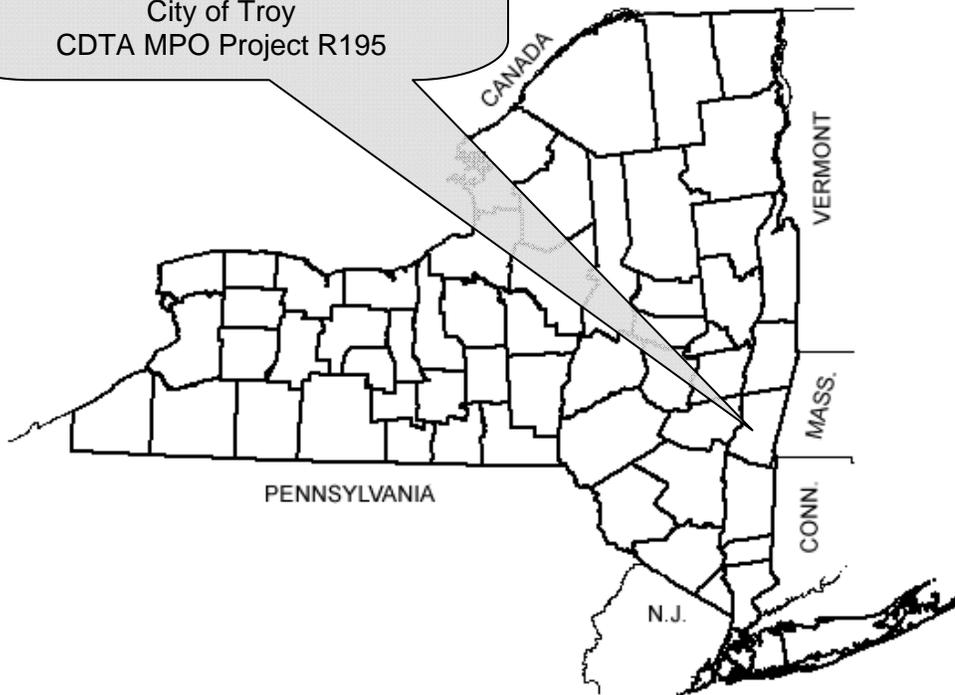


TRANSPORTATION

DRAFT DESIGN REPORT/ ENVIRONMENTAL ASSESSMENT

March 2016

Highway Project
P.I.N.: 1754.59
South Troy Industrial Park Road
Rensselaer County
City of Troy
CDTA MPO Project R195



PROJEKT REPORT



ANDREW M. CUOMO
Governor

**Department of
Transportation**

MATTHEW J. DRISCOLL
Commissioner



U.S. Department of Transportation
Federal Highway Administration

This project is being designed using U.S. Customary units and the text of this report uses U.S. Customary units. The following table of approximate conversion factors provides the relationship between U.S. Customary and Metric units for some of the more frequently used units in highway design. The table allows one to calculate the Metric Unit by multiplying the corresponding U.S. Customary Unit by the given factor.

	<u>U.S. Customary Unit</u>	x	<u>Factor</u>	=	<u>Metric Unit</u>
<u>Length</u>	miles (mi)	x	1.610	=	kilometer (km)
	feet (ft)	x	0.305	=	meter (m)
<u>Area</u>	acres (a)	x	0.405	=	hectare (ha)
	square yards (sy)	x	0.836	=	square meter (m ²)
	square feet (sf)	x	0.093	=	square meter (m ²)
<u>Volume</u>	cubic yards (cy)	x	0.765	=	cubic meter (m ³)
	cubic feet (cf)	x	0.0283	=	cubic meter (m ³)
<u>Speed</u>	miles per hour (mph)	x	1.610	=	kilometer per hour (km/h)
	feet per second (ft/s)	x	0.305	=	meter per second (m/s)

ENVIRONMENTAL ASSESSMENT

For

P.I.N. 1754.59, South Troy Industrial Park Road
City of Troy
Rensselaer County

BY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

And

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Submitted pursuant to 42 USC 4332(2)(c). This assessment was prepared in consultation with FHWA and has been reviewed for scope and content and is released for comment.

Date

Local Official

Date

Regional Director
NYS Department of Transportation

Date

District Engineer
Federal Highway Administration

PROJECT APPROVAL SHEET

(Pursuant to SAFETEA-LU Matrix)

A. IPP Approval: The need for the project was identified by The City of Troy and an IPP was completed by NYSDOT and approved by the Regional Director in December 2000.

B. Scope Approval: This project is being processed in accordance with the Local Project's Procedure Manual and a Scope Approval was not required.

C. Public Hearing Certification (23 USC 128): A public hearing was held on _____ in accordance with 23 USC 128

Project Manager

D. Recommendation for Design Approval: The project cost and schedule are consistent with the State Transportation Improvement Program.

Regional Program Manager

E. Recommendation for Design and Nonstandard Feature Approval: All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained.

Regional Design Engineer

F. Nonstandard Feature Approval: The nonstandard features have been adequately justified and it is not prudent to eliminate them as part of this project.

Regional Director

G. Design Approval: The required environmental determinations have been made and the preferred alternative for this project is ready for final design.

FHWA – District Engineer

LIST OF PREPARERS

Group Director Responsible for Production of the Design Approval Document:

Don Adams, P.E., Partner, Creighton Manning Engineering, LLP

Description of Work Performed by Firm: Directed the preparation of the Design Approval Document in accordance with established standards, policies, regulations and procedures, except as otherwise explained in this document.

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.*

Common Abbreviations:

AASHTO	American Association of State Highways and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ADA	American Disabilities Act
ADT	Average Daily Traffic
APA	Adirondack Park Agency
APE	Area of Potential Effect
DDR	Draft Design Report
DHV	Design Hour Volume
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
ESCP	Erosion and Sedimentation Control Plan
ETC	Estimated Time of Completion
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
GIS	Geographic Information System
HCM	Highway Capacity Manual
ITS	Intelligent Transportation Systems
LOS	Level of Service
NDA	No Discharge Area
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NY	New York
NYCRR	New York Codes Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation

OGS	New York State Office of General Services
OPRHP	New York State Office of Parks, Recreation and Historic Preservation
PDM	Project Development Manual
PIN	Project Identification Number
SASS	Scenic Area of Statewide Significance
SEE	Social, Economic and Environmental
SEQR	State Environmental Quality Review Act
SHPO	State Historic Preservation Office
SMSA	Standard Metropolitan Statistical Area
SPDES	State Pollutant Discharge Elimination System
STIP	Statewide Transportation Improvement Program
SWPPP	Stormwater Pollution Prevention Plan
TRB	Transportation Research Board
USACOE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
VPD	Vehicles Per Day

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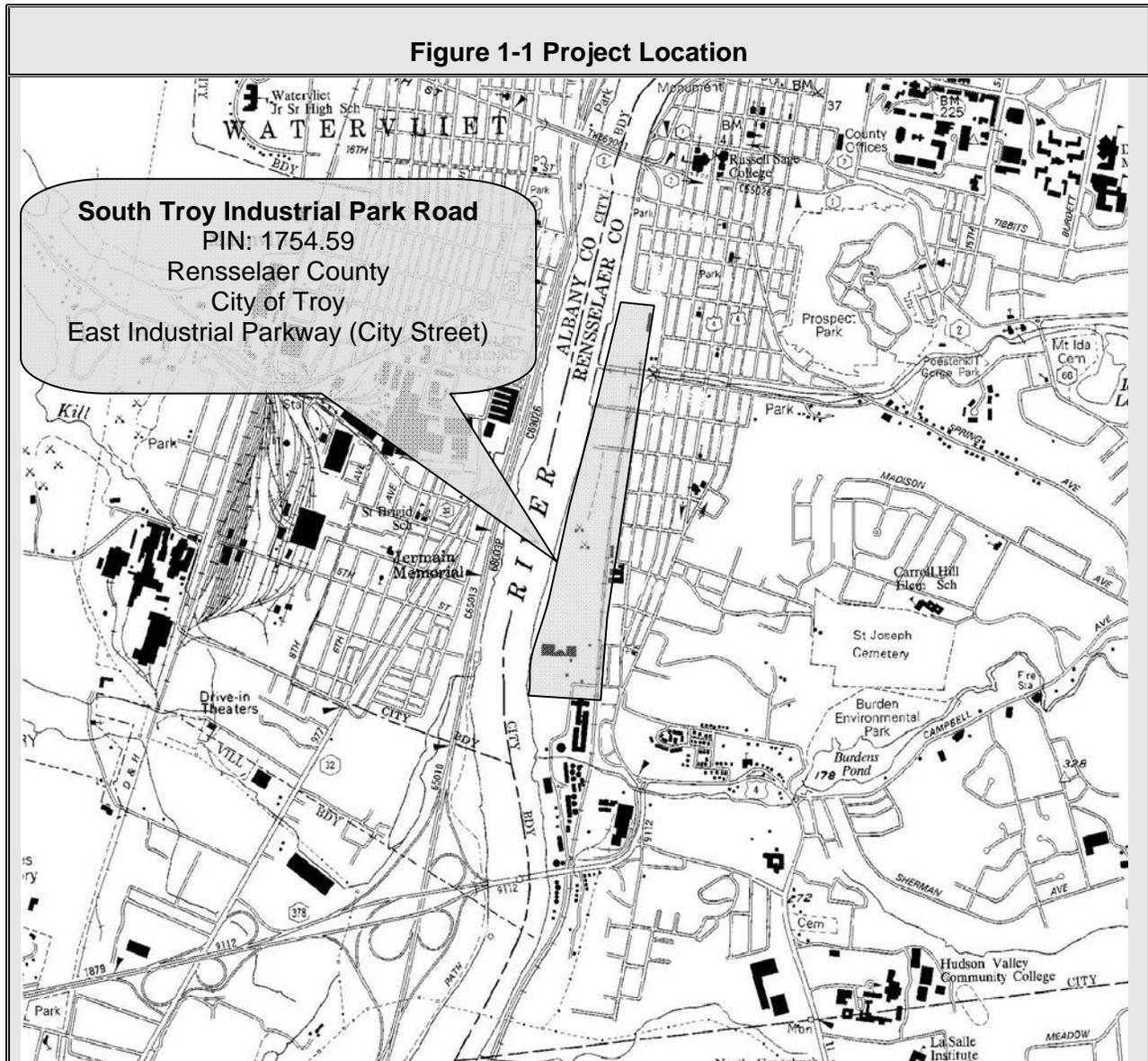
CHAPTER 1 - EXECUTIVE SUMMARY

1.1 Introduction

This report was prepared in accordance with the NYSDOT Project Development Manual, 6 NYCRR (New York Codes, Rules and Regulations) Part 617, and 23 CFR (Code of Federal Regulations) 771. Transportation needs have been identified (section 1.2.2), objectives established (1.2.3) to address the needs, and cost-effective alternatives developed (1.3). This project is 80% federally funded, and 20% locally funded.

1.2 Purpose and Need

1.2.1 Where is the Project Located?



- (1) East Industrial Park Road, 1st Street, Monroe Street, Madison Street, Adams Street (All City Streets)
- (2) BIN 2202320, which carries 1st Street over the Poesten Kill
- (3) City/Village/Township - City of Troy
- (4) County – Rensselaer County
- (5) Length - East Industrial Parkway (0.4 mi), Proposed Extension to Main (0.7 mi)
- (6) From Main Street to Adams Street; From the Hudson River to First Street (RM CITYST To RM CITYST)
- (7) East Industrial Parkway has one 12 foot lane in each direction, with two foot paved shoulders. The terrain is considered rolling. On-street parking is provided along 1st and 2nd Streets on both sides of the road. The pavement condition is generally rated fair. The statutory speed limit in the City is 30 mph. There is a school zone located on 1st St, which reduces the speed limit to 20 mph for approximately two blocks. Pedestrian facilities are generally limited to sidewalks in fair condition along both sides of most City streets, with limited crosswalks and pedestrian signals, and do not meet ADA criteria in all locations.

1.2.2 Why is the Project Needed?

The City of Troy has been actively planning a revitalization of its working waterfront. Over the past 10 years the City, supported by private efforts, has completed brownfield cleanups and property acquisitions of long abandoned industrial sites. This \$35M plus investment (ref. City Local Development Corporation (LDC) records) represents a significant proactive leverage for a City of this size and a firm commitment to redevelop its waterfront to meet modern needs. Requests for Proposals have been issued to prospective developers to reclaim and reuse the now vacant sites as well as bring existing commercial sites into harmony with a longstanding Waterfront Revitalization Plan (LWRP) created under the State's program for such areas along the Hudson River. The City hopes to use the advantages of all modes of commercial transport available in this area: water, rail and highway. Up until the 1900s, commercial freight was generally handled by rail or water- the best modes for the type of heavy industrial business located there. The City's LWRP recognized the shift away from the smokestack industry that had been prominent to the area from before the Civil War. It proposed a staged rezoning beginning from mixed use at the north end of the study area to heavy industrial at the far south; all of which required a relook at the transportation access to the area. One of the gaps in being able to develop this property in the most flexible manner was identified as direct highway access from the west of the Hudson River (787) to the proposed development sites without using residential streets, particularly defined as between Adams to Main Street. A federally aided project was initiated in 2001, along with a proposed functional classification change to address this highway gap.

The property redevelopment itself presents many unknowns as it is essentially starting from "Scratch". Without better access, developers are hesitant to commit to the area. The configuration of ultimate use for the area properties remains unknown. However, an attempt was made to quantify a potential, most likely scenario for development. Based on a handful of studies done to measure commercial vehicle generation from equivalent size areas (some 40 acres of potential redevelopment owned by the City's LDC), it would be expected that some 200-300 additional large trucks would enter the street system every day. This volume would be in addition to the truck volumes currently entering and leaving the study area. It also would not include the vehicle access for 500 or more employees potentially working in the area. This projection was based on an array of mixed uses including light manufacturing, service and warehouse type developments. As a result, the connecting residential areas would be burdened with hundreds of extra vehicles, along with the associated noise and air issues.

The Capital District Long Range Plan, "New Visions", both the 2030 plan and 2035 Plan Update are supportive and inclusive of the project proposal. Specifically the 2035 Plan Updates states, as objectives:

"New Visions advocates congestion management and infrastructure investments that will support the movement of goods throughout the Capital District.

“New Visions articulates regional economic development needs and the transportation investment needed to support sustainable regional economic growth.

“Promote sustainable economic growth with good-paying jobs

“Revitalize urban areas”

The New Visions Plan also includes an overall initiative to create a Quality Region with the following supportive criteria for success:

“People agree that a quality region:

- “Develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change
- “Creates economic, educational, social, cultural and recreational opportunities
- “Provides safe neighborhood environments and housing choices for all
- “Protects sensitive environmental resources
- “Fosters community identity and “a sense of place” in all parts of the region”

This project would address, directly or indirectly, all of these criteria.

The purpose of creating this project was to provide a means of efficient vehicular access that would allow the south waterfront area to be redeveloped as the City’s Local Waterfront Revitalization plan envisioned, while minimizing any impacts of that access on the bordering residential neighborhoods. The specific project objectives, listed in the next section, were developed in response to this overall purpose.

1.2.3 What are the Objectives/Purposes of the Project?

The identified transportation gap was evaluated in terms of developing specific transportation and supporting objectives to be met. These were identified in terms of the most supportive means to allow redevelopment of the area and address community issues with probable transportation access and patterns.

1. Optimize direct access, consistent with the City’s LWRP and zoning for all commercial zoned properties in the study area. Success would be measured in terms of providing an alternate route with maximum avoidance of residential streets to state highway routes 2 and 378.
2. Provide a transportation facility that maximizes the economic viability of developable properties. Success is measured by minimizing property segmentation and maintaining access to rail and water mode facilities.
3. Divert from the existing local street system 90 percent of all truck and commercial traffic destined to or leaving from the study area.

1.3 What Alternative(s) Are Being Considered?

1.3.1 Design Progression

Between the original project initiation in 2001 and 2009, additional brownfield areas, south of Main Street, acquired by the City’s LDC, were either cleaned up or proposed to be so; thus in late 2009 the Capital District Metropolitan Planning Organization (CDTC) approved funds for the investigation of the feasibility of extending the industrial access route to the south to allow an additional direct connection to the south along State Route 4, Burden Avenue and the Troy Menands Bridge (also connecting to I787).

A Project Scoping Report, included as Appendix F, evaluated this new roadway connection through the southern industrial area. Site challenges, including significant grade differences, CSX track clearances, property segmentation, existing commercial and residential buildings, and proximity of the Wynants Kill, were used to identify feasible alternatives. During the Phase 1A background investigations and Phase 1B subsurface testing, three significant archaeological sites were identified. One of these, the *South Troy Precontact Site (08340.020087)* located on the County Waste property, west of Water Street and south of the Wynants Kill, contained at least ten Precontact features. Based on the recommendations of the State Historic Preservation Office (SHPO), with consultation from the Tribal Historic Preservation Office (THPO) of the Stockbridge-Munsee Community Band of Mohicans, FHWA has determined that if impacted, the site would require an individual 4(f) evaluation. Due to the nature of the process, the future site uncertainty and overall project costs, the project area was reduced to the original MPO approved project limits between Main Street and Adams Street. For more information refer Appendix F.

The project area is divided into two segments between Main and Adams Street described with prefixes A and B. Segment A consists of alternatives from Main Street to Jackson Street. Segment B is located between Jackson Street and Adams Street.

Table 1.3-A - Alternative Section	
Prefix	Location
A	Main Street to Jackson Street
B	Jackson Street to Adams Street

The feasible alternatives all include the construction of a new roadway between the Main Street and Adams Street utilizing, in part, the existing East Industrial Parkway.

1.3.2 Feasible Alternatives

Figure 1-2 shows the feasible alternatives for this segment.

1.3.2.1 Construct New Industrial Road Alternative

This alignment is identified as the preferred alternative for the project. Several sub-alternatives were considered during Preliminary Design. Table 3.1-A illustrates the sub-alternatives, and identifies the feasible and preferred.

For a more in-depth discussion of the design criteria and nonstandard features, see Section 3.2.3 Design Criteria for Feasible Alternatives.

NORTH



HUDSON RIVER

ALT. A1

ALT. B4

ALT. B1

EAST INDUSTRIAL PARKWAY

RAILROAD

MAIN STREET

POLK STREET

TYLER STREET

1ST STREET

2ND STREET

3RD STREET

3RD STREET

4TH STREET

ADAMS STREET

JEFFERSON STREET

CANN STREET

MADISON STREET

MONROE STREET

JACKSON STREET

VAN BUREN STREET

4TH STREET



THOMPSON STREET

MILL STREET

BURDEN AVE

WYNANTS KILL

COUNTY WASTE

KING FUELS (FMR)

RENSELAER COUNTY JAIL

RENSELAER COUNTY JDA

TROY SLAG PRODUCTS

BRUNO MACHINERY

CITY OF TROY

OLDCASTLE NORTHEAST

LEGEND

ALT.A1	
ALT.A2	
ALT.B1	
ALT.B4	



FEASIBLE ALTERNATIVES

CITY OF TROY
RENSELAER COUNTY, NY



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1.4 How will the Alternatives Affect the Environment?

Table 1.4-A - Environmental Summary					
NEPA Classification	Class III – Environmental Assessment (EA)	BY	Federal Highway Administration	Date	
SEQR Type	Unlisted Action	BY	City of Troy	Date	

Table 1.4-B - Comparison of Alternatives					
Category	Null	A1	A2	B1	B4
Fulfillment of Project Objectives	No	Yes	Yes	Yes	Yes
Wetland Effect	None	None	None	None	None
Floodplain Effect	None	1 acre	3.1 acre	3.2 acre	3.2 acre
Endangered Species Effect	None	None	None	None	None
Visual Effect	None	None	None	None	None
Commercial/Industrial Displacements	None	None	None	Whole – 0 Partial – 1*	Whole - 0 Partial – 1*
Redevelopment Potential	Low	High	High	High	High
Residential Displacements	None	None	None	None	None
Historic Property Impacts	None	None	None	Rensselaer Iron Works	Rensselaer Iron Works
Known Native American Site Impacts	None	Low potential	Low potential	Low potential	Low potential
Private Property Acquisitions	Whole – 0 Partial - 0	Whole – 0 Partial - 1	Whole – 0 Partial – 3	Whole – 0 Partial – 6 ^o	Whole – 0 Partial - 5
Total Cost	N/A	\$1.56 mil	\$3.72 mil	\$5.82 mil	\$6.06 mil

* The Bruno Machinery property is no longer operational; the property is for sale. The project plan for the structure demolition has been communicated in writing to the realtor for disclosure to potential buyers.

^o The additional partial property acquisition relative to Alt B4 is the CSX Railroad acquisition.

See Appendix B for the completed Federal Environmental Approval Worksheet (FEAW).

Anticipated Permits/Certifications/Coordination:

NYSDEC:

- State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities (GP-0-15-002)
- Individual Water Quality Certification
- Article 15 – Protection of Waters Permit

USACOE

- U.S. Army Corps of Engineers, Section 404 Nationwide Permit #33- Temporary Construction, Access, and Dewatering
- U.S. Army Corps of Engineers Nationwide Permit #14- Linear Transportation Project
- Pre-Construction Notification (PCN)

NYSDOS (Troy’s Waterfront Revitalization Plan is not approved through NYSDOS)

- Coastal Zone Assessment Form (CAF)
- Federal Aid Notification (FAN) letter

New York State Department of Transportation (NYSDOT)

- Highway Work Permit

Coordination

- Coordination with the Stockbridge-Munsee Community Band of Mohican Indians and the Delaware Tribe of Indians.
- Coordination with NYS Office of Parks, Recreation and Historic Properties
- Coordination with the Hudson River Greenway to ensure the project is consistent with their Heritage Area Management Plan
- Coordination with NYSDOT regarding the National Historic Preservation Act
- Coordination with the US Fish and Wildlife Service
- Coordination with the New York Natural Heritage Program
- Coordination with the City of Troy
- Coordination with CSX Corporation, Inc.

Others

- Historic or Archaeological Impacts on Federal 106
- National Oceanic and Atmospheric Administration Fisheries

1.5 What Are The Costs & Schedules?

Refer to Table 1.5-A for the Project Schedule and Table 1.5-B for the estimated project costs.

Table 1.5-A - Project Schedule	
Activity	Date Occurred/Tentative
Design Approval	June, 2016
ROW Acquisition	October, 2016
Contract Letting	February, 2017
Construction Start	March, 2017
Construction Complete	November, 2017

Table 1.5-B - Comparison of Alternatives Costs (Million Dollars)					
Alternative		A1	A2	B1	B4
Activities					
Construction Costs	Highway	0.76	1.79	2.13	2.27
	Bridge	-	-	0.91	0.91
SPDES Permit Compliance		Included in Highway Cost			
Incidentals 10%		0.08	0.18	.30	0.32
Subtotal (2015 Dollars)		0.84	1.97	3.34	3.50
Contingency (15% @ Design Approval)		0.13	0.30	0.50	0.53
Subtotal (2015 Dollars)		0.97	2.26	3.84	4.02
Field Change Order		0.05	0.11	0.19	0.20
Subtotal (2015 Dollars)		1.02	2.38	4.04	4.23
Mobilization (4%)		0.04	0.10	0.16	0.17
Subtotal (2015 Dollars)		1.06	2.47	4.20	4.39
Expected Award Amount (Inflated @ 5%/yr to midpoint of construction (2017 Dollars))		1.17	2.73	4.63	4.85
Construction Inspection (9%)		0.11	0.25	0.42	0.44
ROW Costs (2016 Dollars)		0.35	0.90	0.94	0.94
Total Project Costs		1.63	3.87	5.99	6.23

1.6 Which alternative is preferred?

The reasonable alternative that best meets the project objectives is Alternatives A1 and B4 in combination. A final 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 and comments received from the public hearing.

While Alternatives A1 and B4 are identified as the preferred alternative, all feasible alternatives are under consideration. The final selection of the preferred alternative will not be made until after evaluation of all alternatives' impacts, comments on the draft design approval document, and comments from the public hearing.

1.7 Who Will Decide Which Alternative Will Be Selected And How Can I Be Involved In This Decision?

The Mayor of the City of Troy will make the final decision as to the selected alternative(s) after consultation with the New York State Department of Transportation, the Federal Highway Administration,

appropriate City officials, the Troy City Council and the Troy Local Development Corporation, with full consideration of regulatory Agency and public comment.

During the scoping and preliminary design phase of this project Creighton Manning Engineering, LLP (CM) has coordinated with all the involved agencies and affected stakeholders to solicit their input and address their concerns regarding this highway project. CM has met with and/or contacted the following individuals during the preparation of this design report:

- City of Troy Department of Public Works
- NYS Department of Transportation Region One
- NYS Department of Environmental Conservation
- NYS Office of Parks, Recreation and Historic Preservation
- CSX Railroad
- US Army Corps of Engineers, New York District
- NYS Historic Preservation Office
- NYS Department of State Division of Coastal Resources and Waterfront Revitalization
- NYS Natural Heritage Program
- City of Troy Industrial Development Authority
- Troy Local Development Corporation
- Rensselaer County Industrial Development Agency
- National Grid
- US Fish & Wildlife
- Adjacent property owners

The concerns of the above have all been incorporated into the development of the design alternatives as presented in this report. The City of Troy will determine the alternative selected.

Table 1.7-A - Public Involvement Plan Schedule of Milestone Dates	
Activity	Date Occurred/Tentative
Meeting with SHPO	January 2012
Stakeholder Meeting	November 2011
Public Information Meeting	December 2011
Public Hearing	TBD
Current Project Letting date	February 2017

See Appendix D for meeting minutes and correspondence related to other stakeholder meetings.

You may offer your comments in a variety of ways.

- There will be a Public Hearing scheduled on _____ where you can talk to Department representatives, give comments to a stenographer or leave written comments.

- You can contact:

Lorenzo DiStefano, PE, Project Manager
Please include the six digit Project Identification Number (PIN) 1754.59
Questions or comments email: LDistefano@dot.state.ny.us
telephone: (518) 485-1715

Mailing Address
New York State Department of Transportation
Region 1 Design
50 Wolf Road
Albany, NY 12232

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.

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CHAPTER 2 - PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

2.1 Project History

This project was conceived in the late 1990s to remove commercial truck traffic from the residential streets of South Troy and to improve access to industrial/commercial property that, over time, is or has been redeveloped. The truck traffic is generated by the businesses located in the industrial/ commercial area. The trucks transport materials to and from the businesses. The trucks currently travel along the residential streets because these streets are the only means of accessing some of the businesses in the South Troy area. The need for the project was identified by the City of Troy and was added to NYSDOT's Statewide Transportation Improvement Program List. The Initial Project Proposal (IPP), which identified the need for the project, was completed by NYSDOT and approved by the Regional Director on December 5, 2000. Several reports have been developed for permits from local and county agencies and under SEQRA. The reports include: Final Environmental Impact Statement, November 14, 1990, Prepared by Clough, Harbour, & Associates; Statement of Findings for the South Troy Environmental Impact Statement, November 30, 1990, prepared by Rensselaer County; Environmental Impact Assessment Report, No date listed, prepared by City of Troy Planning Commission; Full Environmental Assessment Form, 1990; Negative Declaration, November 30, 1990, prepared by Rensselaer County Director of Planning; Transportation Report, No date listed, prepared by Transportation Concepts; Project Initiation Request, December 1992, prepared by City of Troy; Full Environmental Assessment Form, January 8, 1993, unknown author; and South Troy Environmental Planning and Research Report, July 26, 2000, prepared by Sterling Environmental Engineering, PC. The reports are available through the City of Troy for review.

The first approximately 1900 ft of the road (East Industrial Parkway) was constructed by Rensselaer County in the late 1990s. The County constructed the East Industrial Parkway during their Industrial Park development and the construction of the Rensselaer County Public Safety Center (County Jail). The road constructed by the County connects to Main Street and terminates north of Main Street.

Between the original project initiation in 2001 and 2009, additional brownfield areas, south of Main Street, acquired by the City's LDC, were either cleaned up or proposed to be so; thus in late 2009 the Capital District Metropolitan Planning Organization (CDTC) approved funds for the investigation of the feasibility of extending the industrial access route to the south to allow an additional direct connection to the south along State Route 4, Burden Avenue and the Troy Menands Bridge (also connecting to I787).

A Project Scoping Report, included as Appendix F, evaluated this new roadway connection through the southern industrial area. Site challenges, including significant grade differences, CSX track clearances, property segmentation, existing commercial and residential buildings, and proximity of the Wynants Kill, were used to identify feasible alternatives. During the Phase 1A background investigations and Phase IB subsurface testing, three significant archaeological sites were identified. One of these, the *South Troy Precontact Site (08340.020087)* located on the County Waste property, west of Water Street and south of the Wynants Kill, contained at least ten Precontact features. Based on the recommendations of the State Historic Preservation Office (SHPO), with consultation from the Tribal Historic Preservation Office (THPO) of the Stockbridge-Munsee Community Band of Mohicans, FHWA has determined that if impacted, the site would require an individual 4(f) evaluation. Due to the nature of the process, the future site uncertainty and overall project costs, the project area was reduced to the original MPO approved project limits between Main Street and Adams Street. For more information refer Appendix F.

2.2 Transportation Plans and Land Use

2.2.1 Local Plans for the Project Area

2.2.1.1 Local Master Plan

The City of Troy has not developed a comprehensive Master Plan. The City Planning Department utilizes

the South Troy Working Waterfront Revitalization Plan, dated December 12, 2003, for guidance regarding the project area. The project is consistent with this plan, which included zoning changes that have since been adopted, and assume construction of a roadway through the area to support the land use development.

2.2.1.2 Local Private Development Plans

The City is evaluating various means to promote and execute new development in the project area. The Rensselaer County IDA and the Troy LDC, who are primary owners, have been soliciting for developers and conceptual ideas to market the properties involved. As stated earlier, the lack of access, especially away from residential areas, is leading to uncertainty as to how the property can be developed.

2.2.2 Transportation Corridor

2.2.2.1 Importance of the Project Route Segment

Today, truck traffic utilizes currently congested roadways to access industrial and commercial properties within the project area, along the Hudson River. Previously, the East Industrial Parkway was constructed in the late 1990's by Rensselaer County. This 1900 foot long roadway begins at Main Street and dead-ends to the north. An essential gap was thus created north of the roadway terminus for efficient access to the properties within the study area. The construction of the South Troy Industrial Park Road will close this gap, and provide a critical means of access to the industrial and commercial properties. The completion of the roadway will also reduce, or eliminate induced commercial traffic on the residential streets in the project area.

2.2.2.2 Alternate Routes

Much of the roadway could be constructed outside of live traffic and therefore the need for an alternative route is minimal. First Street, Second Street, Monroe and Madison could be used if necessary.

2.2.2.3 Corridor Deficiencies and Needs

The current transportation system is inadequate for the movement of traffic, including heavy trucks traveling to the industrial and commercial uses in the project area. Since there is no interconnection of the industrial sites along the waterfront, trucks use First and Second Streets to Monroe, Madison and Adams for access. These intersections are not designed to accommodate larger vehicles, and therefore, off-tracking frequently occurs in these areas. The presence of truck traffic within the residential neighborhoods on 1st and 2nd Streets creates quality of life concerns, such as air and noise pollution.

2.2.2.4 Transportation Plans

This project is on the approved Transportation Improvement Program (TIP) as PIN 1754.59

2.2.2.5 Abutting Highway Segments and Future Plans for Abutting Highway Segments

The Regional Planning Group has confirmed that there are no plans to reconstruct or widen the adjacent highway segment, or the adjoining segments, within the next 20 years.

2.3 Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1 Operations (Traffic and Safety) & Maintenance

2.3.1.1 Functional Classification and National Highway System (NHS)

Table 2.3-A - Classification Data		
Route(s)	Main Street	Adams Street
Functional Classification	Urban Local	Urban Local
National Highway System (NHS)	No	No
Designated Truck Access Route	No	No
Qualifying Highway	No	No
Within 1 mi of a Qualifying Highway	Yes I-787	Yes I-787
Within the 16 ft vertical clearance network	No	No

2.3.1.2 Control of Access

The existing roads have uncontrolled access, with many driveways and several road intersections.

2.3.1.3 Traffic Control Devices

Traffic signals are located at the intersections of Adams Street and Monroe Street with 1st Street. A "Stop" sign is located at the south end of East Industrial Parkway where the roadway terminates at the intersection with Main Street. Stop signs are provided on all approaches to the River Street/Adams Street intersection and on the Division and Front Street approaches to River Street. Stop signs are also provided on the Madison Street approaches to 1st Street.

Roadway signage is located throughout the project area and is in varying condition. New signage will be installed as part of the proposed project that will conform to the National Manual on Uniform Traffic Control Devices for Streets and Highways (National MUTCD) and the NYS Supplement.

2.3.1.4 Intelligent Transportation Systems (ITS)

Currently there are no ITS systems in operation within the project area.

2.3.1.5 Speeds and Delay

2.3.1.5.(1) Automatic Traffic Recorders

Automatic traffic recorders (ATRs) were installed at two locations within the project area to collect vehicle speed data for the period of one week in December 2009. One was installed on Main Street between East Industrial Parkway and the at-grade railroad crossing. The second ATR was installed on River Street between Adams Street and Washington Street. The recorded data indicated an 85th percentile speed for each roadway. The results are summarized in the following table.

Table 2.3-B - Speed Data		
Route	Main Street	River Street
Posted Speed Limit	30 mph	30 mph
85 th Percentile Actual Operating Speed	25.1 mph	34.0 mph

The statutory speed limit in the City of Troy is 30 mph. There is a school zone located on First Street, which reduces the speed limit to 20 mph for approximately two blocks.

2.3.1.6 Traffic Volumes

2.3.1.6.(1) Existing traffic volumes

Extensive traffic volume data was collected throughout the study area in December 2009. The data included intersection turning movement counts during the weekday AM and PM peak hours and automatic traffic recorder (ATR) counts at two locations. The existing traffic data was used to develop projected traffic volumes throughout the project area.

2.3.1.6.(2) Future No-Build Design Year traffic volumes

The projected traffic volumes were developed based on growth factor data provided by the Capital District Transportation Committee (CDTC).

Based on the NYSDOT *Project Development Manual* - Appendix 5, Reconstruction and New Construction projects should have a Design Year of ETC (Estimated Time of Completion)+20 for highway improvements. The ETC for this project is anticipated to be 2017. Traffic forecasts for Average Daily Traffic (ADT), Design Hour Volume (DHV), and Directional Design Hour Volume (DDHV) are shown in Table 2.3-C. The traffic flow diagrams for the 2009 existing and anticipated ETC (2017) and ETC+20 (2037) no-build peak hour traffic volumes are contained in Appendix C. It is anticipated that background traffic volumes will increase by 0.35% per year for the entire duration of the project through ETC+20 conditions, as supported by the CDTC. It is noted that large trucks and school buses routinely travel through the study area intersections.

Table 2.3-C - Existing and No-Build Traffic Volumes				
Year	ADT	DHV	K Factor	DDHV
Main Street – East Industrial Parkway to Burden Ave(US 4)/1st Street				
Existing (2009)	1,545	160 ²	0.10	115 (WB)
ETC (2017)	1,590	165 ²	0.10	120 (WB)
ETC+20 (2037)	1,750	180 ²	0.10	130 (WB)
River Street – Adams Street to Washington Street				
Existing (2009)	1,905	165 ¹	0.09	150 (SB)
ETC (2017)	1,960	170 ¹	0.09	155 (SB)
ETC+20 (2037)	2,160	185 ¹	0.09	170 (SB)

Note: ETC = Estimated Time of Completion
 DHV = Design Hourly Volume (Two Way)
 DDHV = Directional Design Hourly Volume (One Way)
¹ = Design Hour from 4:00 to 5:00 pm
² = Design Hour from 7:00 to 8:00 am

2.3.1.7 Level of Service and Mobility

2.3.1.7.(1) Existing level of service and capacity analysis

Level of service (LOS) is defined by the measure of how well an intersection operates and is largely influenced by the volume of traffic entering the intersection, the directional split of the traffic, the intersection geometry, and the type of traffic control.

Operational analyses were conducted for the following intersections:

- 1st Street/Monroe Street
- 1st Street/Madison Street
- 1st Street/Adams Street
- Adams Street/River Street
- Division Street/River Street
- Main Street/East Industrial Parkway

The results of the analyses describe operating conditions in terms of control delay which is the portion of total delay that includes initial deceleration delay, queue move up time, stopped delay, and final acceleration delay for signalized and unsignalized intersections (Highway Capacity Manual 2010). In developed or urban areas, LOS C or above is considered desirable and LOS D is considered the minimum acceptable LOS. LOS criteria vary between signalized and unsignalized intersections based on the *2010 Highway Capacity Manual* as shown below.

Level of Service Criteria (For Intersections)

Signalized	LOS	Unsignalized
(Delay seconds /vehicle)		(Delay seconds/ vehicle)
0 to 10	A (Little or No Delay)	0 to 10
10 to 20	B (Short Traffic Delay)	10 to 15
20 to 35	C (Average Traffic Delay)	15 to 25
35 to 55	D (Long Traffic Delays)	25 to 35
55 to 80	E (Very Long Traffic Delay)	35 to 50
> 80	F (Delay Unacceptable to Drivers)	> 50

The overall LOS values for the intersections presented below reflect a weighted average of each of the movements. Levels of service and vehicle delays vary by individual intersection and intersection approach as presented below in Table 2.3-D.

Table 2.3-D - Existing and No-Build Highway Design Year Level of Service Summary								
Intersection	Control	Existing 2009		ETC 2017		ETC + 20 2037		
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	
1st St/Monroe St	S	Monroe St EB	C (21.9)	C (22.8)	C (21.9)	C (22.8)	C (21.9)	C (22.9)
Monroe St WB		C (22.4)	C (23.0)	C (22.4)	C (23.0)	C (22.5)	C (23.2)	
1 st St SB		A (2.8)	A (2.8)	A (2.9)	A (2.8)	A (2.9)	A (2.9)	
Overall Intersection		A (4.8)	A (5.7)	A (4.7)	A (5.6)	A (4.8)	A (5.8)	
1st St/Madison St		TW	1 st St SB	A (7.2)	B (7.2)	A (7.2)	A (7.2)	A (7.2)
Madison St WB	B (11.3)		B (11.4)	B (11.4)	B (11.5)	B (11.7)	B (11.8)	
Madison St EB	B (10.5)		B (10.5)	B (10.5)	B (10.6)	B (10.7)	B (10.8)	
1st St/Adams St	S	Adams St EB	C (26.0)	C (28.9)	C (26.2)	C (29.4)	C (26.7)	C (30.3)
Adams St WB		C (22.6)	C (23.1)	C (22.6)	C (23.2)	C (22.7)	C (23.4)	
1 st St SB		A (4.9)	A (5.0)	A (4.9)	A (5.0)	A (5.0)	A (5.1)	
Overall Intersection		B (16.8)	B (18.8)	B (16.9)	B (19.1)	B (17.1)	B (19.5)	
Adams St/River St	AW	Adams St EB	A (9.2)	A (7.5)	A (9.2)	A (7.5)	A (9.2)	A (7.6)
Adams St WB		A (6.9)	A (6.8)	A (6.9)	A (6.8)	A (7.0)	A (6.9)	
Clemente Drwy NB		A (8.4)	A (7.0)	A (8.4)	A (7.0)	A (8.4)	A (7.0)	
River St SB		A (8.2)	A (8.1)	A (8.2)	A (8.2)	A (8.3)	A (8.3)	
Overall Intersection		A (7.9)	A (7.9)	A (8.0)	A (7.9)	A (8.0)	A (8.0)	
Division St/River St	TW	River St NB	A (8.0)	A (7.7)	A (8.0)	A (7.8)	A (8.1)	A (7.8)
Division St WB		B (13.0)	B (13.7)	B (13.2)	B (14.0)	B (13.7)	B (14.7)	
Front St EB		A (9.8)	A (9.8)	A (9.8)	A (9.8)	A (9.9)	A (10.0)	
Main St/East Industrial Parkway	TW	Main St EB	A (8.5)	A (7.3)	A (8.5)	A (7.3)	A (8.5)	A (7.3)
Main St WB		A (7.4)	A (7.7)	A (7.4)	A (7.7)	A (7.4)	A (7.7)	
King Rd NB		A (9.7)	A (8.9)	A (9.7)	A (8.9)	A (9.7)	A (8.9)	
E Industrial Pkwy SB		B (10.5)	A (9.2)	B (10.5)	A (9.2)	B (10.7)	A (9.3)	

X (Y.Y) = Level of Service (average delay per vehicle in seconds)

ETC = Estimated Time of Completion

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

S = Signalized, AW = All-Way Stop, TW = Two-Way Stop

The analysis shows that the study intersections currently operate at level of service C or better from 2009 through ETC+20 conditions.

2.3.1.8 Safety Considerations, Accident History and Analysis

Accident data was provided by the NYSDOT for various intersections and segments in the study area. Data was provided for a three-year period, from December 1, 2010 to November 30, 2013. The accidents within the study area are summarized in the Table 2.3-E below.

Table 2.3-E - Intersection Accident Summary				
Intersection	Total Number of Accidents	Severity		
		NR	PDO	INJ
1 st Street/Monroe Street	3	0	0	3
1 st Street/Madison Street	4	2	0	2
1 st Street/Adams Street	3	1	1	1
Adams Street/River Street	0	0	0	0
Division Street/River Street	1	1	0	0
Main Street/East Industrial Parkway	0	0	0	0

NR = Non-Reportable (less than \$1,000 in damage and no injury)
 PDO = Property Damage Only
 INJ = Injury

There were three accidents reported during the three year study period at the intersection of 1st Street/Monroe Street all involving injury occurring during daylight. The reason for two of the accidents is unknown and one was attributed to following too closely being a rear end accident.

Four accidents were documented at the intersection of 1st Street/Madison Street during the study period. The primary accident type at this intersection was right-angle collisions which were attributed to driver error, including disregarding traffic control devices and failure to yield right of way.

Three accidents were documented at the 1st Street/Adams Street intersection during the study period. The accidents included one vehicle hitting a fixed object and two vehicles hitting parked cars. The accidents were attributed to glare, improper lane usage, and turning improperly.

No accidents were reported at River Street/Adams Street intersection during the three year study period.

One right angle accident was reported on River Street at Division Street attributed to failure to yield right of way.

No accidents were reported at the Main Street/East Industrial Parkway intersection.

Based on this review, there do not appear to be any accident trends or patterns.

Refer to Appendix C for the complete accident analysis, including collision diagrams and accident summary tables.

2.3.1.9 Existing Police, Fire Protection and Ambulance Access

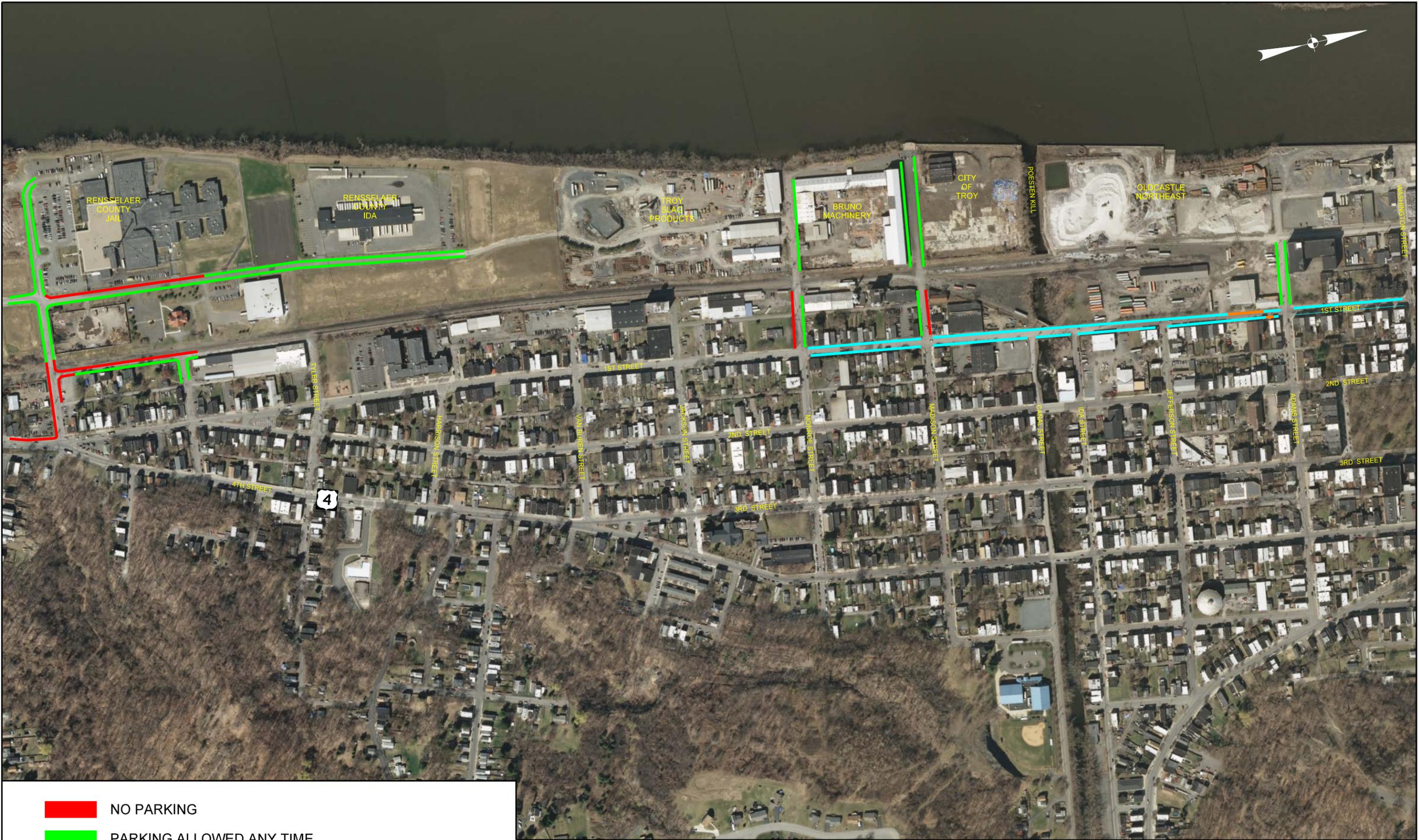
Although there are no police or fire departments located within the project limits, nearby departments travel through the project area. The closest police department is the City of Troy South Station, located at 557 4th Street, and the closest fire department is the Campbell Avenue Fire Station, located at 530 Campbell Avenue. St. Mary’s Hospital is located at 2215 Burdett Avenue, although other ambulance companies service the project area.

Emergency services will continue to coordinate appropriate responses to emergency situations in the project area.

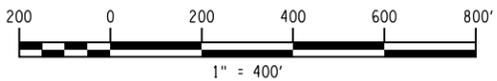
2.3.1.10 Parking Regulations and Parking Related Conditions

There are areas regulated by parking restrictions within the project limits. Refer to Figure 2-1 for the

parking regulations.



- NO PARKING
- PARKING ALLOWED ANY TIME
- NO PARKING 9AM-NOON FRI WEST / NOON-3PM FRI EAST
- 30 MINUTE BUSINESS DAY PARKING



SOUTH TROY INDUSTRIAL PARK ROAD
EXISTING PARKING

CITY OF TROY
RENSSELAER COUNTY, NY



FILE NAME: N:\Projects\2010\110-232_South Troy Prelim Design\cadd\ dgn\FIGS\Fig EA\110-232_Fig_2-1.dgn
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2.3.1.11 Lighting

There are cobra head lights on select utility poles along Adams Street, First Street, and Second Street. Main Street has freestanding street lighting between the train tracks and Rensselaer County Jail. There is no street lighting along East Industrial Parkway.

2.3.1.12 Ownership and Maintenance Jurisdiction

The existing railroad bridge over the Poesten Kill is owned by CSX Railroad. The existing First Street Bridge over the Poesten Kill, First Street, the East Industrial Parkway, Morrison Avenue, and Adams and River Streets are owned and maintained by the City of Troy. CSX Railroad has a Right of Way (ROW) over the First Street Bridge.

2.3.2 Multimodal

2.3.2.1 Pedestrians

Main Street has sidewalk on the north side for approximately 100 feet before ending, and resumes for a short segment in front of the jail. Otherwise, sidewalks are located along both sides of most city streets within the project area. Generally, the sidewalks are in poor to good condition. No crosswalks are provided at the signalized intersections. The sidewalks in the project area are not handicap accessible. There are no other provisions for pedestrians or persons with disabilities.

Pedestrian generators in the southern area of Troy include the Burden Iron Works Museum, School 12, and surrounding businesses. Completed Pedestrian Generator Checklists are included in Appendix E.

2.3.2.2 Bicyclists

Although the sidewalks adequately accommodate local pedestrian traffic, bicyclists cannot safely travel the sidewalks and the City streets are too narrow for safe bicycle travel. No signed bike routes are present in the project area. The City constructed a walkway/bikeway from Water Street along the west side of Route 378 to the Troy-Menands bridge, connecting to the Mohawk-Hudson Bike-Hike Trail on the west side of the Hudson River (PIN 1754.52).

2.3.2.3 Transit

The Capital District Transportation Authority (CDTA) has several bus stops near the project limits. Route 85 and 224 both service 3rd Street, 4th Street (US Route 4) and Burden Avenue.

Coordination with CDTA will continue through Final Design.

2.3.2.4 Airports, Railroad Stations, and Ports

There are no airports, railroad stations, or ports in the project area.

2.3.2.5 Access to Recreation Areas (Parks, Trails, Waterways, State Lands)

The Burden Iron Works Museum is accessed via the East Industrial Parkway. While the Hudson River is located adjacent to the project area, there are no existing points of access for recreational areas on the east side of the river in this vicinity.

2.3.3 Infrastructure

2.3.3.1 Existing Highway Section

The existing East Industrial Parkway includes two 12 ft wide travel lanes, with 2 ft wide mountable asphalt curb on both sides.

2.3.3.2 Geometric Design Elements Not Meeting Standards

2.3.3.2.(1) Critical Design Elements

Design Criteria is listed in Tables 3.2-F

2.3.3.2.(2) Other Design Parameters

On First and Second Streets, some intersection radii do not meet criteria for the WB-67 truck movement. There are no other existing non-conforming features.

2.3.3.3 Pavement and Shoulder

The existing East Industrial Parkway pavement and shoulders are approximately 15 years old, consist of asphalt concrete, and are in fair condition. The existing River Street pavement and shoulders consist of asphalt concrete, and are in fair to poor condition. The pavement and parking lanes on First and Second Streets are in fair to poor condition.

2.3.3.4 Drainage Systems

In general, the roadways in the project area utilize closed drainage in the form of catch basins. The existing storm sewer system outlets to the Hudson River. The drainage systems appear to be functioning adequately.

2.3.3.5 Geotechnical

The following is an excerpt from Hartgen Archeological Associates, Inc., *Phase II Site Evaluation South Troy Industrial Park Road*, from May 2005.

Phase Soil Borings for the project area were requested by OPRHP to determine the fill depth along the corridor. SJB Services, Inc. conducted fifteen geotechnical soil borings along the proposed road alignment. Fill material overlaying naturally deposited floodplain, alluvial, and lacustrine soils was encountered in all 15 borings. Natural soils were not encountered at any depth that will be impacted by the proposed road, except for where the new bridge will cross over the Poesten Kill.

The fill encountered was generally described as a mixture of sand, gravel, concrete, brick, slag, and ash. The fill varied in depth throughout the project area. Between the southern end of the existing East Industrial Parkway near Main Street north to Monroe Street, fill ranged from 10 to 15 feet deep. From Monroe Street north to the Poesten Kill, fill was less and ranged between 3 and 4 feet in depths. From north of the Poesten Kill to the north end of the road at Adams Street fill increased again to depths between 8 and 10 feet.

Natural subsurface soils consisted of fine-grained floodplain soils over intermittent layers of granular alluvial soils and fine-grained lacustrine soils. The floodplain soils consisted of fine sand and silt with trace amounts of silt. Intermittent layers of fine-grained lacustrine soils primarily consist of slit and clay.

One boring at the proposed bridge over the Poesten Kill, was the only boring to encounter bedrock. Soil at about 40 feet was very compact and consisted of fine to coarse gravel with little amounts of fine to coarse sand and trace amounts of silt. The boring terminated in weathered shale bedrock at 55.4 feet below the ground surface.

2.3.3.6 Structures

2.3.3.6.(1) Railroad over the Poesten Kill

2.3.3.6.(1).a East of the proposed South Troy Industrial Park Road is the CSX Railroad bridge over the Poesten Kill. This bridge is privately owned by the railroad and therefore is not inspected every two years.

2.3.3.7 Hydraulics of Bridges and Culverts

A visual inspection of the CSX bridge over the Poesten Kill appears to show that there is no historical overtopping of the bridge. The existing CSX bridge is constructed with a pier at mid-channel which creates a more restrictive flow than with the unimpeded upstream and downstream channel. The channel side walls of the Poesten Kill in this area are manmade and appear to be constructed of driven sheathing.

USGS StreamStats lists a base flow for the Poesten Kill at the CSX bridge as approximately 1,900 cubic feet per second.

This portion of the Poesten Kill is under tidal influence as it is directly adjacent to the Hudson River.

2.3.3.8 Guide Railing, Median Barriers and Impact Attenuators

Table 2.3-F - Existing Guide Railing, Median Barriers and Impact Attenuators			
Type	Location/Side	Length (approx.)	Condition
W Beam Guide Rail	East Industrial Parkway west side at Jail	650 feet	Good

2.3.3.9 Utilities

Underground gas runs along the existing East Industrial Parkway and through the land owned by the Rensselaer County IDA before terminating. Other smaller lines are also located adjacent to Monroe Street and Madison Street. A waterline and hydrants are along the existing East Industrial Parkway, and an overhead utility line runs adjacent on the west side railroad tracks from Main Street to Monroe Street.

It is anticipated that some of the existing utilities will be in conflict with the roadway construction. Utility coordination will continue through Final Design.

2.3.3.10 Railroad Facilities

The CSX Railroad is located throughout the project limits, terminating just south of Adams Street. The tracks parallel a portion of the proposed road alignment and several alternatives cross the tracks at existing crossings. A railroad bridge crosses over the Poesten Kill adjacent to a proposed crossing for the road. At-grade roadway crossings are located at Water Street, Main Street, Monroe Street, and Madison Street.

2.3.4 Potential Enhancement Opportunities

This section focuses on the existing areas to identify potential enhancement opportunities related to the project and to help avoid and minimize impacts. Chapter 4 focuses on the impacts, enhancements, and mitigation.

2.3.4.1 Landscape

There is minimal landscaping in front of the Rensselaer County Correctional Facility and the New Penn Facility which includes some bushes and small street trees.

2.3.4.1.(1) Terrain

In general, the terrain should be considered rolling. The project segment is relatively flat.

2.3.4.1.(2) Unusual Weather Conditions

The climatic conditions are typical of northern New York. There are no unusual conditions within the project area.

2.3.4.1.(3) Visual Resources

The general visual characteristics in the project area consist of commercial/industrial properties with some institutional properties in the vicinity of the proposed South Troy Industrial Park Road. The landform is generally rolling terrain, gradually sloping west toward the Hudson River. The Poesten Kill is located within the project area and generally consists of steadily flowing water with steep banks. At its outlet to the Hudson River, the Poesten Kill becomes more channelized in nature with vertical steel shoring. The vegetation near the waterways consists of small to medium sized trees and shrubs. The majority of the project area is urban in nature.

Starting at the southern project limit, the project area is urban commercial and industrial. At Main Street, the project area progresses by the Burden Iron Works Museum (National Register of Historic Places) and the County jail. The general environment in this area consists of a few undeveloped properties with small scrub/shrub vegetation and undulating mounds of slag and the remaining properties are developed industrial, institutional (County Jail) and commercial in nature. Where adjacent to the Railroad tracks, the project area will consist of little to no vegetation with industrial/commercial properties to the west and the tracks to the east.

There are few, if any, open vistas of the Hudson River along the proposed alignments. The project is located on the east side of the Hudson River and there are commercial/industrial properties between the proposed roadway and the river.

The primary viewer groups utilizing the project corridor include the recreational viewer, local motorists, employees, and commercial/institutional patrons.

2.3.4.2 Opportunities for Environmental Improvements or Enhancements

No appropriate locations exist near the project site for habitat improvements or enhanced wetlands. Enhancements may be provided with stormwater treatment and control facilities, the promotion of "green" manufacturing developments, and reduction in truck traffic on residential streets.

2.3.5 Miscellaneous

Does not apply

CHAPTER 3 - ALTERNATIVES

This chapter discusses the alternatives considered and examines the engineering aspects for all feasible alternatives to address project objectives in Chapter 1 of this report.

3.1 Alternatives Considered and Eliminated from Further Study

As previously noted the project scope and area has been modified as a result of archeological discoveries. The Project Scoping Report, included as Appendix F, includes information regarding potential feasible alternatives that were previously considered and dismissed.

3.1.1.1 Null Alternative

The Null Alternative provides only for the continued maintenance of existing features. This alternative neither improves nor provides access to the industrial and commercial properties in the project area, and trucks would continue to traverse residential neighborhoods. Site development that would occur without this project may lead to less efficient access. The alternative does not meet the project objectives and is not considered feasible.

A Rerouting alternative was considered for the area between Main Street and Adams Street, which would restrict the commercial/industrial traffic from the streets it currently travels along to more suitable (less residential) streets. This alternative would maintain existing roadway sections and geometry. There are only four streets which travel north-south in the project area. These are First through Fourth Streets. Therefore, all of the commercial/industrial traffic would be rerouted to Third and Fourth Streets from First and Second Streets. This alternative does not improve access to the developments planned within the project area, and was thus eliminated from further study.

An alternative to widen the existing roadways would address the mobility deficiencies on the existing roadways, and would involve the widening of the existing streets and a reduction in the width of the sidewalks to meet the design standards for a two-way road on First or Second Street. This alternative does not reduce truck traffic on the residential neighborhoods, and was eliminated from further study.

One alternative involved the construction of a new roadway along the Hudson River. This western alignment was dismissed for several reasons, including the negative environmental and aesthetic impacts to the Hudson River, limiting access to the river, and effects to the proposed bikeway/walkway alignment.

A variety of sub-alternatives were dismissed. These alternatives utilized different alignments between Jackson Street and Adams Street. The reasons for dismissal include not satisfying the project objective, impacts to historic structures and properties, displacement of residences, excessive Right-of-Way costs, and railroad crossing issues. These alternatives were evaluated in the Project Scoping Report, located in Appendix F for reference.

Table 3.1-A - Northern Sub-Alternatives along the South Troy Industrial Area

Location	Name	Number	Result
Main Street to Jackson Street	Alignment Connecting to the End of the East Industrial Parkway	A1	Preferred Sub-Alternative
Main Street to Jackson Street	Alignment Beginning at Main Street and Paralleling the Railroad	A2	Feasible Sub-Alternative
Jackson Street to Adams Street	Alignment Paralleling the Railroad Tracks to the West	B1	Feasible Sub-Alternative
Jackson Street to Adams Street	Alignment using Madison Street and Running Diagonally to First Street	B2	Dismissed – Undesirable Y-type intersection with 1 st Street, Truck Route Concern
Jackson Street to Adams Street	Partial Reconstruction of First Street	B3	Dismissed – Uses First Street for Truck Access
Jackson Street to Adams Street	Alignment Paralleling the Railroad Tracks to the West	B4	Preferred Sub-Alternative
Jackson Street to Adams Street	S-Curve to Adams Street	B5	Dismissed – Undesirable alignment to avoid historic structures
Jackson Street to Adams Street	Alignment Through Historic Freighthouse	B6	Dismissed –Requires demolition of National Register-eligible building
Jackson Street to Adams Street	Alignment Through Historic Fuller and Warren Clinton Stove Works Building	B7	Dismissed –Requires partial demolition of National Register-eligible building
Jackson Street to Adams Street	Alignment Crossing Monroe Street and Paralleling First Street	B8	Dismissed – Displacement of residences, ROW costs, new Railroad crossings
Jackson Street to Adams Street	Partial Reconstruction of First Street from Monroe Street	B9	Dismissed – Uses First Street for Truck Access

3.2 Feasible Build Alternatives

3.2.1 Description of Feasible Alternatives

Figures 1-2 illustrates the feasible alternative locations.

3.2.1.1 Alternative A1 – Construct New Industrial Road from East Industrial Parkway

This alternative would construct a new roadway commencing at the end of the existing northern terminus of the East Industrial Parkway and continuing north to Jackson Street. This alternative would involve the acquisition of two properties. No buildings would be impacted or railroad crossings required. This alternative has been retained for further consideration.

Table 3.2-A - Key Elements of Alternative A1	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	One partial private property acquisition. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of one (1) utility pole, and any associated overhead and underground electric, cable and phone lines. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$1,630,000
Railroad	No crossings impacted. No acquisitions.
Project Goals	This alternative meets all of the project objectives for the northern segment.

3.2.1.2 Alternative A2 – Construct New Industrial Road from Main Street

This alternative would construct a new roadway commencing just west of the CSX Railroad tracks at Main Street, running parallel to the tracks and continuing north to Jackson Street. This alternative would involve the partial acquisition of six properties, and the whole acquisition of one property. No buildings would be impacted or railroad crossings required. This alternative has been retained for further consideration.

Table 3.2-B - Key Elements of Alternative A2	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	Three partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	There are no utility impacts associated with this alternative. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$3,870,000
Railroad	No crossings impacted. No acquisitions.
Project Goals	This alternative meets all of the project objectives for the northern segment. However, it is significantly more expensive than Alternative A1, and has additional floodplain impacts and added impervious area.

3.2.1.3 Alternative B1 – Construct New Industrial Road Parallel to the Railroad Tracks

This alternative would construct a new roadway from the northern terminus of Alternatives A1 or A2, near Jackson Street, running parallel to the tracks and continuing north to Adams Street. This alternative would involve the partial acquisition of seven properties, including the acquisition of some Railroad property. This alignment would require the acquisition and partial demolition of one building on the Bruno Machinery Property, and passes close to the former Rensselaer Iron Works but does not impact the building directly. No railroad crossings would be required; however, railroad ROW would be needed for the roadway construction

Table 3.2-C - Key Elements of Alternative B1	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	Six partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of two (2) utility poles, and any associated overhead and underground electric, cable and phone lines, and one (1) light pole. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$5,990,000
Railroad	No crossings impacted. Right of Way acquisition required from Monroe Street north to the Poesten Kill.
Project Goals	This alternative meets all of the project objectives for the northern segment; however, Railroad Right of Way is required.

3.2.1.4 Alternative B4 – Construct New Industrial Road Parallel to the Railroad Tracks to the West

This alignment is similar to Alternative B1, with a slight shift to the west near the Poesten Kill to avoid the railroad property. This alternative would require the acquisition and partial demolition of one building on the Bruno Machinery Property, and passes close to the former Rensselaer Iron Works but does not impact the building directly. Due to its location further to the west, this alternative would impact more of the Bruno Machinery building. This alternative would require the partial demolition of more of the building than Alternative B1. This alignment does not require any railroad track crossings, nor the acquisition of any Railroad property; however, an easement will be needed. This alternative has been retained for further consideration.

Table 3.2-D - Key Elements of Alternative B4	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side. There are no proposed non-standard elements. Non-conforming intersection radii are proposed at the new roadway's intersection with Madison Street in order to avoid the CSX Railroad Right-of-Way.
Structure	One new bridge over the Poesten Kill. One box culvert for the salt pile conveyor belt.
Right of Way	Five partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of three (3) utility poles, and any associated overhead and underground electric, cable and phone lines. Additionally, one (1) utility box and one (1) light pole are impacted. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$6,230,000
Railroad	No crossings impacted. No acquisitions, however an easement will be required from Monroe Street to the Poesten Kill.
Project Goals	This alternative meets all of the project objectives for the northern segment.

Table 3.2-E - Comparison of Alternatives Costs (Million Dollars)					
Alternative		A1	A2	B1	B4
Activities					
Construction Costs	Highway	0.76	1.79	2.13	2.27
	Bridge	-	-	0.91	0.91
SPDES Permit Compliance		Included in Highway Cost			
Incidentals 10%		0.08	0.18	.30	0.32
Subtotal (2015 Dollars)		0.84	1.97	3.34	3.50
Contingency (15% @ Design Approval)		0.13	0.30	0.50	0.53
Subtotal (2015 Dollars)		0.97	2.26	3.84	4.02
Field Change Order		0.05	0.11	0.19	0.20
Subtotal (2015 Dollars)		1.02	2.38	4.04	4.23
Mobilization (4%)		0.04	0.10	0.16	0.17
Subtotal (2015 Dollars)		1.06	2.47	4.20	4.39
Expected Award Amount (Inflated @ 5%/yr to midpoint of construction (2017 Dollars))		1.17	2.73	4.63	4.85
Construction Inspection (9%)		0.11	0.25	0.42	0.44
ROW Costs (2016 Dollars)		0.35	0.90	0.94	0.94
Total Project Costs		1.63	3.87	5.99	6.23

Table 3.2-F - Comparison of Alternatives to Project Objectives				
Alternative	Optimize Access and Maximum Avoidance of residential Streets	Minimize developable property segmentation and retain access to water and rail modes	Effect 90% diversion of trucks from residential neighborhoods	Overall Conformance with all three objectives
Null	Commercial and Commuter traffic to waterfront Area will use First and second Streets for most access	Has no physical impact on developable properties or rail/water access	Trucks would continue to use State designated truck route over touring Route 4 (Fourth Street) and First and Second Streets, along with cross connectors	May significantly limit future development possibilities in terms of scale or type; and/or cause degrading of residential neighborhoods from increased traffic.
A1	Provides full avoidance except for residential property on Burden Avenue	Segments one developable parcel, does not impact access to rail/water modes	Provides a viable alternative for 90% diversion in lieu of using First, Second and Fourth Streets	As it minimizes roadway footprint increases, it positively and significantly fulfills the objectives
A2	Same as for A1	Least developable property segmentation for one parcel. Maintains rail and water access possibilities.	Same as for A1	Substantially meets the project objectives but increases footprint of highway access with no significant additional benefit, and in addition is preferred by the State Historic Preservation Office.
B1	Same as for B4	Same as for B4	Same as for B4	This alternative is essentially the same as B4 but was not preferred by CSX.
B4	Provides direct connection to Congress Street Bridge. One Residential building and one college dormitory affected	Minor segmentation of several re-developable properties. Maintains access to water and rail modes.	Provide full detour for commercial traffic entering/egressing the south waterfront area from Route 20 Congress Street	Substantially addresses and fulfills all project objectives and, in addition is preferred by CSX since it minimizes the track infringement.

3.2.2 Preferred Alternative

Of the feasible alternatives, Alternative A2 is much more costly than Alternative A1 without achieving any significant additional benefit. Alternative B1 is similar to Alternative B4; however, a property acquisition is needed from CSX Rail without achieving any significant additional benefit.

The reasonable alternative that best meets the project objectives is alternatives A1 and B4.

The final decision to proceed with the preferred alternative will occur after the alternatives' impacts, comments on the draft design approval document, and comments from the public hearing have been fully evaluated.

3.2.3 Design Criteria for Feasible Alternatives

3.2.3.1 Design Standards

The design criteria for this project are based on Chapters 2, 4, and 7 of the NYSDOT Highway Design Manual (HDM), 2005 edition, and Section 2 of the NYSDOT Bridge Manual - USC (BM), 1st edition.

3.2.3.2 Critical Design Elements

Table 3.2-G - Critical Design Elements for South Troy Industrial Park Rd and East Industrial Prkwy					
PIN:		1754.59	NHS (Y/N):		No
Route No. & Name:		South Troy Industrial Park Road	Functional Class:		Urban Collector
Project Type:		New	Design Class:		Urban Collector
% Trucks:		15%	Terrain:		Rolling
ADT:		3500	Truck Access/Qualifying Hw.		No
Element		Standard Criteria		Existing Conditions*	Proposed Condition
1	Design Speed	30 mph (min); 60 mph (max) HDM Section 2.7.3.2 A		35 mph	35 mph ⁽¹⁾
2	Lane Width	Travel Lane - 11 ft Turning Lane – 11 ft Min., 12 ft Desirable HDM Section 2.7.3.2 B Exhibit 2-6		12 ft	Travel lane - 14 ft Turning lane – 11 ft
3	Shoulder Width	Right – 0 ft Min., 2 ft Desirable (5 ft if used for bicyclists) HDM Section 2.7.3.2 C Exhibit 2-6		2 ft	0 ft
4	Bridge Roadway Width	Full Approach Roadway Width BM Section 2.3.1		N/A	28 ft
5	Maximum Grade	12% HDM Section 2.7.3.2 E Exhibit 2-6		0.3%	1.0%
6	Horizontal Curvature	371 ft (@ e =4.0%) HDM Section 2.7.3.2 F Exhibit 2-6		710 ft	428 ft
7	Superelevation Rate	4% Maximum HDM Section 2.7.3.2 G		N/A	4.0%
8	Stopping Sight Dist.	250 ft Minimum HDM Section 2.7.3.2 H Exhibit 2-6		>1000 ft	723 ft (Crest) 477 (Sag)
9	Horizontal Clearance	1.5 ft without barrier, 0 ft with barrier, 3 ft at intersections HDM Section 2.7.3.2 I		5 ft	1.5 ft
10	Vertical Clearance	14 ft Minimum, Highway 14.5 ft Desirable, Highway BM Section 2.4.1, Table 2-2		N/A	N/A
11	Pavement Cross Slope	1.5% Min. to 2% Max. HDM Section 2.7.3.2 K		2.0%	2.0%
12	Rollover	4% between lanes; 8% at EOT; HDM Section 2.7.3.2.L		N/A	4.0%, 8.0%
13	Structural Capacity	HS-20 (rehabilitation) or HL-93 (superstructure replacement) Live Load BM Section 2.6.2		Unknown	HL-93

14	Level of Service	Level of Service is not a critical design element	N/A	N/A
15	Control of Access	N/A	None	None
16	Pedestrian Accommodation	Complies with HDM Chapter 18 and ADAAG	None	ADA Criteria
17	Median Width	N/A	N/A	N/A

*Existing conditions listed apply to the East Industrial Parkway.
 (1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to Section 2.3.1.5 Speeds and Delays for additional information on speed data)

3.2.3.3 Other Design Parameters

Table 3.2-H - Other Controlling Parameters		
Element	Criteria	Proposed Conditions
Drainage Design Storm	5-year (25-year at sag locations)	5-year (25-year at sag locations)
Design Vehicle	SU	WB-67

*Non-conforming feature

3.3 Engineering Considerations

3.3.1 Operations (Traffic and Safety) & Maintenance

3.3.1.1 Functional Classification and National Highway System

This project proposes that the functional classification of the new South Troy Industrial Park Road be Urban Collector. This project will not change the functional class of the existing project area roadways.

3.3.1.2 Control of Access

No control of access will be provided.

3.3.1.3 Traffic Control Devices

3.3.1.3.(1) Traffic Signals

There will be no changes to existing traffic signals or construction of new traffic signals as part of the project.

3.3.1.3.(2) Signs

Detailed signing plans will be developed as part of the final design stages of the project. No overhead sign structures are proposed. Proposed signs will be designed in accordance with National MUTCD and NYS Supplement.

3.3.1.4 Intelligent Transportation Systems (ITS)

The project does not include any ITS.

3.3.1.5 Speeds and Delay

3.3.1.5.(1) Proposed Speed Limit

The proposed posted speed limit along South Troy Industrial Park Road and East Industrial Parkway is

30 mph, the statutory speed limit in the City of Troy.

3.3.1.5.(2) Travel Time Estimates

The construction of the new roadway is expected to improve travel times through the residential neighborhoods with the removal of truck traffic from these streets.

3.3.1.6 Traffic Volumes

Traffic flow diagrams that include the AM and PM peak hour traffic and turning movement volumes at intersections for the year 2017 (ETC) are the same as those included in Chapter II. The traffic flow diagrams for the year 2017 (ETC) and 2037 (ETC+20) include diversions for traffic utilizing the new roadway connection. The traffic flow diagram for the year 2037 (ETC+20) also includes development associated with construction of the new roadway allowing for access to the study area. The following table provides a summary of the traffic forecasts used for the project.

Table 3.3-A - Traffic Volume Forecast Conditions					
Condition	Year	Date	With Improvements?	Induced Growth	Background Growth
Existing		2009	No	None	None
Null	ETC	2017	No	None	0.35%
Null	ETC+20	2037	No	None	0.35%
Build	ETC	2017	Yes	None	0.35%
Build	ETC+20	2037	Yes	40 Acres	0.35%

Table 3.3-B - Build Design Year Traffic Volume Forecasts				
Year	ADT	DHV	K Factor	DDHV
Main Street – East Industrial Parkway to Burden Ave (US 4)/1st Street				
ETC (2017)	2,850	285 ²	0.10	185 (WB)
ETC+20 (2037)	3,550	355 ²	0.10	235 (WB)
River Street – Adams Street to Washington Street				
ETC (2017)	3,055	275 ¹	0.09	200 (SB)
ETC+20 (2037)	3,445	310 ¹	0.09	220 (SB)

Note: ETC = Estimated Time of Completion
 DHV = Design Hourly Volume (Two Way)
 DDHV = Directional Design Hourly Volume (One Way)
¹ = Design Hour from 4:00 to 5:00 pm
² = Design Hour from 7:00 to 8:00 am

Peak hour turning movement volumes for the Build Design Years are included in Appendix C.

3.3.1.7 Level of Service and Mobility

3.3.1.7.(1) At Project Completion & Design Year

Intersections

Level of service summaries for the Null Alternative were presented in Chapter II. Levels of service and vehicle delays vary by individual intersection and intersection approach as presented the following table.

Table 3.3-C - Build Highway Design Year Level of Service Summary						
Intersection	Control	ETC 2017		ETC + 20 2037		
		AM Peak	PM Peak	AM Peak	PM Peak	
1st St/Monroe St	S	Monroe St EB	C (21.9)	C (22.8)	C (21.9)	C (22.9)
Monroe St WB		C (22.4)	C (23.0)	C (22.5)	C (23.2)	
1 st St SB		A (2.8)	A (2.6)	A (2.8)	A (2.7)	
Overall Intersection		A (4.9)	A (6.3)	A (4.9)	A (6.3)	
1st St/Madison St		TW	1 st St SB	A (7.2)	A (7.2)	A (7.2)
Madison St WB	B (11.0)		B (10.8)	B (12.1)	B (11.6)	
Madison St EB	B (10.2)		C (10.1)	B (11.0)	B (10.8)	
1st St/Adams St	S	Adams St EB	C (27.0)	C (28.1)	C (27.5)	C (29.0)
Adams St WB		C (22.9)	C (23.4)	C (23.0)	C (23.6)	
1 st St SB		A (4.9)	A (5.1)	A (5.1)	A (5.1)	
Overall Intersection		B (18.8)	B (18.5)	B (17.3)	B (18.6)	
Adams St/River St	AW	Adams St EB	B (10.1)	A (8.1)	B (10.4)	A (8.2)
Adams St WB		A (8.7)	A (8.4)	A (9.0)	A (8.5)	
Clemente Drwy NB		B (12.0)	A (8.1)	B (12.8)	A (8.4)	
River St SB		A (9.3)	A (9.0)	A (9.9)	A (9.2)	
Overall Intersection		B (10.5)	A (8.6)	B (11.1)	A (8.8)	
Division St/River St	TW	River St NB	A (8.5)	A (8.0)	A (8.7)	A (8.1)
Division St WB		C (18.9)	C (18.6)	C (22.5)	C (21.8)	
Front St EB		B (10.1)	B (10.2)	B (10.4)	B (10.4)	
Main St/East Industrial Parkway	TW	Main St EB	A (9.1)	A (7.4)	A (9.5)	A (7.4)
Main St WB		A (7.4)	A (7.7)	A (7.4)	A (7.7)	
E Industrial Pkwy NB		B (10.4)	A (9.9)	B (10.6)	A (9.9)	
E Industrial Pkwy SB		B (12.5)	B (11.1)	B (13.8)	B (11.7)	

X (Y.Y) = Level of Service (average delay per vehicle in seconds)
 ETC = Estimated Time of Completion
 EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
 S = Signalized, AW = All-Way Stop, TW = Two-Way Stop
 * = Water Street is reconstructed under Build conditions and renamed Industrial Park Rd

Table 3.3-C shows that the study area intersections will operate with level of service C or better during both the AM and PM peak hours. No intersection mitigation measures are needed to accommodate the traffic volume re-location and trip generation associated with new development and construction of the new roadway.

Structures

The Preferred Alternative involves building a structure over the Poesten Kill in order to extend East Industrial Park Rd north to Adams St. As stated in Chapter 2, reconstruction and new construction projects should have a Design Year of ETC+30 for new bridges. Therefore, the following table summarizes the level of service analysis for the location requiring bridge construction.

Table 3.3-D - Build Highway Design Year Roadway Segment Level of Service Summary		
East Industrial Parkway over Poesten Kill	ETC+30 (2047)	
	AM Peak	PM Peak
Madison Ave to Adams St NB	D (0.32)	C (0.11)
Madison Ave to Adams St SB	C (0.15)	C (0.14)

NB, SB = Northbound or Southbound
 X (Y.Y) = Level of Service (Volume to capacity ratio)
 ETC = Estimated Time of Completion

The tables show that the roadway segment will operate at acceptable overall levels of service during the ETC+30 (2047) design year and is anticipated to provide adequate capacity.

3.3.1.7.(2) Work Zone Safety & Mobility

3.3.1.7.(2).a Work Zone Traffic Control Plan – In general, advanced signing will be installed along key routes, notifying motorists of the construction work and potential delays. A public involvement plan will include outreach to the public to keep them updated on the project schedule and work plan. Additional details for the work zone traffic control will be developed during final design.

3.3.1.7.(2).b Special Provisions – Seasonal work restrictions may be imposed on work in the vicinity of the Poesten Kill.

3.3.1.7.(2).c Significant Projects – This project is not a Significant Project as defined in 23 CFR 630.1010. A Transportation Management Plan (TMP) will be prepared for the project consistent with 23 CFR 630.1012. The TMP will consist of a Temporary Traffic Control (TTC) plan. Transportation Operations (TO) and Public Information (PI) components of a TMP will be considered during final design.

3.3.1.8 Safety Considerations, Accident History and Analysis

This project is not expected to adversely influence accident data, and the existing accident analysis in section 2.3.1.8 does not identify any accident patterns related to truck traffic. The desired minimum clear zone is 16 feet, as defined in NYS HDM 10.2. The project area is considered low-speed urban. Guide rail locations will be identified during Final Design.

3.3.1.9 Impacts on Police, Fire Protection and Ambulance Access

The primary ambulance service and police protection, are located north of the project site. During construction, the police and ambulance services should not be affected except on those properties directly fronting the construction. Access to the properties will be maintained for the emergency services, as it will for the property owners. Upon completion of the new roadway, access to properties in the industrial area will be improved.

The City of Troy Fire Department’s closest station is Station 6. Station 6 is located at the intersection of Canal and Third Streets. The station is located approximately one thousand feet from the project. The construction should not impact access to most properties. Response times and access will be improved with the construction of the new roadway, due to better vehicular access.

Representatives from the ambulance services, fire department and police department will be contacted regarding the proposed construction work to discuss any objections or concerns they may have.

3.3.1.10 Parking Regulations and Parking Related Issues

Parking will not be allowed on the new roadway.

3.3.1.11 Lighting

Non-ornamental street lighting will be included along the new roadway. Energy charges and

maintenance for the lighting would be the responsibility of the City of Troy.

3.3.1.12 Ownership and Maintenance Jurisdiction

No changes are proposed. Refer to Section 2.3.1.12. The City of Troy will own and maintain the new roadway.

3.3.1.13 Constructability Review

An important characteristic of Alternatives A1 and B4 is the ability to construct a large portion of the new roadway with significantly less disruptions to local traffic than other alternatives. Operating outside of the existing roadways allows for safer and more efficient operations during construction.

A more detailed constructability review will occur during final design of the project.

3.3.2 Multimodal

3.3.2.1 Pedestrians

Pedestrian facilities will be provided along the roadway in the form of a concrete sidewalk on the west side of the road. A Pedestrian Generator Checklist is included in Appendix E. The new facilities will meet all American Disabilities Act (ADA) requirements, and crosswalk locations will be evaluated in final design. This pedestrian route will serve as an alternative to First and Second Street for local residents and employees.

