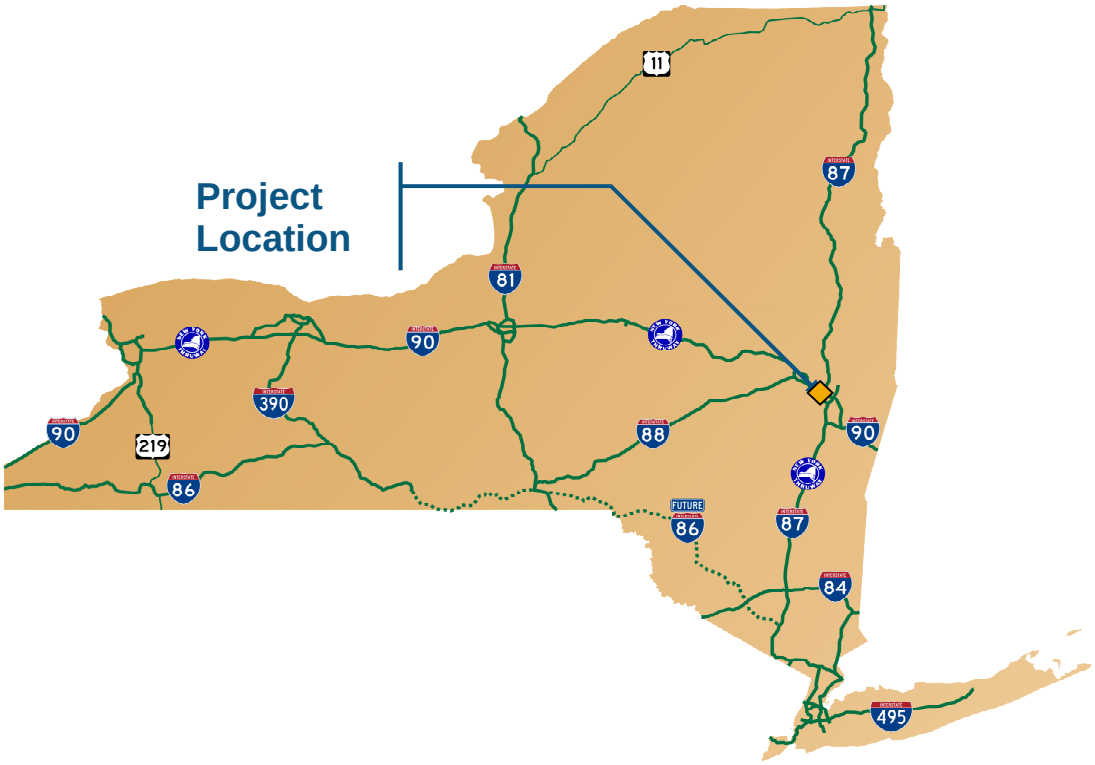
Transportation Project Report

Draft Project Scoping Report/Final Design Report

September 2025

NY 2 Corridor, River/Ferry Street Intersection Improvement &
Ferry Street Tunnel Rehabilitation Project
Project Identification Number (PIN): 1761.61
Tunnel Identification Number (BIN): 1054320
City of Troy
Rensselaer County



NEW YORK STATE | Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

Project Approval Sheet

Milestones	Signatures	Dates
A. Recommendation for, Scope and Design Approval:	The project cost and schedule are consistent with the Regional Capital Program. Greg Wichser, PE, Regional Program Manager	Date
B. Recommendation for Scope and Design 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. The nonstandard features have been adequately justified and it is not prudent to eliminate them as part of this project. Jeffrey W. Pangburn, PE, Local Project Designer	Date
C. Public Hearing Certification (Pursuant to 23 USC 128 and 23 CFR 771.111):	Two public hearings were held on 7/30/2025 and 10/9/2024. Jeffrey W. Pangburn, PE, Local Project Designer	Date
D. Categorical Exclusion Determination on Behalf of FHWA	This project qualifies as a Categorical Exclusion under the National Environmental Policy Act per the NYSDOT/FHWA Programmatic Agreement Regarding Categorical Exclusions. Mike Authur, PE, Regonal Director	Date
E. Local Project Nonstandard Feature Approval	Nonstandard features on Non-NHS state roadways have been appropriately justified. Mike Authur, PE, Regonal Director	Date
F. Local Project Scope and Design Approval	The required environmental determinations have been made, and the preferred alternative for this project is ready for final design. Mayor Carmella Mantello, Responsible Local Official	Date

List of Preparers

Group Director Responsible for Production of this Project Scoping Report/Final Design Report (PSR/FDR):

Jeffrey W. Pangburn, PE, Officer, Creighton Manning Engineering & Surveying, PLLC
Description of Work Performed: Directed the preparation of the PSR/FDR 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.*

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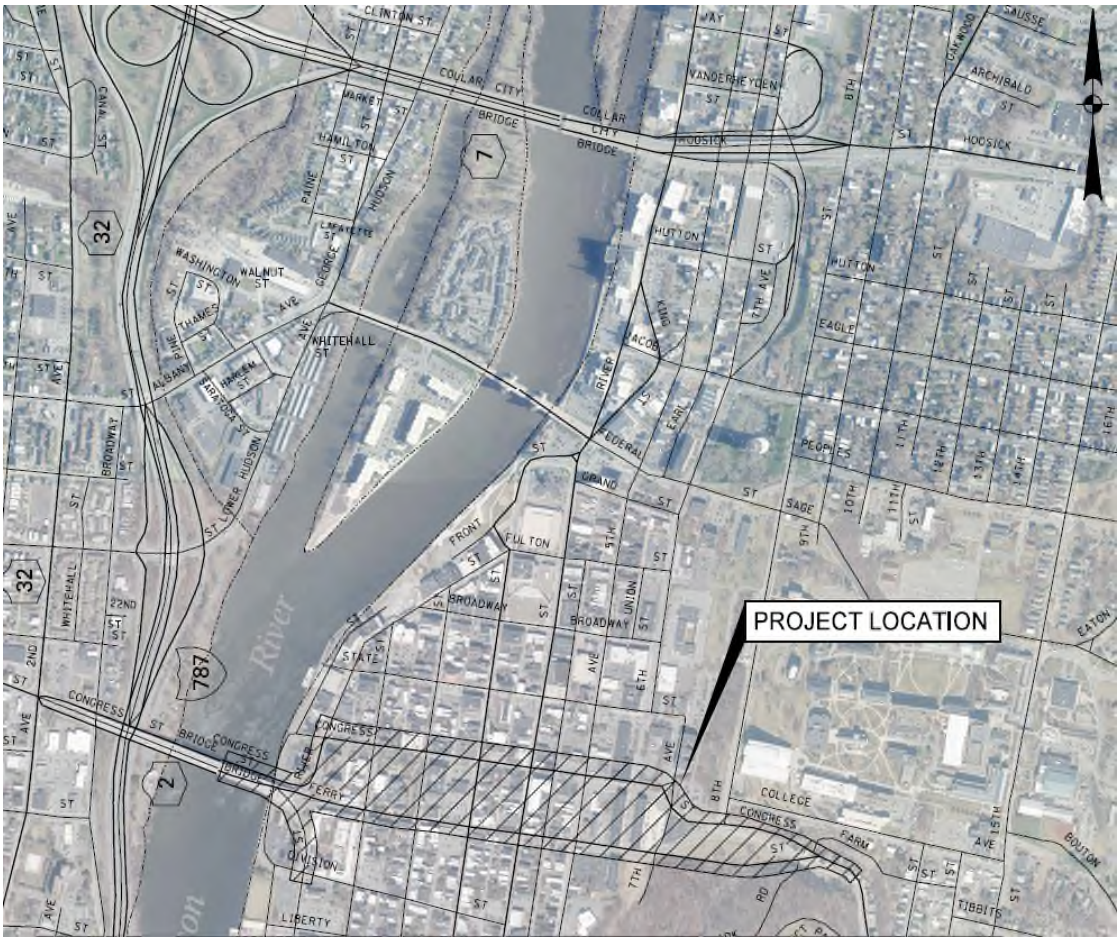
CHAPTER 1 – PROJECT DEVELOPMENT

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), objectives established (1.2.3) to address the needs, and cost-effective alternatives developed (1.3). This project is 80% federally funded with a 20% local match.

1.1.1 Project Location

Exhibit 1.1-A
Project Location Map



A. Route number – NY Route 2
B. Route names – Congress Street, Ferry Street, River Street
C. SH (state highway) number and official highway description – TWB 69-1 (Troy-Watervliet Bridge); N/A (Ferry Street Arterial Highway)
D. BIN (Bridge Identification Number) and feature crossed – 1054320 (Ferry Steet Tunnel)
E. City/Village/Township – City of Troy
F. County – Rensselaer
G. Length – Approximately 1.5 miles
H. From RM 2-1402-1000 to RM 2-1402-1008

1.2. Purpose, Need and Objectives

1.2.1. Project Need

The project is located on NY Route 2 (Congress and Ferry Streets) from the Congress Street Bridge to 11th Street. NY Route 2 functions as the primary east-west corridor through the downtown urban core of the City of Troy connecting the City of Watervliet with points east of the Hudson River. Through-traffic vehicle users are currently favored along both Congress and Ferry Streets due to the volume of traffic, which in addition to limited accommodations for bicyclists, causes the corridor to functionally favor vehicle traffic over other modes. The sidewalks throughout the corridor are in varied condition with numerous sections not being ADA-compliant due to damage caused by upheaving from street tree roots. The existing street tree conditions vary by location and due to these poor conditions may pose future public safety concern in addition to the sidewalk damage that they are causing. The existing bicycle infrastructure requires bicyclists to share the travel lanes with vehicular traffic, including transit buses, trucks, deliveries, etc.)

The current configuration of the Congress Street Bridge free-flow traffic ramps encourages higher traffic speeds and tends to misdirect eastbound traffic onto Front Street as a way to access downtown, or direct unsuspecting Congress Street traffic to leave the City to Watervliet. Designed in the 1960's, it is indicative of the expressway mentality of the day as well as intentioned to connect to the never built east-side expressway, and is contrary to the city grid street network throughout downtown Troy. A re-configuration of this interchange into a 4-way intersection will reconnect this section of the City of Troy by eliminating the free-flow on and off-ramps, tie River Street into proposed developments, and provide continuity of pedestrian and bicycle routes in downtown.

Ferry Street is currently carried underground between River Street and 3rd Avenue as a tunnel,(creating essentially bridges carrying 1st and 2nd Streets over the top); and is in need of rehabilitation due to concrete deterioration caused by water leakage. Rehabilitation of the Ferry St. tunnel is needed to ensure safety to the traveling public and to extend the service life of the structure to minimize future maintenance costs and impacts to the surrounding buildings and College.

1.2.2. Project Purpose

The purpose of this project is to rehabilitate Congress and Ferry Streets using Complete Streets philosophy (providing increased mobility throughout the City for all users) in order to provide a 20-year service life. This will be accomplished through pavement rehabilitation and the installation of ADA-compliant facilities and bicycle accommodations to provide pedestrians and bicyclists within designated areas. Additionally, the construction of a new 4-way intersection at River Street will connect to new developments along River Street, establish at-grade pedestrian and bicycle connections, and create a gateway into the City. The functionality of the street grid will shift from primarily through-traffic to becoming complete streets that will continue to serve the immediate business, transit, and resident needs. As a true multimodal network, it is anticipated that all users will have designated space to travel using their preferred mode of transportation.

1.2.3 Project Objectives

The main objectives of this project are to:

(1) Improve overall pedestrian safety and connectivity by constructing ADA-compliant pedestrian facilities.
(2) Correct identified pavement deficiencies that will extend the useful life of the streets.
(3) Address geometric deficiencies to improve traffic flow and facilitate traffic operations.
(4) Restore the tunnel condition rating to 5 (a rating of 5 means that the tunnel remains in fully functional and non-deficient condition) or greater, for at least 20 years using cost effective techniques to minimize the life cycle cost of maintenance and repair.

1.3. Project Alternative(s)

As a rehabilitation project, all alternatives under construction were limited to work along the Congress and Ferry Street corridor, converting the Congress Street Bridge/Ferry Street/River Street intersection to a signalized intersection, and addressing the Ferry Street tunnel. Conversion of 5th Street between Congress and Ferry Street to two-way traffic was also included in all alternatives. The difference in alternatives below are limited to different versions to address bicycle accommodations within the Congress and Ferry Street corridor, but they all maintained the existing curb lines of Congress and Ferry Streets. Two separate public information meetings were held (see Appendix E) as well as a project website to gather public feedback. The following is a summary of the alternatives evaluated.

No Build:
The No Build alternative will maintain the existing roadway features and geometry. There will be no improvements made to pedestrian or bicycle accommodations, pavement, interchange, traffic conditions or with the tunnel. This alternative does not meet the project objectives; as such, it is discarded from further consideration but will be used as a baseline to evaluate impacts of the preferred alternative. The no-build alternative should be considered and discussed briefly. It must be retained to evaluate impacts that would result from the reasonable alternative.

Alternatives Under Consideration:

Alternative 1A – Congress & Ferry Streets One-Way Buffered Bike Lanes:
This alternative provides one-way buffered bike lanes along Congress Street and Ferry Street.

Congress and Ferry Street Corridor:
Includes the mill and fill of the existing pavement along Congress and Ferry Streets from Front Street to 11th Street and 3rd Street to 11th Street respectively. Congress and Ferry Streets will be re-striped from 2-lanes to 1 lane to accommodate bicycles throughout the corridor with a one-way buffered bike lane on the north side of Congress Street and south side of Ferry Street and will maintain the one-way traffic flow. The reduction in travel lanes will calm traffic flow, reduce speeds, and improve safety by reducing conflict points. Green conflict markings will be provided to alert bicyclists of potential conflict areas with vehicles. The project includes a raised multi-use path through the Ferry Street tunnel which will have a noise barrier and pedestrian rail for safety purposes and for separating the bicycles and pedestrians from the passing vehicles. Existing sidewalks and curb ramps that are not ADA-compliant will be replaced and high visibility crosswalks will be installed at intersections. Curbing will be replaced where needed to establish proper reveal, drainage structures replaced as needed, and curb extensions will be evaluated and installed throughout the corridor where turning movements are not inhibited. Between River Street and 11th Street, parking spaces will be provided on the south side of Congress Street and north side of Ferry Street with an increase in available parking from 73 spaces to 87 total along the corridor. Within the downtown corridor between River Street and 5th Ave, parking numbers decrease from 45 to 41 along Congress Street and from 19 to 15 along Ferry Street. By reducing the travel way between 8th Street and 11th Street, an additional 19 parking spots are being added

Based on public feedback, a subalternate was evaluated that provided a parking protected bike lane cross section; however, concerns about vehicles parking mid-street section, the difficulty of maintaining compliance in winter weather, and the visibility of bicyclists being partially obstructed by the parked vehicles with the number of turning points along the corridor, this alternative was dismissed in favor of the standard buffered bike lane layout.

Congress Street Bridge/Ferry Street/River Street Intersection:
The existing intersection of Congress Street Bridge and Ferry Street will be reconstructed to make a new 4-way intersection with River Street. The pavement for the existing on and off ramps will be removed and River Street will be reconstructed as an at-grade signalized intersection to connect to the Congress Street Bridge and Ferry Street. The western approach at the intersection will be re-striped to a thru lane and designated right turn lane along with a bike lane to direct riders through the Ferry Street tunnel or south down River Street along a proposed multi-use path. The southern approach will change from a one-way off-ramp to a two-way roadway with designated left and right turn lanes northbound and one travel lane southbound. The northern approach will change from a one-way on-ramp to a one-way roadway with a thru/left and designated right turn lane along with a bike lane to direct bicyclists over the bridge, south on River Street, or into the Ferry Street tunnel. The existing retaining walls along the existing on and off ramps will mostly remain but will be modified to reflect the revised River Street approaches while still accommodating the redevelopment of the Taylor Apartments. The existing ramp pavement will be removed and underlying land utilized as a gateway landscaping element to the City. Guide railing will be installed on top of the proposed retaining walls along River Street. As the River Street approaches tie back down to Front/Division and Congress Streets, they will tie into current developments on three of the four corners, while allowing access for emergency vehicles to the Russel Sage College building on the SE corner of the intersection. New traffic signals and pedestrian poles will be installed at this intersection and the intersection of Congress and River Street due to the change in roadway geometry. The signals will incorporate ADA push buttons and will be timed to coordinate with the remainder of the corridor. Drainage will be installed at the new intersection to tie into an existing trunk line that runs along the existing retaining wall bases and utility impacts will be adjusted and/or relocated as needed. Through coordination with CDTA, new transit stops will be incorporated to improve transit accessibility for this portion of Troy. Intersection layout accounts for the possible future reconfiguration of the Congress Street Bridge to two travel lanes with a separated multi-use path while still accommodating the current four-lane configuration.

Ferry Street Tunnel:
The Ferry Street tunnel will be rehabilitated and will include concrete repairs to the roof, floor, and wall slabs of the tunnel as well as the approach walls. There are signs of water leakage at the roof panel joints that have caused concrete spalling and the deterioration of bar reinforcement along the panel joints. The most severe concrete deterioration due to water leakage is at panel joints under 1st and 2nd Streets and have caused the closure of the tunnel for emergency repairs in the past. To repair the deteriorated concrete both Class ‘A’ and ‘D’ repairs will be made. Access to the top of the roof slab is feasible in the areas under 1st and 2nd streets. This will involve excavating down from the city streets above, performing any concrete repairs as needed, and applying a new waterproofing membrane over the roof slab to prevent water leakage. For all other roof slab areas in need of repair access to the top slab will not be feasible due to the presence of the College courtyard above. In these locations repairs will be focused from the underside of the slab. To address the current water leakage and to prevent future leakage urethane injection of the panel joints will be done to make seal. Like the roof slab repairs, all repairs for the floor slab, wall slab, and the approach walls will be made with Class ‘A’ and ‘D’ concrete repairs. In addition, the approach walls to the tunnel will be modified. Currently a decorative brick parapet sits on top of the approach retaining walls as a pedestrian barrier. Due to the deteriorating condition of these brick parapets this project proposes to remove them and install a decorative pedestrian fence along the top of the approach retaining walls. Studies indicate that the unidirectional tunnel is large enough that the one-way vehicle flow will maintain adequate ventilation and an active ventilation system is not needed (see Appendix D). To complete the pedestrian and bicycle connection between the Congress Street bridge and downtown Troy, the southern travel lane will be converted to a raised multi-use path. Upgraded lighting and noise reduction will be evaluated during final design. To complete this work traffic will need

to be temporarily detoured offsite for Ferry Street, as well as 1st and 2nd Streets. For more information on the work zone traffic control see Section 2.7.2.

Alternatives Found to Be Not Reasonable

Alternative 1B – Congress Street Two-Way Buffered Bike Lanes

This alternative included the implementation of a two-way bike lane along Congress Street with a raised curb median separating the cyclists from the adjacent cars. This alternative did not include the raised bike path through the Ferry Street tunnel as the bikes would be routed to the South using the new proposed multi-use trail connecting the bikes to the existing Uncle Sam trail that runs along Front Street. This alternative was dismissed from consideration due to multiple reasons including the cost of constructing the raised curbed island required for the separation of the bikes from vehicles, the maintenance difficulties with plowing and maintaining the new proposed bike path and curb island, the need to upgrade the existing traffic signals along the Congress Street corridor to accommodate for the contra-flow eastbound bicycles, and the number of conflicts with intersections and alleys for contra-flow bicycles. There are also references within AASHTO about prohibiting conflicting bicycle movements with vehicle turns at intersections that would need to be addressed. After review of this alternative, the City has decided to remove the alternative from consideration.

Alternative 3 – Liberty Street Contra Flow Bike Lane

This alternative included removing bike traffic from the Congress and Ferry Street corridor entirely and relocating it south to Liberty Street. The roadway layout on Congress and Ferry Street would transition to a single travel lane with parking on both sides of the street. The lane configuration of Liberty Street would change from a single travel lane with parking on both sides to a single lane of traffic going eastbound with bicyclists utilizing sharrows to ride adjacent to the cars. The bicyclists heading westbound would have a bike lane from traffic by a double yellow barrier line. There would still be parking on the south side of Liberty Street and the bicyclists would connect back to Route 4 at the recently improved Hill Street intersection. This alternative was dismissed for multiple reasons and the main one being the input from the public at the open houses saying that no one would go out of their way to ride down there. The increased traffic on Liberty was also disliked as the existing street is very narrow with very little room for geometric improvements. After the review of this alternative, The City has decided to remove the alternative from consideration.

For a more in-depth discussion of the design criteria for Alternative 1, see Section 2.5 of this report.

1.4 Project Effects

1.4.1 Environmental Classification

Exhibit 1-1
Environmental Classification Summary

NEPA Classification	Class II CE	BY	NYSDOT
SEQRA Type:	Unlisted	BY	Responsible Local Official

1.4.2 Comparison of Considered Alternatives

Exhibit 1.4-B Comparison of Considered Alternatives		
Category	**Alternatives Evaluated**	
	No Build	**Alt. 1**
Environmental Impacts		
Wetlands	None	None
Cultural Resources (Section 106)	None	No Anticipated Historic Properties Affected
Endangered/ Threatened Species	None	May Affect, Not Likely to Adversely Affect the northern long eared bat
Social Impacts		
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	Improved pedestrian circulation, access to transit and bicycle mobility
General Social Groups	No Effect	Beneficial impacts for accessibility (new accessible sidewalks and crossings)
Economic and/or Operational Impacts		
Economic Impacts	No Effect	Modification to vehicular access to businesses
Reduction of Parking	No Effect	Increase of 14 on-street parking spaces
Operation at ETC	No Effect Total Travel Time (Bridge to 8th Street): Congress Street WB = 154 sec. Ferry Street EB = 112 sec.	ETC Total Travel Time (Bridge to 8th Street): Congress Street WB = 190 sec. Ferry Street EB = 153 sec.
Utilities	None	Relocations required (utility pole, hydrants)
Construction Cost	None	$14,108,000

1.4.3 Anticipated Permits/Coordination/Certifications

Exhibit 1-3 Anticipated Permits/Certifications/Coordination
Permits
NYS Department of Environmental Conservation (NYSDEC):
• State Pollutant Discharge Elimination System (SPDES) General Permit
Coordination
New York State Historic Preservation Officer (SHPO)
US Fish and Wildlife Service
New York Natural Heritage Program
City of Troy
Metropolitan Planning Organization – Capital Region Transportation Council
Utilities – Verizon, Nation Grid, Century Link, Charter, Crown Castle, NYS ITS

Exhibit 1-3 Anticipated Permits/Certifications/Coordination
Permits
Certifications
NYS Department of Labor: Asbestos Variances

1.5 Preferred Alternative

Only one reasonable build alternative has been identified that meets all of the project objectives the best. A decision to enter final design will not be made until after the environmental determination is made and evaluation of the comments on the draft design approval document and comments received from the public meetings has been completed. The No Build Alternative will be retained for use as a baseline to measure and evaluate impacts that might accrue from the preferred alternative.

1.6 Project Schedule and Cost

Exhibit 1-4 - Project Schedule	
Activity	**Date Occurred/Tentative**
Scope/Design Approval	Summer 2025
ROW Acquisition	N/A
Construction Start	Winter 2026
Construction Complete	Spring 2028

Exhibit 1.5
Project Costs - Design Bid Build

Potential Alternatives		Alt 1
Earthwork		$473,230
Pavement and Subbase		$1,130,269
Drainage		$600,000
Large Culvert		
Guide Rail and Median Barrier		$542,345
Sidewalks and Curb Ramps		$1,607,430
Signs & Pavement Markers		$286,000
Retaining Walls and Noise Barriers		$825,907
Traffic Signals		$340,276
Lighting		$350,000
Misc. Utilities (Water/Sewer)		$100,000
WZTC		$1,225,000
Survey Operations		$164,000
Landscaping		$327,000
Bridge		$2,196,000
Structures Demolition		
Wetland Mitigation		
Stormwater/SPDES		$164,000
Miscellaneous/Incidentals	3%	$309,944
Field Change	5%	$506,000
Mobilization	4%	$445,897
Subtotal in Base Year Dollars		**$11,594,000**
Contingency/Risk	17%	$1,970,980
Subtotal in Base Year Dollars		**$13,565,000**
Cost Data Year and Midpoint of Construction Year	*2025*	*2027*
Inflation/Escalation to Midpoint of Construction	3%	$813,900
Award/Construction Cost		**$14,108,000**
Preliminary Design (Cost to Date)		$600,000
Final Design (Resource Cost Estimate)	10%	$1,410,800
QC & Administration of Final Design and Contract	3%	$423,240
Construction Inspection	8%	$1,128,640
ROW		$0
Total Project Cost		**$17,670,680**
Rounded to nearest $10K		**$17,680,000**

1.7 Public Involvement

Refer to Appendix E for the project's Public Involvement Plan and for related project correspondence.

Exhibit 1-6 Public Involvement Plan Schedule of Milestone Dates	
Activity	**Date Occurred/Tentative**
Kickoff Meeting w/ NYSDOT	September 2022
Stakeholder Meeting(s)	Ongoing
Public Informational Meeting #1	July 30th 2024
Public Informational Meeting #2	October 9th 2024
Current Project Letting date	Winter 2026

For additional information or to provide comments, please contact:

Project Contacts:

Project Sponsor:
City of Troy
Andrew Kreshik, Planner
City of Troy – City Hall
433 River Street, Suite 5001
Troy, New York 12180
Email: Andrew.Kreshik@troyny.gov
Telephone: (518) 279-7153

New York State Department of Transportation (Please include "PIN 1761.61")
Gaetano Tedesco, PE
Region 1 Local Project Liaison
New York State Department of Transportation
50 Wolf Road
Albany, NY 12232
Email: Gaetano.Tedesco@dot.ny.gov
Telephone: (518) 457-9934

Creighton Manning Engineering, LLP (Consultant):
Jeffrey W. Pangburn, PE, Project Manager
2 Winners Circle
Albany, NY 12205
Email: jpangburn@cmellp.com
Telephone: (518) 689-1822

The remainder of this report is a detailed technical evaluation of existing conditions, anticipated impacts of the one reasonable/preferred alternative and comparison to the null alternative, copies of technical reports and plans and other supporting information.

CHAPTER 2 – EXISTING AND PROPOSED CONDITIONS AND CONSIDERATIONS

2.1 Functional Classification/National Highway System/Truck Access

Exhibit 2-1 Classification Data		
Route(s)	NY Route 2 (Congress and Ferry Streets)	River Street
Functional Classification	Urban Principal Arterial - Other	Urban Minor Arterial
National Highway System (NHS)	Yes	No
Designated Truck Access Route	No	No
Qualifying Highway	No	No
Within 1 mile of a Qualifying Highway	No	No
Within the 16 ft vertical clearance network	No	No

2.2 Planning Considerations

2.2.1 Abutting Highway Segments and Future Plans

Congress Street to the east of the project limits is a two-lane road with 12-foot-wide travel lanes, varying shoulder widths and parking lanes on either side of the road. Ferry Street to the east of the project limits merges with Congress Street and becomes the same configuration. To the west of the project limits, NY Route 2 exists as the Congress Street Bridge into Watervliet and consists of a four-lane road with 12-foot wide travel lanes and varying shoulder widths. The characteristic of these roadways is urban with rolling terrain and these roadways provide east-west access along the NY Route 2 truck corridor.

River Street to the north of the project limits is a one-way roadway that is 32 feet wide and has parking on either side of the road. To the South of the project limits, River Street is a two-way roadway with 11-foot wide travel lanes and varying shoulder widths.

The City of Troy and NYSDOT have confirmed that there are no plans to reconstruct or widen these highway segments, or the adjoining segments, within the next 20 years.

There is a concept to convert the four-lane Congress Street Bridge to a two-lane bridge and shared use path/parkway on the remaining bridge deck. Although partial federal funding was secured it has not been progressed further. Design of the River Street/Ferry Street intersection does take into account the possibility that the Bridge project progresses and minimizes the changes that would be needed to the intersection; however, design plans for this current project will tie into the existing four-lane bridge section.

This project has also been designed to not affect the proposed replacement of the Taylor Apartment buildings. Design coordination has progressed with those developers to make sure both projects can progress independently, but in harmony with each other.

2.2.2 Local Plans for the Project Area

This project is on the approved Capital Region Transportation Council (2022-2027) Transportation Improvement Program (TIP) as TIP Number R339. This project absorbed TIP Numbers R353 and R356. This project is also on the 2023-2026 State Transportation Improvement Program (STIP). Project funding has been fully allocated on the TIP and STIP.

There are several approved developments planned within the project area that will impact traffic operations. These operations and impacts are being coordinated with this project.

2.2.3. Access Control

There is currently control of access along a portion of the on and off ramps, including the gore area and portion of Ferry Street in between the ramps. The control of access at this intersection will not change with this project and it will not impede construction of the project.

There is no control of access along Congress, Ferry and River Streets beyond what is identified above and this project will not change the existing access control.

2.3. Traffic Considerations

2.3.1 Traffic Volumes

Intersection turning movement counts were conducted during the weekday AM and PM peak hours in October 2022 at the study area intersections. Refer to Appendix C of this report for traffic flow diagrams.

An automatic traffic recorder (ATR) count was conducted in September 2022 on Congress Street and Ferry Street that included traffic volumes, speeds, and vehicle classification. Refer to Exhibit 2-2 for a summary of the traffic data collected.

Based on the NYSDOT Design Traffic Forecast Policy provided in the *Highway Design Manual* (HDM), this project has a Design Year of ETC (Estimated Time of Completion) +10. ETC for this project is 2025 and the design year is 2035. Traffic forecasts for the No-Build and the Reasonable Alternative were supplied by the Capital Region Transportation Council (CRTC). Based on the CRTC STEP travel demand model, the conversion of the River Street/Ferry Street intersection to an at-grade signalized intersection will modify the flow of localized traffic in this section of the City. Although most patterns remain stable, traffic from areas to/from the southeast of the project area will likely modify their path to utilize River Street rather than 4th Street and Congress to utilize the Congress Street Bridge. Small changes in travel patterns are also seen by allowing northbound 5th Street traffic to directly access Congress Street in the future. Traffic volume data is included under Appendix C.

It is noted that the ETC (2025) Design Year can be maintained based on guidance included in the HDM (Section 5.2.4) which indicates that traffic volumes do not need to be updated as long as the estimated completion date is not postponed more than four (4) years. It is anticipated that this project will be completed prior to 2029; therefore, traffic volumes and forecasts do not need to be updated.

Exhibit 2-2
Existing and Forecast Traffic Volumes

Year	Congress Street (Westbound)		Ferry Street (Eastbound)	
	AADT	DHV	AADT	DHV
Existing (2022)	6,780	545	6,870	600
ETC (2025)	6,845	550	6,935	605
ETC+10 (2035)	7,060	570	7,155	625

Note: ETC is the Estimated Time of Completion

2.3.2 Speed Studies

The existing posted speed limit of in the City of Troy is 30-mph which will be retained upon completion of the project. Speed measurements were taken by Tri-State in September 2022 on Congress Street and Ferry Street. The results of the speed study are shown in Exhibit 2-3 and the detailed reports are included under Appendix C.

Exhibit – 2-3
Speed Data

Route	Congress Street (Westbound)	Ferry Street (Eastbound)
Existing Posted Speed Limit	30-mph	30-mph
Operating Speed (Automated Traffic Recorder Method)	25-mph	32-mph

2.3.3 Level of Service Analysis

Level of Service (LOS) is a description of the quality of an intersection's operation ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed capacity, resulting in long queues and delays). A detailed discussion of the LOS methodology is included in Appendix C.

Existing and Build condition operational analyses were conducted for the study area intersections for the Existing (2022), ETC (2025), and ETC+10 (2035) design years using the Synchro Software which automates the procedures contained in the *Highway Capacity Manual*. The Existing and Build level of service values for the intersections presented on Exhibit 2-4 reflect average delay on each of the approaches.

Exhibit 2-4
Intersection Level of Service and Delays (sec) Existing and Apparent Preferred Alternative

YEAR	EB	WB	NB	SB	Overall
Intersection of Congress Street Bridge & River Street & Ferry Street					
EXISTING (2022)	--	--	--	--	--
ETC (2025)	A (9.3)	--	B (18.3)	A (9.4)	B (11.6)
ETC+10 (2035)	A (9.2)	--	B (18.8)	A (9.4)	B (11.7)
Intersection of Congress Street & River Street					
EXISTING (2022)	A (5.7)	A (0.7)	--	B (19.1)	A (3.7)
ETC (2025)	A (5.9)	A (0.6)	--	B (19.0)	A (4.4)
ETC+10 (2035)	A (5.9)	A (0.6)	--	B (18.1)	A (3.6)
Intersection of Congress Street & 1st Street					
EXISTING (2022)	--	B (17.8)	--	B (16.1)	B (17.5)
ETC (2025)	--	C (21.0)	--	B (17.3)	B (19.9)
ETC+10 (2035)	--	C (21.2)	--	B (17.6)	C (20.2)
Intersection of Congress Street & 2nd Street					
EXISTING (2022)	--	A (10.0)	B (16.9)	--	B (12.0)
ETC (2025)	--	B (12.1)	B (15.1)	--	B (12.8)
ETC+10 (2035)	--	B (12.3)	B (15.5)	--	B (13.1)
Intersection of Congress Street & 3rd Street					
EXISTING (2022)	--	B (18.7)	--	B (13.8)	B (16.6)
ETC (2025)	--	C (21.1)	--	B (13.6)	B (17.6)
ETC+10 (2035)	--	C (21.5)	--	B (14.4)	B (17.8)
Intersection of Congress Street & 4th Street					
EXISTING (2022)	--	B (13.3)	B (19.7)	--	B (16.3)
ETC (2025)	--	C (25.2)	B (18.6)	--	C (22.5)
ETC+10 (2035)	--	C (25.9)	B (18.7)	--	C (23.0)

Exhibit 2-4 Intersection Level of Service and Delays (sec) Existing and Apparent Preferred Alternative					
Intersection of Congress Street & 5th Avenue					
EXISTING (2022)	--	B (11.8)	--	B (12.9)	B (12.1)
ETC (2025)	--	C (26.7)	A (8.8)	B (11.6)	C (22.7)
ETC+10 (2035)	--	B (16.2)	A (8.8)	B (11.4)	B (14.8)
Intersection of Congress Street & 6th Avenue					
EXISTING (2022)	--	C (22.8)	B (10.7)	B (12.7)	B (18.6)
ETC (2025)	--	C (25.0)	B (10.7)	B (14.0)	C (20.1)
ETC+10 (2035)	--	C (24.6)	B (10.8)	B (13.5)	B (19.8)
Intersection of Ferry Street & 3rd Street					
EXISTING (2022)	B (12.2)	--	--	B (17.6)	B (14.6)
ETC (2025)	B (19.9)	--	--	B (18.3)	B (19.2)
ETC+10 (2035)	C (20.7)	--	--	B (18.0)	B (19.6)
Intersection of Ferry Street & 4th Street					
EXISTING (2022)	C (20.4)	--	B (12.6)	--	B (17.0)
ETC (2025)	D (38.6)	--	B (11.0)	--	C (31.8)
ETC+10 (2035)	D (40.3)	--	B (11.0)	--	C (33.1)
Intersection of Ferry Street & 5th Avenue					
EXISTING (2022)	A (8.6)	--	B (10.6)	B (16.6)	B (11.4)
ETC (2025)	B (22.5)	--	B (12.7)	C (22.4)	C (20.6)
ETC+10 (2035)	C (23.3)	--	B (12.7)	C (22.5)	C (21.0)
Intersection of Ferry Street & 6th Avenue					
EXISTING (2022)	A (7.5)	--	--	C (24.4)	--
ETC (2025)	A (7.5)	--	--	**E (37.7)**	--
ETC+10 (2035)	A (7.5)	--	--	**E (39.2)**	--
Intersection of Congress Street & Ferry Street/8th Street					
EXISTING (2022)	--	C (25.8)	C (29.1)	C (20.8)	C (25.7)
ETC (2025)	--	D (54.2)	C (31.8)	C (20.2)	D (36.1)
ETC+10 (2035)	--	D (54.6)	C (32.3)	C (20.2)	D (36.5)
Intersection of River Street & Division Street					
EXISTING (2022)	B (10.1)	B (11.8)	--	--	--
ETC (2025)	C (20.7)	D (25.0)	A (8.4)	--	--
ETC+10 (2035)	C (20.2)	D (26.2)	A (8.4)	--	--

The analysis indicates that the study area intersections currently operate adequately and will continue to do so through construction of the proposed alternative.

2.3.4 Safety and Crash History Analysis

A crash analysis was performed in accordance with NYS Highway Design Manual Chapter 5. A three-year crash history from January 1, 2022 through December 31, 2024 was reviewed for Congress Street (River Street to 8th Street) and Ferry Street (Congress Street Bridge tunnel to 8th Street). The crash severity on the segments/intersections is summarized in Exhibit 2-5.

Exhibit – 2-5 Crash Severity						
Segment/Intersection			Crash Severity			
			Non-Reportable	Property Damage	Personal Injury	Fatality
Congress Street	River Street Intersection	Number	1	16	1	0
		Percentage	7%	89%	6%	0%
	River Street to 1st Street	Number	1	2	0	0
		Percentage	33%	67%	0%	0%
	1st Street Intersection	Number	0	10	2	0
		Percentage	0%	83%	17%	0%
	1st Street to 2nd Street	Number	1	0	0	0
		Percentage	100%	0%	0%	0%
	2nd Street Intersection	Number	3	2	0	0
		Percentage	60%	40%	0%	0%
	2nd Street to 3rd Street	Number	0	2	0	0
		Percentage	0%	100%	0%	0%
	3rd Street Intersection	Number	2	14	2	0
		Percentage	11%	78%	11%	0%
	3rd Street to 4th Street	Number	2	1	0	0
		Percentage	67%	33%	0%	0%
	4th Street Intersection	Number	3	21	4	0
		Percentage	11%	75%	14%	0%
	4th Street to 5th Street	Number	0	4	1	0
		Percentage	0%	80%	20%	0%
	5th Street Intersection	Number	3	5	0	0
		Percentage	38%	62%	0%	0%
	5th Street to 6th Street	Number	0	0	0	0
		Percentage	0%	0%	0%	0%
	6th Street Intersection	Number	3	12	0	0
		Percentage	20%	80%	0%	0%
	6th Street to 7th Street	Number	0	0	0	0
		Percentage	0%	0%	0%	0%
	7th Street Intersection	Number	0	0	0	0
		Percentage	0%	0%	0%	0%
Total Congress Street		**Number**	**19**	**89**	**10**	**0**
		Percentage	**16%**	**75%**	**9%**	**0%**
Ferry Street	Congress Street Bridge to 3rd Steet (Tunnel)	Number	0	6	2	0
		Percentage	0%	75%	25%	0%
	3rd Street Intersection	Number	1	7	5	0
		Percentage	8%	54%	38%	0%
	3rd Street to 4th Street	Number	0	1	0	0
		Percentage	0%	100%	0%	0%
	4th Street Intersection	Number	2	8	2	0
		Percentage	17%	67%	17%	0%
	4th Street to 5th Street	Number	1	1	1	0
		Percentage	33%	33%	33%	0%
	5th Street Intersection	Number	2	13	3	0
		Percentage	11%	72%	17%	0%
	5th Street to 6th Street	Number	1	2	0	0
		Percentage	33%	67%	0%	0%
	6th Street Intersection	Number	1	13	0	0
		Percentage	7%	93%	0%	0%
	6th Street to 8th Street	Number	0	0	0	0
		Percentage	0%	0%	0%	0%
	8th Street Intersection	Number	1	17	2	0
		Percentage	5%	85%	10%	0%

Exhibit – 2-5 Crash Severity					
Total Ferry Street	**Number**	**9**	**68**	**15**	**0**
	Percentage	**10%**	**74%**	**16%**	**0%**

The predominate crash types are shown in Exhibit 2-6:

Exhibit – 2-6 Collision Summary												
Segment/Intersection			**Type of Collision**									
			Rear-End	**Right Angle**	**Overtaking/Sideswipe/**	**Left Turn**	**Right-Turn**	**Head-On**	**Backing**	**Fixed object**	**Pedestrian**	**Total**
Congress Street	River Street Intersection	Number	1	2	6	4	3	1	0	0	1	**18**
		Percentage	6%	11%	33%	22%	17%	6%	0%	0%	6%	**100%**
	River Street to 1st Street	Number	0	0	2	0	0	0	1	0	0	**3**
		Percentage	0%	0%	67%	0%	0%	0%	33%	0%	0%	**100%**
	1st Street Intersection	Number	1	4	3	2	0	0	1	1	0	**12**
		Percentage	8%	33%	25%	17%	0%	0%	8%	8%	0%	**100%**
	1st Street to 2nd Street	Number	0	0	0	0	0	0	1	0	0	**1**
		Percentage	0%	0%	0%	0%	0%	0%	100%	0%	0%	**100%**
	2nd Street Intersection	Number	2	1	2	0	0	0	0	0	0	**5**
		Percentage	40%	20%	40%	0%	0%	0%	0%	0%	0%	**100%**
	2nd Street to 3rd Street	Number	2	0	0	0	0	0	0	0	0	**2**
		Percentage	100%	0%	0%	0%	0%	0%	0%	0%	0%	**100%**
	3rd Street Intersection	Number	2	3	8	1	2	0	0	0	2	**18**
		Percentage	11%	17%	44%	6%	11%	0%	0%	0%	11%	**100%**
	3rd Street to 4th Street	Number	0	0	3	0	0	0	0	0	0	**3**
		Percentage	0%	0%	100%	0%	0%	0%	0%	0%	0%	**100%**
	4th Street Intersection	Number	4	12	10	0	0	1	0	1	0	**28**
		Percentage	14%	43%	36%	0%	0%	4%	0%	4%	0%	**100%**
	4th Street to 5th Street	Number	1	1	2	0	0	0	0	0	1	**5**
		Percentage	20%	20%	40%	0%	0%	0%	0%	0%	20%	**100%**
	5th Street Intersection	Number	2	0	2	2	0	0	0	1	1	**8**
		Percentage	25%	0%	25%	25%	0%	0%	0%	13%	13%	**100%**
	5th Street to 6th Street	Number	0	0	0	0	0	0	0	0	0	**0**
		Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	**0%**
	6th Street Intersection	Number	1	4	4	3	2	0	0	0	1	**15**
		Percentage	7%	27%	27%	20%	13%	0%	0%	0%	7%	**100%**
	6th Street to 7th Street	Number	0	0	0	0	0	0	0	0	0	**0**
		Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	**0%**
	7th Street Intersection	Number	0	0	0	0	0	0	0	0	0	**0**
		Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	**0%**
Total Congress Street		**Number**	**16**	**27**	**42**	**12**	**7**	**2**	**3**	**3**	**6**	**118**
		Percentage	**14%**	**23%**	**36%**	**10%**	**6%**	**2%**	**3%**	**3%**	**6%**	**100%**
Ferry Street	Congress Street Bridge to 3rd Steet (Tunnel)	Number	2	1	1	0	0	0	0	4	0	**8**
		Percentage	25%	13%	13%	0%	0%	0%	0%	50%	0%	**100%**
	3rd Street Intersection	Number	2	6	2	0	0	0	0	1	2	**13**
		Percentage	15%	46%	15%	0%	0%	0%	0%	8%	15%	**100%**
	3rd Street to 4th Street	Number	0	1	0	0	0	0	0	0	0	**1**
		Percentage	0%	100%	0%	0%	0%	0%	0%	0%	0%	**100%**
	4th Street Intersection	Number	3	1	5	0	1	0	0	2	0	**12**
		Percentage	25%	8%	42%	0%	8%	0%	0%	17%	0%	**100%**
	4th Street to 5th Street	Number	0	2	0	0	0	0	0	1	0	**3**

Exhibit – 2-6
Collision Summary

Segment/Intersection			Type of Collision									
			Rear-End	Right Angle	Overtaking/Sideswipe/	Left Turn	Right-Turn	Head-On	Backing	Fixed object	Pedestrian	Total
		Percentage	0%	67%	0%	0%	0%	0%	0%	33%	0%	**100%**
	5th Street Intersection	Number	0	7	6	0	0	0	0	1	4	**18**
		Percentage	0%	39%	33%	0%	0%	0%	0%	6%	22%	**100%**
	5th Street to 6th Street	Number	0	2	1	0	0	0	0	0	0	**3**
		Percentage	0%	67%	33%	0%	0%	0%	0%	0%	0%	**100%**
	6th Street Intersection	Number	1	4	1	7	1	0	0	0	0	**14**
		Percentage	7%	29%	7%	50%	7%	0%	0%	0%	0%	**100%**
	6th Street to 8th Street	Number	0	0	0	0	0	0	0	0	0	**0**
		Percentage	0%	0%	0%	0%	0%	0%	0%	0%	0%	**0%**
	8th Street Intersection	Number	5	4	5	4	0	0	0	2	0	**20**
		Percentage	25%	20%	25%	20%	0%	0%	0%	10%	0%	**100%**
Total Ferry Street		**Number**	**13**	**28**	**21**	**11**	**2**	**0**	**0**	**11**	**6**	**92**
		Percentage	**14%**	**30%**	**23%**	**12%**	**2%**	**0%**	**0%**	**12%**	**7%**	**100%**

Congress Street

A review of crashes on this roadway indicates that only 9% resulted in injury and that there were no fatalities. The most frequent type of collisions on Congress Street that occurred between River Street and 7th Street (including the intersections) were right-angle crashes (23%) that were generally due to a failure to yield the right-of-way/disregard of the traffic control and overtaking crashes (36%) that were generally the result of turning from the outside lane, improper passing, and collisions with parked cars. It is noted that there were six (6) pedestrian collisions that occurred at an intersection and/or alley. A review of the pedestrian crashes indicates that four (4) involved a vehicle turning left from Congress Street and striking the pedestrian in the crosswalk due to an improper turn, driver inexperience, a failure to yield the right-of-way, and an obstructed view. The remaining two pedestrian crashes involved a vehicle making a turn and striking a wheelchair that was not in the crosswalk (due to pedestrian error) and an incident where a vehicle backed into a pedestrian in a crosswalk due to driver inexperience.

Ferry Street

A review of crashes on this roadway indicates that 16% resulted in injury and that there were no fatalities. Similar to Congress Street, the most frequent type of collisions on Ferry Street that occurred between the Congress Street Bridge and 8th Street (including the intersections) were right-angle crashes (30%) and overtaking crashes (23%) that were generally the result of similar issues. It is noted that there were two (2) pedestrian collisions at the 3rd Street intersection and four (4) pedestrian collisions at the 5th Street intersection. One of the pedestrian crashes at the 3rd Street intersection occurred when a motorist made a southbound left-turn from 3rd Street and struck a pedestrian in the crosswalk due to a failure to yield the right-of-way while the other occurred when a vehicle traveling at an unsafe speed on Ferry Street sideswiped a pedestrian due to driver inattention. The pedestrian collisions at the 5th Street intersection included the following:

- An eastbound vehicle hit a pedestrian improperly trying to cross Ferry Street.
- A southbound vehicle making a left-turn from 5th Street struck a pedestrian in the crosswalk due to driver distraction.
- A truck making a left-turn from Ferry Street made an improper wide turn and hit a pedestrian on the corner of the intersection.
- An eastbound vehicle struck a scooter improperly crossing Ferry Street.

Apparent Preferred Alternative Improvements

The apparent preferred alternative will reconfigure both Congress Street and Ferry Street from 2 lanes to 1 lane. In addition, these roadways will be re-striped to accommodate bicycles throughout the corridor with a one-way buffered bike lane on the north side of Congress Street and south side of Ferry Street.

The lane reconfiguration will minimize conflicts and reduce overtaking collisions by eliminating potential turns from adjacent lanes and improper lane usage. To address the pedestrian accident history, proven pedestrian safety measures such as curb extensions are being added where they can be accommodated, Lead Pedestrian Interval (LPI) signal timing, and "Yield to Pedestrian" signs will be added to the signalized intersections to alert drivers to the presence of pedestrians which is where the majority of these incidents take place.

2.3.5 Pedestrians, Bicyclists and Transit (Complete Streets)

Pedestrians

Within the project limits there are separate provisions for pedestrians and there are numerous existing generators of pedestrian traffic within the project area. The adjacent land use is primarily commercial with multiple businesses, restaurants, developments, a college, and many side streets with residential properties which intersect Congress and Ferry Streets. Pedestrian travel along the existing sidewalks consists of shoppers, visitors, college students, City residents, and business owners.

The Capital Projects Complete Streets Checklist (in Appendix C) has indicated a need for sidewalks. Pedestrians will be accommodated on the new sidewalks and striped crosswalks proposed as part of this project. The sidewalk will be constructed to meet the ADA compliant standards for pedestrian facilities in HDM Chapter 18. Curb extensions will also be evaluated for inclusion on this project.

Bicyclists

The existing potential for bicycling within the project limits is high. There are commercial and residential generators of bicycle traffic within and outside of the project limits. In addition, the roadway has been designated as a bicycle route by the City. High levels of bicycle traffic have not been identified during site visits; however, it is anticipated there are higher levels during evening hours and on weekends.

Question 2.3 on the Capital Projects Complete Streets Checklist in Appendix C indicates the existing bicycle accommodations do not meet current standards. The existing travel lane widths vary between 12 and 14 feet +/-, but any width below 13 feet does not meet the standards for a shared lane for bicycling. It is also anticipated that existing bicycle volumes are low due to the lack of comfortable existing accommodation.

Transit

There are currently several CDTA bus stops located within the project limits, locations are as follows:

- Ferry Street and 3rd Street, Stop ID: 07163
- 3rd Street and Ferry Street, Stop ID: 00890
- Ferry Street and 4th Street, Stop ID: 11627**
- 4th Street and Ferry Street, Stop ID: 11158
- Ferry Street and 5th Ave, Stop ID: 04492
- 5th Ave and Ferry Street, Stop ID: 13048 and 13049
- Ferry Street and 6th Ave, Stop ID: 12775
- 3rd Street and Congress Street, Stop ID: 07116
- Congress Street and 4th Street, Stop ID: 12347
- 4th Street and Congress Street, Stop ID: 07125
- Congress Street and 5th Ave, Stop ID: 04330

After meeting with and coordinating with CDTA, the project will evaluate the removal of stop 11627, as well as potential consolidation of other stops along the Congress and Ferry Street corridors. Since the River Corridor Bus Rapid Transit and several local lines utilize the Congress and Ferry St corridors. New stops are planned near the new 4-way intersection; one for eastbound traffic coming over the Congress Street bridge and one for westbound traffic, which will stop on River Street in the vicinity of the new Taylor apartments.

2.4 Structures

2.4.1 Structures Data

The existing tunnel is described below. The project proposes to rehabilitate concrete spalling and water infiltration existing on the underside of the tunnel. Rehabilitation efforts will include concrete repairs to the roof, floor, and wall slabs of the tunnel as well as the approach walls. The most severe concrete deterioration due to water leakage is at panel joints under 1st and 2nd Streets. To repair the deteriorated concrete both Class 'A' and 'D' repairs will be made. Access to the top of the roof slab is feasible in the areas under 1st and 2nd streets. This will involve excavating down from the city streets above, performing any concrete repairs as needed, and applying a new waterproofing membrane over the roof slab to prevent water leakage. For all other roof slab areas in need of repair access to the top slab will not be feasible due to the presence of the College courtyard above. In these locations repairs will be focused from the underside of the slab. To address the current water leakage and to prevent future leakage urethane injection of the panel joints will be done to make seal. Like the roof slab repairs, all repairs for the floor slab, wall slab, and the approach walls will be made with Class 'A' and 'D' concrete repairs. In addition, the approach walls to the tunnel will be modified. Currently a decorative brick parapet sits on top of the approach retaining walls as a pedestrian barrier. Due to the deteriorating condition of these brick parapets this project proposes to remove them and install a decorative pedestrian fence along the top of the approach retaining walls. To complete this work traffic will need to be temporarily detoured offsite for Ferry Street, as well as 1st and 2nd Streets.

Within the tunnel the project proposes to modify the existing traveled way configuration. Currently, Ferry Street consists of two one-way travel lanes. The project proposes to eliminate one travel lane and construct a raised multi-use path.

Exhibit 2-7
Structure Data

DATA	EXISTING STRUCTURE	PROPOSED STRUCTURE
BIN	1054320	1054320
Feature Carried/Crossed	1st & 2nd St / Ferry St.	1st & 2nd St / Ferry St.
Type of Tunnel	Reinforced Concrete Box	Reinforced Concrete Box
Number and Length of Spans	1 / 39 ft	1 / 39 ft
Lane Width(s)	2 travel lanes (14 ft, 20 ft)	1 travel lane (12 ft)
Shoulder Width(s)	Lt (3'-0"); Rt (1'-6")	Lt (2'-6"); Rt (3'-0")
Sidewalk(s)	None	10 ft wide multi-use path
Utilities Carried	Gas, Water, Electric	Gas, Water, Electric
Horizontal Clearance(s)	1'-6" Min.	2'-6" Min.
Vertical Clearance(s)	14'- 2 ½"	14'- 2 ½"
General Recommendation	4	5
Tunnel Design Criteria	NYSDOT Standard Specifications for Highway Bridges, HS 20 Loading with LFR Inventory Rating Factor ≥ 1.0	NYSDOT Standard Specifications for Highway Bridges, HS 20 Loading with LFR Inventory Rating Factor ≥ 1.0

History & Deficiencies –

The Ferry Street tunnel was built in 1967 and record drawings are available. The total length of the structure including the undercut fascia is 950'-0". The concrete panel segments are labeled from 1 to 41 from west to east. The tunnel itself is 514'-6" long and encompasses 21 concrete panel segments, from panel 11 through panel 30. Each concrete panel segment is 24'-6" long and is comprised of a cast-in-

place reinforced concrete box section. The ceiling and floor thickness are 2'-4"; and the thickness varies between 1'-10.5" and 2'-10". The clear width of the box is 38'-6" and the minimum roadway vertical clearance is 14'-2.5". The tunnel carries two eastbound lanes of traffic on a sag vertical curve through the structure. The lane and shoulder widths vary and there is a 1'-6" safety walk on the north side and a 3'-0" safety walk on the south side. The total clear roadway width between the safety walk curbs is 34'-0", and the roadway pavement is concrete. The underside of the tunnel exhibited significant concrete spalling areas, water infiltration between the tunnel panel joint and minor efflorescence throughout the tunnel.

Inspection -

State Condition Rating – New York State Inspection Overview: General Recommendation 4.

Creighton Manning performed a cursory inspection of the tunnel on October 5th, 2022. The scope of this work was to visually inspect all interior tunnel surfaces. See Appendix D for details of this inspection.

The structure consists of a 516 ft long four-sided concrete box with panels +/- 25 ft long. As documented in the 2023 NYSDOT Inspection Report and the 2022 site visit, the panel joints are leaking at many locations. Due to leakage, the joints and immediate adjacent areas exhibit some or all of the following: active dripping, dampness, efflorescence, spalling with exposed rebar, and scattered isolated areas of hollowness upon hammer sounding at both the spalled areas, and un-spalled areas at the near vicinity of the joint. Two heavy-efflorescence vertical cracks are present at the end stem. There are larger spalls with de-bonded and corroded primary reinforcement due to water leakage from above, especially directly under 1st and 2nd Streets where road salt is accelerating the reinforcement deterioration. Where it is visible, typical reinforcement section loss is approximately 10% to 15%. Within the tunnel, the bottom slab roadway surface is structural and exhibits widespread areas of spalls and cracks that allow water and chloride infiltration causing deterioration of the primary reinforcement.

For additional information regarding the condition of the tunnel, see attached NYSDOT Biennial Bridge Inspection Report attached in Appendix D.

Restrictions –

The tunnel is not currently load or vertical height posted.

Waterway –

This project will not affect any waterways.

2.4.2 Hydraulic Considerations

This project will not affect any waterways; and therefore, has no hydraulic considerations.

2.5 Design Standards

The design criteria and applicable design standards for this project are based on Chapters 2 and 7 of the NYSDOT Highway Design Manual (HDM) and NYSDOT Bridge Manual (BM).

2.5.1 Critical Design Elements

Exhibit 2.8-A Critical Design Elements for Congress Street (NY Route 2)				
PIN	1761.61	**BIN** (if applicable)		N/A
Functional Class:	Urban Principal Arterial - Other	**NHS**	X	**Non-NHS**
Design Class:	Arterial	**Context Class:**		Urban
Project Type:	Complete Streets/ Intersection Reconstruction	**Terrain:**		Rolling
Design Year AADT (ETC +10):	7060	**Percentage of Trucks:**		5%
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High

	Element	**Standard**	**Existing Condition**	**Proposed Condition[2]**
1	Design Speed	30 - 45 mph[1] HDM Section 2.7.2.4 A	30 mph (posted) 25 mph (85th)	30 mph
2	Lane Width	11 ft Min.; 12 ft Desirable HDM Section 2.7.2.4 B Exhibit 2-4a	Varies (12 ft to 13'-6")	Varies (12 ft to 14 ft)
3	Shoulder Width	0 ft. Min. to 4 ft. Desirable HDM Section 2.7.2.4 C Exhibit 2-4a	0 ft	0 ft
4	Horizontal Curve Radius	250 ft. Min (at e_{max}= 4%) HDM Section 2.7.2.4 D Exhibit 2-4a	>500 ft	>500 ft
5	Superelevation	e_{max} = 4% HDM Section 2.7.2.4 E Exhibit 2-1B	4%	4%
6	Stopping Sight Distance (Horizontal and Vertical)	200 ft. Min. HDM Section 2.7.2.4 F Exhibit 2-4a	> 200 ft	> 200 ft
7	Maximum Grade	9% HDM Section 2.7.2.4 G Exhibit 2-4a	10%**	10%**
8	Cross Slope	1.5% Min. to 2.5% Max. HDM Section 2.7.2.4 H	2%	2%
9	Vertical Clearance	14 ft Min.; 14'-6" Desirable BM Section 2.3.1, Table 2-2	> 14 ft	> 14 ft
10	Design Loading Structural Capacity	NYSDOT LRFD Inventory Rating Factor ≥ 1.2 HDM Section 19.5.3	N/A	N/A
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Exiting pedestrian facilities do not comply with HDM Chapter 18	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:
1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.
2 ** Denotes non-standard feature
3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 2.8-B
Critical Design Elements for Ferry Street (NY Route 2)

PIN	1761.61	**BIN** (if applicable)		1007570 & 1054320	
Functional Class:	Urban Principal Arterial - Other	**NHS**	X	**Non-NHS**	
Design Class:	Arterial	**Context Class:**		Urban	
Project Type:	Complete Streets/Intersection Reconstruction	**Terrain:**		Rolling	
Design Year AADT (ETC +10):	7155	**Percentage of Trucks:**		5%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition
1	Design Speed	30 - 45 mph[1] HDM Section 2.7.2.4 A	30 mph (posted) 32 mph (85th)	30 mph
2	Lane Width	TL Min: 11 ft Desirable: 12 ft Turn Min: 11 ft Desirable: 12 ft HDM Section 2.7.2.4B Exhibit 2-4a	Varies 12 ft to 13.8 ft	Varies 12 ft to 13.8 ft
3	Shoulder Width	0 ft. Min. to 4 ft. Max. HDM Section 2.7.2.4C Exhibit 2-4a	Varies	Varies 0 ft to 4 ft
4	Horizontal Curve Radius	250 ft. Min (at e_{max}= 4%) HDM Section 2.7.2.4D Exhibit 2-4a	>410 ft	>410 ft
5	Superelevation	e_{max} = 4% HDM Section 2.7.2.4E Exhibit 2-1B	4%	4%
6	Stopping Sight Distance (Horizontal and Vertical)	200 ft. Min. HDM Section 2.7.2.4F Exhibit 2-4a	> 200 ft	> 200 ft
7	Maximum Grade	9% HDM Section 2.7.2.4G Exhibit 2-4a	8.8%	8.8%
8	Cross Slope	1.5% Min. to 2.5% Max. HDM Section 2.7.2.4H	2%	2%
9	Vertical Clearance	14 ft Min.; 14'-6" Desirable BM Section 2.3.1, Table 2-2	> 14 ft	> 14 ft
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.5 and 2.5.1	Unposted	HL-93 LL and NYSDOT Design Permit Vehicle w/ LRFR Load Rating 1.2 Minimum
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Exiting pedestrian facilities do not comply with HDM Chapter 18	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:
1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.
2 ** Denotes non-standard feature
3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 2.8-C
Critical Design Elements for River Street

PIN	1761.61	**BIN** (if applicable)	N/A
Functional Class:	Urban Minor Arterial	**NHS**	**Non-NHS** X
Design Class:	Arterial	**Context Class:**	Urban
Project Type:	Pedestrian Improvement	**Terrain:**	Flat
Design Year AADT (ETC +10):	8406	**Percentage of Trucks:**	4.0%
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**	No
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**	Low

	Element	Standard	Existing Condition	Proposed Condition
1	Design Speed	30 - 45 mph[1] HDM Section 2.7.2.3A	30 mph	30 mph
2	Lane Width	TL Min: 11 ft Desirable: 12 ft Turn Min: 11 ft Desirable: 12 ft HDM Section 2.7.2.3B Exhibit 2-4	Varies 14.6 ft to 31.7 ft	Travel: 11 ft to 12 ft Turn: 11 ft to 12 ft
3	Shoulder Width	0 ft. Min. to 4 ft. Max. HDM Section 2.7.2.3C Exhibit 2-4	2 ft	1 ft
4	Horizontal Curve Radius	188 ft. Min (at e_{max}= 4%) HDM Section 2.7.2.3D Exhibit 2-4a	>188 ft	480 ft
5	Superelevation	e_{max} = 4% HDM Section 2.7.2.3E Exhibit 2-1B	< 4%	Normal Crown
6	Stopping Sight Distance (Horizontal and Vertical)	165 ft. Min. HDM Section 2.7.2.3F Exhibit 2-4	> 175 ft	> 175 ft
7	Maximum Grade	7% HDM Section 2.7.2.3G Exhibit 2-4a	6%	6%
8	Cross Slope	1.5% Min. to 3.0% Max. HDM Section 2.7.2.3H	2%	2%
9	Vertical Clearance	16 ft. Min BM Section 2.3.1, Table 2-2	N/A	N/A
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.5 and 2.5.1	Unposted	HL-93 LL and NYSDOT Design Permit Vehicle w/ LRFR Load Rating 1.2 Minimum
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Exiting pedestrian facilities do not comply with HDM Chapter 18	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:
1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.
2 ** Denotes non-standard feature
3 Refer to Section 2.3.5 for detailed pedestrian facility information.

2.5.2 Other Design Parameters

Exhibit 2-9 Other Design Parameters			
Element	**Parameter**	**Existing Conditions**	**Proposed Condition**
Level of Service	LOS D	LOS C	LOS D
Drainage Design Storm	Storm Drainage Systems – 10-year	N/A	10-year & 5-year storm events

Exhibit 2-10 Other Design Parameter: Design Vehicle		
Location	**Design Vehicle**	**Vehicle Accommodated**
Congress & Ferry Streets (NY Route 2)	WB-67	WB-67
River Street (north of intersection)	WB-67	WB-67
River Street (south of intersection)	WB-40	WB-40

Exhibit 2-11 Primary Design Values for Paved Shared-Use Path			
Element	**Standard Value**	**Source**[1]	**Proposed Value**
Design Speed	20 mph	AASHTO	20 mph
Shared Use Width	10 ft min.	AASHTO	VARIES 10-12 FT
Adjacent Graded Width	2 ft min.	AASHTO	2 FT
	1:6 max. cross slope		1.5%
Maximum Grade	5% max. or match grade of adjacent roadway	AASHTO	<5%
Cross Slope	2% max.	HDM Chapter 18	1.5%
Horizontal Curvature	74 ft min.	AASHTO	N/A
Stopping Sight Distance	195 ft min.	AASHTO	>195 FT
Horizontal Sight Distance	56 ft min.	AASHTO	>56 FT
Crest Vertical Curve	423 ft min.	AASHTO	N/A
Horizontal Clearance	2 ft min.	AASHTO	2 FT
Vertical Clearance	10 ft min.	AASHTO	>10FT
Tunnel Path Width	12 ft min. clear width	BM Table 2-1	12 FT
Separation from Roadways	5 ft min. from face of curb or edge of shoulder	AASHTO	>5FT

1. 2012 AASHTO Guide for the Development of Bicycle Facilities

2.5.3 Existing and Proposed Highway/Tunnel Plan and Section

See Typical Sections and Plans in Appendix A.

2.5.4 Nonstandard/Nonconforming Features

The following non-standard features are proposed to be retained:

Congress Street (NY Route 2)

Maximum Grade
The existing grades along Congress Street between 6th and 11th Streets and Front Street and River Street are 10% and the recommended maximum design standard is 9% based on the Design Criteria Table. This project is a complete streets project along Congress Street, and any adjustments to existing roadway grades along Congress Street are beyond the scope of the project and not proposed as part of this project. In particular, this section of roadway is slated to be milled resurfaced with pedestrian and bicycle accommodations only. As such, this existing non-standard feature is proposed to be retained.

Due to the significant existing grades, there are multiple curb ramps along the corridor that will be constructed in a non-standard format with the running slope of the ramps being over the acceptable value of 8.33%. Consistent with ADA, the ramps will be extended to 15 feet in length and the grades set accordingly. Copies of the non-standard pedestrian feature justification forms are included in Appendix F.

2.6 Other Infrastructure Considerations

2.6.1 Pavement and Shoulder Conditions

From site visits to the project location, the condition of the roadway appears to be in good to fair condition with minimal potholes and cracking throughout the corridor. More significant cracking is visible within the tunnel limits. This project includes the mill and fill of the existing pavement along Congress and Ferry Streets, full depth reconstruction of River Street to re-align the roadway and create new 4-way intersection, and full depth reconstruction to replace the concrete pavement within the tunnel.

2.6.2 Right of Way

No right of way acquisitions are anticipated with this project. The proposed intersection work to be completed on NYSDOT owned property will be completed under the NYSDOT Highway Work Permit review process. Driveway and grading releases will be obtained, where necessary, to complete driveway transitions and re-establish walkways.

2.6.3 Geotechnical

There are no special geotechnical concerns with the soils within the project area. The existing retaining walls along the on and off ramps will be partially removed to facilitate construction of the new intersection. New retaining walls are proposed on all four corners of the new intersection. On the western side of the intersection, the new retaining walls will tie into the existing retaining walls at the Congress Street bridge abutment.

2.6.4 Access Management

Access management shall be maintained throughout the duration of the project. Access to all residential driveways and businesses (existing and proposed) shall be maintained during construction.

2.6.5 Traffic Control Devices

There are twelve (12) signalized intersections and four (4) stop controlled intersections within the project limits:

- Signalized Intersections (proposed new signal)
  - Ferry Street at River Street
  - Congress Street at River Street
- Signalized Intersections (existing signal)
  - Ferry Street at 3rd St., 4th St., 5th Ave.
  - Congress Street at 1st St., 2nd St., 3rd St., 4th St., 5th Ave., 6th Ave., 8th St.
- Stop controlled
  - Ferry Street at 6th Ave. (stop controlled on 6th Ave.)
  - Congress Street at 7th St. (stop controlled on 7th St.)
  - Congress Street at 11th St. (stop controlled on 11th St.)
  - River Street at Division Street (4-way stop)

Proposed signals will be installed in accordance with NYSDOT standards and specifications. All existing signs will be field verified and any that are in poor condition shall be replaced. Any proposed signs will be installed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and the NYS Pedestrian Safety Action Plan (PSAP), when applicable.

2.6.6 Drainage Systems

The existing closed drainage system along Congress & Ferry will generally remain unchanged. Existing grates will be updated to bike safe versions as needed due to their location within the proposed bicycle lanes. The existing drainage pipes within the Ferry Street tunnel will be lined with a cured in place liner and the existing structures in the tunnel will be repaired as needed. The basins on the south side of the tunnel will be raised to match the proposed grade of the new multi-use path. The existing drainage system along the on and off ramps will remain, and the new proposed system will tie into the existing trunk line.

2.6.7 Utilities and Lighting

Exhibit - 2-12
Utilities

Owner	Type	Location/Side	Length	Condition/Conflict
National Grid	Gas	River Street, Congress Street, Ferry Street	Entire Corridor	Valve adjustments
City of Troy	Water	River Street, Congress Street, Ferry Street	Entire Corridor	Valve adjustment and possible conflicts with proposed retaining walls
Verizon	Underground Telephone	River Street	Entire Corridor	Possible relocations when constructing intersection and

Exhibit - 2-12 Utilities				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
				retaining walls
National Grid	Underground Electric/overhead electric	River Street Intersection	Various runs throughout the intersection	Relocations and removals when installing/removing existing lights and relocation of poles on River Street
Verizon/Charter	CATV	River Street Intersection	Various runs throughout the intersection	Drainage conflicts
Crown Castle/Century Link/NYS ITS	Fiber Optic	River Street Intersection	Various runs throughout the intersection	Possible relocations when constructing the intersection

Lighting design will be determined during the final design phase. The lighting of the intersection will match the decorative fixtures located throughout the city.

2.6.8 Guide Railing, Median/Roadside Barriers and Impact Attenuators

Exhibit 2-13 Proposed Location of Guide Railing, Median Barriers and Impact Attenuators			
Type	**Location**	**Side**	**Length (ft)**
Concrete Barrier	STA. F 14+37 TO STA. F 14+57	LT	20±
Guide Railing	STA. R 15+00 TO STA. R 16+31	LT	152±
Guide Railing	STA. R 15+25 TO STA. F 16+00	RT	278±
Guide Railing	STA. R 19+33 TO STA. R 20+50	LT	117±
Guide Railing	STA. F 16+03 TO STA. R 20+50	LT/RT	235±
Concrete Barrier	STA. F 16+00 TO STA. F 25+60	RT	960±
Pedestrian Railing/Noise Barrier	STA. F 16+00 TO STA. F 25+60	RT	960±
Pedestrian Railing	STA. F 24+14 TO STA. F 25+60	LT/RT	146±

2.6.9 Intelligent Transportation Systems (ITS)

Accessible Pedestrian Signals (APS) will be installed at both proposed Ferry Street/River Street and Congress Street/Driver Street intersections, including the replacement of any existing non-APS equipment. Non-intrusive detection (NID) systems (i.e. 360-Degee Video Detection Cameras), will be installed as well to replace the existing in-pavement vehicle detection. The cameras will be mounted to the proposed signal poles.

2.6.10 Landscape and Community Enhancement Considerations

The reduction in pavement areas from the on and off ramps at the Ferry Street/River Street intersection provides an opportunity for increased green space. Also, existing trees will be evaluated for removal due to sidewalk damage and/or repair. Replacement trees will be evaluated with acceptable alternatives.

2.7 Work Zone Safety and Mobility

2.7.1 Transportation Management Plan

The City has determined that the subject project is not significant per 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.

2.7.2 Proposed Work Zone Traffic Control

One lane of traffic will be maintained at all times with the exception of the intersection reconstruction and tunnel rehabilitation work. The intersection reconstruction will utilize the existing on and off ramps and staged construction with short-term detours to construct the intersection.

It is anticipated that several road closures will be required to progress the rehabilitation work for Ferry Street Tunnel. To make concrete repairs and to waterproof the top side of panel joints 4 and 18, excavation in the streets above will be required to access the top side. This will require the closure of 1st and 2nd streets in the construction area. Traffic will be maintained with a short-term detour to complete the work. The short-term detours will utilize existing City streets and are shown in Appendix A. Below the Ferry Street Tunnel, several concrete repairs are proposed to the underside of the roof slab, walls, and floor slab. To facilitate the proposed repairs, temporary shoring and the removal of tunnel and roadway elements may be required, causing disruption to traffic. A short-term closure of Ferry Street while maintaining traffic around the construction area with an offsite detour utilizing City streets is proposed. The timing of the closures of 1st and 2nd streets above and Ferry Street below will be evaluated in final design. The City has previously closed the Ferry Street Tunnel and detoured traffic to the south to allow the repair work to be completed. The same detour plan shall be used for this project and is located in Appendix A.

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

<u>Special Provisions</u>
Due to the close proximity to residences and a college, and the ability to maintain traffic with acceptable delays during the daylight hours, nighttime construction is not anticipated. The use of time-related provisions will be evaluated during final design. The work zone traffic control will need to be coordinated with local officials, residents, college and businesses.

2.8 Additional Considerations

2.8.1 Constructability Review

An initial constructability review was conducted, and no concerns were raised. A more in-depth constructability review will be held during final design. Work zone traffic control plans will be developed and incorporated in final design.

2.8.2 Ownership and Maintenance Jurisdiction

The roadway features along Ferry Street and Congress Street will remain owned by NYSDOT and maintained by the City of Troy. The Ferry Street tunnel and proposed multi-use path will continue to be owned and maintained by the City of Troy while the features along River Street will be maintained by the City of Troy. The proposed traffic signal will also be owned by the NYSDOT.

2.8.3 Miscellaneous Information

No other information.

CHAPTER 3 – SOCIAL, ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS

Refer to the Social, Economic and Environmental Resources Checklist (SEERC) included in Appendix B for information on all environmental issues for which the project was screened.

3.1 National Environmental Policy Act (NEPA)

Per the result of the Federal Environmental Approvals Worksheet (FEAW) provided in Appendix B, this project is being progressed as a NEPA Class II CE (Categorical Exclusion). Per the Federal Highway Administration's regulations in 23 CFR 771.117, this project qualifies as a Categorical Exclusion (CE) because the project is primarily a (c)(3) construction of bicycle and pedestrian lanes, paths, and facilities and (c)(26) "Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (including parking, weaving, turning, and climbing lanes), if the action meets the constraints in paragraph (e) and does not significantly impact the environment. In accordance with the NYSDOT/FHWA Programmatic Agreement Regarding Categorical Exclusions, and as documented in the FEAW in Appendix B, the NYSDOT will make the NEPA environmental determination.

3.1.1 NEPA Cooperating/Participating Agencies

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

New York State Department of Transportation
New York State Department of Environmental Conservation
New York State Department of State
New York State Office of Parks, Recreation and Historic Preservation
United States Federal Highway Administration
United States Fish and Wildlife Service
Rensselaer County
City of Troy

3.1.2 State Environmental Quality Review Act (SEQRA)

In accordance with 6 NYCRR, Part 617.5, of the "Official Compilation of Codes, Rules and Regulations of the State of New York", In accordance with 6 NYCRR, Part 617, the City of Troy is the State Environmental Quality Review Act (SEQRA) lead agency and has determined that this project qualifies as an Unlisted Action. SEQR Unlisted projects include all actions not identified as Type I or Type II actions. The project is subject to further SEQR review. A Short EAF is included in Appendix B.
The following Checklist(s) are attached:

☒ Federal Environmental Approvals Worksheet (FEAW)
☒ Social, Economic and Environmental Resources Checklist
☒ Capital Projects Complete Streets Checklist

3.2 Environmental Documentation

For topics checked yes on the Social, Economic, and Environmental Resources Checklist in Appendix B, resolution is as follows:

3.2.1 Comprehensive Plans and Zoning

The project objectives are consistent with the City of Troy Comprehensive Plan dated 2018 which includes goals of increasing the downtown population and activity, making the city center which encompasses the project area a livable and walkable district.

3.2.2 Community Cohesion

The project will not divide neighborhoods, isolate part of a neighborhood, generate new development or otherwise affect community cohesion. The project proposes to rehabilitate the existing Congress and Ferry Street roadways, by improving pedestrian and bicycle accommodations throughout the corridor, reconstruct the River Street and Ferry Street intersection, and rehabilitate the Ferry Street tunnel. Approximately 50% of pedestrian facilities (sidewalks and curb ramps) will be reconstructed to meet ADA requirements which will improve community cohesion and improve safety.

3.2.3 Impacts to Transportation Options: Transit, Walking, and Bicycling

There will be a permanent positive impact in the form of the reconstruction of pedestrian facilities and the potential addition of a separate bicycle lane which will improve pedestrian transportation options and improve safety.

3.2.4 Transit

Bus stops are located throughout the project area. Ferry and Congress Street are both two lane-one way streets, vehicular traffic control during construction will consist of one lane closures, on-site. In coordination with CDTA, existing bus stops were evaluated and a pair are being proposed for consolidation and a new Bus Rapid Transit and local route stop is proposed at the new River Street/Ferry Street intersection. Transit options in the project area will be coordinated during construction and will be improved post construction.

3.2.5 Walking

During construction sidewalks will be closed in areas of active work and pedestrian detours established on opposite sides of affected streets. There will be a permanent positive impact in the form of the addition of some new and rehabilitated sidewalks which will improve pedestrian transportation options and safety in the project area. Temporary pedestrian accommodations will not be required during construction.

3.2.6 School Districts, Recreational Areas, and Places of Worship

The proposed project is within the Troy City School District. Russell Sage College is located above and adjacent to Ferry Street and Rensselaer Polytechnic Institute is located adjacent to the project area. Sidewalks exist along the project corridor and are used by students from the adjacent neighborhoods. It is not expected that there would be any long-term adverse impacts to the school. During construction there may be delays for some motorists traveling through the corridor, and pedestrians will be routed around active construction areas. Any street closure detours will be coordinated around school schedules. This would be a temporary and relatively minor impact. In the long-term, the effects will be positive with improved road conditions, traffic flow, new curb ramps, curbs and sidewalks.

There are no recreational areas or places of worship in the project vicinity that will be impacted by the proposed project.

3.2.7 Effects to Local Business

The project is intended to rehabilitate the existing Congress and Ferry Street roadways, improve the pedestrian and bicycle accommodations throughout the corridor, reconstruct the River/Ferry Street intersection, and rehabilitate the Ferry Street tunnel. The Congress Street corridor has sixteen (16) commercial businesses in the project area. The River Street corridor has nine (9) commercial businesses, and the Ferry Street Corridor has five (5) commercial business in the project area. During construction, access to the businesses will be maintained. Although there is a minor reduction in parking capacity in the immediate downtown, the project will provide additional parking immediately adjacent to downtown to offset the reduction and provide an increase in capacity.

3.2.8 Impacts on Police, Fire Protection and Ambulance Access

The primary ambulance services, RPI Ambulance, Mohawk Ambulance Service, and Tri City Ambulette service the project area. The site is served by the City of Troy Police, the New York State Police and the Rensselaer County Sherif. Fire Protection is provided by the City of Troy Fire Department with stations to the north, south, and east of the project site. Temporary one-lane closures will be utilized during construction, and vehicular traffic will be occasionally limited to one lane, during construction. Police, ambulance and fire department response time to either side of the project site may be slightly delayed when the roadway is only open to one lane of traffic, however; significant adverse impacts to emergency services are not anticipated. Curb to curb widths have been maintained as 20-feet to support fire trucks. Prior to construction, coordination with local officials, schools, and emergency services will be necessary to ensure that delays due to construction activities are minimized.

