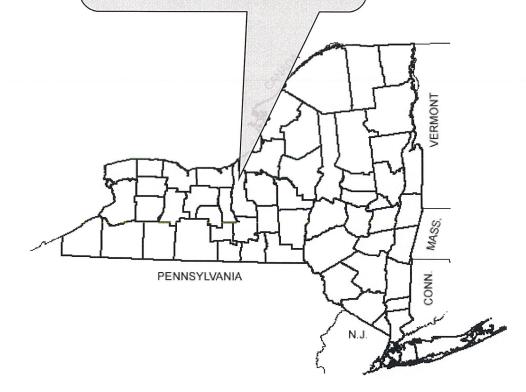
TRANSPORTATION

PROJECT SCOPING REPORT/ FINAL DESIGN REPORT

October 2014

Owasco River Greenway Trail P.I.N. 3755.57 Cayuga County City of Auburn



U.S. Department of Transportation Federal Highway Administration





CITY OF AUBURN



"History's Hometown"

Office of Planning and Economic Development Jennifer L. Haines, Director

July 30, 2014

Mr. Douglas Mills, P.E.
Planning & Program Management Group
Local Projects
NYS DOT
333 East Washington Street
Syracuse, NY 13202

Re:

Design Approval Request Memo

PIN 3755.57- Owasco River Greenway Trail TIGER II NO.P-34

City of Auburn, Cayuga County

Dear Mr. Mills:

Attached for further processing are three copies of the Final Design Report and the Design Approval Request Memo for the Owasco River Greenway Trail project. As indicated by the attached design approval memo, the City of Auburn concurs with the proposed design. Please obtain design approval and FHWA's approval under Section 4F and NEPA.

Thank you for your time and consideration of the City of Auburn's request for design approval. Should you have any questions or require additional information please feel free to contact me at 315-253-5397 or cselvek@auburnny.gov.

ist Selike

Sincerely,

Christina J. Selvek, Director of Capital Projects and Grants

City of Auburn

Attachment

Cc: W. Lupien, P.E., Superintendent of Engineering Services

File

TO:

Christina Selvek, Director of Capital Projects and Grants

FROM:

Frank Delsignore, P.E

Frank A Del Sophie 7-29-14

SUBJECT:

Purpose of Memo - DESIGN APPROVAL REQUEST MEMO

PIN -

3755.57

Project Type -

SHARED USE TRAIL

Route & Limits -

BEGINS IN THE NORTHWESTERN QUADRANT OF THE CITY WITHIN WADSWORTH PARK; EXTENDS THROUGH THE CITY'S CENTRAL BUSINESS DISTRICT AND TERMINATES AT THE SOUTHEASTERN SIDE OF THE CITY TO EMERSON PARK IN THE TOWN OF FLEMING

DATE:

JULY 29, 2014

Location and Cost

This project will augment the City of Auburn's existing transportation system by providing a non-motorized multi-modal corridor. A majority of the trail route will be located along City streets and sidewalks. Off-road portions of the trail will be constructed on publically-owned property for continued connectivity and proximity to the Owasco River. Maintenance of the trail will be conducted by the City of Auburn Department of Public Works. Construction of this 12 mile route is estimated to cost \$8.0M. Portions of the trail will be funded with state and federal funds through a FHWA/NYSDOT transportation Enhancement Grant as well as New York State funds set aside for reconstruction of various streets with the City where the trail will be located. Further buildout of the remaining sections of the trail will occur as funding is secured through, the NYS Department of State, FHWA Transportation Alternatives Program and NYS Community Development Block Grant Program. The approved current work program cost is \$8.0M for construction.

Alternate Description

The off-road portion of the trail will be 10-feet wide with 2-foot wide graded shoulders on either side. The off-road trail will be constructed of a crushed stone sub-base and an asphalt top course. The on-road portion will be located within City streets' right-of way as a shared use lane, a wide curb lane or exclusive bike lane for bicycles with sidewalks used for pedestrians. Road widening will not be required for any of the on-road sections. The project is described in detail in Chapter 1 on page 1-2 of the attached Final Design Report, dated July, 2014.

Standards & Design Exceptions

The design is consistent with the standards listed in the NYSDOT Highway Design Manual Chapter 17, AASHTO Guide for Development of Bicycle Facilities 4th Edition 2012, Americans with Disabilities Act Accessibility Guidelines for Building and Facilities and the United States Access Board Draft Final Accessibility Guidelines for Outdoor Developed Areas. The off-road sections of the trail extends to and along the Owasco River utilizing City and County owned property. City streets will accommodate the onroad portions of the trail.

Traffic Control Plans

Traffic will be maintained during construction.

Environmental Determination

The City of Auburn made a SEQR Negative Declaration for this project on January 23, 2014. FHWA's classification of this project as a NEPA categorical exclusion is requested by this memo. Environmental documentation is contained and/or referenced in Chapter 3 of the Attached Final Design Report.

Procedural Process and Quality Control Statement

Procedurally, this project was progressed using the NYSDOT Locally Administered Federal Aid Procedures Manual. All requirements requisite to these actions and approvals have been met, independent quality control reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures.

Request for Approval

Please indicate your concurrence with the proposed project by signing below and forward this memo and 3 copies of the Final Design Report to NYSDOT Region 3 so they may obtain FHWA's classification of the project as a NEPA Class II categorical exclusion and FHWA's design approval.

I APPROVE THE PREFERRED ALTERNATIVE AS DESCRIBED IN THE ATTACHED FINAL DESIGN REPORT:

Christina Selvek, Director of Capital Projects and Grants

Date

PROJECT APPROVAL SHEET

(Pursuant to SAFETEA-LU Matrix)

A. IPP Approval:	The project cost and schedule are consistent with the Regional Capital Program.					
	The IPP was signed by:	3/17/2011				
	Joseph Flint, P.E. Acting Director, Planning & Program Management Group	And an account of the control of the				
B. Recommendation for Scoping & Design Approval:	The project cost and schedule are consistent with the Regional Capital P	rogram. 4/6/2011				
	Joseph Flint, P.E. Acting Director, Planning & Program Management Group	702011				
C. Recommendation for Scoping, Design, & Nonstandard Feature Approval:	I have read the attached report and concur with the preferred alternative. Mayo, City of Auburn	8/4/2019				
D. Nonstandard Feature Approval:	No nonstandard features have been identified, created, or retained.					
	Mr. Jonathan D. McDade, Division Administrator, FHWA.					
E. Scoping & Design Approval:	The required environmental determinations have been made and alternative for this project is ready for final design.	the preferred				
	Mr. Janothan D. MaDada, Division Administrator, EHWA	SALES AND				

This material is based upon the work supported by the FHWA under Cooperative Agreement No. FHWA TIGER II Grant No. P-34.

Any opinions, findings and conclusions or recommendations expressed in this publication are those of the Authors and do not necessarily reflect the views of the FHWA

LIST OF PREPARERS

Group Director Responsible for Production of the Design Approval Document:

Frank DelSignore, P.E., Principal, CHA Consulting Inc.
Description of Work Performed by Firm: Directed Mary Burgoon AICP and Tim
Faulkner P.E. in the preparation of the Design Approval Document in accordance
with established standards, policies, regulations and procedures, except as
otherwise explained in this document.



2-10-14

Note: It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

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CHAPTER 1 - EXECUTIVE SUMMARY

1.1. Introduction

This project referred to as the Owasco River Greenway Trail Project is a twelve-mile shared use trail extending through the City of Auburn linking Wadsworth Park on the northwest to Emerson Park on the southeast.

This report was prepared in accordance with the NYSDOT Project Development Manual, 17 NYCRR Part 15, and 23 CFR 771.

1.2 Purpose and Need

This project is needed to augment the City of Auburn's existing transportation system by providing a non-motorized multi-modal corridor to help reduce the City's carbon footprint. The project will further the City's efforts to link transportation, housing and environmental policies to improve the City's and region's economic development.

1.2.1 Where is the Project Located?

The project is located in the City of Auburn, NY. It begins in the northwestern quadrant of the City within Wadsworth Park; extends through the City's Central Business District and terminates at the southeastern side of the City to Emerson Park located the Town of Fleming.



1.2.2 Why is the Project Needed?

This project is needed to improve the City of Auburn's existing transportation system by providing a non-motorized multi-modal corridor to help reduce the City's carbon footprint. The project will also allow the city to advance transportation, housing and environmental policies that will improve the City's and region's economic development.

1.2.3. What are the Objectives/Purposes of the Project?

The overall purpose of the project is to create a non-motorized transportation system focused on the Owasco River and connecting the City's residential neighborhoods to the City's Central Business District, employment centers and passive and active recreational opportunities. The Owasco River Greenway Trail will increase mobility, improve safety, provide accessibility, create economic opportunities and improve visibility of the Owasco River. To fulfill the project's purpose, the following objectives will be achieved:

- 1. Transport non-motorized travelers along an aesthetically pleasing trail with views of the Owasco River in an efficient, cost effective, and safe manner.
- 2. Create a non-motorized transportation corridor extending from Wadsworth Park south to Emerson Park providing opportunities for scenic views, recreational use of the river and the potential for linkages to other regional trail systems.
- 3. Create opportunities for the trail to act as a catalyst for economic development by facilitating access to undeveloped/underutilized parcels within the City.
- 4. Locate the trail on publicly-owned property and within existing street right-of-ways.
- 5. Create trail loops to provide residents with a closed transportation system to use for exercise purposes.
- 6. Select a trail route that will not impact existing environmental conditions such as the occurrence of wetlands, endangered species and historic/cultural resources.

1.3. What Alternative is Being Considered?

The following alternatives were considered for this project:

Alternative 1: No Build "Null" Alternative

Alternative 2: Construct the Owasco River Greenway Trail

Alternative 1: No Action (Null) Alternative

This alternative does not address any of the needs of the project or the project objectives. Therefore, it was rejected as a feasible alternative. It is used in this report for comparison of costs and impacts only.

Alternative 2: Construct the Owasco River Greenway Trail System

This alternative consist of the construction of a shared use trail beginning at Wadsworth Park on the northwestern side of the City of Auburn to Emerson Park on the southeastern edge in the Town of Fleming. The trail consists of both an on-road and off-road trail. Preliminary trail route plans are provided in Appendix A.

Thirteen major and minor trail nodes are sited along the trail route for parking, seating, overlooks of the river, picnic facilities, interpretive and directional signage, trash receptacles etc. A major node generally provides more parking and amenities in comparison to a minor node. Character sketches of a major and a minor node, as well as conceptual plans of six nodes including Wadsworth Park are provided in Appendix A as examples of major and minor nodes. A table listing design considerations and amenities for each node is also in Appendix A.

The off-road portion of the trail, located only on publically owned property will be constructed for continued connectivity and to allow trail users to get closer to the Owasco River. The off-road trail will be 10 feet wide with 2-foot wide graded shoulders on either side. Fixed objects within 3 feet from the edge of the trail will be cleared for safety, where possible. The off road trail will be constructed of a crushed stone sub-base and an asphalt top course.

The on-road portion of the trail will be located within city streets' right-of way as a shared use lane, a wide curb lane or exclusive bike lane for bicycles with sidewalks used for pedestrians. Road widening will not be required for any of the on-road sections. Signage and on-road markings following AASHTO's standards will be provided to indicate the location of the trail route.

On-road treatments were selected using the following guidance prepared based on the consultant's engineering judgment and AASHTO's Guide to Bicycle Facilities, 4th Edition, Chapter 2 Bicycle Planning.

Exhibit 1.3-1 On-Road Treatment Guidelines							
Treatment Traffic Volume Functional Adjacent Existing Pavement AADT (Year) Classification Land Use* Width							
Shared Use Lane	Up to 3500	Local or Collector	Low Intensity	varies			
Wide Curb Lane	Less than 10,000	Collector or Arterial	Low to Medium Intensity	24 feet minimum			
Exclusive Bike Lane	Greater than 4500	Collector or Arterial	High Intensity	30 feet minimum			

*Intensity of Land Use is generally defined where the primary land use is as follows:

- · Low: Suburban-style single family residential use, large-lot commercial or industrial use
- Medium: Urban single family residential use, medium-sized lot commercial or industrial use
- · High: Dense residential downtown commercial/industrial uses with multiple driveway cuts onto street

The preferred trail route and nodes are described below as the trail extends from Node #1: Wadsworth Park to Node #13: Emerson Park. Maps showing the location of trail routes and nodes, as well as on-road cross sections, a summary of roadway infrastructure and trail lengths are provided in Appendix A.

The physical and environmental impacts of the route as well as the trail's ability to meet the project goals and objectives have been investigated, assessed and then reviewed by the community.

The trail begins at the western edge of a vacant City-owned property referred to as **Node #1:** Wadsworth Park, a destination point for the trail. The park will consist of hardscape paving surrounding the remaining foundations of some historic structures, interpretative panels, commemorating the history of the site and its former use, seasonal restroom facilities, benches, site lighting and a pedestrian overlook offering spectacular views of the river. Parking is located offsite to limit the disturbance of the park's historic and natural character. The parking lot will be located at 40 Canoga Street, a city-owned parcel. It will accommodate approximately 20 cars and on-site stormwater management. Park visitors will be able to drive to the park, and drop off picnic supplies before parking. It should be noted that NYSOPRHP confirmed that, due to the extent of demolition and earth disturbance, Wadsworth Park (the former site of the Wadsworth Scythe Works) lacks integrity (in terms of historical significance) and that no archeological investigations are recommended at the site.

Vehicular traffic is limited on Wadsworth Street. Currently, Wadsworth Street accommodates two lanes from Wadsworth Park to Canoga Street. Wadsworth Street is limited to one lane between Canoga Street and Aurelius Avenue due to physical constraints. Traffic currently enters Wadsworth Street from Canoga Street and exit onto Aurelius Avenue. Reversing the direction of traffic on Wadsworth Street for park patrons to enter the park from Aurelius Avenue was reviewed during a discussion between City staff, the traffic control officer and consulting traffic engineer as well as through an on-site meeting. It was determined from the preliminary studies completed to date that the proposed changes are considered minor and would not have social, economic and environmental impacts in the project area.

In the future, the Owasco River Greenway Trail has the potential to join with future trails located along County-owned land north of the park connecting eventually to the Erie Canal trail.

The off-road trail extends easterly from the west side of Wadsworth Park, adjacent to the Owasco River connecting to the City-owned combined-sewer overflow (CSO) facility driveway located south of Wadsworth Street, to **Node #2.** This node will be a minor node featuring interpretative signage, benches, bicycle racks, trash receptacles and a pedestrian overlook of the river and remains of the dam located north of Aurelius Avenue.

The on-road trail continues approximately 825 feet southerly on Aurelius Avenue from Wadsworth Street as a shared use lane for bicycles and existing sidewalks for pedestrians. It then turns easterly and continues 1250 feet along Clark Street as shared use lane for bicycles and existing sidewalks for pedestrians to **Node** #3 located at the intersection of North Division Street and Clark Street. This node is a minor node to be constructed as part of the North Division Street Bridge (Pin #375548) reconstruction project scheduled for

completion in 2016. Node #3 will include an overlook of the North Division Street dam with interpretative signage.

