specifically calls out the conversion of the CSX rail corridor into a trail.



Figure 6 Inventory and Recommendations from the JOSANA Neighborhood Master Plan

Brown Square CAP Study (2010)

The Brown Square Neighborhood conducted a Circulation, Accessibility and Parking (CAP) Study in 2010 to develop feasible planning and design concepts to improve the movement of many modes of transportation throughout the neighborhood. While the CAP Study does not reference the Rail-to-Trail project directly, it does emphasize the need for enhanced pedestrian and cyclist facilities to ensure safety and connectivity between the neighborhood's assets. Recommendations made in the Brown Square CAP Study that support the creation of a Rail-to-Trail include:

- Increase resident opportunities for recreation and accessibility for non-motorized roadway users by creating strong connections to the Genesee Riverway Trail (the recommended bike lane route is via Jay Street to Vincent Street to connect to the trail at Smith Street)
- Strengthen the pedestrian connection between the soccer stadium and Lyell Avenue
- Address speeding issues along Broad Street with traffic calming treatments and pedestrian enhancements
- Improve pedestrian environment
- Provide more bicycle parking at area parks, schools and sports stadiums

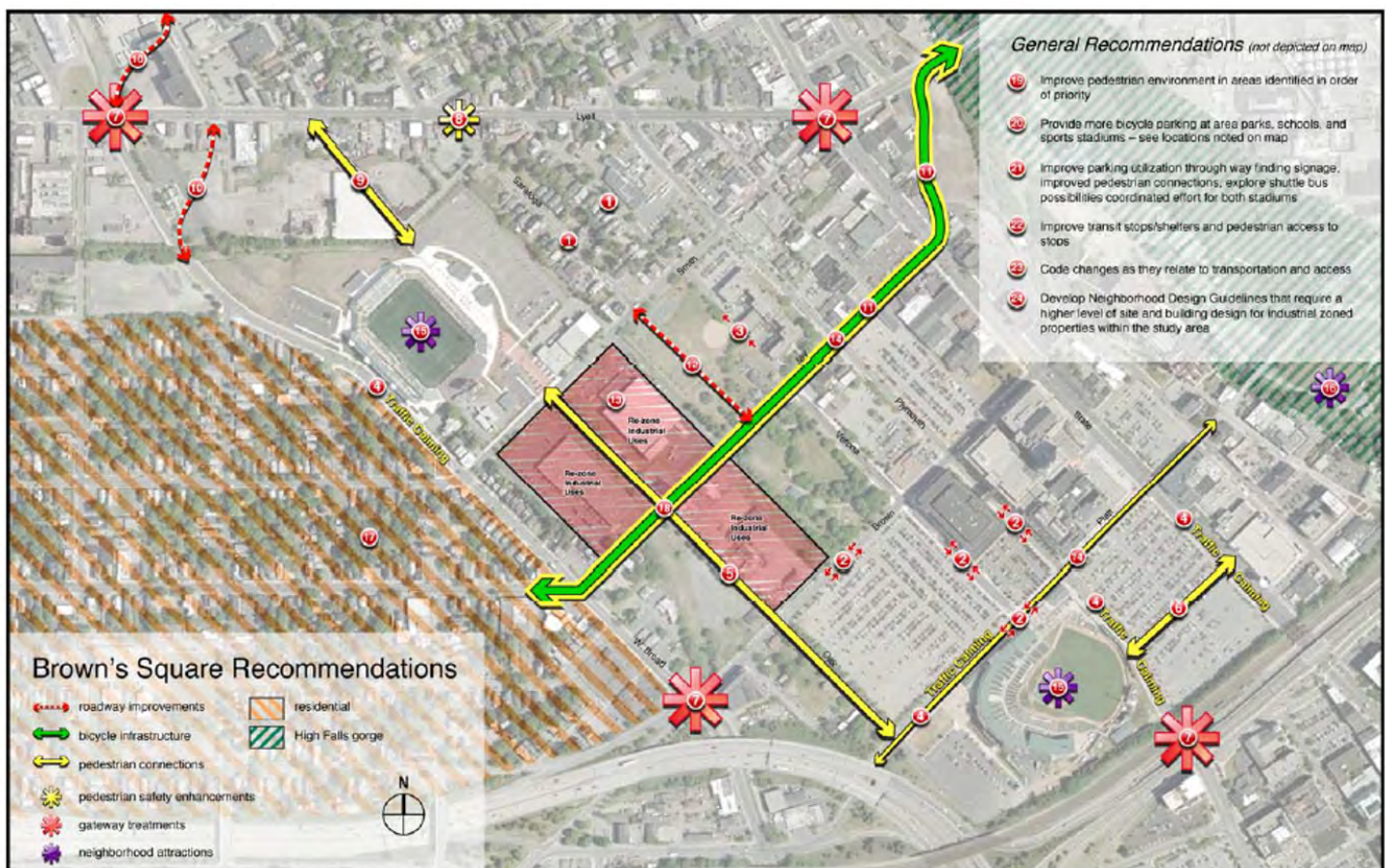


Figure 7 Recommendations from the Brown Square CAP Study

Genesee Riverway Trail Signage Standards Manual (2006)

The Signage Standards Manual for the Genesee Riverway Trail provides design standards for wayfinding along the Genesee Riverway Trail. Although the Rail-to-Trail would not be a part of the Genesee Riverway Trail, efforts should be made to align design standards in order to reinforce that the Rail-to-Trail and Genesee Riverway Trail are part of a larger, regional trail network.

GENESEE RIVERWAY TRAIL

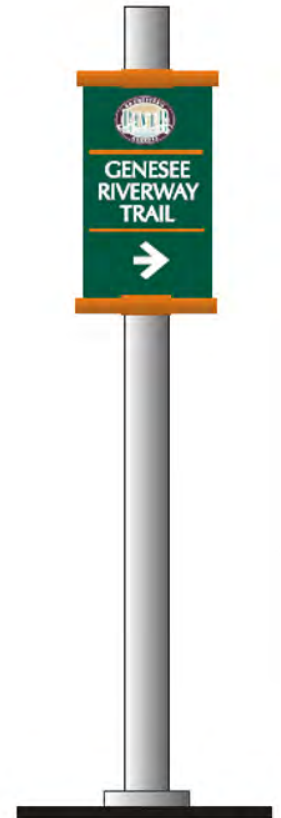
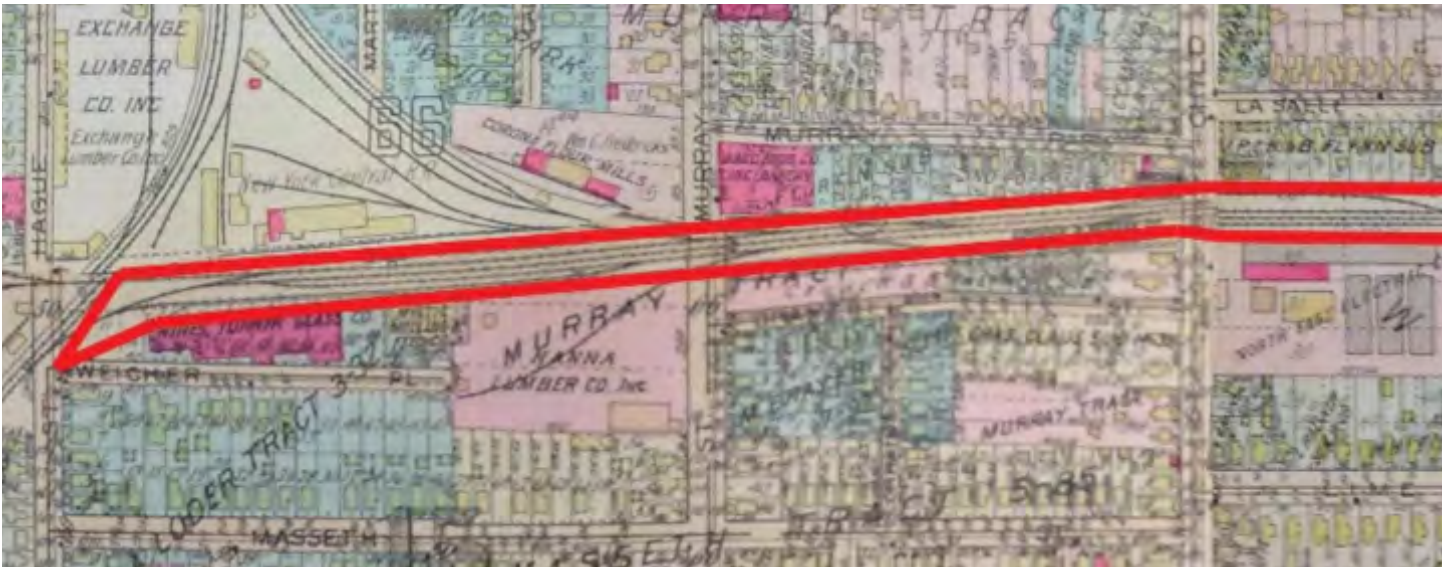


Figure 8 Images from the Genesee Riverway Signage Standard Manual



1929 Plat Map

Neighborhood Characteristics

The Rail-to-Trail project Study Area covers 644 acres and is home to approximately 8,531 residents. This area of the city has an above-average proportion of young residents compared to the rest of the city – 38% of the Study Area’s population is under the age of 20 compared to the city average of 26%. Such a population distribution can necessitate recreational amenities and youth-oriented programs and services.

Historical Context

The decommissioned rail spur that runs from Hague Street to Oak Street provides insight into the industrial and cultural past of its surrounding neighborhoods. During the 1820s the Erie Canal was constructed to connect commercial and manufacturing activity between the East Coast and the Midwest. Within the City of Rochester, the Erie Canal originally followed the route of present day Broad Street. The railroad bridge that intersects Broad Street near Sahlen’s Stadium dates back to before the Erie Canal was diverted outside of the city. Thanks to its proximity to the Erie Canal, the Genesee River, and downtown Rochester, industrial development naturally expanded into this area. With this development came demand for a rail corridor.

By the early 1900s industrial businesses began to line the rail corridor and attracted employees, many of which built nearby homes. The neighborhood was

strongly blue collar and influenced by the German and Italian immigrants that settled here. Along with their language and ethnic shops, residents made their mark by planting numerous fruit trees, reflected in the names of many of the area’s streets and earning the neighborhood its nickname of the “Fruit and Nut Neighborhood.” By the 1960s, many of the German and Italian residents had moved to the suburbs while the businesses that lined the rail corridor decreasingly utilized the rail, eventually resulting in it being decommissioned due to lack of use.

Land Use (Map 3)

The Study Area is predominantly residential with significant vacant and commercial uses. Given that the majority of the Study Area is comprised of residential parcels, the conversion of the rail corridor into a trail would provide easy access to recreation and non-motorized transportation to nearby residents. The parcels that line the proposed trail are predominantly industrial and commercial, some of which are inactive or underutilized. Map 3: Existing Land Use in Appendix A illustrates the Study Area’s land use patterns.

Businesses & Commercial Corridors

Lyell Avenue, State Street/Lake Avenue, Dewey Avenue/Oak Street, and Jay Street are the Study Area’s major commercial corridors. These

commercial corridors contain a limited range of goods and services for residents, workers, and commuters and are interspersed with industrial facilities. The Study Area serves as the home to several large commercial and industrial entities and active job generators in the City of Rochester, including Eastman Kodak, Upstate Niagara Cooperative, and Emerson Express Company. Several active businesses are located adjacent to the rail corridor including Turner Bellows, Instantwhip Foods, Inc., Accurate Paint & Powder Coating, Mitchell Machine Tool, Inc., and GJV Custom Metal Works. While many of the commercial and industrial facilities in the Study Area remain active, several of the industrial and commercial buildings adjacent to the decommissioned rail corridor are vacant.

Parks (Map 4)

The neighborhoods surrounding the proposed project benefit from a variety of park, open space, and recreational assets ranging from small neighborhood playgrounds and public squares to community

centers and regional sports stadiums. A map of the Study Area's parks and proposed and existing trails can be found in Appendix A. Many of these resources, however, are isolated from one another. The proposed Rail-to-Trail project would facilitate linkages between the area's various open space amenities. There are three municipal parks, two community centers, and three school playgrounds located within a ten minute walk (half mile) of the proposed trail alignment.

- **Jones Square Park:** A 6-acre Olmsted-designed park in the Edgerton neighborhood, offers paths, shade trees and benches for passive recreation.
- **Brown Square Park:** 5-acre Olmsted-designed passive park located adjacent to Kodak, with rolling green space, paths, and a building that can accommodate group functions.
- **J.R. Wilson Park:** A 5-acre park located in the Lyell-Otis neighborhood, a section of the city particularly lacking in recreational amenities. The



JONES PARK, ROCHESTER, N. Y.

Historical Photograph of Jones Square Park

City of Rochester recently renovated a basketball court, baseball diamond and playground.

- **Campbell Street Community Center:** Located on the north side of Campbell Street between Ames and Colvin Streets, the Community Center is open in the afternoon and early evenings Monday through Saturday and is run by the City's Department of Recreation and Youth Services. A full range of activities is offered for area youth between the ages of 6 and 19, including various sports leagues, a game room, homework assistance, computer room, café, arts and crafts, cooking classes and various technology programs. Special programs and events are also scheduled throughout the school year. The main facility is a multi-use building, with green space, outdoor fields and a small playground that appears to be in a deteriorating condition.
- **Edgerton Community Center and Park:** This historical park and community center, located just outside of the study area adjacent to the northern boundary, offers a unique range of cultural and recreational amenities for various age groups, including the Edgerton Model Railroad Room, the Stardust Ballroom, a water spray park, and many amenities also available at the Campbell Street Community Center.

In addition to formal parks designated and maintained by the City, a number of other nearby sites offer recreation amenities, including Schools #5, #17 and #57. However, playground equipment and other recreation facilities on the school grounds are not always available for use by community members.

Attractions

Several regional attractions are located near the proposed Rail-to-Trail project, including the Historic High Falls District, Frontier Field, and Sahlen's Stadium. While events at these attractions bring many visitors into the area, visitors often leave without seeking out additional attractions, goods, or services in the surrounding neighborhoods. The proposed Rail-to-Trail project, with its eastern terminus adjacent to Sahlen's Stadium, would provide opportunities to strengthen the link between these attractions and the surrounding neighborhoods,

particularly if additional amenities and programming were included within the Rail-to-Trail project.

Existing Zoning and Regulations (Map 5)

The neighborhoods surrounding the proposed project contain a variety of zoning districts that allow for a range of uses (as seen in Map 5 Existing Zoning in Appendix A). While the majority of property within the Study Area is zoned for residential uses, the southeast portion of the Study Area is included within the Center City Zoning District (CCD). The rail corridor is currently zoned industrial. The trail would be allowed in the M-1 Industrial District under a special permitted use. Alternatively the corridor could be re-zoned to open space by the City to be protected as public access parklands.

Ownership (Map 6)

Of the 645 acres of land located within the project Study Area, 21 percent (133 acres) are publicly owned. The City of Rochester is the predominant public land owner in the Study Area.

The rail corridor itself is owned by the CSX Corporation from Hague Street to Broad Street which includes the railroad bridges over Orchard Street, Broad Street, and the former Erie Canal bed. The City of Rochester has been notified by New York Central Lines LLC (a subsidiary of CSX) that they are preparing to abandon the portion of the rail corridor under study. At the time of this report, the western limits of the CSX acquisition at Hague Street were still being delineated. CSX's initial intent was to remove all rails, ties, and bridge structures and restore street crossings (sidewalk, curbing, roadway pavement) prior to dispensing with the property. The City is actively engaged in discussion and negotiation with CSX with the intent of acquiring the corridor with the bridges intact, for trail purposes. The City Department of Environmental Services has submitted a request through its Capital Improvement Program for funds to purchase the property.

The Rochester Rhinos LLC owned the segment of the corridor from Broad Street to Oak Street. At the time of this report, Rochester Rhinos LLC

was foreclosed upon with the City of Rochester intending to purchase this segment of the corridor. The railroad bridge over the former Moore Street alignment and the land underneath it was owned by the Rochester Rhinos LLC and would be included in the corridor acquisition. The land under the Broad Street Bridge, a potential location for trail access and complementary recreational uses, is currently owned by the adjacent property owner, OTB located at 940 West Broad Street.

One result of the corridor's long-term dormancy has been the encroachment, to varying degrees, of several adjacent properties onto the corridor. The most significant is a business located at 190 Murray Street where the corridor has been fenced off and completely blocked by the owner for security. This area is being used as parking, storage, and service access. Other property owners between Hague Street and Murray Street, located at 145 Murray Street, 160 Murray Street, 88 Weicher Street, and 95 Weicher Street, have expressed interest in purchasing and using the abandoned CSX corridor between Hague Street and Murray Street to expand access to their industrial properties. The purchase of smaller segments of the corridor by individual property owners is unlikely to be considered by CSX.

If and when the City acquires the rail corridor, the City will be able to work with property owners to identify solutions which can accommodate both a trail and some of the needs of adjacent property owners.

General ownership patterns have implications for redevelopment, as publicly and privately-owned lands each present different types of opportunities and challenges. Publicly owned parcels are uniquely positioned for implementing public-realm projects. Several publicly owned parcels are adjacent to the decommissioned rail corridor, including the Orchard-Whitney Site and Sahlen's Stadium, which provide the opportunity for connecting to the proposed Rail-to-Trail project.

From a design perspective, there are several opportunities to enhance the trail with complementary amenities and access points. This may require coordination and purchase or donation of easements from adjacent property owners. One such example is the potential for a public gathering space and access

ramp under the Broad Street Canal Bridge. Such a trailside amenity would require an easement from Western Regional OTB located at 940 West Broad Street.

The proposed eastern terminus of the trail at Oak Street and Sahlen's Stadium will require coordination with stadium ownership in order to accommodate a potential access point and trailhead.

Circulation and Street Network (Map 7)

The area around the rail corridor is a developed neighborhood with existing transportation infrastructure that supports connectivity for motorists and pedestrians, with some infrastructure available for transit users and cyclists. Map 7 illustrates the Study Area's bus routes and stops, existing trails, and proposed trails.

The Study Area's street network connects residents and commuters to downtown and neighborhood destinations. While the area's street network is predominated by vehicle travel, 40% of households in the surrounding neighborhoods do not have access to a vehicle, compared to 25% citywide. This signifies the need for a strong public transportation network and non-motorized travel options for area residents. The major east-west bus routes travel along Lyell Avenue and Jay Street. The major north-south bus routes travel along Broad Street, Saratoga Avenue, Plymouth Avenue, and State Street. The bus stops closest to the rail corridor are located on Broad Street and at all intersections with Lyell Avenue.

State Street/Lake Avenue is the primary north-south corridor in the Study Area, extending from downtown north to the Hamlet of Charlotte and the Port of Rochester. The roadway is utilized by commuters residing in northern neighborhoods and suburbs who work downtown, with an Annual Average Daily Traffic of 21,700 vehicles per day. State Street becomes Lake Avenue north of Lyell Avenue with two lanes of traffic in both directions. On-street parking is also available at most locations along the corridor.

Lyell Avenue is the primary east-west corridor for local traffic. It extends from Gates and Spencerport to the west. At the intersection with State Street/Lake

Avenue, Lyell Avenue becomes Smith Street where it crosses the Genesee River to the east. The roadway carries over 18,000 vehicles per day and is used for local traffic and by commuters accessing downtown. Along the south side of the Smith Street Bridge is a widened sidewalk for two-way pedestrian and bicycle use that is the Riverway Trail.

Interstate 490 bounds the Study Area's southern limits and provides connectivity with downtown Rochester, outlying suburban areas, and the New York State Thruway System which connects to Buffalo, Syracuse and other regional destinations. This limited access highway carries significant traffic of over 100,000 cars per day between the Broad Street and Ames Street exits. There are three interchanges along I-490 within the Study Area, located at Ames, Child, and Broad Streets.

Trails

The proposed Rail-to-Trail project would serve to fulfill several objectives, including connecting the recreational amenities within the Study Area to each other and the greater region's extensive trail system.

Key trail connections within the city and region are discussed further in the Linkages section of this report.

Trails with direct opportunity for connectivity are described below:

The Genesee Riverway Trail: This pedestrian and bicycle trail follows the shoreline of the Genesee River through the scenic, historic and cultural heart of Rochester, from the Erie Canal north to downtown and Lake Ontario. The trail runs through the Study Area in the High Falls District before traversing the Smith Street Bridge to the east side of the River. In 2013, the City received State funding to extend the Genesee Riverway Trail south from the Genesee Brew House to the edge of the High Falls rim, providing trail users with a new and exciting view of the falls.

El Camino Trail: The El Camino: Butterhole-Seneca Park Trail is a multi-use pedestrian greenway that was adapted from an old railroad line. The 2.25 mile trail runs from the intersection of St. Paul Street and Scrantom Street north to the Seneca Park



Segment of the Genesee Riverway Trail on the Smith Street Bridge - View looking towards High Falls & Downtown Rochester

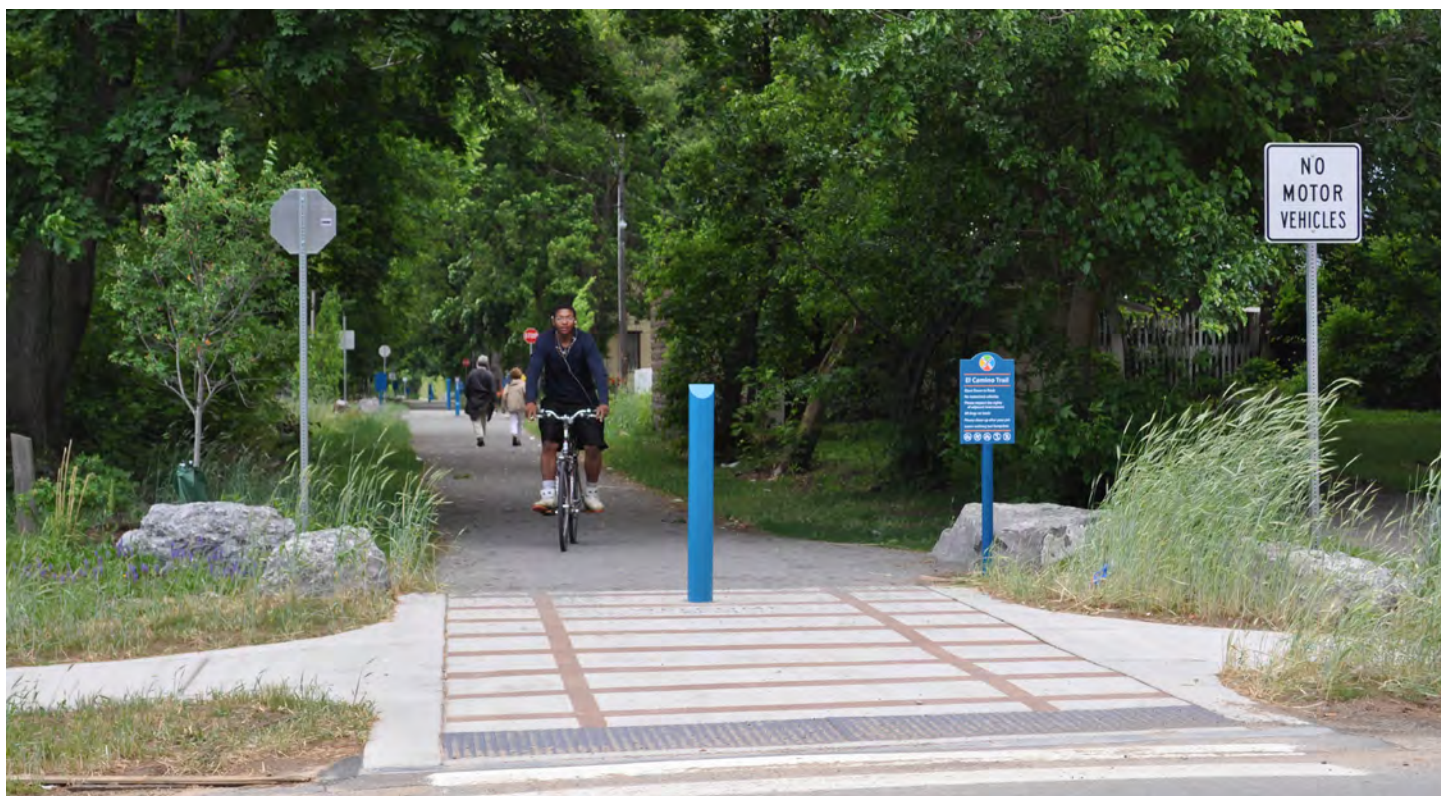
pedestrian bridge over the Genesee River in Seneca Park, located in the Northeast Quadrant of the city. An extension of the El Camino Trail south to Mill Street in High Falls is currently under construction. At the corner of Conkey Avenue and Avenue D along the El Camino Trail, the City and Genesee Land Trust collaborated to build the Conkey Corner Park to provide a community space in a neighborhood lacking parks and open space. An extension of the El Camino/Butterhole Trail has been studied by the City for potential implementation. This portion of the trail would connect to the Genesee Riverway Trail at Smith Street and continue up the western shore of the Genesee River Gorge before crossing the River at the Running Track Bridge and connecting to the El Camino Trail east of the River.

Pont de Rennes Pedestrian Bridge: At the eastern boundary of the Study Area in the High Falls District, the Pont de Rennes pedestrian bridge spans the Genesee River gorge and connects pedestrians and bicyclists to a viewing platform at the eastern rim of the gorge. Currently there is no physical access between the Pont de Rennes and the shoreline of the river.

Pedestrian Access

The Study Area has a well-connected urban sidewalk system, the majority of which are in good condition, though portions in the area's industrial zones are in poor to failing condition and in need of replacement. Nearly 100 percent of all roadways within the Study Area are paralleled by sidewalks on both sides, providing a high degree of pedestrian connectivity. The Pont de Rennes Pedestrian Bridge provides additional connectivity to pedestrians and bicyclists between the High Falls District to the west and the Genesee Riverway Trail on the east side of the river.

Many of the residential neighborhoods contain a tight street grid with short blocks, typically between 400 and 600 feet in length. Short blocks permit pedestrians to take efficient walking routes and increases pedestrian safety by discouraging jaywalking. Regardless of the quality and quantity of a neighborhood's sidewalk system, a trail provides increased accessibility and recreation opportunities not just for walking, but for a variety of non-motorized uses.



El Camino Trail



Pont de Rennes Pedestrian Bridge

Bicycle Facilities

Facilities for bicyclists in the neighborhoods surrounding the proposed Rail-to-Trail project are limited to the aforementioned trails and city streets. Lyell Avenue, the area's major east-west corridor, includes dedicated, marked bicycle lanes. Broad Street, a major north-south corridor, has markings indicating that the lanes are shared for motorists and bicyclists. At the time of this study, Jay Street was being milled, resurfaced and re-stripped for bike lanes and on-street parking. No other roadways in the vicinity have bicycle-related markings. There are no New York State designated Bicycle Routes in the Study Area. According to the City of Rochester's Bicycle Master Plan, the area is well-served by bicycle infrastructure in comparison with the rest of the city.

For a detailed illustration of the Study Area's transportation network, see Map 7: Circulation Patterns in Appendix A.

Environmental Conditions (Map 8)

The proposed Rail-to-Trail project runs along a former rail corridor that historically served manufacturing and industrial operations. Potential contamination has been identified on adjacent properties, as illustrated on Map 8, through the LYLAKS BOA planning process, which included coordination with the City Department of Environmental Quality and the Monroe County Health Department. While contamination may not necessarily prohibit the creation of a trail, it could have implications on trail design. For example, it may be necessary to construct the trail surface and associated subbase material on top of existing grade to avoid excavation and possible disruption of contaminated materials below the surface. This method of trail construction was recently employed on the El Camino Trail in the area of the Midlands property at the corner of Norton Street and Hollenbeck Street. Further investigation regarding the potential for contamination and its impact may be warranted.

Natural Features (Map 9)

Hydrology

The major hydrologic feature in the Study Area is the Genesee River. The proposed Rail-to-Trail project would connect trail users to the Genesee Riverway Trail, the Pont de Rennes, and the Smith Street Bridge, thus enhancing the river's visibility by trail users. Federal wetland areas have been mapped along the western bank of the Genesee River, with portions of the gorge also locally designated as a Critical Environmental Area (CEA). Since no existing or proposed trails follow the shoreline, increased trail use would not impact the river's environmental quality.

The proposed Rail-to-Trail project corridor is generally flat with the exception of the elevated segments between Orchard Street and Oak Street which contain steep vegetated slopes on the north and south sides of the former railroad tracks. Upon observation, the site appears to drain well and there is no evidence of erosion or ponding on site. The corridor contains no designated wetlands and no wetlands were observed on site.

Topography

The neighborhoods surrounding the proposed Rail-to-Trail project are fully developed urban neighborhoods with limited natural resources. The only significant natural resource is the Genesee River and gorge, which creates the eastern boundary of the Study Area. The Genesee River and the Genesee Riverway Trail connect this area of the city to the Erie Canal to the south and Lake Ontario to the north. The topography is generally flat, with elevations ranging between 490 and 530 feet above mean sea level. The elevation around the Genesee River, however, ranges from approximately 490 feet above mean sea level at the top of the Genesee River gorge to approximately 390 feet above mean sea level at the river's edge. Steep slopes are limited to the areas around the Genesee River.

Utilities

Utilities such as lighting, gas, telephone, cable/fiber, water, electric, sanitary and storm sewers are expected to be present within any City right-of-way. Further utility exploration will be necessary where the potential trail corridor intersects with Hague, Murray, Child and Whitney Streets if designs are carried forward.

Currently there are no visible utilities, such as overhead electric lines, located within the potential trail corridor and sewer and fiber optic cable are not present according to available mapping. At the intersection of the corridor and Whitney Street, manholes with covers labeled 'Steam' exist on the west side of the road. The extents of the underground piping network associated with these manholes is unknown at this time. Further utility exploration will be necessary within the corridor if designs are carried forward.

Railroad Corridor Description

The existing inactive CSX railroad corridor within the study area runs east / west and is located between Hague Street to the west and Oak Street to the east. The corridor is approximately 4,600 feet in length and varies in width and elevation. The corridor gradually gains elevation heading east with the roadways

sloping up to the rail crossings at the Murray, Child, and Whitney Street intersections. The City intends to eventually restore these crossings to grades more consistent with the adjacent right-of-way. The elevation continues to increase, resulting in a series of elevated crossings: one over Orchard Street, two over Broad Street and the former Erie Canal bed, and one over the former alignment of Moore Street near Sahlen's Stadium. For the ease of organizing and evaluating the feasibility of this project, the potential trail corridor was divided into the following segments and intersections:

- Hague Street to Murray Street;
- Murray Street Intersection;
- Murray Street to Child Street;
- Child Street Intersection;
- Child Street to Whitney Street;
- Whitney Street Intersection;
- Whitney Street to Orchard Street;
- Orchard Street to Broad Street;
- Broad Street to Oak Street.

See Map 2: Proposed Rail-to-Trail Route in Appendix A.

Hague Street to Murray Street

The ROW segment from Hague Street to Murray Street is approximately 1100 feet in length and 66' wide. The western end of the corridor curves slightly to the south and narrows where the inactive railroad line meets the active railroad line at the corner of Hague Street and Weicher Street. This pinch point area also contains a utility pole, a railroad crossing signal pole, and a sign for the adjacent business. Active industrial uses line the northern and southern sides of this segment. On the southern portion of the segment, there is a loading dock and parking facilities encroaching into the ROW. Such encroachment, however, would not prevent the future conversion into a trail due to the ample width of the ROW in this segment. The segment contains denser tree and shrub vegetation to the west and tall grass and shrub growth to the east with a worn foot path traversing east / west. The general character of this segment is flat with open views to and from Murray Street and semi-secluded views to and from Hague Street where the ROW meets the active rail line. Railroad tracks, ties, and ballast are still present.

Murray Street Intersection

Where the corridor crosses Murray Street (posted speed limit of 30 MPH), the right of way (ROW) width is approximately 65' with a 25' road width. The west side of Murray Street contains a sidewalk of varying width from approximately 5' with a 10' tree lawn at the south and a 15' sidewalk to the north. The east side of the street contains a sidewalk approximately 22' wide. Stone curb is present on both sides of the

street with driveway cuts on the east and west sides of the corridor. One set of railroad tracks still exist in the pavement crossing Murray Street. The railroad tracks create a slight hump in the road however you have clear sight lines between Lyell Avenue and Masseth Street. Sight distances to and from the corridor may be impacted by the existing buildings adjacent to the corridor.

Murray Street to Child Street

The ROW segment from Murray Street to Child Street is approximately 840 feet in length and ranges from 66' to 93' wide. The first 300' of this segment east from Murray Street is currently being encroached upon by the business at 190 Murray Street, located on the corner of Murray Street and Texas Street with parking and a loading dock. Access



View from Hague Street looking east with active rail corridor to the left and encroaching private parking lot to the right.