3.3.2.2 Bicyclists

Bicyclists are accommodated in both project segments in the form of wide curb lanes on both sides of the proposed roadway. Signage will indicate that vehicles are to share the road with bicycle users, and wayfinding signs to existing bikes routes will be evaluated in final design. This accommodation will serve as an alternative to First and Second Street for local residents and employees.

3.3.2.3 Transit

No changes are proposed.

3.3.2.4 Airports, Railroad Stations, and Ports

No changes are proposed.

3.3.2.5 Access to Recreation Areas (Parks, Trails, Waterways, and State Lands)

No changes are proposed. Future access to recreation areas would be improved as a result of the roadway construction.

3.3.3 Infrastructure

3.3.3.1 Proposed Highway Section

Refer to Appendix A for typical sections.

3.3.3.1.(1) Right of Way

Right of Way acquisitions are required for all feasible alternatives. Takings along the new roadway would be with access.

Table 3.3-E - Proposed Right-Of-Way Acquisitions			
Alternative(s)	Total FEE (Acres)	Total PE (Acres)	Property From CSX
A1	1.45	0	0
A2	3.68	0	0.83 (FEE)
B1	3.85	0	0.24 (FEE)
B4	3.85	.07	0.07 (PE)

3.3.3.1.(2) Curb

The new roadway will have vertical faced curbs on both sides of the highway within the project limits.

3.3.3.1.(3) Grades

The proposed maximum grade will be 1.0%.

3.3.3.1.(4) Intersection Geometry and Conditions

Refer to Appendix A for intersection geometry and conditions.

3.3.3.1.(5) Roadside Elements:

3.3.3.1.(5).a Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops – Snow storage will be provided along all roadways. A utility strip is included between the sidewalk, where provided, and the roadway. There are no proposed bikeways as part of the project. Bicycles will be accommodated in wide curb lanes along the new roadway. No bus stops are proposed.

3.3.3.1.(5).b Driveways – Proposed driveways will be designed to comply with the current NYSDOT “Policy and Standards for Design of Entrances to State Highways.”

3.3.3.1.(5).c Clear Zone – The clear zone will be approximately 16 feet wide and will be refined during final design to adjust for slopes, roadway curvature, etc. Guide railing may be provided in limited areas.

3.3.3.2 Special Geometric Design Elements

3.3.3.2.(1) Non-Standard Features

There are no existing or proposed Non-Standard features in the project area.

3.3.3.2.(2) Non-Conforming Features

At several locations, the intersection radii do not meet the requirements for a WB-67 design vehicle. These locations are identified in Table 3.3-E.

Table 3.3-F - Proposed Non-Conforming Features			
Alternative(s)	Feature	Location	Justification(s)
A2	Design Vehicle	Turning movements at Main Street	Right of Way on northeast corner; Railroad impact
B1, B4	Design Vehicle	Turning movements at Monroe Street	Right of Way; Railroad impact; Low expected volume of turning trucks; Low expected vehicular conflicts
B1, B4	Design Vehicle	Turning movements at Madison Street	Right of Way; Railroad impact; Low expected vehicular conflicts
B1, B4	Design Vehicle	Turning movements at Adams Street	Right of Way; Railroad impact

3.3.3.3 Pavement and Shoulder

A pavement evaluation was not required for the project according to the guidance in the New York State *Comprehensive Pavement Design Manual*. The new roadway will be an urban collector owned and maintained by the City of Troy. The proposed pavement treatment is full-depth HMA asphalt for all areas of new alignment.

Refer to Appendix A for the proposed typical sections.

3.3.3.4 Drainage Systems

The proposed drainage system will likely utilize closed drainage to effectively handle storm water runoff. Dedicated storm water treatment units will be included in the final design of the project. The storm water will ultimately outlet to the Hudson River, as it does today.

3.3.3.5 Geotechnical

Due to the historical industrial uses within the project area, some soil contamination has been identified. Please see Section 4.1.19. for further discussion. In general, no special techniques or considerations are needed. Additional borings will be completed during final design.

3.3.3.6 Structures

3.3.3.6.(1) South Troy Industrial park Road over the Poesten Kill (Alternative B4)

3.3.3.6.(1).a BIN – A new BIN will be issued for this new structure

3.3.3.6.(1).b Feature Carried and Crossed – East Industrial Parkway over the Poesten Kill

3.3.3.6.(1).c Type of Bridge, number of spans, etc. – The proposed bridge will be a single span precast box beam structure on concrete substructures founded on piles.

3.3.3.6.(1).d Width of travel lanes, shoulders – The proposed bridge will match the proposed approach roadway, which will consist of 14 ft wide travel lanes and 0 ft shoulders.

3.3.3.6.(1).e Sidewalks – A 5 ft wide sidewalk proposed on the west side of the new roadway will be carried across the proposed bridge.

3.3.3.6.(1).f Utilities Carried – No utilities will be carried by the proposed bridge.

3.3.3.6.(1).g Clearances (Horizontal/Vertical) – Horizontal 28 ft; Vertical N/A

3.3.3.6.(1).h Live Load – AASHTO HL-93 and the NYSDOT Permit Vehicle

3.3.3.6.(1).i Other Considerations – The proposed bridge will be constructed adjacent to an existing railroad bridge. The proposed abutments will be placed on piles behind the wingwalls of the railroad bridge, which will greatly reduce or eliminate the need to work within the Poesten Kill.

3.3.3.7 Hydraulics of Bridges and Culverts

The proposed opening for the structure crossing will be a full span, thereby providing a larger hydraulic opening than exists at the CSX crossing directly upstream.

Appropriate scour protection will be used based upon the hydraulic analysis of the Poesten Kill channel.

3.3.3.8 Guide Railing, Median Barriers and Impact Attenuators

All guide rail within the project limits including bridge railing will be evaluated during final design for conformance to design standards and replaced or repaired, if necessary.

3.3.3.9 Utilities

Isolated utility pole and water main relocations are anticipated. Coordination with the respective utility companies has begun and will continue during final design to determine schedule and exact locations.

3.3.3.10 Railroad Facilities

The preferred alternatives will not require the acquisition of any Railroad Property. Alternatives B1 and B4 will have grading impacts on the private railroad spur on the Troy Slag property.

3.3.4 Landscape and Environmental Enhancements

3.3.4.1 Landscape Development and Other Aesthetics Improvements

New turf and plantings will be established in all disturbed areas upon completion of construction. Street trees in front of the jail will be replaced after the new sidewalk is installed for screening purposes. Other opportunities for more decorative hardscape or landscaping will be evaluated in final design; however, based on the industrial character of the area it is not anticipated to be included in the project.

3.3.4.2 Environmental Enhancements

There are several opportunities for environmental enhancements. These enhancements will be further developed during the final design of the project.

Summary of Possible Environmental Enhancements

1. Improved storm water treatment and water quality through new SPDES facilities
2. Reduction in truck traffic and noise on residential streets
3. Improved truck access to existing and planned industrial and commercial sites
4. Compatibility with the community's economic goals and local job creation

There are no additional opportunities for environmental enhancements proposed as part of this project.

3.3.5 Miscellaneous

None

CHAPTER 4 - SOCIAL, ECONOMIC AND ENVIRONMENTAL CONDITIONS AND CONSEQUENCES

4.1 Introduction

The purpose of this chapter is to identify the social, economic and environmental impacts, which would result from the construction of this project. The chapter also identifies any feasible avoidance and/or mitigation measures and shows how the project satisfies the applicable social, economic and environmental laws and identifies all of the required permits and approvals.

4.1.1 Environmental Classification

4.1.1.1 NEPA Classification

This project is classified as a Class III project in accordance with the definitions of the National Environmental Policy Act (NEPA) as defined in 23 CFR 771.115. The significance of environmental impacts has not been clearly established, and the project is not classified as a NEPA Class I or Class II project.

The FHWA has requested an Environmental Assessment (EA) be prepared under NEPA to determine the appropriate environmental document required. A Federal Environmental Approvals Worksheet (FEAW) has been completed and is provided in Appendix B. Supporting documentation for the FEAW is also provided in Appendix B.

4.1.1.2 SEQR Classification

In accordance with 6 NYCRR 17, the City of Troy Planning Board has determined that this project is a SEQR Unlisted Action. SEQR Unlisted projects include actions for which the environmental impacts are not clearly established. The project is being progressed as Unlisted Action requiring preparation of an EA because a new roadway is proposed, and the design alternatives are in close proximity to culturally and historically sensitive sites.

For Unlisted SEQR actions, the need to undergo a coordinated SEQR review, when there is more than one agency involved is optional. The City of Troy Planning Board began participation in a coordinated review by sending SEQR Lead Agency Letters to the following involved agencies on July 29, 2011:

- NYS Department of Environmental Conservation
- US Army Corps of Engineers
- NY Office of Parks, Recreation and Historic Preservation
- NYS Department of Transportation
- NYS Department of State

The coordination letter identified the scope of the project and the agency's intent to seek Lead Agency status. Since no response has been received within 30 days of the letter, it is assumed that the involved agencies have no issue with the City of Troy Planning Board being designated Lead Agency.

4.1.2 Cooperating, Participating, and Involved Agencies

The following agencies are Cooperating Agencies in accordance with 23 CFR 771.111(d):

- NYS Department of Environmental Conservation
- US Army Corps of Engineers
- NY Office of Parks, Recreation and Historic Preservation
- NYS Department of Transportation
- NYS Department of State

4.2 Social

4.2.1 Land Use

The land use within the project area is a mix of active industrial, commercial business, public and community services, and vacant or abandoned land. An extensive field reconnaissance of properties as part of the *South Troy Working Waterfront Revitalization Plan*, prepared by River Street Planning & Development completed December 16, 2003

Refer to the “Study Area Inventory and Analysis” map referenced from the *South Troy Waterfront Revitalization Plan* prepared by River Street Planning & Development, December 2003 attached in Appendix B.

4.2.1.1 Environmental Justice

This section will provide the information required for an environmental justice (EJ) determination in accordance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (February 11, 1994). Equitable access to, consideration within and effects of the design and implementation of federally-assisted projects is a key aspect of environmental justice.

The City of Troy is included in the Capital District MPO area. The Capital District MPO (CDTC) has defined environmental justice areas by Traffic Analysis Zones (TAZs) as this presents a finer detail than simply using Census Tracts. CDTC defined low income and minority thresholds and overlaid the data on the 924 TAZs comprising the four county MPO area. As a result the Project area is wholly located within potential EJ target areas, as defined by CDTC. It should be noted that the South Troy waterfront industrial- commercial area is not separated from the adjacent residential areas.

The project area is inclusive of parts of Census Tracts 409 and 410. Its connection to the Congress Street Bridge is contained within Tracts 407 and 408. The relevant Census data for the South Troy area, compared with US, County and City data:

Table 4.2-A - Census Data			
Geographic Area	Population	% Minority	% Below Poverty Line
Rensselaer County	159,429	14.0	13.2
City of Troy	50,129	27.1	28.3
Tract 407	3,935	29.0	38.6
Tract 408	1,617	20.0	23.0
Tract 409	2,509	17.0	31.7
Tract 410	4,387	36.0	33.7
USA	NA	27.6	15.0
CDTC MPO	794,293	11.2	8.9

- Note – Margin of Errors not accounted for from 2009-2013 ACS

This project is intended and designed to address both regional plan systemic EJ initiatives as well as incorporate specific design features which address the following desired attributes:

1. Community Compatibility: the project would create revised highway access to a long standing commercial – industrial area. If the project were NOT constructed, truck traffic would be routed over the current street system which includes residential areas meeting target EJ demographic and economic criteria. This would include all the traffic, noise and air quality impacts associated with such traffic. As stated elsewhere in this document, the property is zoned for development as a commercial – industrial area. The Project facilitates the diversion of current and expected commercial traffic out of residential neighborhoods.
2. Connections to non-auto modes: the Project does not affect current or proposed transit access. It would however create better access by walking and bicycle to not only current transit stops, but the Capital District Area bicycle network.
3. Pressing social conditions: the Project address a regional and State objective for smart growth in redevelopment of inner City areas. Current businesses should be either unaffected or be positively enhanced by having more employment in the area.
4. Economic Development: the Project would assist the City to provide more flexibility in redevelopment of its commercial – industrial waterfront and the creation of jobs which could be filled by residents living in this area. Further, as the waterfront area becomes accessible and developed many longstanding run down and deteriorated structures will be removed and replaced creating a more harmonious visual and esthetic landscape.
5. Equitable access to federal funding: this is one of the more major projects included on the CDTC TIP.

4.2.2 Neighborhoods and Community Cohesion

The proposed improvements will serve as an alternate route for vehicles to access existing and proposed businesses along the South Troy Waterfront. It will alleviate heavy truck traffic from adjacent residential areas, thus creating a cleaner and safer neighborhood environment.

The age and ethnic background of the affected population is of a similar composition as the rest of the City of Troy. While some vacant commercial buildings will be impacted, no occupied dwellings or businesses are proposed to be acquired. The taking of property for the roadway would not split or divide neighborhoods, isolate a portion of a neighborhood or an ethnic group or separate residents from community facilities. A change in neighborhood and community cohesiveness would therefore not occur.

4.2.3 Social Groups Benefited or Harmed

A review of US Census data for Rensselaer County indicates that there is no significant concentration of elderly or disabled person in the project area.

The Capital District Transit Authority (CDTA) has two routes that run on 3rd Street and 4th Street. Bus routes and stops will be maintained during construction and the project will have a positive effect on these facilities after construction by reducing truck traffic from these roadways. The project will not substantially change pedestrian access between pedestrian trip generators and destinations.

Part of the project is located adjacent to a Potential Environmental Justice Area, for Income Below the Poverty Level; however, the scope of the project activities is limited to new construction adjacent to this area to remove industrial traffic from the neighborhood streets. These activities will not have disproportionately high and adverse human health and environmental effect on minority or low-income populations.

4.2.4 School Districts, Recreational Areas, and Places of Worship

The Alternative Learning Program of the Troy City School District is located adjacent to the project area on First Street. Both vehicular and pedestrian facilities to the school will not be affected by this project. The proposed road will have a positive impact on the school by removing truck traffic from adjacent neighborhood streets where students walk to school and are picked up and dropped-off by school buses.

Other than a fishing pier, recently constructed at the end of Madison Street, there is no other existing public or recreational access to the Hudson River in the project area. Reasonable alternatives B1 and B4 will not impact the pier, and access will be maintained during construction.

There is a synagogue located on River Street on the east side of the intersection with the Congress Street Bridge off ramp and Front Street. The majority of the traffic to the synagogue will occur on weekends when most industrial facilities will not be operating. No impacts to this or any other area religious facility are expected due to implementation of this project.

4.3 Economic

4.3.1 Regional and Local Economies

In the short term, the project will add construction jobs in the area. In the long term, the improved access to the South Troy Industrial Area will spur growth, improving the available tax base and increasing the number of jobs in the area. The properties' improved accessibility and road frontage should increase the property values.

4.3.2 Business Districts

The new road will improve access to the South Troy Industrial Area. It is expected that any effects will be positive. There are some commercial businesses located on First through Fourth Streets. It is expected that traffic will be reduced somewhat on these streets. However, the traffic expected to be removed from these streets is the heavy truck traffic. It is not expected that this reduction in traffic will have an adverse effect on the local businesses located along First through Fourth Streets. In addition, this project will not impact the Troy Business District which is located to the north of the project area beginning at Congress Street and continuing north.

Long-term impacts to the existing businesses are anticipated to be positive. This determination is based upon improvements to vehicular movements by creating improved access to parcels.

4.3.3 Specific Business Impacts

There are several commercial and industrial facilities located within the project limits. The majority of the facilities will be positively affected from the road construction due to improved site access and an improved transportation network. Property will be acquired from some of these businesses for the construction of the roadway. Most of the property acquisition requires strip takings, which will minimally affect the properties.

The Troy Slag Products property, currently operating as a salt storage facility, will have additional impacts. These include the removal of their existing conveyor, which moves salt from the rail cars to the asphalt pad and impacts to a portion of the asphalt pad. To mitigate these impacts, a culvert will be installed under the roadway, which will contain the conveyor. Impacts to the pad will be mitigated through compensation. The proposed roadway will also have grading impacts on the private railroad spur on the property. These will be mitigated during construction.

4.4 Environmental

4.4.1 Wetlands

4.4.1.1 State Freshwater Wetlands

There are no NYSDEC-regulated freshwater wetlands or regulated adjacent areas (100ft) within the project area, as per the NYSDEC Freshwater Wetland GIS Mapping for the project location. A site visit was performed April 22, 2014 to confirm that no wetlands exist at the project site. No further investigation is required and Environmental Conservation Law, Article 24 is satisfied.

4.4.1.2 State Tidal 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 25 does not apply.

4.4.1.3 Federal Jurisdictional Wetlands

The United States Fish and Wildlife Service (USFWS) wetlands mapping for the project area was reviewed. The Poesten Kill is a federally-regulated riverine wetland. No additional federally-regulated wetlands were identified within the project limits during an April 22, 2014 site visit.

Reasonable alternatives B1 and B4 each propose a new stream crossing over the Poesten Kill, immediately west to the existing rail bridge. Impacts to the Poesten Kill include temporary fill and dewatering during construction of a new bridge and associated substructure elements.

The proposed construction will require a project specific 401 WQC, pursuant to 15 NYCRR 608, Protection of Waters. Further coordination will be required with NYSDEC during the final design to determine the nature and extent of potential surface quality impacts posed by the project alternatives during and after construction. Public Notification requirements will apply.

It is anticipated that the temporary fills in Waters of the U.S. for cofferdams and dewatering of the work site required for both reasonable alternatives B1 and B4 can be authorized under the U.S. Army Corps of Engineers (USACOE) Section 404 Nationwide Permit #33 - *Temporary Construction, Access and Dewatering*. Nationwide Permit #33 requires the Department to provide a pre-construction notification to the USACOE and to receive an authorization prior to undertaking the proposed activities.

The permits will be obtained once the location and the extent of the impacts are ascertained. Work will not commence until the permits are acquired and will adhere to any conditions set forth by the permit requirements.

4.4.1.4 Executive Order 11990

A programmatic Executive Order 11990 applies to this project, based on its classification as a Categorical Exclusion under 23 CFR 771.117 and its qualification for U.S. Army Corps of Engineers Section 404 Nationwide Permit(s).

The temporary impacts to federal jurisdictional wetlands will be similar for both reasonable alternatives B1 and B4, and no permanent impacts are proposed. The temporary impacts, as described in Section 4.4.1.3, will be restored prior to the completion of the project. There were no practicable alternatives to avoid impacts to the regulated wetlands as the new stream crossing is required and no existing bridges are available to utilize or rehabilitate. The proposed substructure elements will be located as to not restrict the existing width of the Poesten Kill.

Measures to minimize harm include minimal clearing limits. In addition, during detailed design, construction fence will be installed at the limits of clearing to clearly define the wetlands that are to be protected and erosion and sediment controls will be utilized and maintained during construction.

Minor impacts to federal jurisdictional wetlands are proposed however there is no practicable alternative to temporary construction in the wetland, and all practicable measures to minimize harm to the wetland have been incorporated. The project satisfies the requirements of EO 11990. No further approval from FHWA is required.

4.4.1.5 Mitigation Summary

A wetland mitigation/monitoring plan is not required for this project, since no wetlands are impacted.

4.4.2 Surface Waterbodies and Watercourses

4.4.2.1 Surface Waters

Reasonable alternatives B1 and B4 will each require temporary fills in Waters of the U.S. for cofferdams and dewatering of the work site. It is anticipated that this work can be authorized under the U.S. Army Corps of Engineers (USACOE) Section 404 Nationwide Permit #33 - *Temporary Construction, Access and Dewatering*. Nationwide Permit #33 requires the Department to provide a pre-construction notification to the USACOE and to receive an authorization prior to undertaking the proposed activities.

The permits will be obtained once the location and the extent of the impacts are ascertained. Work will not commence until the permit(s) are acquired and will adhere to any conditions set forth by the permit requirements.

An Individual Section 401 Water Quality Certification will be required for this project. Public Notification requirements will apply.

4.4.2.2 Surface Water Classification and Standards

Based upon a review of the NYSDEC GIS data maps for regulated streams, there is one regulated stream, the Poesten Kill, within the project limits. The Poesten Kill is a Class C, Standard (t) and is not a 303(d) segment.

The best usage for Class/Standard "C(t)" waters is fishing. The water quality is suitable for trout propagation and survival. Water quality shall be suitable for primary and secondary contact recreation, although other factors may list the use for these purposes.

The NYSDEC has been contacted to determine any restrictions to construction activities due to fish spawning seasons or other water quality concerns. In-stream work is restricted between March 1 and July 31. Correspondence with NYSDEC is included in Appendix B.

The NOAA's National Marine Fisheries Service was contacted in June 2015 and has noted that the Atlantic and Shortnose sturgeons are not known to exist within the project area. Correspondence is included in Appendix B.

The project is not located within or adjacent to a TMDL Watershed. The project will be evaluated for water quality treatment practices to reduce pollutant and phosphorous loadings.

4.4.2.3 Stream Bed and Bank Protection

Based upon a review of the NYSDEC GIS database, and as verified by an April 22, 2014 site visit, there is a protected stream in the proposed project area. The Poesten Kill is a protected stream that flows into the Hudson River.

NYSDEC GIS information indicates that the Poesten Kill is designated as a Class C, Standard (t) waterbody as defined by 6 NYCRR Part 701 of the Water Quality Regulations. An Individual Section 401 Water Quality Certification will be required.

The impacts to the Poesten Kill will be temporary and short-term for both reasonable alternatives B1 and B4. The impacts will result from the construction of the road and bridge, and the associated substructure elements. Appropriate sedimentation and erosion control measures will be implemented during construction as required in the Storm Water Pollution Prevention Plan (SWPPP) discussed below. Disturbance to the beds or banks of the stream will require a permit from NYSDEC under Article 15.

4.4.2.4 Airport and Airway Improvement

The project does not involve improvement of an airport or airway.

4.4.2.5 Mitigation Summary

To mitigate a potential rise in water temperatures in the Poesten Kill, coordination with the City will occur during final design to determine the feasibility of replacing trees that were removed during construction. Both reasonable alternatives B1 and B4 will result in the removal of brush and small diameter trees along the banks of the stream.

During construction, precautions should be taken to prevent contamination of the Poesten Kill by silt, sediment, fuels, solvents, lubricants, or any other pollutants. Promptly after construction, care will be taken to stabilize all disturbed areas. Vegetated pipe outlet locations, swales and plantings in old roadbed locations will be considered to allow water to percolate prior to entering the stream.

4.4.3 Wild, Scenic, and Recreational Rivers

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

The project does not involve a National Wild and Scenic River as shown by the Nationwide Rivers Inventory List of National Wild and Scenic Rivers. No further review is required.

4.4.4 Navigable Waters

4.4.4.1 State Regulated Waters

The Poesten Kill, within the project limits, is a State-regulated navigable waterway. Reasonable alternatives B1 and B4 both include a new crossing over the Poesten Kill. The waterway is not typically used for recreational or commercial traffic, but meets the requirements of a State Regulated Water. The project work will require placement of fill for access, construction or structure installation (bridge crossing) in these waters. Navigability of the waters will not be affected. A NYSDEC Protection of Waters Permit for Excavation or Placement of Fill in Navigable Waters will be required, pursuant to ECL Article 15, Title 5. The permit will be obtained once the location and extent of the impacts are ascertained.

4.4.4.2 Office of General Services Lands and Navigable Waters

There are no OGS underwater holdings located within the project's area of potential effect that will be impacted by the work.

4.4.4.3 Rivers and Harbors Act – Section 9

Since the project does not involve the construction or modification of any bridge, dam, dike, or causeway over any navigable water of the United States, Section 9 is not applicable.

4.4.4.4 Rivers and Harbors Act – Section 10

Since 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 is not applicable.

4.4.5 Floodplains

Actions undertaken by the NYSDOT and funded from Federal and State sources must be evaluated and constructed in compliance with the requirements of 6 NYCRR Part 502 Flood Plain Management and Executive Order 11998 Flood Plain Management.

4.4.5.1 State Flood Insurance Compliance Program

The National Flood Insurance Program Flood Insurance Rate Maps (FIRM) that encompass the project corridor were reviewed, including Panels 3606770003B and 3606770004B. The 100-year floodplain of the Hudson River, Wynants Kill and Poesten Kill defined on the FIRMs includes all of the land west of Second

Street and north of Polk Street. In addition, lands west of the railroad tracks and south of Polk Street lie within the 100-year floodplain. The FIRMs of the project area are included in Appendix B.

In accordance with the provisions of 6 NYCRR 502 - Flood Plain Management for State Projects, this action has considered and evaluated the practicality of alternatives to any floodplain encroachments. As a result of this evaluation, it is concluded that: (1) a significant encroachment does not exist, (2) there is no significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles, (3) there are no significant impacts on natural beneficial floodplain values.

4.4.5.2 Executive Order 11988

Executive Order 11988 requires that long and short-term adverse impacts to flood plains be avoided to the extent possible. Flood plains are defined as lowland areas adjoining inland and coastal waters, which are periodically inundated by floodwaters. The 100-year flood plain is that area which has a one percent chance of being inundated in any one year. In order to comply with EO 11988, the potential effects of the proposed alternatives on the floodplain have been evaluated, considering alternatives to avoid any adverse effects.

In accordance with Executive Order 11988, alternatives were first examined which would avoid flood plain impacts. The only alternative which avoids the floodplain is the Null. As discussed in Chapter III, this alternative does not meet the project objectives and therefore is not considered a prudent and feasible alternative. During development of the remaining alternatives, flood plain avoidance was considered. Due to the location of the flood plain, the proposed alternatives could not avoid the flood plain.

Past, current or future development in much of the project area under existing soil conditions is limited to industrial and commercial uses. The properties in the area are mostly developed and are zoned as industrial/commercial properties. Executive Order 11988 specifies that direct or indirect support of floodplain development should be avoided. There are no practicable alternatives to the current and proposed future use of the land within the flood zone in the South Troy Industrial area. In addition, there is no practicable alternative to locating the Industrial Park Road within the flood zone. Construction of a road outside of the flood zone would require the use of Second, Third, or Fourth Streets in South Troy. This would continue to route commercial/industrial traffic onto residential streets. The primary project objective is to remove this traffic from the residential streets. As discussed below, the impacts to the flood plain from the construction alternatives are expected to be minimal.

The reasonable alternatives would result in the following approximate impacts to the 100-year flood plain, also expressed as a percentage of the 230 acre flood plain in the South Troy Area:

Alternative A1: 1.11 acres (0.48%)	Alternative B1: 3.32 acres (1.44%)
Alternative A2: 3.06 acres (1.33%)	Alternative B4: 3.35 acres (1.46%)

Figures FPL-1 to FPL-4 in Appendix B depict the reasonable alternatives in relation to the flood plain. Alternative A1 will result in about a third of the impacts as alternative A2, since alternative A1 utilizes the existing East Industrial Parkway for approximately 1,900 feet. Alternatives B1 and B4 will result in similar impacts to the floodplain. Anticipated earthwork required for each of the reasonable alternatives will require more cut than fill. As such, no loss of flood storage is anticipated for either of the reasonable alignments. The reasonable alternatives will cause little or no negative flood plain impact and therefore, an "only practicable alternative" finding will not be needed.

During the Advanced Detail Plan design phase, a floodplain hydraulic analysis will be conducted for the new bridge crossing to ensure that the new construction does not impact the floodplain.

Since the preferred alternative will be constructed in a floodplain, there will be an attempt to minimize potential impacts. Consistent with the regulations issued in accordance with Section 2(d) of Executive Order 11988, a notice will be prepared and circulated that contains an explanation of why the proposed action is to be located within the floodplain.

4.4.5.3 Local Floodplain Management

The City of Troy Floodplain Management and Flood Damage Ordinance identifies requirements for construction in a floodplain. These requirements, found in the City of Troy Code Part II Chapter 158, should be followed during the design and construction process to minimize impacts and maximize safety. Figures FPL-1 through FPL-4 in Appendix B illustrate the floodplain boundary location in relation to the preferred construction alternatives.

4.4.5.4 State Coastal Zone Management Program

The proposed project is classified as a SEQR Unlisted action and is located within a State Coastal Zone Management area. The project limits are within 1,000 feet of the shores of the Hudson River, south of the Federal Dam at Troy. Figures CST-1 through CST-4 in Appendix B illustrate the Coastal Zone boundary in relation to the reasonable alternatives. Each of the reasonable alternatives A1, A2, B1 and B4 are located within the limits of the Coastal Zone.

The Hudson River and its adjacent jurisdictional lands are governed by New York State's Coastal Zone Management regulations, administered by the NYS Department of State (NYSDOS). A State Consistency Review will be required. This review includes completion of the State Coastal Assessment Form (CAF) and a Federal Aid Notification (FAN) letter, and submission to NYSDOS.

Since the project is federally funded and requires a federal permit (other than a Nationwide Permit), a Federal Coastal Consistency Assessment Form (FCAF) will be completed and sent to NYSDOS.

The project is not located in a Significant Coastal Fish and Wildlife Habitat, as defined by the NYSDOS Division of Coastal Resources and Waterfront Revitalization. No further action is required.

4.4.5.5 State Coastal Erosion Hazard Area

The proposed project is not located in or near a Coastal Erosion Hazard Area.

4.4.5.6 Waterfront Revitalization and Coastal Resources Program

The City of Troy developed the South Troy Working Waterfront Revitalization Plan (STWWRP), which is not approved through the DOS. Based on the preferred waterfront redevelopment strategy outlined in this Plan, infrastructure and site improvement efforts include the South Troy waterfront access road. The objective is to provide an industrial access facility to the Southern District that transitions to a city street/business park facility as it proceeds into the Central and Northern Districts. This will improve freight access and remove truck traffic from the residential streets. The plan also states that the objectives for the South Troy Area include the rehabilitation and improvement of the industrial area west of First Street. In addition, the plan states that truck routing must be controlled and limited to designated streets to retain the residential quality of neighborhood streets.

The proposed Industrial Park Road will remove truck traffic from the residential streets, retaining the residential quality of these streets, and will encourage the rehabilitation and improvement of this industrial area. Each of the reasonable alternatives is consistent with the City's Working Waterfront Revitalization Plan.

4.4.5.7 Federal Coastal Barrier Resources Act (CBRA) and Coastal Barrier Improvement Act (CBIA)

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).

4.4.6 Groundwater Resources—Aquifers, Wells, and Reservoirs

4.4.6.1 Aquifers

A review of the EPA-designated Sole Source Aquifer Areas Federal Register Notices, Maps, and Fact Sheets indicates that the project is not located in a Sole Source Aquifer Project Review Area. No federal review and/or approvals are required pursuant to Section 1424(e) of the Safe Drinking Water Act.

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.

Impacts to the groundwater beneath the project area may occur with due to the addition of impervious area. Impacts are anticipated to be minimal. Construction of the road is not anticipated to reach depths where groundwater would be encountered. For reasonable alternatives B1 and B4 that require construction of a new bridge over the Poesten Kill, deeper excavations will be required and groundwater will be encountered. No negative impacts are anticipated. Some additional impervious surface will be added with the road construction. This will decrease the amount of recharge due to infiltration. This impact is anticipated to be minimal and no mitigation is proposed.

4.4.6.2 Drinking Water Supply Wells and Reservoirs

The South Troy area is serviced by a public water supply. Drinking water for the City of Troy originates from a reservoir approximately 6 miles northwest of the City, which the proposed project is not expected to adversely impact. No known wells are located in the project area.

4.4.6.3 Groundwater Impacts

Impacts to the groundwater beneath the project area may occur with the reasonable alternatives due to the addition of impervious area. Impacts are anticipated to be minimal. Construction of the road is not anticipated to reach depths where groundwater would be encountered. For the reasonable alternatives that require construction of new bridge over the Poesten Kill, deeper excavations will be required and groundwater will be encountered. No negative impacts to groundwater quality are anticipated.

Some additional impervious surface will be added for each reasonable alternative, which can be expected to decrease the amount of recharge due to infiltration. Alternative A1 will result in the addition of less new impervious area compared to alternative A2; approximately 65% less due to utilization of the existing East Industrial Parkway by Alternative A1. Alternatives B1 and B4 follow a similar alignment and will result in the creation of similar new impervious areas. The impact to groundwater quality is anticipated to be minimal and no mitigation is proposed.

4.4.7 Stormwater Management

The South Troy Area is located within the flood plain and is relatively flat. Surface water from the project area, which is located in the greater Hudson-Hoosic Watershed, generally drains toward the Hudson River.

The impacts to the Poesten Kill will be short-term. The impacts will result from construction of the new road and bridge, and partial reconstruction of an existing road. Appropriate sedimentation and erosion control measures will be implemented during construction as required in the SWPPP discussed below. The Poesten Kill and Hudson River in the area of the site are classified as class C(t) and Class C surface waters by the NYSDEC, respectively. Storm sewers which may outlet to the river will be permitted by the NYSDEC. Best Management Practices (BMPs) will be employed during the final storm sewer design to ensure that impacts to the Hudson River are minimized.

The storm water collection system for the proposed road will eventually empty to the Hudson River. The system will not outlet to the existing City of Troy combined sewer system but instead will tie into an existing dedicated storm water system, if available. If no dedicated storm water system is available, new

pipng will be installed to the Hudson River. If a new outlet is proposed, it will be designed utilizing BMPs and with excess capacity for future connections. The storm water design will be completed during the detailed design phase.

Reasonable alternatives B1 and B4 propose a new bridge crossing the Poesten Kill. The Poesten Kill is channelized in this area and it is anticipated that the installation of a bridge will have little to no effect on the waterbody. The hydraulic width of the river will not be impacted by the proposed bridge as noted in section 3.3.3.7. Increased sediment and erosion control measures would be utilized during construction.

In accordance with Section 402 of the Clean Water Act, a SPDES General Permit for Construction Activities (GP-0-15-002) is required for construction of the roadway since disturbance of more than 1 acre is anticipated. In accordance with the SPDES Regulations, a SWPPP must be prepared and a Notice of Intent submitted prior to the commencement of construction activities. The project-specific SWPPP will include an Erosion and Sediment Control Plan in accordance with Section 209 (Temporary Soil Erosion and Water Pollution Control) of the NYSDOT Standard Specifications. Upon approval of the SWPPP, the Notice of Intent will be submitted and subsequently, implementation of the SWPPP can begin. Reasonable effort will be made to ensure that the SWPPP conforms to NYSDEC's recommended standards.

As stated in Section 4.4.2.3, an Individual Section 401 Water Quality Certification must also be obtained for the project in accordance with Article 15, Title 5 6NYCRR 608, Protection of Waters. This certification is verification by the State that the project would not degrade waters of the state or otherwise violate water quality standards. As previously stated, all drainage will be designed utilizing Best Management Practices (BMPs).

Potential impact on surface water quality associated with the project would be the result of stormwater runoff and associated pollutants. Pollutants generated by the project could include deicing salts, particulates, nutrients, heavy metals, and hydrocarbons. Sources of the pollutants include road surface material, vehicle exhaust and degradation, lubrication system losses, roadway maintenance activities, and by-products of combustion. Of these pollutants, deicing salts are considered a primary pollutant due to the potential quantity of salts applied to the roadway during snow removal operations, and since it is potentially the most difficult to mitigate.

4.4.7.1 De-icing Salts

The construction of a new roadway in South Troy will add additional pavement area in comparison to current conditions. The chloride concentrations expected from salt application on the proposed roadway surface for the Construction Alternatives were determined using the L. Toler "Effects of Deicing Chemicals on Surface and Groundwater".

Information on salt application rates was obtained from the City of Troy Department of Public Works (DPW). It was noted that salt application rates are not consistent across all City lane miles of road; salt is applied at increased rates on roads with steep slopes and on roads surrounding emergency services (i.e. hospitals, fire stations, etc.). Therefore, the overall application rate estimated for the City is likely higher than what will be applied to the proposed South Troy Industrial Park Road.

For this analysis, it has been assumed that the increase in chloride concentrations expected for the construction of Alternative A1 include the area of the existing East Industrial Parkway, since salt application rates will likely increase with the increase in traffic.

The worst-case increase in chloride concentrations, 108.5 mg/L, would occur with the construction of alternatives A1 and B4, as these combine to the highest overall lane miles. Alternative A2 would result in a slightly lower increase in chloride concentrations compared to A1 (53.1 mg/L versus 54.1 mg/L), as shown by the calculations provided in Appendix B. Each of the reasonable alternatives will result in chloride concentrations below the current standard of 250 mg/L as stated in the EPM. Assuming a 2.0 shock multiplier (per the Toler method), a maximum load of 217.0 mg/L was calculated for the preferred

alternatives, which is also below the current standard of 250 mg/L.

Current NYSDEC Stormwater Regulations require the on-site treatment of stormwater. The stormwater treatment design, to be provided in later design stages, will address the potential for elevated chloride concentrations. Additional potential surface water pollution sources to be addressed in the SWPPP include water temperature reduction, water filtration, and water quantity reduction (if required). The potential increase in chloride concentrations as a result of the proposed project is not expected to result in significant adverse impacts on surface water quality. In addition, the stormwater that infiltrates is not expected to adversely affect groundwater. Infiltration is a slow process that would attenuate the chloride remaining in the storm water after filtration through overland flow.

4.4.8 General Ecology and Wildlife Resources

4.4.8.1 Fish, Wildlife, and Waterfowl

A cursory review of the project's area of potential effect indicates that there is a special habitat for certain species of fish. According to NYSDEC GIS, the Poesten Kill is designated as a Class C(t) water, which is suitable for the propagation and survival of trout. In-stream work is restricted between March 1 and July 31 due to fish spawning seasons and other water quality concerns. Correspondence with NYSDEC is included in Appendix B.

Precautions will be taken to ensure that water temperatures and quality are protected, and that the movement of the trout is not affected. Tree plantings along the banks of the Poesten Kill will be considered during final design to help shade and cool the water surface

4.4.8.2 Habitat Area, Wildlife Refuges, and Wildfowl Refuges

According to the NYSDEC GIS information database, the project is located in the vicinity of the Tidal River Natural Community, the Hudson River Estuary. The ecological system is Tidal Wetlands (Estuary). The project does not propose any impacts to the Hudson River.

The proposed project does not involve work in, or adjacent to, a wildlife or waterfowl refuge. No further consideration is required.

4.4.8.3 Endangered and Threatened Species

4.4.8.3.(1) State-Listed Endangered and Threatened Species

NYSDEC Region 4 and NYSDEC New York Natural Heritage Program (NYNHP) have been contacted to request records of rare or state listed animals or plants, or significant natural communities that may exist on or in the immediate vicinity of the project site. Correspondence is included in Appendix B. According to the NYSDEC's Natural Heritage Program information database, the following rare, threatened or endangered species have the potential to exist within the project area:

- Shortnose Sturgeon (*Acipenser brevirostrum*) – endangered. The National Marine Fisheries office has confirmed that this species is not likely to exist within the area of potential effect for this project. Correspondence is provided in Appendix B.
- Cobra Clubtail (*Gomphus vastus*) – unlisted, rare. The NYNHP conservation status is Critically Imperiled in NYS. The typical habitat characteristics of the Cobra Clubtail are documented by the NYNHP to include large forested sandy-bottomed rivers with alternating stretches of sand and gravel. During breeding mature males can be seen resting on sandy stretches of shoreline or perched in overhanging vegetation. During the 2005-2009 New York Dragonfly and Damselfly Survey (NYDDS) the species was observed along the Hudson River in South Troy in July 2008. The typical flight season of the Cobra Clubtail ranges from June into July in New York and extends into August in Wisconsin and New Jersey. Based on information provided in the NYDDS, the documented sightings of the Cobra Clubtail in Rensselaer County occurred primarily in June and early July. Tree and vegetation removals in the vicinity of the Poesten Kill will occur between

October 31 and March 31 for the preferred alternative, which is outside the typical flight season of the species.

- Alewife Floater (*Anodonta implicate*) – unlisted, rare. The NYNHP conservation status is Critically Imperiled in NYS. The typical habitat characteristics of the Alewife Floater are documented by the NYNHP to include strong currents in the tidal Hudson River and among cobbles in the Neversink and smaller tributaries. The Poesten Kill within the project limits has shallow boxed section with vertical sheet pile or concrete walls on either side. The area of potential effect for Alternatives B1 and B4 is not likely to support the Alewife Floater.
- Yellow Lampmussel (*Lampsilis cariosa*) – unlisted historical record, rare. The typical habitat characteristics of the Yellow Lampmussel are documented by the NYNHP to include small to large rivers, especially on sandy substrates in riffles. The NYNHP notes that this mussel species has not been documented in the Hudson River since prior to 1979, and as such, the temporary disturbance to the Poesten Kill for Alternatives B1 and B4 is not likely to affect the Yellow Lampmussel.
- Tidewater Mucket (*Leptodea ochracea*) – unlisted historical record, rare. The typical habitat characteristics of the Tidewater Mucket are similar to those of the Yellow Lampmussel according to the NYNHP. The NYNHP notes that this mussel species has not been documented in the Hudson River since prior to 1979, and as such, the temporary disturbance to the Poesten Kill for Alternatives B1 and B4 is not likely to affect the Tidewater Mucket.
- Green Rock-cress (*Boechera missouriensis*) – unlisted historical record, rare. Green Rock-cress historically grows in habitat that exhibits open shale and chert ledges. The species was last observed in 1817 in Troy. The manmade vertical sheet pile and concrete walls of the Poesten Kill are not likely to support Green Rock-cress.
- Handsome Sedge (*Carex formosa*) – unlisted historical record, rare. The NYNHP conservation status is Critically Imperiled in NYS. The typical habitat characteristics of Handsome Sedge are documented by the NYNHP to include forests, forest edges, road sides, or less frequently in open meadows. The soils vary from fairly dry to mesic to occasionally seasonally or perennially wet although these wet soils are often actually adjacent to the populations. It occurs in areas where the bedrock is limestone or the soils are calcareous. Previous sightings of the species in the vicinity of the project area are undocumented. The bedrock in Troy along the Hudson River is primarily composed of shale. The species is not likely to exist within the project area.

4.4.8.3.(2) Federally-Listed Endangered and Threatened Species

The USFWS was consulted via their Information, Planning and Conservation (IPAC) System, accessed online in April 2014. The Northern Long-Eared bat was identified as an endangered species that could potentially exist within the project area. The project area is approximately 15.6 miles from the nearest known hibernaculum and ranges in elevation from 25 to 30 feet.

The clearing limits of the reasonable alternatives will result in the following approximated tree removals (3 inch diameter breast height or greater):

Alternative A1: 14 trees
Alternative A2: 7 trees

Alternative B1: 4 trees
Alternative B4: 4 trees

The trees to be removed are stand alone or part of a small cluster and do not contribute to a large combined canopy area. Contract documents will specify that the trees be cut down between October 31 and March 31.

A larger project area, including a southern alternative between Main Street and NY Route 378, was approved by FHWA as part of a batch submission. A second Endangered Species Act (ESA) Project Review Request is currently under review by NYSDOT and FHWA, and was submitted to reflect the diminished project scope (removal of southern alternative) and the change in regulations in regards to

mitigation. The anticipated determination is that the proposed project “may effect, but is not likely to adversely affect” the Northern Long-Eared bat or its habitat.

The endangered Atlantic and Shortnose sturgeon (*Acipenser oxyrinchus* and *Acipenser brevirostrum*) are also provided protection under the Endangered Species Act in all of New York State. Based on the proximity of the project site to the Hudson River, the National Marine Fisheries Service was contacted to determine whether the proposed work would have an effect on the Atlantic or Shortnose Sturgeon. The National Marine Fisheries Service has confirmed that these species are not likely to exist within the area of potential effect for this project. No in-stream work restrictions were identified in relation to the sturgeon.

Although the Bald Eagle has been removed from the State and Federal endangered species lists, it is still afforded protection under the Bald and Golden Eagle Protection Act (BGEPA). Mapped data from the NYSDEC’s 2000-2005 Breeding Bird Atlas Survey was reviewed and a Bald Eagle Habitat Screening form has been completed and is provided in Appendix B. The project area does not intersect with a bald eagle nesting buffer and coordination with the NYNHP indicates Bald Eagle nests are not present in the project area. The Bald Eagle has not been observed in the southern vicinity of the project area, but has been observed in the vicinity of the northern project area. In the northern project area, the proposed road is an extension of the existing land use and is not anticipated to affect the Bald Eagle.

In the January 28, 2016 letter FHWA concurred that “the project will have”No Effect” on the Atlantic Sturgeon, Shortnose Sturgeon, and the Bald Eagle or their habitats. In addition due to the removal of 4-14 trees within the winter cutting window of October 31st to March 31st the project “May Affect but is Not Likely to Adversely Affect” the Northern Long-Eared bat and their habitats.”

Correspondence with the NYSDEC, USFWS and NMFS and documentation from their GIS information databases are included in Appendix B.

4.4.8.4 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 invasives, intentionally or accidentally, during project design and construction.

4.4.8.5 Roadside Vegetation Management

Existing roadside vegetation consists primarily of maintained lawn areas, wooded areas and waste areas. Efforts will be made to replace wildlife-supporting vegetation that is removed in the course of construction.

4.4.9 Critical Environmental Areas

4.4.9.1 State Critical Environmental Areas

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

4.4.9.2 State Forest Preserve Lands

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

4.4.10 Historic and Cultural Resources

4.4.10.1 National Heritage Areas Program

The proposed project is situated within the Hudson River Valley National Heritage Area (NHA). The management entity, the Hudson River Valley Greenway, has been contacted to ensure that the project is consistent with the Heritage Area Management Plan. The project is also located within the limits of the Erie Canalway NHA and the Champlain Valley NHA. The project description was also provided to their management entities for review and comments. Correspondence with the agencies is included in

Appendix B.

Reasonable alternatives A1/A2 and B1/B4 would result in similar changes to the landscape within the NHAs since the end result is a new two lane road on a new alignment. If alternative A1 is preferred, the alignment utilizes approximately 1,900 feet of the existing East Industrial Parkway, along which pedestrian and minimal streetscape enhancements are proposed. Alternative A1 will have minimal impacts to the NHAs from a visual standpoint.

4.4.10.2 National Historic Preservation Act – Section 106/State Historic Preservation Act – Section 14.09

A number of Cultural Resource Surveys and Reports have been conducted and prepared for the project area. The purpose of these investigations was to provide sufficient background information to determine if properties listed or eligible for inclusion in the National Register of Historic Places NRHP and/or archeological resources were located within or adjacent to the project corridor. The following Cultural Resource Surveys and Reports have been conducted and prepared for the subject project:

A Cultural Resources Reconnaissance Survey Report (CRRSR) by Collamer & Associates, Inc. The title of the report is *PIN 1754.59, Phase IA Cultural Resource Investigation for the South Troy Industrial Park Road, City of Troy, Rensselaer County, New York (01PR05874)* and it was authored by Jeanette Collamer, RPA, Principal Investigator. Fieldwork was done in Fall 2002; the report was completed in January 2003.

A Cultural Resources Reconnaissance Survey Report (CRRSR) by Hartgen Archeological Associates. The title of the report is *PIN 1754.59, Phase IB Archaeological Field Reconnaissance for the Proposed South Troy Industrial Park Road, City of Troy, Rensselaer County, New York (01PR05874)* and it was authored by Tracy S. Miller, Principal Investigator. Fieldwork was done in Summer 2004; the report was completed in October 2004.

A Cultural Resources Site Examination (Site Exam) by Hartgen Archeological Associates. The title of the report is *PIN 1754.59, Phase II Archaeological Site Evaluation for the Rensselaer Iron Works Site, Proposed South Troy Industrial Park Road, City of Troy, Rensselaer County, New York (01PR05874)* and it was authored by Tracy S. Miller, Principal Investigator. Fieldwork was done in Spring 2005; the report was completed in May 2005.

A Cultural Resources Reconnaissance Survey Report Addendum (Addendum) by Hartgen Archeological Associates. The title of the report is *PIN 1754.59, Supplemental Phase IA Research/Historical Context Report, South Troy Industrial Park Road, City of Troy, Rensselaer County, New York (11PR05318)* and it was authored by Tracy S. Miller, Principal Investigator. Fieldwork was done in Fall 2012 and Spring 2013; the report was completed in April 2013.

A Cultural Resources Reconnaissance Survey Report Addendum (Addendum) by Morton Archaeological Research Services for the subject project. The title of the report is *PIN 1754.59 South Troy Industrial Park Road, City of Troy, Rensselaer County, OPRHP 13PR03336, Phase IA Architectural Reconnaissance Field Survey, South Troy Industrial Park Road, Southern Portion and Phase II Site Examination, Albany Iron Works Site (A08340.001728)*, and it was authored by Ann Morton, Principal Investigator and Bruce Harvey, Architectural Historian. Fieldwork was done in August 2013 and the report was completed in April 2014.

Since the preparation of the documents listed above, the project Sponsor has reduced the scope of the project to remove the southern alternative, which includes the area south of Main Street. The surveys have identified one (1) property listed on the NRHP, one (1) thematic group eligible for listing on the NRHP, and one (1) archeological site eligible for listing on the NRHP within the APE of the reasonable alternatives. The properties are described below. The properties are shown in relation to the reasonable alternatives and the resultant APE in Appendix B.

An existing stone arch bridge over the Poesten Kill is located immediately east of the stream crossing proposed under reasonable alternatives B1 and B4. The structure will not be affected during construction and the proposed bridge will provide pedestrians with an opportunity to view the structure. See Section 4.4.10.5 below for more information.

A Finding Document was sent to SHPO August 27th 2015, summarizing that based on NYSDOT review and recommendation, the undertakings of this project comply with the criteria set forth in 36 CFR 800.5(b) and will have a “No Adverse Effect” on cultural resources. More information was requested by SHPO on October 6, 2015 along with a conditional approval. Additional information regarding the existing railroad bridge was submitted and reviewed. In correspondence received November 23, 2015, SHPO concurs with the “No Adverse Effect” findings and no additional consultation will be required. The January 28, 2016 letter from FHWA concluded that “this undertaking by avoiding known pre-contact archeological and historic sites will have *No Adverse Effect* to properties on or eligible for inclusion on the National Register of Historic Places.”

4.4.10.3 Architectural Resources

The Burden Iron Works Office Building (90NR00980) on Polk Street north of Main Street is listed on the NRHP and is located adjacent to reasonable alternatives A1 and A2. Alternative A1 proposes to utilize the existing East Industrial Parkway on the west side of the Burden Iron Works Office Building, while alternative A2 proposes a roadway on a new alignment on the east side of the building. Alternative A1 will have no impact on the Burden Iron Works property but will result in minor alterations to the roadside landscape with the installation of a sidewalk on the west side of East Industrial Parkway. Alternative A2 will require a strip taking along the Burden Iron Works property with no impact to features or structures on the property. Alternative A2 proposes a sidewalk between the Burden Iron Works Office Building and the proposed South Troy Industrial Park Road.

The South Troy Industrial Buildings thematic group, which was established through a programmatic agreement between the City of Troy and the SHPO, has been determined eligible for listing on the National Register of Historic Places. None of the buildings have been determined eligible individually. One of the buildings within the thematic group is within the APE for reasonable alternatives B1 and B4, the former Fuller Warren/Clinton Stove Works building on the Bruno Machinery Property located at the west end of Madison Street. The construction of alternatives B1 and B4 will require the partial demolition of one building on the Bruno Machinery Property. Alternative B4 is slightly west of alternative B1 and will subsequently require more of the building to be demolished. According to a former property owner, the Bruno Machinery building was built post 1970. The integrity has been compromised by recent modernization and the addition of new siding. A site visit by the New York State Historic Preservation Office (SHPO) was conducted in August 2004 to review the proposed impacts. Following the site visit, the SHPO issued an opinion that no impacts to historic structures are anticipated with Alternatives A1 and B4. The letter of opinion stipulated that prior to demolition the brick walls on the Bruno Machinery property must be photo-documented and submitted to the SHPO for filing. The 2004 SHPO opinion is included in Appendix B. The January 28, 2016 letter from FHWA concluded that “this undertaking by avoiding known pre-contact archeological and historic sites will have *No Adverse Effect* to properties on or eligible for inclusion on the National Register of Historic Places.”

A number of National Register Listed or Eligible structures are located adjacent to the APE of the reasonable alternatives, as listed in Table 4.4-A below.

#	Parcel #	Owner	Location	Approximate Date
1	111.59-2-1	Hudson-Mo. Ind. Gateway (Museum)	Polk St.	19 th century
2	-	Burden Iron Co. Lower Works	Polk St	19 th century
3	111.36-5-2	Troy Slag (B.I. Cooper shop)	Monroe St.	late 19 th century
4	111.28-8-1/1	F.C.Bruno (Clinton Stove)	Madison St.	19 th century

Table 4.4-A - National Register Eligible or Listed Properties Inside or Adjacent to APE				
#	Parcel #	Owner	Location	Approximate Date
5	111.28-4-1	Scolite Internl. (Ludlow Valve Mfg)	Madison St.	19 th century
6	100.84-2-2	K.C. Refrig. Transpt. (Freight Ho)	Jefferson St.	19 th century
7	100.76-9-24	B. Goldberg (Internatl. Shirt & Collar)	Adams St.	19 th century
8	-	CSX RR Bridge Poesten Kill	First St.	19 th century
9	111.28-5-1	Colehamer & Fellows Inc.	First St.	late 19 th century
10	111.28-5-4	K.C. Refrigeration Transport	Madison St.	19 th century
11	111.28-5-2	Townhouse	301 First St.	19 th century
12	111.28-9-2	Storefront (VFW Post)	305 First St.	mid 19 th century
13	111.36-1-1	Interstate Commodities	7 Madison St.	mid 19 th century
14	111.28-5-3	Mac & Van Garage	Madison St.	late 19 th century
15	111.36-10-1	V.M. & A.F. Choppy (Fortress)	1 Jackson St.	late 19 th century
16	111.44-1-1	V.M. Choppy & Sons	4 Van Buren St.	20 th century
17	111.52-1-1	Public School 12	First St.	20 th century
18	111.52-6-1	B. Fisher/Troy Fire Proof	Polk St.	20 th century
19	-	Townhouse	Polk St.	19 th century
20	111.60-2-24	S. & D. Grygatis	S. River St.	19 th century
21	111.60-2-23	F. & M. Pszeniczny	S. River St.	20 th century
22	111.60-2-22	J. & R. Flur	S. River St.	19 th century
23	111.60-2-21	J.P. Novak & W. Rosenkrans	S. River St.	20 th century
24	111.60-2-20	L. & A. Winarowski	S. River St.	19 th century
25	111.60-2-19	T.S. Falsen	S. River St.	19 th century

4.4.10.4 Archeological Resources

The Rensselaer Iron Works Site (08340.001704) is partially located within the APE for reasonable alternatives B1 and B4 and is eligible for listing on the National Register under Criterion D – “It has yielded, or is likely to yield, information important in history”. The Site Exam, conducted in May of 2005, identified twenty-two archaeological features associated with the steel rolling mill built here in 1846. A Phase III data retrieval investigation was recommended for the portion of the site within the project APE; however the Phase III was not conducted prior to a 2008 fire that destroyed the Rensselaer Iron Works building immediately adjacent to the alternative B1 and B4 alignments. After the fire, building and fire debris that included large timbers, asphalt and brick were bulldozed into the open 2005 Phase II excavations. The portion of the site to be impacted by the road no longer retains enough integrity to answer research questions. Therefore, no further archeology for the portion of the Rensselaer Iron Works Site within the APE of the reasonable alternatives is recommended. The SHPO concurred with this recommendation in July 2013 and a copy of their opinion is provided in Appendix B. The January 28, 2016 letter from FHWA concluded that “this undertaking by avoiding known pre-contact archeological and historic sites will have *No Adverse Effect* to properties on or eligible for inclusion on the National Register of Historic Places.”

4.4.10.5 Historic Bridges

Reasonable alternatives B1 and B4 propose a new bridge over the Poesten Kill adjacent to BIN 7202520, which is a National Register Eligible historic railroad bridge. The structure was constructed ca. 1911 and is owned by CSX Corporation. The bridge is significant under Criteria C in the area of engineering as a representative example of early twentieth century closed-spandrel arch bridge construction.

The structure was inventoried in the 2003 Phase 1A Report by Collamer and again referenced in the Phase 1B Report by Hartgen. The roadway was determined at the time to have no physical impact on the rail structure. Based on preliminary bridge plans developed, this is still the case. West of the bridge the Poestenkill channel empties in to the Hudson River. That section of the creek is lined with retaining

walls. Approximately 12 to 15 feet of the wall is a combination of laid up stone walls, with the remainder to the Hudson lined with steel sheet piling and concrete walls. The stone walls are not integral to the railroad structure. This portion of the wall is in fair to poor shape. The new roadway has been laid out to span over this section of wall but may require some repair or replacement to ensure its integrity to hold the stream channel intact. Again, though, the railroad structure proper will not be affected.

From a visual aspect, the railroad bridge up stream side is fully visible from the First Street Bridge over the Poestenkill. That view would not be affected by the proposed project. Downstream the railroad bridge is visible only to Hudson boat traffic. The new highway bridge would partially obscure that view. Dense vegetation hides the view from the downstream channel banks. The Fane salt storage area is completely fenced and secure prohibiting any public access, or view, to the downstream side from the northwest. The proposed bridge over the Poesten Kill will provide pedestrians and other users the opportunity to view the historic structure. The hydraulic opening of the proposed bridge will be equal to or greater than the existing opening between the vertical stream banks so as not to impede flow conditions in the Poesten Kill.

A Finding Document containing this additional information regarding NRE historic railroad bridge was sent to SHPO August 27th 2015, with the recommendation that the proposed action will have a "No Adverse Effect". More information was requested by SHPO on October 6, 2015 along with a conditional approval. Additional information regarding the existing railroad bridge was submitted and reviewed. In correspondence received November 23, 2015, SHPO concurs with the "No Adverse Effect" findings and no additional consultation will be required. The January 28, 2016 letter from FHWA concluded that "this undertaking by avoiding known pre-contact archeological and historic sites will have *No Adverse Effect* to properties on or eligible for inclusion on the National Register of Historic Places."

4.4.10.6 Historic Parkways

This project does not have the potential to impact any Historic Parkways.

4.4.10.7 Native American Involvement

As previously noted, the project scope was expanded in 2009 to include a southern connection. When this occurred, additional Cultural Resource testing was completed for the expanded APE. During the Phase 1A background investigations and Phase IB subsurface testing, the *South Troy Precontact Site (08340.020087)* located on the County Waste property, west of Water Street and south of the Wynants Kill, was identified. The site contained at least ten Precontact features. Based on the recommendations of the State Historic Preservation Office (SHPO), with consultation from the Tribal Historic Preservation Office (THPO) of the Stockbridge-Munsee Community Band of Mohicans, FHWA has determined that if impacted, the site would require an individual 4(f) evaluation. Based on this information, the City determined that avoidance of the site was the most prudent course of action.

Both the Delaware Tribe and the Stockbridge Munsee Community Band of Mohicans have no concerns for the current project as proposed in May 2015. Correspondence is provided in Appendix B.

4.4.10.8 Section 4(f) Involvement

Through consultation with both the Stockbridge-Munsee Community Band of Mohicans and the SHPO, FHWA has determined that the *South Troy Precontact Site* is considered a Section 4(f) resource due to its importance for reasons other than what can be learned about history or prehistory via data recovery. Therefore, a Section 4(f) evaluation would need to be performed to determine if there are any other reasonable alternatives for the project that avoid the use of the site. Upon further consideration, the project sponsor determined that the site could be avoided by revising the project scope while still achieving the project objectives. Therefore, a Section 4(f) evaluation was no longer required for this resource.

Reasonable Alternative A-1 extends along the west side of the National Register-Burden Ironworks Office Building (the Burden Iron Works Museum, Listing ID 90NR00980. The property is listed on the National

Register of Historic Places and is located within the project's area of potential effect. The project proposes to utilize the existing East Industrial Parkway in this area, which will result in no impact to the Burden Iron Works property. There will be minor alterations to the roadside landscape due to installation of a sidewalk on the opposite side (west side) of East Industrial Parkway.

Sections 4.4.10.2 and 4.4.10.4 summarize the archeological and architectural research and testing for the project area. The *Rensselaer Iron Works Site (08340.001704)* and the former *Fuller Warren/Clinton Stove Works* site were evaluated by SHPO and it was their opinion that a 4(f) evaluation will not be required for archaeological resources. The January 28, 2016 letter from FHWA stated that "the current alternatives proposed do not result in the need for a 4(f) determination."

4.4.11 Parks and Recreational Resources

4.4.11.1 State Heritage Area Program

The proposed project is located in RiverSpark Hudson-Mohawk State Heritage Area. The project location falls within the Hudson-Mohawk Urban Cultural Park; however is not within a designated Primary Historic District. The Burden Iron Works Building is identified as a Theme Attraction in the Heritage Area Management Plan.

The RiverSpark Heritage Area has been contacted, and the Heritage Area Management Plan has been reviewed, to ensure that the project is consistent with the goals identified for the area. The project was initiated in an effort to remove truck traffic from the residential streets and encourage business growth in South Troy, which is consistent with the goals of the urban cultural park program (preservation, education, recreation and economic development).

The Heritage Area Commission, managed by the Hudson Mohawk Industrial Gateway, responded on December 8, 2011 with no significant objection to the preferred design alternatives. The correspondence with the Heritage Area Commission is available in Appendix B.

The reasonable alternatives do not affect the Burden Iron Works Building; however Alternative A1 utilizes the existing East Industrial Parkway on the west side of the building while Alternative A2 is proposed on a new alignment adjacent to the east side of the building. Alternative A1 would result in less visual impact to the Heritage Area and its sensitive features.

4.4.11.2 National Heritage Area Program

The proposed project is located within the Hudson River Valley National Heritage Area (NHA), the Erie Canalway NHA and the Champlain Valley NHA. Refer to 4.4.11.1 Historic and Cultural Resources – "National Heritage Area Program," for detailed information on the Heritage Area, potential impacts, and coordination with the management entity.

4.4.11.3 National Registry of Natural Landmarks

There are no listed nationally significant natural areas within, or adjacent to, the project area.

4.4.11.4 Section 4(f) Involvement

A fishing pier has been constructed at the end of Madison Street on the Hudson River. The pier is open to the public. Reasonable alternatives B1 and B4 will not impact the pier, and access will be maintained during construction.

There are no publicly owned parks or recreational facilities, protected under Section 4(f) of the USDOT Act, in or adjacent to the project area. No further action is required under this section.

4.4.11.5 Section 6(f) 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.

4.4.11.6 Section 1010 Involvement

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

4.4.12 Visual Resources

The project corridor consists of two primary landscape units, Industrial/Institutional Properties and Vacant Land. The primary viewer groups utilizing the project corridor include the recreational viewer, local motorists, employees, and commercial/institutional patrons.

The project area was analyzed for key views which may be impacted by the project. The Industrial/Institutional landscape unit properties generally consist of large buildings with extensive pavement surrounding the facilities. Viewers in this area will consist of employees, patrons, and local motorists. The proposed roadway will consist of an approximately 28 ft wide asphalt roadway, which will be at grade, where possible. The roadway alignment will utilize existing roads where possible. A portion of the proposed alignment is located adjacent to the railroad tracks, and the entire alignment is located along industrial or vacant (formerly industrial) properties. Little vegetation removal will be required. The strip of paving will not impact the views afforded the industrial/institutional facilities, their employees, patrons, or local motorists.

The Vacant Land landscape unit generally has one existing viewer group, local motorists. This land is located in South Troy and will eventually be developed into a light industrial/commercial use. As with the Industrial/Institutional landscape unit discussed above, properties will generally consist of large buildings with extensive pavement lots surrounding the facilities. Viewers in the area will eventually consist of employees, patrons and local motorists. The proposed roadway will consist of an approximately 28 ft wide asphalt roadway, which will be at grade, where possible. The roadway alignment will utilize existing roads where possible. A portion of the proposed alignment is located adjacent to the railroad tracks, and the entire alignment is located along industrial or vacant (formerly industrial) properties. Some vegetation will require removal in these areas, primarily adjacent to the Wynants Kill; however, the overall clearing impact will be minor in comparison to the potential development on these sites. This strip of paving will not impact the views afforded the future light industrial/commercial facilities, their employees, patrons or local motorists.

The proposed project will not change or introduce features that would have a significant adverse impact on the visual quality of the project area. A Visual Impact Assessment will not be required for the proposed project. Viewer groups consisting of the roadway users, industrial/commercial property owners and employees, institutional employees, persons on the Hudson River, pedestrians/bicyclists and area residents will not be adversely impacted by a change in visual quality. The removal of trees and/or vegetation, if necessary, will be minimized and provisions to replace plantings will be incorporated into the landscape plans, as appropriate. In addition, the roadway alignment will require the removal of debris on several of the industrial properties. This will improve the visual landscape from both the land and river. The addition of a bridge structure over the Poesten Kill will have a minimal impact on the visual quality of the area, since bridges currently exist near the proposed bridge location. The proposed bridge will provide pedestrians and other users the opportunity to view the existing historic stone arch railroad crossing to the east.

4.4.13 Farmlands

4.4.13.1 State Farmland and Agricultural Districts

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

4.4.13.2 Federal Prime and Unique Farmland

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.

4.4.14 Air Quality

4.4.14.1 Clean Air Act (CAA)

Procedures outlined in Chapter 1.1 of *The Environmental Manual* (TEM), last updated January 2001 (with Section 8 updates completed in 2012) address the Clean Air Act Amendments of 1990 and guidance from the Environmental Protection Agency (EPA). This project is located in Rensselaer County which is listed as an attainment area for carbon monoxide (CO) and a marginal non-attainment area for ozone (O₃).

A detailed microscale air quality analysis is required for projects that increase traffic volumes, reduce source-receptor distances or change existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards (NAAQS). An intersection screening process is used to determine the need for a detailed air quality study. Based on a review of the screening criteria, all study area intersections screen out from requiring additional analysis based on the intersection control and level of service. Based on the screening analysis, "an air quality analysis is not necessary since the project alternatives will not increase traffic volumes, reduce source-receptor distances or change other existing conditions to such a degree as to jeopardize attainment of the New York State and National ambient air quality standards".

Particulate Matter (PM) is a mixture of substances that include elements such as carbon and metals; compounds such as nitrates, organic and ammonium compounds, and sulfates; and complex mixtures such as diesel exhaust and soil. The NYSDOT Project Level Particulate Matter Analysis Final Policy dated September 2004, included in Chapter 1.1 of TEM, provides guidance for performing a PM analysis. The policy states that analysis is only needed for areas of local air quality concern. The proposed roadway will remove truck traffic from the residential roadway of 1st Street and relocate the truck traffic to the new roadway. The new roadway will serve to reduce the amount of truck traffic on 1st Street and therefore improve air quality for residents.

A mesoscale analysis is conceptually similar to the microscale air quality analysis; however, it covers a larger geographical area, typically larger than the immediate project area. In general, a mesoscale analysis identifies impacts associated with region changes in travel patterns associated with a project. In addition to carbon monoxide, a mesoscale air quality analysis monitors for volatile organic compounds (VOC) and nitrogen oxides (NO_x). Based on screening criteria outlined in TEM, a mesoscale air quality analysis is generally required for projects involving the following:

- HOV lanes vs. general use lanes,
- New or significant modifications to interchanges on an access-controlled facility,
- Large scale signal coordination,
- Significantly different VMT (including the No-Build),
- Widening to provide additional travel lanes more than a mile in length.

Based upon the above criteria and since the development of the connector roadway redistributes traffic locally and does not extend to the regional network; this project does not meet the requirements for a mesoscale analysis.

4.4.15 Noise

The proposed reasonable alternatives A1, A2, B1 and B4, provided an alternate route to the local street network. The new roadway connection will result in a decrease in through traffic volumes on 1st Street, where sensitive noise receptors exist. Increases in travel will occur on East Industrial Parkway which is located within an industrial area. Based on the Updated *Noise Analysis Policy and Procedures* (April 2011) outlined in *The Environmental Manual* (TEM) published by NYSDOT, industrial areas are classified

as Activity Category F, which are not sensitive to noise. As such, a detailed noise study is not needed.

4.4.16 Energy

Energy use is considered in terms of fuel consumed by vehicles using the subject facility (long term energy impacts) and fuel required by equipment to construct and maintain the facility (short term energy impacts).

4.4.16.1 Short Term Impacts

The short term impacts created by the proposed project are related to construction energy. The natural resources expected to be required for the construction of the roadway include sand, gravel, and crushed stone for the road base courses, and pavements; bitumen and concrete for the pavements; lumber for concrete formwork; and topsoil for slopes. Energy uses during the construction of the road will include fuels and lubricants for equipment.

4.4.16.2 Long Term Impacts

The build alternatives for this project were directed toward improving traffic conditions in the South Troy area. Currently, industrial and commercial truck traffic travels down one-way city streets with several stop lights located at cross streets. The build alternatives propose the construction of a two-way road with stop signs. No stops will be required between Main Street and Adams Street. This will reduce delays and subsequently the energy consumption of vehicles traveling in the area.

Construction of the proposed alternatives will not result in the addition of traffic to the general project area, but instead a shift of the majority of truck traffic from the residential streets to the industrial area will occur.

The proposed road will also reduce the number of accidents in the area therefore reducing delay and improving operation of the roadway thus saving energy. The number of accidents will be reduced through the removal of most the commercial/industrial truck traffic from the residential streets to a roadway intended for commercial/industrial use.

This project will not result in an increase in the number of vehicle miles traveled (VMT), generate additional vehicle trips or significantly affect land use development patterns. The project would generally reduce accident-related delays that would result in incrementally improved operating efficiencies as measured by average miles traveled per gallon of gasoline consumed. Therefore, the project would have a beneficial impact on long term regional energy resources.

4.4.17 Asbestos

4.4.17.1 Screening

An asbestos screening was conducted for each of the preferred construction alternatives for the South Troy Industrial Park Road. The objective of this screening was to determine the potential for encountering asbestos containing materials (ACM) in areas that would be affected by the proposed construction.

A consultant will be retained for a sampling/testing report for the building to be demolished and the bridge, if the "as built" are not available or insufficient. If asbestos is determined to be present on the project, an Asbestos Special Note and Specifications will need to be prepared by NYSDOT personnel or a consultant with an Asbestos Designer License.

4.4.17.2 Assessment and Quantification

No as-built drawings or record plans of the existing pavement, shoulders, subgrade, underground utilities, buildings or bridges within the project area were available for review.

Reasonable alternatives A1 and A2 do not require the removal of any buildings or structures. No asbestos containing materials (ACMs) are anticipated to be encountered during construction of these alternatives. Reasonable alternatives B1 and B4 will both require the partial removal of a building. The interior of the building has not been inspected for asbestos. It is anticipated that the buildings could contain ACMs. The buildings will require inspection of all potential ACMs during detailed design.

4.4.17.3 Mitigation Summary

No special site specific variances are anticipated for this project. Existing Departmental blanket variances or existing variances will be sufficient for this project.

4.4.18 Contaminated and Hazardous Materials

A Hazardous Waste/Contaminated Materials Site Screening 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 of a release of any hazardous substances or petroleum products into structures on the property 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, aerial photographs, Sanborn Fire Insurance maps, topographic maps and a site walkover.

4.4.18.1 Hazardous Waste

A "Phase I Hazardous Waste Assessment Technical Report", was completed in July 2002 for the project area spanning from Main Street to Adams Street in accordance with Chapter 5 of the EPM. The assessment revealed the following evidence of Recognized Environmental Conditions (RECs) in connection with the project area:

- The project corridor and surrounding area were historically utilized for heavy industrial operations for ±150 years. These operations included several iron mills and coal gasification plants, which are generally considered "high risk." Limited information was available regarding former chemical usage, waste generation and/or disposal of hazardous substances. As such, some environmental risk is assumed.
- Based on subsurface investigations that have been performed at properties along the project corridor, it appears that soils in the project area have been adversely impacted by various industrial activities. It appears that much of the soils in the project area consist of slag, a fused glassy material that is produced when a metal is separated from its ore during smelting. The slag is believed to have been historically used as a fill material in the project area.
- Various industrial activities, including a scrap metal storage yard, were observed operating in the project area. These activities have the potential to present unfavorable environmental conditions in the project area.

Based on these findings, it was determined that conditions exist along the project corridor that warranted further investigation. A limited Detailed Hazardous Waste /Contaminated Materials Assessment (Phase II) subsurface investigation was performed in 2005. This investigation characterized soils that will be acquired within the proposed ROW, may be disturbed during construction activities and/or may come into

human contact. Twenty borings were advanced and select samples collected using a Geoprobe™. Samples were collected from six of the borings for laboratory analysis. All of the samples were analyzed for metals and PCBs and three of the samples were analyzed for VOCs and SVOCs.

The analytical data from the soil samples submitted for testing indicates that VOC and SVOC contamination is only likely to be encountered in the area of SB-2, and heavy metals in exceedance of NYSDEC standards are likely to be encountered along most of the proposed ROW. Boring SB-2 is located at approximate station A1 32+00, as shown on Figures HW-1 to HW-6 in Appendix B. NYSDEC has indicated that a soil vapor extraction system will most likely be installed in the area of SB-2. The system should be installed to avoid interference with the proposed roadway. In the area of SB-2, it is recommended that an environmental monitor be present during excavation to screen soils with an organic vapor meter and separate contaminated soil from non-contaminated soil. All petroleum-contaminated soils encountered should be segregated, tested and classified per NYSDEC criteria. Staged soils suspected to be contaminated with petroleum should be adequately covered to prevent precipitation, runoff, and volatilization of suspect organics. Adequate cover should remain until either the analytical results reveal that the soil is not petroleum contaminated or a determination can be made concerning the disposition of the contaminated soils.

The subsurface investigation was designed to characterize soils along the preferred alignment, which at the time was comprised of reasonable alternatives A1 and B4. Soils were not tested along the A2 alignment; however, the historic and current use is similar to the A1 alignment and it is anticipated that similar conditions exist. The hydrocarbons identified in samples from boring SB-2 have the potential to also affect the A2 alignment, which is within 100 feet of the A1 alignment in this area. Should reasonable alternative A2 become preferred, additional soil testing is recommended in this area to determine whether a soil vapor extraction system or other remediation techniques will be required. Reasonable alternatives B1 and B4 follow similar alignments and the results of this analysis will not have an effect on the identification of a preferred alternative.

Due to the time that has lapsed from the initial hazardous waste investigations, the project area has been re-screened for the possible presence of hazardous materials by review of a July 2015 Environmental Database Search. Based on the federal and state environmental databases searched, the reported incidents that have occurred since the initial project area screening are not likely to have further impacted the project area.

4.5 Construction Effects

Temporary construction impacts for the proposed project which could arise are summarized in the following table along with the nature of the potential effect and proposed associated mitigation.

Table 4.5-A - Summary of Potential Temporary Environmental Impacts and Mitigation – Construction Period		
Resource	Potential Impact Synopsis	Mitigation Proposed
Stormwater Management	Potential for erosion and sedimentation	Best management practices will be followed to control pollution and sediment

Table 4.5-A - Summary of Potential Temporary Environmental Impacts and Mitigation – Construction Period

Resource	Potential Impact Synopsis	Mitigation Proposed
Air Quality	Temporary dust and construction vehicle exhaust	Appropriate mitigation for excessive idling of construction equipment and fugitive dust control will be employed. Wetting of exposed soil will minimize blowing sand. In addition, the contractor will be required to keep equipment maintained and operating efficiently in a clean manner to mitigate exhaust impacts.
Invasive Species	Potential for the spread of invasive species during their removal and the introduction of new invasive species	Mitigation may include the inspection and cleaning of construction equipment, commitments to ensure the use of invasive- free mulches, topsoil and seed mixes, establishment of native vegetation and control or eradication strategies to be deployed should an invasion occur.
Noise and Vibration	Noise and vibration from construction activities	Advance notification of the construction schedule to the surrounding residents, businesses and institutions to inform citizens when to expect noise and vibrations from the site. Noise abatement measure sin accordance with FHWA standards will be included in construction specifications. Such measures may include appropriate mufflers on all construction vehicles and restrictions on hours of operation.
Asbestos/Hazardous Materials	Use or generation of hazardous materials during construction	Incidental exposure of hazardous materials during construction will be addressed prior to construction commencement, with the development of a hazardous materials management plan. All fuel storage tanks used during construction will be equipped with secondary containment systems. If necessary an environmental monitor will be present during excavation to screen soils.

Table 4.5-A - Summary of Potential Temporary Environmental Impacts and Mitigation – Construction Period		
Resource	Potential Impact Synopsis	Mitigation Proposed
Historic and Cultural Resources	Disturbance to sites caused by construction equipment and vehicles	The sites will be protected as directed by SHPO; documentation prior to construction. Protocol and procedure for the special circumstances of inadvertent discoveries will be adhered to.
Public Safety and Security	Travel of construction vehicles on local roads, pedestrian and bicycle routes	NYSDOT will maintain a safety zone around the construction site. Pedestrian and bicycle traffic will be maintained in accordance with best practices for work zone traffic control.

No adverse long-term impacts to the environment are anticipated as a result of the proposed construction operations. All disturbed areas will be re-graded, reseeded and restored to their original condition once construction activities have ceased.

4.6 Secondary Effects

Indirect (secondary) effects are those which may occur as a result of construction of the proposed South Troy Industrial Park Road. Secondary impacts are defined as being those considered reasonably foreseeable under the National Environmental Policy Act (NEPA), but uncertain as to their timing and extent due to the variable factors of market demand and other growth parameters. In the case of this project, it must be taken into account that the City separately established land use zoning for the study area in 2005 and that, as a result of affected brown field cleanups and ensuing economic conditions and climate, much remains unknown as to the context and intensity of the eventual redevelopment of the 200 total acres of waterfront redevelopment area potentially affected by the project. The project, when complete, provides only about a half mile of new roadway on new alignment. The remainder is basically a formalization or proximate relocation of current driveways and road segments almost solely under public control and in use already. It also has to be understood that the commercially zoned parcels which could be potentially accessed by the availability of the project, if implemented, are alternatively fully accessible through the existing public street system, as well as by the rail and water modes. This evaluation looks both inside the project study area and generally at areas outside its cordon line to weigh possible impacts, both positive and negative, that could be influenced by the project's implementation. The foreseeable period would be 20 years from estimated time of completion of the project.

Redevelopment of the area is being guided by the 2003 South Troy Working Waterfront Revitalization Plan (STWWRP) which compiles the comprehensive set of recommendations and needs for the area. A subsequent rezoning plan adopted by the City is helping to implement the STWWRP recommendations. Each private (or public) development will subsequently undergo its own impact and permitting process pursuant to the City Charter, planning and zoning regulations and the State Environmental Quality Review Act (SEQRA). Redevelopment is anticipated to occur incrementally over the entire 20 year period used for highway design purposes. The STWWRP outlines a number of obstacles to redevelopment which can only realistically be addressed over a multi-year time span. Spare of specific details for each of these individual potential utilizations, much of the discussion herein is necessarily restricted to generic evaluation. Some quantification is available and cited herein from previous studies performed for the City

of Troy and model forecasts from the area Metropolitan Planning Organization, CDTC. In addition, an evaluation “test” plan was established which included general development type and intensity assumptions, in order to provide a baseline for design parameters for the new roadway.

4.6.1 Secondary Socioeconomic Effects

The proposed project has the potential to secondarily affect social conditions, by encouraging clean up and productive reuse of previously developed, but now fallow, land parcels, improving community character and the local economy, and by spurring economic growth across the City. A main overall objective of the project is to provide improved and optimum access to underutilized industrial properties; and, further, to create an alternate truck access to the properties. Providing efficient, safe vehicular access to these parcels will, in turn, provide potential to spur development, growth, and job creation over time. The City’s economy would improve as a result of new and revitalized commercial and industrial development in this area. By attracting business to the area, opportunities for employment and the City’s tax base should be positively affected.

4.6.2 Secondary Social Consequences

Please refer to sections 3.3 and 4.2 for discussions regarding social effects of the project. Quality of life will improve in the residential neighborhoods throughout the project area with the diversion of truck traffic from public streets. Additional commercial traffic would generate noise, air and safety concerns detrimental to residential life in the adjoining neighborhoods. Recreational and non-vehicular access in the project area will be improved with the construction of wide curb lanes to accommodate bicycles and a sidewalk.

As the riverfront district redevelops, it can be reasonably anticipated, reinforced by previous studies, that the proximate residential areas may, in turn, become more desirable for redevelopment. It is conceivable there will be more in and out migration depending on the type of businesses locating in the redevelopment districts. This could encourage neighborhood service sector development for both residents and workers from the various potential, new commercial entities. This would occur over time (in years) and thus no shock impact is expected to the City or the surrounding areas. Community and neighborhood cohesion is maintained because the roadway footprint avoids any intrusion within the residential areas.