3.2.9 Wetlands

After an in-office screening of the project area, there was no indication of the presence of wetland resources. The following mapping products and online resources were consulted:

USFWS National Wetland Inventory
NYSDEC Environmental Resource Mapper
USGS topographic maps
USDA Web Soil Survey

Based on a site visit on 10/5/2023, wetland habitats meeting the criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual are not located within the project's area of potential effect. Executive Order 11990 Protection of Wetlands does not apply to this project.

3.2.9.1 State Freshwater Wetlands

There are no NYSDEC regulated freshwater wetlands or regulated adjacent areas (100ft) within 500 feet of the project area, as per the NYSDEC Environmental Resource Mapper (ERM) and confirmed by a site visit. No further investigation is required.

3.2.9.2 Federal Jurisdiction Wetlands

The project site has been reviewed for wetlands in accordance with the criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual and the definition of Waters of the United States in 33 CFR 328. Federal jurisdictional wetlands are not present within the project limits as shown in the site location maps in Appendix B.

3.2.10 Surface Waters

As shown in Appendix B the following surface waterbody and water course exist adjacent to the project area:

Hudson River

3.2.10.1 Surface Water Classification Standards (NYSDEC)

Based upon a review of the NYSDEC GIS data maps for mapped streams, there are no surface waterways within the proposed project limits.

The project is not located within a TMDL Watershed.

3.2.10.2 Stream Bed and Bank Protection

The Hudson River is located adjacent to the project area, a NYSDEC Stream Disturbance permit is not required for this project, since no in-water work is proposed. Although a Stream Disturbance permit is not required, this project should not dimmish the water quality of the Hudson River. During construction, precautions should be taken to prevent contamination by silt, sediment, fuels, solvents, lubricants, or any other pollutants. Promptly after construction, care will be taken to stabilize all disturbed areas.

3.2.10.3 Impacts to Waters of the United States

The project activities do not involve excavation in or the discharge of dredged or fill material into Waters of the U.S. No permits under this section are anticipated.

3.2.11 Floodplains

Floodplain mapping exists for the project area and the project is located within the 1% annual chance of a floodplain (100-year floodplain) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Rensselaer County, New York, Panel 3606770003B dated 03/18/1980.
Compliance with Executive Order (EO) 11988, 23 CFR 650, Subpart A and 6 NYCRR Part 502 are required since the project is located within the 1% annual chance floodplain (100-year floodplain) of the

Hudson River. However, no fill is proposed within the floodplain, therefore, an encroachment does not exist.

3.2.12 Coastal Zones

3.2.12.1 State and Federal Coastal Areas

The proposed project is located within the state-designated Coastal Area, according to the NYSDOS Coastal Boundary Map. The proposed project is a SEQR Non-Type II action; therefore, the proposed project is subject to state coastal consistency review requirements.

The proposed project will utilize federal funds, and a federal consistency determination will be required from the NYSDOS regarding the release of federal funding in support of the proposed project.

It is anticipated that the proposed project will not require federal permits. A Federal Consistency Assessment Form (FCAF) will not be required to be completed and submitted to the NYSDOS for a federal consistency determination.

The proposed project is not located in or near a Coastal Erosion Hazard Area, according to NYSDEC's list of DEC Regulated CEHA Communities and Certified CEHA Communities.

The proposed project is not located in a Coastal Barrier Resource System, according to the USFWS CBRS Mapper.

A coastal consistency review was conducted, which included the assessment of effects of the proposed project and consistency with the 44 policies of the New York State Coastal Management Program (NYS CMP). The proposed project was found to be consistent with the policies of the NYS CMP.

A Federal Aid Notification (FAN) letter and a State Coastal Assessment Form (CAF) were submitted to the NYSDOS. The NYSDOS responded that they had no objection to the funding of the project. Their response is included in Appendix B.

3.2.13 Groundwater Resources, Aquifers, and Reservoirs

3.2.13.1 Aquifers

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. The proposed project is located within a Principal Aquifer Area. This project will take measures in design and construction to avoid, minimize or mitigate any possible adverse impacts to the aquifer. These measures are intended to minimize contamination from highway runoff and construction activities. Project activities will comply with the applicable standards in 6 NYCRR Part 703.

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.

3.2.13.2 Drinking Water Supply Wells (Public and Private Wells) and Reservoirs

There are no municipal drinking water wells, wellhead influence zones, or reservoirs within or near the project area, according to GIS data files, dated 2016 issued by the NYS Department of Environmental Conservation.

3.2.14 General Ecology and Wildlife Resources

3.2.14.1 Fish, Wildlife, and Waterfowl

A review of the project's area of potential effect indicates that there is not a special habitat or breeding area for certain species of plants or animals.

3.2.14.2 Endangered and Threatened Species

Following NYSDOT screening protocols, an official species list was created from the US Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) for this corridor enhancement project and is included in Appendix B. The project area was also screened using the New York State Department of Environmental Conservation's (NYSDEC) Environmental Resource Mapper (ERM).

According to the NYSDEC's Environmental Resources Mapper (ERM) a portion of the project site is located within an area with the potential to contain endangered or threatened plants or animals. NYSDEC's Full Environmental Assessment Form (EAF) Mapper indicates the Bald Eagle (*Haliaeetus leucocephalus*), a state threatened species and the Shortnose Sturgeon (*Acipenser brevirostrum*), a state-endangered species have the potential to occur within the project area.
According to the USFWS IPaC database, the Tricolored Bat (*Perimyotis subflavus*), a federally proposed endangered species and the Monarch Butterfly (*Danaus plexippus*) a federally proposed threatened species both have the potential to occur within the project area.

The nearest known hibernacula are located approximately 16 miles from the project site and there are no known maternity roost trees within the project area. Approximately 25 trees with a diameter at breast height (DBH) equal to or greater than 2 inches will be removed for the proposed project. Tree clearing will occur within the clearing window of November 1 to March 31. It was concluded that the project may affect but is unlikely to adversely affect the Tricolored Bat as the project's area of effect is limited to the areas immediately within and adjacent to the existing roadway right-of-way.

The Monarch Butterfly is a federally proposed threatened species. Twenty-five milkweed plants were identified in the project area. In a 12/31/2024 letter from FHWA-NY to the NYSDOT Environmental Science Bureau that covers all capital and local projects, the FHWA determined that projects classified as a Categorical Exclusion under NEPA will not jeopardize the continued existence of the monarch butterfly and therefore do not require conference with USFWS. The "no effect activity-based" box is checked on the attached ESA Transmittal Sheet with a determination of "No Jeopardy/No Conference Required"."

According to the USFWS, the Bald Eagle is not a Bird of Conservation Concern within the project area. Mapping data from the NYSDEC's 2000-2005 Breeding Bird Atlas Survey was evaluated, which indicated the Bald Eagle is known to be present in the vicinity of the project area. Although the Bald Eagle has been removed from the State and Federal endangered species lists, it is protected under the Bald and Golden Eagle Protection Act. There are potential nesting locations and White Pine trees in the vicinity of the project corridor. The project area is heavily trafficked by vehicles and pedestrians. On a site visit on 10/05/2023, a survey was conducted to identify the potential habitat and presence of Bald Eagles on the project site. During this survey there was no evidence of Bald Eagles on the project site and no suitable habitat was found. Therefore, these areas do not represent current or future suitable habitat and it was determined that the project will have no effect on the Bald Eagle; therefore, no further coordination with

NYSDEC for listed species is required.

A review of the NOAA EFH mapper revealed eleven (11) species could exist within the project impact area. The project location is adjacent to the Hudson River, a NYSDEC Class C stream. A site visit identified no streams that enter the Hudson River within the project area. Due to the absence of streams and no proposed in water work, a determination of "EFH Does Not Apply" has been indicated on the ESA/EFH Transmittal Sheet for EFH Resources. The ETS package, included in Appendix B has been submitted to NYSDOT and their findings/concurrence will be included upon receipt.

3.2.14.3 Invasive Species

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

3.2.15 Historic and Cultural Resources

3.2.15.1 National Heritage Areas Program

The proposed project is located within the Hudson-Mohawk Valley National Heritage Area, which is included in the National Park Service's National Heritage Areas. The project will be progressed to be consistent with the National Heritage Area Management Plans.

3.2.15.2 National Historic Preservation Act – Section 106

There are over 100 buildings within the project corridor that are listed on the National Register of Historic Places. The buildings consist of residential/apartment, academic, retail, and commercial uses, in addition to the Troy Public Library. In addition, the project area is within 90NR00989 and 15NR00044, the Central Troy Historic District and the Central Troy Historic District Boundary Expansion. The project is proposed to occur within the existing Right-of-Way with minor grading releases required. The existing corridor consists of roads and sidewalks. The Reasonable Alternative proposes the rehabilitation of the NY 2 Corridor, River/ Ferry Street intersection and the Ferry Street Tunnel by addressing the deficiencies in the current street design, and deficiencies in the current tunnel design. The project is intended to rehabilitate the existing Congress and Ferry St. roadways, improve the pedestrian and bicycle accommodations throughout the corridor, reconstruct the River St/Ferry St intersection, and rehabilitate the Ferry Street tunnel. These proposed corridor modifications are not anticipated to adversely affect the historic buildings or historic district listings or viewsheds.

Within the proposed project location, a new 4-way signalized intersection at River and Ferry Street will be installed to replace the existing ramp. Adjacent to this proposed intersection there is one property that is listed as eligible for inclusion on the National Register of Historic Places, The McKinstry Hall Courtyard is located within the Central Troy Historic District Boundary Expansion. Further investigation has shown that this proposed intersection improvement is not anticipated to adversely affect the courtyard as it is not visible from the courtyard.

3.2.15.3 Architectural Resources

The proposed project does not involve federally owned, jurisdictional or controlled property that is eligible for inclusion in the National Register of Historic Places; therefore, Section 110 does not apply.

3.2.15.4 Archaeological Resources

The proposed project will not require project activities within previously undisturbed areas that have the potential to contain archeological resources. Thus, a 4(f) evaluation will not be required for archaeological resources. A Project Submittal Package (PSP) was submitted to NYSDOT. NYSDOT/SHPO's Opinion of Effect will be included upon receipt.

3.2.15.5 Native American Involvement

The Department will be following Section 106 Process of the National Historic Preservation Act (36 CFR 800). This ensures compliance with the Archaeological Resources Protection Act.

3.2.16 Visual Resources

3.2.16.1 Effects Assessment

The corridor consists of commercial buildings, apartment buildings, and residential buildings all in close proximity to each other. The project corridor also includes sidewalks, roadways, a tunnel, and scattered trees/shrub plantings. The project activities will include the removal of approximately 25 trees due to their health or being overgrown and negatively affecting the sidewalk surface . All other tree work will involve selective branch trimming. Replacement trees will be provided to reestablish the tree-lined corridors.

There will be no impacts to the visual environment as the project consists of rehabilitation of existing sidewalks, streetscaping, and reconfigured intersections. The predominant viewer groups will be motorists, pedestrians and the area residents. The proposed project will be visually consistent with the existing project area with the addition of some curb bump-outs in existing intersections, reconfiguration of the River Street/Ferry Street intersection, adjustment of existing roadway lanes, and the introduction of additional of street plantings. From the perspective of the viewer groups, there should be a positive visual improvement with updated streets, sidewalks, and intersections.

3.2.17 Asbestos

3.2.17.1 Screening

An asbestos screening has been performed for this project which included a site walkover by a NYS Licensed Asbestos Inspector and it has been determined that there are three areas of potential asbestos material: 1) Bridge Sidewalks-Grey Expansion Joint, 2) Tunnel Curbs-Black Expansion Joint, and 3) Retaining Walls-Black Expansion Joint. An Asbestos Assessment was performed and is discussed below.

3.2.17.2 Assessment and Quantification

An asbestos assessment has been completed for this project by NYSDOL certified asbestos inspection staff. The results of this assessment included a site visit and sampling. No as-builts were available for review. The results of the consultant sampling indicate that none of the suspected materials are ACMs. A copy of the consultant sampling results will be kept in the project files and is available for review.

3.2.18 Hazardous Waste and Contaminated Materials

3.2.18.1 Screening and Site Assessment

A Hazardous Waste/Contaminated Materials Site Screening has been conducted 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. In addition, historic topographic maps, historic aerial photographs, Sanborn mapping and an EDR Radius Map Report have been reviewed.

The Hazardous Waste/Contaminated Materials Site Screening included a review of NYSDEC regulatory data files and a site 'walkover' on October 5, 2023. The site walkover did not identify any paint that should be tested for lead, it did however identify three materials that should be submitted for Polychlorinated Biphenyl (PCB) testing. The results of the PCB analysis indicated that PCBs were not detected in any of the materials. No other hazardous waste / contaminated materials were identified on the project site, however the EDR Radius Review resulted in several sites identified adjacent to the project site including USTs, spills, RCRA Generators and leaking tanks. All of the sites were small spills and are closed except for Niagara Mohawk Power Corp located in the east portion of the project area, another site as part of the Niagara Mohawk Power Corp also located in the east portion of the project area and a site associated with the Niagara Mohawk Power Corp in the north portion of the project area. These spills are associated with leaks from small quantity generators. The NYSDEC Environmental Assessment Form (EAF) also identified 3 (546031, V00482, C401074) DEC remediation sites within 2,000 ft of the project location, and 1 (546031) active DEC spill or remediation site near the project location. The majority of the project work will be within the top two feet of the subsurface. It is anticipated that shallow work does not have the potential to encounter impacted soils. Project work requiring deeper excavations, including drainage and other utility work has the potential to encounter impacted soils, especially considering the urban nature of the project location and the numerous adjacent spills and sites. The contractor for the project should be notified that the possibility to encounter impacted soils exists and if encountered, work should stop in the area and the soils should be tested before proceeding to determine whether further action or monitoring is required. Additional studies or investigations are not warranted, unless the project scope changes or right-of-way is proposed to be acquired.

3.3 Anticipated Permits/Certifications/Coordination

<u>Permits</u>

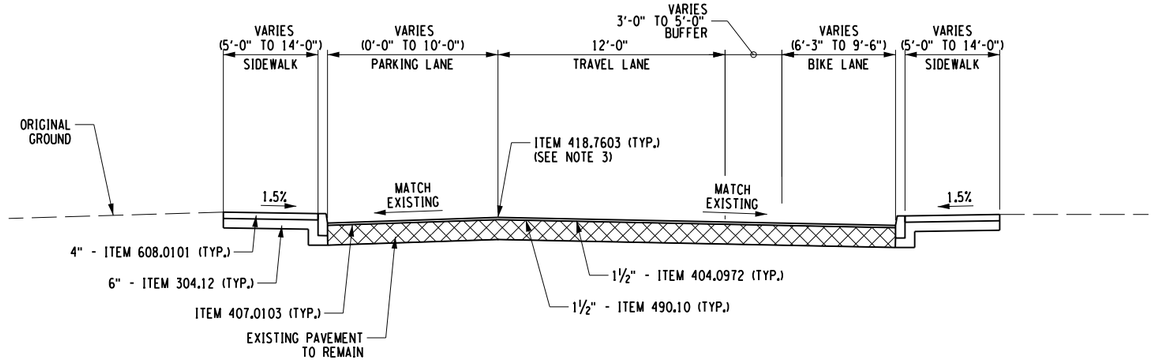
- NYSDOS Consistency Determination

<u>Coordination</u>

- New York State Department of Transportation (NYSDOT)
- New York State Department of Environmental Conservation (NYSDEC)
- New York Natural Heritage Program (NYNHP)
- New York State Historic Preservation Officer (SHPO)
- United States Fish and Wildlife Service (USFWS)
- New York State Department of State (NYSDOS)

APPENDICES

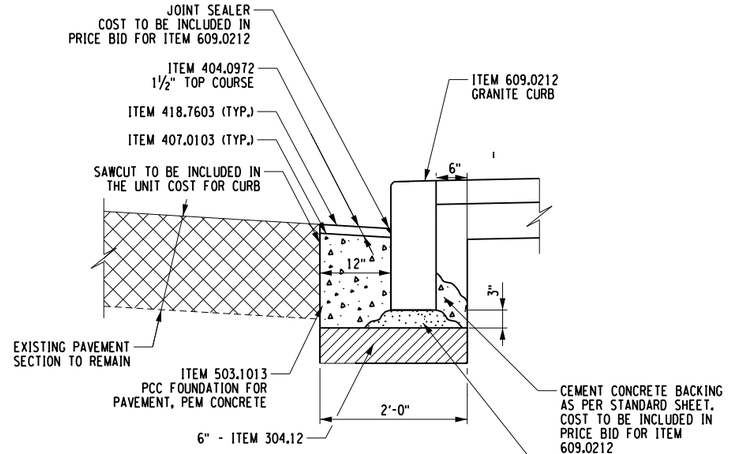
Appendix A – Plans & Typical Sections



TYPICAL SECTION - CONGRESS AND FERRY STREET MILL/FILL

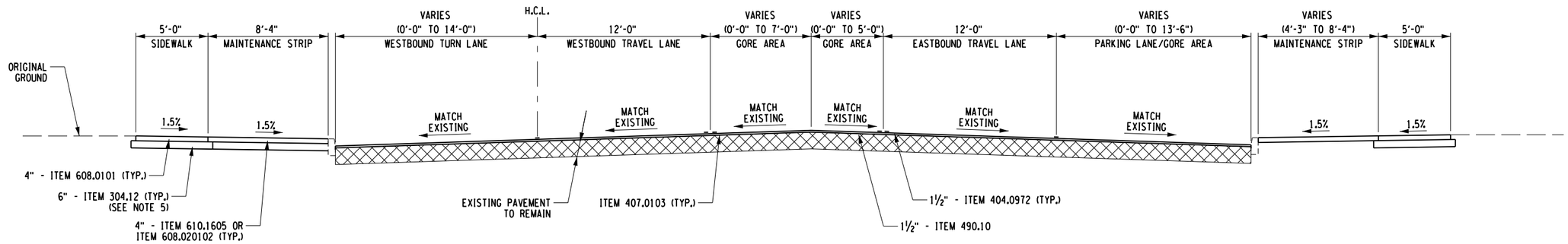
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STA. F 26+26 TO STA. F 32+50

(SEE NOTE 4)
(NOT TO SCALE)



VERTICAL CURB REPLACEMENT DETAIL

(NOT TO SCALE)



TYPICAL SECTION - 8TH STREET TO 11TH STREET MILL/FILL

STA. C 39+11 TO STA. C 46+97
(NOT TO SCALE)

ITEM NO.	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY
203.03	EMBANKMENT IN PLACE	CY
304.12	SUBBASE COURSE, TYPE II	CY
404.0972	9.5 F2 TOP COURSE ASPHALT, 70 SERIES COMPACTION	TON
407.0103	STRAIGHT TACK COAT	GAL
418.7603	ASPHALT PAVEMENT JOINT ADHESIVE	LF

ITEM NO.	DESCRIPTION	UNIT
490.10	PRODUCTION COLD MILLING OF BITUMINOUS CONCRETE	SY
503.1013	PCC FOUNDATION FOR PAVEMENT, PEN CONCRETE	CY
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS, AND VEGETATION CONTROL STRIPS	TON
609.0212	STONE CURB NEAR VERTICAL FACE (NVF)	LF
610.1605	TURF ESTABLISHMENT - PERFORMANCE	SY

NOTES:

1. TACK COAT SHALL BE APPLIED TO ALL SAWCUTS, ON EXISTING SURFACES, AND BETWEEN ALL PAVEMENT LIFTS.
2. GEOTEXTILE STABILIZATION FABRIC SHALL BE PLACED UNDER ALL PROPOSED ROADWAY SUBBASE.
3. ITEM 418.7603 ASPHALT PAVEMENT JOINT ADHESIVE SHALL BE APPLIED ON ALL VERTICAL FACES FOR ALL THE JOINTS ON THE SURFACE COURSE.
4. TYPICAL SECTION SHALL BE READ IN THE DIRECTION OF TRAVEL.
5. MAINTENANCE STRIPS AREAS WHERE GRASS IS NOT PRESENT WILL HAVE SUBBASE UNDERNEATH. AREAS WHERE GRASS IS PRESENT WILL HAVE PERFORMANCE TURF.

PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TYPICAL SECTION

CONTRACT NUMBER
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SHEET NO. XXX

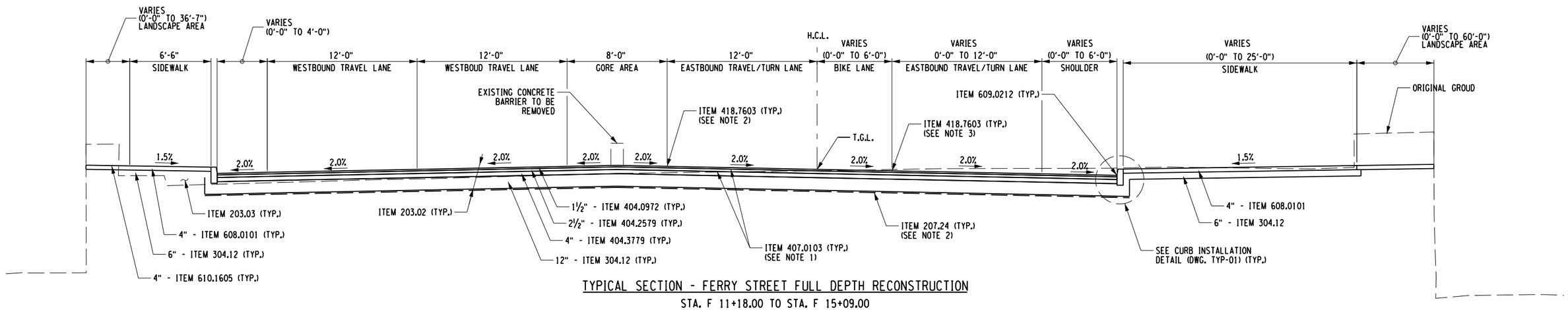
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT,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

Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SMERE
CHECK M. MCKENNA
DRAFTING K. DETRICK
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

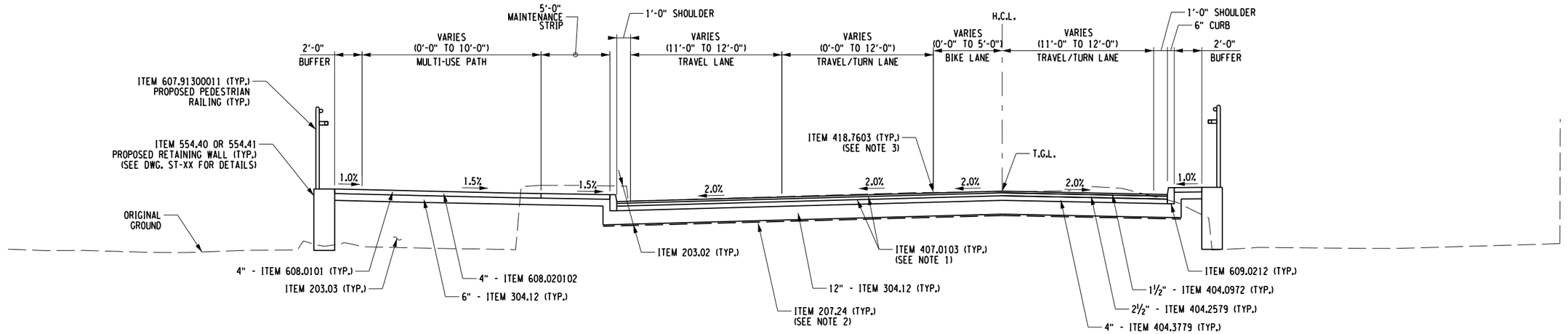
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TYPICAL SECTION - FERRY STREET FULL DEPTH RECONSTRUCTION

STA. F 11+18.00 TO STA. F 15+09.00

(NOT TO SCALE)



TYPICAL SECTION - RIVER STREET FULL DEPTH RECONSTRUCTION

STA. R 13+85.00 TO STA. R 21+66.00

(NOT TO SCALE)

ITEM NO.	DESCRIPTION	UNIT	ITEM NO.	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	418.7603	ASPHALT PAVEMENT JOINT ADHESIVE	LF
203.03	EMBANKMENT IN PLACE	CY	554.40	FILL TYPE RETAINING WALL (0-6FT.)	SF
207.24	GEOTEXTILE STABILIZATION	SY	554.41	FILL TYPE RETAINING WALL (GREATER THAN 6 FT.-12 FT.)	SF
304.12	SUBBASE COURSE, TYPE II	CY	608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY
404.0972	9.5 F2 TOP COURSE ASPHALT 70 SERIES COMPACTION	TON	607.91300011	PEDESTRIAN BARRIER	LF
404.2579	25 F9 BINDER COURSE ASPHALT, 70 SERIES COMPACTION	TON	608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS, AND VEGETATION CONTROL STRIPS	TON
404.3779	37.5 F9 BASE COURSE ASPHALT, 70 SERIES COMPACTION	TON	609.0212	STONE CURB NEAR VERTICAL FACE (NVF)	LF
407.0103	STRAIGHT TACK COAT	GAL	610.1605	TURF ESTABLISHMENT - SEED MIX AS SPECIFIED	SY

NOTES:

1. TACK COAT SHALL BE APPLIED TO ALL SAWCUTS, ON EXISTING SURFACES, AND BETWEEN ALL PAVEMENT LIFTS.
2. GEOTEXTILE STABILIZATION FABRIC SHALL BE PLACED UNDER ALL PROPOSED ROADWAY SUBBASE.
3. ITEM 418.7603 ASPHALT PAVEMENT JOINT ADHESIVE SHALL BE APPLIED ON ALL VERTICAL FACES FOR ALL THE JOINTS ON THE SURFACE COURSE.

PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

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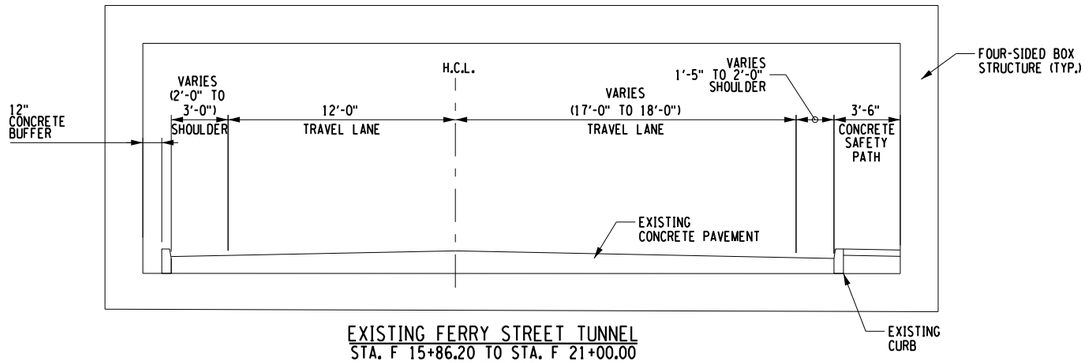
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Creighton Manning a GAI Company

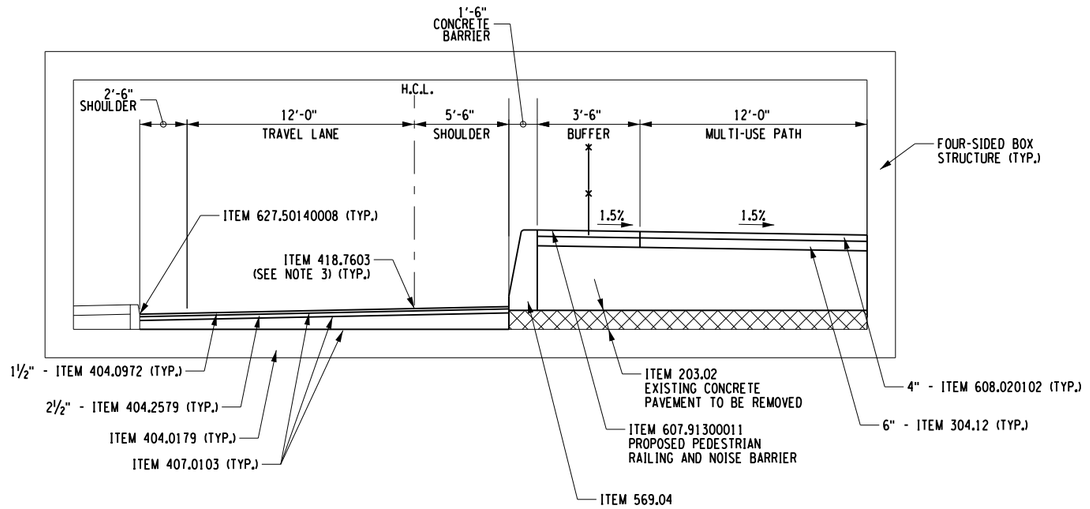
NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

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EXISTING FERRY STREET TUNNEL
STA. F 15+86.20 TO STA. F 21+00.00
(NOT TO SCALE)



PROPOSED FERRY STREET TUNNEL SECTION
STA. F 15+86.20 TO STA. F 21+00.00
(NOT TO SCALE)

ITEM NO.	DESCRIPTION	UNIT	ITEM NO.	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	569.04	SINGLE SLOPE (HALF SECTION) CONCRETE BRIDGE BARRIER	LF
203.03	EMBANKMENT IN PLACE	CY	607.91300011	PEDESTRIAN BARRIER	LF
304.12	SUBBASE COURSE, TYPE II	CY	608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS, AND VEGETATION CONTROL STRIPS	TON
404.0179	TRUING AND LEVELING F9 ASPHALT, 70 SERIES COMPACTION	TON	609.0212	STONE CURB NEAR VERTICAL FACE (NVF)	LF
404.0972	9.5 F2 TOP COURSE ASPHALT, 70 SERIES COMPACTION	TON	627.50140008	CUTTING PAVEMENT	LF
404.2579	25 F9 BINDER COURSE ASPHALT, 70 SERIES COMPACTION	TON			
407.0103	STRAIGHT TACK COAT	GAL			
418.7603	ASPHALT PAVEMENT JOINT ADHESIVE	LF			

NOTES:
1. TACK COAT SHALL BE APPLIED TO ALL SAWCUTS, ON EXISTING SURFACES, AND BETWEEN ALL PAVEMENT LIFTS.
2. GEOTEXTILE STABILIZATION FABRIC SHALL BE PLACED UNDER ALL PROPOSED ROADWAY SUBBASE.
3. ITEM 418.7603 ASPHALT PAVEMENT JOINT ADHESIVE SHALL BE APPLIED ON ALL VERTICAL FACES FOR ALL THE JOINTS ON THE SURFACE COURSE.
4. REFER TO DWG. NO. ST-XX FOR TUNNEL WALL DETAILS.

PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

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1054320

CULVERTS

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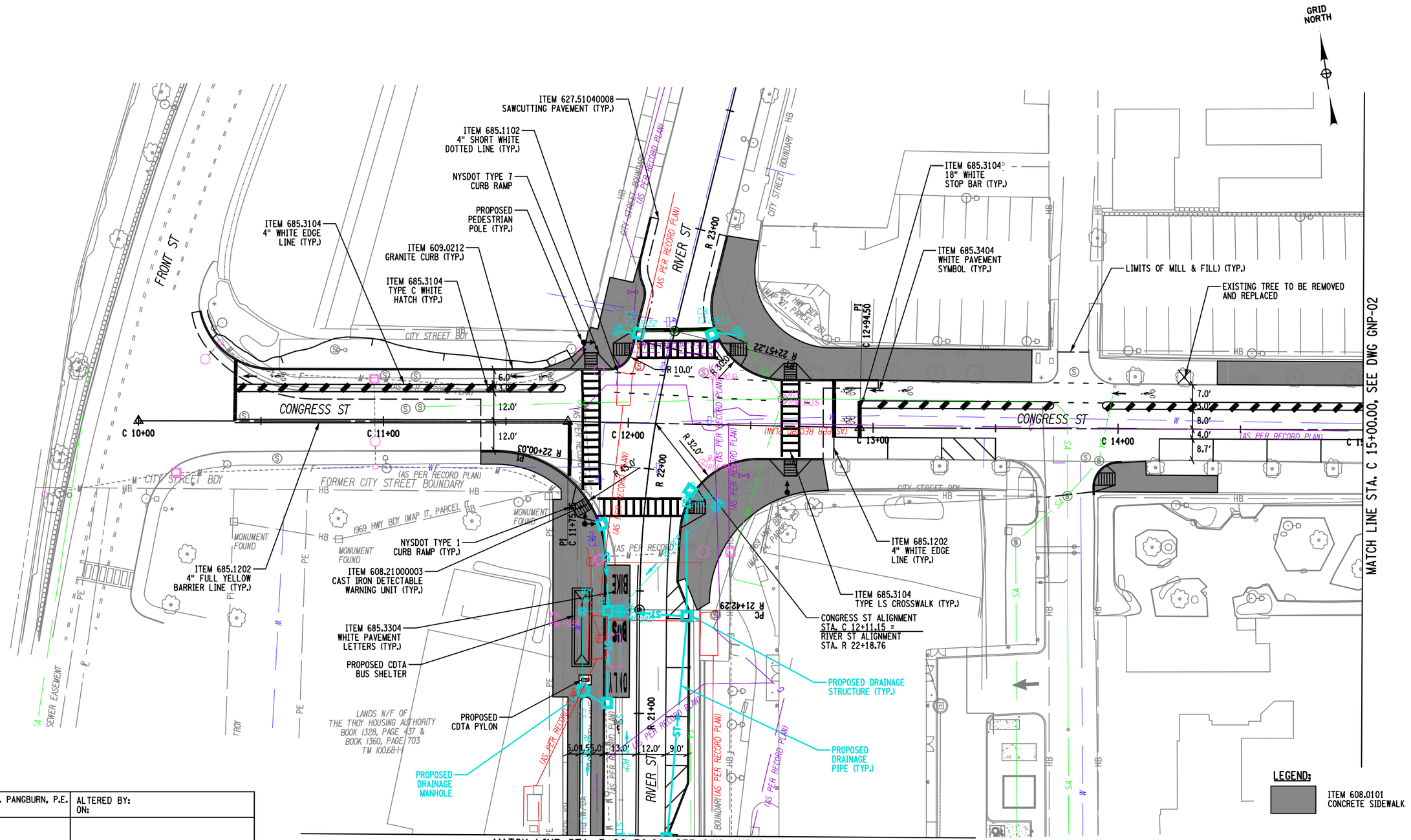
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT,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

Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Marking\CADD\dgn\176161_cph_typ_03.dgn
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PLOT = NYSDOT_CME_PDF.pltcfg



PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-01
SHEET NO.

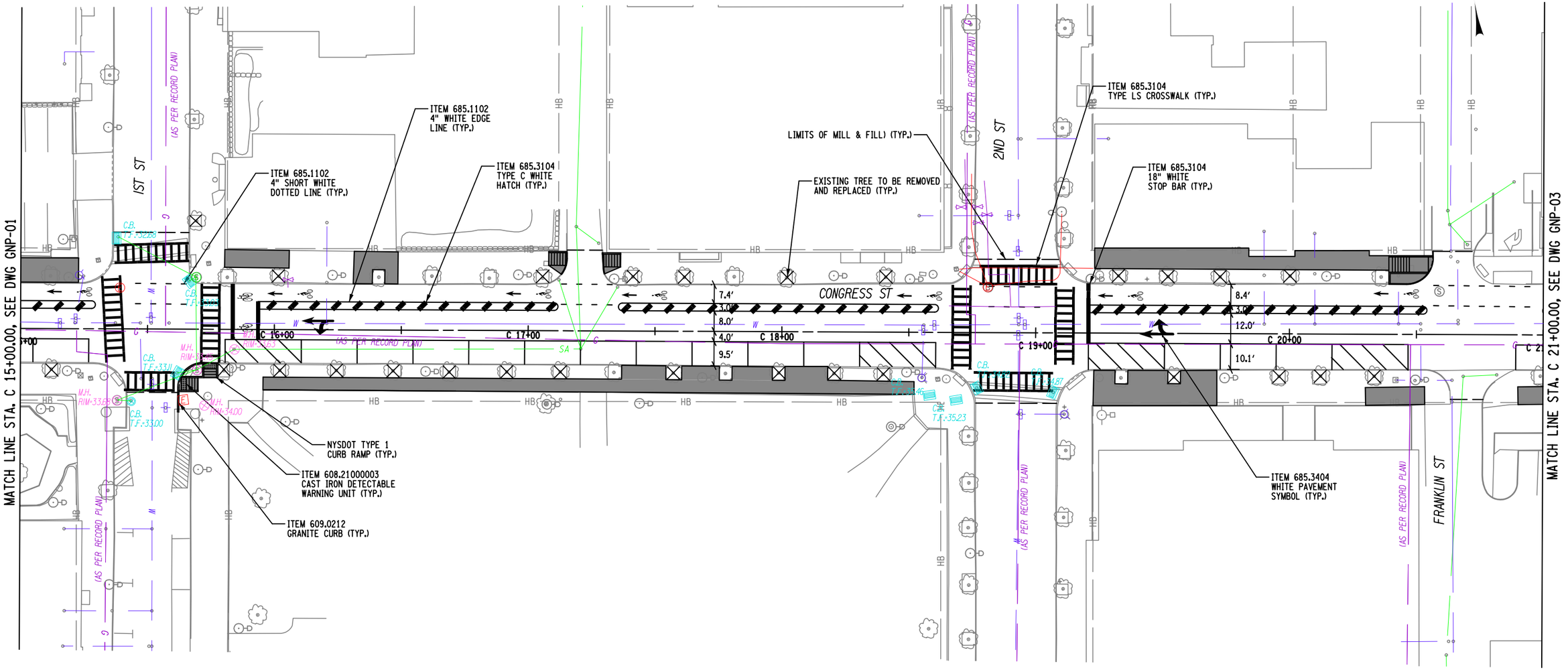
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DRAFTING K. DETRICK | CHECK M. MORRISSEY | DESIGN Z. SWERE | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

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PLOT = NYSDOT_CME_PDF.pltcfg



LEGEND:

ITEM 608.0101
CONCRETE SIDEWALK

20 0 20 40 60 80'

1" = 40'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

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SHEET NO.

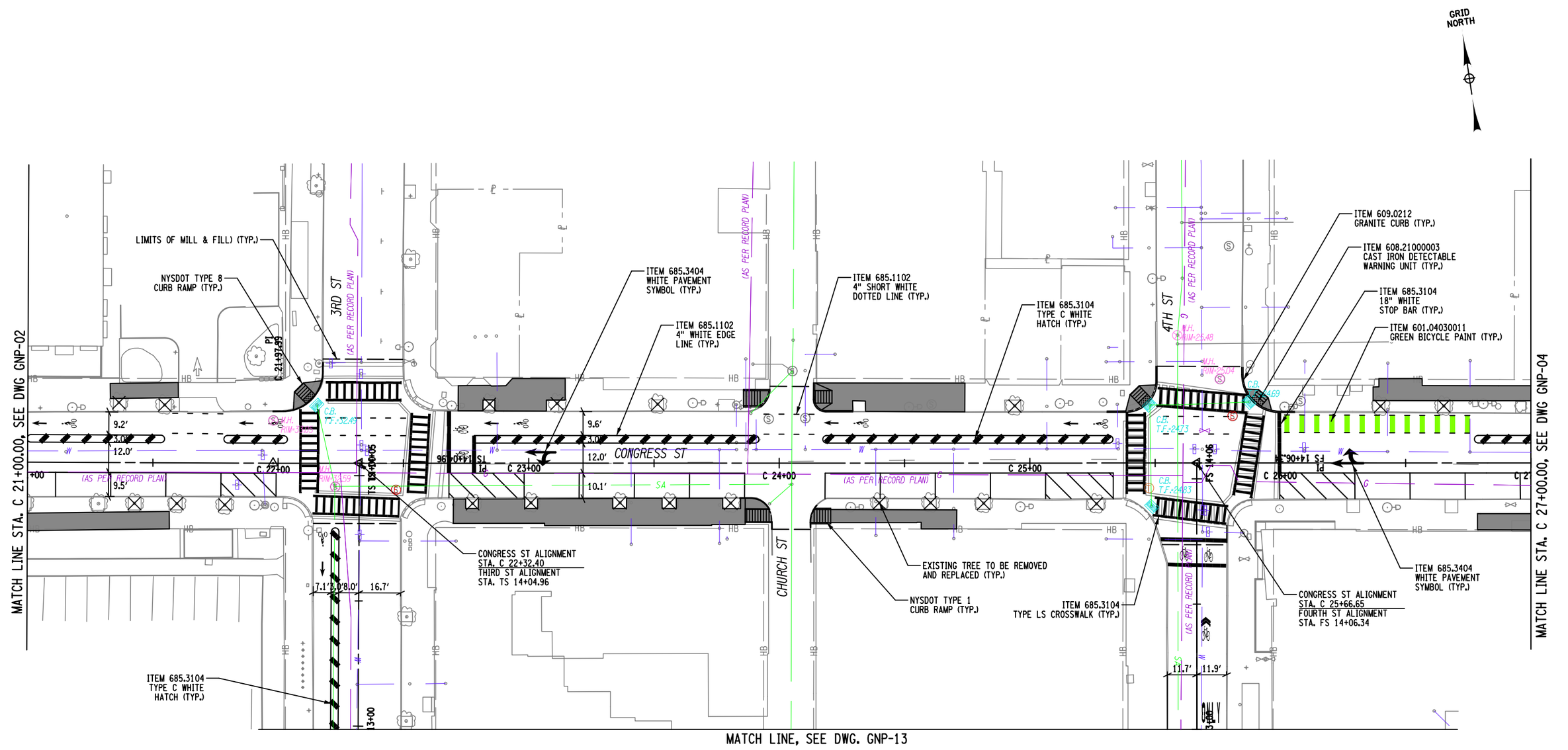
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Creighton Manning
a CGA Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

FILE NAME = N:\Projects\2021\121-298 Troy - Congress and Ferry\Working\CADD\dgn\17616l.cpb.gnp-02.dgn
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PLOT = NYSDOT_CME_PDF.pltcfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

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SHEET NO.

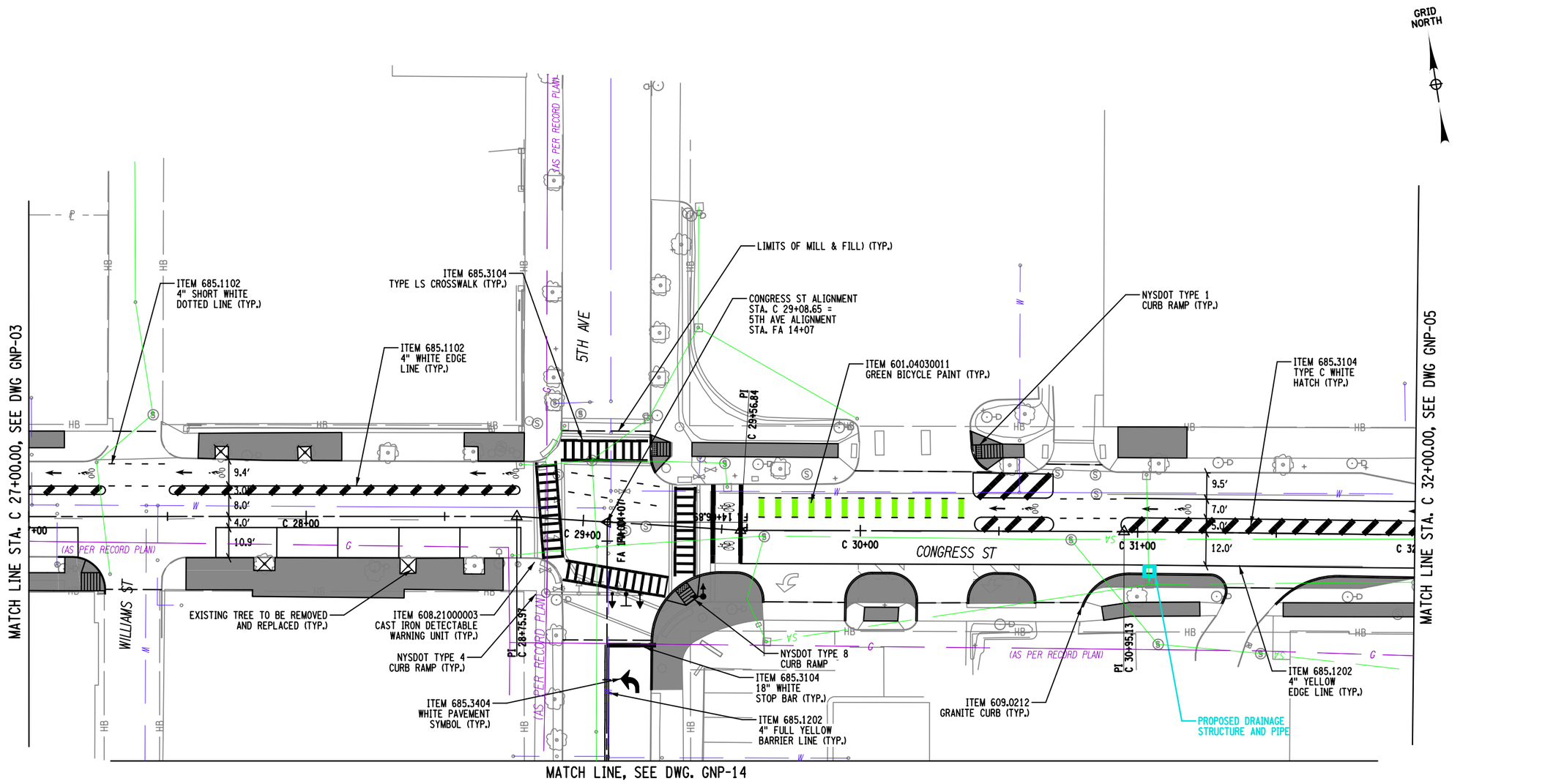
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MORRISSEY
DRAFTING K. DETRICK
CHECK M. MCKENNA
PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\176161_cpb_gnp-03.dgn
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PLOT = NYSDOT_CME_PDF.pltcfg



LEGEND:

ITEM 608.0101
CONCRETE SIDEWALK

20 0 20 40 60 80′

1" = 40′

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-04
SHEET NO.

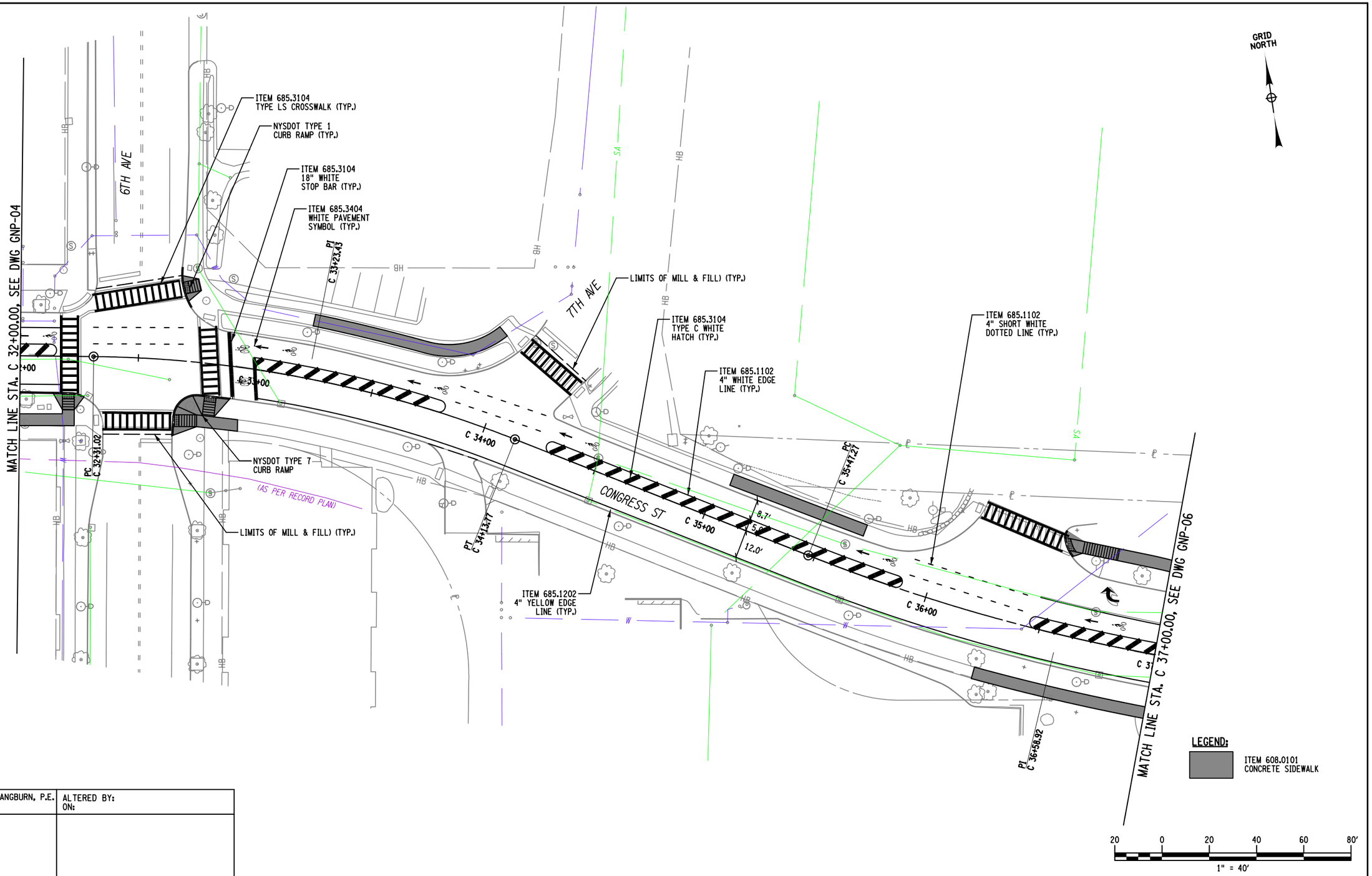
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Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SMERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\V1761L_cpb_gnp-04.dgn
DATE/TIME = 9/11/2025 9:33:07 AM
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PLOT = NYSDOT_CME_PDF.plt.cfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-05
SHEET NO.

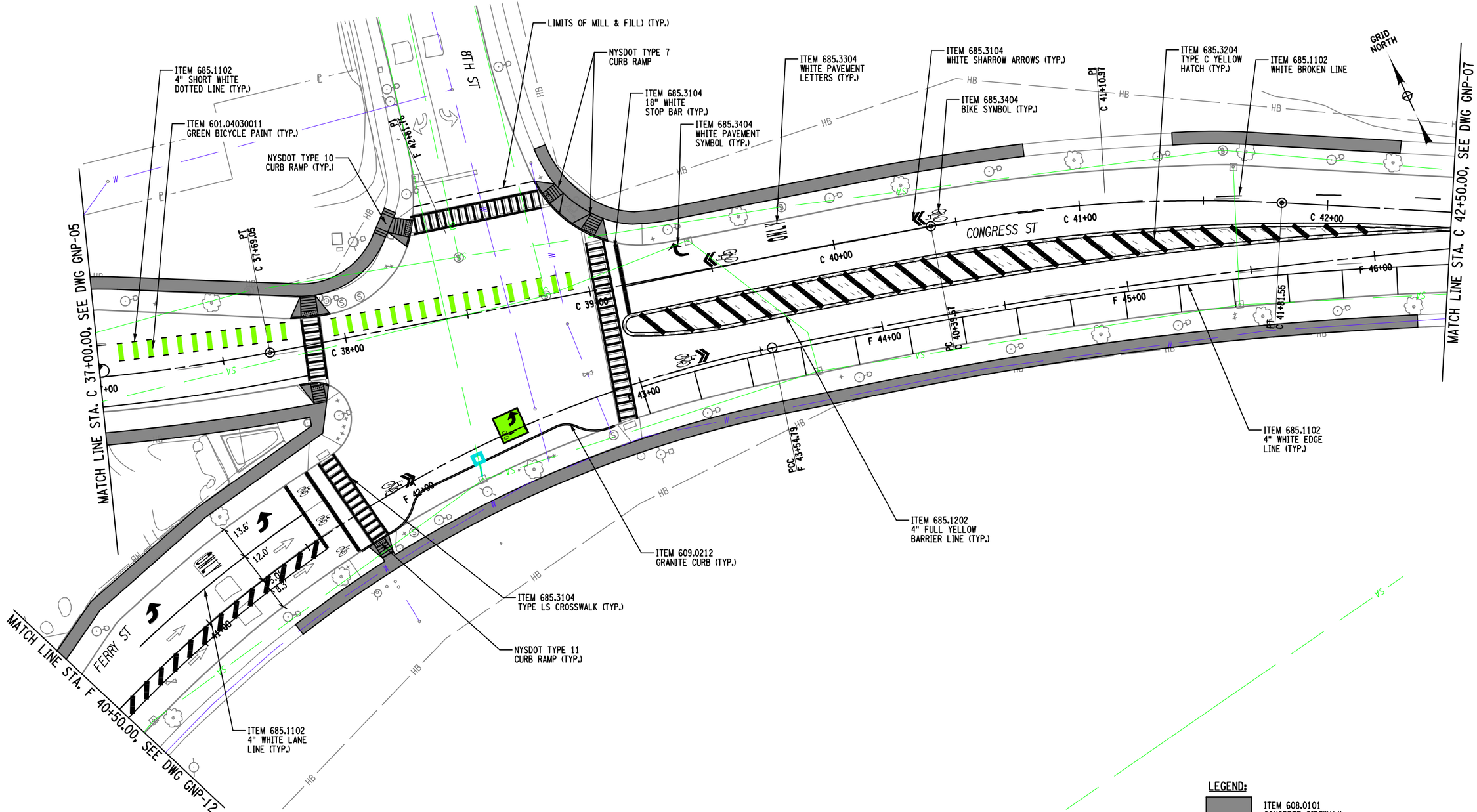
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SMERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\V1761_cpb_gnp-05.dgn
DATE/TIME = 9/11/2025 9:33:10 AM
USER = SwereZS
PLOT = NYSDOT_CME_PDF.pltcfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT COUNTY: RENSSELAER REGION: 1	PIN 1761.61	BRIDGES 1054320	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED GENERAL PLAN	CONTRACT NUMBER DXXXXXX DRAWING NO. GNP-06 SHEET NO.

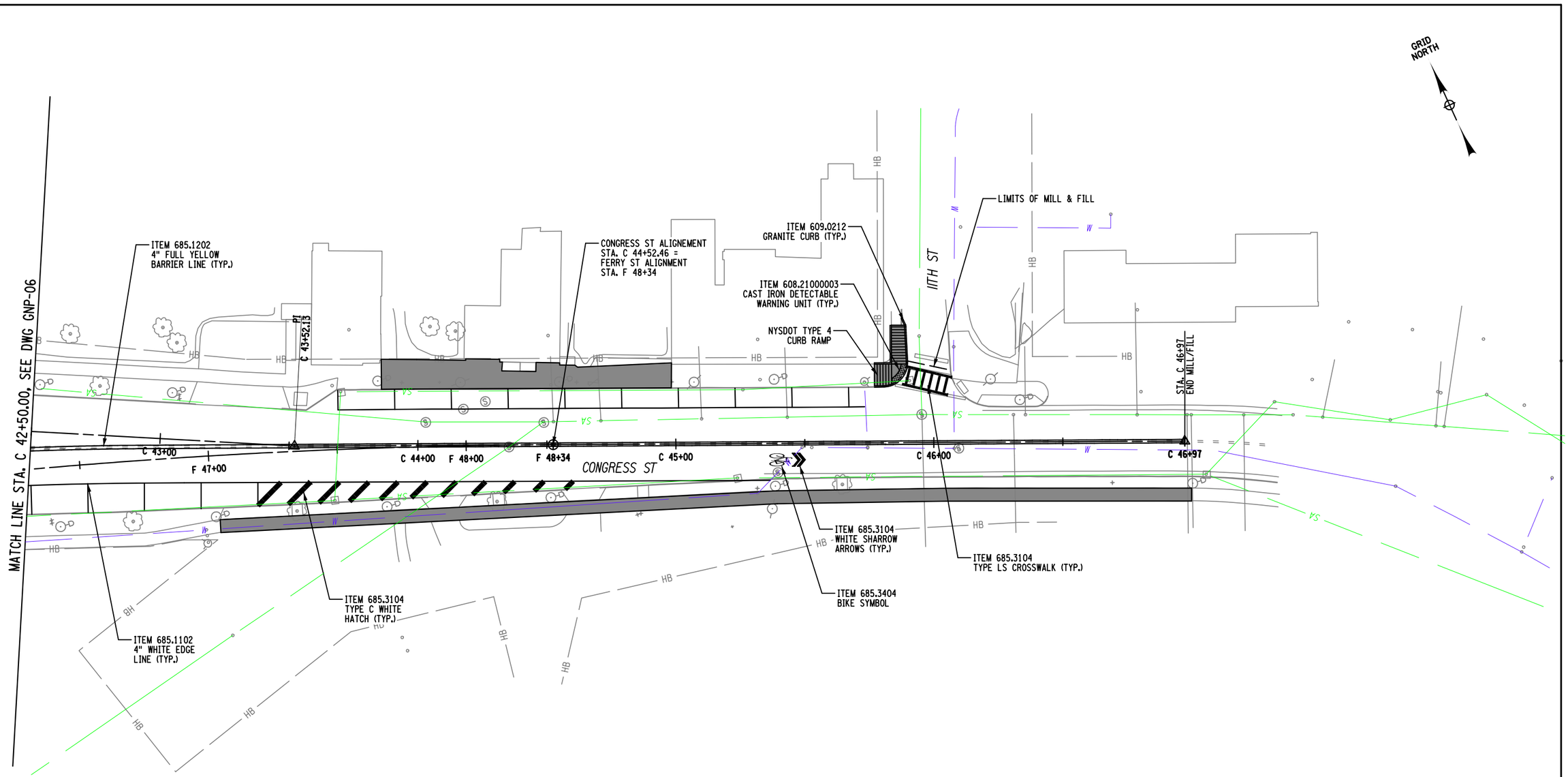
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NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\1761GL_opb_gnp-06.dgn
DATE/TIME = 9/11/2025 9:33:16 AM
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PLOT = NYSDOT_CME_PDF.plt.cfg



LEGEND:

ITEM 608.0101
CONCRETE SIDEWALK

20 0 20 40 60 80′

1" = 40′

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-07
SHEET NO.

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NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Marking\CADD\dgn\1761.61_gnp-07.dgn
DATE/TIME = 9/11/2025 9:33:19 AM
USER = SwereZS
PLOT = NYSDOT_CME_PDF.pltcfg



LEGEND:

ITEM 608.0101
CONCRETE SIDEWALK

20 0 20 40 60 80'
1" = 40'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

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GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-08A
SHEET NO.

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Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MCKENNA
DRAFTING K. DETRICK
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\1761l61_cpb_gnp-05A.dgn
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MATCH LINE STA. R 20+50.00, SEE DWG GNP-01

GRID NORTH

4" SHORT WHITE DOTTED LINE (TYP.)

ITEM 685.1102 4" WHITE LANE LINE (TYP.)

ITEMS 554.40 AND 554.41 PROPOSED RETAINING WALLS (TYP.)

REMOVE EXISTING RETAINING WALL

MATCH EXISTING

PROPOSED DRAINAGE MANHOLE

ITEM 608.21000003 CAST IRON DETECTABLE WARNING UNIT (TYP.)

NYSDOT TYPE 4 CURB RAMP (TYP.)

ITEM 685.3104 TYPE LS CROSSWALK (TYP.)

ITEM 685.3204 TYPE C YELLOW HATCH (TYP.)

ITEM 685.1102 4" WHITE EDGE LINE (TYP.)

ITEM 685.1102 WHITE BROKEN LINE (TYP.)

ITEM 606.3012 CONCRETE BARRIER TAPER SECTION

ITEM 609.0212 GRANITE CURB (TYP.)

ITEM 685.1202 4" YELLOW EDGE LINE (TYP.)

ITEM 601.04030011 GREEN BICYCLE PAINT (TYP.)

PROPOSED DRAINAGE PIPE (TYP.)

ITEM 685.1202 4" SHORT YELLOW DOTTED LINE (TYP.)

FERRY ST ALIGNMENT STA. F 13+33.15 = RIVER ST ALIGNMENT STA. R 18+11.44

PROPOSED TRAFFIC SIGNAL POLE AND MAST ARM (TYP.)

PROPOSED NOISE BARRIER PEDESTRIAN BIKE PATH

ALTER EXISTING BASIN (TYP.)

LINE EXISTING PIPE WITH CURE IN PLACE PIPE

ITEM 685.3104 18" WHITE STOP BAR (TYP.)

ITEM 685.3404 WHITE PAVEMENT SYMBOL (TYP.)

PROPOSED DRAINAGE STRUCTURE (TYP.)

ITEM 685.3304 WHITE PAVEMENT LETTERS (TYP.)

NYSDOT TYPE 1 CURB RAMP (TYP.)

PROPOSED PEDESTRIAN POLE (TYP.)

MATCH EXISTING

PROPOSED CDTA BUS SHELTER

REMOVE EXISTING RETAINING WALL

PROPOSED CDTA PYLON

CONGRESS ST BRIDGE

FERRY ST

CITY STREET BDY

& BULKHEAD LINE

LEGEND:

ITEM 608.0101 CONCRETE SIDEWALK

ITEM 608.020102 ASPHALT MULTI-USE PATH

ITEM 203.02 PROPOSED PAVEMENT REMOVAL

20 0 20 40 60 80'

1" = 40'

MATCH LINE STA. F 12+00.00, SEE DWG GNP-08A

MATCH LINE STA. F 18+00.00, SEE DWG GNP-09

MATCH LINE STA. R 17+00.00, SEE DWG GNP-16

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER DXXXXXX

DRAWING NO. GNP-08

SHEET NO.

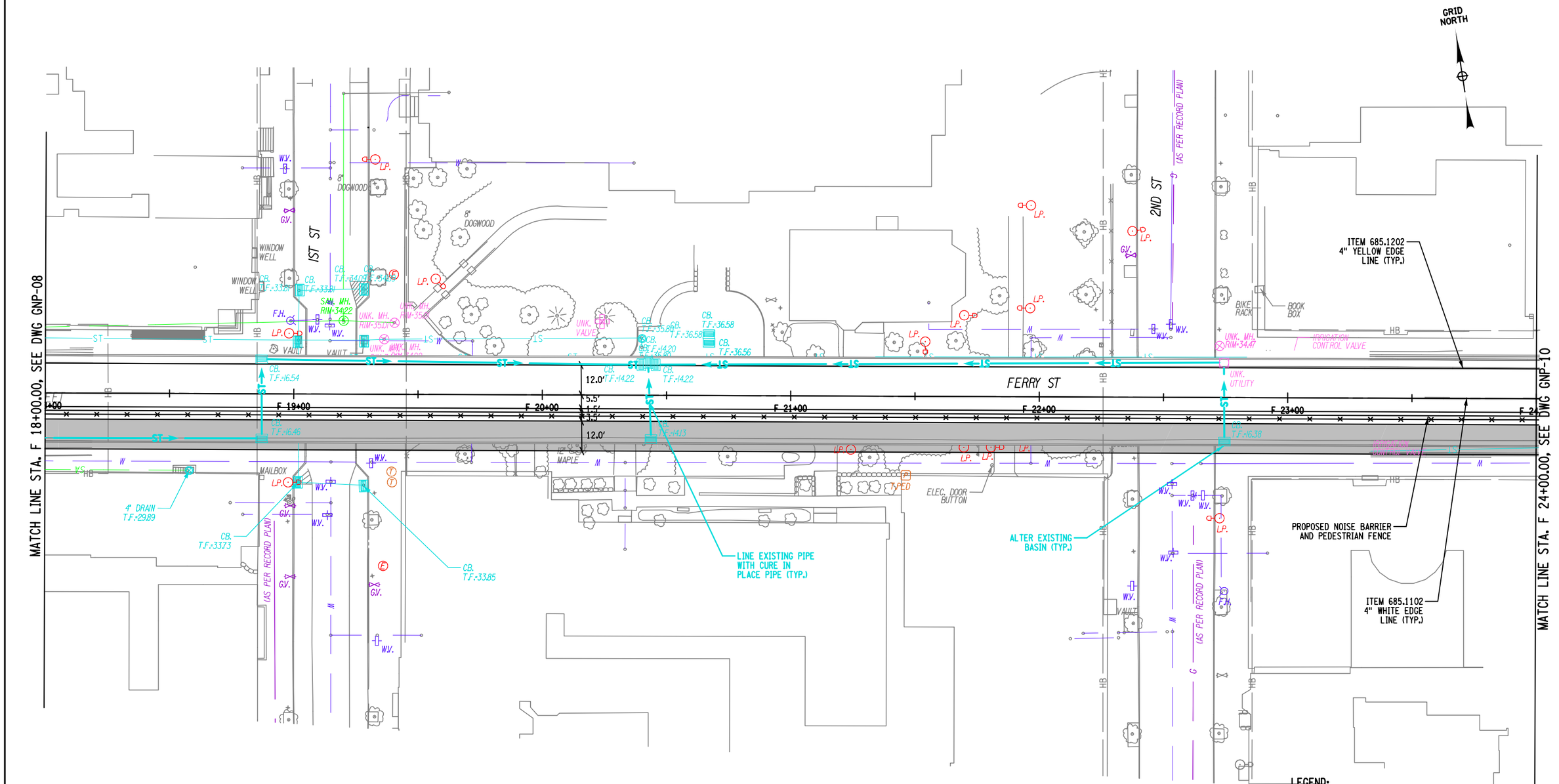
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\121-298 Troy - Congress and Ferry\Working\CADD\dgn\1761GL_cpb_gnp-08.dgn
DATE/TIME = 9/11/2025 9:33:32 AM
USER = SwereZS
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PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
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COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

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GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-09
SHEET NO.

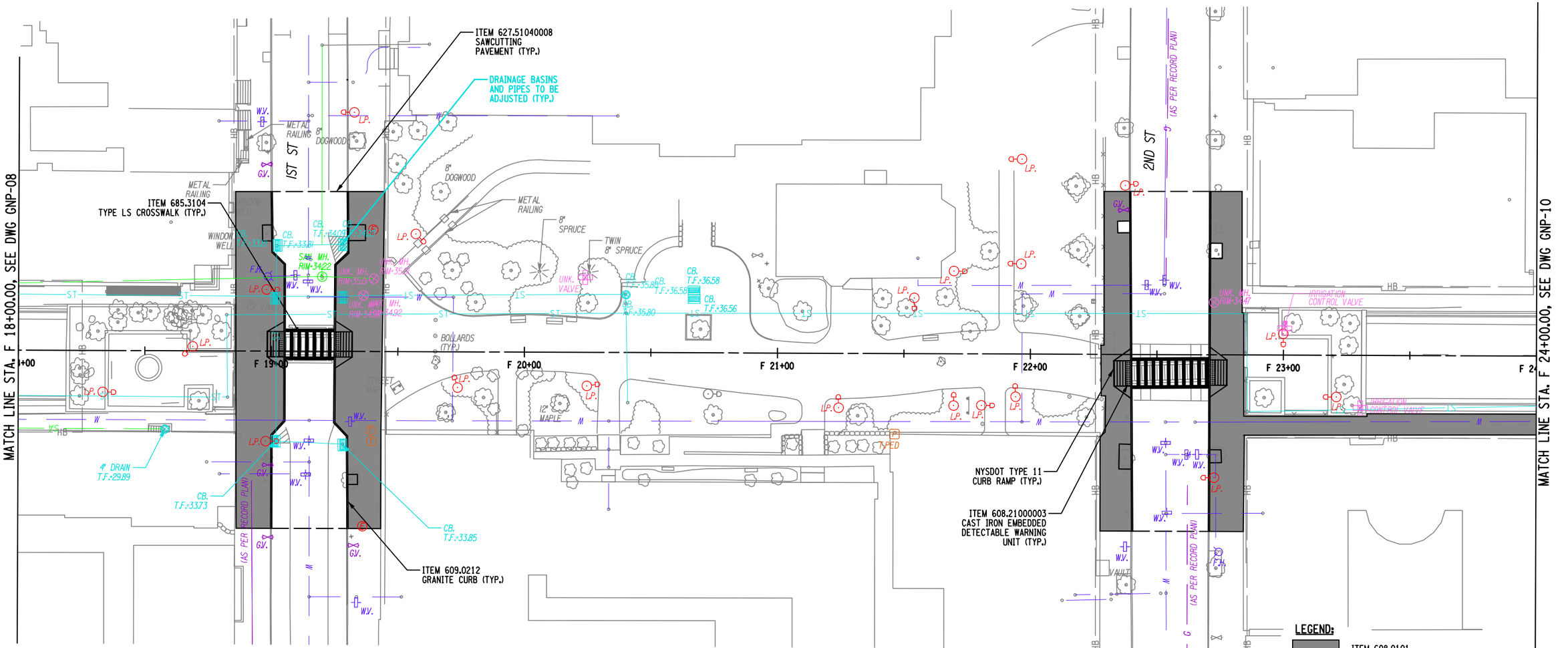
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JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MCKENNA
DRAFTING K. DETRICK
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\1761.61_opb_gnp-09.dgn
DATE/TIME = 9/11/2025 9:33:35 AM
USER = SwereZS
PLOT = NYSDOT_CME_PDF.pltcfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT	PIN 1761.61	BRIDGES 1054320	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED
COUNTY: RENSSELAER REGION: 1				GENERAL PLAN

CONTRACT NUMBER DXXXXXX
DRAWING NO. GNP-09A
SHEET NO.

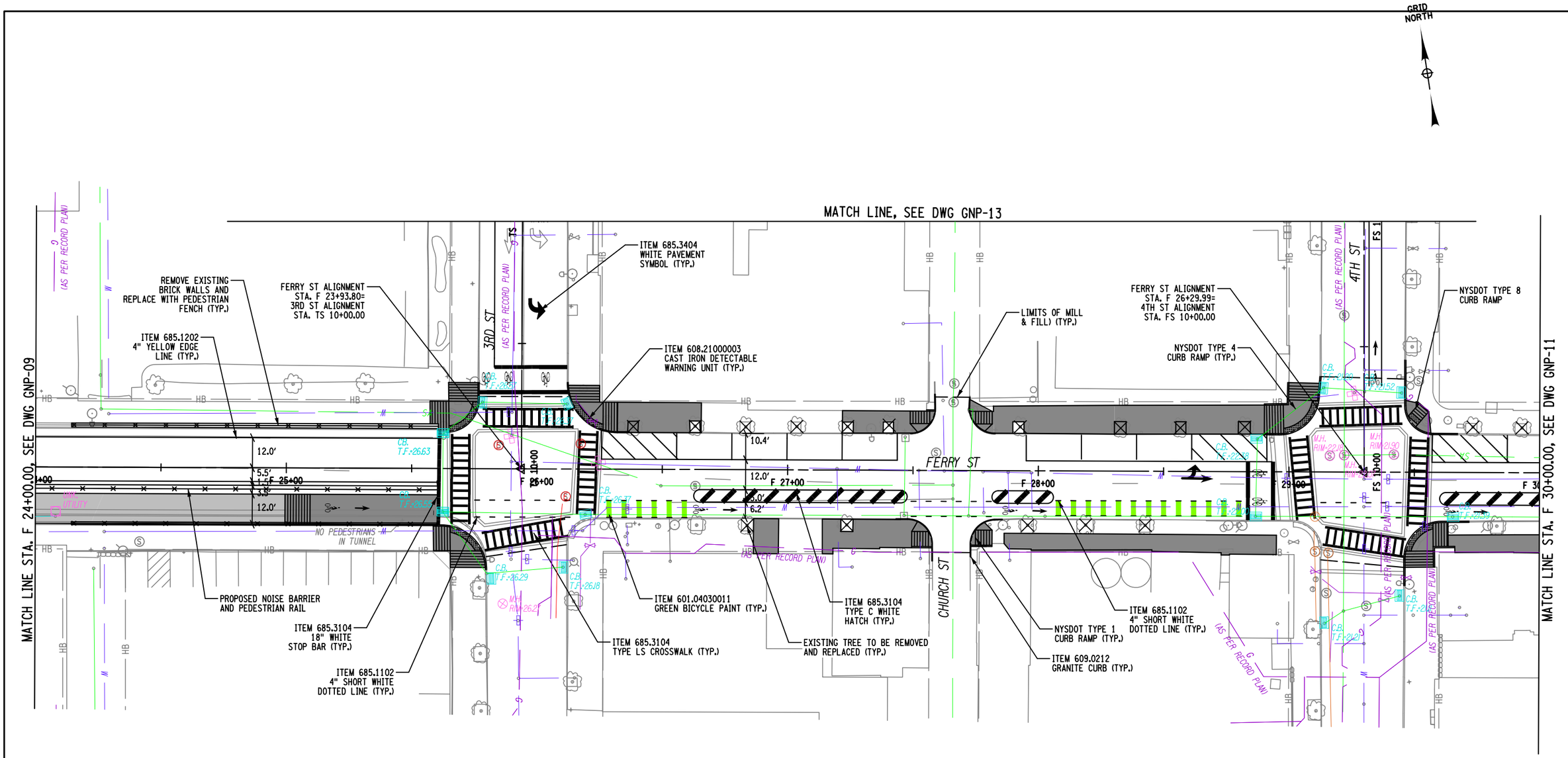
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT,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

Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

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PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER DXXXXXX

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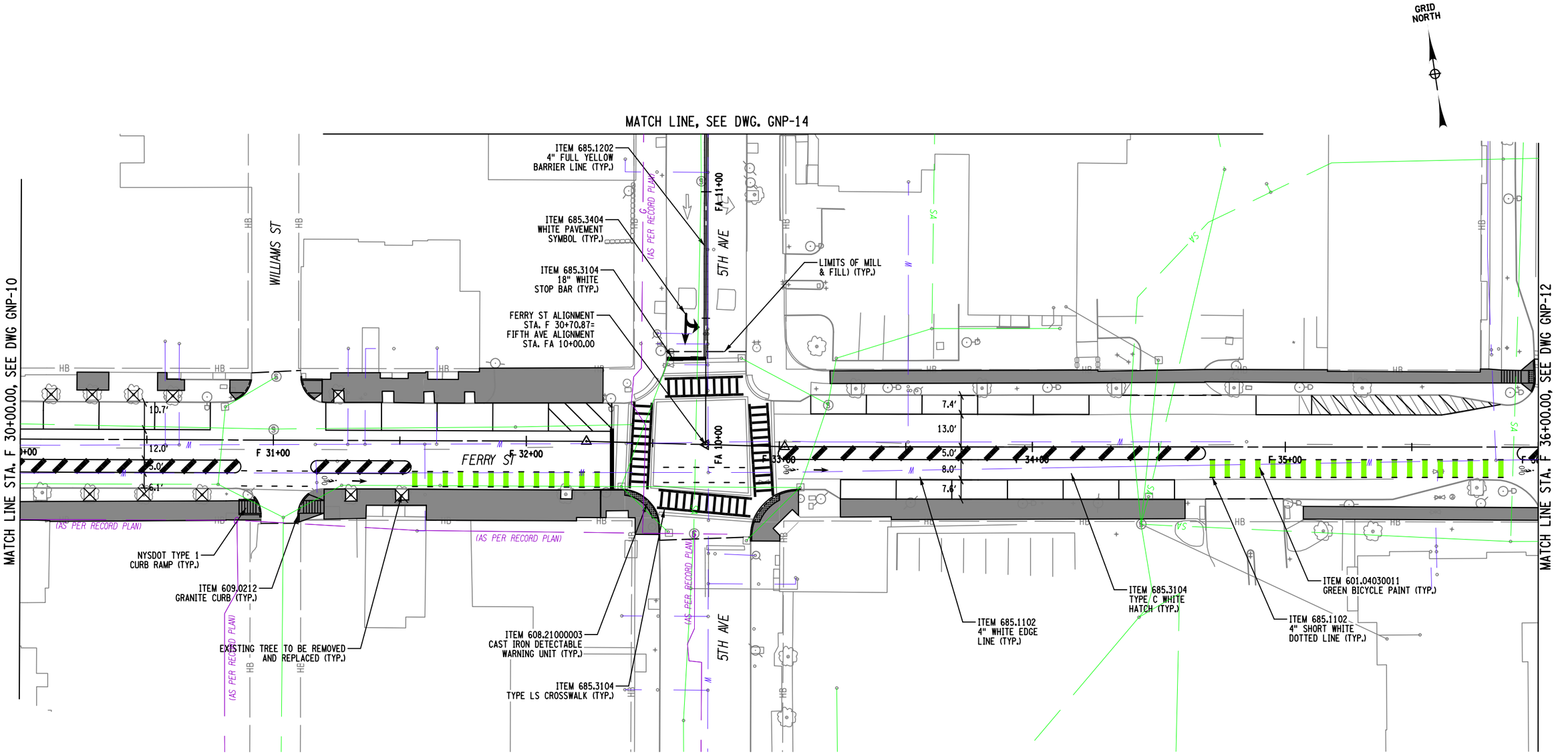
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Creighton Manning a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK
DRAFTING K. DETRICK
CHECK M. MCKENNA
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

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PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

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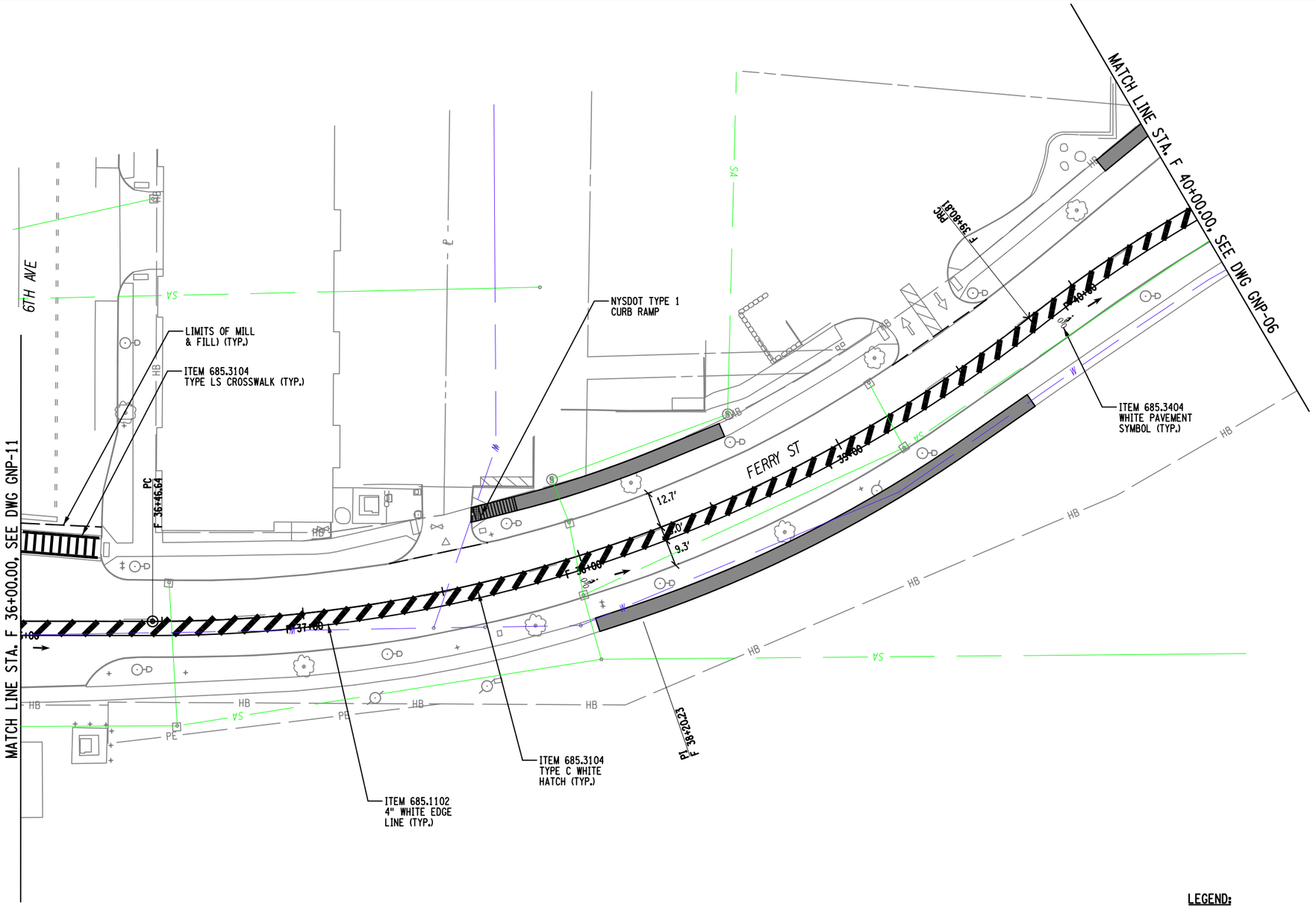
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MCKENNA
DRAFTING K. DETRICK
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

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LEGEND:

ITEM 608.0101
CONCRETE SIDEWALK

20 0 20 40 60 80′

1" = 40′

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-12
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.

Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

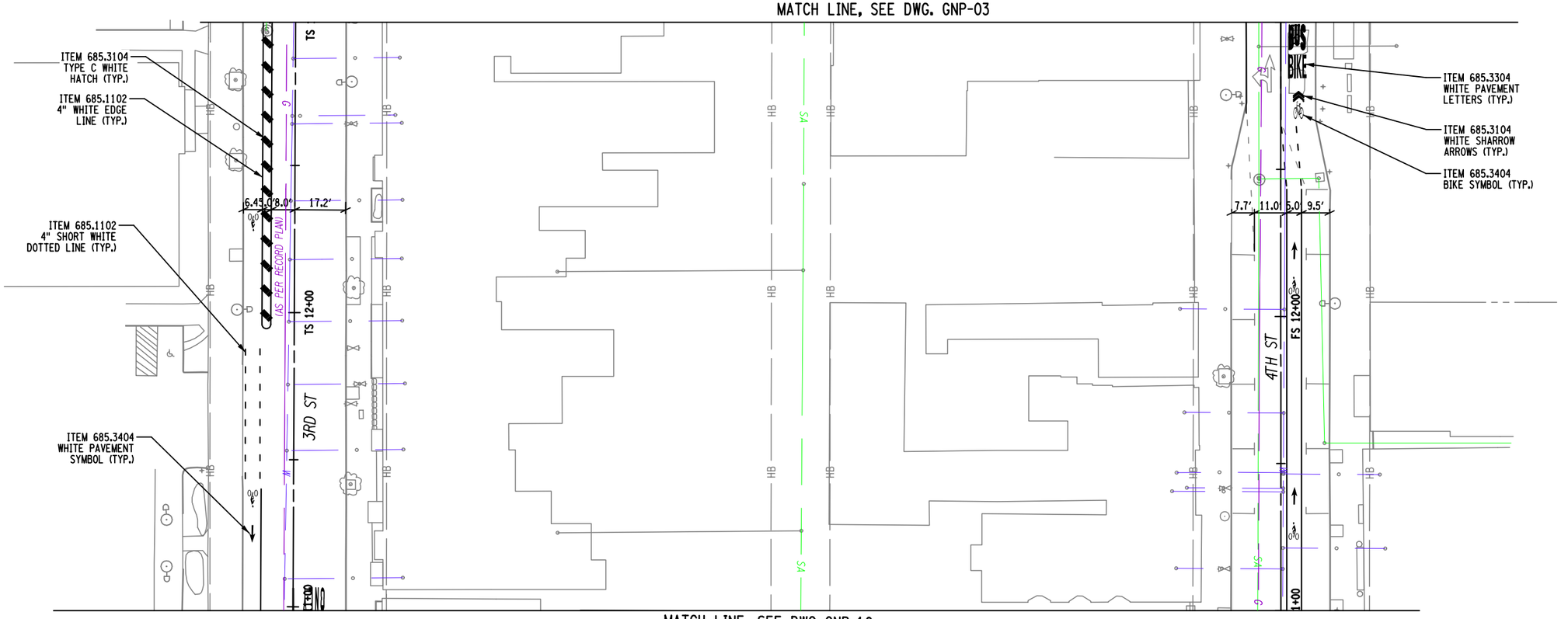
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DESIGN SUPERVISOR J. PANGBURN | DRAFTING K. DETRICK | JOB MANAGER J. PANGBURN | DESIGN Z. SMERE | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN | CHECK M. MORRISSEY

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GRID NORTH

MATCH LINE, SEE DWG. GNP-03



MATCH LINE, SEE DWG GNP-10

20 0 20 40 60 80'
1" = 40'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-13
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.

Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

20 0 20 40 60 80′

1" = 40′

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
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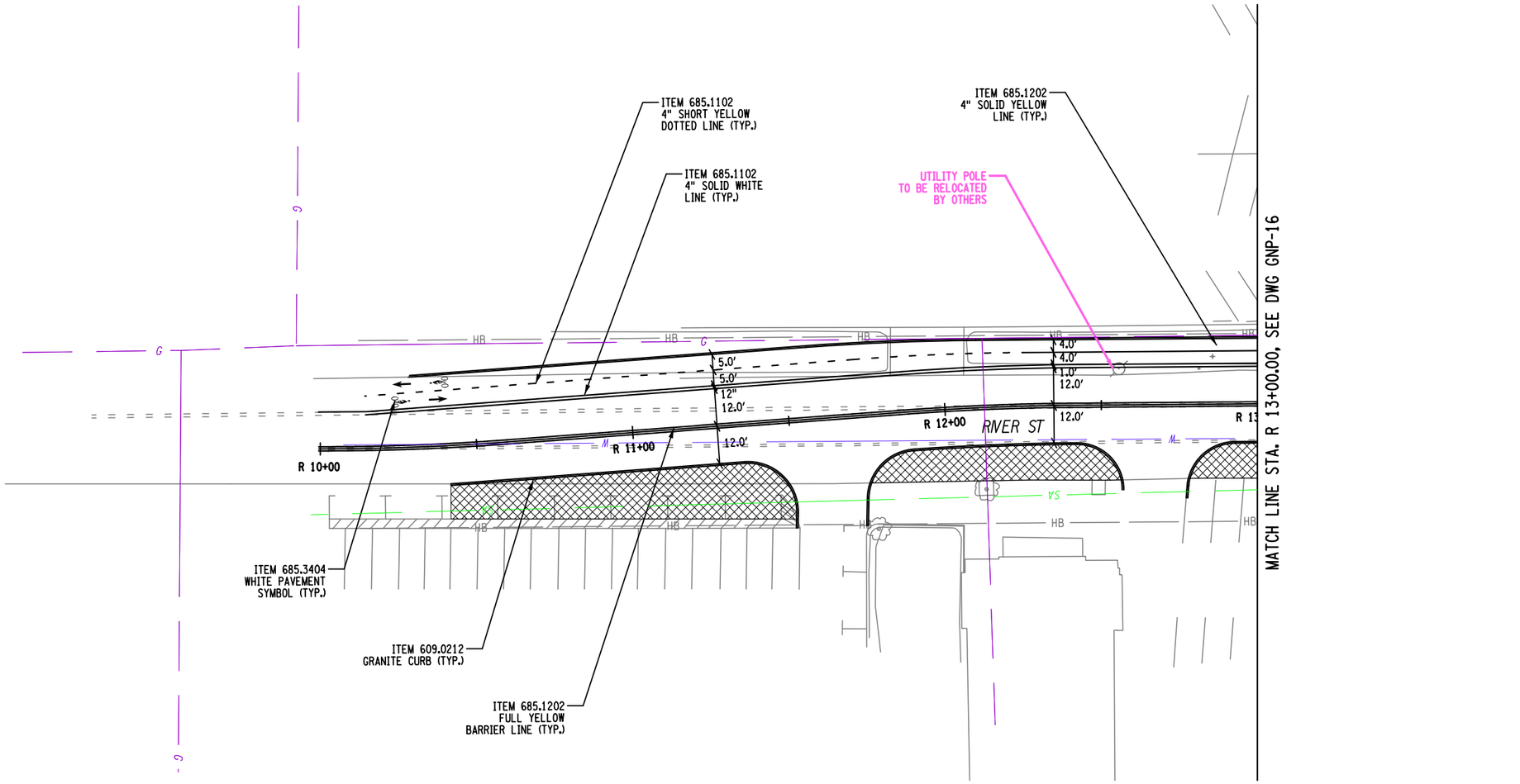
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Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

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PLOT = NYSDOT_DME.PDF.plotcfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT COUNTY: RENSSELAER REGION: 1	PIN 1761.61	BRIDGES 1054320	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED GENERAL PLAN	CONTRACT NUMBER DXXXXXX DRAWING NO. GNP-15 SHEET NO.

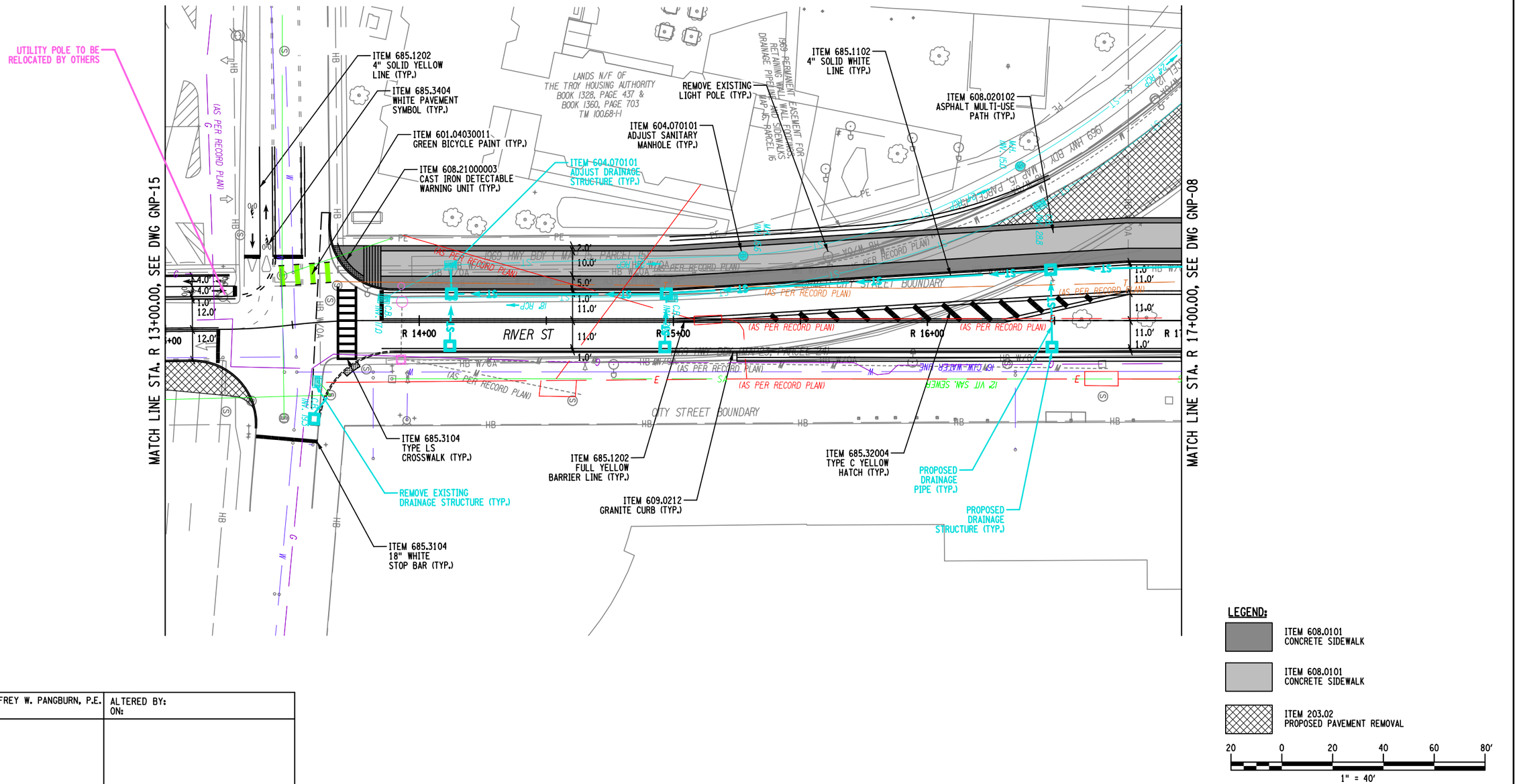
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

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PLOT = NYSDOT_CME_PDF.plt.cfg



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER
DXXXXXX

DRAWING NO. GNP-16
SHEET NO.

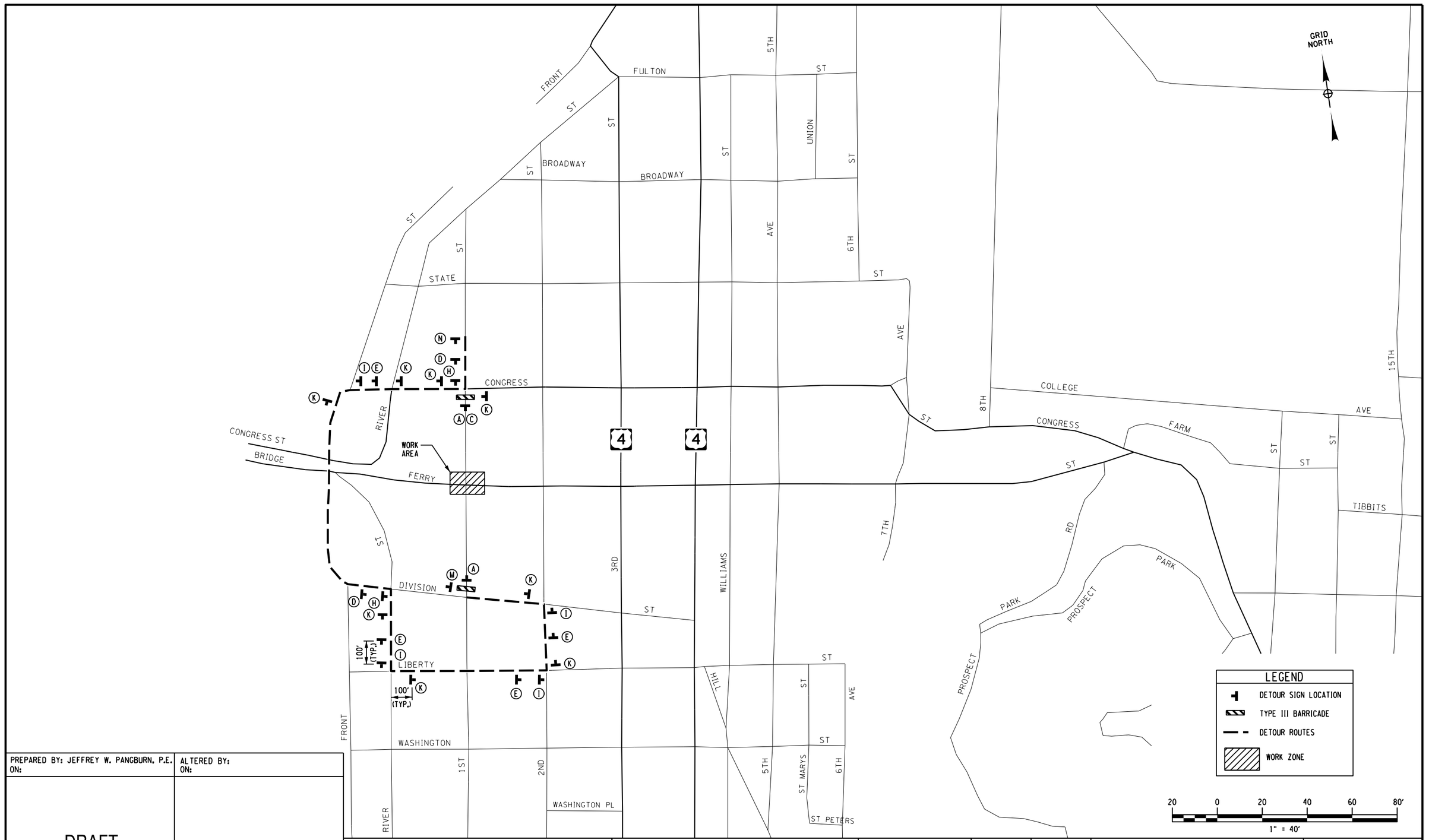
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

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PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

DETOUR PLAN
1ST STREET

CONTRACT NUMBER
DXXXXXX

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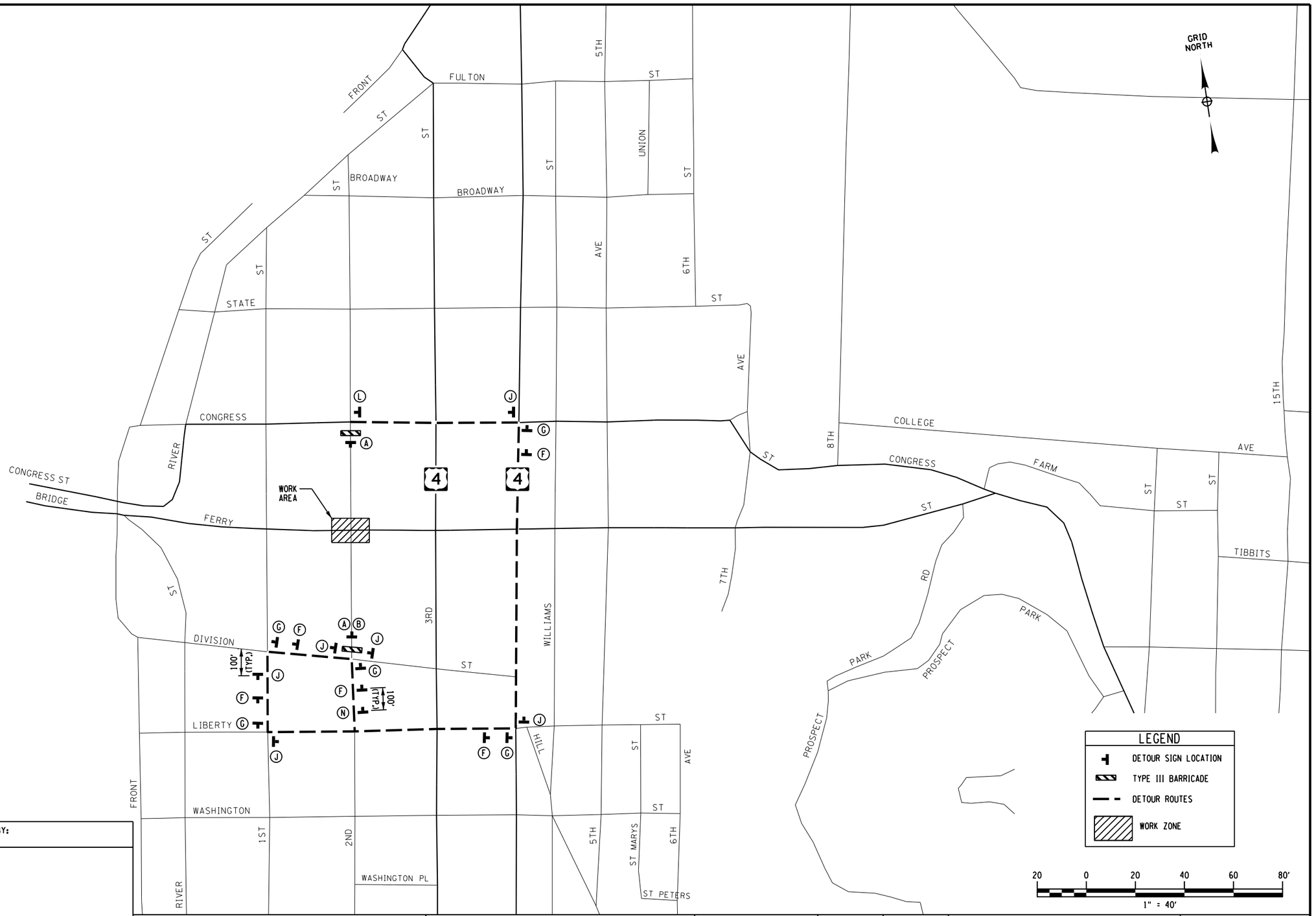
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Creighton Manning
a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

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PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

DETOUR PLAN
2ND STREET

CONTRACT NUMBER
DXXXXXX

DRAWING NO. WZP-02
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.

Creighton Manning
a GAI Company

NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MORRISSEY
DRAFTING K. DETRICK
CHECK M. MCKENNA
PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\176161_cph_mpp_02.dgn
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DETOUR PLAN SIGN INDEX

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 R11-2	 R11-2	 R11-2	 M5-1	 M5-1	 M5-1	 M6-1	 M6-1	 M6-1	 M6-3

Ⓚ	Ⓛ	Ⓜ	Ⓝ
 M6-3			W20-2

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NOT FOR
CONSTRUCTION

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

DETOUR PLAN

CONTRACT NUMBER
DXXXXXX

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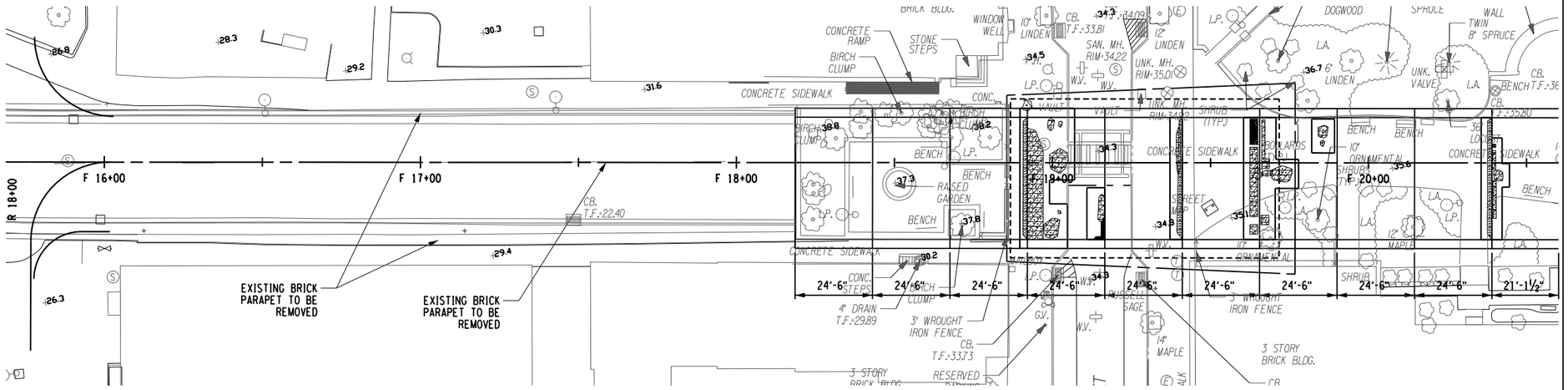
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Creighton Manning
a GAI Company

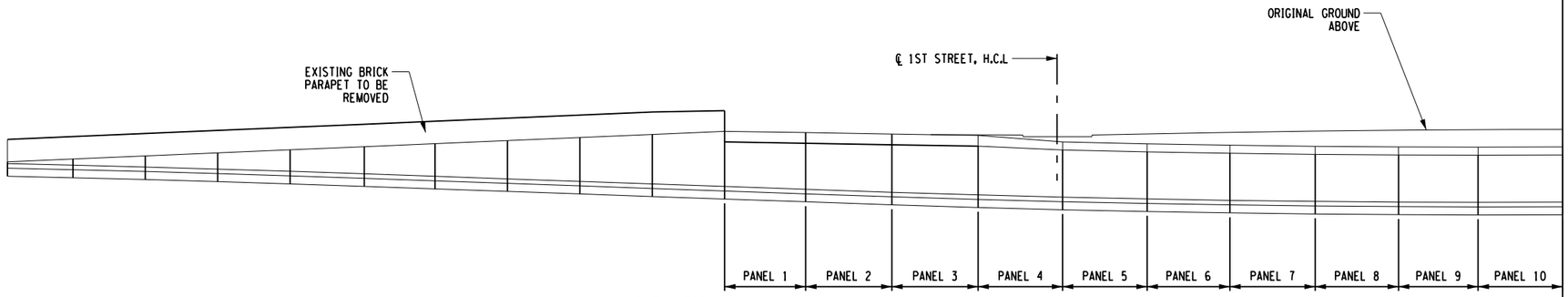
NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MCKENNA | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

FILE NAME = N:\Projects\2021\21-298 Troy - Congress and Ferry\Working\CADD\dgn\176161_cph_mpp_03.dgn
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USER = SwerezS
PLOT = NYSDOT_CME_PDF.plt:cfg



GENERAL PLAN



ELEVATION

GRID NORTH

20 0 20 40 60 80'

1" = 40'

PREPARED BY: DONALD D. ADAMS, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	CONGRESS AND FERRY CORRIDOR IMPROVEMENTS COUNTY: RENNSALEAR REGION: 1	PIN 1761.61	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED BRIDGE GENERAL PLAN AND ELEVATION	CONTRACT NUMBER DXXXXXX DRAWING NO. SHEET NO.

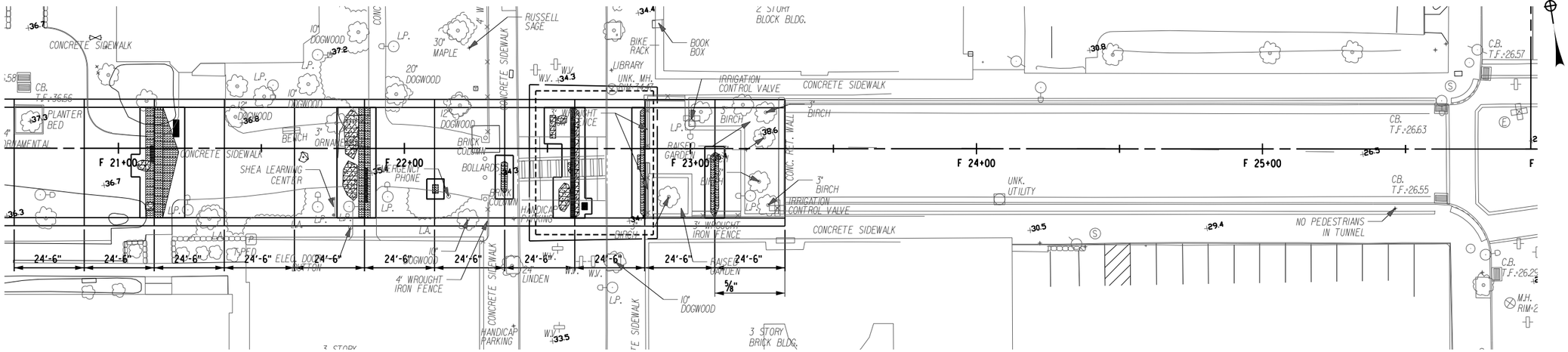
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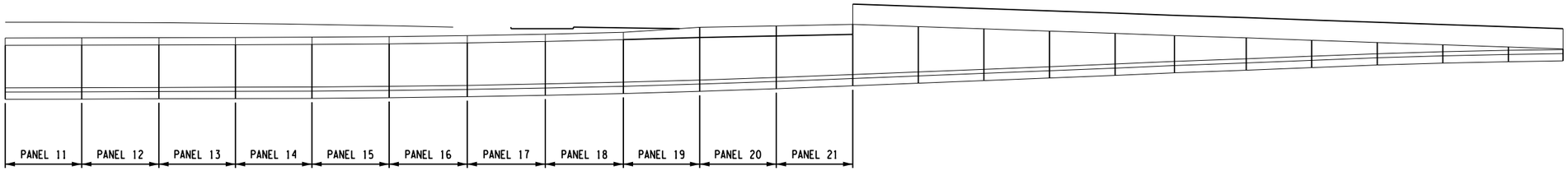
NEW YORK STATE OF OPPORTUNITY. Department of Transportation

DESIGN SUPERVISOR D. ADAMS | JOB MANAGER M. HUNT | DESIGN A. BROWN | CHECK L. SHORT | DRAFTING K. DETRICK | CHECK L. SHORT | PROJECT MANAGER M.HUNT

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GENERAL PLAN



ELEVATION

20 0 20 40 60 80'

1" = 40'

PREPARED BY: DONALD D. ADAMS, P.E. ON:	ALTERED BY: ON:

DRAFT
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CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

CONGRESS AND FERRY CORRIDOR IMPROVEMENTS

COUNTY: RENNSALEAR REGION: 1

PIN 1761.61

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

BRIDGE GENERAL PLAN
AND ELEVATION - 2

CONTRACT NUMBER
DXXXXXX

DRAWING NO.

SHEET NO.

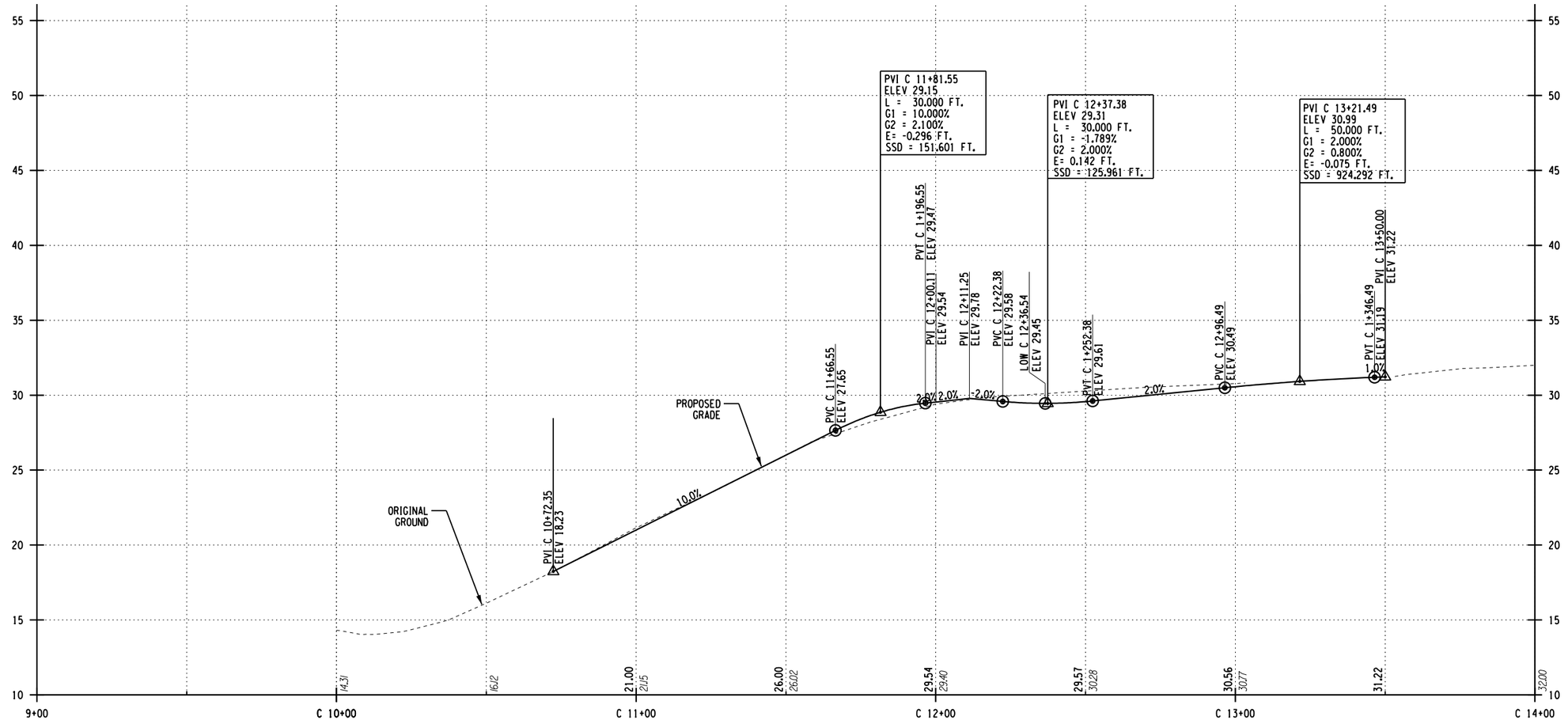
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Creighton Manning

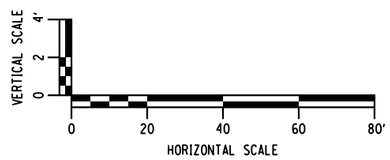
NEW YORK STATE OF OPPORTUNITY. Department of Transportation

DESIGN SUPERVISOR D. ADAMS | JOB MANAGER M. HUNT | DESIGN A. BROWN | CHECK L. SHORT | DRAFTING K. DETRICK | CHECK L. SHORT | PROJECT MANAGER M.HUNT

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PROFILE - CONGRESS ST



PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT COUNTY: RENSSELAER REGION: 1	PIN 1761.61	BRIDGES 1054320	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED PROFILE	CONTRACT NUMBER DXXXXXX DRAWING NO. PRO-01 SHEET NO.

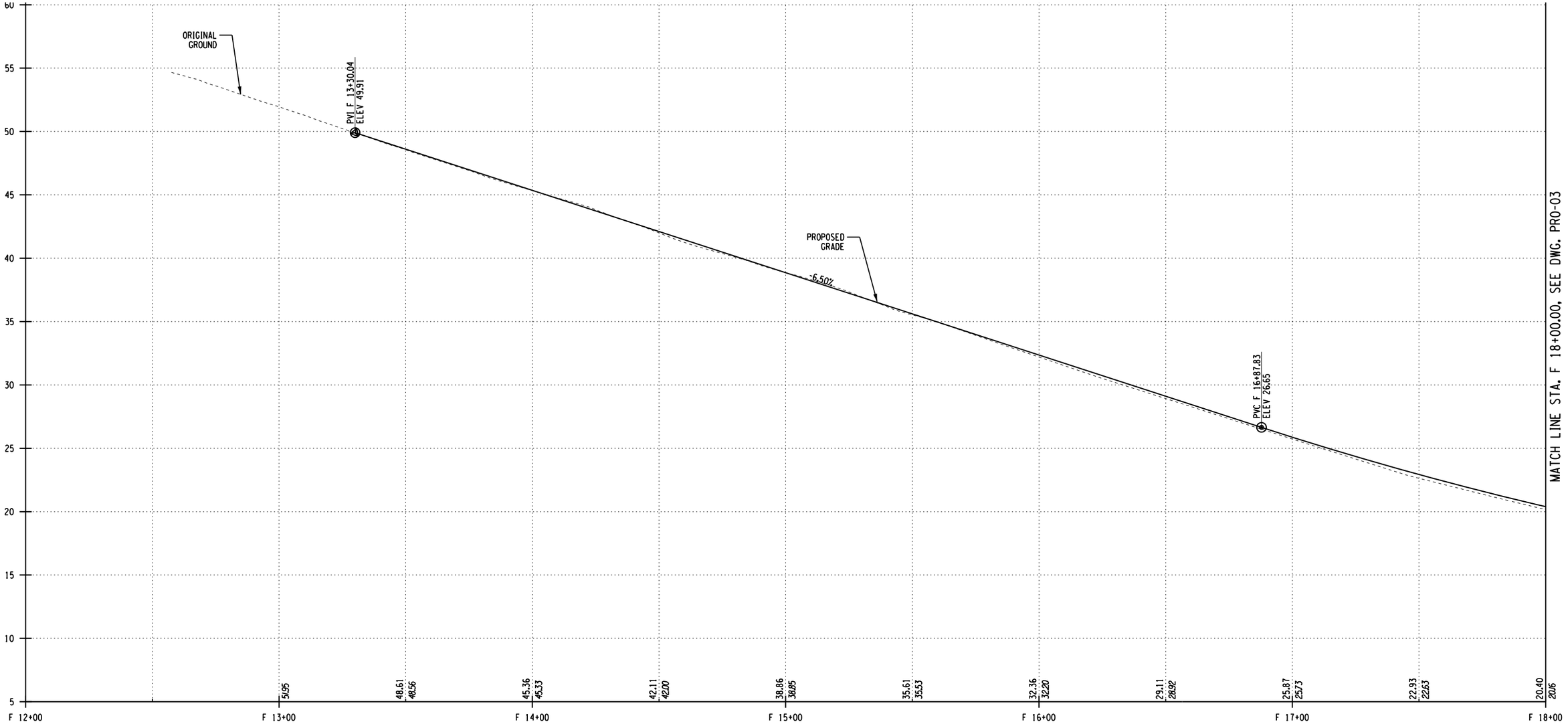
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NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SMERE | CHECK | DRAFTING K. DETRICK | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

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PROFILE - FERRY ST

VERTICAL SCALE 0 2 4'

HORIZONTAL SCALE 0 20 40 60 80'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

PROFILE

CONTRACT NUMBER DXXXXXX

DRAWING NO. PRO-02

SHEET NO.

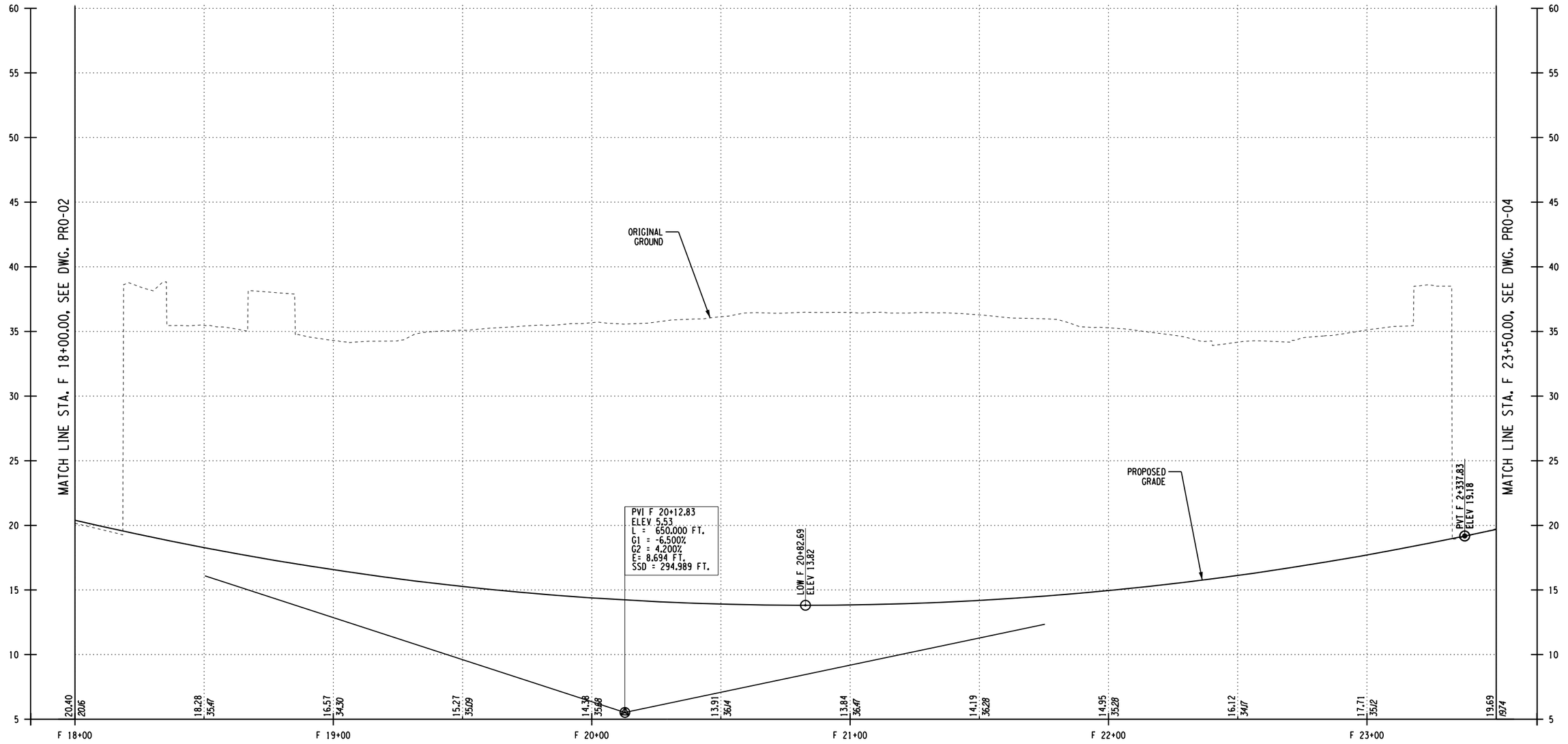
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NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

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PROFILE - FERRY ST

VERTICAL SCALE
0 2 4'
HORIZONTAL SCALE
0 20 40 60 80'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

PROFILE

CONTRACT NUMBER
DXXXXXX

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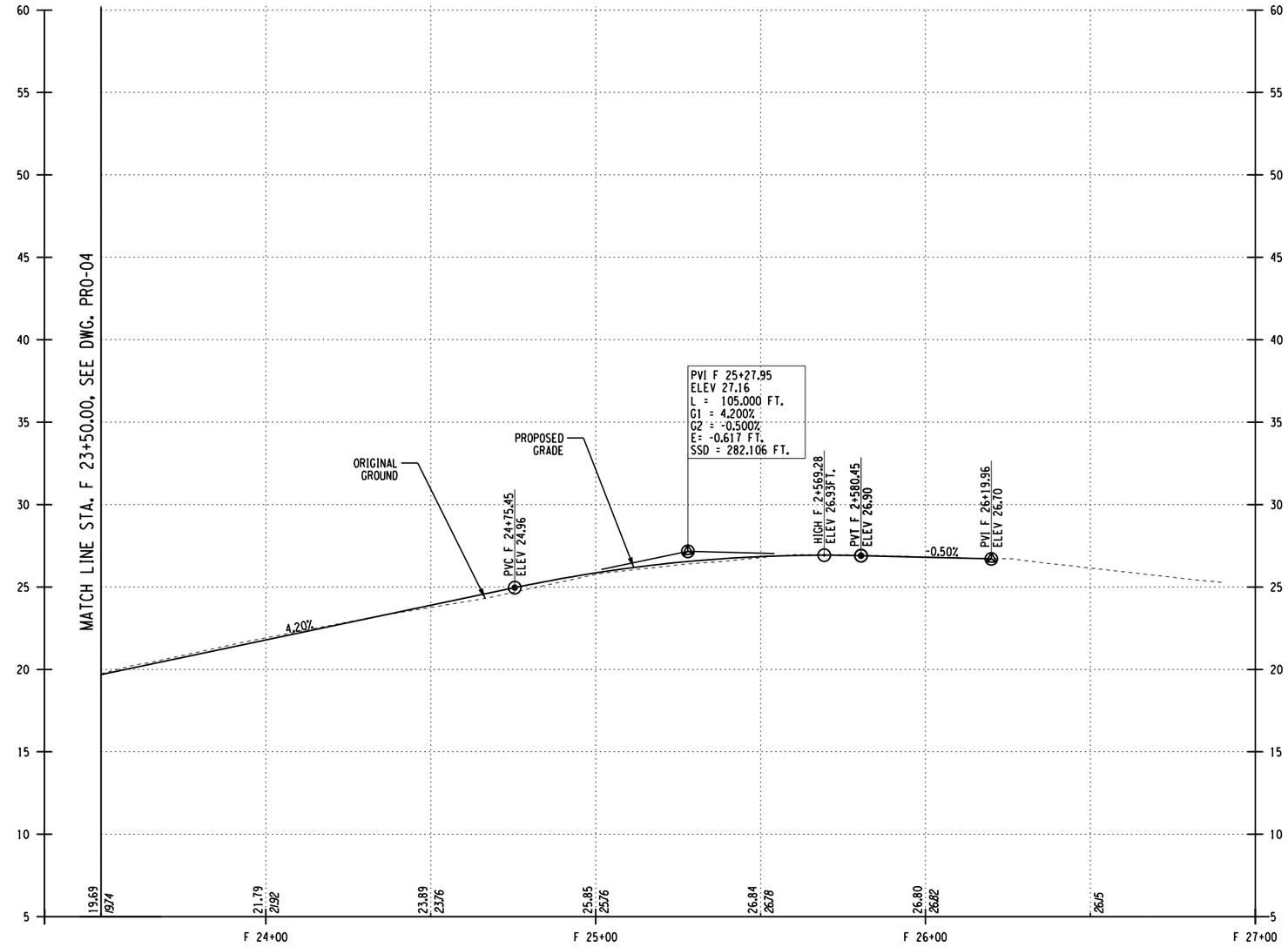
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NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SMERE | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN
DRAFTING K. DETRICK | CHECK M. MCKENNA

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PLOT = NYSDOT_CME_PDF.pltcfg



PROFILE - FERRY ST

VERTICAL SCALE 0 2 4'

HORIZONTAL SCALE 0 20 40 60 80'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

PROFILE

CONTRACT NUMBER
DXXXXXX

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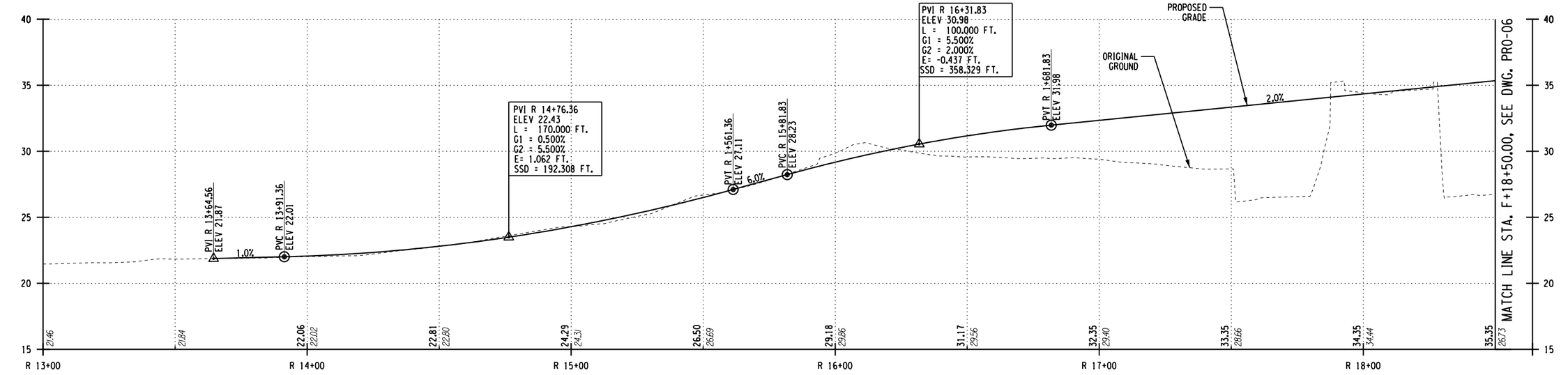
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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN
DRAFTING K. DETRICK | CHECK M. MCKENNA

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PROFILE - RIVER ST

VERTICAL SCALE 0 2 4'

HORIZONTAL SCALE 0 20 40 60 80'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

PROFILE

CONTRACT NUMBER
DXXXXXX

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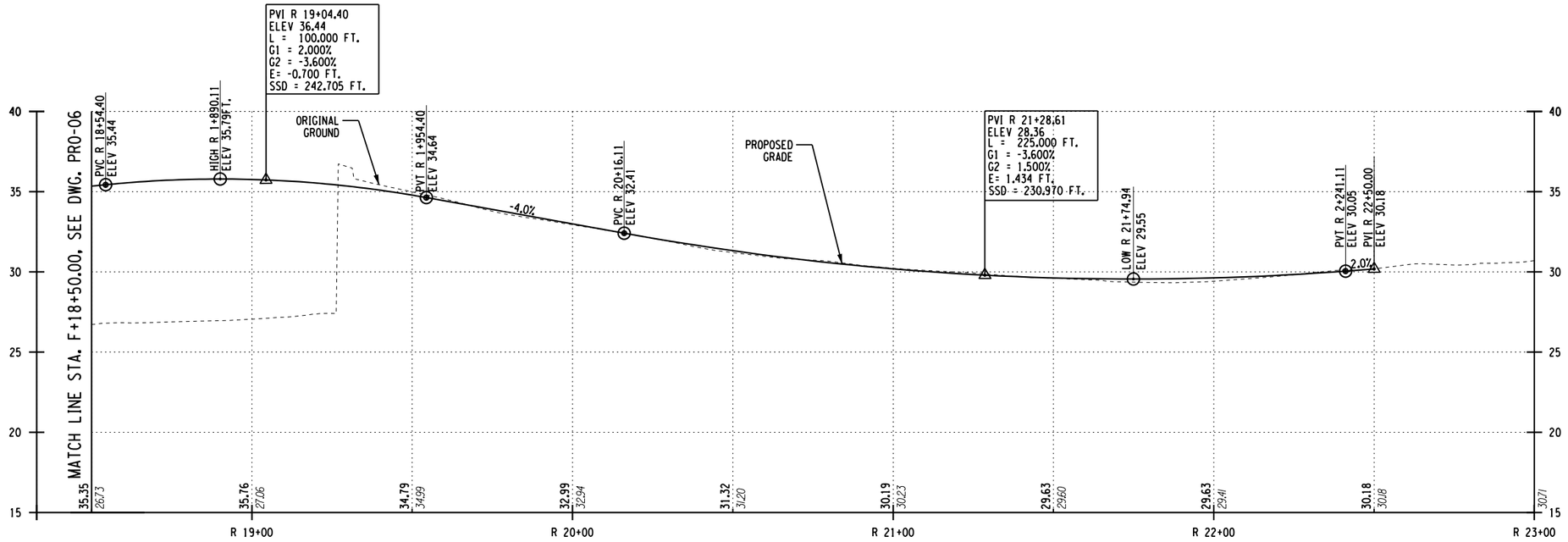
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NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | CHECK M. MCKENNA | PROJECT MANAGER J. PANGBURN

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PROFILE - RIVER ST

VERTICAL SCALE 0 2 4'

HORIZONTAL SCALE 0 20 40 60 80'

PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

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PROFILE

CONTRACT NUMBER DXXXXXX

DRAWING NO. PRO-06

SHEET NO.

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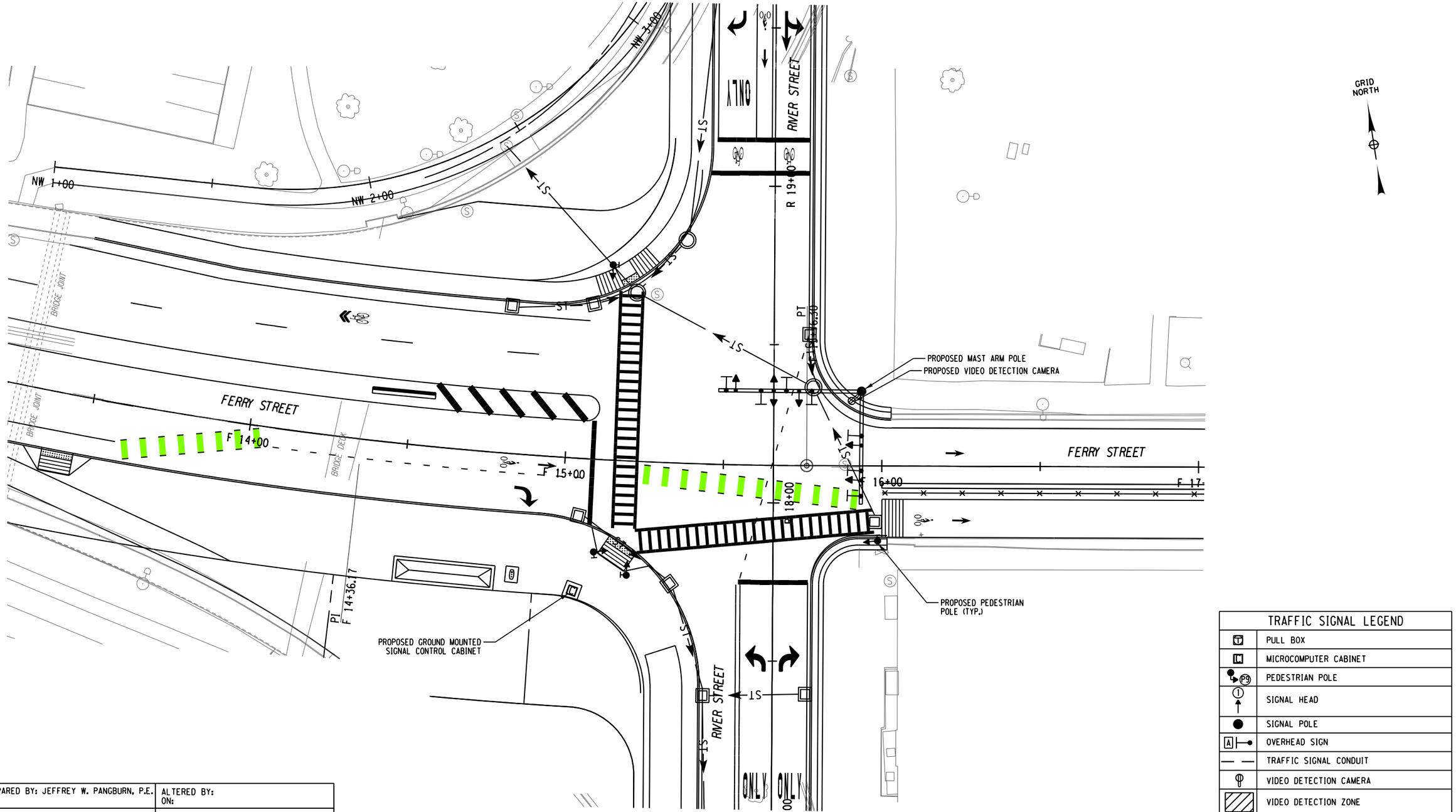
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NEW YORK STATE Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN

DRAFTING K. DETRICK | CHECK M. MCKENNA

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	MICROCOMPUTER CABINET
P9	PEDESTRIAN POLE
1	SIGNAL HEAD
	SIGNAL POLE
A	OVERHEAD SIGN
	TRAFFIC SIGNAL CONDUIT
	VIDEO DETECTION CAMERA
	VIDEO DETECTION ZONE

15 0 15 30 45 60'
1" = 30'

PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES 1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
FERRY ST/RIVER ST

CONTRACT NUMBER
DXXXXXX

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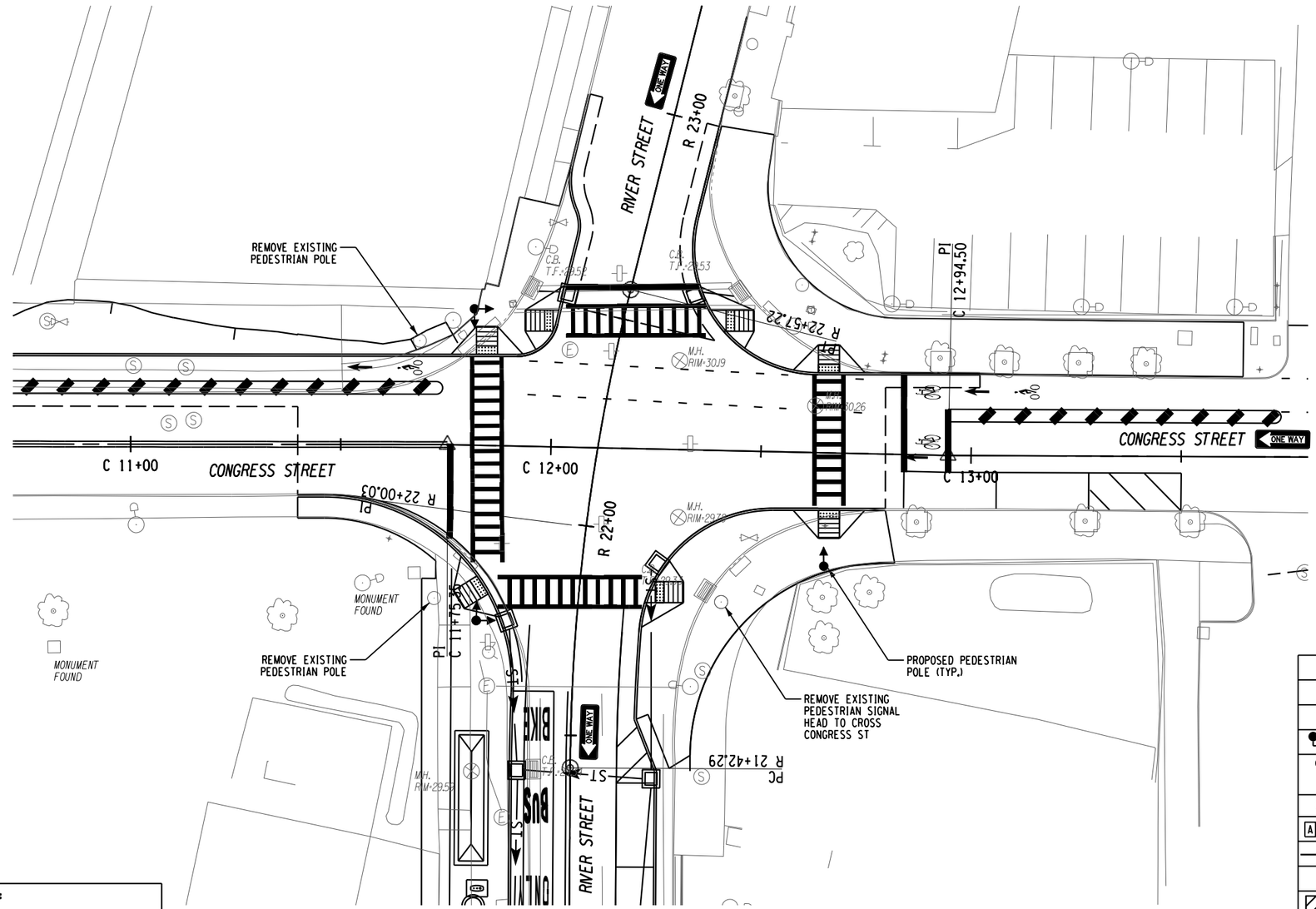
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DESIGN SUPERVISOR J. PANGBURN
JOB MANAGER J. PANGBURN
DESIGN Z. SWERE
CHECK M. MCKENNA
DRAFTING K. DETRICK
CHECK M. MORRISSEY
PROJECT MANAGER J. PANGBURN

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C	MICROCOMPUTER CABINET
P9	PEDESTRIAN POLE
I	SIGNAL HEAD
	SIGNAL POLE
A	OVERHEAD SIGN
	TRAFFIC SIGNAL CONDUIT
	VIDEO DETECTION CAMERA
	VIDEO DETECTION ZONE

15 0 15 30 45 60'
1" = 30'

PREPARED BY: JEFFREY W. PANGBURN, P.E.
ON:

ALTERED BY:
ON:

DRAFT
NOT FOR
CONSTRUCTION

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
RIVER ST/CONGRESS ST

CONTRACT NUMBER
DXXXXXX

DRAWING NO. TSP-02
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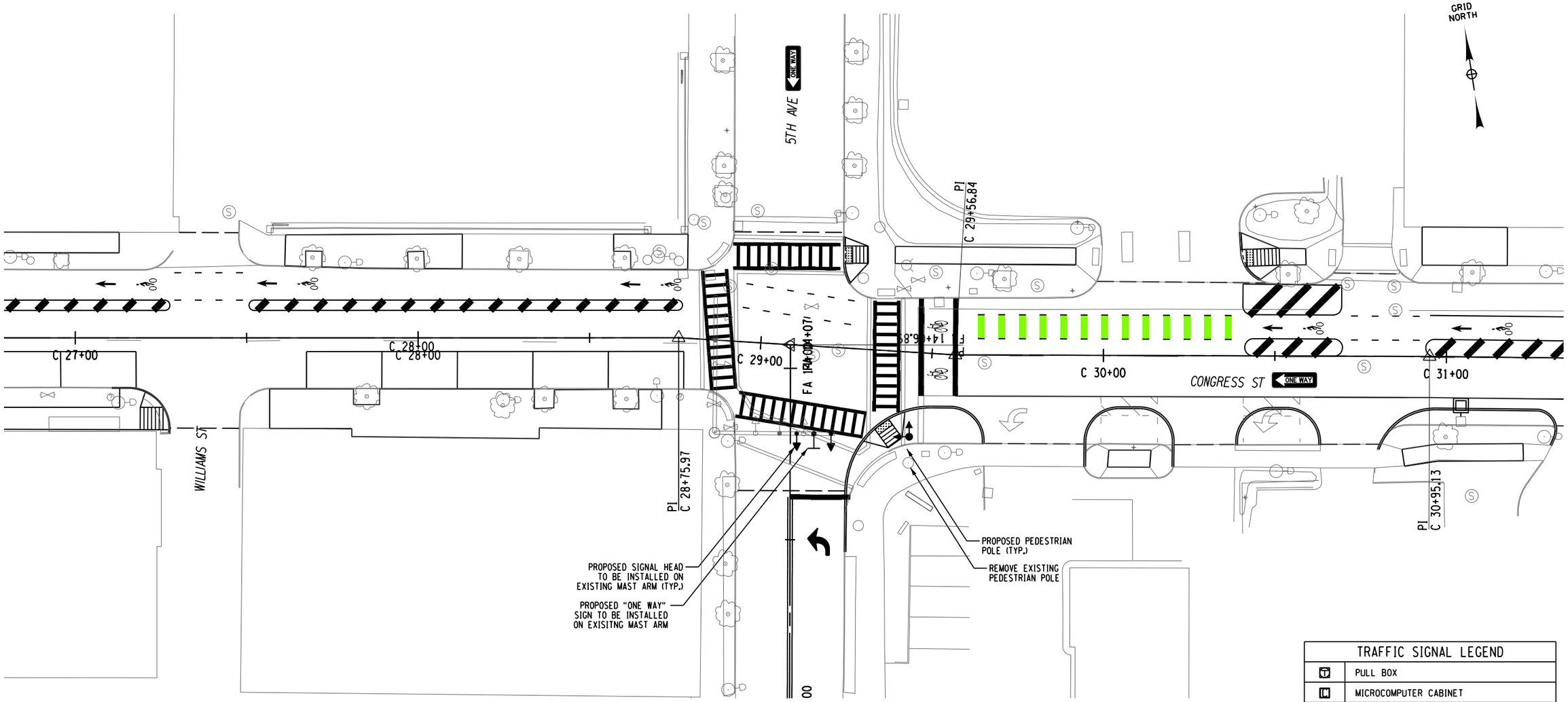
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NEW YORK STATE | Department of Transportation

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | PROJECT MANAGER J. PANGBURN
DRAFTING K. DETRICK | CHECK M. MCKENNA

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C	MICROCOMPUTER CABINET
P9	PEDESTRIAN POLE
1	SIGNAL HEAD
	SIGNAL POLE
A	OVERHEAD SIGN
— —	TRAFFIC SIGNAL CONDUIT
	VIDEO DETECTION CAMERA
	VIDEO DETECTION ZONE

15 0 15 30 45 60′

1" = 30′

DESIGN SUPERVISOR J. PANGBURN | JOB MANAGER J. PANGBURN | DESIGN Z. SWERE | CHECK M. MORRISSEY | DRAFTING K. DETRICK | PROJECT MANAGER J. PANGBURN | CHECK M. MCKENNA

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PREPARED BY: JEFFREY W. PANGBURN, P.E. ON:	ALTERED BY: ON:
DRAFT NOT FOR CONSTRUCTION	

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

NY 2 CORRIDOR, RIVER/FERRY STREET INTERSECTION IMPROVEMENT
AND FERRY STREET TUNNEL REHABILITATION PROJECT

COUNTY: RENSSELAER REGION: 1

PIN 1761.61

BRIDGES
1054320

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL PLAN
CONGRESS ST/5TH AVE

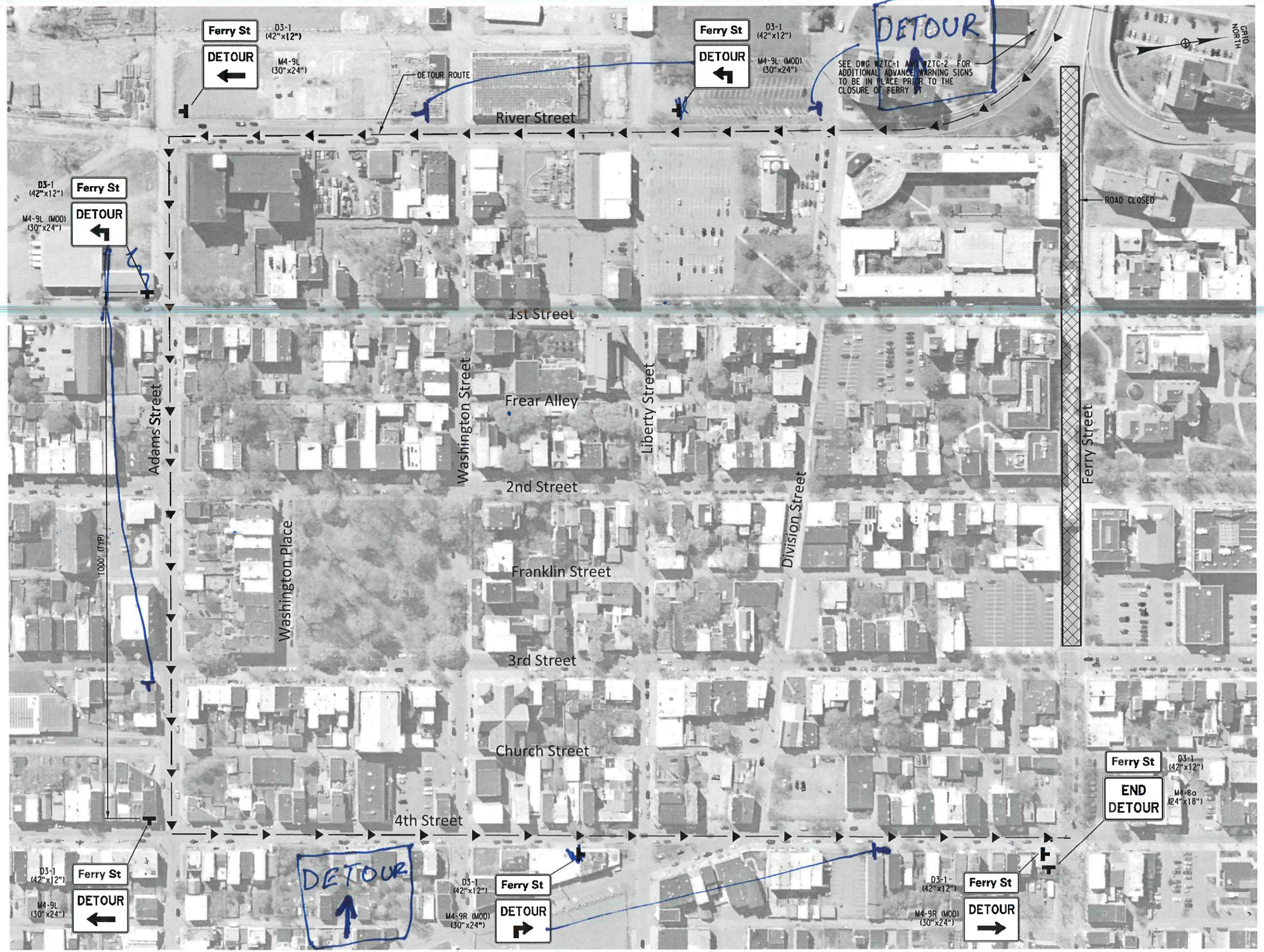
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DRAWING NO. TSP-03
SHEET NO.

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Creighton Manning a GAI Company

NEW YORK STATE Department of Transportation



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Albany, NY 12205-0269
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City of Troy, N.Y.

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No.	Submittal / Revision	Appd	Date

FERRY STREET
TUNNEL DETOUR
CITY OF TROY
RENSSELAER COUNTY, NY

FERRY STREET
DETOUR PLAN

Designed By:	Project No.:	Drawing No.:
R. CLARK	32764	WZTC-3
Drawn By: T. BURTNICK	Scale: NONE	
Checked By: B. HEALEY	Plot Date: 4/23/2021	SHEET 3

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DATE/TIME = 23-APR-2021
USER = 597

3-3

Appendix B – Environmental

Federal Environmental Approval Worksheet

PIN: 1761.61	Completed by: Melanie Osterhout, P.E	Date Completed: 6/27/25	FUNDING TYPE: Federal
TITLE/PUBLIC DESCRIPTION: This project proposes improvements to the NY 2 Corridor, River/Ferry Street Intersection and Ferry Street Tunnel Rehabilitation.			NEPA CLASS: Class II: CE SEQR TYPE: Unlisted (local projects only)

LOCALITY (Village, Town, City): City of Troy	COUNTY: Rensselaer	Action Type: Federal Aid Highway Project	Is this a Reevaluation? **No**

Purpose of this Worksheet:

- Implement the ***P**rogrammatic **A**greement Between the Federal Highway Administration, New York Division (FHWA), and the New York State Department of Transportation (NYSDOT) **R**egarding the Processing of Actions Classified as **C**ategorical **E**xclusions (CEs) for Federal-Aid Highway Projects* (PARCE), executed September 2022.
- Communicate the project National Environmental Policy Act (NEPA) classification and identify whether the FHWA or the NYSDOT (titles identified per Project Development Manual (PDM) Chapter 4, Exhibit 4-2) is making the CE determination.
- Identify any FHWA independent determinations, approvals and/or concurrences required before the CE determination can be made.
- To be included within the Design Approval Document (DAD[1]) in accordance with the documentation requirements in the PARCE.

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. 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 771.115(b)).

Instructions:

Initial review of the Federal Environmental Approval Worksheet (FEAW) should occur in scoping or early in Design Phase I to identify potential risks. Complete new review of the FEAW periodically, particularly if project parameters or site condition changes result in potential resource impacts. Completion of the FEAW with signature in Step 4 is required prior to Design Approval. See PDM Chapter 4 for additional details.

Step 1A: Unusual Circumstances Threshold Determination –

Do any, or the potential for any, unusual circumstances exist**:**

- Significant environmental impacts (23 CFR 771.117(b)) **YES☐ NO☒**
- Substantial controversy on environmental grounds (23 CFR 771.117(b)) **YES☐ NO☒**
- Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act (23 CFR 771.117(b)) **YES☐ NO☒**
- Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the project (23 CFR 771.117(b)) **YES☐ NO☒**
- Residential or non-residential displacements (FHWA-NY Division identified circumstance[2]) **YES☐ NO☒**
- Conversion of a road segment from non-tolling to tolling, or the construction of a new highway or bridge with tolling proposed (FHWA-NY Division identified circumstance) **YES☐ NO☒**

If yes to any of the above, contact the Main Office Project Liaison (MOPL) (see PDM Exhibit 4-1). Any project which would normally be classified as a CE but could involve unusual circumstances (or even uncertainty) will require consultation with the Office of Environment (OOE) and subsequently with the FHWA to determine if CE classification is still warranted. If, after consultation with the 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, after consultation with the FHWA, it is determined that the project can be progressed as a CE, **proceed to step 1B.**

If no to all the above, then this project qualifies as a CE; **proceed to step 1B**.

Step 1B: Identification of CE action

Is the project an action listed in 23 CFR 771.117 (c) - (d) (or as identified in FHWA's additional flexibilities memo)? **YES☒ NO☐**

If Yes, proceed to step 2.

[1] For FHWA actions not associated with a project (no DAD), include the FEAW in the appropriate documentation for that action.
[2] See additional discussion on FHWA-NY unusual circumstances in the FEAW Instructions document.

If No, contact the MOPL (see PDM Exhibit 4-1). If, after consultation with the OOE and the 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, after consultation with the FHWA, it is determined that the project can continue as a CE, **proceed to step 2.**

Federal Environmental Approval Worksheet

Project ID Number: 1761.61

Step 2: FHWA environmental actions required prior to CE determination[3]

The Step 2 table identifies certain issues that require: the FHWA to make the CE determination (Column A and 2.4); independent FHWA determinations (2.1); FHWA approvals, compliance, or concurrence (2.2); or notification to the FHWA (2.3). Review ***the FEAW Thresholds document*** to determine how to fill out each column of Step 2.

2.1	Required FHWA Independent environmental determinations	PARCE threshold exceeded[4]	FHWA independent determination/ concurrence required	Date Federal determination/ concurrence issued	Resource not present, or present but threshold not exceeded
		A	B	B1	C
Executive Order (EO) 11990 Protection of Wetlands Individual Finding			☐	Date Issued	☒
ESA Section 7 Threatened and Endangered Species		☐	☐	Click here to enter a date.	☒
Section 106 of National Historic Preservation Act		☐	☒	Click here to enter a date.	☐
Section 4(f) (Park, Wildlife Refuge, Historic Sites, and National Wild and Scenic Rivers)		☐	☐	Date Issued	☐
2.2	**Other FHWA environmental approvals, compliance and/or concurrence required**	**PARCE threshold exceeded[4]**	**Threshold exceeded; FHWA approval, compliance or concurrence required**		**Resource not present, or present but threshold not exceeded**
EO 11988 Floodplains		☐	☐		☒
US Army Corps of Engineers Permitting		☐	☐		☒
Section 6(f) Land and Water Conservation Funds		☐	☐		☒
Safe Drinking Water Act Section 1424(e)			☐		☒
Migratory Bird Treaty Act			☐		☒
23 CFR 772 Type I Noise abatement			☐		☒
2.3	**Other Environmental Issues requiring FHWA notification**	**PARCE threshold exceeded[4]**	**FHWA notification threshold exceeded**		**Resource not present, or present but threshold not exceeded**
National Wild and Scenic Rivers		☐	☐		☒
US Coast Guard Bridge Permit		☐	☐		☒
Known hazardous waste site (only EPA National Priority list)			☐		☒
Project on or affecting Native American Lands			☐		☒
2.4	**Other Issues Triggering FHWA Approval of Categorical Exclusion**	**PARCE threshold exceeded[4]**			**Resource not present, or present but threshold not exceeded**
Property Acquisition		☐			☒
Major Traffic Disruptions		☐			☒
Changes in Access Control		☐			☒

[3] **This table does not represent all environmental issues and actions to which a project is subject to.** Classification as a CE does not exempt the project from further environmental review. Refer to the PDM Appendix A and The Transportation Environmental Manual (TEM) to determine review requirements.

[4] When PARCE threshold is exceeded, the NYSDOT recommends that the project qualifies as a CE and requests the FHWA make the CE determination. Information on PARCE specific thresholds is contained within ***the FEAW Thresholds document.***

Federal Environmental Approval Worksheet

Project ID Number: 1761.61

Step 3: Who makes the NEPA CE Determination?

To identify which party, either the FHWA or the NYSDOT, makes the CE determination in accordance with the PARCE, follow the instructions found in the table below, beginning in Step 3A. This step also identifies which correspondence shell to use to distribute the FEAW and other environmental notifications or approvals.

3	**Determine whether the FHWA or the NYSDOT makes the CE determination and whether additional notifications or approvals are required.**
3A	**Is the project an action listed in 23 CFR 771.117 (c) - (d)** (Answered yes in Step 1B)**?** **YES** ☒ If Yes, **proceed to 3B.** **NO** ☐ If No, the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD, the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the Regional Planning and Program Manager (RPPM) to the FHWA directly using **FAHP Shell 4.** • For all other actions, the DAD[5] and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **FAHP Shell 3, ID/IQ Shell 3** or using appropriate **ROW transmittal**. **Proceed to Step 4.**
3B	**Are any of the CE Thresholds from the PARCE exceeded** (Are there any checks in Column A of Step 2)**?** **YES** ☐ If Yes, the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the RPPM to the FHWA directly using FAHP **Shell 4.** • For all other actions, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **FAHP Shell 3, ID/IQ Shell 3** or using appropriate **ROW transmittal**. **Proceed to Step 4.** **NO** ☒ If No, **proceed to 3C.**
3C	**Are there outstanding independent environmental approvals or concurrences?** (Are there checks in column B of Step 2.1 without dates in column B1)**?** **YES** ☐ If Yes, then the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the RPPM to the FHWA directly using FAHP **Shell 4.** • For all other actions, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **FAHP Shell 3, ID/IQ Shell 3** or using appropriate **ROW transmittal**. **Proceed to Step 4.** **NO** ☒ If No, the NYSDOT makes the NEPA CE determination. **Proceed to 3D.**

[5] For non-FAHP actions that do not have a DAD, a detailed description of the action and environmental documentation is sent in lieu of a DAD.

Federal Environmental Approval Worksheet

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3D	**Are there** ☐ any circumstances requiring demonstration of applicable EO compliance (any checks in column B of Table 2.2); or ☐ any issues requiring the FHWA environmental notification (any checks in column B of Table 2.3)? ☐ If **either** box is checked, **once all required approvals and concurrences have been secured,** the NYSDOT makes the CE determination, but the information must be forwarded to FHWA for notification or action prior to Design Approval for FAHP (prior to physical construction for ID/IQ, or prior to RD approval for ROW actions) using **FAHP Shell 1** (can also be used for ROW actions), **For ID/IQ, Shell 1 is sent to notify FHWA (and request concurrence if needed). ID/IQ Shell 2 is also used to request RD signature once FHWA response is received).** **Proceed to step 4.** ☒ If **neither** box is checked, **once all required approvals and concurrences have been secured,** the NYSDOT makes the CE determination without notification to the FHWA. The project will use **FAHP Shell 2, ID/IQ Shell 2** or appropriate **ROW transmittal**. **Proceed to step 4.**

Step 4: Summary and Recommendation

- The project location(s) **is** located within an area subject to transportation air quality conformity.
  - **If the project is within such areas, the NEPA process may not be completed until all transportation conformity requirements are met[6].**
  - Transportation conformity requirements **have been met at time of signature.**
- This project does qualify to be progressed as a Categorical Exclusion.
- The NEPA Determination will be made by NYSDOT
- The Action meets the conditions of the listed CE at 23 CFR 771.117: c(26) "Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (including parking, weaving, turning, and climbing lanes), if the action meets the constraints in paragraph (e)..." [7]
- All outstanding FHWA environmental approvals will be obtained and are listed here:

Section 106 concurrence.