View of rail corridor looking west from Murray Street.



Murray Street intersection looking east.

to the ROW has been blocked by a chain link fence. The fence was erected in 1972 and the building frontage was improved in 2009 with the addition of a 12 foot by 20 foot steel and concrete loading dock. The remainder of this segment is lined on its perimeter with large deciduous trees while the center of the corridor is grass and shrub growth. North of the corridor are industrial uses on the western end and residential homes on the eastern end. Bordering the corridor to the south are primarily vacant lands. The general character of this segment is flat and feels slightly secluded with views to and from the corridor being blocked by existing vegetation. Railroad tracks, ties, and ballast are still present.

Child Street Intersection

Where the corridor crosses Child Street (posted speed limit of 30 MPH), the Railroad ROW width is approximately 65' with a 30' road width. The west side sidewalk ranges in width from approximately 5' with a 5' tree lawn to the south to a 15' sidewalk to the north. The east side sidewalk is approximately 5' wide with a 9' tree lawn. The sidewalk on both sides of the street is a mixture of concrete and asphalt and



Rail corridor encroachment by existing business at 190 Murray Street.

the tree lawns are compacted gravel. Stone curb is present on both sides of the street with driveway cuts on the east and west sides of the corridor. There is a set of railroad tracks visible in the pavement crossing Child Street creating a slight hump in the road however there are good sight lines between Lyell Avenue and Jay Street. The hump can not be reduced in size too much due to the location of the garage doors at the existing garage building adjacent to the corridor on the west side of Chile Street. Driveway cuts and parking exist on both sides of the street within the rail corridor.

Child Street to Whitney Street

The ROW segment from Child Street to Whitney Street is approximately 515 feet in length and 76' wide. To the north, there are industrial and residential uses. To the south the ROW is lined by one large continuous industrial building. The industrial uses to the north and the south both have driveways, loading areas, and fences that encroach onto the ROW, but do not prevent the creation of a future trail. This segment of the corridor has a large grouping of deciduous trees adjacent to the residential



Tree-lined segment of corridor between Murray and Child Streets.



Intersection of Child Street looking west.

properties to the north while the rest of the segment is grass and shrub growth with an east/west foot path traversing the site. The general character of this segment is flat and has open views to each end including a scenic view to the Orchard Whitney building. This segment is also the widest portion of the corridor. Railroad tracks, ties, and ballast are still present in this segment.

Whitney Street Intersection

At the intersection of the railroad ROW and Whitney Street (posted speed limit of 30 MPH) the ROW width is approximately 60' with a 35' road width. The west side of the street has a 5' sidewalk and 8' tree lawn. The tree lawn is mostly gravel with remnants of medina stone pavers between the sets of tracks. The east side of the street also has a 5' sidewalk and 8' tree lawn, which is mostly compacted gravel. The sidewalk on both sides of the street is a mixture



Looking east from Child Street.

of concrete and asphalt. There are markings on the eastern sidewalk indicating asphalt to be replaced. There is a parking area within the corridor on the west side, adjacent to three utility manholes. Three sets of railroad tracks are present in the pavement crossing Whitney Street creating a significant hump in the road of approximately 4', with the northern side of the hump being lower in elevation than the southern side. Completely removing the hump in the road is not feasible do to the elevation and location of the existing buildings adjacent to the intersection. The severity of the hump could be reduced by gradually sloping up from the north to the south. At the northern edge of the Whitney Street crossing a medina stone header curb is visible within the pavement.



Three sets of tracks at Whitney Street intersection looking west.



Medina stone pavement remnants at Whitney Street intersection.

Whitney Street to Orchard Street

The ROW segment from Whitney Street to Orchard Street is approximately 530 feet in length and 38' wide. To the north exists the city-owned Orchard Whitney site. At the time of this report the western portion of the site had already been demolished and the building adjacent to the north edge of the corridor on Orchard Street is currently being demolished. To the south, the corridor is lined with a chain link fence, which is bordered by a large parking lot to the west and an occupied industrial building to the east. This is the narrowest segment of the project corridor. The northern edge is lined with a retaining wall approximately 4' in height. The corridor is depressed into the landscape, but begins to rise from west to east. This segment feels narrow and secluded but may change depending on the level of demolition of the remaining building on the Orchard Whitney site.



Looking east towards Orchard Street.

The eastern portion of this segment meets up with the railroad bridge crossing over Orchard Street. This segment of the corridor is filled with grass and shrub growth and is currently fenced off from public access. Railroad tracks, ties, and ballast are still present in this segment of the corridor.

Orchard Street to Broad Street

The railroad ROW segment from Orchard Street to Broad Street is approximately 340 feet in length and 65' wide. This segment of the corridor is elevated and has a steep embankment that is lined with large deciduous trees and shrub growth containing a number of invasive species such as Norway Maple, Tree of Heaven, Common Buckthorn, and Amur Honeysuckle. Currently there does not appear to be any slope stability issues on the embankment. The corridor does not intersect Orchard Street, but is carried across by an elevated bridge. Between Orchard Street and Broad Street there is chain link fencing at the bottom of the corridor embankment. This segment contains remnants of railroad tracks, ties, and ballast. Between Orchard Street and Broad Street the corridor is adjacent to industrial land. To the south the vacant land is used as an overflow parking lot for Sahlen's Stadium. The general character of this segment feels secluded due to the elevation difference from the surrounding landscape and the dense vegetation on the embankment. There is potential for open views to the Kodak tower, Sahlen's Stadium, and Rochester's skyline from this segment.



Orchard Street railroad bridge looking east.



Steep embankment to the south of the corridor and adjacent to the Sahlen's Stadium overflow parking lot.

Broad Street to Oak Street

The ROW corridor segment from Broad Street to Oak Street is approximately 865 feet in length and 65' wide. This segment of the corridor is elevated and contains three former railroad bridges: two over Broad Street and the former Erie Canal bed and one over the former Moore Street. The steep embankments along this segment of the corridor are lined with large deciduous trees and shrub growth which contain a number of invasive species such as Norway Maple, Tree of Heaven, Common Buckthorn, and Amur Honeysuckle. Currently there does not appear to be any slope stability issues on the embankment. Between Broad Street and Oak Street there is chain link fence along the top of the south

embankment, which acts as a visual and physical barrier to the adjacent stadium property.

A majority of the railroad tracks and ties have been removed from this segment, but some ties remain on site. At Oak Street, there is a steep embankment at the end of the corridor, which is adjacent to Sahlen's Stadium's entry and vacant industrial and active commercial uses to the north. The land under the railroad bridge at Broad Street, that was once the alignment of the Erie Canal, is owned by the adjacent business, (OTB). The general character of this segment feels secluded due to the elevation difference from the surrounding landscape and the dense vegetation on the embankment. Currently there are open views to and from the bridges over Broad Street and the former Erie Canal bed and potential for open views from the land portion of the corridor to the Kodak tower, Sahlen's Stadium, and the downtown Rochester skyline.



Railroad bridge over former Erie Canal looking east.



Remnants of railroad spur north of the corridor.

Bridge Condition Assessment

An assessment of the existing conditions of the four railroad bridges at Orchard Street, Broad Street, the former Erie Canal bed, and the former Moore Street road alignment was conducted on December 4, 2014. The full bridge assessment can be found in Appendix B.

Orchard Street Bridge

The Orchard Street Bridge superstructure consists of a single span steel thru-girder-floorbeam configuration. The Bridge length is 63' and the width is approximately 16' out-to-out.

The minimum clear width on the bridge that is usable for a trail section (inclusive of railings) is approximately 11' between knee-braces inside of the girders. The vertical clearance for Orchard Street is posted at 11'-10", and the actual minimum vertical clearance beneath the bridge measures 12.9'. Roadway clearances less than 14'-0" require regulatory vertical clearance posting signs. There is no evidence of impact damage to the bridge.

The main girders consist of built-up riveted plates and angles. The floorbeams are rolled beams. The

bridge has a steel plate deck with approximately 6" of stone ballast. The main girders are connected to the floor system and stiffened by knee-braces. All of the knee-braces are severely corroded near the surface of the stone ballast, with rust holes at most locations. At the southeast corner of the bridge, one isolated floorbeam is heavily corroded at the connection to the girder. Otherwise, the girders and floorbeams are in relatively good condition. Paint failure affects approximately 50% of the superstructure, but most areas have only minor surface rust. No defects were noted on the bottom of the deck plate. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.

The exposed surfaces of the concrete gravity abutment exhibit widespread map cracking and localized areas of hollow sounding concrete. However there are no signs of structural cracking or stability issues with either abutment. Large trees are located immediately behind the abutment which can lead to cracking of the concrete if left unattended. Additionally, there is erosion of the approach embankment material at the southeast corner.



Orchard Street Bridge, looking north.

Broad Street Bridge and Bridge Over Former Erie Canal Bed

The bridge over Broad Street and the former Erie Canal bed is a five span structure. The bridge is skewed 40 degrees. From west to east, the span configuration is as follows:

- Span 1 - 21' long thru-girder-floorbeam
- Span 2 - 35' long thru-girder-floorbeam
- Span 3 - 21' long thru-girder-floorbeam
- Span 4 - 24' long twin deck-girder
- Span 5 - 132' long thru-truss

The minimum clear width on the bridge is approximately 11' between knee-braces in Spans 2 and 5.

Spans 1 through 3 are over Broad Street. The vertical clearance beneath Span 2 is posted at 12'-7", and the actual minimum vertical is approximately 13.59' measured from the pier brackets above the curb line. Clearance to the through girders is 14'-6". There is minor impact damage visible on the north girder over the southbound travel lane. The through girders consist of built-up riveted plates and angles. The floorbeams are rolled beams. All members are in fair to good condition. These spans have a steel

plate deck with approximately 6" of stone ballast. There is an isolated 4" diameter rust hole in the deck plate near the northwest corner of Span 1. No other defects were noted on the bottom of the deck plate. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.

Piers 1 and 2 straddle Broad Street and consist of steel pier bents with built-up riveted columns and bracing. The width of Broad Street is constricted between the piers, and there is moderate to severe impact damage on both piers. Broad Street has parking lanes or shoulders on both sides of the bridge, which end fairly abruptly as the curbs taper to the narrower opening beneath the bridge. In addition to impact damage, the lower portions of the columns and bracing have moderate to severe corrosion and section loss in the splash zone at the edge of the roadway.

Piers 3 and 4 consist of stone masonry stem walls with a concrete seat. Portions of the stone masonry were widened with concrete. The stone portions are in good condition, but the concrete is generally in poor condition. There is widespread cracking and hollow-sounding surfaces, with scattered areas of spalling and crumbling concrete. Worst spalling at the



Broad Street Bridge - Spans 1-3, looking north.

southwest corner of Pier 3 extends to the edge of a bearing masonry plate, but there is no undermining at this time.

Span 4 is a short two-girder span with timber ties. The girders consist of built-up riveted plates and angles with double web plates. The girder webs are heavily corroded near the bearing areas at the ends of the span. A rust hole in the web was noted at the southwest corner, but there are robust built-up bearing stiffeners next to the hole and there is no related distress. The timber ties are in fair condition with moderate decay affecting approximately 20% of the ties.

Span 5 is a large Baltimore thru-truss over the former canal bed. The main truss members and overhead bracing components are generally in good condition. The floor system consists of built-up transverse floorbeams, longitudinal stringers, bottom lateral bracing, and timber ties. There is moderate corrosion and pack rust on the floorbeams and stringers, with section losses estimated at 20% to 30%. The bottom lateral bracing is heavily corroded with section losses up to 50%. The timber ties are in fair to good

condition with isolated minor decay.

There is widespread paint failure throughout the superstructure and Piers 1 and 2, but most areas have only minor surface rust. Active corrosion and section loss is generally limited to the areas of deterioration noted above.

The abutment consist of stone masonry stem walls with concrete seats. The stone portions are generally in good condition, but the concrete portions are deteriorated. The west abutment has widespread cracking and spalling on the south wingwall extending to the corner of the seat.

Moore Street Bridge

The Moore Street Bridge superstructure consists of a three-span steel multi-girder configuration. The overall bridge length is approximately 50' (with individual span lengths of; 10.2', 28.6', 11.2') and the width is 26'.

The interior girders are rolled beams spaced at 12" centers. The fascia girders consist of built-up riveted plates and flange angles. The bridge has a steel plate



Bridge over former Erie Canal Bed - Span 5, looking south.

deck with approximately 16" of stone ballast.

The ends of the girders have localized corrosion and section loss at the abutment seats. There are previous bolted and welded repairs on most interior girders at the west end of the bridge. The 1st interior girder at the northwest corner of the bridge has a rust hole in the web above the abutment seat. The fascia girders have horizontal bands of corrosion on the web plate along the top of deck. There is widespread paint failure throughout the superstructure, but most areas have only minor surface rust. Active corrosion is generally limited to the areas noted above. No defects were noted on the bottom of the deck plates. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.

The abutments consist of stone masonry stem walls with concrete seats. The stone portions of the abutment are in fair to good condition, but the concrete portions in the seat area are in poor condition. There is widespread cracking and spalling concrete, but deterioration does not undermine support for the superstructure. The worst spalling is up to 8" deep near the left side of the end abutment. Spalled surfaces crumble when struck.

The piers consist of built-up steel columns and cap-beams. The bottom of the pier columns were originally encased in concrete, extending approximately 2'-6" above ground level. This encasement has fallen off and the columns exhibit moderate to severe pitting with overall section loss estimated at 30% within ap-

proximately 2' above the ground level. The piers are otherwise in good condition. There is widespread paint failure on the piers, but active corrosion only appears to be affecting the bottom of the columns.

Summary of Bridge Assessment

The three, 100+ year old railroad bridges represent a significant amount of infrastructure assets with a combined 350 LF of bridge length and 5,000+ square feet of bridge deck area. Each bridge varies widely in its configuration and geometry with four different types of railroad bridge superstructures being represented. From a feasibility standpoint, all four existing railroad bridges were found to be in fair condition, stable and appear structurally adequate to support a pedestrian trail assuming some modifications and rehabilitation work is performed to address the most severely deteriorated areas that could compromise the bridges load carrying ability. Full restoration of these bridges to "like new" condition is beyond the scope of this project and the available funding. Recommendations for the proposed work to convert these structures to trail facilities is outlined in the "Proposed TrailRoad Design" section of this report. Additionally, some follow on studies beyond the scope of this feasibility report are recommended to fully assess specific bridge conditions and possible alternatives to rehabilitation. These are outlined in the "Next Steps – Further Bridge Evaluation" section of this report.



Moore Street Bridge, looking north.

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Trail Design

Conceptual designs for the JOSANA Rail-to-Trail Feasibility Study were developed based upon field visits, the existing conditions analysis, PAC feedback, and public input. The trail envisioned in this plan will function as a recreation facility as well as an alternative transportation network. The following provides a summary of the feedback and input that influenced the design guidelines for the trail and its amenities, and a description of the proposed trail design.

With the extensive railroad and industrial presence within the study area, a potential name for the trail could be the Rochester TrailRoad. Branding the TrailRoad will help to give the former railroad corridor an identity and solidify its presence across neighborhoods. The proposed trail will be referred to as the Rochester TrailRoad throughout the remainder of this document.

Community Feedback

Two public meetings and five PAC meetings were held to gather feedback and input for the proposed TrailRoad design. The findings from the meetings were organized into three primary themes of Safety, Community Amenities, and Connections. Detailed meeting summaries for the public and PAC meetings can be found in Appendix B.

Safety

- The TrailRoad needs to be very open and visible to deter unwanted activity.
- The TrailRoad needs to be designed to be welcoming.
- Lighting, although not required per City policy, is desired on the TrailRoad.
- Eyes and ears on the trail are essential for safety.
- The TrailRoad needs to be designed to discourage dirt bikes and ATV's.
- Incorporating a center line on the TrailRoad will help with traffic flow and safety for trail users.

Community Amenities

- A playground is desired along the TrailRoad.
- The bridges should be highlighted through lighting, painting, and branding.
- Interpretive or learning kiosks should be provided to incorporate school curriculum and the history of the corridor / neighborhood into the TrailRoad.
- Trailhead parking along the TrailRoad is desired.
- Establish a market or provide a location along the TrailRoad for food trucks / ice cream vendors.
- Provide benches along the TrailRoad.
- Provide locations for art along the TrailRoad or artistically decorate TrailRoad elements such as bollards and signage or incorporate art on building facades adjacent to the TrailRoad.
- Provide fitness stations and mile markers along the TrailRoad.
- Provide plantings along the TrailRoad including plants that contain phytoremediation properties (plants that remove contaminants from the soil).
- Provide a skate park along the trail.



Public meeting participants from Public Meeting #1.

Connections

- Provide a strong connection to the Genesee Riverway Trail and Erie Canalway Trail, thus providing a connection to the greater Rochester trail network.
- Provide connections to neighborhood destinations such as community centers, schools, and parks.
- Provide wayfinding signage to direct people to and from the TrailRoad.
- Incorporate findings from the Bike Boulevard Master Plan into the TrailRoad connections.

General Design Guidelines

Should the Rochester TrailRoad become a reality, the following design guidelines are intended to set the framework for the decision-making process during the design of the TrailRoad and its associated amenities. The purpose of these guidelines is to aid the community in creating a distinct identity for the Rochester TrailRoad and creating a safe and welcoming environment.

Trail Dimensions and Surface

Per state and national trail design guidance, including recommendations from the American Association of State Highway and Transportation Officials (AASHTO), 10 feet of trail surface plus 2 foot clear buffers on each side (14 feet total) is the minimum desired width for a two-directional trail accommodating bicyclists and pedestrians. The vertical clearance from overhanging trees or objects should be a minimum of 8 feet, although 10 feet is preferred. In constrained areas, a narrower trail (8 feet minimum of trail surface plus 2 foot clear buffers on each side or 12 feet total) would be acceptable but these sections should be minimized. If additional users are allowed and/or higher usage is expected, a wider trail (12 feet minimum trail surface plus 2 foot clear buffers on each side or 16 feet total) should be considered. The TrailRoad corridor is able to be accommodated at 12 foot trail for a majority of the corridor. Sections of the trail crossing over the railroad bridges will need to be reduced to 10 feet due to existing bridge width clearances.

The surface of the TrailRoad could be comprised of a pervious or impervious surface or a combination thereof. Stone dust is natural, permeable, softer under foot, and is less expensive to install than asphalt, although it requires more frequent maintenance over time, which may offset any initial cost savings. It is also more susceptible to erosion on steeper sections. For trail segments or trail connections over a 5% slope such as access ramps, adjustments to the alignment to lessen the slope or an alternative surface treatment may need to be considered. Asphalt or concrete pavement can also be considered for all or portions of the trail. An asphalt or concrete surface would initially be more expensive but will require less maintenance than a stone dust trail. It will also add impervious pavement where there is none today. A third option to consider is pervious asphalt or concrete pavements. Although more costly, pervious pavements provide a permeable yet stable trail surface.

The type of surface selected will start to determine the intended uses of the trail. Or conversely, the types of activities desired will dictate the trail surface. For example, stone dust trails are not conducive to activities such as skateboarding and roller blading. If these activities are desired, a harder surface such as concrete or asphalt or their pervious counterparts may be more appropriate. The City of Rochester's preferred trail surface is asphalt which is currently used on the Genesee Riverway Trail. However, stone dust was used on the recently completed El Camino Trail. This feasibility Study recommends the use of asphalt for the proposed trail.

Accessibility

Accessibility for people with disabilities, including wheelchair users, should be provided whenever possible throughout the length of the proposed TrailRoad. If trailhead parking lots are included as part of the project, it is recommended that handicapped parking be provided along with a trail connection that meets the standards of the Americans with Disabilities Act, also known as ADA compliant. Such standards limit the grade of a trail to a maximum of five percent, although exceptions are permitted if railings and level landings are present at intervals defined within the standards. The trail surface should also be firm, stable, and slip resistant in order to accommodate as much of the public as possible.

Asphalt vs. Stone Dust Surface for Off-Road Trail Segments

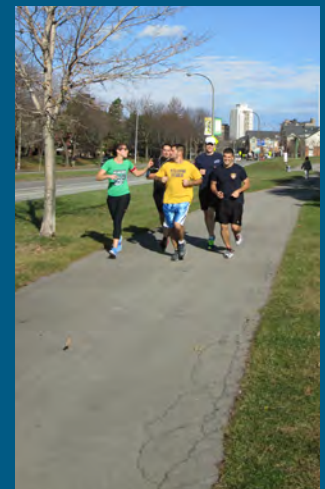
Choosing a surface type is an important step in the planning and design of a trail. The surface material used should be determined by considering the desired users of the facility, the context of the trail, and the municipality's available resources (budget, maintenance staff). Most multi-use trails use either an asphalt surface or an improved natural surface such as stone dust.

Below is an overview of using one material versus another. This Feasibility Study recommends the use of asphalt for the TrailRoad. During the more detailed design phase of the project, the City of Rochester should examine these factors carefully and determine which surface is appropriate for the Rochester TrailRoad.

	Asphalt	Stone Dust
Installation Cost	\$5.20 - \$5.50 / SF	\$1.80 - \$2.00 / SF
Users	wide range of users, best for long-range biking (commuters), strollers, in-line skaters, wheelchairs	limited range of users, would exclude in-line skaters
Permeability	impermeable*	allows some infiltration
Durability	may require minimal maintenance every 7-10 or more years	may require resurfacing, edge cleanup every 2-5 years, susceptible to erosion from regular use, runoff from adjacent development
Other	designed for higher speeds, better for urban/suburban areas	easier on joints, better for rural/undeveloped areas



Stone Dust Trail



Asphalt Trail



Example regulatory sign - El Camino Trail.



Example of trail access gate - LVRR Trail.



Example of bollards, signage, and natural boulders used to restrict trail access - El Camino Trail.

Policing and Enforcement

Bollards or other physical barriers such as swing gates can be installed to deter or discourage unauthorized motorized vehicle access to the TrailRoad, as can regulatory signs. However, it is always a tricky balance to maintain sufficient space to allow for emergency or service vehicles while trying to prevent unauthorized motorized access.

Although the TrailRoad will provide easier access to semi-secluded areas, the presence of an official and highly-visible community facility can actually deter inappropriate or illegal activities. An improved, maintained trail as part of a larger system solidifies the perception that a trail is well used and can be occupied at any given time, which can deter unwanted activities. Generally, perpetrators seek out secluded areas. As the trail grows in popularity, it can in effect become self-policing. Other communities locally, regionally, as well as nationally, have reported this phenomenon, citing that people who typically choose to use the trail are the ones that care most about its preservation. In addition, most trail users are local neighbors of the trail and not “outsiders” as is the common perception. While they may have the occasional problem, the most common response to trail development from communities nationwide has been positive.

Lighting

Initial feedback from the public stated that pedestrian-level lighting should be considered for the Rochester TrailRoad corridor due to its semi-secluded nature and adjacency to uses that may not provide eyes and ears on the trail. If this trail were to be built, it would be considered part of the City’s park, trail, and open space network. According to City Code, these types of facilities are only open dawn to dusk and closed at all other times. It is standard practice to not light parks or trails except for in rare circumstances such as highly programmed sports courts and trails adjacent to dense development. If the design of the TrailRoad progresses, further discussion of lighting the trail is encouraged.

The existing railroad bridges, especially the bridges over Broad Street and the former Erie Canal bed are a unique feature to the TrailRoad. These bridges not only act as a unique feature to the TrailRoad,



Lighting concept for the Broad Street railroad bridge. Innovative LED or solar light could be potential options for lighting the bridge.

they also aid in interpreting the history of the corridor. Accent lighting on these bridges should be considered to highlight these iconic features, creating a gateway to the neighborhood and identifying the presence of the TrailRoad.

Signage

It is recommended that a uniform standard (or logo) be developed and utilized for the identification of the Rochester TrailRoad project that is consistent throughout its length. Informational or wayfinding signage that provides an overview of the trail system, orients users to their position within the trail corridor, and directs trail users to nearby destinations and attractions should be included at all trailheads and at crossroads with other trail systems or connections. This signage can be achieved with informational kiosks, light pole banners, pavement markings, or graphics etched or engraved into the pavement. Accessible routes and general rules and regulations that apply to the trail system, such as permitted uses or hours of operation should be incorporated into the TrailRoad signage system. Area-specific signage should also be included, such as 'STAY ON TRAIL' or 'RESPECT YOUR NEIGHBORS' for portions that pass through or are adjacent to residents or active businesses. Interpretive information for historic resources or key features along the trail should also be incorporated into the informational/wayfinding signage system. Potential topics highlighting the history of the TrailRoad corridor and surrounding neighborhood include: Industry, The Railroad, Food,

Educational Opportunities

The Rochester TrailRoad corridor naturally forms five segments. Each of these trail segments can highlight one of the educational themes of the corridor.

Industry - Industry such as flour mills, box, and glass factories, have always been integrated with residential properties in this neighborhood. For years this is where people lived, worked, and played.

The Railroad - For many residents, the corridor may only be known as an abandoned rail line, creating the opportunity to interpret the purpose of the rail line and the business it served historically.

Food - Commercial baking has been a tradition in the neighborhood for many years with several bakeries still in existence. Some of the businesses along the corridor were flour mills which tie to the history of Rochester being the "Flour/Flower City."

Erie Canal - Many residents may not realize the Erie Canal and later the subway came through this neighborhood. Interpreting where the canal was located and locating visible remnants of the canal / subway may be a potential educational opportunity.

Sports - The Oak Street terminus of the TrailRoad is at Sahlen's Stadium creating the opportunity to interpret the history of sports in the neighborhood and of the entire city of Rochester.

The Erie Canal and Sports. These topics can be tied into the local school curriculum which will engage the student population and introduce them to the TrailRoad.

Additionally, warning signs are recommended to caution about various hazards such as steep adjacent slopes, roadway crossings, pedestrian crossing signs (for motorists), etc. Utilization of consistent barrier gates or bollards to control access to the trail can also identify or reinforce the trail system and communicate a consistent application of rules and regulations for all portions of the trail.

If federal and/or state funding is used to construct an off-road trail along with on-road improvements, the signage used must comply with the Manual of Uniform Traffic Control Devices (MUTCD).

Safety

Trail safety will be factored into the final design of the Rochester TrailRoad. The design should incorporate open views to and from the trail and from the intersecting streets. This can be achieved by limbing up existing trees, clearing shrub growth, and opening views to increase the eyes and ears to and from the trail. Signage and barriers delineating steep slopes in the elevated portion of the corridor will also be incorporated into the design.

The intersections of the trail corridor with city streets should be designed to increase safety for both the motorist and the trail users. This can be achieved with the use of regulatory / trail identification signage and enhanced pedestrian crosswalks to signal to the motorist and trail user of potential conflict. Design features can also be incorporated into the trail approaches to warn trail users of the intersection. This can be achieved with elements such as tactile warning in the surface of the trail, narrowing and raising of the trail in elevation as it approaches the intersection, and using bollards or gates at the intersection to slow down trail users.

Trail Ownership and Maintenance

At the time of this report, negotiations were taking place between CSX and the City of Rochester for

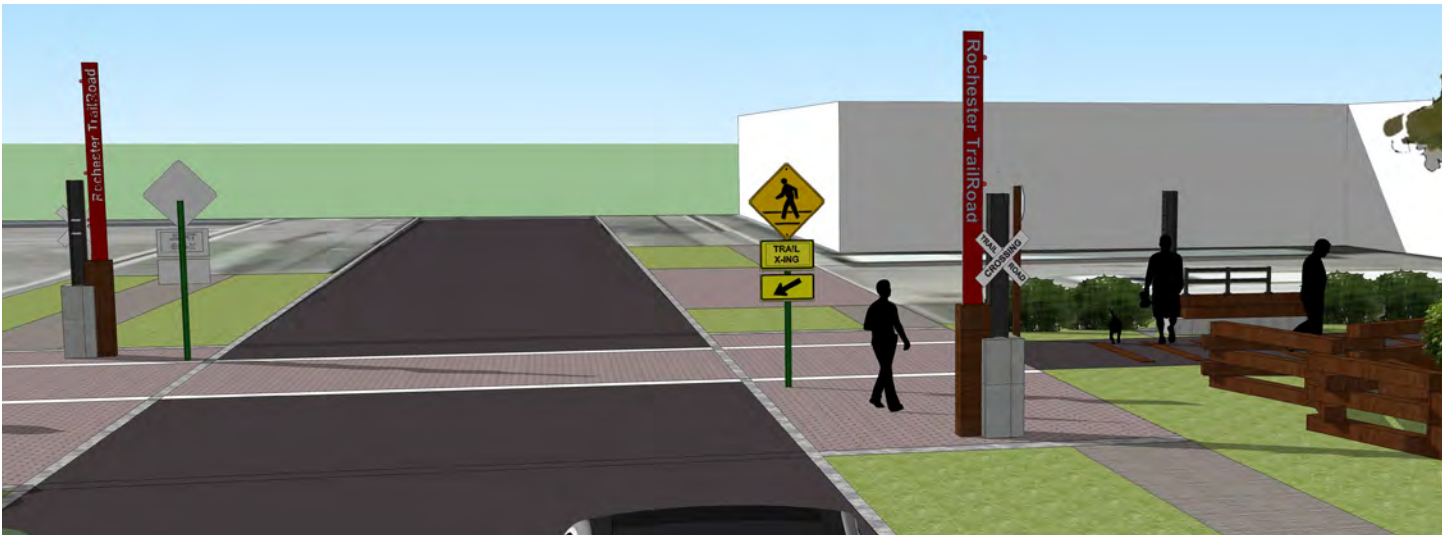
purchasing portions of the corridor for the Rochester TrailRoad project. In the instance of different ownership, for example the segment of the corridor near Oak Street that is currently being foreclosed upon by Monroe County, the area under the old Erie Canal Bridge owned by OTB, or adjacent nodes or connections desired off the corridor, an easement may be needed.

The utilization of some public funding sources for trail development, including most state and federal sources, typically anticipates public ownership of proposed trail corridors. Alternatively, a corridor easement or lease agreement may be acceptable but would need to be established in a manner that would limit any agreement conditions that could negatively impact the investment of public dollars in the trail.

One of the most common methods of acquiring full rights and title to a parcel of land is fee simple acquisition, where the landowner holds all rights to the property without restriction or reservation. Another potential option is a bargain sale, in which the current landowner agrees to sell the property below the market value with the difference being treated as a charitable tax deduction. Similarly, a full donation of all or part of the property could be considered, which may make the donor eligible for some property tax relief and/or charitable donation tax deductions.

In lieu of full acquisition of desired parcels, the City could consider establishing a long-term easement or lease with the property owners. Property easements or leases are acceptable when using public funding for trail development but generally should meet the following terms to protect the public's investment:

- An easement or license should be irrevocable;
- Facilities, installations, and improvements should not be required to be automatically removed at the end of the easement or lease agreement;
- Use or conveyance of the space above or below ground could be a term for negotiation. The intent here is not to restrict the corridor owner's rights to allow other parallel uses but to ensure these uses do not negatively impact the trail facility installed, including the use of the trail and the aesthetics of the trail corridor;



Typical Intersection Treatment Concept - Where the TrailRoad intersects a road, crosswalk and sidewalk pavements would be enhanced with highly visible materials to alert pedestrians and vehicles of the TrailRoad crossing. In conjunction with traditional MUTCD trail crossing signage TrailRoad crossing signs, evoking the feeling of railroad crossing signals, would be incorporated into the intersection treatment.

- The owner should not expect the trail operator to remove or relocate all or part of the trail facility, installation, or improvement at the operator's expense within either a short time frame and/or with no joint determination of the need to do so;
- An easement or lease agreement should be granted for a minimum of 20 years, which is considered by state and federal funding sources to be a minimum duration of intended use and access for a trail project funded with public dollars.

The premature removal of a publicly-funded trail, or portion thereof, may result in a local community having to remove or relocate the trail at its own expense and/or pay back state/federal funding used for trail improvements. Both the NYSDOT and the Federal Highway Administration find this situation unacceptable. Therefore the public agency that will own and maintain the trail should consider acquiring portions of privately-owned properties or agree to long-term easements in order to protect and prevent negative impacts to the public's investment.

In general, it is important that private landowners are committed to the trail project, regardless of how future development plans evolve. If such plans do not materialize, or change substantially, they should not jeopardize the development of the trail. The City of Rochester should be proactive with landowners

and developers to achieve this objective. Additionally, in order to move forward with the future design and construction of the trail, the City should ideally have assembled willing landowners wherever private land is necessary for the preferred trail alignment.

Critical Environmental or Habitat Areas

During design and construction of a trail, there is the possibility of encountering environmental conditions such as soil contamination, invasive plant species, and sensitive animal habitats.