On the north end connecting to the Congress Street Bridge, the new roadway would connect to the Congress Street Bridge ramp and several public streets already in use for access to the existing commercial entities in the area. Increased traffic from the redevelopment area would pass by the John P. Taylor low income apartments and a Russell Sage College dormitory. Two of the four Taylor buildings are now closed and the long term future of the two remaining buildings is unclear. These are remaining vestiges of 1960s low income housing which no longer deemed desirable. Further, there are major asbestos removal issues that remain with these buildings which make them infeasible to rehabilitate for other uses. The College is not expected to move or replace their dormitory so increased traffic entering and exiting the area may create a perceived impact over time. The State has no plans to relocate the bridge approaches originally built in the 1960s, which were purposely routed around the College dormitory and Taylor buildings. When the Congress Street Bridge and approaches were constructed, the waterfront was an active commercial – industrial area. Redevelopment will return the demand for access across the Bridge. The scenarios for development are many but it can assumed there will be an increase in traffic on the approaches of about 1000 vehicles per day. As noted elsewhere in this document, a potential additional truck volume based on full build out of all available redevelopment acreage would be in the order of 200- 300 trucks per day. A reasonable assumption is that a third of that new truck volume may use the Congress Street Bridge. Again, these estimates are highly speculative since the composition of development choices and the time span for implementation is largely unknown.

To the south, the recommended alternatives would support traffic entering from Burden Avenue north of a recent Habitat for Humanity housing initiative. There would be increased commercial traffic, over the evaluation period, passing by this neighborhood affecting those buildings with street presence on Burden

Avenue. It should be noted that commercial traffic currently uses this route primarily to access the waterfront, as no easy northern access is available.

4.6.3 Secondary Economic Consequences

Section 4.3 provides more detailed information regarding economic consequences. In general, existing businesses will be positively affected by the project, with improved access provided to parcels currently operating. The underdeveloped County Waste and King Fuels parcels will be vastly improved for development potential, with the new roadway providing vehicular access to these sites from the Congress Street Bridge. The new roadway will also allow more optimal use of these two sites by improving potential for businesses desiring rail, barge, and roadway transportation transfers.

Over 100 of the 200 acres in the redevelopment districts would be directly accessible from the roadway when fully complete. The uniqueness of the site provides opportunities to better utilize water and rail transport as well as, or in lieu of, the highway mode. Those modes are available now and will not be significantly impacted or reconfigured by the project.

The evaluation scenario used to develop traffic forecasts and the layout of the individual parcels does not lead to concluding that major high intensity high impact business would develop. For example, a chip fab facility, or equivalent, is not seen as possible, or desirable, for this location. Rather, it would be a myriad smaller size businesses individually and collectively expanding over time, thus preventing any major impacts within short time frames.

4.6.4 Secondary Environmental Effects

In Chapter 4 of this document are detailed descriptions of direct environmental effects on the physical and natural environment as a result of implementing this project.

Storm water: The project will include its own best practices for handling storm water. Since discharge is to the Hudson River, water quality will be the predominant issue in designing this component of the project. Subsequent land developments may either develop individual practices or perhaps a community practice or practices. The project itself, however, is not expected to significantly impact the overall collection and discharge of storm water to the Hudson. Since the area is highly impervious now and new filtration will be part of the SWPP practice, water quality of the Hudson should generally be positively affected.

Wildlife Habitat: In general, because of the extensive development in urban areas, cumulative and secondary development impacts from highway development on wildlife habitat are usually minor. The project neither creates, destroys, nor fragments any known sensitive habitats.

Historic and Archeological resources: The effects from the project are documented in Section 4.4.11 of this report. Several known sites (e.g. Burden Iron Works) would become integrated with whatever ensuing redevelopment takes place. The project, however, creates no significant ease, or prohibition, of access to these sites. Based on the results from Phase 2 Archeology studies, future land development in the area may have to specifically address location and recovery of pre- and post-contact artifacts, and this may influence the locations of development components during civil site designs of individual affected properties. Redevelopment may create more opportunities to enhance protection and public appreciation of these assets.

Archaeological Site near Mill Street (ref: SHPO: 13PR03336)

This site deserves special discussion in this section. As discussed elsewhere in this document, the site was unexpectedly discovered to contain significant evidence of pre and post contact human occupation. Much is unknown about the site even after several exploratory excavations to determine its boundaries and type of use (temporary or permanently settled). The Resource Evaluation of October 15, 2014 (appended to this document) indicated two desired courses of action, one by SHPO and one by the Stockbridge – Munsee Community Band of Mohicans. SHPO suggested and recommended a recovery be performed for the site to learn more about the human occupation history. The Mohican Nation desire

for the site appears to be that of preservation in place; i.e., potentially, no recovery. After carefully considering this determinations and desires, and based on discussions among SHPO, FHWA, and NYSDOT, the project sponsor decided not to pursue an alternative using this site. Instead, an alternative was chosen that avoids impact to the site. This site is no longer part of the federal highway project; and, since it remains privately owned, it would not necessarily be protected from future development by others. Any future action using that site may be subject to future federal and state permitting, as necessary, and Native American consultation requirements in effect when an action were to be taken. The property owner and current lessee could make separate arrangements to either allow recovery on the site by others, or even a sale, but not as part of this project. The project's preferred alternative does not impact this property directly or indirectly as its termini are public City streets already in existence and use; further, it will not be used for construction staging for this project.

Air Quality: The project creates the potential for inducement of additional traffic to the study area, including larger volumes of trucks. Section 4.4.15.1 of this document discusses direct impacts on air quality affected by the project implementation. The evaluation scenario for design parameters assumed a 50% build- out of development in the waterfront districts. Based on expected level of services at key intersections and the availability of more direct routing for the existing and potentially induced traffic (i.e. leading to reduced VMT through the area overall), the modeled effect is slight improvement in vehicular air quality emissions when compared to a no build and 50% development alternative. As the area develops, each site specific development would have its own potential impact and may require further study under SEQRA.

Visual Aesthetics: The proposed roadway itself has no particular impact on this element. The industrial area, however, is highly visible from the west side of the Hudson River, as well as from some portions of the adjoining residential neighborhoods. However, it is clear that any redevelopment induced by the project and consistent with the STWWRP would be a positive visual enhancement, not only to the residential neighborhoods but to the neighborhoods west of the Hudson River. Many of the vacant developable parcels have abandoned buildings or vestiges of demolitions and are overgrown with vegetation. As those parcels redevelop the physical plants provided will provide a much improved visual landscape. All this would, in turn, enhance property values and desirability for relocating in the immediate area.

4.7 Cumulative Effects

The Council on Environmental Quality (CEQ) defines cumulative effects as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions (40 CFR 1508.7)". For this project the cumulative impact primarily rests with its contribution to inducement of economic redevelopment and how it may impact land use and traffic beyond the immediate study area.

The geographic area of potential cumulative effects of this project is expected to be the Greater Capital District, by improving vehicular access to industrial sites within the project area. This access will ultimately assist to spur growth in the City and, depending on the context of that development, may affect other development in the surrounding region. The City is seeking, primarily new business which is not only compatible with its zoning, but provides both a context for reconnection of the City's historic status as an industrial innovation center and a catalyst for attracting other businesses across the City. Most prominently, and as an example, this could potentially be some alternative energy production which could provide more competitive power generation costs. The entire Capital District has seen an explosion in high tech business, particularly in the nanotechnology, chip manufacturing and alternative energy arenas; a main focal point is to attract business which supports those initiatives. Construction of the project, by itself, provides a means of improved, more direct access to viable, shovel ready commercial parcels.

The project would not necessarily generate or induce significant traffic impacts beyond the study area. The Troy- Menands and Congress Street bridges are the primary interfaces between the study area and the west side of the Hudson. The Troy- Menands Bridge carries over 38,000 vehicles per day and more

14,000 vehicles per day use the Congress Street Bridge. Both structures are owned and maintained by the State of New York. Both are expected to remain on their existing footprints over the next 20-25 years. Traffic on both bridges is highly focused to peak periods in the morning and evening. In order to access the induced growth in the redevelopment districts, and with a continuous north- south alternative roadway available, some traffic may divert from one bridge to the other. However, the numbers are too small to have sensitivity in the region traffic model, or exacerbate or create a significant increased capacity issue. Neither bridge is currently programmed for replacement or reconstruction by NYSDOT, nor does either have load restrictions currently imposed. The project by itself would not drive a major change with these crossings, but inevitably, based on structural considerations, they will receive major work in the future, and this will have to include physical and operational consideration for the connection to the project improvements, as well as traffic volumes expected to be generated from the redevelopment districts.

The north- south traffic movement is that which is primarily affected by the project. Overall, approximately 20,500 vehicles traverse the study area in this direction using First, Second, Third and Fourth Streets. There would be an approximately 25-30% increase in peak hour traffic destined to the redeveloped area during peak periods comparing the full build development scenario with no-build scenario (assumes less private property development). However, in absolute volumes on a daily basis, this represents only about an additional four (4) percent of the total north- south traffic in the study area.

The project provides no operational improvements to the already peak period-congested Mill Street and Morrison Avenue intersections, both under State control. Other diversion of traffic from adjacent and proximate north- south routes through the City, including touring Route 4 (the through truck route as prescribed under New York Vehicle and Traffic Law) were modeled for peak periods as less than two percent of the existing volumes. Commuters and Hudson Valley Community College students are the primary users of these affected south intersections; demand for future operational improvements will largely emanate from these external generators. To the north, additional traffic will be generated across the Congress Street Bridge and 2nd Avenue (Touring Route 32) to the 23rd Street Interchange with I787. Again, the additional peak period volumes at 2037 would be less two percent of current volumes on these facilities. It should be noted that 2nd Avenue in Watervliet is a part of a designated truck access and qualifying route connecting between 23rd Street (I787) and Route 2 to I87 Exit 6 in Latham (Ref. NYSDOT Report, April 2014). This project would generate additional truck traffic using that routing.

Relating to overall land use development patterns, the project could not be expected to create conditions, or environment, for major regional impact. The type and size of businesses that could locate in the waterfront area would not be of the scale that may induce new industry groups or initiatives to the Capital District. Myriad potential and shovel-ready sites comprising thousands of acres exist across the Region. As of this writing, there is no specific inclusion of the waterfront area in the Capital District Regional Economic Development Plan as a priority development area and, thus, eligible for targeted State and federal economic development assistance. It may well be that this area does come into consideration due to its infill and smart growth potential, but that could be several years or more in the making.

Appendices

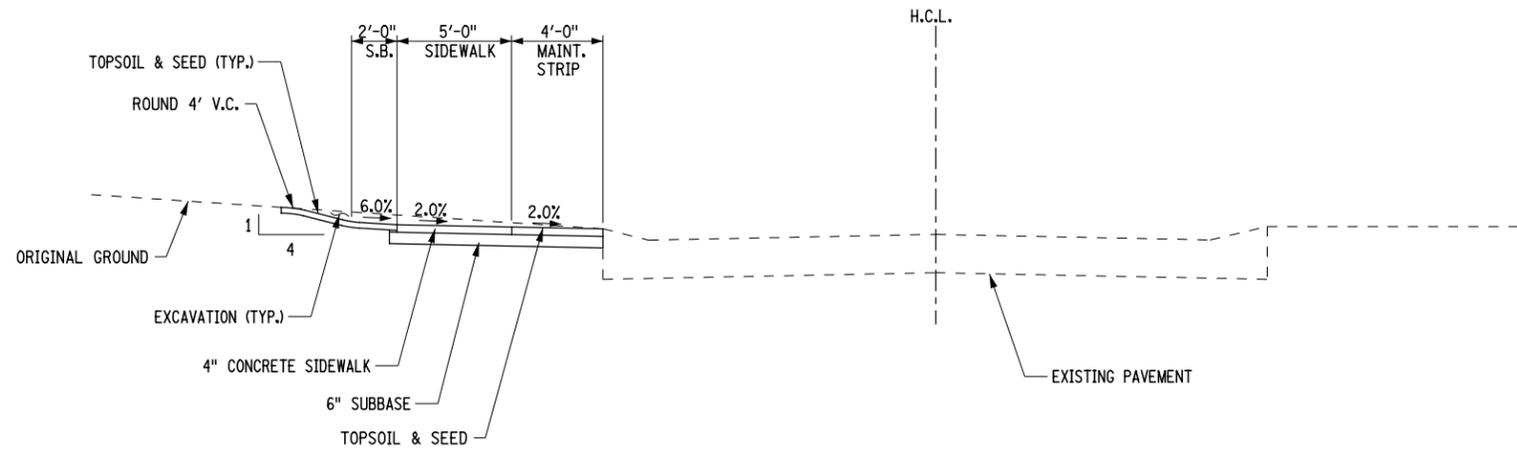
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Appendix A - Maps, Plans, Profiles & Typical Section

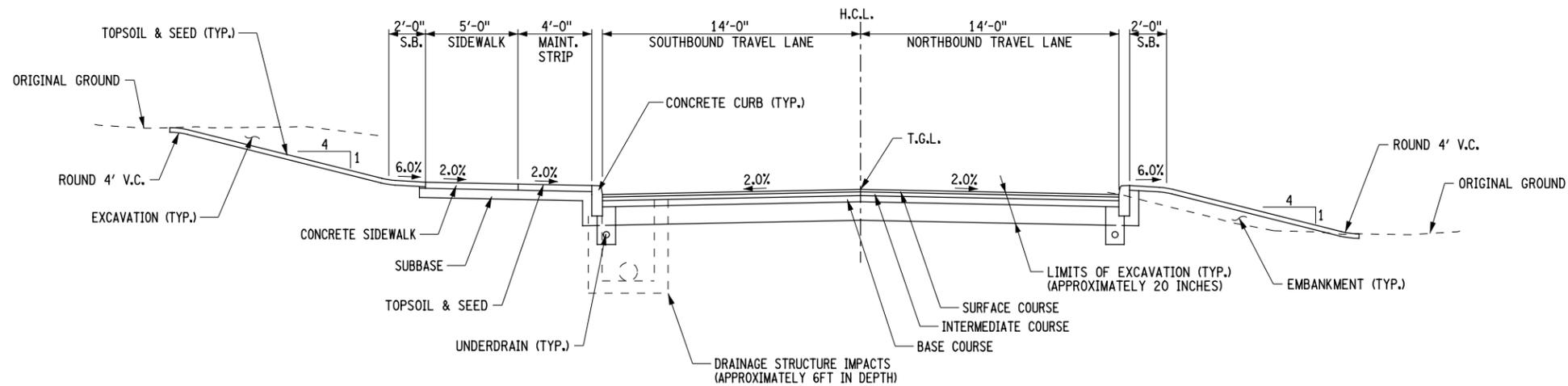
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SIDEWALK SECTION - EAST INDUSTRIAL PARKWAY
 ALTERNATIVE A1
 (NOT TO SCALE)



TYPICAL NORMAL CROWN SECTION - EAST INDUSTRIAL PARKWAY
 ALTERNATIVES A1, A2, B1 AND B4
 (NOT TO SCALE)

PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
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 BIN XXXXX

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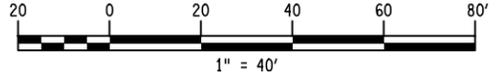
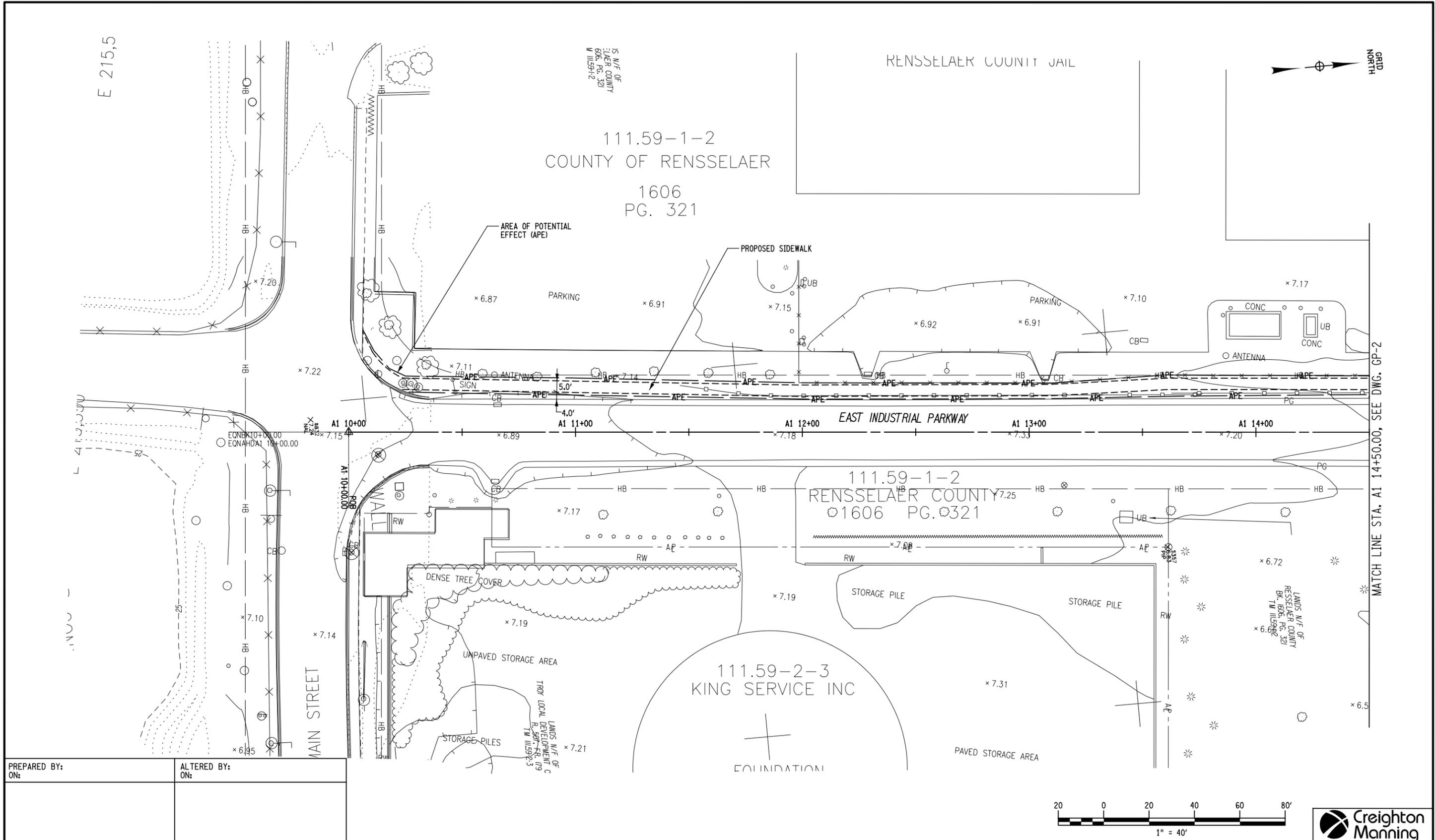
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TYPICAL SECTION

Creighton Manning

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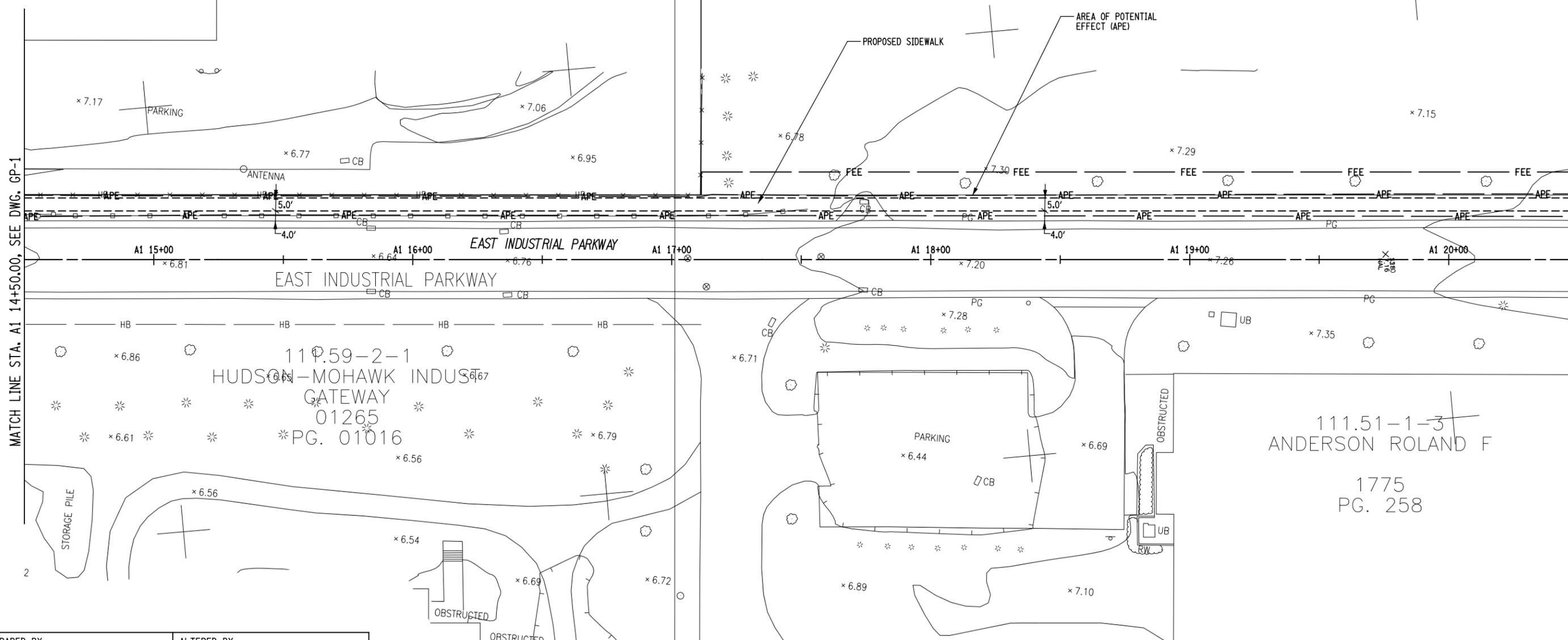
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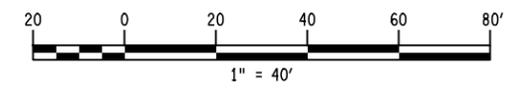
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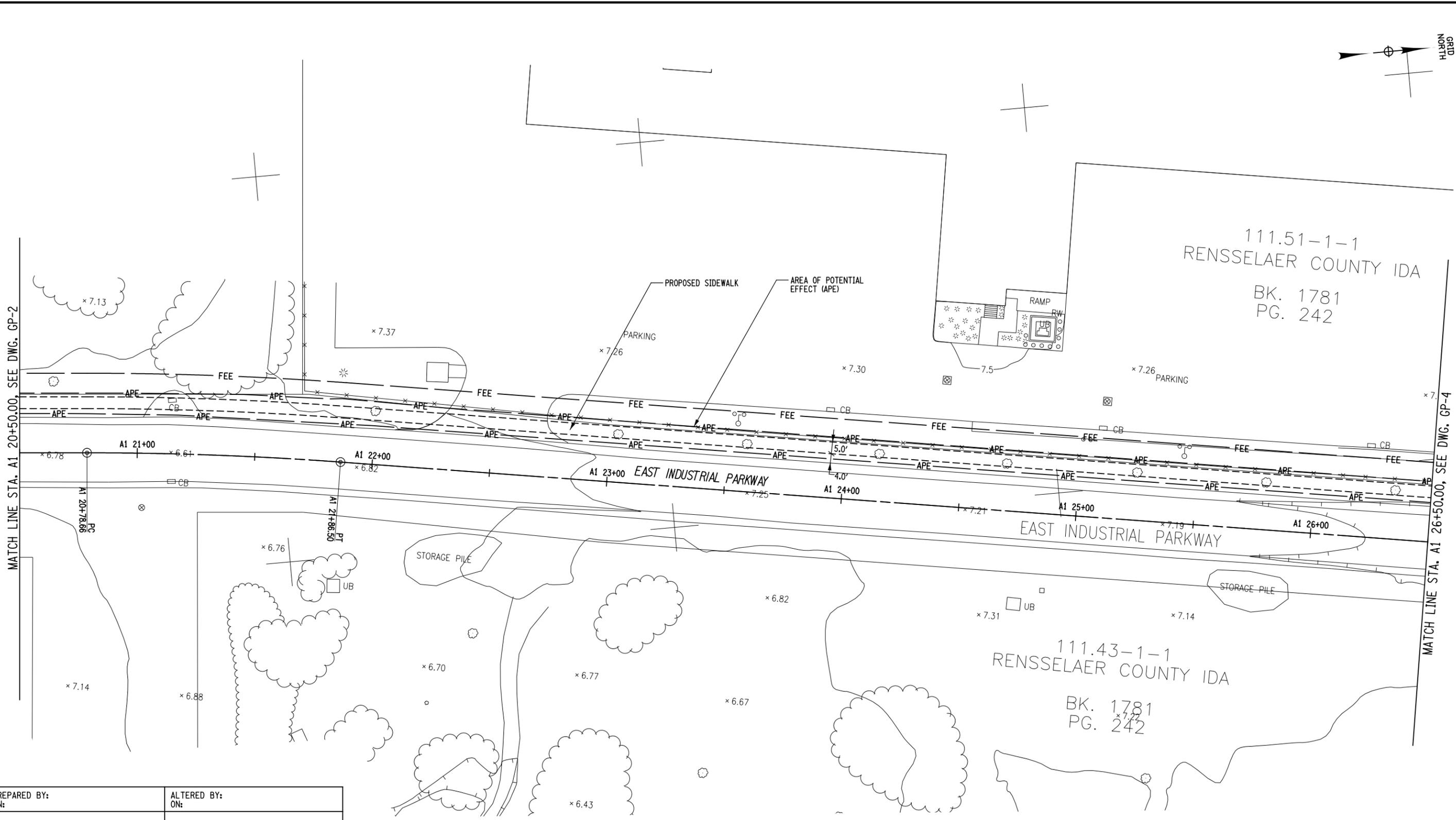
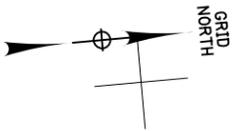
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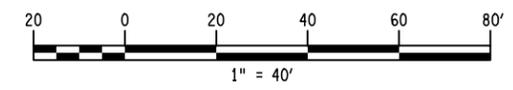
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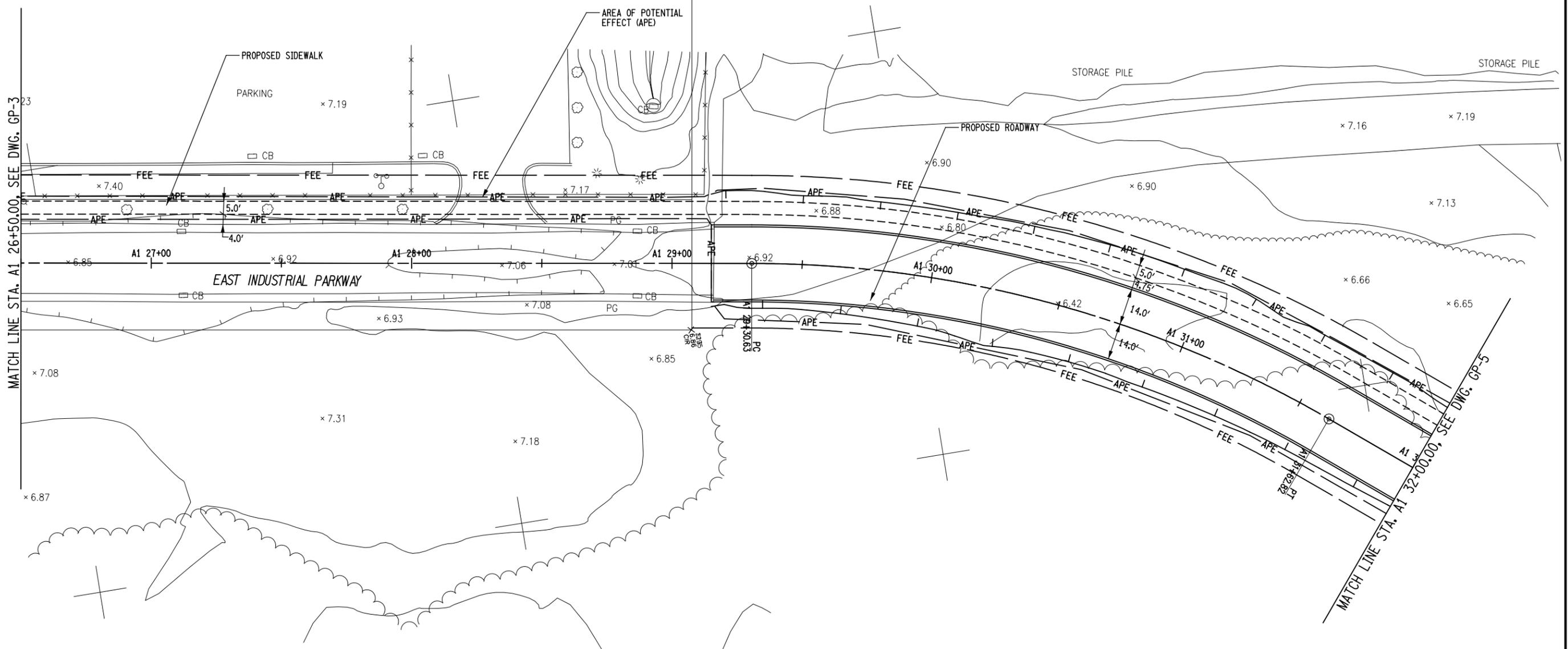


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RENSSELAER COUNTY IDA

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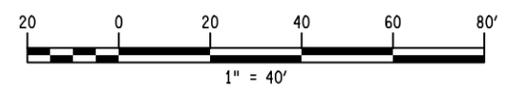
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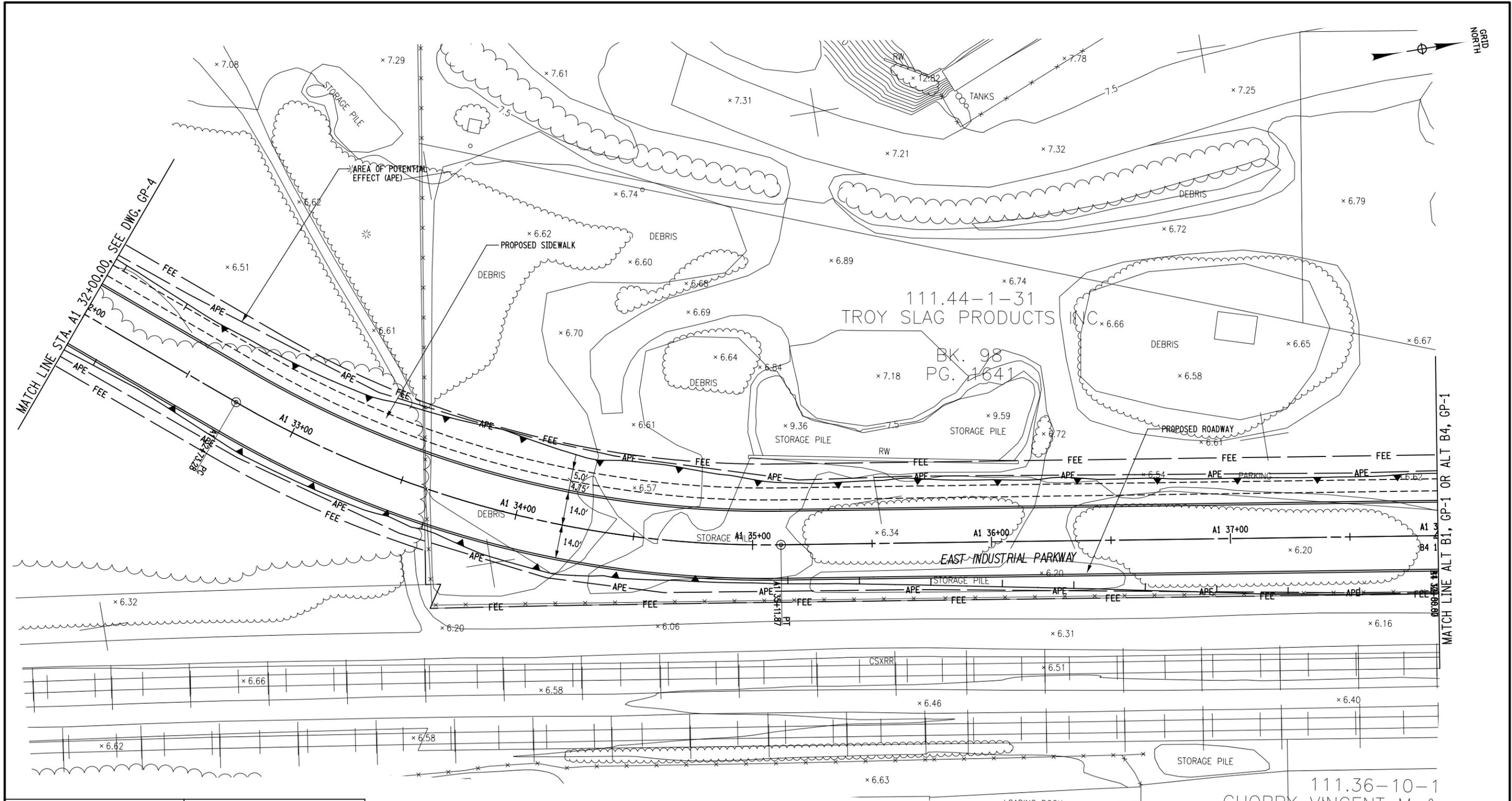
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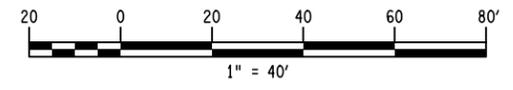
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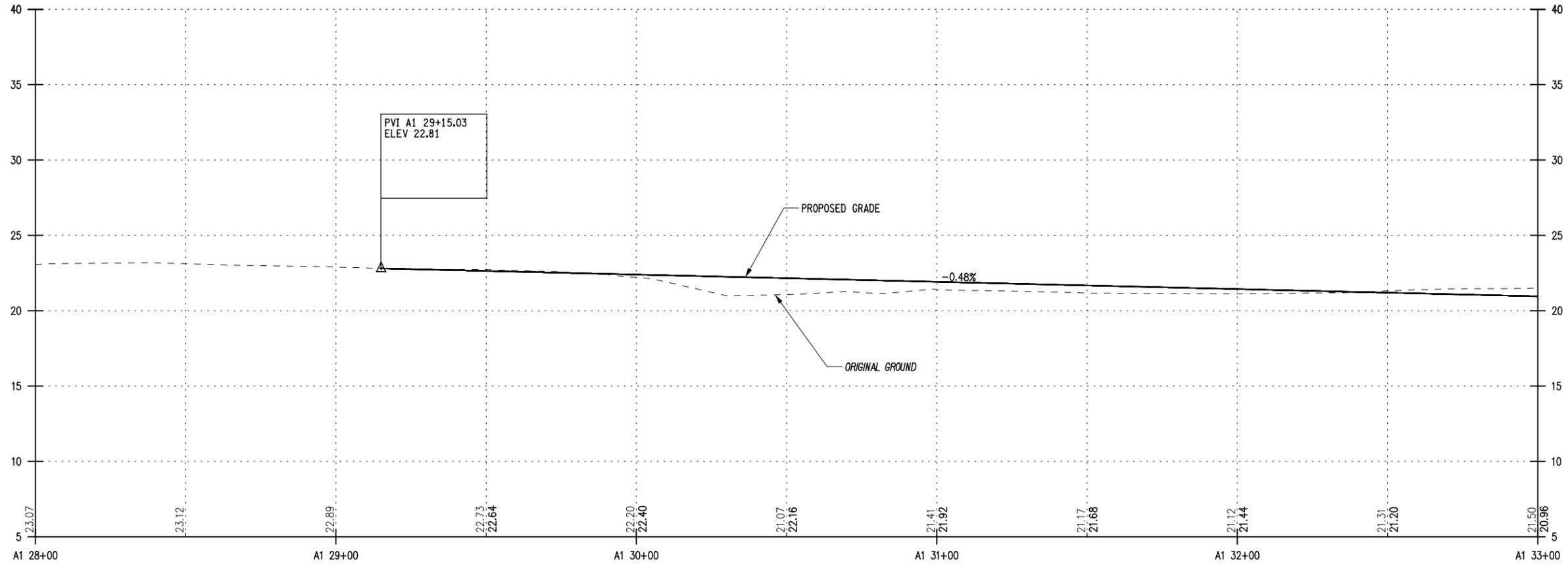
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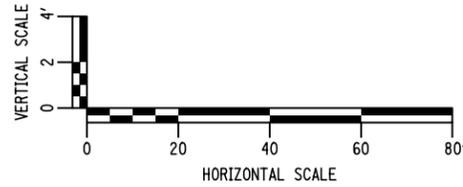


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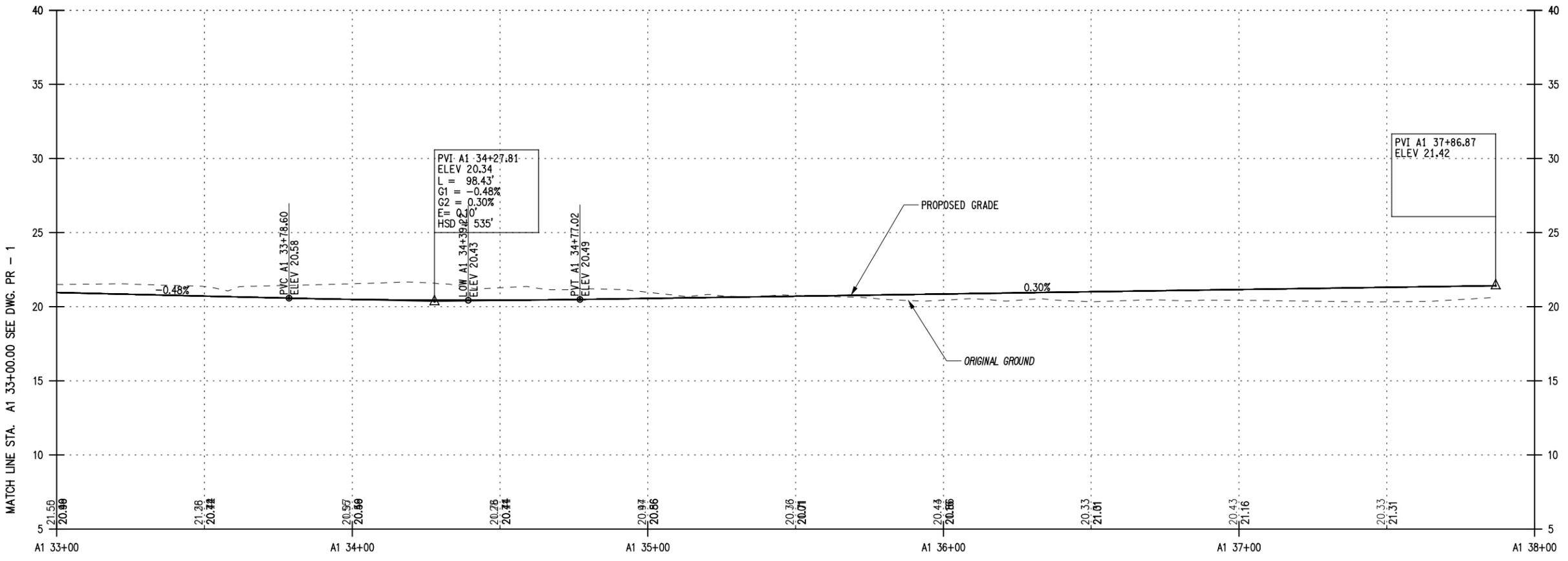
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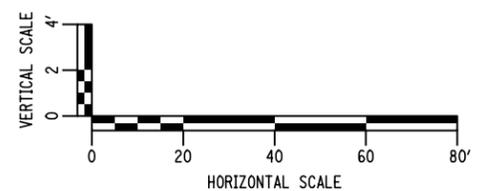
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, 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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 USER = storelli

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
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 BIN XXXXX

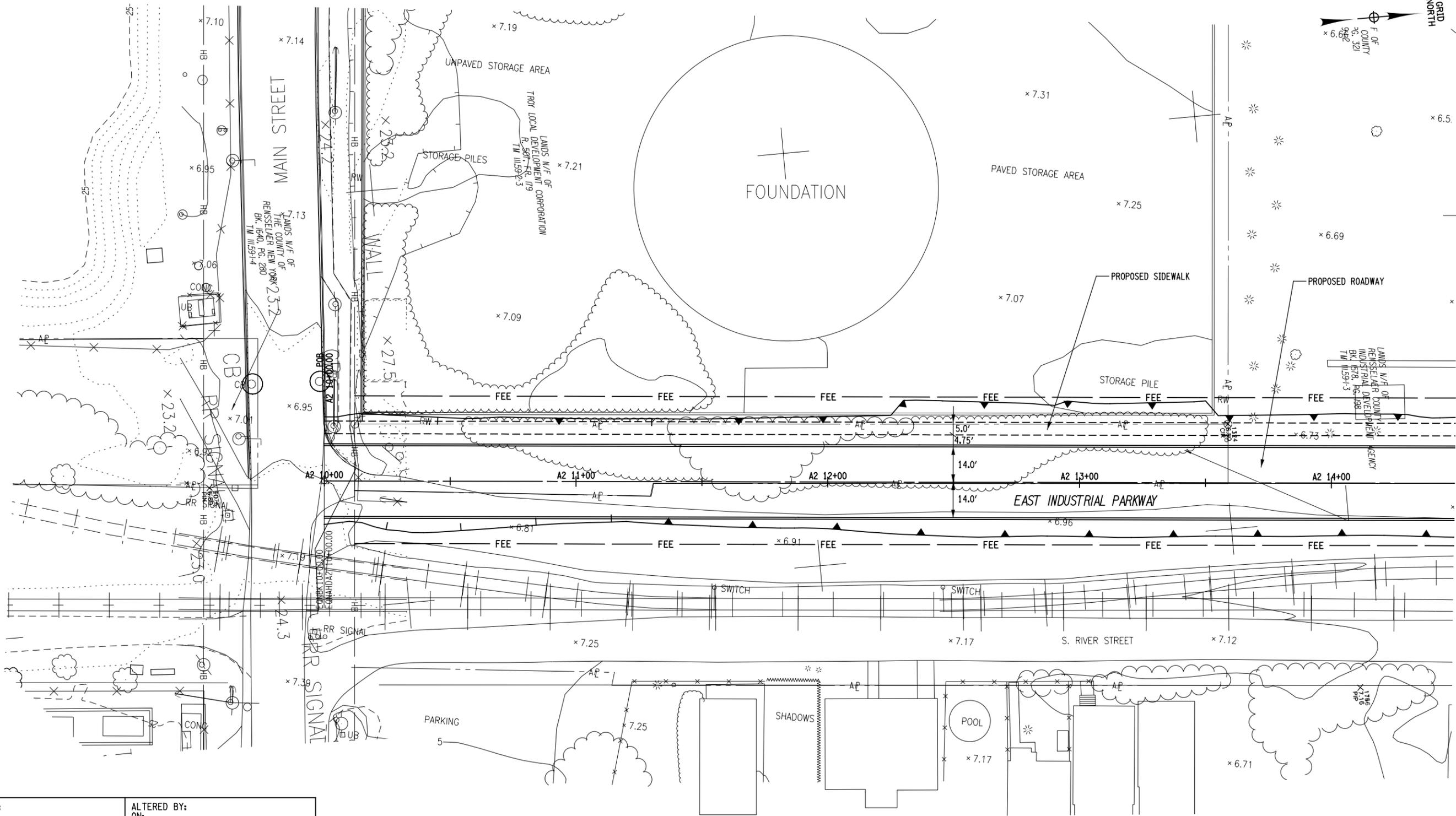
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 ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT. A1-PROFILE

CONTRACT NUMBER
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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.

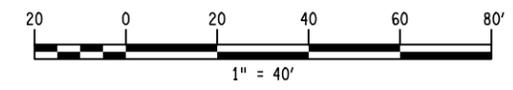
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DESIGN SUPERVISOR **E. WOODS** JOB MANAGER **K. KIRCHER** DESIGNED BY **S. TORELLI** CHECKED BY **K. KIRCHER** ESTIMATED BY **G. GIBBONS** DRAFTED BY **K. DETRICK** CHECKED BY **D. BORJAS**



MATCH LINE STA. A2 14+50.00, SEE DWG. GP-2

PREPARED BY: ON:	ALTERED BY: ON:



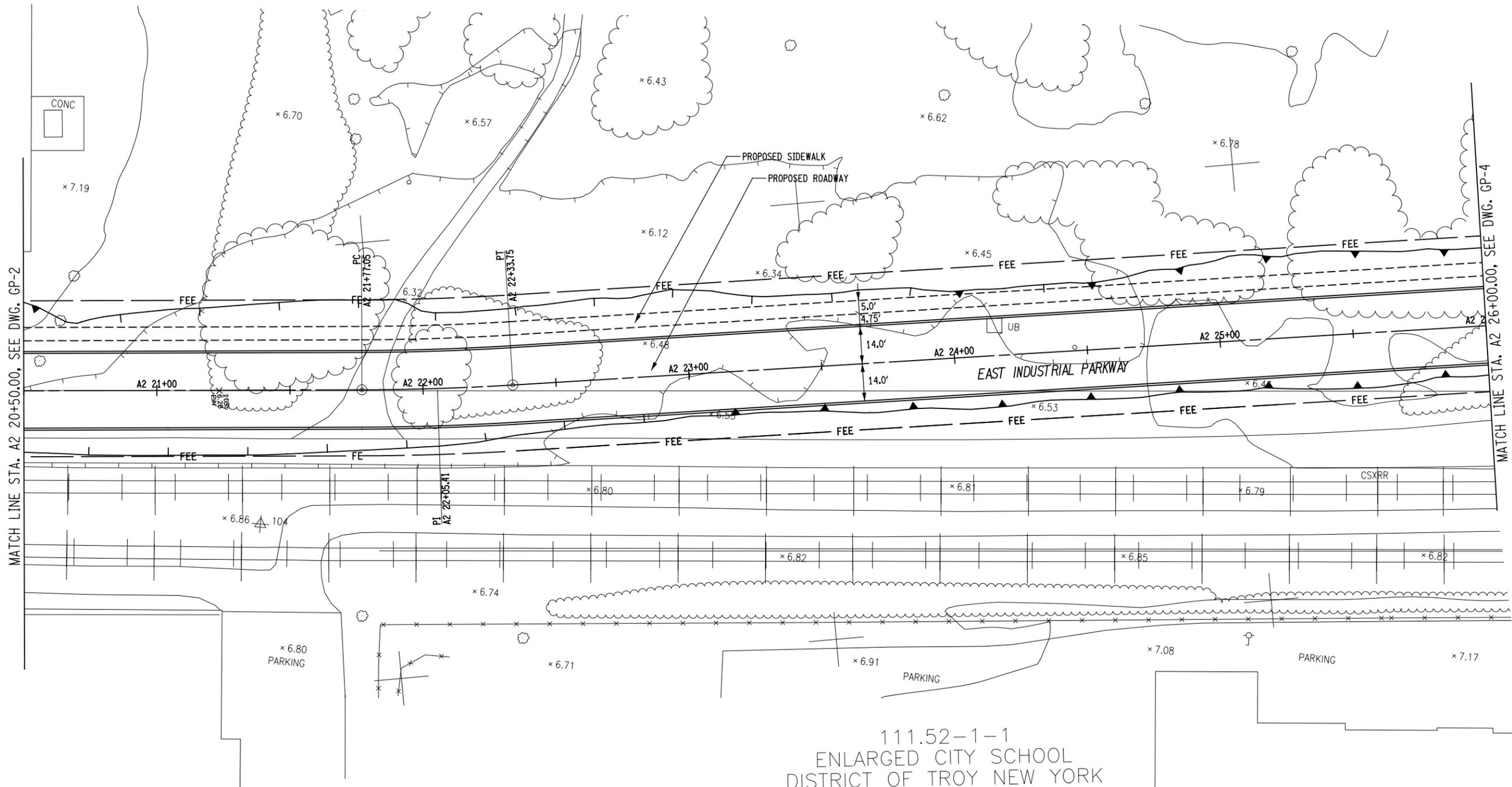
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	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			DXXXXXX
	CITY OF TROY					DRAWING NO. GP-1
	COUNTY: RENSSELAER					SHEET NO.
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, 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.						



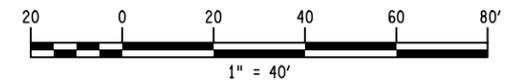
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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



111.52-1-1
 ENLARGED CITY SCHOOL
 DISTRICT OF TROY NEW YORK

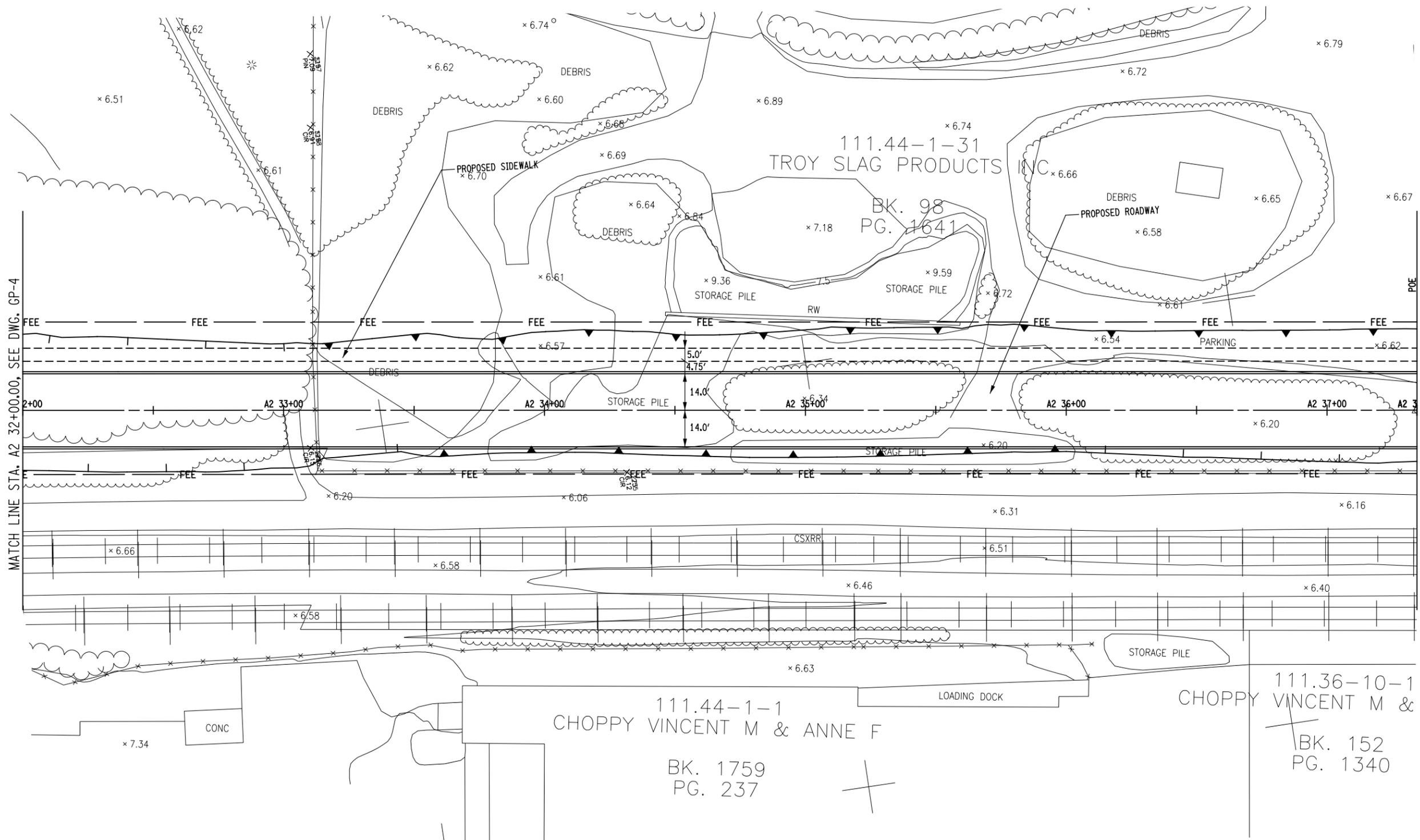


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	NOT FOR CONSTRUCTION	S.H. CITY STREET CITY OF TROY COUNTY: RENSSELAER	PS&E DATE:	BIN XXXXX BIN XXXXX		ALT A2 - GENERAL PLAN
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, 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.						DRAWING NO. GP-3
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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
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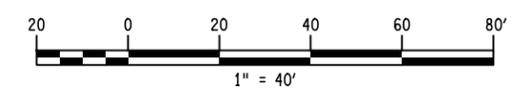
SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
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 BIN XXXXX

CULVERTS
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ALT A2 - GENERAL PLAN

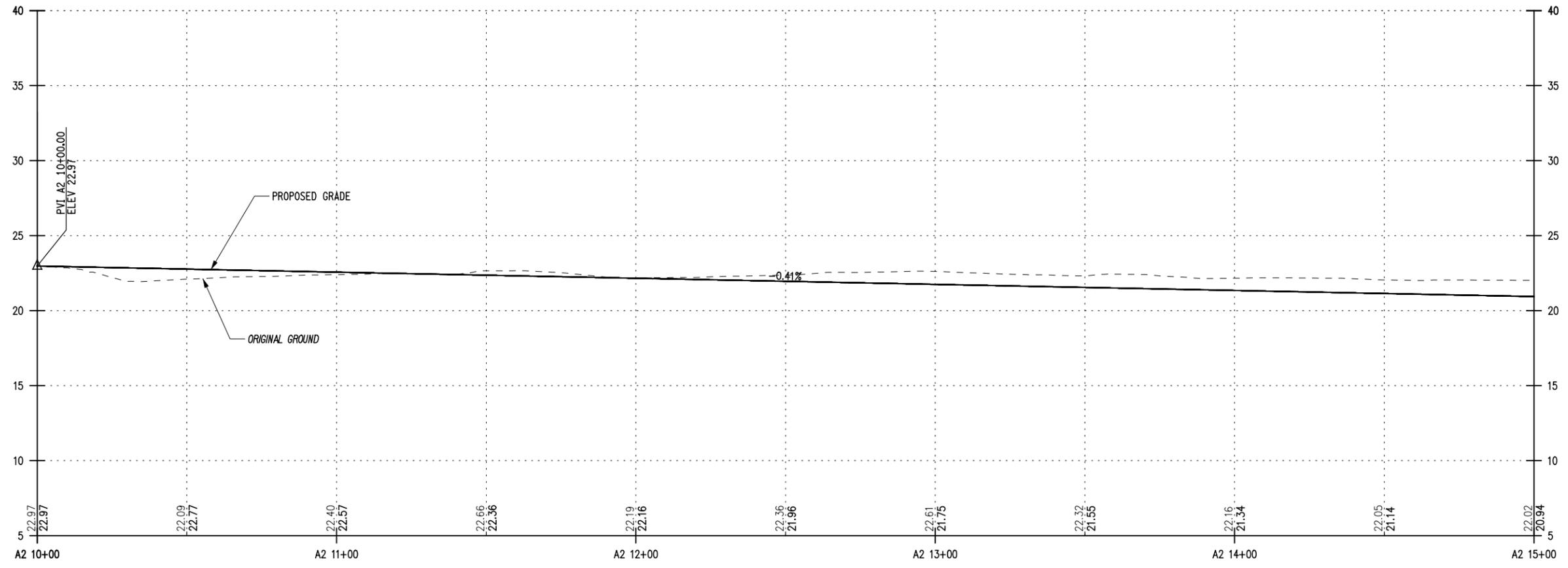
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL 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.

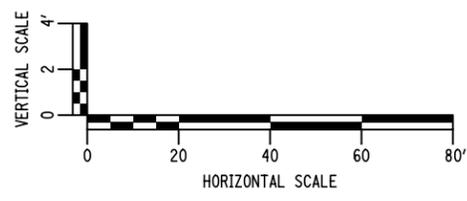
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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



MATCH LINE STA. A2 15+00.00 SEE DWG. PR - 2

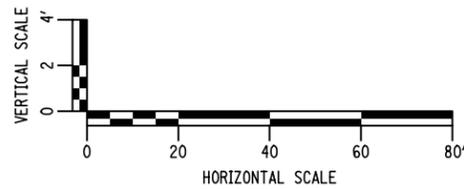
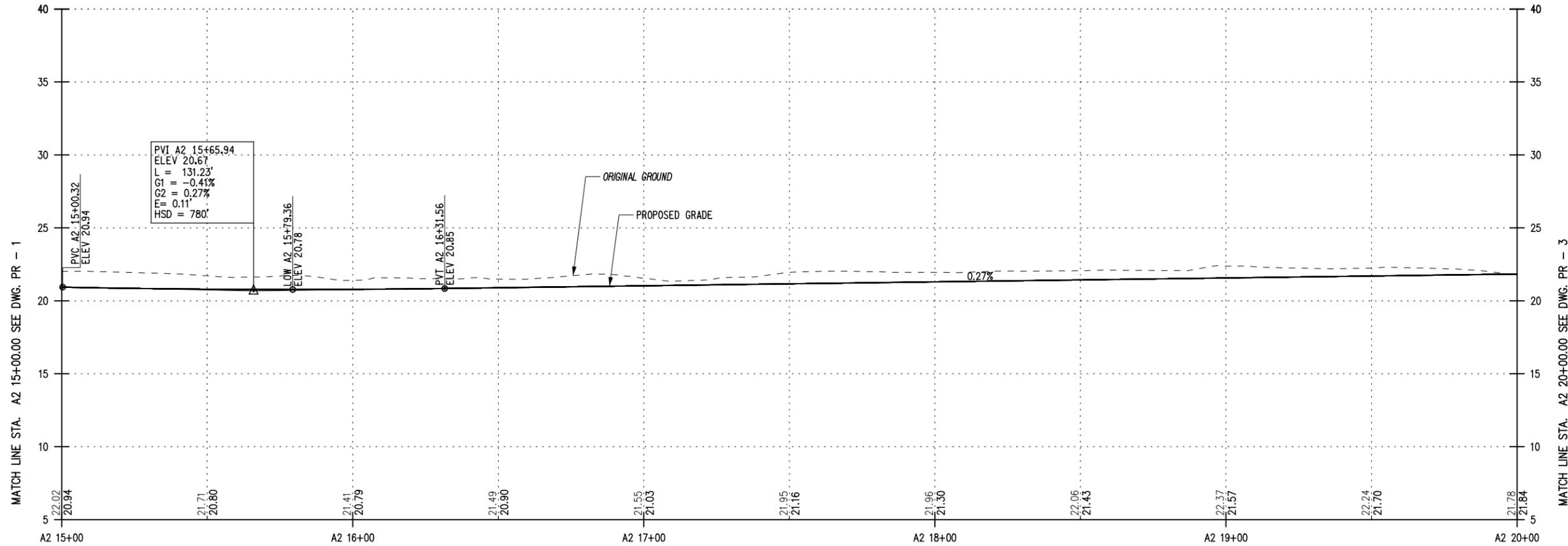
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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: NOT FOR CONSTRUCTION	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
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	CITY OF TROY				ALT. A2-PROFILE	DRAWING NO. PR-1
COUNTY: RENSSELAER						SHEET NO.



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PREPARED BY: ON:	ALTERED BY: ON:

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NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			ALT. A2-PROFILE
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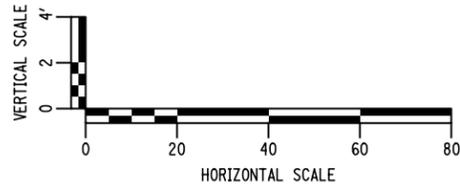
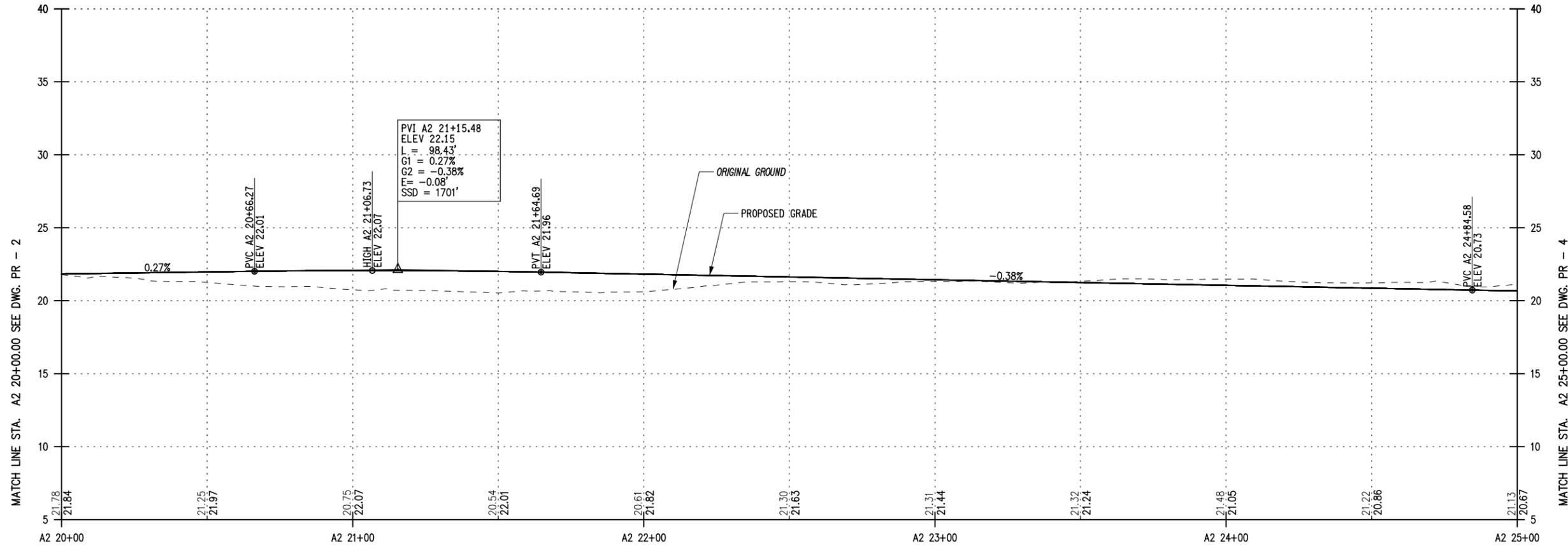
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Creighton Manning

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SHEET NO.



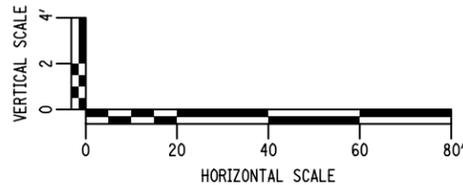
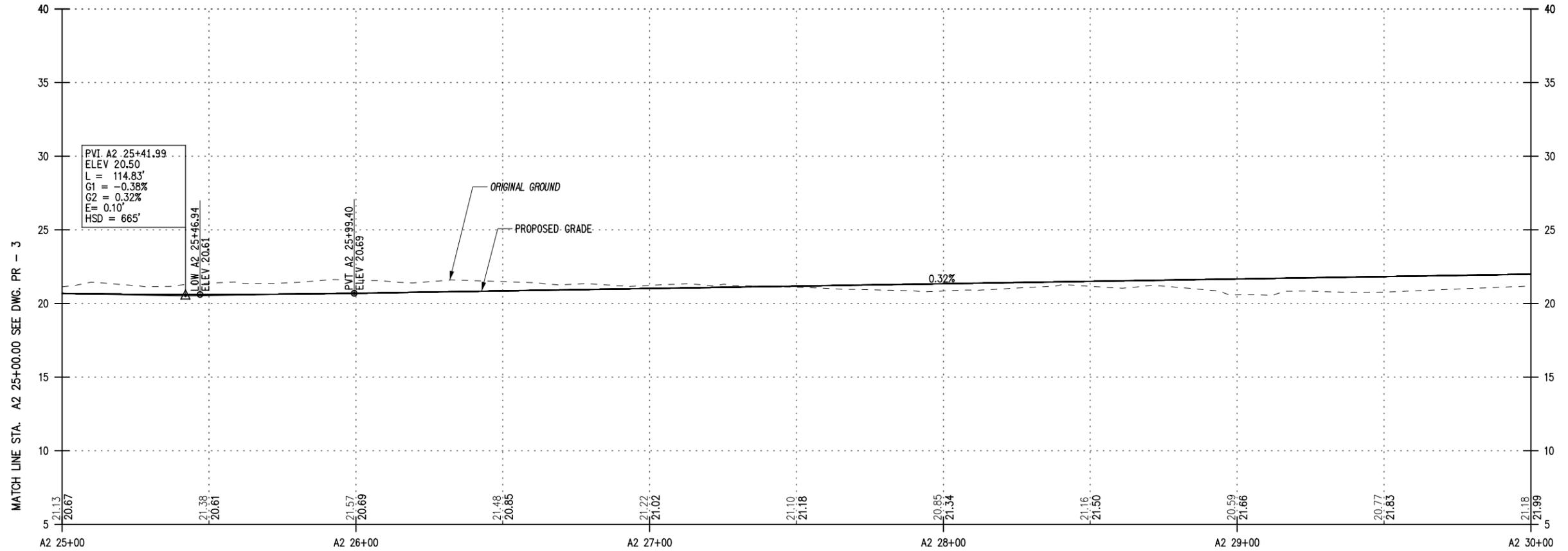
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NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX		
	CITY OF TROY		BIN XXXXX		
	COUNTY: RENSSELAER				ALT. A2-PROFILE

CONTRACT NUMBER	DXXXXXX
DRAWING NO.	PR-3
SHEET NO.	

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.





PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			ALT. A2-PROFILE
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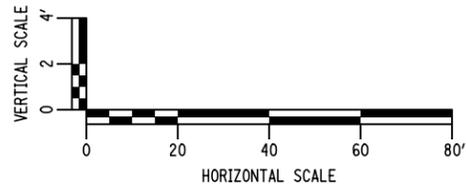
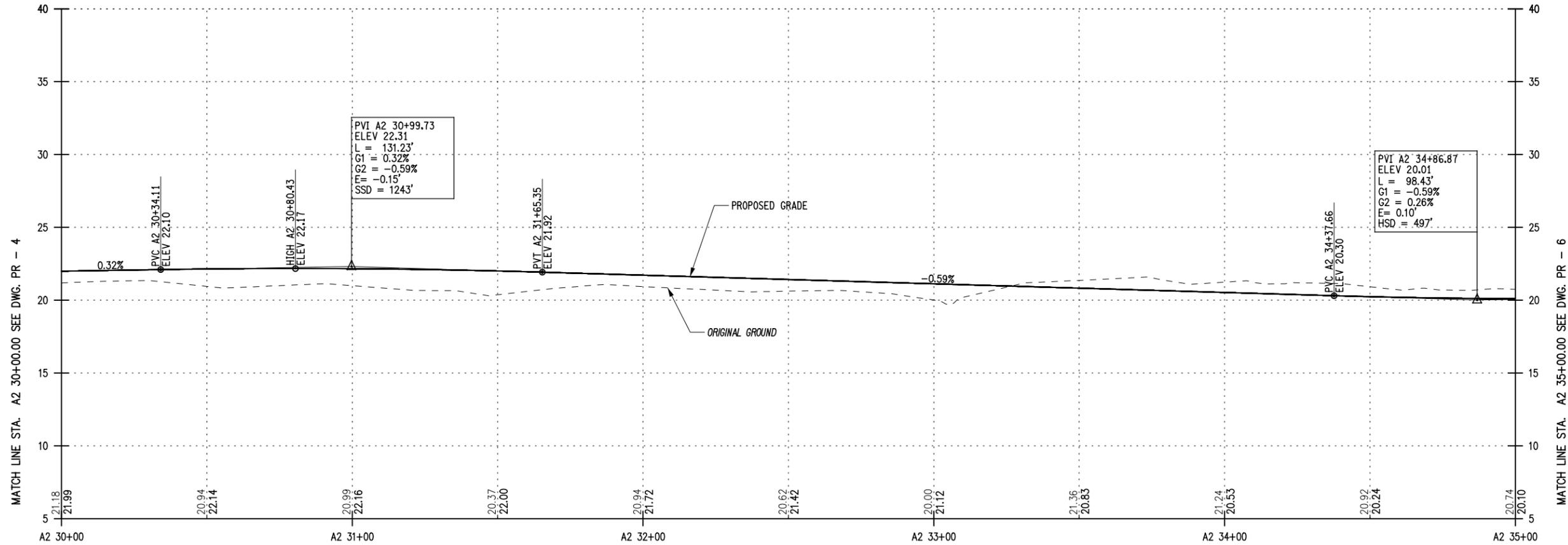
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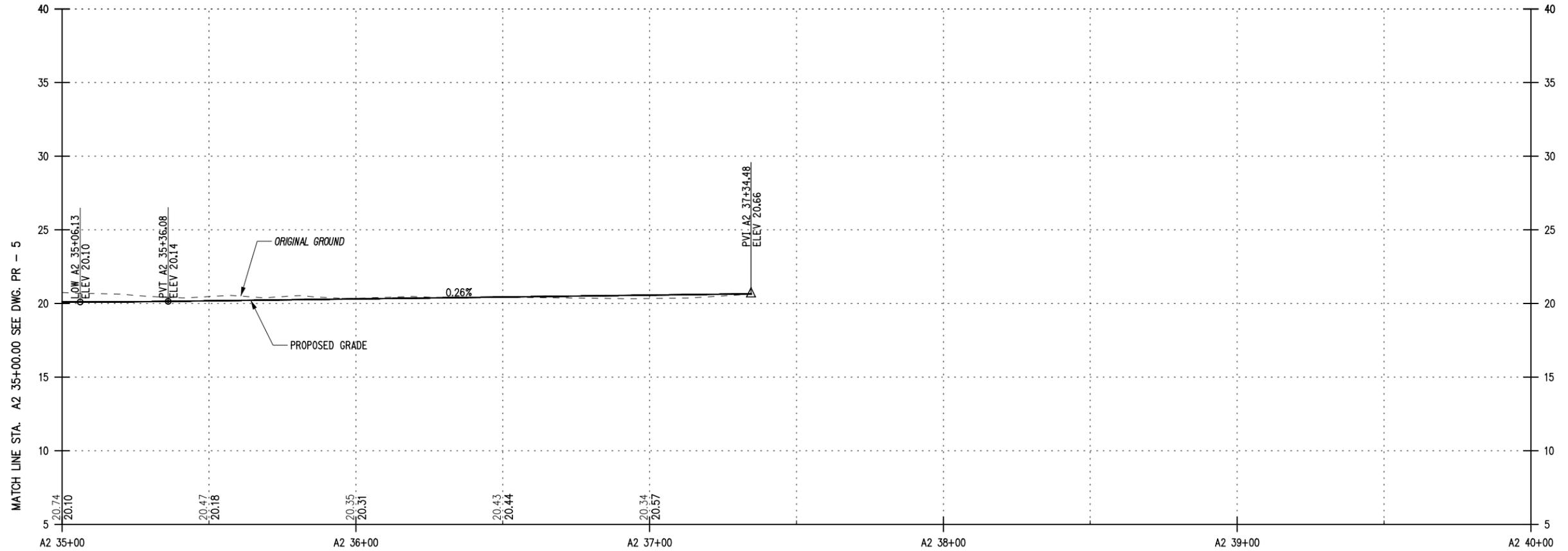
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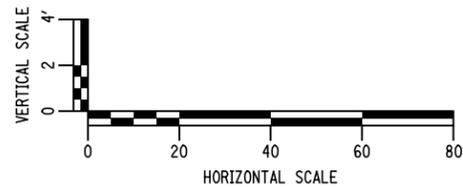
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL 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.





PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
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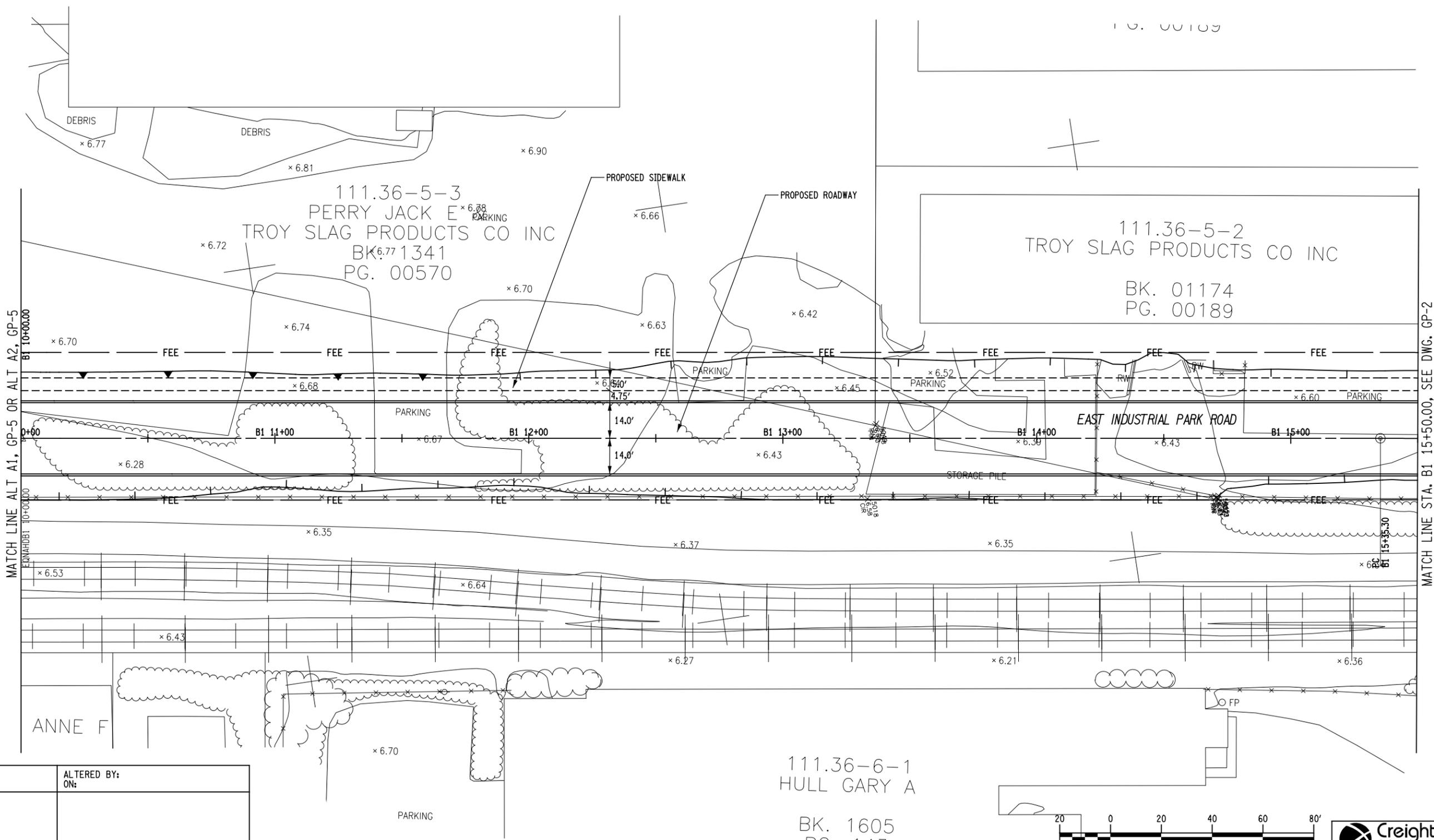


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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



PREPARED BY: ON:	ALTERED BY: ON:
NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES BIN XXXXX BIN XXXXX	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
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	CITY OF TROY					DRAWING NO. GP-1
COUNTY: RENSSELAER					ALT B1 - GENERAL PLAN	SHEET NO.

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.