- All the conditions of the PARCE are addressed herein (or within the DAD or attachments).

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

Project Manager/Designer
(or Responsible Local Official)[8] X _____ Date_____

Print Name and Title: _____

Regional Environmental Unit
Supervisor X _____ Date_____

Print Name and Title: _____

Regional Local Project Liaison
(Locally Administered Projects Only) X _____ Date_____

Print Name and Title: _____

Changes that may have occurred since the preparation of the FEAW which would create the need to review the FEAW again include but are not limited to triggers for reevaluations described in PDM Appendix 11 or any expansion in location or scope of the action for non-FAHP actions. Based on the review of the previously certified FEAW, if the current scope of the

[6] See additional information on conformity *in FEAW_Instructions.doc*
[7] See additional information on identifying (c)26, (c)27 & (c)28 versus d (13) *in FEAW_Instructions.doc*
[8] Or appropriate Permitting/ROW staff for use and occupancy permit or disposal of surplus property

action would change any of the answers to the FEAW and more specifically if any of the determinations within step 2.1 require a new federal determination or concurrence then a new FEAW should be produced and certified.

PIN: 1761.61 **PROJECT NAME:** NY 2 Corridor, River/Ferry St. Intersection Improvements, and Ferry Street Tunnel Rehabilitation **Date:** 7/22/2025

Section 7 ESA Process for USFWS Species: ESA Transmittal Sheet

Step 4: Documentation. Please complete the appropriate boxes below and complete the documentation as described.

	Out of Range	Activity-Based No Effect	No Effect and No Effect No Suitable Habitat	Bat PBO/PCO IPaC Submittal- MANLAA	Bat PBO/PCO- MALAA	Individual Submission to USFWS (MANLAA, MALAA)	Proposed Species/Proposed Critical Habitat ONLY: No Jeopardy/No Adverse Modification
Northern Long-eared Bat	X						N/A
Indiana Bat	X						N/A
Tricolored Bat				X			
Bog Turtle	X			N/A	N/A		N/A
Mussels	X			N/A	N/A		
Monarch		X No Conference / No Jeopardy					
Karner Blue Butterfly	X			N/A	N/A		N/A
Other (List Species):				N/A	N/A		
Critical Habitat (List Species):				N/A	N/A		
Documentation Required	The IPaC Official Species List is included in the DAD.	Record the corresponding number of the activity in the box above. Include this sheet and the IPaC List in the DAD.	NYSDOT submits No Effect determination, with supporting documentation, to FHWA EPS with AE cc'd. Request includes a countersignature line for FHWA. FHWA will concur or not concur.	NYSDOT submits through IPaC w/ FHWA EPS included. Concurrence is obtained if 14 days pass without correspondence from USFWS.	NYSDOT submits determination package to FHWA EPS (cc FHWA AE) for review and initiation of USFWS consultation. Written USFWS concurrence required.	Record the corresponding effect determination in the boxes above. NYSDOT submits either BE or BA to FHWA EPS (cc FHWA AE) for review and initiation of USFWS consultation.	NYSDOT submits determination, with supporting documentation, to FHWA EPS with AE cc'd. Submission includes countersignature line for FHWA. FHWA will concur or not concur.
Submission to FHWA Required?	No	No	Yes	cc: only	Yes	Yes	No (monarch only) Yes (all other species)
Submission to USFWS by DOT via IPAC Required?	No	No	No	Yes	Yes	No	No
Submission to USFWS by FHWA Required?	No	No	No	No	Yes	Yes	No

Instructions: This summary sheet is to be included all submissions to FHWA. A submittal package includes all documentation for all species requiring concurrence with a cover letter requesting concurrence, so that FHWA can make one ESA determination. SEE EACH SPECIES-SPECIFIC PACKAGE FOR SPECIFIC DOCUMENTATION REQUIREMENTS FOR SUBMITTALS. Also, FHWA requires documentation of compliance with ESA in the DAD. *FHWA: When initiating consultation with USFWS, send to fw5es_nyfo@fws.gov, copying the Deputy Field Supervisor.*

PIN: 1761.61 **PROJECT NAME:** NY 2 Corridor, River/Ferry St. Intersection Improvements, and Ferry Street Tunnel Rehabilitation **Date:** 7/22/2025

Section 7 ESA/MSA Process for NMFS Species: ESA/EFH Transmittal Sheet

Step 4: Documentation. Please complete the appropriate boxes below and complete the documentation as described.

	Out of Range	Activity Based No Effect	No Effect	ESA Programmatic Agreement Applies	EFH Programmatic Agreement Applies	Informal Consultation (ESA) OR Abbreviated Consultation (EFH)	Formal Consultation (ESA) OR Expanded Consultation (EFH)
Sturgeon (Shortnose, Atlantic)	X				N/A		
Sea Turtles	X				N/A		
Atlantic Large Whales	X				N/A		
EFH Resources	X			N/A			
Critical Habitat (Atlantic Sturgeon)	X				N/A		
Documentation Required	Include both NMFS ESA and EFH Maps printouts in the DAD. If no in-water work & no indirect effects to waters, no NMFS maps are included.	Record the corresponding number of the activity in the boxes above. This sheet and both the NMFS ESA and EFH Maps printouts are included in the DAD.	NYSDOT submits No Effect determination for NMFS ESA, EFH, or both to FHWA EPS, with AE cc'd. Submission includes countersignature line for FHWA. FHWA will concur or not concur.	NYSDOT submits ESA Verification Form to NMFS, cc: FHWA EPS & AE. NMFS concurrence required.	NYSDOT submits EFH Verification Form to FHWA EPS, cc: FHWA AE.	NYSDOT submits BE for ESA, and/or an EFH Assessment to FHWA EPS (cc FHWA AE) for review and initiation of NMFS consultation .	NYSDOT submits BA for ESA and/or an EFH Assessment to FHWA EPS (cc FHWA AE) for review and initiation of NMFS consultation.
Submission to FHWA Required?	No	No	Yes	Yes	Yes	Yes	Yes
Submission to NMFS by FHWA Required?	No	No	No	No	No	Yes	Yes

Note: ESA Submittals are sent to the Protected Resources Division (nmfs.gar.esa.section7@noaa.gov). EFH Submittals for Abbreviated and Expanded Consultation are sent to the Habitat and Ecosystem Services Division (HESD). Contact information for the HESD Marine Habitat Resource Specialist for NJ and NY is found at https://www.fisheries.noaa.gov/contact/greater-atlantic-region-habitat-and-ecosystem-services-division.

Instructions: This Summary Sheet is to be included all submissions to FHWA. A submittal package includes all documentation for all species requiring concurrence with a cover letter requesting concurrence, so that FHWA can make one ESA determination. SEE EACH SPECIES-SPECIFIC PACKAGE FOR SPECIFIC DOCUMENTATION REQUIREMENTS FOR SUBMITTALS. Also, FHWA requires documentation of compliance with ESA in the DAD.

Revised 6/16/2025

OSPA Engineering Services, PC
800 Route 146, Bldg. 200, Suite 280
Clifton Park, NY 12065
Phone: (518) 636-9956

Memorandum

To: NYSDOT Region 1
CC: file
From: Melanie Osterhout, P.E.
Date: 7/22/2025
Project #: **PIN # 1761.61**
Re: NY 2 Corridor, River/Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation Project

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OSPA Engineering Services, PC has conducted the species review for the NY 2 Corridor, River/Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation Project. The New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM) indicates that there are threatened and/or endangered species in vicinity of the project area. The NYSDEC Environmental Assessment Form (EAF) Mapper lists the Bald Eagle (*Haliaeetus leucocephalus*), a state-threatened species and the Shortnose Sturgeon *(Acipenser brevirostrum)*, a state-endangered species as having the potential to occur within the project area. The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online tool has indicated the potential for the Tricolored Bat (*Perimyotis subflavus*), a federally proposed endangered species and the Monarch Butterfly (*Danaus plexippus*), a federally proposed threatened species to be present in the project area.

The nearest documented bat hibernacula is approximately 16 miles from the project site, there are no known maternity roosts within the project area. The project will require the removal of approximately 25 trees with a diameter at breast height (DBH) equal to or greater than greater 2 inches. All clearing will occur within the Right-of-Way (ROW) or immediately adjacent to the ROW. No clearing will occur greater than 100' from the roadway and no temporary or permanent lighting is proposed. The bridge/culvert/structure Bat Assessment form is attached. It was determined that the project may affect but is unlikely to adversely affect the Tricolored Bat. The NYSDOT will forward this information with a proposed determination for USFWS review.

The Monarch Butterfly is a federally proposed threatened species. According to the USFWS, the Monarch Butterfly requires the milkweed plant for oviposition and as a larval host plant as part of its life cycle. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias spp.*). Several milkweed plants were identified at the time of the site visit. In a 12/31/2024 letter

from FHWA-NY to the NYSDOT Environmental Science Bureau that covers all capital and local projects, the FHWA determined that projects classified as a Categorical Exclusion under NEPA will not jeopardize the continued existence of the monarch butterfly and therefore do not require conference with USFWS. The "no effect activity-based" box is checked on the attached ESA Transmittal Sheet with a determination of "No Jeopardy/No Conference Required"."

The Hudson River is a NYSDEC Class C stream that is located adjacent to the project site. A query of the NOAA EFH mapper revealed eleven (11) species that could exist adjacent to the project. A site visit identified no streams that enter the Hudson River within the project area. Due to the absence of streams and no proposed in water work, a determination of "EFH Does Not Apply" has been indicated on the enclosed ESA/EFH Transmittal Sheet for EFH Resources. The EFH report is included in **Attachment 3**.

Please contact us if you have any additional questions or require further information.

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Attachments	
1.	Environmental Mapping
2.	IPaC Screening Document and IPaC Determination Key
3.	Site Photos, State Agency Correspondence, EFH Report, Bridge-Structure Bat Survey and Bald Eagle Survey
4.	Tricolored Bat, Bald Eagle, Monarch Butterfly, and Shortnose Sturgeon Fact Sheets

Project Review Step 1 - Action Area:

The location of the project and the action area are identified on the maps provided in **Attachments 1 and 2**. The project proposes the rehabilitation of NY 2 (Congress and Ferry Streets) Corridor, River/Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation in the City of Troy, Rensselaer County, NY.
The following is an extended project description:

The project is intended to rehabilitate the existing Congress Street and Ferry Street, improve the pedestrian and bicycle accommodations throughout the corridor, reconstruct the River St/Ferry St intersection and rehabilitate the Ferry Street tunnel. Congress Street and Ferry Street will be rehabilitated using asphalt milling and overlay with box-out for curb replacement or installation/extensions, and the intersection will be reconstructed to accommodate a new traffic signal. Congress Street and Ferry Street will also be evaluated for re-purposing to accommodate vehicular traffic and a separated bike lane. Approximately 50% of pedestrian facilities (sidewalks and curb ramps) will be reconstructed to meet ADA requirements. The existing drainage system will be evaluated and rehabilitated where appropriate. The project area consists of roadways, scattered tree plantings, structures and maintained right of way.

Refer to **Figures 1, 2 and 3** of this report for regional and local maps of the project area.

Project Review Step 2 - Official Species List:

The project's action area has been drawn using the USFWS's IPaC tool. The Tricolored Bat, a federally proposed endangered species and the federally proposed threatened Monarch Butterfly *(Danaus plexippus)* have the potential to occur in the project area. The Official Species List obtained from IPaC is included in **Attachment 2**.

Project Review Step 3 - State Coordination:

The New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper (ERM) was utilized to determine the presence of any endangered or threatened plants or animals within the project area. The NYSDEC mapper indicated that there is the potential for rare, endangered, or threatened plants or animals to be present within the project vicinity.

As instructed by the NYNHP, the NYSDEC EAF Mapper was consulted. The EAF Mapper summary lists the state-threatened Bald Eagle (*Haliaeetus leucocephalus*) and state-endangered Shortnose Sturgeon (*Acipenser brevirostrum*) as having the potential to exist within the project area. A summary of that report is included in **Attachment 3**.

Project Review Step 4 - Suitable Habitat:

Tricolored Bat

Species fact sheets published by the NYNHP have been reviewed for the Tricolored Bat, a federally listed proposed-threatened species, and its typical habitat. The NYNHP provides the following habitat descriptions for the Tricolored Bat:

NYNHP: *"Tri-colored bats over-winter in humid areas deep within caves and mines with a constant temperature of around 52-55F (Griffin 1936; Godin 1977)... Tri-colored bats may roost in habitats including open woods near water and they may select roosts in buildings, crevices of cliffs and rocks, or in or below the canopy of live or recently dead trees that retain some dead or live leaves (Veilleux et al. 2003; Carter and Menzel 2006; Perry and Thill 2007)."*

The USFWS website lists the Tricolored Bat as a federally proposed endangered species that are known to occur in Rensselaer County. The nearest hibernacula is located approximately 16 miles from the project site. The are no known maternity roosts in the project area. The proposed project will not impact a bat hibernacula or maternity colony. Approximately 25 trees with a diameter at breast height (DBH) equal to or greater than 2 inches will be removed between November 1 and March 31.

Monarch Butterfly

According to the USFWS, the Monarch Butterfly requires the milkweed plant for oviposition and as a larval host plant as part of its life cycle. During the breeding season, monarchs lay their eggs on the undersides of their obligate milkweed host plant (*Asclepias spp*.). Twenty-five milkweed plants were identified in the project area. The Monarch Butterfly has been proposed for listing as threatened (December 12, 2024, FR 2024-28855). In a 12/31/2024 letter from FHWA-NY to the NYSDOT Environmental Science Bureau that covers all capital and local projects, the FHWA determined that projects classified as a Categorical Exclusion under NEPA will not jeopardize the continued existence of the monarch butterfly and therefore do not require conference with USFWS. The "no effect activity-based" box is checked on the attached ESA Transmittal Sheet with a determination of "No Jeopardy/No Conference Required"."

Shortnose Sturgeon

Species fact sheets published by the NYSDEC have been reviewed for the Shortnose Sturgeon and its typical habitat. The NYSDEC provides the following habitat description for the Shortnose Sturgeon:

NYSDEC*: "The shortnose sturgeon's life history is complex. Much of its spawning behavior and early life stages are still not fully understood. The shortnose sturgeon is anadramous, migrating from salt water to spawn in freshwater. In the Hudson River, it spawns from April-May. Adult sturgeon migrate upriver from their mid-Hudson overwintering areas to freshwater spawning sites north of Coxsackie… Newly-hatched fry are poor swimmers and drift with the currents along the bottom. As they grow and mature, the fish move downriver into the most brackish parts of the lower Hudson… In New York State, the shortnose sturgeon is only found in the lower portion of the Hudson River from the southern tip of Manhattan (river mile 0) upriver to the Federal dam at Troy (river mile 152)."*

A site visit was conducted in October 2023. The nearest Shortnose Sturgeon occurrence is 0.6 mile from the project site. The project site does not contain any streams and there is no in-water work proposed for the project. The project will not impact the Hudson River; therefore the project will not affect the Shortnose Sturgeon.

Project Review Step 5 - Critical Habitat:

The Official USFWS response indicated that the project is not in a critical habitat area.

Project Review Step 6 - Bald Eagle:

According to the USFWS, the Bald Eagle is not a Bird of Conservation Concern within the project area. Mapping data from the NYSDEC's 2000-2005 Breeding Bird Atlas Survey was evaluated, which indicated the Bald Eagle is known to be present in the vicinity of the project area. Although the Bald Eagle has been removed from the Federal endangered species lists, it is protected under the Bald and Golden Eagle Protection Act and is a state-listed threatened species.

There were no Bald Eagle nests observed in the project area during the site visit in October 2023. Five White Pine trees were observed adjacent to the project area, however these trees contain dense branching, and no nests or suitable nesting habitat is present. Suitable hunting or nesting habitat is not present in other areas of the project site.

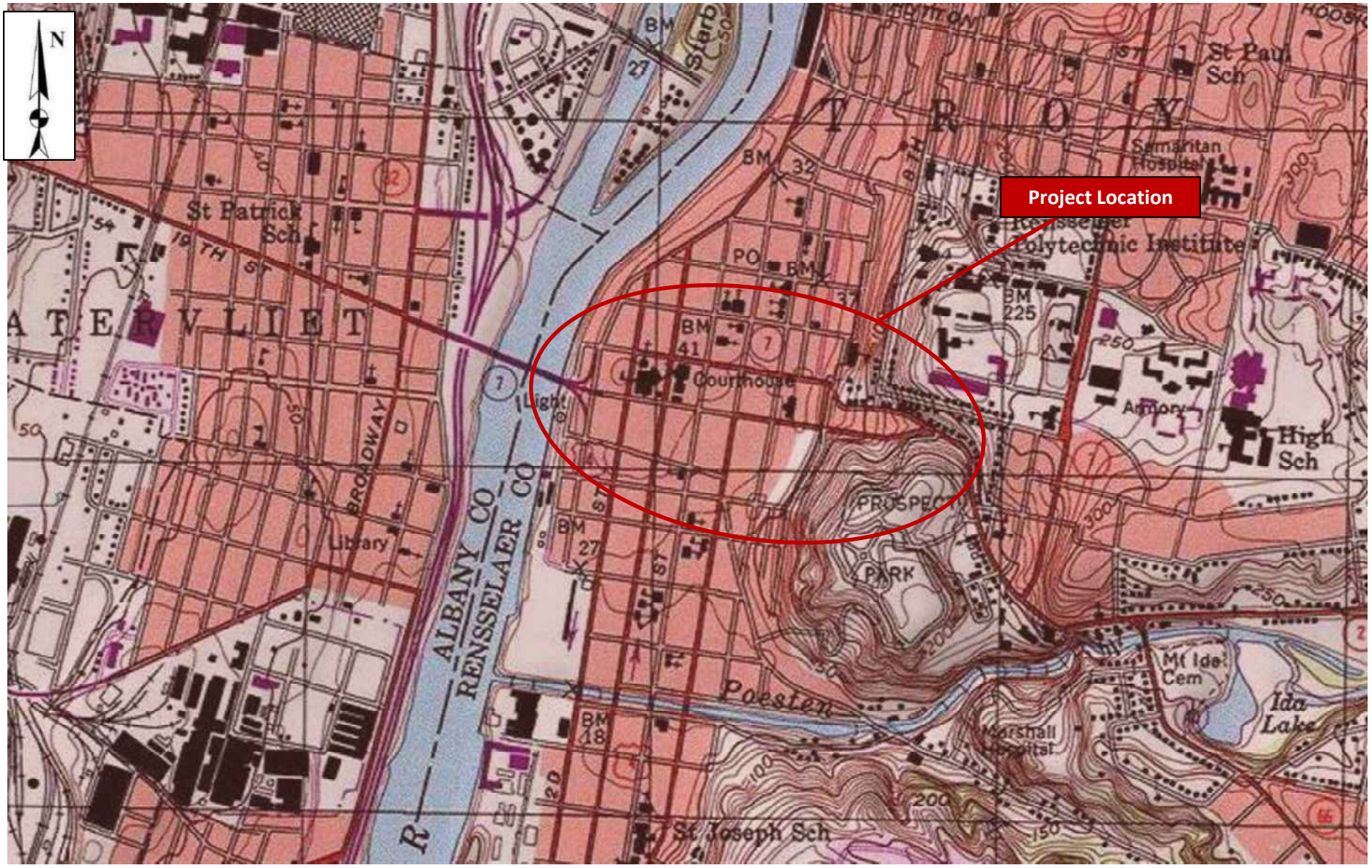
While potential hunting habitat for the Bald Eagle exists near the project site and in adjacent areas along the Hudson River, it appears that these locations are not currently being utilized by the Bald Eagle. The project proposes the reconstruction of sidewalks and roadways, with additional pedestrian infrastructure improvements; therefore the project will have no effect on the Bald Eagle.

A Bald Eagle Habitat Screening form has been completed and is enclosed in this review package in **Attachment 3.**

Project Review Step 7 – Determinations and Package Submittal:

The USFWS's online Project Review Process has been completed. Based on Step 3 (Coordination with State Agencies) and Step 4 (Suitable Habitat) of the process, the proposed project May Affect but is Not Likely to Adversely Affect the Tricolored Bat. The NYSDOT will forward this information with a proposed determination for USFWS review. The project will have no effect, no suitable habitat for the Bald Eagle. The project will not require conference with the USFWS regarding the Monarch Butterfly. Additionally, the proposed project does not appear to affect any other state or federally listed species or their respective habitats.

ATTACHMENT 1

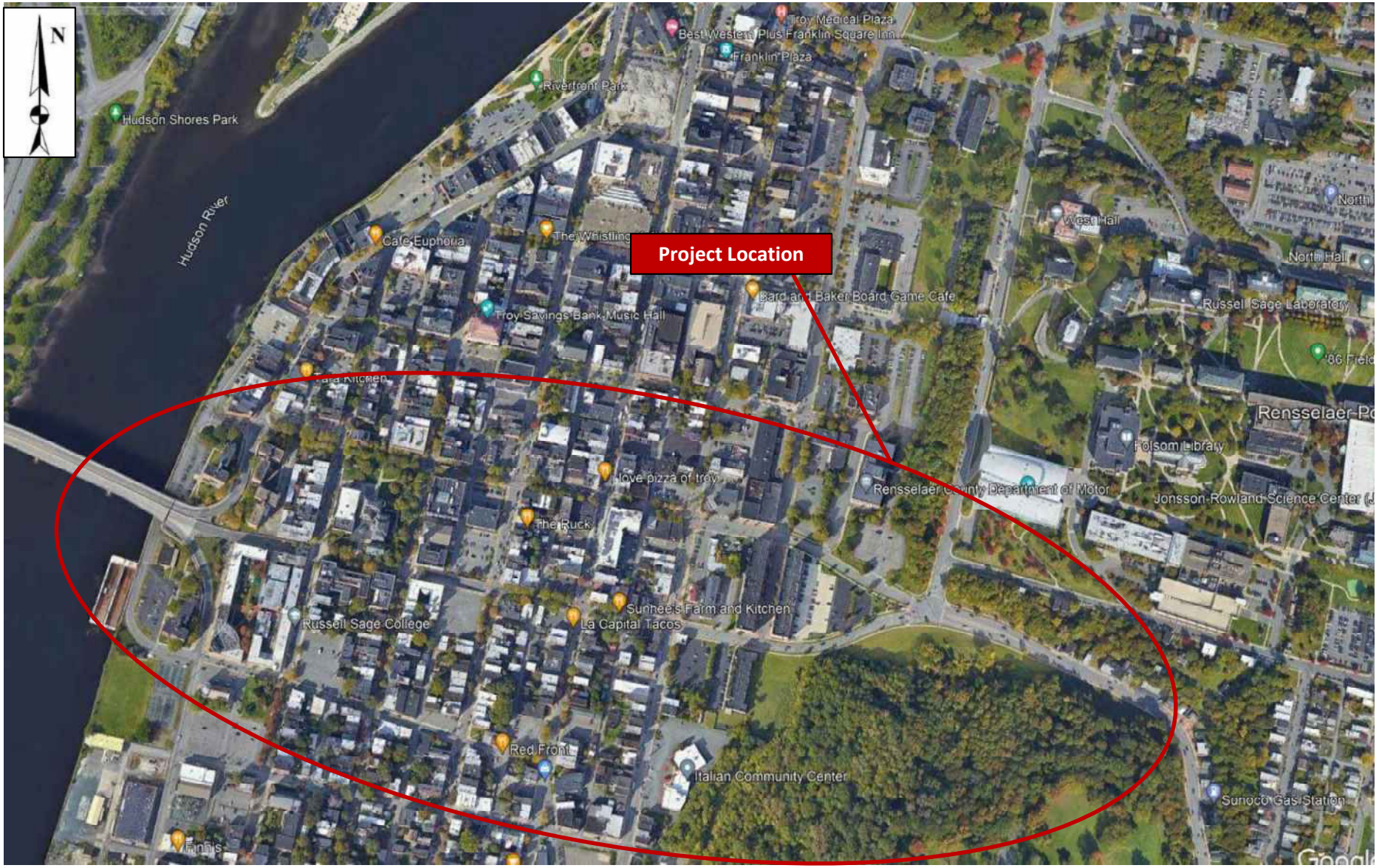


OSPA
ENGINEERING SERVICES, PC

Figure 1- USGS Topographic Map

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE



OSPA
ENGINEERING SERVICES, PC

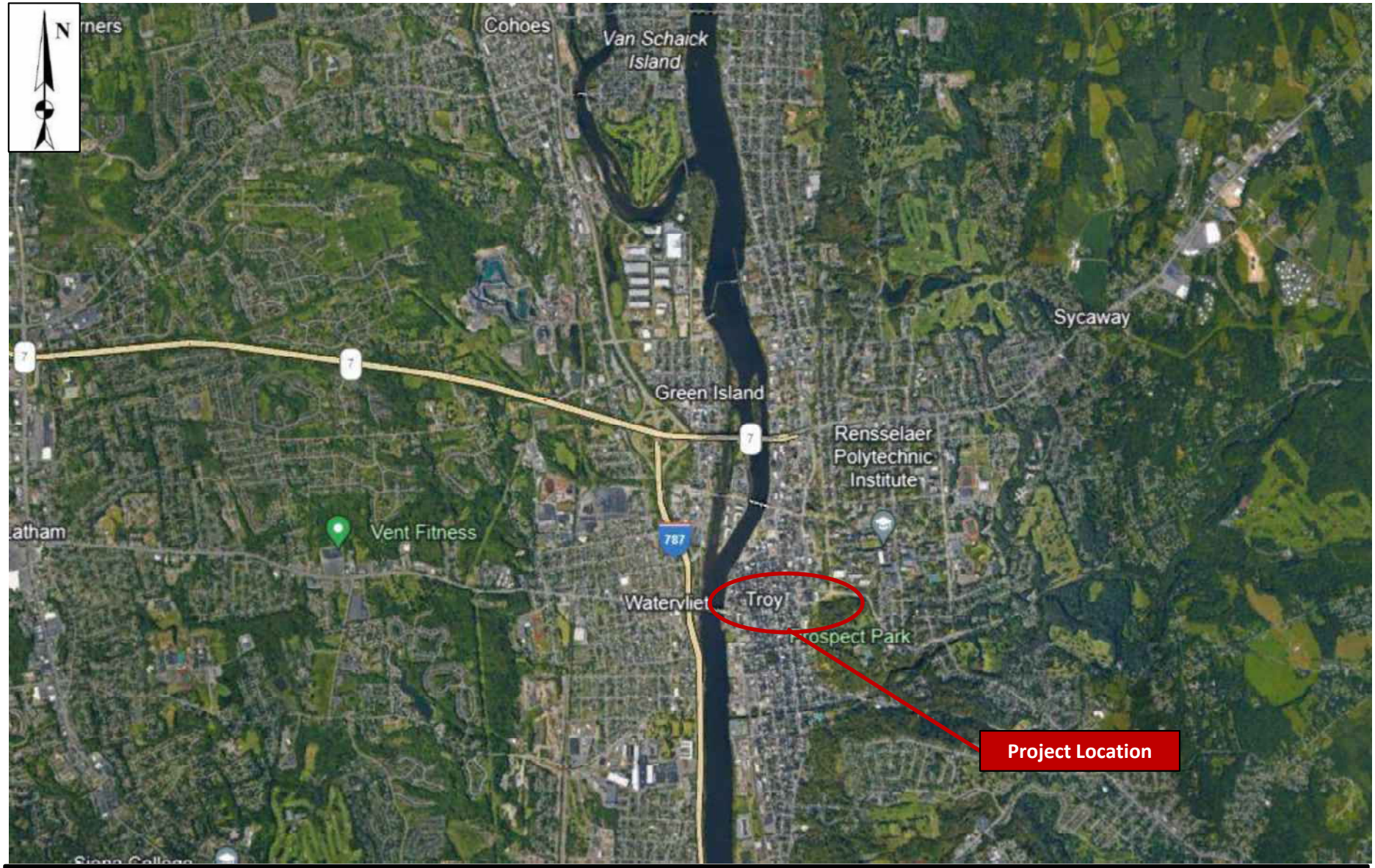
Figure 2- Zoomed In Google Earth Site Location Map

Congress and Ferry Street Corridor Improvements

City of Troy

Rensselaer County

NOT TO SCALE



OSPA
ENGINEERING SERVICES, PC

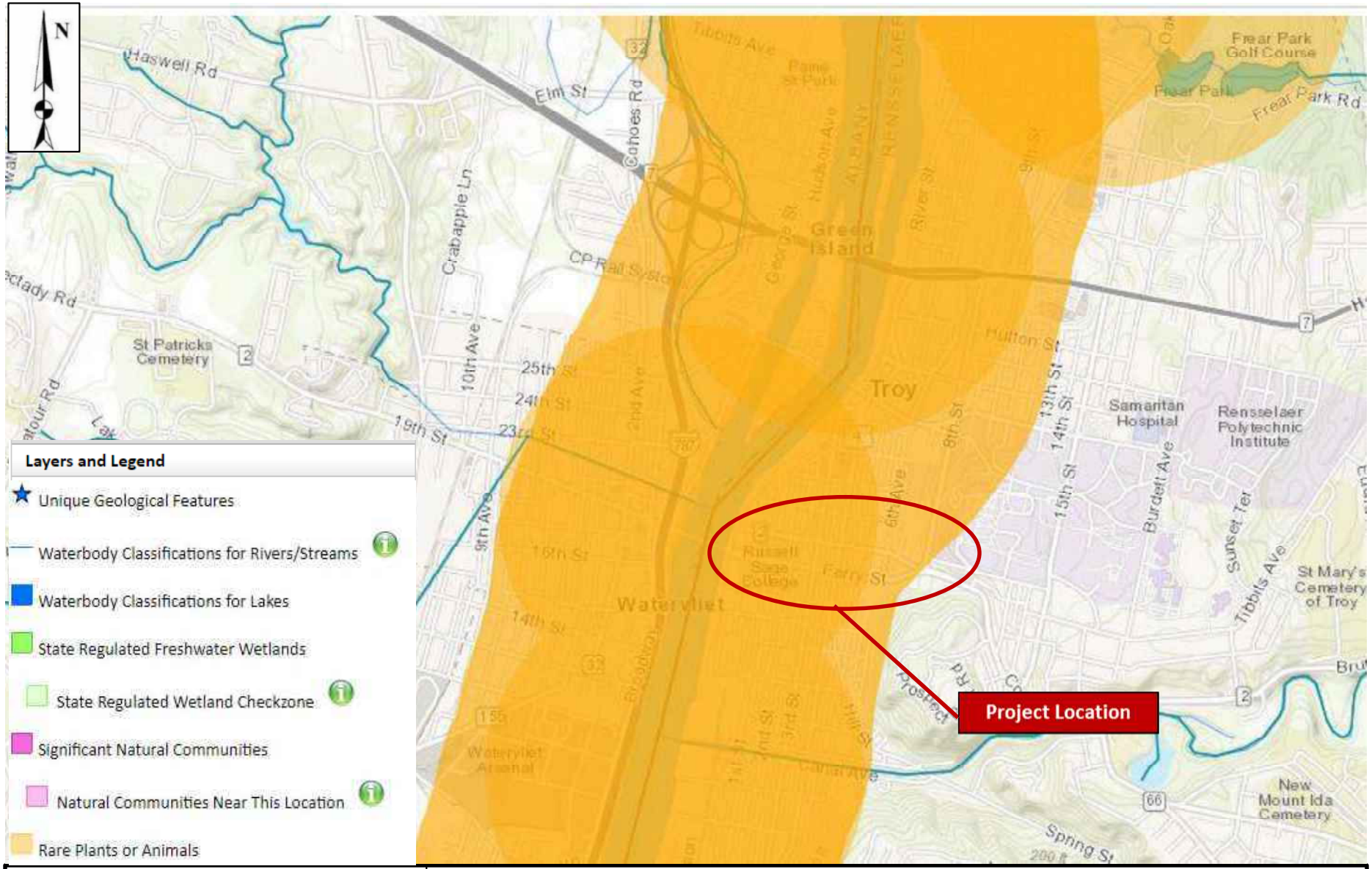
Figure 3 - Zoomed Out Google Earth Site Location Map

Congress and Ferry Street Corridor Improvements

City of Troy

Rensselaer County

NOT TO SCALE

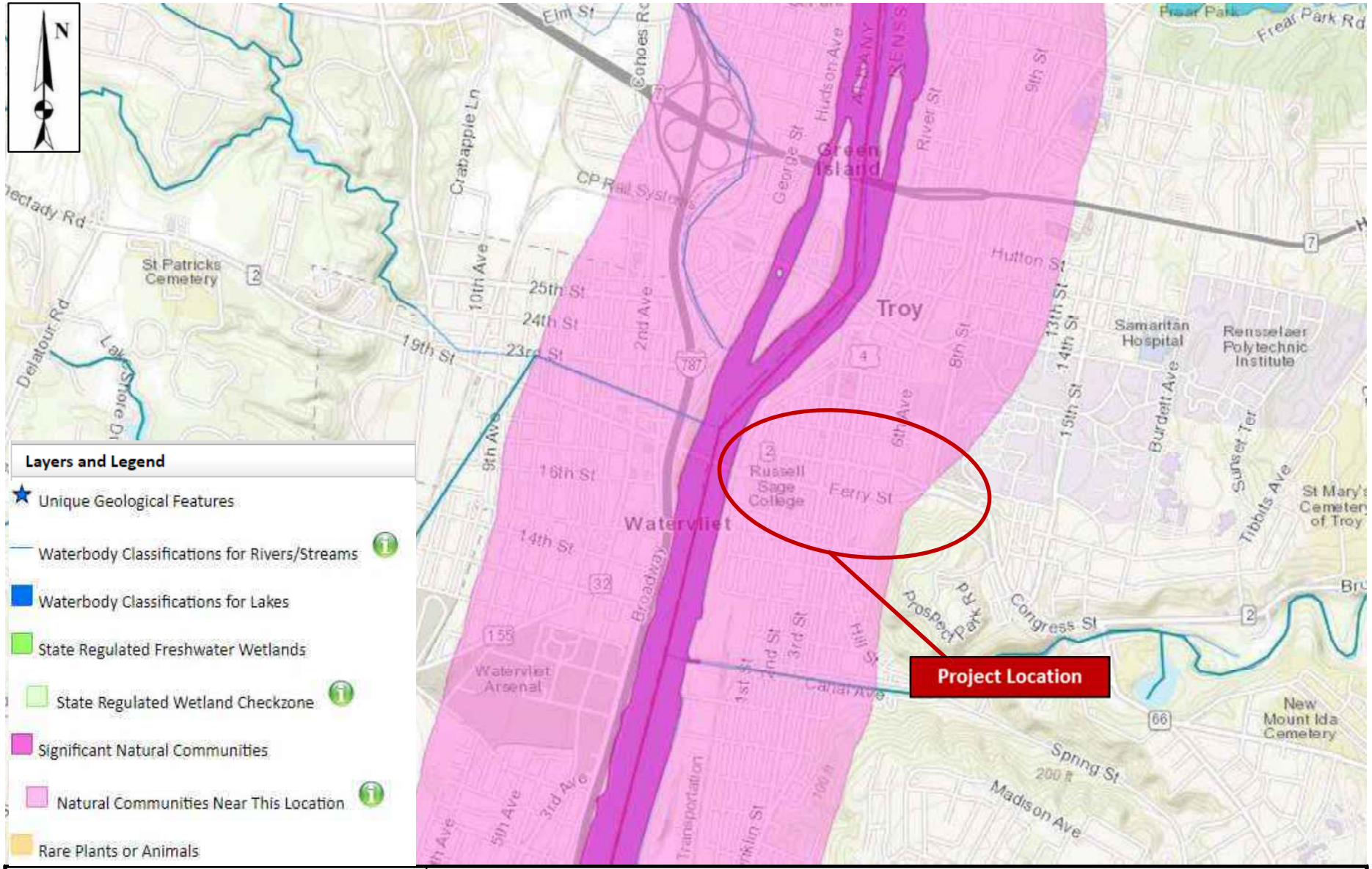


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NYSDEC Environmental Resource Mapper

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE

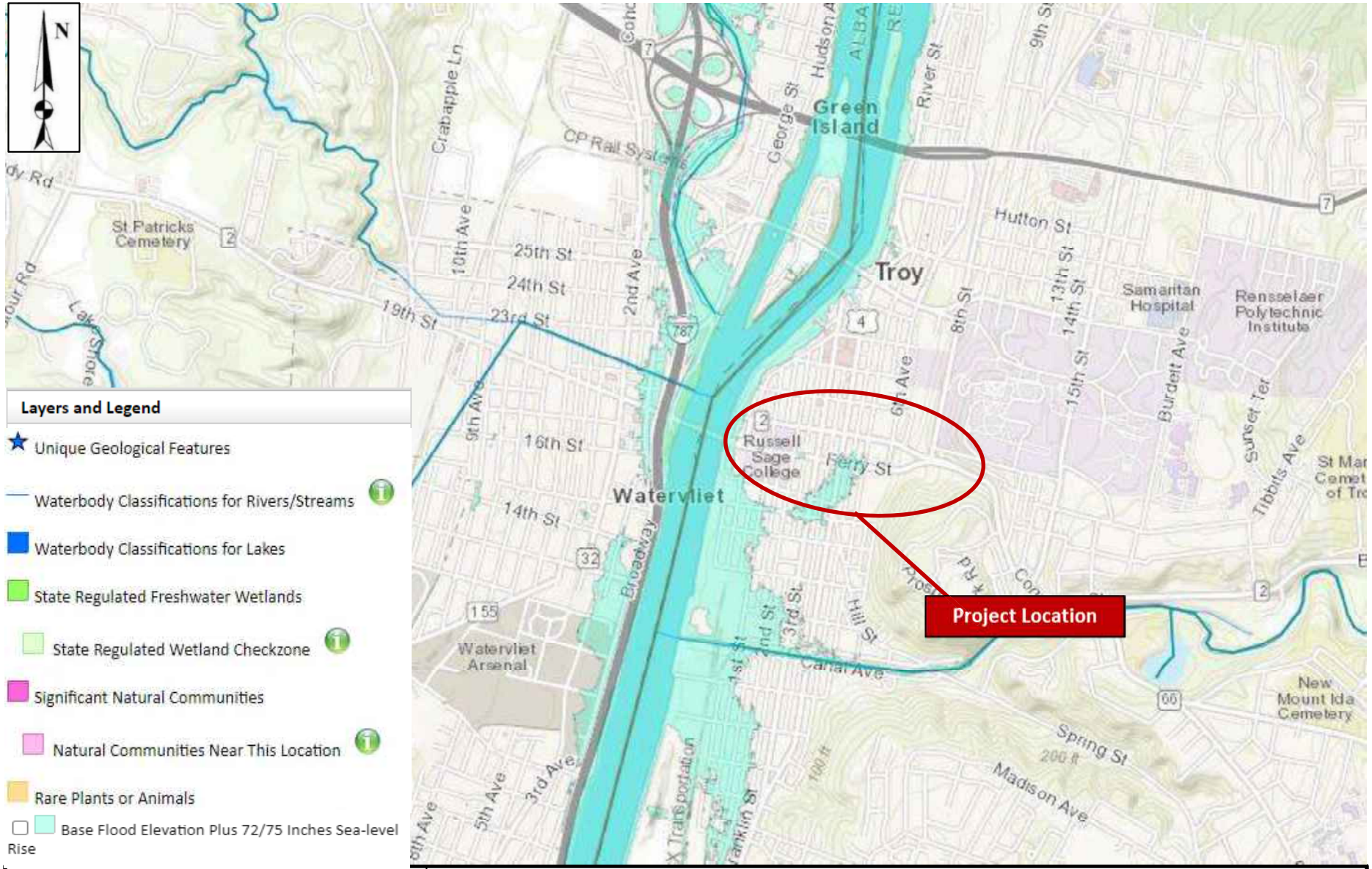


OSPA
ENGINEERING SERVICES, PC

NYSDEC Environmental Resource Mapper

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE

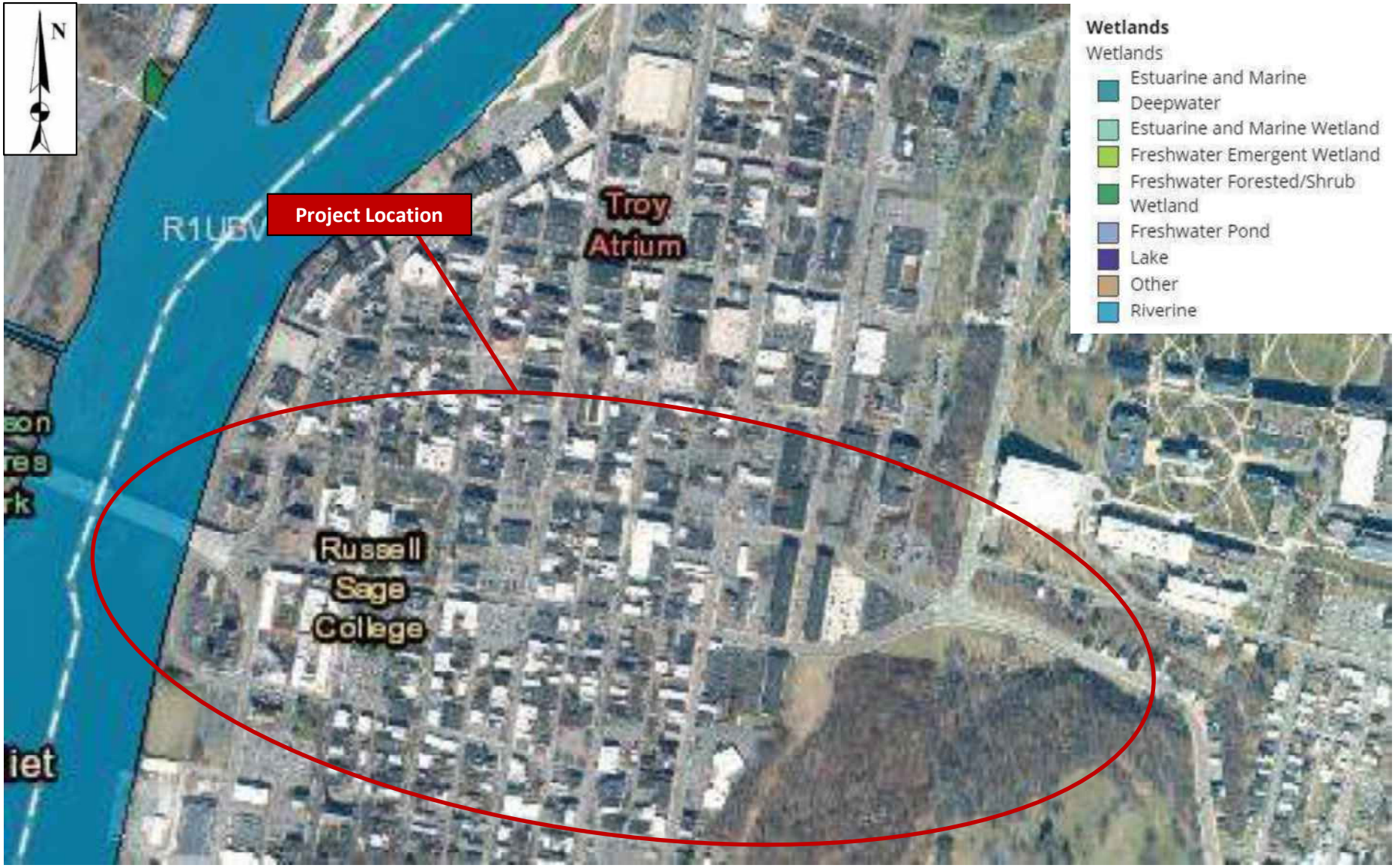


OSPA
ENGINEERING SERVICES, PC

NYSDEC Environmental Resource Mapper

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE



OSPA
ENGINEERING SERVICES, PC

USFWS NWI Mapper

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE

ATTACHMENT 2

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 07/22/2025 12:57:46 UTC
Project Code: 2024-0000599
Project Name: Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St.
PIN # 1761.61

Subject: List of threatened and endangered species that may occur in your proposed project location 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

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 Act. **Please include the Consultation Code in the**

header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
(607) 753-9334

PROJECT SUMMARY

Project Code: 2024-0000599

Project Name: Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St. PIN # 1761.61

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The City of Troy is looking to transform the route by redesigning the streetscape to prioritize pedestrians and cyclists, improve accessibility, and calm traffic speeds. This may include repairing damaged infrastructure and adding new features where needed. The proposed improvements consist of milling and filling Congress and Ferry, restriping (with a new striping plan), replacing approximately 50% of sidewalks, replacement of curb, installation of ADA compliant ramps, curb extensions, bike lanes, high visibility crosswalks, pedestrian countdown timers, and retiming traffic controls.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.72818685,-73.69086044794727,14z



Counties: Rensselaer County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 2 threatened, endangered, or candidate species on this 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Troy city
Name: Melanie Osterhout
Address: 800 ROUTE 146 BLDG 200 STE 280
City: CLIFTON PARK
State: NY
Zip: 12065
Email mosterhout@ospaengineering.com
Phone: 5186369956

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385
Phone: (607) 753-9334 Fax: (607) 753-9699
Email Address: fw5es_nyfo@fws.gov

In Reply Refer To: 07/22/2025 13:28:13 UTC
Project code: 2024-0000599
Project Name: Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St. PIN # 1761.61

Subject: Not Likely to Adversely Affect Technical assistance letter for the 'Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St. PIN # 1761.61' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St. PIN # 1761.61 (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above. **This letter does not satisfy compliance requirement under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended**. Those requirements will be met upon taking the actions described below.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

This "may affect - not likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO/PCO to satisfy the agency's consultation requirements for this project. **To fulfill the next steps in the consultation process, add the lead Federal action agency or designated non-federal representative as a Project Member in the IPaC system and provide this letter to the lead Federal action agency or its designated non-federal representative with a request for review, and as the agency deems appropriate, submit for concurrence verification through the IPaC system. ESA section 7 compliance for this Proposed Action is NOT yet complete until the Federal action agency or its designated non-federal representative receives a not likely to adversely affect verification letter from the Service IPaC system.**

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats,

northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

Congress and Ferry Streets from the Congress Street Bridge Ramps to 11th St. PIN # 1761.61

DESCRIPTION

The City of Troy is looking to transform the route by redesigning the streetscape to prioritize pedestrians and cyclists, improve accessibility, and calm traffic speeds. This may include repairing damaged infrastructure and adding new features where needed. The proposed improvements consist of milling and filling Congress and Ferry, restriping (with a new striping plan), replacing approximately 50% of sidewalks, replacement of curb, installation of ADA compliant ramps, curb extensions, bike lanes, high visibility crosswalks, pedestrian countdown timers, and retiming traffic controls.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@42.72818685,-73.69086044794727,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

3. Is the project within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   No

4. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

5. Is your project located within a karst area?

   No

6. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   Yes

7. Do your project’s activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

8. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

   Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

   Yes

9. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

   Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

   No

10. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

    Yes

11. Will any tree removal or trimming occur during the bat pup season?

    Note: For more information about bat pup seasons please visit https://www.fws.gov/sites/default/files/documents/2024-10/2024_usfws_rangewide_ibat-nleb_survey_guidelines.pdf

    No

12. Will the removal or trimming of trees occur **within documented habitat** for the Indiana bat, NLEB, or TCB?

    Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

13. Will all tree removal or trimming occur within 100 feet of the road or rail surface?

    Yes

14. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure?

    Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards.

    No

15. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

    Note: For the definition of lighting, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

16. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

    No

17. Will your project include percussive activities?

    Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

    No

18. Will the project include **bridge** removal, replacement, and/or alteration activities?

    No

19. Does the project include **culvert** removal, replacement, and/or alteration activities?

    No

20. Does the project include **structure** removal, replacement, and/or alteration activities?

    Yes

21. Has a Structure Bat Assessment been conducted within the last 24 months to determine if the structure is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity length of structure/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines

    Yes

    SUBMITTED DOCUMENTS

    - *176161_Bat_Survey_4-23-2025.pdf https://ipac.ecosphere.fws.gov/project/KCNMOKZVFZHWJKFQOXYGHPRXL4/projectDocuments/165322255*

22. Please select one of the following results of the Structure Bat Assessment:

    c) Did not detect any signs of Indiana bats, NLEBs, or TCBs roosting in the structure (bats, guano, etc.)?

23. Will the project involve the removal or trimming of more than 20 acres of Indiana bat, NLEB, or TCB suitable habitat per 5-mile section of road/rail?

    No

24. Will the removal or trimming of trees occur within 0.5 miles of a known Indiana bat, NLEB, or TCB hibernaculum?

    No

25. Will the removal or trimming of these trees occur during the active season?

    No

26. Will the removal or trimming of trees occur **beyond 100 feet** of the existing road/rail surfaces?

    No

27. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   Yes

2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

   No

3. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the inactive season (NLAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   2.25

4. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the active season **(outside the pup season and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

5. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the pup season **(trees must be <9 in DBH, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

6. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surface during the inactive season (LAA)? Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

7. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15-Feb 15 in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

8. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the inactive season (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

9. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

10. Please enter the date of the structure assessment.

    4/23/25

11. Please verify only a small number of Indiana bats, NLEBs, or TCBs (< 5 bats) occur per structure.

    Yes

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

TRTAMM1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

TRTAMM2

Ensure tree removal/trimming is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree removal/trimming to ensure contractors stay within clearing limits

TRTAMM3

Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/ rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on July 21, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Troy city
Name: Melanie Osterhout
Address: 800 ROUTE 146 BLDG 200 STE 280
City: CLIFTON PARK
State: NY
Zip: 12065
Email mosterhout@ospaengineering.com
Phone: 5186369956

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Department of Transportation

ATTACHMENT 3

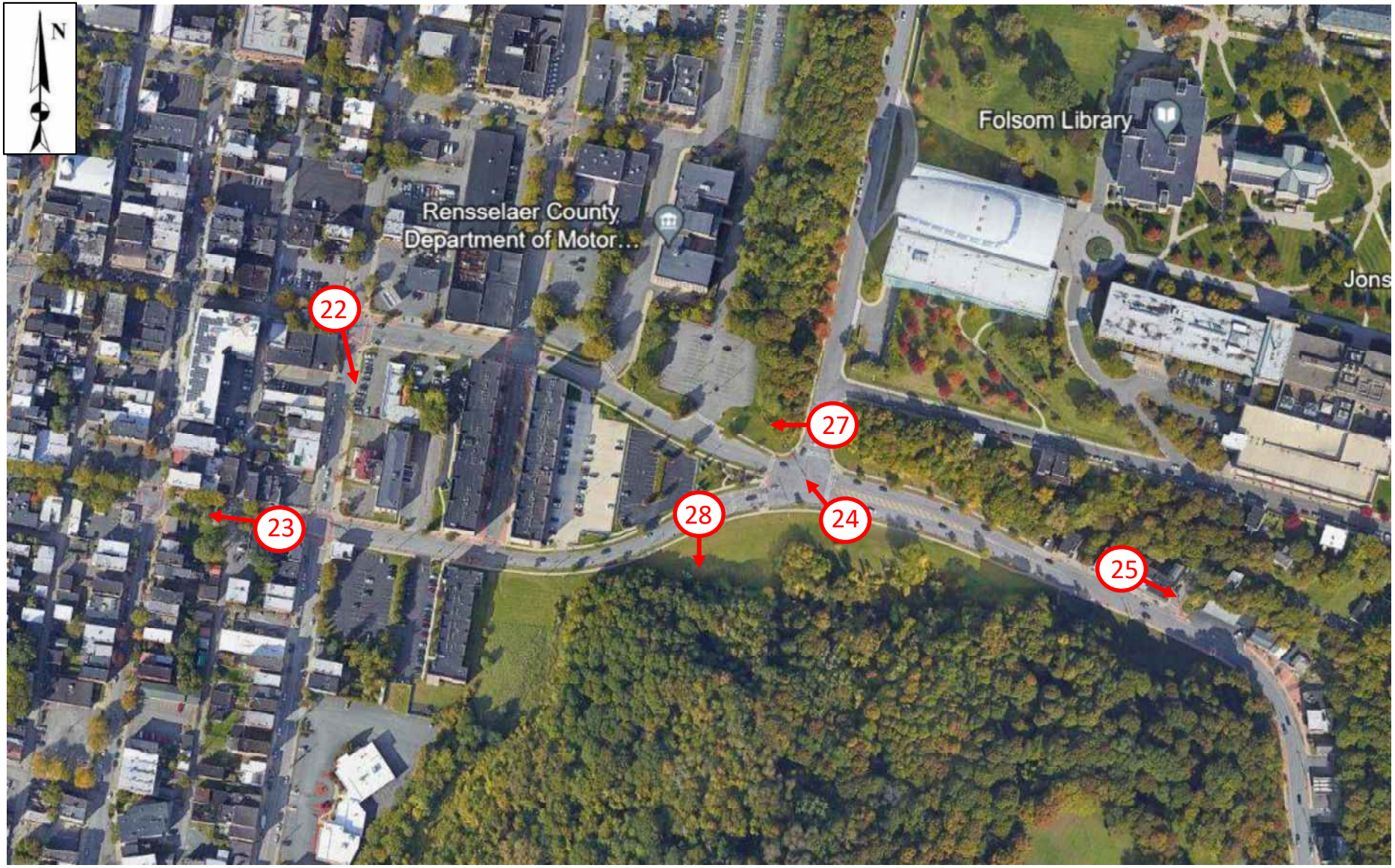


OSPA
ENGINEERING SERVICES, PC

Site Location Map

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE

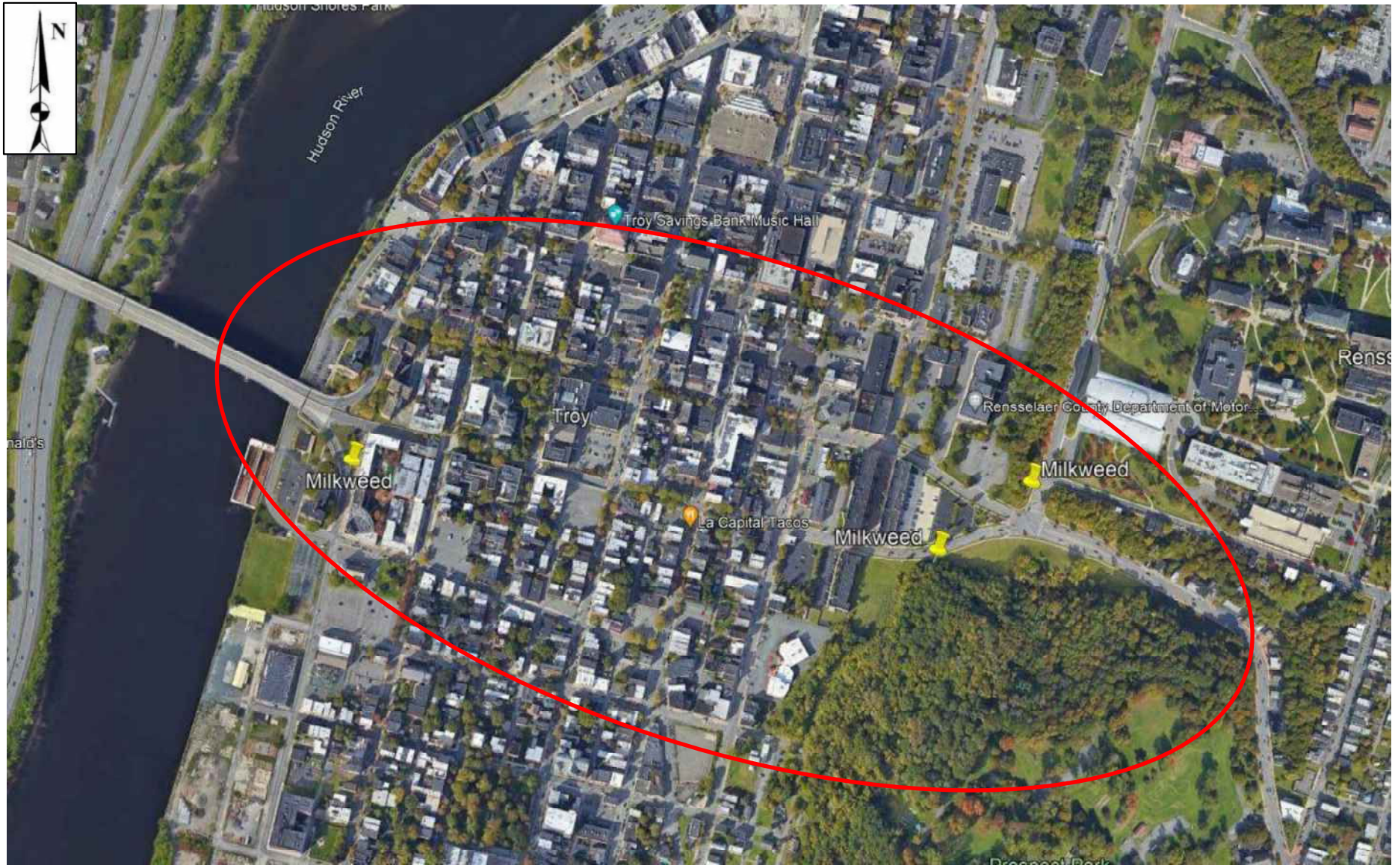


OSPA
ENGINEERING SERVICES, PC

Site Location Map

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE



OSPA
ENGINEERING SERVICES, PC

Google Earth-Milkweed Locations

Congress and Ferry Street Corridor Improvements
City of Troy
Rensselaer County

NOT TO SCALE



Photo 1: Looking west over Congress Street Bridge.



Photo 2: Looking east toward the Ferry Street Tunnel.



Photo 3: Looking west toward Front Street from Congress Street.



Photo 4: Looking east on Congress Street.



Photo 5: Looking northwest into the intersection of Front and Congress Street.



Photo 6: View on Ferry Street Looking west.



Photo 7: Looking northwest into the intersection of Congress and River Street.

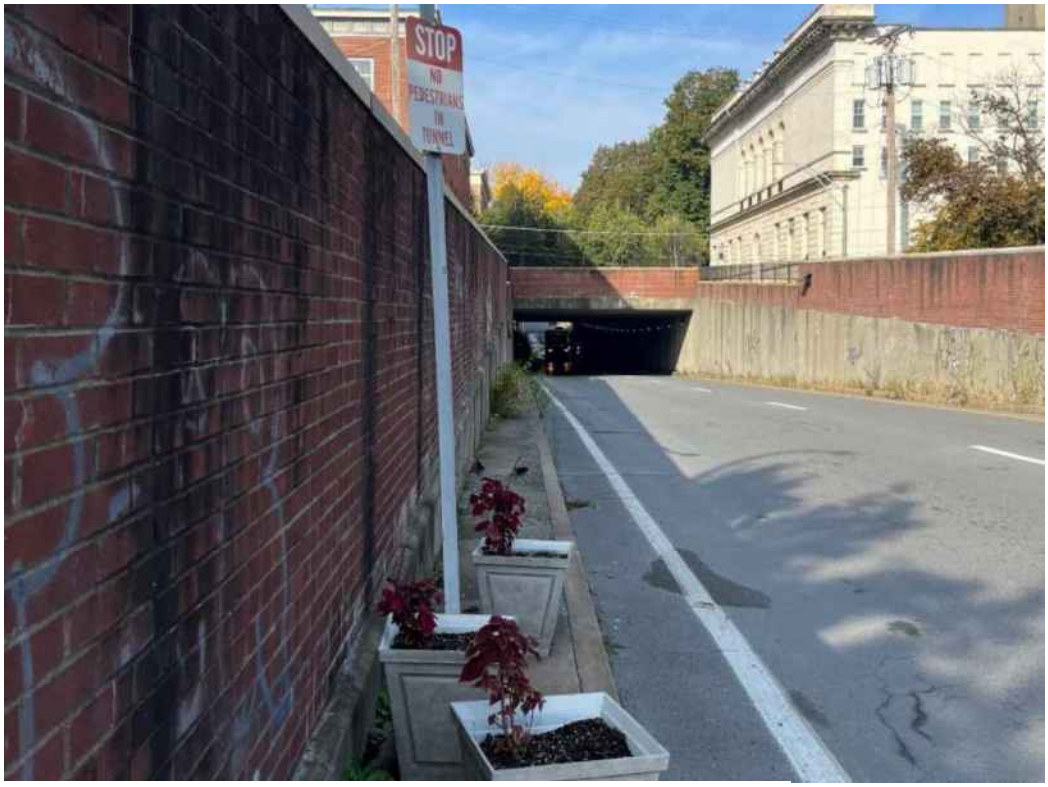


Photo 8: View of the Ferry Street Tunnel looking west.



Photo 9: Looking west in the Ferry Street Tunnel.



Photo 10: View of the ramp from River Street to the Congress Street bridge looking southwest.



Photo 11: View of structure located in the southwest area of the project boundary, view looking north towards Ferry Street. McKinstry Hall- Date of Construction: 1959



Photo 12: View of structure looking north. McKinstry Hall- See Photo 11 Information

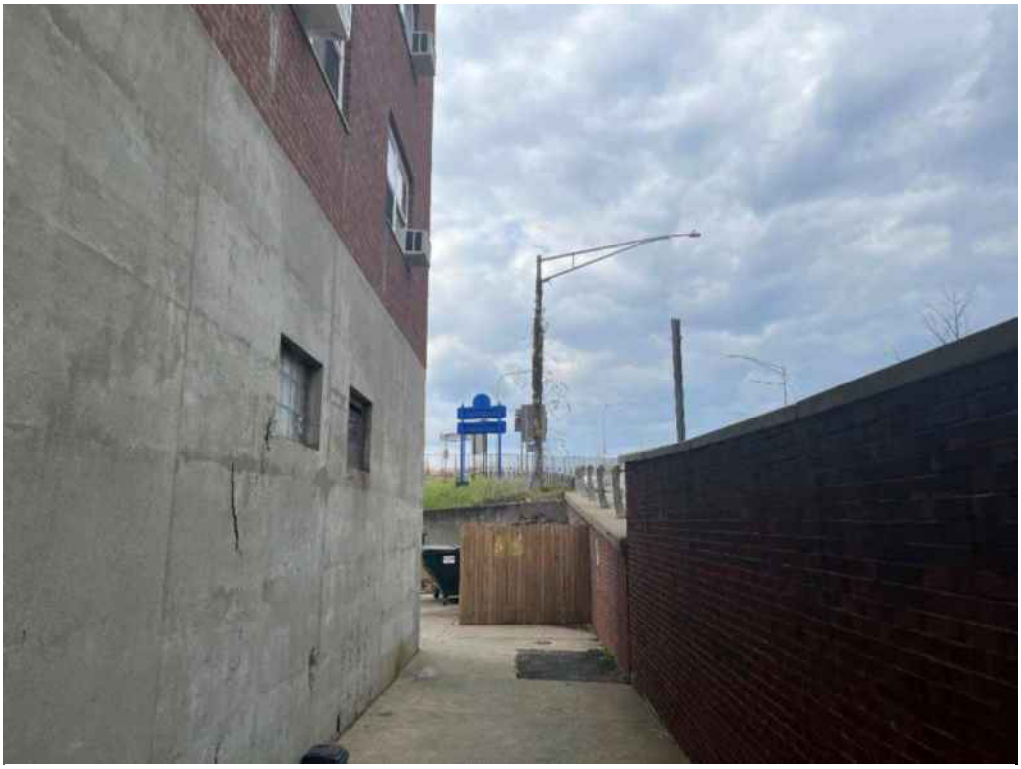


Photo 13: View of structure looking west. McKinstry Hall- See Photo 11 Information



Photo 14: View of structure looking northeast. McKinstry Hall- See Photo 11 Information



Photo 15: Looking south on River Street.



Photo 16: Intersection of 4th and Ferry Street looking west.



Photo 17: Looking west on Ferry Street.



Photo 18: Looking west on Congress Street.



Photo 19: Looking west on Congress Street.



Photo 20: View of Ferry Street looking east.



Photo 21: Looking north at the intersection of Ferry and 3rd Street.



Photo 22: View of the intersection of Congress Street and 5th Ave looking south.



Photo 23: View of Ferry Street looking west from the intersection of 5th Avenue.



Photo 24: Looking west at the intersection from Congress and Ferry Street.



Photo 25: Looking east on Congress Street at 11th Street.

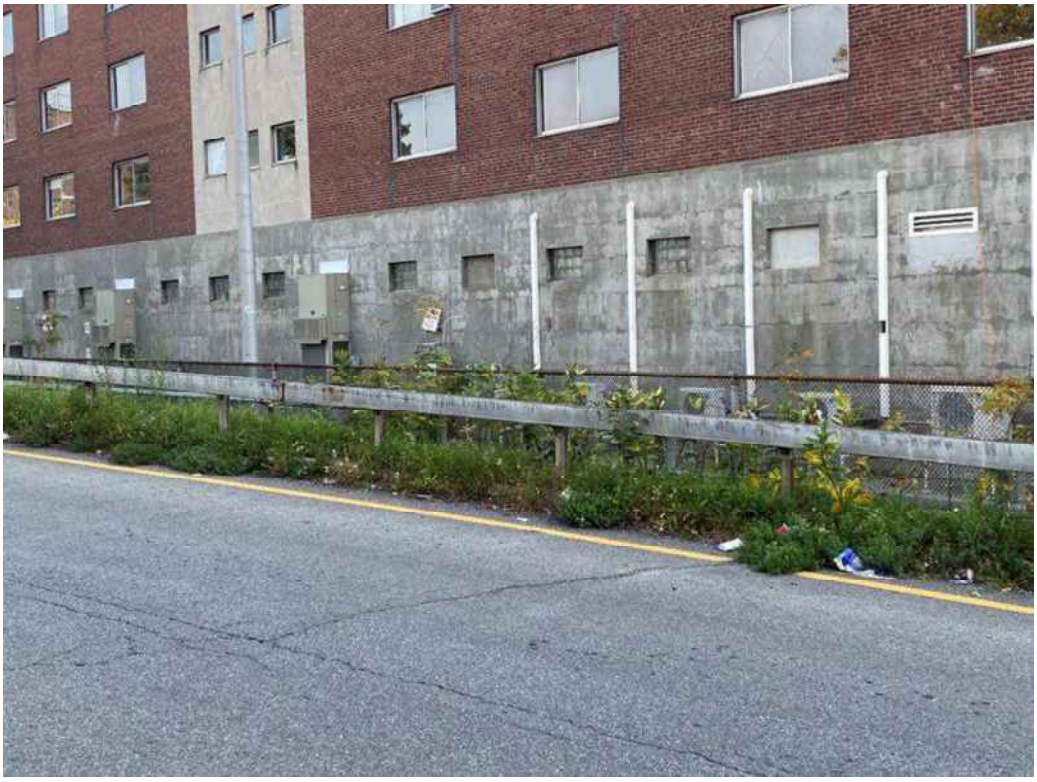


Photo 26: View of Milkweed plants along River Street south ramp.



Photo 27: View of Milkweed plants along State Route 2 above intersection of Ferry and Congress Streets.



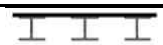
Photo 28: View of Milkweed plants located along Ferry Street adjacent to Prospect Park.

Bridge/Structure Bat Assessment Form

Date & Time of Assessment: April 23, 2025	DOT Project Number: 1761.61	Route/Facility Carried: NY 2 (Ferry and Congress Streets) Corridor Improvements	County: Rensselaer
Federal Structure ID:	Structure Coordinates (latitude and longitude): 42.727877, -73.692758	Structure Height (approximate): 15 feet	Structure Length: 515 feet

Structure Type (check one)

Bridge Construction Style

- ○ Cast-in-place 
- ○ Flat Slab/Box 
- ○ Truss 
- ○ Parallel Box Beam 
- ○ Pre-stressed Girder 
- ○ Steel I-beam 
- ○ Covered 
- ○ Other:

Culvert Type

- ○ Box
- ○ Pipe/Round
- ○ Other:

Other Structure

- ◉ Tunnel

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☒ Concrete
☒ Concrete	☒ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Culvert Material

- ☐ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Creosote Evidence

- ○ Yes ◉ No
- ○ Unknown

Notes:

Crossings Traversed (check all that apply)

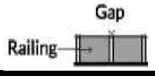
☒ Bare ground	☒ Open vegetation
☐ Rip-rap	☐ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☒ Road/trail - Type:
☐ Seasonal water	☒ Other: Park

Surrounding Habitat (check all that apply)

☐ Agricultural	☐ Grassland
☐ Commercial	☐ Ranching
☒ Residential-urban	☐ Riparian/wetland
☐ Residential-rural	☒ Mixed use
☐ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	**Assessment Notes**	**Evidence of Bats** (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between walls, ceiling joists	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Weep holes, scupper drains, and inlets/pipes	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All guiderails	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ All expansion joints	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Melanie Osterhout

Signature: 

BALD EAGLE
HABITAT SCREENING FORM

Project: PIN 1761.61
NY 2 Corridor, River/Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation Project
Name of Screener: Nathan Laing – OSPA Engineering Services, P.C.
Date: _October 5th, 2023_ **Time:** _11 am__

LANDSCAPE FEATURES	Yes	No	N/A
Stream or 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		X
Suburban – pavement w/ open lawn areas	X		X
Rural – undeveloped			X
Rural – recently logged or clear-cut			X
Farmland		X	
Utility ROW		X	
Previously Disturbed	X		
Other (describe)			

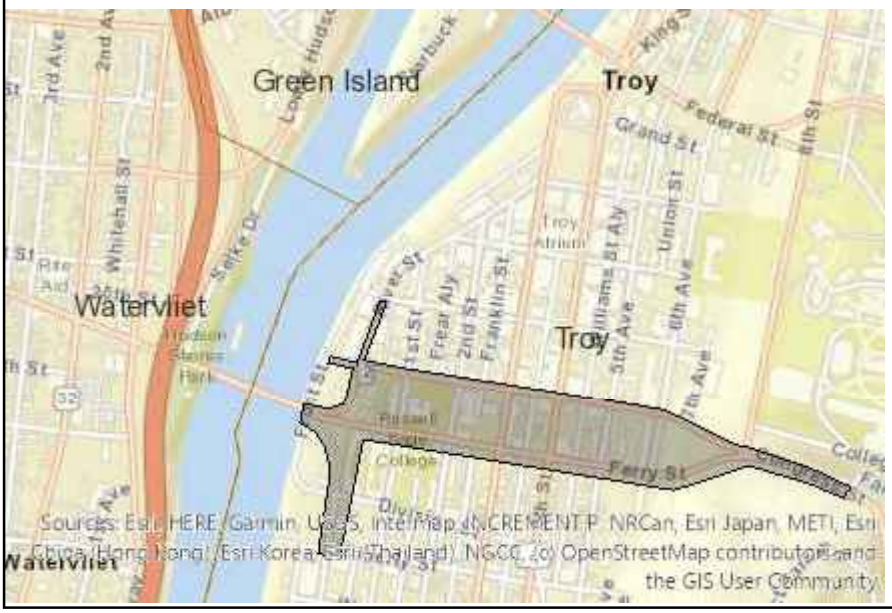
Observations:

- 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_
- 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 _____

- Percent (%) groundcover of herbs/shrubs, trees, of the project site: _20_ %
- 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.): The project site contains scattered tree plantings with scattered maintained low herbaceous cover. The Hudson River is adjacent to the project site.
- Approximate contiguous acreage at site: 36 acres
- Topography – ***check all that apply:***
  Steep slope ___ Hilly__ Flat__X__ Other (describe) ____Urban_X__
- **Comments**: Describe the project area (including the immediate surrounding area) and nearby land-uses: Five small White Pine trees are located in a park adjacent to the project site however no nests were observed and the tree branch growth is too dense for natural growth. These trees are located in urban setting with significant light and audio pollution. No Bald Eagles observed in the project area.

EAF Mapper Summary Report

Friday, April 4, 2025 10:41 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Yes - Digital mapping data are not available for all Special Planning Districts. Refer to EAF Workbook.
C.2.b. [Special Planning District - Name]	Remediaton Sites:546031, Remediaton Sites:C442068, NYS Heritage Areas:Hudson-Mohawk
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Yes - Digital mapping data for Spills Incidents are not available for this location. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Yes
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Yes
E.1.h.i [DEC Spills or Remediation Site - DEC ID Number]	546031, C442068
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00483, 546031, E442037, V00482, C401074, C442058, C442068
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.

E.2.j. [100 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.k. [500 Year Floodplain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Principal Aquifer
E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Tidal River
E.2.n.i [Natural Communities - Acres]	74248.64
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Shortnose Sturgeon, Atlantic Sturgeon
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:COMMERCIAL / INDUSTRIAL, Eligible property:TROY GAS CO. - NIAGARA MOHAWK, Washington Park Historic District, River Street Historic District, Hart-Cluett Mansion, Troy Public Library, St. Paul's Episcopal Church Complex, Second Street Historic District, Troy Savings Bank, Pumpkin House (Hart Tenant House), Fire Alarm, Telegraph and Police Signaling Building, Central Troy Historic District, Central Troy Historic District (Boundary Expansion)
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

EFH Mapper Report

EFH Data Notice

Essential Fish Habitat (EFH) is defined by textual descriptions contained in the fishery management plans developed by the regional fishery management councils. In most cases mapping data can not fully represent the complexity of the habitats that make up EFH. This report should be used for general interest queries only and should not be interpreted as a definitive evaluation of EFH at this location. A location-specific evaluation of EFH for any official purposes must be performed by a regional expert. Please refer to the following links for the appropriate regional resources.

Greater Atlantic Regional Office
Atlantic Highly Migratory Species Management Division

Query Results

Degrees, Minutes, Seconds: Latitude = 42° 43' 43" N, Longitude = 74° 18' 19" W
Decimal Degrees: Latitude = 42.729, Longitude = -73.695

The query location intersects with spatial data representing EFH and/or HAPCs for the following species/management units.

***** W A R N I N G *****

Please note under "Life Stage(s) Found at Location" the category "ALL" indicates that all life stages of that species share the same map and are designated at the queried location.

EFH

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Atlantic Butterfish	Larvae	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11
		Atlantic Herring	Adult, Juvenile, Larvae	New England	Amendment 3 to the Atlantic Herring FMP
		Bluefish	Adult, Juvenile	Mid-Atlantic	Bluefish
		Clearnose Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Little Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP
		Longfin Inshore Squid	Eggs	Mid-Atlantic	Atlantic Mackerel, Squid,& Butterfish Amendment 11

Link	Data Caveats	Species/Management Unit	Lifestage(s) Found at Location	Management Council	FMP
		Red Hake	Adult, Eggs/Larvae/Juvenile	New England	Amendment 14 to the Northeast Multispecies FMP
		Summer Flounder	Adult, Juvenile, Larvae	Mid-Atlantic	Summer Flounder, Scup, Black Sea Bass
		Windowpane Flounder	Adult, Eggs, Juvenile, Larvae	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Flounder	Eggs, Juvenile, Larvae/Adult	New England	Amendment 14 to the Northeast Multispecies FMP
		Winter Skate	Adult, Juvenile	New England	Amendment 2 to the Northeast Skate Complex FMP

Pacific Salmon EFH

No Pacific Salmon Essential Fish Habitat (EFH) were identified at the report location.

Atlantic Salmon

No Atlantic Salmon were identified at the report location.

HAPCs

Link	Data Caveats	HAPC Name	Management Council
		Summer Flounder SAV	Mid-Atlantic Fishery Management Council

EFH Areas Protected from Fishing

No EFH Areas Protected from Fishing (EFHA) were identified at the report location.

Spatial data does not currently exist for all the managed species in this area. The following is a list of species or management units for which there is no spatial data.
****For links to all EFH text descriptions see the complete data inventory: open data inventory -->**

All EFH species have been mapped for the Greater Atlantic region,
Atlantic Highly Migratory Species EFH,
Bigeye Sand Tiger Shark,
Bigeye Sixgill Shark,
Caribbean Sharpnose Shark,
Galapagos Shark,
Narrowtooth Shark,
Sevengill Shark,
Sixgill Shark,
Smooth Hammerhead Shark,
Smalltail Shark

ATTACHMENT 4

Tri-colored Bat

Perimyotis subflavus (Menu, 1984)



Tri-colored bat (Perimyotis subflavus)
Al Hicks, NYSDEC

Class
Mammalia (Mammals)

Family
Vespertilionidae (Evening Bats and Vesper Bats)

State Protection
Not Listed

Federal Protection
Proposed Endangered

State Conservation Status Rank
S1

Global Conservation Status Rank
G3G4

Contents

1. Summary
2. Conservation and Management
3. Habitat
4. Range
5. Identification Comments
6. Taxonomy
7. Additional Resources
8. About This Guide

Summary

Did you know?

The tri-colored bat (*Perimyotis subflavus*) was formerly known as the eastern pipistrelle (*Pipistrellus subflavus*). It was first recommended for placement in a separate genus in 2003 (Hoofer and Van Den Bussche 2003).

State Ranking Justification

Tri-colored bats were likely never common in New York. Although their northern range extends into Canada, New York is peripheral to the core of their range. The statewide population numbers have declined dramatically since the effects of WNS were first observed in 2006.

Short-term Trends

Tri-colored bat populations have declined approximately 96% in New York State from 2007 through 2015. There were only 118 tri-colored bats counted in 2012 compared with 2,285 among the same 37 hibernacula surveyed in 2007 (NYSDEC 2012).

Long-term Trends

Tri-colored bat numbers are presumed to have been stable or increasing prior to the start of WNS in 2006 (C. Herzog pers. comm.).

Conservation and Management

Conservation Overview

Tri-colored bats use open woodlands and riparian forests. Populations in New York and the eastern U.S. have plummeted since White-nose Syndrome (WNS) was first reported in 2006.

Threats

By far the largest threat to tri-colored bats in New York is white-nose syndrome (WNS) which was first discovered among bats in a cave in Schoharie County, New York in 2006. White-nose syndrome is caused by a fungus *Pseudogymnoascus destructans* (previously *Geomyces destructans*) that is often visible on the bats muzzle and wings (Blehert et al. 2009). The fungus may invade hair follicles and cause lesions under the skin (Blehert et al. 2009). Bats wake from hibernation and consequently burn fat reserves that are needed to survive the winter and they become emaciated (Blehert et al. 2009). Extensive damage to their wing membranes and dehydration may also be contributing factors to mortality (U.S. Fish and Wildlife Service 2013).

Bats may be particularly sensitive to environmental toxins including those found in herbicides and pesticides. Although no studies have targeted tri-colored bats directly, elevated levels of persistent organic pollutants including PCBs, DDT, Chlordanes, and PBDEs have been found in a similar species, the little brown bat, in the Hudson River Valley in New York (Kannan et al. 2010). The levels found in the bats were only one to three times less than lethal concentrations reported from previous studies (Kannan et al. 2010). High toxin levels are expected in bats that obtain a high a composition of their diet from prey with an aquatic life stage. This may be a concern for tri-colored bats, as well, since caddisflies have been reported as an important food item in some regions (Carter et al. 2003; Feldhamer et al. 2009). Bats are highly susceptible to DDT residue, a chemical that was widely used as a pesticide to control bat infestations in houses in the 1940s (USGS 2013). DDT was widely used as an agricultural pesticide in the 1950s and 60s until its agricultural use was banned in 1972. Since DDT is highly persistent (soil half-life is 2-15 years, aquatic half-life is about 150 years) (NPIC 1999), it can pose a threat to bats when there is exposure to trace residues remaining in the environment (USGS 2013). Tri-colored bat populations were thought to have been impacted by heavy pesticide use in the mid-1950s (MA Natural Heritage Program 2012). Extensive applications of insecticides and some bio control methods, such as Btk could also pose an indirect risk to tri-colored bats by reducing availability of prey.