The trail continues to **Node #4** a minor node accessed from Clark Street Road through City-owned property that extends to the Owasco River. This node will include an overlook of the Owasco River with four parking spaces, benches and trash receptacles.

The trail crosses over North Division Street before it gets to Node #4, continuing along Clark Street (1145 feet) as an off-road trail with a new sidewalk located on the north side, crossing into the New York State Electric and Gas (NYSEG) Property located at the end of Clark Street. It continues 1046 feet using the NYSEG driveway to access the Owasco River at **Node #5**, a major node located on former Dunn & McCarthy Site. Parking associated with this node is located at the end of Venice Street near the Owasco River. (A conceptual plan of this node is in Appendix A.)

NYSEG will be abandoning the substation located at Node #5 within the next two years. The NYSEG substation on Clark Street is a site of a former manufactured gas plant that was constructed prior to 1904 and produced carburetted water gas until c.1946. NYSEG currently has plans to decommission the substation and remediate the site. Based upon a 2009 NYS DEC Record of Decision report for the NYSEG Clark Street Site (on-file at NYSDEC), it was recommended for remediation of the hazardous waste to be excavated and disposed of off-site. They will remediate the site in 2015 and have expressed willingness to sell the property to the City or negotiate an easement for use of the driveway. From this point, the trail continues as an off-road trail crossing over the Owasco River on a newly constructed pedestrian bridge to a City-owned parcel referred to as the Dunn & McCarthy Site. It then parallels the north side of the Owasco River to Washington Street.

The trail leaves the former Dunn & McCarthy Site, extends south on Washington Street as a shared use lane for bicycles and existing sidewalks for pedestrians where it uses an existing at-grade railroad crossing at the Washington Street/Westbound Arterial intersection. It then continues 1840 feet easterly as an off-road trail located between the Westbound Arterial and the Finger Lakes Railroad to **Node #6**. The existing at-grade crossing is controlled by gates that prevent all vehicles and pedestrians from crossing when activated.

Current travel along both Washington Street and the westbound section of the Arterial is controlled by the appropriate train crossing signage and safeguards. Trail users would be required to follow the same requirements.

The railroad is owned by the Cayuga County Industrial Development Agency (CCIDA) who is in full support of the project. (Appendix D) There is approximately 60 feet between the Arterial and the edge of the railroad track. The trail will be located 30 feet from the centerline of the railroad tracks. Fencing will be installed along the northern edge of the trail to further separate trail users from the railroad tracks.

Node #6 is located within the western section of Curley's Parking lot located at the corner of State Street and the Westbound Arterial. The owner of Curley's Restaurant has agreed to work with the City to designate parking spaces for trail users as long as concerns regarding liability and vehicle turnover are addressed as part of the final design process. A taking of Right-of-Way for the node will be done in accordance with FHWA regulations.

The trail leaves Node #6 and continues south where it extends south for 800 feet along State Street to Dill Street as a wide curb lane for bicycles and existing sidewalks for pedestrians. This section of State Street is 41 feet wide with four lanes of traffic. As part of this project, State Street will be restriped with two wide curb lanes for through traffic and one, two-way center turning lane. This action will not change the Level of Service (LOS) at either intersection of State with Westbound Arterial or Eastbound Arterial; both will remain at LOS B during the AM and PM peak hours. Due to concerns regarding queuing on State Street between the Eastbound Arterial and Dill Street as expressed by the City of Auburn traffic officer during a meeting, it is proposed to fully signalize the intersection of State Street and Dill Street. (See Appendix C: 6/26/13 Steering Committee Meeting Minutes)_During discussions between City staff, the traffic control officer and consulting traffic engineer as well as through an on-site meeting, it was determined that from the preliminary studies completed to date, the proposed changes to State Street and the State/Dill Street_intersection are considered minor and would not have social, economic and environmental impacts in the project area.

A pedestrian-only route (new sidewalk) would start at the corner of State Street and the Westbound Arterial; precede north on State Street and east on West Garden Street. At the end of West Garden Street, it skirts by the corner of the Central High Medical Building and meets the sidewalk along the north side of the Westbound Arterial. This pedestrian only route continues south on North Street and meets up with the preferred trail at the intersection of North Street and Loop Road.

The on-road trail continues 1200 feet north on Dill Street as exclusive bike lanes and existing sidewalks. Currently, Dill Street is 48 feet of pavement with two 9 foot parking lanes and two 15 foot driving lanes. Bike lanes are proposed for Dill Street and Loop Road because of the intensity of land uses and excessive number of driveway cuts along both streets. The bike lanes will be added to Dill Street by reducing the travel lanes to 10 feet, leaving room for two 5 foot bike lanes.

Node #7 is Market Street Park a City-owned park, is located along this section of the trail. It was constructed in 2009. This trail project includes amenities not included in the 2009 park construction budget such as relocating walk surfaces, additional street trees and a powder coated steel deck between the river and Loop Road.

The trail continues east from Node #7 on Loop Road to the intersection of Loop Road and East Genesee Street. Loop Road is currently 48 feet of pavement with four 12 foot travel lanes. Bike lanes will be added to this section of Loop Road by reducing the four lanes to two 12 foot travel lanes, a 14 foot wide two-way center turn lane and two 5 foot bicycle lanes. It was determined that this action will reduce the level of service at adjoining intersections. The City's traffic officer agreed with all proposed revisions to the current street configuration. (See Appendix C: 5/23/12 Steering Committee Meeting Minutes) In addition, during further discussions between City staff, the traffic control officer and consulting traffic engineer as well as through an on-site meeting, it was determined that from the preliminary studies completed to date, the proposed changes are considered minor and would not have social, economic and environmental impacts in the project area.

Eastbound cyclists will travel on Lincoln Street to reach Osborne Street since Loop Road only allows westbound traffic from the Osborne Street/Lincoln Street intersection to the Genesee Street/Loop Road intersection. Signage will be installed along the bike route indicating the direction that bicyclists should take. Lincoln Street will become a shared use lane for bicyclists. Pedestrians will be able to utilize existing sidewalks in both directions on Loop Road, Osborne Street and Lincoln Street.

The trail route takes two separate paths at this point; an on-road and off-road route as it extends along the west side of the Owasco River. The off-road route extends south from the Lincoln Street/Osborne Street approximately 1800 feet along the unimproved street referred to as Canal Street, to the Mill Street Dam (Node #8) and back up to Osborne Street. Node #8 is a minor node with no parking, but pedestrian amenities include benches and directional signage.

A pedestrian-only route (existing sidewalks) starts at the intersection of Loop Road and East Genesee Street, near Node #7 and proceeds northeasterly along East Genesee Street to Owasco Road. The pedestrian route (a new sidewalk) then turns southeast on Owasco Street to Miller Street to the Mill Street Dam at **Node** #9. (A conceptual plan of this node is in Appendix A.) The node will provide parking for people to view the River from their cars or sit on benches provided at the overlook constructed near the dam.

Currently, two-way traffic is allowed on Miller Street. As part of this project, Miller Street would be available for southbound traffic only to create room for a new sidewalk and to eliminate right-hand turns on to Owasco Street. A meeting was conducted with Auburn's Traffic Officer Greg Gilfus where he reviewed this recommendation and approved it. He stated that removing two-way traffic on Miller Street would improve the safety of the intersection of Owasco Street and Miller Street. (See Appendix C: 5/23/12 Steering Committee Meeting Minutes) In addition, during further discussions between City staff, the traffic control officer and consulting traffic engineer as well as through an on-site meeting, it was determined that from the preliminary studies completed to date, the proposed changes are considered minor and would not have social, economic and environmental impacts in the project area.

A seasonal off-road trail starts at Node #9 and extends northwest approximately 1400 feet west along the northern side of the former Auburn Woolen Co. site. This seasonal off-road trail will parallel Miller Street continuing adjacent to the river to the bend of the river. It will follow existing informal trails.

Access to Node #9 from Miller Street is provided using the current driveway to the CSO facility. Development of the trail to this node will improve access to the CSO facility.

The on-road section of the trail extends along Osborne Street beginning at the Lincoln/Osborne Street intersection and continues to Lake Avenue. This section of Osborne Street is slated for reconstruction (PIN #375375) between October 1, 2014 and September 30, 2015 and will include a wide curb lane for bicycles and sidewalks for pedestrians. The on-road section passes through **Node #10**, a minor node which includes a pedestrian bench and trail directional signage.

At Node #10, the trail route extends along a City-owned sewer easement that runs parallel to the Owasco River, advancing up to the street level at the Lake Avenue Bridge where it crosses Lake Avenue and then extends 4400 feet back down along the sewer easement south to **Node #11** located at the State Dam, south of Swift Street. This node will consist of an overlook extending over the spillway to allow for views of the River. Parking, benches, bicycle racks, interpretive signage and site lighting are some of the amenities provided at this node. The City will work with the dam design consultants to incorporate the features of the node into the State Dam Improvement Project. (A conceptual plan of this node is in Appendix A.)

The sewer easement is currently used for maintenance vehicles as well as an informal trail route. The grade change up to the residences located between Osborne Street and the sewer easement is significant. The majority of the property owners currently have fencing or no physical means of accessing the River. This existing condition significantly reduces the potential for conflicts between trail users and property owners. An open house was conducted on June 19, 2012 for property owners located on Osborne Street to discuss the City's proposed use of the sewer easement for the trail. No one expressed opposition at this meeting, although, correspondence from an Osborne Street resident was received about the project. (A copy of this letter can be found in Appendix D: Correspondence.)

The trail leaves Node #11 and extends west along Swift Street as a shared use lane to Lake Avenue. A new sidewalk would be added to Swift Street extending from Throop Avenue to Pulsifer Drive on the north side. The trail would continue south on Lake Avenue where it becomes wide curb lane for bicycles and existing sidewalks for pedestrians to Fleming Street. The City will be completing a Locally Administered Federal Aid Project in 2017 for the repaving of Lake Avenue. At this time, multi-modal improvements to the boulevard style road will be designed and constructed.

The trail will leave Lake Avenue and extends onto Auburn Enlarged City School District (AECSC) property as an off-road trail following two separate routes. First, it will extend along the front of the Auburn Enlarged City School District property. (The AECSC Superintendent provided a letter of support to the project; see Section 3.3.3.11 Section 4f Involvement). It continues onto the portion of Emerson Park located adjacent to school property, extending to White Bridge Road. At this point, the trail crosses the street at-grade, north of the traffic circle, into the portion of Emerson Park located south of White Bridge Road. (The Cayuga County Director of Parks provided a letter of support for this project See Section 3.3.3.11 Section 4f Involvement) This crossing is a mid-block crossing with a crosswalk and appropriate signage. The second route leaves Lake Avenue and extends along the northern edge of School property to the Owasco River. It follows the eastern edge of the School's property to Node #12 and then onto Cayuga County property where it connects to an existing trail that currently extends under White Bridge Road into Emerson Park which is considered Node #13. An off-road connector located along the northern edge of the County-owned land links the two trail routes.

Phased Construction Plan for Alternative 2:

Phase I: The first phase of the trail already has construction funding committed. This phase includes the downtown section extending from Node #6 at Curley's parking lot to Node #10 at the Mill Street Dam. Construction funding for this section was recently secured through a FHWA/NYSDOT Transportation Enhancement Grant awarded in 2013. As stated above, the City also has secured construction funds to resurface Lake Avenue from Swift Street to the City Line (PIN#375599) to begin in FFY 2016. The City is

working to restore construction funds to the Osborne Street Reconstruction Project (PIN#375375) from Loop Road to Lake Avenue.

Long Range Plan: Further build out of the remaining sections of the trail will occur as funding is secured. The City is very active in applying and receiving funds from various federal and state resources. Specifically, funds for constructing the trail will requested from the New York State Department of State Local Waterfront Revitalization Program, the Federal Highway Administration Transportation Alternatives Program and New York State's administered Community Development Block Grant Program.

For a more in-depth discussion of the design criteria see Section 2.3.3.1 of this report.

1.4 Environmental Review

NEPA (National Environmental Policy Act):

This project is classified as a Class II Automatic Categorical Exclusion under the United States Department of Transportation (USDOT) National Environmental Policy Act (NEPA) Regulations, 23 CFR 771.117. A Federal Environmental Approval Worksheet was prepared for the project and is included in Appendix B. The project complies with the requirements of 23 CFR 771.117(d) as a Categorical Exclusion; construction of bicycle and pedestrian lanes, paths, and facilities. The Federal Highway Administration (FHWA) will serve as Lead agency under NEPA. It is noted that coordination with SHPO and NYSDEC is necessary for this project for impacts to historical/cultural resources and wetlands.

SEQRA (State Environmental Quality Review Act): This project is classified as a Type 1 Action in accordance with 6NYCRR Part 617, State Environmental Quality Review (SEQR) Act due to the fact that it passes directly adjacent to the NRHP-listed South Street Area Historic District. A Phase 1A Cultural Resources Survey was completed for this project and as noted in 3.3.3.10 Historic and Archeological Resources, construction of the Project will not require demolition or physical alteration of any buildings or properties listed on or previously determined eligible for listing on the NRHP. Therefore, no direct physical impacts to historic-architectural resources will occur as a result of the Project.

1.5 How will the Alternatives Affect the Environment?

Exhibit 1.5-1 Comparison of Alternatives					
Catagoni	Alternatives				
Category	Null	2			
Wetland impacts	None	None is anticipated but, wetland delineation at the time of detailed design is needed to make a final determination.			
100 year floodplain impact	None	Pedestrian bridge will be built from Clark St. to the Dunn & McCarthy site. ¹			
Archeological Sites Impacted	None	None ²			
Section 106 impacts	None	No Adverse ³			
Section 4(f) impacts		Emerson Park, Auburn High School, Market Street Park, Wadsworth Park			
Noise	None	None			
Impact to forested areas	None	1.75 acres			
Noise Impacts	None	None			
Property impacts	None	None			
Construction Cost	None	\$8,055,00 ⁴			

^{1 T}rail and/nodes located within the floodplain will be constructed of hard surfaces and therefore will not impact the floodplain. The pedestrian bridge will be built to span the existing 100 year floodplain of the Owasco River.

Anticipated Permits/Certifications/Coordination:

New York State Department of Environmental Conservation (NYSDEC):

- State Pollutant Discharge Elimination System (SPDES) General Permit
- Section 401 Water Quality Certification
- Article 15 Stream Disturbance Permit

Army Corps of Engineers (USACE):

Section 404 Nationwide Permit

United States Environmental Protection Agency

- Executive Order 11988 Flood Plain Management
- Executive Order 11990 Wetlands

Coordination

- Federal Highway Administration (Section 4f & Section 106)
- U.S. Fish & Wildlife Service (Threatened and Endangered Species)
- U.S. Army Corps of Engineers (Section 404 Wetlands)
- NYS Office of Parks, Recreation and Historic Preservation (Section 4f & Section 106)
- City of Auburn Floodplain Development Permit
- City of Auburn Highway Work Permit

Others

Local Permits

² Potential archeological sensitive areas will be avoided or fill will be used to protect sensitive areas. Archeological sensitive areas have been mapped and the proposed pedestrian bridge was not located in or adjacent to an archeological sensitive area.