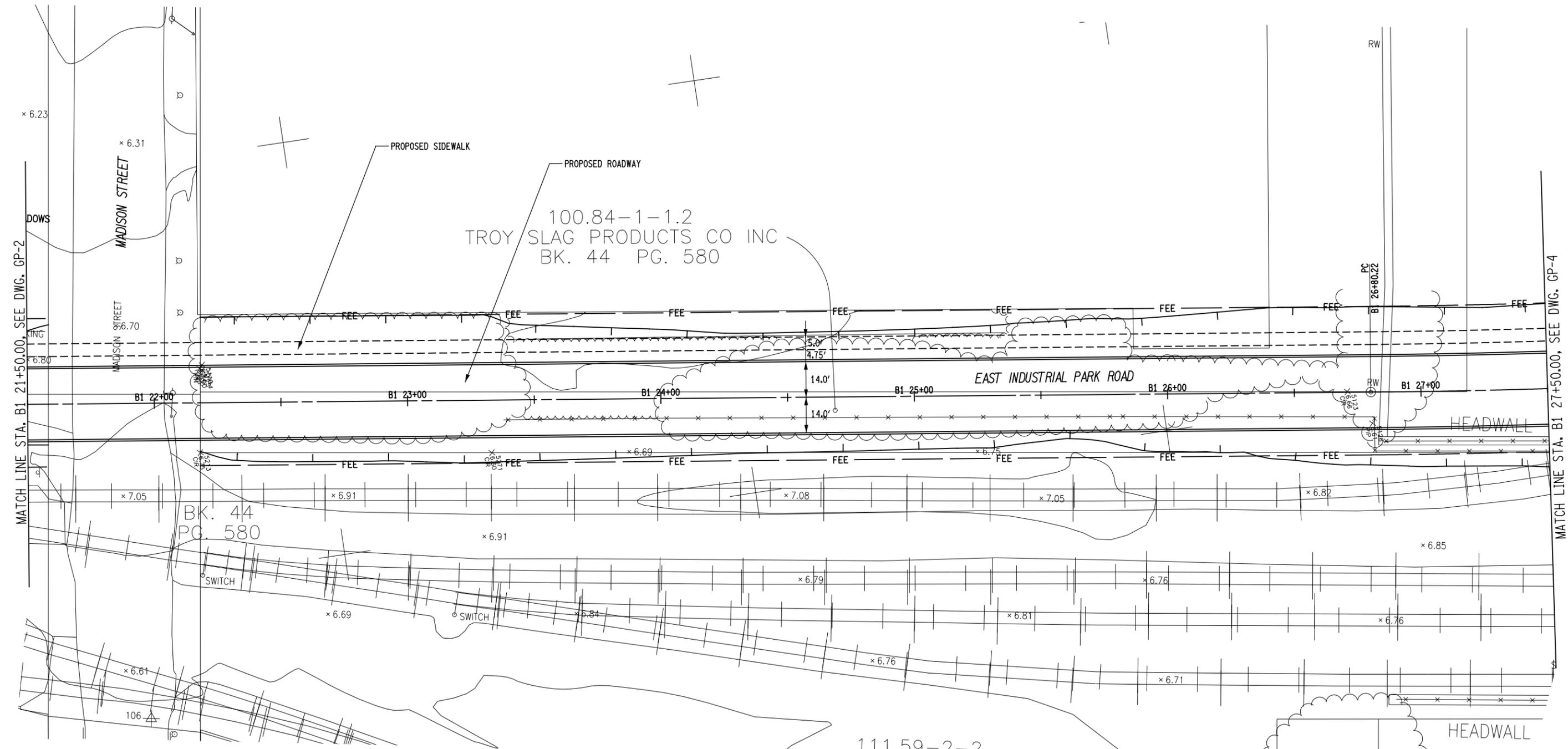


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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS

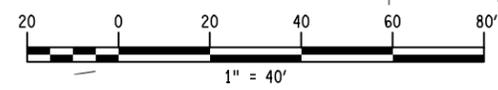


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NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:			ALT B1 - GENERAL PLAN	DRAWING NO. GP-3
	CITY OF TROY					SHEET NO.
	COUNTY: RENSSELAER					

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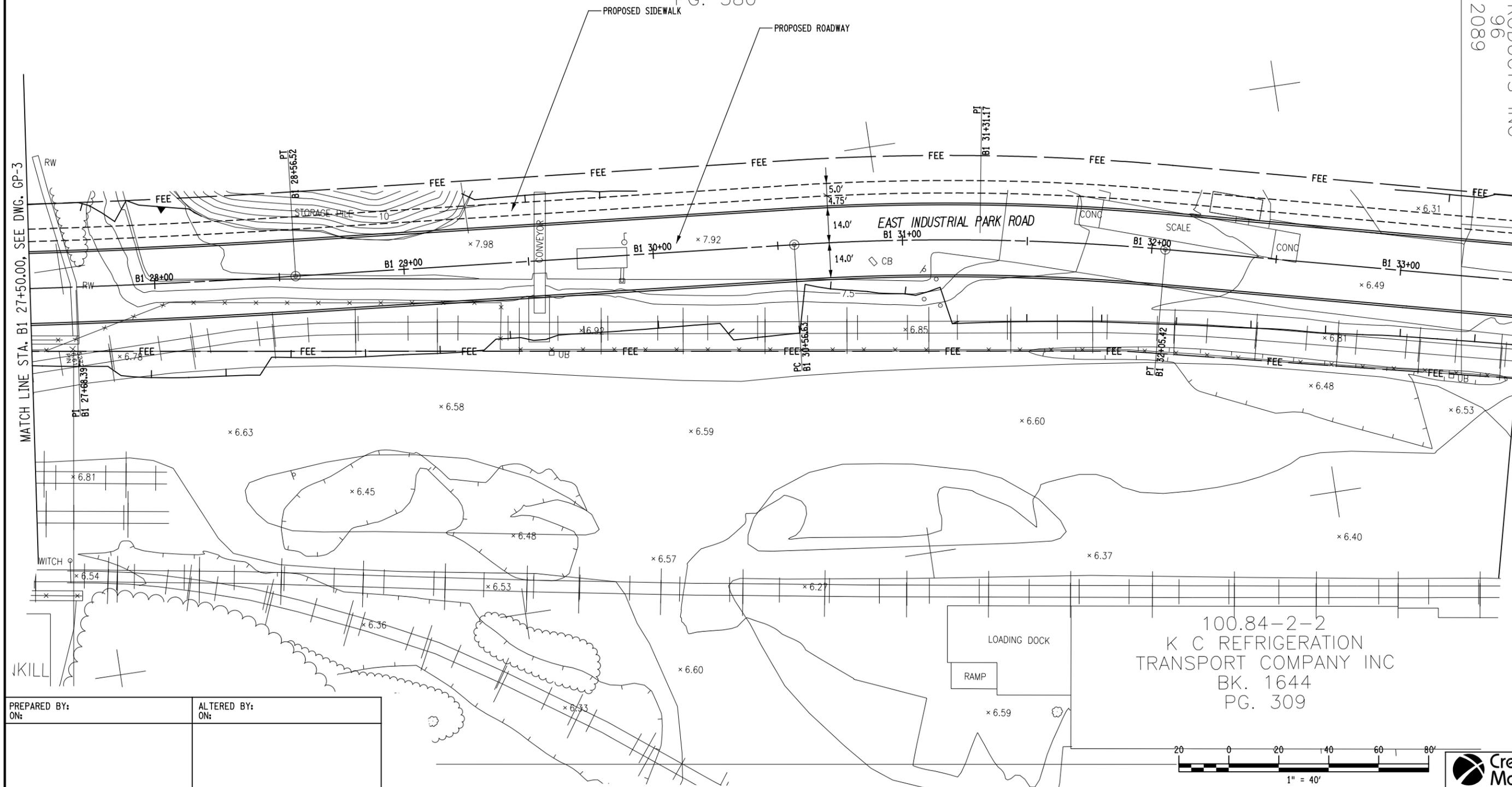


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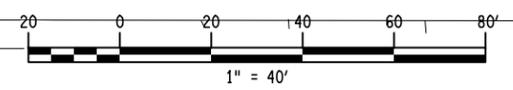
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BK. 44
PG. 580

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BK. 96
PG. 2089



100.84-2-2
K C REFRIGERATION
TRANSPORT COMPANY INC
BK. 1644
PG. 309



PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
S.H. CITY STREET
CITY OF TROY
COUNTY: RENSSELAER

P.I.N. 1754.59
PS&E DATE:

BRIDGES BIN XXXXX BIN XXXXX

CULVERTS
ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT B1 - GENERAL PLAN

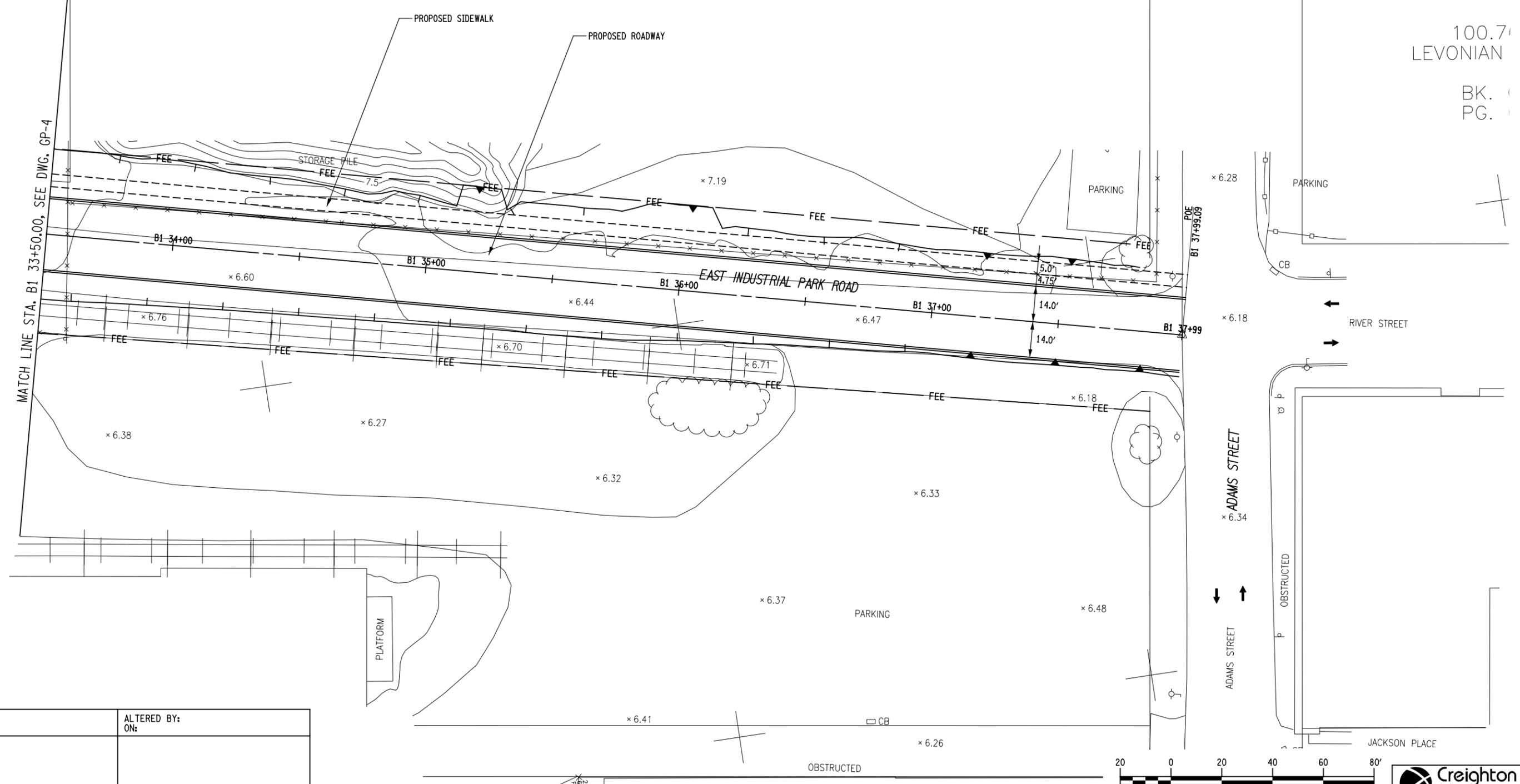
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SHEET NO.

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 JOB MANAGER K. KIRCHER
 DESIGNED BY S. TORELLI
 CHECKED BY K. KIRCHER
 ESTIMATED BY G. GIBBONS
 DRAFTED BY K. DETRICK
 CHECKED BY D. BORJAS

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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



100.71
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 BK.
 PG.

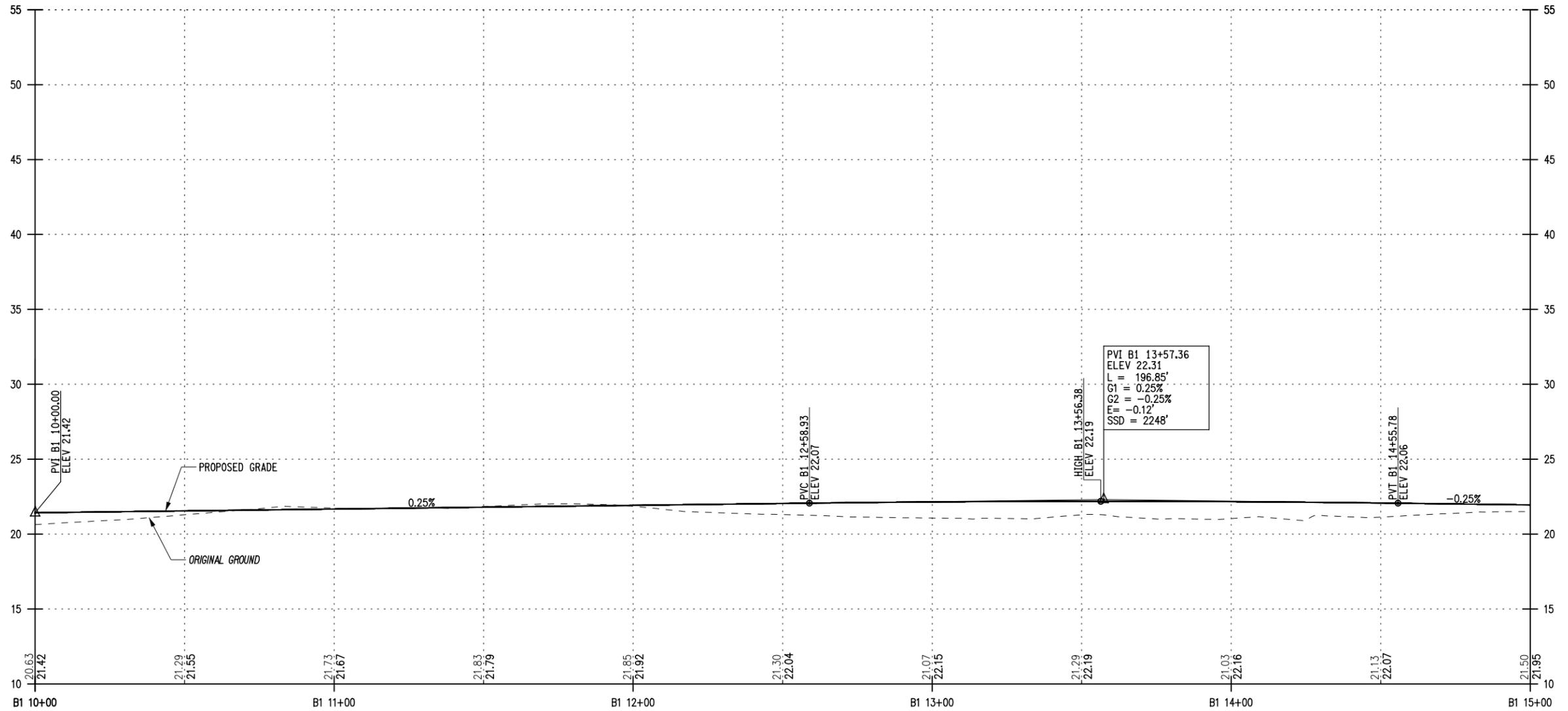


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NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:			ALT B1 - GENERAL PLAN	DRAWING NO. GP-5
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	COUNTY: RENSSELAER					

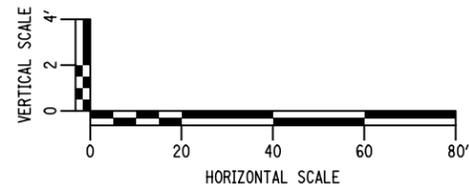
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, 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.





MATCH LINE STA. B1 15+00.00 SEE DWG. PR - 2

PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER DXXXXXX
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX		ALT. B1-PROFILE	DRAWING NO. PR-1
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	COUNTY: RENSSELAER					

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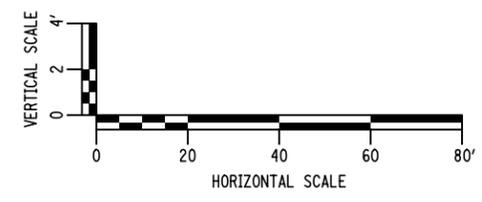
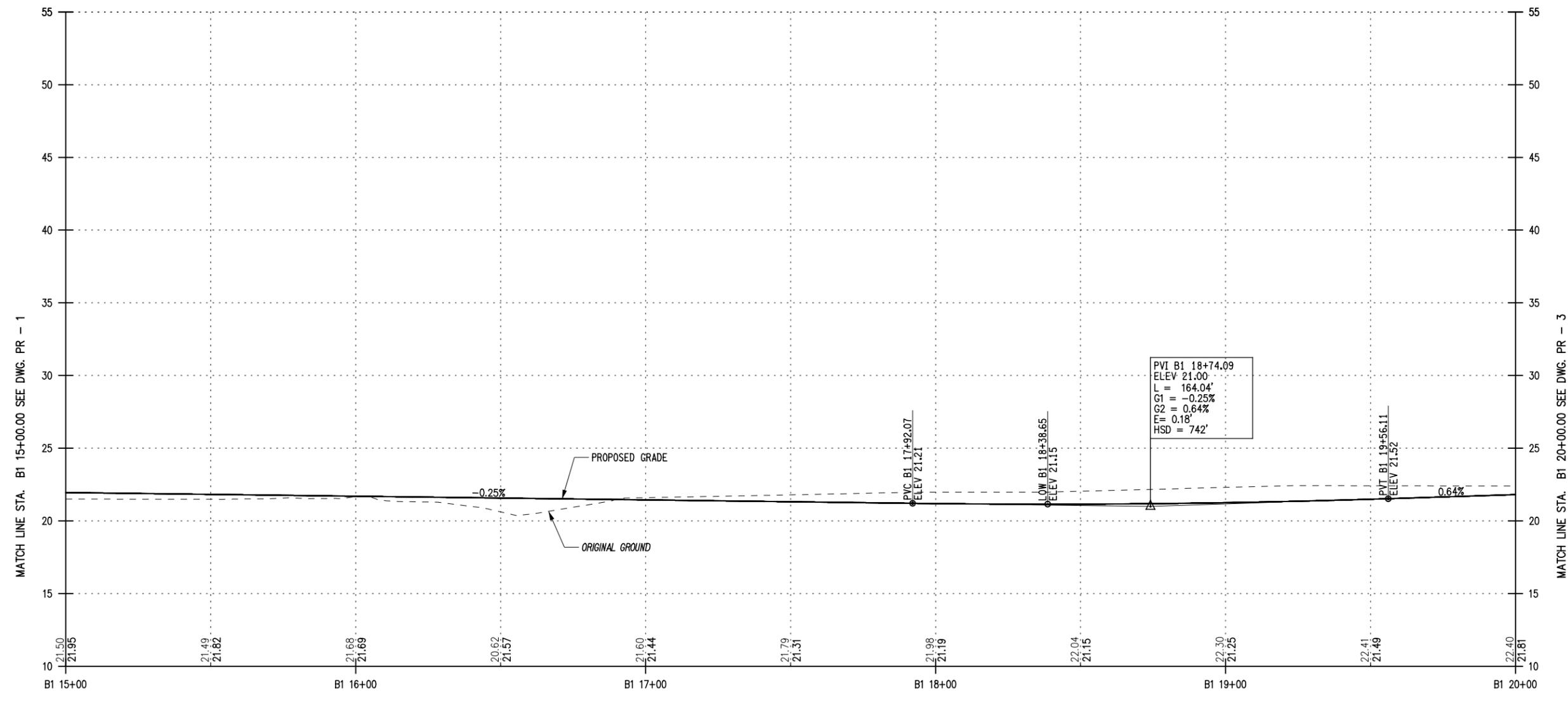
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 USER = storelli

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
 BIN XXXXX
 BIN XXXXX

CULVERTS
 ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT. B1-PROFILE

Creighton Manning

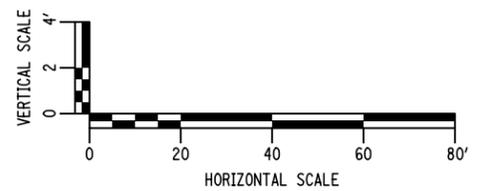
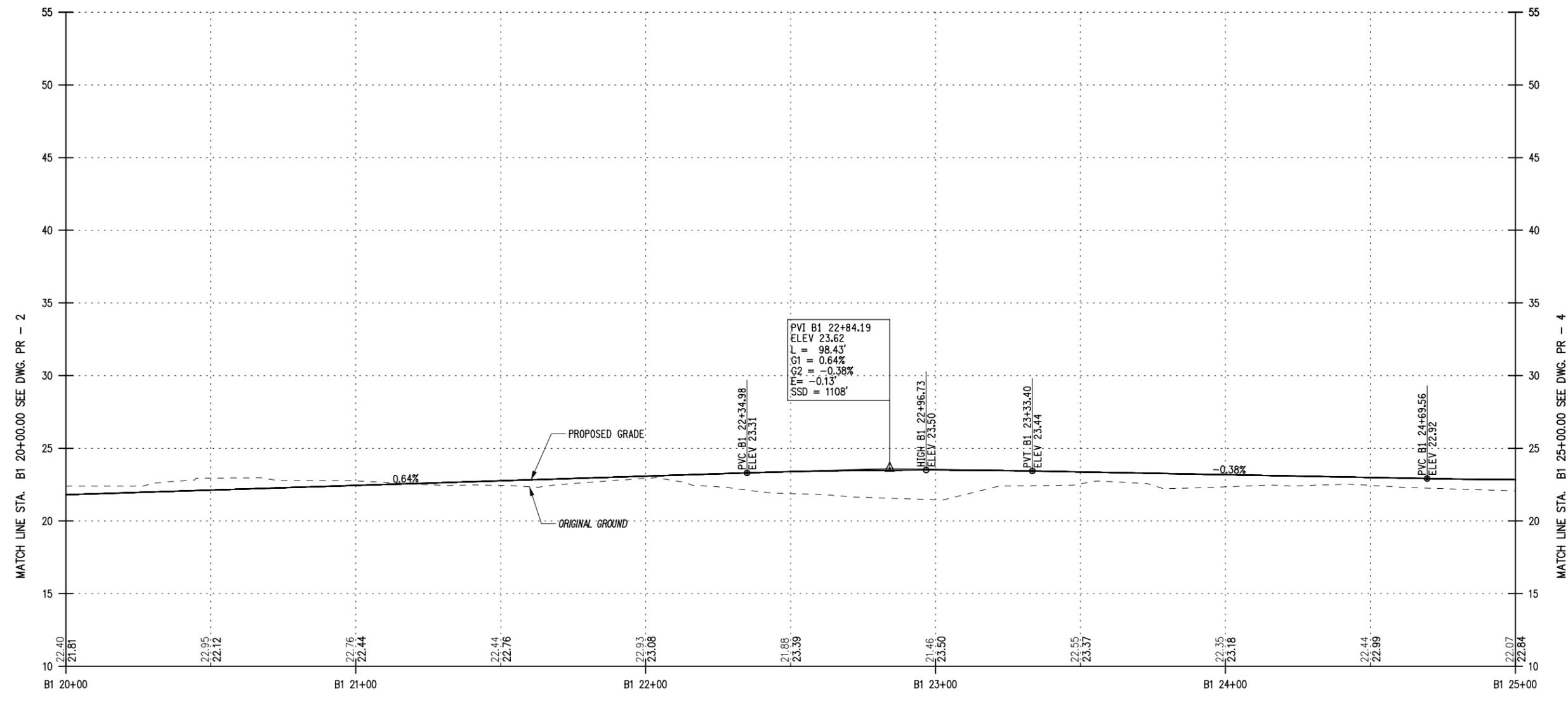
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DRAWING NO. PR-2
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER 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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 DATE/TIME = 12/8/2015
 USER = storrell

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			DXXXXXX
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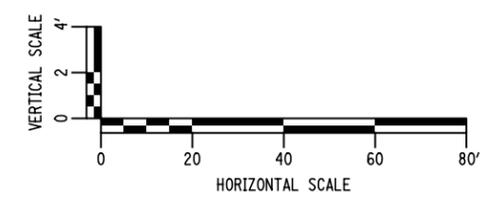
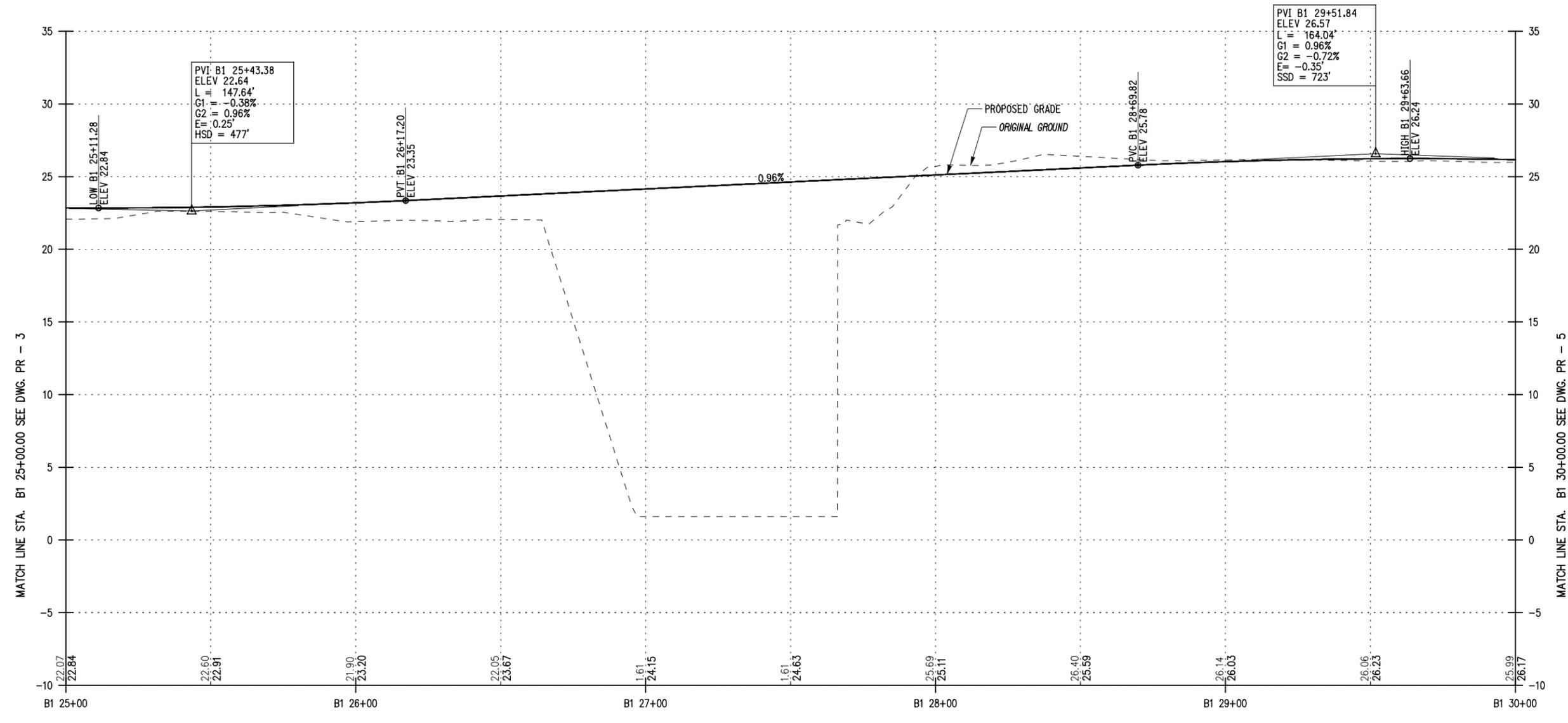
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AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
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SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:
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 BIN XXXXX
 BIN XXXXX
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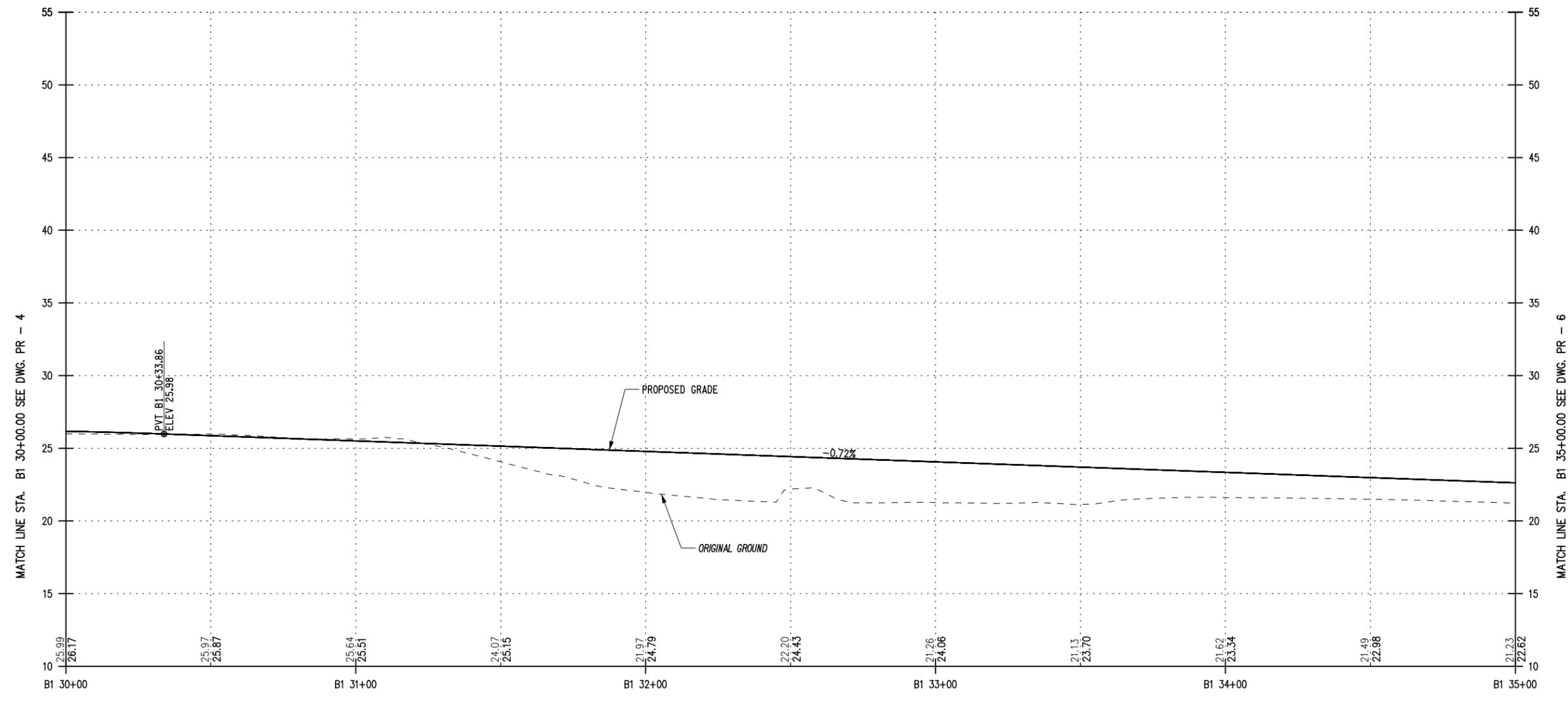
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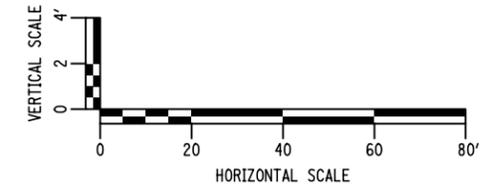
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 DATE/TIME = 12/8/2015
 USER = storelli

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



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AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
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SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
 BIN XXXXX
 BIN XXXXX

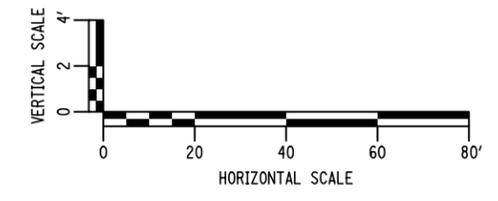
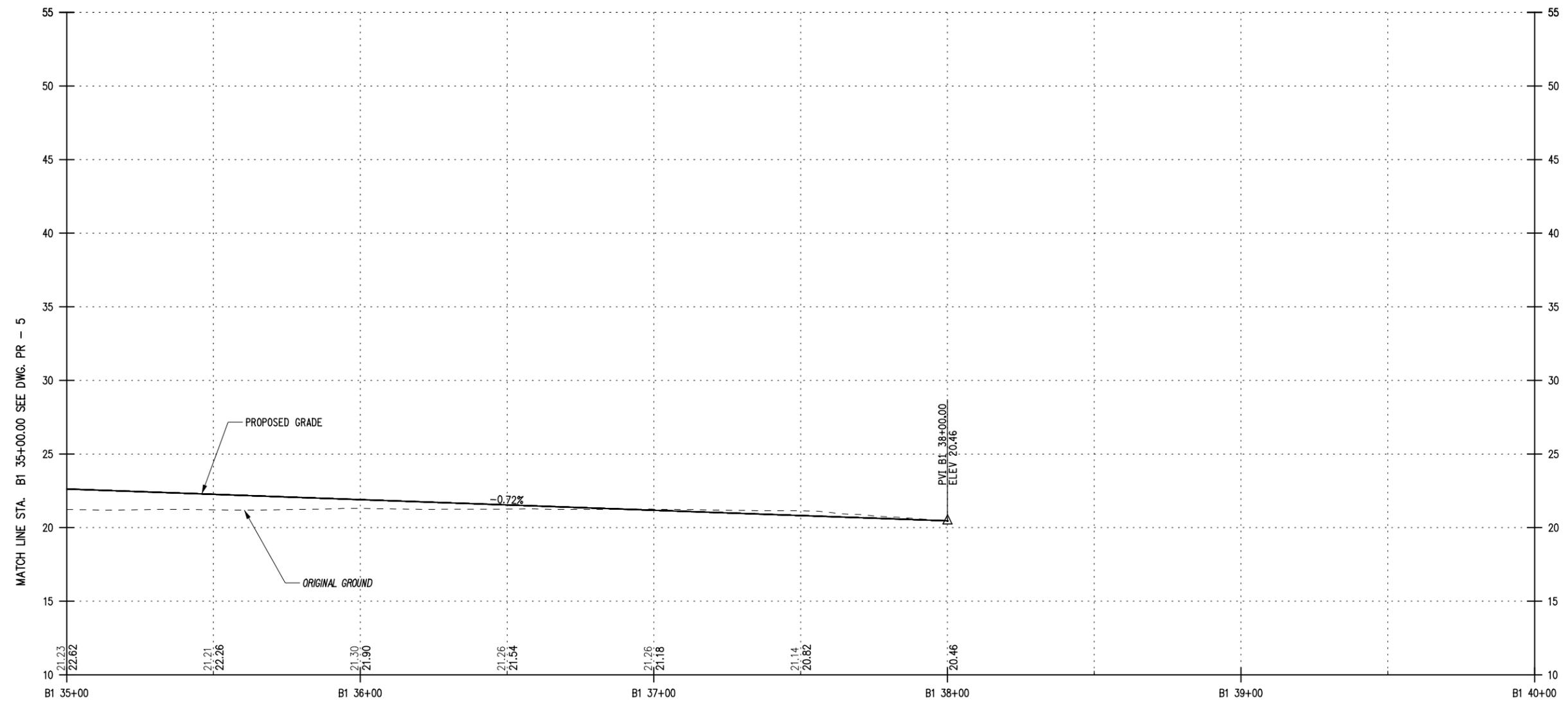
CULVERTS
 ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT. B1-PROFILE

CONTRACT NUMBER
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 DRAWING NO. PR-5
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 DATE/TIME = 12/8/2015
 USER = sterelli

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



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AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

P.I.N. 1754.59
 PS&E DATE:

BRIDGES
 BIN XXXXX
 BIN XXXXX

CULVERTS
 ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT. B1-PROFILE

Creighton Manning

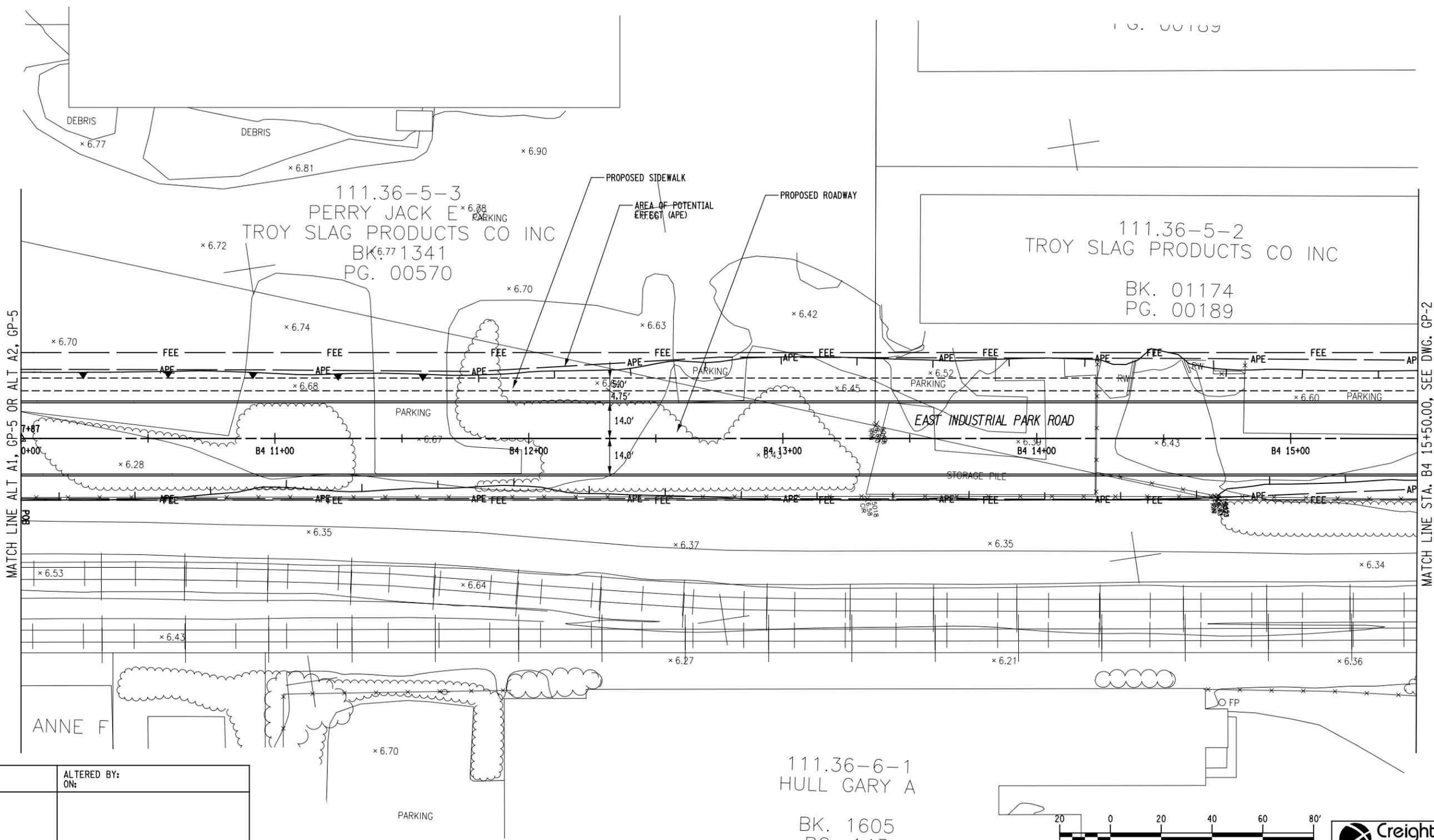
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DRAWING NO. PR-6
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER 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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 DATE/TIME = 12/7/2015
 USER = storelli

DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES BIN XXXXX BIN XXXXX	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER DXXXXXX
NOT FOR CONSTRUCTION	S.H. CITY STREET CITY OF TROY COUNTY: RENSSELAER	PS&E DATE:			ALT B4 - GENERAL PLAN	DRAWING NO. GP-1 SHEET NO.

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.

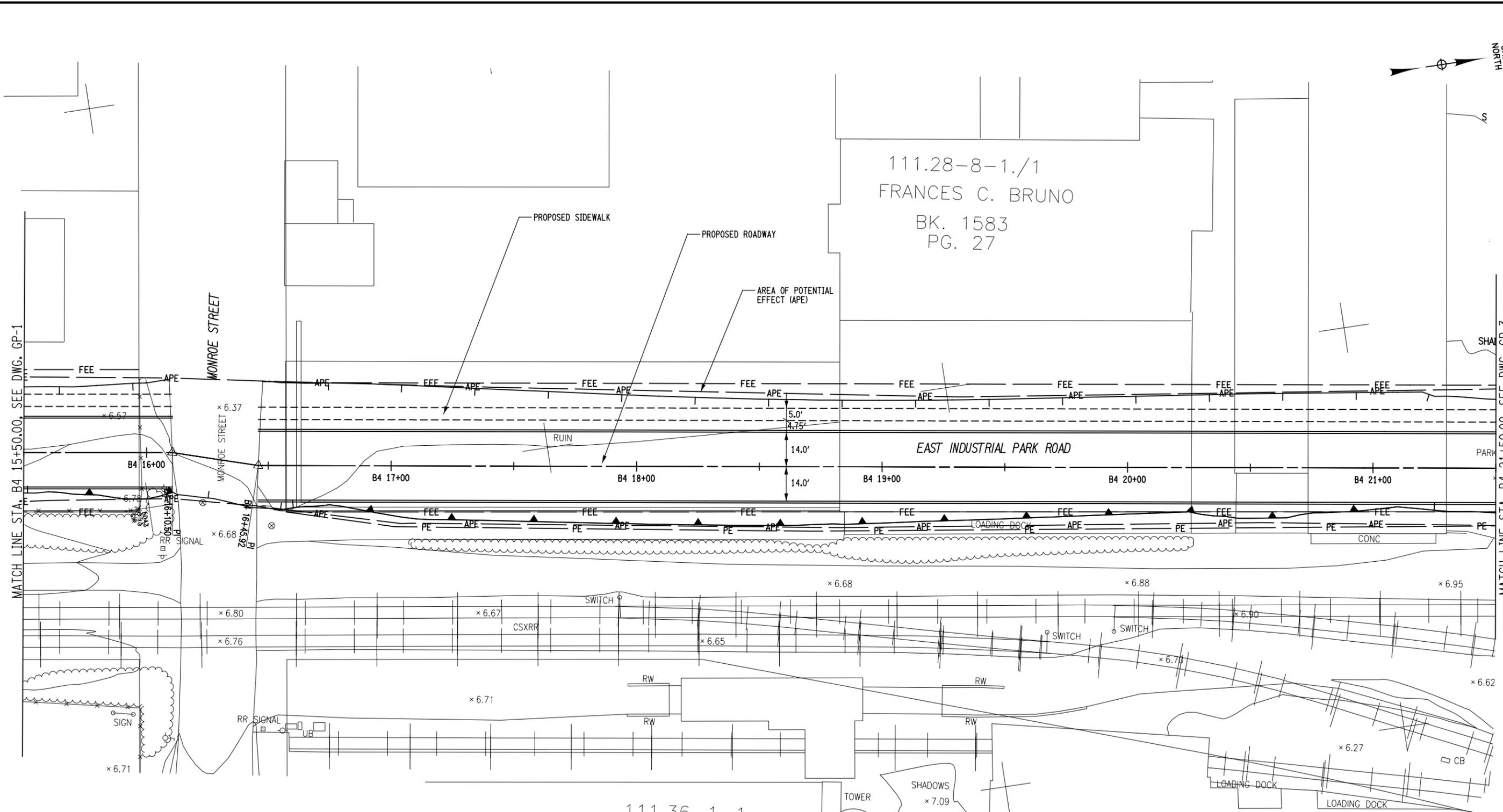


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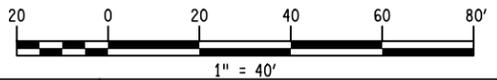
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DESIGN SUPERVISOR E. WOODS JOB MANAGER K. KIRCHER DESIGNED BY S. TORELLI CHECKED BY K. KIRCHER ESTIMATED BY G. GIBBONS DRAFTED BY K. DETRICK CHECKED BY D. BORJAS



111.28-8-1./1
 FRANCES C. BRUNO
 BK. 1583
 PG. 27

111.36-1-1
 INTERSTATE COMMODITIES
 DK 007



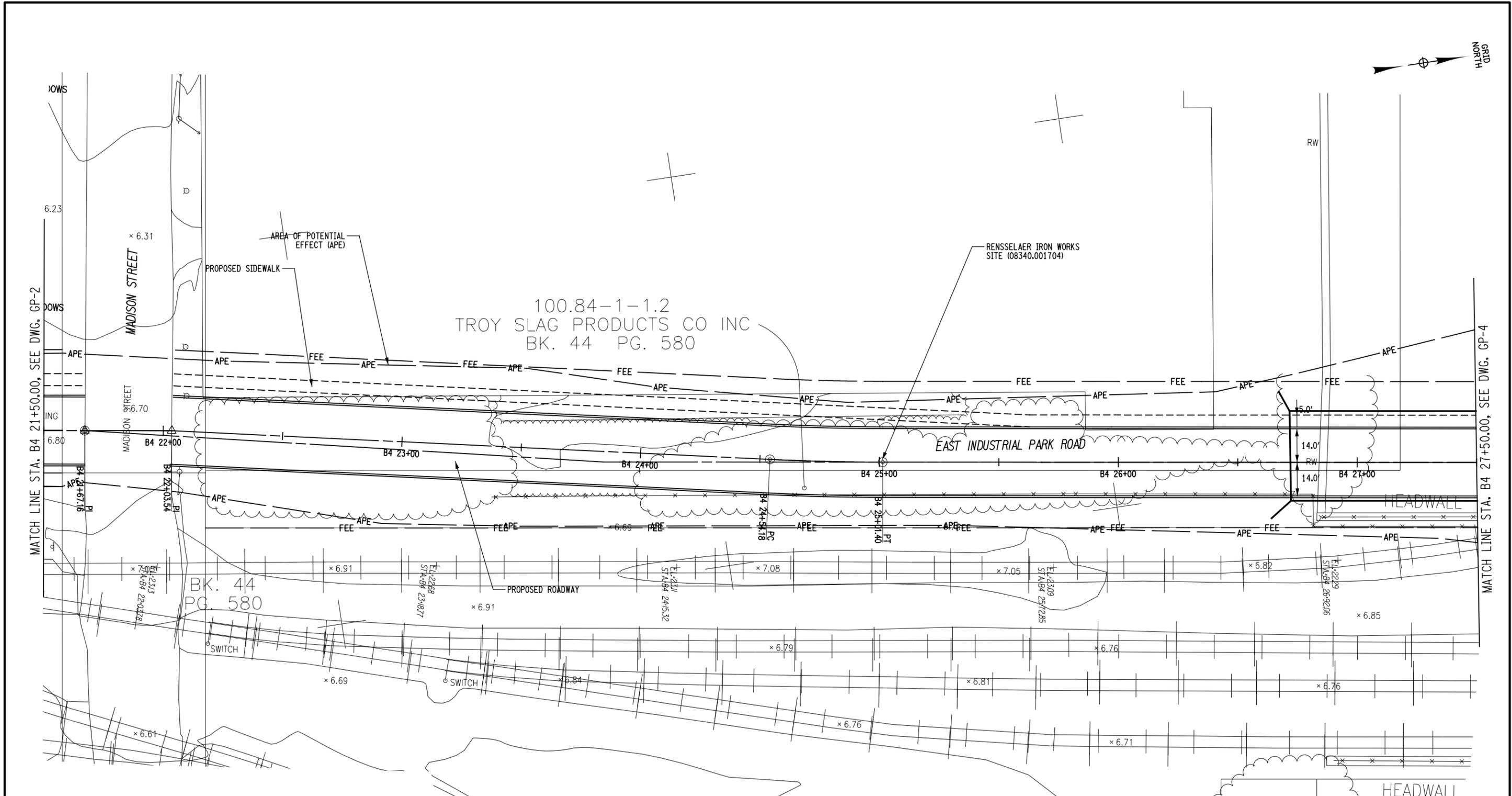
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NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:			ALT B4 - GENERAL PLAN	DRAWING NO. GP-2
	CITY OF TROY					SHEET NO.
	COUNTY: RENSSELAER					

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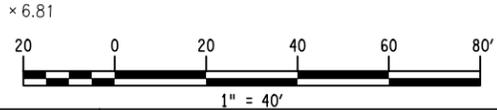
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100.84-1-1.2
 TROY SLAG PRODUCTS CO INC
 BK. 44 PG. 580

BK. 44
 PG. 580

111.59-2-2
 NEW YORK CENTRAL LINES
 LLC
 DK 161



PREPARED BY: ON:	ALTERED BY: ON:
NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES BIN XXXXX BIN XXXXX	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER DXXXXXX
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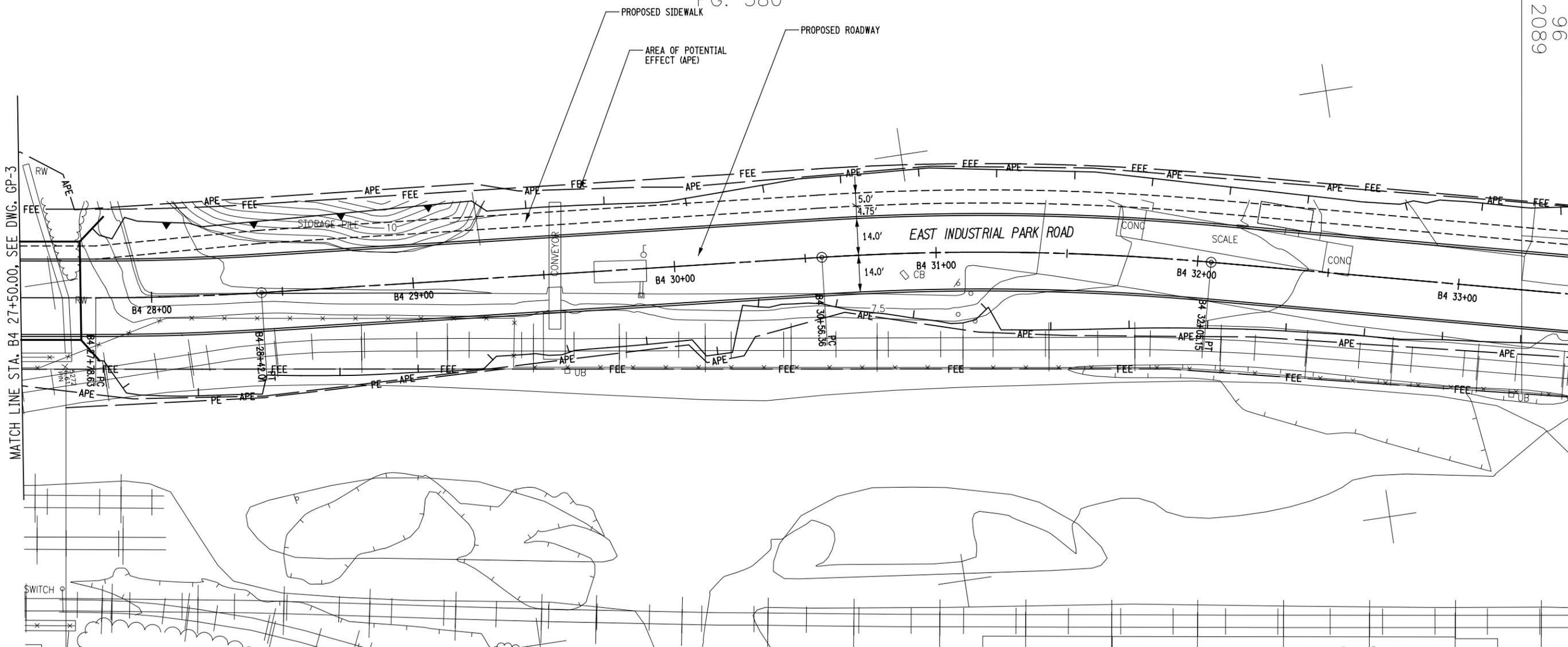
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100.84-1-1.2
TROY SLAG PRODUCTS CO INC

BK. 44
PG. 580

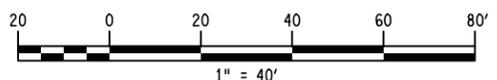
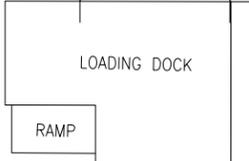
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TROY SLAG PRODUCTS CO INC
BK. 96
PG. 2089



MATCH LINE STA. B4 27+50.00, SEE DWG. GP-3

MATCH LINE STA. B4 33+50.00, SEE DWG. GP-5

100.84-2-2
K C REFRIGERATION
TRANSPORT COMPANY INC
BK. 1644



PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
S.H. CITY STREET
CITY OF TROY
COUNTY: RENSSELAER

P.I.N. 1754.59
PS&E DATE:

BRIDGES
BIN XXXXX
BIN XXXXX

CULVERTS

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED

ALT B4 - GENERAL PLAN

CONTRACT NUMBER
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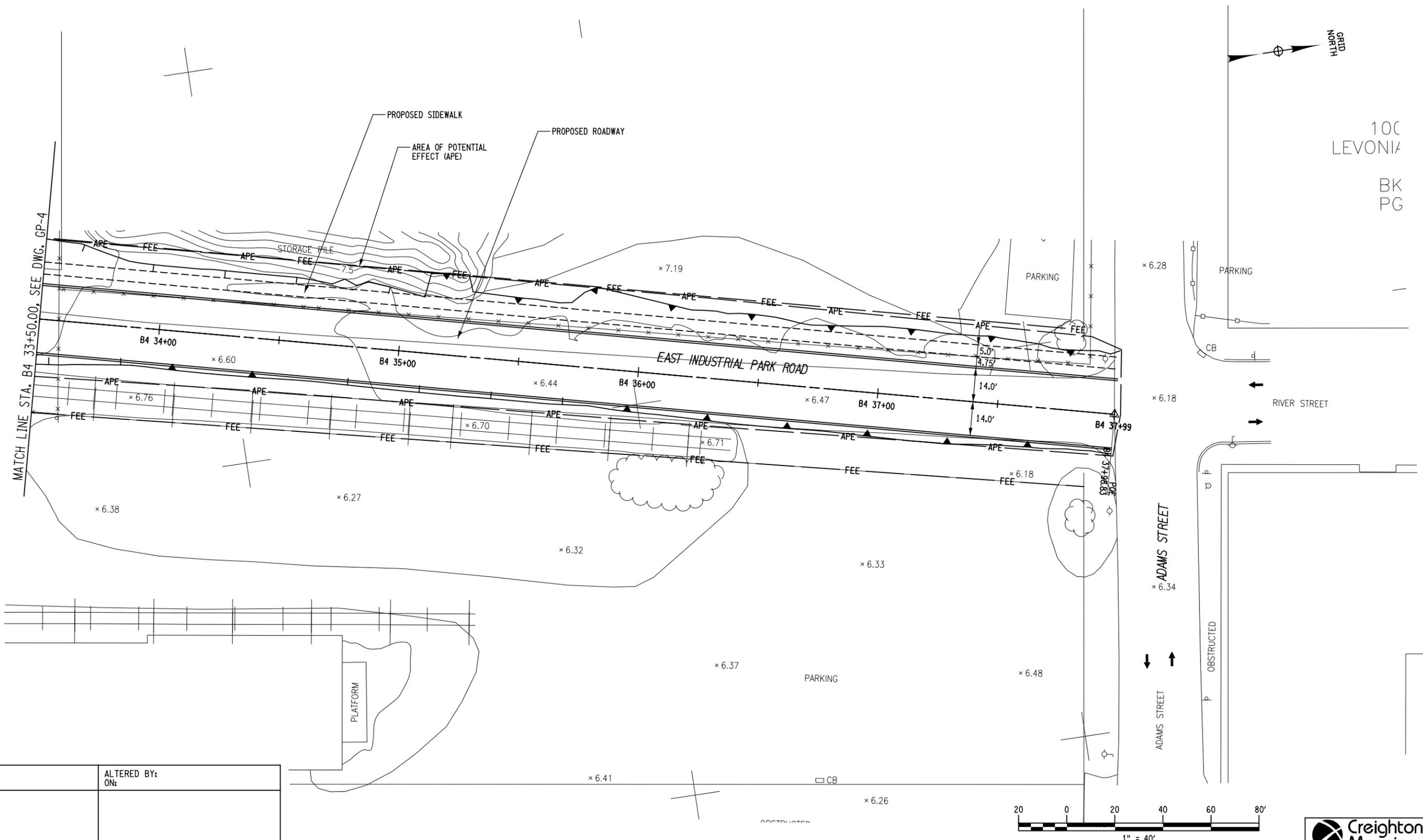
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USER = storelli

DESIGN SUPERVISOR E. WOODS
JOB MANAGER K. KIRCHER
DESIGNED BY S. TORELLI
CHECKED BY K. KIRCHER
ESTIMATED BY G. GIBBONS
DRAFTED BY K. DETRICK
CHECKED BY D. BORJAS

FILE NAME = N:\Projects\2010\110-232 South Troy Prelim Design\cadd\gdg\110-232.gp.b4.05.dgn
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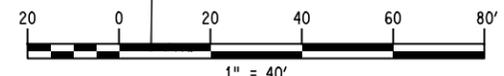


10C
 LEVONIA
 BK
 PG

PREPARED BY: ON:	ALTERED BY: ON:
NOT FOR CONSTRUCTION	

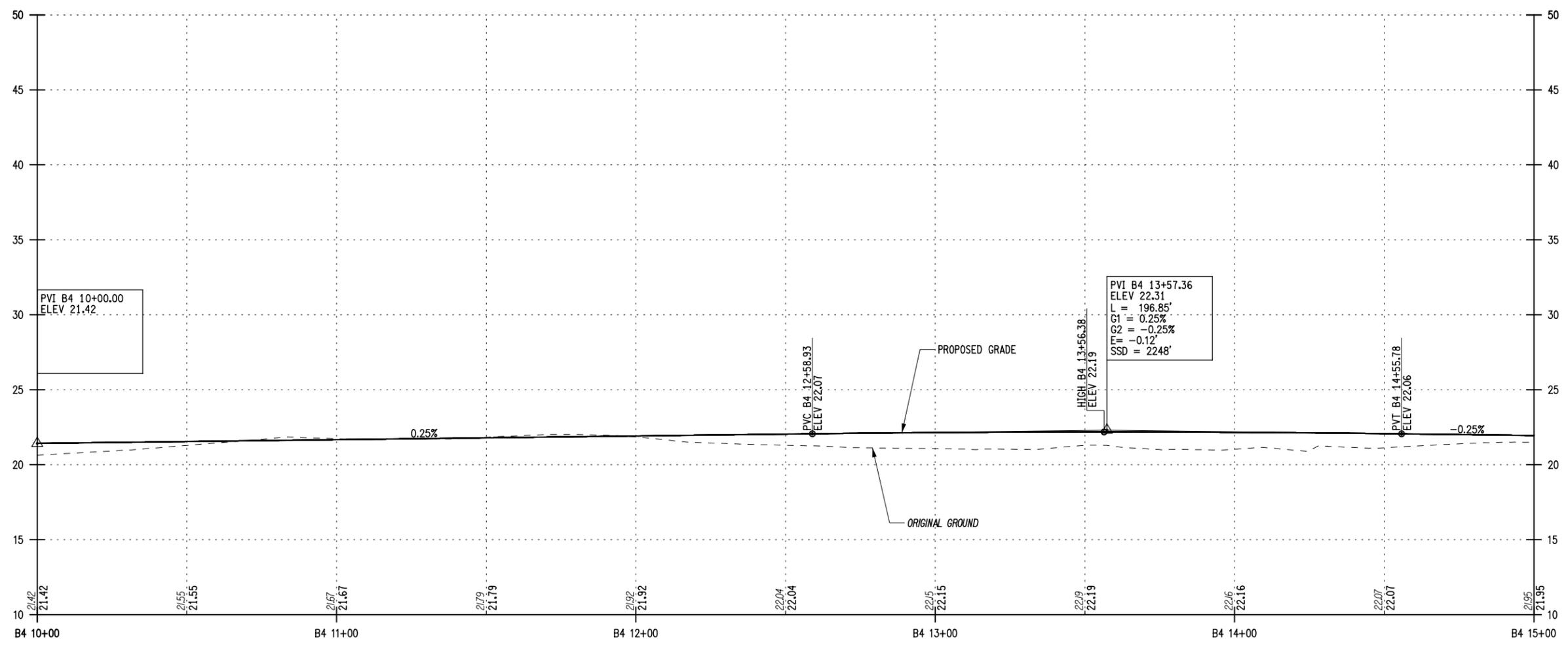
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	S.H. CITY STREET	PS&E DATE:			ALT B4 - GENERAL PLAN	DRAWING NO. GP-5
	CITY OF TROY					SHEET NO.
	COUNTY: RENSSELAER					

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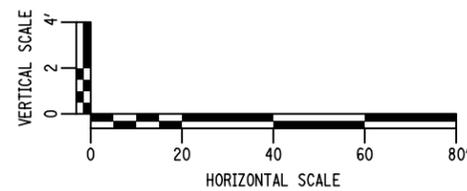
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MATCH LINE STA. B4 15+00.00 SEE DWG. PR - 2

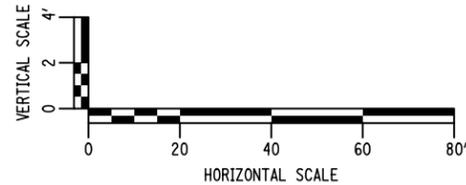
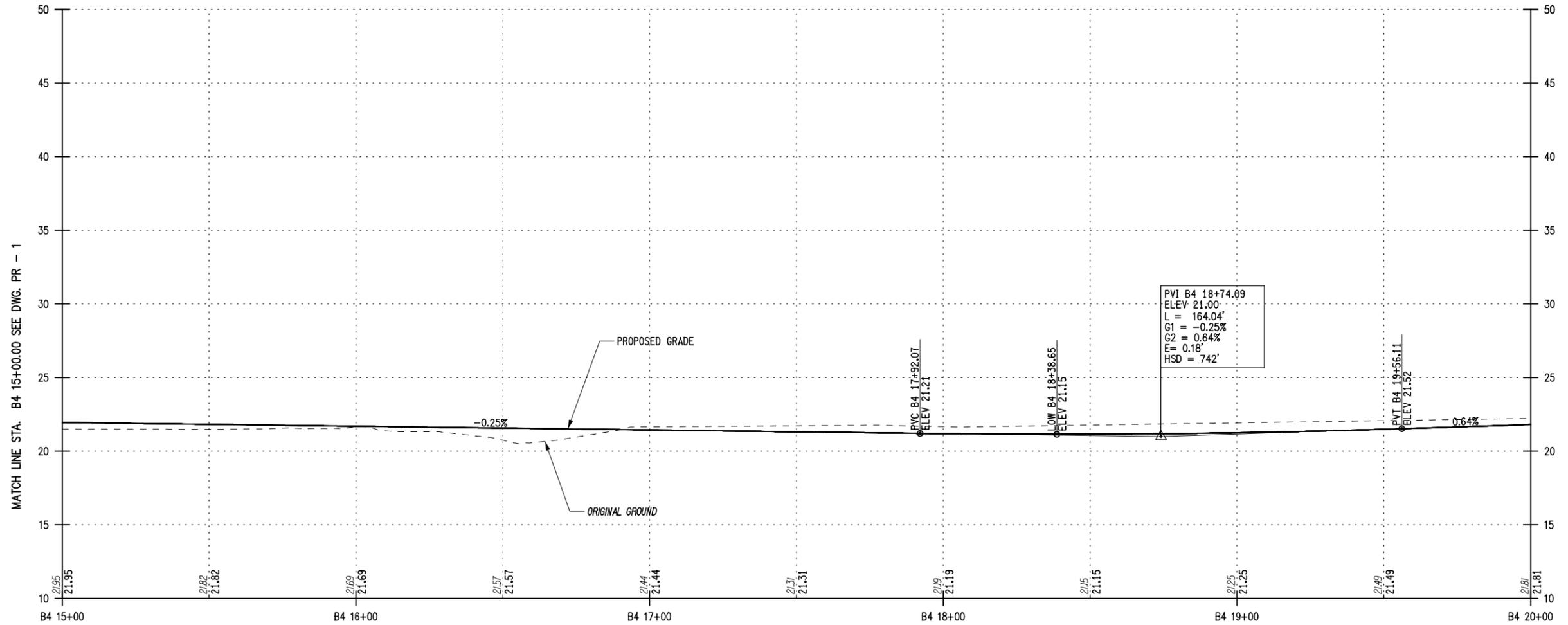
PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: NOT FOR CONSTRUCTION	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED ALT. B4-PROFILE	CONTRACT NUMBER
	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			DXXXXXX
	CITY OF TROY		BIN XXXXX			DRAWING NO. PR-1
COUNTY: RENSSELAER						SHEET NO.

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.





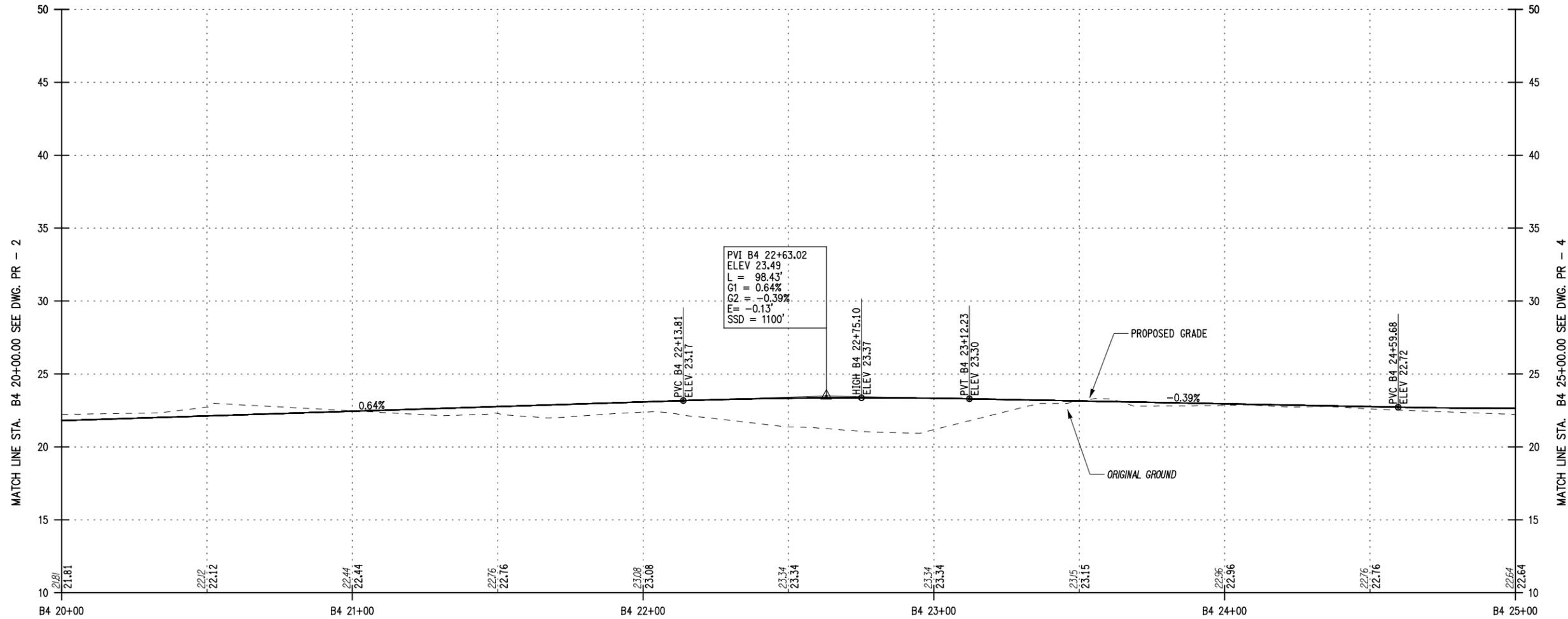
PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			ALT. B4-PROFILE
	CITY OF TROY		BIN XXXXX		DRAWING NO. PR-2	
	COUNTY: RENSSELAER				SHEET NO.	

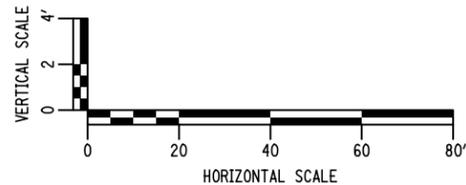
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, 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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CONTRACT NUMBER	DXXXXXX
DRAWING NO.	PR-2
SHEET NO.	



PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX		
	CITY OF TROY		BIN XXXXX		
	COUNTY: RENSSELAER				

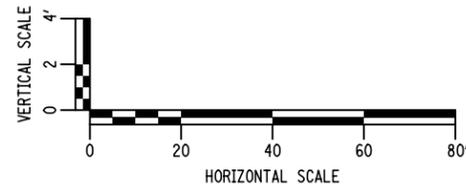
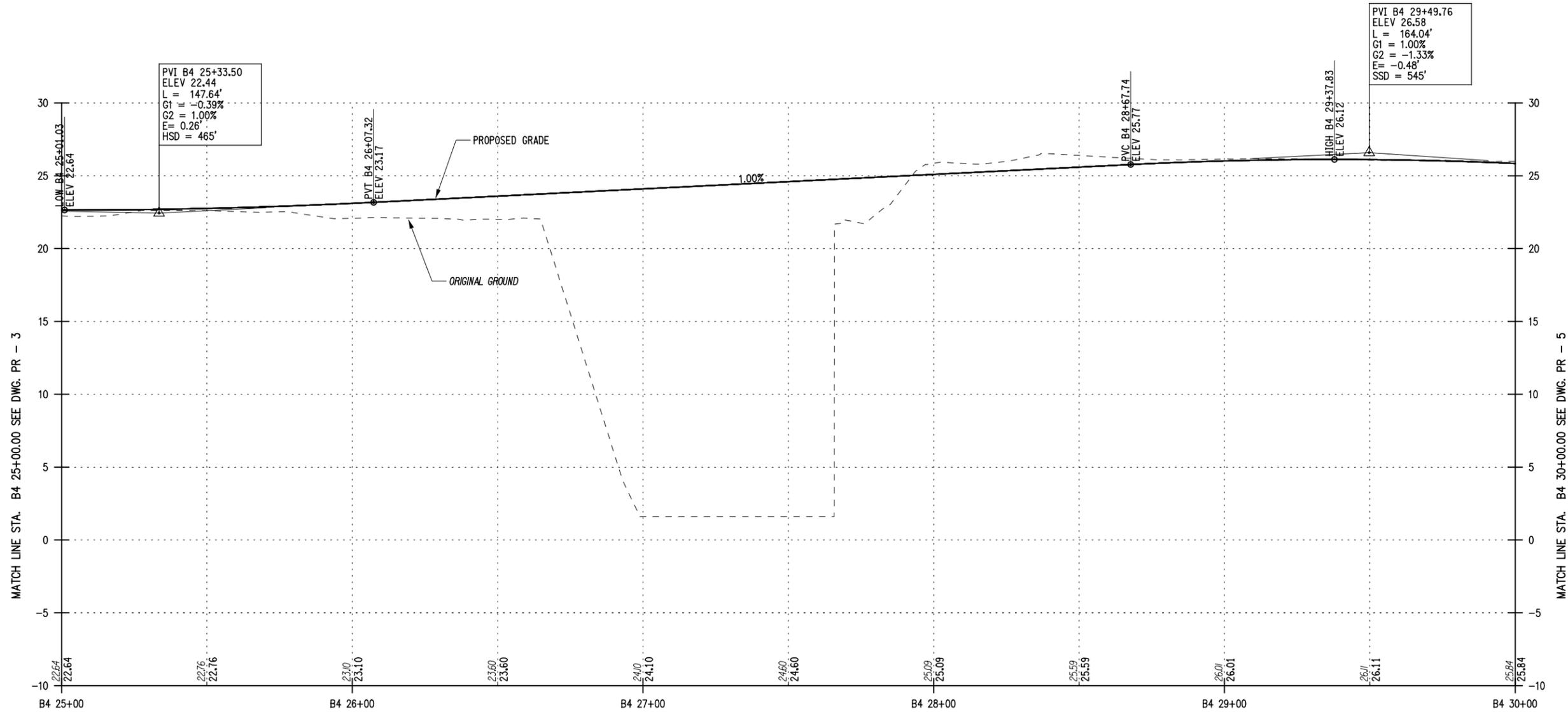
NOT FOR CONSTRUCTION		SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
		S.H. CITY STREET	PS&E DATE:	BIN XXXXX		
		CITY OF TROY		BIN XXXXX		
COUNTY: RENSSELAER						

NOT FOR CONSTRUCTION		SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
		S.H. CITY STREET	PS&E DATE:	BIN XXXXX		
		CITY OF TROY		BIN XXXXX		
COUNTY: RENSSELAER						

NOT FOR CONSTRUCTION		SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
		S.H. CITY STREET	PS&E DATE:	BIN XXXXX		
		CITY OF TROY		BIN XXXXX		
COUNTY: RENSSELAER						

NOT FOR CONSTRUCTION		
	CONTRACT NUMBER DXXXXXX	
	DRAWING NO. PR-3 SHEET NO.	

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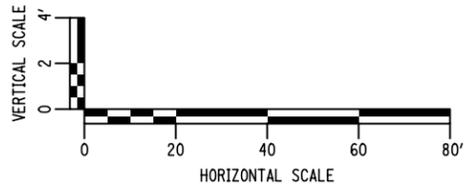
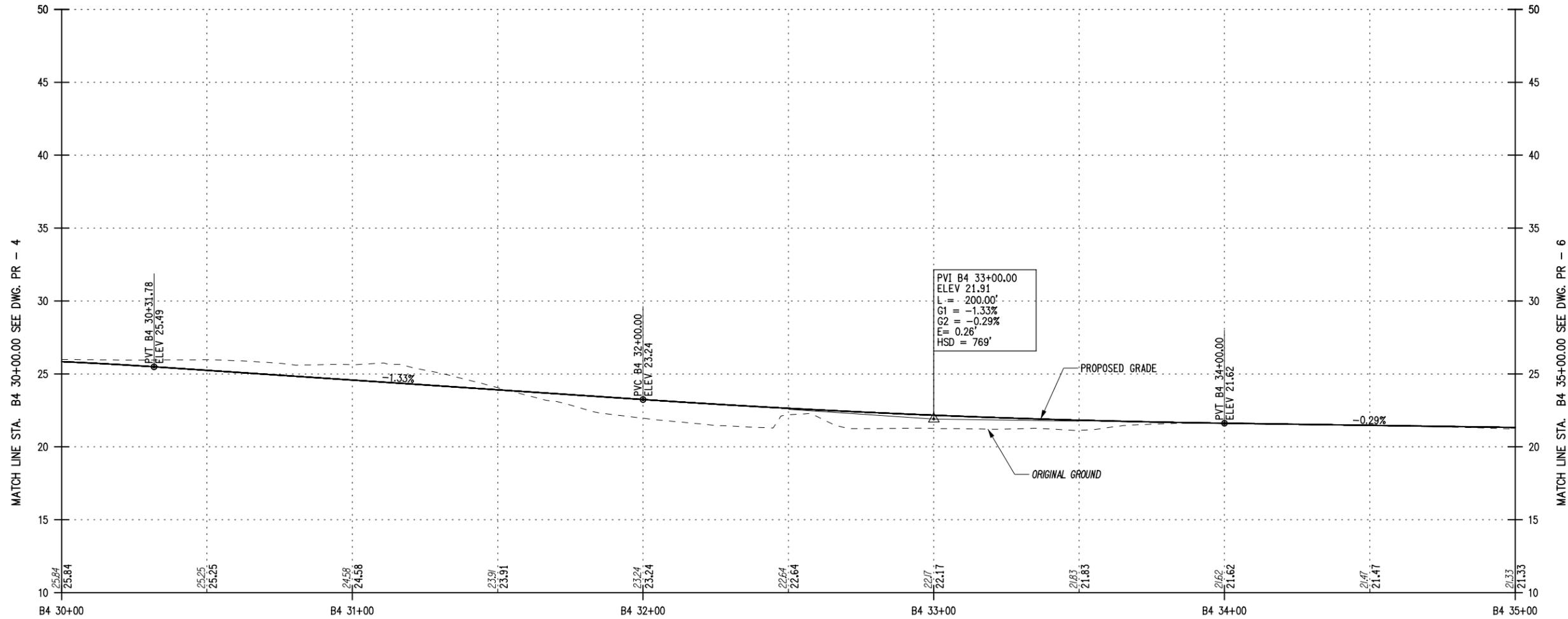
PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			ALT. B4-PROFILE
	CITY OF TROY		BIN XXXXX		DRAWING NO. PR-4	
	COUNTY: RENNELAER				SHEET NO.	

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CONTRACT NUMBER	DXXXXXX
DRAWING NO.	PR-4
SHEET NO.	



PREPARED BY: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
 DESCRIPTION OF ALTERATIONS:
NOT FOR CONSTRUCTION

SOUTH TROY INDUSTRIAL PARK ROAD
 S.H. CITY STREET
 CITY OF TROY
 COUNTY: RENSSELAER

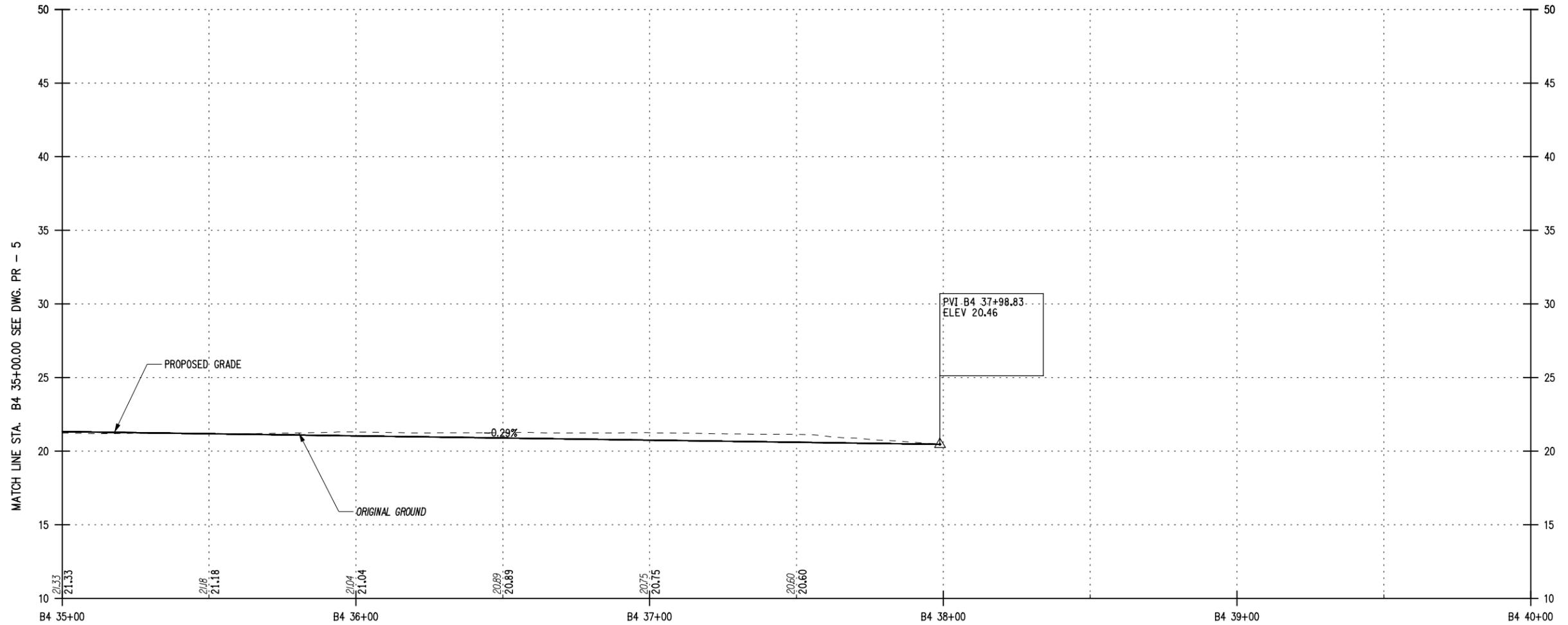
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ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED
ALT. B4-PROFILE

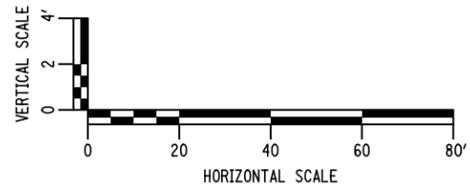
Creighton Manning

CONTRACT NUMBER
 DXXXXXX
 DRAWING NO. PR-5
 SHEET NO.

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.



PREPARED BY: ON:	ALTERED BY: ON:



AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59	BRIDGES	CULVERTS	ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
NOT FOR CONSTRUCTION	S.H. CITY STREET	PS&E DATE:	BIN XXXXX			ALT. B4-PROFILE
	CITY OF TROY		BIN XXXXX		DRAWING NO. PR-6	
	COUNTY: RENSSELAER				SHEET NO.	

SOUTH TROY INDUSTRIAL PARK ROAD	P.I.N. 1754.59
S.H. CITY STREET	PS&E DATE:
CITY OF TROY	
COUNTY: RENSSELAER	

P.I.N. 1754.59	BRIDGES	CULVERTS
PS&E DATE:	BIN XXXXX	
	BIN XXXXX	

ALL DIMENSIONS IN FT UNLESS OTHERWISE NOTED	CONTRACT NUMBER
ALT. B4-PROFILE	DXXXXXX
	DRAWING NO. PR-6
	SHEET NO.



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Appendix B - Environmental

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Federal Environmental Approval Worksheet

PIN: 1754.59	Comp. by: L. Wallin, MJELS	Date Comp.: 6/19/14	FUNDING TYPE: Federal
DESCRIPTION: Construction of a new two-lane roadway from Main Street on the south end to the intersection of First Street and Adams Street on the north end.			NEPA CLASS: Class III (EA)
			SEQR TYPE: Unlisted
LOCALITY (Village, Town, City): City of Troy			COUNTY: Rensselaer

Purpose of this Worksheet:

- Communicate project National Environmental Policy Act (NEPA) classification to Federal Highway Administration (FHWA).
- Identify additional required FHWA environmental determinations, approvals and/or concurrences required before the Categorical Exclusion (CE) determination can be made.
- Reflect the documentation in the Design Approval Document (DAD) and enable the approving authority (per PDM Exhibit 4-2) to make the CE determination.

Categorical Exclusion (CE) - a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency (40 CFR 1508.4). Actions that do not individually or cumulatively have a significant environmental effect are excluded from the requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) (23 CFR 71.115(b)).

Instructions (see also "FEAW_Instructions.doc"):

Complete the worksheet prior to the end of Design Phase I. If project parameters or site condition changes result in potential resource impacts, re-do worksheet prior to Design Approval to confirm NEPA determination and recertify (on page 4).

Step 1: Unusual Circumstances Threshold Determination – 23 CFR 771.117(b)

Any action which normally would be classified as a CE but could involve unusual circumstances (or even uncertainty) will require consultation with FHWA to determine if the CE classification is proper or whether an EA or EIS is required.

Do any, or the potential for any, unusual circumstances exist?

- | | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 1. | Significant environmental impacts; | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 2. | Substantial controversy on environmental grounds; | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 3. | Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act; or | YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> |
| 4. | Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action. | YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |

- **If yes to any** of the above, contact the Main Office Project Liaison (MOPL) (see PDM Exhibit 4-1). If after consultation with FHWA it is determined that the project cannot be progressed as a CE, **skip to step 4** and see PDM Chapter 4 for NEPA Class I (EIS) or Class III (EA) processing.
- **If no to all**, then this project qualifies as a Categorical Exclusion (CE); **proceed to step 2**.

Step 2: Other FHWA environmental actions required prior to CE Determination

Classification as a CE does not exempt the project from further environmental review. Compliance with Federal Statutes, Regulations and Executive Orders (EO's) must be documented. Refer to the Department's Project Development Manual (PDM) and Environmental Manual (TEM) to determine the requirements.