If proper precautions are not used, cavers and researchers entering hibernacula may cause disturbance that rouses bat colonies or can transport the fungus that causes WNS on their clothing (NatureServe 2013). Other potential threats may include climate change, commercial cave development, flooding and hibernacula collapse; habitat loss and fragmentation from development, hydraulic fracturing, and the construction of new wind facilities; and direct mortality from wind facilities (U.S. Fish and Wildlife Service 2013).

Conservation Strategies and Management Practices

Gating mines and caves can prevent human entry while allowing the bats unobstructed access. Following proper specifications and monitoring bat populations before and after gate installation are important, however, as gating can affect the airflow and temperature in the cave, making areas of the cave uninhabitable for certain species (U.S. Fish and Wildlife Service 2013). Buildup of debris at cave entrance gates can also have the same effect (U.S. Fish and Wildlife Service 2013).

Development and Mitigation Considerations

Retaining snags and dying trees can provide summer roosting habitat for tri-colored bats. Maintaining forested habitat in riparian corridors may also be important.

Research Needs

Research is needed to document summer roost locations and habitat in New York and to determine the extent of local populations. Research is also needed to identify regional differences in the characteristics of quality habitat and to identify areas of the state with the highest local abundances during summer. Ongoing winter hibernacula surveys are needed to monitor trends of the remaining populations.

Regional Conservation Needs

Conservation needs have not been determined for this species in New York. The extent of the current distribution of tri-colored bats in the state, as well as habitat requirements need to be determined prior to assessing specific management and conservation needs.

Habitat

Habitat

Tri-colored bats over-winter in humid areas deep within caves and mines with a constant temperature of around 52-55F (Griffin 1936; Godin 1977). A study in Arkansas found tri-colored bats selected larger caves with a wide range of temperatures within a season, but little variability among temperature between seasons (Briggler and Prather 2003). Surveys of hibernacula in New York conducted by the New York State Department of Environmental Conservation found tri-colored bats segregated from other species in warmer areas of the cave with high humidity.

Wooded riparian areas are likely an important foraging habitat for this species during the summer. One study in coastal South Carolina, found that tri-colored bats were more frequently found in riparian areas than in upland sites and especially, riparian areas that were wooded or highly vegetated (Menzel et al. 2005). They may also forage in woods or along waterways or forest edges (Fujita and Kunz 1984). Although tri-colored bats are typically considered a clutter-adapted species capable of foraging within forested areas, they also forage over early successional and open habitats (Loeb and O'Keefe 2006).

Tri-colored bats may roost in habitats including open woods near water and they may select roosts in buildings, crevices of cliffs and rocks, or in or below the canopy of live or recently dead trees that retain some dead or live leaves (Veilleux et al. 2003; Carter and Menzel 2006; Perry and Thill 2007). They are occasionally reported from caves during the summer (Godin 1977), and have been known to form maternity colonies in barns (Fujita and Kunz 1984), in clusters of dead leaves in oaks or pines (Perry and Thill 2007), and in Nova Scotia in lichen (Poissant et al. 2010). Perry et al. (2008) found that tri-colored bats tended to select roosts that were away from roads, in unharvested woods with high habitat heterogeneity, or in the unharvested riparian buffer of a partially harvested stand. Some habitat characteristics may vary regionally. Perry and Thill (2007) found tri-colored bats in mature forest stands with a hardwood component and a complex vertical structure and dense midstory. However, Yates and Muzika (2006) found that tri-colored bats favored open habitats with less dense mid-story vegetation and a dense understory.

Associated Ecological Communities

- Allegheny oak forest (guide)
- Appalachian oak-hickory forest (guide)
- Appalachian oak-pine forest (guide)
- Beech-maple mesic forest (guide)
- Maple-basswood rich mesic forest (guide)
- Mine/artificial cave community
- Oak-tulip tree forest (guide)
- Rich mesophytic forest (guide)
- Terrestrial cave community

Associated Species

- Big Brown Bat (*Eptesicus fuscus*)
- Eastern Small-footed Myotis (*Myotis leibii*) (guide)
- Little Brown Bat (*Myotis lucifugus*) (guide)
- Northern Long-eared Bat (*Myotis septentrionalis*) (guide)
- Indiana Bat (*Myotis sodalis*) (guide)

Range

New York State Distribution

Prior to the start of WNS tri-colored bats were recorded in winter hibernacula in all regions of the state where mines and caves have been surveyed. They were more common (>10 individuals) in hibernacula in southern and western New York. The remaining distribution of tri-colored bats in New York is not known. Their statewide range may have contracted since the start of WNS.

Global Distribution

Tri-colored bats are found in eastern North America along the east coast as far south as Georgia and north into Nova Scotia and southern Quebec and Ontario. Their western range extent includes eastern Minnesota in the north and Texas to the northeast corner of Mexico in the south.

Identification Comments

General Description

The tri-colored bat is a medium-sized bat with tri-colored pelage on its back that ranges from dark grey at the base, to yellowish in the middle, and brown at the tip. They weigh 3.5-8 g (0.1-0.3 oz) and have a wingspan of 21-26 cm (8-10 in).

Identifying Characteristics

Tri-colored bats are best identified by their uniquely tri-colored, yellowish fur which is dark at the base and tip and light in the middle. Tri-colored bats may also be identified by their weak flight which is described as moth-like.

Best Life Stage for Proper Identification

Adults may be easiest to identify.

Behavior

Tri-colored bats are nocturnal with periods of heightened activity at pre-dawn and dusk. They may range 5 miles from a roost to forage (MA Natural Heritage Program 2012).

Tri-colored bats are short-distance migrants traveling between winter hibernacula and summer habitat. The farthest known record was 52.8 km (Griffin 1940), although migration distances from hibernacula have not been extensively researched. Tri-colored bats may enter the hibernacula earlier in the fall and leave later in the spring compared to other species (Fujita and Kunz 1984).

Tri-colored bats breed in the fall and may breed again in the spring, coinciding with ovulation (Fujita and Kunz 1984). They swarm and mate near the cave entrance. Females store sperm over the winter until ovulation occurs in the spring, which coincides with emergence from winter hibernacula. Females generally give birth to two young.

Tri-colored bats often obtain insect prey by catching them in their tail and wing membranes. They may forage at varying heights, including within the canopy or above or below it (Menzel et al. 2005). They may forage in habitats such as woods, along waterways, or forest edges (Fujita and Kunz 1984).

Tri-colored bats are usually solitary but may be found roosting in small colonies; especially females which form maternity colonies in summer.

Diet

Tri-colored bats consume a diverse diet with several studies reporting that Diptera (flies) (Ross 1967; Whitaker 1972; Carter et al. 2003) and other soft-bodied prey (Carter et al. 2003) are an important component. One study in Indiana, found that tri-colored bats consumed primarily homopterans (cicadellids) and beetles with a smaller component of lepidopterans (Whitaker 2004). A study in Illinois found more than half their diet consisted of Trichopterans (caddisflies) followed by beetles and ants (Feldhamer et al. 2009). In West Virginia tri-colored bats consumed a wide mix of prey including Diptera, Hymenoptera, Tricoptera, Lepidoptera, and Homoptera (Carter et al. 2003). There are no known studies of the diet of this species from New York.

Best Time to See

Tri-colored bats may best be seen shortly after sunset or in the early morning before dawn in the late spring and summer. They are one of the first bats to emerge to forage in the evenings (Hamilton 1943). They have a slow, erratic flight pattern that may be distinguished from other species by an experienced observer.



The time of year you would expect to find Tri-colored Bat present, active, and reproducing in New York.

Tri-colored Bat Images



Taxonomy

Tri-colored Bat

Perimyotis subflavus (Menu, 1984)

- Kingdom *Animalia*
  - Phylum *Craniata*
    - Class *Mammalia* (Mammals)
      - Order *Chiroptera* (Bats)
        - Family *Vespertilionidae* (Evening Bats and Vesper Bats)

Additional Common Names

- Eastern Pipistrelle

Synonyms

- *Pipistrellus subflavus* (F. Cuvier, 1832)

Additional Resources

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U.S. Fish & Wildlife Service

Bald Eagle

Haliaeetus leucocephalus



Jim Hudgins/USFWS

A North American species with a historic range from Alaska and Canada to northern Mexico, the bald eagle is an Endangered Species Act success story.

Forty years ago, our national symbol was in danger of extinction throughout most of its range. Habitat destruction and degradation, illegal shooting,and the contamination of its food source, largely as a consequence of DDT, decimated the eagle population.

The federal government's banning of DDT and related pesticides, habitat protection afforded by the Endangered Species Act, and conservation actions taken by the American public have helped bald eagles make a remarkable recovery.

Bald Eagle Biology

Distinguished in the adult plumage by a white head and white tail, bald eagles are powerful, brown birds that may weigh 14 pounds and have a wingspan of 8 feet. Male eagles are smaller, weighing as much as 10 pounds and have a wingspan of 6 feet. Sometimes confused with golden eagles, bald eagles are mostly dark brown until they are four to five years old and acquire their characteristic coloring. There is a distinction between the two species, though, even during the early years. Only the tops of the bald eagle's legs have feathers. The legs of golden eagles are feathered all the way down.

Bald eagles live near rivers, lakes, and marshes where they can find fish, their staple food. As their populations grow, however, bald eagles are expanding their range, even nesting in urban areas. Bald eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion.

Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Bald eagles usually choose the tops of large trees to build nests, which they typically use and enlarge each year. However, nests have also been found on cliffs, the ground, and even on human-made structures like cell phone towers.

Nests may reach 10 feet across and weigh a half ton. Bald eagles may also have one or more alternate nests within their breeding territory. The birds travel great distances but usually return to breeding grounds within 100 miles of the place where they were raised. Bald eagles may live 15 to 25 years in the wild, longer in captivity.

Breeding bald eagles typically lay one to three eggs once a year, and they hatch after about 35 days. The young eagles are flying within three months and are on their own about a month later. However, disease, lack of food, bad weather, or human interference can kill many eaglets. Recent studies show that approximately 70 percent survive their first year of life.

The Plight of the Bald Eagle

When America adopted the bald eagle as the national symbol in 1782, anecdotal accounts stated the country may have had as many as 100,000 nesting eagles. The first major decline of the species probably began in the mid to late 1800's, coinciding with the decline of waterfowl, shorebirds, and other prey.

Although they primarily eat fish and carrion, bald eagles used to be considered marauders that preyed on chickens, lambs, and domestic livestock. Consequently, the large raptors were shot in an effort to eliminate a perceived threat. Coupled with the loss of nesting habitat, bald eagle populations declined.

In 1940, noting that the species was "threatened with extinction," Congress passed the Bald Eagle Protection Act, which prohibited killing, selling, or possessing the species. A 1962 amendment added the golden eagle, and the law became the Bald and Golden Eagle Protection Act.

Shortly after World War II, DDT was hailed as a new pesticide to control mosquitoes and other insects. However, DDT and its residues washed into nearby waterways, where aquatic plants and fish absorbed it. Bald eagles, in turn, were poisoned with DDT when they ate the contaminated fish. The chemical interfered with the ability of the birds to produce strong eggshells.

As a result, their eggs had shells so thin that they often broke during incubation or otherwise failed to hatch. DDT also affected other species such as peregrine falcons and brown pelicans. Some other pesticides related to DDT are suspected to have caused increased mortality, in addition to the harmful effects on reproduction.

By 1963, with only 417 nesting pairs of bald eagles known to exist, the species was in danger of extinction.

The Road Back

As the dangers of DDT became known, in large part due to the 1962 publication of Rachel Carson's book Silent Spring, the Environmental Protection Agency took the historic and, at the time, controversial step of banning the use of DDT and some related pesticides in the United States. That was in 1972, and it was the first step on the road to recovery for the bald eagle.

In 1967, the Secretary of Interior listed bald eagles south of the 40th parallel under the Endangered Species Preservation Act of 1966. Following enactment of the Endangered Species Act of 1973, the Service listed the species in 1978 as endangered throughout the lower 48 states, except in Michigan, Minnesota, Oregon, Washington, and Wisconsin where it was designated as threatened.

The species was not listed as threatened or endangered in Hawaii because it does not occur there, or in Alaska because populations there have remained robust.

Listing the species as endangered provided the springboard for the Service and its partners to accelerate the pace of recovery through captive breeding programs, reintroduction efforts, law enforcement, and nest site protection during the breeding season.

Population Milestones

In July 1995, the Service announced that bald eagles in the lower 48 states had recovered to the point where those populations previously considered endangered could be reclassified to the less critical category of threatened.

Then in 2007, the Service estimated there were at least 9,789 nesting pairs of bald eagles in the contiguous United States. Bald eagles staged a remarkable population rebound and recovered to the point that they no longer needed the protection of the Endangered Species Act. Thus, on June 28, 2007, the Service announced the recovery of our nation's symbol and removal from the list of threatened and endangered species.



Tom Koerner/USFWS

Continued Population Growth

In 2016, the Service published the bald eagle population status report as part of a Programmatic Environmental Impact Statement. In that report which analyzed data from 2009, the bald eagle population in the lower 48 status was estimated to be 72,434 individuals, including 30,548 breeding pairs.

Then in 2021, the Service published a technical update that provided the newest estimates for the bald eagle population in the lower 48 states for the period 2018-2019, totaling 316,700 individuals, which included 71,467 breeding pairs.

What Lies Ahead

The recovery of the bald eagle is one of the most well-known conservation success stories of all time. The Service continues to work with our partners in state and federal agencies, tribes, non-government organizations and private landowners to ensure that our nation's symbol flourishes.

Although the Service removed the bald eagle from the list of threatened and endangered species under the Endangered Species Act, the bird continues to be protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Both laws prohibit killing, selling or otherwise harming eagles, their nests, or eggs.

The Service developed guidelines to help landowners avoid disturbing eagles and encourage beneficial conservation practices.

For more information on the recovery of bald eagles, please visit https://www.fws.gov/birds/management/managed-species/eagle-management.php

U.S. Fish & Wildlife Service
Migratory Bird Program
5275 Leesburg Pike, MS: MB
Falls Church, VA 22041

703/358-1714
www.fws.gov/birds/

Febuary 2021

U.S. Fish & Wildlife Service

ECOS

ECOS /

Monarch butterfly (*Danaus plexippus*)



Range Information | Candidate Info | Federal Register | Recovery | Critical Habitat | SSA | Conservation Plans | Petitions | Biological Opinions | Life History

Taxonomy: View taxonomy in ITIS

Listing Status: Candidate

General Information

Note - the monarch is a candidate species and not yet listed or proposed for listing. Consultation with U.S. Fish and Wildlife Service under section 7 of the Endangered Species Act is not required for candidate species, like the monarch. We encourage agencies, however, to take advantage of any opportunity they may have to conserve the species.

For information on monarch conservation, visit https://www.fws.gov/savethemonarch/, http://www.mafwa.org/?page_id=2347, and, for the West, https://wafwa.org/committees-working-groups/monarch-working-group/.

Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic.

During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily Asclepias spp.), and larvae emerge after two to five days. Larvae develop through five larval instars (intervals between molts) over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals (cardenolides) as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months.

In many regions where monarchs are present, monarchs breed year-round. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again.

Current Listing Status Summary

Show 10 entries

Status	Date Listed	Lead Region	Where L
Candidate	12-17-2020	Midwest Region (Region 3)	Where

Showing 1 to 1 of 1 entries

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» Range Information

Current Range

Last Updated: 01-26-2022 *- Wherever found*

Zoom in! Some species' locations may be small and hard to see from a wide perspective. To narrow-in on locations, check the state and county lists (below) and then use the zoom tool.

Want the FWS's current range for all species? Click here to download a zip file containing all individual shapefiles and metadata for all species.

* For consultation needs do not use only this current range map, please use IPaC.

Current range maps are only shown within the jurisdictional boundaries of the United States of America. The species may also occur outside this region.



- **Wherever found**

  Listing status: Candidate

  - **States/US Territories** in which this population is known to or is believed to occur: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming
  - **US Counties** in which this population is known to or is believed to occur: View All
  - **USFWS Refuges** in which this population is known to occur:

» Candidate Information

Current Candidate Status

Listing Priority: 8
Magnitude: Moderate to Low
Immediacy: Imminent
Taxonomy: Species
No Candidate Assessments available for this species.

Candidate Notice of Review Documents

Show 10 entries

Date	Citation Page	Title
06/27/2023	88 FR 41560 41585	Endangered and Threatened Wildlife and Plants; Review of Species That Are Candid Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitior Progress on Listing Actions
05/03/2022	87 FR 26152 26178	Endangered and Threatened Wildlife and Plants; Review of Species That Are Candid Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitior Progress on Listing Actions

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No Uplisting Documents currently available for this species.

» Federal Register Documents

Federal Register Documents

Show 10 entries

Date	Citation Page	Title	Su Do
06/27/2023	88 FR 41560 41585	Endangered and Threatened Wildlife and Plants; Review of Species That Are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions	
05/03/2022	87 FR 26152 26178	Endangered and Threatened Wildlife and Plants; Review of Species That Are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Actions	
12/17/2020	85 FR 81813 81822	Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly	
12/21/2014	79 FR 78775	90-Day Findings on Two Petitions	

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» Species Status Assessments (SSAs)

Species Status Assessments (SSAs)

Show 10 entries

Document Title	Region	Species Lead Office
Monarch (Danaus plexippus) Species Status Assessment Report, version 2.1	Region 3	Assistant Regional Director-Ecological Services

Showing 1 to 1 of 1 entries ‹ Previous 1 Next ›

Special Rule Publications

No Special Rule Publications currently available for this species.

» Recovery

- Species with Recovery Documents Data Explorer

No Current Recovery Plans available for this species.

No Other Recovery Documents currently available for this species.

No Five Year Reviews currently available for this species.

No Delisting Documents currently available for this species.

» Critical Habitat

No Critical Habitat Documents currently available for this species.

» Conservation Plans

Habitat Conservation Plans (HCP) (learn more)

Show 10 entries

HCP Plan Summaries
Southern Nevada Water Authority Low Effect Habitat Conservation Plan for Warm Springs Natural Area and Hidden Va

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Candidate Conservation Agreements with Assurances (CCAA): (learn more)

Show 10 entries

CCAA Plan Summaries
Nationwide Candidate Conservation Agreement on Energy and Transportation Lands

Showing 1 to 1 of 1 entries ‹ Previous 1 Next ›

» Petitions

Show 10 entries

Petition Title	Date Received by the FWS	Where the species is believed to or known to occur	Petitioner Name	Requested Action	Petition Finding(s)	Active	Pet

Petition for Rulemaking for a Section 4(d) Rule for the Monarch Butterfly	11/18/2020	AL, AR, AZ, CA, CO, CT, DC, DE, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY	• The University of Illinois Chicago	• APA: Promulgate new special 4(d) rule	• Petition findings not yet made	Yes	
Butterfly, Monarch (Danaus plexippus plexippus); list T w/ CH	08/26/2014	AL, AR, AZ, CA, CO, CT, DC, DE, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE,	• Center for Biological Diversity • Madison Audubon Society (secondary	• APA: Designate Critical Habitat • Listing: Threatened	• 90 day petition finding Substantial on 12/31/2014	Yes	

Showing 1 to 2 of 2 entries

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» Biological Opinions

To see all FWS Issued Biological Opinions please visit the BO Report.

» Life History

No Life History information has been entered into this system for this species.

» Other Resources

NatureServe Explorer Species Reports-- NatureServe Explorer is a source for authoritative conservation information on more than 50,000 plants, animals and ecological communtities of the U.S and Canada. NatureServe Explorer provides in-depth information on rare and endangered species, but includes common plants and animals too. NatureServe Explorer is a product of NatureServe in collaboration with the Natural Heritage Network.

ITIS Reports-- ITIS (the Integrated Taxonomic Information System) is a source for authoritative taxonomic information on plants, animals, fungi, and microbes of North America and the world.

FWS Digital Media Library -- The U.S. Fish and Wildlife Service's National Digital Library is a searchable collection of selected images, historical artifacts, audio clips, publications, and video." +

Shortnose Sturgeon *Acipenser brevirostrum* LeSueur, 1818



(/media/i6115.jpg)
Shortnose Sturgeon

Class
Actinopterygii (Ray-finned Fishes)
Family
Acipenseridae (Sturgeons)

State Protection
Endangered

Listed as Endangered by New York State: in imminent danger of extirpation in New York. For animals, taking, importation, transportation, or possession is prohibited, except under license or permit. For plants, removal or damage without the consent of the landowner is prohibited.

Federal Protection
Endangered

Listed as Endangered under the Federal Endangered Species Act

State Conservation Status Rank
S1

Critically Imperiled in New York - Especially vulnerable to disappearing from New York due to extreme rarity or other factors; typically 5 or fewer populations or locations in New York, very few individuals, very restricted range, very few remaining acres (or miles of stream), and/or very steep declines.

Global Conservation Status Rank
G3

Vulnerable globally - At moderate risk of extinction due to rarity or other factors; typically 80 or fewer populations or locations in the world, few individuals, restricted range, few remaining acres (or miles of

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stream), and/or recent and widespread declines.

Contents

1. Summary
2. Conservation and Management
3. Habitat
4. Range
5. Identification Comments
6. Taxonomy
7. Additional Resources
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Summary

Did you know?

Sturgeon appearance today is almost the same as when dinosaurs walked the earth during the Triassic period, 245 to 208 million years ago. They are among the oldest living fish species.

State Ranking Justification

In New York, this sturgeon is found only in the Hudson River, where it moves seasonally from New York Harbor to the Troy Dam. Only one extant and one historical spawning area are known.

Short-term Trends

The shortnose sturgeon population appears to be on the rebound after suffering population declines starting sometime during the late-1800s and early 1900s. During the early part of the 20th century, the Hudson River served as dumping grounds for many pollutants. Also, sturgeon eggs (caviar) were in high demand. Damming of the Hudson River at Troy cut off access to some of the traditional spawning grounds for this species. More recently, shortnose sturgeon populations have been increasing. In 1998, Cornell University researchers estimated a population of about 38,000 adults (Carlson 1998). The population appears to be stable at this time.

Conservation and Management

Threats

Although probably not threatened at current population levels, this species remains vulnerable due to low reproductive rates, the potential for significant by-catch during Atlantic sturgeon harvest (this fishery is currently closed), the introduction of exotic fish and invertebrates to the Hudson River, and the potential for new pollution

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problems (Carlson 1998). Three other potential threats are maintenance dredging of the navigation channel of the Hudson River during river migration, commercial navigation, and capture against screens at power plant intakes.

Habitat

Habitat

In New York State, shortnose sturgeon inhabit the Hudson River estuary. These fishes reportedly prefer deep pools with soft substrates and vegetated bottoms, but individuals may vary in preference for various water depths and substrate types (Seibel 1991 cited in NatureServe 2003). Adults have separate summer and winter areas, moving upstream and downstream with the seasons. Spawning occurs upriver from summer foraging and nursery grounds. Spawning occurs over rubble substrate with some gravel and large rocks (Carlson 2003). Larvae may drift with the current near the river bottom. In the Hudson River, larvae are generally found between Albany and Poughkeepsie. Juveniles remain in the river near the salt front. Older individuals spend time in the lower estuary or possibly go out to sea (Carlson 1986).

Associated Ecological Communities

- Freshwater tidal creek (guide(/freshwater-tidal-creek/))

  The aquatic community of a shallow, tidally flooded freshwater creek with submerged areas averaging less than 2 m (6 ft) deep at low tide.

- Saltwater tidal creek (guide(/saltwater-tidal-creek/))

  The aquatic community of a shallow, tidally flooded saltwater or brackish creek with submerged areas averaging less than 2 m (6 ft) deep at low tide.

- Tidal river (guide(/tidal-river/))

  The aquatic community of a river under the influence of daily lunar tides. We restrict this community to the continuously flooded portions of the river where plants do not grow out of the water. A deepwater zone has depths averaging more than 2 m (6 ft) at low tide. Salinities at any one place in the river may fluctuate as the tides flow in and out.

Range

New York State Distribution

Shortnose sturgeon are restricted to the Hudson River between New York City and the Troy dam. Historically, this species occurred north to Cohoes Falls at the mouth of the Mohawk River (Carlson 1998).

Global Distribution

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The shortnose sturgeon is found on the Atlantic Coast of North America where its range extends from the Saint John River, New Brunswick to the St. Johns River, Florida. The federal recovery plan (NMFS 1998) for the species identifies 19 distinct population segments, each defined as a river/estuarine system in which shortnose sturgeons have been captured in the generation time of the species (30 years). The population segments recognized by the recovery plan are: Saint John, Penobscot, Kennebec System (Sheepscot, Kennebec, and Androscoggin Rivers), Merrimack, Connecticut, Hudson, Delaware, Chesapeake (Chesapeake Bay and Potomac River), Cape Fear, Winyah Bay (Waccamaw, Pee Dee, and Black Rivers), Santee (Santee River and Lake Marion), Cooper, ACE Basin (Ashepoo, Combahee, and Edisto Rivers), Savannah, Ogeechee, Altamaha, Satilla, St. Marys, and St. Johns. As of the late 1980s, the largest concentrations were in the Saint John River (New Brunswick); Kennebec River (Maine); Hudson River (New York); Delaware River (New Jersey); Winyah Bay, Pee Dee River, and Lake Marion (South Carolina); and the Altamaha River (Georgia). The species recently reappeared in the lower Susquehanna River drainage of the upper Chesapeake Bay basin (possibly from the Delaware River via the Chesapeake and Delaware Canal) (see Burkhead and Jenkins 1991). Populations may be semidisjunct (Carter 1989). See Stone et al. (1994) for information on distribution and relative abundance in mid-Atlantic estuaries.

Best Places to See

- Hudson River near Green Island

Identification Comments

Identifying Characteristics

The shortnose sturgeon is the smallest of the three sturgeon species found in New York State, rarely exceeding 3.5 feet in length and 14 pounds in weight. It is a primitive-looking fish with an elongated body and a hecterocercal tail (upper lobe much longer than the lower lobe). It has a short, conical snout with four large, fleshy barbels. There are five rows of bony plates, known as scutes: one dorsal (back), two lateral (sides), and 2 ventral (under part). The body coloration is olive-yellow to gray or bluish on the back and milky-white to dark yellow ventrally. The scutes are lighter in color than the main body. Like lake sturgeons, shortnose sturgeons have a wide mouth; the inside of the gape is approximately 65% of the distance between the eyes (Smith 1985).

Behavior

Most activity of larvae, juveniles, and adults appears to occur at night (Richmond and Kynard 1995). It is not certain if they are active all year or inactive during the winter.

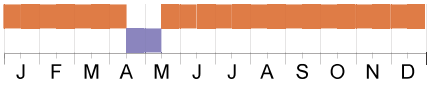
Diet

Shortnose sturgeon are bottom-feeders and are known to feed off of plant surfaces. Juveniles eat available benthic crustaceans and insects. In the Hudson River estuary, the main diet of juveniles are midge larvae and amphipods. Adults in freshwater eat mollusks, crustaceans, and insect larvae, depending on availability. In estuaries, polychaete worms, crustaceans, and mollusks are the primary foods for adults. Zebra mussel remains have been found in feces of individuals from the Hudson River (Cornell University 1993).

Best Time to See

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In late May and June adult shortnose sturgeon in the Hudson River move downriver between Haverstraw Bay and Yonkers. The shortnose sturgeon congregate between Hyde Park and Kingston from October through March, then move north in the spring to spawn. Young-of-the-year move south to Haverstraw Bay by October.



Active Reproducing

The time of year you would expect to find Shortnose Sturgeon active and reproducing in New York.

Similar Species

- Lake Sturgeon (*Acipenser fulvescens*)

  The lake sturgeon has the anal fin origin behind the dorsal fin origin, has a longer caudal peduncle, scutes on back and sides the same color as the skin, 25-30 anal rays, usually 32-35 gill rakers, and 29-42 scutes along each side (22-33 in shortnose).

- Atlantic Sturgeon (*Acipenser oxyrinchus*) (guide(/atlantic-sturgeon/))

  The Atlantic sturgeon has a long, sharply V-shaped snout, two rows of preanal scutes (one row in shortnose), and white viscera. Atlantic sturgeon are larger than shortnose sturgeon.

Shortnose Sturgeon Images



Shortnose Sturgeon

(/media/i6115.jpg)

Taxonomy

Shortnose Sturgeon
Acipenser brevirostrum LeSueur, 1818

Kingdom Animalia
Phylum Craniata
Class Actinopterygii (Ray-finned Fishes)
Order Acipenseriformes (Paddlefishes, Spoonfishes, and Sturgeons)

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Family Acipenseridae (Sturgeons)

Additional Resources

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Links

- A Global Information System on Fishes(http://fishbase.org)
- Google Images(http://images.google.com/images?q=ACIPENSER+BREVIROSTRUM)
- NatureServer Explorer(http://natureserve.org/explorer/servlet/NatureServe?searchName=ACIPENSER+BREVIROSTRUM)
- New York State Department of Environmental Conservation(http://www.dec.ny.gov/animals/7025.html)
- NOAA(https://www.greateratlantic.fisheries.noaa.gov/protected/snsturgeon/recovery/index.html)

About This Guide

Information for this guide was last updated on: March 21, 2019

Please cite this page as:
New York Natural Heritage Program. 2022. Online Conservation Guide for *Acipenser brevirostrum*. Available from: https://guides.nynhp.org/shortnose-sturgeon/. Accessed November 18, 2022.

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State University of New York College of Environmental Science and Forestry(https://www.esf.edu/)
in partnership with the New York State Department of Environmental Conservation(http://www.dec.ny.gov/index.html)

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Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:

NY 2 Corridor, River/ Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation Project, PIN 1761.61

Project Location (describe, and attach a location map):

City of Troy, NY

Brief Description of Proposed Action:

The project involves the rehabilitation of the NY 2 Corridor, River/ Ferry Street intersection and the Ferry Street Tunnel by addressing the deficiencies in the current street design, and deficiencies in the current tunnel design.

Name of Applicant or Sponsor:	Telephone: (518) 279-7153
Andrew Kreshik, Planner	E-Mail: Andrew.Kreshik@troyny.gov

Address:

433 River Street

City/PO:	State:	Zip Code:
Troy	NY	12180

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: NYSDOT and FHWA Funding	☐	☑

3. a. Total acreage of the site of the proposed action? 44 acres
   b. Total acreage to be physically disturbed? 10 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 44 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: N/A _____	☐	☐

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____	☑	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____	☑	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Federally listed: Tricolored Bat and the Monarch Butterfly. State Listed: Bald Eagle and the Shortnose Sturgeon. Shortnose Sturgeon	☐	☑
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☑	☐
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe: _____ _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment: _____ _____		
~~1~~9. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe: _____ _____		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☑
If Yes, describe: _____ There were 3 identified (546031, V00482, C401074) DEC remediation sites within 2,000 ft of the project location, and 1 (546031) active DEC spill or remediation site near the project location.		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Andrew Kreshik Date: _____

Signature: _____ Title: Planner

PRINT FORM

EAF Mapper Summary Report

Tuesday, November 7, 2023 9:57 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Shortnose Sturgeon
Part 1 / Question 16 [100 Year Flood Plain]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
Part 1 / Question 20 [Remediation Site]	Yes

Social, Economic and Environmental Review Checklist

PIN: 1761.61	PROJECT TITLE: NY 2 Corridor, River/Ferry Street Intersection Improvements and Ferry Street Tunnel Rehabilitation Project	
PROJECT DESCRIPTION / SCOPE / LIMITS: NY 2 Corridor, River/Ferry Street intersection and Ferry Street Tunnel		
MUNICIPALITY(IES): City of Troy		
COUNTY(IES): Rensselaer		
NEPA CLASSIFICATION: Class II - Cat Ex		
SEQRA TYPE: Statewide SEQRA - 6 NYCRR Part 617	617 - Unlisted	DATE: 6/27/2025

SOCIAL			
RESOURCE:		APPLICABLE	COMMENT AND/OR DAD SECTION IN WHICH TOPIC IS DISCUSSED.
1	Land use change?	No	
2	Occurs in an area with regional/local comprehensive and transportation plans?	Yes	Discussed in Section 3.2.1 of the Design Report.
3	Occurs in an area with planned future development?	No	
4	Effects to neighborhood character?	No	
5	Residential or commercial relocations?	No	
6	Effects to transportation options/patterns? (e.g., transit, walking/pedestrian facilities, bicycling and access to schools, recreational areas, places of worship, health care facilities, effects to emergency services; consider elderly and disabled populations)	Yes	Discussed in Section 3.2.2 of the Design Report.
7	Will the project divide or isolate portions of a community or impact community resources?	No	
8	Reserved	Choose an item.	
9	Occurs on Tribal Nation Lands/Territories (not 'areas of interest' related to Section 106)	No	
ECONOMIC			
RESOURCE:		APPLICABLE	COMMENT AND/OR DAD SECTION IN WHICH TOPIC IS DISCUSSED.
10	Effects to local or regional businesses?	Yes	Discussed in Section 3.2.7 of Design Report.
11	Is the project in a business district?	Yes	Discussed in Section 3.2.7 of Design Report.
11A	Will the project divert traffic away from businesses?	No	
11B	Changes to parking and/or deliveries?	No	
11C	Effects to transportation options to access businesses?	No	
12	Changes in access control?	No	
13	Displacement of occupants or acquisition of dwelling or business?	No	
14	Temporary or permanent right-of-way acquisition?	No	

ENVIRONMENTAL				
RESOURCE:		RESOURCE PRESENT	RESOURCE AFFECTED	COMMENT AND/OR DAD SECTION IN WHICH TOPIC IS DISCUSSED.
Water & Land				
15	Wetlands – State: Freshwater (Art. 24) *See TEM 4.4.1.11*	No	No	Discussed in Section 3.2.9 of the Design Report.
16	Wetlands – Federal EO 11990 may apply *See TEM 4.4.1.11*	No	No	Discussed in Section 3.2.9 of the Design Report.
17	Surface waterbodies & watercourses – State or Federal *See TEM 4.4.1.11*	No	No	Discussed in Section 3.2.10 of the Design Report.
18	Wild, Scenic and/or Recreational Rivers – State or Federal *See TEM 4.4.3*	No	No	
19	Navigable Waters subject to NYS Protection of Water Program (Article 15), Rivers and Harbors Management Act (Section 10), or US Coast Guard *See TEM 4.4.1.11*	No	No	
20	Coastal Area or Designated Inland Waterway *See TEM 4.4.6*	Yes	No	Discussed in Section 3.2.12 of Design Report.
21	Coastal Special Management Area(s) (Approved/Pending Local Waterfront Revitalization Program Areas, Significant Coastal Fish and Wildlife Habitats, Scenic Areas of Statewide Significance, or areas with Harbor Management Plans) *See TEM 4.4.6*	No	No	
22	State Coastal Erosion Hazard Area *See TEM 4.4.6*	No	No	
23	Federal Coastal Barrier Resource System *See TEM 4.4.6*	No	No	
24	Over sole source, principal, or primary aquifers; or adjacent to drinking water supply source *See EPM 4.4*	Yes	No	Discussed in Section 3.2.13 of the Design Report.
25	SPDES/NPDES permit required *See Stormwater page*	No	No	
26	Change of stormwater drainage patterns/outfalls within an MS4 area *See Stormwater page*	No	No	
27	Flood zones, floodplains, or floodways – EO 11988 and/or 6 NYCRR 502 *See TEM 4.4.5*	Yes	No	Discussed in Section 3.2.11 of the Design Report.
28	Section 408 USACE Civil Works Project or NYS Article 16 Flood Control Lands *See TEM 4.4.1.11*	No	No	
General Ecology & Wildlife Resources				
29	Federal – Threatened & Endangered Species (ESA Section 7) Tree Cutting Proposed: Yes *See TEM 4.4.9.3*	Yes	TBD	Discussed in Section 3.2.14 of the Design Report.
30	State – Threatened & Endangered Species *See TEM 4.4.9.3*	Yes	No	Discussed in Section 3.2.14 of the Design Report.
31	NYSDEC mussel waterbody: Choose an item. *See TEM 4.4.9.3*	No	No	
32	Identified invasive species (EO 13112) *See EPM 4.8*	No	No	Discussed in Section 3.2.14 of the Design Report.
33	Known breeding habitat or nests present (Migratory Bird Treaty Act)	No	No	

Historic Resources & Parkland *See TEM 4.4.12 and 4.4.13*				
34	Historic and/or cultural resources: Section 106 *See TEM 4.4.12 Appendix G*	Yes	TBD	Discussed in Section 3.2.15 of the Design Report
35	Parks and/or recreational resources	No	No	
35A	Resources w/ LWCF grants (Section 6(f))	No	No	
35B	Section 1010 – City Urban Park and Recreation Recovery Act	No	No	
36	Any Section 4(f) properties (parks, recreation areas, wildlife and waterfowl refuges, historic sites) *See Section 4(f) Policy Paper*	No	No	
Farmlands *See TEM 4.4.15*				
37	Agricultural districts – State	No	No	
38	FPPA soils – Federal	No	No	
Air Quality (if analysis required check yes) *See EPM 1.1*				
39	Mobile Source Air Toxics (MSAT)	No	No	
40	Mesoscale: Choose an item.	No	No	
41	Microscale/Hot Spot	No	No	
42	Reserved	Choose an item.	Choose an item.	
Asbestos and Hazardous / Contaminated Materials *See TEM 4.4.19 and 4.4.20*				
43	Asbestos-containing materials (ACMs)	No	No	Discussed in Section 3.2.17 of the Design Report
44	Lead-based bridge paint/coatings	No	No	
45	Remediation sites, including National Priority List, Brownfield sites, etc.	Yes	No	Discussed in Section 3.2.18 of the Design Report
46	Materials requiring special handling or disposal (e.g., petroleum-based contamination, PCB-contaminated gas mains, treated wood products, polymer concrete slurries, medical/bio wastes, etc.)	No	No	Discussed in Section 3.2.18 of the Design Report
Other				
47	Noise type per 23 CFR 772/NYSDOT Noise Policy: Choose an item. *See TEM 4.4.18*	No	No	
48	Critical Environmental Areas *See mapper*	No	No	
49	Visual Resources *See PDM Chapter 3.2.2.2*	Yes - Present	No	Discussed in Section 3.2.16 of the Design Report
50	Scenic Byways *See Scenic Byway page*	No	No	
51	Wildlife and Waterfowl Refuges	No	No	
Regional Specific Resources				
52	Adirondack or Catskill Parks or NYS Forest Preserve (only Regions 1, 2, 7 8 & 9)	No	No	
53	NYC Watershed (only Regions 1, 8 & 9)	No	No	
54	NYC-owned land (only Regions 1, 8 & 9)	No	No	
55	Regional Plans or Programs	No	No	

PREPARED BY: Melanie Osterhout, P.E., President

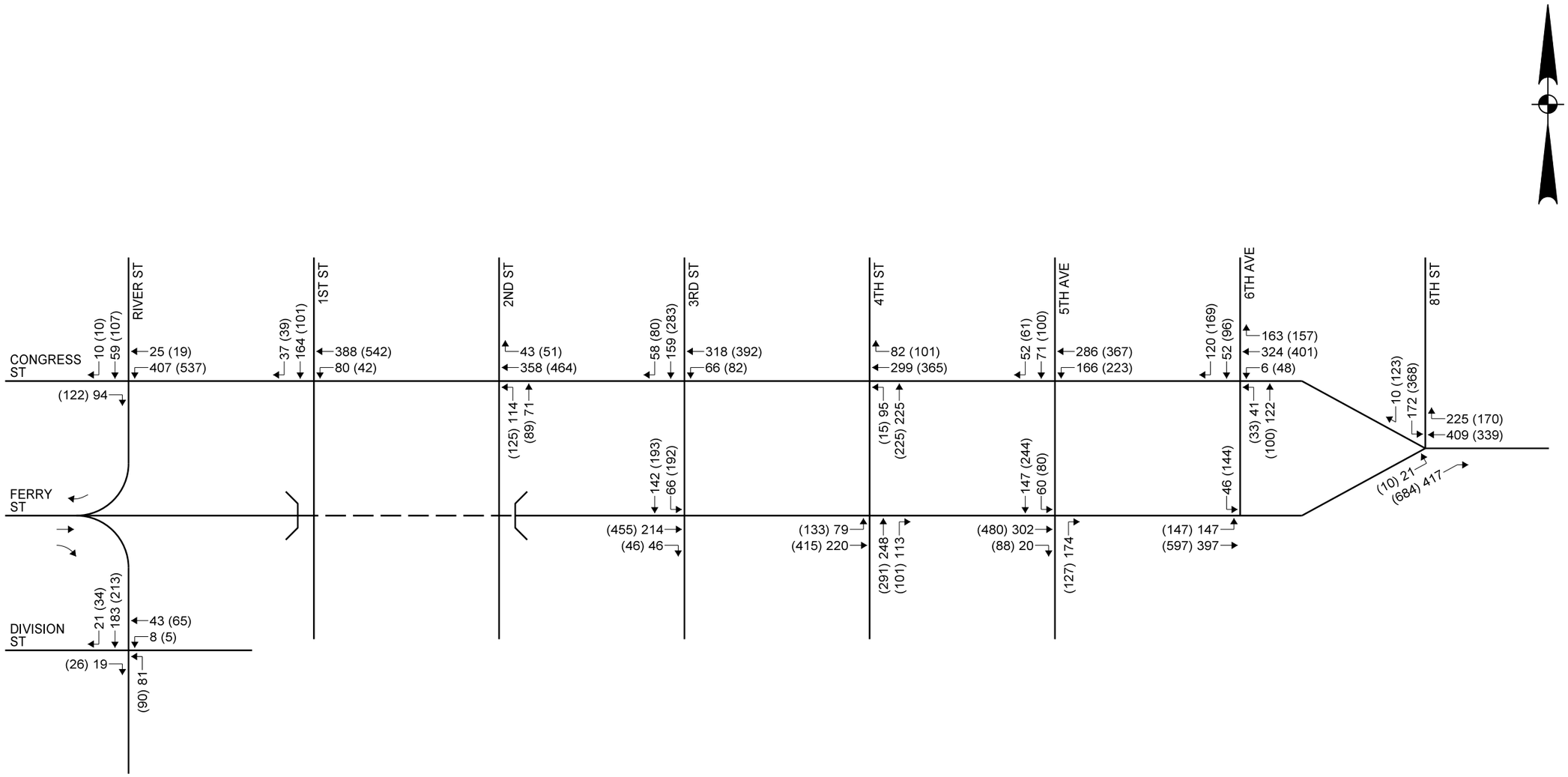
CERTIFICATION:
I certify that the information provided above is true and accurate based on my review.

Regional Environmental Unit Supervisor or Main Office Environmental Lead ×_____ Date: _____

Print Name and Title: _____

Appendix C – Traffic

N:ØProjectsØ2021Ø121-298 Troy - Congress and FerryØWorkingØCADDØdgnØfiguresØ121-298_fig_traf_01.dgn



AM PEAK HOUR (PM PEAK HOUR)

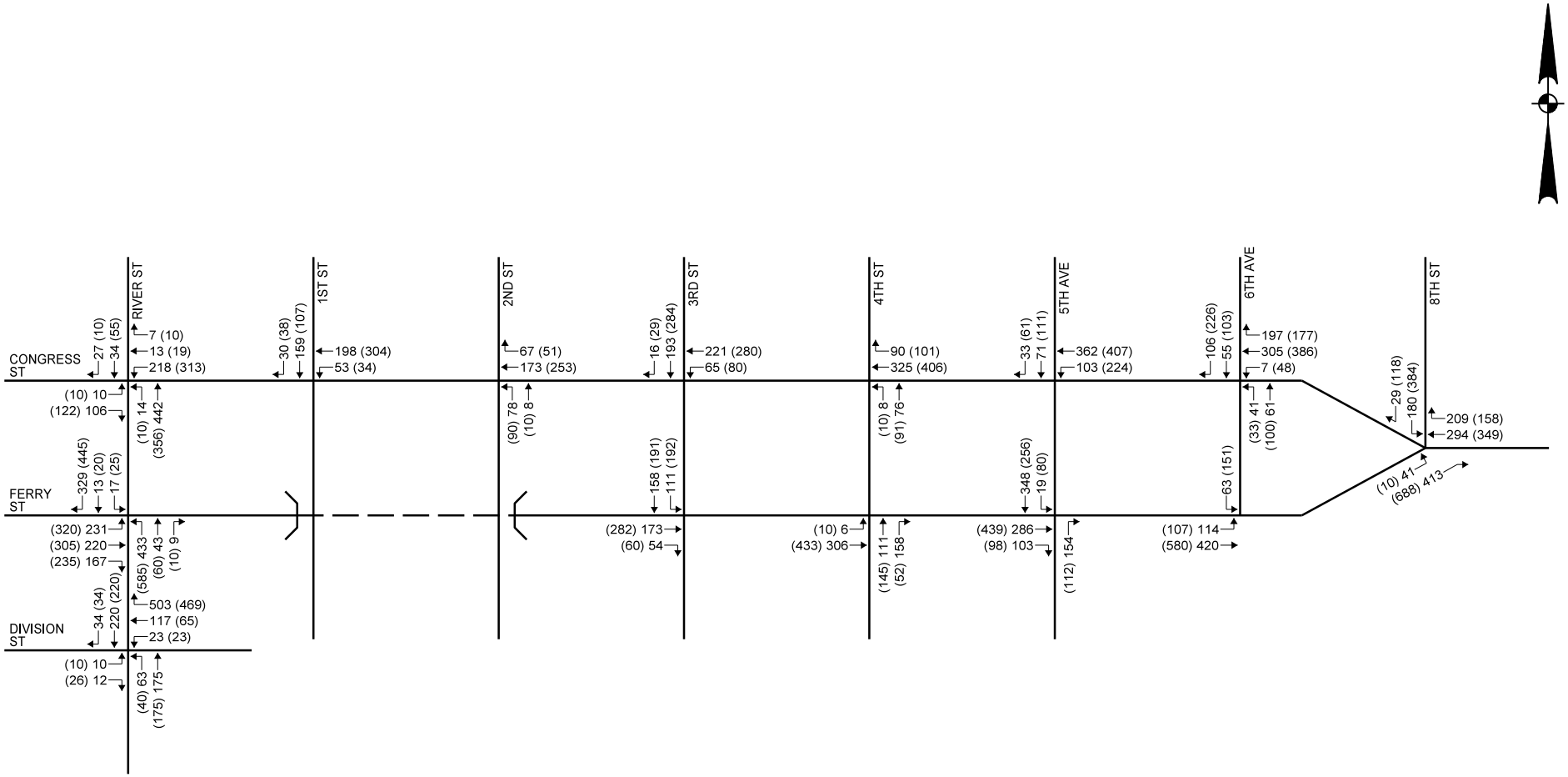
EXISTING TRAFFIC VOLUMES

TROY-CONGRESS AND FERRY
TROY, NEW YORK

Creighton Manning

PROJECT:	121-298	DATE:	10/2022	FIGURE:	1

C:\Users\lchaskey\Desktop\121-298_fig_traf_03.dgn



AM PEAK HOUR (PM PEAK HOUR)

ETC+10
TRAFFIC VOLUMES

TROY-CONGRESS AND FERRY
TROY, NEW YORK

Creighton Manning

PROJECT:	121-298	DATE:	01/2024	FIGURE:	2

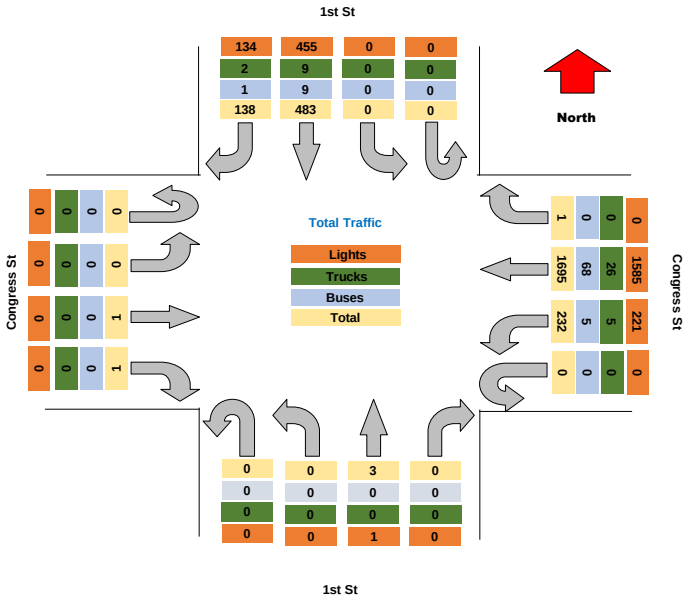
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

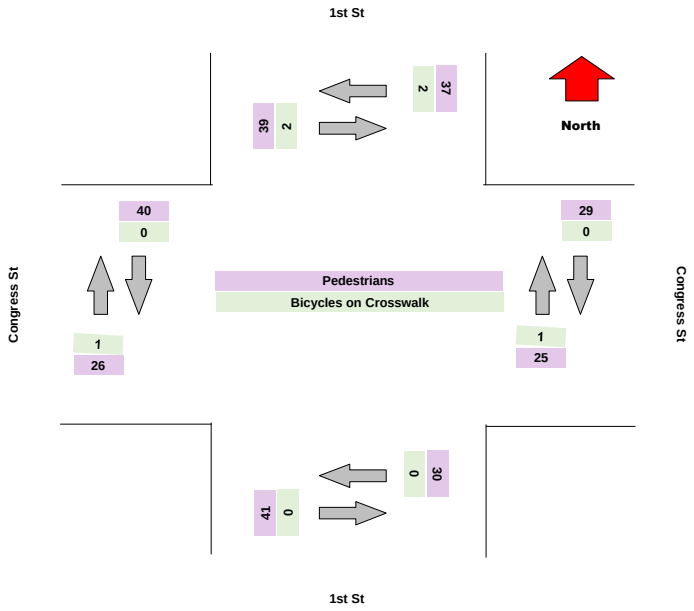
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data

Leg	1st St							Congress St							1st St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
7:00:00 AM	6	23	0	0	**29**	4	1	0	72	9	0	**81**	0	2	0	0	0	0	**0**	0	3	0	1	0	0	**1**	0	1	**111**
7:15:00 AM	12	24	0	0	**36**	0	0	0	80	13	0	**93**	0	0	0	0	0	0	**0**	2	3	0	0	0	0	**0**	0	3	**129**
7:30:00 AM	11	50	0	0	**61**	3	1	0	111	27	0	**138**	2	1	0	0	0	0	**0**	0	5	0	0	0	0	**0**	0	10	**199**
7:45:00 AM	11	46	0	0	**57**	4	4	0	105	20	0	**125**	1	3	0	1	0	0	**1**	0	8	0	0	0	0	**0**	1	10	**183**
Hourly Total	40	143	0	0	**183**	11	6	0	368	69	0	**437**	3	6	0	1	0	0	**1**	2	19	0	1	0	0	**1**	1	24	**622**
8:00:00 AM	5	31	0	0	**36**	2	0	0	80	22	0	**102**	2	1	0	0	0	0	**0**	0	3	0	0	0	0	**0**	0	0	**138**
8:15:00 AM	10	37	0	0	**47**	0	2	0	92	11	0	**103**	1	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	2	1	**150**
8:30:00 AM	5	36	0	0	**41**	2	0	0	76	20	0	**96**	2	2	0	0	0	0	**0**	0	0	0	0	0	0	**0**	2	1	**137**
8:45:00 AM	8	42	0	0	**50**	0	2	0	83	16	0	**99**	1	0	0	0	0	0	**0**	0	2	0	0	0	0	**0**	2	1	**149**
Hourly Total	28	146	0	0	**174**	4	4	0	331	69	0	**400**	6	3	0	0	0	0	**0**	0	5	0	0	0	0	**0**	6	3	**574**
4:00:00 PM	12	23	0	0	**35**	6	1	0	143	12	0	**155**	3	0	0	1	0	0	**1**	4	0	0	0	0	0	**0**	1	0	**191**
4:15:00 PM	6	28	0	0	**34**	3	6	0	139	9	0	**148**	2	6	0	0	0	0	**0**	6	1	0	0	0	0	**0**	4	3	**182**
4:30:00 PM	8	25	0	0	**33**	3	2	0	138	10	0	**148**	3	2	0	0	0	0	**0**	5	2	0	0	0	0	**0**	3	1	**181**
4:45:00 PM	13	25	0	0	**38**	5	3	0	122	11	0	**133**	2	4	0	1	0	0	**1**	1	6	0	0	0	0	**0**	2	2	**172**
Hourly Total	39	101	0	0	**140**	17	12	0	542	42	0	**584**	10	12	0	2	0	0	**2**	16	9	0	0	0	0	**0**	10	6	**726**
5:00:00 PM	8	28	0	0	**36**	1	5	1	126	15	0	**142**	2	2	0	0	0	0	**0**	4	4	0	0	0	0	**0**	5	3	**178**
5:15:00 PM	10	25	0	0	**35**	8	2	0	108	16	0	**124**	4	1	0	0	0	0	**0**	3	2	0	0	0	0	**0**	0	3	**159**
5:30:00 PM	7	19	0	0	**26**	0	3	0	104	13	0	**117**	0	2	0	0	0	0	**0**	1	1	1	0	0	0	**1**	1	0	**144**
5:45:00 PM	6	21	0	0	**27**	0	7	0	116	8	0	**124**	4	0	0	0	0	0	**0**	4	1	0	0	0	0	**0**	4	1	**151**
Hourly Total	31	93	0	0	**124**	9	17	1	454	52	0	**507**	10	5	0	0	0	0	**0**	12	8	1	0	0	0	**1**	10	7	**632**
Grand Total	138	483	0	0	**621**	41	39	1	1695	232	0	**1928**	29	26	0	3	0	0	**3**	30	41	1	1	0	0	**2**	27	40	**2554**
% Approach	22.2%	77.8%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.1%	87.9%	12.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	5.4%	18.9%	0.0%	0.0%	**24.3%**	0.0%	0.0%	0.0%	66.4%	9.1%	0.0%	**75.5%**	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	**0.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.1%**	0.0%	0.0%	**0.0%**
Lights	134	455	0	0	**589**	0	0	0	1585	221	0	**1806**	0	0	0	1	0	0	**1**	0	0	0	0	0	0	**0**	0	0	**2396**
% Lights	97.1%	94.2%	0.0%	0.0%	**94.8%**	0.0%	0.0%	0.0%	93.5%	95.3%	0.0%	**93.7%**	0.0%	0.0%	0.0%	33.3%	0.0%	0.0%	**33.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.8%**
Trucks	2	9	0	0	**11**	0	0	0	26	5	0	**31**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**42**
% Trucks	1.4%	1.9%	0.0%	0.0%	**1.8%**	0.0%	0.0%	0.0%	1.5%	2.2%	0.0%	**1.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.6%**
Buses	1	9	0	0	**10**	0	0	0	68	5	0	**73**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**83**
% Buses	0.7%	1.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	4.0%	2.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.2%**
Pedestrians	0	0	0	0	**0**	39	37	0	0	0	0	**0**	29	25	0	0	0	0	**0**	30	41	0	0	0	0	**0**	26	40	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	95.1%	94.9%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	96.2%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	96.3%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	2	2	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	4.9%	5.1%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	3.8%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	3.7%	0.0%	**0.0%**

Turning Movement Data Plot





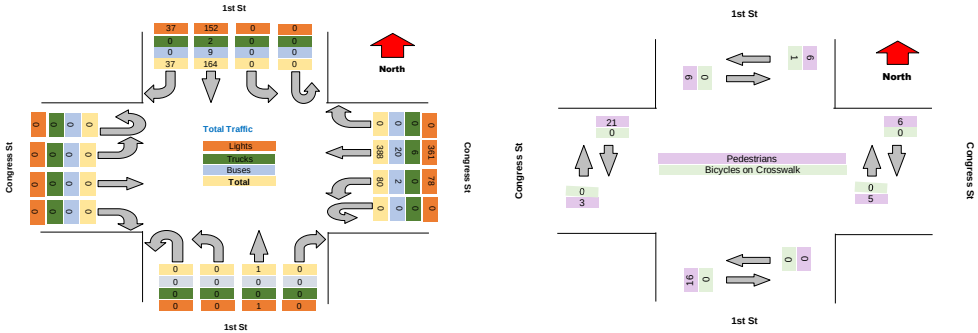
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:30:00 AM

Leg	1st St							Congress St							1st St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:30:00 AM	11	50	0	0	**61**	3	1	0	111	27	0	**138**	2	1	0	0	0	0	**0**	0	5	0	0	0	0	**0**	1	10	**199**
7:45:00 AM	11	46	0	0	**57**	4	4	0	105	20	0	**125**	1	3	0	1	0	0	**1**	0	8	0	0	0	0	**0**	1	10	**183**
8:00:00 AM	5	31	0	0	**36**	2	0	0	80	22	0	**102**	2	1	0	0	0	0	**0**	0	3	0	0	0	0	**0**	0	0	**138**
8:15:00 AM	10	37	0	0	**47**	0	2	0	92	11	0	**103**	1	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	2	1	**150**
Grand Total	37	164	0	0	**201**	9	7	0	388	80	0	**468**	6	5	0	1	0	0	**1**	0	16	0	0	0	0	**0**	3	21	**670**
% Approach	18.4%	81.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	82.9%	17.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	5.5%	24.5%	0.0%	0.0%	**30.0%**	0.0%	0.0%	0.0%	57.9%	11.9%	0.0%	**69.9%**	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	**0.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.841	0.820	0.000	0.000	**0.824**	0.000	0.000	0.000	0.874	0.741	0.000	**0.848**	0.000	0.000	0.000	0.250	0.000	0.000	**0.250**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.842**
Lights	37	152	0	0	**189**	0	0	0	361	78	0	**439**	0	0	0	1	0	0	**1**	0	0	0	0	0	0	**0**	0	0	**629**
% Lights	100.0%	92.7%	0.0%	0.0%	**94.0%**	0.0%	0.0%	0.0%	93.0%	97.5%	0.0%	**93.8%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.9%**
Trucks	0	2	0	0	**2**	0	0	0	6	0	0	**6**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**8**
% Trucks	0.0%	1.2%	0.0%	0.0%	**1.0%**	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	**1.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.2%**
Buses	0	9	0	0	**9**	0	0	0	20	2	0	**22**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**31**
% Buses	0.0%	5.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	5.2%	2.5%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**4.6%**
Pedestrians	0	0	0	0	**0**	9	6	0	0	0	0	**0**	6	5	0	0	0	0	**0**	0	16	0	0	0	0	**0**	3	21	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	85.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



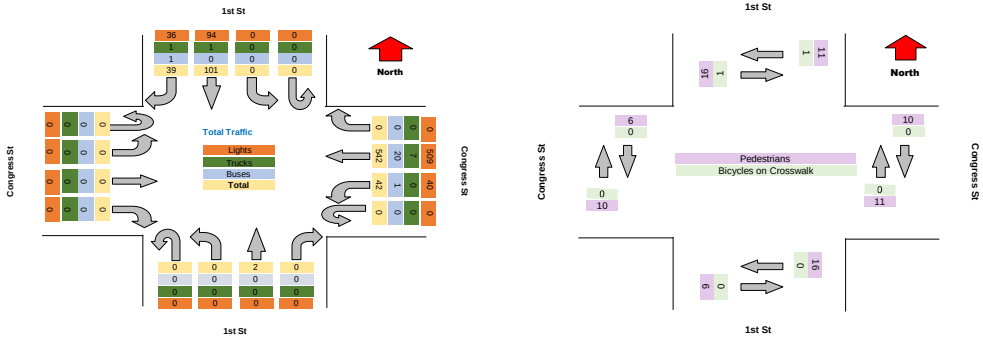
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TSTData.com

Turning Movement Peak Hour Data (PM)

4:00:00 PM

Leg	1st St							Congress St							1st St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:00:00 PM	12	23	0	0	**35**	6	1	0	143	12	0	**155**	3	0	0	1	0	0	**1**	4	0	0	0	0	0	**0**	1	0	**191**
4:15:00 PM	6	28	0	0	**34**	3	6	0	139	9	0	**148**	2	6	0	0	0	0	**0**	6	1	0	0	0	0	**0**	4	3	**182**
4:30:00 PM	8	25	0	0	**33**	3	2	0	138	10	0	**148**	3	2	0	0	0	0	**0**	5	2	0	0	0	0	**0**	3	1	**181**
4:45:00 PM	13	25	0	0	**38**	5	3	0	122	11	0	**133**	2	4	0	1	0	0	**1**	1	6	0	0	0	0	**0**	2	2	**172**
Grand Total	39	101	0	0	**140**	17	12	0	542	42	0	**584**	10	12	0	2	0	0	**2**	16	9	0	0	0	0	**0**	10	6	**726**
% Approach	27.9%	72.1%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	92.8%	7.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	5.4%	13.9%	0.0%	0.0%	**19.3%**	0.0%	0.0%	0.0%	74.7%	5.8%	0.0%	**80.4%**	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	**0.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.750	0.902	0.000	0.000	**0.921**	0.000	0.000	0.000	0.948	0.875	0.000	**0.942**	0.000	0.000	0.000	0.500	0.000	0.000	**0.500**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.950**
Lights	36	94	0	0	**130**	0	0	0	509	40	0	**549**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**679**
% Lights	92.3%	93.1%	0.0%	0.0%	**92.9%**	0.0%	0.0%	0.0%	93.9%	95.2%	0.0%	**94.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.5%**
Trucks	1	1	0	0	**2**	0	0	0	7	0	0	**7**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**9**
% Trucks	2.6%	1.0%	0.0%	0.0%	**1.4%**	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	**1.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.2%**
Buses	1	0	0	0	**1**	0	0	0	20	1	0	**21**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**22**
% Buses	2.6%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	3.7%	2.4%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.0%**
Pedestrians	0	0	0	0	**0**	16	11	0	0	0	0	**0**	10	11	0	0	0	0	**0**	16	9	0	0	0	0	**0**	10	6	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	94.1%	91.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	91.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	5.9%	8.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

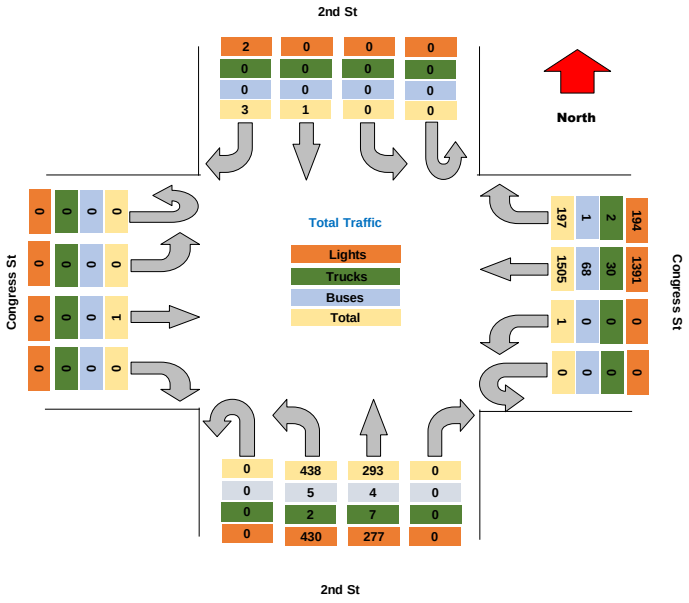
Turning Movement Data

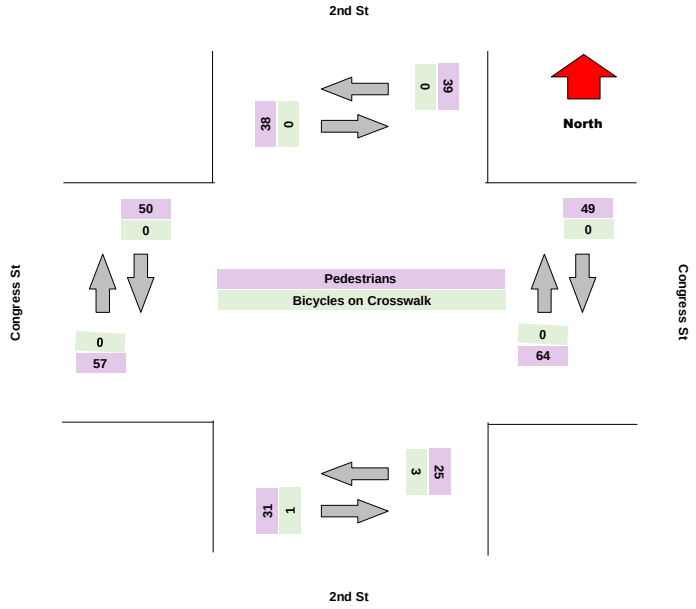
Leg	2nd St							Congress St							2nd St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:00:00 AM	0	0	0	0	**0**	2	0	6	60	0	0	**66**	1	0	0	9	23	0	**32**	1	2	0	1	0	0	**1**	0	0	**99**
7:15:00 AM	0	0	0	0	**0**	2	0	4	70	0	0	**74**	2	0	0	6	23	0	**29**	1	1	0	0	0	0	**0**	1	0	**103**
7:30:00 AM	0	0	0	0	**0**	1	3	9	115	0	0	**124**	2	0	0	17	25	0	**42**	2	3	0	0	0	0	**0**	3	3	**166**
7:45:00 AM	0	0	0	0	**0**	4	1	13	93	0	0	**106**	1	3	0	18	31	0	**49**	0	0	0	0	0	0	**0**	2	3	**155**
Hourly Total	0	0	0	0	**0**	9	4	32	338	0	0	**370**	6	3	0	50	102	0	**152**	4	6	0	1	0	0	**1**	6	6	**523**
8:00:00 AM	0	0	0	0	**0**	4	0	10	77	0	0	**87**	4	5	0	23	26	0	**49**	1	3	0	0	0	0	**0**	1	4	**136**
8:15:00 AM	1	0	0	0	**1**	2	1	11	73	0	0	**84**	2	1	0	13	32	0	**45**	1	0	0	0	0	0	**0**	6	2	**130**
8:30:00 AM	1	0	0	0	**1**	0	3	13	74	0	0	**87**	1	2	0	20	18	0	**38**	1	1	0	0	0	0	**0**	2	2	**126**
8:45:00 AM	0	0	0	0	**0**	2	2	16	74	0	0	**90**	4	6	0	14	24	0	**38**	2	1	0	0	0	0	**0**	3	3	**128**
Hourly Total	2	0	0	0	**2**	8	6	50	298	0	0	**348**	11	14	0	70	100	0	**170**	5	5	0	0	0	0	**0**	12	11	**520**
4:00:00 PM	0	0	0	0	**0**	2	3	8	118	0	0	**126**	8	5	0	25	36	0	**61**	2	2	0	0	0	0	**0**	3	4	**187**
4:15:00 PM	1	0	0	0	**1**	3	2	15	116	0	0	**131**	5	7	0	22	32	0	**54**	3	8	0	0	0	0	**0**	11	4	**186**
4:30:00 PM	0	0	0	0	**0**	3	1	14	119	0	0	**133**	2	6	0	22	28	0	**50**	2	1	0	0	0	0	**0**	6	4	**183**
4:45:00 PM	0	0	0	0	**0**	3	6	14	111	0	0	**125**	4	4	0	20	29	0	**49**	1	3	0	0	0	0	**0**	0	7	**174**
Hourly Total	1	0	0	0	**1**	11	12	51	464	0	0	**515**	19	22	0	89	125	0	**214**	8	14	0	0	0	0	**0**	20	19	**730**
5:00:00 PM	0	0	0	0	**0**	1	4	9	120	0	0	**129**	4	6	0	20	31	0	**51**	2	1	0	0	0	0	**0**	2	3	**180**
5:15:00 PM	0	1	0	0	**1**	3	5	24	93	1	0	**118**	3	1	0	18	27	0	**45**	4	4	0	0	0	0	**0**	7	3	**164**
5:30:00 PM	0	0	0	0	**0**	5	4	16	93	0	0	**109**	1	2	0	27	26	0	**53**	0	1	0	0	0	0	**0**	6	5	**162**
5:45:00 PM	0	0	0	0	**0**	1	4	15	99	0	0	**114**	5	16	0	19	27	0	**46**	5	1	0	0	0	0	**0**	4	3	**160**
Hourly Total	0	1	0	0	**1**	10	17	64	405	1	0	**470**	13	25	0	84	111	0	**195**	11	7	0	0	0	0	**0**	19	14	**666**
Grand Total	3	1	0	0	**4**	38	39	197	1505	1	0	**1703**	49	64	0	293	438	0	**731**	28	32	0	1	0	0	**1**	57	50	**2439**
% Approach	75.0%	25.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	11.6%	88.4%	0.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	40.1%	59.9%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.1%	0.0%	0.0%	0.0%	**0.2%**	0.0%	0.0%	8.1%	61.7%	0.0%	0.0%	**69.8%**	0.0%	0.0%	0.0%	12.0%	18.0%	0.0%	**30.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Lights	2	0	0	0	**2**	0	0	194	1391	0	0	**1585**	0	0	0	277	430	0	**707**	0	0	0	0	0	0	**0**	0	0	**2294**
% Lights	66.7%	0.0%	0.0%	0.0%	**50.0%**	0.0%	0.0%	98.5%	92.4%	0.0%	0.0%	**93.1%**	0.0%	0.0%	0.0%	94.5%	98.2%	0.0%	**96.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**94.1%**
Trucks	0	0	0	0	**0**	0	0	2	30	0	0	**32**	0	0	0	7	2	0	**9**	0	0	0	0	0	0	**0**	0	0	**41**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	2.0%	0.0%	0.0%	**1.9%**	0.0%	0.0%	0.0%	2.4%	0.5%	0.0%	**1.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.7%**
Buses	0	0	0	0	**0**	0	0	1	68	0	0	**69**	0	0	0	4	5	0	**9**	0	0	0	0	0	0	**0**	0	0	**78**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.4%	1.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.2%**
Pedestrians	0	0	0	0	**0**	38	39	0	0	0	0	**0**	49	64	0	0	0	0	**0**	25	31	0	0	0	0	**0**	57	50	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	89.3%	96.9%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	3	1	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	10.7%	3.1%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





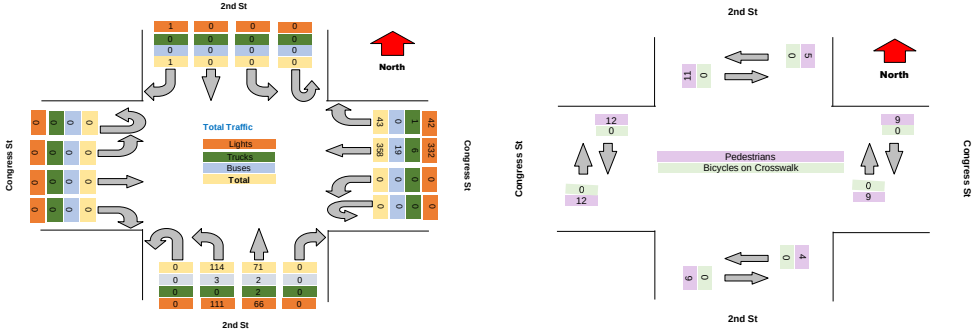
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:30:00 AM

Leg	2nd St							Congress St							2nd St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:30:00 AM	0	0	0	0	**0**	1	3	9	115	0	0	**124**	2	0	0	17	25	0	**42**	2	3	0	0	0	0	**0**	3	3	**166**
7:45:00 AM	0	0	0	0	**0**	4	1	13	93	0	0	**106**	1	3	0	18	31	0	**49**	0	0	0	0	0	0	**0**	2	3	**155**
8:00:00 AM	0	0	0	0	**0**	4	0	10	77	0	0	**87**	4	5	0	23	26	0	**49**	1	3	0	0	0	0	**0**	1	4	**136**
8:15:00 AM	1	0	0	0	**1**	2	1	11	73	0	0	**84**	2	1	0	13	32	0	**45**	1	0	0	0	0	0	**0**	6	2	**130**
Grand Total	1	0	0	0	**1**	11	5	43	358	0	0	**401**	9	9	0	71	114	0	**185**	4	6	0	0	0	0	**0**	12	12	**587**
% Approach	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	10.7%	89.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	38.4%	61.6%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	0.2%	0.0%	0.0%	0.0%	**0.2%**	0.0%	0.0%	7.3%	61.0%	0.0%	0.0%	**68.3%**	0.0%	0.0%	0.0%	12.1%	19.4%	0.0%	**31.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.250	0.000	0.000	0.000	**0.250**	0.000	0.000	0.827	0.778	0.000	0.000	**0.808**	0.000	0.000	0.000	0.772	0.891	0.000	**0.944**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.884**
Lights	1	0	0	0	**1**	0	0	42	332	0	0	**374**	0	0	0	66	111	0	**177**	0	0	0	0	0	0	**0**	0	0	**552**
% Lights	100.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	97.7%	92.7%	0.0%	0.0%	**93.3%**	0.0%	0.0%	0.0%	93.0%	97.4%	0.0%	**95.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**94.0%**
Trucks	0	0	0	0	**0**	0	0	1	6	0	0	**7**	0	0	0	2	0	0	**2**	0	0	0	0	0	0	**0**	0	0	**9**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	1.7%	0.0%	0.0%	**1.7%**	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	**1.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.5%**
Buses	0	0	0	0	**0**	0	0	0	19	0	0	**19**	0	0	0	2	3	0	**5**	0	0	0	0	0	0	**0**	0	0	**24**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	5.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.8%	2.6%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**4.1%**
Pedestrians	0	0	0	0	**0**	11	5	0	0	0	0	**0**	9	9	0	0	0	0	**0**	4	6	0	0	0	0	**0**	12	12	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



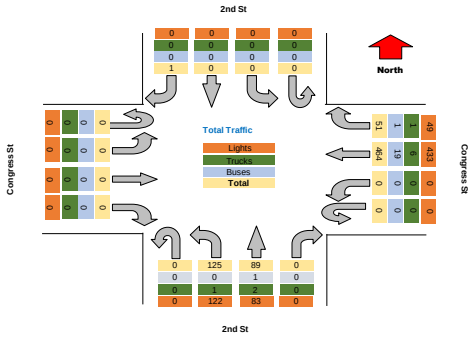
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

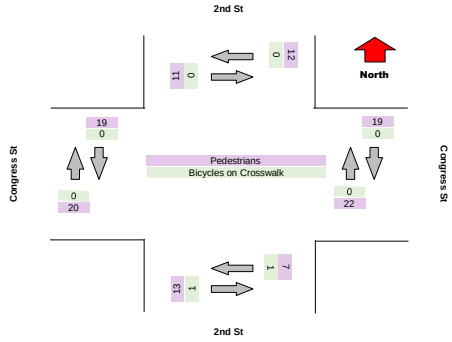
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:00:00 PM

Leg	2nd St							Congress St							2nd St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:00:00 PM	0	0	0	0	**0**	2	3	8	118	0	0	**126**	8	5	0	25	36	0	**61**	2	2	0	0	0	0	**0**	3	4	**187**
4:15:00 PM	1	0	0	0	**1**	3	2	15	116	0	0	**131**	5	7	0	22	32	0	**54**	3	8	0	0	0	0	**0**	11	4	**186**
4:30:00 PM	0	0	0	0	**0**	3	1	14	119	0	0	**133**	2	6	0	22	28	0	**50**	2	1	0	0	0	0	**0**	6	4	**183**
4:45:00 PM	0	0	0	0	**0**	3	6	14	111	0	0	**125**	4	4	0	20	29	0	**49**	1	3	0	0	0	0	**0**	0	7	**174**
Grand Total	1	0	0	0	**1**	11	12	51	464	0	0	**515**	19	22	0	89	125	0	**214**	8	14	0	0	0	0	**0**	20	19	**730**
% Approach	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	9.9%	90.1%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	41.6%	58.4%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	0.1%	0.0%	0.0%	0.0%	**0.1%**	0.0%	0.0%	7.0%	63.6%	0.0%	0.0%	**70.5%**	0.0%	0.0%	0.0%	12.2%	17.1%	0.0%	**29.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.250	0.000	0.000	0.000	**0.250**	0.000	0.000	0.850	0.975	0.000	0.000	**0.968**	0.000	0.000	0.000	0.890	0.868	0.000	**0.877**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.976**
Lights	0	0	0	0	**0**	0	0	49	433	0	0	**482**	0	0	0	83	122	0	**205**	0	0	0	0	0	0	**0**	0	0	**687**
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	96.1%	93.3%	0.0%	0.0%	**93.6%**	0.0%	0.0%	0.0%	93.3%	97.6%	0.0%	**95.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**94.1%**
Trucks	0	0	0	0	**0**	0	0	1	6	0	0	**7**	0	0	0	2	1	0	**3**	0	0	0	0	0	0	**0**	0	0	**10**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.0%	1.3%	0.0%	0.0%	**1.4%**	0.0%	0.0%	0.0%	2.2%	0.8%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.4%**
Buses	0	0	0	0	**0**	0	0	1	19	0	0	**20**	0	0	0	1	2	0	**3**	0	0	0	0	0	0	**0**	0	0	**23**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.0%	4.1%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.1%	1.6%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.2%**
Pedestrians	0	0	0	0	**0**	11	12	0	0	0	0	**0**	19	22	0	0	0	0	**0**	7	13	0	0	0	0	**0**	20	19	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	87.5%	92.9%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	12.5%	7.1%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