³ A No Adverse Effect from SHPO has been received. (See Appendix D for copy of letter)

⁴Total Cost of Preferred Trail as described in this report.

1.6 What are the Costs & Schedules?

Design Approval is scheduled for May, 2014 with construction scheduled to last 15 months beginning in June, 2015. The construction phases of this project will be funded in a variety of ways. The on-road segments of the trail will be constructed during city street reconstruction projects such as the Osborne Street Reconstruction Project (PIN #375375) scheduled to take place between October 1, 2014 and September 30, 2015 and as part of the North Division Street Bridge (PIN #375548).

Public funding will be sought for the trail's construction such as through the 2014 NYSDOT Transportation Enhancement Program. Other public and private foundations will be tapped and the Auburn School District and Cayuga County Parks Department will be encouraged to construct the section of the trail within school and park properties. The City's Department of Public Works will construct segments of the off-road trail as time allows during times of the year when street maintenance efforts are reduced.

Exhibit 1.6 -1 Project Schedule					
Activity Date Occurred/Tentative					
Scope & Design Approval	May 2014				
PS&E Approval	October 2015				
Construction Start	March 2016				
Construction Complete December 2021					

	Node #1 To & inc. Node #5	Node #6 To & inc. Node #9	Node #9 To & inc. Node #11	Node #11 To & inc. Node #13
Cost Estimate Boundaries	Wadsworth Park to Washington Street	Dunn/McCarthy Site (@ Wash. St.) to Mill St Dam	Mill St. Dam to State Dam	State Dam to Emerson Park
Construction Costs	\$2,330,000	\$1,410,000	\$870,000	\$750,000
Incidentals 10%	\$233,000	\$141,000	\$87,000	\$75,000
Subtotal 1	\$2,563,000	\$1,551,000	\$957,000	\$825,000
Contingency (15% Design Approval)	\$385,000	\$233,000	\$145,000	\$124,000
Subtotal 2	\$2,948,000	\$1,784,000	\$1,102,000	\$949,000
Field Order Change (5%)	\$148,000	\$90,000	\$56,000	\$48,000
Subtotal 3	\$3,096,000	\$1,874,000	\$1,158,000	\$997,000
Mobilization (4%)	\$124,000	\$75,000	\$47,000	\$41,000
Construction Inspection (9%)	\$279,000	\$169,000	\$105,000	\$90,000
Total Alternative Cost	\$3,499,000	\$2,118,000	\$1,310,000	\$1,128,000

Notes:

- Costs shown have been rounded to the nearest \$1000
- · Costs for Nodes are included in segment costs.

1.7 Which Alternative is Preferred?

Only one feasible build alternative has been identified that meets the project objectives. The selection of the preferred alternative was based on a collective decision of the community through input provided at the public meetings and steering committee meetings conducted throughout the planning process. A decision to enter final design will not be made until after the environmental determination and evaluation of the comments on the draft design approval document.

1.8 Who will decide Which Alternative is Chosen and How Can I Be Involved in This Decision?

The City of Auburn applied for and obtained a Federal Highway TIGER II Planning Grant to plan, design and prepare construction documents for the Owasco River Greenway Trail. Project coordination with the public, involved stakeholders and stakeholder agencies has continued throughout the project to identify potential trail routes, environmental concerns and the selection of a preferred route. Discussions with the City have continued to obtain information needed for the preparation of this report.

Exhibit 1.8-1 Public Involvement Plan Schedule of Milestone Dates					
Activity	Date Occurred/Tentative				
Initiation of Project	October, 2011				
Steering Committee	Active though Project				
Public Informational Meeting #1 (Open House)	November, 2011				
Public Informational Meeting #2 (Two Community Workshops)	April 2012				
Public Informational Meeting #3 (Property Owners Open House)	June 2012				
Stakeholder Agency Coordination	Active though Project				
Utility Coordination	Ongoing through Project Design				
Current Project Letting date	February 2016				

Refer to Appendix C for information regarding public involvement and stakeholder input and Appendix D for project correspondence.

You can contact:

Christina Selvek, Project Manager City of Auburn Memorial City Hall 24 South Street Auburn, NY 13021 sselvek@auburnny.gov (315) 255-4115

You can visit the Project's website:

(http://www.auburnny.gov/Public Documents/AuburnNY Planning/Greenway/index).

The remainder of this report is a detailed technical evaluation of the existing conditions, the proposed alternatives, the impacts of the alternatives, copies of technical reports and plans and other supporting information.

CHAPTER 2- PROJECT INFORMATION

2.1 Local Plans for the Project Area

The project is consistent with the City of Auburn's 2010 Comprehensive Plan and is intended to fulfill the policies of the New York State Department of Transportation (NYSDOT) and Central New York Regional Planning and Development Board (CNYRPDB) regarding bicycle and pedestrian concerns. The proposed Owasco River Greenway Trail Plan was introduced in the City's Comprehensive Plan and is intended to set the framework and be a catalyst for the rebirth of the City.

There are no approved developments planned within the project area that will impact traffic operations.

2.2 Abutting Highway Segments and Future Plans for Abutting Highway Segments

According to the New York Statewide Transportation Improvement Program approved on September 30, 2011 for the Federal fiscal years of 2011-2014, there are four future projects directly adjacent to Owasco River Greenway Trail Project. They include:

- Osborne Street: Loop Road to Lake Avenue Reconstruction. The City will submit an Initial Project Proposal in 2015 to NYSDOT for funding consideration for this project which will complete a portion of the Owasco River Greenway Trail with the inclusion of a bicycle shared use lane and ne sidewalks on Osborne Street.
- <u>Traffic Signal Upgrades at various locations within the City</u>. PIN #375443 is currently under construction. Two intersections within the project area will be upgraded. They include the intersections of Seminary Street and Genesee Street and Lake Avenue and Owasco Street.
- North Division Bridge Street Replacement PIN #475548 is scheduled for preliminary design in 2014. The reconstruction of this bridge will allow for the development of a trail node proposed to be located adjacent to the bridge.
- South Street Repaying PIN #375458 is scheduled for completion in 2015. This project will not affect the Owasco River Greenway Trail Project.
- South Street Phase II Reconstruction. The City will submit an Initial Project Proposal in 2015 to NYSDOT for funding consideration for this project. This project will not affect the Owasco River Greenway Trail Project.

2.3 Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1 Traffic and Safety and Maintenance Operations

2.3.1.1 Functional Classification and National Highway System (NHS)

The Owasco River Greenway Trail is not part of the New York State's functional highway system and not on the National Highway System. The trail system will be established for the use of non-motorized recreational activities. Refer to the tables below for the classification of adjacent streets:

Exhibit - 2.3.1.1-1 Classification Data						
Route(s)	Pulsifer Drive	Osborne Street	Lake Ave.	Loop Road	Dill Street	Washington St.
Functional Classification	Urban Collector	Urban Collector	Minor Art.	Minor Art.	Urban Collector	Urban Collector
National Highway System (NHS)	No	No	No	No	No	No
Designated Truck Access Route	No	Yes	No	No	No	No
Qualifying Highway	No	No	Yes	Yes	No	No
Within 1.6 km of a Qualifying Highway	No	Yes	Yes	Yes	Yes	Yes
Within the 4.9 m vertical clearance network	No	No	No	No	No	No

Exhibit - 2.3.1.1-2 Classification Data								
Route(s)	North Division	State Street	Routes 5&20 WB	Routes 5&20 EB	North St	White Bridge Road		
Functional Classification	Minor Arterial	Urban Collector	Principal Arterial	Principal Arterial	Principal Arterial	Major Collector		
National Highway System (NHS)	No	No	Yes	Yes	Yes	No		
Designated Truck Access Route	No	No	Yes	Yes	Yes	Yes		
Qualifying Highway	Yes	No	Yes	Yes	Yes	No		
Within 1.6 km of a Qualifying Highway	Yes	Yes	Yes	Yes	Yes	No		
Within the 4.9 m vertical clearance network	No	No	No	No	No	No		

Exhibit - 2.3.1.1-3 Classification Data							
Route(s)	Swift Street	Owasco Street	Lizette Street	Miller Street	Lincoln Street	Genesee Street	
Functional Classification	Local btwn Lake & Osborne	Major Collector	Local	Local	Local	Principal Arterial	
National Highway System (NHS)	No	No	No	No	No	Yes	
Designated Truck Access Route	Yes	No	No	No	No	Yes	
Qualifying Highway	No	No	No	No	No	Yes	
Within 1.6 km of a Qualifying Highway	No	Yes	Yes	Yes	Yes	Yes	
Within the 4.9 m vertical clearance network	No	No	No	No	No	No	

Exhibit - 2.3.1.1-4 Classification Data							
Route(s)	West Street	Tehan Street	Clark Street	Aurelius Avenue	Wadsworth Street		
Functional Classification	Local	Local	Local	Local	Local		
National Highway System (NHS)	No	No	No	No	No		
Designated Truck Access Route	No	No	No	No	No		
Qualifying Highway	No	No	No	No	No		
Within 1.6 km of a Qualifying Highway	Yes	Yes	Yes	Yes	Yes		
Within the 4.9 m vertical clearance network	No	No	No	No	No		

2.3.1.2 Control of Access

Off-road trail sections within the City of Auburn are considered park facilities and will be subject to the City Park hours of operation – open at dawn and close at dusk. On-road facilities will not restrict access at any time.

Where appropriate, barriers will be provided to prevent motorized vehicular access to the off-road trail sections.

2.3.1.3 Traffic Control Devices

There is a number of existing traffic control devices encountered by the proposed trail. Locations that the proposed trail crosses a roadway are shown in Exhibit 2.3.1.5

Exhibit - 2.3.1.3-1 Traffic Control Devices						
Intersection	Туре	Marked Crosswalk	Pedestrian Signal	Accessible Ramps	Comments	
Wadsworth /Aurelius	Unsignalized	No	No	No		
Aurelius/Clark	Unsignalized	No	No	Partial	Ramp on NE corner	
Clark/Brookfield	Unsignalized	Yes	No	Yes		
Clark/Auburn	Unsignalized	No	No	Yes		
Clark/North Division	Unsignalized	No	No	Partial	None on SE Corner	
Washington/Arterial WB	Signalized	Yes	Yes	Yes	Railroad Crossing Signals also exist at this intersection.	
McMaster/Arterial WB	Unsignalized	Yes	No	Partial	None on North Side	
State/Arterial WB	Signalized	Yes	Yes	Yes		
State/Arterial EB	Signalized	Yes	Yes	Yes		
State/Dill	Unsignalized	Yes	No	Yes		
Dill/North	Signalized	Yes	Yes	Yes		
Loop/East Genesee	Signalized	Yes	Yes	Yes		
Canal/Osborne	Unsignalized	No	No	No		
Osborne/Lake	Signalized	Yes	No	Yes		

Existing crosswalk markings are in varying condition and will be updated as part of this project. Vehicular and pedestrian crosswalk warning signs will be installed as required by the City of Auburn and the MUTCD.

Off-road trail sections will be signed according to the standards of the MUTCD.

2.3.1.4 Traffic Volumes

Existing traffic volumes for the area roadways are shown in the table below. Forecasted traffic volumes are not provided because it is anticipated that the trail improvements will not affect traffic volumes within the City.

Exhibit - 2.3.1.4-1 Traffic Data					
Road	Section	AADT (Year)			
White Bridge Road	Lake to Owasco	5300 (2010)			
Pulsifer Drive	Fleming to Swift	571 (2010)			
Osborne Street	Swift to Lake	829 (2010)			
Osborne Street	Lake to Loop	3,980 (2010)			
Lake Avenue	White Bridge to Swift	6,125 (2010)			
Lake Avenue	Swift to Osborne	5,908 (2010)			
Lake Avenue	Osborne to Owasco	9,144 (2010)			
Owasco Street	Lake to Walnut	9,675 (2010)			
Loop Road	Lincoln to North	4,525 (2010)			
Genesee Street	Green to Market	8,147 (2010)			
Dill Street	State to North	4,230 (2010)			
Arterial Eastbound	State to North	10,470 (2010)			
Arterial Westbound	State to North	11,315 (2010)			
North Street	EB Arterial to WB Arterial	13,990 (2010)			
State Street	EB Arterial to WB Arterial	5,469 (2010)			
State Street	WB Arterial to Wall	7,033 (2010)			
Washington Street	Arterial WB to West	3,374 (2010)			
North Division Street	Clark to West	5,784 (2010)			
Clark Street	Aurelius to North Division	3,177 (2009)			
Aurelius Avenue	Wadsworth to Clark	3000 (2009)			

2.3.1.5 Level of Service

It is anticipated that the Owasco River Greenway Trail will not adversely affect the level of service of any adjacent streets and will not be evaluated as part of this project.

2.3.1.6 Work Zone Safety & Mobility

Improvements for the on-road trail segments include striping along certain streets and installation of trail signage. Temporary, short-term lane closures will be required for implementation of these improvements. Such lane closures will be implemented in accordance with the Manual of Uniform Traffic Control Devices. Flaggers will be utilized as necessary to properly direct traffic.

Routes for emergency vehicles will be maintained and open during construction. The details for the work zone traffic control will be prepared and evaluated during final design.

Construction of off-road trail segments will not require any closures of travel lanes since they are not located along existing streets.

As defined in 23 CFR 630.1010, this is not considered significant. Nevertheless, a transportation management plan consisting of a temporary work zone traffic control plan as well as a public information plan will be prepared during final design.

2.3.1.7 Safety Considerations, Accident History and Analysis

An accident screening was performed for the portions of the trail that will be on-road and crossing roadways at signalized and unsignalized intersections. Accident data was provided by the City of Auburn Police Department for the three year time period between November 7, 2009 and November 7, 2012. Exhibit 2.3.1.7-1 below presents a summary of that data.

Exhibit 2.3.1.7-1 Accident Summary From 11/7/09 to 11/7/2012						
Location	Fatal	Injury	Property Damage Only			
Clark Street/N. Division Street	0	0	6			
Dill Street/State Street	0	1	7			
Genesee Street/Loop Road	0	6	22			
Owasco Street/Lake Avenue	0	0	7			
Washington Street/Arterial Westbound	0	1	9			
State Street/Arterial Westbound	0	1	7			
State Street/Arterial Eastbound	0	2	18			
Loop Road/Osborne Street	0	0	2			
Total	0	11	78			

Most of these intersections are controlled by traffic signals with the exception of Dill Street/State Street (which is proposed to be signalized as part of this Project) and Loop Road/Osborne Street. Where the intersections are signalized, pedestrian signals are currently provided. As this summary shows, the highest accident locations are located in areas that are the most heavily trafficked and the majority of accidents are property damage only. There was no information provided as to whether any of these accidents involved pedestrians or bicyclists.