The potential for soil contamination along the former rail corridor is likely. Areas of the trail identified with soil contamination could receive a modified trail cross section that limits or completely eliminates the need for excavation. This could be achieved by constructing the trail subbase and top course, whether it be stone dust, concrete, or asphalt, on top of existing grade leaving the contaminated soil under ground undisturbed.

Invasive plant species are plants that can threaten native plant and animal bio-diversity and can cause significant changes to the environment. The removal of invasive plant species could potentially open views to and from the trail and create a more sustainable diverse environment. Potential species could include but are not limited to Japanese Knotweed,

Norway Maple, and Poison Ivy. Various removal methods such as pulling, cutting, and chemical control can be applied based on the appropriate method for the plant species. Proper disposal of removed invasive plant material is also crucial to the control process. Removed plant material can be burned, buried, piled, or composted. The proper removal and disposal technique should follow any federal, state, or local requirements already in place.

Removal and disposal methods should also minimize environmental impacts on the remaining vegetation, soils, water courses and animal habits, and in environmentally sensitive areas, shall be conducted in coordination with any federal or state requirements. For example, the Indiana Bat, listed on federal and state endangered species list may be present in the TrailRoad area in the spring, summer, and fall months. If vegetation clearing is to occur, the size of the vegetation and the time of year will need to be factored into the plant removal process.



Alternative Showing New Access Drive in Corridor

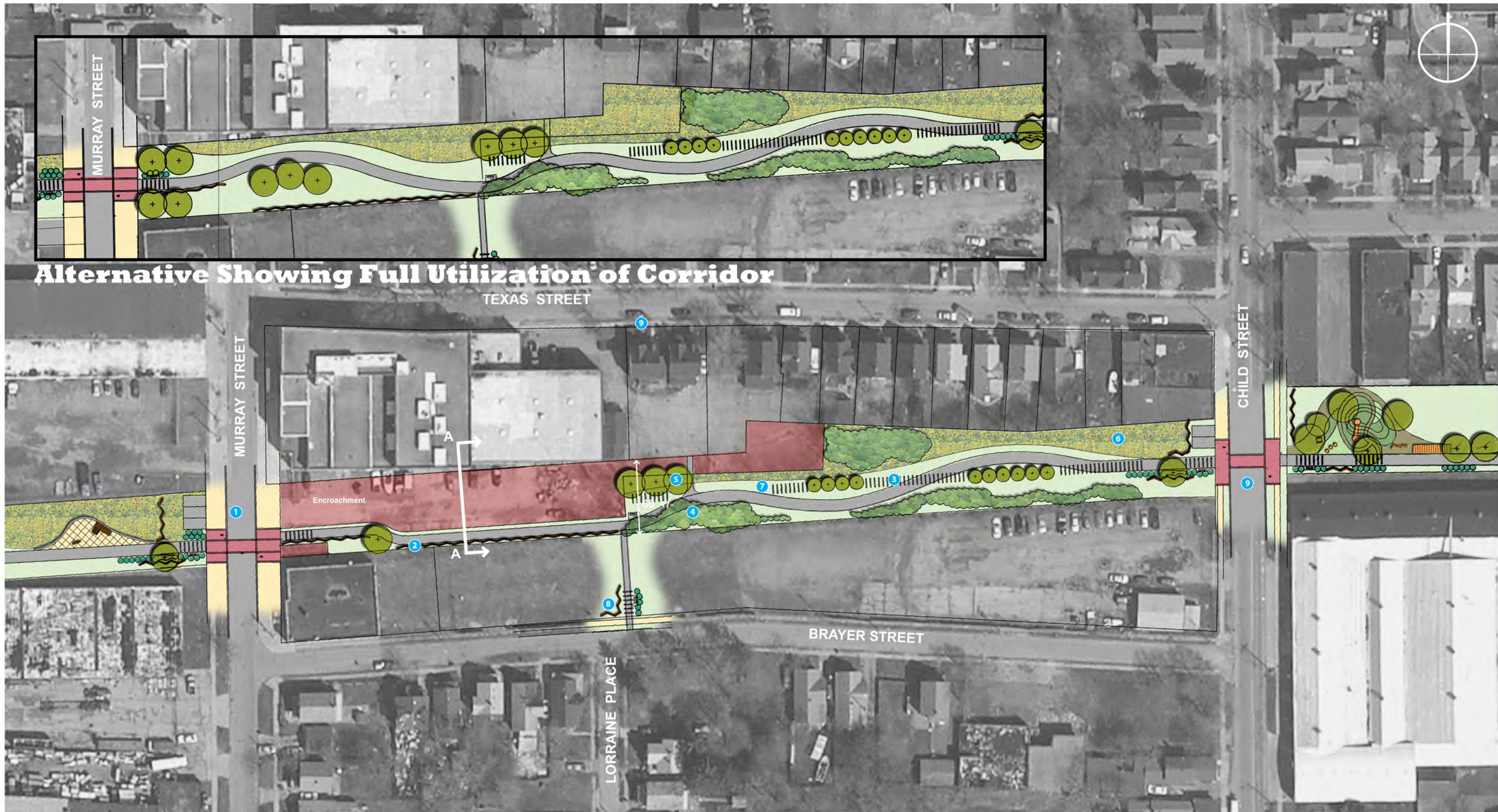
LEGEND

- 1. Hague Street Connection
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement
- 4. Existing Trees to Remain and Pruned
- 5. Proposed Trees
- 6. Sunflower / Wildflower Area
- 7. Mowed Turf
- 8. Potential Skate Park Elements
- 9. Murray Street Intersection Treatment
- 10. Trailhead Parking



Hague Street to Murray Street

FIGURE 9



Alternative Showing Full Utilization of Corridor

TEXAS STREET

MURRAY STREET

CHILD STREET

BRAYER STREET

LORRAINE PLACE

Encroachment

LEGEND

- 1. Murray Street Intersection Treatment
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement and Grass
- 4. Existing Trees to Remain and Pruned
- 5. Proposed Trees
- 6. Sunflower / Wildflower Area
- 7. Mowed Turf
- 8. Potential Connection to Brayer Street
- 9. Child Street Intersection Treatment



Murray Street to Child Street

FIGURE 10

Proposed TrailRoad Design

For the ease of organizing and evaluating the feasibility of this project, the proposed Rochester TrailRoad design was divided into the following segments:

- Hague Street to Murray Street;
- Murray Street Intersection;
- Murray Street to Child Street;
- Child Street Intersection;
- Child Street to Whitney Street;
- Whitney Street Intersection;
- Whitney Street to Orchard Street;
- Orchard Street to Broad Street;
- Broad Street to Oak Street.

The goal of the Rochester TrailRoad design is to create a safe and welcoming environment inspired by the railroad and industrial history of the corridor. This is aided with the use of typical railroad and industrial materials used in unique ways to create a distinct identity for the TrailRoad.

Consistent Design Elements

While each segment of the TrailRoad has unique design characteristics, there are consistent design elements along the entire corridor that contribute to a cohesive trail experience. For the entire length of the corridor, existing understory vegetation, scrub growth, and invasive species should be removed and the remaining trees limbed up to 8' to open views to and from the TrailRoad. A 12' wide asphalt multi-use trail is recommended along the entire corridor unless otherwise noted in each segment.

TrailRoad branded amenities such as informational / wayfinding kiosks, identification signage, ornamental benches, embedded railroad ties in the pavement, and zig zag fencing are recommended along the entire corridor to give the TrailRoad a distinct identity (see graphic examples of the following page). The placement of these amenities varies between each segment of the corridor and their recommended locations are described in the following corridor descriptions.

Hague Street to Murray Street

From Hague Street to Murray Street, See Figure 9, the multi-use trail is proposed to be located in a linear alignment through the corridor. Adjacent to the trail, turf areas would be maintained to provide a clean edge and open views to and from the trail and also provide lawn areas for passive recreational opportunities. Portions of the corridor edges are proposed to contain naturalized areas with wildflowers or phytoremediation plants such as sunflowers to reduce mowing maintenance and to aid in rehabilitating potentially contaminated soils.

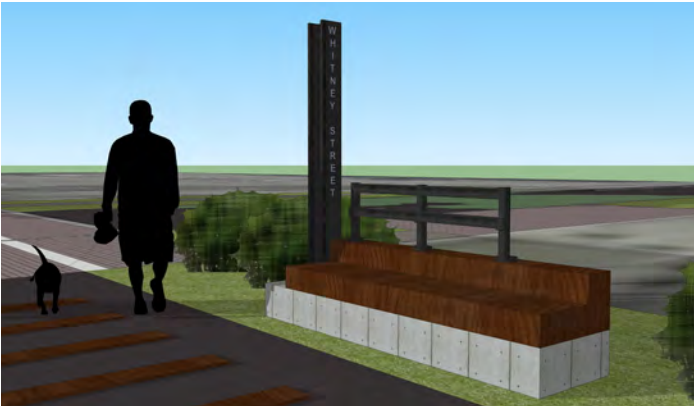
At Hague Street, Figure 11, the proposed TrailRoad comes in close proximity to the active railroad corridor. To create a separation between the TrailRoad and the active railroad, the potential trailhead, traffic associated with the building at 20-30 Weicher Street (the encroachment shown in Figure 11 is based on field observations of the activity occurring in the corridor today), and to help define the corridor and its identity, vegetation and decorative barriers such as a railroad tie - zig zag fence can be incorporated to create the necessary separation for the safety of TrailRoad users.

At the Hague Street intersection a potential trailhead gateway could be incorporated to include an informational / wayfinding kiosk, benches, embedded railroad ties in the pavement to act as a detectable warning to trail users, enhanced setting for the existing Accurate Paint & Powder Coating sign, and the potential for dedicated TrailRoad parking spaces. The enhancements around the Accurate Paint & Powder Coating sign and the area for the parking spaces would require an easement with the owner of the property at 20-30 Weicher Street.

At the time of this report, the western limits of the CSX acquisition at Hague Street were still being delineated. If the CSX acquisition does not extend fully to Hague Street, alternative means of connecting to the corridor by way of easements through private property will need to be investigated.

At the Murray Street end of this segment is a potential location for a small skate park or skate park elements which were desired by the community. This location is ideal because it is easily accessible

TrailRoad Design Elements



Rochester TrailRoad Bench Concept - This bench is made of industrial materials such as concrete, steel I beams and wood railroad ties. These benches will be placed at trail / roadway intersections to tie into the history of the corridor and also to act as wayfinding signage to help trail users locate where they are on the TrailRoad.



Zig Zag Fence Concept - A zig zag fence made up railroad ties can be used to delineate trail edges and act as a safety barrier between incompatible uses and steep embankments.



Embedded Railroad Ties - Railroad ties embedded in the pavement can not only interpret the railroad history of the corridor but also act as a tactile warning strip for trail users approaching a road intersection with the TrailRoad.



Rochester TrailRoad Kiosk Concept - This interpretive / wayfinding kiosk is made of materials that relate to the industrial and railroad history of the corridor. The kiosk structure can be distinct to the Rochester TrailRoad while the sign panels can follow the city standard already used on the Genesee Riverway Trail and El Camino, creating a unified signage system citywide.



TrailRoad crossing signs evoking the feeling of railroad crossing signals.

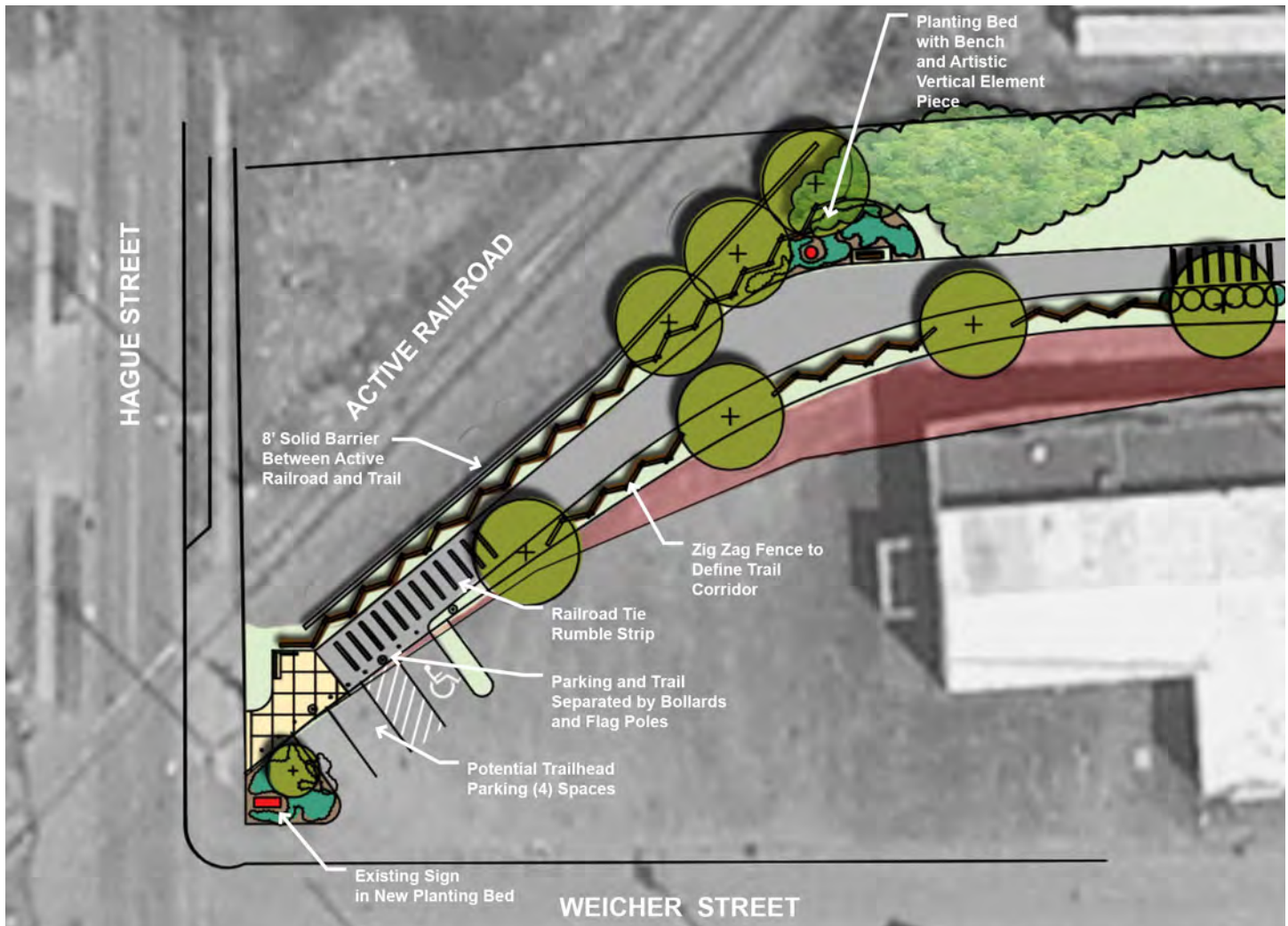


FIGURE 11 - Hague Street Trailhead Detail Plan

and visible from Murray Street and because the skate park could potentially be less disruptive to the current industrial uses adjacent to this segment of the corridor.

Business owners adjacent to the Murray Street end of this segment have expressed interest in purchasing the former rail corridor to provide additional vehicular access to their buildings. Figure 9 depicts an alternative design layout showing the corridor accommodating both a trail and a 24' wide vehicular access drive adjacent to the existing businesses. The access drive would accommodate vehicles backing into and out of the drive, but no vehicular turning areas would be provided. Between the access drive and the TrailRoad, zig zag fencing and plantings should be provided as both a visual buffer and to physically separate vehicular and pedestrian traffic.

Murray Street Intersection

The TrailRoad approaching the Murray Street intersection is proposed to contain embedded railroad ties in the trail surface acting as a detectable warning, as well as interpreting the historic past of the railroad. This would be a standard treatment for all intersection approaches and function as a visual and sensory cue for increased trail safety at all at-grade roadway crossings. Pavement treatments on the Murray Street sidewalk within the TrailRoad Corridor, and the crosswalk crossing Murray Street should be enhanced with highly visible materials to signal to approaching trail users and vehicles of the intersection. At the intersection, TrailRoad crossing signs, evoking the feeling of railroad crossing signals, are proposed to be incorporated into the intersection treatment to act as another visual cue of the crossing in conjunction with the traditional MUTCD trail

crossing signage. The TrailRoad crossing signs would also act as traffic calmers and as an identifying branding feature for the trail.

At the intersection, informational kiosks, benches, plantings, and railroad tie - zig zag fencing should be incorporated to help define the intersection crossings and to give the TrailRoad corridor an identity.

On the west side of the Murray Street intersection there is the opportunity for approximately three trailhead parking spaces.

Murray Street to Child Street

From Murray Street to Child Street there are two potential TrailRoad alternatives. Currently the properties at 190 and 160 Murray Street encroach into the rail corridor. The proposed TrailRoad design as illustrated in Figure 10 depicts the trail configuration if the city chooses to accommodate the existing parking and service activities for 190 and 160 Murray Street that currently encroach into the corridor. The asphalt trail could be narrowed to 8' in width with 3-1/2' clear shoulders on either side. Starting at the Murray Street sidewalk for approximately 90' to the east, the TrailRoad could be located in between the 190 Murray Street service area to the north and the single parking spot adjacent to 160 Murray Street to the south. After passing the 160 Murray Street parking, the trail could curve to the south and hug the southern edge of the ROW for approximately 230'. The northern edge of the trail would be lined with a 6' chain link fence to prevent access to 190 Murray Street and the southern edge of the corridor should be defined with the zig zag fence.

Figure 10 also depicts a design alternative which uses the entire width of the former railroad corridor for the potential trail and trail amenities. This alternative would impact the activities conducted by the business at 190 Murray Street who are currently encroaching onto the former railroad corridor. This alternative plan shows a 12' wide asphalt trail, meandering in a serpentine alignment from Murray Street to Child Street.

Heading further east, the corridor widens and the TrailRoad transitions back to a 12' wide asphalt

trail, meandering in a serpentine alignment to Child Street. Adjacent to the trail, turf areas are proposed to be maintained to provide a clean edge and open views to and from, while providing lawn areas for recreational opportunities. Portions of the ROW edges are proposed to contain naturalized areas with wildflowers or phytoremediation plants such as sunflowers to reduce mowing maintenance and to aid in rehabilitating potentially contaminated soils. This segment of the corridor should also contain informational / wayfinding kiosks, benches, and embedded railroad ties in both the TrailRoad pavement and in the turf areas to playfully interpret the historic alignment of the railroad line.

Within this segment there is potential for additional mid-block access to the TrailRoad. To the south, access could be provided where Lorraine Place intersects Brayer Street through the vacant / underutilized property at 529 Child Street. This access would require an easement from the private landowner. During discussions with the owner, access from the north could be provided from the parking lot behind 71 Texas Street. Access to the trail from the parking lot is proposed to be limited to the property owners of 190 Murray Street to provide access to the TrailRoad for existing daycare facilities located on the site.

Child Street Intersection

The TrailRoad approaching the Child Street intersection, (Figure 12), is proposed to contain embedded railroad ties in the pavement acting as a detectable warning, giving trail users advance notice of the Child Street intersection. Pavement treatments on the Child Street sidewalk within the TrailRoad Corridor and the crosswalk crossing Child Street should be enhanced with high-visible materials to signal to approaching trail users and vehicles of the intersection. At the intersection, TrailRoad crossing signs, evoking the feeling of railroad crossing signals, are proposed to be incorporated into the intersection treatment to act as another visual cue of the crossing in conjunction with the traditional MUTCD trail crossing signage. The TrailRoad crossing signs also act as an identifying branding feature for the trail.

At the intersection, informational kiosks, benches, plantings, and railroad-tie stack rail or zig zag fencing

should be incorporated to help define the intersection crossings and to give the TrailRoad corridor an identity.

On the west side of the Child Street intersection there is the opportunity for approximately two trailhead parking spaces.

Child Street to Whitney Street

The segment of the corridor from Child Street to Whitney Street, Figure 12, is the widest and is centrally located on the TrailRoad providing a potential destination or ‘Trail Yard’ for a variety of activities to take place.

The creation of the Trail Yard could be an opportunity for the community to get involved and take pride in the trail, much like Conkey Corner Park was for the El Camino Trail, a north/south trail located on an abandoned railroad corridor on the east side of the Genesee River. The Trail Yard segment of the TrailRoad would include a 12’ wide asphalt Multi-use trail located in a linear alignment on the southern edge of the ROW. Placing the trail at the edge of the ROW leaves larger open areas to locate elements such as:

- **Natural Play Area** - This natural play area could contain rolling hills and objects such as boulders and logs or railroad ties for children to climb on;
- **Train Platform** - This feature could be incorporated in the play area for children to put on impromptu performances and to also interpret the corridor’s railroad history;
- **Community Gardens** - Community gardens could be located in this area to get the neighborhood involved and to create a sense of ownership on the trail;
- **Orchard** - A small orchard to provide fruit and to interpret the corridor could be located in the Trail Yard; and
- **Loop Path** - A loop path through the Trail Yard could provide a running loop for small children and a walking loop for adults.

A majority of the Trail Yard segment is designed to be maintained turf to accommodate recreational activities, festivals, and outdoor markets. Small portions of the corridor edges could contain naturalized areas with wildflowers or phytoremediation plantings such as sunflowers to reduce mowing maintenance and to aid in rehabilitating potentially contaminated soils. In conjunction with the property owner, the long linear building on the southern edge of the corridor could provide a canvas for community art to be created and displayed.

This segment of the corridor is proposed to contain informational / wayfinding kiosks, benches, and embedded railroad ties in the TrailRoad pavement to interpret the historic alignment of the railroad line.

Whitney Street Intersection

The TrailRoad approaching the Whitney Street intersection, is proposed to contain embedded railroad ties in the pavement acting as a detectable warning, giving trail users advance notice of the Whitney Street intersection. Pavement treatments on the Whitney Street sidewalk within the TrailRoad Corridor and the crosswalk crossing Whitney Street should be enhanced with high-visible materials to signal to trail users and vehicles of the intersection. At the intersection, TrailRoad crossing signs, evoking the feeling of railroad crossing signals, are proposed to be incorporated into the intersection treatment to act as another visual cue of the crossing in conjunction with the traditional MUTCD trail crossing signage. The TrailRoad crossing signs could also act

Conkey Corner Park (El Camino)

Conkey Corner Park is a pocket playground park in the heart of Rochester. This park is a gateway, destination, and neighborhood hub on the El Camino Trail.

The Trail Yard, for the Rochester TrailRoad, can learn from the success of the Conkey Corner Park to create a central destination and gathering hub for the TrailRoad and surrounding neighborhood.



Typical Rochester TrailRoad intersection treatment.

At the intersection, informational kiosks, benches, plantings, and railroad-tie zig zag fencing should be incorporated to help define the intersection crossings and to give the TrailRoad corridor an identity.

On the west side of the Whitney Street intersection there is the opportunity for approximately three trailhead parking spaces

Whitney Street to Orchard Street

From Whitney Street to Orchard Street, Figure 12, a 12' wide asphalt multi-use trail is proposed to be located in a linear alignment through the corridor. Adjacent to the trail, turf areas should be maintained to provide a clean edge and open views to and from the trail. This segment of the corridor is the narrowest and is also adjacent to the Orchard / Whitney site. There is potential to better integrate the trail and its features into future development that may occur on the site.

This segment of the corridor should also contain informational / wayfinding kiosks, benches, and embedded railroad ties in the TrailRoad pavement to interpret the historic alignment of the railroad line.

Orchard Street to Broad Street

This segment of the TrailRoad from Orchard Street to Broad Street, Figures 12 and 13, is elevated on top of the railroad embankment. Existing understory vegetation, scrub growth, and invasive species are proposed to be removed and the remaining trees limbed up to 8' to open views to and from this segment of the corridor, not only for safety but for scenic views of Kodak Tower and Downtown Rochester. A 12' wide asphalt multi-use trail is proposed to be located in a linear alignment on the former railroad bridge over Orchard Street and through this corridor segment on top of the embankment.

Modifications to the Orchard Street bridge to support trail use would include; constructing the 10' wide standard trail asphalt surface over the bridge, adding new steel railings across the bridge and on the approaches, adding 8 ft high "missile" protection fencing (could be combined with the railings), localized spot painting and steel repairs at areas of significant corrosion and localized concrete repairs to both abutments. Additional work should include pressure washing of the bridge, filling in the erosion hole on the southeast approach, and removal of the



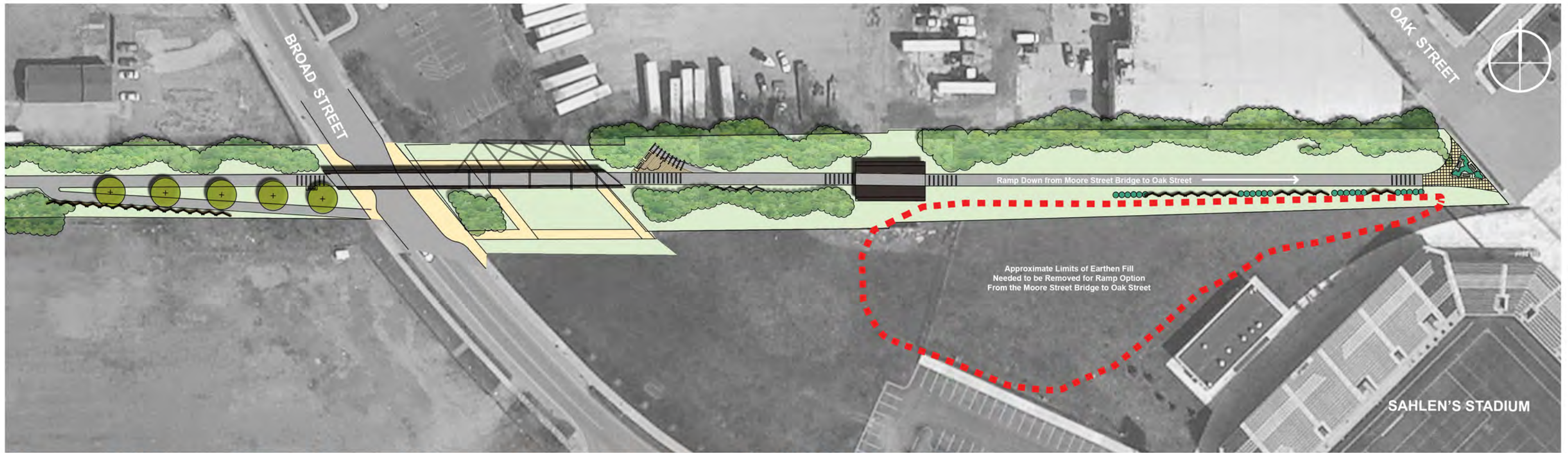
LEGEND

- 1. Child Street Intersection Treatment
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement and Grass
- 4. Proposed Trees
- 5. Sunflower / Wildflower Area
- 6. Mowed Turf
- 7. Natural Play Area
- 8. Fruit Trees "Orchard"
- 9. Community Garden Raised Planters
- 10. Whitney Street Intersection Treatment
- 11. Potential Connection to Orchard / Whitney Site
- 12. Orchard Street Railroad Bridge Rehabilitation
- 13. Trailhead Parking

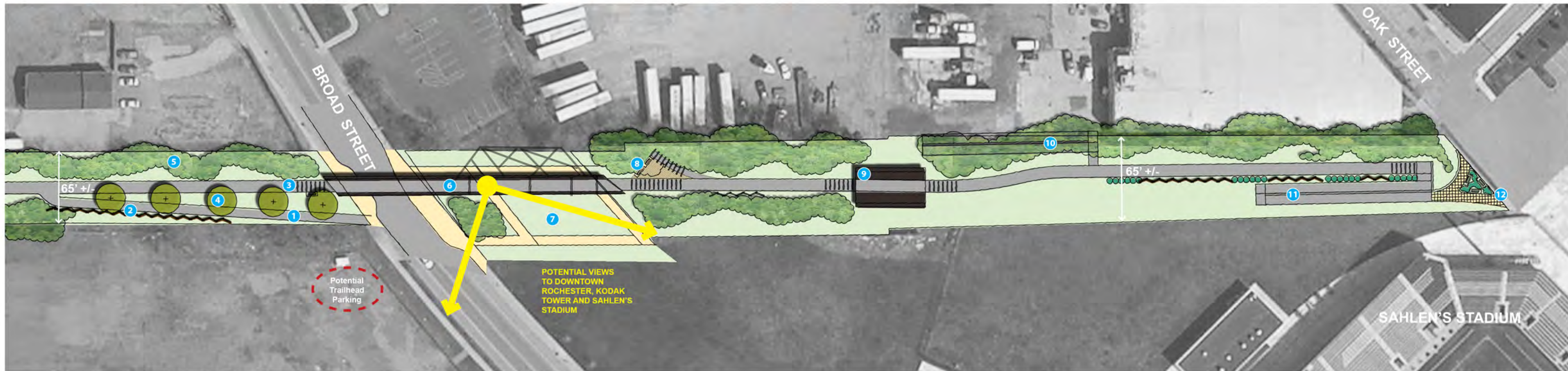


Child Street to Orchard Street

FIGURE 12



Ramp Alternative from Moore Street Bridge to Oak Street



LEGEND

- | | |
|---|---|
| 1. Pedestrian Connection from Broad Street | 7. Potential Plaza / Gathering Space Under Railroad Bridge |
| 2. Zigzag Fence | 8. Viewing Platform and Interpretive Area at Location of Rail Spur Remnants |
| 3. Railroad Ties Embedded in Pavement and Grass | 9. Moore Street Railroad Bridge Rehabilitation |
| 4. Proposed Trees | 10. Potential Connection to Future Development |
| 5. Existing Trees to Remain and Pruned | 11. Pedestrian Connection to Oak Street / Sahlen's Stadium |
| 6. Broad Street Railroad Bridge Rehabilitation | 12. Entry Plaza / Trailhead |

two large trees immediately behind the abutments. During the rail corridor abandonment process, CSXT may remove the existing rails, ties and ballast. If the rails and ties remain, they will have to be disposed of as part of this project. If the ballast is removed down to the deck plates, additional subbase material will need to be added beneath the asphalt trail surface to bring the trail up to finished grade. Full removal of the Orchard Street Bridge as an alternative to rehabilitation is discussed in the “Next Steps” section of this report.

Adjacent to the trail, turf areas should be maintained at a minimum 2’ width to provide a clean edge to the trail and railroad-tie zig zag fence provided at the top of the embankment for safety. An ADA accessible path no greater than 5% slope is proposed to be provided on the southern embankment between the TrailRoad and the existing stadium overflow parking lot for direct trail access from Broad Street.

This segment of the corridor should also contain informational / wayfinding kiosks, benches, and embedded railroad ties in the TrailRoad pavement to interpret the historic alignment of the railroad line. Existing railroad stops and other unique items located in the corridor related to the railroad, if to remain, provide an opportunity to interpret the railroad history and provide the potential reuse of these items in a new creative way along the TrailRoad.

Broad Street to Oak Street

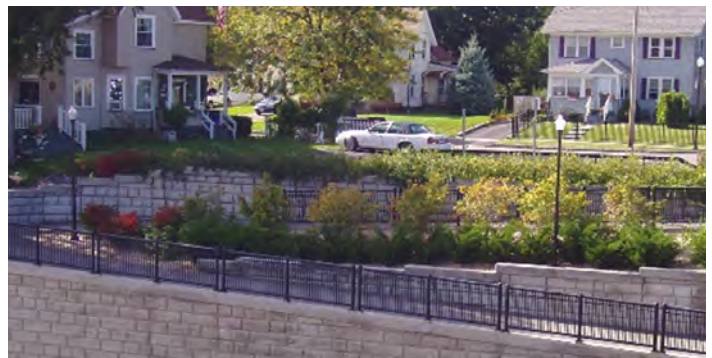
From Broad Street to Oak Street, Figure 13, a 10’ wide multi-use trail is proposed to cross over the former railroad bridges over Broad Street and the former Erie Canal bed and head west along the top of the railroad embankment.

Modifications to the Broad Street Bridge Spans 1 through 3 to support trail use would include; constructing the 10’ wide standard trail asphalt surface over the bridge, adding new steel railings across the bridge and on the approaches, adding 8 ft high “missile” protection fencing on the span over the roadway (could be combined with the railings), localized spot painting and steel repairs at areas of significant corrosion on the girders and piers and localized concrete repairs to both abutments. Additional work should include pressure washing

of the bridge and general vegetation removal on the bridge. During the rail corridor abandonment process, CSXT may remove the existing rails, ties and ballast. If the rails and ties remain, they will have to be disposed of as part of this project. If the ballast is removed down to the deck plates, additional subbase material will need to be added beneath the asphalt trail surface to bring the trail up to finished grade. Full removal of the Broad Street Bridge, Spans 1-3 as an alternative to rehabilitation is discussed in the “Next Steps” section of this report.