Federal Environmental Approval Worksheet

Project ID Number: 1754.59 - South Troy Industrial Park Road

2.1	Other required FHWA environmental independent determinations	FHWA Independent Determination and/or Concurrence Required & Received ¹	Date FHWA determination issued	FHWA Independent Determination and/or Concurrence not required or resource not present ¹
		A	B	C
	EO 11990 Protection of Wetlands Individual Finding	<input type="checkbox"/>	Date Issued	<input checked="" type="checkbox"/>
	ESA Section 7 Threatened and Endangered Species	<input checked="" type="checkbox"/>	Date Issued	<input type="checkbox"/>
	Section 106 (National Historic Preservation Act)	<input checked="" type="checkbox"/>	Date Issued	<input type="checkbox"/>
	4(f) (Park, Wildlife Refuge Historic Sites and National Wild and Scenic Rivers)	<input type="checkbox"/>	Date Issued	<input checked="" type="checkbox"/>
2.2	Other FHWA environmental compliance and/or approvals/concurrence required	Resource present and threshold ¹ exceeded		Resource not present, or present but threshold ¹ not exceeded
	EO 11988 Floodplains	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	EO 13112 Invasive Species	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	EO 12898 Environmental Justice	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	Safe Drinking Water Act Section 1424(e)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	U.S. Army Corps of Engineers, Section 404/10 NW 23	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	Section 6(f) (Land and Water Conservation Funds)	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	Migratory Bird Treaty Act	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	23CFR772 Type I Noise abatement	<input type="checkbox"/>		<input checked="" type="checkbox"/>
2.3	Other Environmental Issues requiring FHWA notification	Resource present and threshold ¹ exceeded		
	U.S. Army Corps of Engineers, Section 404/10 Individual Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	National Wild and Scenic Rivers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	U.S. Coast Guard Bridge Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Known hazardous waste site (only EPA National Priority list)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Project on or affecting Native American Lands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Proceed to step 3.

Step 3: Who makes the NEPA CE Determination?

FHWA Regulations describe two types of CEs; CEs listed in 23 CFR 771.117(c) [aka the C list], and CEs such as those listed in 23 CFR 771.117 (d) [aka the D list]. NYSDOT can make the CE determination for C list projects once all required approvals and concurrences have been secured. NEPA determination for d list projects has been retained by FHWA. NYSDOT can also make the CE determination where a project meets the [July 15, 1996 FHWA NY Division NEPA](#)

¹ See thresholds.doc

Federal Environmental Approval Worksheet

[Programmatic Categorical Exclusion memo criteria](#). To determine by whom, FHWA or NYSDOT, and how the CE determination is made, follow the instructions beginning in section 3.1 of the following table.

Project ID Number: 1754.59 - South Troy Industrial Park Road

	CONDITION	ACTION
3	Determine whether FHWA or NYSDOT makes the CE determination.	
3.1	If the project is an action that would normally be a CE in 23 CFR 771.117 (c) (drop down list), check the "Yes" box. If not, check the "No" box.	<p>If yes, NYSDOT can make the CE determination once all the approvals and coordinations required are complete.</p> <p>Is the project an action that would normally be a CE in 23 CFR771.117(c)? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> Choose an item.</p> <p>If yes, choose an item and proceed to step 3.1.1. If no, proceed to step 3.2.</p>
3.1.1	Determine if any of the required environmental determinations, compliance and/or approvals/ concurrences are outstanding.	<p>If there are:</p> <ul style="list-style-type: none"> • outstanding environmental determinations (Table 2.1:checks in column A without dates in column B) • and/or circumstances requiring demonstration of applicable EO compliance or issues requiring FHWA environmental review (checks in column A in Table 2.2) <p>The project will use Memo Shell 2 (FHWA needs to review this project). Proceed to step 4.</p> <p><i>If the project does not meet the conditions above proceed to step 3.1.2.</i></p>
3.1.2	Determine if any issues are present that require FHWA notification.	<p>If there are:</p> <ul style="list-style-type: none"> • any issues requiring FHWA environmental notification (checks in column A in Table 2.3); then <p>The project will use Memo Shell 3 (FHWA must be notified of this project). Proceed to step 4.</p> <p><i>If the project does not meet the conditions above proceed to step 3.1.3.</i></p>
3.1.3	No Determinations, Approvals, Concurrences or Notifications required.	<p>The project will use Memo Shell 1 (memo to file). Proceed to step 4.</p>
3.2	The project is a D list CE as per 23 CFR 771.117(d). Choose appropriate entry from drop down list. If "other" provide an explanation.	<p>Certain actions eligible for categorical exclusion require NYSDOT to transmit documentation and a determination that a CE applies. Examples of activities that may proceed as a CE are listed in 23 CFR 771.117(d) (D list). Activities not directly listed on the D List also have the potential to proceed as a CE with submitted documentation (other).</p> <p>All other environmental, social and economic factors that affect the project's NEPA classification, as per 23 CFR 771.117 and the July 1996 FHWA NY Division NEPA Programmatic Categorical Exclusion memo must still be addressed, for example the project: does not change the functional class; does not add mainline capacity; is not on new location; will not change travel patterns; acquires only minor amounts of ROW (temporary or permanent); does not cause displacements; does not change access control; is air quality exempt; is consistent with NYS Coastal Zone Management Plan; and the analysis and requirements of the Farmland Protection Policy Act have been satisfied.</p> <p>The project is an action that would normally be a CE in 23 CFR 771.117(d). Choose an item.. Other: provide explanation here Proceed to step 3.2.1.</p>

Federal Environmental Approval Worksheet

Project ID Number: 1754.59 - South Troy Industrial Park Road

3.2.1	Determine if any of the required environmental determinations, compliance and/or approvals/ concurrences are outstanding and/or notification is required.	<p>If there are:</p> <ul style="list-style-type: none"> • any outstanding environmental determinations (any checks in column A without dates in column B in Table 2.1); • and/or any circumstances requiring demonstration of applicable EO compliance (any checks in column A in Table 2.2); • and/or issues requiring FHWA environmental notification (any checks in column A in Table 2.3); then <p>The project will use Memo Shell 4 (MOPL and FHWA need to review this project). Proceed to Step 4.</p>
3.2.2	Design Approval Document sent to FHWA	<p>If the project:</p> <ul style="list-style-type: none"> • does not meet the conditions above (3.2.1), then the project has met the criteria established as per the programmatic agreement dated July 15, 1996. <p>The project will use Memo Shell 5 (memo to file). Proceed to Step 4.</p>

Step 4: Summary and Recommendation

- This project **does not** qualify to be progressed as a Categorical Exclusion.
- The NEPA Determination is being made by FHWA
- All outstanding FHWA environmental approvals will be obtained and are listed here:
ESA Section 7 Concurrence
Section 106 Concurrence

I certify that the information provided above is true and accurate and recommend the project be processed as described above.

Project Manager/Designer _____ Date _____
(or Responsible Local Official)

Print Name and Title: _____

Regional Environmental Unit Supervisor _____ Date _____

Print Name and Title: _____

Regional Local Project Liaison _____ Date _____
(Locally Administered Projects Only)

Print Name and Title: _____

Changes that may have occurred since the preparation of the worksheet which would **create the need to go through the Worksheet again** include but are not limited to:

- A change in the scope of the proposed project.
- A change in the social, economic or environmental circumstances or the setting of the project study area (i.e. the affected environment).
- A change in the federal statutory environmental standards.
- Discovering new information not considered in the original process.
- A significant amount of time has passed (equal or greater than three years).

MAP 3
STUDY AREA
LAND USE MAP

NORTHERN
REDEVELOPMENT
DISTRICT

NEIGHBORHOOD
DISTRICT

CENTRAL
REDEVELOPMENT
DISTRICT

SOUTHERN
REDEVELOPMENT
DISTRICT



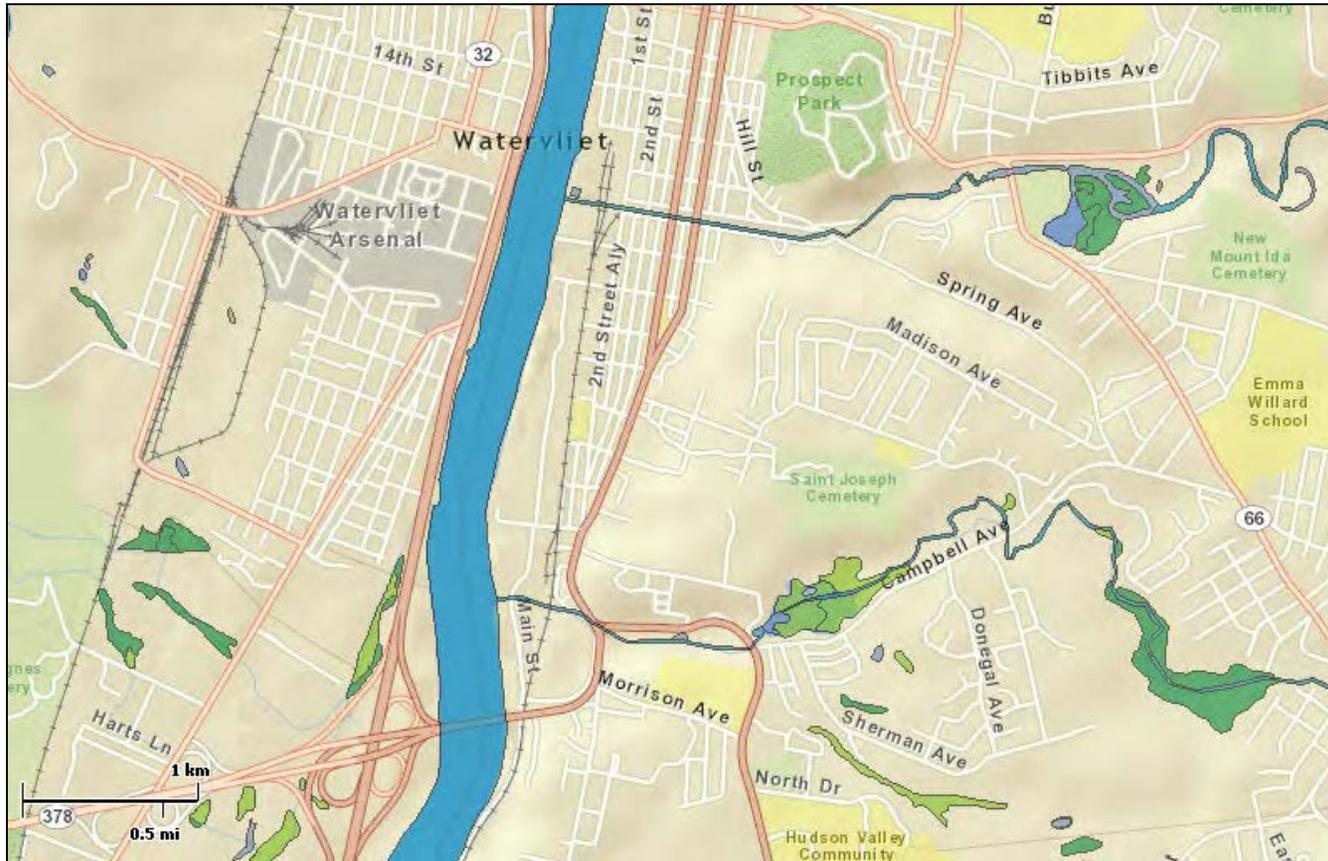
Note: Map has been obtained from the *South Troy Working Waterfront Revitalization Plan* prepared by River Street Planning & Development, December 2003.



U.S. Fish and Wildlife Service National Wetlands Inventory

Industrial Park Road - NWI Wetlands

Aug 2, 2011



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Printed August 2, 2011

FILE

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 4

1130 North Westcott Road, Schenectady, New York 12306-2014

Phone: (518) 357-2069 • FAX: (518) 357-2460

Website: www.dec.ny.gov



Joe Martens
Commissioner

July 28, 2011

Melanie Osterhout, PE
MJ Engineering and Land Surveying, PC
1533 Crescent Road
Clifton Park, NY 12065

RE: South Troy Industrial Park Road
City of Troy, Rensselaer County

Dear Ms. Osterhout:

This responds to your letter of July 25, 2011, regarding a proposal to construct a new roadway, the South Troy Industrial Park Road Project, in the City of Troy. The request included a general location map, however, plans or specifics as to where the road will be constructed were not included, making it difficult to provide responses regarding permitting requirements.

The map provided shows an area that encompasses the County Waste facility, Sperry Warehouse, former Portec Rail site, and several other parcels/former businesses, and the hatched area encompasses several blocks from Adams Street to the Route 378 Bridge. The location of the roadway was not included. Based on the limited information, I can offer the following:

Stream Classifications - The Wynantskill Creek is a Class C waterbody, and the Poestenkill is Class C(t). A permit would be required to install any new culverts or performing excavation or filling of the bed or banks. No State-regulated wetlands were identified, however, there may be Federal wetlands along the project route that may be regulated by the US Army Corps of Engineers.

Archaeological - The site appears to be located within a potential archaeological and/or historic area. If a permit is required from our Department, we will be required to consult with the NYS Office of Parks, Recreation and Historic Preservation regarding potential impact to those resources, and whether a Phase I Archaeological Study may be required.

Stormwater - Any project that disturbs more than one acre must comply with the new SPDES Phase II regulations for construction activities, which includes the preparation of a Stormwater Pollution Prevention Plan and Notice of Intent.

Endangered Species - Our database shows the potential for a vascular plant in the project area (Green Rock Cress), but no threatened or endangered species were identified. It is noted that a field check is suggested, to ensure the accuracy of this data. It appears that no work is proposed on the bed or banks of the Hudson River. If this is incorrect, then additional species of concern and permit requirements would apply.

Hazardous Waste permits, investigations, etc. - Information relative to existing hazardous waste sites or investigations, closure reports or PBS tanks would be available via FOIL request, which should be directly to Toni Galluzzo at the above address. When requesting a file search through FOIL, the specific area of interest should be noted which includes the existing (or former) business name and address.

New York State Department of Environmental Conservation

Division of Environmental Permits, Region 4

1130 North Westcott Road, Schenectady, New York 12306-2014

Phone: (518) 357-2069 • Fax: (518) 357-2460

Website: www.dec.ny.gov



Joe Martens
Commissioner

August 4, 2011

Lisa Wallin, PE
MJ Engineering and Land Surveying, PC
1533 Crescent Road
Clifton Park, NY 12065

RE: Lead Agency Response
South Troy Industrial Park Road
Troy, Rensselaer County

Dear Ms. Wallin:

This letter responds to your communication of July 29, 2011, regarding lead agency coordination for the project referenced herein, under Article 8 (State Environmental Quality Review - SEQR) of the Environmental Conservation Law and 6 NYCRR Part 617. **Please be advised that the correct address for lead agency requests is the Region 4 Office, NYS DEC, 1130 North Westcott Road, Schenectady, NY 12306.**

The Department has the following interest in this project:

<u>Name of Action:</u>	South Troy Industrial Park Road
<u>DEC Permits (if any):</u>	Article 15, Stormwater, other (pending receipt of plans)
<u>DEC Contact Person:</u>	Nancy M. Baker, Environmental Analyst 2

DEC Position: Based on the information provided:
DEC has no objection to your agency assuming lead agency status for this action.

Comments:

Specific comments on the proposed project were sent in response to a letter from MJ Engineering dated July 28, 2011 (copy attached). A more detailed response can be provided once specific plans have been received.

Please feel free to contact me at (518) 357-2452 if you have any further questions.

Sincerely,

Nancy M Baker
Deputy Regional Permit Administrator
Region 4

Enclosure
cc: file



DEPARTMENT OF THE ARMY
US Army Corps of Engineers, ATTN: CENAN-OP-RU
Upstate Regulatory Field Office
1 Buffington St., Bldg 10, 3rd Fl. North
Watervliet, New York 12189-4000

AUG 12 2011

REPLY TO
ATTENTION OF

Upstate New York Section

SUBJECT: Proposed South Troy Industrial Park Road Project
by the City of Troy
Application Number: NAN-2011-00930

Lisa Wallin, P.E.
MJ Engineering and Land Surveying, P.C.
1533 Crescent Road
Clifton Park, New York 12065

Dear Ms. Wallin:

We have received a copy of your request for SEQR Classification and Lead Agency Determination, dated July 29, 2011, regarding the proposed development of an industrial park roadway in the City of Troy, Rensselaer County, New York.

The New York District, U.S. Army Corps of Engineers does not take a position for or against lead agency selection in the New York State SEQR process for this proposed action. However, we would like to continue to be apprised of the project as an "involved agency". It should be noted that if there are wetlands located on the parcels and if the construction of the trail will involve work in waters of the United States, including the discharge of fill material into streams or wetlands, then the proposed activities may require a Department of the Army permit.

The Army Corps of Engineers regulates activities that include dredging or construction activities in or over any navigable waters of the United States, the placement of any dredged or fill material in any waters of the United States (including coastal or inland wetlands), or the accomplishment of any work affecting the course, location, condition or capacity of such areas. Such activities may require a Department of the Army permit, in accordance with 33 CFR 320-332.

Most waterbodies, including wetlands, intermittent streams and natural drainage courses, are considered to be waters of the United States. Currently, the New York State Department of Environmental Conservation (NYSDEC) recognizes and maps state freshwater wetlands as those wetland areas that are 12.4 acres or more and/or are ecologically unique. A NYSDEC determination classifying an area as a non-state regulated wetland does not free a property owner from his or her obligations under the Clean Water Act; the Corps regulates the discharge of dredged or fill material into most freshwater wetlands, regardless of size.

To remain out of Department of the Army jurisdiction completely, we recommend that the applicant limit the project to those areas upland of any waters or wetlands of the United States. Not only is this environmentally sound, but it could potentially save the applicant

considerable time and expense while attempting to obtain necessary federal, state or local permits.

It is possible that a project may qualify for a nationwide general permit, in accordance with 33 CFR 330 and the Issuance of Nationwide Permits in the Federal Register dated March 12, 2007 (72 FR 11092). An activity is authorized under a nationwide general permit only if that activity and the permittee satisfy all of the nationwide permit's terms and conditions. Unless a nationwide general permit contains a condition requiring the applicant to notify the Corps prior to undertaking the proposed activity, a written authorization is not necessary. Activities that do not qualify for authorization under a nationwide general permit may still be authorized by an individual or regional general permit.

Additional information on the New York District Corps of Engineers regulatory program can also be found at <http://www.nan.usace.army.mil>.

In order for us to better serve you, please complete our Customer Service Survey located at:

<http://www.nan.usace.army.mil/business/buslinks/regulat/index.php?survey>

If you have any questions concerning the above, please contact the undersigned at (518) 266-6352.

Sincerely,



Victoria Bova
Legal Instruments Examiner

Cf: NYSDEC-Region 4, Schenectady
City of Troy Planning Board

Lisa M. Wallin

From: Daniel Marrone - NOAA Federal <daniel.marrone@noaa.gov>
Sent: Thursday, June 18, 2015 11:08 AM
To: Lisa M. Wallin
Cc: Mark Murray-Brown - NOAA Federal
Subject: Re: Information Request: NYSDOT PIN 1754.59

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Lisa,
No ESA-listed species under our jurisdiction occur in the project area. No ESA section 7 consultation is necessary.
Dan

On Thu, Jun 18, 2015 at 10:57 AM, Lisa M. Wallin <lwallin@mjels.com> wrote:

Thank you, I appreciate your assistance!

Lisa M. Wallin, P.E.

Project Engineer

MJ Engineering & Land Surveying, P.C.

1533 Crescent Road Clifton Park, NY 12065

T: [\(518\) 371-0799](tel:(518)371-0799) | F: [\(518\) 371-0822](tel:(518)371-0822)

lwallin@mjels.com | www.mjels.com

From: Mark Murray-Brown - NOAA Federal [mailto:mark.murray-brown@noaa.gov]
Sent: Thursday, June 18, 2015 10:51 AM
To: Lisa M. Wallin
Cc: Daniel Marrone - NOAA Federal
Subject: Fwd: Information Request: NYSDOT PIN 1754.59

Dear Lisa - Your ESA Section 7 Point of contact on this request is Dan Marrone. He will be in touch with you if he has any questions.

Tx. Mark.

----- Forwarded message -----

From: **Lisa M. Wallin** <lwallin@mjels.com>

Date: Thu, Jun 18, 2015 at 9:54 AM

Subject: Information Request: NYSDOT PIN 1754.59

To: "Mark.Murray-Brown@noaa.gov" <Mark.Murray-Brown@noaa.gov>

Good Morning,

Please review the attached information request regarding NYSDOT PIN 1754.59, which proposes to construct a roadway on a new alignment in the City of Troy, NY. The project site is adjacent to the Hudson River.

If I should be contacting a different person or if you prefer a letter be mailed to your office, please let me know.

Also, I would appreciate if you could confirm receipt of this information request.

Thank you,

Lisa M. Wallin, P.E.

Project Engineer

MJ Engineering & Land Surveying, P.C.

1533 Crescent Road Clifton Park, NY 12065

T: [\(518\) 371-0799](tel:(518)371-0799) | F: [\(518\) 371-0822](tel:(518)371-0822)

lwallin@mjels.com | www.mjels.com

--

Mark Murray-Brown

Section 7 Coordinator

Protected Resources Division

NOAA National Marine Fisheries Service

Greater Atlantic Regional Fisheries Office

55 Great Republic Drive

Gloucester MA 01930

[\(978\) 281-9306](tel:(978)281-9306)



Engineering and Land Surveying, P.C.

Civil • Site • Environmental • Transportation • Structural • Bridge Inspection • Construction Inspection • Architecture • Land Surveying • 3D Laser Scanning

June 18, 2015

Mark Murray-Brown
Section 7 Coordinator
NOAA Fisheries Service
Greater Atlantic Region Fisheries Office
55 Great Republic Drive
Gloucester, MA 01930-2276

**Re: South Troy Industrial Park Road Project
City of Troy
Rensselaer County, New York
NYSDOT PIN 1754.59**

Dear Mr. Murray-Brown,

MJ Engineering and Land Surveying, PC has been contracted to complete the environmental investigations for the proposed South Troy Industrial Park Road Project located in the City of Troy, Rensselaer County, NY. The project proposes the construction of a new roadway from Adams Street, south past Main Street to Route 378. This project is slated to receive federal funding.

The alignment of the proposed road crosses the Poestenkill approximately 500 feet west of its outlet into the Hudson River. The Hudson River in the vicinity of the project area has the potential to support Atlantic and Shortnose sturgeon.

A regional project location map is enclosed for your reference. Project Coordinates (NAD 83):

From:	N 42° 43' 24.25"	W 73° 41' 44.99"
To:	N 42° 42' 11.69"	W 73° 41' 47.76"

It is the goal of the project to satisfy the needs and objectives of the project, with a cost-effective improvement/solution to the existing transportation facility, while minimizing adverse social, economic, and environmental impacts.

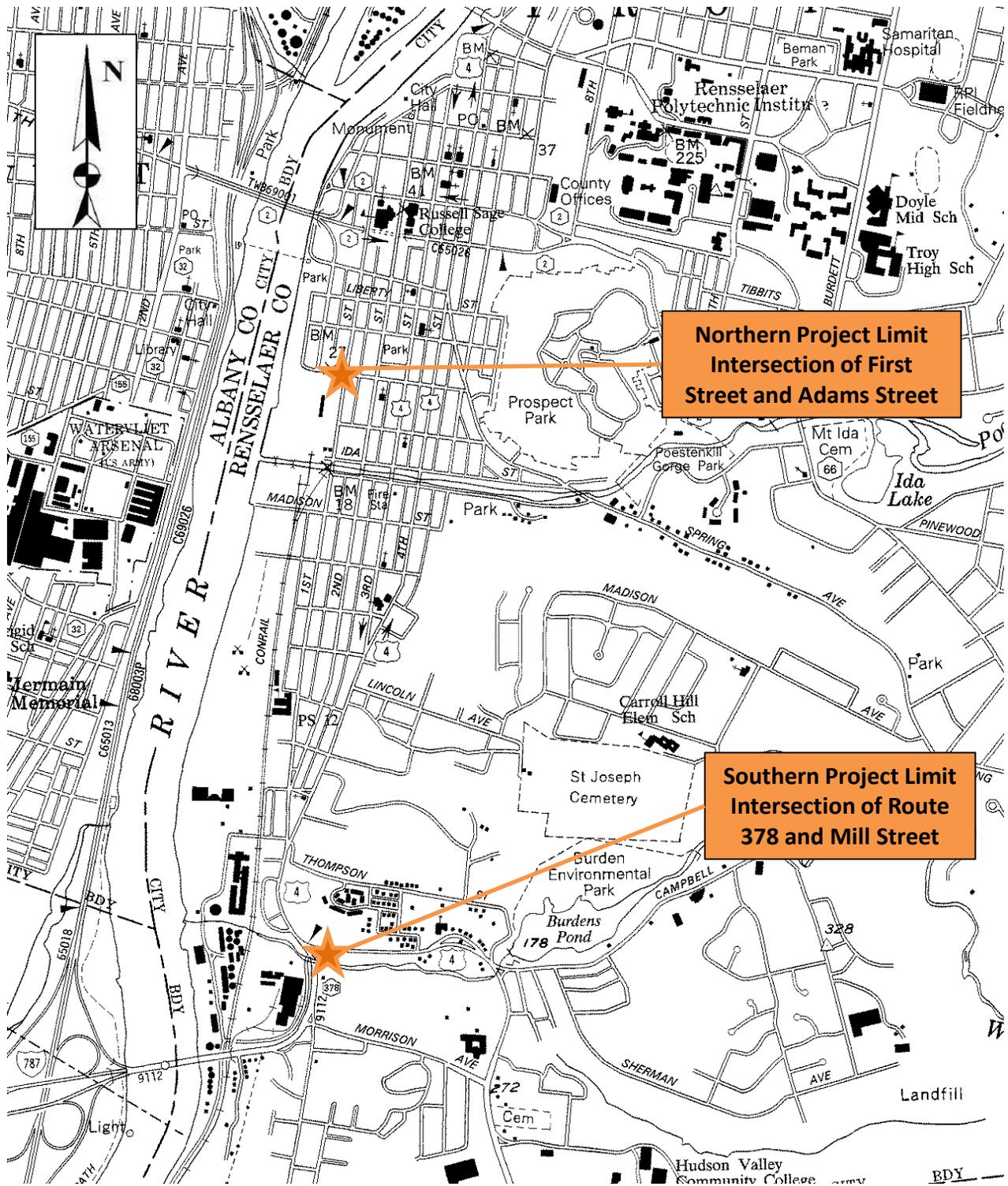
At this time, we respectfully request that your office review any available material concerning the location of Atlantic and Shortnose sturgeon, and other endangered and or threatened species, special wildlife or fish habitats, and the possible interruption of fish or wildlife movements in the vicinity of the project area. Please advise our office of any restrictions that must be imposed on in-stream work in the Poestenkill.

If you have any questions or require additional information regarding this request, please do not hesitate to contact me at lwallyn@mjels.com or (518) 371-0799.

Sincerely,

Lisa M. Wallin, P.E.
Project Engineer

Enclosure



**Northern Project Limit
Intersection of First
Street and Adams Street**

**Southern Project Limit
Intersection of Route
378 and Mill Street**



**M.J. Engineering and
Land Surveying, P.C.**

1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

PROJECT LOCATION MAP

**South Troy Industrial Park Road
CITY OF TROY
RENSSELAER COUNTY**

NOT TO SCALE

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APPROXIMATE SCALE
 400 0 400 FEET

KEY TO MAP

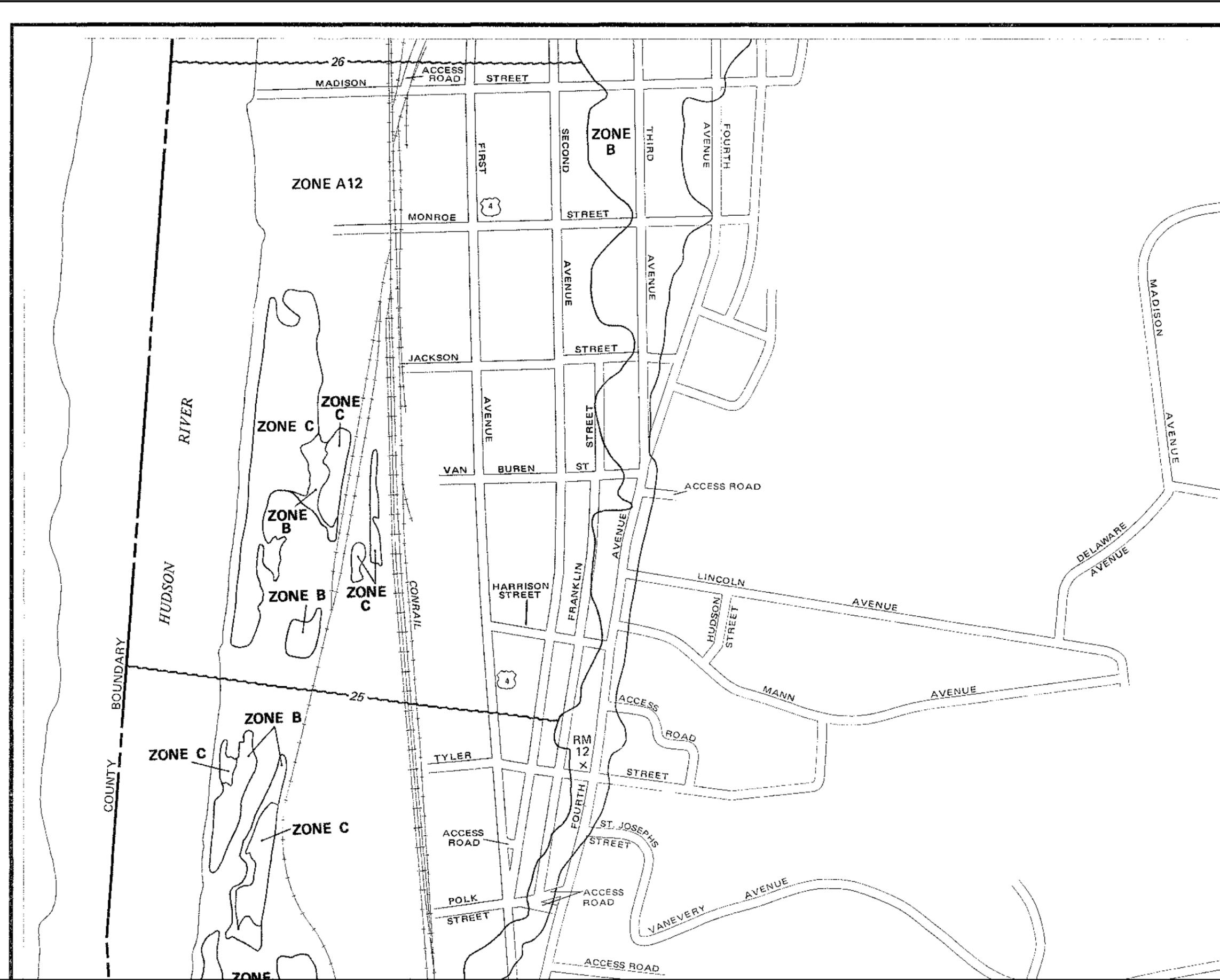
500-Year Flood Boundary	—	ZONE B
100-Year Flood Boundary	- - - -	ZONE A1 DATE
Zone Designations* With Date of Identification e.g., 12/2/74		ZONE A5 DATE
100-Year Flood Boundary	- - - -	ZONE B
500-Year Flood Boundary	—	ZONE B
Base Flood Elevation Line With Elevation in Feet**	~~~~~	513
Base Flood Elevation in Feet Where Uniform Within Zone**		(EL 987)
Elevation Reference Mark		RM7 X
River Mile		• M1.5

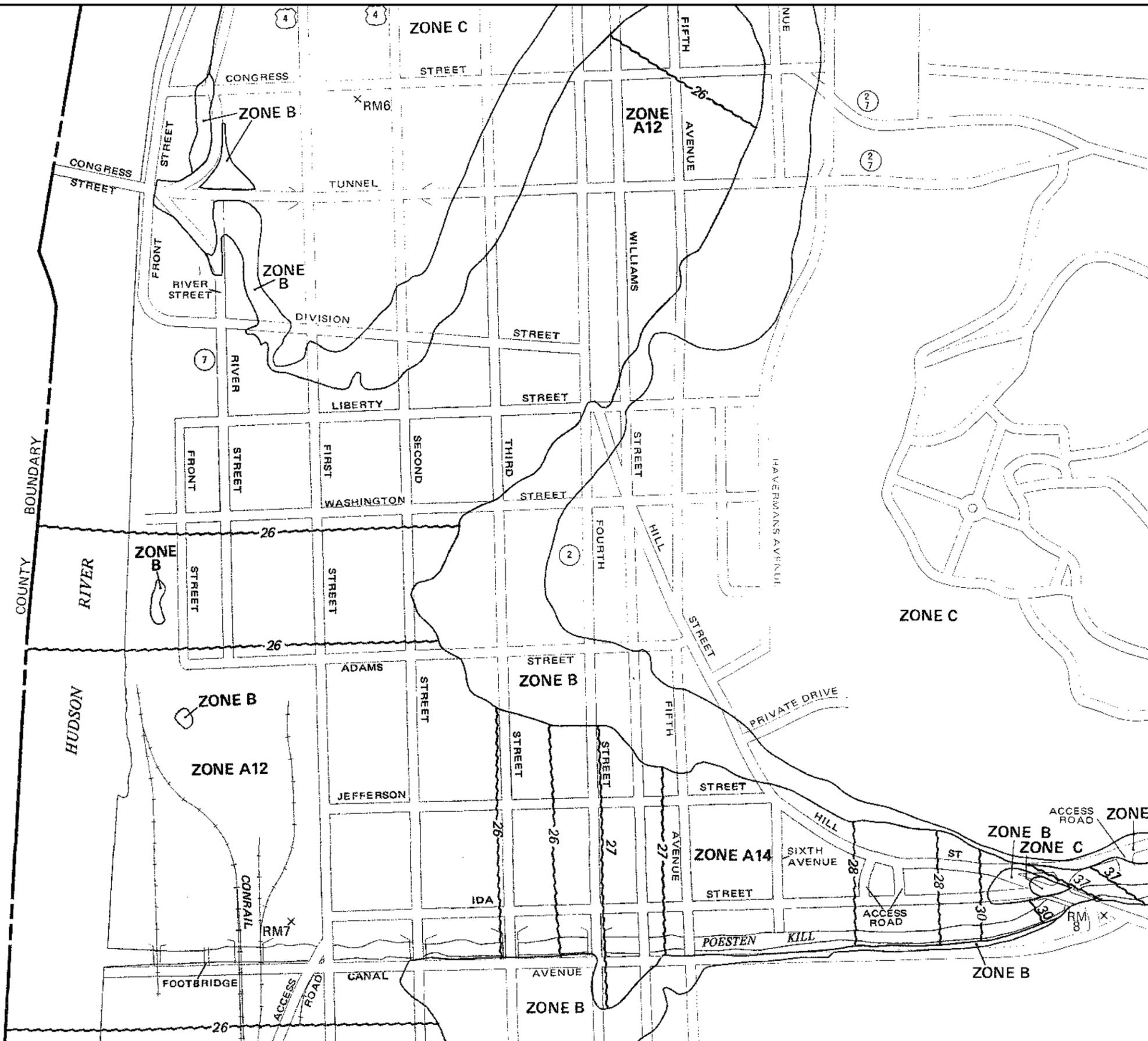
**Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov





APPROXIMATE SCALE
 400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
 FLOOD INSURANCE RATE MAP

CITY OF
TROY, NEW YORK
 RENSSELAER COUNTY

PANEL 3 OF 4
 (SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
 360677 0003 B

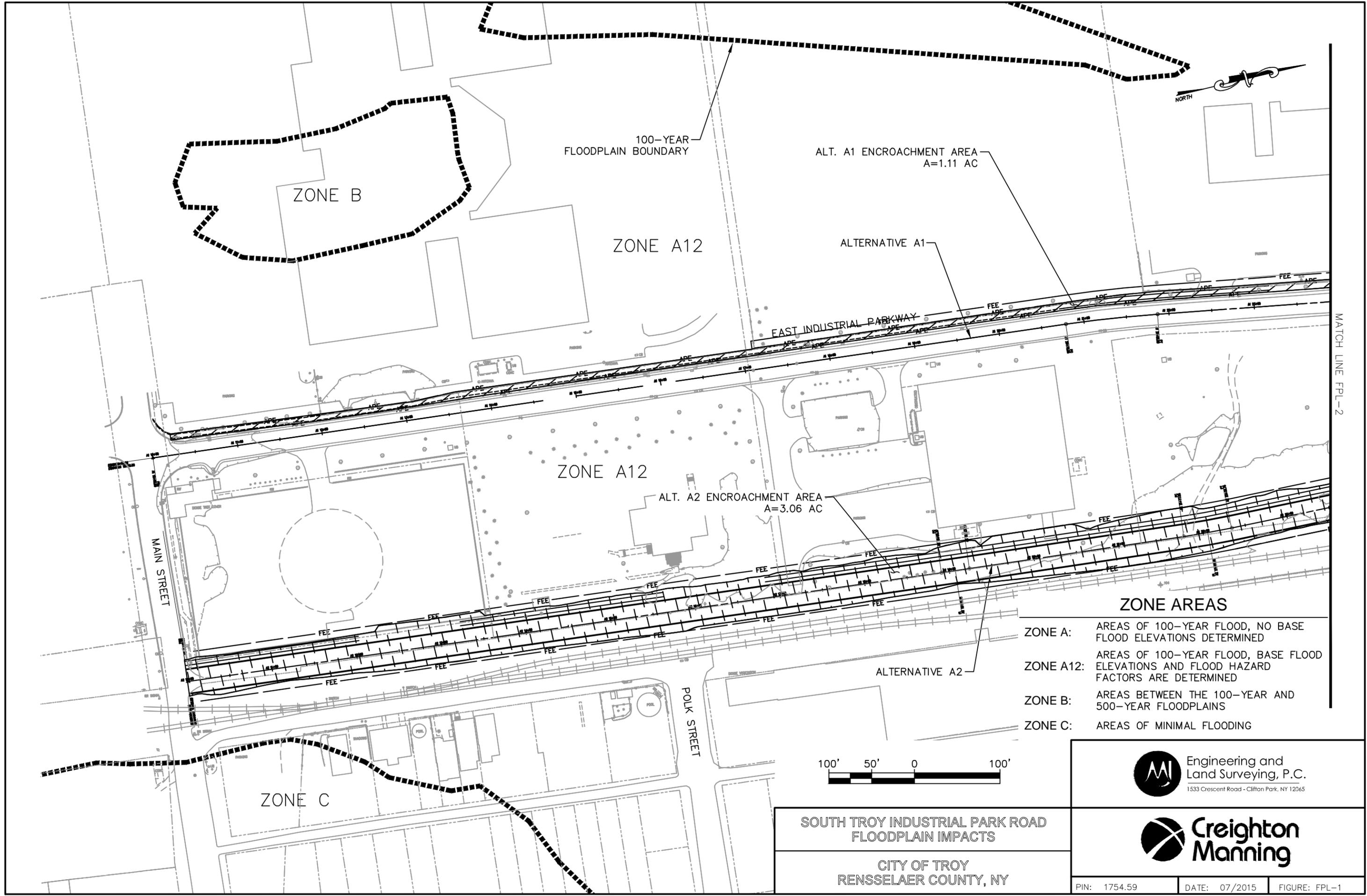
EFFECTIVE DATE:
 MARCH 18, 1980



U.S. DEPARTMENT OF HOUSING
 AND URBAN DEVELOPMENT
 FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

File Name: F:\m1516175459_cph_1ea_floodplain.dwg (Layout: FPL-1)
 Date: Tue, Jul 07, 2015 - 9:33 AM (Name: cswayne)



MATCH LINE FPL-2



ZONE AREAS

- ZONE A: AREAS OF 100-YEAR FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED
- ZONE A12: AREAS OF 100-YEAR FLOOD, BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS ARE DETERMINED
- ZONE B: AREAS BETWEEN THE 100-YEAR AND 500-YEAR FLOODPLAINS
- ZONE C: AREAS OF MINIMAL FLOODING



**SOUTH TROY INDUSTRIAL PARK ROAD
 FLOODPLAIN IMPACTS**

CITY OF TROY
 RENSSELAER COUNTY, NY

 **Engineering and
 Land Surveying, P.C.**
 1533 Crescent Road - Clifton Park, NY 12065

 **Creighton
 Manning**



HUDSON RIVER

ZONE C

ZONE A12

ZONE B

100-YEAR FLOODPLAIN BOUNDARY

ALT. A1 ENCROACHMENT AREA
A=1.11 AC

ALTERNATIVE A1

EAST INDUSTRIAL PARKWAY

ALTERNATIVES B1 AND B4

ALT. A2 ENCROACHMENT AREA
A=3.06 AC

ZONE A12

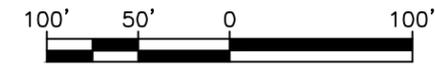
ZONE C

ALTERNATIVE A2

JACKSON STREET

ZONE AREAS

- ZONE A: AREAS OF 100-YEAR FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED
- ZONE A12: AREAS OF 100-YEAR FLOOD, BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS ARE DETERMINED
- ZONE B: AREAS BETWEEN THE 100-YEAR AND 500-YEAR FLOODPLAINS
- ZONE C: AREAS OF MINIMAL FLOODING



SOUTH TROY INDUSTRIAL PARK ROAD
FLOODPLAIN IMPACTS

CITY OF TROY
RENSSELAER COUNTY, NY



Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065



Creighton
Manning

PIN: 1754.59

DATE: 07/2015

FIGURE: FPL-2

File Name: F:\m1516175459_cph_1ea_floodplain.dwg (Layout: FPL-2)
Date: Tue, Jul 07, 2015 - 9:33 AM (Name: cswayne)

MATCH LINE FPL-1

MATCH LINE FPL-3



HUDSON RIVER

100-YEAR FLOODPLAIN BOUNDARY

ZONE C

ALT. B1 ENCROACHMENT AREA
A=3.32 AC

ALTERNATIVE B1

ZONE A12

MADISON STREET

ALT. B4 ENCROACHMENT AREA
A=3.35 AC

ALTERNATIVE B4

ZONE A12

FIRST STREET

MATCH LINE FPL-2

MATCH LINE FPL-4

ZONE AREAS

- ZONE A: AREAS OF 100-YEAR FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED
- ZONE A12: AREAS OF 100-YEAR FLOOD, BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS ARE DETERMINED
- ZONE B: AREAS BETWEEN THE 100-YEAR AND 500-YEAR FLOODPLAINS
- ZONE C: AREAS OF MINIMAL FLOODING



SOUTH TROY INDUSTRIAL PARK ROAD
FLOODPLAIN IMPACTS

CITY OF TROY
RENSSELAER COUNTY, NY



Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065



Creighton
Manning

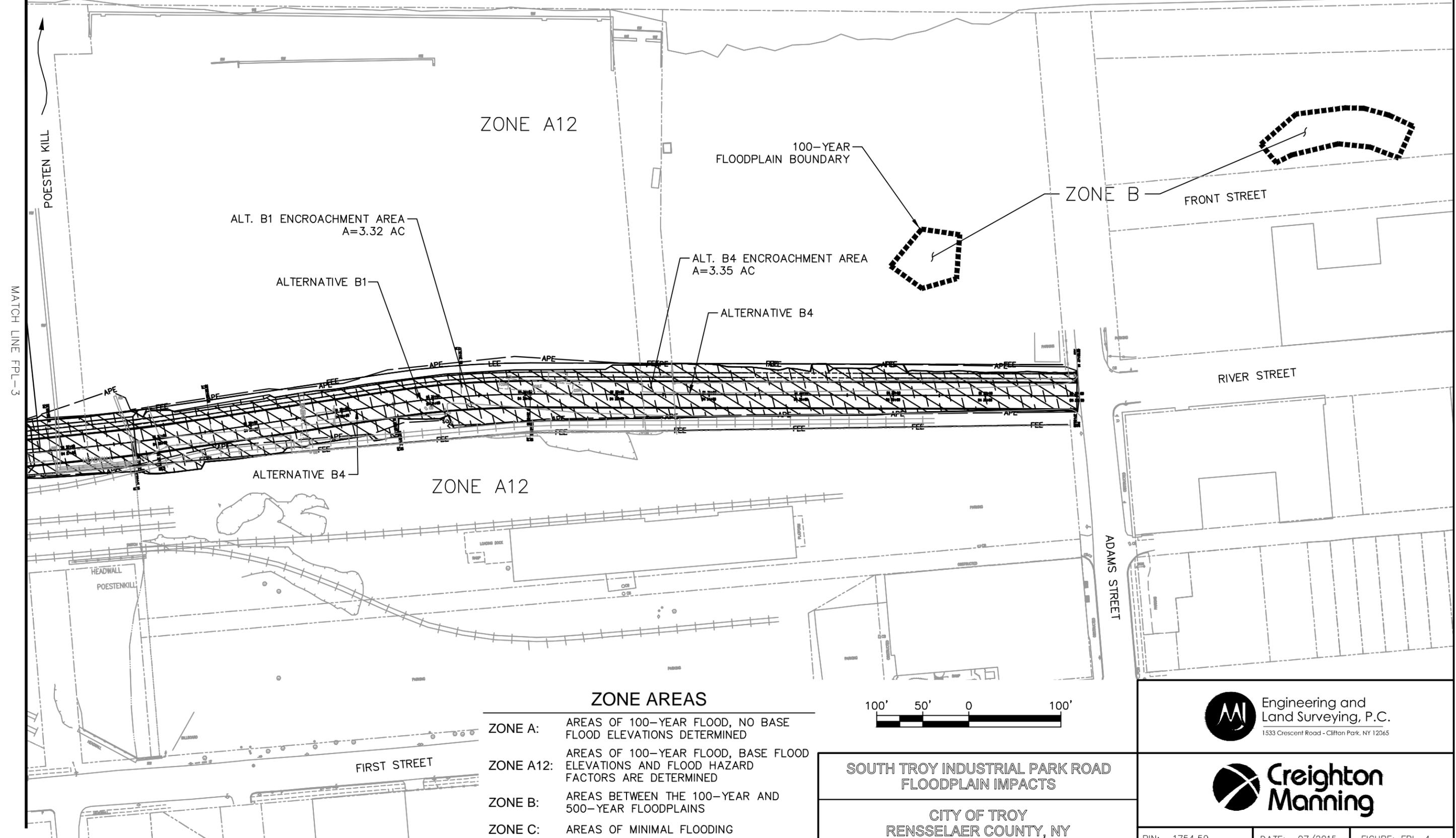
PIN: 1754.59

DATE: 07/2015

FIGURE: FPL-3



HUDSON RIVER



ZONE A12

100-YEAR FLOODPLAIN BOUNDARY

ZONE B

FRONT STREET

ALT. B1 ENCROACHMENT AREA
A=3.32 AC

ALT. B4 ENCROACHMENT AREA
A=3.35 AC

ALTERNATIVE B1

ALTERNATIVE B4

ALTERNATIVE B4

ZONE A12

RIVER STREET

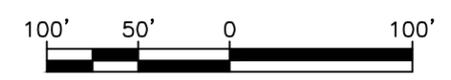
HEADWALL
POESTENKILL

ADAMS STREET

FIRST STREET

ZONE AREAS

- ZONE A: AREAS OF 100-YEAR FLOOD, NO BASE FLOOD ELEVATIONS DETERMINED
- ZONE A12: AREAS OF 100-YEAR FLOOD, BASE FLOOD ELEVATIONS AND FLOOD HAZARD FACTORS ARE DETERMINED
- ZONE B: AREAS BETWEEN THE 100-YEAR AND 500-YEAR FLOODPLAINS
- ZONE C: AREAS OF MINIMAL FLOODING



SOUTH TROY INDUSTRIAL PARK ROAD
FLOODPLAIN IMPACTS

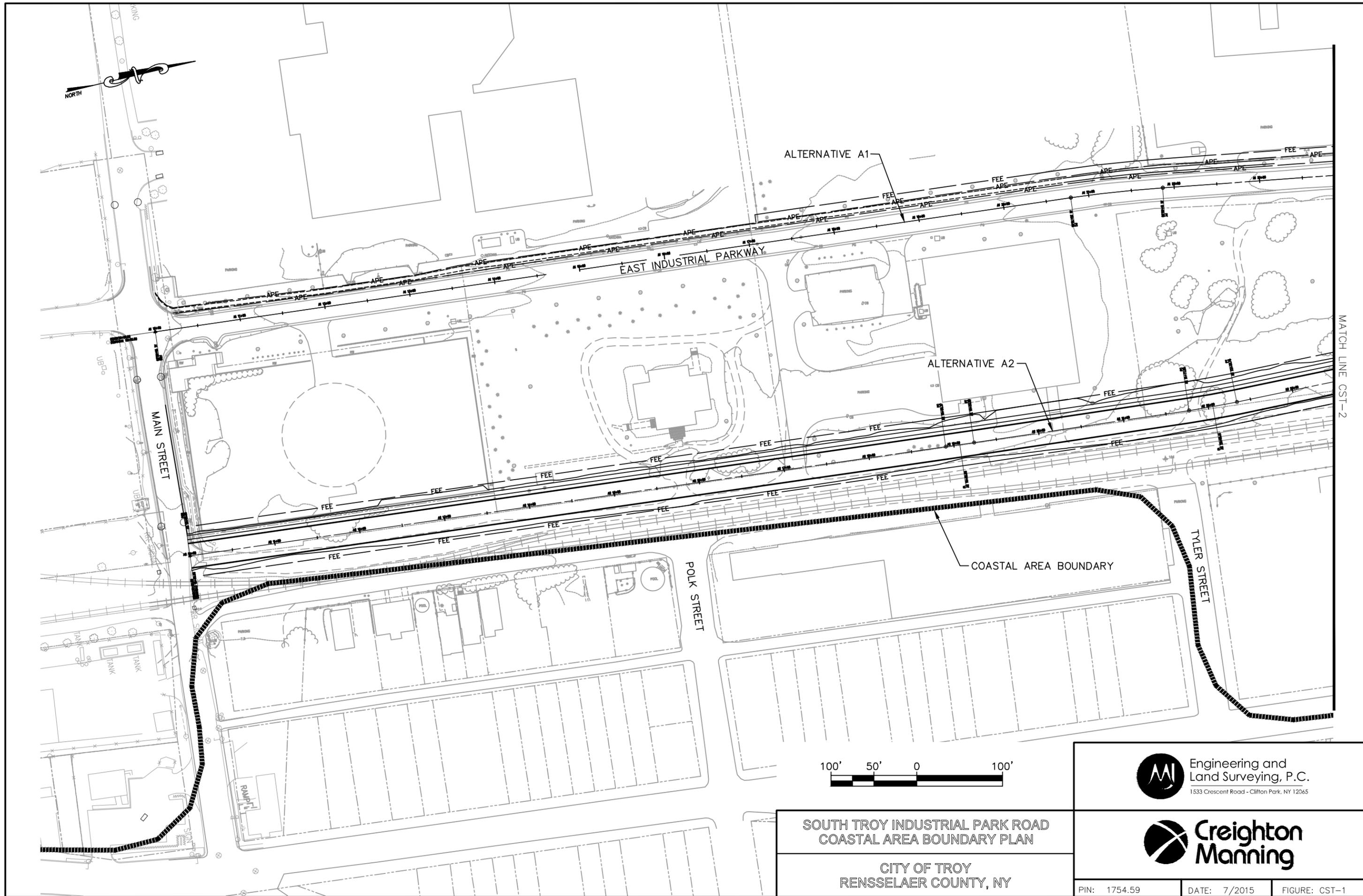
CITY OF TROY
RENSSELAER COUNTY, NY

 Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

 **Creighton
Manning**

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Date: Tue, Jul 07, 2015 - 9:27 AM (Name: cswayne)



SOUTH TROY INDUSTRIAL PARK ROAD
COASTAL AREA BOUNDARY PLAN

CITY OF TROY
RENSSELAER COUNTY, NY



Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

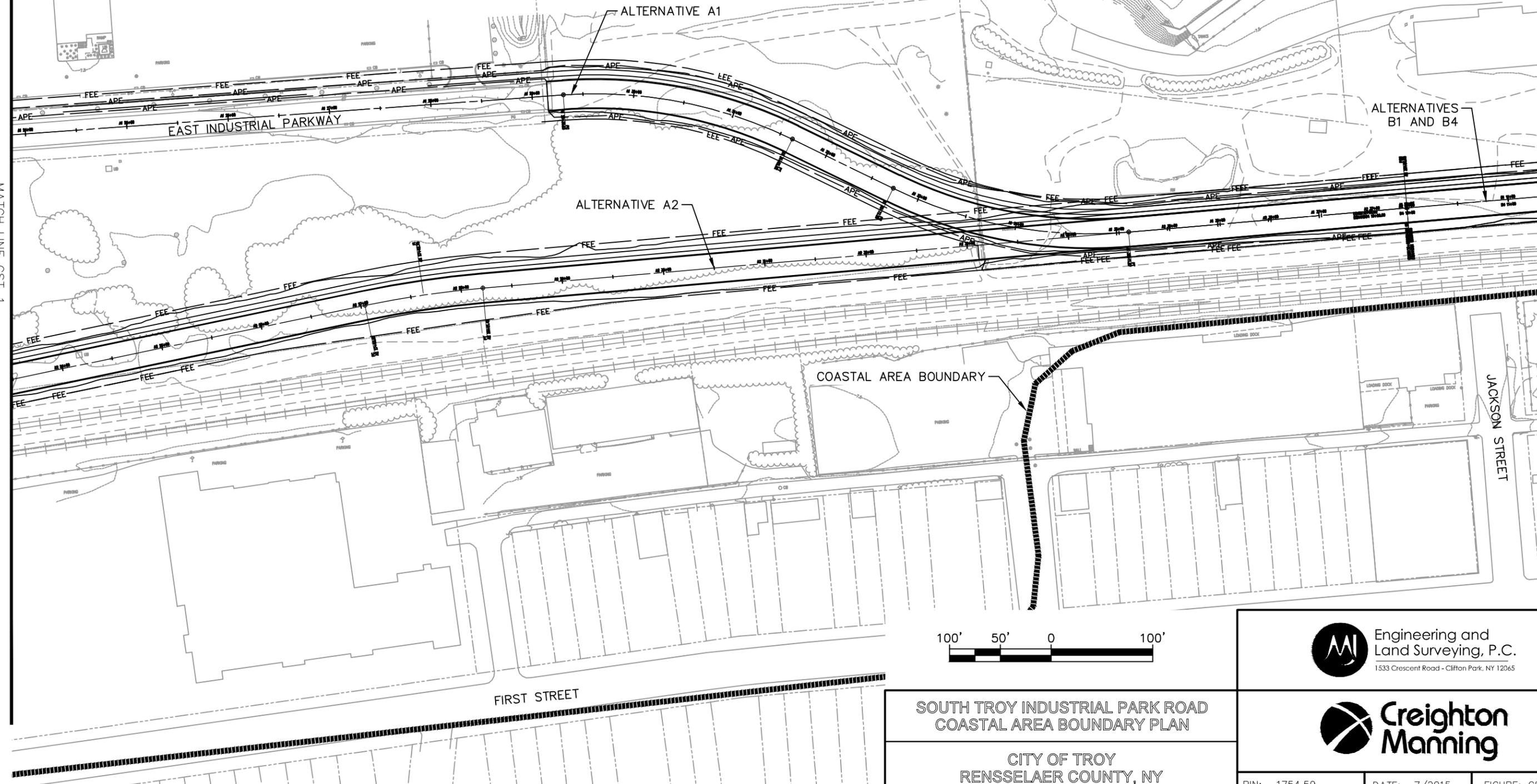


Creighton
Manning



MATCH LINE CST-1

MATCH LINE CST-3



**SOUTH TROY INDUSTRIAL PARK ROAD
COASTAL AREA BOUNDARY PLAN**

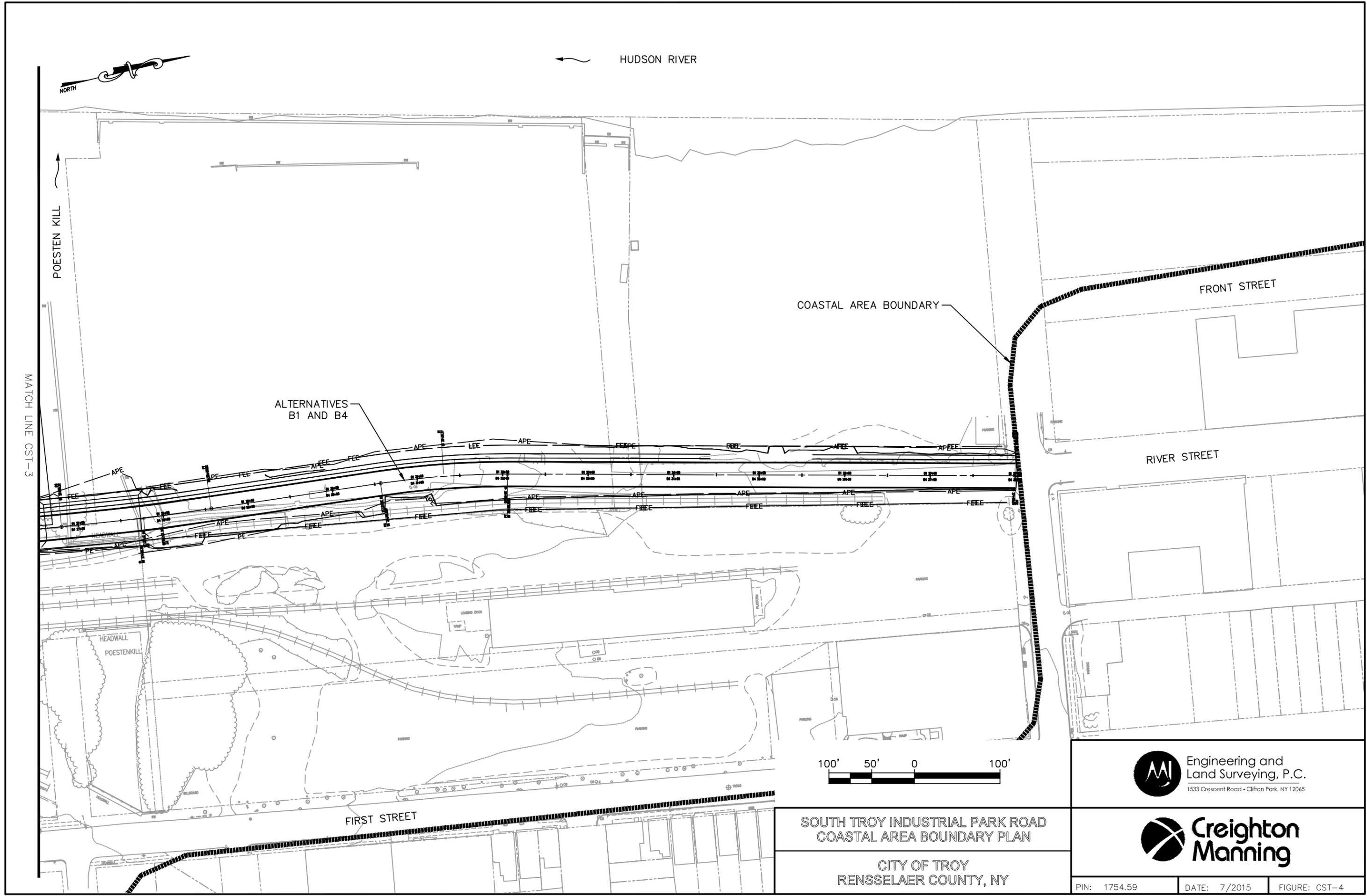
**CITY OF TROY
RENSSELAER COUNTY, NY**

 **Engineering and
Land Surveying, P.C.**
1533 Crescent Road - Clifton Park, NY 12065

 **Creighton
Manning**

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Date: Tue, Jul 07, 2015 - 9:31 AM (Name: cawayne)



SOUTH TROY INDUSTRIAL PARK ROAD
COASTAL AREA BOUNDARY PLAN

CITY OF TROY
RENSSELAER COUNTY, NY

 Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

 **Creighton
Manning**



HUDSON RIVER

MATCH LINE CST-2

MATCH LINE CST-4

MONROE STREET

MADISON STREET

ALTERNATIVE B4

ALTERNATIVE B1

COASTAL AREA BOUNDARY

FIRST STREET



SOUTH TROY INDUSTRIAL PARK ROAD
COASTAL AREA BOUNDARY PLAN

CITY OF TROY
RENSSELAER COUNTY, NY



Engineering and
Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065



Creighton
Manning

PIN: 1754.59

DATE: 7/2015

FIGURE: CST-3

File Name: F:\m1516175459_cph_1ea_coastal.dwg (Layout: CST-3)
Date: Tue, Jul 07, 2015 - 9:30 AM (Name: cswayne)

Toler Analysis for the Determination of Chloride Concentrations

$[(T \times M) / (I \times A)] \times K = C$

T = Tons of salt per lane-mile per year

M = Number of Lane Miles

I = Average annual inches of rain X 0.4 (0.4 = Percolation Factor)

A = Drainage area in square miles

K = Concentration Factor (Chloride Factor = 8.37)

C = Annual average chloride concentration in milligrams/liter (mg/L)

According to the City of Troy DPW (Bill Chamberlain):

- 8,470 tons of salt were ordered in the 2009-2010 season
- Approximately 7,250 tons were applied to city roads in the 2009-2010 season
- A 2011 NYSDOT report for the City noted 315.4 lane miles of roadway

---> As a conservative estimate, salt usage is approximately 23 tons of salt per lane mile

NOTE: Mr. Chamberlain noted that salt application rates are greater on the hills (i.e. Mill Street, Morrison Ave, etc.) and near the hospital and fire stations. This estimate is therefore most likely in excess of the salt application rates that would apply to the proposed South Troy Industrial Park Road.

The South Troy Industrial Park Road project is proposing to construct a two (2)-lane road using two of the following reasonable alternatives:

	Length	Lane Miles
Alternative A1	2787	1.06
Alternative A2	2734	1.04
Alternative B1	2799	1.06
Alternative B4	2800	1.06

According to the United State Geological Service (USGS), the 50-year average rain fall for the Albany County Airport is 36.1 inches. With a percolation factor of 0.4 x 36.1 = 14.44 inches.

The proposed project lies in the southwestern area of the City of Troy, adjacent to the Hudson River. The drainage area for the project area is approximately 0.26 square miles.

Therefore:

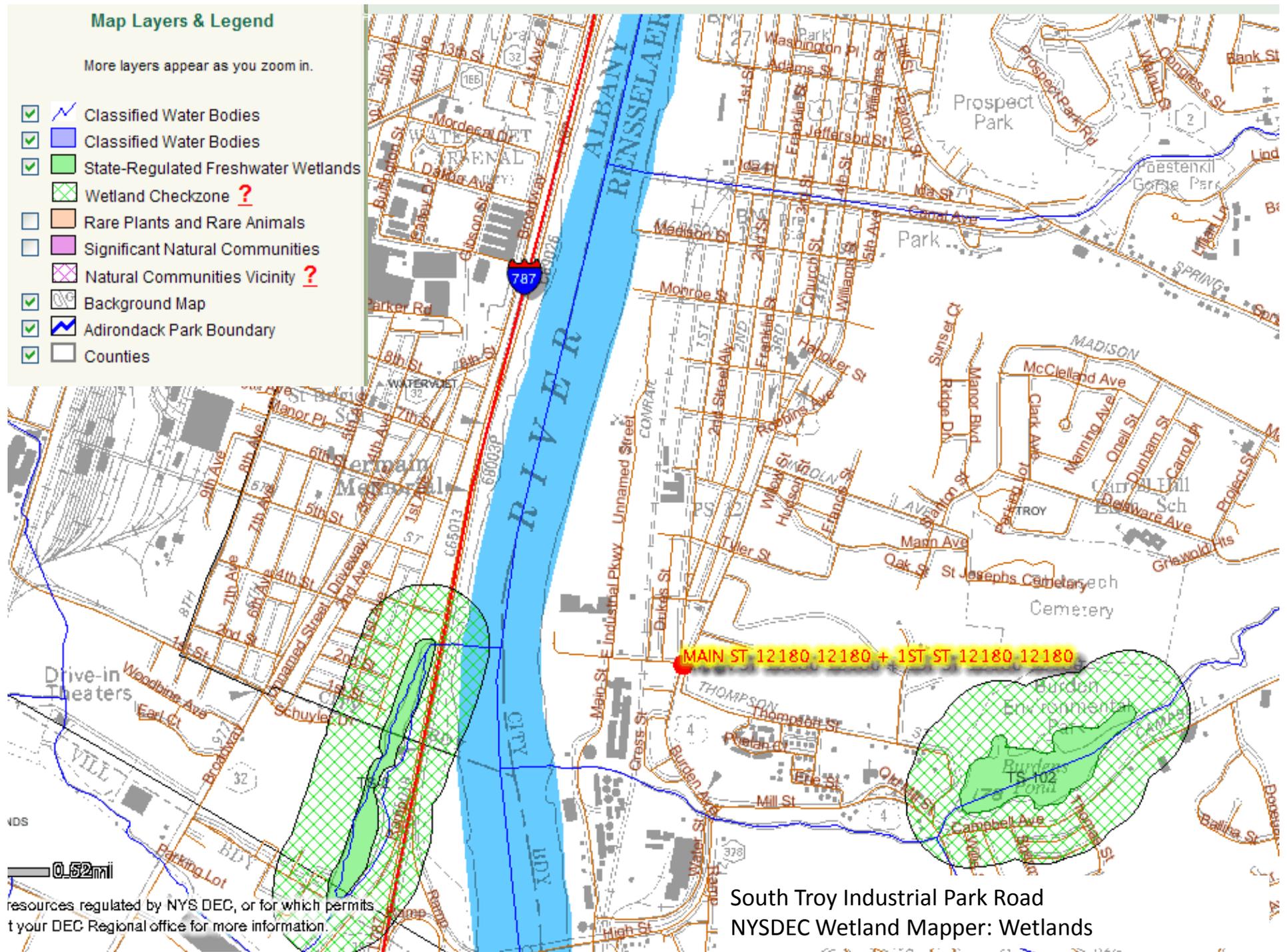
	Reasonable Alternatives			
	A1	A2	B1	B4
T (tons/lane mile) =	23	23	23	23
M (Lane Miles) =	1.06	1.04	1.06	1.06
I (inches) =	14.44	14.44	14.44	14.44
A (square miles) =	0.26	0.26	0.26	0.26
K =	8.37	8.37	8.37	8.37
C (mg/l) =	54.13	53.10	54.36	54.38

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Map Layers & Legend

More layers appear as you zoom in.

-  Classified Water Bodies
-  Classified Water Bodies
-  State-Regulated Freshwater Wetlands
-  Wetland Checkzone ?
-  Rare Plants and Rare Animals
-  Significant Natural Communities
-  Natural Communities Vicinity ?
-  Background Map
-  Adirondack Park Boundary
-  Counties



MAIN ST 12180 12180 + 1ST ST 12180 12180

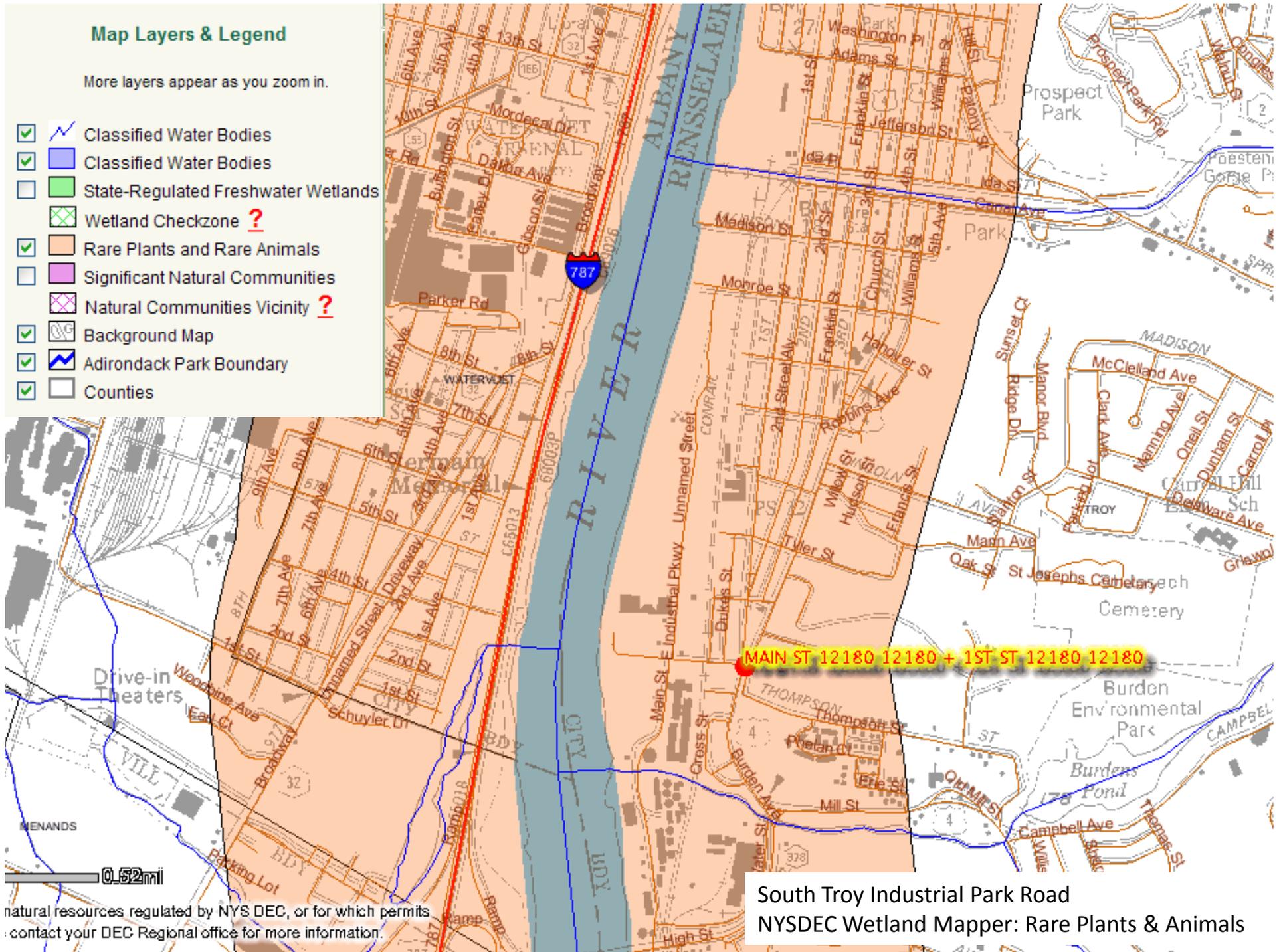
South Troy Industrial Park Road
 NYSDEC Wetland Mapper: Wetlands

resources regulated by NYS DEC, or for which permits
 t your DEC Regional office for more information.

Map Layers & Legend

More layers appear as you zoom in.

-  Classified Water Bodies
-  Classified Water Bodies
-  State-Regulated Freshwater Wetlands
-  Wetland Checkzone ?
-  Rare Plants and Rare Animals
-  Significant Natural Communities
-  Natural Communities Vicinity ?
-  Background Map
-  Adirondack Park Boundary
-  Counties



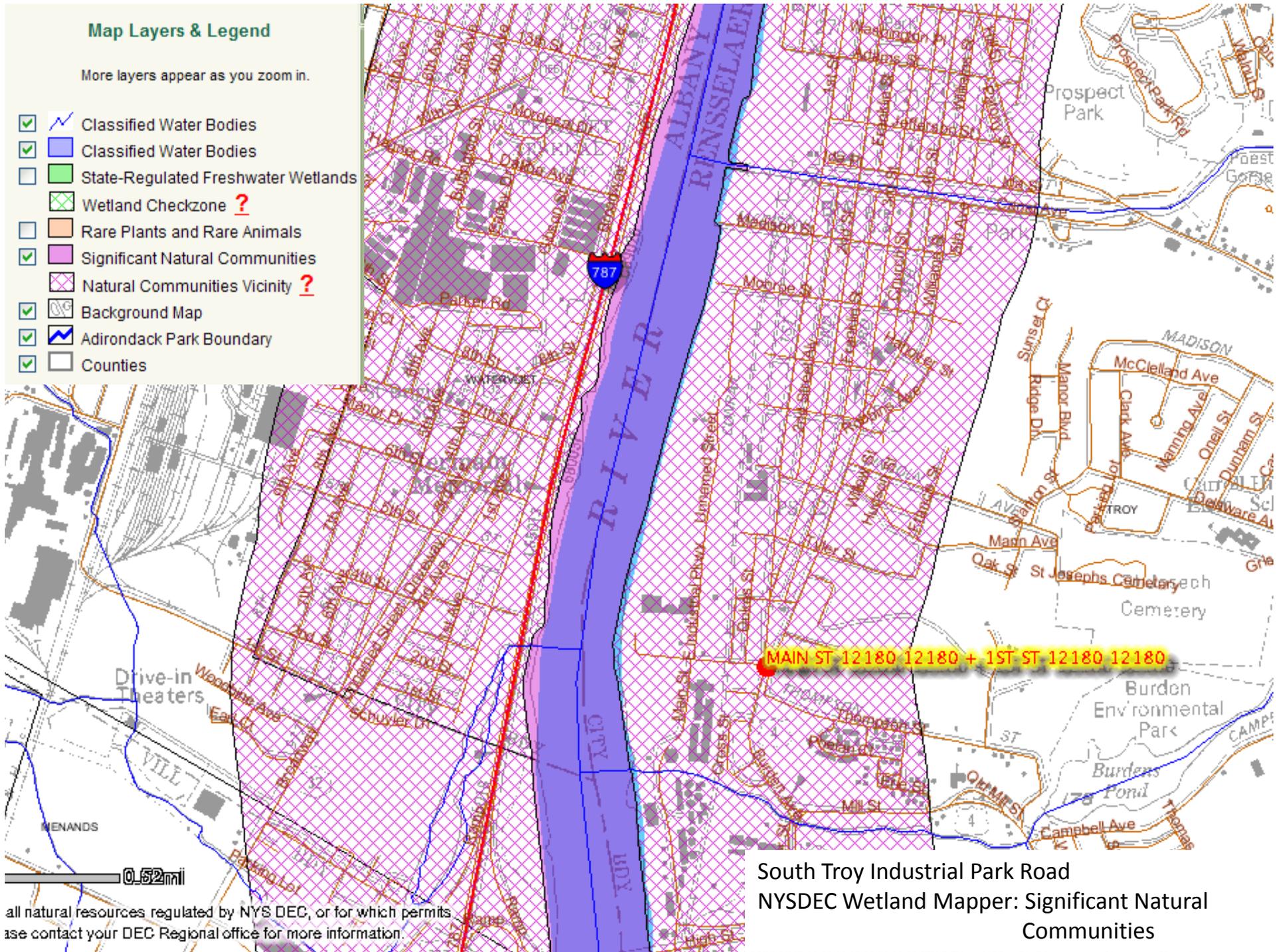
South Troy Industrial Park Road
 NYSDEC Wetland Mapper: Rare Plants & Animals

natural resources regulated by NYS DEC, or for which permits
 contact your DEC Regional office for more information.

Map Layers & Legend

More layers appear as you zoom in.

-  Classified Water Bodies
-  Classified Water Bodies
-  State-Regulated Freshwater Wetlands
-  Wetland Checkzone ?
-  Rare Plants and Rare Animals
-  Significant Natural Communities
-  Natural Communities Vicinity ?
-  Background Map
-  Adirondack Park Boundary
-  Counties



South Troy Industrial Park Road
 NYSDEC Wetland Mapper: Significant Natural Communities

all natural resources regulated by NYS DEC, or for which permits are contact your DEC Regional office for more information.

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[\[print page\]](#)[\[close window\]](#)**The Coordinates of the point you clicked on are:**

NYTM	E : 606601	Longitude/Latitude	W : 73.698
	N : 4728950		N : 42.705

Rare Plants and Rare Animals

This location is in the vicinity of one or more :
Rare Animals

Natural Communities Near This Location:

Natural Community Name	Location	Ecological System
Tidal river	Hudson River Estuary	Tidal Wetlands (Estuary)

Old or Potential Records (these records are not displayed on the map)

Common Name	Scientific Name	Date Last Documented	Location	Habitat Where Last Seen	Animal, Plant, or other	NYS Protected Status
Troublesome Sedge	Carex molesta	1940-07-09	North Albany	Waste land.	Rare Plant	Threatened
Green Rock-cress	Boechera missouriensis	1817-06	Troy		Rare Plant	Threatened
Handsome Sedge	Carex formosa	no date	Troy		Rare Plant	Threatened
Carey's Smartweed	Persicaria careyi	1937-08-30	Loudonville	Thickets. Border of swamp.	Rare Plant	Threatened

USGS Quadrangle

USGS Quadrangle Name
TROY SOUTH

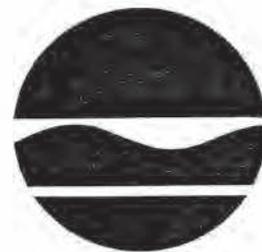
If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

August 3, 2011

Melanie Osterhout
M J Engineering
1533 Crescent Road
Clifton Park, NY 12065

Dear Ms. Osterhout:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for the proposed South Troy Industrial Park Road Project, PIN 1754.59, area as indicated on the map you provided, located from Adams Street, South to Route 378, City of Troy, Rensselaer County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any enclosed maps displaying locations of rare species are considered sensitive information, and are intended only for the internal use of the recipient; they should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Jean Pietrusiak, Information Services
NYS Department Environmental Conservation

Enc.
cc: Region 4

758

Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,
Albany, NY 12233-4757
(518) 402-8935

- The information in this report includes only records entered into the NY Natural Heritage databases as of the date of the report. This report is not a definitive statement on the presence or absence of all rare species or significant natural communities at or in the vicinity of this site.
- Refer to the User's Guide for explanations of codes, ranks and fields.
- Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

Natural Heritage Report on Rare Species and Ecological Communities



DRAGONFLIES and DAMSELFLIES

Gomphus vastus

Office Use
13447

Cobra Clubtail **NY Legal Status:** Unlisted **NYS Rank:** SH - Historical

Federal Listing: **Global Rank:** G5 - Secure

Last Report: 2008-07-03 **EO Rank:** Fair or Poor

County: Albany, Rensselaer

Town: Bethlehem, Rensselaer - City, Troy - City, Watervliet - City

Location: Hudson River South Troy

General Quality and Habitat: While these sites are primarily in residential areas, they support breeding populations of this species. The odonates were observed along a large river.

FI

Acipenser brevirostrum

Office Use
1091

Shortnose Sturgeon **NY Legal Status:** Endangered **NYS Rank:** S1 - Critically imperiled

Federal Listing: Endangered **Global Rank:** G3 - Vulnerable HRF BOF

Last Report: ** **EO Rank:** ** USFWS

County: Albany, Bronx, Columbia, Dutchess, Greene, New York, Orange, Putnam, Rensselaer, Rockland

Town: Albany - City, Athens, Beacon - City, Bethlehem, Catskill, Clarkstown, Clermont, Coeymans, Colonie

Location: At, or in the vicinity of, the project site.

General Quality and Habitat: Shortnose sturgeon are found in the long tidal portion of Hudson River. The river constitutes the lower part of a 315 mile stream system. It is fed upstream by two large main channel streams, which provide 80% of the freshwater input, and numerous other For more information, including management considerations, please contact the NYS DEC Hudson River Fisheries Unit at 845-256-3071.

Acipenser brevirostrum

Office Use
9927

Shortnose Sturgeon **NY Legal Status:** Endangered **NYS Rank:** S1 - Critically imperiled

Federal Listing: Endangered **Global Rank:** G3 - Vulnerable HRF BOF

Last Report: ** **EO Rank:** ** USFWS

County: Albany, Rensselaer

Town: Albany - City, Colonie, Green Island, North Greenbush, Rensselaer - City, Troy - City, Watervliet - C

Location: At, or in the vicinity of, the project site.

General Quality and Habitat: The shortnose sturgeon spawning area is shallow (3-5 feet), gravel/rubble shoal in the Hudson River extending downstream from a hydropower plant just below a dam to a bridge. Most of this portion of the Hudson River is near cities. For more information, including management considerations, please contact the NYS DEC Hudson River Fisheries Unit at 845-256-3071.