The following safety improvements are included in the proposed Project:

- A stable, firm and slip resistant trail surface that is continuously graded for drainage away from the trail surface.
- A clear zone adjacent to the trail.
- Ramps, grades and slopes meeting current ADA accessibility standards.
- Advanced signage in accordance with MUTCD guidelines along the trail.
- Where the trail is on-road, sidewalks will be constructed where none exist and where sidewalks are in disrepair, maintenance will be performed so that there is a smooth walking surface.

2.3.1.8 Ownership and Maintenance Jurisdiction

All highways within the City of Auburn are owned and maintained by the City of Auburn with the exceptions of the following streets:

NYS Routes 5 and 20 (Eastbound and Westbound Arterials)

- North Street From Dill Street/Loop Road to North City Line
- John Street From Arterial Eastbound to Genesee Street

These streets are owned and maintained by the New York State Department of Transportation.

Neither John Street nor North Fulton Street will be impacted by this project. The City will own and maintain the on-road and off-road sections of the trail.

2.3.2 Multimodal

2.3.2.1 Pedestrians

This project will enhance pedestrians' mobility and accessibility while traveling throughout the City. The off-road trail will typically be 10 feet wide connecting to existing sidewalks as well as those constructed as part of this project. There currently are on-road pedestrian accommodations throughout the entire project area with the exception of intermittent locations along the route.

2.3.2.2 Bicyclists

There currently are no separate, designated, provisions for bicyclists except in the area of Canal Street and the County-owned property located along the Owasco River at the southern end of the trail route. This project is an enhancement and alternative transportation project developed to improve the mobility and accessibility both locally and regionally for bicyclists. The proposed project will accommodate bicyclists as part of a shared lane, a wide curb lane, an exclusive bike lane or a 10 foot wide multi-use trail. Appropriate signage and road striping will be provided notifying motorists to share the road with bicyclists for the onroad segments of the trail system. The entire project will be accessible for use by bicycles.

2.3.3 Infrastructure

2.3.3.1 Design Standards

The following design criteria have been developed based upon the following:

- AASHTO Guide for Development of Bicycle Facilities 4th Edition 2012
- Americans with Disabilities Act Accessibility Guidelines for Building and Facilities (ADAAG)
- NYSDOT, Highway Design Manual, Chapter 17 Bicycle Facility Design, March 30, 2006 and Chapter 18 Pedestrian Facility Design, March 30, 2006
- United States Access Board. (2009). Draft Final Accessibility Guidelines for Outdoor Developed Areas. Retrieved from: http://www.access-board.gov/outdoor/draft-final.pdf.

2.3.3.2 Critical Design Elements

	Cri	itical Design FI	Exhibit 2.3.3.2-1 ements for Off-Road	Trail Fa	cilities		
PIN:		375557				No	
Route No. & Name:		River Greenway Trail	Functional Classification	on:	Shared Use Trail		
Project Type:	Shar	ed Use Trail	Design Classification:		Shared Use Trail		
% Trucks:		NA	Terrain:		Level/Rolling		
ADT:		NA Truck Access/Qualifying I		Hwy.	Neither		
Element	Element		Standard	Existing Condition		Proposed Condition	
Design Spee	d	18 mph for level terrain 20- 30 mph for hilly terrain AASHTO 2012 Chapter 5.2.4		ľ	NA	18 mph for level terrain 20- 30 mph for hilly terrain	
Width ²			feet minimum 2012 Chapter 5.2.1	1	NA 10 feet		
Shoulder Width/Ho Clearance	orizontal	2.0 feet minimum from lateral obstructions 1.0 foot min. from railings ("smooth" features) AASHTO 2012 Chapter 5.2.1		1	NA	2 feet	
Maximum Grade ³		5% maximum for any distance 8.3% maximum for up to 200 feet 10% maximum for up to 30 feet 12.5% for up to 10 feet AASHTO 2012 Chapter 5.2.7		1	NA	5% maximum for any distant 8.3% maximum up to 200 fe 10% maximum for up to 30 fe 12.5% for up to 10 feet AASHTO 2012	
			.8 mph design speed 2012 Chapter 5.2.5	1	NA	60 ft.	
Stopping Sight Distance		Assuming a 5% maximum Descending @ 18 mph Descending @ 25 mph Ascending @ 18 mph AASHTO 2012 Chapter 5.2.8		1	NA	164 ft. 281 ft. 118 ft.	
Vertical Clearance		8.0 feet minimum 10.0 feet desirable AASHTO 2012 Chapter 5.2.1		ı	NA 10 feet		
Cross Slope	5	1.0% recommended; 2.0% maximum AASHTO 2012 Chapter 5.2.6		ı	NA 2% max.		
Shoulder Cross	Slope	1:6 maximum AASHTO 2012 Chapter 5.2.6		NA 1:6 ma		1:6 max.	
Pedestrian Accomm	odations	ADA Accessibility Guidelines and Public Right of Way Accessibility Guidelines		NA ADA Compli		ADA Compliant	
Railing Heigh	nt ⁶	42 inch minimum AASHTO 2012 Chapter 5.2.10		I	NA 42 in.		
Bridge Structural Capacity AASHTO Design		Pedestrian Loading of Pedestrian Bridges 2009 Chapter 3.1	NA Pedestrian		Pedestrian		
Element			Standard	Exi	sting	Proposed	
Shared Lane (Wide	e Curb)	13.0 feet minimun) feet desirable n AASHTO 2012 Chapter 5.2.1	V	aries	15.0 feet minimum	
Bicycle Lane	!	5.0 minimum A	feet desirable ASHTO 2012 Chapter 5.2.2		NA	5.0 feet minimum	
Pedestrian Accommodations		ADA Accessibility Guidelines and Public Right of Way Accessibility Guidelines		Varies k	oet. 4'&5"	ADA Compliant	

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² A reduced width 8 ft. path may be used in rare circumstances such as: bicycle traffic is expected to be low, even on peak days or during peak hours, pedestrian use of the facility is not expected to be more than occasional, horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities, the path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage, and for a short distance due to a physical constraint. 11 ft. path width is needed for passing in the same direction.

³ It is anticipated that the following sections of the preferred trail may exceed the maximum grade of 10 ft. Canal Street where it meets Osborne St.; Along the sewer easement where the trail ascends to meet Lake Ave.

⁴ Radii at approaches to road crossings may be reduced to discourage high speed crossings.

⁵ Transition Rate 1% in 5 feet

⁶ A 48 in. railing should be considered at locations such as bridge approaches where high-speed, steep angle impacts may occur between bicyclists and the railing, and on bridges.

2.3.3.3 Other Design Parameters

Careful design of trail/roadway interfaces is of paramount importance to the safety of trail users and motorists. The AASHTO Guide for the Development of Bicycle Facilities provides guidance, but emphasizes that each intersection is unique and that sound engineering judgment will be required. Each interface should be designed according to the following guiding principles:

- Trail/roadway interfaces should have features that alert higher speed bicyclists that they are approaching a road crossing.
- Trail/roadway interfaces should have features that prevent out-of-control bicyclists from riding out into a high volume road crossing.
- Trail/roadway interfaces should be designed to allow platooning of bicycle and pedestrian traffic.

2.3.3.4 Existing and Proposed Highway/Bridge Plan and Section

See "Roadway Infrastructure Summary" (Appendix A) for information about existing City streets proposed for the on-road portions of the trail. See "On-Road Cross Sections" (Appendix A) for an illustration of streets that will be impacted by the addition of a wide curb lane or an exclusive bike lane. A cross section is not included for those streets identified for a shared-use lane.

2.3.3.5 Non Standard/Non-Conforming Features

There are no existing or proposed nonstandard or nonconforming features identified as part of the on-road trail sections. Existing street features exceed the project's design criteria in most places.

A review of the project area's existing topography for the proposed off-road trail sections was conducted through field visits and the use of Federal Emergency Management Agency (FEMA) two-foot contours overlaid on aerials of the project area. It was determined that the trail will meet the design criteria for the off-road trail and will be verified with ground survey conducted at final design.

2.3.3.6 Pavement and Shoulder Conditions

The surface of the existing sidewalks and roads utilized as part of this trail, range from poor to excellent condition. The majority of sidewalks are concrete with some asphalt sections interspersed. All the roadways are asphalt paved.

The existing concrete sidewalks will be maintained where possible and any sections that are deemed unsafe or in poor condition will be replaced.

2.3.3.7 Drainage Systems

Generally, the proposed trail will not affect drainage patterns. Surface sheet flow and on-site infiltration will be maintained throughout the trail both on-road and off-road.

2.3.3.8 Geotechnical

There are no special geotechnical concerns with the soils or rock slopes within the project area.

2.3.3.9 Structures

The proposed trail will not impact existing bridges within the study area. The preferred trail route includes the construction of a new bicycle/pedestrian bridge that would span across the Owasco River (also known as the Owasco Outlet) from the south side of the river within the area of Node 5 to the north side at the Dunn and McCarthy site. At this preliminary stage of the project, a full hydraulic analysis has not been

completed but with a review of information including the most recent Flood Insurance Study for Cayuga County (2007), the clear span length of the bridge is approximated to be in the range of 175 to 200 feet to span the floodway in this area of the river. The proposed bridge will be one span most likely a preengineered truss structure (bow truss, pony truss or box-type truss) due to the required span length and necessary clearance above the 100 year flood elevation. For aesthetics, the steel trusses will be painted and the decking and railing will be a treated lumber or similar. The superstructure of the bridge (steel members, trusses, and deck) will be set on cast-in-place concrete abutments and wingwalls.

During the final design phase of the project, both scour and geotechnical investigations will take place for determining the size of the substructures, if piles are needed to support the structure and scour protection measures. The Owasco River has flood control structures and hydroelectric facilities both upstream and downstream of the proposed bridge location. As such, it is not navigable for motor boats. However, personal man-powered water crafts (e.g. kayaks and canoes) have been observed to use this area of the waterway. The low chord (low point of the structure) of the bridge will be set for hydraulic reasons and will be at a high enough elevation that there will be no issue with continued use of canoes or kayaks during normal ordinary flow after construction of the bridge.

2.3.3.10 Hydraulics of Bridges and Culverts

The normal flows for Owasco River are regulated with two flow control structures (Conrail Dam and State Dam) both upstream of the proposed bicycle/pedestrian bridge, 2000 feet and 2 1/3 miles along the river respectively. Additional dams, weirs and small hydroelectric facilities are downstream of the proposed bridge.

A detailed hydraulic analysis will be performed during final design for the proposed bicycle/pedestrian bridge near Node 6 along the preferred route. The actual bridge clear span length will be such that there will be no encroachment or filling within the defined floodway and the low chord will be set to the elevation to pass 100 year flood elevation and if feasible, above the 500 year flood elevation.

2.3.3.11 **Utilities**

There are various utilities within the proposed trail corridor. It is not anticipated that the construction of the trail will significantly alter any utilities. The City of Auburn will coordinate with the utility owners throughout the design process. They include:

- New York State Gas and Electric
- City of Auburn Water, Sanitary Sewer, Storm Sewer, Verizon, Time Warner

2.3.3.12 Right of Way

The trail project will be located within City-owned property and easements. The following table includes those properties where the trail will extend along the sewer easement located between Node #10 and Node 11. The City of Auburn will need to get additional easements for the trail in addition to the existing sewer easement.

Exhibit 2.3.3.12-1 Critical Design Elements for Off-Road Trail Facilities							
Tax Map ID	Primary Owner	Address	Trail length (ft.)	Easement Area (sq. ft.)			
116.80-1-14	Schlegel, David	222 Osborne Street	105	1575			
116.72-1-1	Yantch Plaster & Stucco	210 Osborne Street	1009	15135			
116.72-1-14.1	Kwasniewski, Mark	216-218 Osborne Street	166	1740			

Exhibit 2.3.3.12-1 Critical Design Elements for Off-Road Trail Facilities						
116.71-2-13	Lefevre, Lynn M	162 Osborne Street	153	2,295		
116.63-1-54	Barker, Frances Visconte	210 Osborne Street	40	600		
116.63-1-56	Cuddy, Lorraine	134 Osborne Street	54	810		
116.63-1-58	Deloach, Diane	130 Osborne Street	41	615		
116.63-1-60	Cramer, Jonathan	126 Osborne Street	92	1380		
116.63-1-61	Tan, Wei Min	122-124 Osborne Street	54	810		
116.63-1-63	TW Osborne LLC	120 Osborne Street	87	1305		
116.63-2-55	State of NY Hostel 8560	160 Osborne Street	113	1695		
116.63-2-57	Klimek, David	156 Osborne Street	95	1425		
116.63-2-58	Sanders, Steven	154 Osborne Street	42	630		
116.63-2-61	Gower, James A	148 Osborne Street	66	990		
116.63-2-62	Jessie, Brian P	144-146 Osborne Street	66	990		
116.63-2-60	Mahunik, Thomas V	150 Osborne Street	46	690		
116.63-2-59	DeFazio, Anthony M	152 Osborne Street	47	705		
116.63-1-59	Hoey, Thomas R	128 Osborne Street	43	645		
116.62-2-51	Cameron, John W Jr	118 Osborne Street	156	2340		
116.62-2-49	Voorhees, John	114 Osborne Street	35	525		
116.62-2-48	Abby Row Properties LLC	112 Osborne Street	101	1515		
116.62-2-47	Erskin, Faith M	110 Osborne Street	51	765		
116.62-2-45	McKeen, Jason M	106 Osborne Street	37	555		
116.62-2-44	Leubner, Leroy Sr.	104 Osborne Street	6	90		
116.62-2-43	Koenig, Paul A	102 Osborne Street	47	705		
116.62-2-42.1	Hockeborne, Brian ETAL	100 Osborne Street	47	705		
116.62-2-40.1	Nevidomsky, Johnny	94-96 Osborne Street	47	705		
116.62-2-38.1	Martinez, Maryann	92 Osborne Street	117	1755		

2.3.3.13 Landscaping/Environmental Enhancement

Pursuant to the authorities under the Endangered Species Act (ESA) of 1973, specifically section 7(a)(2) of the ESA, the US Federal Highway Administration has determined that the Owasco River Greenway Trail project will result in no effect to the federally-listed threatened bog turtle. FHWA has determined that the proposed removal of 1.5 acres of trees to construct the trail may affect, but is not likely to adversely affect the federally-listed endangered Indiana bat or the northern long-eared bat. Given the extent of tree removal and the proposed conservation measures of select tree removal between October 1 and March 31, measurable impacts to Indiana bats and northern long-eared bats are not anticipated.

2.4 Miscellaneous

The Finger Lakes Railway extends adjacent to the Westbound Arterial from Clark Street to State Street and then heads through the northern section of the City. The trail is proposed to cross at-grade at the intersection of Washington Street and Westbound Arterial. This crossing is already controlled by gates and signage that prevent vehicles and pedestrians from crossing when activated. The trail will not impact the traffic conditions at this intersection. The trail also extends along the railway approximately 30 feet from the centerline of the tracks between Washington Street and State Street. Fencing will be added adjacent on the side of the trail closest to the tracks to provide separation of the trail and railroad.