Spans 4 and 5 of the Broad Street Bridge over the former Erie Canal Bed currently feature rails and timber ties supported directly on the steel framing. Modifications to these spans to support trail use would include; constructing a 10’ wide reinforced concrete deck to carry the trail section across the bridge spans, adding new steel railings across the bridge and on the approaches, localized spot painting and steel repairs at areas of significant corrosion on the girders and truss members and localized concrete repairs to pier 3 and the abutment. Additional work should include pressure washing of the bridge and general vegetation and tree canopy removal on and around the bridge. During the rail corridor abandonment process, CSXT may remove the existing rails and ties. If the rails and ties remain, they will have to be disposed of as part of this project. A concrete deck with steel railings are recommended in lieu of a timber deck and railings due to concerns over vandalism and arson.

Existing understory vegetation, scrub growth, and invasive species should be removed and the remaining trees limbed up to 8’ to open views to and from the TrailRoad. Existing chain link fence immediately adjacent to former railroad tracks should be relocated further down the embankment to open up the corridor and reduce the sense of enclosure.



Example switchback style ramp for the Oak Street end of the TrailRoad.

Adjacent to the trail, turf areas should be maintained at a minimum 2' width to provide a clean edge to the trail and zig zag fence provided at the top of the embankment for safety.

The fence or railing provided on the bridge over Broad Street creates an opportunity for the addition of artistic or TrailRoad branding elements such as banners, logos on the bridges, and decorative fence treatments. The former railroad bridges could be illuminated with decorative lighting to accent these historic railroad / canal elements. Modifications to the Moore Street Bridge to support trail use would include; constructing the 10' wide standard trail asphalt surface over the bridge, adding new steel railings across the bridge and on the approaches, localized spot painting and steel repairs to the girders and piers at areas of significant corrosion and localized concrete repairs to both abutments. Additional work should include pressure washing of the bridge and general vegetation clearing and grubbing on and below the bridge. During the rail corridor abandonment process, CSXT may remove the existing rails, ties and ballast. If the rails and ties remain, they will have to be disposed of as part of this project. If the ballast is removed down to the deck plates, additional subbase material will need to be added beneath the asphalt trail surface to bring the trail up to finished grade. Full removal of the

Moore Street Bridge to Oak Street Alternative

An alternative to gradually grade the TrailRoad down from the Moore Street bridge to Oak Street, thus eliminating the need for a switchback ramp was explored (Figure 13). However the trail would be depressed into the landscape between the existing building to the north of the corridor and the large earthen land form just south of the corridor at Sahlen's Soccer Stadium. This would create a secluded and hidden portion of the trail potentially making the trail feel less safe. This option could be more desirable if the earthen land form was regraded to expose the trail increasing visibility and perception of safety. However, since the environmental condition of the soil is unknown and due to the large quantity of soil to be removed, this option could be cost prohibitive. Further study is needed into the existing environmental conditions of the soil to determine the viability of this option.

Moore Street Bridge as an alternative to rehabilitation is discussed in the "Next Steps" section of this report.

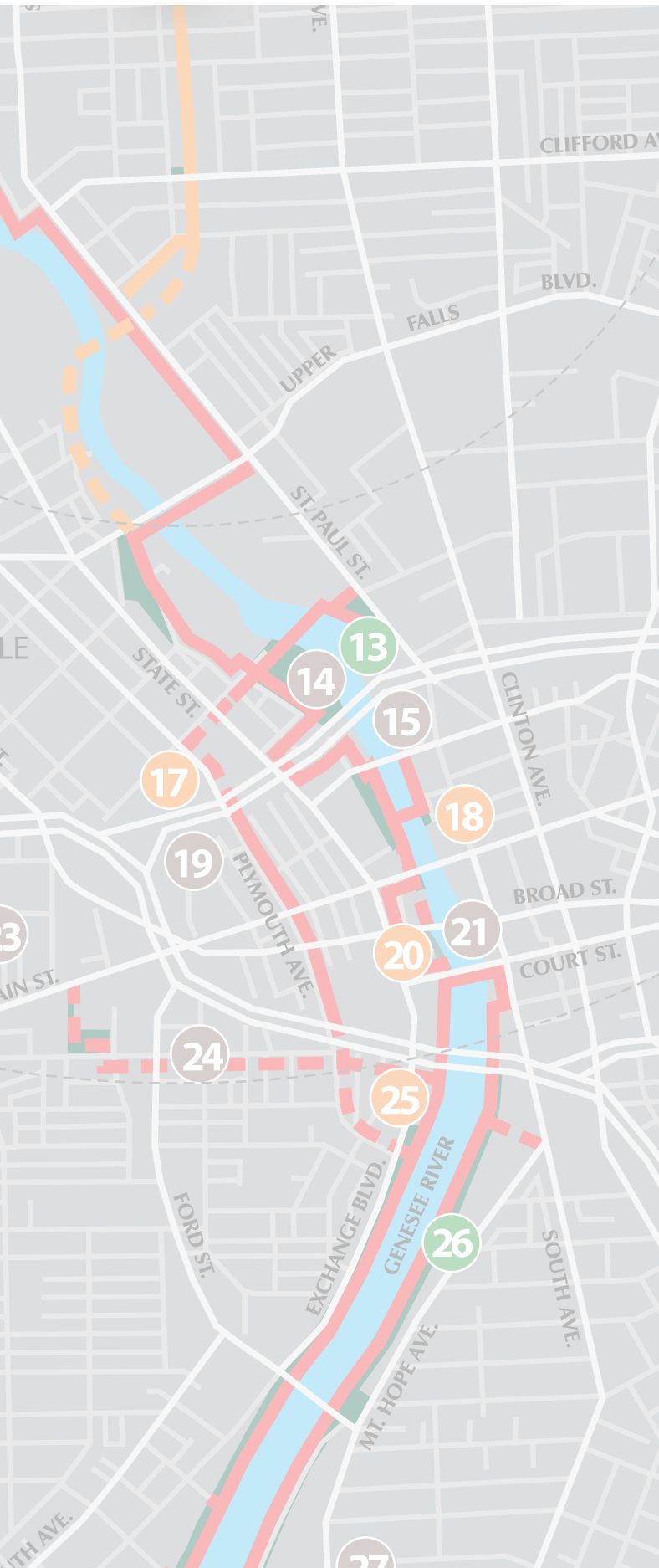
The property under the railroad bridge over the former Erie Canal bed is a potential location for trail-supported festivals and outdoor markets. The land under the bridge is currently owned by OTB and would require an easement if incorporated as part of the trail system. Potential connections to the elevated TrailRoad could be achieved in this location with stairs.

East of the bridge over the former Erie Canal bed exists concrete pier remnants from a former rail spur that veered to the north. These pier remnants create the opportunity for a viewing platform or interpretive area containing wayfinding / informational kiosks and benches.

At the Oak Street end of this TrailRoad segment is a steep drop off. A switchback style ramp system would need to be incorporated into the embankment on the southern side of the corridor near the stadium to reach roadway level. At the bottom of the ramp could be a trailhead containing an information/ wayfinding kiosk, benches and ornamental plantings. The fence currently at the entrance to the stadium parking lot would need to be reconfigured to allow pedestrian access to and from the Oak Street trailhead.



Chain link fence decorative treatment.



Linkages

The Rochester TrailRoad would be the only trail running east/west within downtown Rochester, creating a potential link to the greater Rochester regional trail network. The TrailRoad would also create an alternative mode of transportation for neighborhood and city residents to access key destinations in the surrounding neighborhood. Connections to the greater trail network and to neighborhood destinations will impact the usability and success of the Rochester TrailRoad.

Regional Trail Connections

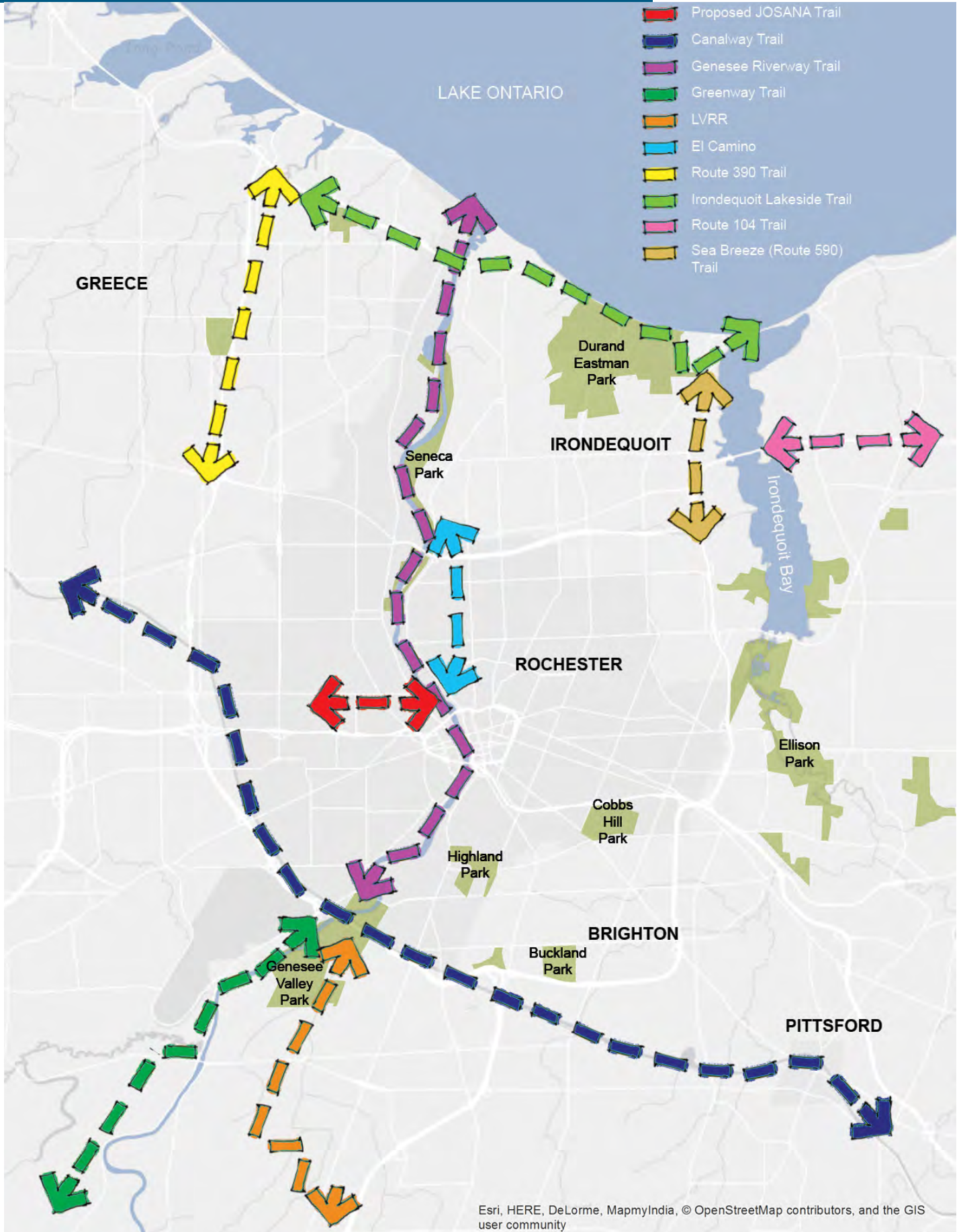
The Rochester TrailRoad has the potential to connect to two major trail systems, the Genesee Riverway Trail to the east and the Canalway Trail to the west. These connections can be achieved with a series of existing and proposed on-road and off-road trail facilities. Providing these connections will further enhance the alternative transportation network in the greater Rochester area.

Connecting to the Genesee Riverway Trail

There are several options for connecting the Rochester TrailRoad to the Genesee Riverway Trail. These options, illustrated in Figure 14, are as follows:

Option 1

This connection commences at the proposed trailhead at the terminus of the Rochester TrailRoad at Oak Street / Sahlen's Stadium. Trail users would head north on Oak Street towards Lyell Avenue with pedestrians using existing sidewalks and bicyclists sharing the road. Oak Street would be re-striped to accommodate either a bike lane or sharrow bike facility. At Lyell Avenue, trail users would head east on Lyell Avenue towards Lake Ave with pedestrians using existing sidewalks and bicyclists using the existing bike lanes. Trail users would cross at the Lyell Ave / Lake Ave signalized intersection to the south side of Smith Street. At Smith Street, trail users would then connect to the existing Genesee Riverway Trail.



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Greater Rochester Regional Trail Map

This route also provides the opportunity to connect to the proposed Bike Boulevard at North Plymouth Avenue and the bicycle / trail network north of downtown.

Option 2

This connection begins at the proposed trailhead at the terminus of the Rochester TrailRoad at Oak Street / Sahlen's Stadium. The trail would continue northeast on Lind Street with pedestrians using existing sidewalks and bicyclists sharing the road. Lind Street would be re-stripped to accommodate either a bike lane or sharrow bike facility. Approximately 100' before Saratoga Avenue the trail would head southeast on a 12' multi-use trail off-road segment located between the rear yards of homes on Saratoga Avenue and the Sahlen's Stadium parking lot. The existing fence would need to be relocated to the parking lot edge to allow for the trail. The multi-use trail would continue southeast, cross Smith Street, connect to the existing trail located at Verona Street Playground, and continue heading southeast to Jay Street. The trail would then cross Jay Street and connect to the existing sidewalk network in Brown Square Park and continue southeast to Brown Street. At Brown Street, pedestrian trail users would head northeast on Brown Street using existing sidewalks, connecting to the existing Genesee Riverway Trail at Falls Street.

Another potential option for pedestrian trail users would be to head southeast from Brown Square Park on Verona Street using existing sidewalks towards Platt Street and Frontier Field. At Platt Street pedestrian trail users could then head northeast on Platt Street crossing North Plymouth Avenue, State Street, and Mill Street and connect to the High Falls Historic District, The Pont de Rennes, and the existing Genesee Riverway Trail.

Due to one-way traffic bicyclists would head southwest on Brown Street, southeast on Oak Street, then northeast on Morrie Silver Way using re-stripped roads to accommodate either a bike lane or sharrow bike facility and continue northeast connection to Frontier Field, the Historic High Falls District, the Pont de Rennes, and the existing Genesee Riverway Trail. Connection to the Genesee Riverway Trail could also be achieved with the use of a contraflow

bike lane on Brown Street. Bicyclists heading to the Rochester TrailRoad from the Genesee Riverway Trail could head southeast on Brown Street using re-stripped roads to accommodate either a bike lane or sharrow bike facility to Brown Square Park. At Brown Square Park bicyclists would use the off-road trail network describe above to Oak Street and the Rochester TrailRoad trailhead.

This option also provides the opportunity to connect to the proposed Bike Boulevard at Smith Street and the bicycle / trail network north of downtown.

Connecting to the Canalway Trail

Connecting to the Canalway Trail from the Rochester TrailRoad can be achieved with on-road connections. Starting at the western terminus of the Rochester TrailRoad at Hague Street, trail users would head north on Hague Street to Lyell Avenue with pedestrians using the existing sidewalks and bicyclist sharing the road. Hague Street would need to be re-stripped to accommodate either a bike lane or sharrow bike facility. At Lyell Avenue, pedestrian trail users would continue west using existing sidewalks to the Canalway Trail connection just east of NYS Route 390. Bicyclists would continue west on Lyell Avenue using existing bike lanes until Glide Street. Starting at Glide Street until reaching the Canalway Trail east of NYS Route 390, Lyell Avenue would need to be re-stripped to accommodate either a bike lane or sharrow bike facility.

Local Destination Connections

The Rochester TrailRoad not only provides a connection to the greater Rochester trail network, it also provides the opportunity to connect to key neighborhood destinations and potential trail generators. Wayfinding to and from the TrailRoad and the local destinations could be achieved using several different methods of trail identification. These methods include banners on light poles, sidewalk engravings, and embedded sidewalk medallions displaying the Rochester TrailRoad logo and directional arrows. These items not only provide wayfinding directions but also act as a trail identifier in the neighborhood.

JR Wilson Park

Connecting to JR Wilson Park from the Rochester TrailRoad can be achieved with on-road connections. Starting at the western terminus of the Rochester TrailRoad at Hague Street, trail users would head north on Hague Street, cross Lyell Avenue, and continue heading north on Rutter Street with pedestrians using the existing sidewalks and bicyclists sharing the road until reaching JR Wilson Park. Hague Street and Rutter Street would need to be re-striped to accommodate either a bike lane or sharrow bike facility.

Rochester Prep School

Connecting to the Rochester Prep School from the Rochester TrailRoad can be achieved with on-road connections. Starting at the western terminus of the Rochester TrailRoad at Hague Street, trail users would head south on Hague Street to Masseth Street, head west on Masseth Street to Lisbon Street, then south on Lisbon Street to Jay street with pedestrians using the existing sidewalks and bicyclists sharing the road until reaching the Rochester Prep School. Hague Street, Masseth Street and Lisbon Streets would need to be re-striped to accommodate either a bike lane or sharrow bike facility.

Connecting to the Rochester Prep School can also be achieved by connecting to the proposed bike boulevard from the TrailRoad at Murray Street. Trail users would head south on Murray Street to Masseth Street, head west on Masseth Street to Lisbon Street, then south on Lisbon Street to Jay Street with pedestrians using the existing sidewalks and bicyclists sharing the road until reaching the Rochester Prep School. Masseth Street and Lisbon Street would need to be re-striped to accommodate either a bike lane or a sharrow bike facility.

Campbell Street Community Center

Connecting to the Campbell Street Community Center can be achieved by connecting to the proposed bike boulevard from the TrailRoad at Murray Street and heading south on Murray Street to

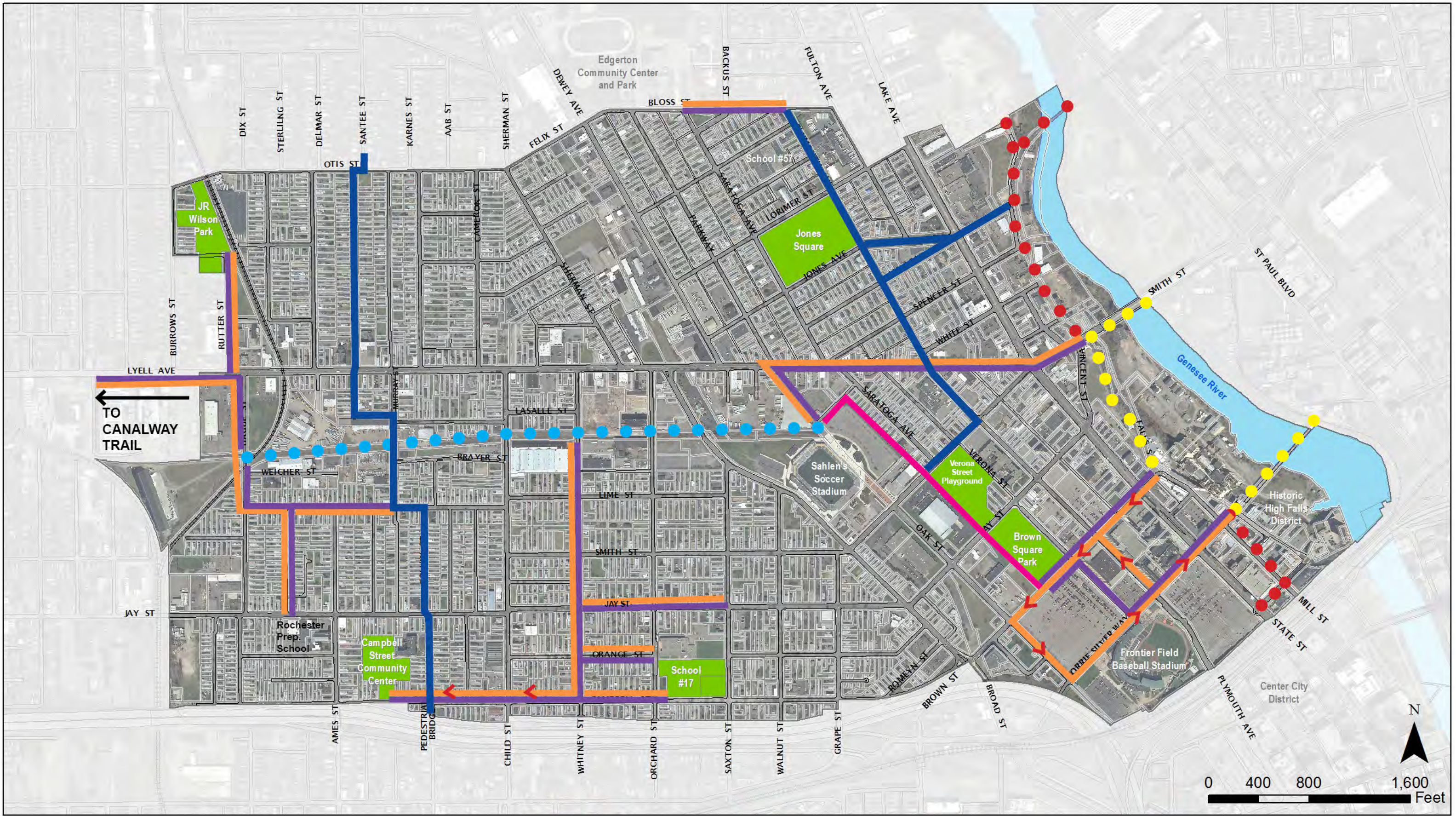
Masseth Street, east on Masseth Street then south on Colvin Street to Campbell Street. At Campbell Street trail users would head west on Campbell Street to the Campbell Street Community Center with pedestrians using the existing sidewalks and bicyclists sharing the road. Campbell Street would need to be re-striped to accommodate either a bike lane or a sharrow bike facility.

Charles Settlement House and School #17

Connecting to the Charles Settlement House and School #17 from the TrailRoad can be achieved with on-road connections. Starting at the intersection of the TrailRoad and Whitney Street, trail users would head south on Whitney street to Jay Street then east on Jay Street to the Charles Settlement House. To reach School #17, trail users would continue heading south to Orange Street or Campbell Street. At orange Street or Campbell Street, trail users would head east and connect to School #17. For these connections pedestrians would use existing sidewalks and bicyclists would share the road. Whitney Street, Jay Street, Orange Street



A consistent Rochester TrailRoad logo could be developed and placed on trail signage and promotional materials. The logo could be used on banners, sidewalk engravings, and embedded sidewalk medallions as illustrated above. These elements can be used to identify the trail and also act as a wayfinding feature to and from the Rochester TrailRoad.



- Proposed JOSANA Trail
- Existing Genesee Riverway Trail
- Parcels
- Proposed Trail Connections
- Pedestrians on Sidewalk
- ++++ Railroads
- Bicycles Share the Road
- ← Bicycles Share the Road ONE WAY
- Off-Road Multi-Use Trail
- Proposed Bike Boulevard Route

Detailed Connections

FIGURE 14

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and Campbell Street would need to be re-striped to accommodate either a bike lane or a sharrow bike facility.

From the Charles Settlement House and School #17 there is opportunity for trail users to connect to the Campbell Street Community Center by way of pedestrians using existing sidewalks and bicyclists sharing the road heading east on Campbell Street to the Community Center. Campbell Street would need to be re-striped to accommodate either a bike lane or a sharrow bike facility.

Sahlen's Soccer Stadium, School #5, Brown Square Park, Frontier Field, and the Historic High Falls District.

Connecting to Sahlen's Soccer Stadium, School #5, Brown Square Park, Frontier Field and the Historic High Fall District can be achieved using the same off-road and on-road trail options as discussed in the previous section describing Option 2, connecting from the terminus of the Rochester TrailRoad at Oak Street to the Genesee Riverway Trail.

Jones Square, School #57, and Edgerton Community Center and Park.

Connecting to Jones Square Park, School #57 and Edgerton Community Center and Park can be achieved with a series of on-road connections. Starting at the terminus of the Rochester TrailRoad at Oak Street, Trail users would follow the same on-road trail options as discussed in the previous section describing Option 1, connection from the terminus of the Rochester TrailRoad at Oak Street to the Genesee Riverway Trail by way of Lyell Avenue. At Lyell Avenue and North Plymouth Avenue, trail users would head north on Plymouth Avenue by way of the proposed bike boulevard, pedestrians using existing sidewalks and bicyclists sharing the road, creating a direct connection to Jones Square and School #57. Connecting to the Edgerton Community Center can be achieved by trail users heading west on Bloss Street with pedestrians using the sidewalk and bicyclists sharing the road. Bloss Street would need to be re-striped to accommodate either a bike lane or a sharrow bike facility.

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Implementation

To facilitate implementation of the Rochester Trailroad an opinion of probable cost was created, possible funding sources identified, and critical next steps established.

Opinion of Probable Cost by Phase

The following opinion of probable cost is presented for planning purposes, to allow the City of Rochester to gauge the approximate costs for implementing the TrailRoad design described in this study. The opinion of probable cost is presented in phases for ease of manageability for seeking potential funding sources. A detailed breakdown of the opinion of probable cost can be found in Appendix D. This estimate is organized by TrailRoad segment items color coded to identify which phase it falls within.

The actual design of the trail may change once the project reaches the design stage and construction costs are subject to change over time. Dollar figures included are from 2015; escalation due to inflation or other factors is not included.

Phase 1 - Base Trail Construction

Phase 1 includes the site preparation (clearing and grubbing, tree removal and pruning) as well as the installation of a 12' wide asphalt trail, topsoil and seeding, intersection enhancements, MUTCD regulatory signage and the conversion of the former railroad bridges for the trail. This phase is the base trail design and does not include any special trail amenities such as benches, wayfinding and interpretive kiosks, zig zag fencing, etc.

Phase 2 - Trail Amenities

Phase 2 includes the installation of the custom trail amenities such as benches, wayfinding and interpretive kiosks, zig zag fencing, TrailRoad crossing signage and tree and shrub plantings.

Phase 3 - Natural Play Area

Phase 3 includes the installation of a natural play area in the Trail Yard segment of the TrailRoad between Child Street and Whitney Street.

Phase 4 - Community Gardens

Phase 4 includes the installation of a community garden area in the Trail Yard segment of the TrailRoad between Child Street and Whitney Street.

Phase 5 - Broad Street Bridge Lighting and Signage

Phase 5 includes the installation of decorative lighting, banner signs, and gateway signage on the face of the Broad Street Bridge.

Phase 6 - Skateboard Park

Phase 6 includes the installation of a skateboard park in the Hague Street to Murray Street segment of the TrailRoad.

Opinion of Probable Costs

Below are the simplified costs for each phase of the project rounded up to the nearest whole number. These include all soft costs such as, mobilization, basic work zone protection, survey operations, erosion and sediment control, design, inspection, incidentals and contingency. A detailed opinion of probable costs can be found in Appendix D.

Phase 1 -	\$2,585,000 +/-
Phase 2 -	\$1,500,900 +/-
Phase 3 -	\$587,000 +/-
Phase 4 -	\$48,200 +/-
Phase 5 -	\$130,000 +/-
Phase 6 -	\$222,000 +/-

GRAND TOTAL: \$5,073,100 +/-

Funding

There are numerous opportunities for implementation funding for trail initiatives. Due to the costs associated with full development, it is likely that the Rochester TrailRoad will need funding from multiple sources at the federal, state, local, and private levels. The implementation of the trail on a segment specific basis or utilizing another phased approach (beginning with basic alignment and bridge rehab) will likely be required to spread out the overall costs. A small amount of local or private funding, in conjunction with volunteerism and donated time and materials, can leverage state and federal funding to make the Rochester TrailRoad a reality. This section provides an overview of the potential funding sources for development of the Rochester TrailRoad.

Federal Sources

The Federal Government provides funds for transportation projects through various funding programs contained within multi-year federal transportation legislation, with the current appropriations bill referred to as MAP-21, or Moving Ahead for Progress in the 21st Century. A number of specific programs are authorized under MAP-21 which, as of this writing, has been extended through May 31, 2015.

All federal funds for transportation projects in Rochester's seven-county region are allocated through the Genesee Transportation Council (GTC), the area's Metropolitan Planning Organization (MPO). By law, funded projects must be selected for inclusion through the Transportation Improvement Program (TIP) process and must conform to the MPO's Long Range Transportation Plan (LRTP). In general, regular amendments are made to the TIP to include projects of significant community need and to adjust for any changes in anticipated federal funding availability. The GTC 2014-2017 TIP was adopted on June 20, 2013 and last amended on March 12, 2015. The 2014-2017 TIP includes transportation projects funded with approximately \$330 million of federal aid, supplemented by other state and local sources of funds. This region's TIP is developed cooperatively by GTC and the New York State Department of Transportation (NYSDOT).

In the long term, it is expected that funding for multi-use trails will continue to be provided from the federal government, with the greatest emphasis on trails that provide a transportation purpose by connecting users with destinations and services. A greater use of alternative forms of transportation will lessen the demand on the existing transportation system, reduce expensive infrastructure investments, and promote more healthy living. Municipal officials and trail organizations should stay abreast of funding notifications and calls for projects from GTC and other potential federal, state, local and not-for-profit funders to ensure consideration in future funding programs should they choose to apply.

Although federal funding for specific programs, such as TAP, has been severely limited, federal surface transportation funding continues to provide flexibility for the funding of bicycle and pedestrian improvements from a wide variety of programs. Most of the major transportation funding programs can be used for bicycle and pedestrian-related projects.

Surface Transportation Program (STP)

The Surface Transportation Program is a primary core Federal-aid program within MAP-21 utilized for local highway and trail improvement projects. The STP provides flexible funding that may be used for a variety of projects through numerous sub-programs, including all project types eligible for funding under the Transportation Alternatives Program. STP funds would support the following activities associated with the Rochester TrailRoad Project:

- Installation of bicycle lanes on roadways
- Paving of roadway shoulders
- Installation of bicycle route signage
- Spot improvements along the trail
- Trail/highway intersection improvements
- New or retrofitted sidewalks
- Installation of new crosswalks and curb cuts
- Traffic signal improvements
- Traffic calming techniques

STP funding is commonly utilized for trail projects and should be investigated as a primary source of funding for the Rochester TrailRoad for on-road sections of the trail.

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with an overall purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads through the implementation of infrastructure-related highway safety improvements. HSIP funds would support the following activities associated with the Rochester TrailRoad:

- Installation of bicycle lanes on roadways
- Paving of roadway shoulders
- Spot improvements along the trail
- Trail/highway intersection improvements
- New or retrofitted sidewalks
- Installation of new crosswalks and curb cuts
- Traffic signal improvements
- Traffic calming techniques

HSIP funding is commonly utilized for trail projects and should be investigated as a secondary source of funding for the Rochester TrailRoad for on-road sections of the trail.

Recreational Trails (RT)

The Recreational Trails Program provides funding to construct and maintain recreational trails. Each state must establish a State Recreational Trails Advisory Committee that represents both motorized and non-motorized recreational trail users to distribute funds. Of funds distributed to a state, 30 percent must be used for motorized trails, 30 percent must be used for non-motorized trails, and the remaining 40 percent can be used for either type of trail. A typical RT award is \$50,000 to \$100,000. RT funds would support the following activities associated with the Rochester TrailRoad:

- Construction of a shared use path (off-road)
- Construction of a single lane hike/bike trail (off-road)
- Trail/highway intersection improvements

RT funding is commonly utilized for trail projects and should be investigated as a primary source of funding for the Rochester TrailRoad for off-road sections of the trail.

Transportation Alternatives Program (TAP)

The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards. TAP funding typically requires a 20 percent local match that may be cash or in-kind services.

Safe Routes to School (SRTS)

SRTS funds are now included under the TAP umbrella. The SRTS Program provides funding to enable and encourage children, including those with disabilities, to walk and bicycle to school; to make walking and bicycling to school safe and more appealing; and to facilitate the planning, development and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Similar to the Transportation Enhancements funding, SRTS funding is administered by the State; municipal officials and interested parties should remain in touch with GTC and their regional NYSDOT office for further funding opportunities. SRTS funding is sometimes utilized for trail projects and should be investigated as a secondary source of funding for the Rochester TrailRoad for those areas within the two-mile radius of schools.

State Sources

Consolidated Funding Application: Clean Air / Clean Water Bond Act and the Environmental Protection Fund

The 1996 Clean Air / Clean Water Bond Act approved \$1.75 billion in bond funding for environmental protection and enhancement projects, including projects that protect and enhance air quality, such as multi-use trails. The 1993 Environmental Protection Act approved the creation of the Environmental Protection Fund (EPF), which established a dedicated funding mechanism to provide critical funding for the Department of

Environmental Conservation, the Office of Parks, Recreation and Historic Preservation, and grants to local governments and non-profit organizations. Since 2011, EPF funding has been made available through the NYS Consolidated Funding Application Process (<https://apps.cio.ny.gov/apps/cfa/>), which consolidates funding applications for numerous state programs through a single, on-line system. Funding through the EPF for most communities requires a 50 percent local match and the project must be completed on publicly-controlled land.