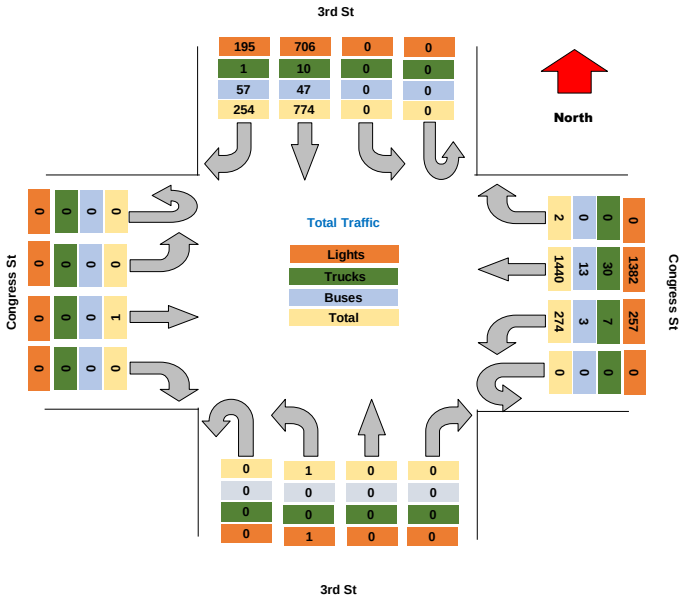
Turning Movement Data

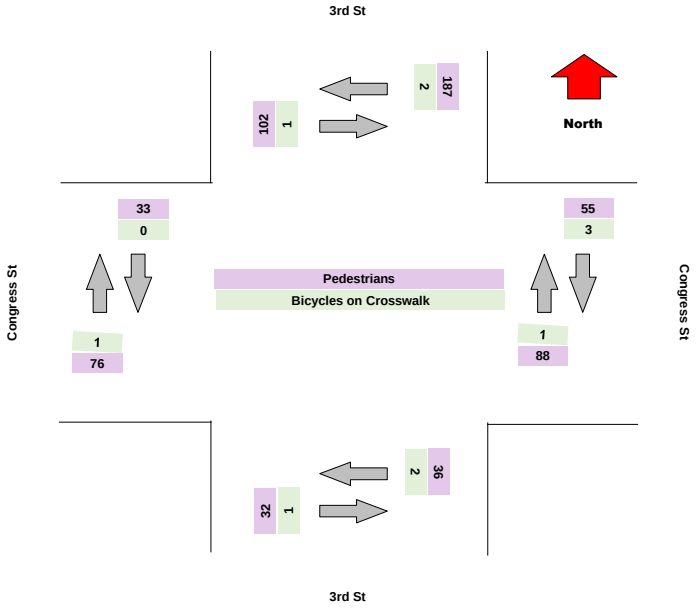
Leg	3rd St							Congress St							3rd St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
7:00:00 AM	4	17	0	0	**21**	2	9	0	64	7	0	**71**	0	1	0	0	0	0	**0**	0	3	0	1	0	0	**1**	2	0	**93**
7:15:00 AM	7	27	0	0	**34**	4	3	0	74	5	0	**79**	1	2	0	0	1	0	**1**	1	1	0	0	0	0	**0**	5	2	**114**
7:30:00 AM	8	37	0	0	**45**	3	7	0	110	6	0	**116**	0	2	0	0	0	0	**0**	2	1	0	0	0	0	**0**	4	2	**161**
7:45:00 AM	13	35	0	0	**48**	7	11	0	90	11	0	**101**	3	2	0	0	0	0	**0**	0	1	0	0	0	0	**0**	1	3	**149**
Hourly Total	32	116	0	0	**148**	16	30	0	338	29	0	**367**	4	7	0	0	1	0	**1**	3	6	0	1	0	0	**1**	12	7	**517**
8:00:00 AM	10	36	0	0	**46**	5	8	0	74	16	0	**90**	2	4	0	0	0	0	**0**	4	1	0	0	0	0	**0**	6	1	**136**
8:15:00 AM	16	35	0	0	**51**	9	10	0	83	21	0	**104**	5	5	0	0	0	0	**0**	4	0	0	0	0	0	**0**	2	1	**155**
8:30:00 AM	17	44	0	0	**61**	4	8	0	81	13	0	**94**	0	0	0	0	0	0	**0**	5	0	0	0	0	0	**0**	7	3	**155**
8:45:00 AM	15	44	0	0	**59**	4	8	1	80	16	0	**97**	0	4	0	0	0	0	**0**	1	2	0	0	0	0	**0**	6	2	**156**
Hourly Total	58	159	0	0	**217**	22	34	1	318	66	0	**385**	7	13	0	0	0	0	**0**	14	3	0	0	0	0	**0**	21	7	**602**
4:00:00 PM	20	64	0	0	**84**	7	23	1	109	19	0	**129**	4	11	0	0	0	0	**0**	0	3	0	0	0	0	**0**	4	2	**213**
4:15:00 PM	25	48	0	0	**73**	7	18	0	104	27	0	**131**	3	13	0	0	0	0	**0**	5	6	0	0	0	0	**0**	4	2	**204**
4:30:00 PM	17	74	0	0	**91**	9	9	0	109	16	0	**125**	8	5	0	0	0	0	**0**	2	2	0	0	0	0	**0**	13	3	**216**
4:45:00 PM	21	72	0	0	**93**	9	17	0	93	16	0	**109**	0	5	0	0	0	0	**0**	0	4	0	0	0	0	**0**	3	4	**202**
Hourly Total	83	258	0	0	**341**	32	67	1	415	78	0	**494**	15	34	0	0	0	0	**0**	7	15	0	0	0	0	**0**	24	11	**835**
5:00:00 PM	26	65	0	0	**91**	7	9	0	97	24	0	**121**	7	4	0	0	0	0	**0**	4	1	0	0	0	0	**0**	5	2	**212**
5:15:00 PM	16	72	0	0	**88**	7	23	0	93	26	0	**119**	15	12	0	0	0	0	**0**	3	3	0	0	0	0	**0**	1	3	**207**
5:30:00 PM	18	56	0	0	**74**	14	8	0	86	27	0	**113**	5	7	0	0	0	0	**0**	1	2	0	0	0	0	**0**	2	2	**187**
5:45:00 PM	21	48	0	0	**69**	5	18	0	93	24	0	**117**	5	12	0	0	0	0	**0**	6	3	0	0	0	0	**0**	12	1	**186**
Hourly Total	81	241	0	0	**322**	33	58	0	369	101	0	**470**	32	35	0	0	0	0	**0**	14	9	0	0	0	0	**0**	20	8	**792**
Grand Total	254	774	0	0	**1028**	103	189	2	1440	274	0	**1716**	58	89	0	0	1	0	**1**	38	33	0	1	0	0	**1**	77	33	**2746**
% Approach	24.7%	75.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.1%	83.9%	16.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	9.2%	28.2%	0.0%	0.0%	**37.4%**	0.0%	0.0%	0.1%	52.4%	10.0%	0.0%	**62.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Lights	195	706	0	0	**901**	0	0	0	1382	257	0	**1639**	0	0	0	0	1	0	**1**	0	0	0	0	0	0	**0**	0	0	**2541**
% Lights	76.8%	91.2%	0.0%	0.0%	**87.6%**	0.0%	0.0%	0.0%	96.0%	93.8%	0.0%	**95.5%**	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	**100.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**92.5%**
Trucks	1	10	0	0	**11**	0	0	0	30	7	0	**37**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**48**
% Trucks	0.4%	1.3%	0.0%	0.0%	**1.1%**	0.0%	0.0%	0.0%	2.1%	2.6%	0.0%	**2.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.7%**
Buses	57	47	0	0	**104**	0	0	0	13	3	0	**16**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**120**
% Buses	22.4%	6.1%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.9%	1.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**4.4%**
Pedestrians	0	0	0	0	**0**	102	187	0	0	0	0	**0**	55	88	0	0	0	0	**0**	36	32	0	0	0	0	**0**	76	33	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	99.0%	98.9%	0.0%	0.0%	0.0%	0.0%	**0.0%**	94.8%	98.9%	0.0%	0.0%	0.0%	0.0%	**0.0%**	94.7%	97.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	98.7%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	2	0	0	0	0	**0**	3	1	0	0	0	0	**0**	2	1	0	0	0	0	**0**	1	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.0%	1.1%	0.0%	0.0%	0.0%	0.0%	**0.0%**	5.2%	1.1%	0.0%	0.0%	0.0%	0.0%	**0.0%**	5.3%	3.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.3%	0.0%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





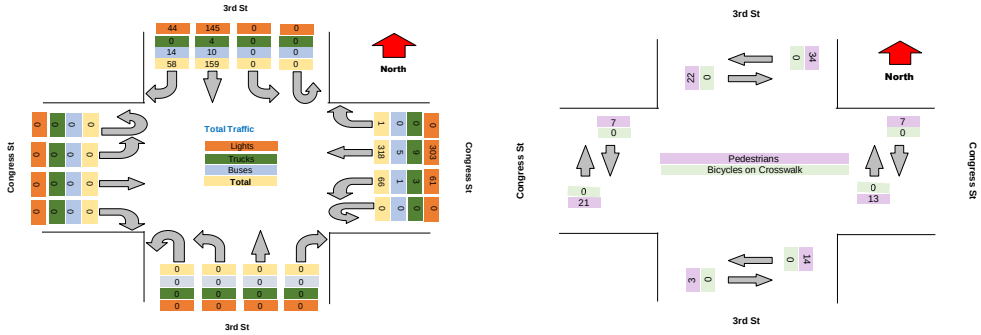
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

8:00:00 AM

Leg	3rd St							Congress St							3rd St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
8:00:00 AM	10	36	0	0	**46**	5	8	0	74	16	0	**90**	2	4	0	0	0	0	**0**	4	1	0	0	0	0	**0**	6	1	**136**
8:15:00 AM	16	35	0	0	**51**	9	10	0	83	21	0	**104**	5	5	0	0	0	0	**0**	4	0	0	0	0	0	**0**	2	1	**155**
8:30:00 AM	17	44	0	0	**61**	4	8	0	81	13	0	**94**	0	0	0	0	0	0	**0**	5	0	0	0	0	0	**0**	7	3	**155**
8:45:00 AM	15	44	0	0	**59**	4	8	1	80	16	0	**97**	0	4	0	0	0	0	**0**	1	2	0	0	0	0	**0**	6	2	**156**
Grand Total	58	159	0	0	**217**	22	34	1	318	66	0	**385**	7	13	0	0	0	0	**0**	14	3	0	0	0	0	**0**	21	7	**602**
% Approach	26.7%	73.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.3%	82.6%	17.1%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	9.6%	26.4%	0.0%	0.0%	**36.0%**	0.0%	0.0%	0.2%	52.8%	11.0%	0.0%	**64.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.853	0.903	0.000	0.000	**0.889**	0.000	0.000	0.250	0.958	0.786	0.000	**0.925**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.965**
Lights	44	145	0	0	**189**	0	0	0	303	61	0	**364**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**553**
% Lights	75.9%	91.2%	0.0%	0.0%	**87.1%**	0.0%	0.0%	0.0%	95.3%	92.4%	0.0%	**94.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**91.9%**
Trucks	0	4	0	0	**4**	0	0	0	9	3	0	**12**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**16**
% Trucks	0.0%	2.5%	0.0%	0.0%	**1.8%**	0.0%	0.0%	0.0%	2.8%	4.5%	0.0%	**3.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.7%**
Buses	14	10	0	0	**24**	0	0	0	5	1	0	**6**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**30**
% Buses	24.1%	6.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.6%	1.5%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**5.0%**
Pedestrians	0	0	0	0	**0**	22	34	0	0	0	0	**0**	7	13	0	0	0	0	**0**	14	3	0	0	0	0	**0**	21	7	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



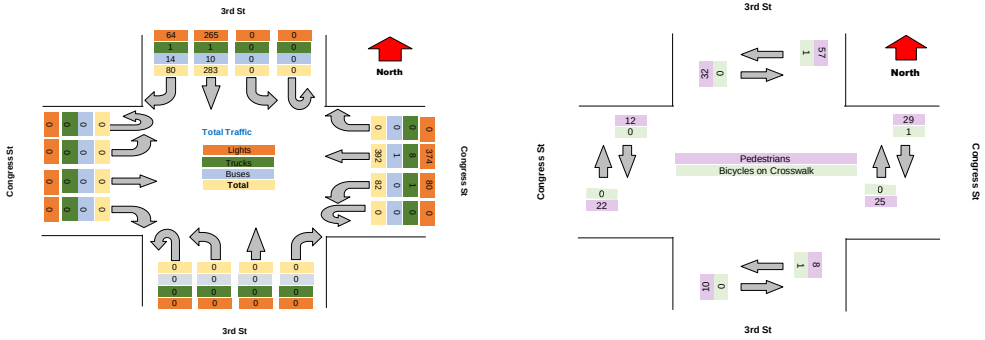
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:30:00 PM

Leg	3rd St							Congress St							3rd St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:30:00 PM	17	74	0	0	**91**	9	9	0	109	16	0	**125**	8	5	0	0	0	0	**0**	2	2	0	0	0	0	**0**	13	3	**216**
4:45:00 PM	21	72	0	0	**93**	9	17	0	93	16	0	**109**	0	5	0	0	0	0	**0**	0	4	0	0	0	0	**0**	3	4	**202**
5:00:00 PM	26	65	0	0	**91**	7	9	0	97	24	0	**121**	7	4	0	0	0	0	**0**	4	1	0	0	0	0	**0**	5	2	**212**
5:15:00 PM	16	72	0	0	**88**	7	23	0	93	26	0	**119**	15	12	0	0	0	0	**0**	3	3	0	0	0	0	**0**	1	3	**207**
Grand Total	80	283	0	0	**363**	32	58	0	392	82	0	**474**	30	26	0	0	0	0	**0**	9	10	0	0	0	0	**0**	22	12	**837**
% Approach	22.0%	78.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	82.7%	17.3%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	9.6%	33.8%	0.0%	0.0%	**43.4%**	0.0%	0.0%	0.0%	46.8%	9.8%	0.0%	**56.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.769	0.956	0.000	0.000	**0.976**	0.000	0.000	0.000	0.899	0.788	0.000	**0.948**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.969**
Lights	64	265	0	0	**329**	0	0	0	374	80	0	**454**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**783**
% Lights	80.0%	93.6%	0.0%	0.0%	**90.6%**	0.0%	0.0%	0.0%	95.4%	97.6%	0.0%	**95.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.5%**
Trucks	1	1	0	0	**2**	0	0	0	8	1	0	**9**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**11**
% Trucks	1.3%	0.4%	0.0%	0.0%	**0.6%**	0.0%	0.0%	0.0%	2.0%	1.2%	0.0%	**1.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.3%**
Buses	14	10	0	0	**24**	0	0	0	1	0	0	**1**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**25**
% Buses	17.5%	3.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.0%**
Pedestrians	0	0	0	0	**0**	32	57	0	0	0	0	**0**	29	25	0	0	0	0	**0**	8	10	0	0	0	0	**0**	22	12	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	98.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	96.7%	96.2%	0.0%	0.0%	0.0%	0.0%	**0.0%**	88.9%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	1	1	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	3.3%	3.8%	0.0%	0.0%	0.0%	0.0%	**0.0%**	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



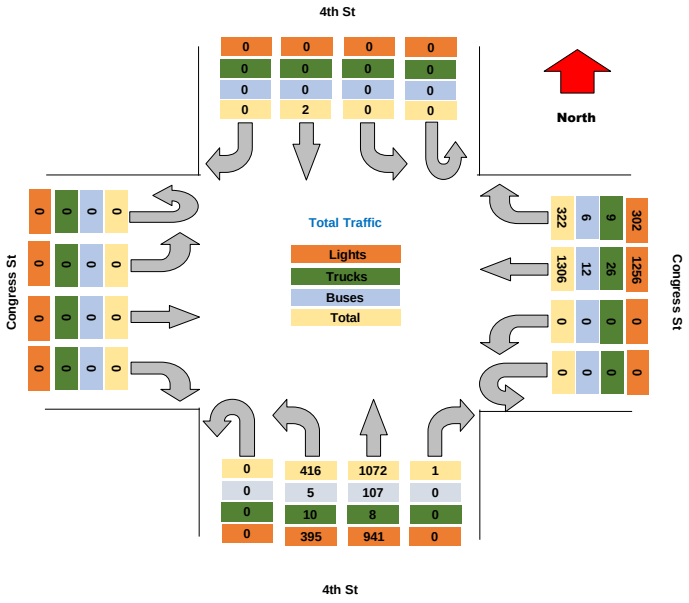
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

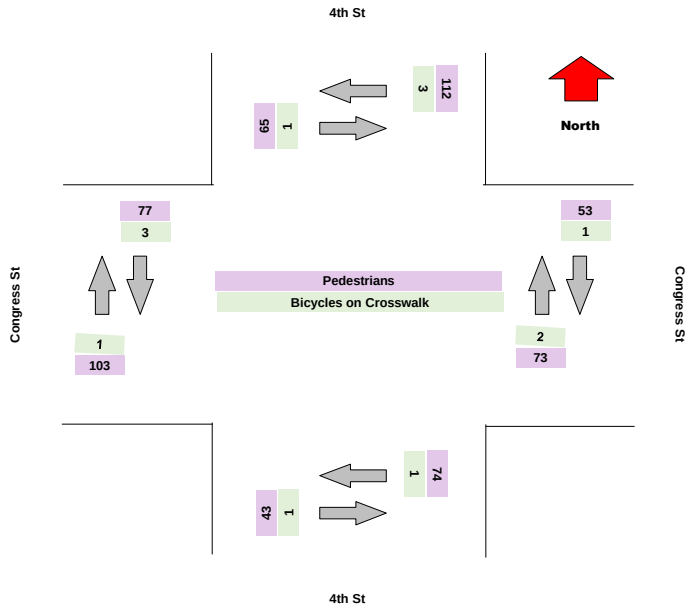
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data

Leg	4th St							Congress St							4th St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
7:00:00 AM	0	0	0	0	**0**	2	7	8	59	0	0	**67**	0	0	0	29	12	0	**41**	0	2	0	0	0	0	**0**	1	0	**108**
7:15:00 AM	0	0	0	0	**0**	4	4	7	65	0	0	**72**	0	2	0	42	15	0	**57**	3	0	0	0	0	0	**0**	2	0	**129**
7:30:00 AM	0	0	0	0	**0**	2	4	12	93	0	0	**105**	5	2	0	43	23	0	**66**	2	2	0	0	0	0	**0**	2	2	**171**
7:45:00 AM	0	0	0	0	**0**	2	9	19	83	0	0	**102**	1	6	0	59	19	0	**78**	6	2	0	0	0	0	**0**	10	3	**180**
Hourly Total	0	0	0	0	**0**	10	24	46	300	0	0	**346**	6	10	0	173	69	0	**242**	11	6	0	0	0	0	**0**	15	5	**588**
8:00:00 AM	0	0	0	0	**0**	1	6	13	69	0	0	**82**	0	6	0	58	24	0	**82**	3	5	0	0	0	0	**0**	1	6	**164**
8:15:00 AM	0	0	0	0	**0**	9	5	18	79	0	0	**97**	3	4	0	57	24	0	**81**	4	1	0	0	0	0	**0**	8	5	**178**
8:30:00 AM	0	0	0	0	**0**	6	9	32	68	0	0	**100**	6	8	0	51	28	0	**79**	0	1	0	0	0	0	**0**	8	6	**179**
8:45:00 AM	0	0	0	0	**0**	3	9	22	64	0	0	**86**	2	2	0	58	31	0	**89**	3	1	0	0	0	0	**0**	4	4	**175**
Hourly Total	0	0	0	0	**0**	19	29	85	280	0	0	**365**	11	20	0	224	107	0	**331**	10	8	0	0	0	0	**0**	21	21	**696**
4:00:00 PM	0	0	0	0	**0**	7	9	14	101	0	0	**115**	5	4	0	76	33	0	**109**	9	3	0	0	0	0	**0**	9	6	**224**
4:15:00 PM	0	1	0	0	**1**	1	4	22	93	0	0	**115**	8	6	0	93	28	0	**121**	11	2	0	0	0	0	**0**	10	4	**237**
4:30:00 PM	0	0	0	0	**0**	4	8	30	93	0	0	**123**	1	7	0	82	35	0	**117**	2	4	0	0	0	0	**0**	4	11	**240**
4:45:00 PM	0	0	0	0	**0**	3	5	26	87	0	0	**113**	3	8	1	81	26	0	**108**	7	6	0	0	0	0	**0**	5	6	**221**
Hourly Total	0	1	0	0	**1**	15	26	92	374	0	0	**466**	17	25	1	332	122	0	**455**	29	15	0	0	0	0	**0**	28	27	**922**
5:00:00 PM	0	0	0	0	**0**	6	2	23	92	0	0	**115**	4	2	0	86	26	0	**112**	4	4	0	0	0	0	**0**	5	5	**227**
5:15:00 PM	0	1	0	0	**1**	11	16	24	89	0	0	**113**	9	6	0	83	28	0	**111**	6	2	0	0	0	0	**0**	12	4	**225**
5:30:00 PM	0	0	0	0	**0**	1	7	30	85	0	0	**115**	1	5	0	88	34	0	**122**	3	5	0	0	0	0	**0**	7	9	**237**
5:45:00 PM	0	0	0	0	**0**	4	11	22	86	0	0	**108**	6	7	0	86	30	0	**116**	12	4	0	0	0	0	**0**	16	9	**224**
Hourly Total	0	1	0	0	**1**	22	36	99	352	0	0	**451**	20	20	0	343	118	0	**461**	25	15	0	0	0	0	**0**	40	27	**913**
Grand Total	0	2	0	0	**2**	66	115	322	1306	0	0	**1628**	54	75	1	1072	416	0	**1489**	75	44	0	0	0	0	**0**	104	80	**3119**
% Approach	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	19.8%	80.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.1%	72.0%	27.9%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.0%	0.1%	0.0%	0.0%	**0.1%**	0.0%	0.0%	10.3%	41.9%	0.0%	0.0%	**52.2%**	0.0%	0.0%	0.0%	34.4%	13.3%	0.0%	**47.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Lights	0	0	0	0	**0**	0	0	302	1256	0	0	**1558**	0	0	0	941	395	0	**1336**	0	0	0	0	0	0	**0**	0	0	**2894**
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	93.8%	96.2%	0.0%	0.0%	**95.7%**	0.0%	0.0%	0.0%	87.8%	95.0%	0.0%	**89.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**92.8%**
Trucks	0	0	0	0	**0**	0	0	9	26	0	0	**35**	0	0	0	8	10	0	**18**	0	0	0	0	0	0	**0**	0	0	**53**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.8%	2.0%	0.0%	0.0%	**2.1%**	0.0%	0.0%	0.0%	0.7%	2.4%	0.0%	**1.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.7%**
Buses	0	0	0	0	**0**	0	0	6	12	0	0	**18**	0	0	0	107	5	0	**112**	0	0	0	0	0	0	**0**	0	0	**130**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	10.0%	1.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**4.2%**
Pedestrians	0	0	0	0	**0**	65	112	0	0	0	0	**0**	53	73	0	0	0	0	**0**	74	43	0	0	0	0	**0**	103	77	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	98.5%	97.4%	0.0%	0.0%	0.0%	0.0%	**0.0%**	98.1%	97.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	98.7%	97.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	99.0%	96.3%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	3	0	0	0	0	**0**	1	2	0	0	0	0	**0**	1	1	0	0	0	0	**0**	1	3	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.5%	2.6%	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.9%	2.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.3%	2.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	1.0%	3.8%	**0.0%**

Turning Movement Data Plot





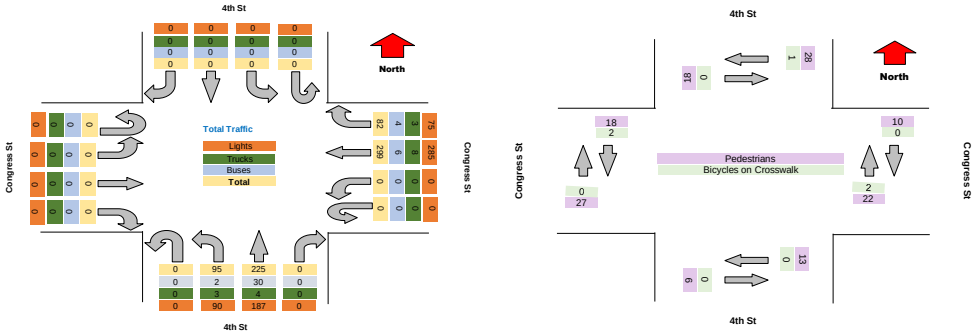
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	4th St							Congress St							4th St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:45:00 AM	0	0	0	0	**0**	2	9	19	83	0	0	**102**	1	6	0	59	19	0	**78**	6	2	0	0	0	0	**0**	10	3	**180**
8:00:00 AM	0	0	0	0	**0**	1	6	13	69	0	0	**82**	0	6	0	58	24	0	**82**	3	5	0	0	0	0	**0**	1	6	**164**
8:15:00 AM	0	0	0	0	**0**	9	5	18	79	0	0	**97**	3	4	0	57	24	0	**81**	4	1	0	0	0	0	**0**	8	5	**178**
8:30:00 AM	0	0	0	0	**0**	6	9	32	68	0	0	**100**	6	8	0	51	28	0	**79**	0	1	0	0	0	0	**0**	8	6	**179**
Grand Total	0	0	0	0	**0**	18	29	82	299	0	0	**381**	10	24	0	225	95	0	**320**	13	9	0	0	0	0	**0**	27	20	**701**
% Approach	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	21.5%	78.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	70.3%	29.7%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	11.7%	42.7%	0.0%	0.0%	**54.4%**	0.0%	0.0%	0.0%	32.1%	13.6%	0.0%	**45.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.641	0.901	0.000	0.000	**0.934**	0.000	0.000	0.000	0.953	0.848	0.000	**0.976**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.974**
Lights	0	0	0	0	**0**	0	0	75	285	0	0	**360**	0	0	0	187	90	0	**277**	0	0	0	0	0	0	**0**	0	0	**637**
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	91.5%	95.3%	0.0%	0.0%	**94.5%**	0.0%	0.0%	0.0%	83.1%	94.7%	0.0%	**86.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**90.9%**
Trucks	0	0	0	0	**0**	0	0	3	8	0	0	**11**	0	0	0	4	3	0	**7**	0	0	0	0	0	0	**0**	0	0	**18**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.7%	2.7%	0.0%	0.0%	**2.9%**	0.0%	0.0%	0.0%	1.8%	3.2%	0.0%	**2.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.6%**
Buses	0	0	0	0	**0**	0	0	4	6	0	0	**10**	0	0	0	30	2	0	**32**	0	0	0	0	0	0	**0**	0	0	**42**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.9%	2.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	13.3%	2.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**6.0%**
Pedestrians	0	0	0	0	**0**	18	28	0	0	0	0	**0**	10	22	0	0	0	0	**0**	13	9	0	0	0	0	**0**	27	18	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	96.6%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	91.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	90.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	2	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	2	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	8.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	10.0%	**0.0%**



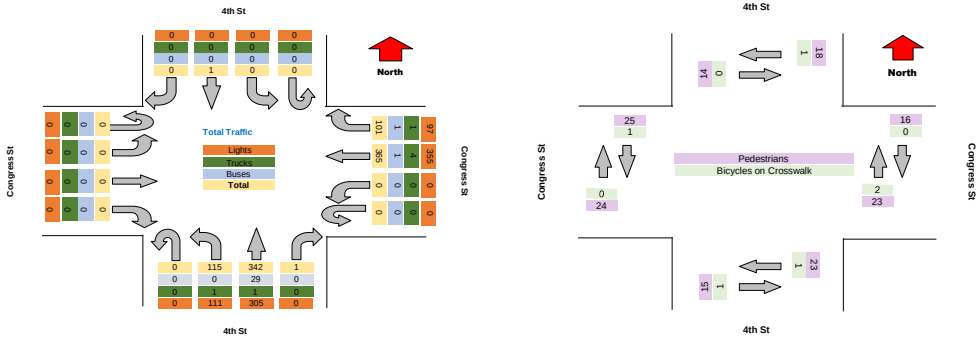
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:15:00 PM

Leg	4th St							Congress St							4th St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:15:00 PM	0	1	0	0	**1**	1	4	22	93	0	0	**115**	8	6	0	93	28	0	**121**	11	2	0	0	0	0	**0**	10	4	**237**
4:30:00 PM	0	0	0	0	**0**	4	8	30	93	0	0	**123**	1	7	0	82	35	0	**117**	2	4	0	0	0	0	**0**	4	11	**240**
4:45:00 PM	0	0	0	0	**0**	3	5	26	87	0	0	**113**	3	8	1	81	26	0	**108**	7	6	0	0	0	0	**0**	5	6	**221**
5:00:00 PM	0	0	0	0	**0**	6	2	23	92	0	0	**115**	4	2	0	86	26	0	**112**	4	4	0	0	0	0	**0**	5	5	**227**
Grand Total	0	1	0	0	**1**	14	19	101	365	0	0	**466**	16	23	1	342	115	0	**458**	24	16	0	0	0	0	**0**	24	26	**925**
% Approach	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	21.7%	78.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.2%	74.7%	25.1%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	0.0%	0.1%	0.0%	0.0%	**0.1%**	0.0%	0.0%	10.9%	39.5%	0.0%	0.0%	**50.4%**	0.0%	0.0%	0.1%	37.0%	12.4%	0.0%	**49.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.000	0.250	0.000	0.000	**0.250**	0.000	0.000	0.842	0.981	0.000	0.000	**0.947**	0.000	0.000	0.250	0.919	0.821	0.000	**0.946**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.964**
Lights	0	0	0	0	**0**	0	0	97	355	0	0	**452**	0	0	0	305	111	0	**416**	0	0	0	0	0	0	**0**	0	0	**868**
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	96.0%	97.3%	0.0%	0.0%	**97.0%**	0.0%	0.0%	0.0%	89.2%	96.5%	0.0%	**90.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.8%**
Trucks	0	0	0	0	**0**	0	0	1	4	0	0	**5**	0	0	0	1	1	0	**2**	0	0	0	0	0	0	**0**	0	0	**7**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	1.1%	0.0%	0.0%	**1.1%**	0.0%	0.0%	0.0%	0.3%	0.9%	0.0%	**0.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.8%**
Buses	0	0	0	0	**0**	0	0	1	1	0	0	**2**	0	0	0	29	1	0	**30**	0	0	0	0	0	0	**0**	0	0	**32**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	0.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	8.5%	0.9%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.5%**
Pedestrians	0	0	0	0	**0**	14	18	0	0	0	0	**0**	16	23	0	0	0	0	**0**	23	15	0	0	0	0	**0**	24	25	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	94.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	95.8%	93.8%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	96.2%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	5.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	4.2%	6.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	3.8%	**0.0%**



Project No.: 121-298
Counted By: LHC
Location: Congress & 5th
Comments: AM Peak

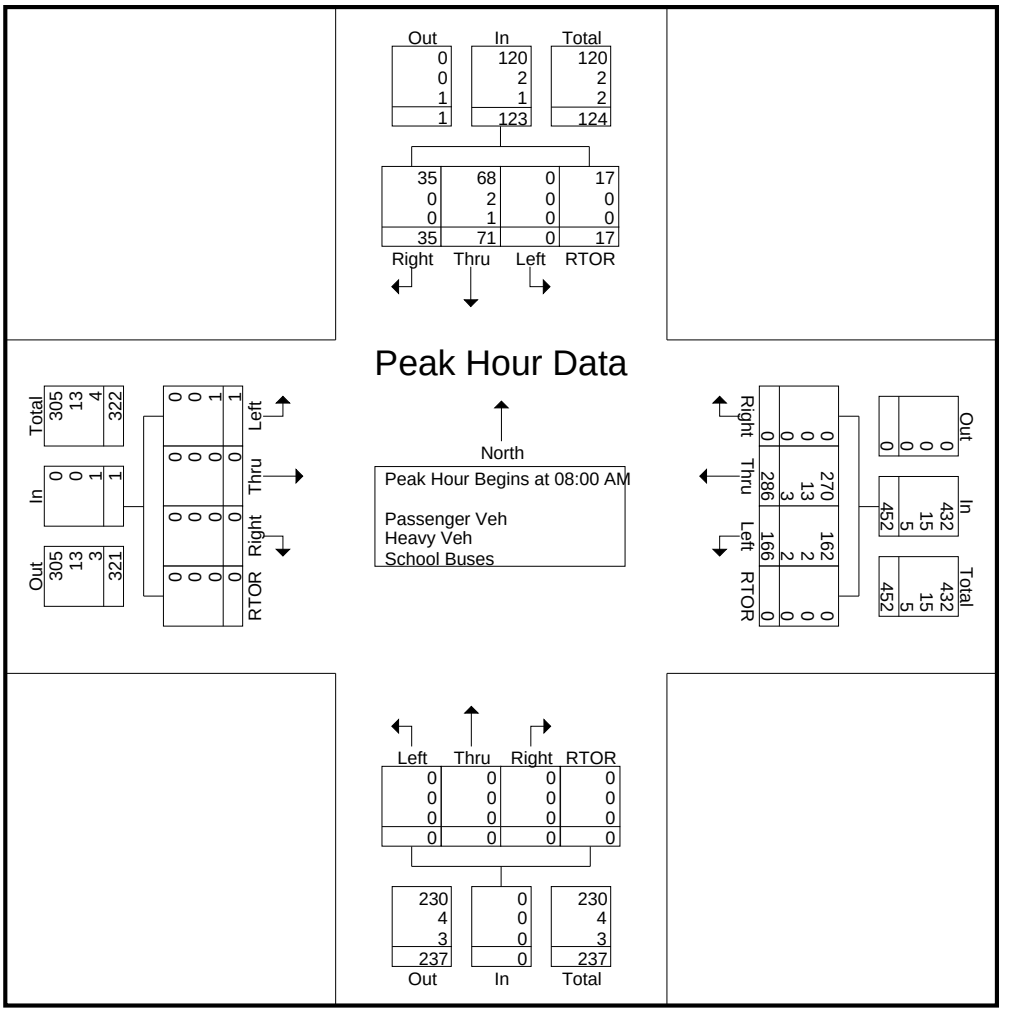
File Name : 20221018_Congress St-5th St_AM Peak_121298
Site Code : 121-298
Start Date : 10/18/2022
Page No : 1

Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	14	48	0	0	62	0	0	0	0	0	0	8	2	1	11	73
07:15 AM	0	0	0	0	0	13	68	0	0	81	0	0	0	0	0	0	12	2	2	16	97
07:30 AM	1	0	0	0	1	32	96	0	0	128	0	0	0	0	0	0	13	12	2	27	156
07:45 AM	0	0	0	0	0	25	65	0	0	90	0	0	0	0	0	0	14	5	10	29	119
Total	1	0	0	0	1	84	277	0	0	361	0	0	0	0	0	0	47	21	15	83	445
08:00 AM	0	0	0	0	0	41	79	0	0	120	0	0	0	0	0	0	18	7	2	27	147
08:15 AM	1	0	0	0	1	47	70	0	0	117	0	0	0	0	0	0	13	11	7	31	149
08:30 AM	0	0	0	0	0	40	64	0	0	104	0	0	0	0	0	0	19	8	4	31	135
08:45 AM	0	0	0	0	0	38	73	0	0	111	0	0	0	0	0	0	21	9	4	34	145
Total	1	0	0	0	1	166	286	0	0	452	0	0	0	0	0	0	71	35	17	123	576
Grand Total	2	0	0	0	2	250	563	0	0	813	0	0	0	0	0	0	118	56	32	206	1021
Apprch %	100	0	0	0		30.8	69.2	0	0		0	0	0	0		0	57.3	27.2	15.5		
Total %	0.2	0	0	0	0.2	24.5	55.1	0	0	79.6	0	0	0	0	0	0	11.6	5.5	3.1	20.2	
Passenger Veh	1	0	0	0	1	243	535	0	0	778	0	0	0	0	0	0	109	56	31	196	975
% Passenger Veh	50	0	0	0	50	97.2	95	0	0	95.7	0	0	0	0	0	0	92.4	100	96.9	95.1	95.5
Heavy Veh	0	0	0	0	0	2	20	0	0	22	0	0	0	0	0	0	7	0	1	8	30
% Heavy Veh	0	0	0	0	0	0.8	3.6	0	0	2.7	0	0	0	0	0	0	5.9	0	3.1	3.9	2.9
School Buses	1	0	0	0	1	5	8	0	0	13	0	0	0	0	0	0	2	0	0	2	16
% School Buses	50	0	0	0	50	2	1.4	0	0	1.6	0	0	0	0	0	0	1.7	0	0	1	1.6

File Name : 20221018_Congress St-5th St_AM Peak_121298
Site Code : 121-298
Start Date : 10/18/2022
Page No : 2

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 8:00:00 AM																					
8:00:00 AM	0	0	0	0	0	41	**79**	0	0	**120**	0	0	0	0	0	0	18	7	2	27	147
8:15:00 AM	**1**	0	0	0	**1**	**47**	70	0	0	117	0	0	0	0	0	0	13	**11**	**7**	31	**149**
8:30:00 AM	0	0	0	0	0	40	64	0	0	104	0	0	0	0	0	0	19	8	4	31	135
8:45:00 AM	0	0	0	0	0	38	73	0	0	111	0	0	0	0	0	0	**21**	9	4	**34**	145
Total Volume	1	0	0	0	1	166	286	0	0	452	0	0	0	0	0	0	71	35	17	123	576
% App. Total	100	0	0	0		36.7	63.3	0	0		0	0	0	0		0	57.7	28.5	13.8		
PHF	.250	.000	.000	.000	.250	.883	.905	.000	.000	.942	.000	.000	.000	.000	.000	.000	.845	.795	.607	.904	.966
Passenger Veh	0	0	0	0	0	162	270	0	0	432	0	0	0	0	0	0	68	35	17	120	552
% Passenger Veh	0	0	0	0	0	97.6	94.4	0	0	95.6	0	0	0	0	0	0	95.8	100	100	97.6	95.8
Heavy Veh	0	0	0	0	0	2	13	0	0	15	0	0	0	0	0	0	2	0	0	2	17
% Heavy Veh	0	0	0	0	0	1.2	4.5	0	0	3.3	0	0	0	0	0	0	2.8	0	0	1.6	3.0
School Buses	1	0	0	0	1	2	3	0	0	5	0	0	0	0	0	0	1	0	0	1	7
% School Buses	100	0	0	0	100	1.2	1.0	0	0	1.1	0	0	0	0	0	0	1.4	0	0	0.8	1.2



Project No: 121-298
Counted by LHC
Congress St & 5th Avenue
Comments: PM Peak

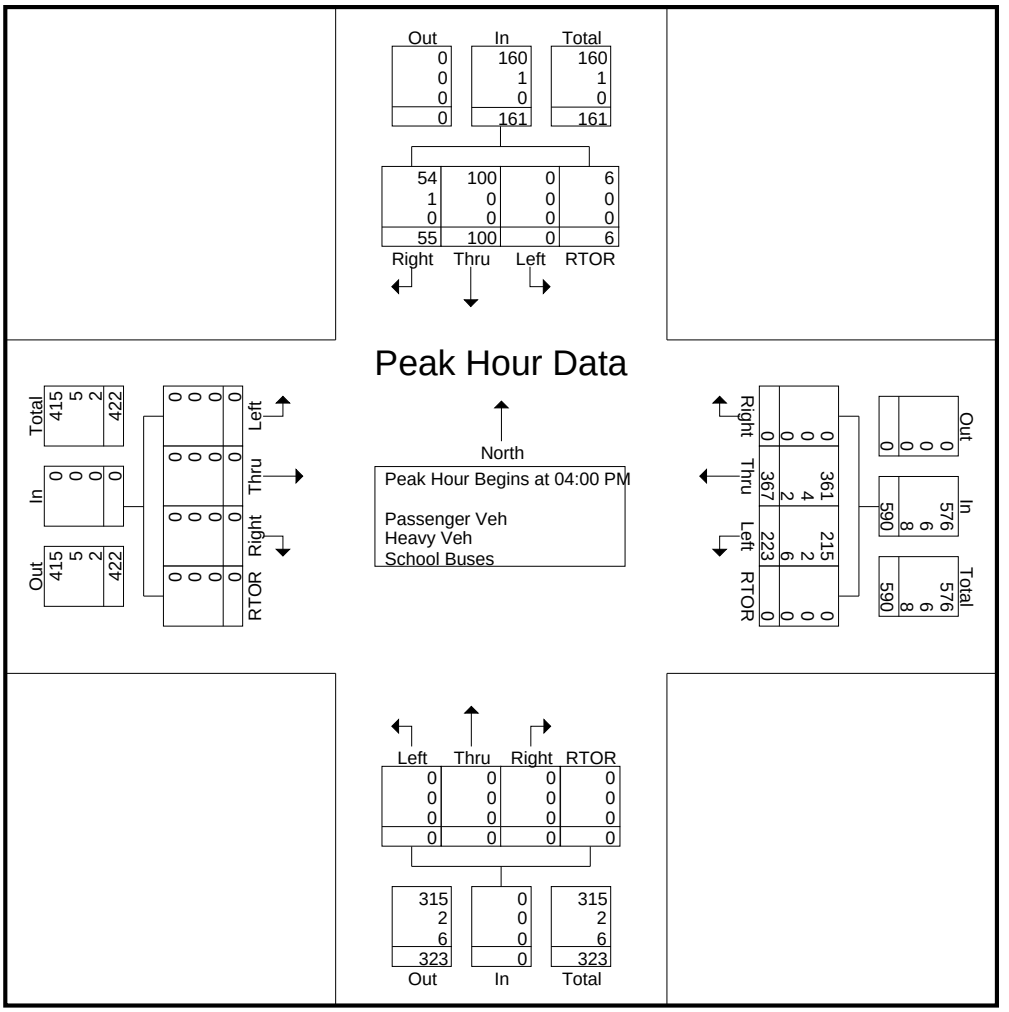
File Name : 20221019_Congress St-5th St_PM Peak_121298
Site Code : 12129802
Start Date : 10/18/2022
Page No : 1

Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
04:00 PM	0	0	0	0	0	74	110	0	0	184	0	0	0	0	0	0	28	13	2	43	227
04:15 PM	0	0	0	0	0	49	90	0	0	139	0	0	0	0	0	0	20	15	1	36	175
04:30 PM	0	0	0	0	0	43	75	0	0	118	0	0	0	0	0	0	28	9	3	40	158
04:45 PM	0	0	0	0	0	57	92	0	0	149	0	0	0	0	0	0	24	18	0	42	191
Total	0	0	0	0	0	223	367	0	0	590	0	0	0	0	0	0	100	55	6	161	751
05:00 PM	0	0	0	0	0	57	95	0	0	152	0	0	0	0	0	0	29	16	7	52	204
05:15 PM	0	0	0	0	0	41	92	0	0	133	0	0	0	0	0	0	21	12	2	35	168
05:30 PM	0	0	0	0	0	47	79	0	0	126	0	0	0	0	0	0	29	13	3	45	171
05:45 PM	0	0	0	0	0	48	89	0	0	137	0	0	0	0	0	0	13	18	3	34	171
Total	0	0	0	0	0	193	355	0	0	548	0	0	0	0	0	0	92	59	15	166	714
Grand Total	0	0	0	0	0	416	722	0	0	1138	0	0	0	0	0	0	192	114	21	327	1465
Apprch %	0	0	0	0		36.6	63.4	0	0		0	0	0	0		0	58.7	34.9	6.4		
Total %	0	0	0	0	0	28.4	49.3	0	0	77.7	0	0	0	0	0	0	13.1	7.8	1.4	22.3	
Passenger Veh	0	0	0	0	0	404	706	0	0	1110	0	0	0	0	0	0	190	112	21	323	1433
% Passenger Veh	0	0	0	0	0	97.1	97.8	0	0	97.5	0	0	0	0	0	0	99	98.2	100	98.8	97.8
Heavy Veh	0	0	0	0	0	4	13	0	0	17	0	0	0	0	0	0	1	2	0	3	20
% Heavy Veh	0	0	0	0	0	1	1.8	0	0	1.5	0	0	0	0	0	0	0.5	1.8	0	0.9	1.4
School Buses	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	0	1	0	0	1	12
% School Buses	0	0	0	0	0	1.9	0.4	0	0	1	0	0	0	0	0	0	0.5	0	0	0.3	0.8

File Name : 20221019_Congress St-5th St_PM Peak_121298
Site Code : 12129802
Start Date : 10/18/2022
Page No : 2

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:00:00 PM																					
4:00:00 PM	0	0	0	0	0	**74**	**110**	0	0	**184**	0	0	0	0	0	0	**28**	13	2	**43**	**227**
4:15:00 PM	0	0	0	0	0	49	90	0	0	139	0	0	0	0	0	0	20	15	1	36	175
4:30:00 PM	0	0	0	0	0	43	75	0	0	118	0	0	0	0	0	0	28	9	**3**	40	158
4:45:00 PM	0	0	0	0	0	57	92	0	0	149	0	0	0	0	0	0	24	**18**	0	42	191
Total Volume	0	0	0	0	0	223	367	0	0	590	0	0	0	0	0	0	100	55	6	161	751
% App. Total	0	0	0	0		37.8	62.2	0	0		0	0	0	0		0	62.1	34.2	3.7		
PHF	.000	.000	.000	.000	.000	.753	.834	.000	.000	.802	.000	.000	.000	.000	.000	.000	.893	.764	.500	.936	.827
Passenger Veh	0	0	0	0	0	215	361	0	0	576	0	0	0	0	0	0	100	54	6	160	736
% Passenger Veh	0	0	0	0	0	96.4	98.4	0	0	97.6	0	0	0	0	0	0	100	98.2	100	99.4	98.0
Heavy Veh	0	0	0	0	0	2	4	0	0	6	0	0	0	0	0	0	0	1	0	1	7
% Heavy Veh	0	0	0	0	0	0.9	1.1	0	0	1.0	0	0	0	0	0	0	0	1.8	0	0.6	0.9
School Buses	0	0	0	0	0	6	2	0	0	8	0	0	0	0	0	0	0	0	0	0	8
% School Buses	0	0	0	0	0	2.7	0.5	0	0	1.4	0	0	0	0	0	0	0	0	0	0	1.1



Project No.: 122-298
Counted By: LHC
Location: Congress St & 6th Ave
Comments: AM Peak

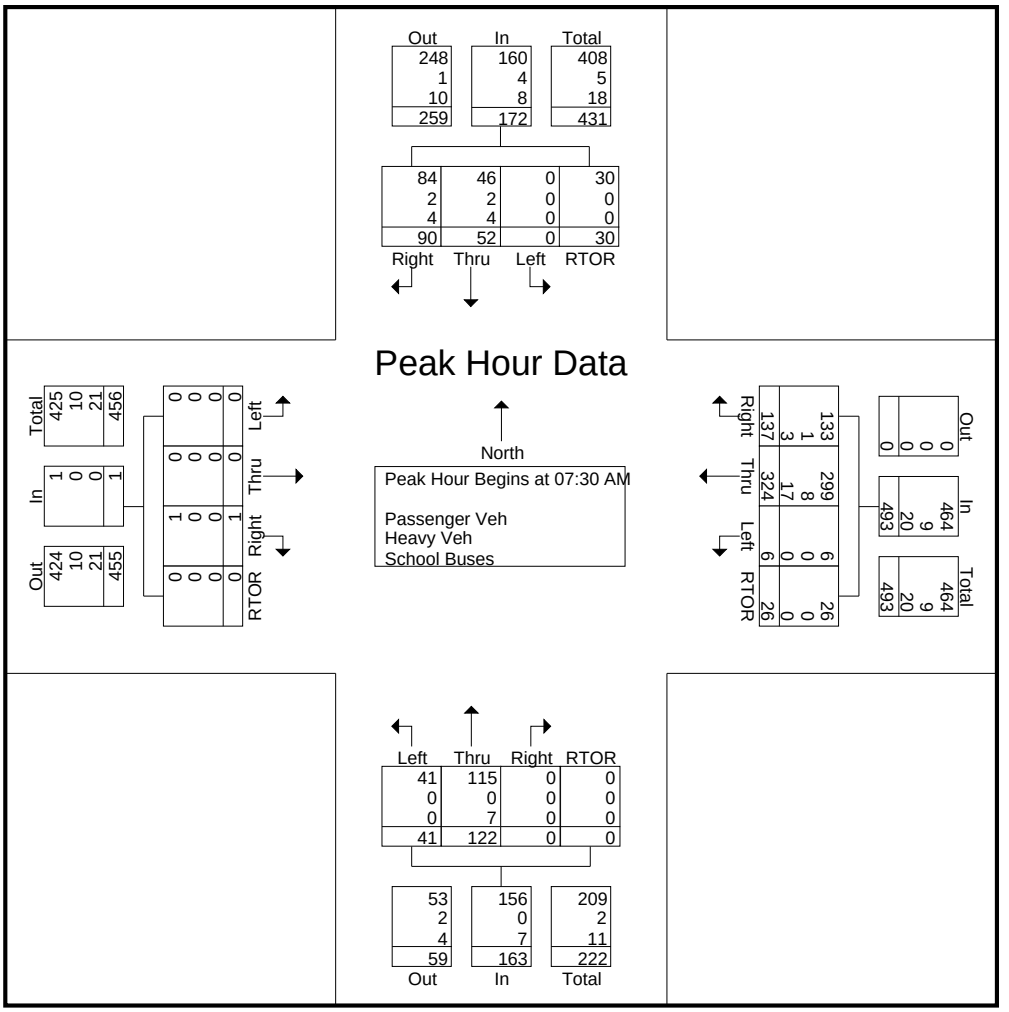
File Name : 20221018_AM Peak_121-298
Site Code : 121-298
Start Date : 10/18/2022
Page No : 1

Groups Printed- Passenger Veh - Heavy Veh - School Buses

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	36	19	3	59	3	13	0	0	16	0	15	24	2	41	116
07:15 AM	0	0	0	0	0	2	60	31	4	97	6	22	0	0	28	0	9	9	6	24	149
07:30 AM	0	0	1	0	1	1	90	23	3	117	6	29	0	0	35	0	15	27	9	51	204
07:45 AM	0	0	0	0	0	2	82	39	12	135	10	33	0	0	43	0	10	9	8	27	205
Total	0	0	1	0	1	6	268	112	22	408	25	97	0	0	122	0	49	69	25	143	674
08:00 AM	0	0	0	0	0	1	80	31	8	120	14	29	0	0	43	0	10	29	4	43	206
08:15 AM	0	0	0	0	0	2	72	44	3	121	11	31	0	0	42	0	17	25	9	51	214
08:30 AM	0	0	0	0	0	2	82	30	8	122	6	23	0	0	29	0	15	23	4	42	193
08:45 AM	0	0	0	0	0	8	73	36	8	125	4	17	0	0	21	0	11	30	5	46	192
Total	0	0	0	0	0	13	307	141	27	488	35	100	0	0	135	0	53	107	22	182	805
Grand Total	0	0	1	0	1	19	575	253	49	896	60	197	0	0	257	0	102	176	47	325	1479
Apprch %	0	0	100	0		2.1	64.2	28.2	5.5		23.3	76.7	0	0		0	31.4	54.2	14.5		
Total %	0	0	0.1	0	0.1	1.3	38.9	17.1	3.3	60.6	4.1	13.3	0	0	17.4	0	6.9	11.9	3.2	22	
Passenger Veh	0	0	1	0	1	19	535	246	49	849	60	184	0	0	244	0	94	168	47	309	1403
% Passenger Veh	0	0	100	0	100	100	93	97.2	100	94.8	100	93.4	0	0	94.9	0	92.2	95.5	100	95.1	94.9
Heavy Veh	0	0	0	0	0	0	18	2	0	20	0	2	0	0	2	0	3	2	0	5	27
% Heavy Veh	0	0	0	0	0	0	3.1	0.8	0	2.2	0	1	0	0	0.8	0	2.9	1.1	0	1.5	1.8
School Buses	0	0	0	0	0	0	22	5	0	27	0	11	0	0	11	0	5	6	0	11	49
% School Buses	0	0	0	0	0	0	3.8	2	0	3	0	5.6	0	0	4.3	0	4.9	3.4	0	3.4	3.3

File Name : 20221018_AM Peak_121-298
Site Code : 121-298
Start Date : 10/18/2022
Page No : 2

	Eastbound					Westbound					Northbound					Southbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total
Peak Hour Analysis From 7:00:00 AM to 8:45:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	0	0	**1**	0	**1**	1	**90**	23	3	117	6	29	0	0	35	0	15	27	**9**	**51**	204
7:45:00 AM	0	0	0	0	0	**2**	82	39	**12**	**135**	10	**33**	0	0	**43**	0	10	9	8	27	205
8:00:00 AM	0	0	0	0	0	1	80	31	8	120	**14**	29	0	0	43	0	10	**29**	4	43	206
8:15:00 AM	0	0	0	0	0	2	72	**44**	3	121	11	31	0	0	42	0	**17**	25	9	51	**214**
Total Volume	0	0	1	0	1	6	324	137	26	493	41	122	0	0	163	0	52	90	30	172	829
% App. Total	0	0	100	0		1.2	65.7	27.8	5.3		25.2	74.8	0	0		0	30.2	52.3	17.4		
PHF	.000	.000	.250	.000	.250	.750	.900	.778	.542	.913	.732	.924	.000	.000	.948	.000	.765	.776	.833	.843	.968
Passenger Veh	0	0	1	0	1	6	299	133	26	464	41	115	0	0	156	0	46	84	30	160	781
% Passenger Veh	0	0	100	0	100	100	92.3	97.1	100	94.1	100	94.3	0	0	95.7	0	88.5	93.3	100	93.0	94.2
Heavy Veh	0	0	0	0	0	0	8	1	0	9	0	0	0	0	0	0	2	2	0	4	13
% Heavy Veh	0	0	0	0	0	0	2.5	0.7	0	1.8	0	0	0	0	0	0	3.8	2.2	0	2.3	1.6
School Buses	0	0	0	0	0	0	17	3	0	20	0	7	0	0	7	0	4	4	0	8	35
% School Buses	0	0	0	0	0	0	5.2	2.2	0	4.1	0	5.7	0	0	4.3	0	7.7	4.4	0	4.7	4.2



121-298 Congress St & 6th Ave PM - TMC

Tue Oct 18, 2022
Full Length (4 PM-6 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1002437, Location: 42.728324, -73.687077, Site Code: 121-298

Provided by: Creighton Manning Engineering, LLP
2 Winners Circle,
Albany, NY, 12205, US

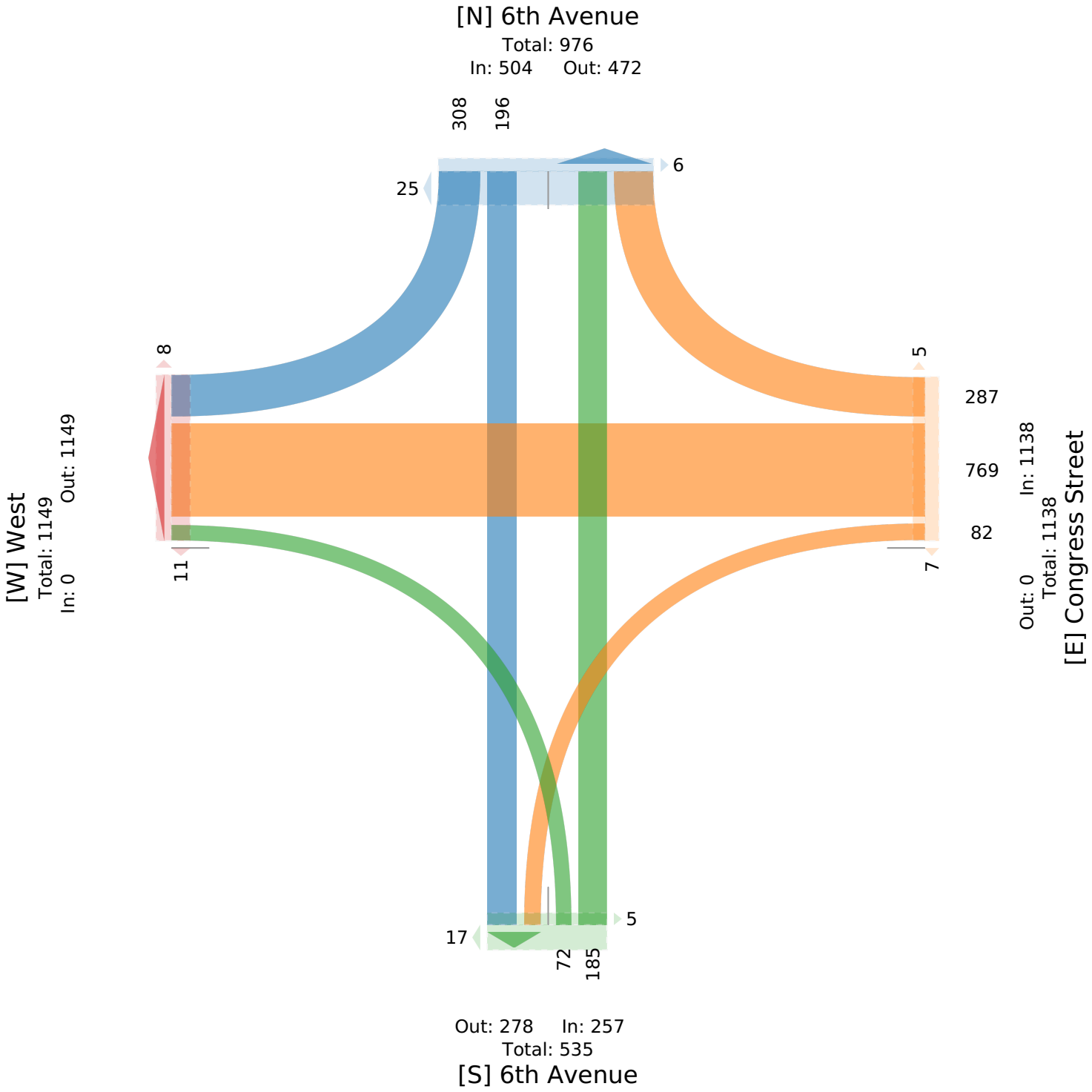
Leg	West		Congress Street						6th Avenue					6th Avenue						
Direction	Eastbound		Westbound						Northbound					Southbound						
Time	**App**	Ped*	L	T	R	RR	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	RR	**App**	Ped*	**Int**
2022-10-18 4:00PM	**0**	1	16	126	40	7	**189**	3	8	35	0	**43**	4	22	46	0	4	**72**	5	**304**
4:15PM	**0**	1	9	91	28	12	**140**	2	12	18	0	**30**	3	25	24	0	10	**59**	3	**229**
4:30PM	**0**	2	12	95	33	5	**145**	1	8	28	0	**36**	5	24	25	0	4	**53**	6	**234**
4:45PM	**0**	3	11	89	26	6	**132**	0	5	19	0	**24**	1	25	46	0	10	**81**	4	**237**
Hourly Total	**0**	7	48	401	127	30	**606**	6	33	100	0	**133**	13	96	141	0	28	**265**	18	**1004**
5:00PM	**0**	0	21	101	15	18	**155**	1	12	36	0	**48**	4	26	37	0	10	**73**	1	**276**
5:15PM	**0**	5	5	83	25	10	**123**	2	10	21	0	**31**	1	28	29	0	8	**65**	5	**219**
5:30PM	**0**	2	3	90	24	5	**122**	1	6	14	0	**20**	2	26	23	0	7	**56**	1	**198**
5:45PM	**0**	5	5	94	28	5	**132**	2	11	14	0	**25**	2	20	24	0	1	**45**	6	**202**
Hourly Total	**0**	12	34	368	92	38	**532**	6	39	85	0	**124**	9	100	113	0	26	**239**	13	**895**
6:00PM	**0**	0	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0	**0**	0	**0**
Hourly Total	**0**	0	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	0	**0**	0	**0**
Total	**0**	19	82	769	219	68	**1138**	12	72	185	0	**257**	22	196	254	0	54	**504**	31	**1899**
% Approach	**-**	-	7.2%	67.6%	19.2%	6.0%	**-**	-	28.0%	72.0%	0%	**-**	-	38.9%	50.4%	0%	10.7%	**-**	-	-
% Total	**0%**	-	4.3%	40.5%	11.5%	3.6%	**59.9%**	-	3.8%	9.7%	0%	**13.5%**	-	10.3%	13.4%	0%	2.8%	**26.5%**	-	-
Lights	**0**	-	82	738	211	68	**1099**	-	72	172	0	**244**	-	193	249	0	53	**495**	-	1838
% Lights	**-**	-	100%	96.0%	96.3%	100%	**96.6%**	-	100%	93.0%	0%	**94.9%**	-	98.5%	98.0%	0%	98.1%	**98.2%**	-	96.8%
Articulated Trucks and Single-Unit Trucks	**0**	-	0	16	4	0	**20**	-	0	1	0	**1**	-	3	4	0	1	**8**	-	29
% Articulated Trucks and Single-Unit Trucks	**-**	-	0%	2.1%	1.8%	0%	**1.8%**	-	0%	0.5%	0%	**0.4%**	-	1.5%	1.6%	0%	1.9%	**1.6%**	-	1.5%
Buses	**0**	-	0	12	4	0	**16**	-	0	12	0	**12**	-	0	1	0	0	**1**	-	29
% Buses	**-**	-	0%	1.6%	1.8%	0%	**1.4%**	-	0%	6.5%	0%	**4.7%**	-	0%	0.4%	0%	0%	**0.2%**	-	1.5%
Bicycles on Road	**0**	-	0	3	0	0	**3**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	3
% Bicycles on Road	**-**	-	0%	0.4%	0%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Pedestrians	-	18	-	-	-	-	-	12	-	-	-	-	21	-	-	-	-	-	31	
% Pedestrians	-	94.7%	-	-	-	-	-	100%	-	-	-	-	95.5%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	1	-	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	5.3%	-	-	-	-	-	0%	-	-	-	-	4.5%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

121-298 Congress St & 6th Ave PM - TMC

Tue Oct 18, 2022
Full Length (4 PM-6 PM)
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1002437, Location: 42.728324, -73.687077, Site Code: 121-298

Provided by: Creighton Manning Engineering, LLP
2 Winners Circle,
Albany, NY, 12205, US



121-298 Congress St & 6th Ave PM - TMC

Tue Oct 18, 2022
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1002437, Location: 42.728324, -73.687077, Site Code: 121-298

Provided by: Creighton Manning Engineering, LLP
2 Winners Circle,
Albany, NY, 12205, US

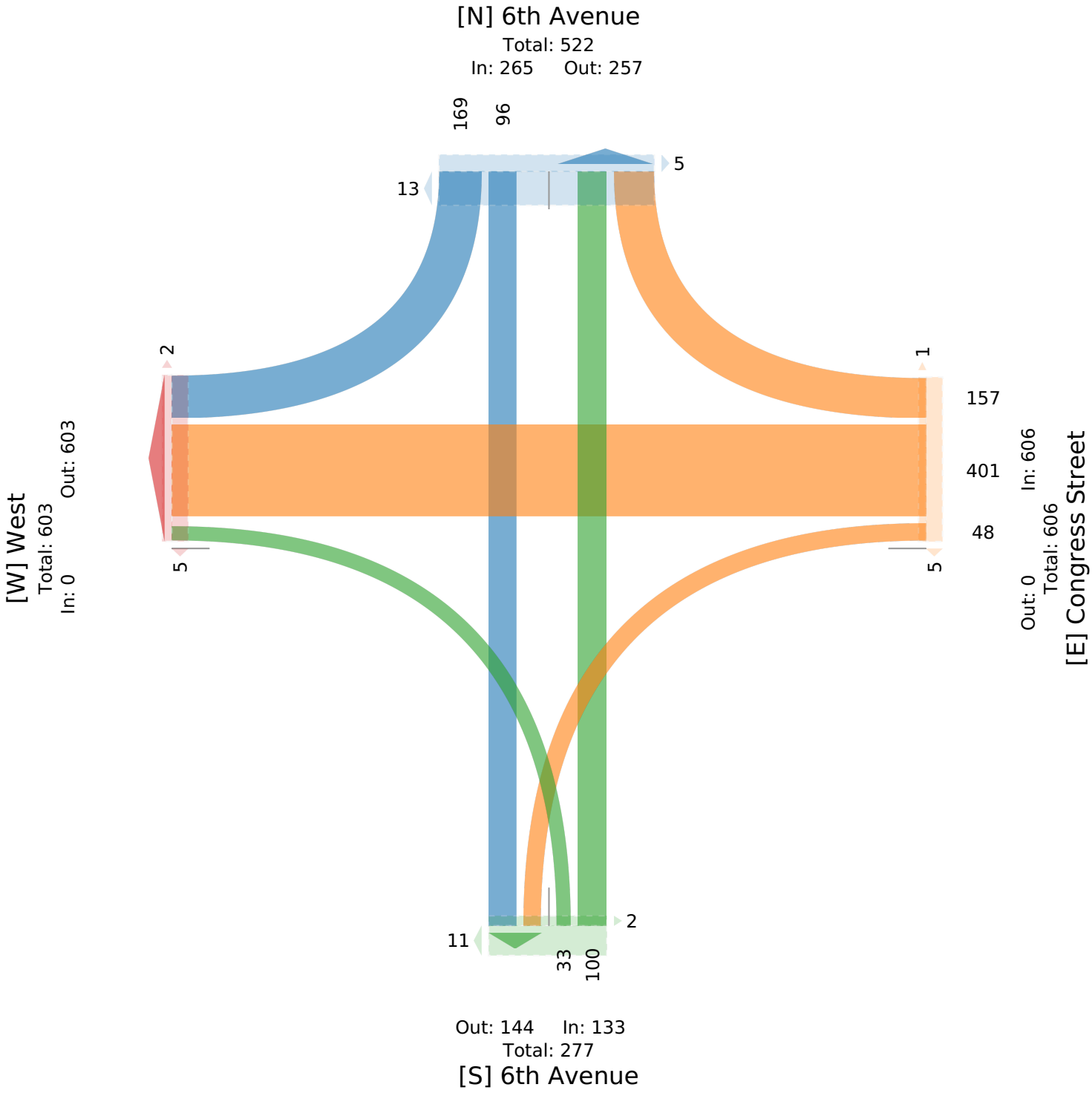
Leg / Direction	West Eastbound		Congress Street Westbound						6th Avenue Northbound					6th Avenue Southbound						
Time	**App**	Ped*	L	T	R	RR	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	RR	**App**	Ped*	**Int**
2022-10-18 4:00PM	**0**	1	16	126	40	7	**189**	3	8	35	0	**43**	4	22	46	0	4	**72**	5	**304**
4:15PM	**0**	1	9	91	28	12	**140**	2	12	18	0	**30**	3	25	24	0	10	**59**	3	**229**
4:30PM	**0**	2	12	95	33	5	**145**	1	8	28	0	**36**	5	24	25	0	4	**53**	6	**234**
4:45PM	**0**	3	11	89	26	6	**132**	0	5	19	0	**24**	1	25	46	0	10	**81**	4	**237**
Total	**0**	7	48	401	127	30	**606**	6	33	100	0	**133**	13	96	141	0	28	**265**	18	**1004**
% Approach	**-**	-	7.9%	66.2%	21.0%	5.0%	**-**	-	24.8%	75.2%	0%	**-**	-	36.2%	53.2%	0%	10.6%	**-**	-	-
% Total	**0%**	-	4.8%	39.9%	12.6%	3.0%	**60.4%**	-	3.3%	10.0%	0%	**13.2%**	-	9.6%	14.0%	0%	2.8%	**26.4%**	-	-
PHF	**-**	-	0.750	0.792	0.794	0.625	**0.799**	-	0.688	0.714	-	**0.773**	-	0.960	0.766	-	0.700	**0.818**	-	0.824
Lights	**0**	-	48	386	121	30	**585**	-	33	92	0	**125**	-	95	139	0	27	**261**	-	971
% Lights	**-**	-	100%	96.3%	95.3%	100%	**96.5%**	-	100%	92.0%	0%	**94.0%**	-	99.0%	98.6%	0%	96.4%	**98.5%**	-	96.7%
Articulated Trucks and Single-Unit Trucks	**0**	-	0	6	3	0	**9**	-	0	0	0	**0**	-	1	1	0	1	**3**	-	12
% Articulated Trucks and Single-Unit Trucks	**-**	-	0%	1.5%	2.4%	0%	**1.5%**	-	0%	0%	0%	**0%**	-	1.0%	0.7%	0%	3.6%	**1.1%**	-	1.2%
Buses	**0**	-	0	7	3	0	**10**	-	0	8	0	**8**	-	0	1	0	0	**1**	-	19
% Buses	**-**	-	0%	1.7%	2.4%	0%	**1.7%**	-	0%	8.0%	0%	**6.0%**	-	0%	0.7%	0%	0%	**0.4%**	-	1.9%
Bicycles on Road	**0**	-	0	2	0	0	**2**	-	0	0	0	**0**	-	0	0	0	0	**0**	-	2
% Bicycles on Road	**-**	-	0%	0.5%	0%	0%	**0.3%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Pedestrians	-	6	-	-	-	-	-	6	-	-	-	-	13	-	-	-	-	-	18	
% Pedestrians	-	85.7%	-	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	1	-	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	14.3%	-	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

121-298 Congress St & 6th Ave PM - TMC

Tue Oct 18, 2022
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 1002437, Location: 42.728324, -73.687077, Site Code: 121-298

Provided by: Creighton Manning Engineering, LLP
2 Winners Circle,
Albany, NY, 12205, US



Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

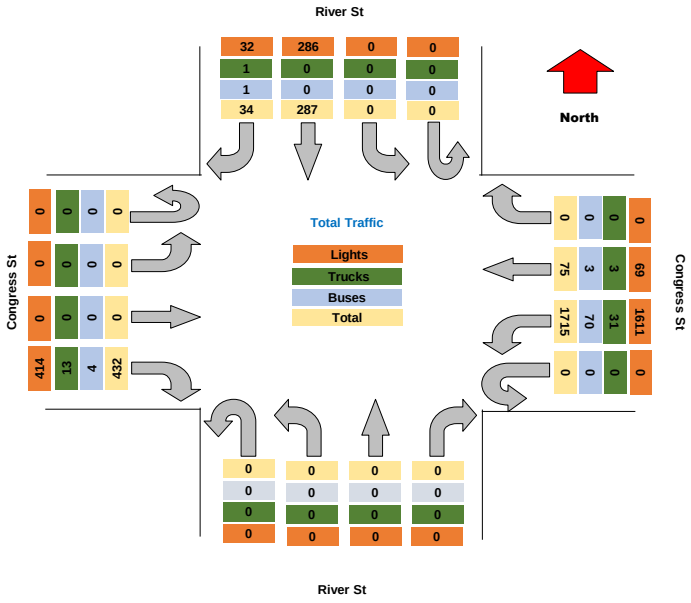
Turning Movement Data

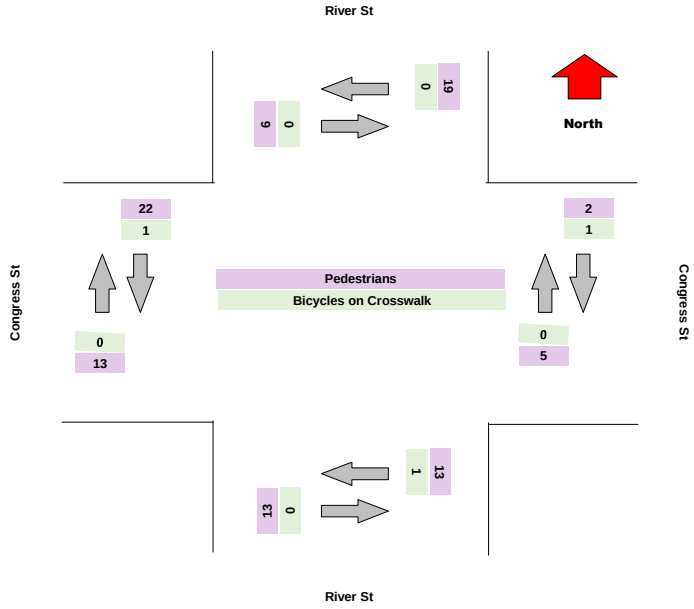
Leg	River St							Congress St							River St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:00:00 AM	0	8	0	0	**8**	0	0	0	0	70	0	**70**	0	0	0	0	0	0	**0**	0	0	15	0	0	0	**15**	2	0	**93**
7:15:00 AM	0	8	0	0	**8**	1	0	0	2	94	0	**96**	0	0	0	0	0	0	**0**	3	1	22	0	0	0	**22**	1	1	**126**
7:30:00 AM	1	15	0	0	**16**	0	0	0	8	122	0	**130**	0	0	0	0	0	0	**0**	1	0	20	0	0	0	**20**	0	0	**166**
7:45:00 AM	3	16	0	0	**19**	3	0	0	4	103	0	**107**	0	0	0	0	0	0	**0**	0	1	29	0	0	0	**29**	3	0	**155**
Hourly Total	4	47	0	0	**51**	4	0	0	14	389	0	**403**	0	0	0	0	0	0	**0**	4	2	86	0	0	0	**86**	6	1	**540**
8:00:00 AM	1	14	0	0	**15**	0	0	0	7	89	0	**96**	1	2	0	0	0	0	**0**	1	3	28	0	0	0	**28**	0	0	**139**
8:15:00 AM	5	14	0	0	**19**	0	4	0	6	93	0	**99**	0	0	0	0	0	0	**0**	0	0	17	0	0	0	**17**	0	3	**135**
8:30:00 AM	0	10	0	0	**10**	0	0	0	4	87	0	**91**	0	0	0	0	0	0	**0**	0	0	29	0	0	0	**29**	0	1	**130**
8:45:00 AM	5	16	0	0	**21**	0	0	0	4	97	0	**101**	0	0	0	0	0	0	**0**	1	0	31	0	0	0	**31**	0	0	**153**
Hourly Total	11	54	0	0	**65**	0	4	0	21	366	0	**387**	1	2	0	0	0	0	**0**	2	3	105	0	0	0	**105**	0	4	**557**
4:00:00 PM	1	23	0	0	**24**	0	0	0	7	113	0	**120**	1	3	0	0	0	0	**0**	4	6	36	0	0	0	**36**	1	1	**180**
4:15:00 PM	4	13	0	0	**17**	0	0	0	5	116	0	**121**	1	0	0	0	0	0	**0**	1	0	28	0	0	0	**28**	2	0	**166**
4:30:00 PM	6	24	0	0	**30**	2	5	0	2	120	0	**122**	0	0	0	0	0	0	**0**	0	1	24	0	0	0	**24**	0	8	**176**
4:45:00 PM	1	27	0	0	**28**	0	5	0	6	124	0	**130**	0	0	0	0	0	0	**0**	0	0	31	0	0	0	**31**	0	5	**189**
Hourly Total	12	87	0	0	**99**	2	10	0	20	473	0	**493**	2	3	0	0	0	0	**0**	5	7	119	0	0	0	**119**	3	14	**711**
5:00:00 PM	0	27	0	0	**27**	0	0	0	6	152	0	**158**	0	0	0	0	0	0	**0**	1	1	44	0	0	0	**44**	0	0	**229**
5:15:00 PM	3	29	0	0	**32**	0	5	0	5	141	0	**146**	0	0	0	0	0	0	**0**	0	0	23	0	0	0	**23**	1	1	**201**
5:30:00 PM	3	27	0	0	**30**	0	0	0	5	105	0	**110**	0	0	0	0	0	0	**0**	0	0	28	0	0	0	**28**	3	2	**168**
5:45:00 PM	1	16	0	0	**17**	0	0	0	4	89	0	**93**	0	0	0	0	0	0	**0**	2	0	27	0	0	0	**27**	0	1	**137**
Hourly Total	7	99	0	0	**106**	0	5	0	20	487	0	**507**	0	0	0	0	0	0	**0**	3	1	122	0	0	0	**122**	4	4	**735**
Grand Total	34	287	0	0	**321**	6	19	0	75	1715	0	**1790**	3	5	0	0	0	0	**0**	14	13	432	0	0	0	**432**	13	23	**2543**
% Approach	10.6%	89.4%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	4.2%	95.8%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	1.3%	11.3%	0.0%	0.0%	**12.6%**	0.0%	0.0%	0.0%	2.9%	67.4%	0.0%	**70.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	17.0%	0.0%	0.0%	0.0%	**17.0%**	0.0%	0.0%	**0.0%**
Lights	32	286	0	0	**318**	0	0	0	69	1611	0	**1680**	0	0	0	0	0	0	**0**	0	0	414	0	0	0	**414**	0	0	**2412**
% Lights	94.1%	99.7%	0.0%	0.0%	**99.1%**	0.0%	0.0%	0.0%	92.0%	93.9%	0.0%	**93.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	95.8%	0.0%	0.0%	0.0%	**95.8%**	0.0%	0.0%	**94.8%**
Trucks	1	0	0	0	**1**	0	0	0	3	31	0	**34**	0	0	0	0	0	0	**0**	0	0	13	0	0	0	**13**	0	0	**48**
% Trucks	2.9%	0.0%	0.0%	0.0%	**0.3%**	0.0%	0.0%	0.0%	4.0%	1.8%	0.0%	**1.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.0%	0.0%	0.0%	0.0%	**3.0%**	0.0%	0.0%	**1.9%**
Buses	1	0	0	0	**1**	0	0	0	3	70	0	**73**	0	0	0	0	0	0	**0**	0	0	4	0	0	0	**4**	0	0	**78**
% Buses	2.9%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	4.0%	4.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.1%**
Pedestrians	0	0	0	0	**0**	6	19	0	0	0	0	**0**	2	5	0	0	0	0	**0**	13	13	0	0	0	0	**0**	13	22	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	66.7%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	92.9%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	95.7%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	4.3%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





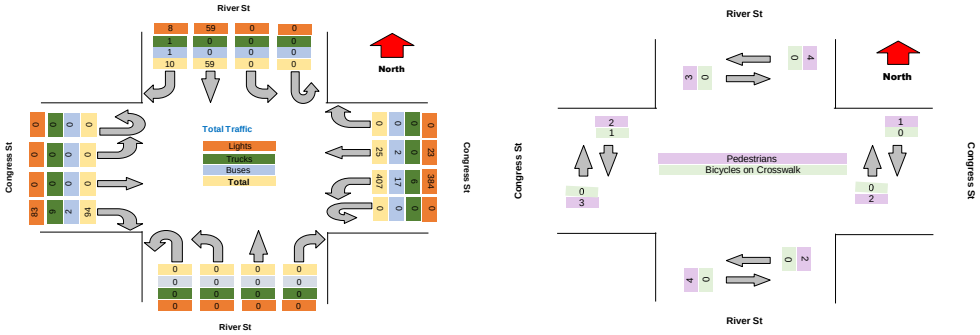
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:30:00 AM