Alternate-side parking is allowed on most streets in the City of Auburn. The only exceptions within the project limits are as follows:

- Lake Avenue (Owasco Street to Osborne Street) No parking allowed
- State Street (Dill Street to Arterial Westbound) No parking allowed
- State Street (Arterial Westbound to W. Garden Street) East side only
- W. Garden Street (State Street to end) North side only
- Arterial Westbound and Arterial Eastbound No parking allowed

Parking on Interstate highways within the project limits is prohibited by law.

Trail users will be able to access the proposed trail at the following CENTRO bus stops located along the route:

- Loop Rd. westbound, nearside of the parking lot driveway to Wegman's
- Loop Rd. eastbound, nearside of the entrance ramp to Stryker Homes
- Loop Rd. eastbound (northbound?) nearside of E. Genesee St.
- Genesee St. eastbound, opposite intersection with Seminary Ave.
- Genesee St. westbound, nearside of Owasco St. (Home Commercial Industrial Brokers)
- Dill Street westbound, nearside of North Street
- State St. northbound, nearside of Arterial East (Citizens Newspaper office)
- State St. northbound, nearside of Water St. (Chinese Restaurant)
- State St. northbound, nearside of W. Garden St.
- Aurelius Ave. westbound, nearside of Myrtle Ave.
- Aurelius Ave. westbound, nearside of Clark St.
- Clark St. eastbound, nearside of Aurelius Ave.
- Aurelius Ave. northbound. nearside of Wall St.
- State St. southbound, nearside of the RR tracks opposite W. Garden St. near the prison
- State St. southbound, nearside of Water St.
- State St. southbound, nearside of Arterial East
- State St. southbound, nearside of Dill St.
- White Bridge Rd. (Rt. 437) eastbound, nearside of entrance to Doeville Island (Sunoco Station)
- White Bridge Rd. eastbound, nearside of entrance to Emerson Park Boat Launch
- Emerson Park, westbound on the main entrance roadway near the Pay Booth

Chapter 3 - Social, Economic and Environmental Considerations

3.1 National Environmental Policy Act (NEPA):

The lead agency for NEPA is the Federal Highway Administration (FHWA). The Federal Environmental Approval Worksheet is provided in Appendix B.

3.2 State Environmental Quality Review Act (SEQRA)

This project is classified as a Type 1 Action in accordance with 6NYCRR Part 617, State Environmental Quality Review (SEQR) Act. A Long Environmental Assessment Form (EAF) was completed for the project and is included in Appendix B. The City of Auburn will be the SEQR Lead Agency.

Specifically, the project does not include or result in:

- 1. The acquisition of an occupied dwelling or business structure;
- 2. Significant changes in passenger or vehicle traffic volumes, vehicle mix, local travel patterns or access;
- 3. More than minor social, economic or environmental effects upon occupied dwelling units, businesses, abutting properties or other established human activities;
- 4. Significant inconsistency with current plans or goals that have been adopted by local government bodies;
- 5. Physical alteration of more than 1 ha (2.5 ac) of publicly owned or operated park land, recreational area or designated open space;
- 6. An effect on a district, building, structure or site eligible for, or listed on, the National Register of Historic Places;
- 7. More than minor alteration of, or adverse effect upon, any property, protected area, or natural or manmade resource of national, State or local significance, including but not limited to:
 - (i) Wetlands and associated areas;
 - (ii) Floodplains:
 - (iii) Prime or unique agricultural land;
 - (iv) Agricultural districts, when more than one acre may be affected;
 - (v) Water resources, including lakes, reservoirs, rivers and streams;
 - (vi) Water supply sources;
 - (vii) Designated wild, scenic and recreational rivers;
 - (viii) Unique ecological, natural wooded or scenic areas;
 - (ix) Rare, threatened or endangered species;
 - (x) Any area designated as a critical environmental area:
- 8. Requirement for an indirect air source quality permit.

Refer to the Federal Environmental Approval Worksheet found in Appendix B for information on all environmental issues for which the project was screened.

3.3 Additional Environmental Information

3.3.1 Social Consequences

During the development of the scope of the project, it was determined that potential social consequences of the Project would be studied. A summary of research and findings is provided below for the following topics:

3.3.1.1 Land Use

The City of Auburn Comprehensive Plan (2009) identifies the Owasco River Greenway Trail as a primary strategy to reconnect Auburn residents with the Owasco River. The Comprehensive Plan describes a preliminary greenway trail route, as well as node locations along the riverfront. Previous City planning documents, including the Owasco-Osborne Neighborhood Plan, have likewise identified the greenway trail system as a priority project. A riverfront trail system has long been proposed as an amenity to improve the City of Auburn – the 1971 Owasco River Plan advocates the creation of an urban trail system along the river.

The Comprehensive Plan identifies several node locations, based on property ownership, vehicular access, pedestrian access, water access, lake access, topography, adjacent land use, and river flow conditions. According to the plan, "future private and public developments along the Riverfront should allow for the extension of the Owasco River Greenway between the nodes", and ... "the Greenway will eventually connect both banks of the riverfront from the Owasco River to Wadsworth Park with revitalized development and pedestrian access".

As conceived in this report, the Owasco River Greenway Trail will serve the needs and functions identified in the City of Auburn Comprehensive Plan. It will reconnect the City to the river, establish a set of nodes along its length, and it will provide non-motorized connectivity to locations throughout the trail system.

In terms of zoning, the proposed Owasco River Greenway Trail passes through various public use, residential, and commercial zoning districts. The northwestern portion of the trail system, including Wadsworth Park, is zoned for residential use with single-, two-, and multi-family residential uses permitted in the area surrounding the trail system. East of Canoga Street, zoning is General Commercial (C), and this designation transitions to Central Commercial (C-2) in the heart of the Central Business District. East of the Central Business district, residential zoning (single, two-, and multi-family) covers the areas surrounding the trail system. The southernmost part of the Owasco River Greenway Trail system, including Auburn High School and Emerson Park, is zoned for public and institutional use (P).

No zoning changes are required for the project, and it will not change land use patterns in a manner that would conflict with existing zoning districts. The project will complement and connect existing districts, and will have no negative impacts to zoning or land use patterns.

3.3.1.2 Demographics and Affected Population

The City of Auburn is located in the Finger Lakes Region of Upstate New York at the northern end of Owasco Lake along the Owasco River. Serving as the major business center and seat of local government within Cayuga County, the City consists of 27,687 residents with a population density of approximately 3,292 residents per square mile. The City of Auburn is considered a distressed community: 18.0% of individuals in the City live below the poverty level, compared to 14.2% in New York State and 13.8% nationally. Auburn residents have a per capita income (PCI) of \$20,874, which is 67% of the statewide PCI and 76% of the nationwide PCI (Census 2010).

3.3.1.3 Neighborhoods and Community Cohesion

The project will positively impact community cohesion and quality of life for the residents of Auburn by better utilizing the local Owasco River waterfront as an urban amenity and attraction. The project will improve neighborhood cohesion by physically and socially linking areas within the City, and by facilitating safer pedestrian activity and non-motorized transportation in locations where such facilities do not currently exist. The proposed alignment will connect residential neighborhoods to nearby business and commercial areas, as well as institutional areas that include schools, parks and other locations that provide social and recreational opportunities.

3.3.1.4 Home and Business Relocations

This project does not require the acquisition and/or relocation of occupied dwellings/businesses.

3.3.1.5 Social Groups Benefited or Harmed

The Owasco River Greenway Trail will introduce new options for non-motorized transportation, recreational activities (walking, running, biking, fishing, etc.), and waterfront access in the City of Auburn. The trail system and amenities along the greenway will be enjoyed by a diverse set of users, including, but not limited to seniors, individuals of low and moderate incomes, and the disabled. We note that lower-income residents will likely benefit from the expanded opportunities for safe, inexpensive non-motorized travel along the trail. The project will be constructed in compliance with the Americans with Disabilities Act (ADA) requirements and local public safety codes.

3.3.1.6 Transit Dependent, Pedestrians, and Bicyclists

A primary function of the project is to introduce facilities for non-motorized transportation throughout much of the City of Auburn, where no such facilities currently exist. The Owasco River Greenway Trail will allow pedestrians and bicyclists to access key residential neighborhoods, commercial, recreational, and natural locations; the Owasco River Greenway Trail will increase the volume of pedestrian and bicyclist traffic in the City of Auburn.

The trail system will provide connections with the public transportation system operated by Centro/Central New York Regional Transportation Authority.

3.3.1.7 Low Income, Minority and Ethnic Groups (Environmental Justice)

Areas within the City's southwestern quadrant primarily west of South Street and south of the U.S. Route 20 Arterial contain neighborhoods that are identified as Potential Environmental Justice Areas by the NYSDEC. The trail corridor includes some neighborhoods identified as Potential Environmental Justice Areas in and around the Central Business District, primarily south of the Owasco River. The identification of these Potential Environmental Justice areas is based on 2000 U.S. Census data and do not reflect more current socioeconomic conditions along the proposed trail corridor. More recent Potential Environmental Justice Areas have not yet been identified by the NYSDEC using 2010 census data.

The project will not adversely impact areas considered to be Potential Environmental Justice neighborhoods. Trail construction may create the possibility of temporary localized disruption to vehicular traffic, and possibly to pedestrian activity and bicycle use, in areas where trail work is occurring. However, construction impacts, which may include some increased noise, dust and visual changes, will be controlled through the use of best management practices as stated elsewhere in this document. It is not anticipated that construction will adversely affect public access to residences, public areas and businesses. Neighborhoods will be informed of upcoming trail work and schedules through various community outreach venues including meetings and media releases. Up-to-date information on construction activity will be provided via a project website and telephone numbers to a project liaison that will serve to resolve any complaints that may arise during construction.

Once complete, the trail system will benefit residents of the City of Auburn, including the residents of Potential Environmental Justice Areas located along the Owasco River Greenway Trail.

3.3.1.8 School Districts, Recreational Areas, and Places of Worship

School District

The proposed project is located in the Auburn Enlarged City School District. An off-road segment of the proposed Owasco River Greenway Trail would pass along the western bank of the Owasco River on the Auburn High School property, which is located on Lake Avenue south of Fleming Street and north of Owasco Lake. The trail system will provide connections to White Bridge Road and Emerson Park south from the high school, with connections to Lake Avenue from the high school property.

Minor impacts such as noise and dust may occur on school grounds during project construction, but these impacts would be temporary and minor. No long-term negative impacts are expected to result to the school as a result of the project. To the contrary, the trail system will potentially provide students a safe means to walk or bike to the high school. The trail will physically link school facilities, such as athletic fields with the trail system and to other types of neighborhood parks, recreational areas and institutional uses. Additionally, the trail improves waterfront access and may provide a means to incorporate study of the Owasco River or other natural features along the greenway into lesson plans. (Section 4f Involvement is discussed under Section 3.3.3.11.)

Recreational Areas

Wadsworth Park an undeveloped site, is owned by the City of Auburn, and represents the northernmost node along the trail system; Emerson Park is a Cayuga County park that represents the southernmost node along the trail system. Additionally, the trail passes near the athletic fields and outdoor recreation areas at Auburn High School and through two City-owned parks; Wadsworth Park and Market Street Park.

Wadsworth Park is an undeveloped park that as part of this Project, will offer limited recreational amenities. Work completed would be coordinated with the Owasco River Greenway Trail project in order to integrate it among the accessible destinations along the trail system. Wadsworth Park covers 9.3 acres in total and was once the location of a historic hydro facility. The park land has been determined by the New York State Office of Parks, Recreation and Historic Preservation to lack any historic significance due to the extent of demolition and earth disturbance. (Section 4f Involvement is discussed under Section 3.3.3.11.)

Market Street Park is a city-owned urban park Market Street Park is small linear park located on a narrow piece of land along the Owasco River, sandwiched between Loop Road and Market Street. This park provides benches, a path system and overlooks Owasco River. It also hosts summer concerts and community festivals. (Section 4f Involvement is discussed under Section 3.3.3.11.)

Emerson Park is a Cayuga County park on the northern shore of Owasco Lake, The park offers a variety of recreational facilities, including a boat launch, baseball field, disc golf course, and walking paths along the Owasco River outlet. Other facilities at Emerson Park include the Merry-Go-Round Playhouse, Ward O'Hara Agricultural Museum, and Emerson Park Pavilion. (Section 4f Involvement is discussed under Section 3.3.3.11.)

The Owasco River Greenway Trail project will enhance access to these parks by connecting them with neighborhoods and other attractions located elsewhere in the City of Auburn. Trail users such as pedestrians, runners, and bicyclists are more likely to visit these parks if they are provided a continuous route leading to the parks and their amenities than under existing conditions in which non-motorized access facilities are limited or non-existent.

Some minor impact to these parks may be experienced during project construction due to the use of equipment and vehicles, but the trail project represents a long-term benefit to their utilization and accessibility.

The trail itself expands waterfront access along much of the Owasco River where none is currently provided. Recreational activities such as walking, running, cycling, fishing, kayaking/canoeing, and wildlife observation (i.e. birdwatching, etc.) are among those enabled by the trail system. Overall, the project's recreational benefits are substantial.

Place of Worship

St. Francis Church, located at 299 Clark Street, is the only place of worship located within the project limits established for the project. This church will not be impacted by the project.

3.3.2 Economic Consequences

During the development of the scope of the project, it was determined that potential economic consequences of the Project would be studied. A summary of findings is provided below for the following topics:

3.3.2.1 Regional and Local Economies

The Owasco River Greenway Trail is an amenity that will deliver economic benefits to the City of Auburn by improving connections between businesses and residential neighborhoods, drawing visitors to the area, and by stimulating new investment along its length.

Successful cities realize the importance of waterfront development and the benefits to local and regional economies that are critical to healthy neighborhoods. Cities are often identified by their waterfront amenities and Auburn will be looked upon no differently. Improved public access to the Owasco riverfront will enhance local business opportunities, particularly in the Central Business District, by routing the trail along neighborhood attractions and visitor destinations. Business opportunities will be expanded in locations along the trail system or near proposed nodes, as businesses take advantage of the additional pedestrian and bicyclist traffic resulting from the project. It is worth noting that pedestrians and bicyclists can be more readily drawn into some types of establishments on a casual or spontaneous basis, as these consumers have more time to take in storefront offerings, are often more flexible in routing than automotive travelers, and are not constrained by parking issues.

Local and regional tourism organizations will market the corridor as an added attraction to visitors coming to enjoy Auburn's history, social events, natural resources and businesses. Each dollar spent by outside visitors using the Owasco River Greenway Trail represents tourism spending that would not have occurred without the project.

The expectation is that, as the trail system improves the quality of life for residents of Auburn; its presence will encourage new investment in development along its length. The project will improve waterfront access on the Owasco River – waterfront access is highly sought after in real estate markets, and homes and businesses located near this amenity may be viewed with enhanced desirability. Infill development opportunities exist near the trail corridor. Additionally, property values are expected to increase incrementally in locations near the trail system and waterfront.