State Multi-Modal Program

The State Multi-Modal Program provides funding for authorized port, airport and local highway and bridge projects. State Multi-Modal funds can be used to finance project costs for the construction, reconstruction, improvement, reconditioning and preservation of county, town, city and village roads, highways, parkways and bridges. All Multi-Modal projects must have a ten year “bondable” service life and must be for public transportation or freight transportation purposes. Multi-Modal funding cannot be used for the mandated share of a federally funded project, and funding is reimbursed after project completion. While trails are not an eligible project type, related improvements in a highway right-of-way, such as new sidewalks, paved shoulders, bicycle lanes, and traffic control/safety devices may be eligible for State Multi-Modal Program funding. These projects must have a primary public transportation objective and demonstrate a direct benefit to a local highway or street, and therefore would be limited to on-road components of the Rochester TrailRoad.

Local Sources

Limited federal and state funding opportunities for trail development have led many communities to allocate more local funding for these types of projects. The most common sources of funds at the municipal level include allocations from specific departments (e.g., public works or parks) or a line item in the City’s annual Capital Improvement Program (CIP). Local revenues for trail development have also been raised in some communities through property tax, sales tax, or bond measures.

Private and Community Foundations

Community foundations provide charitable contributions which may be a potential source of funding. They operate much like a private foundation, but their funds are derived from many donors rather than a single source. Community foundations are usually classified under the tax code as public charities and therefore are subject to different rules and regulations than those which govern private foundations. Private foundations with health oriented missions are also more receptive to supporting trails as a means of encouraging healthy lifestyles (e.g., the Robert Wood Johnson Foundation's). Private and community foundation grants focus largely on outreach and capacity building, building grass-roots support among local trail enthusiasts. In the case of the Rochester TrailRoad, private foundation funding could be utilized to build and organize a local organization to construct and maintain portions of the trail network, essentially functioning as seed money for local in-kind match services for larger state and federal funding opportunities.

Private Funding

Some trails have been partially or substantially developed utilizing private funds from private donations by individuals and businesses, corporate sponsorships, and various fundraising efforts. Examples of fundraising efforts range from trail-related events, merchandise sales, and even the sale of trail sections or trail amenities in exchange for advertisement rights (ex. benches, information kiosks, etc). An excellent New York State example of local private fundraising efforts is the Cayuga Waterfront Trail in Ithaca. A number of trails have been developed and maintained, particularly in the Rochester-Genesee-Finger Lakes Region, through the volunteer efforts of private individuals, Friends of the Trails groups, local civic organizations (Chamber of Commerce, Scout groups), and corporate volunteerism. Likewise, in some cases, specialized services (materials and equipment donation, trail construction work, trail design) have been donated by local businesses.

Next Steps

In order for the Rochester TrailRoad to become a reality, the following next steps will need to take place:

- **Secure Property** - The City of Rochester will need to continue negotiations with CSX in order to purchase the abandoned railroad corridor from Hague Street to Broad Street. The City will also need to purchase the portion of the corridor from Broad Street to Oak Street that was foreclosed upon which, at the time of this report, is currently being held by Monroe County. Complete ownership by the City of Rochester will be necessary for the success of the Rochester TrailRoad.
- **Further Bridge Evaluation** - It is recommended that the following issues which are beyond the scope of a feasibility report, be studied further prior to the final design phase of the project in regards to the railroad bridges:

1) Hazardous & Contaminated Materials

Screening - Potentially hazardous and contaminated materials including; lead paint, asbestos sheet packing and caulking, and contamination of the ballast by chemicals consistent with long term railroad use may exist at the bridge sites and throughout the project corridor. A comprehensive environmental screening should be conducted at the bridges and along the entire corridor.

2) Accident Analysis at Broad Street Span

2 - An accident analysis and coordination with MCDOT is recommended for Broad Street to understand how critical the non-standard horizontal clearance is beneath the bridge (see also items 3 and 4 below).

3) Evaluate Alternatives in Lieu of Bridge

Rehabilitation - The outlined rehabilitation work for these bridges will only address the most deteriorated areas and will not restore the bridges to "like new" condition. The bridges will continue to deteriorate over time requiring additional repair work and inspections. A possible alternative to rehabilitation is to fully replace the

superstructures at Orchard Street and Broad Street Spans 1 through 4 with new prefabricated truss bridges (along with new bearings and bridge seats) and to fully remove the Moore Street Bridge (superstructure, piers and abutments) and replace it with a trail on elevated embankment. Although the initial construction cost for such replacement alternatives may be incrementally higher, a bridge life-cycle cost analysis factoring in future maintenance may ultimately show long term cost saving benefits over rehabilitation. Although full removal of these bridges would result in a loss of “historic” resources, components from the existing bridges could be utilized as interpretive features along the trail should replacement be favored.

4) In-Depth Inspections – The basis for the bridge recommendations and cost was a cursory inspection. An in-depth inspection is recommended at the following areas to better quantify the repairs needed; Pier column bases at the Moore Street Bridge, impact damage and section loss at the Broad Street Piers 1 and 2 and the floor framings and lateral bracing at the Broad Street Span 5.

- **Environmental Investigations** - Further study into the existing environmental conditions of the corridor will need to take place. The results of the environmental investigations may determine what trail cross section can be constructed throughout the corridor and may determine the feasibility of trial alternatives such as the option to grade the corridor down from the Moore Street Bridge to Oak Street.
- **Secure Funding for Full Implementation** - The City of Rochester will need to seek out funding for the creation of construction documents and ultimately for the construction of the Rochester TrailRoad. Potential funding could come from a mix of public and private sources as described in the Funding section of this report.
- **Land Owner Outreach** - In order for the Rochester TrailRoad to be a success, the City of Rochester will need to remain in contact with adjacent landowners along the trail corridor. This will be an important part of the design process

especially on the western end of the abandoned railroad corridor from Hague Street to Murray Street. Encroachment onto the corridor has already occurred in this segment and current land owners have expressed interest in using the abandoned railroad corridor to create additional access to their properties. The needs of both the City of Rochester and the current landowners may not be achieved, but an open dialogue is necessary in order to come to a compromise that will benefit the landowners, the City of Rochester, and the Rochester TrailRoad.

- **Outreach to Neighborhood / Schools** - The City of Rochester should continue to reach out to the neighborhood and neighboring schools. Inclusion of the neighborhood and schools through interpretive projects and activity programming with the schools will insure the wants and needs by the community are heard and addressed. Also, inclusion of the neighborhood in the design process will help to create a sense of ownership of the trail by the community and will help the Rochester TrailRoad succeed.
- **Continued work with Charles Settlement House Neighborhood Association and Genesee Land Trust** - Maintain and build community engagement with a corridor cleanup or a pocket park / community garden area. These activities provide the opportunity to build community unity and support for the corridor redevelopment much like Conkey Corner Park did for the El Camino Trail project.

APPENDIX A



JOSANA Rail-To-Trail
Feasibility Study
MAP BOOK
DRAFT APRIL 2015

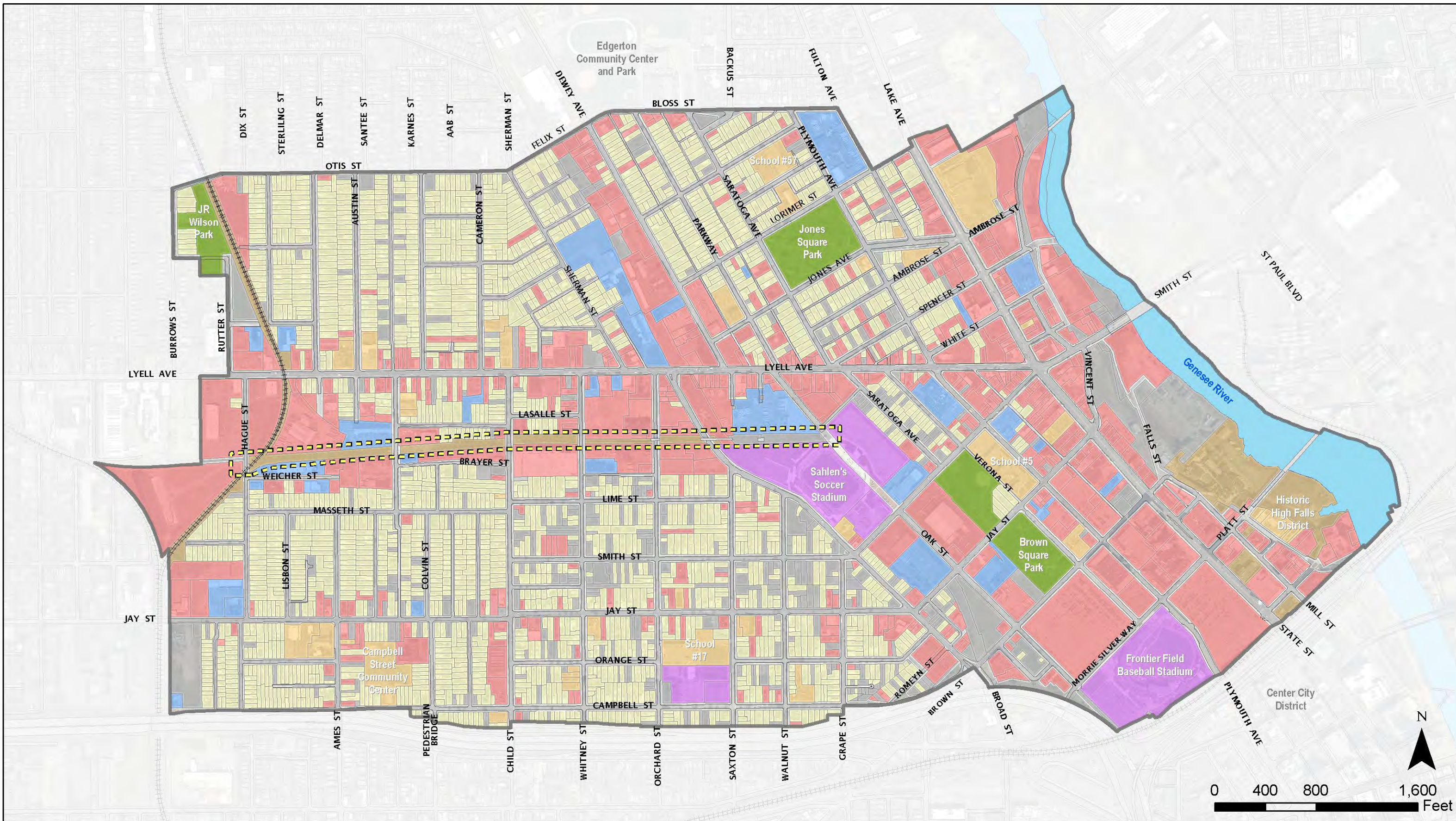
Prepared By Bergmann Associates and RAVI for
The City of Rochester and Genesee Regional Transportation Council





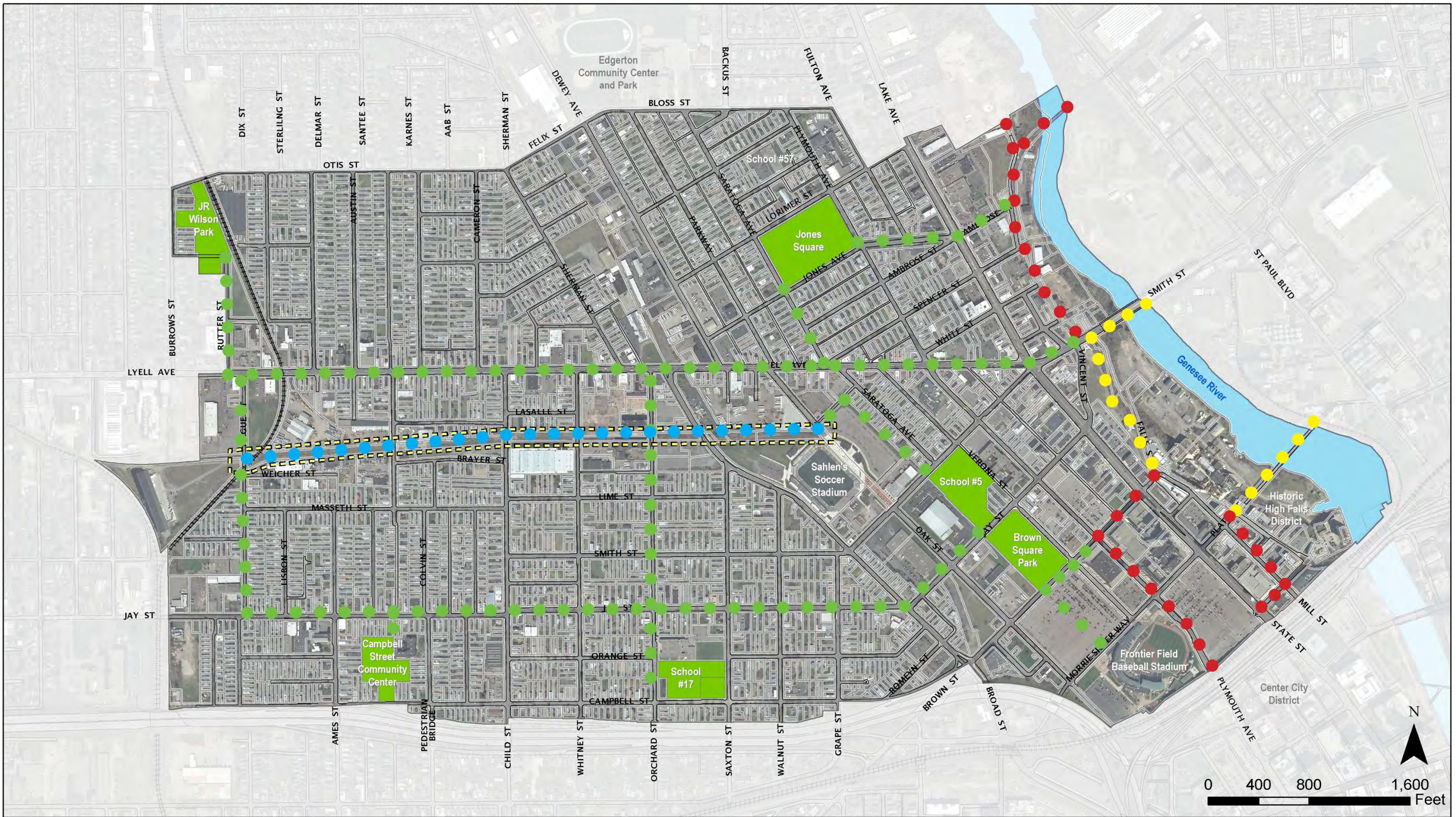
— Potential JOSANA Rail-to-Trail Corridor

Map 2 Proposed Rail-to-Trail Route



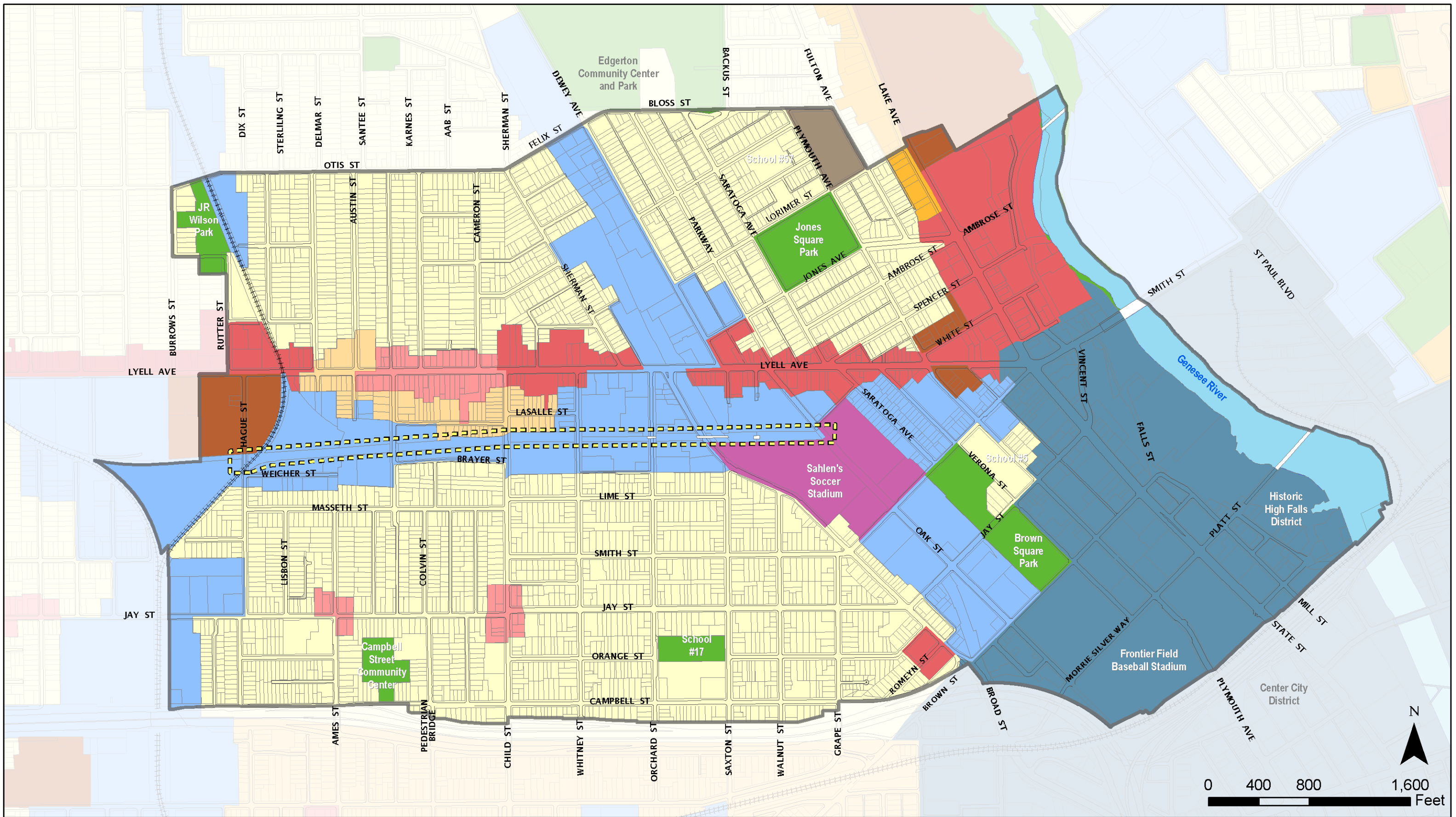
Legend

- Proposed Trail Corridor
- Railroads
- Genesee River
- Residential
- Vacant
- Commercial
- Recreation & Entertainment
- Community Services
- Industrial
- Public Services
- Conservation & Parks

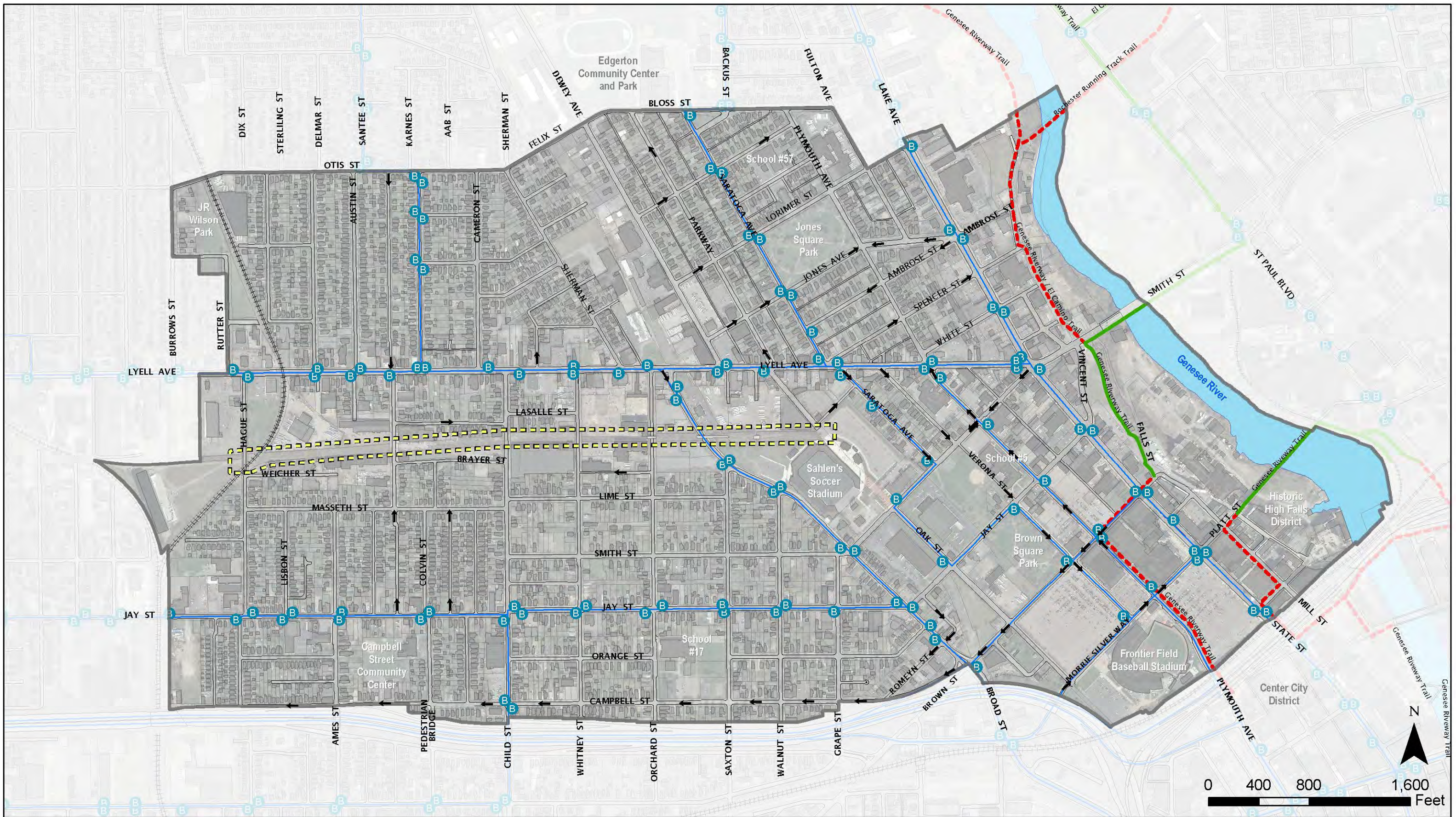


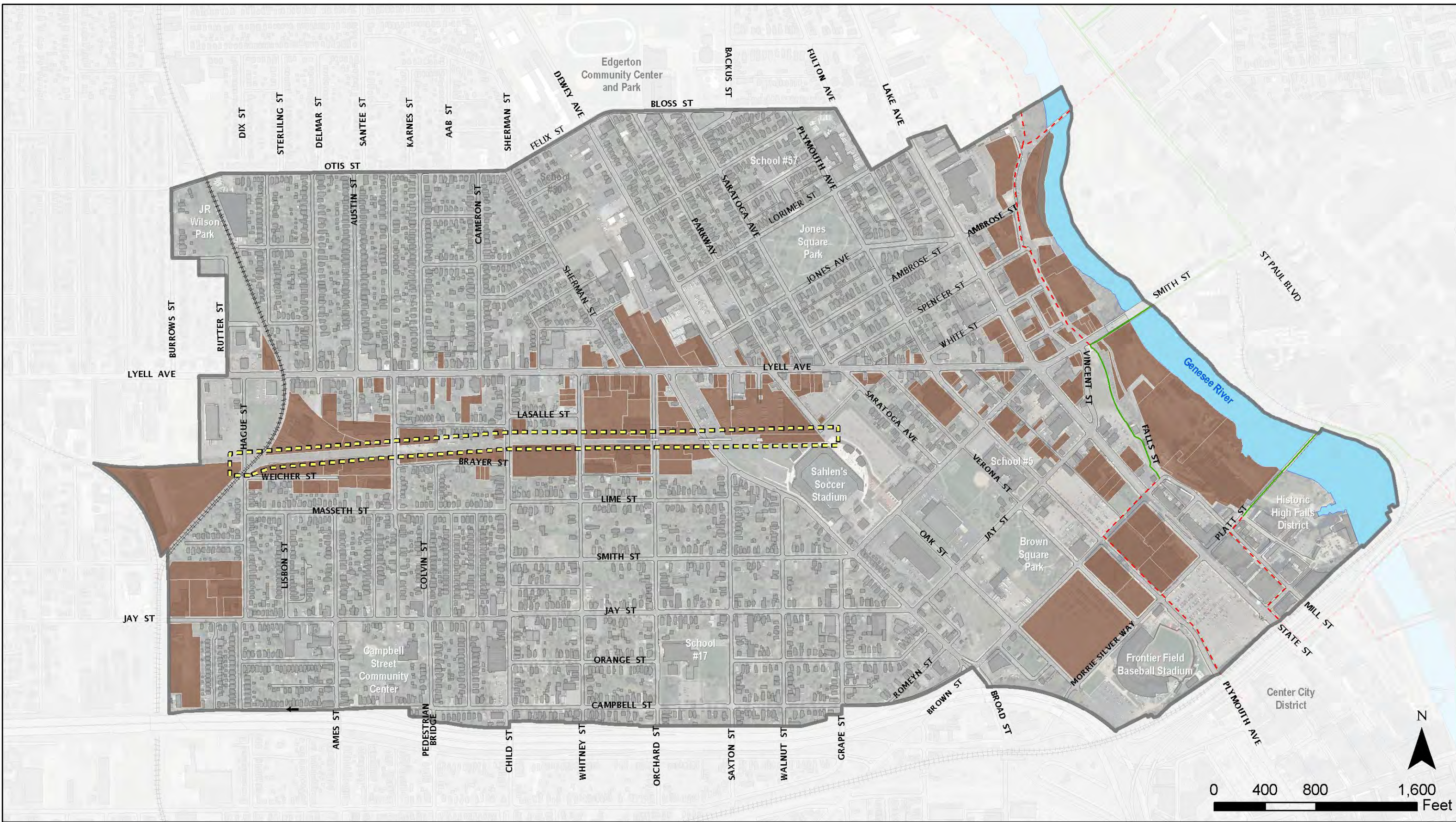
- Proposed JOSANA Trail
- Existing Trails
- Proposed Trail Connections
- Proposed Trail Connections Recommended in the LYLAKS BOA Master Plan
- ▭ Parcels
- ++++ Railroads
- ▬ Proposed Trail Corridor

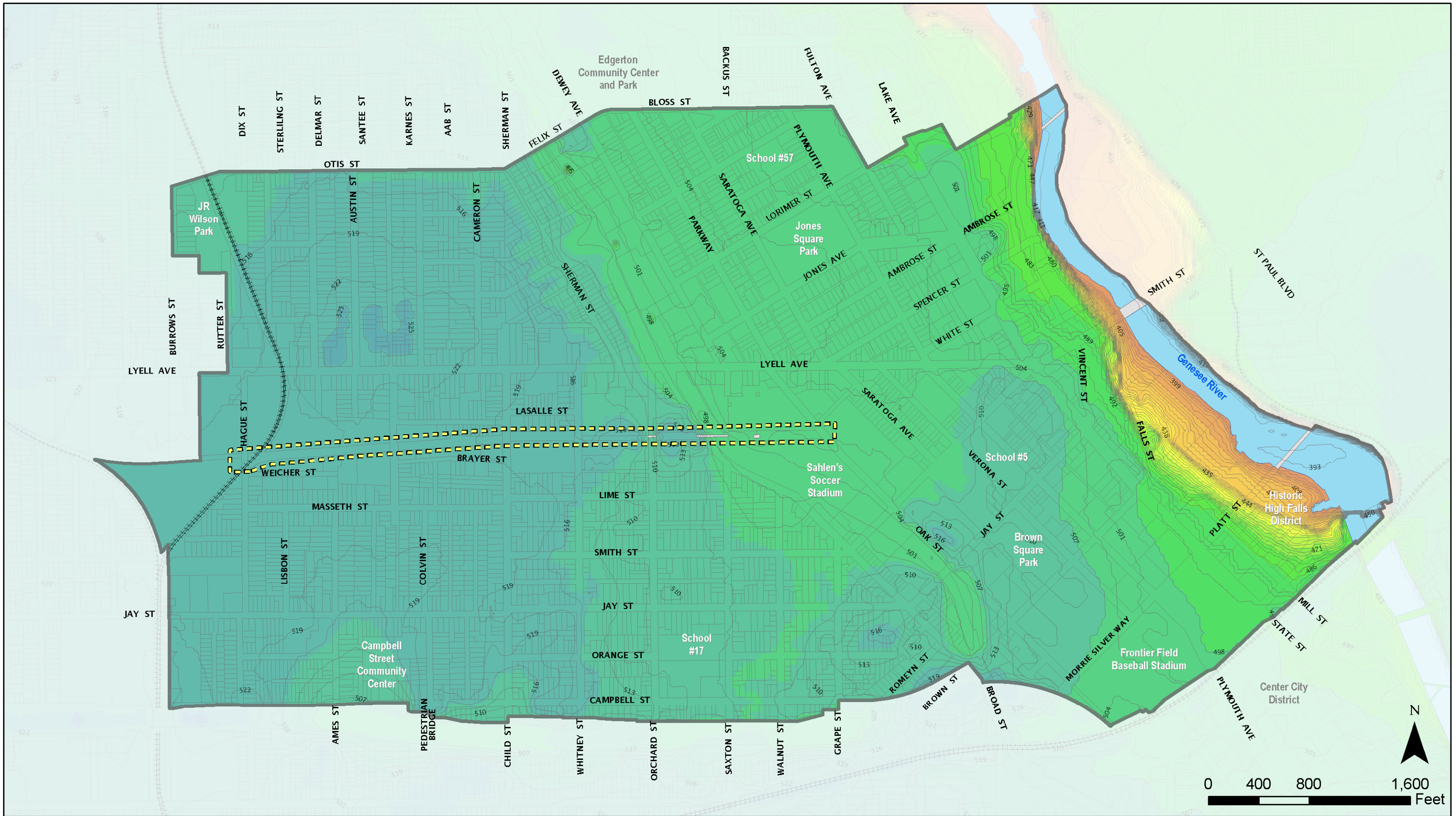
Map 4
Parks & Existing
and Proposed Trails











APPENDIX B



Project Advisory Committee Meeting #1 September 10, 2014

Meeting Summary

Welcome and Introductions

Anne DaSilva Tella (City of Rochester) opened the meeting with welcoming remarks. Kimberly Baptiste (Bergmann Associates) reviewed the project agenda and asked meeting attendees to introduce themselves. Kimberly, Mark Johns and Ted Liddell were in attendance from the consultant team.

A copy of the sign-in sheet is attached.

Anne will ensure a project page is added to the City's website so PAC members and the public can access project materials.

Project Overview

Mark Johns (Bergmann Associates) reviewed the role of the Project Advisory Committee, the scope of the project and the project schedule. Kimberly noted the project is expected to be completed in 10 months and detailed copies of the scope and schedule can be made available to PAC members. She also noted that Ravi consulting was a subconsultant to Bergmann on the project and will provide an assessment of the bridge structures.

The Trail: Setting the Context

Kimberly reviewed the background work completed to date.

Related Planning Studies

Kimberly reviewed a number of plans completed in recent years in the neighborhoods surrounding the proposed rail to trail alignment, describing how each addressed the trail or provide a direction for connections and linkages to the trail.

A copy of the powerpoint is attached for reference.

Neighborhood Context

Kimberly highlighted existing conditions associated with surrounding trail context, including land use, zoning, ownership and proximity to parks and existing trail networks.

Discussion / Visioning

The consultant team asked the PAC to provide feedback on what they saw as opportunities, constraints and considerations for the planning process. The following summarizes key discussion points from the meeting:

Opportunities

- Lighting of the Broad Street bridge
- Promote bridges – they are attractive
- Consider complementary uses of the parcels adjacent to the corridor and the soccer stadium (market, etc.)
- Think about how trail can help stadium, too
- Paving trail will make more bikers use it
- Consider a “fitness trail” with exercise stations – ties into stadium/sports theme – sports hub – branding opportunity
- Consider the views from the bridges
- Community driven approach (Example – Conkey Cruisers)
- Large population of new Americans that are bicycle users in this neighborhood – need to get them involved
- Build on “Green Visions” – youth ownership and involvement in project
- Trail needs an anchor project, similar to Conkey Park along El Camino Trail - where can we include along trail route?
- Link to larger trail systems (Canal Trail, Riverway Trail) and High Falls
- Signage with distance markers (ex. 5 minute walk to Sahlen’s Stadium)
- Kiosks at intersections – trailhead and directional

Constraints

- Safety (real and perceived)
- Security in general
- Surrounding land uses (not in my backyard)
- Land use conflicts (trail versus industrial)
- Vandalism (has been an issue along El Camino)
- Lighting – need to carefully consider where lighting should be located

Considerations

- Add someone from the stadium to the PAC
- Clarify ownership of entire trail alignment – portion not owned by CSX?