FRESHWATER MUSSELS

*Anodonta implicata*

Common Name: <i>Anodonta implicata</i> Family: Unionidae Life Stage: Adult Life History: Floater	NY Legal Status: Unlisted	NYS Rank: S1S2 - Critically imperiled	Office Use: 9713
	Federal Listing:	Global Rank: G5 - Secure	
	Last Report: 1984-fa	EO Rank: Fair	
	County: Albany, Rensselaer		
	Town: Albany - City, Bethlehem, Colonie, East Greenbush, Green Island, North Greenbush, Rensselaer - C		
	Location: Hudson River Troy to Albany		
	General Quality and Habitat: A long stretch of a river.		

4 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org. For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.



Boechera missouriensis

Office Use
3784

Green Rock-cress NY Legal Status: Threatened

NYS Rank: S2 - Imperiled

Federal Listing:

Global Rank: G5 - Secure

Last Report: 1960-06-11

EO Rank: Historical, no recent information

County: Albany

Town: Colonie

Location: Watervliet

Directions: Watervliet, west side.

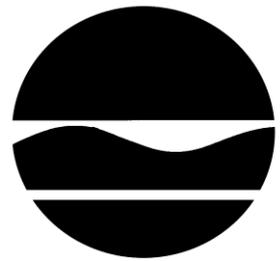
General Quality and Habitat: Open shale and chert ledges

M

3 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.acris.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

May 20, 2014

Lisa Wallin
MJ Engineering and Land Surveying, P.C.
1533 Crescent Road
Clifton Park, NY 12065

Re: South Troy Industrial Park Road Project (PIN 1754.59)
Town/City: City Of Troy. County: Rensselaer.

Dear Lisa Wallin :

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program



The following state-listed animals have been documented at your project site, or in its vicinity.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing. The list may also include significant natural communities that can serve as habitat for Endangered or Threatened animals, and/or other rare animals and rare plants found at these habitats.

For information about potential impacts of your project on these populations, how to avoid, minimize, or mitigate any impacts, and any permit considerations, contact the Wildlife Manager or the Fisheries Manager at the NYSDEC Regional Office for the region where the project is located. A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.

The following species and habitats have been documented at or near the project site, generally within 0.5 mile. Potential onsite and offsite impacts from the project may need to be addressed.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>FEDERAL LISTING</i>	
Fish				
Shortnose Sturgeon <i>Freshwater</i>	<i>Acipenser brevirostrum</i>	Endangered	Endangered	1091

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at <http://www.dec.ny.gov/animals/7494.html>.

Information about many of the rare plants and animals, and natural community types, in New York are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NatureServe Explorer at <http://www.natureserve.org/explorer>.



The following rare plants, rare animals, and significant natural communities have been documented at your project site, or in its vicinity.

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQ. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following animals, while not listed by New York State as Endangered or Threatened, are of conservation concern to the state, and are considered rare by the New York Natural Heritage Program.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NY STATE LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Dragonflies and Damselflies			
Cobra Clubtail	<i>Gomphus vastus</i>	Unlisted	Critically Imperiled in NYS
Hudson River South Troy, 2008-07-03: The odonates were observed along a large river.			13447
Freshwater Mussels			
Alewife Floater	<i>Anodonta implicata</i>	Unlisted	Critically Imperiled in NYS
Hudson River Troy to Albany, 1984-fa: A long stretch of a river.			9713

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from USDA’s Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage’s Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Tracking Number: 05E1NY00-2014-SLI-0626

April 22, 2014

Project Name: 1754.59 South Troy Industrial Park Road

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects

should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: 1754.59 South Troy Industrial Park Road

Official Species List

Provided by:

New York Ecological Services Field Office

3817 LUKER ROAD

CORTLAND, NY 13045

(607) 753-9334

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Tracking Number: 05E1NY00-2014-SLI-0626

Project Type: Transportation

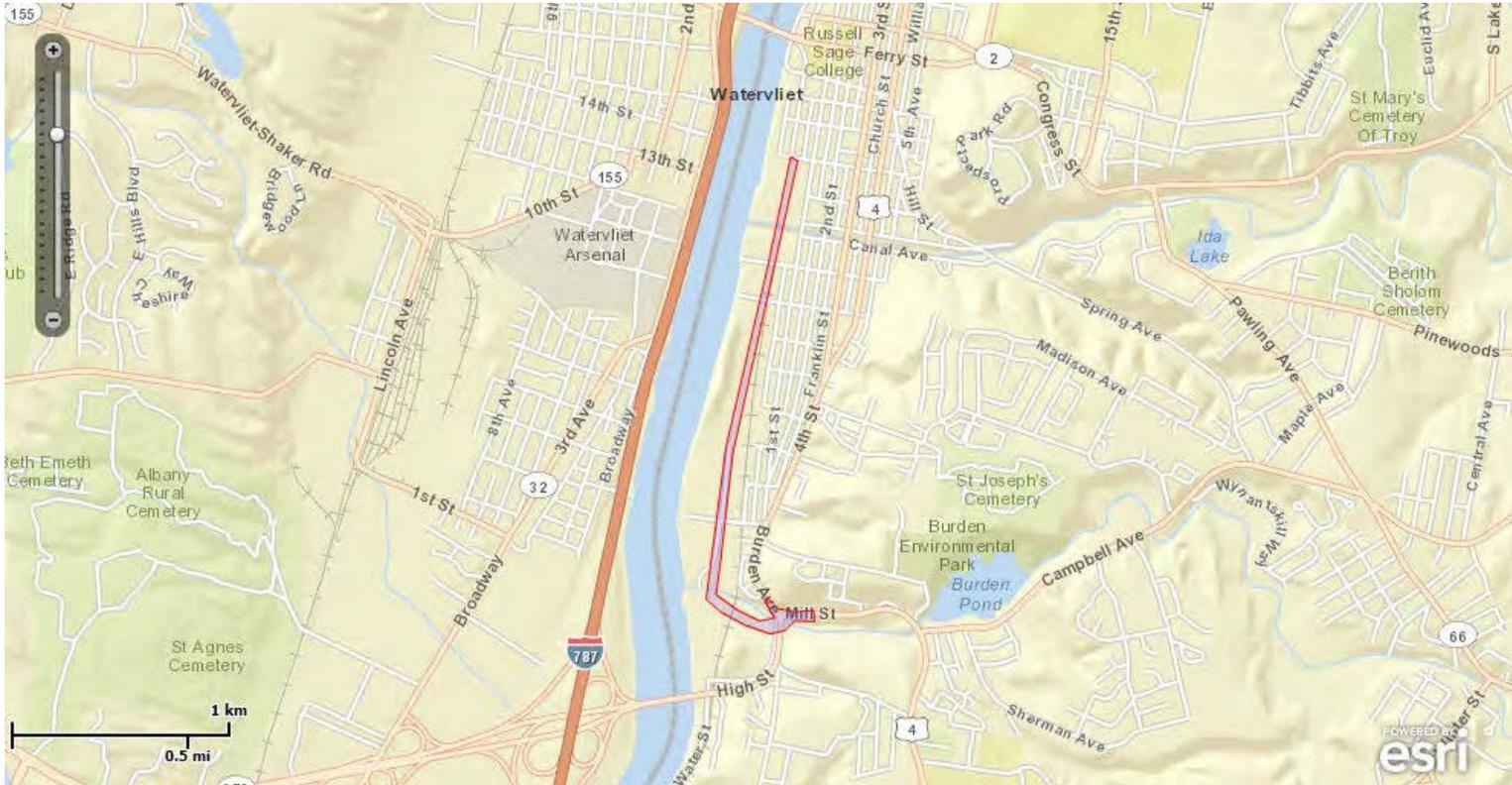
Project Description: New road to access industrial area.



United States Department of Interior
Fish and Wildlife Service

Project name: 1754.59 South Troy Industrial Park Road

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.6945305 42.7046932, -73.6944876 42.7042201, -73.6955722 42.7042584, -73.6961355 42.7038626, -73.6969788 42.7037155, -73.6983413 42.7040534, -73.6997221 42.7045997, -73.7005783 42.7051516, -73.6994625 42.7114255, -73.6971021 42.7189284, -73.6958147 42.7234385, -73.6954284 42.7232494, -73.6990762 42.7111717, -73.6998058 42.706473, -73.7000204 42.7053377, -73.6988187 42.7047062, -73.6975688 42.7042544, -73.6967373 42.7043766, -73.6972974 42.7051177, -73.697145 42.7052281, -73.6965228 42.7047551, -73.6956001 42.7046289, -73.6945305 42.7046932)))

Project Counties: Rensselaer, NY



United States Department of Interior
Fish and Wildlife Service

Project name: 1754.59 South Troy Industrial Park Road

Endangered Species Act Species List

There are a total of 1 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed on the **Has Critical Habitat** lines may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of Interior
Fish and Wildlife Service

Project name: 1754.59 South Troy Industrial Park Road

Critical habitats that lie within your project area

There are no critical habitats within your project area.

NYS Breeding Bird Atlas 2000 - 2005

The list below is arranged taxonomically. Family names appear in **bold**. Scientific names are in parentheses.

Species Recorded in This Block:

Swans, Geese, & Ducks (*Anatidae*)

Canada Goose (*Branta canadensis*)
Wood Duck (*Aix sponsa*)
Mallard (*Anas platyrhynchos*)
Mallard x Am. Black Duck Hybrid (*Anas platyrhynchos* x *A. rubripes*)

Partridges, Grouse, & Turkeys (*Phasianidae*)

NONE

New World Quail (*Odontophoridae*)

NONE

Loons (*Gaviidae*)

NONE

Grebes (*Podicipedidae*)

NONE

Pelicans (*Pelicanidae*)

NONE

Cormorants (*Phalacrocoracidae*)

NONE

Bitterns, Herons, & Allies (*Ardeidae*)

NONE

Ibises & Spoonbills (*Threskiornithidae*)

NONE

Vultures (*Cathartidae*)

Turkey Vulture (*Cathartes aura*)

Kites, Eagles, Hawks, & Allies (*Accipitridae*)

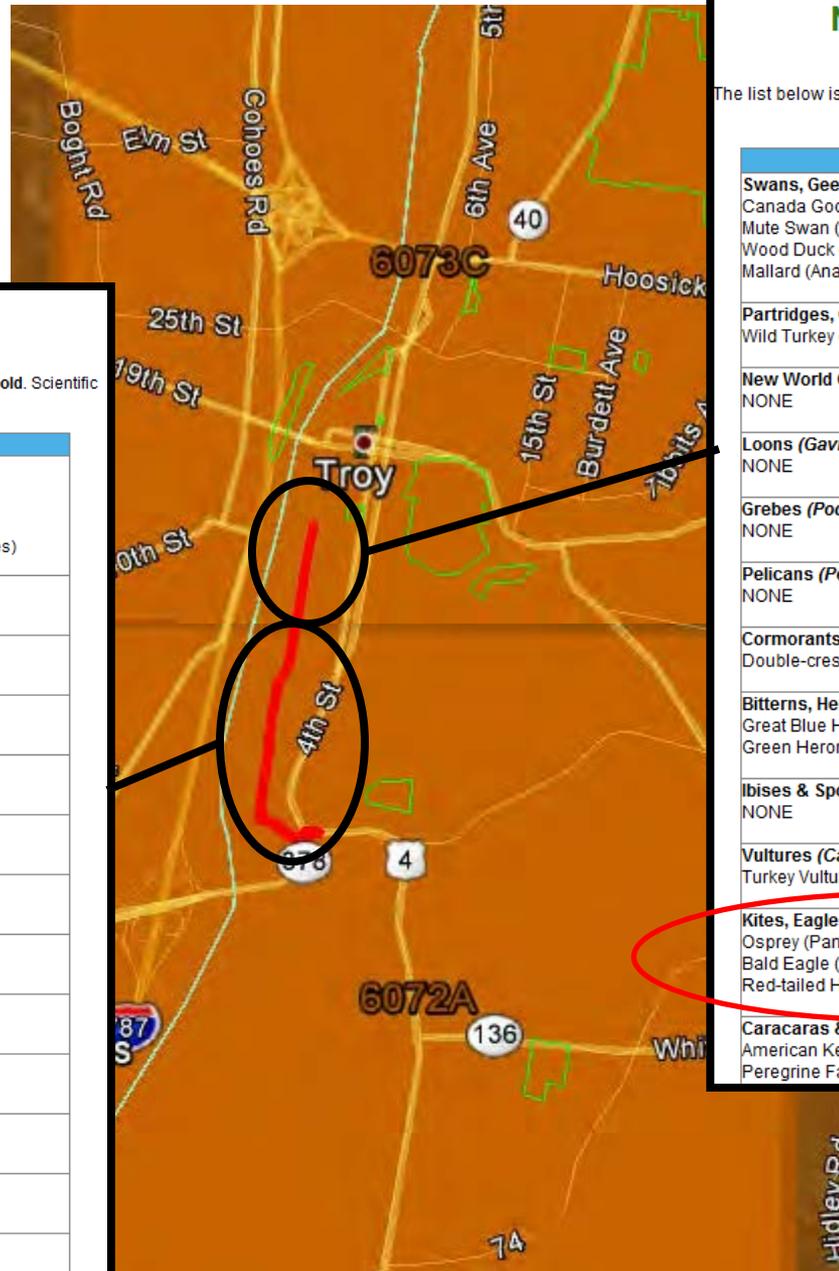
Red-tailed Hawk (*Buteo jamaicensis*)

Caracaras & Falcons (*Falconidae*)

American Kestrel (*Falco sparverius*)

Rails, Gallinules, & Coots (*Rallidae*)

NONE



NYS Breeding Bird Atlas 2000 - 2005

The list below is arranged taxonomically. Family names appear in **bold**. Scientific names are in parentheses.

Species Recorded in This Block:

Swans, Geese, & Ducks (*Anatidae*)

Canada Goose (*Branta canadensis*)
Mute Swan (*Cygnus olor*)
Wood Duck (*Aix sponsa*)
Mallard (*Anas platyrhynchos*)

Partridges, Grouse, & Turkeys (*Phasianidae*)

Wild Turkey (*Meleagris gallopavo*)

New World Quail (*Odontophoridae*)

NONE

Loons (*Gaviidae*)

NONE

Grebes (*Podicipedidae*)

NONE

Pelicans (*Pelicanidae*)

NONE

Cormorants (*Phalacrocoracidae*)

Double-crested Cormorant (*Phalacrocorax auritus*)

Bitterns, Herons, & Allies (*Ardeidae*)

Great Blue Heron (*Ardea herodias*)
Green Heron (*Butorides virescens*)

Ibises & Spoonbills (*Threskiornithidae*)

NONE

Vultures (*Cathartidae*)

Turkey Vulture (*Cathartes aura*)

Kites, Eagles, Hawks, & Allies (*Accipitridae*)

Osprey (*Pandion haliaetus*)
Bald Eagle (*Haliaeetus leucocephalus*)
Red-tailed Hawk (*Buteo jamaicensis*)

Caracaras & Falcons (*Falconidae*)

American Kestrel (*Falco sparverius*)
Peregrine Falcon (*Falco peregrinus*)

Map information downloaded from NYSDEC on 11/13/13 includes the list of birds recorded in Northern New York State during the 2000-2005 Breeding Bird Atlas Survey. The project area lies within panels 6072A and 6073C of the survey.

BALD EAGLE HABITAT SCREENING FORM

Project: PIN 1754.59 South Troy Industrial Park Road
 Name of Screener: G. Rogowski, MJ Engineering & Land Surveying
 Date: 4/23/14 Time: 9:00am

LANDSCAPE FEATURES	Yes	No	NA
Stream for river	X		
Lake or reservoir		X	
Wetland - wooded		X	
Wetland – open water		X	
Wetland – low shrubs		X	
Open field – grass		X	
Open field – low shrubs		X	
Forested – deciduous	X		
Forested – coniferous		X	
Highway median		X	
Meadow		X	
Urban – pavement w/ buildings	X		
Suburban – pavement w/ open lawn areas		X	
Rural – undeveloped		X	
Rural – recently logged or clear-cut		X	
Farmland		X	
Utility ROW		X	
Previously Disturbed	X		
Other (describe)			

Observations:

- Individual *Bald Eagle(s)* observed at site: Yes ___ No X Not sure ___
- *Bald Eagle nest* observed at site: Yes ___ No X
- Large, mature white pine tree(s) at site (potential nesting tree): Yes ___ No X
 (adjacent properties contain pitch pines and scrub pines)
- Food availability (primary food source is fish) **check all that apply:**
 - Lake, stream, reservoir or other open-water X
 - large undisturbed forested area _____
 - brush piles (rodents) _____ stone walls (rodents) _____
 - Water fowl present None observed, but likely present at times in the adjacent Hudson River
- Percent (%) groundcover of herbs/shrubs, trees, of the project site: < 10 %
 - Types of vegetation: Describe vegetation types (low shrubs, grasses, tree types, etc.) and relative density (open understory or otherwise, complete canopy coverage, maple swamp, etc.): Central and northern project area: Limited to no contiguous vegetation. Southern project area: Dense deciduous forest on the banks of the Wynants Kill (east and west of Route 378) with thick underbrush.
- Approximate contiguous acreage at site: Approximately 1.2 acres adjacent to alignment
- Topography – **check all that apply:**
 - Steep slope _____ hilly X Flat X Other (describe) _____
- **Comments:** Describe the project area (including the immediate surrounding area) and nearby land-uses:
Urban/Industrial developed land adjacent to the Hudson River. Deciduous forest along the banks of the Wynants Kill and along Mill Street. Small open areas in the central project area where buildings have been demolished.



Engineering and Land Surveying, P.C.

Civil • Site • Environmental • Transportation • Structural • Bridge Inspection • Construction Inspection • Architecture • Land Surveying • 3D Laser Scanning

August 10, 2011

Mark Castiglione, Acting Executive Director
Hudson River Valley Greenway
Capitol Building, Room 254
Albany, NY 12224

**Re: South Troy Industrial Park Road Project
City of Troy
Rensselaer County, New York
PIN 1754.59**

Dear Mr. Castiglione:

MJ Engineering and Land Surveying, PC has been contracted to complete the environmental investigations for the proposed South Troy Industrial Park Road Project located in the City of Troy, NY. The project proposes the construction of a new roadway from Adams Street, south past Main Street to Route 378. This project is slated to receive federal funding.

A regional project location map is enclosed for your reference.

Project Coordinates (NAD 83):

From:	N 42° 43' 24.25"	W 73° 41' 44.99"
To:	N 42° 42' 11.69"	W 73° 41' 47.76"

It is the goal of the project to satisfy the needs and objectives of the project, with a cost-effective improvement/solution to the existing transportation facility, while minimizing adverse social, economic, and environmental impacts.

The City of Troy Planning Board has been designated as the State Environmental Quality Review Act (SEQRA) Lead Agency. We have enclosed Part 1 of the SEQR Short Environmental Assessment Form (EAF), which gives a brief description of the proposed work and its effects.

At this time, we respectfully request that your office review the attached project location map and provide a response as to whether the proposed project is consistent with the Hudson River Valley National Heritage Area's management plan.

If you have any questions or require additional information regarding this request, please do not hesitate to call me at (518) 371-0799.

Sincerely,

Lisa Wallin, P.E.
Project Engineer

Enclosure

c: file



Engineering and Land Surveying, P.C.

Civil • Site • Environmental • Transportation • Structural • Bridge Inspection • Construction Inspection • Architecture • Land Surveying • 3D Laser Scanning

July 1, 2015

Champlain Valley National Heritage Partnership
National Heritage Area
Email: heritage@lcbp.org

**Re: South Troy Industrial Park Road Project
City of Troy
Rensselaer County, New York
PIN 1754.59**

To Whom it May Concern:

MJ Engineering and Land Surveying, PC has been contracted to complete the environmental investigations for the proposed South Troy Industrial Park Road Project located in the City of Troy, NY. The project proposes the construction of a new roadway from Adams Street, south to Main Street. This project is slated to receive federal funding.

A regional project location map is enclosed for your reference.

Project Coordinates (NAD 83):

From:	N 42° 43' 24.25"	W 73° 41' 44.99"
To:	N 42° 42' 11.69"	W 73° 41' 47.76"

It is the goal of the project to satisfy the needs and objectives of the project, with a cost-effective improvement/solution to the existing transportation facility, while minimizing adverse social, economic, and environmental impacts.

The City of Troy Planning Board has been designated as the State Environmental Quality Review Act (SEQRA) Lead Agency. We have enclosed Part 1 of the SEQR Short Environmental Assessment Form (EAF), which gives a brief description of the proposed work and its effects.

At this time, we respectfully request that your office provide comments on whether the proposed project will have an effect on the Champlain Valley NHA, and whether it is compliant with the Heritage Area Management Plan. We look forward to receiving a response within 30 days of the date of this letter. If no response is received, we will assume that the project will not negatively impact the Champlain Valley NHA.

If you have any questions or require additional information regarding this request, please do not hesitate to call me at (518) 371-0799.

Sincerely,

Lisa Wallin, P.E.
Project Engineer

Enclosure

Appendix C
State Environmental Quality Review
SHORT ENVIRONMENTAL ASSESSMENT FORM
For UNLISTED ACTIONS Only

PART I - PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)

1. APPLICANT/SPONSOR	2. PROJECT NAME
3. PROJECT LOCATION: Municipality _____ County _____	
4. PRECISE LOCATION (Street address and road intersections, prominent landmarks, etc., or provide map)	
5. PROPOSED ACTION IS: <input type="checkbox"/> New <input type="checkbox"/> Expansion <input type="checkbox"/> Modification/alteration	
6. DESCRIBE PROJECT BRIEFLY:	
7. AMOUNT OF LAND AFFECTED: Initially _____ acres Ultimately _____ acres	
8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER EXISTING LAND USE RESTRICTIONS? <input type="checkbox"/> Yes <input type="checkbox"/> No If No, describe briefly	
9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? <input type="checkbox"/> Residential <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Agriculture <input type="checkbox"/> Park/Forest/Open Space <input type="checkbox"/> Other Describe: _____	
10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (FEDERAL, STATE OR LOCAL)? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(s) name and permit/approvals:	
11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, list agency(s) name and permit/approvals:	
12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT/APPROVAL REQUIRE MODIFICATION? <input type="checkbox"/> Yes <input type="checkbox"/> No	
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor name: _____ Date: _____ Signature: _____	

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment

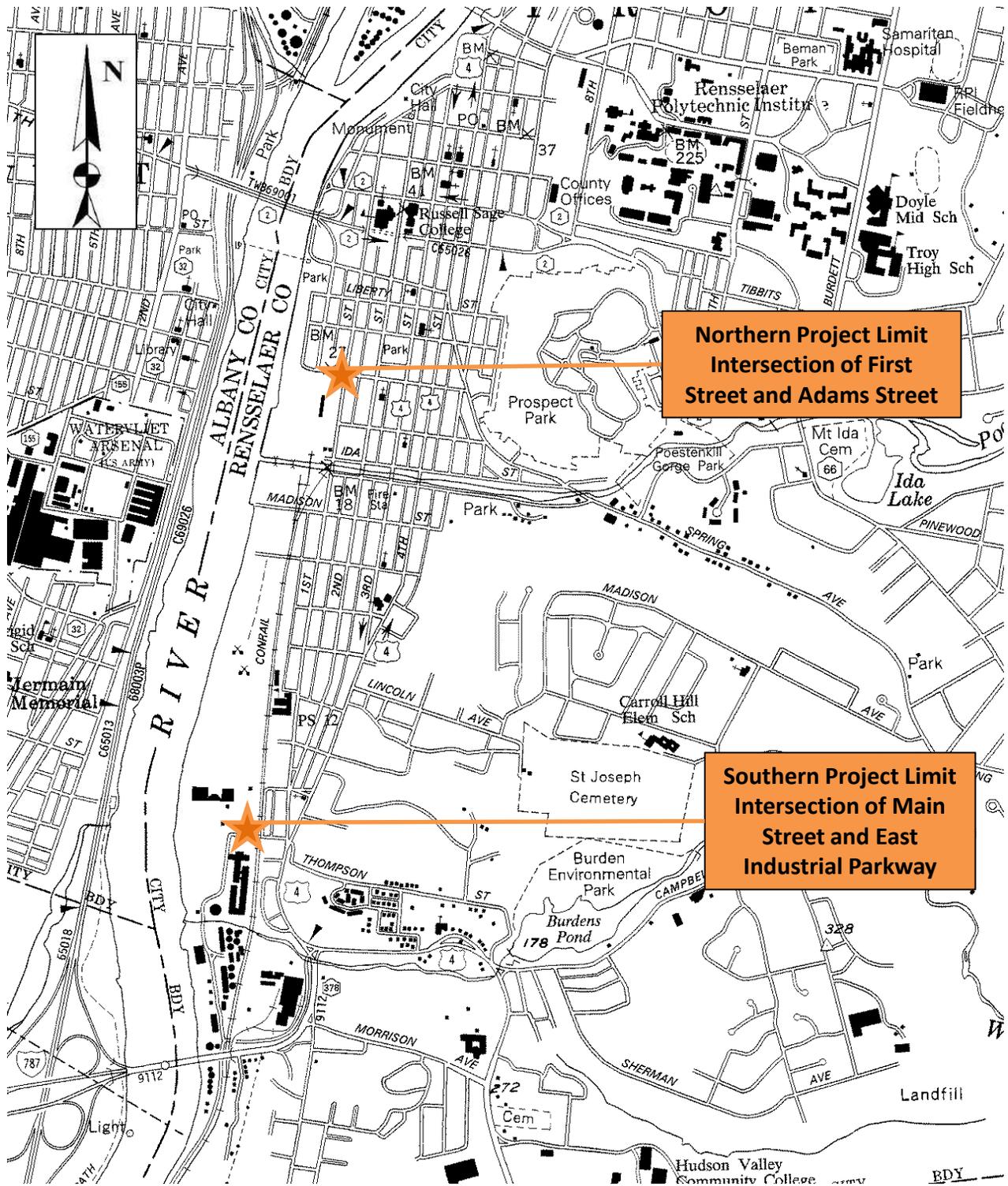
PART II - IMPACT ASSESSMENT (To be completed by Lead Agency)

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4? If yes, coordinate the review process and use the FULL EAF. <input type="checkbox"/> Yes <input type="checkbox"/> No	
B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency. <input type="checkbox"/> Yes <input type="checkbox"/> No	
C. COULD ACTION RESULT IN ANY ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)	
C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic pattern, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly:	
C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:	
C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:	
C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly:	
C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly:	
C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly:	
C7. Other impacts (including changes in use of either quantity or type of energy)? Explain briefly:	
D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CRITICAL ENVIRONMENTAL AREA (CEA)? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, explain briefly:	
E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, explain briefly:	

PART III - DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question D of Part II was checked yes, the determination of significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

<input type="checkbox"/> Check this box if you have identified one or more potentially large or significant adverse impacts which MAY occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.	
<input type="checkbox"/> Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action WILL NOT result in any significant adverse environmental impacts AND provide, on attachments as necessary, the reasons supporting this determination.	
_____	_____
Name of Lead Agency	Date
_____	_____
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
_____	_____
Signature of Responsible Officer in Lead Agency	Signature of Preparer (If different from responsible officer)



**Northern Project Limit
Intersection of First
Street and Adams Street**

**Southern Project Limit
Intersection of Main
Street and East
Industrial Parkway**

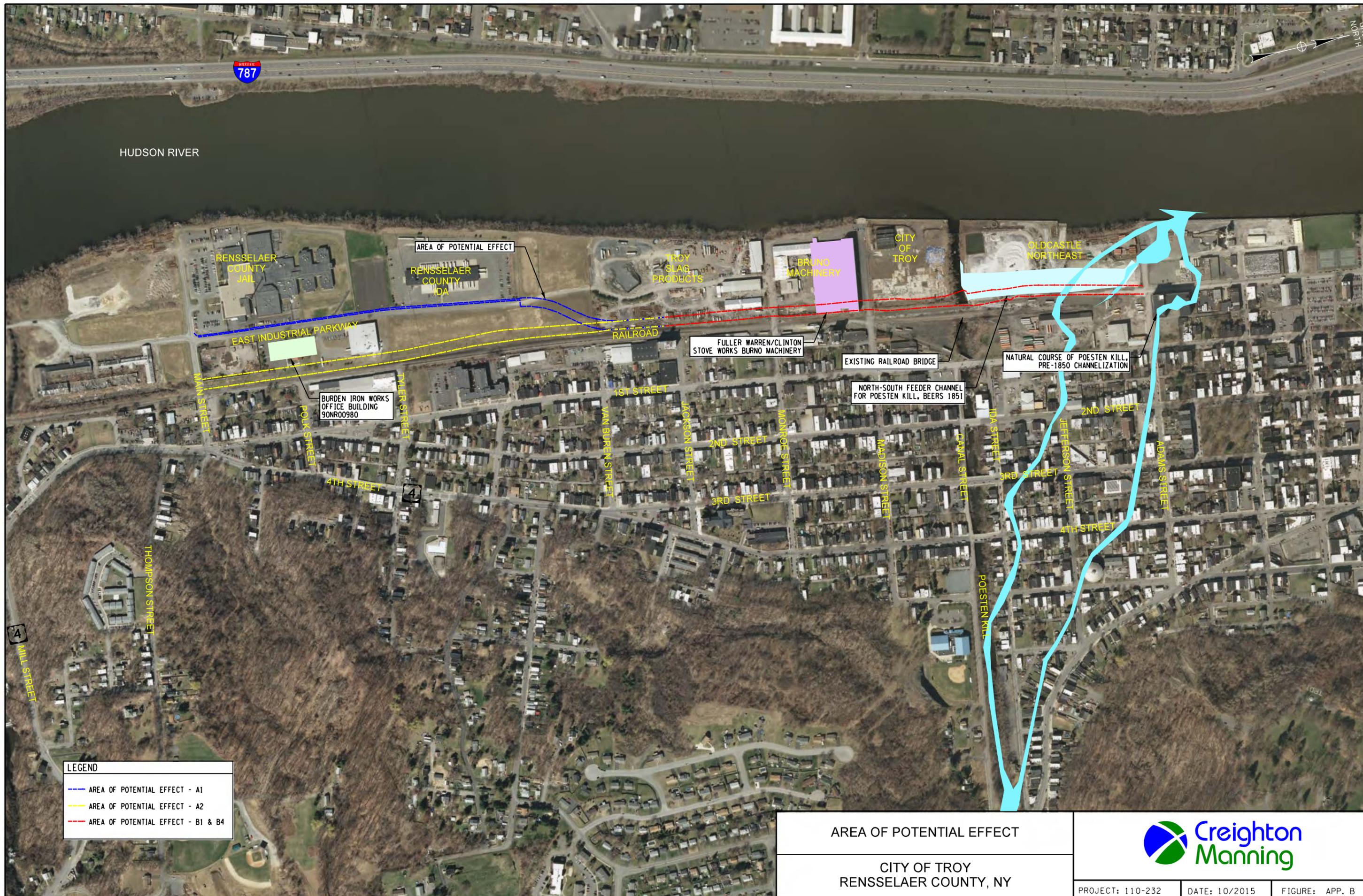


**M.J. Engineering and
Land Surveying, P.C.**
1533 Crescent Road, Clifton Park, NY 12065
Phone: 518.371.0799 / Fax: 518.371.0822
www.mjels.com

PROJECT LOCATION MAP
South Troy Industrial Park Road
CITY OF TROY
RENSSELAER COUNTY

NOT TO SCALE

FILE NAME : N:\Projects\2010\110-232_South Troy Prelim Design\cadd\ dgn\Archaeology\Fig EA\110-232_APE_overall_figuredgn
 DATE/TIME : 10/16/2015
 USER : storell



LEGEND	
	AREA OF POTENTIAL EFFECT - A1
	AREA OF POTENTIAL EFFECT - A2
	AREA OF POTENTIAL EFFECT - B1 & B4

AREA OF POTENTIAL EFFECT

CITY OF TROY
 RENSSELAER COUNTY, NY

		PROJECT: 110-232



Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

April 25, 2003

Wayne E. Bonesteel, P.E.
Erdman Anthony
317 Brick Church Road
Troy, NY 12180-8112

Re: SEQRA
South Troy Industrial Park Road
City of Troy, Rensselaer Co.
01PR05874

Dear Mr. Bonesteel:

The Office of Parks, Recreation and Historic Preservation (OPRHP) has received the Phase 1A Cultural Resource Investigation for your project. As the state agency responsible for the coordination of the State's historic preservation programs, including the encouragement and assistance of local preservation efforts, we offer the following comments.

Regarding archeology, please see the attached comments from Cynthia Blakemore.

Regarding historic resources and the potential impacts from the various alternatives, OPRHP agrees with the recommendations in the report that Alternatives A1 and B1 will have the least impact on historic buildings and structures in and adjacent to the project area. If demolition of portions of two of the buildings that were part of the Fuller & Warren Co. Clinton Stove Works cannot be avoided, OPRHP request further consultation on the extent of the demolition to determine if documentation would be appropriate.

Please note if any state or federal agencies are involved in this project, further review may be required in accordance with section 14.09 of the New York State Parks, Recreation and Historic Preservation Law or Section 106 of the National Historic Preservation Act of 1966.

If you have any questions, please call me at (518) 237-8643, extension 3252. In future correspondence regarding the project, please indicate the Project Review (PR) number noted above.

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator

ARCHEOLOGY COMMENTS

01PR5874

The OPRHP has reviewed the Phase IA report compiled for this project. The OPRHP recommends Phase IB testing for the selected Alternative to ensure that all potential resources are identified within the area of potential effect (APE). This would include utilities, drainage, or any secondary impacts that may be associated with the project. Since there is a potential for burials for two of the Alternatives, we recommend additional consultation prior to Phase IB if these are selected.

If you have any questions, please contact Cynthia Blakemore at (518) 237-8643, extension 3288.



Bernadette Castro
Commissioner

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

September 17, 2004

Melanie Osterhout
Erdman Anthony
317 Brick Church Road
Troy, NY 12180

Re: FHWA
South Troy Industrial Park Road
City of Troy, Rensselaer Co.
01PR05874

Dear Ms. Osterhout:

Thank you for continuing to request the comments of the New York State Historic Preservation Office regarding the South Troy Industrial Park Road in Troy, NY. We are reviewing the project under the provisions of Section 106 of the National Historic Preservation Act of 1966.

Cynthia Blakemore has reviewed the project and notes that we still need a Phase 1B survey for the selected alternative. Please send that to us as soon as it becomes available. If you have any questions about the archeology component of this project, please call Ms. Blakemore at 518-237-8643, ext. 3288.

We have also reviewed the project for its potential impact on historic structures. After visiting the site, we have no concerns with alternative B4 and A1. However, before the brick Bruno machinery building is demolished, we recommend that photographs are taken to document the building and submitted to our office for our files. Therefore, we have determined that our office has no building concerns with the condition that:

- The Bruno machinery building is documented photographically and photos are submitted to our office.

Again, thank you for requesting our comments and for taking us on site to look at the buildings that will be impacted. If you have any questions, please call me at (518) 237-8643, extension 3252. In future correspondence regarding the project, please indicate the Project Review (PR) number noted above.

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator



U.S. Department
of Transportation

**Federal Highway
Administration**

New York Division

November 19, 2014

Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, NY 12207
518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HED-NY

Mr. Lorenzo DiStefano, P.E.
New York State Department of Transportation – Region One
50 Wolf Road
Albany, NY 12232

Subject: PIN 1754.59 – Section 106 Resource Determination
South Troy Industrial Park Road Project
City of South Troy, Rensselaer County

Dear Mr. DiStefano:

In response to your November 7 request for a resource evaluation of the South Troy Native American Archaeological Site within the area of potential effect of the South Troy Industrial Park Road Project, the Federal Highway Administration (FHWA's) has determined that the subject site warrants protection under Section 4(f).

FHWA is responsible under its authority outlined in 23 CFR 774.11(e) to determine applicability of Section 4(f) to historic sites. Protection under Section 4(f) applies to archaeological sites that are on or eligible for the National Register and that warrant preservation in place. This determination is being made after assessment of the Resource Evaluation performed by Philip Perazio of the New York State Historic Preservation Office in consultation with the Stockbridge-Munsee Community Band of Mohicans.

The site has been found to be associated with events that have made significant contribution to the broad patterns of human history. From the archaeological surveys that have been conducted the site has yielded and is likely to further yield information important to the pre-history or history of peoples associated with the site.

If the project proposes to use the Section 4(f) resource, then the project requires an individual 4(f) evaluation. This evaluation must include sufficient analysis and supporting documentation to demonstrate that there is no feasible and prudent avoidance alternative and shall summarize the results of all possible planning to minimize harm.

If you have any questions, please feel free to contact me at (518) 431-8891.

Sincerely,

Ian Weibel, P.E.
Area Engineer



New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

December 14, 2004

Melanie Osterhout
Erdman Anthony and Associates, Inc.
317 Brick Church Road
Troy, New York 12180

Dear Ms. Osterhout:

Re: FHWA
South Troy Industrial Park Road
Troy, Rensselaer County
01PR05874

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project. Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

The SHPO has reviewed the Phase IB report submitted for the selected Alternatives A1 and B4. Only three trenches were excavated to assess the potential for resources within the area of potential effect (APE). Our office is concerned that these do not provide sufficient information about the entire project area.

The SHPO recommends that the soil borings be reviewed by the archeological consultant so an assessment can be made of the depth of fill as it relates to the depth of proposed project impacts, including any drainages, ancillary utilities and proposed bridge construction. The boring logs will need to be included as part of the subsequent submission. Additionally since alluvial (natural) soils were encountered, it is our opinion that additional trenching will be necessary in any area of the APE where project impacts may extend below identified fill levels. A geomorphologist may also be needed to assess whether the soil is naturally deposited or dredge material.

Finally, our office concurs that Phase II is necessary to evaluate the Rensselaer Iron Works Site.

As soon as we have additional information as noted above, we can provide comments regarding the potential impacts the project may have on archeological resources.

If you have any questions, please call me at (518) 237-8643, extension 3288.

Sincerely,

Cynthia Blakemore
Historic Preservation Program Analyst

CMB:bsa

cc: Hartgen Archeological Associates, Inc.



New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

July 20, 2005

Melanie Osterhout, P.E.
Erdman Anthony and Associates, Inc.
317 Brick Church Road
Troy, New York 12180

Dear Ms. Osterhout:

Re: FHWA
South Troy Industrial Park Road
Troy, Rensselaer County
05PR00908 (01PR05874)

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project. Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations. The FHWA will be considering the effect of this undertaking on historic properties.

The SHPO has reviewed the Phase II report submitted for the site identified during Phase IB testing for this project. Foundation remains and features have been encountered that have association with the adjacent extant 19th c. Rensselaer Iron Works Building. It is our opinion that the *Rensselaer Iron Works Site (A08340.001704)* meets the criteria for inclusion in the State and National Registers of Historic Places.

Our office recommends that a Data Recovery Plan (DRP) be developed as indicated in the report, which includes the consultation with industrial archeologists knowledgeable about this resource type.

Additional Phase IB is not recommended unless the depth of the construction impacts or utility conduit placement extends below the identified fill levels. Our office is concerned however with the potential impacts to floodplain soils as buried archeological sites may be present. This does not pertain to the location of the bridge where auguring will extend below the fill.

If you have any questions, please call me at (518) 237-8643, extension 3288.

Sincerely,

Cynthia Blakemore
Historic Preservation Program Analyst

CMB:bsa

cc: Hartgen Archeological Associates, Inc.



New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
P.O. Box 189, Waterford, New York 12188-0189
518-237-8643

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

15 July 2013

Ms. Kelley Kircher
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205

Re: FHWA, DOT
South Troy Industrial Park Road – Northern Section
City of Troy, Rensselaer County
05PR00908

Dear Ms. Kircher:

The State Historic Preservation Office (SHPO) has reviewed the information submitted for this project. Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

This is in response to your request regarding our recommendations with respect to the Rensselaer Iron Works Site (A0830.001728) that is located within this project's Area of Potential Effects (APE). Based on the information provided a letter from Tracy Shaffer Miller of Hartgen Archeological Associates, Inc. (21 June 2013) and in Appendix 1 of Hartgen's 2011 Phase IA report for the project's southern section, SHPO recommends that the portion of this site located within the project's APE has lost integrity to the degree that it no longer has the capacity to contribute to important research questions.

Therefore, SHPO has no further concerns regarding the portion of this site within the APE of the proposed road construction project. This recommendation does not pertain to the remainder of the site.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio, Historic Preservation Program Analyst – Archaeology Unit
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@parks.ny.gov

Cc: Lorenzo Distefano, NYSDOT (via email)
Patricia Millington, FHWA (via email)
Ann Morton, MARS (via email)
Russ Reeves, City of Troy (via email)
Barbara Tozzi, City of Troy (via email)
Sherry White, Stockbridge-Munsee (via email)



New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
P.O. Box 189, Waterford, New York 12188-0189
518-237-8643

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

12 December 2013

Ms. Tanya J. Thorne
NYS DOT, Region 1
50 Wolf Road, POD 2-3
Albany, NY 12232

Re: FHWA, DOT
South Troy Industrial Park Road
City of Troy, Rensselaer County
13PR03336 / PIN 1754.59

Dear Ms. Thorne:

The State Historic Preservation Office (SHPO) has reviewed the latest information submitted for this project (*Review of Potential Project Impacts and Fill Depths for the Hudson River Floodplain portion of the South Troy Industrial Park Road Project*; dated 14 November 2013; prepared by Morton Archaeological Research Services). Our review has been in accordance with Section 106 of the National Historic Preservation Act and relevant implementing regulations.

Thank you for submitting this review. Based on the information presented, SHPO concurs with the interpretation that the planned project, as currently proposed, will not disturb potentially significant archaeological deposits within the Hudson River floodplain portion of the overall Area of Potential Effects (APE). Therefore, SHPO concurs with the recommendation that no further archaeological investigation is needed in this portion of the APE.

Please continue consultation with this office as the investigation proceeds.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio, Historic Preservation Program Analyst – Archaeology Unit
Phone: 518-237-8643 x3276; FAX: 518-233-9049
Email: Philip.Perazio@parks.ny.gov

Cc: Russ Reeves, City of Troy (via email)
Barbara Tozzi, City of Troy (via email)
Kelley Kircher, Creighton Manning (via email)
Lorenzo Distefano, NYSDOT (via email)
Sherry White, Stockbridge-Munsee (via email)
Ann Morton, MARS (via email)



**Parks, Recreation
and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

March 11, 2015

Ms. Andrea Becker
Cultural Resource Coordinator
NYSDOT - Region 1
50 Wolf Road (POD 2-3)
Albany, NY 12232

Re: FHWA
South Troy Industrial Park Road (contains 05PR00908 and 11PR05318) (PIN 1754.59)
City of Troy, Rensselaer County
13PR03336

Dear Ms. Becker:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

SHPO has received the following letter from the New York State Department of Transportation - *REDUCTION OF SCOPE & FINDING RE-CONCUR REQUEST, PIN 175459, South Troy Industrial Park, City of Troy, Rensselaer County* (Andrea Becker, 29 January 2015). SHPO recommends that a meeting should be held of the consulting parties to discuss any outstanding issues that may exist, including the possibility of secondary and cumulative impacts associated with the project as currently proposed, prior to the preparation of an effect finding for the project.

If you have any questions please don't hesitate to contact me.

Sincerely,

Philip A. Perazio, Historic Preservation Program Analyst - Archeology Unit
Phone: 518-268-2175
e-mail: philip.perazio@parks.ny.gov

via e-mail only

cc: Stephanie Delano, NYSDOT; Bonney Hartley, Stockbridge-Munsee; Patricia Millington, FHWA;
Sherry White, Stockbridge-Munsee

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 02, 2015

Ms. Andrea Becker
Cultural Resource Coordinator
NYSDOT - Region 1
50 Wolf Road (POD 2-3)
Albany, NY 12232

Re: FHWA
South Troy Industrial Park Road (contains 05PR00908 and 11PR05318) (PIN
1754.59)
City of Troy, Rensselaer County
13PR03336

Dear Ms. Becker:

Thank you for continuing to request the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966.

SHPO has reviewed the 2003 CRS report and concurs that the Stone/Concrete Arch Railroad Bridge (BIN 7202520) is eligible for listing in the National Register. It is significant under Criteria C in the area of engineering as a representative example of early twentieth century closed-spandrel arch bridge construction. It was constructed ca. 19011 and is owned by CSX Corporation. We note that the bridge was not originally in the Finding Document. A new Finding Document needs to be prepared with the new scope of work to now include the NRE Bridge over the Poestenkill and the undertaking's effect on it. The new scope should include the reduced Area of Potential Effect (APE) as stated in the January 29, 2015 correspondence to SHPO). Finding Document should include preliminary plans that depict the location of the new bridge along with a horizontal and vertical APE.

If I can be of further assistance, please contact me at 518-268-2158 or sloane.bullough@parks.ny.gov.

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator

via e-mail only

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

October 06, 2015

Ms. Andrea Becker
Cultural Resource Coordinator
NYSDOT - Region 1
50 Wolf Road (POD 2-3)
Albany, NY 12232

Re: FHWA
South Troy Industrial Park Road (contains 05PR00908 and 11PR05318)
(PIN 1754.59)
City of Troy, Rensselaer County
13PR03336

Dear Ms. Becker:

Thank you for your continued consultation with the New York State Historic Preservation Office (SHPO) regarding the South Troy Industrial Park Road. We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966.

The project includes the construction of a new bridge 5 feet from the National Register eligible Stone/Concrete Arch Railroad Bridge (BIN 7202520). We are concerned about this because we are not certain where the measurement will be taken. We do not concur with your August 26, 2015 finding that the project will have No Adverse Effect. However, we would concur if the following conditions were met:

1. The proposed bridge is 5 feet away from the historic bridge and the measurements are taken at the widest point of each bridge, most likely the bottom of the footings. If the widest points are under water or underground, those points should be used to measure distance.
2. The proposed bridge does not protrude above the plane of the deck of the historic bridge.
3. A construction protection plan is developed for SHPO review and approval.
4. Condition in 9-17-2004 SHPO letter is met: The Bruno Machinery Building is documented photographically and photos are submitted to SHPO.

If further correspondence is required regarding this project, please refer to the SHPO Project Review (PR) number noted above. If I can be of further assistance, please contact me at 518-268-2158.

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator

via e-mail only

Division for Historic Preservation



**Parks, Recreation
and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 23, 2015

Daniel P. Hitt, RLA
Director, Office of Environment]
NYS Department of Transportation
50 Wolf Road
Albany, NY 12232

Re: FHWA/NYS DOT
PIN 1754.59-South Troy Industrial Park Road
Troy, Rensselaer County
13PR03336 (includes: 11PR05318 & 05PR00908)

Dear Mr. Hitt:

Thank you for your agency's recent comments on this undertaking. We continue to review this action in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

The information that you provided fulfills the conditions noted in our agency's letter dated October 6. Based upon this information our office once again concurs with the Federal Highway Administration's Section 106 finding that this undertaking will have No Adverse Effect on historic or cultural resources. No additional consultation will be required with our office for this undertaking.

If I can be of any further assistance please do not hesitate to contact me at (518) 268-2166.

Sincerely,

John A. Bonafide
Director,
Technical Preservation Services Bureau

Stockbridge-Munsee Tribal Historic Preservation

*Main Office
W13447 Camp 14 Rd
Bowler, WI 54416*

*New York Office
P.O. Box 718
Troy, NY 12181*

Tricia Millington
Area Engineer
Federal Highway Administration
Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, NY 12207
Via email only

May 26, 2015

**RE: South Troy Industrial Park Road Project, City of Troy, Rensselaer County NY
PIN 1754.59 / 13PR03336
Comment from Stockbridge-Munsee Mohican Tribe on Project Wrap-Up**

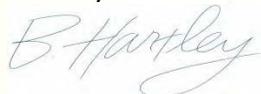
Dear Ms. Millington:

At the recent (5/18/15) South Troy Industrial Park Road Project Meeting convened by Ms. Andrea Becker of NYSDOT, the stated meeting goal was to discuss and resolve any remaining concerns from Mohican Tribe and the NY SHPO office.

On behalf of the Stockbridge-Munsee Mohican Tribe, I offer the following comments in response to this meeting:

- We concur that the revised project scope, which will not impact Mohican cultural resources located south of Main Street in Troy, adequately satisfies our concerns under Section 106. Thank you to your office and all parties for working collaboratively to avoid disturbance to the South Troy Precontact Site.
- The remaining item discussed at the 5/18/15 meeting was Mohican Tribe's interest in recovering all cultural materials recovered from the South Troy Precontact Site during testing. This request, as agreed, will be addressed to the City of Troy Local Development Corporation under separate cover.

Thank you & Kind regards,



Bonney Hartley
Tribal Historic Preservation Officer
New York Office

Cc: Andrea Becker, NYSDOT, *via email only*
Ian Weibel, FHWA, *via email only*

(518) 326-8870

Email: bonney.hartley@mohican-nsn.gov

Stockbridge-Munsee Tribal Historic Preservation

*Main Office
W13447 Camp 14 Rd
Bowler, WI 54416*

*New York Office
P.O. Box 718
Troy, NY 12181*

Philip Perazio, SHPO, *via email only*
Lorenzo DiStefano, NYSDOT, *via email only*
Andrew Kreshik, City of Troy, *via email only*
Andrew Donovan, City of Troy, *via email only*
Kelley Kircher, Creighton Manning, *via email only*
Susan Torelli, Creighton Manning, *via email only*





Engineering and Land Surveying, P.C.

Civil • Site • Environmental • Transportation • Structural • Bridge Inspection • Construction Inspection • Architecture • Land Surveying • 3D Laser Scanning

August 10, 2011

RiverSpark Heritage Area
Burden Iron Works Museum
1 E Industrial Parkway
Troy, NY 12180-5942

**Re: South Troy Industrial Park Road Project
City of Troy
Rensselaer County, New York
PIN 1754.59**

Dear Sir or Madame:

MJ Engineering and Land Surveying, PC has been contracted to complete the environmental investigations for the proposed South Troy Industrial Park Road Project located in the City of Troy, NY. The project proposes the construction of a new roadway from Adams Street, south past Main Street to Route 378. This project is slated to receive federal funding.

A regional project location map is enclosed for your reference.

Project Coordinates (NAD 83):

From:	N 42° 43' 24.25"	W 73° 41' 44.99"
To:	N 42° 42' 11.69"	W 73° 41' 47.76"

It is the goal of the project to satisfy the needs and objectives of the project, with a cost-effective improvement/solution to the existing transportation facility, while minimizing adverse social, economic, and environmental impacts.

The City of Troy Planning Board has been designated as the State Environmental Quality Review Act (SEQRA) Lead Agency. We have enclosed Part 1 of the SEQR Short Environmental Assessment Form (EAF), which gives a brief description of the proposed work and its effects.

At this time, we respectfully request that your office review the attached project location map and provide a response as to whether the proposed project is consistent with the RiverSpark Heritage Area's management plan.

If you have any questions or require additional information regarding this request, please do not hesitate to call me at (518) 371-0799.

Sincerely,

Lisa Wallin, P.E.
Project Engineer

Enclosure

c: file



RiverSpark

Cohoes • Colonie • Green Island • Troy • Waterford • Watervliet

Lisa Wallin, P.E., Project Engineer
M.J. Engineering and Land Surveying, P.C.
1533 Crescent Road
Clifton Park, NY 12065

08 December 2011

RE: South Troy Industrial Park Road Project
City of Troy
Rensselaer County, New York
PIN 1754.59



Dear Ms. Wallin:

I write pursuant to your request for a response about how consistent the proposed project referenced above is with the *RiverSpark* Heritage Area's Management Plan.

I have now reviewed the matter thoroughly for you and can report the following findings. Page references are to the page numbers in the online searchable pdf version of the Management Plan, which you can find at:

<http://riverspark.org/RiverSparkManagementPlan.Searchable.pdf>.

- The proposed road project is within the boundary of the Heritage Area (formerly known as an Urban Cultural Park, or UCP) (page 35).
- The proposed road project is also within the boundary of a Coastal Management Zone (page 37).
- The proposed road project contains within its boundary area a major Theme Attraction for the Heritage Area, namely, the Burden Iron Works Museum (identified in the Management Plan as the "Burden Building"), which is a major consideration in the design of the road in question (page 37)
- The proposed road project is not within the Troy Primary Zone, which is the area of particular interest and concentration within the boundaries of the City of Troy (page 43).
- Because it contains the Burden Iron Works Museum within its boundary area, the proposed road project is on the Heritage Trail (page 179).

Accordingly, our recommendations for the project follow the overall goals for any infrastructure work within the confines of the Heritage Area, plus any requirements that may apply because the road is to be in a Coastal Management Zone, plus any requirements that may apply because the road will be adjoining, or near, a Theme Attraction and the Heritage Trail.

I have now reviewed the Draft Design Report for this project. Certainly there is no inherent conflict between the Management Plan and the basic concept of an industrial park road along the South Troy Waterfront. On the contrary, by building such a road, and thereby removing the heavy industrial traffic from the residential streets of South Troy, the construction of the road will help accomplish the Heritage Area's goal of revitalizing the South Troy neighborhoods. In addition, unless the required archeological investigations produce findings that were not known at the time of the preparation of *RiverSpark's* Management Plan, the preferred alternative routes (A1, B4, and C4) are sensibly laid out to avoid causing any completely unacceptable harm to surviving historic resources.

The alternative that would locate the new road directly between the front entrance of the Burden Museum and the railroad tracks just east of it, however, would indeed have a material adverse effect on a prime *RiverSpark* Theme Attraction. (In addition, parenthetically, that would also locate the road over a very significant and potentially problematic sewer main for the entire city.) So no such "museum-front-door" alternative is compatible with the Management Plan.

The only complication that arises with the preferred alternatives, as laid out in the Draft Design Report, is the proposal to take land currently under the existing East Industrial Parkway away from the Hudson Mohawk Industrial Gateway by Eminent Domain. The Gateway's property in that location is, as the Draft Design Report notes, listed on the National Register of Historic Places (site 72000907). Over the years, capital improvements have been completed at that site that have been funded by three New York State grants (Environmental Quality Bond Act, Clean Water/Clean Air Bond Act, and Environmental Protection Fund) and by a federal Department of Transportation TEA-21 grant. As a part of the contractual arrangements for those grants, both the Hudson Mohawk Industrial Gateway and the City of Troy have entered into a restrictive Preservation Covenant with the State of New York that prohibits the transfer of ownership of any part of this property. Also, surrendering that parcel permanently leaves the Burden Museum vulnerable at some later date to being "landlocked," with no road access whatsoever. As a result, the process of Eminent Domain is inappropriate for this particular section of the road.

There is a very simple alternative solution, however, and that is that the existing East Industrial Parkway road that passes over the Gateway's property at its western end is there because of a permanent easement granted for that purpose. That easement is already a part of the deed to the property. It currently grants the easement to the City of Troy, and it has passed both New York State and federal review. So simply using that existing permanent easement, or modifying it slightly if necessary without materially altering the current permitted use, would be perfectly compatible with the *RiverSpark* Management Plan. It is therefore necessary and sensible that the Draft Design Report be amended to utilize the easement instead of attempting to exercise Eminent Domain.

You will find the Coastal Zone issue discussed in the Management Plan primarily on pdf page 54. The most likely design element to be adopted from that section is the incorporation of as much public access to the Hudson River and the Wynantskill as possible. This may affect some minor design considerations such as the placement of sidewalks along Main Street.

As to the overall goals, the most applicable area of the Management Plan is the discussion of historical markers (pdf pages 359-360). First and foremost, the Management Plan specifies on pdf

page 300 that there should be interpretive signage at the Burden Museum. This has never been installed, and it would be ideal if the new road included such an interpretive sign. In addition, your team should know that the territory of the road project includes some extremely significant sites in the history of American technology, even if they have not been placed on the National Register, and including interpretive signage for these sites in your project would be extremely valuable. The rivets for the *U.S.S. Monitor*, plus the bar iron for the pilot house, were manufactured at the Rensselaer Iron Works, at the mouth of the Poestenkill, in the northern section of your site. It was also the site of the first American rolling mill to produce steel railroad rails. Henry Burden produced the vast majority of the horseshoes for the Union Army at his steam works in the middle of your site, approximately where the Burden Iron Works Museum is today. Indeed, the proposed road will pass just west of an extant 1862 building that housed the very horseshoe-making machines that made those Civil War horseshoes. Just below that, in late 1861, Corning, Winslow, and Company rolled the deck plates, the hull skirts, and the angle iron for the frame of the *U.S.S. Monitor* at a site that is directly south of the proposed route for the road. And just below that, the very first Bessemer steel plant in the New World was fired up in February 1865, because Erastus Corning was desperate to get Bessemer steel for the production of railroad rails at a time when mere iron rails were no longer strong enough to support the increasingly massive locomotives and freight cars that they were required to carry. All of these sites are centrally important to the history of American technology. Indeed, this was the first site in the nation to be documented by the Historic American Engineering Record, the federal program charged with documenting the engineering achievements of our nation. To ignore these developments in the construction of an industrial park road would be folly indeed. So we strongly recommend the addition of appropriate interpretive signage along the proposed route. The project would not be consistent with the *RiverSpark* Management Plan without that.

On a very minor point, Question 9 on the "Short Environmental Assessment Form" that you enclosed with your request should also have the "Other" box checked to indicate that a historic/cultural property is included in the territory of the project.

We would be delighted to work with you and the rest of the project team to incorporate these suggestions into the work. In particular, I would be happy to help you with the documentation of the existing easement and the existing Preservation Covenant at the Burden Museum and also to develop the content for any historical markers to be placed on the site.

Thank you for reaching out to the *RiverSpark* Heritage Area as you work on the design of this project. We wish you every success in the development of a far more satisfactory traffic system for South Troy than is currently in place.

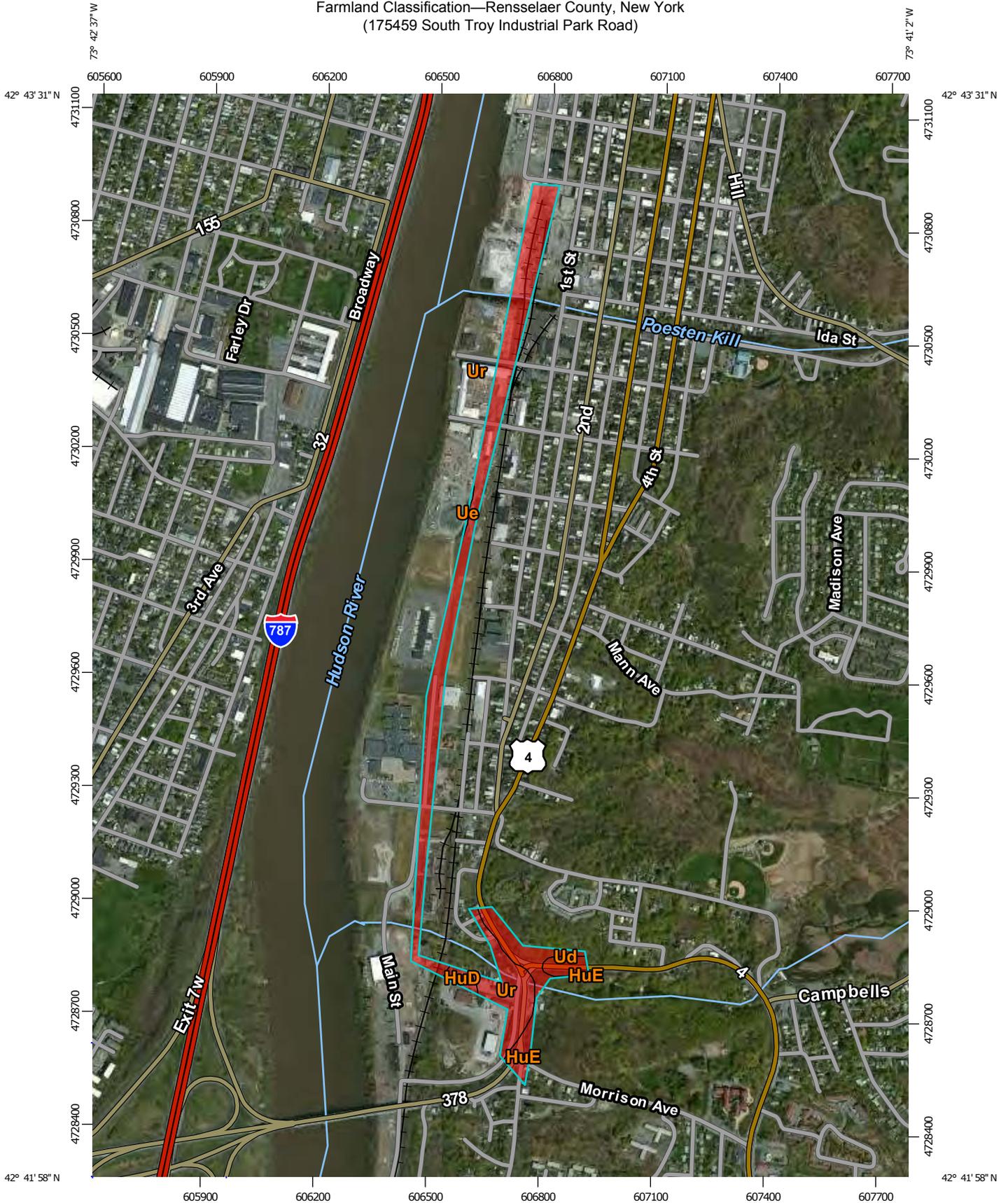
Sincerely,



P. Thomas Carroll, PhD
Executive Director

Cc: Mr. Russ Reeves, CEng, P.E., Troy City Engineer

Farmland Classification—Rensselaer County, New York
(175459 South Troy Industrial Park Road)



Map Scale: 1:14,000 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Farmland Classification—Rensselaer County, New York
(175459 South Troy Industrial Park Road)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained

-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Soil Rating Points

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Water Features

MAP INFORMATION

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rensselaer County, New York
Survey Area Data: Version 10, Dec 15, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2010—May 12, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Farmland Classification— Summary by Map Unit — Rensselaer County, New York (NY083)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HuD	Hudson silt loam, hilly	Not prime farmland	0.9	2.5%
HuE	Hudson silt loam, steep	Not prime farmland	5.6	15.9%
Ud	Udorthents, loamy	Not prime farmland	1.4	4.1%
Ue	Udorthents, sandy	Not prime farmland	0.1	0.4%
Ur	Urban land	Not prime farmland	27.0	77.2%
Totals for Area of Interest			35.0	100.0%

Description

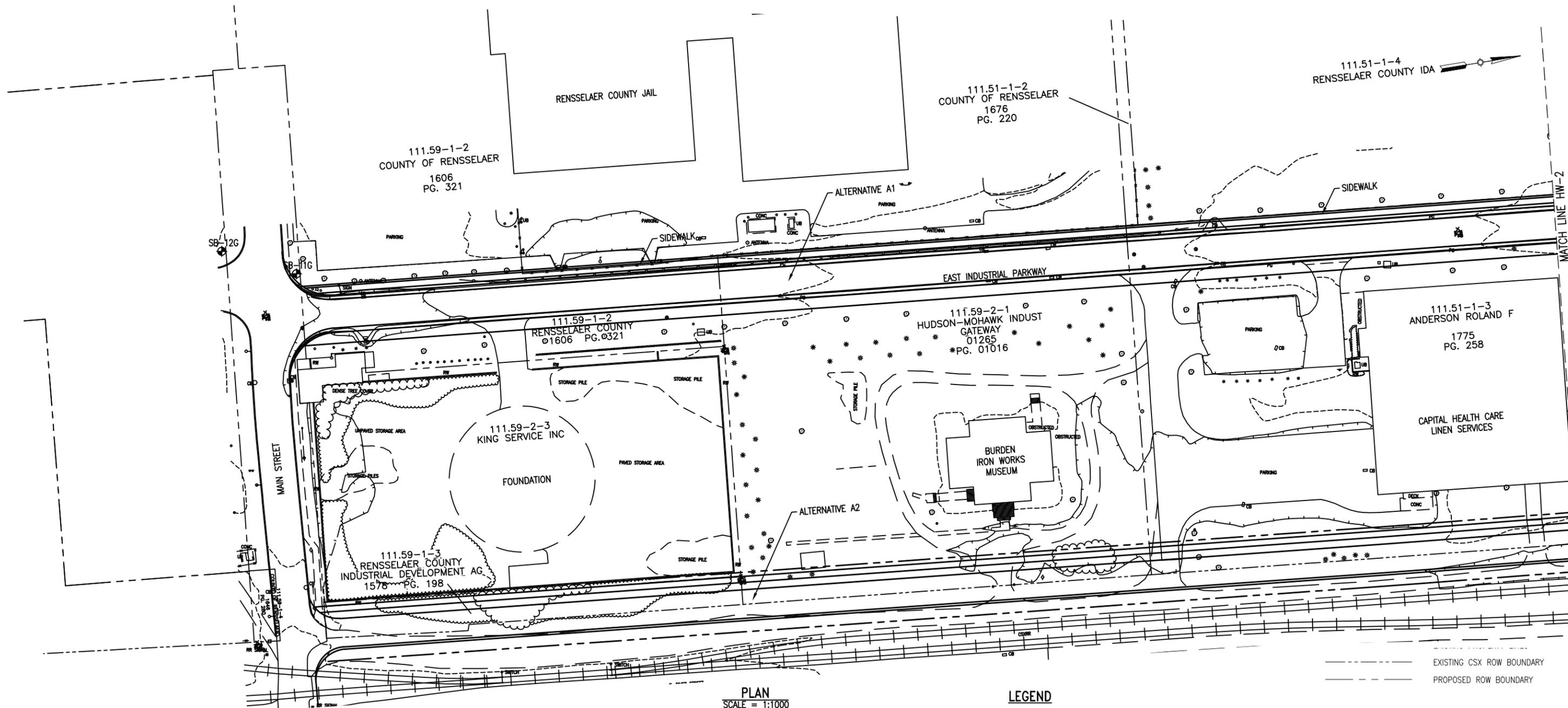
Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

FILENAME: F:\GIS\16\From CME 2015 07 22 Boring Plans\Final Boring Locations.dwg [HW-1] PLOT DATE: July 23, 2015-8:46am



PLAN
SCALE = 1:1000

LEGEND

- SB-1 INDICATES ENVIRONMENTAL BORING LOCATION & DESIGNATION
- SB-1G INDICATES GEOTECHNICAL BORING LOCATION & DESIGNATION



--- EXISTING CSX ROW BOUNDARY
 --- PROPOSED ROW BOUNDARY

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE MILLIMETERS



Rochester, NY
 Albany, NY
 Harrisburg, PA
 Buffalo, NY
 West Palm Beach, FL

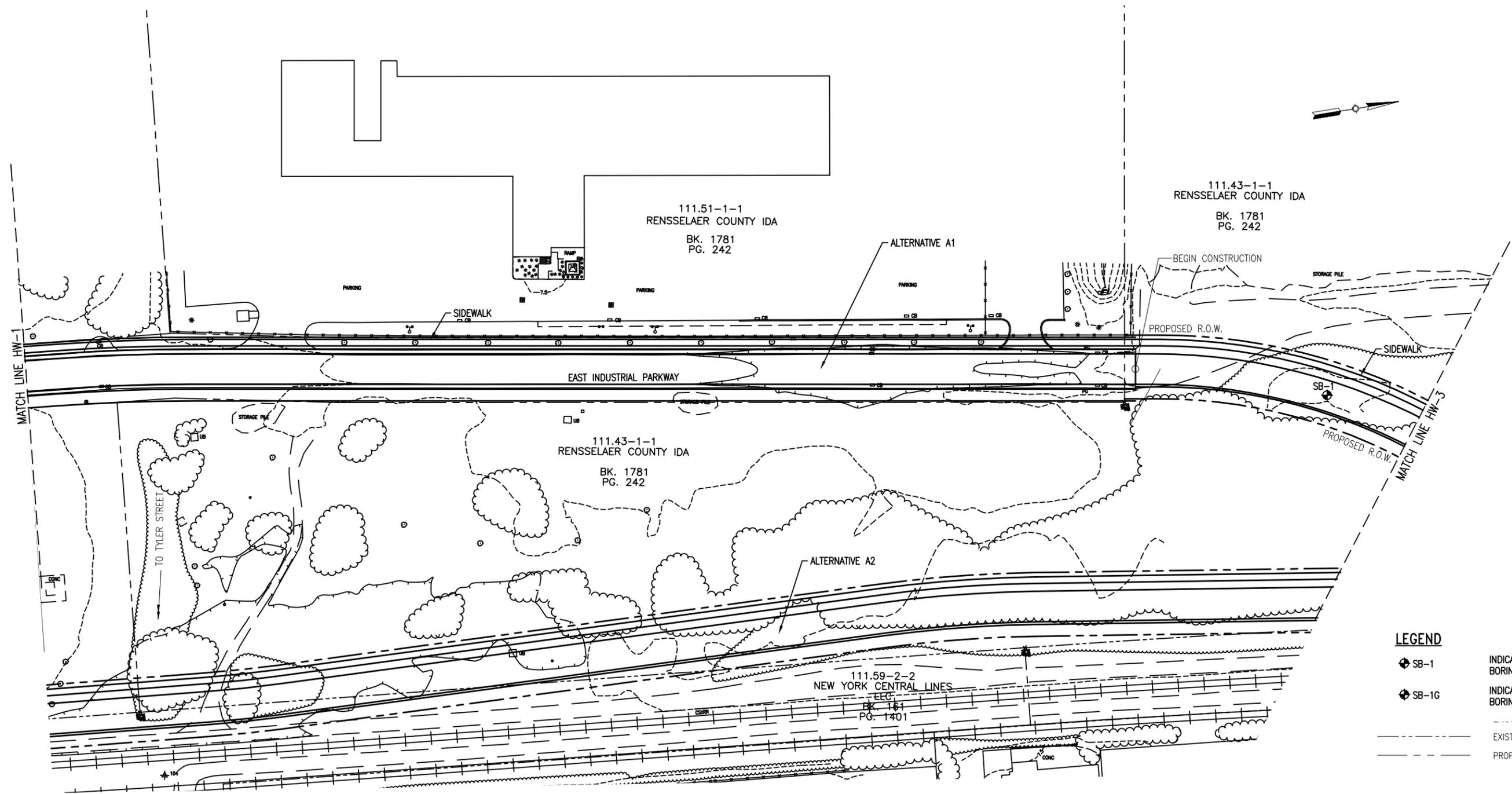
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CLIENT:
 CITY OF TROY
 1 MONUMENT SQUARE
 TROY, NY 12180

PROJECT NAME:
 SOUTH TROY INDUSTRIAL
 PARK ROAD

DRAWING TITLE:
 SOIL GAS SURVEY LOCATIONS

SCALE: AS NOTED	DATE: APRIL 2005
DES. BY: MCO	DR. BY: SMH
CK'D BY: CT	EAA PROJ. NO. 18810.00
SHEET NO. OF	DRAWING NO. HW-1



- LEGEND**
- ⊕ SB-1 INDICATES ENVIRONMENTAL BORING LOCATION & DESIGNATION
 - ⊕ SB-1G INDICATES GEOTECHNICAL BORING LOCATION & DESIGNATION
 - EXISTING CSX ROW BOUNDARY
 - - - - PROPOSED ROW BOUNDARY

PLAN
SCALE = 1:1000



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ANTHONY**



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TROY, NY 12180**

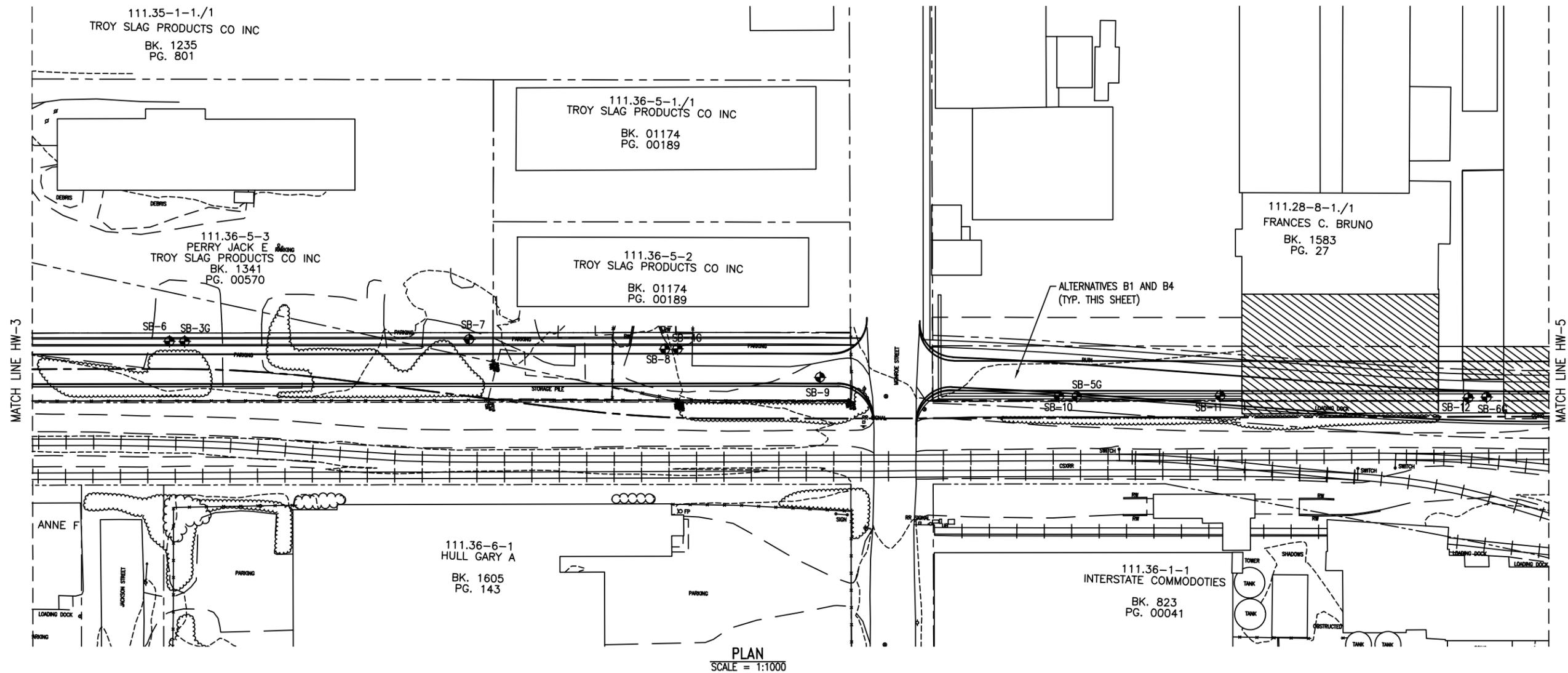
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**SOUTH TROY INDUSTRIAL
PARK ROAD**

DRAWING TITLE:
SOIL GAS SURVEY LOCATIONS

SCALE: AS NOTED	DATE: APRIL 2005
DES. BY: MCO	DR. BY: SMH
CK'D BY: CT	EA PROJ. NO. 18810.00
SHEET NO. of	DRAWING NO. HW-2

FILENAME: E:\GIS\1810\1810_04_22_Boring_Plan\Find_Boring_Locations.dwg [HW-2] PLOT DATE: July 23, 2015 8:47am

FILENAME: F:\GIS\1816\1816_07_22 Boring Plans\Final Boring Locations.dwg [HW-4] PLOT DATE: July 23, 2015-8:46am



PLAN
SCALE = 1:1000

LEGEND

- ⊕ SB-1 INDICATES ENVIRONMENTAL BORING LOCATION & DESIGNATION
- ⊕ SB-1G INDICATES GEOTECHNICAL BORING LOCATION & DESIGNATION
- EXISTING CSX ROW BOUNDARY
- PROPOSED ROW BOUNDARY
- ▨ STRUCTURE TO BE REMOVED



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Albany, NY
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West Palm Beach, FL

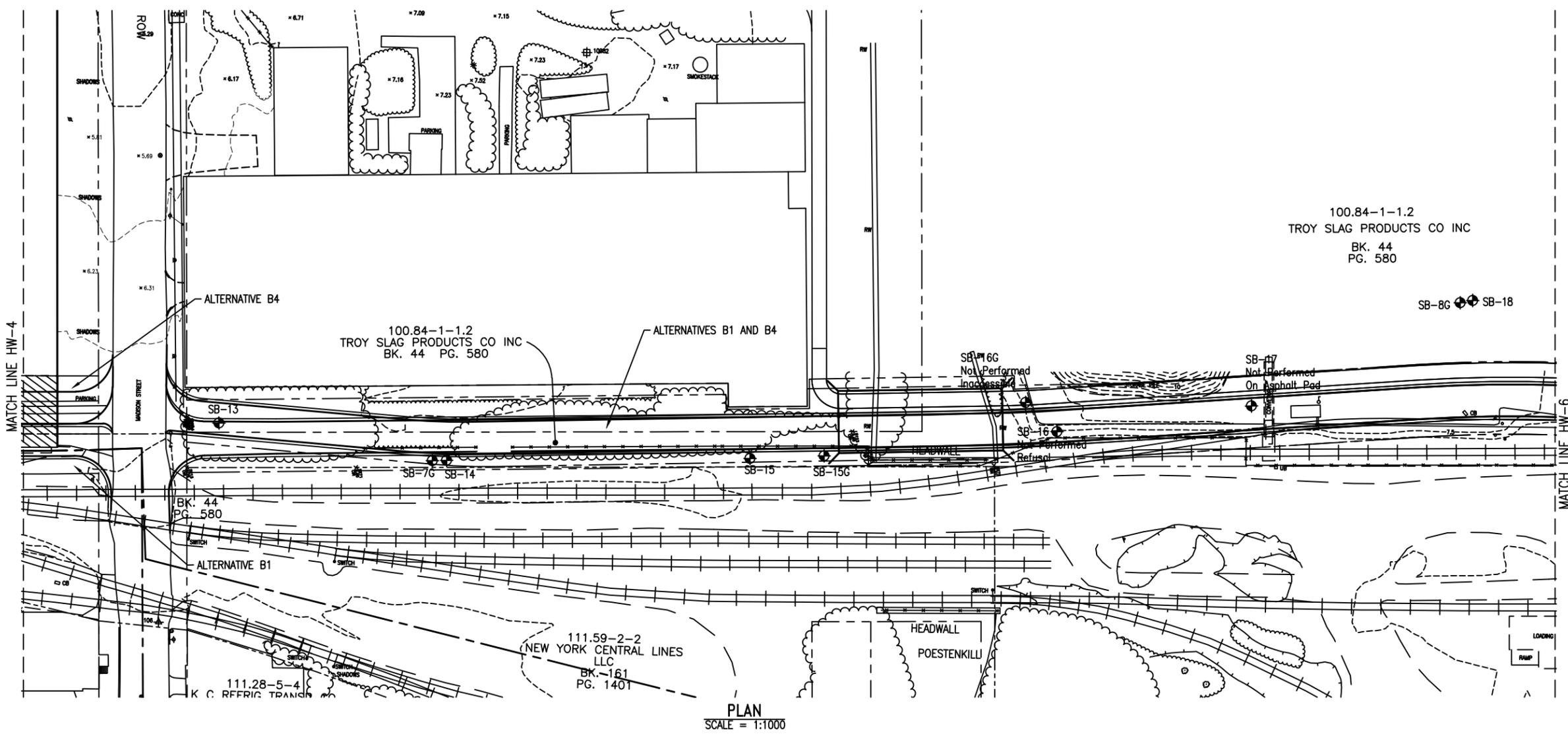
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1 MONUMENT SQUARE
TROY, NY 12180

PROJECT NAME:
SOUTH TROY INDUSTRIAL PARK ROAD

DRAWING TITLE:
SOIL GAS SURVEY LOCATIONS

SCALE: AS NOTED	DATE: APRIL 2005
DES. BY: MCO	DR. BY: SMH
CK'D BY: CT	EAA PROJ. NO. 18810.00
SHEET NO. of	DRAWING NO. HW-4



100.84-1-1.2
 TROY SLAG PRODUCTS CO INC
 BK. 44
 PG. 580

SB-8G + SB-18

100.84-1-1.2
 TROY SLAG PRODUCTS CO INC
 BK. 44 PG. 580

111.59-2-2
 NEW YORK CENTRAL LINES
 LLC
 BK. 161
 PG. 1401

111.28-5-4
 K. C. FERRIC TRANSP.