Increases in property values, and potential infill development, serve to expand the City's tax base, in turn generating revenues for public services.

3.3.2.2 Business Districts

Two significant business districts are located along or near the proposed trail system: The city's Central Business District (CBD) and an adjacent business district just west of the CBD. Although these districts are contiguous, they are separated physically and in character by the Arterial Westbound (Route 5 &20) roadway. The Central Business District is zoned Central Commercial (C-2), and the adjacent business district is zoned General Commercial (C).

The Central Business District is traditional in character, consisting primarily of multi-story buildings with mixed uses including retail storefronts, business and professional offices, hotels, and some upper-floor residential uses. Internally, the CBD provides sidewalks and is walkable.

The adjacent business district consists of more modern buildings, is more automobile-oriented, and includes some retail, wholesale, and automotive uses. This district extends west from the CBD to approximately Wheeler Street, covering a band of properties on either side of the Owasco River. This area is intended for automobile-based transportation, and can be accessed by pedestrians although non-motorized travel is not accommodated by facilities such as sidewalks or trails.

Neither of the city's existing business districts would be negatively impacted by the preferred trail alignment. Interruptions due to construction will be minor and temporary; automobile access will be unchanged from existing conditions, and non-motorized access to these areas will be improved.

The preferred alignment is intended to bring trail users into the downtown Central Business District (CBD), thus providing increased exposure to businesses in the district. The trail will be located approximately 500 feet to the north and east of the intersection of South Street and Genesee Street and cross both roadways within the CBD. The project has received the support of the Auburn business community and is anticipated to have a positive effect on local business activity by drawing additional customers to the area.

3.3.2.3 Specific Business Impacts

The Project will provide linkages to the CBD at State Street, North Street and Dill Street, and East Genesee Street and Osborne Street/Loop Road. These connections will provide pedestrians and bicyclists access to the Central Business District, where existing sidewalks will allow non-motorized travelers to continue movement throughout the CBD without interruption.

Non-motorized transportation is limited in the business district just west of the CBD, as this area is more vehicle-oriented in character. The trail system will open this area up to pedestrians and bicyclists.

The project will have no adverse impacts on existing businesses. During construction of the trail, there may be some temporary alteration of travel patterns along streets and sidewalks. However, every effort will be made to limit the duration and scale of any necessary detours to avoid and minimize disruption to local businesses. Local business owners will be informed about construction schedules and potential temporary changes in local traffic and parking patterns.

In the long term, businesses are likely to benefit from increased pedestrian and bicyclist traffic generated by the Owasco River Greenway Trail system. The Auburn business community is supportive of the project.

The project will not contribute to parking shortages or traffic congestion within the existing business districts, as sufficient parking will be provided at designated nodes for park-and-walk/bike travelers. Pedestrians or bicyclists who use the trail system to commute to and from work or other destinations will reduce the number of automobile trips and parking spaces occupied in City's business districts.

3.3.3 Environmental Consequences

During the development of the scope of the project, it was determined that potential environmental consequences of the Project would be studied. A summary of the research and findings is provided below for the following topics:

3.3.3.1 Wetlands

Base on a field investigation by CHA on December 14, 2011, the potential for federal jurisdictional wetlands exists within the project area. Field wetland delineation would be required to determine the type, size and

boundaries of these wetlands. The wetland boundaries will be taken into consideration when designing this project and impacts will be avoided or reduced where practical.

NYSDEC Freshwater Wetlands

A review of the NYSDEC GIS wetland data files indicates that there are no NYSDEC jurisdictional tidal wetlands or regulated adjacent areas within or near the project limits, and ECL Article 24 does not apply. Based upon a review of the NYS DEC Freshwater Wetlands Map (Auburn Quadrangle) and verified by field investigation by CHA on December 14, 2011, it is expected that the project will impact 0 acres of NYSDEC Freshwater Wetlands. Therefore, the project will not require a NYSDEC Article 24 Freshwater Wetlands Permit.

Federal Wetlands

According to Executive Order 11990, the evaluation of federal wetlands included primarily visual inspection of the project area by qualified wetland ecologists. The process for identifying potential federal wetlands was influenced by the methodology provided in the USACE Wetland Delineation Manual (1987) and the U.S. Army Corps of Engineers North central/Northeast Regional Supplement to the 1987 Wetland Delineation Manual.

Prior to visiting the project limits, various maps and other sources of background information were reviewed. This information included the following:

- USGS 7.5 minute topographic map,
- NYSDEC New York State Freshwater Wetlands map,
- USFWS National Wetlands Inventory (NWI) map,
- U. S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) web soil survey (http://websoilsurvey.nrcs.usda.gov/app/) for Cayuga County.

Based on review of the NWI map, there are NWI mapped wetlands within the project limits. As a result of the field investigation and background research, various wetland areas within the project limits were identified and sketched on the Vegetative Communities Sketch Map (Appendix B). The common species found in each of the wetland community types identified within the project limits are discussed in Section 1 of the ecological assessment (Appendix B).

Section 5 of the Vegetative Communities Sketch Map (Appendix B) shows two points in which proposed trail segments may cross forested wetland areas that were observed during the site visit. An existing path extends through these wetland areas, located on property owned by Cayuga County. The project will utilize the footprint of this existing path, thereby avoiding impacts to the forested wetland areas observed to the east and west.

Once plans are advanced to final design, a wetland delineation will be conducted in accordance with the 1987 Wetland Delineation Manual methodology to clearly define wetland boundaries in the project limits. Wetland boundaries will be surveyed and overlaid onto project plans to identify potential impacts and evaluate opportunities for avoidance and minimization of the impacts through design modification.

Based on review of the current USACE Nationwide Permits (March 2007), if wetland impacts are identified, permitting will be required. It is anticipated that Nationwide Permit No. 42- Recreational Facilities, will be used because the discharge will not cause loss of greater than ½ acre of non-tidal waters of the United States, including the loss of no more than 300 linear feet of stream bed. Section 401 Water Quality Certification would also be required from the NYSDEC. If impacts cause the loss of greater than 1/10 acre of wetland, then wetland mitigation may also be required.

Mitigation Summary: If less than 1/10 of an acre of wetland impacts are identified, no wetland mitigation/monitoring plan is required under a Nationwide Permit. If impacts to the wetlands are more than

1/10 of an acre and less than ½ acre a Nationwide Permit No. 42 will be sought and appropriate mitigation measures will be determined in consultation with the USACE as part of the Nationwide Permit application.

3.3.3.2 Surface Waterbodies and Watercourses

Surface Waters

Project activities that impact the Owasco River within project limits will require an Article 15 Protection of Waters Permit from the NYSDEC for potential impacts to stream banks or stream bed resulting from the construction of a new pedestrian bridge at proposed Node #5 of the Owasco River Greenway Trail (Appendix A). The pedestrian bridge will be built to span the 100-year floodplain. The Article 15 Protection of Waters Permit is required for the excavation or placing of fill in navigable waters of the State, below the mean high water level, including adjacent and contiguous marshes and wetlands with a water classification and standard of C or D. The Owasco River has been classified as a Class C/ Standard C stream by the New York State Department of Environmental Conservation (NYSDEC) and therefore, is regulated by the NYSDEC. In addition, the NYSDEC considers the Owasco River a navigable river (waterways and water bodies on which water vessels with a capacity of 1 or more persons are operated or can be operated).

Avoidance and minimization measure will be incorporated into the design and construction of the pedestrian bridge component of the project, and provisions to maintain water quality during construction will be made. Erosion control measures such as, but not limited to silt fencing and straw bales will be used to prevent sedimentation.

Surface Water Classification and Standards

The Owasco River has been classified as a Class C/ Standard C stream by the New York State Department of Environmental Conservation (NYSDEC) and therefore, is regulated by this agency. In addition, the NYSDEC considers the Owasco River a navigable river, so the project will require an Article 15 Protection of Waters Permit from the NYSDEC where impacts to the stream banks or stream bed are identified.

Streambed and Bank Protection

Construction of the trail will disturb more than one acre of land. Therefore, a SPDES General Construction Permit GP-02-01 will be required. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed as required. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes to the total impervious area.

3.3.3.3 Wild, Scenic, and Recreational Rivers

There are no NYSDEC Designated, Wild, Scenic or Recreational Rivers within or adjacent to the proposed project site. No further review is required.

3.3.3.4 Office of General Services Lands and Navigable Waters

The Owasco River is not considered a navigable water of the United States, based on the federal definition. Section 9 of the Rivers and Harbors Act is not applicable.

Because the project does not involve the creation of any obstruction to the navigable capacity of any of the waters of the United States, or in any manner alter or modify the course, location, condition, or capacity of any navigable water of the United States, Section 10 of the Rivers and Harbors Act is not applicable.

There are no NYS Office of General Services Lands and Navigable Waters underwater holdings located within the project's area of potential effect that will be impacted by the work.

State Regulated Waters

The Owasco River has been classified as a Class C/ Standard C stream by the New York State Department of Environmental Conservation (NYSDEC) and therefore, is regulated by the NYSDEC. In addition, the NYSDEC considers the Owasco River a navigable river (waterways and water bodies on which water vessels with a capacity of 1 or more persons are operated or can be operated), so the project will require an Article 15 Protection of Waters Permit from the NYSDEC for potential impacts to the stream banks or stream bed. The Article 15 Protection of Waters Permit is required for the excavation or placing of fill in navigable waters of the State, below the mean high water level, including adjacent and contiguous marshes and wetlands with a water classification and standard of C or D.

3.3.3.5 Floodplains

According to the State Flood Insurance Compliance Program, the Federal Emergency Management Agency (FEMA) floodplain map was reviewed for the project limits. Three locations have been identified where floodplain impacts may occur. These are at Wadsworth Park, the Dunn & McCarthy Site at the northern end of the trail and within Emerson Park at the southern end. During detailed design, impacts to the 100 year floodplain will be evaluated and mitigated in accordance with NYSDEC Flood Plain Management Criteria for State projects 6 NYCRR Part 502 and Federal Highway Administration FAPG 23 CFR 650A.

3.3.3.6 Coastal Resources

The proposed project is not located in a State Coastal Zone Management (CZM) area, according to the Coastal Zone Area Map from the NYS Department of State's Coastal Zone Management Unit, in or near a Coastal Erosion Hazard Area. In addition the proposed project is not located in, or near a coastal area under the jurisdiction of the Coastal Barrier Resources Act (CBRA) or the Coastal Barrier Improvement Act (CBIA).

3.3.3.7 Groundwater Resources, Aquifers, and Reservoirs

NYSDEC aquifer GIS data files have been reviewed and it has been determined that the proposed project is not located in an identified Primary Water Supply or Principal Aquifer Area. No further investigation for NYSDEC designated aquifers is required.

There are no municipal drinking water wells, wellhead influence zones, or reservoirs within or near the project area, according to the NYS Atlas of Community Water System Sources, dated 1982, issued by the NYS Department of Health.

3.3.3.8 Stormwater Management

A SPDES General Permit GP-02-01 will be required because the project will create more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes in total impervious area.

3.3.3.9 General Ecology and Wildlife Resources

Fish, Wildlife, and Waterfowl

The study area consists of a combination of residentially developed areas with maintained lawn (some with scattered trees and shrubs), mowed lawn (some with scattered trees and shrubs), commercial and institutional developed areas, roadway, the Owasco River and back water channels, mowed and gravel

paths, successional old fields, forested upland, emergent wetland, scrub shrub wetland, forested wetland, gravel/fill/debris areas, a sewer easement and power line and railroad rights-of-way.

The attached letter addressed to Mr. Douglas Mills P.E., New York State Department of Transportation dated 1-7-14 summarizes a review of the Study Area's existing vegetative communities, and species habitat requirements and potential impact per the USFWS Outline Project Review conducted on October 13, 2013. (Appendix B). A summary of that letter and attached report is summarized in the sections below.

Habitat Areas, Wildlife Refuges, and Wildfowl Refuges

The NYSDEC Natural Heritage Program has provided a letter dated December 22, 2011 (Appendix D) indicating that there is an unlisted Waterfowl Winter Concentration Area at Owasco Lake which is located just south of the study area. The letter indicates that the general quality and habitat is a long, narrow inland lake, with a mean depth of 96 feet and a maximum depth of 177 feet. The lake does freeze over in some years. This concentration area is outside of the project limits; therefore, no impacts are anticipated.

Endangered and Threatened Species

The United States Fish and Wildlife Service (USFWS) website was reviewed for federally listed threatened and endangered species for Cayuga County (Appendix D). The following species are listed for Cayuga County:

- Bald eagle (Haliaeetus leucocephalus), delisted
- Bog turtle (Clemmys [=Glyptemys] muhlenbergii), threatened
- Indiana bat (*Myotis sodalis*), endangered
- Northern Long-eared Bat (Myotis septentrionalis) endangered

Descriptions of these species and their habitat are provided in Appendix B.

<u>Bald Eagle</u>: The study area contains forested areas along the river that have the potential to serve as bald eagle habitat. However, no nests were identified along the proposed off-road trails or nodes during the October 9, 2013 field investigation conducted for the special habitat assessment. Much of the study area and surroundings are well developed and it is anticipated that the trail will be sited to avoid any significant tree cutting. Additionally, the NYSDEC Natural Heritage Program did not inform the City of any bald eagle nests occurring in the action area (Appendix B). The project should have no effect on bald eagles.

<u>Bog Turtle:</u> According to a description provided by the NYSDEC, bog turtles prefer open, early successional habitats such as a wet meadow or a calcareous bog. They require areas with solar penetration for basking and nesting and prefer slow moving, cool, shallow water and deep soft muck soil as well as tussock forming vegetation⁷.

Although there are wetlands within the study area, habitat suitable for bog turtles was not identified in the vicinity of the Off-Road Trails or Nodes. According to the Cayuga County Soil Survey, there are no mapped muck soils within the study area. Additionally, muck soils were not identified in the wetlands in vicinity of the Off-Road Trails or Nodes during the site visit. It is anticipated that the trail will be sited to minimize if not completely avoid wetland impact. Since the preferred habitat was not identified and since it is anticipated that the project will avoid and minimize wetland impacts, the project should have no effect on bog turtles. (Appendix B)

<u>Indiana Bat & Northern Long-eared Bat:</u> The Indiana bat is a species that hibernates in caves during the winter months, emerges in spring and then disperses to summer habitats. Females form maternal roost colonies on trees under exfoliating bark, crevices and other suitable habitats⁸. The northern long-eared

⁷ Bog Turtle Fact Sheet, NYSDEC Website. http://www.dec.ny.gov/animals/7164.html

⁸ Indiana Bat Project Review Fact Sheet. US Fish & Wildlife Service, New York Field Office. May 2012

bats hibernate in caves and mines during the winter and roost in the summer in hollow trees and under loose bark. Additionally, they also use buildings, and go behind shutters and under shingles to roost⁹.