- Bike Boulevard Master Plan –destinations, connectors, generators – review and incorporate
- Need to focus on east and west terminus / transitions – how do we connect?
- Orchard Whitney building being demolished....what happens on that site?
- Proximity to Stadium Estates (45 new houses)
- Connectivity between bridges and street level – accessibility – stairway (design elements)
- Identify multiple alternatives for trailhead locations and alignments
- Consider any impacts associated with future roadway projects, such as re-alignment of Broad Street
- Review GTC Regional Trails Initiative
- Wayfinding is crucial
- Show larger regional context
- Jay Street will have bike lanes on both side of street – project scheduled for Fall 2014

Next Steps

Kimberly reviewed the next steps in the process, including a site visit and Public Meeting #1. The meeting will held on Friday, October 3rd at 10:30 AM at Charles Settlement House on Jay Street.

Anne noted that PAC members are welcome to attend the public meeting, but are not required to attend.

THANK YOU!



PAC Meeting #2
December 11, 2014

Meeting Attendees

Scott Benjamin, Charles Settlement House

Lora Barnhill, NYS DOT

John Picone, City of Rochester Department of Recreation & Youth Services

Anna DaSilva Tella, City of Rochester Department of Neighborhood & Business Development

Dorraine Kirkmire, City of Rochester Department of Environmental Services

Bob Torzenski, Genesee Transportation Council

John McMahon, City of Rochester NW Neighborhood Service Center

Brent Penwarden, Monroe County DOT

Maranne McDade Clay, Greentopia

Bergmann Associates: Kimberly Baptiste, Mark Johns, Ted Liddell, Laura Fox

A copy of the sign-in sheet is attached.

Meeting Summary

Welcome and Updates

Kimberly Baptiste (Bergmann Associates) opened the meeting by outlining the agenda and updating the Project Advisory Committee on recent project progress. On September 15, the project's first public meeting was held at Charles Settlement House. Attendees provided input on trail amenities and design and were then given the opportunity to take a tour of the rail corridor with the project team.

A draft of the existing conditions report has been submitted to the City and GTC. It will be posted to the project website in January 2015.

The project's website address is <http://www.cityofrochester.gov/article.aspx?id=8589962912> and can be easily found by searching the term, 'JOSANA trail' on the City's website at www.cityofrochester.gov.

What We've Learned

Ted Liddell (Bergmann Associates) presented the findings from the project team's inventory and analysis of existing conditions.

Historic Context

Through an investigation of historical plat maps from 1875, 1888, and 1926, the project team was able to identify the historical uses of the buildings surrounding the rail corridor and the placement of original rail spurs. These maps illustrate that the uses surrounding the rail corridor

have long been predominantly industrial. Identifying the locations of the original rail spurs will also influence the interpretive design of the trail.

Ownership

The rail corridor itself is owned by the CSX Corporation from Hague Street to Broad Street. The Rochester Rhinos LLC owns the parcels from Broad Street to Oak Street. Rochester Rhinos LLC is currently undergoing foreclosure with Monroe County becoming the likely new owner of these parcels. The land under the Broad Street Bridge, a likely location for trail access and complementary recreational uses, is currently owned by the adjacent property owner, OTB, located at 940 Broad Street.

Walking the Trail

Ted continued the discussion by providing an overview of the current conditions of each of the intersections and portions of the rail corridor from Hague Street to Oak Street. He detailed specific challenges and opportunities influencing trail design, including:

- There are two points of encroachments by existing businesses at 190 Murray Street and 20 Weicher Street (intersection with Hague Street);
- The Child-Whitney Street segment is the mid-point of the corridor, the widest and shortest segment, and has open views;
- The corridor along the segment between Broad and Oak Street is located on top of a steep embankment
- Remnants of spur trestles, bumping posts, ties, and tracks along the corridor can be highlighted in interpretive design

The encroachment onto the corridor by the business at 190 Murray Street was discussed by the group with concern that the property owner could have gained adverse possession of the rail corridor. While the group was doubtful that this had occurred, Mark remarked that the concept plan allows the business to continue to utilize the portion of the corridor currently in use.

Bridge Inspection

Mark Johns (Bergmann Associates) updated the PAC on the recently performed bridge inspection by RAVI Engineering. The four former railroad bridges along the corridor were inspected and found to be stable and structurally adequate to support a pedestrian trail. Further analysis will be required in the detailed design phase.

Discussion

Public Meeting Comments

In addition to the inventory and analysis of existing conditions, the preliminary design concepts for the trail were shaped by the comments received at the first public meeting. Several themes emerged, many of which aligned with the feedback provided by the PAC. The most important amenities included trailhead parking, a playground, benches, and highlighting the railroad bridges, especially at Broad Street. When asked what design features would entice them to use the trail, the most popular responses included a central park, a sense of safety and visibility while on the trail, wayfinding that connects to the community's assets, and a nearby farmers' market.

Preliminary Concepts

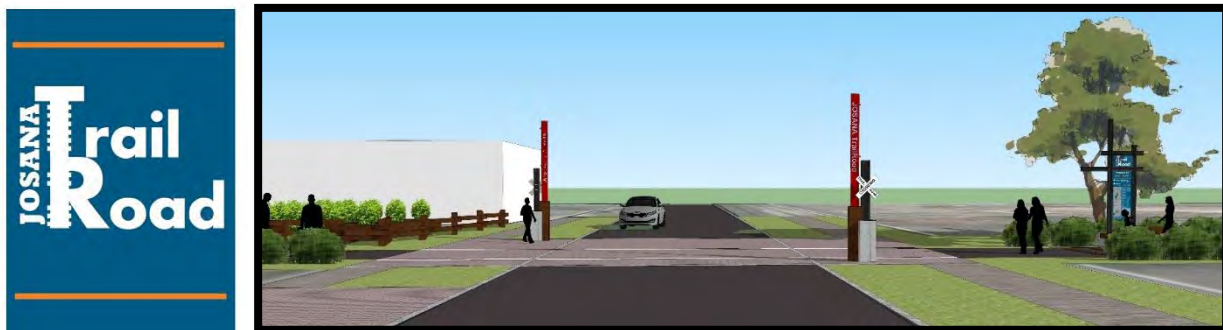
Mark introduced preliminary concepts for the trail, which the project team proposed naming "The JOSANA TrailRoad." The primary goals of the trail design is to have it be a connector to the city and regional trail system while also linking various neighborhood assets. To accomplish this, the design reflects the need to have visible and welcoming connections at various points between the trail and the neighborhood. To pay homage to the industrial heritage of the neighborhood, Mark suggested that the materials used for signs, fences, and benches be made of railroad ties, concrete, and steel. The railroad ties could be embedded into the trail at intersections as tactile strips, constructed into benches, and transformed into fencing at gateways. The design and programming concepts are personalized for each segment of the trail as detailed below.

Hague Street to Murray Street: To fulfill a neighborhood request, a skate park is proposed for this segment. Since this segment is surrounded by industrial uses, there is little potential for this to disturb neighbors while being close enough to an intersection to not be isolated.

Murray Street to Child Street: As one of the corridor's longest segments, creating connections between residential neighborhoods and the trail are proposed here. While the two properties that are proposed as connections are not City-owned, they were identified as underutilized in the LYLAKS BOA report.

Child Street to Whitney Street: The centralized gathering place for the trail, "the Trail Yard", is proposed for this segment because of its central location and openness. Programming for the proposed park includes a naturalized play area, benches, a community garden, historic railroad interpretation, and trailhead parking.

Whitney Street to Broad Street: The design for this segment of the trail is dependent upon the pending demolition of the Orchard-Whitney Site. Depending on its future use, a trail connection could cut through the Orchard-Whitney Site and the retaining wall between the site and the corridor could be incorporated into the trail design. This segment's elevation steadily increases



Renderings of the proposed "TrailRoad" logo, zigzag fencing made of railroad ties, wayfinding signage, and gateways that mimic railroad crossings.



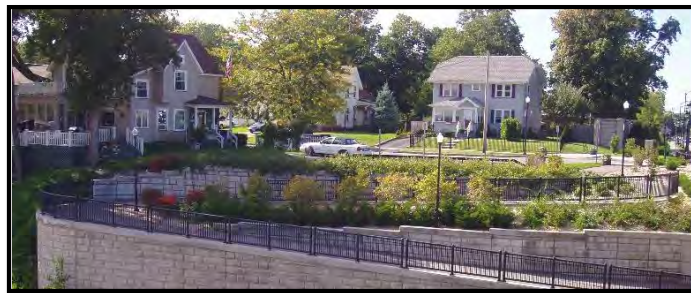
Programming for the "Trail Yard" may include benches, a naturalized play area, and community gardens.

moving east. Leading up to the Broad Street bridges a pedestrian ramp is proposed to bring users onto the trail.

Broad Street to Oak Street: This segment's most notable feature are the two former railroad bridges that cross over Broad Street and the former Erie Canal bed. A gathering space is proposed for the lawn underneath the truss bridge, which will require safety fencing. The corridor ends at Oak Street atop a steep embankment, which will require a gateway switchback.



Rendering of trail branding atop the Broad Street Bridge.



Examples of decorative safety fencing and a landscaped switchback.

The PAC was enthusiastic about the preliminary design concepts presented by the project team and provided useful feedback for further consideration, including:

- In favor of "TrailRoad" name, but not use of JOSANA since the trail transects multiple neighborhoods.
- If possible, keep retaining wall behind Orchard-Whitney Site as a design feature.
- What uses will be permitted?
 - Could there be opportunities for parallel trails to accommodate different users?
 - What design tactics can be used to prohibit ATVs?
- Favorable response to a skateboard park, but would like to delineate where skateboarding is permitted through surface treatments.
- Along the trail it would be good to develop a full canopy of trees (including those that phytoremediate), public art installations, wayfinding signage for the trail and towards neighborhood destinations.
- Suggested modifications to the trail design included:
 - Indicating where Manual on Uniform Traffic Control Devices (MUTCD) required signage will be located.
 - Identify the price difference between a 10' and 15' wide trail path.
 - Reduce width of road crossings to clearly delineate pathway for trail users.

- Since the former railroad bridges have historic value, when should SHPO be contacted? Mark suggested that since SHPO will not sign off on the project until there are final designs, they shouldn't be contacted until that point.
- While areas east of Oak Street are not included in the scope of this project, there should be clear recommendations for connecting users to the trails and recreation amenities towards the Genesee River.

Next Steps

Kimberly closed the meeting by reiterating that a draft of the existing conditions report will be posted to the project website once revisions from the City and GTC have been addressed. The project team will conduct individual stakeholder meetings to gather additional input in the creation of trail concepts and design standards. A second public meeting will be held in late January with format and location to be determined later.

Thank You to All Who Attended!



PAC Meeting #3
February 24, 2015

Meeting Attendees

See attached Sign-In sheet.

Meeting Summary

Welcome and Introduction

Kimberly Baptiste of Bergmann Associates welcomed the group to the meeting and outlined the agenda. The meeting included:

- Public Meeting #2 community feedback.
- Ownership updates.
- Educational programming opportunities.
- Connectivity of the trail to the regional trail network and key destinations.

Public Meeting #2

Ted Liddell of Bergmann Associates presented and brief overview of the current design and reviewed the community feedback from Public meeting #2 held January 27th, 2015. Feedback included:

- Visibility and safety are important.
- Opportunities to incorporate the trail elements into school curriculum / "walking" field trips.
- Interpret history throughout the corridor / learning stations.
- No dirt bikes and ATV's on the trail.
- Opportunity for art throughout corridor.
- Opportunity for small retail such as food trucks and outdoor markets.
- City lighting policy of parks should be revisited for this trail.

Ownership Updates

Mark Johns of Bergmann Associates provided information to the PAC regarding ownership along the trail corridor. Updates included:

- City is actively engaged in discussion and negotiation with CSX regarding purchase of the right of way.
- CSX breaks down the purchase into two categories: land and infrastructure. Further investigation is needed to look into the ownership of the bridge over the former Erie

Canal bed at Broad Street. It remains unclear if OTB owns the bridge or if CSX is still the owner of the bridge.

- Rochester Rhinos LLC owned the corridor east of Broad Street to Oak Street. The property has been foreclosed on and the City of Rochester is buying it.
- A meeting was held with the property owner of 190 Murray Street to discuss their encroachment onto the CSX corridor. The meeting resulted in a plan that will allow trail access through the corridor while maintaining a secure parking and loading area for 190 Murray Street and parking for 160 Murray Street.
- The Hague Street trailhead was further developed to provide access to the corridor while maintaining vehicular access to the loading docks of Accurate. Currently the access to the loading docks encroaches onto the CSX corridor. The revised trailhead includes an information kiosk, zig zag fencing and vegetation to define the edge between the trail and the active railroad and the loading dock access, a location for an artistic element and benches, enhanced setting for the existing Accurate sign, and the potential allocation of 3-4 trailhead parking spaces.

Educational Programming Opportunities

Ted Liddell presented educational programming opportunities for the corridor. Feedback from the public meeting suggested interpretation kiosks or learning stations telling the history of the corridor / neighborhood. These stations could be incorporated into the curriculum of surrounding schools. Activities such as rubbings, scavenger hunts, and geocaching could also be incorporated into the trail and trail amenities.

The corridor was divided into five interpretive segments, each segment highlighting one of the corridor themes which include industry, railroad, food, canal, and sports. For each theme several potential topics were discussed.

Industry

- Interpretation of the Orchard Whiney site.
- The Erie Canal's role in the neighborhood.
- Industry always integrated with residential.

Railroad

- Purpose of the rail line in the neighborhood.
- Businesses the railroad served.
- Evolution of the Erie Canal to the subway system.

Food

- Baking tradition in the neighborhood.
- Food growing traditions in the neighborhood.

Canal

- Where was the Erie Canal located?
- Influence of the Canal on the neighborhood.
- Evolution of the Canal to the subway.
- What remains of the canal today?

Sports

- Sandlot baseball historically had a dominant sports presence in the neighborhood
- Evolution of sports in Rochester.
- Rochester Rinos and Red Wings.

Feedback

- Jeff Mrozcek asked what is the extent of the CSX acquisition area, specifically at the Hague Street end of the corridor. Making sure the land acquisition includes access to the corridor from Hague Street is key to the feasibility of the potential trail.
- The following property owners along the corridor in the area of Hague Street and Murray Street were present at the meeting and shared their thoughts and concerns about the potential trail:
 - o Michelle Loewke 190 Murray Street
 - o Dave Fronczak 88 Weicher Street
 - o Greg Weinriehl 160 Murray Street
 - o James Sorensen 95 Weicher Street
 - o Jason John 145 Murray Street
- The property owners expressed the following concerns:
 - o Safety. They see the trail as inviting problems to their properties.
 - o Vandalism should not be underestimated in this neighborhood.
 - o James Sorenson of 95 Weicher Street has been looking into the acquisition of the CSX corridor to provide truck and loading access to the corridor side of his building.
 - o Drainage on the corridor between Hague Street and Murray Street is an issue.
 - o The trail does not seem appropriate for the Hague Street end of the corridor because of its industrial nature. The trail might prevent further industrial development.
 - o Michelle Lowke from 190 Murray Street asked if the fence along her property could be treated with vegetation to prevent visual access into her property.
- Kimberly Baptiste clarified that the purpose of the project was to explore the feasibility of a trail and that nothing is currently set in stone.
- Anne Dasilva tella stated that we can have both the trail and industry together. It is not in the City's interest to prevent further industrial development with the construction of the trail. She also stated that a compromise could be made that would provide trail access while accommodating some of the wants and needs of the property owners.
- Trail treatments near the industrial areas need to be considered and evaluated as party of the feasibility study.
- Tom Frey of the Genesee Land Trust offered to bring the property owners to El Camino to show the success of a rail-to-trail project that is very similar in nature to the potential JOSANA trail corridor.
- Jeff Mrozcek stated that we need the east-west connectivity from a transportation perspective.

- Jeff Mroczek stated he would send the current Mike Boulevard Master Plan, which shows some of the potential neighborhood connections. (received by Bergmann)
- Anne Dasilva Tella suggested that at the next PAC meeting the results of the bridge analysis should be discussed in more detail.

Next Steps

Kimberly closed the meeting by discussing the next steps for the project:

- Full draft report will be provided to the PAC at the next meeting.
- Land owner outreach will continue.
- Cost estimates will be created for the trail design.
- The next PAC meeting will be scheduled for April.

Thank You to All Who Attended!



Project Advisory Committee Meeting #3 | February 24, 2015

Sign In

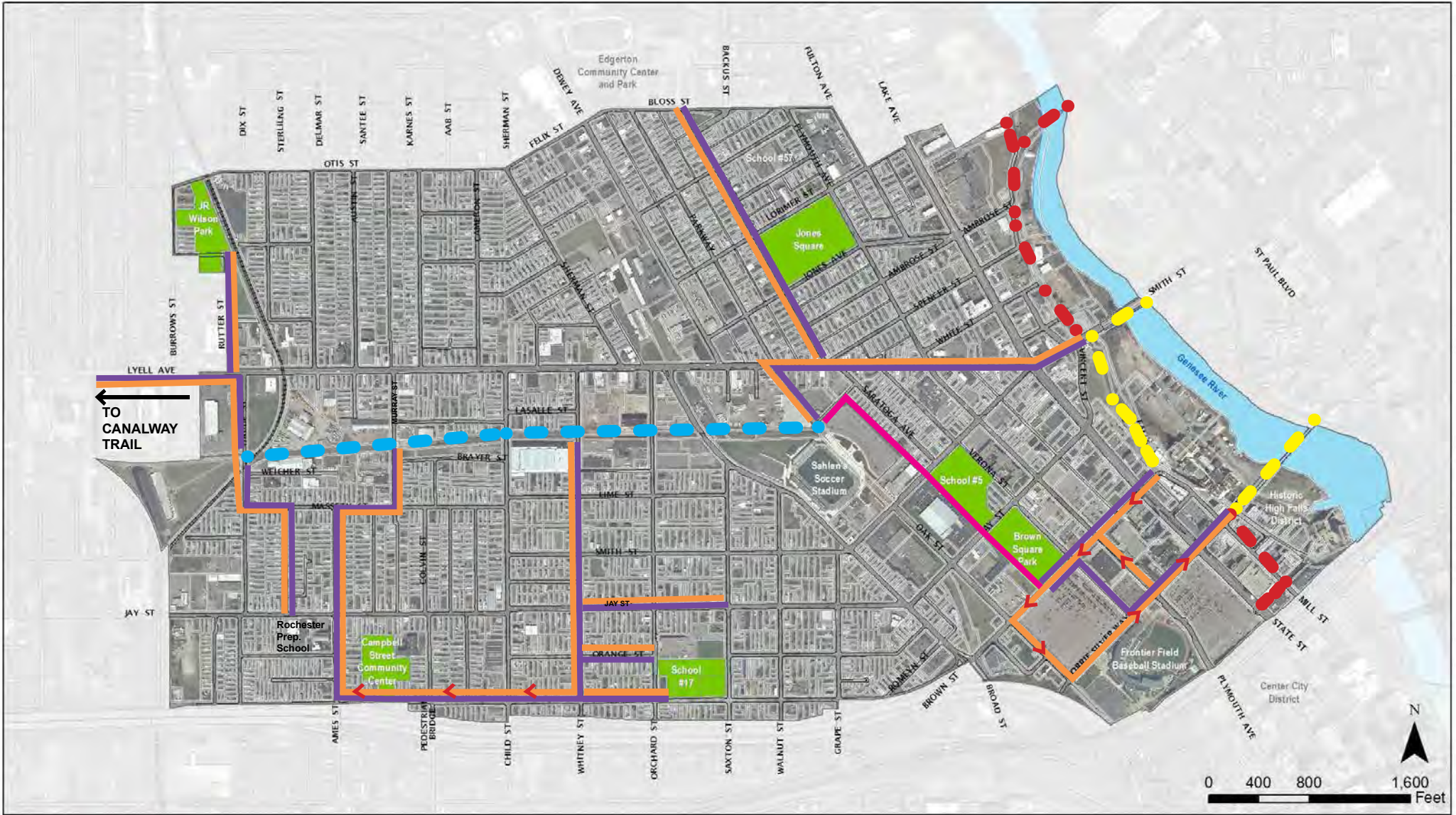
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Maranne Mc Dade Clay	Greentopia	maranne@greentopia.org
Jason Jothir	770-449 145 MURRAY ST	

What are the connections we should highlight?



- — — Proposed JOSANA Trail
- — — Proposed Trail Connections
- ★ Neighborhood Commercial Hub
- — — Existing Trails
- — — Potential Trail Connections to Destinations
- Parcels
- — — — — Railroads

Connections

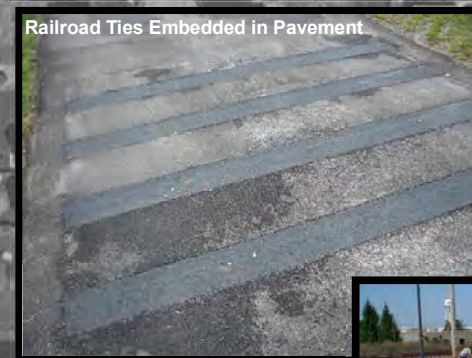




Zigzag Fence



Zigzag Fence and Kiosk



Railroad Ties Embedded in Pavement



Potential Skate Park Elements

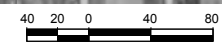
HAGUE STREET



WEICHER STREET

MURRAY STREET

66' +/-



LEGEND

- 1. Hague Street Connection
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement
- 4. Existing Trees to Remain and Pruned
- 5. Proposed Trees
- 6. Sunflower / Wildflower Area
- 7. Mowed Turf
- 8. Potential Skate Park Elements
- 9. Murray Street Intersection Treatment
- 10. Trailhead Parking



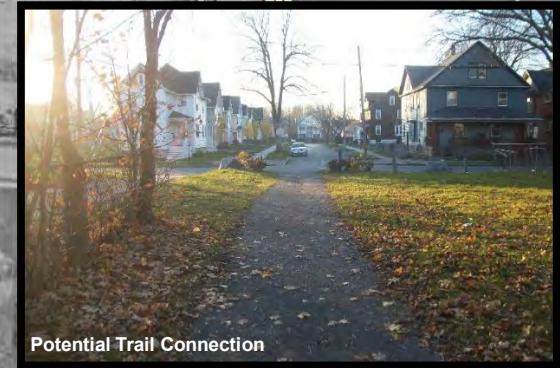
Hague Street to Murray Street



Intersection Treatment



Railroad Ties Embedded in Grass



Potential Trail Connection

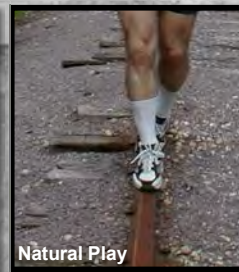


LEGEND

- 1. Murray Street Intersection Treatment
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement and Grass
- 4. Existing Trees to Remain and Pruned
- 5. Proposed Trees
- 6. Sunflower / Wildflower Area
- 7. Mowed Turf
- 8. Potential Connection to Brayer Street
- 9. Child Street Intersection Treatment



Murray Street to Child Street



LASALLE STREET

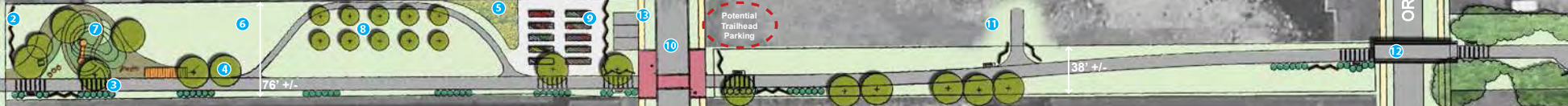
CHILD STREET

THE TRAIL YARD

WHITNEY STREET

ORCHARD / WHITNEY SITE

ORCHARD STREET



RILEY PARK

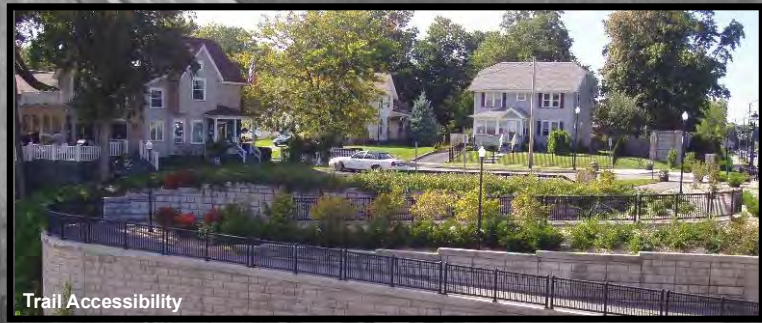
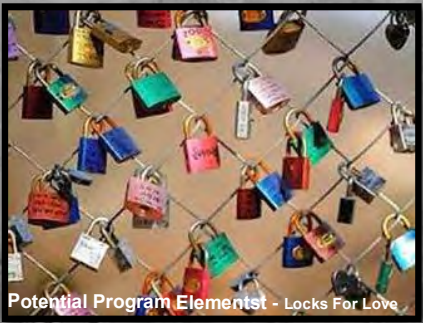
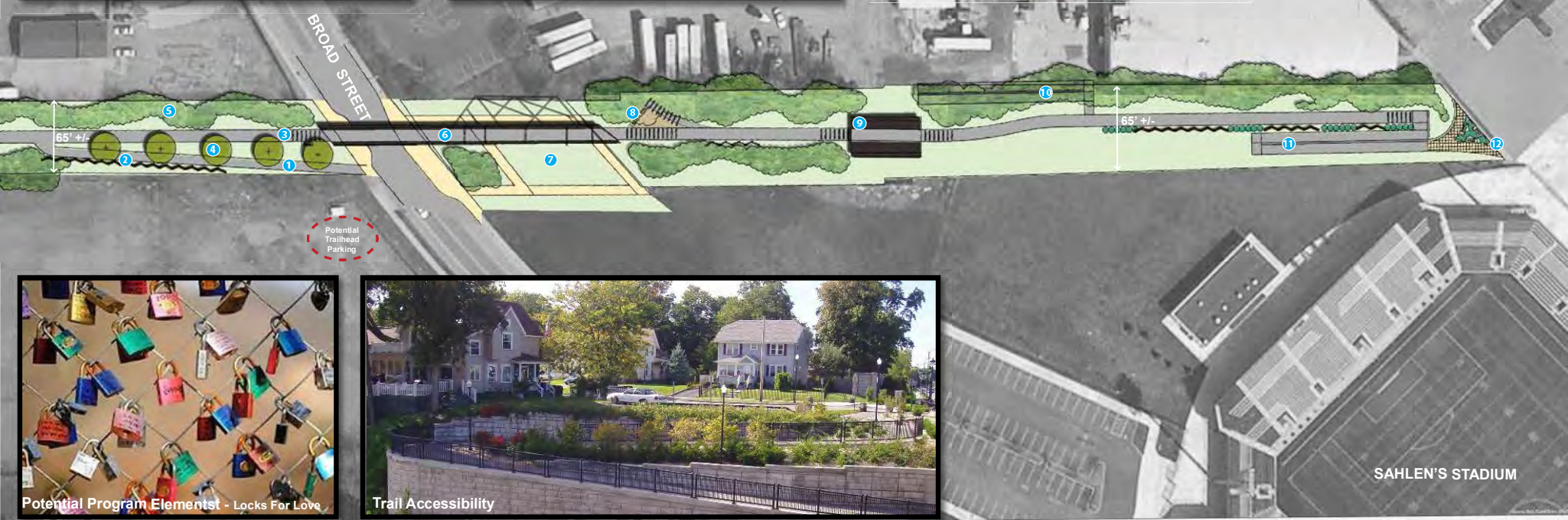
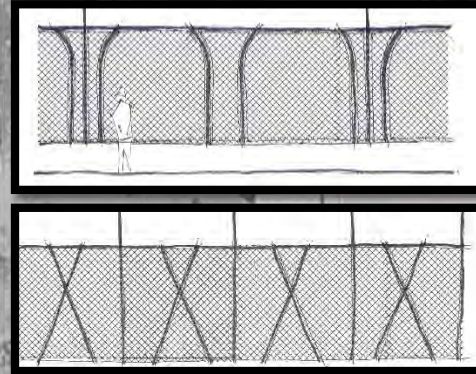


LEGEND

- 1. Child Street Intersection Treatment
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement and Grass
- 4. Proposed Trees
- 5. Sunflower / Wildflower Area
- 6. Mowed Turf
- 7. Natural Play Area
- 8. Fruit Trees "Orchard"
- 9. Community Garden Raised Planters
- 10. Whitney Street Intersection Treatment
- 11. Potential Connection to Orchard / Whitney Site
- 12. Orchard Street Railroad Bridge Rehabilitation
- 13. Trailhead Parking



Child Street to Orchard Street



LEGEND

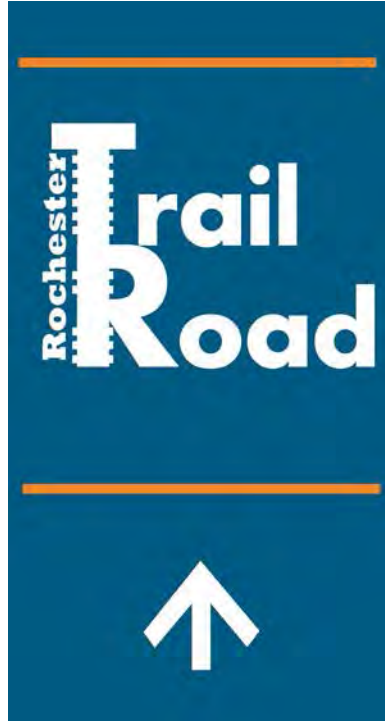
- 1. Pedestrian Connection from Broad Street
- 2. Zigzag Fence
- 3. Railroad Ties Embedded in Pavement and Grass
- 4. Proposed Trees
- 5. Existing Trees to Remain and Pruned
- 6. Broad Street Railroad Bridge Rehabilitation
- 7. Potential Plaza / Gathering Space Under Railroad Bridge
- 8. Viewing Platform and Interpretive Area at Location of Rail Spur Remnants
- 9. Moore Street Railroad Bridge Rehabilitation
- 10. Potential Connection to Future Development
- 11. Pedestrian Connection to Oak Street / Sahlen's Stadium
- 12. Entry Plaza / Trailhead