PLAN
 SCALE = 1:1000

LEGEND

- ⊕ SB-1 INDICATES ENVIRONMENTAL BORING LOCATION & DESIGNATION
- ⊕ SB-1G INDICATES GEOTECHNICAL BORING LOCATION & DESIGNATION
- EXISTING CSX ROW BOUNDARY
- - - PROPOSED ROW BOUNDARY
- ▨ STRUCTURE TO BE REMOVED



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 TROY, NY 12180

PROJECT NAME:
 SOUTH TROY INDUSTRIAL
 PARK ROAD

DRAWING TITLE:
 SOIL GAS SURVEY LOCATIONS

SCALE: AS NOTED	DATE: APRIL 2005
DES. BY: MCO	DR. BY: SMH
CK'D BY: CT	E&A PROJ. NO. 18810.00
SHEET NO. OF	DRAWING NO. HW-5

FILENAME: F:\GIS\16\From CME 2015 07 22 Boring Plans\Final Boring Locations.dwg [HW-5] PLOT DATE: July 23, 2015 8:46am



U.S. Department
of Transportation
**Federal Highway
Administration**

New York Division

January 28, 2016

Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, NY 12207
518-431-4127
Fax: 518-431-4121
New York.FHWA@dot.gov

In Reply Refer To:
HED-NY

Lorenzo DiStefano, P.E.
New York State Department of Transportation – Region One
50 Wolf Road
Albany, NY 12232

Subject: PIN 1754.59 – Section 106, 4(f), and ESA Determinations
South Troy Industrial Park Road Project
City of South Troy, Rensselaer County

Dear Mr. DiStefano:

In response to your December 2015 submittal of a Draft Design Report and Environmental Assessment for the South Troy Industrial Park Road we have reviewed the provided information and recommended determinations.

You are requesting our concurrence that the requirements of 36 Code of Federal Regulations (CFR), Part 800 of the National Historic Preservation Act have been met for this project; we have reviewed the submitted Finding Documentation.

We have reviewed the information provided and concluded that this undertaking by avoiding known pre-contact archaeological and historic sites will have *No Adverse Effect* to properties on or eligible for inclusion on the National Register of Historic Places. The requirements of 36 CFR Part 800 have been met for this project.

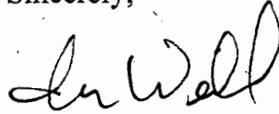
FHWA is responsible under its authority outlined in 23 CFR 774.11(e) to determine applicability of Section 4(f) to historic sites. The current alternatives proposed do not result in the need for a 4(f) determination.

Based on our review we concur that the project will have “No Effect” on the Atlantic Sturgeon, Shortnose Sturgeon, and the Bald Eagle or their habitats. In addition due to the removal of 4-14 trees within the winter cutting window of October 31st to March 31st the project “May Affect but is Not Likely to Adversely Affect” the Northern Long-Eared bat and their habitats.

If at any time during construction the presence of these federally listed species or their habitat are discovered or suspected, construction activities must be stopped. Activities cannot be resumed until FHWA and the USFWS are consulted.

If you have any questions, please feel free to contact me at (518) 431-8891.

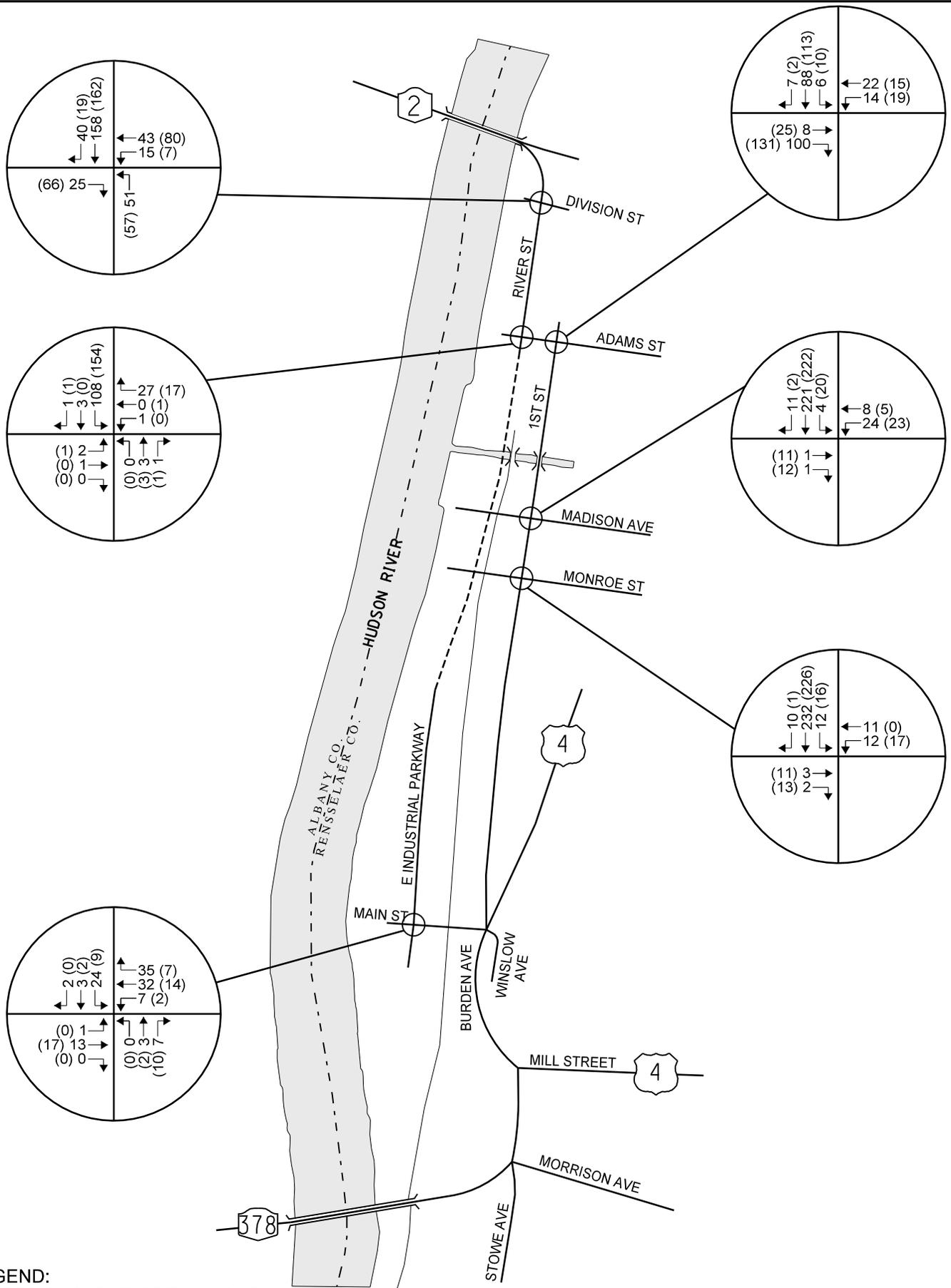
Sincerely,

A handwritten signature in black ink, appearing to read "Ian Weibel". The signature is written in a cursive style with a large, looping initial "I".

Ian N. Weibel, P.E.
Area Engineer

Appendix C - Traffic Information

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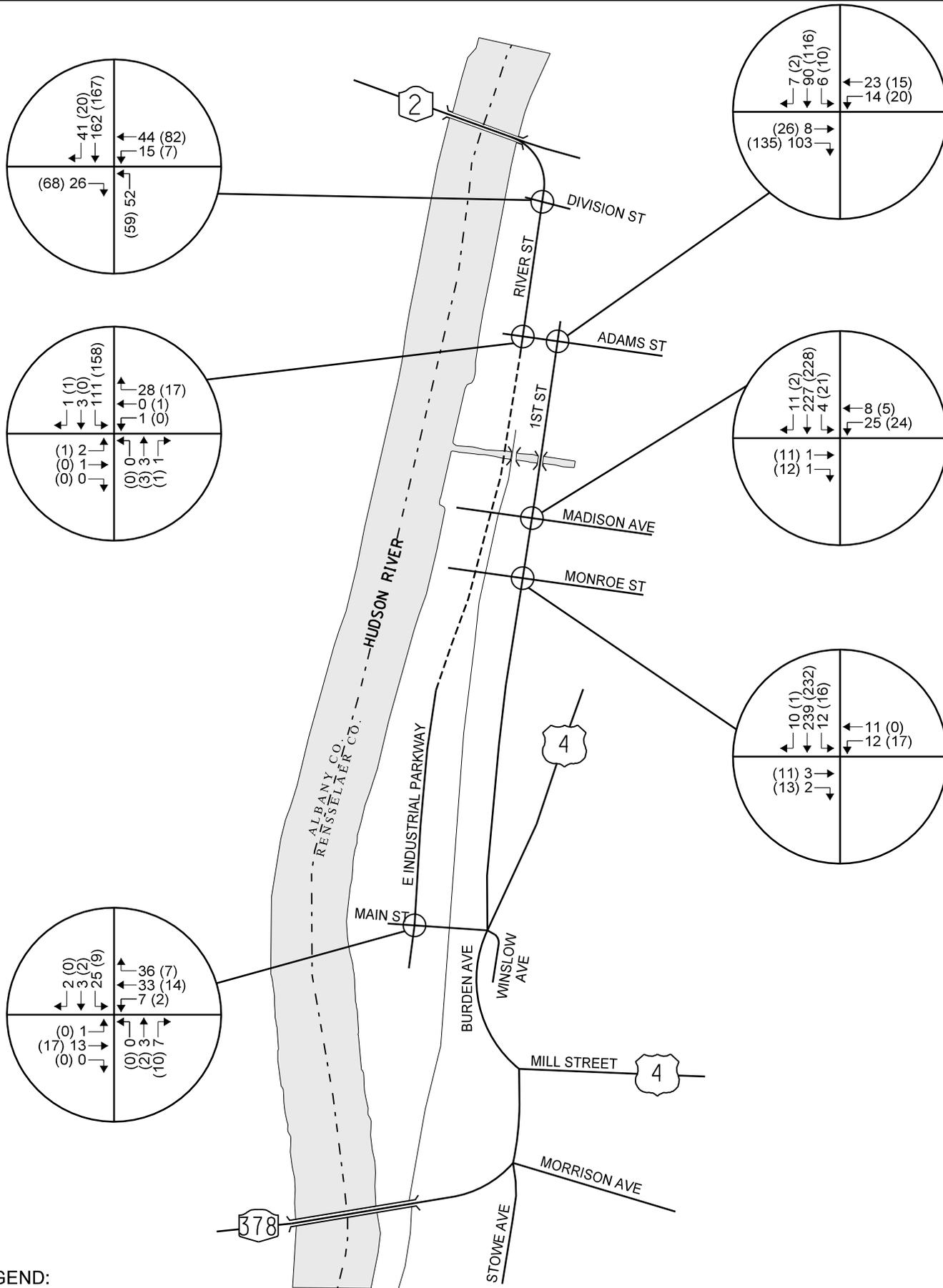


Legend:
AM PEAK HOUR (PM PEAK HOUR)

2009 EXISTING
TRAFFIC VOLUMES

SOUTH TROY INDUSTRIAL PARK ROAD
CITY OF RENSSELAER, NEW YORK



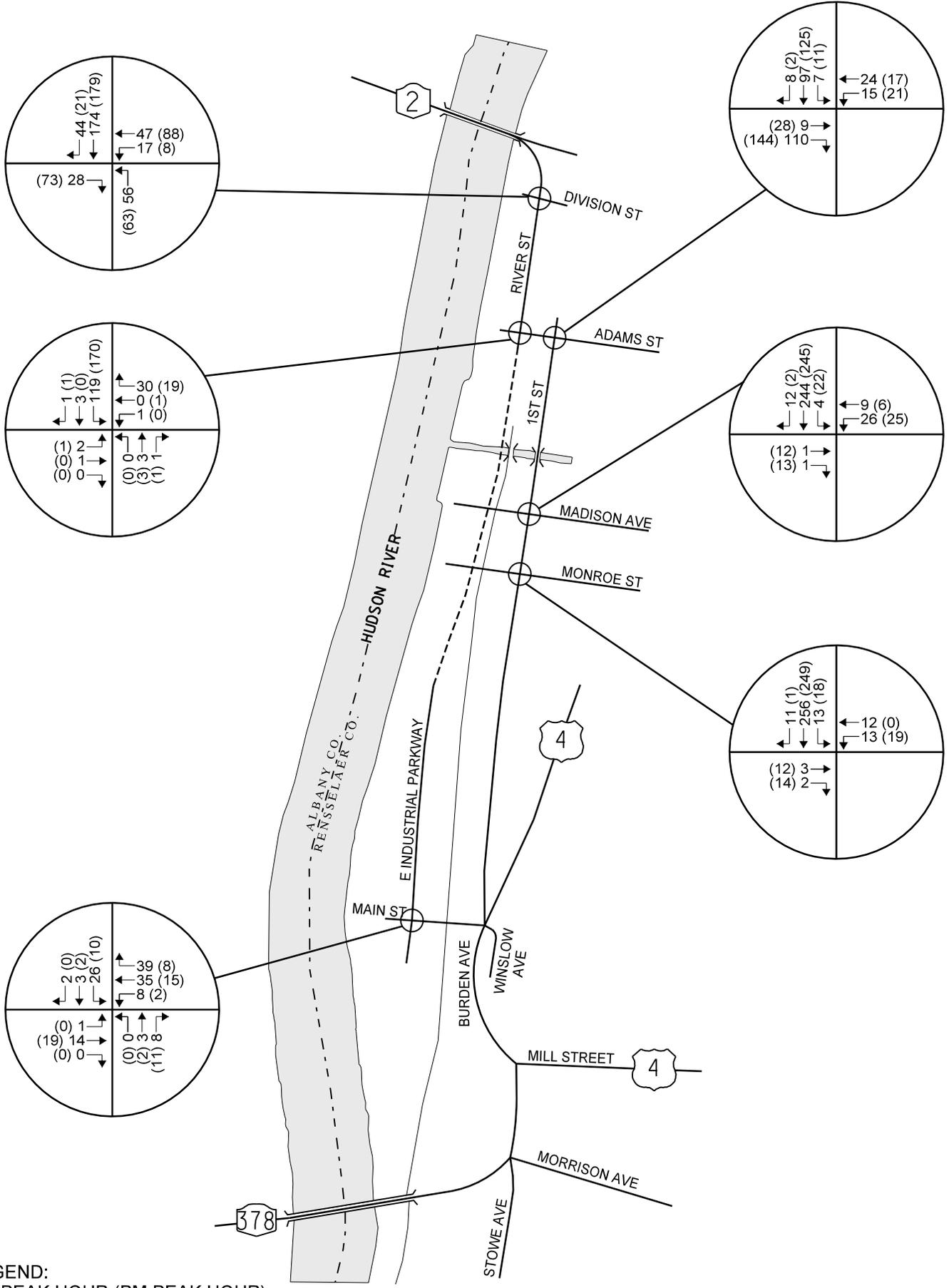


LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

ETC (2017) NULL
TRAFFIC VOLUMES

SOUTH TROY INDUSTRIAL PARK ROAD
CITY OF RENSSELAER, NEW YORK



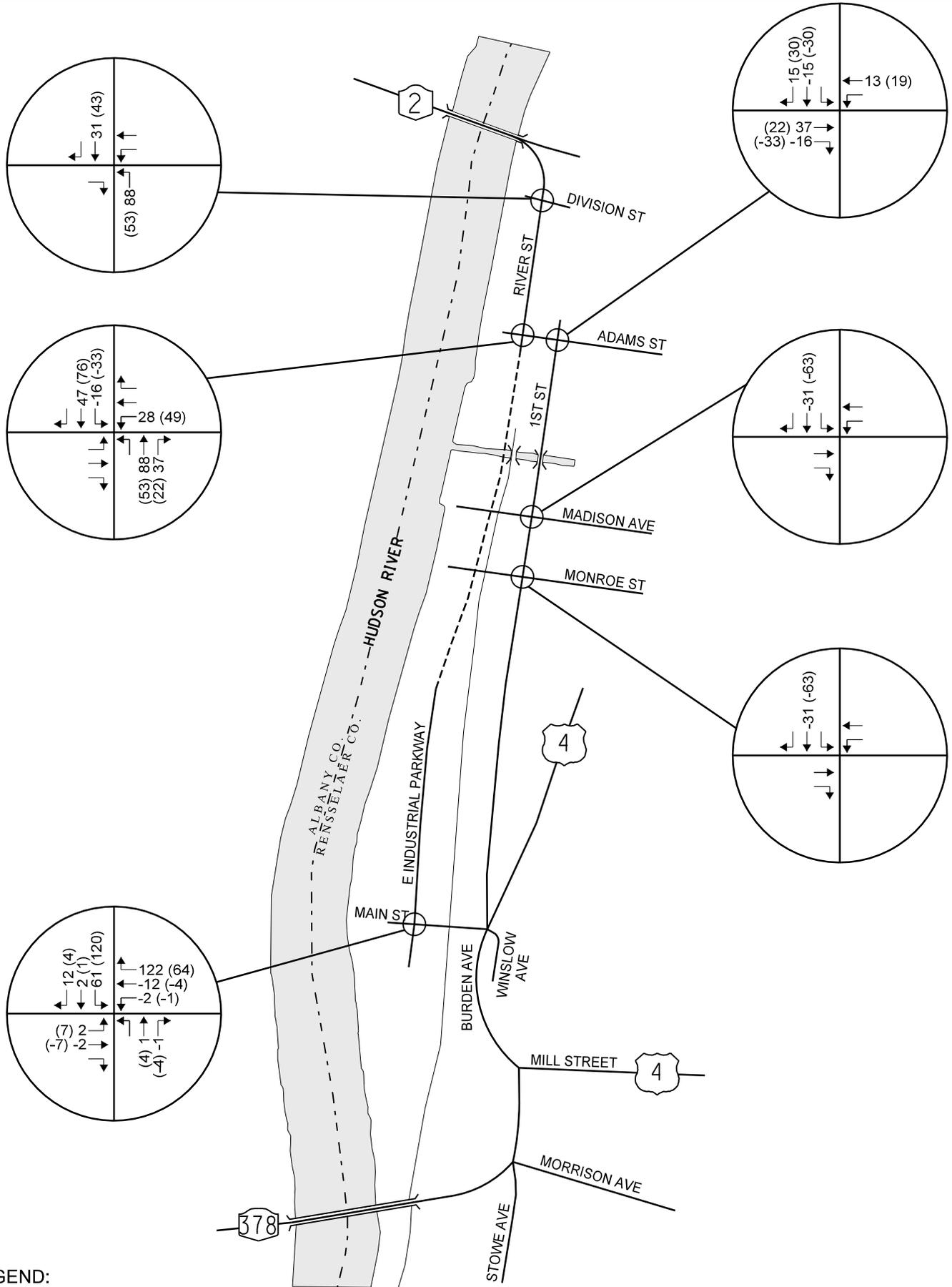


LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

ETC+20 (2037) NULL
TRAFFIC VOLUMES

SOUTH TROY INDUSTRIAL PARK ROAD
CITY OF RENSSELAER, NEW YORK



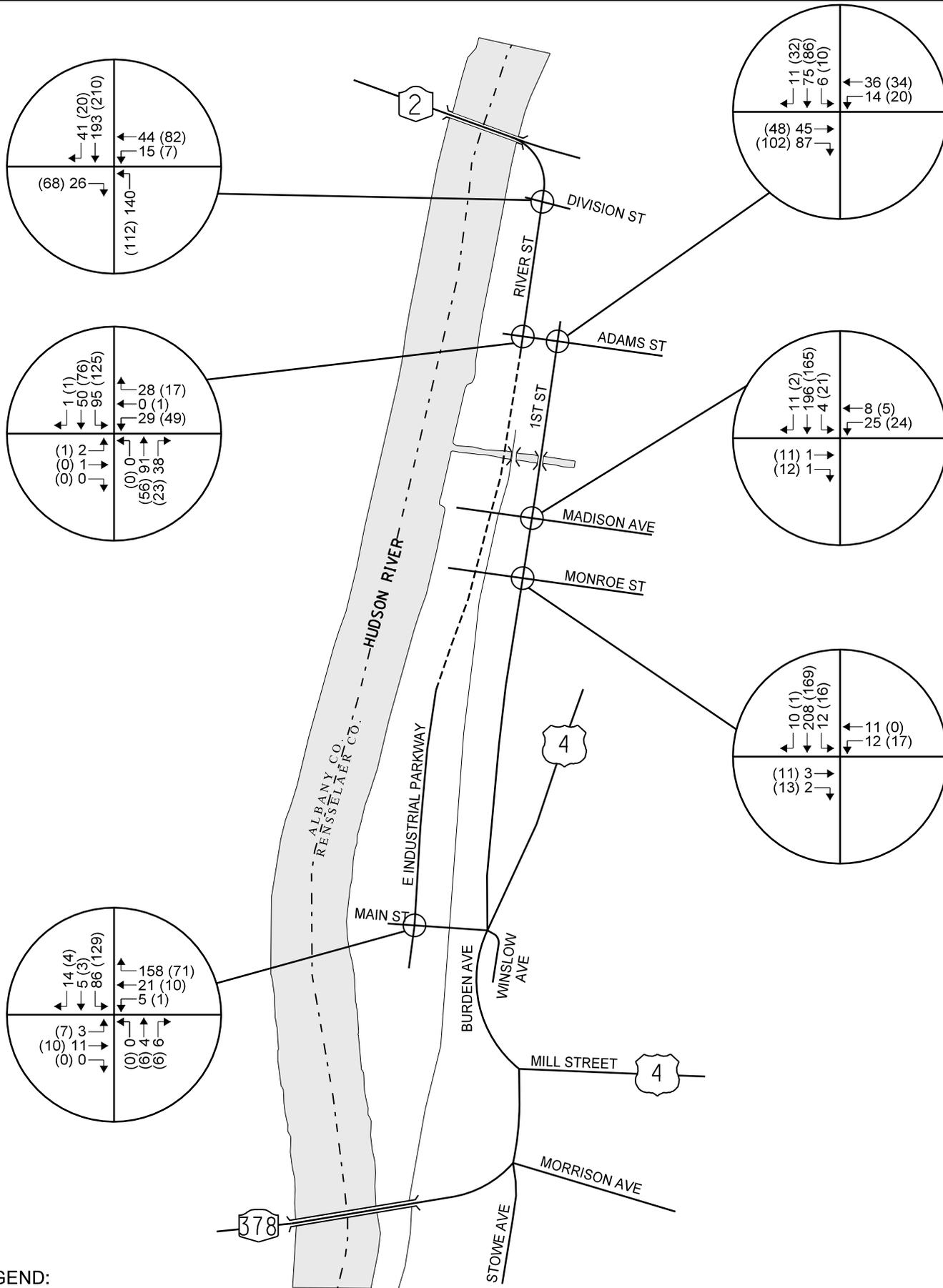


LEGEND:
 AM PEAK HOUR (PM PEAK HOUR)

TRAFFIC DIVERSIONS

SOUTH TROY INDUSTRIAL PARK ROAD
 CITY OF RENSSELAER, NEW YORK



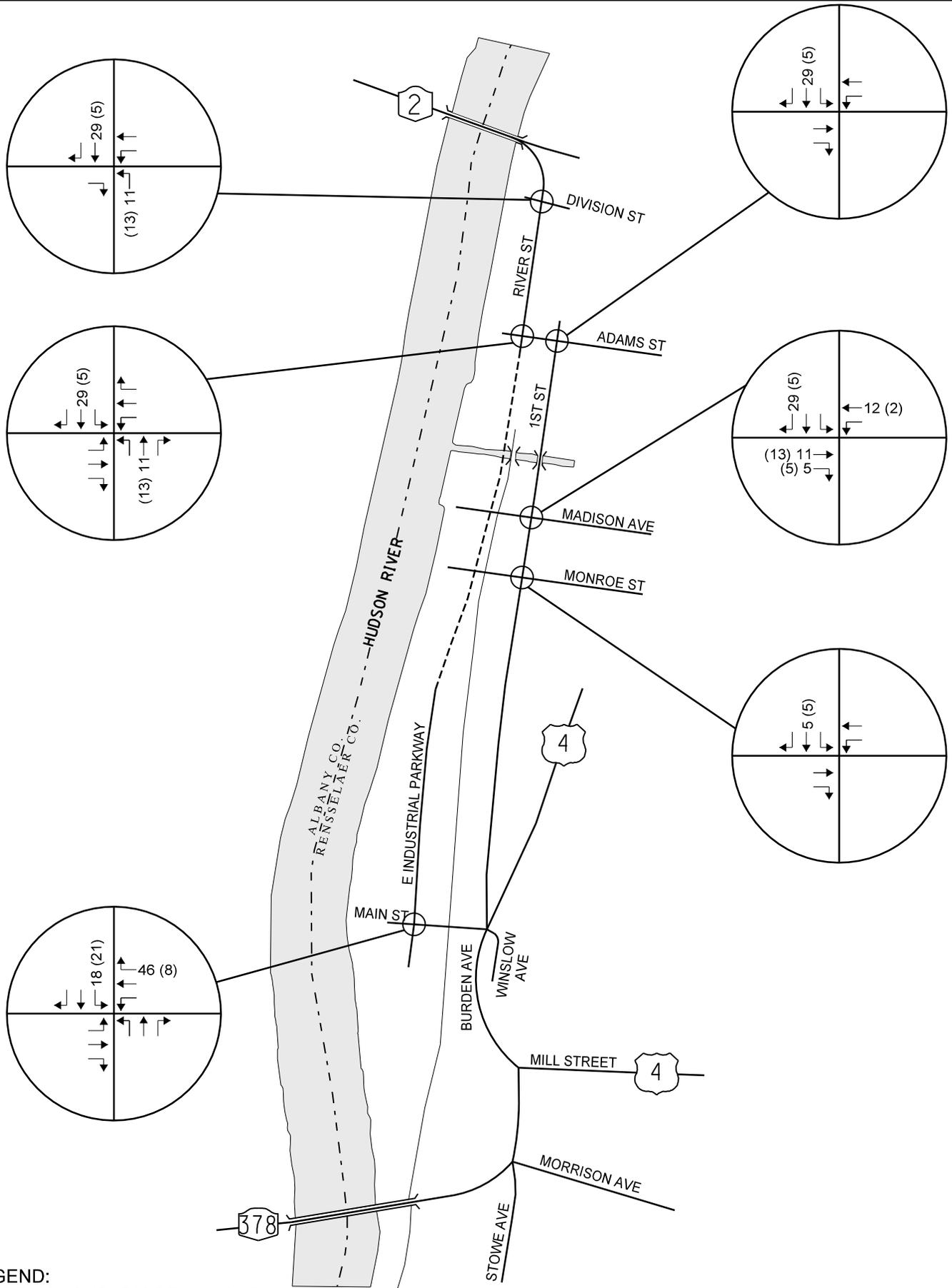


LEGEND:
 AM PEAK HOUR (PM PEAK HOUR)

ETC (2017) BUILD
 TRAFFIC VOLUMES

SOUTH TROY INDUSTRIAL PARK ROAD
 CITY OF RENSSELAER, NEW YORK



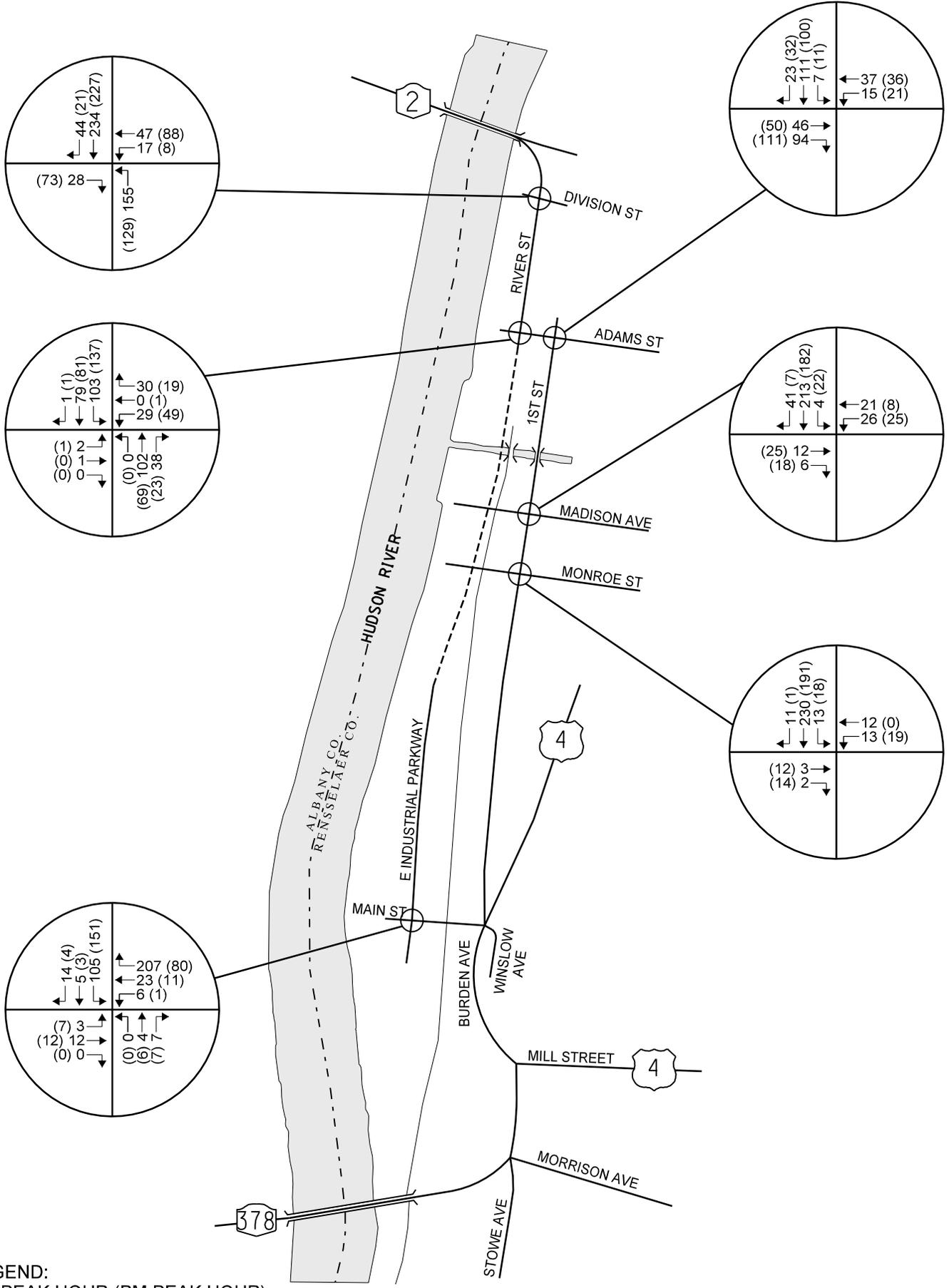


LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

DEVELOPMENT GROWTH

SOUTH TROY INDUSTRIAL PARK ROAD
CITY OF RENSSELAER, NEW YORK





LEGEND:
AM PEAK HOUR (PM PEAK HOUR)

ETC+20 (2037) BUILD
TRAFFIC VOLUMES

SOUTH TROY INDUSTRIAL PARK ROAD
CITY OF RENSSELAER, NEW YORK



DETAILS OF ACCIDENT HISTORY FOR LOCATION

TE 213 (Equivalent)

Diagram No.:

County: Rensselaer

PIN: _____

Time Period

Case No: CM #110-232

Town: _____

From: 12/01/10

File: _____

City: Troy

Route No. or Street Name: 1st Street

To: 11/30/13

By: AP

Village of: _____

At Intersection with/ or Between: Monroe Street

No. of Months: 36

Date: 7/15/2014

Accident No.	Case No.	Date	Time	No. of Veh.	Severity	Light Condition	Roadway Character	Roadway Surface Condition	Weather	Apparent Contributing Factors	Age V1	Age V2	Direction V1	Direction V2	Description	Location	Day of Week	Type
1	33894998	5/3/2011	2:10 PM	2	INJ	1	1	1	1	9		32	S	S	V1 SB struck V2 stopped in traffic while going straight too closely	1ST ST	Tue	RE
2	33950734	6/2/2011	3:36 PM	1	INJ	1	1	1	UNK	UNK	47	15	W	N	V1 WB struck bicyclist travelling north against signal	MONROE ST	Thu	OTHER
3	34028072	9/6/2011	8:04 AM	2	INJ	1	1	2	4	UNK	43	46	W	S	V1 WB struck V2 SB going straight ahead	1ST ST	Tue	RA
4																		
5																		
6																		

Roadway Character

- 1- Straight and Level
- 2- Straight and Grade
- 3- Straight at Hillcrest
- 4-Curve and Level
- 5-Curve and Grade

Road Surface Condition

- 1- Dry
- 2- Wet
- 4-Snow/Ice

Light Condition

- 1-Daylight
- 4-Dark-Road Lighted

Severity

- NR- Non-Reportable
- PDO- Property Damage
- INJ- Injury
- FAT- Fatality

Light Condition

- 1- Daylight
- 2- Dawn
- 3- Dusk
- 4- Dark-Road Lighted
- 5- Dark-Road Unlighted

Weather

- 1- Clear
- 2- Cloudy
- 3- Rain
- 4- Snow
- 5- Slush

Apparent Contributing Factors

- 2 - Alcohol Involvement
- 4- Driver inattention/Distraction
- 7 - Failure to yield Right of Way
- 9 - Following too closely
- 14-Pedestrian/Bicyclist/Other Pedestrian Error/Confusion
- 17 - Traffic Control Devices disregarded
- 19- Unsafe Speed
- 26- Reaction to other Uninvolved Vehicle
- 60- Other Vehicular
- 62-Glare
- 66- Pavement Slippery

Accident Summary Sheet

Location: 1st Street/Monroe Street
Period Covered: 12/2010 - 11/2013
Date: 7/15/2014

City: Troy
County: Rensselaer

Time of Day	All Accidents	
	Number	Percentage
12AM-6AM	0	0.0%
6AM-10AM	1	33.3%
10AM-4PM	2	66.7%
4PM-7PM	0	0.0%
7PM-12AM	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Accident Severity	All Accidents	
	Number	Percentage
Fatal	0	0.0%
Injury	3	100.0%
Property Damage Only	0	0.0%
Property Damage & Injury	0	0.0%
Non-Reportable	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Weather	All Accidents	
	Number	Percentage
Clear	1	33.3%
Cloudy	0	0.0%
Rain	0	0.0%
Snow	1	33.3%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unknown	1	33.3%
Total	3	100.0%

Light Condition	All Accidents	
	Number	Percentage
Daylight	3	100.0%
Dawn	0	0.0%
Dusk	0	0.0%
Dark-Road Lighted	0	0.0%
Dark-Road Unlighted	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

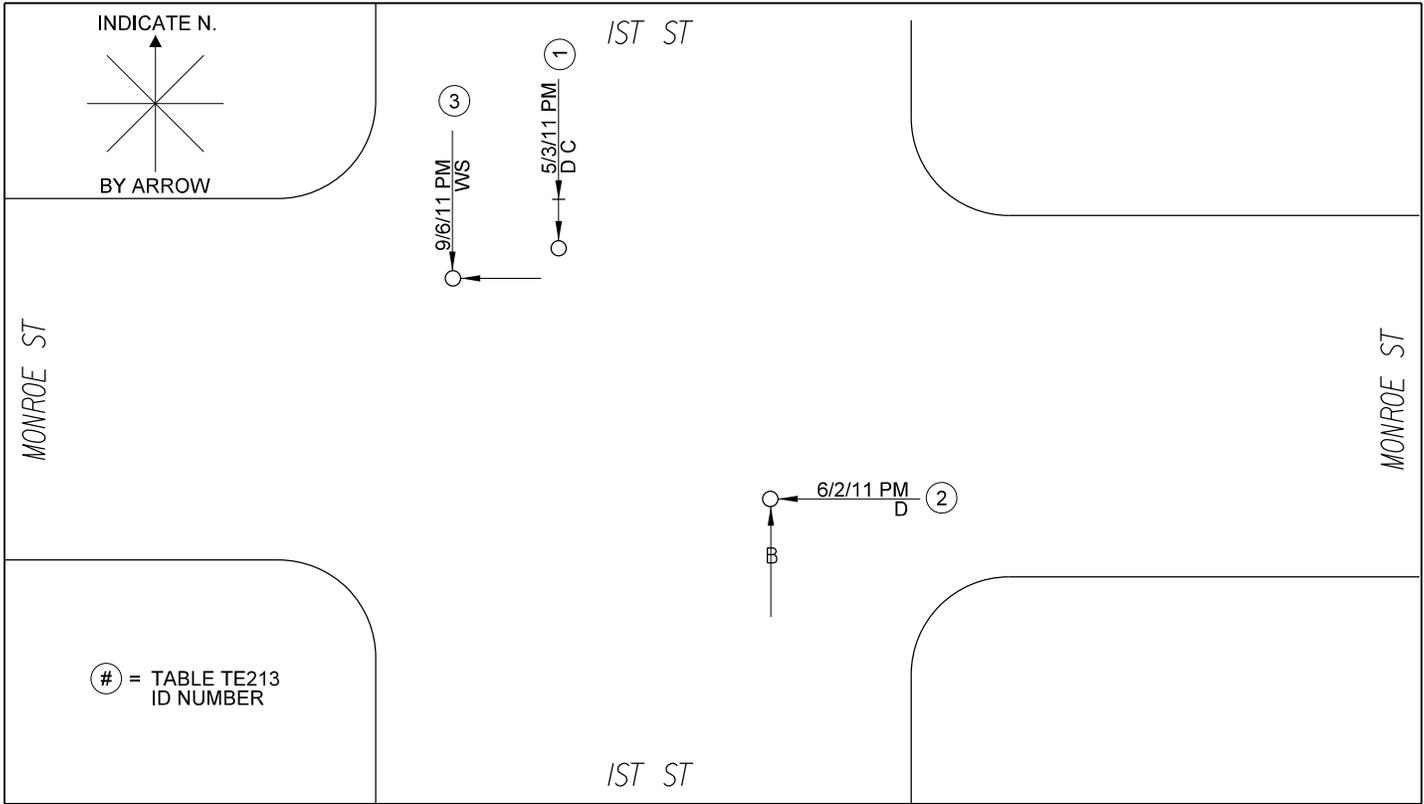
Pavement Condition	All Accidents	
	Number	Percentage
Dry	2	66.7%
Wet	1	33.3%
Snow/Ice	0	0.0%
Slush	0	0.0%
Other	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Apparent Contributing Factors	Pedestrian Accidents	
	Number	Percentage
Driver Inattention/Distracted	0	0.0%
Following too Closely	1	33.3%
Traffic Control Disregarded	0	0.0%
Pavement Slippery	0	0.0%
Reaction to other Uninvolved Vehicle	0	0.0%
Failure to yield Right of Way	0	0.0%
Unknown	2	66.7%
Total	3	100.0%

Creighton Manning

COLLISION DIAGRAM

CITY TROY JOB NO. 110-232 NUMBER OF ACCIDENTS 3
 INTERSECTION OF 1ST ST AND MONROE ST BY KH
 PERIOD 3 YRS. 0 MO. FROM 12/1/10 TO 11/30/13 DATE 07/16/14



- | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> → PATH OF MOVING MOTOR VEH. ●→ PATH OF STOPPED MOTOR VEH. P→ PEDESTRIAN PATH B→ BICYCLIST PATH A→ ANIMAL PATH ● FATAL ○ NON-FATAL | <p>LEGEND</p> <ul style="list-style-type: none"> →→ REAR END COLLISION ☐ PARKED VEHICLE ☐ FIXED OBJECT ↺ OVERTURNED ~ OUT OF CONTROL ↔ OVERTAKING/SIDESWIPE | <p>DATE, CLASS, TIME →</p> <p>PAVEMENT, WEATHER CONDITIONS →</p> <p>TIME: A=AM P=PM</p> <p>PAVEMENT: D=DRY I=ICY W=WET</p> <p>WEATHER: C=CLEAR F=FOG R=RAIN</p> <p>SL=SLEET S=SNOW</p> <p>CL=CLOUDY</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ACCIDENT SUMMARY	DAYLIGHT					NIGHT					TOTALS				
	FATAL	NON-FATAL	PROP. DAM.	UNK.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL
RIGHT ANGLE		② ③			2							2			2
REAR-END		①			1							1			1
HEAD-ON															
LEFT TURN															
OVERTAKING/SIDESWIPE															
RUN OFF ROAD															
FIXED OBJECT															
PARKED CAR															
PEDESTRIAN/BICYCLIST															
OTHER															
TOTALS		3			3							3			3

DETAILS OF ACCIDENT HISTORY FOR LOCATION

TE 213 (Equivalent)

Diagram No.:

County: Rensselaer

PIN: _____

Time Period

Case No: CM #110-232

Town: _____

From: 12/01/10

File: _____

City: Troy

Route No. or Street Name: 1st Street

To: 11/30/13

By: AP

Village of: _____

At Intersection with/ or Between: Madison Street

No. of Months: 36

Date: 7/15/2014

Accident No.	Case No.	Date	Time	No. of Veh.	Severity	Light Condition	Roadway Character	Roadway Surface Condition	Weather	Apparent Contributing Factors	Age V1	Age V2	Direction V1	Direction V2	Description	Location	Day of Week	Type
1	33747362	1/6/2011	10:09 AM	2	INJ	1	1	1	1	17	39	76	W	S	V1 WB struck V2 SB without yielding for other vehicle at stop sign.	1ST ST	Thu	RA
2	34868122	7/21/2013	6:13 AM	2	PDO	2	1	1	1	9			S	UNK	V1 SB struck V2 parked using lane improperly	1ST ST	Sun	RE
3	33905391	5/12/2011	2:21 PM	2	PDO	1	1	1	1	7	37	26	W	S	V1 WB failed to stop at the stop sign and struck V2 SB	1ST ST	Thu	RA
4	33718374	12/10/2010	11:39 PM	1	INJ	4	1	1	2	4	37		S	NA	V1 SB struck pedestrian while pulling out of parking due to inattention	1ST ST	Fri	Other

Roadway Character

- 1- Straight and Level
- 2- Straight and Grade
- 3- Straight at Hillcrest
- 4-Curve and Level
- 5-Curve and Grade

Road Surface Condition

- 1- Dry
- 2- Wet
- 4-Snow/Ice

Light Condition

- 1-Daylight
- 4-Dark-Road Lighted

Severity

- NR- Non-Reportable
- PDO- Property Damage
- INJ- Injury
- FAT- Fatality

Light Condition

- 1- Daylight
- 2- Dawn
- 3- Dusk
- 4- Dark-Road Lighted
- 5- Dark-Road Unlighted

Weather

- 1- Clear
- 2- Cloudy
- 3- Rain
- 4- Snow
- 5- Slush

Apparent Contributing Factors

- 2 - Alcohol Involvement
- 4- Driver inattention/Distracted
- 7 - Failure to yield Right of Way
- 9 - Following too closely
- 13- Passing or Lane Usage Improper
- 17 - Traffic Control Devices disregarded
- 19- Unsafe Speed
- 26- Reaction to other Uninvolved Vehicle
- 60- Other Vehicular
- 62-Glare
- 66- Pavement Slippery

Accident Summary Sheet

Location: 1st Street/Madison Street
Period Covered: 12/2010 - 11/2013
Date: 7/15/2014

City: Troy
County: Rensselaer

Time of Day	All Accidents	
	Number	Percentage
12AM-6AM	0	0.0%
6AM-10AM	2	50.0%
10AM-4PM	1	25.0%
4PM-7PM	0	0.0%
7PM-12AM	1	25.0%
Unknown	0	0.0%
Total	4	100.0%

Accident Severity	All Accidents	
	Number	Percentage
Fatal	0	0.0%
Injury	2	50.0%
Property Damage Only	0	0.0%
Property Damage & Injury	0	0.0%
Non-Reportable	2	50.0%
Unknown	0	0.0%
Total	4	100.0%

Weather	All Accidents	
	Number	Percentage
Clear	3	75.0%
Cloudy	1	25.0%
Rain	0	0.0%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unknown	0	0.0%
Total	4	100.0%

Light Condition	All Accidents	
	Number	Percentage
Daylight	2	50.0%
Dawn	1	25.0%
Dusk	0	0.0%
Dark-Road Lighted	1	25.0%
Dark-Road Unlighted	0	0.0%
Unknown	0	0.0%
Total	4	100.0%

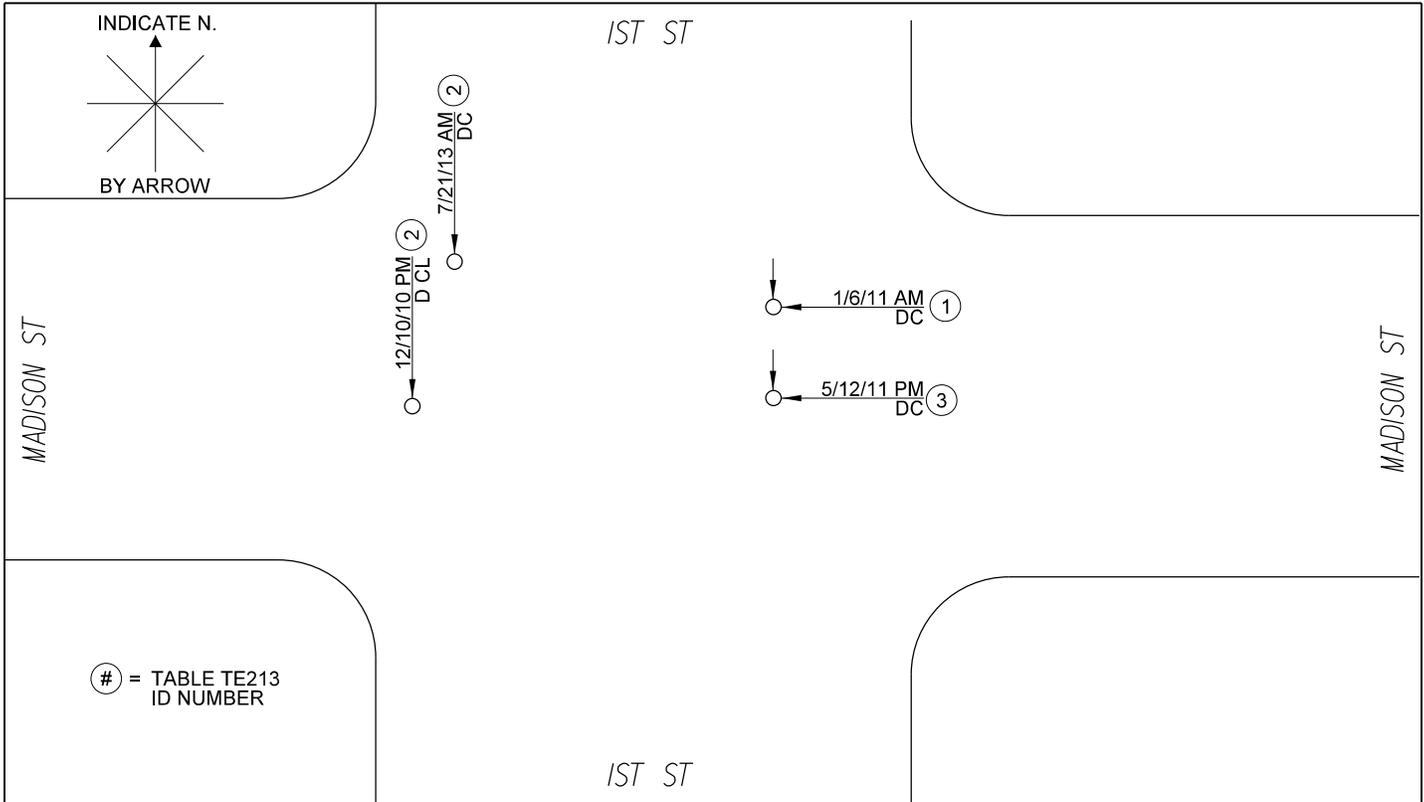
Pavement Condition	All Accidents	
	Number	Percentage
Dry	4	100.0%
Wet	0	0.0%
Snow/Ice	0	0.0%
Slush	0	0.0%
Other	0	0.0%
Unknown	0	0.0%
Total	4	100.0%

Apparent Contributing Factors	Pedestrian Accidents	
	Number	Percentage
Driver Inattention/Distracted	1	25.0%
Following too Closely	1	25.0%
Traffic Control Disregarded	1	25.0%
Pavement Slippery	0	0.0%
Reaction to other Uninvolved Vehicle	0	0.0%
Failure to yield Right of Way	1	25.0%
Unknown	0	0.0%
Total	4	100.0%

Creighton Manning

COLLISION DIAGRAM

CITY TROY JOB NO. 110-232 NUMBER OF ACCIDENTS 4
 INTERSECTION OF 1ST ST AND MADISON ST BY KH
 PERIOD 3 YRS. 0 MO. FROM 12/01/10 TO 11/30/13 DATE 07/16/14



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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> → PATH OF MOVING MOTOR VEH. ● PATH OF STOPPED MOTOR VEH. P PEDESTRIAN PATH B BICYCLIST PATH A ANIMAL PATH ● FATAL ○ NON-FATAL | <p>LEGEND</p> <ul style="list-style-type: none"> →→ REAR END COLLISION ▣ PARKED VEHICLE □ FIXED OBJECT ↺ OVERTURNED ~ OUT OF CONTROL ↔ OVERTAKING/SIDESWIPE | <p>DATE, CLASS, TIME →</p> <p>PAVEMENT, WEATHER CONDITIONS →</p> <p>TIME: A=AM P=PM</p> <p>PAVEMENT: D=DRY I=ICY W=WET</p> <p>WEATHER: C=CLEAR F=FOG R=RAIN
SL=SLEET S=SNOW
CL=CLOUDY</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ACCIDENT SUMMARY	DAYLIGHT					NIGHT					TOTALS				
	FATAL	NON-FATAL	PROP. DAM.	UNK.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL
RIGHT ANGLE		① ③			2							2			2
REAR-END															
HEAD-ON															
LEFT TURN															
OVERTAKING/SIDESWIPE															1
RUN OFF ROAD															
FIXED OBJECT															
PARKED CAR															
PEDESTRIAN/BICYCLIST							④			1		1			1
OTHER			②		1								1		1
TOTALS		2	1		3		1			1		3	1		4

DETAILS OF ACCIDENT HISTORY FOR LOCATION

TE 213 (Equivalent)

Diagram No.:

County: Rensselaer

PIN: _____

Time Period

Case No: CM #110-232

Town: _____

From: 12/01/10

File: _____

City: Troy

Route No. or Street Name: 1st Street

To: 11/30/13

By: AP

Village of: _____

At Intersection with/ or Between: Adams Street

No. of Months: 36

Date: 7/15/2014

Accident No.	Case No.	Date	Time	No. of Veh.	Severity	Light Condition	Roadway Character	Roadway Surface Condition	Weather	Apparent Contributing Factors	Age V1	Age V2	Direction V1	Direction V2	Description	Location	Day of Week	Type
1	34560690	11/14/2012	12:40 PM	3	INJ	1	1	1	1	62	49		S	UNK	V1 SB struck V2 & V3 parked on the side due to failure to keep right due to glare	1ST ST	Wed	Other
2	34489524	8/7/2012	8:01 AM	1	PDO	1	1	1	1	18	16		SE		V1 SEB collided with tree while turning left due to unsafe speed	1ST ST	Tue	Other
3	34739958	8/2/2012	9:19 PM	2	NR	4	1	1	1	13			S	S	V1 SB struck V2 parked on the street due to passing improperly	1ST ST	Thu	OT

Roadway Character

- 1- Straight and Level
- 2- Straight and Grade
- 3- Straight at Hillcrest
- 4-Curve and Level
- 5-Curve and Grade

Road Surface Condition

- 1- Dry
- 2- Wet
- 4-Snow/Ice

Light Condition

- 1-Daylight
- 4-Dark-Road Lighted

Severity

- NR- Non-Reportable
- PDO- Property Damage
- INJ- Injury
- FAT- Fatality

Light Condition

- 1- Daylight
- 2- Dawn
- 3- Dusk
- 4- Dark-Road Lighted
- 5- Dark-Road Unlighted

Weather

- 1- Clear
- 2- Cloudy
- 3- Rain
- 4- Snow
- 5- Slush

Apparent Contributing Factors

- 2 - Alcohol Involvement
- 4- Driver inattention/Distraction
- 7 - Failure to yield Right of Way
- 9 - Following too closely
- 13- Passing or Lane Usage Improper
- 18-Turning Improperly
- 19- Unsafe Speed
- 26- Reaction to other Uninvolved Vehicle
- 60- Other Vehicular
- 62-Glare
- 66- Pavement Slippery

Accident Summary Sheet

Location: 1st Street/Adams Street
Period Covered: 12/2010 - 11/2013
Date: 7/15/2014

City: Troy
County: Rensselaer

Time of Day	All Accidents	
	Number	Percentage
12AM-6AM	0	0.0%
6AM-10AM	1	33.3%
10AM-4PM	1	33.3%
4PM-7PM	0	0.0%
7PM-12AM	1	33.3%
Unknown	0	0.0%
Total	3	100.0%

Accident Severity	All Accidents	
	Number	Percentage
Fatal	0	0.0%
Injury	1	33.3%
Property Damage Only	1	33.3%
Property Damage & Injury	0	0.0%
Non-Reportable	1	33.3%
Unknown	0	0.0%
Total	3	100.0%

Weather	All Accidents	
	Number	Percentage
Clear	3	100.0%
Cloudy	0	0.0%
Rain	0	0.0%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Light Condition	All Accidents	
	Number	Percentage
Daylight	2	66.7%
Dawn	0	0.0%
Dusk	0	0.0%
Dark-Road Lighted	1	33.3%
Dark-Road Unlighted	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

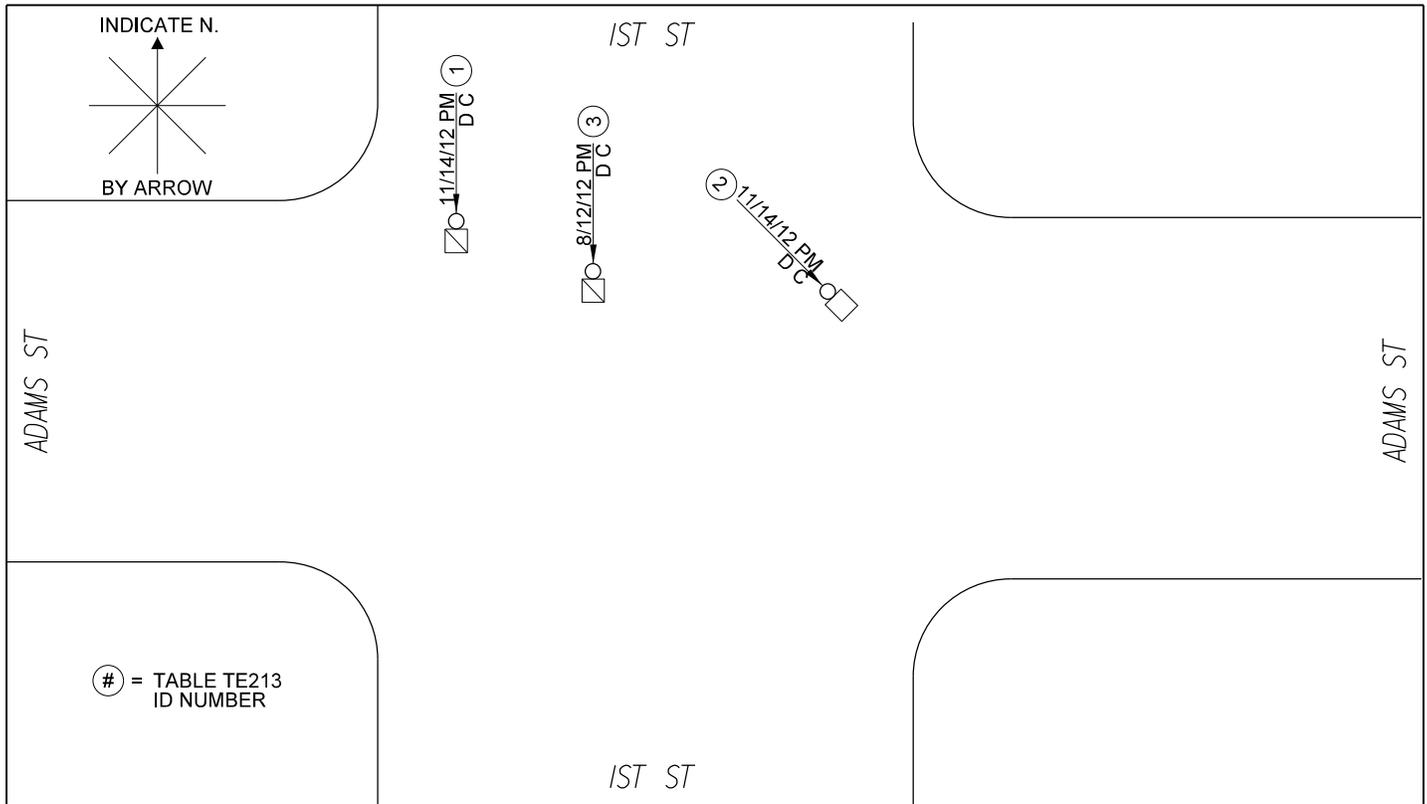
Pavement Condition	All Accidents	
	Number	Percentage
Dry	3	100.0%
Wet	0	0.0%
Snow/Ice	0	0.0%
Slush	0	0.0%
Other	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Apparent Contributing Factors	Pedestrian Accidents	
	Number	Percentage
Driver Inattention/Distracted	0	0.0%
Glare	1	33.3%
Turning Improperly	1	33.3%
Passing or Lane Usage Improper	1	33.3%
Reaction to other Uninvolved Vehicle	0	0.0%
Failure to yield Right of Way	0	0.0%
Unknown	0	0.0%
Total	3	100.0%

Creighton Manning

COLLISION DIAGRAM

CITY TROY JOB NO. 110-232 NUMBER OF ACCIDENTS 3
 INTERSECTION OF 1ST ST AND ADAMS ST BY KH
 PERIOD 3 YRS. 0 MO. FROM 12/1/10 TO 11/30/13 DATE 7/16/14



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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> → PATH OF MOVING MOTOR VEH. ●→ PATH OF STOPPED MOTOR VEH. P → PEDESTRIAN PATH B → BICYCLIST PATH A → ANIMAL PATH ● FATAL ○ NON-FATAL | <p>LEGEND</p> <ul style="list-style-type: none"> →→ REAR END COLLISION □ PARKED VEHICLE □ FIXED OBJECT →→ OVERTURNED →→ OUT OF CONTROL →→ OVERTAKING/SIDESWIPE | <p>DATE, CLASS, TIME →</p> <p>PAVEMENT, WEATHER CONDITIONS →</p> <p>TIME: A=AM P=PM</p> <p>PAVEMENT: D=DRY I=ICY W=WET</p> <p>WEATHER: C=CLEAR F=FOG R=RAIN
SL=SLEET S=SNOW
CL=CLOUDY</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ACCIDENT SUMMARY	DAYLIGHT					NIGHT					TOTALS				
	FATAL	NON-FATAL	PROP. DAM.	UNK.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL
RIGHT ANGLE															
REAR-END															
HEAD-ON															
LEFT TURN															
OVERTAKING/SIDESWIPE															
RUN OFF ROAD															
FIXED OBJECT			②		1								1		1
PARKED CAR		①			1				③			1		1	2
PEDESTRIAN/BICYCLIST															
OTHER															
TOTALS		1	1		2				1	1		1	1	1	3

DETAILS OF ACCIDENT HISTORY FOR LOCATION

TE 213 (Equivalent)

Diagram No.:

County: Rensselaer

PIN: _____

Time Period

Case No: CM #110-232

Town: _____

From: 12/01/10

File: _____

City: Troy

Route No. or Street Name: River Street

To: 11/30/13

By: AP

Village of: _____

At Intersection with/ or Between: Division Street

No. of Months: 36

Date: 7/15/2014

Accident No.	Case No.	Date	Time	No. of Veh.	Severity	Light Condition	Roadway Character	Roadway Surface Condition	Weather	Apparent Contributing Factors	Age V1	Age V2	Direction V1	Direction V2	Description	Location	Day of Week	Type
1	34722322	3/25/2013	8:12 PM	2	NR	4	1	1	1	7			W	S	V1 WB failed to yield at Stop sign and struck V2 SB	RIVER ST	Mon	RA

Roadway Character

- 1- Straight and Level
- 2- Straight and Grade
- 3- Straight at Hillcrest
- 4-Curve and Level
- 5-Curve and Grade

Road Surface Condition

- 1- Dry
- 2- Wet
- 4-Snow/Ice

Light Condition

- 1-Daylight
- 4-Dark-Road Lighted

Severity

- NR- Non-Reportable
- PDO- Property Damage
- INJ- Injury
- FAT- Fatality

Light Condition

- 1- Daylight
- 2- Dawn
- 3- Dusk
- 4- Dark-Road Lighted
- 5- Dark-Road Unlighted

Weather

- 1- Clear
- 2- Cloudy
- 3- Rain
- 4- Snow
- 5- Slush

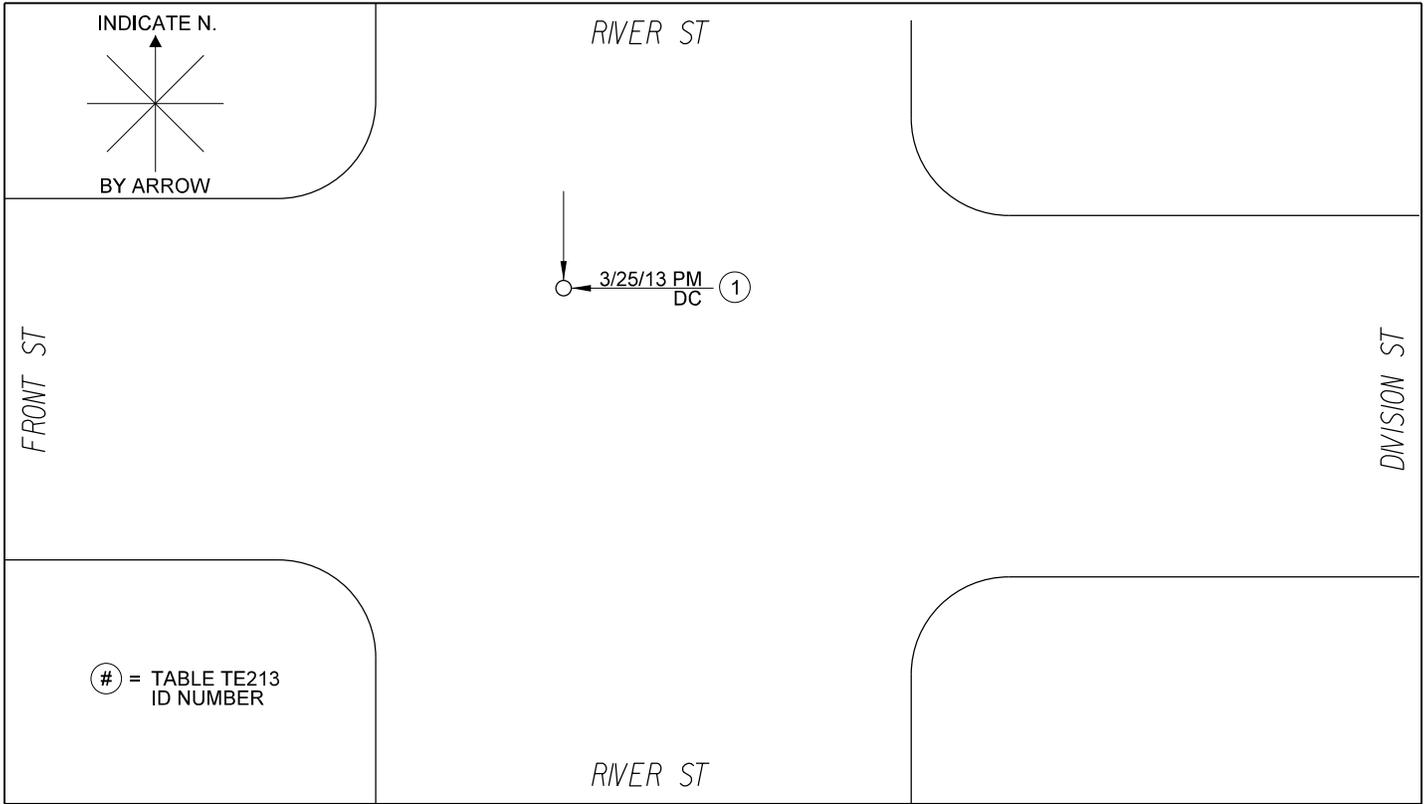
Apparent Contributing Factors

- 2 - Alcohol Involvement
- 4- Driver inattention/Distracted
- 7 - Failure to yield Right of Way
- 9 - Following too closely
- 13- Passing or Lane Usage Improper
- 18-Turning Improperly
- 19- Unsafe Speed
- 26- Reaction to other Uninvolved Vehicle
- 60- Other Vehicular
- 62-Glare
- 66- Pavement Slippery

Creighton Manning

COLLISION DIAGRAM

CITY TROY JOB NO. 110-232 NUMBER OF ACCIDENTS 1
 INTERSECTION OF RIVER ST AND DIVISION ST BY KH
 PERIOD 3 YRS. 0 MO. FROM 12/1/10 TO 11/30/13 DATE 07/17/14



- LEGEND**
- | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> → PATH OF MOVING MOTOR VEH. ●→ PATH OF STOPPED MOTOR VEH. P → PEDESTRIAN PATH B → BICYCLIST PATH A → ANIMAL PATH ● FATAL ○ NON-FATAL | <ul style="list-style-type: none"> →→ REAR END COLLISION ☐ PARKED VEHICLE ☐ FIXED OBJECT ↺ OVERTURNED ~ OUT OF CONTROL →→ OVERTAKING/SIDESWIPE | <p>DATE, CLASS, TIME →</p> <p>PAVEMENT, WEATHER CONDITIONS →</p> <p>TIME: A=AM P=PM</p> <p>PAVEMENT: D=DRY I=ICY W=WET</p> <p>WEATHER: C=CLEAR F=FOG R=RAIN
SL=SLEET S=SNOW
CL=CLOUDY</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ACCIDENT SUMMARY	DAYLIGHT					NIGHT					TOTALS				
	FATAL	NON-FATAL	PROP. DAM.	UNK.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL	FATAL	NON-FATAL	PROP. DAM.	NON-REP.	TOTAL
RIGHT ANGLE									①	1				1	1
REAR-END															
HEAD-ON															
LEFT TURN															
OVERTAKING/SIDESWIPE															
RUN OFF ROAD															
FIXED OBJECT															
PARKED CAR															
PEDESTRIAN/BICYCLIST															
OTHER															
TOTALS									1	1				1	1

Appendix D - Public Involvement Plan and Stakeholder Input

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Appendix E - Miscellaneous

- 1) Pedestrian Generator Checklist
- 2) Smart Growth Assessment

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P.I.N.: 1754.59

Project Location: Main Street to Adams Street, City of Troy

PEDESTRIAN GENERATOR CHECKLIST – Northern Segment

Note: The term “generator” in this document refers to both pedestrian generators (where pedestrians originate) and destinations (where pedestrians travel to). A check of “yes” indicates a potential need to accommodate pedestrians and coordination with the Regional Bicycle and Pedestrian Coordinator is necessary during project scoping. Answers to the following questions should be checked with the local municipality to ensure accuracy.

1.	Is there an existing or planned sidewalk, trail, or pedestrian-crossing facility?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
2.	Are there bus stops, transit stations or depots/terminals located in or within 0.5 miles of the project area?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
3.	Is there more than occasional pedestrian activity? Evidence of pedestrian activity may include a worn path.	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
4.	Are there existing or approved plans for generators of pedestrian activity in or within 0.5 miles of the project that promote or have the potential to promote pedestrian traffic in the project area, such as schools, parks, playgrounds, places of employment, places of worship, post offices, municipal buildings, restaurants, shopping centers, or other commercial areas, or shared-use paths?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
5.	Are there existing or approved plans for seasonal generators of pedestrian activity in or within 0.5 miles of the project that promote or have the potential to promote pedestrian traffic in the project area, such as ski resorts, state parks, camps, amusement parks?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
6.	Is the project located in a residential area within 0.5 miles of existing or planned pedestrian generators such as those listed in 4 above?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
7.	From record plans, were pedestrian facilities removed during a previous highway reconstruction project?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
8.	Did a study of secondary impacts indicate that the project promotes or is likely to promote commercial and/or residential development within the intended life cycle of the project?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
9.	Does the community’s comprehensive plan call for development of pedestrian facilities in the area?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
10.	Based on the ability of students to walk and bicycle to school, would the project benefit from engineering measures under the Safe-Routes-To-School program? Eligible infrastructure-related improvements must be within a 2 mile radius of the project.	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

Comments:

Regional Bicycle and Pedestrian Coordinator:

Project Designer:

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Smart Growth Screening Tool

PIN 175459

Prepared By: Robert Hansen, Creighton Manning Engineering and Andrew Donovan, City of Troy Engineer

Smart Growth Screening Tool (STEP 1)

NYSDOT & Local Sponsors – Fill out the Smart Growth Screening Tool until the directions indicate to **STOP** for the project type under consideration. For all other projects, complete answering the questions. For any questions, refer to [Smart Growth Guidance](#) document.

Title of Proposed Project: South Troy Industrial Roadway

Location of Project: City of Troy, Rensselaer County

Brief Description: Construct a collector roadway between Adams Street and Main Street to provide access to a number of available industrial /commercially zoned properties, including brownfield cleanup areas, along the Hudson Waterfront in the City of Troy.

A. Infrastructure:

Addresses SG Law criterion a. –

(To advance projects for the use, maintenance or improvement of existing infrastructure)

1. Does this project use, maintain, or improve existing infrastructure?

Yes

No

N/A

Explain: (use this space to expand on your answers above – the form has no limitations on the length of your narrative)

Project incorporates and reconstructs an existing roadway in part and provides a formal connection among existing driveways and roadways previously privately owned. Connections to the north and south will be to existing streets.

Maintenance Projects Only

a. Continue with screening tool for the four (4) types of maintenance projects listed below, as defined in **NYSDOT PDM Exhibit 7-1 and described in 7-4:**

<https://www.dot.ny.gov/divisions/engineering/design/dqab/pdm>

Smart Growth Screening Tool

- Shoulder rehabilitation and/or repair;
- Upgrade sign(s) and/or traffic signals;
- Park & ride lot rehabilitation;
- 1R projects that include single course surfacing (inlay or overlay), per Chapter 7 of the NYSDOT Highway Design Manual.

b. For all other maintenance projects, **STOP here**. Attach this document to the programmatic [Smart Growth Impact Statement and signed Attestation](#) for Maintenance projects.

For all other projects (**other than maintenance**), continue with screening tool.

B. Sustainability:

NYSDOT defines Sustainability as follows: A sustainable society manages resources in a way that fulfills the community/social, economic and environmental needs of the present without compromising the needs and opportunities of future generations. A transportation system that supports a sustainable society is one that:

- Allows individual and societal transportation needs to be met in a manner consistent with human and ecosystem health and with equity within and between generations.
- Is safe, affordable, and accessible, operates efficiently, offers choice of transport mode, and supports a vibrant economy.
- Protects and preserves the environment by limiting transportation emissions and wastes, minimizes the consumption of resources and enhances the existing environment as practicable.

For more information on the Department's Sustainability strategy, refer to Appendix 1 of the Smart Growth Guidance and the NYSDOT web site, www.dot.ny.gov/programs/greenlites/sustainability

(Addresses SG Law criterion j : to promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain and implement.)

1. Will this project promote sustainability by strengthening existing communities?

Yes No N/A

2. Will the project reduce greenhouse gas emissions?

Yes No N/A

Explain: (use this space to expand on your answers above)

Smart Growth Screening Tool

Project will create access to redevelop property for commercial and industrial use, all within the City of Troy. It will divert existing and proposed commercial traffic from adjacent residential neighborhoods. Greenhouse gases are expected to be lower than those levels predicted if more circuitous routing through existing streets has to be utilized. The redevelopment of property that can be supported by the new access road would foster economic growth and jobs to benefit the City and its residents.

C. Smart Growth Location:

Plans and investments should preserve our communities by promoting its distinct identity through a local vision created by its citizens.

(Addresses SG Law criteria b and c: to advance projects located in municipal centers; to advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan.)

1. Is this project located in a developed area?

Yes No N/A

2. Is the project located in a municipal center?

Yes No N/A

3. Will this project foster downtown revitalization?

Yes No N/A

4. Is this project located in an area designated for concentrated infill development in a municipally approved comprehensive land use plan, waterfront revitalization plan, or Brownfield Opportunity Area plan?

Yes No N/A

Explain: (use this space to expand on your answers above)

The project is a key component to revitalize the City's Hudson River waterfront. It is located within the historic industrial area that defined the City of Troy for over 125 years. The City adopted a new staged zoning plan based on a LWRP prepared in the 1990s. It then undertook a long process of property acquisition and brownfield restorations of long abandoned industrial sites. Access to the sites for redevelopment without impacts to adjacent residential neighborhoods is a mandate for developers to consider locating here. The proximity of new development to downtown Troy will bring more people to businesses like restaurants and shopping.

D. Mixed Use Compact Development:

Smart Growth Screening Tool

Future planning and development should assure the availability of a range of choices in housing and affordability, employment, education transportation and other essential services to encourage a jobs/housing balance and vibrant community-based workforce.

(Addresses SG Law criteria e and i: to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income groups; to ensure predictability in building and land use codes.)

1. Will this project foster mixed land uses?

Yes No N/A

2. Will the project foster brownfield redevelopment?

Yes No N/A

3. Will this project foster enhancement of beauty in public spaces?

Yes No N/A

4. Will the project foster a diversity of housing in proximity to places of employment and/or recreation?

Yes No N/A

5. Will the project foster a diversity of housing in proximity to places of commercial development and/or compact development?

Yes No N/A

6. Will this project foster integration of all income groups and/or age groups?

Yes No N/A

7. Will the project ensure predictability in land use codes?

Yes No N/A

8. Will the project ensure predictability in building codes?

Yes No N/A

Explain: (use this space to expand on your answers above)

The project supports a staged zoning plan which was promulgated from the City's LWRP. It potentially will create job opportunities for residents in the City. It supports access to properties receiving over \$35M worth of brownfield cleanup. The abandoned and fallow industrial property adjacent to the water front will be further improved by removal of vacant or underutilized structures.

Smart Growth Screening Tool

E. Transportation and Access:

NYS DOT recognizes that Smart Growth encourages communities to offer a wide range of transportation options, from walking and biking to transit and automobiles, which increase people's access to jobs, goods, services, and recreation.

(Addresses SG Law criterion f: to provide mobility through transportation choices including improved public transportation and reduced automobile dependency.)

1. Will this project provide public transit?

Yes No N/A

2. Will this project enable reduced automobile dependency?

Yes No N/A

3. Will this project improve bicycle and pedestrian facilities (such as shoulder widening to provide for on-road bike lanes, lane striping, crosswalks, new or expanded sidewalks or new/improved pedestrian signals)?

Yes No N/A

(Note: Question 3 is an expansion on question 2. The recently passed Complete Streets legislation requires that consideration be given to complete street design features in the planning, design, construction, reconstruction and rehabilitation, but not including resurfacing, maintenance, or pavement recycling of such projects.)

Explain: (use this space to expand on your answers above)

The project will include accomodation for sidewalks and bicycle travel as design features. The City has plans for trail connections at either end of the project as funding becomes available.

F. Coordinated, Community-Based Planning:

Past experience has shown that early and continuing input in the transportation planning process leads to better decisions and more effective use of limited resources. For information on community based planning efforts, the MPO may be a good resource if the project is located within the MPO planning area.

(Addresses SG Law criteria g and h: to coordinate between state and local government and inter-municipal and regional planning; to participate in community based planning and collaboration.)

1. Has there been participation in community-based planning and collaboration on the project?

Smart Growth Screening Tool

Yes No N/A

2. Is the project consistent with local plans?

Yes No N/A

3. Is the project consistent with county, regional, and state plans?

Yes No N/A

4. Has there been coordination between inter-municipal/regional planning and state planning on the project?

Yes No N/A

Explain: (use this space to expand on your answers above)

The project results from a State sponsored LWRP which had significant community input. The City rezoned property in conformance with LWRP. It is intended to increase commercial and industrial development, along with the associated employment that such initiative would bring to the City. It is consistent with the goals of the Capital Region Economic Development Plan.

G. Stewardship of Natural and Cultural Resources:

Clean water, clean air and natural open land are essential elements of public health and quality of life for New York State residents, visitors, and future generations. Restoring and protecting natural assets, and open space, promoting energy efficiency, and green building, should be incorporated into all land use and infrastructure planning decisions.

(Addresses SG Law criterion d :To protect, preserve and enhance the State's resources, including agricultural land, forests surface and ground water, air quality, recreation and open space, scenic areas and significant historic and archeological resources.)

1. Will the project protect, preserve, and/or enhance agricultural land and/or forests?

Yes No N/A

2. Will the project protect, preserve, and/or enhance surface water and/or groundwater?

Yes No N/A

3. Will the project protect, preserve, and/or enhance air quality?

Yes No N/A

4. Will the project protect, preserve, and/or enhance recreation and/or open space?

Yes No N/A

5. Will the project protect, preserve, and/or enhance scenic areas?

Smart Growth Screening Tool

Yes No N/A

6. Will the project protect, preserve, and/or enhance historic and/or archeological resources?

Yes No N/A

Explain: (use this space to expand on your answers above)

The project will incorporate best practice storm water controls. BY more direct routing air emission from commercial traffic will be reduced. The water front area is currently dominated by abandoned properties, some of which contain buildings or demolition refuse detracting the view of the Hudson from both Troy and Watervliet. Making this property accessible and available for redevelopment will improve aesthetics. The area has been thoroughly vetted under the Section 106 Historic Preservation process. The project will completely avoid an archaeologically sensitive native american site discovered during the Section 106 studies.

Smart Growth Screening Tool

Smart Growth Impact Statement (STEP 2)

NYSDOT: Complete a Smart Growth Impact Statement (SGIS) below using the information from the Screening Tool.

Local Sponsors: The local sponsors are **not** responsible for completing a Smart Growth Impact Statement. Proceed to **Step 3**.

Smart Growth Impact Statement

PIN:

Project Name:

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act. This project has been determined to meet the relevant criteria, to the extent practicable, described in ECL Sec. 6-0107. Specifically, the project:

-
-
-
-
-
-

This publically supported infrastructure project complies with the state policy of maximizing the social, economic and environmental benefits from public infrastructure development. The project will not contribute to the unnecessary costs of sprawl development, including environmental degradation, disinvestment in urban and suburban communities, or loss of open space induced by sprawl.

Smart Growth Screening Tool

Review & Attestation Instructions (STEP 3)

Local Sponsors: Once the Smart Growth Screening Tool is completed, the next step is to submit the project certification statement (**Section A**) to Responsible Local Official for signature. After signing the document, the completed Screening Tool and Certification statement should be sent to NYSDOT for review as noted below.

NYSDOT: For state-let projects, the Screening Tool and SGIS is forwarded to Regional Director/ RPPM/Main Office Program Director or designee for review, and upon approval, the attestation is signed (**Section B.2**). For locally administered projects, the sponsor's submission and certification statement is reviewed by NYSDOT staff, the appropriate box (**Section B.1**) is checked, and the attestation is signed (Section B.2).

A. CERTIFICATION (LOCAL PROJECT)

I HEREBY CERTIFY, to the best of my knowledge, all of the above to be true and correct.

Preparer of this document:


Signature _____ P.E.

January 19, 2016
Date

Senior Project Engineer
Title Creeghton Manning Engrg LLP.

Robert Hansen
Printed Name

Responsible Local Official (for local projects):

Signature

Date

Title

Printed Name

Smart Growth Screening Tool

B. ATTESTATION (NYSDOT)

1. I HEREBY:

Concur with the above certification, thereby attesting that this project is in compliance with the State Smart Growth Public Infrastructure Policy Act

Concur with the above certification, with the following conditions (information requests, confirming studies, project modifications, etc.):

(Attach additional sheets as needed)

do not concur with the above certification, thereby deeming this project ineligible to be a recipient of State funding or a subrecipient of Federal funding in accordance with the State Smart Growth Public Infrastructure Policy Act.

2. **NOW THEREFORE**, pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act, to the extent practicable, as described in the attached Smart Growth Impact Statement.