No caves or mines were identified during the site visit; however, there are forested areas and lawn areas with scattered trees that include snags and mature trees with exfoliating bark and crevices in the vicinity of the proposed Off-Road Trails and Nodes that could be potential Indiana bat and northern long-eared bat habitat. It is anticipated that the trail can be sited to avoid any significant tree cutting. Therefore, the tree loss would be minimal and remaining forested areas would be available as suitable habitat. The Off-Road Trail will be 10' wide.

Based on the preliminary greenway trail design and vegetative communities mapping prepared by CHA's, we estimate that off-road trail segments will occupy 1.56 acres of land covered by forested upland vegetation. As a greenway trail, the intent is to preserve existing trees along the trail route, particularly along the segments located near the Owasco River. Much of the Off-Road Trail will be located along existing trail routes and no vegetative clearing will be necessary. The final trail route will avoid existing trees, wetlands, and other natural vegetation to the highest degree practical.

The potential impacts to the bats could be avoided by proposing to restrict tree cutting to the time period between October 1st and March 31st, when bats are hibernating off-site. Other conservation measures that would minimize impacts to bats are:

- The use of bright flagging/fencing to demarcate the trees to be cleared.
- Minimize lighting impacts (e.g., limit number of lights, direct lights downward, fully shield lights, use motion sensors or timers).

FHWA has determined that the proposed removal of 1.5 acres of trees to construct the trail may affect, but is not likely to adversely affect the federally-listed endangered Indiana bat or the northern long-eared bat. Given the extent of tree removal and the proposed conservation measures of select tree removal between October 1 and March 31, measurable impacts to Indiana bats and northern long-eared bats are not anticipated.

Invasive Species

A review of the existing corridor did not indicate any significant presence of known invasive species within the right-of-way. Precautions will be taken to prevent the introduction of invasive species during project construction.

Critical Environmental Areas

According to information obtained from NYSDEC, the proposed project does not involve work in or near a Critical Environmental Area.

State Forest Preserve Lands

According to information obtained from NYSDEC, the proposed project does not involve work in or near state forest preserve lands.

3.3.3.10 Historic and Archeological Resources

A review of the State Preservation Historical Information Network Exchange (SPHINX) database maintained by NYSOPRHP was conducted to identify buildings, districts, objects, structures, and/or sites listed, or that have been formally determined eligible for listing on the State and/or National Register of

 $^{^9\} Northern\ Long-eared\ Bat.\ Maryland\ Department\ of\ Natural\ Resources\ Website.\ http://www.dnr.maryland.gov/wildlife/Plants_Wildlife/bats/batnolongear.asp$

Historic Places (NRHP) located within one mile of the Project. No architectural survey fieldwork was undertaken as part of the Phase 1A Cultural Resources Survey. (The Phase 1A Cultural Resources Survey for this project has been submitted to the NYSDOT under separate cover.)

There are 19 NRHP-listed properties and 45 properties that have been formally determined eligible for listing on the NRHP located within one mile of the Project. These are identified in the Phase 1A.

The Project route is adjacent to the NRHP-listed South Street Area Historic District, which extends from Lincoln Street at the north end to Metcalf Drive at the south, and from just west of NYS Route 34 to Burt Avenue on the east. In addition, there are five NRHP-eligible buildings in close proximity to the Project route, which include:

- The Dunn & McCarthy building (Structure #3), which is located north of the Owasco River on the west side of Washington Street. The building burned in 1993 and the site has subsequently been razed.
- The Waleene Building (Structure #5), which is located south of the Owasco River, on the east side of Washington Street and north of a mill race.
- The Auburn Floor Covering Company, which is located at 10-12 Genesee Street, just southwest of Seminary Avenue.
- The PVR Coventry Building (now Piccirillo's Restaurant), which is located in Auburn at 14-16 Genesee Street, near Market Street and just southwest of the Auburn Floor Covering Company.
- Nolan's Family Shoe Store, which is located at 51-57 Genesee Street in Auburn's Loop Road triangle.

Construction of the Project will not require the demolition or physical alteration of any buildings or properties listed on or previously determined eligible for listing on the NRHP. No direct physical impacts to historicarchitectural resources will occur as a result of the Project. No additional cultural resources investigation related to historic-architectural resources should be required in association with the Project.

The presence of numerous historic buildings and remnant industrial features along the Project route, particularly those associated with the nineteenth-century industrial development of Auburn, provides an opportunity to engage the recreational users of the proposed trail and interpret the complex and significant history of the Owasco Outlet and City of Auburn.

The project's activities do not have the potential to adversely affect the historic properties located along the trail route. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the properties for inclusion in the National Register, in a manner that would diminish the integrity of their location, design, setting, materials, workmanship, feeling, or association. The Department has prepared a No Adverse Effect Finding Document and sent it to SHPO, with a copy to FHWA.

Archaeological Resources

The area of potential effect (APE) for archeological resources includes all areas within the limits of disturbance for proposed construction activities of the entire trail route. These areas include off-road trail segments as well as major and minor nodes and the pedestrian bridge.

Proposed construction of the Project will include ground disturbing activities that have the potential to impact archaeological resources. The area of potential effect (APE) for archeological resources includes all areas within the limits of disturbance for proposed construction activities. These areas include off-road trail segments as well as major and minor nodes and the pedestrian bridge, depending on the extent of construction activities proposed at node sites.

Relative to the potential for archeological sites to be located within or along the Project route, the results and recommendations of the Phase 1A cultural resources survey for the Project as well as the Section 106 of the National Historic Preservation Act Findings Documentation (Submitted under separate cover.) can be summarized as follows:

- The site visit by City of Auburn and NYSOPRHP staff confirmed that, due to the extent of demolition and earth disturbance, Wadsworth Park (the former site of the Wadsworth Scythe Works) lacks integrity (in terms of historical significance). However, the extant dam, mill race, water wheel, and structural remains are evocative and compelling features that suggest the significant history of the site. No archeological investigations are recommended at the site. However, the design of the proposed park in this area should incorporate and preserve the extant historic remains to the extent practical, and make use of their presence to develop appropriate interpretive materials for the site.
- The western and central portions of the Project route are located in areas that have been
 extensively reconfigured and landscaped in association with nineteenth- and twentieth-century
 industrial and infrastructure development. Due to the extent of previous disturbance in these areas,
 there is relatively little likelihood for intact Native American archeological sites to be present. Both
 on-road and off-road trail segments throughout Downtown Auburn are previously disturbed. No
 archeological testing is warranted.
- Historic maps depict numerous map-documented structures (or MDS), primarily associated with nineteenth-century industrial uses, along the Project route. A site reconnaissance suggests that foundation remains associated with these MDS are extant in various areas along the Project route, and the intent of the Project design is to avoid any removal or disturbance of extant foundations or structural remains. Prior to final Project design, a topographic survey will be prepared for the portions of the Project route in the vicinity of these former industrial sites. The Project will avoid impacts to all extant foundation remains that are identified on the survey maps of the Project route. Therefore, no archeological site investigations are proposed for these MDS locations. However, the presence of foundation and structural remains associated with the nineteenth-century industrial development of Auburn provides an opportunity to engage the recreational users of the proposed trail and use the archeological remains as tangible features to interpret the complex and significant history of the Owasco Outlet and City of Auburn. The presence of these sites should guide the development of interpretive materials for the trail.
- Significant portions of the trail follow the City of Auburn Owasco Interceptor sewer easement. As
 described in the Phase 1A report, a previous archeological survey was conducted in this area. In
 addition, the City of Auburn reviewed with NYSOPRHP staff documentation regarding the extent of
 disturbance in this area. No archeological survey is recommended.
- During their site visit, NYSOPRHP and City of Auburn staff observed that most portions of the Auburn High School property are previously disturbed, with the exception of a potentially undisturbed landform located in the southeast portion of the property. The Project route does not traverse this potentially undisturbed area. In the event that the Project route is redesigned to intersect this area, then Phase 1B archeological testing is recommended to determine whether archeological deposits may be present within the undisturbed area.
- The portion of the Project route located southeast of the Auburn High School property, adjacent to the Owasco Outlet, and north of Emerson Park is located in an area where Native American artifacts have previously been found (i.e., NYSM Sites 6888 and 8174) and that do not appear to have been previously disturbed. This area has a relatively high likelihood for intact Native American archeological sites to be present. There is an existing 10-12-foot wide, gravel surfaced pedestrian path in this area. To avoid the need for archeological testing, construction of the proposed trail in this area should avoid all ground disturbing activities and be limited to resurfacing the existing trail. If excavation, grading, or other ground disturbance is proposed, then a Phase 1B archeological survey should be conducted to determine if intact deposits are present.

• Emerson Park is the former location of a Native American village site. As discussed by City of Auburn and NYSOPRHP staff during the site visit, and documented in the previous (recent) archeological investigations in the park (summarized in the Phase 1A report), the park is built on fill that was deposited during a U.S. Army Corps of Engineers dredging project in the 1920s. Previous archeological investigations (summarized in the Phase 1A report) conducted in Emerson Park have documented the extent of disturbance and lack of intact archeological deposits. No additional archeological work is recommended in this area.

As presently envisioned, the Project will not result in adverse impacts to archeological resources. However, the caveats and recommendations listed above should be considered if any changes to the Project design are proposed.

Historic Bridges

The Aurelius Avenue Bridge (NYSDOT Bridge ID #2207130) is listed on the NYSDOT's Historic Bridge Inventory as eligible for the National Register of Historic Places. No alterations to the bridge will occur as part of the project.

State Heritage Area Program

The proposed project will not impact areas identified as State Heritage Areas or those identified as National Heritage Areas. In addition, there are no nationally significant natural areas within, or adjacent to the project area.

Section 6(f) and Section 1010 Involvement

The project does not impact parklands or facilities that have been partially or fully federally funded through the Land and Water Conservation Act. No further consideration under Section 6(f) is required.

This project does not involve the use of land from a park to which Urban Park and Recreation Recovery Program funds have been applied.

3.3.3.11 Section 4(f) Involvement

A historic property that is listed on, or eligible for, inclusion in the National Register of Historic Places is located within the project's area of potential effect.

The Aurelius Avenue Bridge (NYSDOT Bridge ID #2207130) is listed on the NYSDOT's Historic Bridge Inventory as eligible for the National Register. This stone arch bridge over the Owasco Outlet (approximate latitude +42.93444, longitude -76.58722) was built in 1886. The preferred trail route along Aurelius Avenue crosses the bridge. The bridge will not be altered to accommodate the trail and therefore will not adversely affect the site.

The proposed project will extend 3,280 linear feet through Emerson Park, a Cayuga County park, and considered as a significant publicly-owned park. It is anticipated that the project will have only *de minimis* impacts on the park. The Section 4(f) De Minimis Findings Request for Emerson Park and written concurrence from the park director is provided in Appendix D.

The proposed project will extend approximately 1,900 linear feet through Auburn High School property, a significant publicly-owned property. However, it is anticipated that the project will have only *de minimis* impacts on the park. The Section 4(f) De Minimis Findings Request for Auburn High School and written concurrence from the Superintendent of Schools is provided in Appendix D.

The proposed project will extend through two City-owned Parks, considered as significant publicly-owned properties. Wadsworth Park is a city-owned property referred to as a City park through which the trail will

extend. Market Street Park is a small urban park space that will be enhanced with amenities added because of the pedestrian portion of the trail extending through the park space.

It is anticipated that the project will have only *de minimis* impacts on both, Wadsworth Park and Market Street Park. The Section 4(f) De Minimis Findings Request for both parks and written concurrence from the City of Auburn is provided in Appendix D.

3.3.3.12 Visual Resources

The project will consist of on-road and off-road trail segments, nodes, and associated signage. No negative impacts to visual resources are expected. During construction some areas of vegetation will be cleared for trail construction and equipment access. However, the removal of most vegetation is considered to be beneficial and will primarily include shrub and brush debris that will be cleared in certain riverbank areas to enhance trail landscaping and views of the trail corridor. Areas of mature woodland that provide significant wildlife habitat and vegetative buffers will be preserved as part of trailside amenities to the greatest degree possible.

3.3.3.13 Farmlands

Based on a review of the NYS Agricultural District Maps for Cayuga County, the proposed project is not located in or adjacent to an Agricultural District.

The proposed project activities will not convert any prime or unique farmland, or farmland of state or local importance, as defined by the USDA Natural Resources Conservation Service, to a nonagricultural use.

3.3.3.14 Air Quality

The project will not result in any increase in air emissions. Conversely, it will encourage and expand non-motorized means of transportation in the City of Auburn. Air quality regulations do not apply.

The project will not create permanent or long-term adverse impacts to existing air quality, noise levels or energy use. Temporary changes in air quality, noise levels and energy use will result in some localized impacts during trail construction. These changes are not considered significant and best management construction practices will be utilized to mitigate any adverse impacts on nearby neighborhoods during the construction process. The trail will be used by pedestrians and bicyclists as a multi-modal trail with connections to other trail and pathways as well as public transit with the downtown area of the City. These uses will result in less dependence on personal modes of motorized transportation and therefore some reduction in energy use as well as noise and adverse air emissions.

An air quality analysis for CO is not required since this project will not increase traffic volumes, reduce source-receptor distances by 10% or more, or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards. The project does not require a project-level conformity determination.

A Mesoscale Analysis is not required for this project since it does not significantly affect air quality conditions over a large area and is not a regionally significant project.

The MSAT Analysis is not necessary because the project will not involve any increases in emissions.

The project will not involve any increases in PM emissions nor does it involve any increases in greenhouse gas emissions.

3.3.3.15 Energy

An energy assessment is not required for the proposed project since it is not expected to:

- a. Increase or decrease VMT;
- b. Generate additional vehicle trips:
- c. Significantly affect land use development patterns;
- d. Result in a shift in travel patterns; or
- e. Significantly increase or decrease vehicle operating speeds.

Therefore, the project will not significantly affect energy consumption.

3.3.3.16 Noise

The project will not significantly change either the horizontal or vertical alignment, or increase the number of through-traffic lanes. Therefore, this project is not a Type I project and does not require a traffic noise analysis as per 23 CFR 772.

3.3.3.17 Hazardous Waste and Contaminated Materials

A Hazardous Waste/Contaminated Materials Site Screening (HW/CM) has been conducted in accordance with NYS DOT Environmental Procedures Manual, Chapter 5, in order to document the likely presence or absence of hazardous/ contaminated environmental conditions. A hazardous/contaminated environmental condition is the presence or likely presence of any hazardous substances or petroleum products (including products currently in compliance with applicable regulations) on a property under conditions that indicate an existing release, a past release, or a material threat or into the ground, ground water, or surface water of the property.