Broad Street to Oak Street



Logo on Kiosk

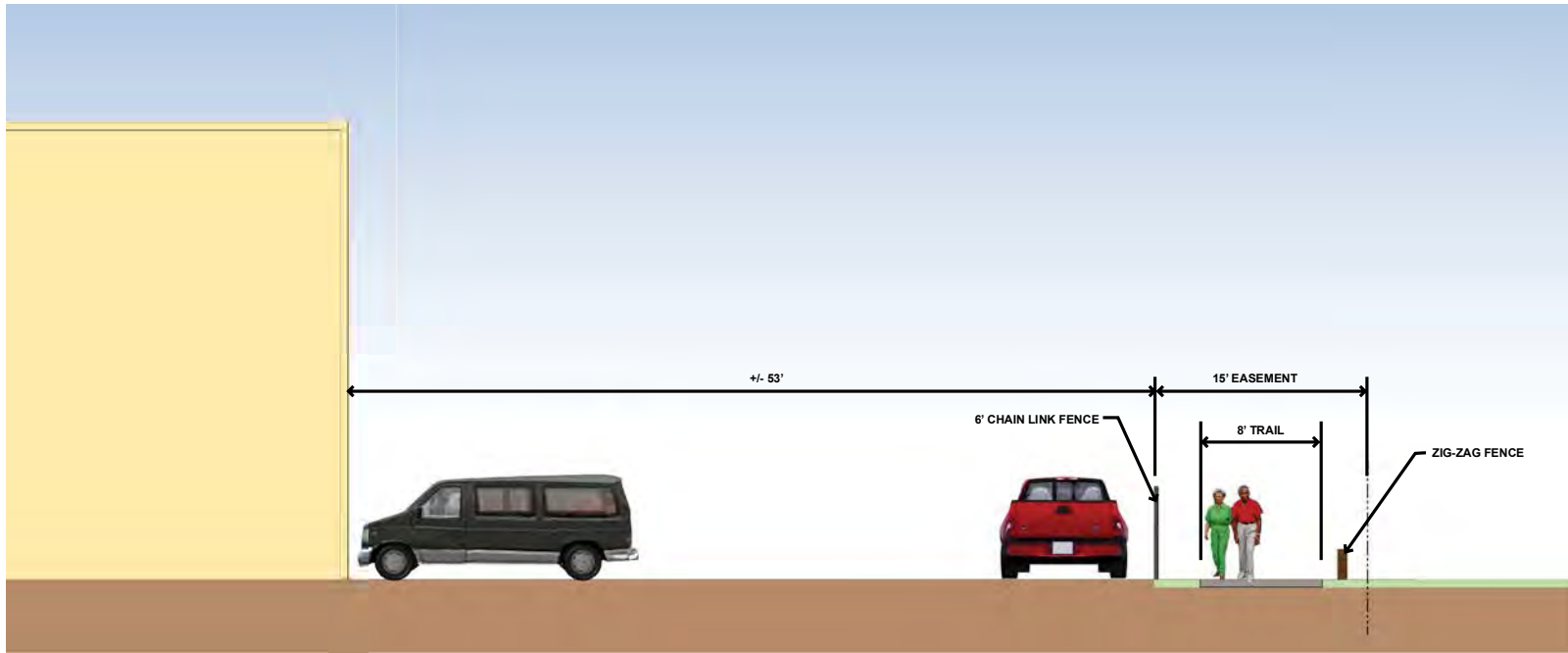


Logo on Banner Sign

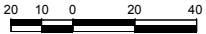
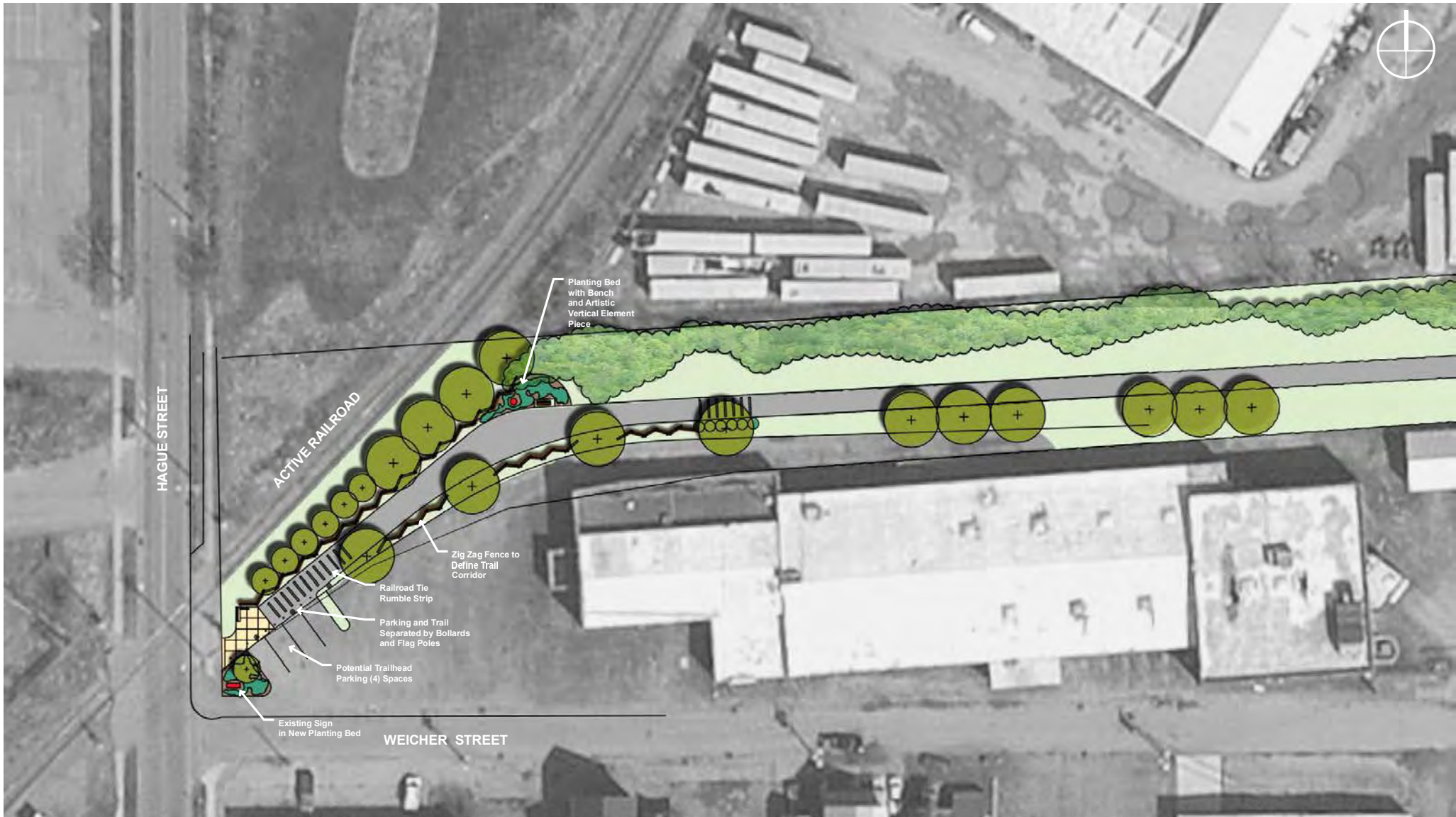


Logo Engraved in Pavement

Comments:



Section A-A





Meeting Summary

Public Meeting #1 | October 3, 2014 | Charles Settlement House

Meeting Attendees

See attached sign-in sheet.

Materials Provided

- Meeting Agenda
- Photo Sheet of the Rail Corridor

Welcome and Introductions

Anne DaSilva-Tella, Senior Community Housing Planner in the City's Neighborhood & Business Development Office, welcomed the group to the meeting and provided a brief overview of the project. Anne then introduced the project team from Bergmann Associates including Kimberly Baptiste, Mark Johns, Ted Liddell, and Laura Fox. Kimberly outlined the agenda for the meeting. The meeting agenda included a presentation to provide an overview of the project process, related planning projects, and existing conditions of the surrounding neighborhood context, followed by small group working sessions.

Project Overview

Mark Johns of Bergmann Associates began the presentation by outlining the project objectives and the three phases of the project including 1) inventory and analysis, 2) alternative development, and 3) final preliminary design and report. Mark emphasized the role that the community will have in guiding this design process.

Understanding the Proposed "Rail to Trail" Corridor

The proposed rail to trail feasibility project has been explored in several previous planning studies, as explained by Kimberly. Both the LYLAKS BOA and the JOSANA Neighborhood Plan specifically identify this project as a means of connecting the area's various park and trail amenities and providing residents with improved access to other trail systems. The Brown's Square CAP Study, the Rochester Bicycle Master Plan, the Bike Boulevard Master Plan, and the High Falls Pedestrian Access Study all have recommendations that emphasize the need to connect the surrounding neighborhoods to the various nearby entertainment and open space amenities.

Kimberly provided context on the area surrounding the proposed trail that would be impacted by the project. She emphasized how the creation of this trail would serve to create stronger links amongst the neighborhood's existing open space amenities and better connect the JOSANA neighborhood to the region's trail system. Several maps of the area were presented to provide further context about the area's current land use, zoning, and ownership.

Discussion & Break-Out Groups

To provide feedback and ideas to the project team, meeting attendees assembled into small groups to discuss the opportunities and challenges for the proposed trail. At the end of the session, the three groups presented their findings, which included the following themes:

Connections

- Use Brown Street to connect JOSANA to the 19th Ward for pedestrians and bicyclists.
- Wayfinding signage for the trail should be present at each street crossing, including dead ends.
- There needs to be a strong, safe connection between the Oak Street trailhead and the Genesee Riverway Trail. Suggestions included running the trail through School #5 and Brown Square Park to connect to the Riverway Trail through either Jay or Brown Street.
- The proximity of the Erie Canalway Trail, just one and a half miles west of the Hague Street trailhead, should be emphasized through signage.
- The Campbell Street Community Center and Edgerton Community Center are major recreational assets that should be safely connected to the trail.
- Incorporate the Bike Boulevard Master Plan's vision for Child Street into the trail design.

Safety

- Because of the lack of activity on the properties adjacent to the proposed trail, safety is a major concern.
- Lighting is essential.
- Cameras along the trail could be monitored by community members to increase the number of eyes on the trail and increase resident participation.
- The trail needs to be very open and visible from off the trail to deter drug activity.

Community Amenities

- For special events along the trail parking would be useful, especially at the Oak Street trailhead, but not critical.
- With three elementary schools within walking distance, learning kiosks should be utilized to incorporate school curriculum into the trail. Potential educational topics included the history of the Erie Canal and Rochester's industrial heritage, the cultural backgrounds of area residents, and the history of the surrounding neighborhoods.
- A playground should be along the trail to make it more of a destination and community asset. An exercise station should be installed for those using the trail for exercise.
- The trail needs to be designed to be welcoming.
- Establish a market next to the trail to encourage healthy living amongst trail users and residents.
- Highlight the bridges through lighting, painting and branding.
- Accommodate trail users with bathrooms and water fountains.
- Indicate mile markers along the trail.
- The Broad Street Bridge should be the focal point of the trail and could act as an event space with a ramp and stairs to access both levels of the space.
- The Oak Street trailhead should be the main entrance to the trail and should be treated as a gateway.
- A grocery store should be built on the Orchard-Whitney Site.
- Benches should be placed along the trail.



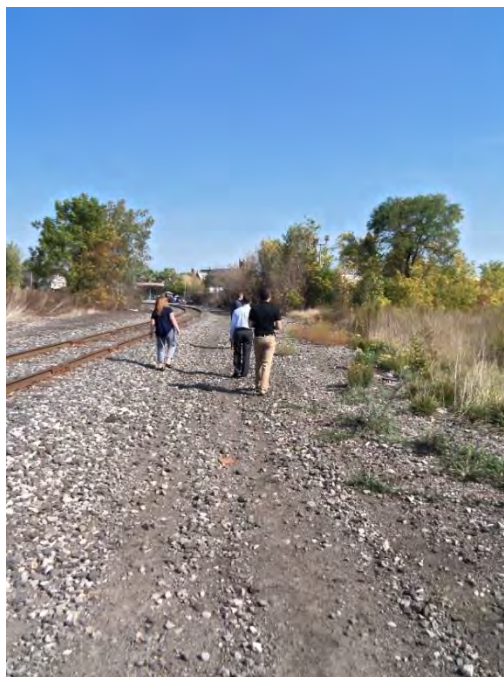
Next Steps

After the groups presented their ideas, Kimberly explained to the meeting attendees that these will be considered and incorporated into the inventory, analysis, and recommendations for the project. The next public meeting will be held in early 2015 where members of the public will be able to offer feedback on alternative trail designs.

Immediate next steps to complete Phase 1 of the project include the preparation of a summary of issues and opportunities, an inventory of existing conditions, stakeholder meetings, the development of trail design standards, and the submittal of an inventory and analysis report.

Walk the Trail

After the official end of the meeting, the project team led meeting attendees on an optional walking tour of the proposed trail to get a sense of the current condition of the rail corridor and identify targeted design opportunities.





Meeting Summary

Public Meeting #2 | January 27, 2015 | School #17

Meeting Attendees

See attached sign-in sheet.

Materials Provided

- Meeting Agenda

Welcome and Introductions

Kimberly Baptiste of Bergmann Associates welcomed the group to the meeting and outlined the evening's agenda. The agenda included a presentation of the project overview and an open house to review project recommendations and provide feedback.

Project Overview

Kimberly began the presentation by recapping the objectives of the project which include:

1. Identify preferred conceptual trail design and programming,
2. Strengthen the area's transportation options, and
3. Identify neighborhood and regional connections.

Kimberly then brought the group up to date on where the project currently stands. To date Phase 1: Inventory and Analysis and Phase 2: Alternative Development have been completed.

Ted Liddell of Bergmann Associates presented what was learned from the Inventory and Analysis of existing conditions which included land ownership, a detailed analysis of existing conditions along the rail corridor, and the findings from the preliminary structural inspection of the four existing railroad bridges.

Mark Johns of Bergmann Associates presented the preliminary trail alignment and design features and invited the group to view the presentation boards of the design elements to offer feedback.

Community Feedback

After the project overview presentation, the group provided feedback on the proposed trail alignment and design features which included the following;

- Richard Jones from the neighborhood commented that visibility and safety were important elements to consider when designing the trail. He also stated there needs to be elements along the trail to keep people interested.
- Ralph Spezio from School #17 stated we have a captive audience of school kids in the neighborhood that would benefit from the proposed trail. There could be a partnership

with the school district to incorporate the trail and potential trail elements in to the school curriculum / common core. Also, the school children at School #17 don't have the opportunity to go on may school field trips. The trail could be a "walking" field trip. These field trips would introduce the children to the trail who would then introduce the trail to their friends and family and create potential trail users.

- The subway and canal history should be interpreted through signage on the corridor.
- Incorporate history of area into trail "learning stations."
- Meeting attendees liked the natural play concept.
- The trail should be designed to make it difficult for dirt bikes and ATV's to use the trail. This could be accomplished with the use of bollards.
- Rich DeSarra stated that white and yellow bollards seem to be the most visible for cyclists. He also stated it would be interesting to decorate the bollards with art like the light poles on Artwalk and the old parking meters in the South Wedge.
- There is opportunity for art competitions for works of art in nodes / pocket parks along the trail and for Wall Therapy murals on the sides of buildings adjacent to the trail.
- There is opportunity for small retail along the trail such as ice cream vendors / food trucks and for small outdoor markets.
- Bike share stations in the neighborhood should be considered.
- The cities lighting policy of parks and trails should be revisited for this trail.
- Rich DeSarra stated center lines on paved trails is helpful for traffic flow.

Next Steps

- Incorporating feedback from the community and the PAC into the design.
- Cost estimates.
- Phasing.
- Full draft feasibility report.
- Property/owner outreach and coordination.



Public Meeting #2 | January 27, 2015

Sign In (please print clearly)

Name	Affiliation (if applicable)	Address	Email
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John M. Maxwell	NSC		maxwell@cityofrochester.gov



Public Meeting #2 | January 27, 2015

Sign In (please print clearly)

Name	Affiliation (if applicable)	Address	Email
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Ken Warner		45 Stanton ST	Kenwarner53@gmail.com
Gay Mills	Genesee Land Trust	46 Prune St	gmills@geneseeandtrust.org



PAC Meeting #4
April 9, 2015

Meeting Attendees

See attached Sign-In sheet.

Meeting Summary

Welcome and Introduction

Kimberly Baptiste of Bergmann Associates welcomed the group to the meeting and outlined the agenda. The meeting included:

- Bridge Inspection Results
- Ongoing Trail Considerations
 - Ownership
 - Corridor Extents
 - Trail Surface
- Implementation
 - Cost Estimate
 - Action Steps
- Next Steps

Bridge Inspection Results

Tony Borrelli of Bergmann Associates presented a brief overview of the bridge assessment performed by Ravi Engineering which included a description of the structures, their current condition, improvements that need to be made to the bridges, and follow-on studies recommended for the preliminary design phase of the trail. Overall, the results of the report did not prevent the conversion of the railroad bridges for a pedestrian trail. See attached bridge inspection results slides.

Ongoing Trail Considerations

Ownership Updates

Mark Johns of Bergmann Associates provided information to the PAC regarding ownership along the trail corridor. Updates included:

- Rochester Rhinos LLC owned the corridor east of Broad Street to Oak Street. The property has been foreclosed upon and the City of Rochester plans to purchase.

- The City has been in discussion with NYCL with the intent of acquiring the corridor with the bridges intact, for trail purposes.
- The City DES has submitted a request through its Capital Improvement Program for funds to purchase the property.
- Negotiations are on-going.
- The extents of the corridor are still being investigated especially at the Hague Street end of the corridor. This information will be critical in determining how the corridor connects to Hague Street.

Trail Surface Options

Mark Johns discussed the pros and cons of the three surface options for the trail: stone dust, asphalt, and permeable asphalt.

Stone Dust – Stone dust is the cheaper option (\$1.80 - \$2.00 SF) for the trail surface. The stone dust is permeable but will prevent uses such as inline skating and skateboarding on the trail. The stone dust surface will also need routine maintenance on a frequent basis.

Asphalt – Asphalt is more expensive than stone dust (\$5.20 – \$5.50 SF) and is an impervious surface, however it is more durable than stone dust, will allow inline skating and skateboarding, and will require less frequent maintenance.

Permeable Asphalt – Like asphalt, permeable asphalt is a more durable surface than stone dust, will allow inline skating and skateboarding, and will require less frequent maintenance while allowing surface water to penetrate into the subsurface area of the trail. However permeable asphalt is more expensive than standard asphalt (\$13.00 - \$15.00 SF)

Implementation

Ted Liddell of Bergmann Associates presented the current cost estimate and action steps in order for the project to be implemented.

Cost Estimate

The current construction estimate for the trail is approximately \$3.6 Million +/- . This estimate includes the construction of the trail and all of the special trail amenities such as custom signage, benches, railroad zig zag fence, and features such as the natural play area and skateboard park. A detailed breakdown of the estimate was provided in the draft report handed out at the meeting.

Action Steps

In order for the trail to become a reality, the following steps will need to take place:

- Secure Property – The City of Rochester will need to continue negotiations with CSX in order to purchase the abandoned railroad corridor from Hague Street to Broad Street. The city will also need to purchase the portion of the corridor from Broad Street to Oak Street that was foreclosed upon and is currently being held by Monroe County.

- Secure Funding for Full Implementation – The City of Rochester will need to seek out funding for the creation of construction documents and ultimately for the construction of the trail.
- Land Owner Outreach – In order for the trail to be a success, the City of Rochester will need to remain in contact with adjacent landowners along the trail corridor. This will be an important part of the design process especially on the western end of the abandoned railroad corridor from Hague Street to Murray Street. Encroachment onto the corridor has already occurred in this segment and current landowners have expressed interest in using the abandoned railroad corridor to create additional access to their properties. The needs of both the City of Rochester and the current landowners may not be achieved, but an open dialogue is necessary in order to come to a compromise that will benefit the landowners, the city of Rochester, and the trail.
- Outreach to Neighborhood / Schools – The city of Rochester should continue to reach out to the neighborhood and neighboring schools. Inclusion of the neighborhood and schools through interpretive projects and activity programming with the schools will insure the wants and needs by the community are heard and addressed. Also, inclusion of the neighborhood in the design process will help to create a sense of ownership of the trail by the community and will help the trail succeed.

Feedback

- It was brought to the attention of the committee that a portion of the building on the Orchard Whitney site currently being demolished may have fallen onto the Orchard Street railroad bridge. Tony Borrelli stated that we now have a base line inspection for the bridge so if any damage to the bridge occurred during the Orchard Whitney site demolition we will know.
- Jeff Mroczek stated he had a concern with vandalism occurring on potential wood decking and railing systems for the railroad bridges. He suggested the report provide a range of alternatives for the bridge surface and the railings to include a material more resistant to vandalism.
- Dorraine Kirkmire asked if SHPO needs to be included on the decision to potentially remove the existing railroad bridges and replace them with a prefab pedestrian bridge. Tony Borrelli stated that there was nothing significantly noteworthy about the railroad bridges except for the bridge over the former Erie Canal bed.
- Jeff Mroczek suggested the report include the costs for the follow on bridge studies.
- All encroachment onto the corridor by adjacent landowners should be clearly defined and labeled as encroachment on all graphics and in the text of the report.
- Dorraine Kirkmire suggested the estimate be broken down into phases instead of by corridor segment.

Next Steps

Kimberly closed the meeting by discussing the next steps for the project:

- Comments / feedback from DRAFT report to be provided to both Kimberly Baptiste and Anne DaSilva Tella by April 28th.
- Final PAC meeting to be schedule for May.
- Final Report to be completed in June.

Thank You to All Who Attended!

Bridge Inspection Results

- Orchard Street – General Configuration



- 63 ft long, 1-span through girder bridge with floorbeam and deck plates
- Supported on concrete gravity abutments
- 16 ft wide / 11 ft clear between knee braces
- Vertical Clearance: 12'-8" ft (posted at 11'-10")



Bridge Inspection Results

- Orchard Street – Existing Conditions



- All knee braces are corroded with holes at ballast level



- One floorbeam severely corroded
- No holes in deck plates



- Remainder of steel in good condition
- Paint failure on 50% of structure with minor surface rust throughout



- Both abutments exhibit widespread map cracking and hollow areas



- Large trees behind abutments



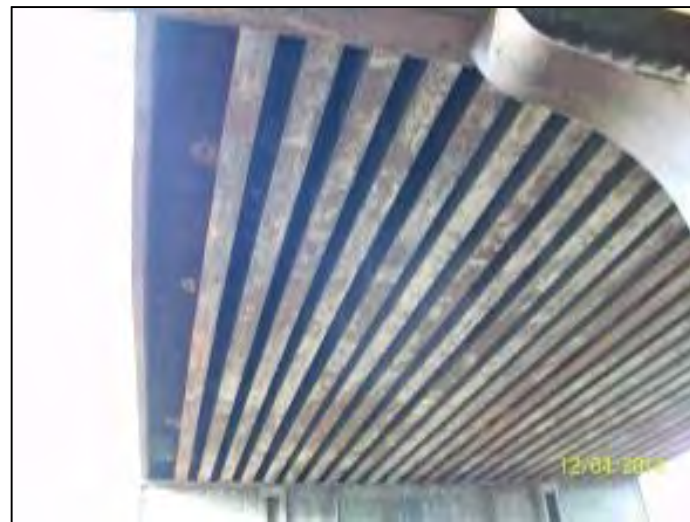
- Erosion at SE approach

Bridge Inspection Results

- Moore Street – General Configuration



- 50 ft long, 3-span multi-girder bridge with deck plates
- Supported on masonry gravity abutments and 2 steel column bent piers
- 26 ft wide between fascia girders



Bridge Inspection Results

- Moore Street – Existing Conditions



- Corrosion, section loss and holes in numerous girder ends
- No holes in deck plates



- Widespread paint failure throughout structure



- Masonry on both abutments is in fair to good condition



- Concrete abutment seats are in poor condition with spalled areas present



- Pier columns bases moderately corroded with up to 30% section loss

Bridge Inspection Results

- Broad Street – General Configuration



- Spans 1-3:
 - 77 ft. 3-span through girder & floorbeams with deck plate
 - Steel pier bents right at curblines
 - Span 2 vertical clearance: 14'-6" (posted at 12'-7")
- Span 4 - 24 ft. twin deck girder with ties
- Span 5 - 132 ft. through truss with ties (over former Canal)
- 40 degree skew
- Concrete topped masonry abutments
- 11 ft min. clear width between knee braces (in Span 2)

Bridge Inspection Results

- Broad Street – Existing Conditions (Spans 1-3)



- Moderate to severe impact damage at both piers



- Moderate to severe corrosion and section loss at bracing and column legs in splash zone



- Minor impact damage to through girder
- Widespread paint failure throughout



- Steel through girders and floorbeams in fair to good condition



- Knee braces buried in ballast, condition below grade unknown



- Abutment masonry in fair condition. Concrete in poor condition with spalling and map cracking

Bridge Inspection Results

- Broad Street – Existing Conditions (Span 4)



- Masonry is in good condition. Concrete features widespread cracking and localized spalling



- Girder webs are heavily corroded at span end, one corrosion hole noted.



- Remainder of girders are in fair condition with widespread paint failure



- Ties are in fair condition, 20% feature moderate decay

Bridge Inspection Results

- Broad Street – Existing Conditions (Span 5)



- Pier 4 masonry is in good condition. Concrete features spalls and map cracking



- Main truss members and overhead bracing generally in good condition



- Moderate corrosion on floorbeams and stringers with up to 20-30% section loss



- Bottom diagonal bracing heavily corroded in areas with up to 50% section loss



- Timber ties are in fair to good condition with isolated minor decay



- Abutment masonry is in good condition. Concrete features spalls and map cracking

Bridge Inspection Results

- **Minimum Recommended Bridge Conversion Work**

- ✓ Bridges appear stable and structurally adequate to support pedestrian bridge use
- ✓ Targeted repairs to address areas of major deterioration:
 - Spot clean and paint
 - Localized concrete repairs
 - Localized steel repairs
- ✓ Pressure wash bridges
- ✓ Construct trail section over bridges:
 - Remove rails/ties and place std. trail section over ballast (Orchard St., Moore St. and Broad St. Spans 1-3)
 - Construct timber plank deck over existing ties (Broad Street Spans 4 & 5 only)
 - Install steel or timber bridge railing and approach railing
 - Install new 8 ft high fencing (missile protection) over Broad St. and Orchard St.
- ✓ General vegetation/tree clearing and approach grading



Bridge Inspection Results

- Opinion of Probable Costs for Bridge Conversion Work

Item	Orchard Street	Broad Street Spans 1-3	Broad Street Spans 4-5	Moore Street
Bridge/Approach Railing (\$120/LF)	\$20,000	\$21,000	\$40,000	\$17,000
Pedestrian Fencing (\$80/LF)	\$10,000	\$12,000	NA	NA
Deck construction (\$15/SF)	<i>Included in trail cost</i>	<i>Included in trail cost</i>	\$32,000	<i>Included in trail cost</i>
Spot Painting Allowance	\$20,000	\$30,000	\$50,000	\$20,000
Concrete/Steel Repair Allowance	\$10,000	\$20,000	\$20,000	\$20,000
Misc./Contingency (25%)	\$15,000	\$21,000	\$36,000	\$15,000
Total	\$75,000	\$104,000	\$178,000	\$72,000

Total Bridge Cost = \$429,000

Estimate Assumptions:

- Targeted repairs only. Full painting of steel and full re-facing of concrete not included.
- Assume trail can be constructed on top of existing ballast (e.g. no contamination)
- Mobilization, design and inspection costs not included above

Bridge Inspection Results

- Follow-on Studies Recommended for Preliminary Design Phase
 - ✓ Perform screening for possible hazardous materials (lead, asbestos, ballast contamination, etc.)
 - ✓ In-depth inspection and analysis at most severely deteriorated areas:
 - Steel pier column bases at Moore St.
 - Impact damage and steel section loss at piers adjacent to Broad St. including possible accident analysis
 - Floor framing and bottom lateral bracing at Broad St. truss Span 5
 - ✓ Evaluate options for reducing life-cycle costs and achieving clearances:
 - Replace Orchard St., Moore St. and Spans 1-3 at Broad St. with a prefabricated pedestrian truss bridge
 - Full removal of the Moore St. Bridge and replacement with a trail on embankment fill
 - Jacking of Orchard St. Bridge to improve clearances





PAC Meeting #5
May 26, 2015

Meeting Attendees

See attached Sign-In sheet.

Meeting Summary

Welcome and Introduction

Kimberly Baptiste of Bergmann Associates welcomed the group to the meeting and outlined the agenda. The meeting included:

- Review of comments received and discussion.
- Next steps.

Review of Comments Received and Discussion

Kimberly reviewed the comments received on the April 2015 DRAFT of the JOSANA Rail-To-Trial Feasibility Study. A discussion was had with the PAC on a few of the comments to see how they should best be addressed in the report. The committee reviewed the comments and agreed on the approach to either address or not address the comments.

Next Steps

Kimberly closed the meeting by discussing the next steps for the project:

- Final report to be completed in early June and will be sent to the City electronically.

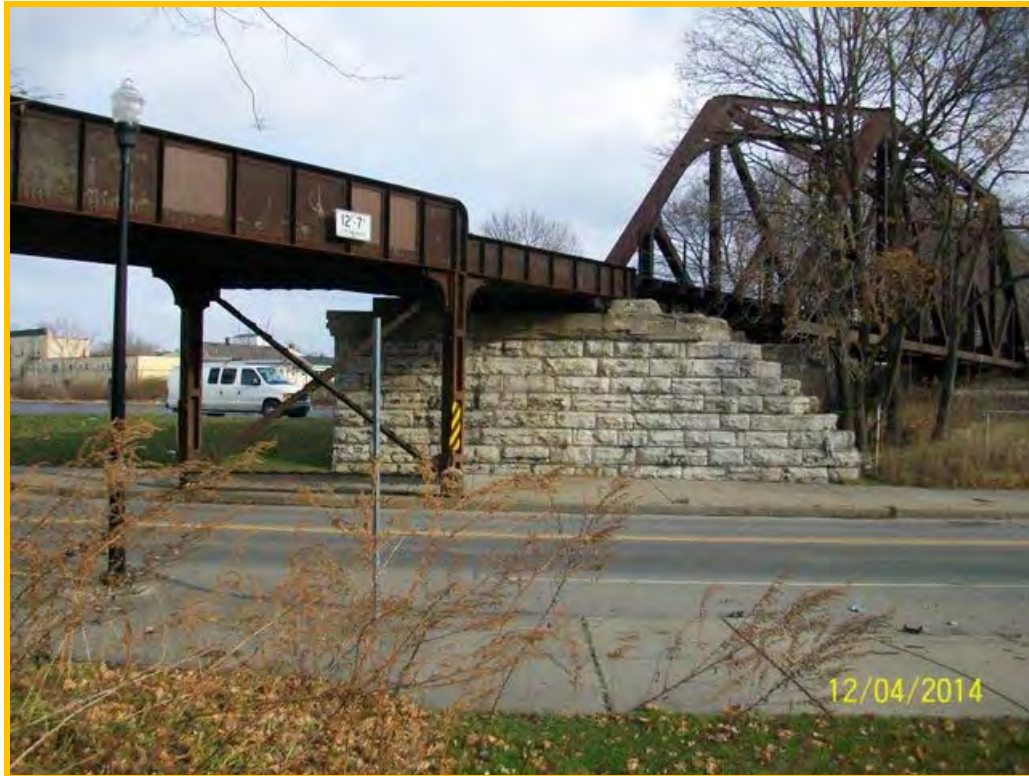
Thank You to All Who Attended!

APPENDIX C

Josana Rail to Trail Feasibility Study

Bridge Evaluation Report

City of Rochester, New York



Prepared for
Bergmann Associates
May 2015


**RAVI ENGINEERING
& LAND SURVEYING, P.C.**
2110 S. Clinton Ave., Suite 1
Rochester, NY 14618
(585) 697-2072

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Appendix A - Orchard Street Bridge Inspection Photos

Appendix B - Broad Street Bridge Inspection Photos

Appendix C - Moore Street Bridge Inspection Photos

INTRODUCTION

Ravi Engineering & Land Surveying, P.C. performed a visual inspection of the former New York Central and Hudson River Railroad bridges over Orchard Street, Broad Street, and Moore Street in the City of Rochester, New York. The subject bridges were constructed circa 1905. The purpose of this inspection was to evaluate the viability of using the existing bridges as part of the Josana Trail. The field inspection was performed by Glenn Klein, PE, and Dawn Urbino on December 4, 2014. Access to the structure was accomplished by walking and using an extension ladder.

GENERAL DESCRIPTION AND CONDITION FINDINGS

Orchard Street Bridge (BIN 7706760)



The Orchard Street Bridge superstructure consists of a single span steel thru-girder-floorbeam configuration. The bridge length is 63' and the width is approximately 16' out-to-out. Refer to Appendix A for inspection photos of the Orchard Street Bridge.

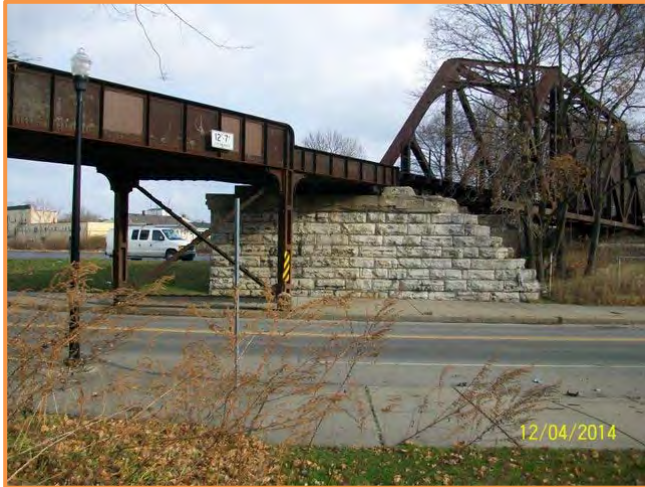
The minimum clear width on the bridge is approximately 11' between knee-braces inside of the girders. The vertical clearance for Orchard Street is posted at 11'-10", and the actual minimum vertical clearance beneath the bridge measures 12.9'. Roadway clearances less than 14'-0" require regulatory vertical clearance posting signs. There is no evidence of impact damage.

The main girders consist of built-up riveted plates and angles. The floorbeams are rolled beams. The bridge has a steel plate deck with approximately 6" of stone ballast.

The main girders are connected to the floor system and stiffened by knee-braces. All of the knee-braces are severely corroded near the surface of the ballast, with rust holes at most locations. At the southeast corner of the bridge, one isolated floorbeam is heavily corroded at the connection to the girder. Otherwise, the girders and floorbeams are in relatively good condition. Paint failure affects approximately 50% of the superstructure, but most areas have only minor surface rust. No defects were noted on the bottom of the deck plate. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.