NYSDOT Commissioner, Regional Director, MO Program Director,
Regional Planning & Programming Manager (or official designee):

Signature

Date

Title

Printed Name

Appendix F - Problem Statement and Alternatives Evaluation (Project Scoping Report)

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Appendix F

Problem Statement and Alternatives Evaluation



NEW YORK STATE DEPARTMENT OF TRANSPORTATION
 ANDREW M. CUOMO, Governor JOAN MCDONALD, Commissioner

This project is being designed using U.S. Customary units and the text of this report uses U.S. Customary units. The following table of approximate conversion factors provides the relationship between U.S. Customary and Metric units for some of the more frequently used units in highway design. The table allows one to calculate the Metric Unit by multiplying the corresponding U.S. Customary Unit by the given factor.

	<u>U.S. Customary Unit</u>	x	<u>Factor</u>	=	<u>Metric Unit</u>
<u>Length</u>	miles (mi)	x	1.610	=	kilometer (km)
	feet (ft)	x	0.305	=	meter (m)
<u>Area</u>	acres (a)	x	0.405	=	hectare (ha)
	square yards (sy)	x	0.836	=	square meter (m ²)
	square feet (sf)	x	0.093	=	square meter (m ²)
<u>Volume</u>	cubic yards (cy)	x	0.765	=	cubic meter (m ³)
	cubic feet (cf)	x	0.0283	=	cubic meter (m ³)
<u>Speed</u>	miles per hour (mph)	x	1.610	=	kilometer per hour (km/h)
	feet per second (ft/s)	x	0.305	=	meter per second (m/s)

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 - Figure 1.2: Troy Local Waterfront Revitalization Plan Map
 - Map 1: Project Constraints – Southern Segment
 - Map 2: Alignment Alternatives – North Segment
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 - Map 6: Feasible Southern Segment Alternatives
 - Table 1.6: Comparison of Feasible Alternatives with Objectives and Special Considerations

2. Critical Design Elements

PROJECT SCOPE

1.1 Introduction

This report was prepared in accordance with the NYSDOT Project Development Manual, 6 NYCRR (New York Codes, Rules and Regulations) Part 617, and 23 CFR (Code of Federal Regulations) 771. Transportation needs have been identified (section 1.2.2), objectives established (1.2.3) to address the needs, and cost-effective alternatives developed (1.3). This project is 80% federally funded, and 20% (New York) State and (Troy) City funded.

As detailed herein, a number of potential alternatives were conceived and evaluated, but after full consideration only one combination of Alternatives, denoted A1 and B4 , could best meet the established transportation objectives while minimizing harm and disruption to residences , historic and archaeological resources and the natural environment.

1.2 Purpose and Need

1.2.1(a) Where is the Project Located?

- (1) Route number - US Route 4 , NYS Route 2 and NYS Route 378
- (2) Route name – Adams Street, Burden Avenue, Main Street, Mill Street, Morrison Avenue, 1st Street, 4th Street
- (3) SH (state highway) number and official highway description - US Route 4 (High Street/4th Street) is a City Street, and NYS Route 378 (Burden Avenue) is SH number 9112
- (4) BIN (Bridge Identification Number) and feature crossed - The project area includes BIN 1000160, which carries NYS Route 378 (Burden Avenue) over the Wynants Kill and BIN 2202320, which carries 1st Street over the Poesten Kill
- (5) City/Village/Township - City of Troy
- (6) County – Rensselaer County
- (7) Length - US Route 4 (1.5 miles), NYS Route 378 (0.4 mi), East Industrial Parkway (0.4 mi), 1st Street (1.0 miles)
- (8) From the Troy-Menands (Route 378) bridge to Adams Street; From the Hudson River to First Street (RM CITYST To RM CITYST)
- (9) NY Route 378 and Burden Ave (US 4) have 11ft lanes; in general, there are two lanes in each direction, with turn lanes at the signalized intersections of Morrison Ave and Mill St and no shoulders. East Industrial Parkway has one 12 foot lane in each direction, with two foot paved shoulders. The terrain is considered rolling. On-street parking is provided along 1st and 2nd Streets on both sides of the road. The pavement condition is generally rated fair. The statutory speed limit in the City is 30 mph. There is a school zone located on 1st St, which reduces the speed limit to 20 mph for approximately 2 blocks. There are geometric deficiencies related to traffic operations, which result in a failing Level of Service at the NY 378 / Morrison Ave intersection for the existing AM Peak. Pedestrian facilities are generally limited to sidewalks in fair condition along both sides of most City streets, with limited crosswalks and pedestrian signals, and do not meet ADA criteria in all locations. There are three bridges within the project, varying in age from unknown to 113 years, including single-span, three-span arch, and steel multi-girder structure types.

1.2.1(b) Project Study Area and Limits Defined

The Troy Waterfront commercially zoned district extends between Adams Street on the north (vicinity of the Congress Street Bridge over the Hudson, State Route 2) and Water Street to the south (vicinity of the Troy Menands Bridge over the Hudson, State Route 378). The west boundary is the Hudson River and to the east, First Street. North- South through traffic is currently accommodated by State Route 378 (High Street), and State Touring Route 4 (south to north: routed along Burden Avenue and Fourth Streets to a one way couplet along 3rd and 4th Streets. The one way couplet continues north to Congress Street which leads to the Congress Street Bridge. The area is also connected to the Congress Street Bridge by a direct eastbound ramp connection leading to River Street and Adams Street (the end of the public street system leading directly off the bridge to the commercial area). The alternate westbound connection to the Congress Street Bridge is via Division and Front Streets. Access to the commercial district is from the above streets through and past residential areas by side streets basically dead ended at individual waterfront property parcels. On the north and south, the two State owned bridges over the Hudson River are considered fixed entities (over the design life for this project) which would predominantly accommodate commercial traffic and commuters entering and leaving the water front district.

The problem study area was thus defined as Adams Street to High Street, the Hudson River and First Street to Main Street. Access to commercial properties which could be redeveloped, along with expected traffic generation, particularly truck traffic, is seen as a major transportation need and quality of life issue for proximate neighborhoods in Troy. Figure 1.1 depicts the zoning and street configuration for the study area.

1.2.1 Why is the Project Needed?

The City of Troy has been actively planning a revitalization of its working waterfront. In 2003 the City completed an extensive Local Waterfront Revitalization Plan (LWRP) which covered 2.6 miles of Hudson shoreline between the Congress Street Bridge (State Route 2) and the South City line. The Study analysis encompassed 208 acres of affected properties, some 49 parcels (See Figure 1.2 excerpt from the LWRP). Several options for redevelopment were explored with final decision centering on a graduated commercial rezoning north to south. The new zoning was approved by the City in 2004. Over the past 11 years the City, supported by private efforts and consistent with recommendations from the LWRP, has completed brownfield cleanups and property acquisition of long abandoned industrial sites. This committed \$35M plus investment (ref. City LDC records) represents a significant proactive leverage for a City of this size and a firm commitment to redevelop its waterfront to meet modern needs. Requests for Proposals have been issued to prospective developers to reclaim and reuse the now vacant sites as well as bring existing commercial sites into harmony with the longstanding Waterfront Revitalization Plan (LWRP) created under the State's program for such areas along the Hudson River. The City hopes to use the advantages of all modes of commercial transport available in this area: water, rail and highway. Up until the 1960s, commercial freight was generally handled by rail or water- the best modes for the type of heavy industrial business located there. The City's LWRP recognized the shift away from the smokestack heavy industry that had been prominent to the area from before the Civil War. It proposed a staged commercial rezoning beginning from mixed use at the north end of the study area to heavy industrial at the far south; all of which required a relook at the transportation access to the area. One of the gaps to close in order to be able to redevelop this property in the most flexible manner was identified as more direct highway access from west of the Hudson River (I787) to the proposed development sites without using residential streets, particularly defined as those between Adams Street and Main Street. A federally aided project was initiated in 2001, along with a proposed functional

classification change to address this highway gap. Exhibit 1.2A lists the primary commercially zoned properties affected by this access issue.

Exhibit 1.2A South Troy Commercial Major Properties Inventory

Property Owner	Approximate Acreage
Troy Slag Material	19.8 (three parcels)
Madison Avenue Ventures One	5.8
KC Refrigeration Truck Terminal	6.1
City of Troy	5.9
Adams Street Properties	4.4
Rensselaer County IDA	26 (three Parcels)
Rensselaer County	11 (County Correctional Facility)
City of Troy LDC	16
Rensselaer County IDA	4.4
City of Troy	3.7
Troy Materials LLC	7.0
City of Troy LDC	4.4
City of Troy LDC	15.4
Chevron USA	5.6

Note- some of the above sites have current tenants or are under public use (e.g. County Correctional facility).

The property redevelopment itself presents many unknowns as it is essentially starting from “scratch”. Without better access, developers are hesitant to commit to the area. The configuration of ultimate use for the area properties remains unknown. However, an attempt was made to quantify a potential, most likely scenario for development. Based on a handful of studies done to measure commercial vehicle generation from equivalent size areas (some 40 acres of potential redevelopment owned by the City’s LDC), it could be expected that some 200-300 trucks would ultimately enter the Troy street system every day. This volume would be in addition to the truck volumes currently entering and leaving the study area from several commercial entities. It also would not include the vehicle access for 500 or more new employees potentially working in the area. This projection was based on a potential array of mixed uses including light manufacturing, service and warehouse type developments. As a result, the connecting residential areas would be burdened with 100s of extra vehicles along with the concurrent safety, noise and air issues associated with that type of traffic.

The Capital District Long Range Plan, “New Visions”, both the 2030 Plan and 2035 Plan Update are supportive and inclusive with this project proposal. Specifically the 2035 Plan Update states, as objectives:

“New Visions advocates congestion management and infrastructure investments that will support the movement of goods throughout the Capital District.”

“New Visions articulates regional economic development needs and the transportation investment needed to support sustainable regional economic growth.”

“Promote sustainable economic growth with good-paying jobs “

“Revitalize urban areas”

The New Visions Plan also includes an overall initiative to create a Quality Region with the following supportive criteria for success:

“People agree that a quality region:

- Develops and sustains healthy urban, suburban, and rural communities that function interdependently and readily adapt to change
- Creates economic, educational, social, cultural and recreational opportunities
- Provides safe neighborhood environments and housing choices for all
- Protects sensitive environmental resources
- Fosters community identity and "a sense of place" in all parts of the region “

This project would address, directly or indirectly, all of these criteria. It should be noted that the latest version of the New Visions Plan is generally not supportive of additional highway footprint; however the proposed access route was officially added to the federal aid highway system an urban collector; further, the CDTC has a long standing policy to honor previous commitments, but with the understanding that fund levels may preclude meeting original approved schedules, or accommodate cost increases that occur along the way.

Under the current roadway configuration, large numbers of commercial vehicles are and would continue to be forced onto local residential streets, thus disrupting and deteriorating the quality of life for those residents and impacting already-congested transportation facilities. In addition, some properties would remain inaccessible without a proximate roadway facility. This project is needed to provide effective access for trucks and other commercial vehicles to existing and planned industrial sites within the project area. Economic development is of the utmost importance to the City, and improved access to these properties is critical for development to occur and thrive. The City, State, federal government and private sources are expending over \$35 Million to improve marketability of the available property. Without improved access, public opposition will mount and restrict the level and type of development options.

1.2.2 What are the Objectives/Purposes of the Project

The identified transportation gap was evaluated in terms of developing specific transportation and supporting objectives to be met. These were identified in terms of the most supportive means to allow redevelopment of the area and address community issues with probable transportation access and patterns. Between the original project initiation in 2001 and 2009, additional brownfield areas, south of Main Street, acquired by the City’s LDC, were either cleaned up or proposed to be so; thus, in late 2009 the Capital District Metropolitan Planning Organization, CDTC, approved funds for the investigation of the feasibility of extending the industrial access route to the south to allow an additional direct connection to the south along State Route 4, Burden Avenue and the Troy Menands Bridge (also

connecting to I787). A combined set of objectives were then developed to measure the effectiveness of feasible design alternatives, both north and south:

1. Optimize direct access, consistent with City's LWRP and associated zoning for all commercial zoned properties in the study area. Success would be measured in terms of providing a direct route from either, or both, proximate Hudson River Bridges with maximum avoidance of residential streets.
2. Provide a facility that maximizes the economic viability of developable City owned commercial property sites. Success would be measured by maximizing availability and /or intensity of use for each of 40 acres of re-developable sites.
3. Divert at least 90 percent of truck and commercial traffic from local residential streets between Adams and Main Streets. Success would be measured by proposed diversion projections. The 90 percent figure was chosen to represent both the maximum feasible diversion and an allowance for local deliveries that may need to access adjacent streets to serve homes and small businesses along with some access to the Route 4 touring route currently designated for through trucks. This is a paramount objective based on public input to the LWRP and comments from a December, 2011 public information meeting. This objective also assumes that existing public street access by all permitted vehicle types would be continued to be available, but with, possibly some minor resigning and rerouting.
4. Provide access provisions for specially permitted vehicles. The success of this objective is primarily dependent on avoiding residential streets completely and direct connection to a New York State Qualifying Truck Access Route.
5. Maintain acceptable operational levels of service at all intersections within the problem study area (see 1.2.1(b)). This objective is measured by standard evaluation means included in the Highway Capacity Manual.

In addition to the stated objectives, it was determined that four additional considerations or constraints needed to be addressed to determine feasibility of the conceptual alternatives. First, the project costs had to be reasonable, within the scale of solving the identified transportation gap with a public investment. Second, consideration had to be given to protecting and /or avoiding any sensitive cultural resources found as discovery ensued. Third, impacts to CSX and rail spur properties including at-grade crossings have to be minimized. Fourth, consideration is to be given to facility enhancements to assist in the creation of north- south pedestrian- bike facilities to connect to points north of the Congress Street Bridge and south to the Troy Menands Bridge.

1.3 What Alternative(s) Are Being Considered?

1.3.1 Design Progression

The project area was divided into two segments for alternative development and evaluation. The northern (original) segment is defined as Main Street to Adams Street. The southern (extension) evaluation segment runs from Main Street south connecting to NY Route 378. The northern segment was further divided when developing alternatives with Jackson Street serving as the terminus of the two sections. The Design alternatives are discussed with prefixes A, B and C. Segment A consists of alternatives in the northern segment from Main Street to Jackson Street. Segment B, also in the northern segment are located between Jackson Street and Adams Street. Segment C encompasses the southern segment alternatives.

Exhibit 1.3-A - Alternative Segments		
Prefix	Segment	Location
A	Northern Segment	Main Street to Jackson Street
B		Jackson Street to Adams Street
C	Southern Segment	

1.3.2 Design Considerations and Challenges

In addition to the Objectives/Purposes of the project listed in section 1.2.3, there are several considerations and challenges to balance while developing alternatives.

The major alternative development and evaluation considerations included:

- Natural barriers created by the Poesten Kill, the Wynants Kill and the Hudson River
- The CSX Railroad tracks running north-south in the project area, and numerous spurs and at-grade crossings
- Historic buildings/properties eligible for or listed on the National Register of Historic Places
- Prior property uses which may have impacted area soil quality, along with previous and ongoing hazardous waste remediation efforts
- The South Riverfront Bikeway project proposal and other revitalization plans for the South Troy area
- Maintaining maximum integrity for City-owned developable parcels
- Proposed private development on the County Waste and King Fuels sites, which both provide highly viable long-term potential for industrial/manufacturing uses.
- The existing NYSDEC permit held by County Waste, and associated concerns with expanding the permit
- Minimizing or preventing disruption to existing business operations, including County Waste
- The historic Burden Iron Works Office Building near the middle of the project limits
- Number of structures impacting the CSX tracks and Wynants Kill
- Environmental impacts (hazardous materials)
- Likelihood of finding significant pre and post contact archaeological resources and their protection or recovery
- Right of Way (ROW) acquisitions (buildings, brown fields, etc)
- Existing traffic operations concerns, primarily expressed by NYSDOT regarding Route 4 east of the Troy Menands Bridge.
- Expected available public funding

The above were all in addition to attempting to locate the new roadway so each commercially developable parcel could still effectively take advantage of existing railroad and water freight service in addition to truck access.

Site challenges played a crucial role in determining feasible alternatives, including:

- Significant grade differences between Route 4 and potential connections to Water Street and the existing Industrial Roadway in the southern area (on the east of the train tracks, the existing ground is a steep slope up to the existing County Waste site, with a grade difference ranging from 17 feet to 60 feet)
- 23 feet of vertical clearance required over the CSX tracks for any new bridge structure
- Existing overhead electric utility lines running parallel to the CSX tracks, all serving active businesses
- High existing traffic volumes on Route 378 and Route 4 and maintaining levels of service
- Route 378 (High Street) and Route 4 (Burden Ave/Mill Street) intersection
 - o Creating a new bridge over the Wynantskill in close proximity to the existing structure at Mill Street, without structural or hydraulic impacts
 - o Close proximity of South End Tavern (NHR eligible) and large retaining wall
 - o Grading/clearing impacts on Mill Street to add another westbound lane at the intersection
- Route 378 (High Street) and Morrison Avenue
 - o Grading/clearing impacts on Morrison Ave to add another westbound lane at the intersection
 - o Adding another leg to an existing four leg intersection
- Route 4 (Burden Ave) and Main Street
 - o Close proximity of buildings to the corner limits turning movements
 - o Increased traffic on Main Street at the railroad crossing may cause the queue to back up into the intersection

In Attachment 1, Map 1 –“Southern Segment Constraints” graphically summarizes the significant site concerns for the southern segment.

1.3.3 Alternatives Considered and Eliminated from Further Study

1.3.3.1 Roundabouts

In accordance with the NYSDOT *Highway Design Manual*, the construction of roundabouts was considered for the project as incorporated within several alternates in the southern and northern sections (i.e. not as an alternative on its own). Roundabouts have been shown to create better safety and operational considerations but are usually accompanied by higher first costs. By themselves, these improvements would not have addressed a primary project objective; i.e., diverting waterfront oriented truck traffic from local residential streets. The roundabouts would likely require additional adjacent roadway improvements as well to meet NYSDOT approach standards. Due to the urban nature of the project, many of the northern segment intersections are in densely developed areas, with residential and commercial buildings and parking areas located in close proximity to the roadway. The construction footprint of roundabouts in these areas would, thus, involve the displacement of residences and businesses. The area accident analysis does not indicate a distinct pattern of safety problems that roundabouts would address in a cost efficient manner. In the southern segment, the steep grades of Mill Street and Morrison Avenue exceed the recommended five (5) percent or less slope around the circle. FHWA roundabout guidelines suggest that as constraints for considering roundabouts : “Physical complications such as right-of-way limitations, utility conflicts, environmental constraints, drainage problems, intersection skew, grades or unfavorable topography, etc., that make it politically or economically infeasible to construct a roundabout.” These constraints apply at these intersections.

Although not within the problem study area, at Mill Street and Burden Avenue, the heavy westbound left turn movement does not provide sufficient gaps for the flow of southbound traffic; i.e. the input volumes are too highly unbalanced. Finally, at Morrison Avenue, the layout of the five intersecting roadways do not provide for a suitable, operational roundabout design based on conceptual modelling. For these reasons, the use of roundabouts was dismissed.

1.3.3.2 Null Alternative

The Null Alternative provides only for the continued maintenance of the existing transportation network. The operational efficiency of some major intersections within the project area will continue to deteriorate, exacerbated by increasing commercial traffic and commuters as sites are developed along the waterfront. At twenty (20) years beyond the “Build” year, assuming the null alternative, the NY Route 378/Morrison Avenue intersection will, under normal traffic growth, operate at a failing traffic condition for both the morning and afternoon peak hours, with delays in the AM peak hour averaging over three minutes. This condition would be exacerbated by failure to better distribute waterfront oriented traffic as the area redevelops. This alternative does not improve or provide access to the industrial and commercial properties in the project area; further, trucks would continue to traverse through residential neighborhoods. Site development that would occur without this project may be highly restricted as to type and intensity without better access. The alternative does not meet the primary project objectives and is not considered feasible for progression.

1.3.3.3 Northern Segment Alternatives (see Figure 1.3)

A number of northern segment alternatives were considered for the area between Main Street and Adams Street. These would be intended to restrict the commercial/industrial traffic from the streets it currently travels along to a more suitable facility parallel to north-south residential streets. The logical corridor alignment, using existing roadway footprint, was chosen to partially or fully incorporate an existing roadway built for access to several occupied commercial properties (the County Jail and a Rensselaer County IDA building). Eleven (11) sub-alternatives in the northern segment were conceptually evaluated as tabulated in Table 1.3-B below and shown on Map 2 in Attachment 1. These alternatives utilized different alignments between Jackson Street and Adams Street. Their conception was generally based on attempting to balance the “directness” of transportation access and merging smoothly with existing public access with business operations, property redevelopment, avoiding impacts to the railroad spurs, especially traffic at at-grade crossings and avoiding historic/archaeologic significant sites. Other potential natural environment impacts, with a few exceptions as noted in the tables below, generally did not play a significant role in the conceiving of the different alignments or their designation as feasible (or not). While several met the criteria for keeping costs reasonable, reasons for dismissal include not satisfying the operations criteria, impacts to historic structures and properties, displacement of residences, excessive Right-of-Way costs, and railroad crossing issues. Two of these alternatives were ultimately retained for further progression as “preferred”, namely A1 and B4.

Exhibit 1.3-B - Northern Sub-Alternatives along the South Troy Industrial Area			
Location	Name	Number	Result
Main Street to Jackson Street	Alignment Connecting to the End of the East Industrial Parkway	A1	Preferred Sub-Alternative- uses existing facility for part with short section on new alignment (no impacts to RR/ Historic Structures/Arch. Res.)
Main Street to Jackson Street	Alignment Beginning at Main Street and Paralleling the Railroad	A2	Feasible Sub-Alternative, but requires additional roadway footprint, partially redundant to East Industrial Roadway
Jackson Street to Adams Street	Alignment Paralleling the Railroad Tracks to the West	B1	Feasible Sub-Alternative
Jackson Street to Adams Street	Alignment using Madison Street and Running Diagonally to First Street	B2	Dismissed – Undesirable Y-type intersection with 1 st Street, Truck Route Concern
Jackson Street to Adams Street	Partial Reconstruction of First Street	B3	Dismissed – Uses First Street residential area for Truck Access- does not satisfy the diversion from residential streets in a significant manner
Jackson Street to Adams Street	Alignment Paralleling the Railroad Tracks to the West	B4	Preferred Sub-Alternative- minimizes impacts to historic structures and property. Direct connection to River Street and Congress Street Bridge
Jackson Street to Adams Street	S-Curve to Adams Street	B5	Dismissed – impacts historic structures/ archaeological sites. Increases rail crossing traffic.
Jackson Street to Adams Street	Alignment Through Historic Freight House	B6	Dismissed –Requires full demolition of National Register-eligible building. Reduces usable developable property
Jackson Street to Adams Street	Alignment Through Historic Fuller and Warren Clinton Stove Works Building	B7	Dismissed –Requires partial demolition of National Register-eligible building. Reduces viability for redevelopment of two properties
Jackson Street to Adams Street	Alignment Crossing Monroe Street and Paralleling First Street	B8	Dismissed –allowed maximum redevelopment of several commercial properties but with major and costly displacement of residences, and need for new Railroad crossings
Jackson Street to Adams Street	Partial Reconstruction of First Street from Monroe Street	B9	Dismissed – Uses First Street for Truck Access- does not satisfy the diversion from residential areas objective

1.3.3.4 Southern Segment

The southern segment extension possibility resulted from more recent and extensive brown field cleanups, along with some desire by County Waste to expand their solid waste transfer operations and footprint. A brainstorming process including City officials identified multiple alternatives. Several of these are shown on Map 3 in Attachment 1, but were eliminated early in the process due to many of the design constraints listed in section 1.3.2 including: significant grade issues resulting in non-standard vertical grades and curves, known historic property impacts, railroad clearance, impacts to residential homes and home access, and site operation and segmentation. None of these early alternatives addressed the desired project objectives and special constraints.

Four alternatives survived the initial screening for feasibility and were evaluated in more depth. They are shown in Map 4 of Attachment 1. Upon further detailed engineering evaluation, two of the

remaining four were eliminated as infeasible. Alternative C2 involved the construction of a new road to the intersection of Route 4 and Morrison Avenue. While the vertical alignment could be feasible for construction without non-standard features between Route 378 and the train tracks, the side slope grading would have a substantial impact to the County Waste site operations, including existing functional buildings. Also, the new roadway would bisect the two major developable City-owned parcels south of Main Street and limit their development potential. There is a relatively high potential for affecting archaeological resources with this alternative, given the excavation necessary, historic information available and historic routing of the Wynants Kill, pre industrial era. In addition, this new roadway would create a 5th leg at the Morrison Avenue intersection, degrading traffic operations at an already congested intersection with a relatively high accident rate. For these reasons, the alternative was dismissed from further consideration.

Alternative C3 involved the construction of a new road through the LDC/County Waste and former King Fuels sites to Route 378, creating a new signalized intersection across from Burke Street. Again, there is a relatively high potential for affecting a potential archaeological resource site with this alternative, given the excavation necessary, historic information available and previous locations of the Wynants Kill. Due to the existing congestion along Route 378 in this area, and the large encroachment of the roadway on both development sites, this alternative was dismissed from further consideration.

Exhibit 1.3-C - Southern Sub-Alternatives along the South Troy Industrial Area			
Location	Description	Number	Result
Morrison Ave. to Main Street, Along 4th Street	Upgrade existing roadway network	C1	Feasible Sub-Alternative- does not divert commercial traffic from some residences along the route. Can merge seamlessly with any of the north alternatives
Morrison to East Industrial Parkway	New leg at the Morrison intersection	C2	Dismissed – Grading impact concerns, creates an undesirable 5 leg intersection which degrades LOS at already congested intersection. Limits redevelopment for two major parcels
Burke Street to East Industrial Parkway	New signalized Intersection at Burke	C3	Dismissed – New signal on Rte. 378 east of the Troy Menands Bridge degrades corridor LOS, grading impact significantly reducing development potential for two major properties. Potential for discovery of archaeological resources.
Mill Street to East Industrial Parkway	New leg at the Mill Street intersection	C4	Preferred Sub-Alternative- meets all objectives but negatively impacts a sensitive archaeological site. Creates new at grade rail crossing. High cost.

1.3.4 Description of Feasible Alternatives

Map 5 and Map 6 in Attachment 1 illustrate the feasible alternative locations. The discussion above pared down the realistic alternatives, including the null, to six feasible options.

1.3.4.1 Alternative A1 – Construct New Industrial Road from Parkway (Northern Segment)

This northern segment alternative would construct a new roadway commencing at the end of the existing northern terminus of the East Industrial Parkway and continuing north to Jackson Street. This alternative would involve the acquisition of two properties. No buildings would be impacted or railroad crossings required. NYSSHPO favors this alternate. This alternative has been retained for further

consideration.

Exhibit 1.3-D - Key Elements of Alternative A1	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	One partial private property acquisition and one public parcel (probable donation). No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of one (1) utility pole, and any associated overhead and underground electric, cable and phone lines. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$1,500,000
Railroad	No rail crossings impacted. No acquisitions.
Project Goals	This alternative meets all of the project objectives for the northern segment.

1.3.4.2 Alternative A2 – Construct New Industrial Road from Main Street (Northern Segment)

This northern segment alternative would construct a new roadway commencing just west of the CSX Railroad tracks at Main Street, running parallel to the tracks and continuing north to Jackson Street. This alternative would involve the partial acquisition of six properties, and the whole acquisition of one property. No buildings would be impacted or railroad crossings required. This alternative has been retained for further consideration.

Exhibit 1.3-E - Key Elements of Alternative A2	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side . There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	Three partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	There are no utility impacts associated with this alternative. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$3,530,000
Railroad	No rail- highway crossings impacted. No acquisitions.
Project Goals	This alternative meets all of the project objectives for the northern segment. However, it is significantly more expensive than Alternative A1, and would cause additional floodplain impacts and added, and redundant, impervious area.

1.3.4.3 Alternative B1 – Construct New Industrial Road Parallel to the Railroad Tracks (Northern Segment)

This northern segment alternative would construct a new roadway from the northern terminus of Alternatives A1 or A2, near Jackson Street, running parallel to the tracks and continuing north to Adams Street. This alternative would involve the partial acquisition of seven properties, including the acquisition of some Railroad property. This alignment would require the acquisition and partial demolition of one building on the Bruno Machinery Property, and passes close to the former Rensselaer Iron Works but does not impact the building directly. No railroad crossings would be required; however, railroad ROW would be needed for the roadway construction. Along with Alternative B4, this is the straightest alignment in the northern segment, and has been retained for further consideration.

Exhibit 1.3-F - Key Elements of Alternative B1	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side There are no proposed non-standard or non-conforming elements.
Structure	N/A
Right of Way	Six partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of two (2) utility poles, and any associated overhead and underground electric, cable and phone lines, and one (1) light pole. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$5,500,000
Railroad	No rail – highway crossings impacted. Right of Way acquisition required from Monroe Street north to the Poesten Kill.
Project Goals	This alternative meets all of the project objectives for the northern segment; however, Railroad Right of Way is required to be purchased.

1.3.4.4 Alternative B4 – Construct New Industrial Road Parallel to the Railroad Tracks to the West (Northern Segment)

This alignment is similar to Alternative B1, with a slight shift to the west near the Poesten Kill to avoid the railroad property. This alternative would require the acquisition and partial demolition of one building on the Bruno Machinery Property, and passes close to the former Rensselaer Iron Works but does not impact the building directly. Due to its location further to the west, this alternative would impact more of the Bruno Machinery building. This alternative would require the partial demolition of more of the building than Alternative B1. This alignment does not require any railroad track crossings, nor the acquisition of any Railroad property; however, an easement may be needed for construction. This alternative has been retained for further consideration.

Exhibit 1.3-G - Key Elements of Alternative B4	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb, 5 ft wide concrete sidewalk on west side. There are no proposed non-standard elements. Non-conforming intersection radii are proposed at the new roadway's intersection with Madison Street in order to avoid the CSX Railroad Right-of-Way.
Structure	One new bridge over the Poesten Kill. One box culvert for the salt pile conveyor belt.
Right of Way	Maximum of five minor, partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-B for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of three (3) utility poles, and any associated overhead and underground electric, cable and phone lines. Additionally, one (1) utility box and one (1) light pole are impacted. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$5,700,000
Railroad	No crossings impacted. No acquisitions, however a construction easement will be required from Monroe Street to the Poesten Kill.
Project Goals	This alternative meets all of the project objectives for the northern segment.

1.3.4.5 Alternative C1 – Existing Road Network (Southern Segment)

This southern segment alternative involves improving the existing roadway network along Routes 4 and 378 at the Main Street, Mill Street, and Morrison Avenue intersections. Truck traffic accessing the two southern development parcels would do so using Routes 4 and 378, Main Street, and a new roadway constructed between Main Street and Water Street. Traffic impacts are mitigated by the expansion of the above-mentioned intersections. The curb radius on the southwest corner of the Main Street/Route 4 intersection would be increased to better accommodate trucks. Water Street will be closed at Route 378. Minor amounts of property acquisition would be necessary under this alternative. There are no new railroad crossings under this alternative.

Exhibit 1.3-H - Key Elements of Alternative C1	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb. Eleven foot turn lanes where proposed. There are no proposed non-standard or non-conforming elements.
Structure	New structure over the Wynants Kill for the new roadway.
Right of Way	Two partial private property acquisitions. No whole private property acquisitions.
Environmental	See Table 1.4-C for a comparison of the environmental effects.
Utilities	This alternative will require the relocation of a hydrant and utility pole on the southwest corner of the Main Street/Route 4 intersection, with associated overhead utilities. The widening of Morrison Avenue would require the replacement of the traffic signal at the Route 378 intersection. Existing storm drainage, where in conflict, would be replaced or relocated.
Cost	The total estimated cost of this alternative is \$6,900,000
Railroad	Potential construction on Main Street near the at-grade crossing, and replacement of the at-grade crossing at Water Street. No acquisitions.
Project Goals	This alternative does not divert truck traffic from the existing local street system in the vicinity of Cross Street, and does not meet most of the project objectives.

1.3.4.6 Alternative C4 – New Road to Mill Street (Southern Segment)

This southern segment alternative includes the construction of a new access roadway from Main Street, through the northern portion of the King Fuels and County Waste sites along the south side of the Wynants Kill, to Route 378. This roadway would tie in across from Mill Street/Route 4, creating a four-way intersection. The alternative includes replacing the existing traffic signal at this intersection. The bridge carrying Route 4 would also be replaced. Water Street will be closed at Route 378. Right of Way acquisitions would be necessary for this alternative; however, much of the land is owned by the City of Troy and therefore not listed as a private property acquisition. The new roadway crosses the railroad tracks, requiring an at-grade crossing. However, the Water Street crossing could potentially be removed, offsetting the new crossing.

Native American artifacts were found in the area of potential effect for alternative C4. After further archeological investigations it was discovered that there is a well-preserved, pre-contact Native American archeological site in the County Waste property south of the current Wynants Kill stream bed. Additional research indicates that this area has a high sensitivity for containing additional pre-contact archeological resources. The site has been determined by NYS SHPO in October of 2014 as eligible for inclusion on the National Register of Historic Places. The site was deemed important to establishing local history and likely to yield significant information about history and/or prehistory. In addition, there was an opinion expressed by the Mohican Tribal Nation that the site was important enough to them to have it preserved. Subsequently, the FHWA concurred with the SHPO determination for NHR eligibility and further determined that provisions for Section 4(f) (Section 138 of Title 23 USC) had to be complied with; i.e. basically that the property could not be used for federal highway purposes unless no feasible and prudent alternative to that use existed. A concern has been stated for the presence of human burials at the site, though no evidence of burial has been discovered. Based on geomorphologic testing and analysis, it was determined a very low likelihood of uncovering burial remains. Alternative C4 currently is the only southern alternative where initial screenings have been performed. All southern, "C", alternatives have a potential to impact pre and post contact archaeological sites.

Exhibit 1.3-I - Key Elements of Alternative C4	
Geometry	Two fourteen ft wide curb lanes, vertical-faced curb. Eleven foot turn lanes where proposed. The existing non-standard 11 ft travel lanes on Route 378 are proposed to be retained. There are no proposed non-conforming elements.
Structure	Replacement of the structure at Mill Street over the Wynants Kill. New structure over the Wynants Kill for the new roadway.
Right of Way	No partial private property acquisitions. No whole property acquisitions.
Environmental	See Table 1.4-C for a comparison of the environmental effects.
Utilities	A utility pole on the County Waste parcel would require relocation. The widening of Morrison Avenue would require the replacement of the traffic signal at the Route 378 intersection. The Mill Street/Route 4 traffic signal would be replaced. Existing storm drainage, where in conflict, would be replaced or relocated. A closed storm drainage system would be installed along the new roadway.
Cost	The total estimated cost of this alternative is \$11,100,000
Railroad	One new at-grade crossing for the new road. Removal of the at-grade crossing at Water Street. No acquisitions.
Project Goals	This alternative meets all of the project objectives.

Refer to Attachment 2 for the design criteria. The following nonstandard feature is anticipated with Alternative C4. Justifications for the nonstandard features will be prepared in preliminary design as the alternatives are refined further.

- Existing non-standard 11 ft travel lanes on Route 378 are to be retained (standard is 12 ft)

In addition, there are non-conforming intersection radii associated with Alternative B4 in order to avoid a property taking from the railroad.

1.4 How will the Alternatives Affect the Environment?

1.4.1 Classification

Exhibit 1.4-A - Environmental Summary			
NEPA Classification	Class III - Environmental Assessment (EA)	By	Federal Highway Administration
SEQR Type	Unlisted	By	City of Troy

1.4.2 Comparison of Environmental and Property Impacts

Exhibit 1.4-B - Comparison of Alternatives – Northern Segment					
Category	Null	A1	A2	B1	B4
Wetland Impacts (DEC and ACOE)	None	None	None	None	None
Floodplain Impact Area	None	1 acre	3.1 acre	3.2 acre	3.2 acre
Endangered Species Effect	None	None	None	None	None
Visual Effect to Riverfront	None	None	None	None	None
Commercial/Industrial Displacements	None	None	None	None*	None*
Redevelopment Potential	Low	High	High	High	High
Residential Displacements	None	None	None	None	None
Historic Property Impacts	None	None	None	Rensselaer Iron Works Site	Rensselaer Iron Works Site
Known Native American Site Impacts	None	Low potential	Low potential	Low potential	Low potential
Private Property Acquisitions	Whole – 0 Partial - 0	Whole – 0 Partial - 1	Whole – 0 Partial – 3	Whole – 0 Partial – 6 ^o	Whole – 0 Partial - 5
Total Cost	N/A	\$1.48 mil	\$3.53 mil	\$5.46 mil	\$5.69 mil

* The Bruno Machinery property is no longer operational. The project plan for the structure demolition was communicated in writing to the realtor for disclosure to potential developers.

^o The additional partial property acquisition relative to Alt B4 is the CSX Railroad acquisition.

Exhibit 1.4-C - Comparison of Alternatives – Southern Segment			
Category	Null	C1	C4
Wetland Effect	None	None	None
Floodplain Effect	None	0.1 acre	2.7 acre
Endangered Species Effect	None	None	None
Visual Effect	None	None	None
Commercial/Industrial Displacements	None	None	None
Redevelopment Potential	None	High	High
Access to County Waste Ops.	No change	No change	Improved
Access to King Fuels Redev. Site	Poor	Moderate	Good
Residential Displacements	None	None	None
Historic Property Impacts	None	None	None
Known Native American Site Impacts	None	Unknown, but likely	High potential
Private Property Acquisitions	Whole – 0 Partial - 0	Whole – 0 Partial – 2	Whole – 0 Partial - 0
Total Cost	N/A	\$6.900 mil	\$11.100 mil

1.4.3 Anticipated Permits/Certifications/Coordination

NYSDEC:

- State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities (GP-0-10-001)
- Individual Section 401 Water Quality Certification
- Article 15 – Protection of Waters Permit

USACOE

- U.S. Army Corps of Engineers Nationwide Permit #33- Temporary Construction , Access and Dewatering
- Pre-Construction Notification (PCN)

NYSDOS (Troy's Waterfront Revitalization Plan is not approved through NYSDOS)

- Coastal Zone Assessment Form (CAF)
- Federal Aid Notification (FAN) letter

New York State Department of Transportation (NYSDOT)

- Highway Work Permit

Coordination and Consultation

- Consultation with Mohican Nation (Delaware Nation assigned lead to Mohicans)

- Coordination with NYS Office of Parks, Recreation and Historic Properties
- Coordination with the Hudson River Greenway to ensure the project is consistent with their Heritage Area Management Plan
- Coordination with Federal Highway Administration as federal lead agency for NEPA and Section 106 of the NHPA
- Coordination with NYSDOT
- Coordination with the US Fish and Wildlife Service
- Coordination with the New York Natural Heritage Program
- Coordination with the City of Troy as SEQRA lead agency
- Coordination with CSX Rail Corporation, Inc.

1.5 What Are The Costs & Schedules?

Exhibit 1.5-A - Project Schedule	
Activity	Date Occurred/Tentative
Design Approval	November, 2015
ROW Acquisition Authorized	January, 2016
Contract Letting	
Construction Start	2016
Construction Complete	November 2017

Exhibit 1.5-B - Comparison of Alternatives Costs (Million Dollars)						
Alternative	A1	A2	B1	B4	C1	C4
Activities						
Expected Award Amount (Inflated @ 5%/yr to midpoint of construction (2015 Dollars))	1.080	2.520	4.250	4.500	6.300	10.150
Construction Inspection	0.100	0.230	0.400	0.400	0.560	0.910
ROW Costs (2015 Dollars)	0.300	0.780	0.850	0.800	0.050	0.040
Total Project Costs	1.480	3.530	5.500	5.700	6.900	11.100

1.6 Which Alternative(s) is (are) Preferred?

Table 1.6, attached, summarizes the level of objective and constraint attainment for each feasible alternative.

Of the feasible (non- dismissed) alternatives, Alternative A2 does not best meet the project objectives and is more costly than Alternative A1. Alternative B1 is similar in cost and benefits (satisfaction of objectives) to Alternative B4; however, a property acquisition is needed from CSX Rail for B1 and provides no additional benefit. Alternative C1 does not satisfy the project objectives. Alternative C4 , as discussed above negatively impacts a sensitive, important NHR eligible archaeological site and is thus not recommended.

The feasible and prudent alternative that best meets the project objectives is Alternatives A1 and B4, combined.

1.7 What are the Opportunities for Public Involvement?

Exhibit 1.7-A - Public Involvement Plan Schedule of Milestone Dates	
Activity	Date Occurred/Tentative
City scoping meeting	October 16, 2009
DOT kickoff meeting	December 17, 2010
First Stake holder Meeting	November 16, 2011
Consultation with SHPO/Mohican Tribe	Various – beginning January 10, 2012
Public Informational Meeting	December 8, 2011
Public Hearing / EDPL Hearing	Mid -2015
Design Approval and ROW Acq. Auth.	January , 2016
Current Project Letting date	Fall, 2017 (pending TIP schedules)

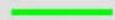
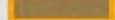
Up to March, 2015, the City has held a public information meeting on the project (December, 2011) and conducted a number of meetings with SHPO and the Mohican Nation regarding historic and archaeological resources. Meetings have been held individually with affected property owners and affected City Council members throughout the period.

Project Contact:

Lorenzo DiStefano, PE, Project Manager
 Project Identification Number (PIN): 1754.59
 Questions or comments:
 email: LDistefano@dot.state.ny.us
 telephone: (518) 485-1715

Mailing Address
 New York State Department of Transportation
 Region 1 Local Programs
 50 Wolf Road
 Albany, NY 12232

LEGEND

-  ACTIVE COMMERCIAL SITE
-  RESIDENTIAL AREA
-  REGULATED WATER BODY
-  HAZARDOUS WASTE SITE
-  NATIONAL REGISTER SITE
-  RAILROAD PROPERTY
-  STEEP SLOPES

HUDSON RIVER

POTENTIAL HAZARDOUS MATERIAL

TRAFFIC CONGESTION CONCERNS

ARCHEOLOGICAL SITE BOUNDARY (0.30 ACRE)

DIFFICULT TRUCK TURNING

KING FUELS (FMR)

RENSSELAER COUNTY JAIL

COUNTY WASTE

378

4

4

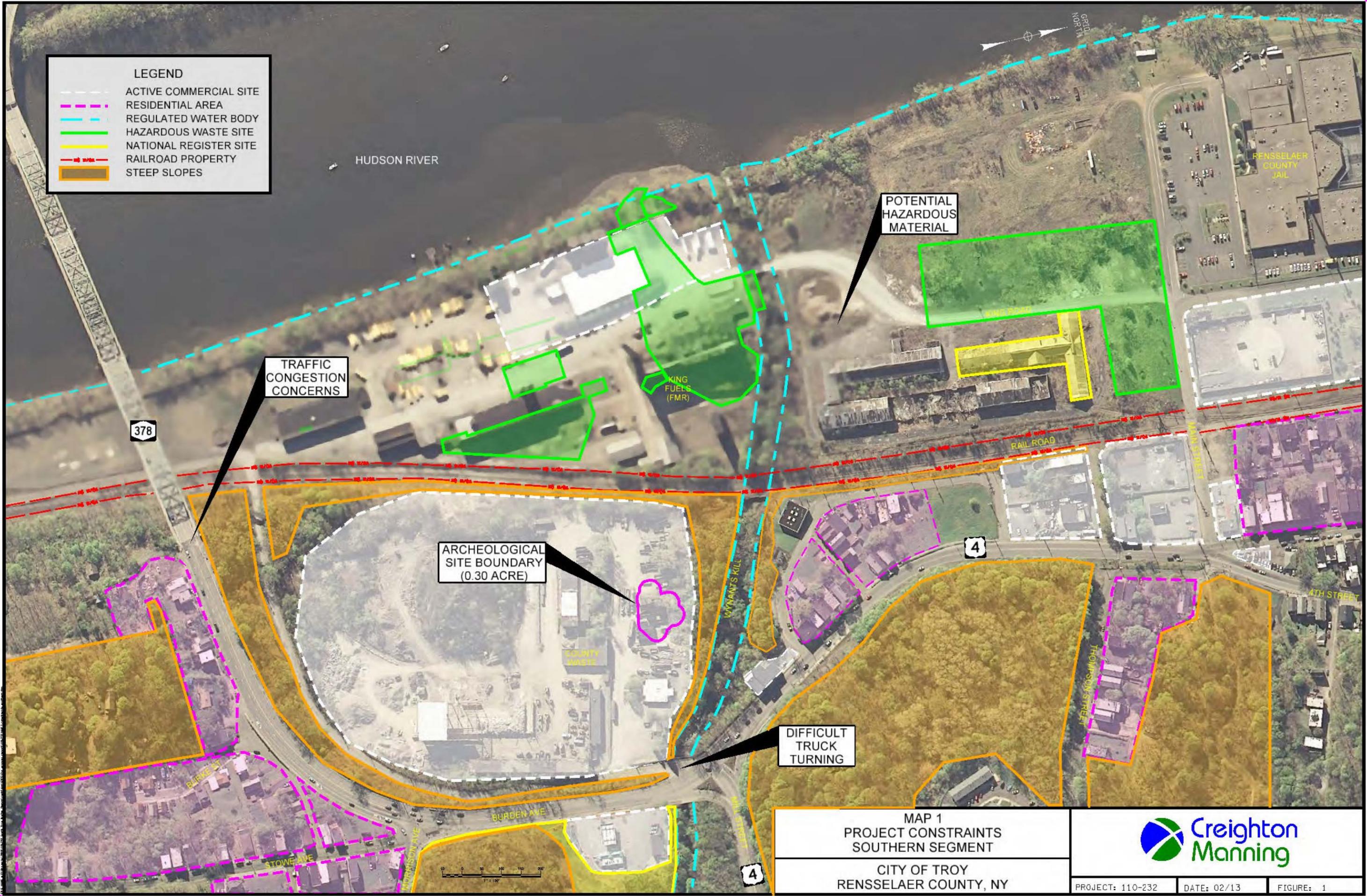


MAP 1
PROJECT CONSTRAINTS
SOUTHERN SEGMENT

CITY OF TROY
 RENSSELAER COUNTY, NY

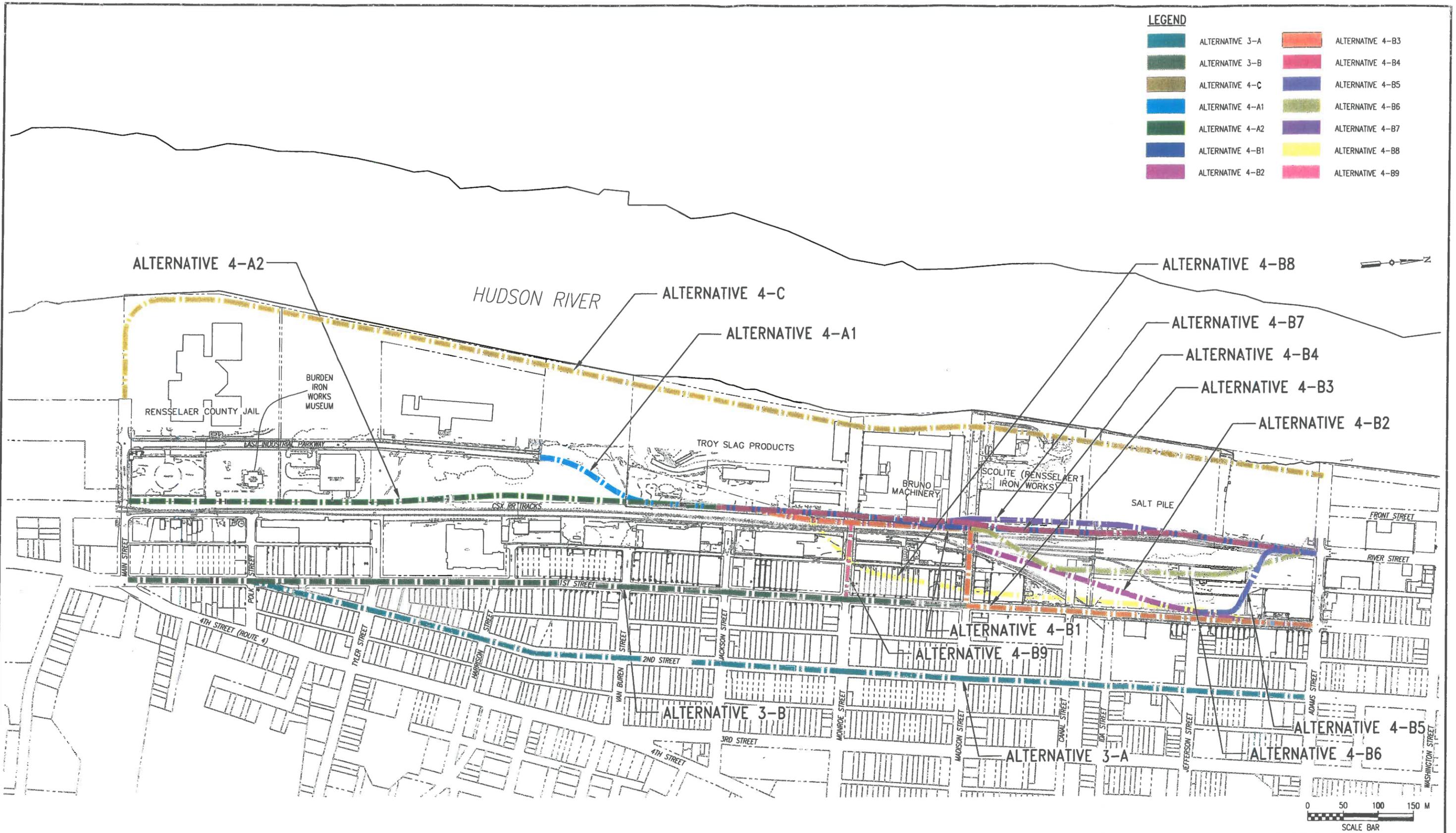


PROJECT: 110-232 DATE: 02/13 FIGURE: 1



LEGEND

- | | | | |
|-------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------|------------------|
|  | ALTERNATIVE 3-A |  | ALTERNATIVE 4-B3 |
|  | ALTERNATIVE 3-B |  | ALTERNATIVE 4-B4 |
|  | ALTERNATIVE 4-C |  | ALTERNATIVE 4-B5 |
|  | ALTERNATIVE 4-A1 |  | ALTERNATIVE 4-B6 |
|  | ALTERNATIVE 4-A2 |  | ALTERNATIVE 4-B7 |
|  | ALTERNATIVE 4-B1 |  | ALTERNATIVE 4-B8 |
|  | ALTERNATIVE 4-B2 |  | ALTERNATIVE 4-B9 |



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ERDMAN ANTHONY



Rochester, NY
Albany, NY
Harrisburg, PA
Buffalo, NY
West Palm Beach, FL

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CLIENT:
CITY OF TROY
1 MONUMENT SQUARE
TROY, NY 12180

PROJECT NAME:
SOUTH TROY INDUSTRIAL PARK ROAD

DRAWING TITLE:
MAP 2
ALIGNMENT ALTERNATIVES
NORTHERN SEGMENT

SCALE: 1:5000	DATE: APRIL 2005
DES. BY: MCO	DR. BY: JAM
CK'D BY: CT	EA PROJ. NO. 18810.00
SHEET NO. OF	DRAWING NO. III-2

UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE MILLIMETERS



LEGEND OF ISSUES

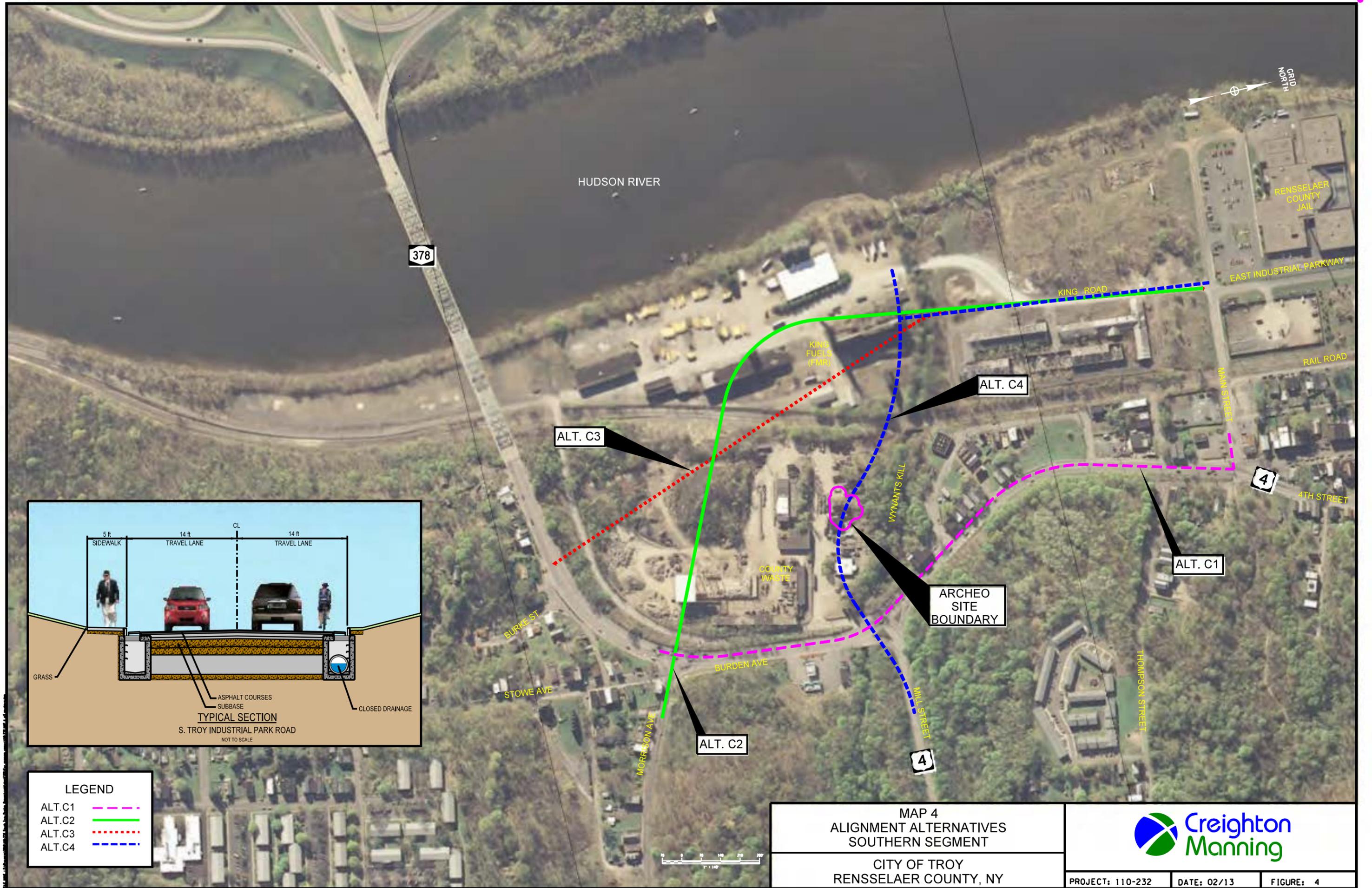
- GRADES, SITE OPERATION
- SITE DEVELOPMENT AND OPERATION
- HISTORIC PROPERTY, NOISE, GRADES, HAZARDOUS MATERIALS
- HISTORIC PROPERTY, GRADES, RESIDENCES, NOISE
- COST, GRADES, SITE CIRCULATION, RESIDENCES



MAP 3
ALTERNATIVES DISMISSED
SOUTHERN SEGMENT
 CITY OF TROY
 RENSSELAER COUNTY, NY



PROJECT: 110-232	DATE: 02/13	FIGURE: 3
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HUDSON RIVER

378

GRID NORTH

RENSSELAER COUNTY JAIL

EAST INDUSTRIAL PARKWAY

KING ROAD

RAIL ROAD

ALT. C4

ALT. C3

4TH STREET

4

ALT. C1

ARCHEO SITE BOUNDARY

WYNNANTS KILL

COUNTY WASTE

BURKE ST

BURDEN AVE

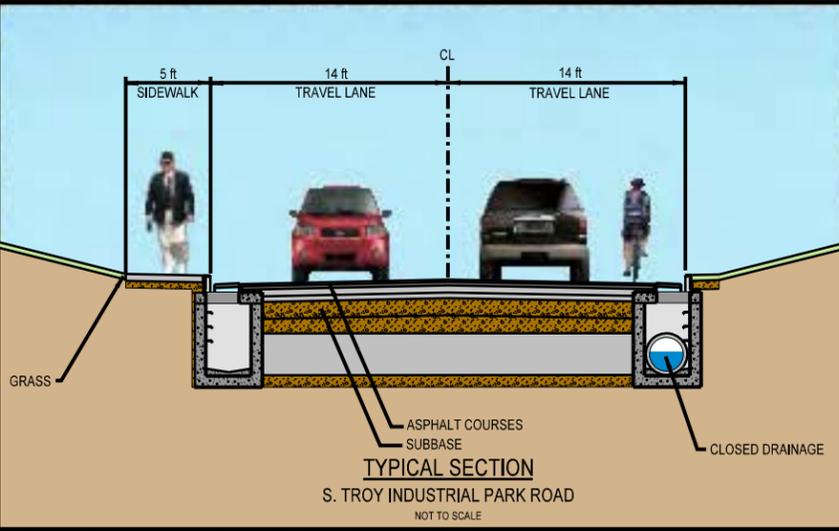
THOMPSON STREET

4

ALT. C2

STOWE AVE

MORRISON AVE



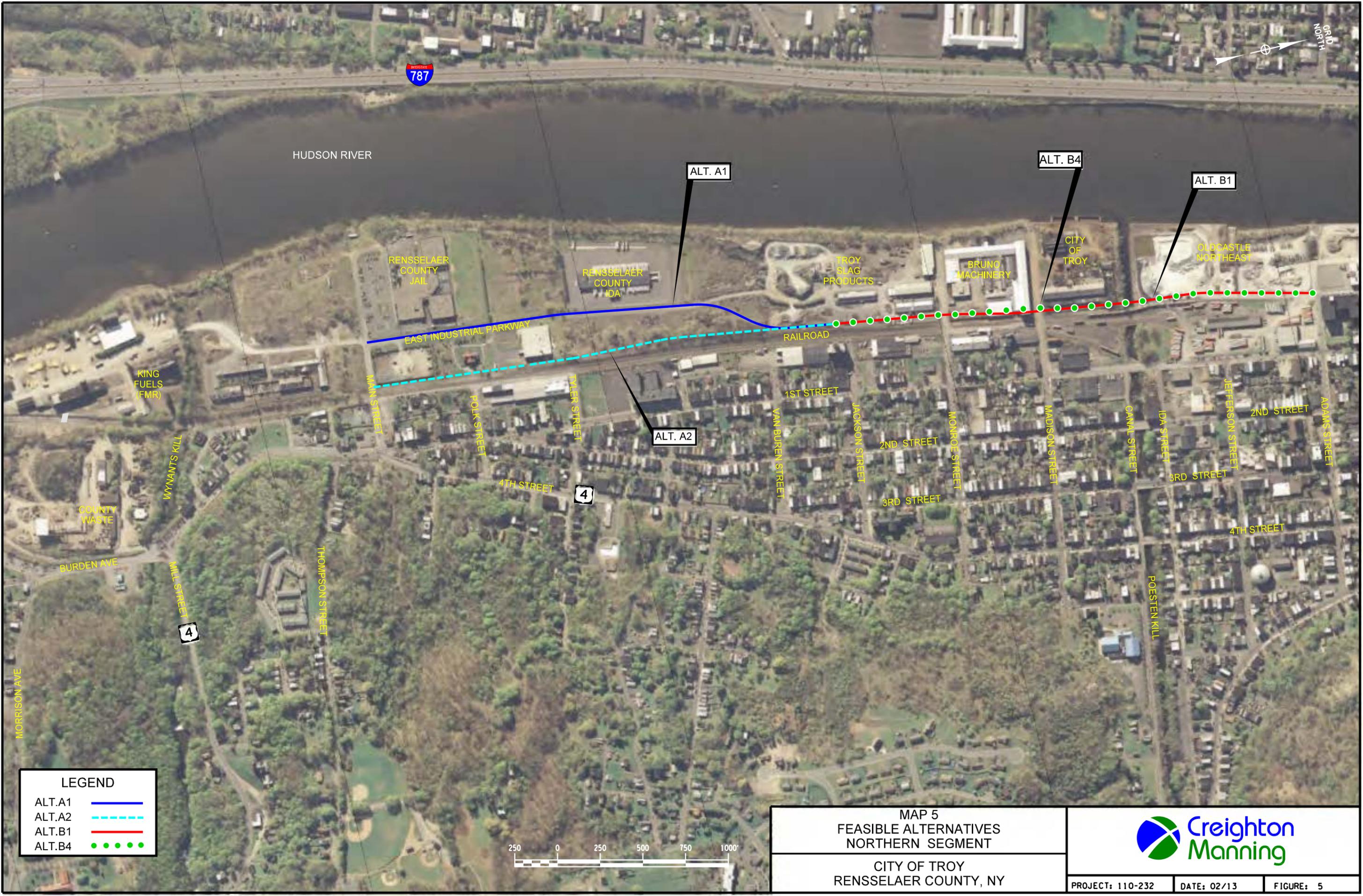
LEGEND

ALT. C1	--- (dashed magenta line)
ALT. C2	— (solid green line)
ALT. C3	... (dotted red line)
ALT. C4	- - - (dashed blue line)

MAP 4
ALIGNMENT ALTERNATIVES
SOUTHERN SEGMENT
CITY OF TROY
RENSSELAER COUNTY, NY



FILE NAME: F:\Projects\2018\110-232 South Troy Prelim Design\cadd\ dgn\1\05\scoping_report\110-232_MAP 5 Feasible Alternatives.dgn
DATE/TIME: 2/26/2013
USER: K.Kircher



LEGEND	
ALT.A1	
ALT.A2	
ALT.B1	
ALT.B4	



MAP 5
FEASIBLE ALTERNATIVES
NORTHERN SEGMENT
CITY OF TROY
RENSSELAER COUNTY, NY

PROJECT: 110-232	DATE: 02/13
FIGURE: 5	

FILE NAME : F:\Projects\2010\110-232 South Troy Prelim Design\cadd\gpn\GISV\scoping_report\110-232_MAP 6 feasible southern.dgn
DATE/TIME : 2/26/2013
USER : K.Kircher



LEGEND	
ALT.C1	-----
ALT.C4	-----

MAP 6
FEASIBLE ALTERNATIVES
SOUTHERN SEGMENT
CITY OF TROY
RENSELAER COUNTY, NY

PROJECT: 110-232	DATE: 02/13
FIGURE: 6	

Attachment 2 - Critical Design Elements

Critical Design Elements for South Troy Industrial Park Rd and East Industrial Prkwy				
PIN:	1754.59	NHS (Y/N):	No	
Route No. & Name:	South Troy Industrial Park Road	Functional Class:	Urban Collector	
Project Type:	New	Design Class:	Urban Collector	
% Trucks:	15%	Terrain:	Rolling	
ADT:	3500	Truck Access/Qualifying Hw.	No	
Element	Standard Criteria		Existing Conditions*	Proposed Condition
1 Design Speed	30 mph (min); 60 mph (max) HDM Section 2.7.3.2 A		35 mph	35 mph ⁽¹⁾
2 Lane Width	Travel Lane - 11 ft Turning Lane – 11 ft Min., 12 ft Desirable HDM Section 2.7.3.2 B Exhibit 2-6		12 ft	Travel lane - 14 ft Turning lane – 11 ft
3 Shoulder Width	Right – 0 ft Min., 2 ft Desirable (5 ft if used for bicyclists) HDM Section 2.7.3.2 C Exhibit 2-6		2 ft	0 ft
4 Bridge Roadway Width	Full Approach Roadway Width BM Section 2.3.1		N/A	N/A
5 Maximum Grade	12% HDM Section 2.7.3.2 E Exhibit 2-6		0.3%	7.8%
6 Horizontal Curvature	371 ft (@ e =4.0%) HDM Section 2.7.3.2 F Exhibit 2-6		710 ft	371 ft
7 Superelevation Rate	4% Maximum HDM Section 2.7.3.2 G		N/A	4.0%
8 Stopping Sight Dist.	250 ft Minimum (Crest) HDM Section 2.7.3.2 H Exhibit 2-6		>1000 ft	257 ft (Crest)
9 Horizontal Clearance	1.5 ft without barrier, 0 ft with barrier, 3 ft at intersections HDM Section 2.7.3.2 I		5 ft	1.5 ft
10 Vertical Clearance	14 ft Minimum, Highway 14.5 ft Desirable, Highway BM Section 2.4.1, Table 2-2		N/A	N/A
11 Pavement Cross Slope	1.5% Min. to 2% Max. HDM Section 2.7.3.2 K		2.0%	2.0%
12 Rollover	4% between lanes; 8% at EOT; HDM Section 2.7.3.2.L		N/A	4.0%, 8.0%
13 Structural Capacity	HS-20 (rehabilitation) or HL-93 (superstructure replacement) Live Load BM Section 2.6.2		Unknown	HL-93
14 Level of Service	Level of Service is not a critical design element		N/A	N/A
15 Control of Access	N/A		None	None
16 Pedestrian Accommodation	Complies with HDM Chapter 18 and ADAAG		None	ADA Criteria
17 Median Width	N/A		N/A	N/A

*Existing conditions listed apply to the East Industrial Parkway.
 (1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to Section 2.3.1.5 Speeds and Delays for additional information on speed data)

Critical Design Elements for NY Route 378, Burden Ave (US 4) and Mill St (US 4)					
PIN:		1754.59	NHS (Y/N):		No
Route No. & Name:		Burden Ave	Functional Class:		Urban Principal Arterial Expressway
Project Type:		Reconstruction	Design Class:		Urban Arterial
% Trucks:		8%	Terrain:		Rolling
ADT:		16,000	Truck Access/Qualifying Hw.		Truck Access
Element		Standard Criteria		Existing Conditions*	Proposed Condition
1	Design Speed	35 mph		35 mph	35 mph ⁽¹⁾
2	Lane Width	12 ft Min; 14.0 ft Desirable; Turning Lane: 11.0 ft Min.; 12.0 ft Desirable		11 ft	11 ft ⁽²⁾
3	Shoulder Width	N/A		N/A	N/A
4	Bridge Roadway Width	Full Approach Roadway Width BM Section 2.3.1		117	197
5	Maximum Grade	8%		3.9%	3.9%
6	Horizontal Curvature	371 ft @ e = 4.0%		371 ft	371 ft
7	Superelevation Rate	4%		4%	4%
8	Stopping Sight Dist.	250 ft		319 ft	319 ft
9	Horizontal Clearance	(from face of curb) 0.0 ft with barrier, 1.5 ft without, 3.0 ft at intersections		1.5 ft	1.5 ft
10	Vertical Clearance	N/A		N/A	N/A
11	Pavement Cross Slope	1.5% to 2%		2%	2%
12	Rollover	4% between lanes; 8% at EOT		4%	4%
13	Structural Capacity	HS-20 (rehabilitation) or HL-93 (superstructure replacement) Live Load BM Section 2.6.2		Unknown	HL-93
14	Level of Service	Level of Service is not a critical design element		N/A	N/A
15	Control of Access	N/A		None	None
16	Pedestrian Accommodation	See Chapter 18		Sidewalk	ADA Criteria
17	Median Width	N/A		N/A	N/A

*Existing conditions listed apply to NY Route 378.

(1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to Section 2.3.1.5 Speeds and Delays for additional information on speed data)

(2) Non-Standard Feature – See Section 3.3.3.2 (1)

Critical Design Elements for Morrison Ave				
PIN:	1754.59	NHS (Y/N):	No	
Route No. & Name:	Morrison Ave	Functional Class:	Urban Collector	
Project Type:	Reconstruction	Design Class:	Urban Collector	
% Trucks:	1%	Terrain:	Rolling	
ADT:	16,430	Truck Access/Qualifying Hw.	Neither	
Element	Standard Criteria		Existing Conditions	Proposed Condition
1	Design Speed	35 mph	35 mph	35 mph ⁽¹⁾
2	Lane Width	12.0 ft Min; 14.0 ft Desirable; Turning Lane: 11.0 ft Min.; 12.0 ft Desirable	12-14 ft	12-14ft
3	Shoulder Width	Right: 0.0 ft Min. 2.0 ft Desirable	0.0 ft	0.0 ft
4	Bridge Roadway Width	N/A	N/A	N/A
5	Maximum Grade	10%	9.7%	9.7%
6	Horizontal Curvature	371 ft @ e = 4.0%	593 ft	593 ft
7	Superelevation Rate	4%	4%	4%
8	Stopping Sight Dist.	250 ft	>1000 ft	>1000 ft
9	Horizontal Clearance	(from face of curb) 0.0 m with barrier, 1.5 ft without, 3.0 ft at intersections	1.5 ft	1.5 ft
10	Vertical Clearance	N/A	N/A	N/A
11	Pavement Cross Slope	1.5% to 2%	2%	2%
12	Rollover	4% between lanes; 8% at EOT	4%	4%
13	Structural Capacity	N/A	N/A	N/A
14	Level of Service	Level of Service is not a critical design element	N/A	N/A
15	Control of Access	N/A	None	None
16	Pedestrian Accommodation	See Chapter 18	Sidewalk	ADA Compliance
17	Median Width	N/A	N/A	N/A
(1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to Section 2.3.1.5 Speeds and Delays for additional information on speed data)				

Critical Design Elements for Main St					
PIN:		1754.59	NHS (Y/N):		No
Route No. & Name:		Main Street	Functional Class:		Urban Local
Project Type:		Reconstruction	Design Class:		Local Urban Street
% Trucks:		16%	Terrain:		Rolling
ADT:		1545	Truck Access/Qualifying Hw.		Neither
Element		Standard Criteria		Existing Conditions	Proposed Condition
1	Design Speed	30 mph		30 mph	30 mph ⁽¹⁾
2	Lane Width	12.0 ft Min; 14.0 ft Desirable		14 ft	14 ft
3	Shoulder Width	0.0 ft Min. 2.0 ft Desirable		N/A	N/A
4	Bridge Roadway Width	N/A		N/A	N/A
5	Maximum Grade	8%		4.3%	4.3%
6	Horizontal Curvature	250 ft @ e = 4.0%		-	-
7	Superelevation Rate	4%		4%	4%
8	Stopping Sight Dist.	200 ft		>1000 ft	>1000 ft
9	Horizontal Clearance	(from face of curb) 0.0 ft with barrier, 1.5 ft without, 3.0 ft at intersections		1.5 ft	1.5 ft
10	Vertical Clearance	N/A		N/A	N/A
11	Pavement Cross Slope	1.5% to 2%		2%	2%
12	Rollover	4% between lanes; 8% at EOT;		4%	4%
13	Structural Capacity	N/A		N/A	N/A
14	Level of Service	Level of Service is not a critical design element		N/A	N/A
15	Control of Access	N/A		None	None
16	Pedestrian Accommodation	See Chapter 18		Sidewalk	ADA Compliance
17	Median Width	N.A.		N/A	N/A

(1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to Section 2.3.1.5 Speeds and Delays for additional information on speed data)



Draft Scoping Report Submission Review Comments

Project: South Troy Industrial Park Road - PIN 1754.59	
Date: March 12, 2013	Reviewer: NYSDOT (Various Departments)

Action	A	B	C	D
Code	Designer will Comply	Designer to Evaluate	Delete Comment	No Action Required

Comment #	Section/ Page #	Comment	Review Action	Response
A. Tanya Thorne				
A1	1.2.1	"Somewhat Limited" is vague - add detail, clarify	A	Additional language has been added.
A2	1.2.2	At last meeting, Bob Davies (FHWA) emphasized that the project needs to have a transportation purpose - this sentence is very up-front-and-center about the project's economic development goal. Consider relocating sentence, and/or more heavily emphasizing the "transportation" aspect of purpose & need prior to discussing economic development benefits.	A	The paragraph has been rewritten to focus on the transportation purpose and need, with the economic development benefits given a lesser priority.
A3	1.2.3	"...egression from" is awkward sounding; suggest simplifying by changing "egression" to "leaving"	A	This change has been made.
A4	1.3.1	References "Route 2" this should be "Route 4" correct?	D	The sentence refers to the bridges. The northern bridge carries NY Route 2 across the Hudson River.
A5	1.3.1	Add "also" between "but" and "alleviate" (grammar error, "not only - but also" parallel structure)	A	This change has been made.
A6	1.3.1	Suggest referencing a map showing segments A, B, and C; or inserting one in the document here	A	Maps 4-6 have been revised to include the segment prefix in the title.
A7	1.3.2	"access road splitting usable parcels" - this is an awkward way to phrase this idea, suggest rewording for clarity.	A	This item has been reworded as requested.
A8	1.3.2	Include reference to existing power lines as a site challenge.	A	This change has been made.
A9	1.3.3.1	Insert "NYSDOT" before "Highway Design Manual"	A	This change has been made.

Comment #	Section/ Page #	Comment	Review Action	Response
A10	1.3.3.2	"During ETC +20 conditions, the NY Route 378/Morrison Avenue intersection would operate at a LOS of F for both the AM and PM peak hours." Consider that Mohicans and SHPO will be reviewing this document, consider restating this sentence in "plain-English" terms - this is engineering jargon.	A	The language has been modified as requested.
A11	1.3.3.4	"High potential for affecting" seems like a dodge. There's a site there, and we'll hit it with this alternative.	D	The site that was found is technically not located within the APE of Alt C3. Map 4 shows the location of the identified site in relation to the southern segment alternatives.
A12	Exhibit 1.3-C	Alternative C1 is listed as a "Feasible Sub-Alternative". I recall Bob Davies stating "don't list anything as a feasible alternative that you're not prepared to build."	D	The alternative is still being considered feasible. Although not ideal for meeting the project objectives, it meets some, and this alternative can be constructed at a relatively low cost. Therefore, it has been retained as feasible.
A13	1.3.4	The maps are an integral part of the scoping report since they illustrate the alternatives considered. Instead of placing all the maps in an attachment, consider including them in the report.	D	The maps could be included in the report; however, we feel the flow of the document is better served by placing them in an attachment. The attachment will not be a separate document; rather, it will be bound together with the report text.
B. Omar Elkassed, FHWA NY Division				
B1	1.2.2, Page 1	"The first paragraph of this section illustrates the negative effects if no action is taken to improve access for the large number of commercial vehicles that are forced onto local residential streets. However, facts that support this proposition need to be provided. Is there a specific study that shows the volume of commercial vehicles along the study route? If so, reference the study and corresponding volumes and illustrate the existing negative impacts. Are these volumes too high for efficient access? Which properties are currently inaccessible? Which planning study was used to determine that there will be planned industrial sites within the area? Provide References. Reference the location where the following is from "The city and private sources are expending over \$35 million to improve marketability of the available property. Without improved access, public opposition will mount and restrict the level and type of development options." Is the New Vision 2030 Plan the most recent plan? If not, provide the most recent plan and confirm what the new plan calls for is similar to the 2030 plan.		<p>There is no definite plan for specific form and context of proposed site redevelopment along the Hudson waterfront. The City prepared a Local Waterfront Redevelopment Plan under NYS Department of State guidelines which outlined a proposed an adopted progressive zoning plan for reuse of the vacant commercial property. We, in turn, used CDTC model output along with a simulation of development as an industrial park to attempt to estimate possible large truck and commuter access volumes. That information is reflected in the Appendix I and EA basic text on traffic.</p> <p>The railroad spur limits access to most properties north of Main Street. As a result access is restricted to those few E-W streets with at-grade crossings which ultimately lead to First and Second Streets, which are residential, to outlet north or south.</p> <p>The \$35M figure is from the City and the Local Development Corporation records and are the culmination of property purchases and public and private brownfield clean ups</p> <p>Addressed the CDTC New Visions Plan comments in the Appendix I text..</p>

Comment #	Section/ Page #	Comment	Review Action	Response
B2	1.2.2, Page 1	Linking purpose with need: The purposes provided do define the fundamental reasons why the project is proposed. However, it is difficult to link the purposes proposed with the need defined. For example, purpose one references optimizing access consistent with the Waterfront Revitalization Plan and Zoning; however, this plan was not reference in the need statement. Similarly, purpose three references diverting 90 percent of commercial traffic without providing the needed background in the need statement on what 90 percent amounts to and how this volume impacts residential streets and deteriorates quality of life. Reference the study that analyzed truck and commercial vehicle counts. Similarly, more information is needed in the need statement to link purpose four. For purpose five, a discussion is needed in the need statement describing congestion problems and which intersections are operating at level of service (LOS) of D or below. This information needs to be based on LOS studies conducted and referenced in the document. Each purpose must be linked to a problem factually defined in the need statement.		See above response. An attempt was made to quantify truck and supporting traffic volumes from a study done in California (NCHRP Special 298) and compare with information in the ITE Trip Generation Handbook. Again suppositions had to be made about the ultimate diversity of potential commercial developments. Conservatively, at full build out, 200-300 large trucks and 500-1500 supporting volumes (workers driving in to work, service vehicles, etc.) could be expected to use the new roadway, all in addition to current commercial traffic primarily accessing the County Correctional Facility and the County Waste Transfer station.
B3	1.2.3, Page 2	Providing Measurable Objectives: Provide a summary in this section on how each objective will be measured for effectiveness. This may require modifying an objective accordingly. For example, what will qualify an alternative as optimizing direct access? How is this measurable? Each objective needs a measure of effectiveness that an alternative can be compare to in order to deem feasible or dismiss.		Comment addressed directly in Appendix I text. Provided measures for each objective
B4	1.3.3.1, Page 4	Elimination of Roundabouts Alternatives (northern segment): A statement in this section provides that a roundabout alternative would have likely required additional roadway improvements. This statement needs to conclude whether additional improvements would be needed or not. Also, outcome of an accident analysis is provided in this section; however, there is no reference to when the accident analysis was carried out. The analysis should be provided as an appendix. A clear reason needs to be stated as to why this alternative is eliminated from further consideration- it does not meet the purpose and need, will cause substantial environmental impacts, is not technically feasible, or will require substantial cost.		The roundabout conceptual use was intended as a supplement to the other alternatives under consideration. Comment more fully addressed in revised Section 1.3.3.1

Comment #	Section/ Page #	Comment	Review Action	Response
B5	1.3.3.1, Page 4	Elimination of Roundabouts Alternatives (Southern Segment): More information is needed illustrating the importance of precluding constructing roundabouts graded at 5 percent or less. A reference to this design standard needs to be provided. Also, is the heavy westbound left turn movement which does not provide sufficient gaps for flow of southbound traffic based on opinion or fact? A study proving this needs to be referenced and provided in an appendix as appropriate. A clear reason needs to be stated as to why this alternative is eliminated from further consideration- it does not meet the purpose and need, will cause substantial environmental impacts, it is not technically feasible, or will require substantial cost.		
B6	Exhibit 1.3-B, Page 5	Reason for dismissal: Each alternative dismissed in this exhibit needs supplemental information on why the alternative was dismissed. For example, the exhibit provides that alternative B2 is undesirable. Does this mean that this alternative is feasible but not desired? Clearly provide whether the dismissed alternatives do not meet the purpose and need, will cause substantial environmental impacts, are not technically feasible, or will require substantial cost.		Added text as suggested and also a spreadsheet comparing each alternative with objective attainment and consideration for special constraints.
B7	Section 1.3.4, Page 6	Comparison of Feasible Alternatives to Measure of Effectiveness: For each feasible alternative, a discussion is needed on how the alternative compares to measure of effectiveness defined as provided in the comment above.		See B6.
B8	Exhibit 1.4-B & Section 1.6 Page 12 & 14, Alternative A2	In both of these locations it is provided that Alternative A2 does not fulfill the project objectives. However, in exhibit 1.3-E it is provided that A2 meets all of the project objectives. It appears there are contradictory statements. Update these sections as appropriate.		Updated and corrected.
B9	Section 1.4.3, Page 13	Use of Nationwide Permit (NWP) 23: FHWA will not concur in the use of NWP 23 since appropriate protocol and processing procedures are not in place. Consider the use of other permits, including an individual permit, if necessary. Change the NWP designation in this section as appropriate.		Corrected to show potential use for NWP 333- Temporary Construction and Dewatering. No permanent use or impact on federally regulated wetlands.
B10	Section 1.7, Page 15	Public Input: Based on the information provided in this section, it appears several opportunities were provided for public input. Summarize input provided by the public, stake holder, State Historic Preservation Office, and Tribal Communities. Provide meeting minutes as appropriate in an appendix and how comments from these entities were addressed.		Revised Section 1.7