The Hazardous Waste/ Contaminated Materials Site Screening included a review of NYSDEC regulatory data files, Phase I Environmental Site Assessments (ESA) and draft/final Phase II ESA completed under the City of Auburn 'Downtown Brownfield Assessment Program' currently funded by the US Environmental Protection Agency. The Hazardous Waste/ Contaminated Materials Site Screening identified five (5) US EPA brownfield sites with known Recognized Environmental Conditions (RECs) that are within the project area. These site locations and RECs are as follows:

1. 42 Wadsworth Street, Auburn NY 13021: A draft Phase II ESA was completed on October, 2013 and is currently under US EPA review (see attached Phase II ESA report). The report documents that the site at 42 Wadsworth Street consists of an 11.8 acre parcel (Tax ID 115.41-1-16) is located along both sides of the Owasco River in a predominate residential neighborhood. The vacant parcel is partially wooded with remnants of buildings and above-ground structures remaining from the former hydro facility and scythe manufacturing facility.

The Phase II investigation identified the presence of petroleum-impacted shallow soil or fill near the footprint of the former manufacturing buildings. Select subsurface soil samples contained petroleum compounds but at concentrations below Part 375 Soil Cleanup Objectives (SCOs) for restricted-residential and commercial land use. Acetone, phenol and 2-methylphenol concentrations slightly exceeded Protection of Groundwater SCO. A NYSDEC open spill case #1302363 was created and NYSDEC has since closed the Spill Case based on the results of the Site Investigation.

One shallow soil/ fill sample collected within the footprint of a former building contained arsenic concentrations exceeding Part 375 Commercial, Restricted-Residential and Protection of Groundwater SCOs. This sample also contained the chromium exceeding Restricted-Residential SCOs. Another shallow soil/fill sample contained mercury exceeding the Restricted-Residential and Protection of Groundwater SCOs. Groundwater samples did not contain concentrations of volatile

organic compounds (VOCs), semi VOCs or polychlorinated biphenyls (PCBs) exceeding method detection limits. Three metals (iron, manganese, and sodium) were detected in one or more groundwater well samples at concentrations exceeding groundwater standards. Suspended sediments in the samples may have also elevated the reported concentrations of these inorganic compounds.

The Phase II ESA recommends that subsurface excavations may encounter shallow soil/fill materials impacted with residual nuisance petroleum odors. It is recommended that handling, staging and reuse of these materials be managed with proper restrictions. The City should coordinate with NYSDEC to determine if remediation of the shallow arsenic-impacted fill is required based on the proposed future site use as a public park. Installation of a properly designated soil cap should be discussed as an option to minimize public exposure to arsenic-impacted fill in this area.

A Remediation Plan will be developed in coordination with NYSDEC in accordance with the recommendations outlined in the Phase II ESA. Remedial Plans will be completed prior to subsurface ground disturbance.

2. 2-38 Wadsworth Street, Auburn NY 13021: A draft Phase II ESA was completed on October 2013 and is currently under US EPA review (see attached Phase II ESA report). The report documents that the site consists of a 3.8 acre parcel (Tax ID 115.41-1-18) that is located on the north side of the Owasco River. The site is bounded by Wadsworth Street to the north and Aurelius Avenue to the east. The site is vacant and wooded with a single story brick building that is part of the City of Auburn's high rate combined sewer overflow (CSO) system.

The Phase II investigation identified the presence of petroleum-impacted soil on the western portion of the site near the historical manufacturing operations and a documented oil-seep. Subsurface soil samples contained petroleum compounds but at concentrations below the most stringent Part 375 Soil Cleanup Objectives (SCOs). A NYSDEC Spill Case #1305264 was opened and has subsequently been closed.

One shallow soil/fill sample collected in the vicinity of a former building contained a single PCB concentration exceeding Part 375 Unrestricted Use SCOs. The PCB concentration in the sample was below the Residential Use SCO. Groundwater samples did not contain concentrations of volatile organic compounds (VOCs), semiVOCs (SVOCs) or polychlorinated biphenyls (PCBs) exceeding method detection limits. Three metals (iron, lead, and sodium) were detected in one or more groundwater wells samples at concentrations exceeding groundwater standards. Suspended sediments in the samples may have elevated the reported concentrations of these inorganic compounds.

The Phase II ESA recommends coordinating with NYSDEC to determine the responsible party for ongoing maintenance, operation or closure of the passive remedial system. Subsurface excavations may encounter soils and groundwater impacted with residual nuisance petroleum odors. It is recommended that handling, staging and reuse of these materials be managed with proper restrictions. Further characterizations of shall fill material is recommended on the eastern half of the site if excavations are required for trail construction.

A Remediation Plan will be developed in coordination with NYSDEC in accordance with the recommendations outlined in the Phase II ESA. Remedial Plans will be completed prior to subsurface ground disturbance.

3. 41-55 Washington Street, Auburn NY 13021: A draft Phase II ESA was completed in October 2013 and is currently under US EPA review (see attached Phase II ESA report). The report documents that the site consists of approximately 7.5 acres (Tax ID# 115.51-1-31) and is divided into three parcels, the largest area is located north of the Owasco River, a small narrow area of land between the River and the water raceway from a former hydro facility and a second narrow land area

between the raceway and the railroad ROW south of the Owasco River. The site is bounded by Washington Street to the east, West Street to the North and is in a mixed use- commercial & residential neighborhood. The NYS Correctional Facility is located kiddy corner to the site.

The Phase II investigation noted that the site consisted of the former Dunn and McCarthy shoe manufacturing facility that likely used or stored petroleum products. The site investigations did not identify the presence of petroleum-impacted soil and fill material in the vicinity of the historical buildings and site features. However, various individual semi-volatile organic compounds (SVOCs) were detected in fill material samples from four locations at concentrations exceeding NYSDEC Part 375 Soil Cleanup Objectives (SCOs). The specific SVOCs reported in these samples appear to be associated with the ash and cinder fill material rather than petroleum fluid releases.

The northern portion of the site contains hard-fill reportedly from City road projects and was observed to be composed of broken concrete, soil, gravel and lesser volumes of brick, cobbles/boulders, crushed asphalt and metal (re-bar, pipes and steel mesh). One sample representative of the hard fill contained concentrations of cadmium, barium and copper exceeding Part 375 Restricted-residential and/or Commercial Use SCOs.

The fill supporting the north bank of the Owasco River and the area between the Owasco River and a water raceway consists of predominately brick, broken concrete, cobbles/boulders and metal (pipes, steel mesh) in a matrix of ash and cinders. This fill appears to be from the demolition of the former buildings at the Site. Two samples representative of this fill contained concentrations of acetone exceeding Part 375 Restricted-residential SCO. Several SVOCs and metals exceeding Restricted-residential and/or Commercial Use SCOs were also reported in multiple samples. A more limited set of samples contained two SVOCs (benzo(a)pyrene and dibenzo(a,h)anthracene) and one metal (arsenic) exceeding Industrial Use SCOs. The fill material evaluation demonstrated that fill composition varies across the Site.

Groundwater samples did not contain concentrations of SVOCs or polychlorinated biphenyls (PCBs) exceeding groundwater standards. One VOC (benzene) was detected in one groundwater sample (collected from the southeast corner of the Site (upgradient) at a concentration slightly exceeding the groundwater standard. Three metals (iron, lead, and sodium) were detected in one or more groundwater well samples at concentrations exceeding groundwater standards. Elevated metals are likely attributable to suspended sediments or soluble elements from the natural soils or fill material.

The Phase II ESA recommends coordination with the NYSDEC to determine if further investigations of the SVOC and metal impacted soil/fill will be required based on this Site Investigation data and proposed future site use. Installation of a properly designed soil cap should be discussed as an option to minimize public exposure to SVOC and metal-impacted soil/fill in this area.

A Remediation Plan will be developed in coordination with NYSDEC in accordance with the recommendations outlined in the Phase II ESA. Remedial Plans will be completed prior to subsurface ground disturbance.

4. 40-46 Frazee Street, Auburn NY 13021- A Limited Subsurface Investigation Phase II ESA has been reviewed and approved by US EPA for this site location. The report documents that the site consists of a 1.7 acre parcel (Tax ID# 155.41-1-1) that is located northeast of the Wadsworth Street parcels and is bounded by Canoga Street to the west, Frazee Street to the north and Wadsworth Street to the south. The site is in a mixed use area with primarily residential uses other than a light industrial use- the Auburn Foundry to the east. The property is currently vacant with no existing structures.

A limited subsurface investigation of the site was completed on site on May 14, 2013 consisting of a series of five (5) test pits with a maximum depth of twelve (12) feet below ground surface. Based on field screening results, one (1) soil sample from each test pit was selected for lab analysis.

Acetone and several metals, including mercury, were detected in four (4) of the five (5) test pits installed on the Property at concentrations exceeding the unrestricted SCOs.

The Phase II ESA recommends that when an end use has been determined that the Phase II data be re-evaluated. Part 375 Unrestricted SCOs, which are the most stringent criteria, were used for comparison as specified in the SAP. However, a more applicable SCO may be applied dependent on the future use and subsequent soil exposure.

A Remediation Plan will be developed in coordination with NYSDEC in accordance with the recommendations outlined in the Phase II ESA. Remedial Plans will be completed prior to subsurface ground disturbance.

5. 9 Owasco Street, Auburn NY 13021- A Limited Subsurface Investigation Phase II ESA has been reviewed and approved by US EPA for this site location. The report documents that the site consists of a 9.63 acre parcel (Tax ID# 116.54-2-21) that is bisected by the Owasco River. The property is bounded to the east by Owasco Street, and west by Canal & Osborne Streets primarily consisting of wooded landscape and two city-owned structures #1) the City Combined and Sewer Overflow Control System building and #2) the Mill Street Dam Hydro-electric Generation Facility powerhouse.

A limited subsurface investigation of the site was conducted on May 20th, and 21st, 2013 consisting of nine (9) test pits and four (4) soil borings in accordance with the previously prepared Sampling and Analysis Plans. The soil borings were installed along the property line adjacent to the off-site petroleum spill location to the east of the property. The test pits were installed in former building locations including the coal gasification facility, Auburn Woolen Mill and Bowen Manufacturing Company facilities. Test pits were advanced to a maximum depth of 12 feet below ground surface and soil borings were advanced to depth of refusal with one (1) soil sample from each test pit and two (2) soil samples from each soil boring selected for lab analysis.

The test pits and soil borings detected select SVOCs and metals (including mercury) at concentrations exceeding the unrestricted SCOs. The Phase I ESA identified the presence of demolition debris on the Property. The potential for asbestos and lead paint in the rubble was noted, but not identified as a REC and not addressed as part of the limited subsurface investigation.

A Remediation Plan will be developed in coordination with NYSDEC in accordance with the recommendations outlined in the Phase II ESA. Remedial Plans will be completed prior to subsurface ground disturbance.

7. <u>Clark Street Electrical Substation- Auburn MGP Site, Auburn NY 13021:</u> In 2009, the NYS DEC issued a Record of Decision (ROD) for a remedial program at the NYSEG substation located on Clark Street in Auburn NY. The New York State Electric & Gas (NYSEG) utility electrical substation is the site of a former manufactured gas plant that resulted in the disposal of hazardous wastes, including volatile organic compounds and polycyclic aromatic hydrocarbons. These identified hazardous wastes have contaminated the soil, groundwater and sediment at the site. Between November 2003 and June 2008 a Remedial Investigation of the site was conducted to define the nature and extent of any contamination resulting from the previous site activities. The Remedial Investigation was conducted in three phases and included 29 soil borings, seven (7) monitoring wells and seven (7) test trenches. As a result of the Remedial Investigation, the main categories of contaminants that exceed their SCGs are certain volatile organic compounds (VOCs) and certain semivolatile organic compounds (SVOCs). Specific VOCs of concern are benzene, toluene, ethylbenzene and xylenes or BTEX. Specific SVOCs of concern are polycyclic aromatic hydrocarbons or PAHs. The primary waste material at the site is MGP tar which contains high levels of PAH compounds. Tars also exceed SCOs for BTEX by several orders of magnitude.

The electrical substation is owned and operated by NYSEG therefore the City of Auburn is not in the chain of title and has no responsibility for hazardous waste cleanup. The City intends to

cooperate with NYSEG when the brownfield cleanup remedial process begins which is anticipated to commence in 2015.

Of the six sites summarized above, copies of the Phase I & Phase II ESA and the NYS ROC documents are available online at the City's Website and in hardcopy at Auburn City Hall.

3.3.3.18 Construction Effects

The project will not create permanent or long-term adverse impacts to existing air quality, noise levels or energy use. Temporary changes in air quality, noise levels and energy use will result in some localized impacts during trail construction. These changes are not considered significant and best management construction practices will be utilized to mitigate any adverse impacts on nearby neighborhoods during the construction process. The trail will be used by pedestrians and bicyclists as a multi-modal trail with connections to other trails and pathways as well as public transit within the downtown area of the City. These uses will result in less dependence on personal modes of motorized transportation and therefore some reduction in energy use as well as noise and adverse air emissions.

Best management practices (BMPs) will be implemented during construction to comply with State and federal stormwater and erosion and sediment control regulations. Pollution control measures will be implemented and incorporated into project plans and specifications to avoid adverse water quality impacts due to stormwater runoff during construction and post-construction periods. The project will also implement fugitive dust and noise control measures during construction activity. Measures will be implemented to limit noise generation generated during construction including work schedules limited to normal daytime hours.

3.3.3.19 Anticipated Permits, Approvals and Coordination

The following permits, approvals are anticipated for the proposed project:

New York State Department of Environmental Conservation (NYSDEC):

- State Pollutant Discharge Elimination System (SPDES) General Permit
- Section 401 Water Quality Certification
- Article 15 Stream Disturbance Permit

Army Corps of Engineers (USACE):

Section 404 Nationwide Permit

United States Environmental Protection Agency

- Executive Order 11988 Flood Plain Management
- Executive Order 11990 Wetlands

Coordination

- Federal Highway Administration (Section 4f & Section 106)
- U.S. Fish & Wildlife Service (Threatened and Endangered Species)
- U.S. Army Corps of Engineers (Section 404 Wetlands)
- NYS Office of Parks, Recreation and Historic Preservation (Section 4f)
- City of Auburn Floodplain Development Permit
- City of Auburn Highway Work Permit

Others

Local Permits

3.3.4 Indirect and Secondary/Cumulative Impacts

The proposed project has the potential to indirectly affect social conditions, by introducing non-motorized transportation facilities to the City of Auburn. The project will offer an alternative to automobile travel, provides health and recreational benefits, and will improve quality of life for residents.

The project's effects will be beneficial: Access to non-motorized transportation facilities, reduced greenhouse gas and other air emissions, waterfront access and revitalization, enhanced recreational opportunities and corresponding public health benefits, potential community investment and infill development, tourism spending, and potentially increased tax base are among the positive impacts the project will have in the City of Auburn.

The project will have no negative impacts.

3.3.5 Public Participation and Outreach

Public informational meetings consisting of open houses and community workshops were conducted throughout the project to identify concerns and ideas for the location of the trail and nodes. In addition, a project steering committee met on several locations to review the community comments, environmental concerns and potential property issues. A project website was also created to provide project information about the trail project to the community. More information about public participation can be found in Appendix C.

APPENDICES