The abutments consist of concrete gravity walls. Exposed surfaces exhibit widespread map cracking and hollow-sounding areas, but there is no apparent structural cracking or displacement. The approach embankment is eroded at the southeast corner of the bridge.

Broad Street Bridge (BIN 7021600)



The bridge over Broad Street and the former Erie Canal bed is a five span structure. The bridge is skewed 40 degrees. From west to east, the span configuration is as follows:
Span 1 - 21' long thru-girder-floorbeam
Span 2 - 35' long thru-girder-floorbeam
Span 3 - 21' long thru-girder-floorbeam
Span 4 - 24' long twin deck-girder
Span 5 - 132' long thru-truss

Refer to Appendix B for inspection photos of the Broad Street Bridge.

The minimum clear width on the bridge is approximately 11' between knee-braces in Spans 2 and 5.

Spans 1 through 3 are over Broad Street. The vertical clearance beneath Span 2 is posted at 12'-7", and the actual minimum vertical is approximately 13.59' to the brackets above the curb line. There is minor impact damage on the north girder over the southbound travel lane. The main girders consist of built-up riveted plates and angles. The floorbeams are rolled beams. All members are in fair to good condition. These spans have a steel plate deck with approximately 6" of stone ballast. There is an isolated 4" diameter rust hole in the deck plate near the northwest corner of Span 1. No other defects were noted on the bottom of the deck plate. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.



Piers 1 and 2 straddle Broad Street and consist of steel pier bents with built-up riveted columns and bracing. The width of Broad Street is constricted between the piers, and there is moderate to severe impact damage on both piers. Broad Street has parking lanes or shoulders on both sides of the bridge, which end fairly abruptly as the curbs taper to the narrower opening beneath the bridge. In addition to impact damage, the lower portions of the columns and bracing have moderate to severe corrosion and section loss in the splash zone at the edge of the roadway.

Piers 3 and 4 consist of stone masonry stem walls with a concrete seat. Portions of the stone masonry were widened with concrete.

The stone portions are in good condition, but the concrete is generally in poor condition. There is widespread cracking and hollow-sounding surfaces, with scattered areas of spalling and crumbling concrete. Worst spalling at the southwest corner of Pier 3 extends to the edge of a bearing masonry plate, but there is no undermining at this time.

Span 4 is a short two-girder span with timber ties. The girders consist of built-up riveted plates and angles with double web plates. The girder webs are heavily corroded near the bearing areas at the ends of the span. A rust hole in the web was noted at the southwest corner, but there are robust built-up bearing stiffeners next to the hole and there is no related distress. The timber ties are in fair condition with moderate decay affecting approximately 20% of the ties.

Span 5 is a large Baltimore thru-truss over the former canal bed. The main truss members and overhead bracing components are generally in good condition. The floor system consists of built-up transverse floorbeams, longitudinal stringers, bottom lateral bracing, and timber ties. There is moderate corrosion and pack rust on the floorbeams and stringers, with section losses estimated at 20% to 30%. The bottom lateral bracing is heavily corroded with section losses up to 50%. The timber ties are in fair to good condition with isolated minor decay.

There is widespread paint failure throughout the superstructure and Piers 1 and 2, but most areas have only minor surface rust. Active corrosion and section loss is generally limited to the areas of deterioration noted above.

The abutments consist of stone masonry stem walls with concrete seats. The stone portions are generally in good condition, but the concrete portions are deteriorated. The west abutment has widespread cracking and spalling on the south wingwall extending to the corner of the seat. The east abutment is in fair condition, with cracking and minor spalling on the seat.

Moore Street Bridge (BIN 7706770)



The Moore Street Bridge superstructure consists of a three-span steel multi-girder configuration. The overall bridge length is approximately 50' (10.2'+28.6'+11.2') and the width is 26'. Refer to Appendix C for inspection photos of the Moore Street Bridge.

The interior girders are rolled beams spaced at 12" centers. The fascia girders consist of built-up riveted plates and flange angles. The bridge has a steel plate deck with approximately 16" of stone ballast.

The ends of the girders have localized corrosion and section loss at the abutment seats. There are previous bolted and welded repairs on most interior girders at the west end

of the bridge. The 1st interior girder at the northwest corner of the bridge has a rust hole in the web above the abutment seat. The fascia girders have horizontal bands of corrosion on the web plate along the top of deck. There is widespread paint failure throughout the superstructure, but most areas have only minor surface rust. Active corrosion is generally limited to the areas noted above. No defects were noted on the bottom of the deck plate. Small weep holes in the deck plate allow for drainage of the ballast and there are no apparent drainage problems.

The abutments consist of stone masonry stem walls with concrete seats. The stone portions of the abutment are in fair to good condition, but the concrete portions in the seat area are in poor condition. There is widespread cracking and spalling concrete, but deterioration does not undermine support for the superstructure. Worst spalling is up to 8" deep near the left side of the end abutment. Spalled surfaces crumble when struck.

The piers consist of built-up steel columns and capbeams. The bottom of the pier columns were originally encased in concrete, extending approximately 2.5' above ground level. The encasement has fallen off and the columns exhibit moderate to severe pitting with overall section loss estimated at 30% within approximately 2' above the ground level. The piers are otherwise in good condition. There is widespread paint failure on the piers, but active corrosion only appears to be affecting the bottom of the columns.

RECOMMENDED IMPROVEMENTS FOR TRAIL CONVERSION

In general, the existing bridges appear stable and structurally adequate to support a pedestrian trail at this time. However, there are several areas of moderate to severe deterioration that should be evaluated further during detailed design. Specifically, an in-depth inspection and structural analysis is recommended for the following elements:

- Section loss at bottom of the steel pier columns at Moore Street
- Impact damage and section loss at the steel pier columns at and Broad Street
- Floor framing and bottom lateral bracing on the truss span at Broad Street

The paint system is in poor condition on each of the subject bridges. Most exposed steel exhibits only minor surface rust, but there are numerous areas of active corrosion and pack rust, especially below deck. Ongoing corrosion may limit the service life of the bridges. Since painting the bridges in their entirety may be cost-prohibitive, spot cleaning and painting is recommended in areas of active corrosion.

Concrete portions of the substructures are generally in poor condition. The concrete is approximately 110 years old, and there are widespread areas of cracking, spalling, and hollow-sounding concrete. However, all of the substructures appear stable and functional, with no evidence of movement or global distress. Several seat areas have crumbling concrete near the superstructure bearings, but there is no undermining or loss of support at this time. Depending on the project objectives and budget, some extent of concrete rehabilitation should be performed during construction of the trail. At a minimum, deteriorated seat concrete should be reconstructed to ensure the structural integrity of areas surrounding the bearings. Restoring the substructures to good condition would involve refacing concrete surfaces and repointing the stone masonry. This may be cost prohibitive and the improvements would be somewhat cosmetic rather than structural.

The narrow horizontal clearance at Broad Street (SR 31) creates a potential safety hazard for vehicular traffic, as well as collision vulnerability for the bridge. There is moderate to severe impact damage on the left column at Pier 1 and on the right column at Pier 2. NYSDOT should be consulted regarding this apparent non-standard feature during preliminary design. An accident analysis may be warranted for this area, but this is beyond the scope of this feasibility study.

Orchard Street, Moore Street, and Spans 1 through 3 at Broad Street have continuous steel plate decks with ballast. Converting these spans to trail use would involve removing the rails and ties, and constructing the standard asphalt or gravel trail surface over the bridge. A 10' trail width could be accommodated on these spans.

For Spans 4 and 5 at Broad Street, a closed deck surface would need to be constructed. A timber deck could be constructed over the existing timber ties, but this system would be vulnerable to vandalism and arson. A concrete deck is recommended since it would be less vulnerable to vandalism and arson, and it would provide an ideal surface for pedestrian and bicycle use. With the existing timber ties removed, a new concrete deck could be supported by the existing steel floorbeams and stringers. A 10' trail width could be accommodated on these spans.

New steel railing systems are recommended with approach transitions at the ends of the bridges. Chain link pedestrian fencing is also recommended for the spans over traffic at Broad Street and Orchard Street. Fencing could be mounted behind the railing or on top of the railing, depending on the railing details selected. It is anticipated that an 8' fencing height would be required for spans over traffic.

CONCEPTUAL COST ESTIMATE

Conceptual construction cost estimates for planning purposes are summarized below.

Item	Orchard Street	Broad Street Spans 1-3	Broad Street Spans 4-5	Moore Street
Bridge/Approach Railing (\$120/LF)	\$20,000	\$21,000	\$40,000	\$17,000
Pedestrian Fencing (\$80/LF)	\$10,000	\$12,000	-	-
Concrete Deck (\$50/SF)	-	-	\$102,000	-
Spot Painting Allowance	\$20,000	\$30,000	\$50,000	\$20,000
Concrete/Steel Repair Allowance	\$10,000	\$20,000	\$20,000	\$20,000
Misc./Contingency (25%)	\$15,000	\$21,000	\$53,000	\$15,000
Total	\$75,000	\$104,000	\$265,000	\$72,000

The total construction cost for trail conversion of all three bridges is estimated at \$516,000. This estimate assumes minimal concrete repair work will be performed, as necessary to address structural concerns. More extensive repairs to restore all substructure surfaces are not included. Refacing all concrete and repointing stone masonry would increase the project cost by approximately \$0.5M. Similarly, painting is limited to areas prone to active corrosion rather than painting the entire bridge. Painting all structural steel would increase the project cost by approximately \$1M to \$2M. For spans with plate decks and ballast, the costs for rail/tie removal and standard trail construction are not included above. It is anticipated at these costs would be similar to constructing the trail over land.

It is recommended that the following issues be studied further during preliminary design:

- Hazardous materials such as lead, asbestos, and other contaminants may exist at the bridge sites and throughout the project corridor. A comprehensive environmental screening should be conducted during the preliminary design phase.
- An accident analysis and coordination with NYSDOT is recommended for Broad Street (SR 31) due to the narrow horizontal clearance beneath the bridge.
- The pros and cons of various span replacement alternatives should be evaluated in addition to rehabilitation. For instance, it may be preferable to replace the 3 spans over Broad Street with a single-span structure to improve safety. However, impacts on historical resources would also need to be evaluated.

Accounting for the engineering design services, a minimum bridge rehabilitation cost of \$600,000 is suggested for planning and budgetary purposes. Depending on anticipated design objectives, it may be appropriate to allocate additional funding for painting and substructure restoration as discussed above.

Appendix A

Orchard Street Bridge Inspection Photos

BRIDGE INSPECTION REPORT

BIN 7706760 REGION 4 COUNTY 3-Monroe SHEET 1 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Orchard Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	1
BIN:	7706760
LOCATION:	
DESCRIPTION:	South Elevation
REFERENCES:	



PHOTO NO:	2
BIN:	7706760N/A
LOCATION:	
DESCRIPTION:	East Approach
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706760 REGION 4 COUNTY 3-Monroe SHEET 2 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Orchard Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	3
BIN:	7706760
LOCATION:	
DESCRIPTION:	West Approach
REFERENCES:	



PHOTO NO:	4
BIN:	7706760
LOCATION:	
DESCRIPTION:	Framing, looking from west end
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706760 REGION 4 COUNTY 3-Monroe SHEET 3 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Orchard Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	5
BIN:	7706760
LOCATION:	
DESCRIPTION:	Top of deck, showing tracks and ballast, and knee-brace configuration
REFERENCES:	



PHOTO NO:	6
BIN:	7706760
LOCATION:	
DESCRIPTION:	Typical knee-brace corrosion at top of ballast
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706760 REGION 4 COUNTY 3-Monroe SHEET 4 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Orchard Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	7
BIN: 7706760	
LOCATION:	
DESCRIPTION: Corroded floorbeam at southeast corner of bridge	
REFERENCES:	



PHOTO NO:	8
BIN: 7706760	
LOCATION:	
DESCRIPTION: West abutment	
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706760 REGION 4 COUNTY 3-Monroe SHEET 5 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Orchard Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	9
BIN:	7706760
LOCATION:	
DESCRIPTION:	East abutment
REFERENCES:	



PHOTO NO:	10
BIN:	7706760
LOCATION:	
DESCRIPTION:	East abutment seat
REFERENCES:	

Appendix B

Broad Street Bridge Inspection Photos

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 1 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	1
BIN:	7021600
LOCATION:	
DESCRIPTION:	South elevation
REFERENCES:	



PHOTO NO:	2
BIN:	7021600
LOCATION:	
DESCRIPTION:	West approach
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 2 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	3
BIN: 7021600	
LOCATION:	
DESCRIPTION: East approach	
REFERENCES:	



PHOTO NO:	4
BIN: 7021600	
LOCATION:	
DESCRIPTION: Spans 1 through 3, south elevation	
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 3 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	5
BIN:	7021600
LOCATION:	
DESCRIPTION:	Span 1 framing (Spans 2 and 3 are similar)
REFERENCES:	



PHOTO NO:	6
BIN:	7021600
LOCATION:	
DESCRIPTION:	Span 2 north girder, showing minor impact damage over southbound lane
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 4 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	7
BIN: 7021600	
LOCATION:	
DESCRIPTION: Pier 1 (Pier 2 is similar)	
REFERENCES:	



PHOTO NO:	8
BIN: 7021600	
LOCATION:	
DESCRIPTION: Pier 1, north column	
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 5 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	9
BIN:	7021600
LOCATION:	
DESCRIPTION:	Pier 2, south column and bottom strut
REFERENCES:	



PHOTO NO:	10
BIN:	7021600
LOCATION:	
DESCRIPTION:	Span 4, north elevation and Piers 3 and 4
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 6 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	11
BIN:	7021600
LOCATION:	
DESCRIPTION:	Pier 3 seat at Span 3 south girder
REFERENCES:	



PHOTO NO:	12
BIN:	7021600
LOCATION:	
DESCRIPTION:	Span 4 south girder at Pier 3
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 7 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	13
BIN: 7021600	
LOCATION:	
DESCRIPTION: Span 5, north elevation	
REFERENCES:	



PHOTO NO:	14
BIN: 7021600	
LOCATION:	
DESCRIPTION: Span 5 deck framing	
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 8 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	15
BIN:	7021600
LOCATION:	
DESCRIPTION:	Top of deck, looking east from Span 4
REFERENCES:	



PHOTO NO:	16
BIN:	7021600
LOCATION:	
DESCRIPTION:	Top of deck, looking west from Span 4
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7021600 REGION 4 COUNTY 3-Monroe SHEET 9 OF 9
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Broad Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	17
BIN:	7021600
LOCATION:	
DESCRIPTION:	West abutment
REFERENCES:	



PHOTO NO:	18
BIN:	7021600
LOCATION:	
DESCRIPTION:	East abutment
REFERENCES:	

Appendix C

Moore Street Bridge Inspection Photos

BRIDGE INSPECTION REPORT

BIN 7706770 REGION 4 COUNTY 3-Monroe SHEET 1 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Moore Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	1
BIN:	7706770
LOCATION:	
DESCRIPTION:	North Elevation
REFERENCES:	



PHOTO NO:	2
BIN:	7706770
LOCATION:	
DESCRIPTION:	
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706770 REGION 4 COUNTY 3-Monroe SHEET 2 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Moore Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	3
BIN:	7706770
LOCATION:	
DESCRIPTION:	Span 2 framing (Span 1 and 3 are similar)
REFERENCES:	



PHOTO NO:	4
BIN:	7706770
LOCATION:	
DESCRIPTION:	Span 1 north interior girder at begin abutment
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706770 REGION 4 COUNTY 3-Monroe SHEET 3 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Moore Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	5
BIN:	7706770
LOCATION:	
DESCRIPTION:	South fascia girder near Pier 2
REFERENCES:	



PHOTO NO:	6
BIN:	7706770
LOCATION:	
DESCRIPTION:	West abutment and Pier 1
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706770 REGION 4 COUNTY 3-Monroe SHEET 4 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Moore Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	7
BIN:	7706770
LOCATION:	
DESCRIPTION:	East abutment and Pier 2
REFERENCES:	



PHOTO NO:	8
BIN:	7706770
LOCATION:	
DESCRIPTION:	West abutment seat (Concrete appears to have been removed to accommodate previous steel repairs.)
REFERENCES:	

BRIDGE INSPECTION REPORT

BIN 7706770 REGION 4 COUNTY 3-Monroe SHEET 5 OF 5
 FEATURE CARRIED CSX Railroad FEATURE CROSSED Moore Street
 INSPECTED BY Glenn T. Klein, PE TITLE Team Leader DATE 12/4/2014



PHOTO NO:	9
BIN:	7706770
LOCATION:	
DESCRIPTION:	East abutment seat near north side
REFERENCES:	



PHOTO NO:	10
BIN:	7706770
LOCATION:	
DESCRIPTION:	Pier 2 south column
REFERENCES:	

APPENDIX D

	PHASE 1
	PHASE 2
	PHASE 3
	PHASE 4
	PHASE 5
	PHASE 6

Opinion of Probable Cost

June 3, 2015

Item Description	Unit	Quantity	Unit Price	Cost
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Hague Street to Murray Street

Clearing and Grubbing	AC	1.6	\$4,500	\$7,200
Tree Removal (assumed quantity)	EA	5	\$400	\$2,000
Prune Existing Trees and Shrubs	LS	1	\$5,000	\$5,000
Tree Protection Fencing	LF	580	\$5	\$2,900
Asphalt Trail - Including Excavation and Subbase	SF	16,000	\$5.50	\$88,000
Asphalt Pavement Construction - Including Excavation and Subbase - For Trailhead Parking	SF	170	\$12	\$2,040
Integral Color Concrete - Including Excavation and Subbase	CY	26	\$550	\$14,300
Embedded Railroad Ties	EA	24	\$525	\$12,600
Zig Zag Fence	LF	400	\$75	\$30,000
Wayfinding / Information Kiosk	EA	2	\$10,000	\$20,000
Ornamental Benches	EA	3	\$5,000	\$15,000
Interpretive Signage	EA	2	\$7,000	\$14,000
TrailRoad Crossing Sign	EA	2	\$5,000	\$10,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Skateboard Park Elements	EA	4	\$5,000	\$20,000
Skateboard Park Wall (Concrete Wall)	FT	125	\$625	\$78,125
Topsoil - Assume 4" depth	CY	300	\$60	\$18,000
Hydroseeding	SF	23,600	\$0.25	\$5,900
Establishing Wildflowers	SF	11,550	\$0.50	\$5,775
Planting Beds - Including Topsoil, Plants and Mulch	SF	1,875	\$15	\$28,125
Shade Tree Plantings	EA	24	\$600	\$14,400
Hague Street to Murray SUB-TOTAL				\$395,565

Murray Street Intersection

Integral Color Concrete - Including Excavation and Subbase	CY	17	\$550	\$9,350
Asphalt Pavement Construction - Including Excavation and Subbase - Track Restoration	SF	1,450	\$12	\$17,400
Crosswalk Treatment	SY	43	\$250	\$10,750
Curb	LF	95	\$55	\$5,225
Pavement Markings	LF	64	\$1	\$64
TrailRoad Crossing Sign	EA	2	\$5,000	\$10,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Murray Street Intersection Street SUB-TOTAL				\$54,989

Item Description	Unit	Quantity	Unit Price	Cost
Murray Street to Child Street				
Clearing and Grubbing	AC	0.9	\$4,500	\$4,095
Tree Removal (assumed quantity)	EA	5	\$400	\$2,000
Prune Existing Trees and Shrubs	LS	1	\$5,000	\$5,000
Tree Protection Fencing	LF	550	\$5	\$2,750
Asphalt Trail - Including Excavation and Subbase	SF	10,080	\$5.50	\$55,440
Asphalt Pavement Construction - Including Excavation and Subbase - For Trailhead Parking	SF	400	\$12	\$4,800
Embedded Railroad Ties	EA	76	\$525	\$39,900
Zig Zag Fence	LF	400	\$75	\$30,000
Remove and Replace Chain Link Fence	LF	350	\$50	\$17,500
Wayfinding / Information Kiosk	EA	3	\$10,000	\$30,000
Ornamental Benches	EA	3	\$5,000	\$15,000
Interpretive Signage	EA	2	\$7,000	\$14,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Topsoil - Assume 4" depth	CY	167	\$60	\$10,020
Hydroseeding	SF	13,550	\$0.25	\$3,388
Establishing Wildflowers	SF	6,500	\$0.50	\$3,250
Planting Beds - Including Topsoil, Plants and Mulch	SF	1,000	\$15	\$15,000
Shade Tree Plantings	EA	15	\$600	\$9,000
Murray Street to Child Street SUB-TOTAL				\$263,343

Child Street Intersection

Integral Color Concrete - Including Excavation and Subbase	CY	17	\$550	\$9,350
Asphalt Pavement Construction - Including Excavation and Subbase - Track Restoration	SF	1,450	\$12	\$17,400
Crosswalk Treatment	SY	43	\$250	\$10,750
Curb	LF	95	\$55	\$5,225
Pavement Markings	LF	64	\$1	\$64
Trail Road Crossing Sign	EA	2	\$5,000	\$10,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Child Street Intersection SUB-TOTAL				\$54,989

Child Street to Whitney Street

Clearing and Grubbing	AC	0.9	\$4,500	\$4,095
Asphalt Trail - Including Excavation and Subbase	SF	8,200	\$5.50	\$45,100
Asphalt Pavement Construction - Including Excavation and Subbase - For Trailhead Parking	SF	720	\$12	\$8,640
Embedded Railroad Ties	EA	27	\$525	\$14,175
Zig Zag Fence	LF	160	\$75	\$12,000
Natural Play Area	LS	1	\$298,000	\$298,000
Community Gardens (Including Excavation and Planting Soil)	SF	1,050	\$15	\$15,750
Stone Dust Path Around Community Gardens	SY	335	\$25	\$8,375
Wayfinding / Information Kiosk	EA	2	\$10,000	\$20,000
Ornamental Benches	EA	4	\$5,000	\$20,000
Interpretive Signage	EA	2	\$7,000	\$14,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Topsoil - Assume 4" depth	CY	195	\$60	\$11,700
Hydroseeding	SF	15,500	\$0.25	\$3,875
Establishing Wildflowers	SF	1,000	\$0.50	\$500
Planting Beds - Including Topsoil, Plants and Mulch	SF	1,400	\$15	\$21,000
Shade Tree Plantings	EA	16	\$600	\$9,600
Child Street to Whitney Street SUB-TOTAL				\$509,010

Item Description	Unit	Quantity	Unit Price	Cost
Whitney Street Intersection				
Integral Color Concrete - Including Excavation and Subbase	CY	17	\$550	\$9,350
Asphalt Pavement Construction - Including Excavation and Subbase - Track Restoration	SF	1,450	\$12	\$17,400
Crosswalk Treatment	SY	43	\$250	\$10,750
Curb	LF	95	\$55	\$5,225
Pavement Markings	LF	64	\$1	\$64
Trail/Road Crossing Sign	EA	2	\$5,000	\$10,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Whitney Street Intersection SUB-TOTAL				\$54,989

Whitney Street to Orchard Street

Clearing and Grubbing	AC	0.5	\$4,500	\$2,250
Prune Existing Trees and Shrubs	LS	1	\$5,000	\$5,000
Asphalt Trail - Including Excavation and Subbase	SF	6,500	\$5.50	\$35,750
Embedded Railroad Ties	EA	14	\$525	\$7,350
Zig Zag Fence	LF	100	\$75	\$7,500
Wayfinding / Information Kiosk	EA	3	\$10,000	\$30,000
Ornamental Benches	EA	3	\$5,000	\$15,000
Interpretive Signage	EA	2	\$7,000	\$14,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	4	\$550	\$2,200
Topsoil - Assume 4" depth	CY	160	\$60	\$9,600
Hydroseeding	SF	13,000	\$0.25	\$3,250
Planting Beds - Including Topsoil, Plants and Mulch	SF	1,000	\$15	\$15,000
Shade Tree Plantings	EA	6	\$600	\$3,600
Whitney Street to Orchard Street SUB-TOTAL				\$150,500

Orchard Street Bridge

Orchard Street Bridge Improvements (Per Ravi Engineering)	LS	1	\$75,000	\$75,000
Orchard Street Bridge SUB-TOTAL				\$75,000

Orchard Street to Broad Street

Clearing and Grubbing	AC	0.5	\$4,500	\$2,250
Tree Removal (assumed quantity)	EA	5	\$400	\$2,000
Prune Existing Trees and Shrubs	LS	1	\$5,000	\$5,000
Tree Protection Fencing	LF	450	\$5	\$2,250
Earthwork - Assume cut/fill balance onsite For Ramp	CY	230	\$15	\$3,450
Asphalt Trail - Including Excavation and Subbase	SF	6,050	\$5.50	\$33,275
Embedded Railroad Ties	EA	14	\$525	\$7,350
Zig Zag Fence	LF	200	\$75	\$15,000
Wayfinding / Information Kiosk	EA	2	\$10,000	\$20,000
Ornamental Benches	EA	2	\$5,000	\$10,000
Interpretive Signage	EA	2	\$7,000	\$14,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	2	\$550	\$1,100
Topsoil - Assume 4" depth	CY	77	\$60	\$4,620
Hydroseeding	SF	6,200	\$0.25	\$1,550
Shade Tree Plantings	EA	5	\$600	\$3,000
Orchard Street to Broad Street SUB-TOTAL				\$124,845

Broad Street Bridge

Broad Street Bridge Improvements (Per Ravi Engineering)	LS	1	\$369,000	\$369,000
Banners	EA	8	\$2,000	\$16,000
Lighting	LS	1	\$20,000	\$20,000
Gateway Signage	EA	2	\$15,000	\$30,000
Broad Street Bridge SUB-TOTAL				\$435,000

Item Description	Unit	Quantity	Unit Price	Cost
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Broad Street to Oak Street

Moore Street Bridge Improvements (Per Ravi Engineering)	LS	1	\$72,000	\$72,000
Clearing and Grubbing	AC	1.1	\$4,500	\$4,950
Tree Removal (assumed quantity)	EA	5	\$400	\$2,000
Prune Existing Trees and Shrubs	LS	1	\$5,000	\$5,000
Tree Protection Fencing	LF	915	\$5	\$4,575
Earthwork - Assume cut/fill balance onsite For Ramp	CY	220	\$15	\$3,300
Retaining Wall For Ramp	LF	150	\$625	\$93,750
Asphalt Trail - Including Excavation and Subbase	SF	12,000	\$5.50	\$66,000
Integral Color Concrete - Including Excavation and Subbase	CY	14	\$550	\$7,700
Embedded Railroad Ties	EA	31	\$525	\$16,275
Zig Zag Fence	LF	200	\$75	\$15,000
Remove and Replace Chain Link Fence	LF	425	\$50	\$21,250
Wayfinding / Information Kiosk	EA	2	\$10,000	\$20,000
Ornamental Benches	EA	5	\$5,000	\$25,000
Interpretive Platform	LS	1	\$50,000	\$50,000
Interpretive Signage	EA	2	\$7,000	\$14,000
MUTCD Trail Signage (Including Post and Sign Panels)	EA	2	\$550	\$1,100
Topsoil - Assume 4" depth	CY	163	\$60	\$9,780
Hydroseeding	SF	13,000	\$0.25	\$3,250
Planting Beds - Including Topsoil, Plants and Mulch	SF	1,500	\$15	\$22,500

Broad Street to Oak Street SUB-TOTAL **\$457,430**

SUB-TOTAL **\$2,575,660**

Mobilization (4%)	LS	1		\$103,100
Basic Work Zone Traffic Control (5%)	LS	1		\$128,800
Survey Operations (5%)	LS	1		\$128,800
Erosion and Sediment Control (5%)	LS	1		\$128,800
Design (15%)	LS	1		\$386,400
Inspection (15%)	LS	1		\$386,400
Incidentals (15%)	LS	1		\$386,400

TOTAL **\$4,224,360**

Contingency (20%) **\$844,872**

GRAND TOTAL PRELIMINARY COST **\$5,069,231**

Assumptions

APPENDIX E

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project:		
Project Location (describe, and attach a general location map):		
Brief Description of Proposed Action (include purpose or need):		
Name of Applicant/Sponsor:		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Project Contact (if not same as sponsor; give name and title/role):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, or Village Board of Trustees <input type="checkbox"/> Yes <input type="checkbox"/> No		
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input type="checkbox"/> No		
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
e. County agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
f. Regional agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
g. State agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
h. Federal agencies <input type="checkbox"/> Yes <input type="checkbox"/> No		
i. Coastal Resources. <ul style="list-style-type: none"> <li data-bbox="121 829 1485 861">i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/> Yes <input type="checkbox"/> No <li data-bbox="121 892 1485 924">ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/> Yes <input type="checkbox"/> No <li data-bbox="121 924 1485 955">iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/> Yes <input type="checkbox"/> No 		

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) Yes No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? _____

b. What police or other public protection forces serve the project site?

c. Which fire protection and emergency medical services serve the project site?

d. What parks serve the project site?

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)?

b. a. Total acreage of the site of the proposed action? _____ acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ acres

c. Is the proposed action an expansion of an existing project or use? Yes No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No
If Yes,

i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? Yes No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? Yes No

i. If No, anticipated period of construction: _____ months

ii. If Yes:

- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? Yes No
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No
 If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No
 If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source.

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
 If Yes:

i. What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

iv. Will there be onsite dewatering or processing of excavated materials? Yes No
 If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? Yes No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will proposed action cause or result in disturbance to bottom sediments? Yes No

If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No

If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No

If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No

If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No

If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

• Do existing sewer lines serve the project site? Yes No
 • Will line extension within an existing district be necessary to serve the project? Yes No
 If Yes:
 • Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No
 If Yes:
 • Applicant/sponsor for new district: _____
 • Date application submitted or anticipated: _____
 • What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No
 If Yes:
 i. How much impervious surface will the project create in relation to total size of project parcel?
 _____ Square feet or _____ acres (impervious surface)
 _____ Square feet or _____ acres (parcel size)
 ii. Describe types of new point sources. _____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

 • If to surface waters, identify receiving water bodies or wetlands: _____

• Will stormwater runoff flow to adjacent properties? Yes No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No
 If Yes, identify:
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No
 If Yes:
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No
 ii. In addition to emissions as calculated in the application, the project will generate:
 • _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
 • _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
 • _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
 • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)
 • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p><i>i.</i> During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____ 	<p><i>ii.</i> During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: _____ • Saturday: _____ • Sunday: _____ • Holidays: _____
---	--

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:</p> <p>_____</p> <p>_____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p> <p>_____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p> <p>_____</p> <p>_____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p> <p>_____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s):</p> <p>_____</p> <p>_____</p> <p>_____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ _____ • Operation: _____ _____ 	

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site.
 Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Aquatic Other (specify): _____
 ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertypes	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? Yes No
If Yes:
i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No
If Yes:
i. Has the facility been formally closed? Yes No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site: _____ %
 _____ %
 _____ %

d. What is the average depth to the water table on the project site? Average: _____ feet

e. Drainage status of project site soils: Well Drained: _____ % of site
 Moderately Well Drained: _____ % of site
 Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ % of site
 10-15%: _____ % of site
 15% or greater: _____ % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No
 If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No
 If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100 year Floodplain? Yes No

k. Is the project site in the 500 year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No
 If Yes:
 i. Name of aquifer: _____

<p>m. Identify the predominant wildlife species that occupy or use the project site: _____ _____ _____</p>	
<p>n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: <i>i.</i> Describe the habitat/community (composition, function, and basis for designation): _____ _____ <i>ii.</i> Source(s) of description or evaluation: _____ <i>iii.</i> Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres</p>	
<p>o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, give a brief description of how the proposed action may affect that use: _____ _____</p>	
<p>E.3. Designated Public Resources On or Near Project Site</p>	
<p>a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, provide county plus district name/number: _____</p>	
<p>b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>i.</i> If Yes: acreage(s) on project site? _____ <i>ii.</i> Source(s) of soil rating(s): _____</p>	
<p>c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: <i>i.</i> Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature <i>ii.</i> Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____</p>	
<p>d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes: <i>i.</i> CEA name: _____ <i>ii.</i> Basis for designation: _____ <i>iii.</i> Designating agency and date: _____</p>	

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
<i>i.</i> Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District	
<i>ii.</i> Name: _____	
<i>iii.</i> Brief description of attributes on which listing is based: _____	
f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Have additional archaeological or historic site(s) or resources been identified on the project site?	
If Yes:	
<i>i.</i> Describe possible resource(s): _____	
<i>ii.</i> Basis for identification: _____	
h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
<i>i.</i> Identify resource: _____	
<i>ii.</i> Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____	
<i>iii.</i> Distance between project and resource: _____ miles.	
i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?	<input type="checkbox"/> Yes <input type="checkbox"/> No
If Yes:	
<i>i.</i> Identify the name of the river and its designation: _____	
<i>ii.</i> Is the activity consistent with development restrictions contained in 6NYCRR Part 666?	
	<input type="checkbox"/> Yes <input type="checkbox"/> No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name _____ Date _____

Signature _____ Title _____