Leg	River St							Congress St							River St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:30:00 AM	1	15	0	0	**16**	0	0	0	8	122	0	**130**	0	0	0	0	0	0	**0**	1	0	20	0	0	0	**20**	0	0	**166**
7:45:00 AM	3	16	0	0	**19**	3	0	0	4	103	0	**107**	0	0	0	0	0	0	**0**	0	1	29	0	0	0	**29**	3	0	**155**
8:00:00 AM	1	14	0	0	**15**	0	0	0	7	89	0	**96**	1	2	0	0	0	0	**0**	1	3	28	0	0	0	**28**	0	0	**139**
8:15:00 AM	5	14	0	0	**19**	0	4	0	6	93	0	**99**	0	0	0	0	0	0	**0**	0	0	17	0	0	0	**17**	0	3	**135**
Grand Total	10	59	0	0	**69**	3	4	0	25	407	0	**432**	1	2	0	0	0	0	**0**	2	4	94	0	0	0	**94**	3	3	**595**
% Approach	14.5%	85.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	5.8%	94.2%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	1.7%	9.9%	0.0%	0.0%	**11.6%**	0.0%	0.0%	0.0%	4.2%	68.4%	0.0%	**72.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	15.8%	0.0%	0.0%	0.0%	**15.8%**	0.0%	0.0%	
PHF	0.500	0.922	0.000	0.000	**0.908**	0.000	0.000	0.000	0.781	0.834	0.000	**0.831**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.810	0.000	0.000	0.000	**0.810**	0.000	0.000	**0.896**
Lights	8	59	0	0	**67**	0	0	0	23	384	0	**407**	0	0	0	0	0	0	**0**	0	0	83	0	0	0	**83**	0	0	**557**
% Lights	80.0%	100.0%	0.0%	0.0%	**97.1%**	0.0%	0.0%	0.0%	92.0%	94.3%	0.0%	**94.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	88.3%	0.0%	0.0%	0.0%	**88.3%**	0.0%	0.0%	**93.6%**
Trucks	1	0	0	0	**1**	0	0	0	0	6	0	**6**	0	0	0	0	0	0	**0**	0	0	9	0	0	0	**9**	0	0	**16**
% Trucks	10.0%	0.0%	0.0%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	9.6%	0.0%	0.0%	0.0%	**9.6%**	0.0%	0.0%	**2.7%**
Buses	1	0	0	0	**1**	0	0	0	2	17	0	**19**	0	0	0	0	0	0	**0**	0	0	2	0	0	0	**2**	0	0	**22**
% Buses	10.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	8.0%	4.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.7%**
Pedestrians	0	0	0	0	**0**	3	4	0	0	0	0	**0**	1	2	0	0	0	0	**0**	2	4	0	0	0	0	**0**	3	2	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	66.7%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	33.3%	**0.0%**



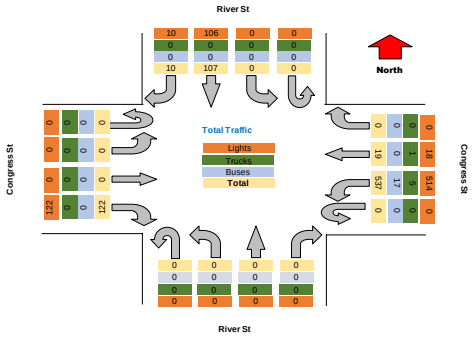
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

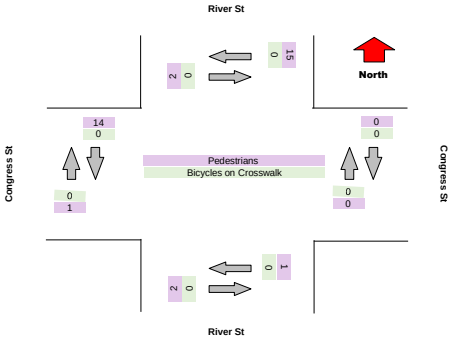
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:30:00 PM

Leg	River St							Congress St							River St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:30:00 PM	6	24	0	0	**30**	2	5	0	2	120	0	**122**	0	0	0	0	0	0	**0**	0	1	24	0	0	0	**24**	0	8	**176**
4:45:00 PM	1	27	0	0	**28**	0	5	0	6	124	0	**130**	0	0	0	0	0	0	**0**	0	0	31	0	0	0	**31**	0	5	**189**
5:00:00 PM	0	27	0	0	**27**	0	0	0	6	152	0	**158**	0	0	0	0	0	0	**0**	1	1	44	0	0	0	**44**	0	0	**229**
5:15:00 PM	3	29	0	0	**32**	0	5	0	5	141	0	**146**	0	0	0	0	0	0	**0**	0	0	23	0	0	0	**23**	1	1	**201**
Grand Total	10	107	0	0	**117**	2	15	0	19	537	0	**556**	0	0	0	0	0	0	**0**	1	2	122	0	0	0	**122**	1	14	**795**
% Approach	8.5%	91.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	3.4%	96.6%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	1.3%	13.5%	0.0%	0.0%	**14.7%**	0.0%	0.0%	0.0%	2.4%	67.5%	0.0%	**69.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	15.3%	0.0%	0.0%	0.0%	**15.3%**	0.0%	0.0%	
PHF	0.417	0.922	0.000	0.000	**0.914**	0.000	0.000	0.000	0.792	0.883	0.000	**0.880**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.693	0.000	0.000	0.000	**0.693**	0.000	0.000	**0.868**
Lights	10	106	0	0	**116**	0	0	0	18	514	0	**532**	0	0	0	0	0	0	**0**	0	0	122	0	0	0	**122**	0	0	**770**
% Lights	100.0%	99.1%	0.0%	0.0%	**99.1%**	0.0%	0.0%	0.0%	94.7%	95.7%	0.0%	**95.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	**96.9%**
Trucks	0	0	0	0	**0**	0	0	0	1	5	0	**6**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**6**
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	5.3%	0.9%	0.0%	**1.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.8%**
Buses	0	0	0	0	**0**	0	0	0	0	17	0	**17**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	**17**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	3.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.1%**
Pedestrians	0	0	0	0	**0**	2	15	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	2	0	0	0	0	**0**	1	14	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

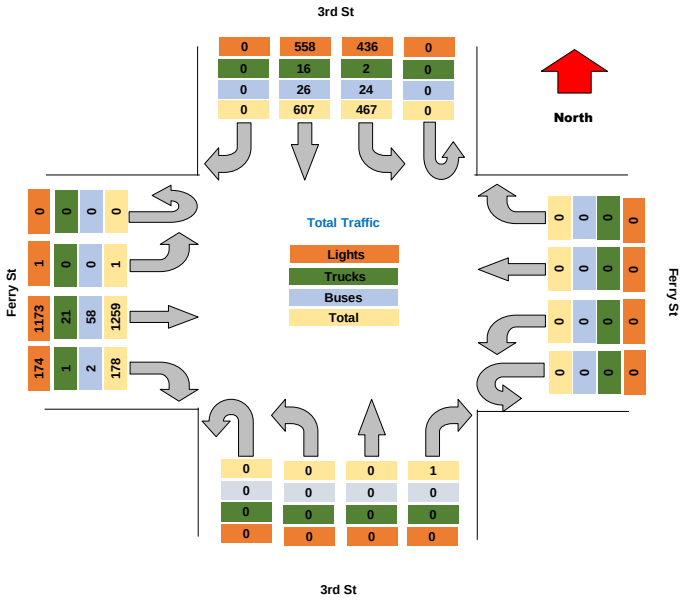
Turning Movement Data

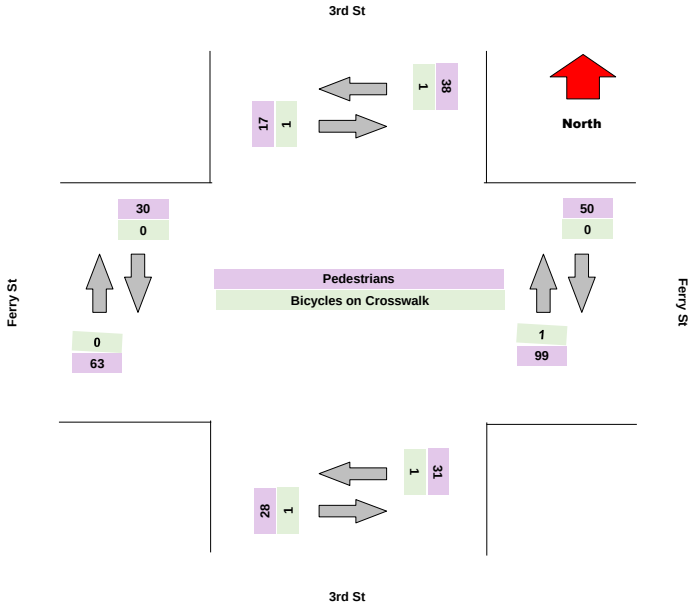
Leg	3rd St							Ferry St							3rd St							Ferry St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
7:00:00 AM	0	23	7	0	**30**	2	2	0	0	0	0	**0**	1	3	0	0	0	0	**0**	2	1	7	36	0	0	**43**	5	1	**73**
7:15:00 AM	0	21	13	0	**34**	0	1	0	0	0	0	**0**	2	4	0	0	0	0	**0**	1	2	6	42	1	0	**49**	4	1	**83**
7:30:00 AM	0	29	12	0	**41**	0	5	0	0	0	0	**0**	1	5	0	0	0	0	**0**	5	0	10	53	0	0	**63**	3	3	**104**
7:45:00 AM	0	34	14	0	**48**	1	2	0	0	0	0	**0**	2	3	0	0	0	0	**0**	2	0	6	65	0	0	**71**	0	4	**119**
Hourly Total	0	107	46	0	**153**	3	10	0	0	0	0	**0**	6	15	0	0	0	0	**0**	10	3	29	196	1	0	**226**	12	9	**379**
8:00:00 AM	0	33	14	0	**47**	0	7	0	0	0	0	**0**	2	11	0	0	0	0	**0**	2	1	11	55	0	0	**66**	3	1	**113**
8:15:00 AM	0	37	18	0	**55**	0	3	0	0	0	0	**0**	4	5	0	0	0	0	**0**	1	2	11	54	0	0	**65**	4	0	**120**
8:30:00 AM	0	38	20	0	**58**	1	1	0	0	0	0	**0**	3	3	0	0	0	0	**0**	1	1	18	60	0	0	**78**	1	2	**136**
8:45:00 AM	0	41	17	0	**58**	0	2	0	0	0	0	**0**	0	2	0	0	0	0	**0**	2	1	9	43	0	0	**52**	7	2	**110**
Hourly Total	0	149	69	0	**218**	1	13	0	0	0	0	**0**	9	21	0	0	0	0	**0**	6	5	49	212	0	0	**261**	15	5	**479**
4:00:00 PM	0	53	46	0	**99**	0	1	0	0	0	0	**0**	5	10	0	0	0	0	**0**	1	0	13	118	0	0	**131**	5	2	**230**
4:15:00 PM	0	42	33	0	**75**	3	4	0	0	0	0	**0**	6	9	0	0	0	0	**0**	3	3	19	100	0	0	**119**	8	8	**194**
4:30:00 PM	0	52	44	0	**96**	1	2	0	0	0	0	**0**	0	5	0	0	0	0	**0**	1	2	11	137	0	0	**148**	4	0	**244**
4:45:00 PM	0	47	43	0	**90**	1	2	0	0	0	0	**0**	4	7	1	0	0	0	**1**	1	2	8	91	0	0	**99**	4	1	**190**
Hourly Total	0	194	166	0	**360**	5	9	0	0	0	0	**0**	15	31	1	0	0	0	**1**	6	7	51	446	0	0	**497**	21	11	**858**
5:00:00 PM	0	45	53	0	**98**	1	4	0	0	0	0	**0**	2	3	0	0	0	0	**0**	1	2	12	115	0	0	**127**	2	1	**225**
5:15:00 PM	0	49	52	0	**101**	0	0	0	0	0	0	**0**	5	12	0	0	0	0	**0**	6	4	15	112	0	0	**127**	4	3	**228**
5:30:00 PM	0	31	45	0	**76**	4	2	0	0	0	0	**0**	6	11	0	0	0	0	**0**	1	3	12	86	0	0	**98**	3	0	**174**
5:45:00 PM	0	32	36	0	**68**	4	1	0	0	0	0	**0**	7	7	0	0	0	0	**0**	2	5	10	92	0	0	**102**	6	1	**170**
Hourly Total	0	157	186	0	**343**	9	7	0	0	0	0	**0**	20	33	0	0	0	0	**0**	10	14	49	405	0	0	**454**	15	5	**797**
Grand Total	0	607	467	0	**1074**	18	39	0	0	0	0	**0**	50	100	1	0	0	0	**1**	32	29	178	1259	1	0	**1438**	63	30	**2513**
% Approach	0.0%	56.5%	43.5%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	12.4%	87.6%	0.1%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.0%	24.2%	18.6%	0.0%	**42.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.1%	50.1%	0.0%	0.0%	**57.2%**	0.0%	0.0%	**0.0%**
Lights	0	558	436	0	**994**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	174	1173	1	0	**1348**	0	0	**2342**
% Lights	0.0%	91.9%	93.4%	0.0%	**92.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	97.8%	93.2%	100.0%	0.0%	**93.7%**	0.0%	0.0%	**93.2%**
Trucks	0	16	2	0	**18**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	1	21	0	0	**22**	0	0	**40**
% Trucks	0.0%	2.6%	0.4%	0.0%	**1.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.6%	1.7%	0.0%	0.0%	**1.5%**	0.0%	0.0%	**1.6%**
Buses	0	26	24	0	**50**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	2	58	0	0	**60**	0	0	**110**
% Buses	0.0%	4.3%	5.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.1%	4.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**4.4%**
Pedestrians	0	0	0	0	**0**	17	38	0	0	0	0	**0**	50	99	0	0	0	0	**0**	31	28	0	0	0	0	**0**	63	30	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	94.4%	97.4%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	99.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	96.9%	96.6%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	1	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	5.6%	2.6%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	3.1%	3.4%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





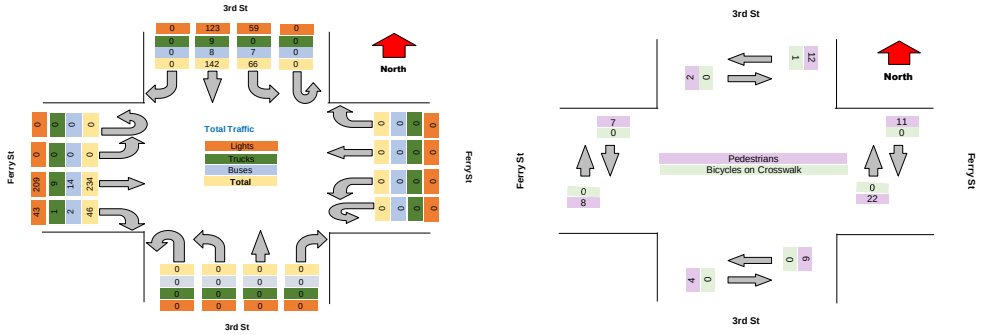
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	3rd St							Ferry St							3rd St							Ferry St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:45:00 AM	0	34	14	0	**48**	1	2	0	0	0	0	**0**	2	3	0	0	0	0	**0**	2	0	6	65	0	0	**71**	0	4	**119**
8:00:00 AM	0	33	14	0	**47**	0	7	0	0	0	0	**0**	2	11	0	0	0	0	**0**	2	1	11	55	0	0	**66**	3	1	**113**
8:15:00 AM	0	37	18	0	**55**	0	3	0	0	0	0	**0**	4	5	0	0	0	0	**0**	1	2	11	54	0	0	**65**	4	0	**120**
8:30:00 AM	0	38	20	0	**58**	1	1	0	0	0	0	**0**	3	3	0	0	0	0	**0**	1	1	18	60	0	0	**78**	1	2	**136**
Grand Total	0	142	66	0	**208**	2	13	0	0	0	0	**0**	11	22	0	0	0	0	**0**	6	4	46	234	0	0	**280**	8	7	**488**
% Approach	0.0%	68.3%	31.7%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	16.4%	83.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.0%	29.1%	13.5%	0.0%	**42.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	9.4%	48.0%	0.0%	0.0%	**57.4%**	0.0%	0.0%	
PHF	0.000	0.934	0.825	0.000	**0.897**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.639	0.900	0.000	0.000	**0.897**	0.000	0.000	**0.897**
Lights	0	123	59	0	**182**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	43	209	0	0	**252**	0	0	**434**
% Lights	0.0%	86.6%	89.4%	0.0%	**87.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	93.5%	89.3%	0.0%	0.0%	**90.0%**	0.0%	0.0%	**88.9%**
Trucks	0	9	0	0	**9**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	1	9	0	0	**10**	0	0	**19**
% Trucks	0.0%	6.3%	0.0%	0.0%	**4.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	3.8%	0.0%	0.0%	**3.6%**	0.0%	0.0%	**3.9%**
Buses	0	8	7	0	**15**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	2	14	0	0	**16**	0	0	**31**
% Buses	0.0%	5.6%	10.6%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.3%	6.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**6.4%**
Pedestrians	0	0	0	0	**0**	2	12	0	0	0	0	**0**	11	22	0	0	0	0	**0**	6	4	0	0	0	0	**0**	8	7	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	92.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	7.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



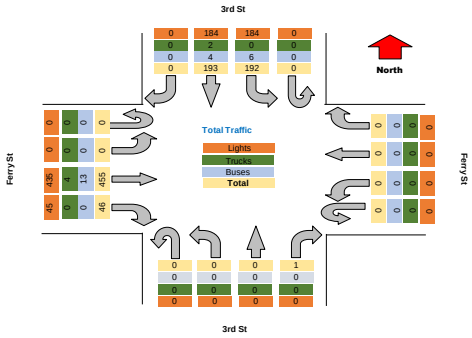
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

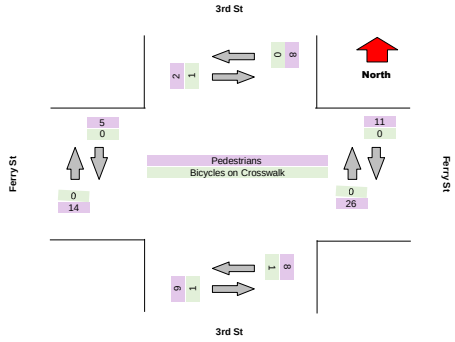
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:30:00 PM

Leg	3rd St							Ferry St							3rd St							Ferry St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:30:00 PM	0	52	44	0	**96**	1	2	0	0	0	0	**0**	0	5	0	0	0	0	**0**	1	2	11	137	0	0	**148**	4	0	**244**
4:45:00 PM	0	47	43	0	**90**	1	2	0	0	0	0	**0**	4	7	1	0	0	0	**1**	1	2	8	91	0	0	**99**	4	1	**190**
5:00:00 PM	0	45	53	0	**98**	1	4	0	0	0	0	**0**	2	3	0	0	0	0	**0**	1	2	12	115	0	0	**127**	2	1	**225**
5:15:00 PM	0	49	52	0	**101**	0	0	0	0	0	0	**0**	5	12	0	0	0	0	**0**	6	4	15	112	0	0	**127**	4	3	**228**
Grand Total	0	193	192	0	**385**	3	8	0	0	0	0	**0**	11	27	1	0	0	0	**1**	9	10	46	455	0	0	**501**	14	5	**887**
% Approach	0.0%	50.1%	49.9%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	9.2%	90.8%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.0%	21.8%	21.6%	0.0%	**43.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	**0.1%**	0.0%	0.0%	5.2%	51.3%	0.0%	0.0%	**56.5%**	0.0%	0.0%	
PHF	0.000	0.928	0.906	0.000	**0.953**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.250	0.000	0.000	0.000	**0.250**	0.000	0.000	0.767	0.830	0.000	0.000	**0.846**	0.000	0.000	**0.909**
Lights	0	184	184	0	**368**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	45	435	0	0	**480**	0	0	**848**
% Lights	0.0%	95.3%	95.8%	0.0%	**95.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	97.8%	95.6%	0.0%	0.0%	**95.8%**	0.0%	0.0%	**95.6%**
Trucks	0	2	0	0	**2**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	4	0	0	**4**	0	0	**6**
% Trucks	0.0%	1.0%	0.0%	0.0%	**0.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	**0.8%**	0.0%	0.0%	**0.7%**
Buses	0	4	6	0	**10**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	13	0	0	**13**	0	0	**23**
% Buses	0.0%	2.1%	3.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.6%**
Pedestrians	0	0	0	0	**0**	2	8	0	0	0	0	**0**	11	26	0	0	0	0	**0**	8	9	0	0	0	0	**0**	14	5	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	66.7%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	96.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	88.9%	90.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	1	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	11.1%	10.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA

TSTData.com

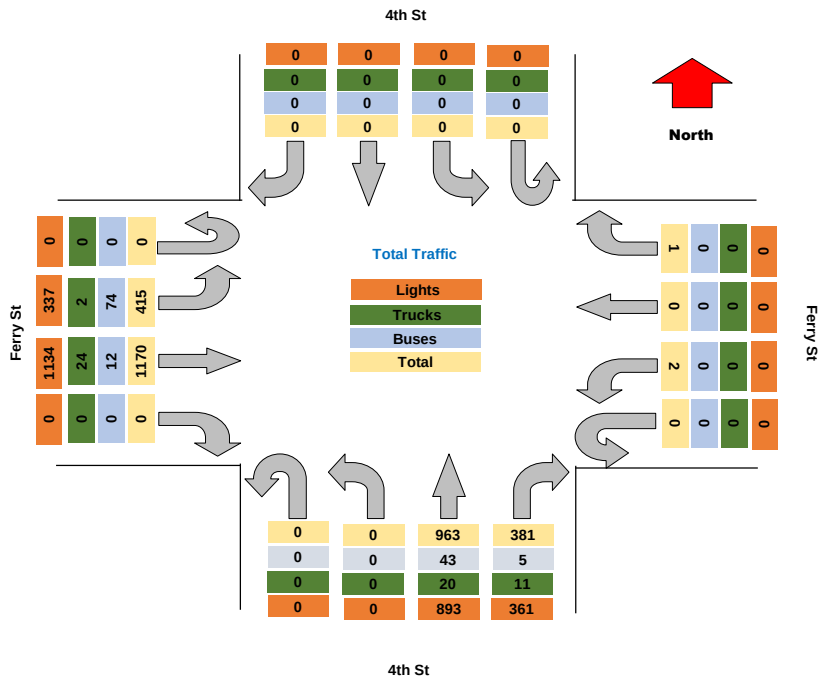
Turning Movement Data

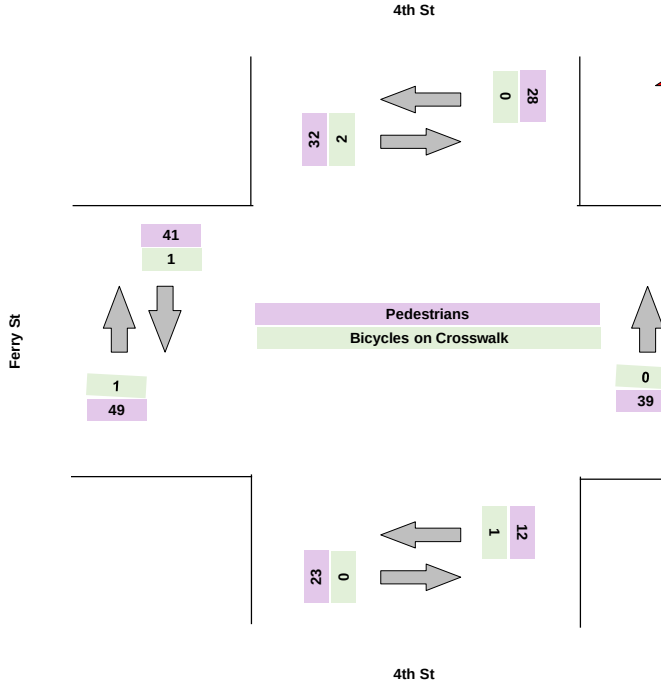
Leg	4th St							Ferry St							4th St							Ferry			
Direction	Southbound							Westbound							Northbound							Eastbo			
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn
7:00:00 AM	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	1	7	27	0	0	**34**	0	1	0	24	10	0
7:15:00 AM	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	13	43	0	0	**56**	0	1	0	37	6	0
7:30:00 AM	0	0	0	0	**0**	1	2	0	0	0	0	**0**	1	1	14	59	0	0	**73**	1	4	0	47	16	0
7:45:00 AM	0	0	0	0	**0**	1	1	0	0	0	0	**0**	3	7	31	65	0	0	**96**	3	3	0	58	16	0
Hourly Total	0	0	0	0	**0**	2	3	0	0	0	0	**0**	4	9	65	194	0	0	**259**	4	9	0	166	48	0
8:00:00 AM	0	0	0	0	**0**	1	3	0	0	0	0	**0**	0	0	40	69	0	0	**109**	0	1	0	49	20	0
8:15:00 AM	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	3	24	67	0	0	**91**	0	0	0	54	18	0
8:30:00 AM	0	0	0	0	**0**	0	2	0	0	0	0	**0**	0	3	18	47	0	0	**65**	0	1	0	59	25	0
8:45:00 AM	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	2	23	60	0	0	**83**	0	0	0	60	21	0
Hourly Total	0	0	0	0	**0**	3	6	0	0	0	0	**0**	0	8	105	243	0	0	**348**	0	2	0	222	84	0
4:00:00 PM	0	0	0	0	**0**	3	1	0	0	0	0	**0**	2	2	22	65	0	0	**87**	1	4	0	110	27	0
4:15:00 PM	0	0	0	0	**0**	3	2	0	0	1	0	**1**	0	8	30	49	0	0	**79**	1	2	0	80	35	0
4:30:00 PM	0	0	0	0	**0**	4	3	0	0	1	0	**1**	3	1	27	77	0	0	**104**	0	0	0	122	32	0
4:45:00 PM	0	0	0	0	**0**	0	3	0	0	0	0	**0**	2	0	21	70	0	0	**91**	4	2	0	103	38	0
Hourly Total	0	0	0	0	**0**	10	9	0	0	2	0	**2**	7	11	100	261	0	0	**361**	6	8	0	415	132	0
5:00:00 PM	0	0	0	0	**0**	4	3	1	0	0	0	**1**	3	3	26	67	0	0	**93**	1	0	0	96	22	0
5:15:00 PM	0	0	0	0	**0**	6	5	0	0	0	0	**0**	0	4	27	77	0	0	**104**	0	2	0	94	41	0
5:30:00 PM	0	0	0	0	**0**	4	0	0	0	0	0	**0**	1	1	30	63	0	0	**93**	1	1	0	87	44	0
5:45:00 PM	0	0	0	0	**0**	5	2	0	0	0	0	**0**	6	3	28	58	0	0	**86**	1	1	0	90	44	0
Hourly Total	0	0	0	0	**0**	19	10	1	0	0	0	**1**	10	11	111	265	0	0	**376**	3	4	0	367	151	0
Grand Total	0	0	0	0	**0**	34	28	1	0	2	0	**3**	21	39	381	963	0	0	**1344**	13	23	0	1170	415	0
% Approach	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	33.3%	0.0%	66.7%	0.0%	**0.0%**	0.0%	0.0%	28.3%	71.7%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	73.8%	26.2%	0.0%
% Total	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	**0.1%**	0.0%	0.0%	13.0%	32.8%	0.0%	0.0%	**45.8%**	0.0%	0.0%	0.0%	39.9%	14.2%	0.0%
Lights	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	361	893	0	0	**1254**	0	0	0	1134	337	0
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	94.8%	92.7%	0.0%	0.0%	**93.3%**	0.0%	0.0%	0.0%	96.9%	81.2%	0.0%
Trucks	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	11	20	0	0	**31**	0	0	0	24	2	0
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.9%	2.1%	0.0%	0.0%	**2.3%**	0.0%	0.0%	0.0%	2.1%	0.5%	0.0%
Buses	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	5	43	0	0	**48**	0	0	0	12	74	0
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.3%	4.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.0%	17.8%	0.0%
Pedestrians	0	0	0	0	**0**	32	28	0	0	0	0	**0**	20	39	0	0	0	0	**0**	12	23	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	94.1%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	95.2%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	92.3%	100.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	**0**	2	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





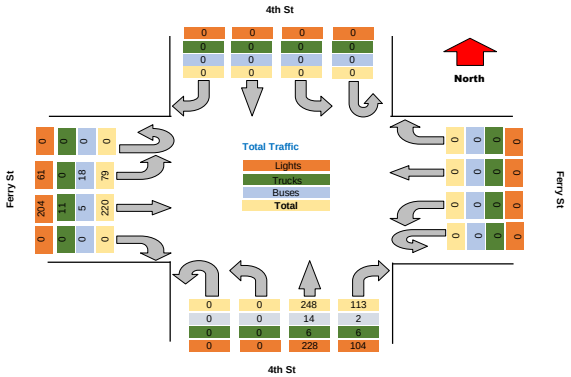
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

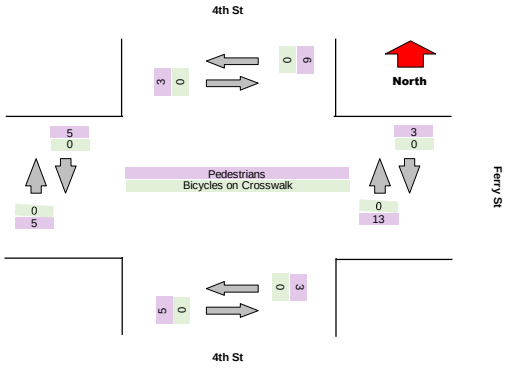
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	4th St							Ferry St							4th St							Ferry
Direction	Southbound							Westbound							Northbound							Eastbo
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn
7:45:00 AM	0	0	0	0	**0**	1	1	0	0	0	0	**0**	3	7	31	65	0	0	**96**	3	3	0	58	16	0
8:00:00 AM	0	0	0	0	**0**	1	3	0	0	0	0	**0**	0	0	40	69	0	0	**109**	0	1	0	49	20	0
8:15:00 AM	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	3	24	67	0	0	**91**	0	0	0	54	18	0
8:30:00 AM	0	0	0	0	**0**	0	2	0	0	0	0	**0**	0	3	18	47	0	0	**65**	0	1	0	59	25	0
Grand Total	0	0	0	0	**0**	3	6	0	0	0	0	**0**	3	13	113	248	0	0	**361**	3	5	0	220	79	0
% Approach	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	31.3%	68.7%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	73.6%	26.4%	0.0%
% Total	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	17.1%	37.6%	0.0%	0.0%	**54.7%**	0.0%	0.0%	0.0%	33.3%	12.0%	0.0%
PHF	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.706	0.899	0.000	0.000	**0.828**	0.000	0.000	0.000	0.932	0.790	0.000
Lights	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	104	228	0	0	**332**	0	0	0	204	61	0
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	92.0%	91.9%	0.0%	0.0%	**92.0%**	0.0%	0.0%	0.0%	92.7%	77.2%	0.0%
Trucks	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	6	6	0	0	**12**	0	0	0	11	0	0
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	5.3%	2.4%	0.0%	0.0%	**3.3%**	0.0%	0.0%	0.0%	5.0%	0.0%	0.0%
Buses	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	2	14	0	0	**16**	0	0	0	5	18	0
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.8%	5.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.3%	22.8%	0.0%
Pedestrians	0	0	0	0	**0**	3	6	0	0	0	0	**0**	3	13	0	0	0	0	**0**	3	5	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%





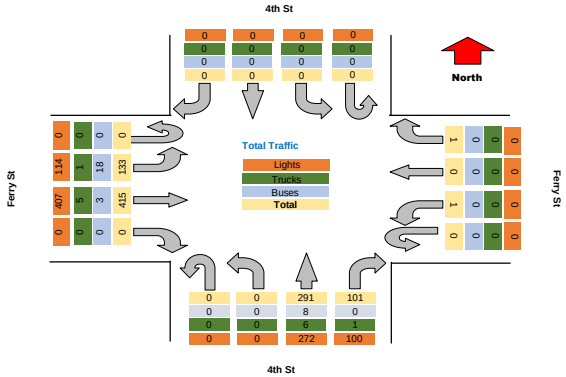
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

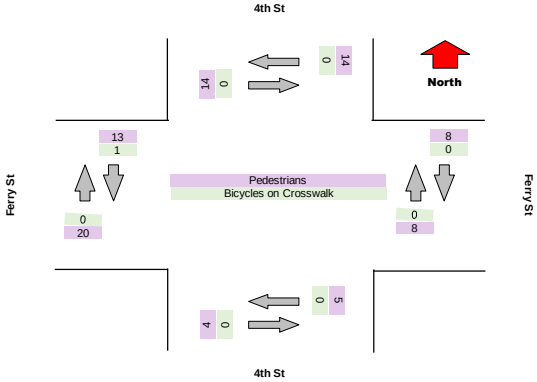
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:30:00 PM

Leg	4th St							Ferry St							4th St							Ferry			
Direction	Southbound							Westbound							Northbound							Eastbo			
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn
4:30:00 PM	0	0	0	0	**0**	4	3	0	0	1	0	**1**	3	1	27	77	0	0	**104**	0	0	0	122	32	0
4:45:00 PM	0	0	0	0	**0**	0	3	0	0	0	0	**0**	2	0	21	70	0	0	**91**	4	2	0	103	38	0
5:00:00 PM	0	0	0	0	**0**	4	3	1	0	0	0	**1**	3	3	26	67	0	0	**93**	1	0	0	96	22	0
5:15:00 PM	0	0	0	0	**0**	6	5	0	0	0	0	**0**	0	4	27	77	0	0	**104**	0	2	0	94	41	0
Grand Total	0	0	0	0	**0**	14	14	1	0	1	0	**2**	8	8	101	291	0	0	**392**	5	4	0	415	133	0
% Approach	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	**0.0%**	0.0%	0.0%	25.8%	74.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	75.7%	24.3%	0.0%
% Total	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	**0.2%**	0.0%	0.0%	10.7%	30.9%	0.0%	0.0%	**41.6%**	0.0%	0.0%	0.0%	44.1%	14.1%	0.0%
PHF	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.250	0.000	0.250	0.000	**0.500**	0.000	0.000	0.935	0.945	0.000	0.000	**0.942**	0.000	0.000	0.000	0.850	0.811	0.000
Lights	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	100	272	0	0	**372**	0	0	0	407	114	0
% Lights	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	99.0%	93.5%	0.0%	0.0%	**94.9%**	0.0%	0.0%	0.0%	98.1%	85.7%	0.0%
Trucks	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	1	6	0	0	**7**	0	0	0	5	1	0
% Trucks	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	2.1%	0.0%	0.0%	**1.8%**	0.0%	0.0%	0.0%	1.2%	0.8%	0.0%
Buses	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	8	0	0	**8**	0	0	0	3	18	0
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.7%	13.5%	0.0%
Pedestrians	0	0	0	0	**0**	14	14	0	0	0	0	**0**	8	8	0	0	0	0	**0**	5	4	0	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

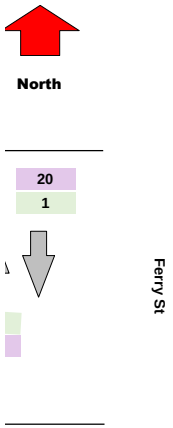
TRI-STATE TRAFFIC DATA

TSTData.com

St			
und			
App Total	Peds CW	Peds CCW	Total
34	2	0	68
43	0	0	99
63	0	3	136
74	1	1	170
214	3	4	473
69	1	1	178
72	2	2	163
84	1	1	149
81	5	0	164
306	9	4	654
137	2	4	224
115	5	4	195
154	2	1	259
141	2	3	232
547	11	12	910
118	10	3	212
135	6	7	239
131	4	6	224
134	7	6	220
518	27	22	895
1585	50	42	2932
0.0%	0.0%	0.0%	0.0%
54.1%	0.0%	0.0%	0.0%
1471	0	0	2725
92.8%	0.0%	0.0%	92.9%
26	0	0	57
1.6%	0.0%	0.0%	1.9%
86	0	0	134
0.0%	0.0%	0.0%	4.6%
0	49	41	0
0.0%	98.0%	97.6%	0.0%
0	1	1	0
0.0%	2.0%	2.4%	0.0%

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TSTData.com



St und App Total	Peds CW	Peds CCW	Total
74	1	1	170
69	1	1	178
72	2	2	163
84	1	1	149
299	5	5	660
0.0%	0.0%	0.0%	
45.3%	0.0%	0.0%	
0.890	0.000	0.000	0.927
265	0	0	597
88.6%	0.0%	0.0%	90.5%
11	0	0	23
3.7%	0.0%	0.0%	3.5%
23	0	0	39
0.0%	0.0%	0.0%	5.9%
0	5	5	0
0.0%	100.0%	100.0%	0.0%
0	0	0	0
0.0%	0.0%	0.0%	0.0%

St und App Total	Peds CW	Peds CCW	Total
154	2	1	259
141	2	3	232
118	10	3	212
135	6	7	239
548	20	14	942
0.0%	0.0%	0.0%	
58.2%	0.0%	0.0%	
0.890	0.000	0.000	0.909
521	0	0	893
95.1%	0.0%	0.0%	94.8%
6	0	0	13
1.1%	0.0%	0.0%	1.4%
21	0	0	29
0.0%	0.0%	0.0%	3.1%
0	20	13	0
0.0%	100.0%	92.9%	0.0%
0	0	1	0
0.0%	0.0%	7.1%	0.0%

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

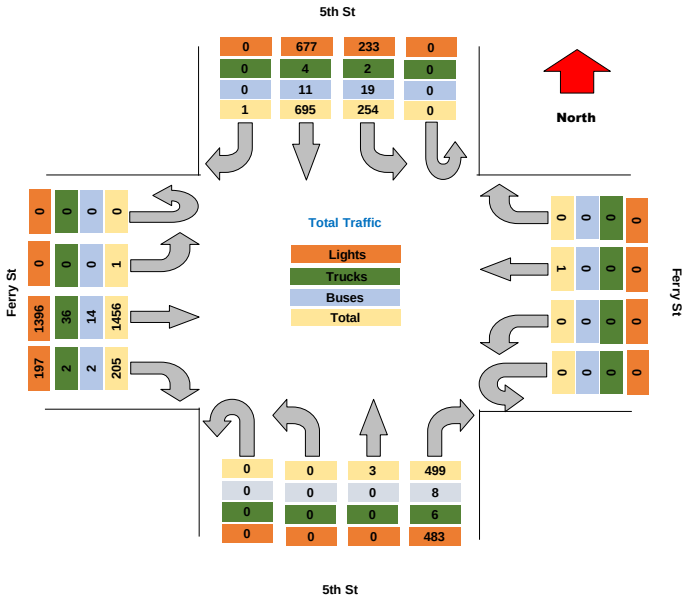
Turning Movement Data

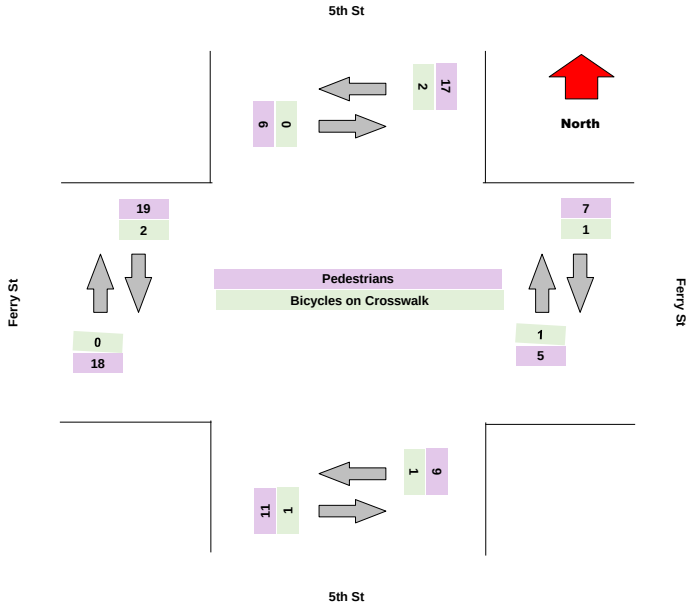
Leg	5th St							Ferry St							5th St							Ferry St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
7:00:00 AM	0	18	7	0	**25**	1	0	0	0	0	0	**0**	0	0	18	0	0	0	**18**	1	0	5	43	0	0	**48**	4	3	**91**
7:15:00 AM	0	25	6	0	**31**	0	1	0	0	0	0	**0**	1	0	29	1	0	0	**30**	0	0	9	58	0	0	**67**	0	0	**128**
7:30:00 AM	0	28	10	0	**38**	0	0	0	0	0	0	**0**	1	0	21	0	0	0	**21**	0	2	9	68	0	0	**77**	0	3	**136**
7:45:00 AM	0	34	18	0	**52**	0	0	0	0	0	0	**0**	0	0	57	0	0	0	**57**	1	2	1	80	0	0	**81**	0	3	**190**
Hourly Total	0	105	41	0	**146**	1	1	0	0	0	0	**0**	2	0	125	1	0	0	**126**	2	4	24	249	0	0	**273**	4	9	**545**
8:00:00 AM	0	43	13	0	**56**	1	0	0	0	0	0	**0**	0	0	51	0	0	0	**51**	0	1	4	78	0	0	**82**	1	1	**189**
8:15:00 AM	0	36	13	0	**49**	1	1	0	0	0	0	**0**	1	1	40	0	0	0	**40**	1	0	9	70	0	0	**79**	3	0	**168**
8:30:00 AM	0	34	16	0	**50**	0	0	0	0	0	0	**0**	1	0	26	0	0	0	**26**	1	0	6	74	0	0	**80**	0	1	**156**
8:45:00 AM	0	31	24	0	**55**	0	0	0	0	0	0	**0**	0	0	19	0	0	0	**19**	1	0	6	58	0	0	**64**	2	0	**138**
Hourly Total	0	144	66	0	**210**	2	1	0	0	0	0	**0**	2	1	136	0	0	0	**136**	3	1	25	280	0	0	**305**	6	2	**651**
4:00:00 PM	0	62	23	0	**85**	0	3	0	0	0	0	**0**	0	1	40	0	0	0	**40**	0	0	26	122	0	0	**148**	4	2	**273**
4:15:00 PM	0	70	18	0	**88**	4	1	0	0	0	0	**0**	0	0	30	0	0	0	**30**	0	1	24	112	0	0	**136**	0	3	**254**
4:30:00 PM	1	60	16	0	**77**	0	1	0	1	0	0	**1**	1	1	36	0	0	0	**36**	1	1	22	150	1	0	**173**	1	1	**287**
4:45:00 PM	0	52	23	0	**75**	0	0	0	0	0	0	**0**	0	1	21	0	0	0	**21**	0	0	16	96	0	0	**112**	0	2	**208**
Hourly Total	1	244	80	0	**325**	4	5	0	1	0	0	**1**	1	3	127	0	0	0	**127**	1	2	88	480	1	0	**569**	5	8	**1022**
5:00:00 PM	0	57	24	0	**81**	0	4	0	0	0	0	**0**	0	0	38	1	0	0	**39**	1	1	13	138	0	0	**151**	0	0	**271**
5:15:00 PM	0	58	19	0	**77**	1	4	0	0	0	0	**0**	3	0	30	0	0	0	**30**	0	1	20	127	0	0	**147**	1	2	**254**
5:30:00 PM	0	47	13	0	**60**	1	3	0	0	0	0	**0**	0	2	21	0	0	0	**21**	0	2	21	86	0	0	**107**	2	0	**188**
5:45:00 PM	0	40	11	0	**51**	0	1	0	0	0	0	**0**	0	0	22	1	0	0	**23**	3	1	14	96	0	0	**110**	0	0	**184**
Hourly Total	0	202	67	0	**269**	2	12	0	0	0	0	**0**	3	2	111	2	0	0	**113**	4	5	68	447	0	0	**515**	3	2	**897**
Grand Total	1	695	254	0	**950**	9	19	0	1	0	0	**1**	8	6	499	3	0	0	**502**	10	12	205	1456	1	0	**1662**	18	21	**3115**
% Approach	0.1%	73.2%	26.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	99.4%	0.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	12.3%	87.6%	0.1%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.0%	22.3%	8.2%	0.0%	**30.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	16.0%	0.1%	0.0%	0.0%	**16.1%**	0.0%	0.0%	6.6%	46.7%	0.0%	0.0%	**53.4%**	0.0%	0.0%	**0.0%**
Lights	0	677	233	0	**910**	0	0	0	0	0	0	**0**	0	0	483	0	0	0	**483**	0	0	197	1396	0	0	**1593**	0	0	**2986**
% Lights	0.0%	97.4%	91.7%	0.0%	**95.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	96.8%	0.0%	0.0%	0.0%	**96.2%**	0.0%	0.0%	96.1%	95.9%	0.0%	0.0%	**95.8%**	0.0%	0.0%	**95.9%**
Trucks	0	4	2	0	**6**	0	0	0	0	0	0	**0**	0	0	6	0	0	0	**6**	0	0	2	36	0	0	**38**	0	0	**50**
% Trucks	0.0%	0.6%	0.8%	0.0%	**0.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	**1.2%**	0.0%	0.0%	1.0%	2.5%	0.0%	0.0%	**2.3%**	0.0%	0.0%	**1.6%**
Buses	0	11	19	0	**30**	0	0	0	0	0	0	**0**	0	0	8	0	0	0	**8**	0	0	2	14	0	0	**16**	0	0	**54**
% Buses	0.0%	1.6%	7.5%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	1.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.7%**
Pedestrians	0	0	0	0	**0**	9	17	0	0	0	0	**0**	7	5	0	0	0	0	**0**	9	11	0	0	0	0	**0**	18	19	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	89.5%	0.0%	0.0%	0.0%	0.0%	**0.0%**	87.5%	83.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	90.0%	91.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	90.5%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	2	0	0	0	0	**0**	1	1	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	2	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	10.5%	0.0%	0.0%	0.0%	0.0%	**0.0%**	12.5%	16.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	10.0%	8.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	9.5%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





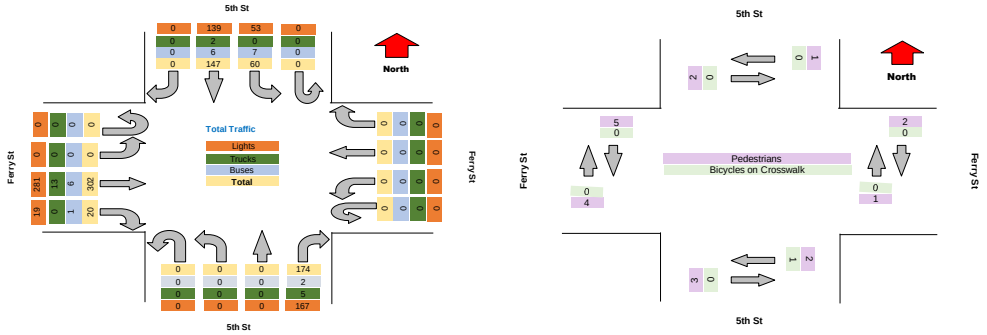
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	5th St							Ferry St							5th St							Ferry St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:45:00 AM	0	34	18	0	**52**	0	0	0	0	0	0	**0**	0	0	57	0	0	0	**57**	1	2	1	80	0	0	**81**	0	3	**190**
8:00:00 AM	0	43	13	0	**56**	1	0	0	0	0	0	**0**	0	0	51	0	0	0	**51**	0	1	4	78	0	0	**82**	1	1	**189**
8:15:00 AM	0	36	13	0	**49**	1	1	0	0	0	0	**0**	1	1	40	0	0	0	**40**	1	0	9	70	0	0	**79**	3	0	**168**
8:30:00 AM	0	34	16	0	**50**	0	0	0	0	0	0	**0**	1	0	26	0	0	0	**26**	1	0	6	74	0	0	**80**	0	1	**156**
Grand Total	0	147	60	0	**207**	2	1	0	0	0	0	**0**	2	1	174	0	0	0	**174**	3	3	20	302	0	0	**322**	4	5	**703**
% Approach	0.0%	71.0%	29.0%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	6.2%	93.8%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.0%	20.9%	8.5%	0.0%	**29.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	24.8%	0.0%	0.0%	0.0%	**24.8%**	0.0%	0.0%	2.8%	43.0%	0.0%	0.0%	**45.8%**	0.0%	0.0%	
PHF	0.000	0.855	0.833	0.000	**0.924**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.763	0.000	0.000	0.000	**0.763**	0.000	0.000	0.556	0.944	0.000	0.000	**0.982**	0.000	0.000	**0.925**
Lights	0	139	53	0	**192**	0	0	0	0	0	0	**0**	0	0	167	0	0	0	**167**	0	0	19	281	0	0	**300**	0	0	**659**
% Lights	0.0%	94.6%	88.3%	0.0%	**92.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	96.0%	0.0%	0.0%	0.0%	**96.0%**	0.0%	0.0%	95.0%	93.0%	0.0%	0.0%	**93.2%**	0.0%	0.0%	**93.7%**
Trucks	0	2	0	0	**2**	0	0	0	0	0	0	**0**	0	0	5	0	0	0	**5**	0	0	0	13	0	0	**13**	0	0	**20**
% Trucks	0.0%	1.4%	0.0%	0.0%	**1.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	**2.9%**	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	**4.0%**	0.0%	0.0%	**2.8%**
Buses	0	6	7	0	**13**	0	0	0	0	0	0	**0**	0	0	2	0	0	0	**2**	0	0	1	6	0	0	**7**	0	0	**22**
% Buses	0.0%	4.1%	11.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	5.0%	2.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.1%**
Pedestrians	0	0	0	0	**0**	2	1	0	0	0	0	**0**	2	1	0	0	0	0	**0**	2	3	0	0	0	0	**0**	4	5	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	66.7%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



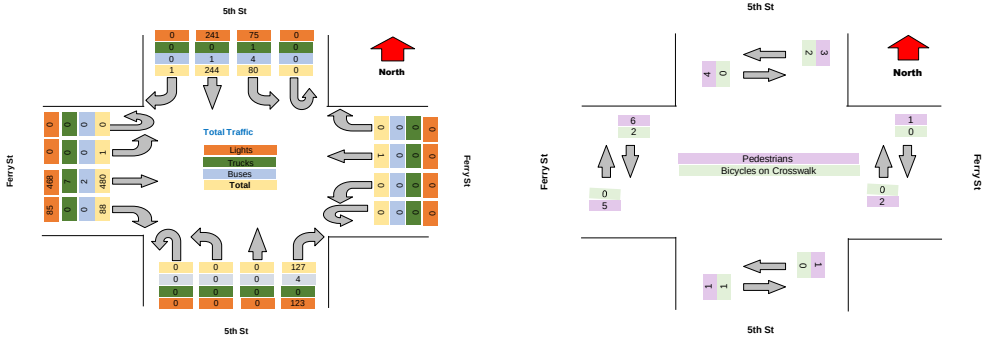
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:00:00 PM

Leg	5th St							Ferry St							5th St							Ferry St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:00:00 PM	0	62	23	0	**85**	0	3	0	0	0	0	**0**	0	1	40	0	0	0	**40**	0	0	26	122	0	0	**148**	4	2	**273**
4:15:00 PM	0	70	18	0	**88**	4	1	0	0	0	0	**0**	0	0	30	0	0	0	**30**	0	1	24	112	0	0	**136**	0	3	**254**
4:30:00 PM	1	60	16	0	**77**	0	1	0	1	0	0	**1**	1	1	36	0	0	0	**36**	1	1	22	150	1	0	**173**	1	1	**287**
4:45:00 PM	0	52	23	0	**75**	0	0	0	0	0	0	**0**	0	1	21	0	0	0	**21**	0	0	16	96	0	0	**112**	0	2	**208**
Grand Total	1	244	80	0	**325**	4	5	0	1	0	0	**1**	1	3	127	0	0	0	**127**	1	2	88	480	1	0	**569**	5	8	**1022**
% Approach	0.3%	75.1%	24.6%	0.0%	**0.0%**	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	15.5%	84.4%	0.2%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.1%	23.9%	7.8%	0.0%	**31.8%**	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	**0.1%**	0.0%	0.0%	12.4%	0.0%	0.0%	0.0%	**12.4%**	0.0%	0.0%	8.6%	47.0%	0.1%	0.0%	**55.7%**	0.0%	0.0%	
PHF	0.250	0.871	0.870	0.000	**0.923**	0.000	0.000	0.000	0.250	0.000	0.000	**0.250**	0.000	0.000	0.794	0.000	0.000	0.000	**0.794**	0.000	0.000	0.846	0.800	0.250	0.000	**0.822**	0.000	0.000	**0.890**
Lights	0	241	75	0	**316**	0	0	0	0	0	0	**0**	0	0	123	0	0	0	**123**	0	0	85	468	0	0	**553**	0	0	**992**
% Lights	0.0%	98.8%	93.8%	0.0%	**97.2%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	96.9%	0.0%	0.0%	0.0%	**96.9%**	0.0%	0.0%	96.6%	97.5%	0.0%	0.0%	**97.2%**	0.0%	0.0%	**97.1%**
Trucks	0	0	1	0	**1**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	7	0	0	**7**	0	0	**8**
% Trucks	0.0%	0.0%	1.3%	0.0%	**0.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	**1.2%**	0.0%	0.0%	**0.8%**
Buses	0	1	4	0	**5**	0	0	0	0	0	0	**0**	0	0	4	0	0	0	**4**	0	0	0	2	0	0	**2**	0	0	**11**
% Buses	0.0%	0.4%	5.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.1%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.1%**
Pedestrians	0	0	0	0	**0**	4	3	0	0	0	0	**0**	1	2	0	0	0	0	**0**	1	1	0	0	0	0	**0**	5	6	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	60.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	66.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	50.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	75.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	2	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	2	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	40.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	33.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	25.0%	**0.0%**



Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021

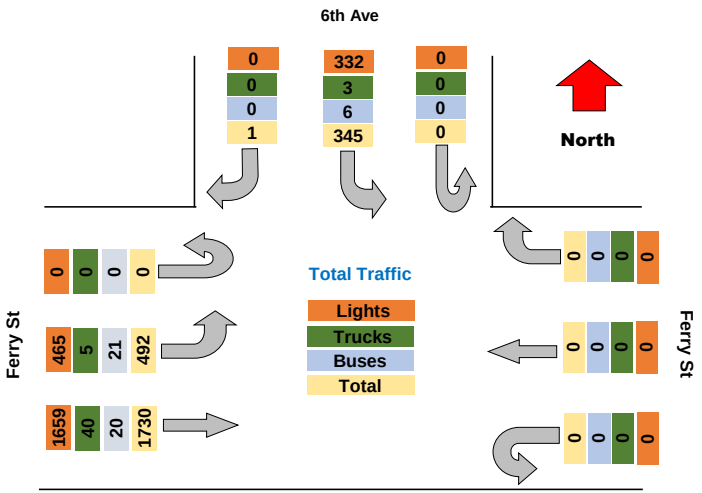
TRI-STATE TRAFFIC DATA

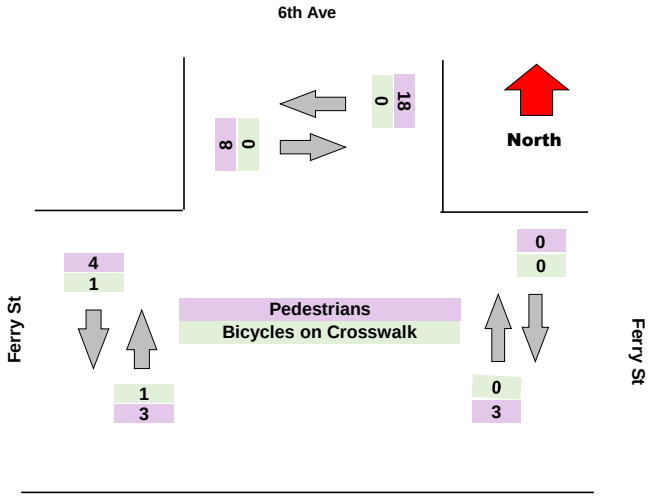
Turning Movement Data

Leg	6th Ave						Ferry St						Ferry St						
Direction	Southbound						Westbound						Eastbound						
Start Time	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:00:00 AM	0	9	0	**9**	0	0	0	0	0	**0**	0	0	54	14	0	**68**	0	0	**77**
7:15:00 AM	0	9	0	**9**	0	1	0	0	0	**0**	0	0	63	31	0	**94**	0	0	**103**
7:30:00 AM	0	7	0	**7**	0	0	0	0	0	**0**	0	0	84	23	0	**107**	0	1	**114**
7:45:00 AM	0	8	0	**8**	1	0	0	0	0	**0**	0	1	115	41	0	**156**	0	0	**164**
Hourly Total	0	33	0	**33**	1	1	0	0	0	**0**	0	1	316	109	0	**425**	0	1	**458**
8:00:00 AM	0	10	0	**10**	1	0	0	0	0	**0**	0	1	105	41	0	**146**	0	0	**156**
8:15:00 AM	0	16	0	**16**	0	1	0	0	0	**0**	0	0	94	35	0	**129**	0	0	**145**
8:30:00 AM	0	12	0	**12**	0	0	0	0	0	**0**	0	0	83	30	0	**113**	0	1	**125**
8:45:00 AM	0	8	0	**8**	1	2	0	0	0	**0**	0	0	63	21	0	**84**	0	0	**92**
Hourly Total	0	46	0	**46**	2	3	0	0	0	**0**	0	1	345	127	0	**472**	0	1	**518**
4:00:00 PM	1	47	0	**48**	0	3	0	0	0	**0**	0	0	146	38	0	**184**	1	0	**232**
4:15:00 PM	0	33	0	**33**	0	2	0	0	0	**0**	0	0	126	34	0	**160**	0	0	**193**
4:30:00 PM	0	37	0	**37**	0	1	0	0	0	**0**	0	0	167	42	0	**209**	0	0	**246**
4:45:00 PM	0	26	0	**26**	0	1	0	0	0	**0**	0	0	121	24	0	**145**	1	1	**171**
Hourly Total	1	143	0	**144**	0	7	0	0	0	**0**	0	0	560	138	0	**698**	2	1	**842**
5:00:00 PM	0	45	0	**45**	1	3	0	0	0	**0**	0	0	158	41	0	**199**	1	0	**244**
5:15:00 PM	0	36	0	**36**	3	3	0	0	0	**0**	0	0	144	34	0	**178**	1	1	**214**
5:30:00 PM	0	26	0	**26**	1	1	0	0	0	**0**	0	0	103	21	0	**124**	0	1	**150**
5:45:00 PM	0	16	0	**16**	0	0	0	0	0	**0**	0	1	104	22	0	**126**	0	0	**142**
Hourly Total	0	123	0	**123**	5	7	0	0	0	**0**	0	1	509	118	0	**627**	2	2	**750**
Grand Total	1	345	0	**346**	8	18	0	0	0	**0**	0	3	1730	492	0	**2222**	4	5	**2568**
% Approach	0.3%	99.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	77.9%	22.1%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	0.0%	13.4%	0.0%	**13.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	67.4%	19.2%	0.0%	**86.5%**	0.0%	0.0%	**0.0%**
Lights	0	332	0	**332**	0	0	0	0	0	**0**	0	0	1659	465	0	**2124**	0	0	**2456**
% Lights	0.0%	96.2%	0.0%	**96.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	95.9%	94.5%	0.0%	**95.6%**	0.0%	0.0%	**95.6%**
Trucks	0	3	0	**3**	0	0	0	0	0	**0**	0	0	40	5	0	**45**	0	0	**48**
% Trucks	0.0%	0.9%	0.0%	**0.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	1.0%	0.0%	**2.0%**	0.0%	0.0%	**1.9%**
Buses	0	6	0	**6**	0	0	0	0	0	**0**	0	0	20	21	0	**41**	0	0	**47**
% Buses	0.0%	1.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.2%	4.3%	0.0%	**0.0%**	0.0%	0.0%	**1.8%**
Pedestrians	0	0	0	**0**	8	18	0	0	0	**0**	0	3	0	0	0	**0**	3	4	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	75.0%	80.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	1	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	25.0%	20.0%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021

Turning Movement Data Plot



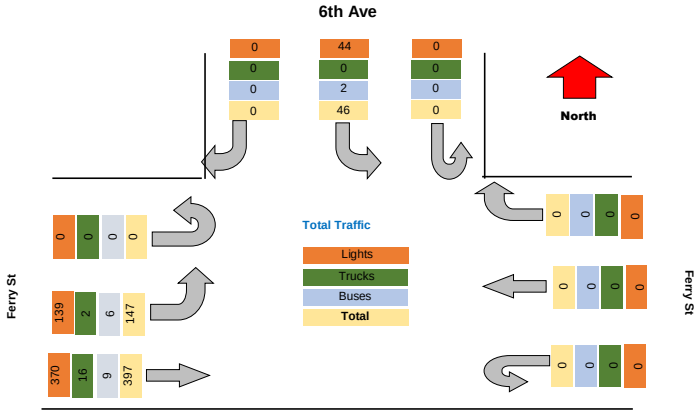


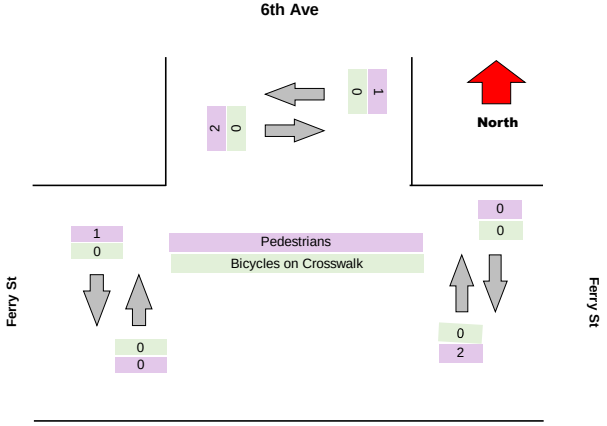
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	6th Ave						Ferry St						Ferry St						
Direction	Southbound						Westbound						Eastbound						
Start Time	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:45:00 AM	0	8	0	**8**	1	0	0	0	0	**0**	0	1	115	41	0	**156**	0	0	**164**
8:00:00 AM	0	10	0	**10**	1	0	0	0	0	**0**	0	1	105	41	0	**146**	0	0	**156**
8:15:00 AM	0	16	0	**16**	0	1	0	0	0	**0**	0	0	94	35	0	**129**	0	0	**145**
8:30:00 AM	0	12	0	**12**	0	0	0	0	0	**0**	0	0	83	30	0	**113**	0	1	**125**
Grand Total	0	46	0	**46**	2	1	0	0	0	**0**	0	2	397	147	0	**544**	0	1	**590**
% Approach	0.0%	100.0%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	73.0%	27.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.0%	7.8%	0.0%	**7.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	67.3%	24.9%	0.0%	**92.2%**	0.0%	0.0%	
PHF	0.000	0.719	0.000	**0.719**	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.863	0.896	0.000	**0.872**	0.000	0.000	**0.899**
Lights	0	44	0	**44**	0	0	0	0	0	**0**	0	0	370	139	0	**509**	0	0	**553**
% Lights	0.0%	95.7%	0.0%	**95.7%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	93.2%	94.6%	0.0%	**93.6%**	0.0%	0.0%	**93.7%**
Trucks	0	0	0	**0**	0	0	0	0	0	**0**	0	0	16	2	0	**18**	0	0	**18**
% Trucks	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.0%	1.4%	0.0%	**3.3%**	0.0%	0.0%	**3.1%**
Buses	0	2	0	**2**	0	0	0	0	0	**0**	0	0	9	6	0	**15**	0	0	**17**
% Buses	0.0%	4.3%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	4.1%	0.0%	**0.0%**	0.0%	0.0%	**2.9%**
Pedestrians	0	0	0	**0**	2	1	0	0	0	**0**	0	2	0	0	0	**0**	0	1	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**



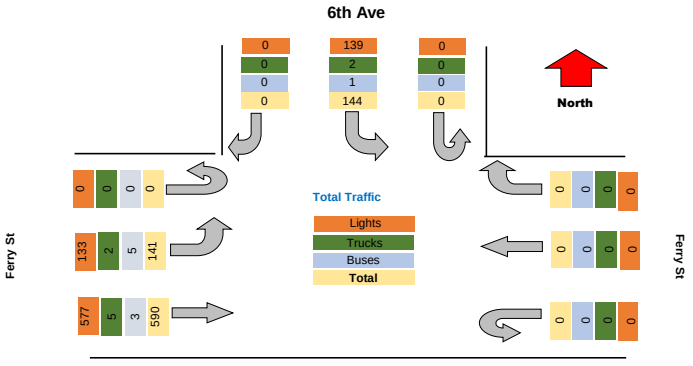


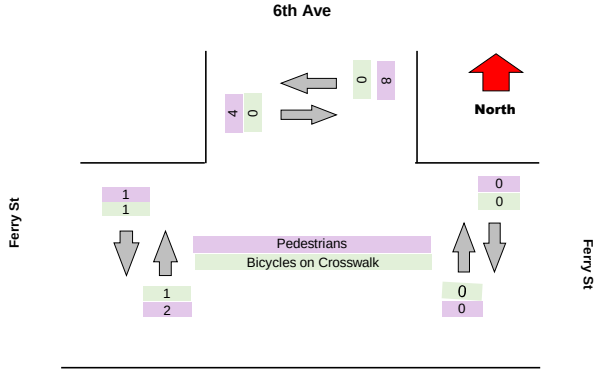
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021

Turning Movement Peak Hour Data (PM)

4:30:00 PM

Leg	6th Ave						Ferry St						Ferry St						
Direction	Southbound						Westbound						Eastbound						
Start Time	Right	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	U-Turn	App Total	Peds CW	Peds CCW	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:30:00 PM	0	37	0	**37**	0	1	0	0	0	**0**	0	0	167	42	0	**209**	0	0	**246**
4:45:00 PM	0	26	0	**26**	0	1	0	0	0	**0**	0	0	121	24	0	**145**	1	1	**171**
5:00:00 PM	0	45	0	**45**	1	3	0	0	0	**0**	0	0	158	41	0	**199**	1	0	**244**
5:15:00 PM	0	36	0	**36**	3	3	0	0	0	**0**	0	0	144	34	0	**178**	1	1	**214**
Grand Total	0	144	0	**144**	4	8	0	0	0	**0**	0	0	590	141	0	**731**	3	2	**875**
% Approach	0.0%	100.0%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	80.7%	19.3%	0.0%	**0.0%**	0.0%	0.0%	
% Total	0.0%	16.5%	0.0%	**16.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	67.4%	16.1%	0.0%	**83.5%**	0.0%	0.0%	
PHF	0.000	0.800	0.000	**0.800**	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.883	0.839	0.000	**0.874**	0.000	0.000	**0.889**
Lights	0	139	0	**139**	0	0	0	0	0	**0**	0	0	577	133	0	**710**	0	0	**849**
% Lights	0.0%	96.5%	0.0%	**96.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	97.8%	94.3%	0.0%	**97.1%**	0.0%	0.0%	**97.0%**
Trucks	0	2	0	**2**	0	0	0	0	0	**0**	0	0	5	2	0	**7**	0	0	**9**
% Trucks	0.0%	1.4%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.8%	1.4%	0.0%	**1.0%**	0.0%	0.0%	**1.0%**
Buses	0	1	0	**1**	0	0	0	0	0	**0**	0	0	3	5	0	**8**	0	0	**9**
% Buses	0.0%	0.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.5%	3.5%	0.0%	**0.0%**	0.0%	0.0%	**1.0%**
Pedestrians	0	0	0	**0**	4	8	0	0	0	**0**	0	0	0	0	0	**0**	2	1	0
% Pedestrians	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	66.7%	50.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	**0**	0	0	0	0	0	**0**	0	0	0	0	0	**0**	1	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	33.3%	50.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

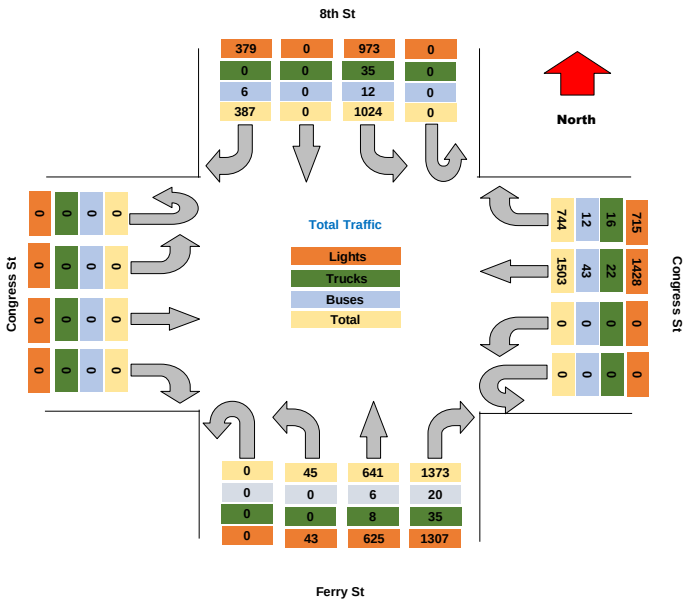
Turning Movement Data

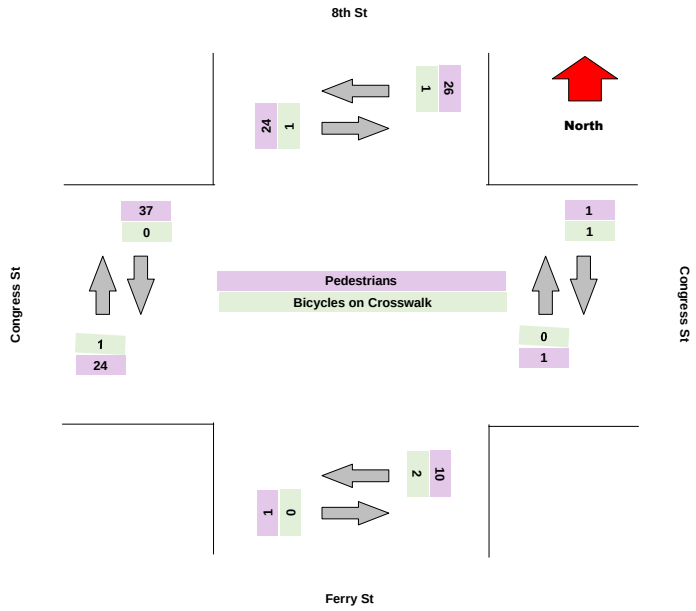
Leg	8th St							Congress St							Ferry St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:00:00 AM	12	0	35	0	**47**	0	1	43	62	0	0	**105**	0	0	34	26	0	0	**60**	1	0	0	0	0	0	**0**	0	0	**212**
7:15:00 AM	13	0	43	0	**56**	1	1	54	94	0	0	**148**	0	0	44	24	2	0	**70**	1	0	0	0	0	0	**0**	1	1	**274**
7:30:00 AM	16	0	42	0	**58**	3	0	49	103	0	0	**152**	0	0	59	31	0	0	**90**	1	0	0	0	0	0	**0**	4	0	**300**
7:45:00 AM	15	0	42	0	**57**	3	2	70	91	0	0	**161**	0	1	59	52	8	0	**119**	0	0	0	0	0	0	**0**	2	0	**337**
Hourly Total	56	0	162	0	**218**	7	4	216	350	0	0	**566**	0	1	196	133	10	0	**339**	3	0	0	0	0	0	**0**	7	1	**1123**
8:00:00 AM	24	0	40	0	**64**	0	0	51	97	0	0	**148**	0	0	59	55	2	0	**116**	1	0	0	0	0	0	**0**	0	2	**328**
8:15:00 AM	35	0	43	0	**78**	2	4	48	116	0	0	**164**	0	0	63	40	4	0	**107**	0	0	0	0	0	0	**0**	2	2	**349**
8:30:00 AM	16	0	47	0	**63**	2	0	56	105	0	0	**161**	0	0	63	26	7	0	**96**	0	0	0	0	0	0	**0**	1	0	**320**
8:45:00 AM	21	0	47	0	**68**	5	0	40	101	0	0	**141**	0	0	41	31	3	0	**75**	0	0	0	0	0	0	**0**	2	2	**284**
Hourly Total	96	0	177	0	**273**	9	4	195	419	0	0	**614**	0	0	226	152	16	0	**394**	1	0	0	0	0	0	**0**	5	6	**1281**
4:00:00 PM	31	0	110	0	**141**	0	3	60	91	0	0	**151**	0	0	138	47	4	0	**189**	0	0	0	0	0	0	**0**	1	6	**481**
4:15:00 PM	34	0	85	0	**119**	0	1	37	80	0	0	**117**	1	0	117	38	2	0	**157**	2	0	0	0	0	0	**0**	1	1	**393**
4:30:00 PM	24	0	104	0	**128**	1	4	39	84	0	0	**123**	0	0	137	61	2	0	**200**	0	0	0	0	0	0	**0**	1	3	**451**
4:45:00 PM	34	0	69	0	**103**	1	4	34	84	0	0	**118**	1	0	112	34	2	0	**148**	1	0	0	0	0	0	**0**	1	3	**369**
Hourly Total	123	0	368	0	**491**	2	12	170	339	0	0	**509**	2	0	504	180	10	0	**694**	3	0	0	0	0	0	**0**	4	13	**1694**
5:00:00 PM	29	0	81	0	**110**	2	1	43	93	0	0	**136**	0	0	135	63	3	0	**201**	1	0	0	0	0	0	**0**	2	3	**447**
5:15:00 PM	27	0	91	0	**118**	1	3	34	96	0	0	**130**	0	0	136	37	4	0	**177**	3	0	0	0	0	0	**0**	3	4	**425**
5:30:00 PM	33	0	72	0	**105**	1	1	40	107	0	0	**147**	0	0	92	41	2	0	**135**	1	0	0	0	0	0	**0**	2	3	**387**
5:45:00 PM	23	0	73	0	**96**	3	2	46	99	0	0	**145**	0	0	84	35	0	0	**119**	0	1	0	0	0	0	**0**	2	7	**360**
Hourly Total	112	0	317	0	**429**	7	7	163	395	0	0	**558**	0	0	447	176	9	0	**632**	5	1	0	0	0	0	**0**	9	17	**1619**
Grand Total	387	0	1024	0	**1411**	25	27	744	1503	0	0	**2247**	2	1	1373	641	45	0	**2059**	12	1	0	0	0	0	**0**	25	37	**5717**
% Approach	27.4%	0.0%	72.6%	0.0%	**0.0%**	0.0%	0.0%	33.1%	66.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	66.7%	31.1%	2.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	6.8%	0.0%	17.9%	0.0%	**24.7%**	0.0%	0.0%	13.0%	26.3%	0.0%	0.0%	**39.3%**	0.0%	0.0%	24.0%	11.2%	0.8%	0.0%	**36.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Lights	379	0	973	0	**1352**	0	0	715	1428	0	0	**2143**	0	0	1307	625	43	0	**1975**	0	0	0	0	0	0	**0**	0	0	**5470**
% Lights	97.9%	0.0%	95.0%	0.0%	**95.8%**	0.0%	0.0%	96.1%	95.0%	0.0%	0.0%	**95.4%**	0.0%	0.0%	95.2%	97.5%	95.6%	0.0%	**95.9%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**95.7%**
Trucks	0	0	35	0	**35**	0	0	16	22	0	0	**38**	0	0	35	8	0	0	**43**	0	0	0	0	0	0	**0**	0	0	**116**
% Trucks	0.0%	0.0%	3.4%	0.0%	**2.5%**	0.0%	0.0%	2.2%	1.5%	0.0%	0.0%	**1.7%**	0.0%	0.0%	2.5%	1.2%	0.0%	0.0%	**2.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**2.0%**
Buses	6	0	12	0	**18**	0	0	12	43	0	0	**55**	0	0	20	6	0	0	**26**	0	0	0	0	0	0	**0**	0	0	**99**
% Buses	1.6%	0.0%	1.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.5%	0.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.7%**
Pedestrians	0	0	0	0	**0**	24	26	0	0	0	0	**0**	1	1	0	0	0	0	**0**	10	1	0	0	0	0	**0**	24	37	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	96.0%	96.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	50.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	83.3%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	96.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	1	0	0	0	0	**0**	1	0	0	0	0	0	**0**	2	0	0	0	0	0	**0**	1	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	4.0%	3.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	4.0%	0.0%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





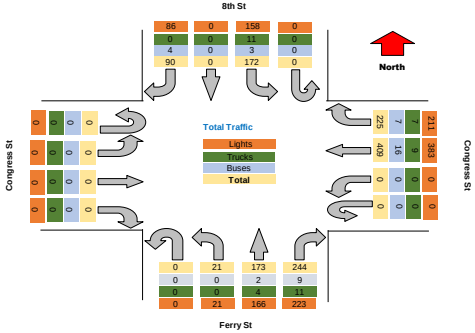
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

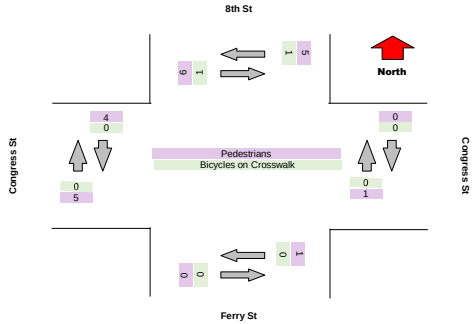
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (AM)

7:45:00 AM

Leg	8th St							Congress St							Ferry St							Congress St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:45:00 AM	15	0	42	0	**57**	3	2	70	91	0	0	**161**	0	1	59	52	8	0	**119**	0	0	0	0	0	0	**0**	2	0	**337**
8:00:00 AM	24	0	40	0	**64**	0	0	51	97	0	0	**148**	0	0	59	55	2	0	**116**	1	0	0	0	0	0	**0**	0	2	**328**
8:15:00 AM	35	0	43	0	**78**	2	4	48	116	0	0	**164**	0	0	63	40	4	0	**107**	0	0	0	0	0	0	**0**	2	2	**349**
8:30:00 AM	16	0	47	0	**63**	2	0	56	105	0	0	**161**	0	0	63	26	7	0	**96**	0	0	0	0	0	0	**0**	1	0	**320**
Grand Total	90	0	172	0	**262**	7	6	225	409	0	0	**634**	0	1	244	173	21	0	**438**	1	0	0	0	0	0	**0**	5	4	**1334**
% Approach	34.4%	0.0%	65.6%	0.0%	**0.0%**	0.0%	0.0%	35.5%	64.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	55.7%	39.5%	4.8%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	6.7%	0.0%	12.9%	0.0%	**19.6%**	0.0%	0.0%	16.9%	30.7%	0.0%	0.0%	**47.5%**	0.0%	0.0%	18.3%	13.0%	1.6%	0.0%	**32.8%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.643	0.000	0.915	0.000	**0.840**	0.000	0.000	0.804	0.881	0.000	0.000	**0.966**	0.000	0.000	0.968	0.786	0.656	0.000	**0.920**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.956**
Lights	86	0	158	0	**244**	0	0	211	383	0	0	**594**	0	0	223	166	21	0	**410**	0	0	0	0	0	0	**0**	0	0	**1248**
% Lights	95.6%	0.0%	91.9%	0.0%	**93.1%**	0.0%	0.0%	93.8%	93.6%	0.0%	0.0%	**93.7%**	0.0%	0.0%	91.4%	96.0%	100.0%	0.0%	**93.6%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**93.6%**
Trucks	0	0	11	0	**11**	0	0	7	9	0	0	**16**	0	0	11	4	0	0	**15**	0	0	0	0	0	0	**0**	0	0	**42**
% Trucks	0.0%	0.0%	6.4%	0.0%	**4.2%**	0.0%	0.0%	3.1%	2.2%	0.0%	0.0%	**2.5%**	0.0%	0.0%	4.5%	2.3%	0.0%	0.0%	**3.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.1%**
Buses	4	0	3	0	**7**	0	0	7	16	0	0	**23**	0	0	9	2	0	0	**11**	0	0	0	0	0	0	**0**	0	0	**41**
% Buses	4.4%	0.0%	1.7%	0.0%	**0.0%**	0.0%	0.0%	3.1%	3.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.7%	1.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**3.1%**
Pedestrians	0	0	0	0	**0**	6	5	0	0	0	0	**0**	0	1	0	0	0	0	**0**	1	0	0	0	0	0	**0**	5	4	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	85.7%	83.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	1	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	14.3%	16.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**





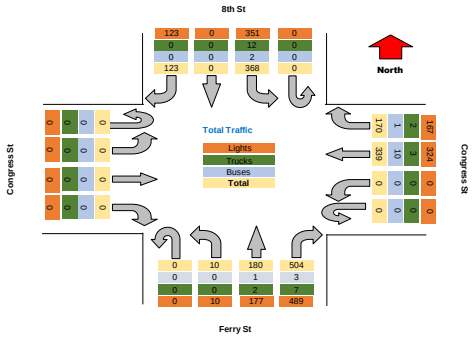
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

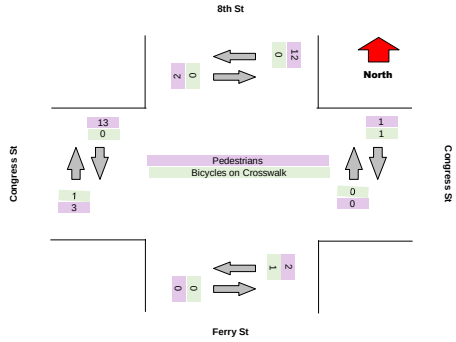
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:00:00 PM

Leg	8th St							Congress St							Ferry St							Congress St							
Direction	**Southbound**							**Westbound**							**Northbound**							**Eastbound**							
Start Time	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	**App Total**	Peds CW	Peds CCW	**Total**
4:00:00 PM	31	0	110	0	**141**	0	3	60	91	0	0	**151**	0	0	138	47	4	0	**189**	0	0	0	0	0	0	**0**	1	6	**481**
4:15:00 PM	34	0	85	0	**119**	0	1	37	80	0	0	**117**	1	0	117	38	2	0	**157**	2	0	0	0	0	0	**0**	1	1	**393**
4:30:00 PM	24	0	104	0	**128**	1	4	39	84	0	0	**123**	0	0	137	61	2	0	**200**	0	0	0	0	0	0	**0**	1	3	**451**
4:45:00 PM	34	0	69	0	**103**	1	4	34	84	0	0	**118**	1	0	112	34	2	0	**148**	1	0	0	0	0	0	**0**	1	3	**369**
Grand Total	123	0	368	0	**491**	2	12	170	339	0	0	**509**	2	0	504	180	10	0	**694**	3	0	0	0	0	0	**0**	4	13	**1694**
% Approach	25.1%	0.0%	74.9%	0.0%	**0.0%**	0.0%	0.0%	33.4%	66.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	72.6%	25.9%	1.4%	0.0%	**0.0%**	0.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	**0.0%**	0.0%	0.0%	
% Total	7.3%	0.0%	21.7%	0.0%	**29.0%**	0.0%	0.0%	10.0%	20.0%	0.0%	0.0%	**30.0%**	0.0%	0.0%	29.8%	10.6%	0.6%	0.0%	**41.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
PHF	0.904	0.000	0.836	0.000	**0.871**	0.000	0.000	0.708	0.931	0.000	0.000	**0.843**	0.000	0.000	0.913	0.738	0.625	0.000	**0.868**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	**0.880**
Lights	123	0	351	0	**474**	0	0	167	324	0	0	**491**	0	0	489	177	10	0	**676**	0	0	0	0	0	0	**0**	0	0	**1641**
% Lights	100.0%	0.0%	95.4%	0.0%	**96.5%**	0.0%	0.0%	98.2%	95.6%	0.0%	0.0%	**96.5%**	0.0%	0.0%	97.0%	98.3%	100.0%	0.0%	**97.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**96.9%**
Trucks	0	0	12	0	**12**	0	0	2	3	0	0	**5**	0	0	7	2	0	0	**9**	0	0	0	0	0	0	**0**	0	0	**26**
% Trucks	0.0%	0.0%	3.3%	0.0%	**2.4%**	0.0%	0.0%	1.2%	0.9%	0.0%	0.0%	**1.0%**	0.0%	0.0%	1.4%	1.1%	0.0%	0.0%	**1.3%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.5%**
Buses	0	0	2	0	**2**	0	0	1	10	0	0	**11**	0	0	3	1	0	0	**4**	0	0	0	0	0	0	**0**	0	0	**17**
% Buses	0.0%	0.0%	0.5%	0.0%	**0.0%**	0.0%	0.0%	0.6%	2.9%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.0%**
Pedestrians	0	0	0	0	**0**	2	12	0	0	0	0	**0**	1	0	0	0	0	0	**0**	2	0	0	0	0	0	**0**	3	13	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	75.0%	100.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	0	0	0	0	0	**0**	1	0	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	33.3%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	25.0%	0.0%	**0.0%**





Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

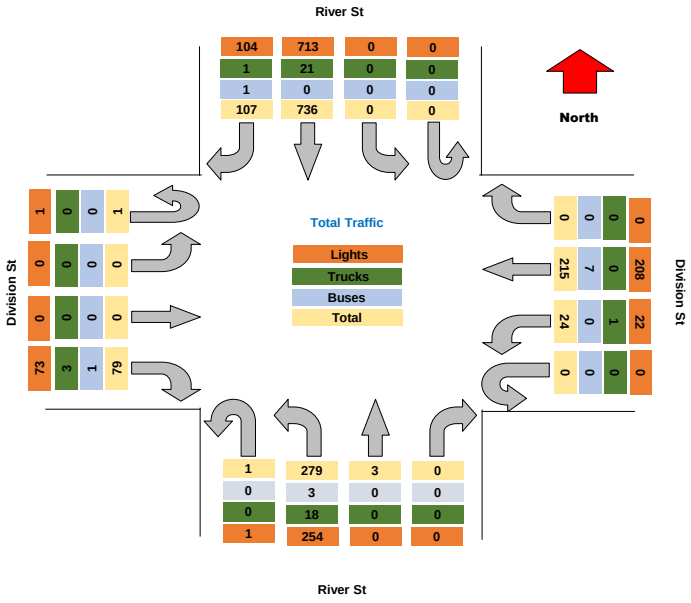
Turning Movement Data

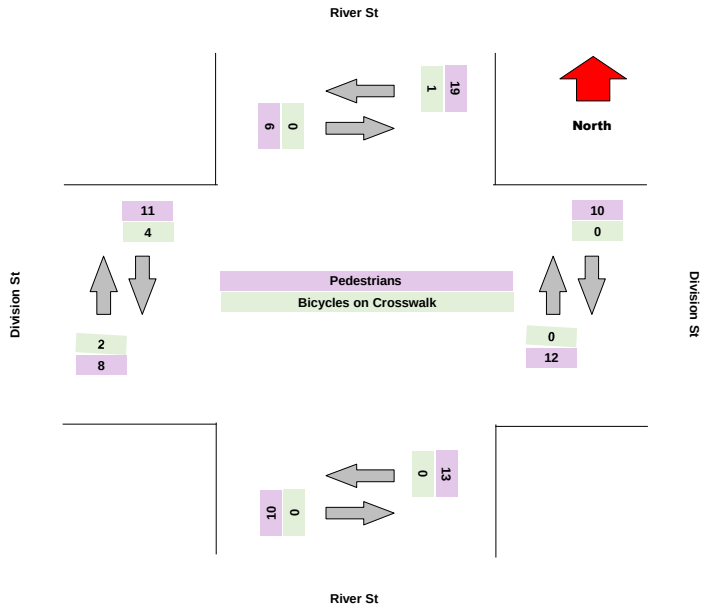
Leg	River St							Division St							River St							Division St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:00:00 AM	4	23	0	0	**27**	0	2	0	4	0	0	**4**	0	1	0	0	13	0	**13**	0	0	2	0	0	0	**2**	1	2	**46**
7:15:00 AM	4	46	0	0	**50**	2	0	0	9	1	0	**10**	0	0	0	0	10	0	**10**	0	0	1	0	0	0	**1**	0	0	**71**
7:30:00 AM	7	35	0	0	**42**	0	0	0	12	2	0	**14**	0	0	0	0	28	0	**28**	0	0	8	0	0	0	**8**	1	0	**92**
7:45:00 AM	5	56	0	0	**61**	0	1	0	8	3	0	**11**	1	3	0	0	24	0	**24**	0	3	5	0	0	0	**5**	0	0	**101**
Hourly Total	20	160	0	0	**180**	2	3	0	33	6	0	**39**	1	4	0	0	75	0	**75**	0	3	16	0	0	0	**16**	2	2	**310**
8:00:00 AM	5	46	0	0	**51**	0	0	0	14	2	0	**16**	0	0	0	1	19	0	**20**	0	0	2	0	0	0	**2**	0	1	**89**
8:15:00 AM	3	39	0	0	**42**	0	0	0	4	1	0	**5**	0	1	0	0	9	0	**9**	1	0	2	0	0	0	**2**	1	0	**58**
8:30:00 AM	7	35	0	0	**42**	0	0	0	16	3	0	**19**	0	2	0	0	11	0	**11**	0	3	3	0	0	0	**3**	0	0	**75**
8:45:00 AM	5	35	0	0	**40**	0	2	0	8	1	0	**9**	0	2	0	0	16	1	**17**	0	1	4	0	0	0	**4**	0	0	**70**
Hourly Total	20	155	0	0	**175**	0	2	0	42	7	0	**49**	0	5	0	1	55	1	**57**	1	4	11	0	0	0	**11**	1	1	**292**
4:00:00 PM	8	64	0	0	**72**	0	1	0	25	1	0	**26**	3	0	0	0	26	0	**26**	5	0	6	0	0	0	**6**	0	0	**130**
4:15:00 PM	8	53	0	0	**61**	0	0	0	13	2	0	**15**	2	0	0	0	21	0	**21**	3	0	2	0	0	0	**2**	3	2	**99**
4:30:00 PM	6	52	0	0	**58**	0	1	0	11	1	0	**12**	0	0	0	0	24	0	**24**	0	0	6	0	0	1	**7**	1	1	**101**
4:45:00 PM	12	44	0	0	**56**	1	5	0	16	1	0	**17**	0	0	0	0	19	0	**19**	0	0	12	0	0	0	**12**	0	0	**104**
Hourly Total	34	213	0	0	**247**	1	7	0	65	5	0	**70**	5	0	0	0	90	0	**90**	8	0	26	0	0	1	**27**	4	3	**434**
5:00:00 PM	7	52	0	0	**59**	0	1	0	31	1	0	**32**	1	0	0	0	14	0	**14**	1	0	6	0	0	0	**6**	2	3	**111**
5:15:00 PM	6	57	0	0	**63**	0	0	0	24	2	0	**26**	0	0	0	2	13	0	**15**	1	0	8	0	0	0	**8**	0	1	**112**
5:30:00 PM	7	56	0	0	**63**	5	5	0	13	2	0	**15**	2	2	0	0	16	0	**16**	1	2	6	0	0	0	**6**	0	4	**100**
5:45:00 PM	13	43	0	0	**56**	1	2	0	7	1	0	**8**	1	1	0	0	16	0	**16**	1	1	6	0	0	0	**6**	1	1	**86**
Hourly Total	33	208	0	0	**241**	6	8	0	75	6	0	**81**	4	3	0	2	59	0	**61**	4	3	26	0	0	0	**26**	3	9	**409**
Grand Total	107	736	0	0	**843**	9	20	0	215	24	0	**239**	10	12	0	3	279	1	**283**	13	10	79	0	0	1	**80**	10	15	**1445**
% Approach	12.7%	87.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	90.0%	10.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.1%	98.6%	0.4%	**0.0%**	0.0%	0.0%	98.8%	0.0%	0.0%	1.3%	**0.0%**	0.0%	0.0%	**0.0%**
% Total	7.4%	50.9%	0.0%	0.0%	**58.3%**	0.0%	0.0%	0.0%	14.9%	1.7%	0.0%	**16.5%**	0.0%	0.0%	0.0%	0.2%	19.3%	0.1%	**19.6%**	0.0%	0.0%	5.5%	0.0%	0.0%	0.1%	**5.5%**	0.0%	0.0%	**0.0%**
Lights	104	713	0	0	**817**	0	0	0	208	22	0	**230**	0	0	0	0	254	1	**255**	0	0	73	0	0	1	**74**	0	0	**1376**
% Lights	97.2%	96.9%	0.0%	0.0%	**96.9%**	0.0%	0.0%	0.0%	96.7%	91.7%	0.0%	**96.2%**	0.0%	0.0%	0.0%	0.0%	91.0%	100.0%	**90.1%**	0.0%	0.0%	92.4%	0.0%	0.0%	100.0%	**92.5%**	0.0%	0.0%	**95.2%**
Trucks	1	21	0	0	**22**	0	0	0	0	1	0	**1**	0	0	0	0	18	0	**18**	0	0	3	0	0	0	**3**	0	0	**44**
% Trucks	0.9%	2.9%	0.0%	0.0%	**2.6%**	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	**0.4%**	0.0%	0.0%	0.0%	0.0%	6.5%	0.0%	**6.4%**	0.0%	0.0%	3.8%	0.0%	0.0%	0.0%	**3.8%**	0.0%	0.0%	**3.0%**
Buses	1	0	0	0	**1**	0	0	0	7	0	0	**7**	0	0	0	0	3	0	**3**	0	0	1	0	0	0	**1**	0	0	**12**
% Buses	0.9%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	**0.0%**	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.8%**
Pedestrians	0	0	0	0	**0**	9	19	0	0	0	0	**0**	10	12	0	0	0	0	**0**	13	10	0	0	0	0	**0**	8	11	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	95.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	80.0%	73.3%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	2	4	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	20.0%	26.7%	**0.0%**

Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Data Plot





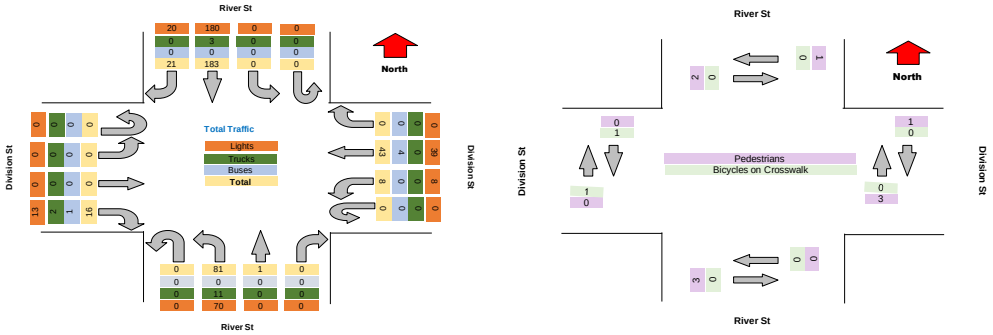
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

TSTData.com

Turning Movement Peak Hour Data (AM)

7:15:00 AM

Leg	River St							Division St							River St							Division St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
7:15:00 AM	4	46	0	0	**50**	2	0	0	9	1	0	**10**	0	0	0	0	10	0	**10**	0	0	1	0	0	0	**1**	0	0	**71**
7:30:00 AM	7	35	0	0	**42**	0	0	0	12	2	0	**14**	0	0	0	0	28	0	**28**	0	0	8	0	0	0	**8**	1	0	**92**
7:45:00 AM	5	56	0	0	**61**	0	1	0	8	3	0	**11**	1	3	0	0	24	0	**24**	0	3	5	0	0	0	**5**	0	0	**101**
8:00:00 AM	5	46	0	0	**51**	0	0	0	14	2	0	**16**	0	0	0	1	19	0	**20**	0	0	2	0	0	0	**2**	0	1	**89**
Grand Total	21	183	0	0	**204**	2	1	0	43	8	0	**51**	1	3	0	1	81	0	**82**	0	3	16	0	0	0	**16**	1	1	**353**
% Approach	10.3%	89.7%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	84.3%	15.7%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.2%	98.8%	0.0%	**0.0%**	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	
% Total	5.9%	51.8%	0.0%	0.0%	**57.8%**	0.0%	0.0%	0.0%	12.2%	2.3%	0.0%	**14.4%**	0.0%	0.0%	0.0%	0.3%	22.9%	0.0%	**23.2%**	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	**4.5%**	0.0%	0.0%	
PHF	0.750	0.817	0.000	0.000	**0.836**	0.000	0.000	0.000	0.768	0.667	0.000	**0.797**	0.000	0.000	0.000	0.250	0.723	0.000	**0.732**	0.000	0.000	0.500	0.000	0.000	0.000	**0.500**	0.000	0.000	**0.874**
Lights	20	180	0	0	**200**	0	0	0	39	8	0	**47**	0	0	0	0	70	0	**70**	0	0	13	0	0	0	**13**	0	0	**330**
% Lights	95.2%	98.4%	0.0%	0.0%	**98.0%**	0.0%	0.0%	0.0%	90.7%	100.0%	0.0%	**92.2%**	0.0%	0.0%	0.0%	0.0%	86.4%	0.0%	**85.4%**	0.0%	0.0%	81.3%	0.0%	0.0%	0.0%	**81.3%**	0.0%	0.0%	**93.5%**
Trucks	0	3	0	0	**3**	0	0	0	0	0	0	**0**	0	0	0	0	11	0	**11**	0	0	2	0	0	0	**2**	0	0	**16**
% Trucks	0.0%	1.6%	0.0%	0.0%	**1.5%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	13.6%	0.0%	**13.4%**	0.0%	0.0%	12.5%	0.0%	0.0%	0.0%	**12.5%**	0.0%	0.0%	**4.5%**
Buses	0	0	0	0	**0**	0	0	0	4	0	0	**4**	0	0	0	0	0	0	**0**	0	0	1	0	0	0	**1**	0	0	**5**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	9.3%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	6.3%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.4%**
Pedestrians	0	0	0	0	**0**	2	1	0	0	0	0	**0**	1	3	0	0	0	0	**0**	0	3	0	0	0	0	**0**	0	0	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	100.0%	**0.0%**



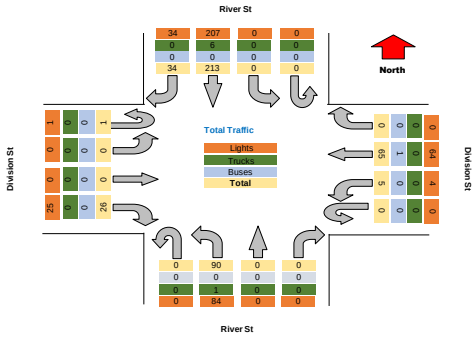
Intersection: Elm St Pine St
Location: Kennett Square, PA
Site: 01
Survey Date: Wednesday, 04-28-2021
GPS: 42.948550, -72.790034

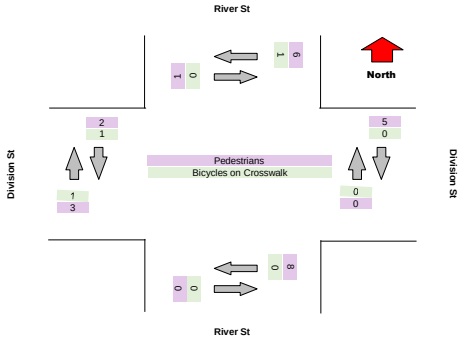
TRI-STATE TRAFFIC DATA
TSTData.com

Turning Movement Peak Hour Data (PM)

4:00:00 PM

Leg	River St							Division St							River St							Division St							
Direction	Southbound							Westbound							Northbound							Eastbound							
Start Time	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Right	Thru	Left	U-Turn	App Total	Peds CW	Peds CCW	Total
4:00:00 PM	8	64	0	0	**72**	0	1	0	25	1	0	**26**	3	0	0	0	26	0	**26**	5	0	6	0	0	0	**6**	0	0	**130**
4:15:00 PM	8	53	0	0	**61**	0	0	0	13	2	0	**15**	2	0	0	0	21	0	**21**	3	0	2	0	0	0	**2**	3	2	**99**
4:30:00 PM	6	52	0	0	**58**	0	1	0	11	1	0	**12**	0	0	0	0	24	0	**24**	0	0	6	0	0	1	**7**	1	1	**101**
4:45:00 PM	12	44	0	0	**56**	1	5	0	16	1	0	**17**	0	0	0	0	19	0	**19**	0	0	12	0	0	0	**12**	0	0	**104**
Grand Total	34	213	0	0	**247**	1	7	0	65	5	0	**70**	5	0	0	0	90	0	**90**	8	0	26	0	0	1	**27**	4	3	**434**
% Approach	13.8%	86.2%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	92.9%	7.1%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	**0.0%**	0.0%	0.0%	96.3%	0.0%	0.0%	3.7%	**0.0%**	0.0%	0.0%	
% Total	7.8%	49.1%	0.0%	0.0%	**56.9%**	0.0%	0.0%	0.0%	15.0%	1.2%	0.0%	**16.1%**	0.0%	0.0%	0.0%	0.0%	20.7%	0.0%	**20.7%**	0.0%	0.0%	6.0%	0.0%	0.0%	0.2%	**6.2%**	0.0%	0.0%	
PHF	0.708	0.832	0.000	0.000	**0.858**	0.000	0.000	0.000	0.650	0.625	0.000	**0.673**	0.000	0.000	0.000	0.000	0.865	0.000	**0.865**	0.000	0.000	0.542	0.000	0.000	0.250	**0.563**	0.000	0.000	**0.835**
Lights	34	207	0	0	**241**	0	0	0	64	4	0	**68**	0	0	0	0	84	0	**84**	0	0	25	0	0	1	**26**	0	0	**419**
% Lights	100.0%	97.2%	0.0%	0.0%	**97.6%**	0.0%	0.0%	0.0%	98.5%	80.0%	0.0%	**97.1%**	0.0%	0.0%	0.0%	0.0%	93.3%	0.0%	**93.3%**	0.0%	0.0%	96.2%	0.0%	0.0%	100.0%	**96.3%**	0.0%	0.0%	**96.5%**
Trucks	0	6	0	0	**6**	0	0	0	0	0	0	**0**	0	0	0	0	1	0	**1**	0	0	0	0	0	0	**0**	0	0	**7**
% Trucks	0.0%	2.8%	0.0%	0.0%	**2.4%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	**1.1%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**1.6%**
Buses	0	0	0	0	**0**	0	0	0	1	0	0	**1**	0	0	0	0	2	0	**2**	0	0	0	0	0	0	**0**	0	0	**3**
% Buses	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	**0.7%**
Pedestrians	0	0	0	0	**0**	1	6	0	0	0	0	**0**	5	0	0	0	0	0	**0**	8	0	0	0	0	0	**0**	3	2	0
% Pedestrians	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	85.7%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	75.0%	66.7%	**0.0%**
Bicycles on Crosswalk	0	0	0	0	**0**	0	1	0	0	0	0	**0**	0	0	0	0	0	0	**0**	0	0	0	0	0	0	**0**	1	1	0
% Bicycles on Crosswalk	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**	25.0%	33.3%	**0.0%**





Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

Start Time	Mon 12-Sep-22	Tue 13-Sep-22	Wed 14-Sep-22	Thu 15-Sep-22	Fri 16-Sep-22	Average Day	Sat 17-Sep-22	Sun 18-Sep-22	Week Average
12:00 AM	*	*	*	34	24	29	59	60	44
01:00	*	*	*	19	18	18	37	28	26
02:00	*	*	*	10	7	8	22	24	16
03:00	*	*	*	7	11	9	6	17	10
04:00	*	*	*	10	12	11	15	12	12
05:00	*	*	*	23	27	25	10	9	17
06:00	*	*	*	119	98	108	32	25	68
07:00	*	*	*	272	237	254	74	39	156
08:00	*	*	*	**324**	**288**	**306**	102	81	199
09:00	*	*	*	253	256	254	159	146	204
10:00	*	*	*	231	232	232	**242**	159	216
11:00	*	*	*	241	278	260	226	**174**	**230**
12:00 PM	*	*	276	256	266	266	284	225	261
01:00	*	*	277	300	318	298	**312**	199	281
02:00	*	*	284	272	329	295	232	218	267
03:00	*	*	318	327	362	336	228	**255**	**298**
04:00	*	*	**341**	**371**	**367**	**360**	217	171	293
05:00	*	*	309	330	307	315	225	179	270
06:00	*	*	227	254	283	255	205	165	227
07:00	*	*	192	247	212	217	218	149	204
08:00	*	*	161	168	179	169	168	122	160
09:00	*	*	117	116	165	133	137	77	122
10:00	*	*	81	102	106	96	91	50	86
11:00	*	*	78	62	77	72	73	46	67
Day Total	0	0	2661	4348	4459	4326	3374	2630	3734
% Avg. WkDay	0.0%	0.0%	61.5%	100.5%	103.1%				
% Avg. Week	0.0%	0.0%	71.3%	116.4%	119.4%	115.9%	90.4%	70.4%	
AM Peak	-	-	-	08:00	08:00	- 08:00	- 10:00	11:00	- 11:00 - -
Vol.	-	-	-	324	288	- 306	- 242	174	- 230 - -
PM Peak	-	-	16:00	16:00	16:00	- 16:00	- 13:00	15:00	- 15:00 - -
Vol.	-	-	341	371	367	- 360	- 312	255	- 298 - -

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

Start Time	Mon 12-Sep-22	Tue 13-Sep-22	Wed 14-Sep-22	Thu 15-Sep-22	Fri 16-Sep-22	Average Day	Sat 17-Sep-22	Sun 18-Sep-22	Week Average
12:00 AM	*	*	*	10	20	15	45	37	28
01:00	*	*	*	10	10	10	26	23	17
02:00	*	*	*	1	5	3	11	18	9
03:00	*	*	*	6	5	6	17	9	9
04:00	*	*	*	17	16	16	10	7	12
05:00	*	*	*	37	34	36	22	9	26
06:00	*	*	*	108	105	106	48	21	70
07:00	*	*	*	138	165	152	81	43	107
08:00	*	*	*	146	185	166	134	87	138
09:00	*	*	*	173	199	186	203	115	172
10:00	*	*	*	**187**	208	**198**	229	139	191
11:00	*	*	*	151	**231**	191	**240**	**172**	**198**
12:00 PM	*	*	**251**	203	**248**	**234**	**246**	**178**	**225**
01:00	*	*	196	218	227	214	225	157	205
02:00	*	*	195	210	240	215	183	134	192
03:00	*	*	205	223	240	223	163	147	196
04:00	*	*	212	230	240	227	151	150	197
05:00	*	*	228	**235**	239	234	147	118	193
06:00	*	*	207	177	207	197	187	126	181
07:00	*	*	153	167	183	168	164	94	152
08:00	*	*	99	127	121	116	115	92	111
09:00	*	*	66	77	105	83	91	46	77
10:00	*	*	44	48	72	55	68	34	53
11:00	*	*	31	32	55	39	59	21	40
Day Total	0	0	1887	2931	3360	3090	2865	1977	2799
% Avg. WkDay	0.0%	0.0%	61.1%	94.9%	108.7%				
% Avg. Week	0.0%	0.0%	67.4%	104.7%	120.0%	110.4%	102.4%	70.6%	
AM Peak	-	-	-	10:00	11:00	10:00	11:00	11:00	11:00
Vol.	-	-	-	187	231	198	240	172	198
PM Peak	-	-	12:00	17:00	12:00	12:00	12:00	12:00	12:00
Vol.	-	-	251	235	248	234	246	178	225

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

Start Time	Mon 12-Sep-22	Tue 13-Sep-22	Wed 14-Sep-22	Thu 15-Sep-22	Fri 16-Sep-22	Average Day	Sat 17-Sep-22	Sun 18-Sep-22	Week Average
12:00 AM	*	*	*	29	27	28	48	35	35
01:00	*	*	*	21	21	21	32	20	24
02:00	*	*	*	13	11	12	16	21	15
03:00	*	*	*	6	10	8	24	17	14
04:00	*	*	*	18	23	20	15	14	18
05:00	*	*	*	44	35	40	18	18	29
06:00	*	*	*	104	88	96	50	22	66
07:00	*	*	*	268	272	**270**	81	49	168
08:00	*	*	*	**290**	248	269	137	81	189
09:00	*	*	*	266	222	244	176	142	202
10:00	*	*	*	208	245	226	208	168	207
11:00	*	*	*	238	**279**	258	**242**	**178**	**234**
12:00 PM	*	*	283	263	290	279	**282**	**237**	271
01:00	*	*	284	298	316	299	282	204	277
02:00	*	*	276	306	335	306	233	217	273
03:00	*	*	290	314	324	309	213	218	272
04:00	*	*	**380**	**393**	344	**372**	182	170	**294**
05:00	*	*	328	330	**365**	341	198	155	275
06:00	*	*	239	270	272	260	218	176	235
07:00	*	*	186	203	194	194	191	139	183
08:00	*	*	159	162	184	168	152	113	154
09:00	*	*	102	116	147	122	121	77	113
10:00	*	*	96	75	102	91	100	56	86
11:00	*	*	61	48	73	61	62	37	56
Day Total	0	0	2684	4283	4427	4294	3281	2564	3690
% Avg. WkDay	0.0%	0.0%	62.5%	99.7%	103.1%				
% Avg. Week	0.0%	0.0%	72.7%	116.1%	120.0%	116.4%	88.9%	69.5%	
AM Peak	-	-	-	08:00	11:00	- 07:00	- 11:00	11:00	- 11:00	-	-
Vol.	-	-	-	290	279	- 270	- 242	178	- 234	-	-
PM Peak	-	-	16:00	16:00	17:00	- 16:00	- 12:00	12:00	- 16:00	-	-
Vol.	-	-	380	393	365	- 372	- 282	237	- 294	-	-

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

Start Time	Mon 12-Sep-22	Tue 13-Sep-22	Wed 14-Sep-22	Thu 15-Sep-22	Fri 16-Sep-22	Average Day	Sat 17-Sep-22	Sun 18-Sep-22	Week Average
12:00 AM	*	*	*	21	22	22	46	54	36
01:00	*	*	*	11	18	14	43	26	24
02:00	*	*	*	3	5	4	14	24	12
03:00	*	*	*	7	11	9	15	12	11
04:00	*	*	*	11	7	9	7	8	8
05:00	*	*	*	25	31	28	7	9	18
06:00	*	*	*	64	64	64	22	21	43
07:00	*	*	*	148	118	133	64	30	90
08:00	*	*	*	166	174	170	80	60	120
09:00	*	*	*	139	165	152	138	121	141
10:00	*	*	*	137	204	170	174	131	162
11:00	*	*	*	**168**	**235**	**202**	**210**	**150**	**191**
12:00 PM	*	*	227	203	218	216	209	**197**	211
01:00	*	*	218	220	238	225	**255**	192	225
02:00	*	*	245	228	295	256	240	186	239
03:00	*	*	266	252	**298**	**272**	215	173	**241**
04:00	*	*	**272**	**285**	258	272	211	155	236
05:00	*	*	242	277	264	261	197	120	220
06:00	*	*	187	204	216	202	178	118	181
07:00	*	*	170	204	185	186	179	107	169
08:00	*	*	138	150	144	144	132	77	128
09:00	*	*	102	100	128	110	118	31	96
10:00	*	*	51	57	96	68	83	35	64
11:00	*	*	39	34	65	46	60	25	45
Day Total	0	0	2157	3114	3459	3235	2897	2062	2911
% Avg. WkDay	0.0%	0.0%	66.7%	96.3%	106.9%				
% Avg. Week	0.0%	0.0%	74.1%	107.0%	118.8%	111.1%	99.5%	70.8%	
AM Peak	-	-	-	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	-	-	-	168	235	202	210	150	191
PM Peak	-	-	16:00	16:00	15:00	15:00	13:00	12:00	15:00
Vol.	-	-	272	285	298	272	255	197	241

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/14/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	3	24	77	128	42	4	0	0	0	0	0	0	0	0	278	24	27
13:00	0	22	88	119	37	9	1	**1**	0	0	0	0	0	0	277	24	28
14:00	3	**27**	73	129	42	8	**2**	0	0	0	0	0	0	0	284	25	28
15:00	**4**	20	82	133	60	**17**	1	0	0	0	0	0	0	0	317	26	29
16:00	4	20	78	**166**	**65**	6	2	0	0	0	0	0	0	0	**341**	25	28
17:00	4	27	**90**	121	53	13	1	0	0	0	0	0	0	0	309	25	28
18:00	4	20	62	97	35	7	2	0	0	0	0	0	0	0	227	25	28
19:00	3	14	56	98	17	3	1	0	0	0	0	0	0	0	192	23	27
20:00	1	8	48	66	31	5	2	0	0	0	0	0	0	0	161	26	28
21:00	0	2	28	61	21	4	1	0	0	0	0	0	0	0	117	26	28
22:00	0	2	10	48	19	2	0	0	0	0	0	0	0	0	81	26	28
23:00	1	2	17	39	16	3	0	0	0	0	0	0	0	0	78	26	28
Total	27	188	709	1205	438	81	13	1	0	0	0	0	0	0	2662		
Percent	1.0%	7.1%	26.6%	45.3%	16.5%	3.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	15:00 4	14:00 27	17:00 90	16:00 166	16:00 65	15:00 17	14:00 2	13:00 1							16:00 341		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/15/22	0	1	11	14	8	0	0	0	0	0	0	0	0	0	34	25	27
01:00	0	0	4	5	7	3	0	0	0	0	0	0	0	0	19	29	32
02:00	0	0	1	6	2	1	0	0	0	0	0	0	0	0	10	27	31
03:00	0	0	4	2	1	0	0	0	0	0	0	0	0	0	7	23	27
04:00	0	0	1	3	4	1	1	0	0	0	0	0	0	0	10	31	36
05:00	0	1	3	9	10	0	0	0	0	0	0	0	0	0	23	27	28
06:00	1	9	34	49	20	5	1	0	0	0	0	0	0	0	119	26	29
07:00	4	29	79	108	42	**8**	1	0	0	0	0	0	0	0	271	25	28
08:00	**10**	**45**	**89**	**129**	**44**	6	0	**1**	0	0	0	0	0	0	**324**	24	27
09:00	4	30	80	96	35	7	1	0	0	0	0	0	0	0	253	24	28
10:00	4	13	66	107	34	6	1	0	0	0	0	0	0	0	231	24	28
11:00	2	14	61	115	42	5	**2**	0	0	0	0	0	0	0	241	25	28
12 PM	1	4	55	136	56	1	**3**	0	0	0	0	0	0	0	256	25	28
13:00	**8**	28	89	137	35	3	1	0	0	0	0	0	0	0	301	23	27
14:00	4	18	51	142	48	**11**	0	0	0	0	0	0	0	0	274	25	28
15:00	7	17	**104**	129	**60**	8	2	0	0	0	0	0	0	0	327	25	28
16:00	4	27	98	**174**	56	11	1	0	0	0	0	0	0	0	**371**	25	28
17:00	7	**34**	104	128	45	10	2	0	0	0	0	0	0	0	330	24	28
18:00	1	10	83	117	37	6	0	0	0	0	0	0	0	0	254	24	28
19:00	6	20	67	108	37	9	0	0	0	0	0	0	0	0	247	25	28
20:00	1	10	66	73	14	4	0	0	0	0	0	0	0	0	168	23	27
21:00	1	2	13	63	29	7	0	**1**	0	0	0	0	0	0	116	27	30
22:00	0	5	16	57	18	5	1	0	0	0	0	0	0	0	102	26	29
23:00	0	2	16	26	17	1	0	0	0	0	0	0	0	0	62	26	28
Total	65	319	1195	1933	701	118	17	2	0	0	0	0	0	0	4350		
Percent	1.5%	7.3%	27.5%	44.4%	16.1%	2.7%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	08:00	08:00	07:00	11:00	08:00							08:00		
Vol.	10	45	89	129	44	8	2	1							324		
PM Peak	13:00	17:00	15:00	16:00	15:00	14:00	12:00	21:00							16:00		
Vol.	8	34	104	174	60	11	3	1							371		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/16/22	0	0	4	12	4	4	0	0	0	0	0	0	0	0	24	29	32
01:00	0	0	4	6	3	4	1	0	0	0	0	0	0	0	18	31	34
02:00	0	0	0	5	2	0	0	0	0	0	0	0	0	0	7	26	28
03:00	0	0	1	9	1	0	0	0	0	0	0	0	0	0	11	23	26
04:00	0	1	0	7	3	0	1	0	0	0	0	0	0	0	12	27	35
05:00	0	0	5	7	11	4	0	0	0	0	0	0	0	0	27	28	32
06:00	1	4	25	38	25	3	**2**	0	0	0	0	0	0	0	98	27	29
07:00	**7**	22	52	104	**49**	3	0	0	0	0	0	0	0	0	237	25	28
08:00	5	**27**	**83**	122	48	2	1	0	0	0	0	0	0	0	**288**	24	27
09:00	5	24	71	121	33	**6**	0	0	0	0	0	0	0	0	260	24	27
10:00	3	22	71	108	26	2	0	0	0	0	0	0	0	0	232	23	27
11:00	4	23	64	**135**	44	5	2	**1**	0	0	0	0	0	0	278	25	28
12 PM	7	14	98	112	31	4	0	0	0	0	0	0	0	0	266	23	27
13:00	**9**	25	91	130	58	5	0	0	0	0	0	0	0	0	318	25	28
14:00	7	**39**	81	134	59	9	0	0	0	0	0	0	0	0	329	25	28
15:00	8	27	95	**163**	60	6	**3**	0	0	0	0	0	0	0	362	25	28
16:00	4	31	**104**	145	**66**	**13**	3	**1**	0	0	0	0	0	0	**367**	26	28
17:00	1	23	74	151	49	5	3	0	0	**1**	0	0	0	0	307	25	28
18:00	4	16	79	143	35	6	0	0	0	0	0	0	0	0	283	23	27
19:00	2	8	67	89	31	12	2	1	0	0	0	0	0	0	212	26	30
20:00	0	7	55	74	36	5	2	0	0	0	0	0	0	0	179	26	28
21:00	1	10	45	67	37	4	1	0	0	0	0	0	0	0	165	26	28
22:00	0	5	23	46	25	6	1	0	0	0	0	0	0	0	106	27	30
23:00	0	2	14	34	23	4	0	0	0	0	0	0	0	0	77	27	29
Total	68	330	1206	1962	759	112	22	3	0	1	0	0	0	0	4463		
Percent	1.5%	7.4%	27.0%	44.0%	17.0%	2.5%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	11:00	07:00	09:00	06:00	11:00							08:00		
Vol.	7	27	83	135	49	6	2	1							288		
PM Peak	13:00	14:00	16:00	15:00	16:00	16:00	15:00	16:00		17:00					16:00		
Vol.	9	39	104	163	66	13	3	1		1					367		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/17/22	0	1	11	33	12	2	0	0	0	0	0	0	0	0	59	26	28
01:00	0	0	5	23	7	2	0	0	0	0	0	0	0	0	37	26	29
02:00	0	0	1	12	7	2	0	0	0	0	0	0	0	0	22	28	31
03:00	0	0	1	2	3	0	0	0	0	0	0	0	0	0	6	27	28
04:00	0	1	3	7	3	1	0	0	0	0	0	0	0	0	15	26	30
05:00	0	0	1	6	1	2	0	0	0	0	0	0	0	0	10	30	32
06:00	0	0	4	16	12	1	0	0	0	0	0	0	0	0	33	27	28
07:00	0	1	8	44	17	3	0	**1**	0	0	0	0	0	0	74	26	29
08:00	1	3	25	35	29	**9**	0	0	0	0	0	0	0	0	102	27	31
09:00	1	13	36	65	36	6	**2**	0	0	0	0	0	0	0	159	26	29
10:00	1	**20**	65	**110**	**46**	4	0	0	0	0	0	0	0	0	**246**	25	28
11:00	**3**	14	**66**	106	33	5	0	0	0	0	0	0	0	0	227	24	28
12 PM	**14**	**46**	78	105	38	4	1	0	0	0	0	0	0	0	286	24	27
13:00	6	30	**97**	**130**	40	9	0	0	0	0	0	0	0	0	**312**	24	28
14:00	3	20	71	90	40	6	**2**	0	0	0	0	0	0	0	232	25	28
15:00	1	13	59	107	44	3	0	0	0	0	0	0	0	0	227	25	28
16:00	0	21	57	87	**47**	3	2	0	0	0	0	0	0	0	217	26	28
17:00	5	16	48	111	34	**11**	0	0	0	0	0	0	0	0	225	25	28
18:00	2	11	48	108	30	5	1	0	0	0	0	0	0	0	205	24	28
19:00	4	8	66	98	35	6	1	0	0	0	0	0	0	0	218	25	28
20:00	2	5	55	74	28	4	0	0	0	0	0	0	0	0	168	25	28
21:00	0	6	33	58	30	10	0	0	0	0	0	0	0	0	137	27	30
22:00	0	3	19	39	24	4	2	0	0	0	0	0	0	0	91	27	30
23:00	1	1	10	38	18	3	2	0	0	0	0	0	0	0	73	27	31
Total	44	233	867	1504	614	105	13	1	0	0	0	0	0	0	3381		
Percent	1.3%	6.9%	25.6%	44.5%	18.2%	3.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	11:00	10:00	10:00	08:00	09:00	07:00							10:00		
Vol.	3	20	66	110	46	9	2	1							246		
PM Peak	12:00	12:00	13:00	13:00	16:00	17:00	14:00								13:00		
Vol.	14	46	97	130	47	11	2								312		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/18/22	0	0	16	23	12	**7**	1	0	**1**	0	0	0	0	0	60	29	33
01:00	0	1	7	8	10	1	0	**1**	0	0	0	0	0	0	28	27	32
02:00	0	0	1	7	13	2	0	1	0	0	0	0	0	0	24	28	33
03:00	0	1	1	6	8	1	0	0	0	0	0	0	0	0	17	28	29
04:00	0	0	2	4	4	2	0	0	0	0	0	0	0	0	12	29	32
05:00	**1**	0	1	6	1	0	0	0	0	0	0	0	0	0	9	23	26
06:00	0	0	6	11	8	0	0	0	0	0	0	0	0	0	25	26	28
07:00	0	0	5	15	15	3	1	0	0	0	0	0	0	0	39	28	32
08:00	1	2	10	40	20	6	1	1	0	0	0	0	0	0	81	27	32
09:00	1	2	28	64	**43**	7	1	0	0	0	0	0	0	0	146	27	29
10:00	0	7	**43**	67	31	7	**4**	0	0	0	0	0	0	0	159	26	31
11:00	1	**13**	42	**94**	20	4	0	0	0	0	0	0	0	0	**174**	23	27
12 PM	**7**	15	53	97	38	**11**	**3**	0	0	0	0	0	0	0	224	26	30
13:00	2	12	53	90	33	7	2	0	0	0	0	0	0	0	199	25	28
14:00	2	6	57	104	**43**	6	0	0	0	0	0	0	0	0	218	25	28
15:00	1	**20**	**74**	**116**	36	6	2	0	0	0	0	0	0	0	**255**	24	28
16:00	1	3	49	73	34	10	1	0	0	0	0	0	0	0	171	26	30
17:00	2	7	45	86	32	5	2	0	0	0	0	0	0	0	179	25	28
18:00	3	2	37	91	30	2	0	0	0	0	0	0	0	0	165	25	27
19:00	1	3	41	76	22	6	0	0	0	0	0	0	0	0	149	25	28
20:00	1	1	36	60	23	1	0	0	0	0	0	0	0	0	122	25	27
21:00	0	1	15	44	12	4	0	**1**	0	0	0	0	0	0	77	26	30
22:00	0	1	7	26	12	2	2	0	0	0	0	0	0	0	50	27	32
23:00	0	1	7	27	8	2	1	0	0	0	0	0	0	0	46	26	30
Total	24	98	636	1235	508	102	21	4	1	0	0	0	0	0	2629		
Percent	0.9%	3.7%	24.2%	47.0%	19.3%	3.9%	0.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	05:00	11:00	10:00	11:00	09:00	00:00	10:00	01:00	00:00						11:00		
Vol.	1	13	43	94	43	7	4	1	1						174		
PM Peak	12:00	15:00	15:00	15:00	14:00	12:00	12:00	21:00							15:00		
Vol.	7	20	74	116	43	11	3	1							255		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/19/22	1	1	7	16	4	1	**2**	0	0	0	0	0	0	0	32	26	34
01:00	0	0	3	2	2	1	0	0	0	0	0	0	0	0	8	28	31
02:00	0	0	0	4	4	0	2	0	0	0	0	0	0	0	10	35	37
03:00	0	0	0	5	2	1	0	0	0	0	0	0	0	0	8	28	31
04:00	1	1	2	5	2	2	0	0	0	0	0	0	0	0	13	29	32
05:00	0	1	8	11	12	2	1	0	**1**	0	0	0	0	0	36	28	35
06:00	1	5	27	57	19	6	0	0	0	0	0	0	0	0	115	26	29
07:00	2	17	64	98	32	3	0	0	0	0	0	0	0	0	216	24	27
08:00	2	10	64	**152**	**61**	2	0	0	0	0	0	0	0	0	**291**	25	27
09:00	1	14	**74**	104	30	3	1	0	0	0	0	0	0	0	227	23	27
10:00	0	**25**	59	85	31	**8**	2	0	0	0	0	0	0	0	210	25	28
11:00	**3**	10	57	101	37	4	1	0	0	0	0	0	0	0	213	25	28
12 PM	**10**	**13**	**100**	**99**	**29**	**4**	**1**	0	0	0	0	0	0	0	**256**	23	27
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	21	97	465	739	265	37	10	0	1	0	0	0	0	0	1635		
Percent	1.3%	5.9%	28.4%	45.2%	16.2%	2.3%	0.6%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	09:00	08:00	08:00	10:00	00:00		05:00						08:00		
Vol.	3	25	74	152	61	8	2		1						291		
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00	12:00								12:00		
Vol.	10	13	100	99	29	4	1								256		
Total	249	1265	5078	8578	3285	555	96	11	2	1	0	0	0	0	19120		
Percent	1.3%	6.6%	26.6%	44.9%	17.2%	2.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	15 MPH
50th Percentile :	20 MPH
85th Percentile :	25 MPH
95th Percentile :	28 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	13656
Percent in Pace :	71.4%
Number of Vehicles > 30 MPH :	554
Percent of Vehicles > 30 MPH :	2.9%
Mean Speed(Average) :	21 MPH

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/14/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	**5**	**24**	**106**	86	24	6	0	0	0	0	0	0	0	0	**251**	23	27
13:00	1	16	63	**87**	23	5	1	0	0	0	0	0	0	0	196	23	28
14:00	1	16	59	85	**31**	1	2	0	0	0	0	0	0	0	195	24	27
15:00	1	11	79	77	29	6	1	**1**	0	0	0	0	0	0	205	25	28
16:00	5	21	72	81	28	5	0	0	0	0	0	0	0	0	212	24	28
17:00	4	16	92	81	27	6	2	0	0	0	0	0	0	0	228	24	28
18:00	0	23	82	73	21	**8**	0	0	0	0	0	0	0	0	207	23	28
19:00	3	20	61	50	14	3	2	0	0	0	0	0	0	0	153	23	28
20:00	1	6	38	35	15	3	1	0	0	0	0	0	0	0	99	25	28
21:00	0	4	21	21	13	4	**3**	0	0	0	0	0	0	0	66	27	33
22:00	0	0	15	16	7	4	1	1	0	0	0	0	0	0	44	28	33
23:00	0	1	11	15	4	0	0	0	0	0	0	0	0	0	31	23	27
Total	21	158	699	707	236	51	13	2	0	0	0	0	0	0	1887		
Percent	1.1%	8.4%	37.0%	37.5%	12.5%	2.7%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak																	
Vol.																	
PM Peak	12:00	12:00	12:00	13:00	14:00	18:00	21:00	15:00							12:00		
Vol.	5	24	106	87	31	8	3	1							251		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/15/22	0	0	1	6	2	1	0	0	0	0	0	0	0	0	10	27	31
01:00	0	0	0	9	1	0	0	0	0	0	0	0	0	0	10	23	26
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	28	28
03:00	0	0	1	4	0	1	0	0	0	0	0	0	0	0	6	29	32
04:00	0	0	6	4	5	2	0	0	0	0	0	0	0	0	17	28	31
05:00	0	3	12	9	9	1	**3**	0	0	0	0	0	0	0	37	28	35
06:00	0	11	52	32	10	2	0	**1**	0	0	0	0	0	0	108	23	27
07:00	3	11	48	56	18	2	0	0	0	0	0	0	0	0	138	23	27
08:00	4	14	52	60	12	3	1	0	0	0	0	0	0	0	146	23	27
09:00	3	**23**	58	60	24	**4**	1	0	0	0	0	0	0	0	173	24	28
10:00	**5**	20	**64**	**70**	**25**	2	1	0	0	0	0	0	0	0	**187**	23	27
11:00	0	5	60	68	17	1	0	0	0	0	0	0	0	0	151	23	27
12 PM	1	16	66	90	28	2	0	0	0	0	0	0	0	0	203	23	27
13:00	4	**31**	84	72	24	3	0	0	0	0	0	0	0	0	218	23	27
14:00	3	29	58	89	27	3	0	**1**	0	0	0	0	0	0	210	23	27
15:00	**5**	15	82	75	**39**	5	1	0	0	0	0	0	0	0	222	25	28
16:00	2	15	**85**	84	37	6	1	0	0	0	0	0	0	0	230	25	28
17:00	1	20	80	**95**	29	**7**	**2**	1	0	0	0	0	0	0	**235**	24	28
18:00	1	10	69	69	25	3	0	0	0	0	0	0	0	0	177	24	27
19:00	3	19	56	70	17	1	1	0	0	0	0	0	0	0	167	23	27
20:00	1	7	42	59	15	2	1	0	0	0	0	0	0	0	127	23	27
21:00	0	2	21	29	17	7	0	1	0	0	0	0	0	0	77	27	31
22:00	0	2	12	25	8	1	0	0	0	0	0	0	0	0	48	25	28
23:00	0	1	12	12	4	2	1	0	0	0	0	0	0	0	32	26	32
Total	36	254	1021	1147	394	61	13	4	0	0	0	0	0	0	2930		
Percent	1.2%	8.7%	34.8%	39.1%	13.4%	2.1%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	10:00	10:00	10:00	09:00	05:00	06:00							10:00		
Vol.	5	23	64	70	25	4	3	1							187		
PM Peak	15:00	13:00	16:00	17:00	15:00	17:00	17:00	14:00							17:00		
Vol.	5	31	85	95	39	7	2	1							235		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/16/22	0	0	2	10	6	2	0	0	0	0	0	0	0	0	20	28	31
01:00	0	1	1	4	4	0	0	0	0	0	0	0	0	0	10	27	28
02:00	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5	20	22
03:00	0	0	1	2	1	1	0	0	0	0	0	0	0	0	5	30	32
04:00	0	2	4	6	3	1	0	0	0	0	0	0	0	0	16	26	29
05:00	0	0	11	9	11	2	**1**	0	0	0	0	0	0	0	34	28	32
06:00	2	13	39	36	14	1	0	0	0	0	0	0	0	0	105	23	27
07:00	3	19	62	57	20	4	0	0	0	0	0	0	0	0	165	23	27
08:00	1	15	83	62	24	0	0	0	0	0	0	0	0	0	185	23	27
09:00	**5**	13	69	85	22	5	0	0	0	0	0	0	0	0	199	23	27
10:00	1	**24**	**91**	69	19	3	1	0	0	0	0	0	0	0	208	23	27
11:00	0	13	65	**108**	**38**	**7**	0	0	0	0	0	0	0	0	**231**	25	28
12 PM	**5**	**24**	**106**	88	22	3	0	0	0	0	0	0	0	0	**248**	23	26
13:00	2	17	90	88	22	8	0	0	0	0	0	0	0	0	227	23	28
14:00	3	23	81	92	32	**9**	0	0	0	0	0	0	0	0	240	24	28
15:00	2	15	88	96	35	3	1	0	0	0	0	0	0	0	240	24	27
16:00	1	20	87	97	27	7	1	0	0	0	0	0	0	0	240	23	28
17:00	0	12	78	**98**	**43**	6	**2**	0	0	0	0	0	0	0	239	25	28
18:00	4	16	76	77	25	7	1	0	0	0	0	0	0	0	206	24	28
19:00	0	15	68	70	26	4	0	0	0	0	0	0	0	0	183	24	28
20:00	0	2	47	58	13	1	0	0	0	0	0	0	0	0	121	23	27
21:00	1	3	50	24	24	2	1	0	0	0	0	0	0	0	105	26	28
22:00	0	4	22	25	19	2	0	0	0	0	0	0	0	0	72	26	28
23:00	0	2	18	18	14	3	0	0	0	0	0	0	0	0	55	27	29
Total	30	253	1243	1280	464	81	8	0	0	0	0	0	0	0	3359		
Percent	0.9%	7.5%	37.0%	38.1%	13.8%	2.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	10:00	10:00	11:00	11:00	11:00	05:00								11:00		
Vol.	5	24	91	108	38	7	1								231		
PM Peak	12:00	12:00	12:00	17:00	17:00	14:00	17:00								12:00		
Vol.	5	24	106	98	43	9	2								248		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/17/22	0	1	11	21	8	4	0	0	0	0	0	0	0	0	45	27	31
01:00	0	1	9	11	5	0	0	0	0	0	0	0	0	0	26	25	27
02:00	0	0	2	6	2	0	1	0	0	0	0	0	0	0	11	27	36
03:00	0	3	5	5	3	1	0	0	0	0	0	0	0	0	17	26	29
04:00	0	1	4	4	1	0	0	0	0	0	0	0	0	0	10	23	26
05:00	0	2	8	7	5	0	0	0	0	0	0	0	0	0	22	25	27
06:00	0	1	16	21	8	2	0	**1**	0	0	0	0	0	0	49	26	30
07:00	0	4	25	27	20	4	1	0	0	0	0	0	0	0	81	27	30
08:00	1	9	53	48	17	**5**	0	0	0	0	0	0	0	0	133	24	28
09:00	1	22	61	86	**30**	3	0	0	0	0	0	0	0	0	203	24	27
10:00	**4**	**33**	92	68	27	3	**2**	0	0	0	0	0	0	0	229	23	27
11:00	3	20	**95**	**102**	18	3	1	0	0	0	0	0	0	0	**242**	23	26
12 PM	**8**	**37**	90	**86**	22	4	0	0	0	0	0	0	0	0	**247**	23	27
13:00	3	17	**102**	82	16	4	**1**	0	0	0	0	0	0	0	225	23	27
14:00	3	9	72	77	19	3	0	0	0	0	0	0	0	0	183	23	27
15:00	3	10	52	64	**25**	**9**	0	0	0	0	0	0	0	0	163	25	29
16:00	0	8	54	59	22	6	1	**1**	0	0	0	0	0	0	151	25	29
17:00	1	7	54	54	23	6	1	1	0	0	0	0	0	0	147	25	29
18:00	3	14	70	71	22	5	0	1	0	0	0	0	0	0	186	24	28
19:00	0	14	64	59	25	2	0	0	0	0	0	0	0	0	164	24	27
20:00	1	15	32	47	17	3	0	0	0	0	0	0	0	0	115	24	28
21:00	0	7	24	42	15	3	0	0	0	0	0	0	0	0	91	25	28
22:00	0	2	23	26	12	4	1	0	0	0	0	0	0	0	68	26	30
23:00	0	3	20	29	5	2	0	0	0	0	0	0	0	0	59	23	28
Total	31	240	1038	1102	367	76	9	4	0	0	0	0	0	0	2867		
Percent	1.1%	8.4%	36.2%	38.4%	12.8%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	11:00	11:00	09:00	08:00	10:00	06:00							11:00		
Vol.	4	33	95	102	30	5	2	1							242		
PM Peak	12:00	12:00	13:00	12:00	15:00	15:00	13:00	16:00							12:00		
Vol.	8	37	102	86	25	9	1	1							247		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/18/22	0	3	7	18	7	2	0	0	0	0	0	0	0	0	37	26	29
01:00	0	1	2	13	4	1	**2**	0	0	0	0	0	0	0	23	28	36
02:00	0	0	3	10	4	1	0	0	0	0	0	0	0	0	18	26	29
03:00	0	1	3	3	2	0	0	0	0	0	0	0	0	0	9	25	27
04:00	0	0	2	1	3	1	0	0	0	0	0	0	0	0	7	28	32
05:00	0	1	3	1	3	1	0	0	0	0	0	0	0	0	9	28	31
06:00	0	0	6	11	3	1	0	0	0	0	0	0	0	0	21	25	28
07:00	0	1	13	19	7	3	0	0	0	0	0	0	0	0	43	26	30
08:00	**1**	1	29	39	12	4	1	0	0	0	0	0	0	0	87	25	29
09:00	1	5	38	41	22	**8**	0	0	0	0	0	0	0	0	115	26	30
10:00	0	9	46	55	**26**	3	0	0	0	0	0	0	0	0	139	25	28
11:00	1	**19**	**69**	**65**	13	5	0	0	0	0	0	0	0	0	**172**	23	27
12 PM	**4**	10	**72**	60	**26**	6	0	0	0	0	0	0	0	0	**178**	25	28
13:00	1	9	55	**66**	19	6	**1**	0	0	0	0	0	0	0	157	24	28
14:00	0	7	65	42	18	2	0	0	0	0	0	0	0	0	134	23	27
15:00	0	**12**	49	60	17	**9**	0	0	0	0	0	0	0	0	147	25	29
16:00	1	7	54	63	23	2	0	0	0	0	0	0	0	0	150	24	27
17:00	0	9	49	37	17	5	1	0	0	0	0	0	0	0	118	25	29
18:00	1	10	49	49	14	3	0	0	0	0	0	0	0	0	126	23	27
19:00	0	3	27	42	18	3	1	0	0	0	0	0	0	0	94	26	28
20:00	1	2	40	29	16	3	1	0	0	0	0	0	0	0	92	25	28
21:00	0	3	20	14	8	1	0	0	0	0	0	0	0	0	46	25	28
22:00	0	1	9	14	7	2	1	0	0	0	0	0	0	0	34	27	32
23:00	0	1	4	9	7	0	0	0	0	0	0	0	0	0	21	26	28
Total	11	115	714	761	296	72	8	0	0	0	0	0	0	0	1977		
Percent	0.6%	5.8%	36.1%	38.5%	15.0%	3.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	11:00	10:00	09:00	01:00								11:00		
Vol.	1	19	69	65	26	8	2								172		
PM Peak	12:00	15:00	12:00	13:00	12:00	15:00	13:00								12:00		
Vol.	4	12	72	66	26	9	1								178		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: CONGRESS ST
Segment: 115' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.72833, -73.687639

WB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/19/22	0	0	4	6	1	0	0	0	0	0	0	0	0	0	11	23	26
01:00	0	0	5	1	3	1	0	0	0	0	0	0	0	0	10	28	31
02:00	0	0	1	2	1	0	0	0	0	0	0	0	0	0	4	26	28
03:00	0	0	1	1	1	0	0	0	0	0	0	0	0	0	3	26	28
04:00	1	1	7	4	3	1	0	0	0	0	0	0	0	0	17	26	29
05:00	0	0	14	12	5	0	0	0	0	0	0	0	0	0	31	24	27
06:00	**2**	5	44	49	17	1	0	0	0	0	0	0	0	0	118	24	27
07:00	1	**14**	51	57	27	3	0	0	0	0	0	0	0	0	153	25	28
08:00	2	12	61	81	**31**	4	0	**1**	0	0	0	0	0	0	**192**	25	28
09:00	0	11	**74**	**84**	15	4	0	0	0	0	0	0	0	0	188	23	27
10:00	0	13	70	74	18	3	**2**	0	0	0	0	0	0	0	180	23	27
11:00	1	11	65	80	21	**6**	1	0	0	0	0	0	0	0	185	24	28
12 PM	**2**	**27**	**93**	**54**	**21**	**2**	**1**	0	0	0	0	0	0	0	**200**	23	27
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	9	94	490	505	164	25	4	1	0	0	0	0	0	0	1292		
Percent	0.7%	7.3%	37.9%	39.1%	12.7%	1.9%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	06:00	07:00	09:00	09:00	08:00	11:00	10:00	08:00							08:00		
Vol.	2	14	74	84	31	6	2	1							192		
PM Peak	12:00	12:00	12:00	12:00	12:00	12:00	12:00								12:00		
Vol.	2	27	93	54	21	2	1								200		
Total	138	1114	5205	5502	1921	366	55	11	0	0	0	0	0	0	14312		
Percent	1.0%	7.8%	36.4%	38.4%	13.4%	2.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	14 MPH
50th Percentile :	19 MPH
85th Percentile :	24 MPH
95th Percentile :	28 MPH

Stats

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	10707
Percent in Pace :	74.8%
Number of Vehicles > 30 MPH :	359
Percent of Vehicles > 30 MPH :	2.5%
Mean Speed(Average) :	20 MPH

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/14/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	1	**47**	83	46	59	36	11	0	1	0	0	0	0	0	284	29	33
13:00	**4**	38	86	51	67	31	7	0	0	0	0	0	0	0	284	28	32
14:00	3	25	80	46	62	44	15	1	0	0	0	0	0	0	276	31	34
15:00	2	21	66	**57**	71	58	10	5	0	0	0	0	0	0	290	31	34
16:00	2	31	**89**	50	**86**	**71**	**44**	**6**	1	0	0	0	0	0	**380**	33	37
17:00	2	21	84	54	82	61	19	2	**3**	0	0	0	0	0	328	31	35
18:00	3	19	62	32	54	49	16	2	1	**1**	0	0	0	0	239	32	36
19:00	0	20	50	19	63	27	6	1	0	0	0	0	0	0	186	30	33
20:00	4	18	23	21	54	33	4	0	1	1	0	0	0	0	159	31	33
21:00	1	13	12	14	30	23	9	0	0	0	0	0	0	0	102	32	36
22:00	0	8	21	14	22	21	10	0	0	0	0	0	0	0	96	32	36
23:00	1	8	12	6	19	10	4	1	0	0	0	0	0	0	61	31	36
Total	23	269	668	410	669	464	155	18	7	2	0	0	0	0	2685		
Percent	0.9%	10.0%	24.9%	15.3%	24.9%	17.3%	5.8%	0.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	13:00 4	12:00 47	16:00 89	15:00 57	16:00 86	16:00 71	16:00 44	16:00 6	17:00 3	18:00 1					16:00 380		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/15/22	0	2	3	5	5	9	4	1	0	0	0	0	0	0	29	34	38
01:00	0	2	4	4	6	3	2	0	0	0	0	0	0	0	21	32	36
02:00	0	0	3	1	7	1	1	0	0	0	0	0	0	0	13	29	35
03:00	0	0	1	1	3	1	0	0	0	0	0	0	0	0	6	29	32
04:00	0	2	4	2	3	5	1	1	0	0	0	0	0	0	18	33	39
05:00	0	5	14	5	12	1	4	3	0	0	0	0	0	0	44	34	40
06:00	0	3	34	14	23	23	7	0	0	0	0	0	0	0	104	32	35
07:00	1	20	79	**46**	54	**59**	8	1	0	0	0	0	0	0	268	31	33
08:00	**2**	17	**90**	46	**69**	54	8	**4**	0	0	0	0	0	0	**290**	31	33
09:00	1	31	73	35	64	43	**16**	2	**1**	0	0	0	0	0	266	31	35
10:00	2	20	69	31	41	34	7	3	1	0	0	0	0	0	208	31	34
11:00	2	**33**	65	42	45	33	15	3	0	0	0	0	0	0	238	31	36
12 PM	3	30	72	43	65	39	8	3	**1**	0	0	0	0	0	264	30	33
13:00	2	31	86	46	60	59	13	2	0	0	0	0	0	0	299	31	34
14:00	1	**43**	73	31	80	62	14	1	1	0	0	0	0	0	306	31	34
15:00	**6**	25	78	44	66	61	**31**	**5**	0	0	0	0	0	0	316	33	37
16:00	3	21	**92**	**59**	**102**	**84**	31	1	1	0	0	0	0	0	**394**	32	36
17:00	2	22	78	48	82	68	28	2	1	0	0	0	0	0	331	32	36
18:00	0	20	74	33	61	64	16	2	0	0	0	0	0	0	270	32	35
19:00	4	15	44	34	60	35	15	0	0	0	0	0	0	0	207	31	35
20:00	1	6	31	33	45	33	11	2	0	0	0	0	0	0	162	32	36
21:00	0	8	26	23	33	15	9	2	0	0	0	0	0	0	116	31	36
22:00	1	8	12	13	26	13	1	1	0	0	0	0	0	0	75	30	33
23:00	1	7	9	11	10	7	1	1	1	0	0	0	0	0	48	31	37
Total	32	371	1114	650	1022	806	251	40	7	0	0	0	0	0	4293		
Percent	0.7%	8.6%	25.9%	15.1%	23.8%	18.8%	5.8%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	08:00	07:00	08:00	07:00	09:00	08:00	09:00						08:00		
Vol.	2	33	90	46	69	59	16	4	1						290		
PM Peak	15:00	14:00	16:00	16:00	16:00	16:00	15:00	15:00	12:00						16:00		
Vol.	6	43	92	59	102	84	31	5	1						394		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/16/22	0	3	4	7	8	5	1	0	0	0	0	0	0	0	28	30	33
01:00	0	3	2	5	7	1	3	1	0	0	0	0	0	0	22	35	38
02:00	0	0	2	1	3	2	2	0	**1**	0	0	0	0	0	11	37	46
03:00	0	2	3	1	3	1	0	0	0	0	0	0	0	0	10	28	31
04:00	0	2	5	5	8	2	0	1	0	0	0	0	0	0	23	28	33
05:00	0	1	9	4	7	12	2	0	0	0	0	0	0	0	35	32	34
06:00	0	7	28	7	24	17	4	0	1	0	0	0	0	0	88	31	34
07:00	3	23	88	42	56	**41**	**16**	2	1	0	0	0	0	0	272	31	35
08:00	3	24	73	40	59	39	10	1	0	0	0	0	0	0	249	30	33
09:00	**6**	24	69	35	46	30	7	**5**	0	0	0	0	0	0	222	30	34
10:00	6	25	86	28	**60**	31	9	2	1	0	0	0	0	0	248	29	33
11:00	6	**45**	**94**	**44**	55	28	7	1	0	0	0	0	0	0	**280**	28	32
12 PM	**7**	**39**	81	45	72	39	10	0	0	0	0	0	0	0	293	29	33
13:00	2	34	89	**58**	78	36	15	3	**1**	0	0	0	0	0	316	30	35
14:00	6	36	**97**	55	74	47	14	**5**	0	**1**	0	0	0	0	335	30	35
15:00	1	32	84	40	76	62	26	3	0	0	0	0	0	0	324	32	36
16:00	3	15	93	51	77	**75**	26	4	0	0	0	0	0	0	344	32	36
17:00	1	31	89	48	**91**	73	**29**	2	1	0	0	0	0	0	**365**	32	36
18:00	2	28	74	34	64	50	18	2	0	0	0	0	0	0	272	31	35
19:00	1	17	58	34	45	27	7	3	1	1	0	0	0	0	194	30	35
20:00	1	19	46	41	42	28	5	1	1	0	0	0	0	0	184	30	33
21:00	1	19	32	29	42	17	4	2	0	1	0	0	0	0	147	29	33
22:00	1	6	18	16	32	23	4	1	1	0	0	0	0	0	102	31	35
23:00	1	6	13	7	24	14	4	3	1	0	0	0	0	0	73	32	39
Total	51	441	1237	677	1053	700	223	42	10	3	0	0	0	0	4437		
Percent	1.1%	9.9%	27.9%	15.3%	23.7%	15.8%	5.0%	0.9%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	11:00	11:00	11:00	10:00	07:00	07:00	09:00	02:00						11:00		
Vol.	6	45	94	44	60	41	16	5	1						280		
PM Peak	12:00	12:00	14:00	13:00	17:00	16:00	17:00	14:00	13:00	14:00					17:00		
Vol.	7	39	97	58	91	75	29	5	1	1					365		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/17/22	0	7	6	5	15	7	5	2	**1**	0	0	0	0	0	48	34	40
01:00	0	4	4	5	11	6	2	0	0	0	0	0	0	0	32	31	34
02:00	0	1	1	2	5	5	2	0	0	0	0	0	0	0	16	33	36
03:00	1	6	3	4	7	2	1	1	0	0	0	0	0	0	25	29	37
04:00	0	2	7	1	2	3	0	0	0	0	0	0	0	0	15	30	32
05:00	0	0	4	1	8	2	2	0	1	0	0	0	0	0	18	34	44
06:00	0	2	7	15	15	7	3	0	0	0	0	0	0	0	49	30	34
07:00	0	6	18	16	13	20	6	1	1	**1**	0	0	0	0	82	33	38
08:00	0	7	48	15	26	27	13	0	1	0	0	0	0	0	137	32	36
09:00	0	10	42	28	42	37	**14**	3	0	0	0	0	0	0	176	32	36
10:00	2	15	53	30	46	**47**	14	2	0	1	0	0	0	0	210	32	36
11:00	**4**	**24**	**58**	**40**	**65**	38	11	**4**	0	0	0	0	0	0	**244**	31	35
12 PM	3	24	**67**	**66**	**64**	43	12	2	0	0	0	**1**	0	0	**282**	30	34
13:00	**4**	**29**	67	40	64	**55**	**19**	3	1	0	0	0	0	0	282	32	36
14:00	2	24	42	46	58	40	17	**4**	0	0	0	0	0	0	233	32	36
15:00	3	12	67	32	44	49	6	1	1	0	0	0	0	0	215	31	33
16:00	3	11	35	28	44	44	14	1	1	**2**	0	0	0	0	183	32	37
17:00	3	17	54	18	43	42	19	2	1	0	0	0	0	0	199	33	37
18:00	2	24	47	35	59	29	16	2	**4**	0	0	0	0	0	218	32	37
19:00	2	22	49	46	43	21	6	1	1	0	0	0	0	0	191	29	33
20:00	2	9	37	26	41	32	3	2	0	0	0	0	0	0	152	31	33
21:00	0	12	25	23	33	23	4	1	0	0	0	0	0	0	121	31	33
22:00	2	10	21	18	29	9	11	1	0	0	0	0	0	0	101	32	37
23:00	0	2	16	10	24	6	3	1	0	0	0	0	0	0	62	29	35
Total	33	280	778	550	801	594	203	34	13	4	0	1	0	0	3291		
Percent	1.0%	8.5%	23.6%	16.7%	24.3%	18.0%	6.2%	1.0%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	10:00	09:00	11:00	00:00	07:00					11:00		
Vol.	4	24	58	40	65	47	14	4	1	1					244		
PM Peak	13:00	13:00	12:00	12:00	12:00	13:00	13:00	14:00	18:00	16:00		12:00			12:00		
Vol.	4	29	67	66	64	55	19	4	4	2		1			282		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/18/22	0	1	7	5	15	4	2	1	0	0	0	0	0	0	35	31	37
01:00	0	2	2	4	6	5	0	1	0	0	0	0	0	0	20	32	39
02:00	0	1	6	1	6	6	1	0	0	0	0	0	0	0	21	32	33
03:00	0	1	1	5	6	3	1	0	0	0	0	0	0	0	17	31	34
04:00	0	1	5	1	4	2	1	0	0	0	0	0	0	0	14	31	35
05:00	0	1	3	6	4	4	0	0	0	0	0	0	0	0	18	30	32
06:00	0	3	7	6	4	1	1	0	0	0	0	0	0	0	22	27	33
07:00	0	1	7	5	19	12	5	0	0	0	0	0	0	0	49	33	36
08:00	**1**	5	19	12	25	15	4	0	0	0	0	0	0	0	81	31	33
09:00	1	9	45	**22**	39	19	6	0	**1**	0	0	0	0	0	142	30	33
10:00	1	**11**	44	17	38	38	**19**	0	0	0	0	0	0	0	168	33	36
11:00	1	5	**48**	20	**49**	**43**	8	**2**	1	**1**	0	0	0	0	**178**	32	35
12 PM	**3**	19	**61**	29	58	49	**16**	**2**	0	0	0	0	0	0	**237**	32	35
13:00	1	14	60	22	43	47	16	1	0	0	0	0	0	0	204	32	36
14:00	1	16	45	23	**60**	**56**	14	2	0	0	0	0	0	0	217	32	35
15:00	1	14	58	**32**	58	42	12	1	0	0	0	0	0	0	218	31	34
16:00	0	9	36	27	50	32	14	2	0	0	0	0	0	0	170	32	36
17:00	0	20	36	27	41	23	7	1	0	0	0	0	0	0	155	30	34
18:00	1	**26**	35	29	39	34	13	1	0	0	0	0	0	0	178	32	35
19:00	1	10	19	25	52	29	1	2	0	0	0	0	0	0	139	30	33
20:00	3	9	27	17	22	29	5	1	0	0	0	0	0	0	113	32	34
21:00	0	7	12	13	33	7	4	1	0	0	0	0	0	0	77	29	35
22:00	2	6	14	10	12	10	3	0	0	0	0	0	0	0	57	31	34
23:00	0	3	5	4	16	7	2	0	0	0	0	0	0	0	37	31	34
Total	17	194	602	362	699	517	155	18	2	1	0	0	0	0	2567		
Percent	0.7%	7.6%	23.5%	14.1%	27.2%	20.1%	6.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	11:00	09:00	11:00	11:00	10:00	11:00	09:00	11:00					11:00		
Vol.	1	11	48	22	49	43	19	2	1	1					178		
PM Peak	12:00	18:00	12:00	15:00	14:00	14:00	12:00	12:00							12:00		
Vol.	3	26	61	32	60	56	16	2							237		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/14/2022

GPS: 42.727338, -73.688181

EB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/19/22	0	2	2	2	2	5	2	0	0	0	0	0	0	0	15	33	37
01:00	0	1	4	2	2	2	0	0	0	0	0	0	0	0	11	29	32
02:00	0	0	3	1	4	1	0	0	0	0	0	0	0	0	9	28	31
03:00	0	0	1	1	2	0	0	0	0	0	0	0	0	0	4	27	28
04:00	0	0	6	5	4	2	0	0	0	0	0	0	0	0	17	28	31
05:00	1	3	10	8	12	5	1	0	0	0	0	0	0	0	40	29	33
06:00	1	8	23	17	25	15	7	1	0	0	0	0	0	0	97	31	36
07:00	5	30	**89**	42	61	44	**21**	**3**	0	0	0	0	0	0	295	31	36
08:00	2	24	80	42	**69**	**66**	15	0	0	0	0	0	0	0	**298**	31	34
09:00	2	28	81	**56**	58	30	4	0	0	0	0	0	0	0	259	28	32
10:00	**6**	**50**	73	34	61	20	3	0	0	0	0	0	0	0	247	27	31
11:00	4	35	49	35	50	27	6	1	0	0	0	0	0	0	207	29	33
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	21	181	421	245	350	217	59	5	0	0	0	0	0	0	1499		
Percent	1.4%	12.1%	28.1%	16.3%	23.3%	14.5%	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	07:00	09:00	08:00	08:00	07:00	07:00							08:00		
Vol.	6	50	89	56	69	66	21	3							298		
PM Peak Vol.																	
Total	177	1736	4820	2894	4594	3298	1046	157	39	10	0	1	0	0	18772		
Percent	0.9%	9.2%	25.7%	15.4%	24.5%	17.6%	5.6%	0.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 14 MPH
50th Percentile : 23 MPH
85th Percentile : 31 MPH
95th Percentile : 35 MPH

Stats

10 MPH Pace Speed : 25-34 MPH
Number in Pace : 7892
Percent in Pace : 42.0%
Number of Vehicles > 30 MPH : 3891
Percent of Vehicles > 30 MPH : 20.7%
Mean Speed(Average) : 24 MPH

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/14/22	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	2	**13**	16	**38**	72	68	15	4	1	0	0	0	0	0	229	32	36
13:00	0	6	12	31	66	71	26	3	2	**1**	0	0	0	0	218	33	38
14:00	**5**	5	14	28	**84**	69	31	**10**	0	0	0	0	0	0	246	34	38
15:00	1	5	20	22	84	**101**	29	5	0	0	0	0	0	0	267	33	37
16:00	2	4	**23**	19	81	98	32	10	3	1	0	0	0	0	**273**	34	39
17:00	0	4	6	23	54	97	**52**	6	0	0	0	0	0	0	242	36	38
18:00	0	2	5	25	67	57	22	6	1	1	**1**	0	0	0	187	34	38
19:00	0	5	10	20	54	55	18	4	**4**	0	0	0	0	0	170	34	38
20:00	0	2	5	26	48	44	8	5	0	0	0	0	0	0	138	33	37
21:00	0	1	8	16	39	24	12	2	0	0	0	0	0	0	102	33	37
22:00	0	3	4	4	20	15	4	0	0	0	1	0	0	0	51	33	37
23:00	0	0	2	8	15	8	4	2	0	0	0	0	0	0	39	34	39
Total	10	50	125	260	684	707	253	57	11	3	2	0	0	0	2162		
Percent	0.5%	2.3%	5.8%	12.0%	31.6%	32.7%	11.7%	2.6%	0.5%	0.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	14:00 5	12:00 13	16:00 23	12:00 38	14:00 84	15:00 101	17:00 52	14:00 10	19:00 4	13:00 1	18:00 1				16:00 273		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/15/22	0	0	3	6	6	4	1	1	0	0	0	0	0	0	21	32	38
01:00	0	0	1	0	6	3	1	0	0	0	0	0	0	0	11	32	36
02:00	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3	41	43
03:00	0	0	1	3	2	0	1	0	0	0	0	0	0	0	7	28	37
04:00	0	1	1	2	3	2	2	0	0	0	0	0	0	0	11	34	37
05:00	0	0	1	7	12	5	0	0	0	0	0	0	0	0	25	30	32
06:00	0	1	3	14	18	16	10	2	0	0	0	0	0	0	64	35	38
07:00	0	**4**	10	**27**	38	42	**21**	3	**3**	0	0	0	0	0	148	35	38
08:00	0	1	**12**	19	58	**62**	10	4	0	0	0	0	0	0	166	33	36
09:00	**1**	3	9	17	39	44	20	**5**	1	**1**	0	0	0	0	140	35	38
10:00	1	3	6	14	52	41	16	3	1	0	0	0	0	0	137	33	38
11:00	0	2	8	21	**62**	61	13	1	0	0	0	0	0	0	**168**	33	36
12 PM	2	4	**18**	25	70	56	27	0	0	**1**	0	0	0	0	203	33	37
13:00	1	5	6	**35**	75	77	15	5	1	1	0	0	0	0	221	33	37
14:00	0	**7**	13	18	**106**	57	20	5	1	1	0	0	0	0	228	33	37
15:00	**3**	4	16	26	79	90	32	4	0	1	0	0	0	0	255	33	37
16:00	1	0	12	23	79	109	**48**	**11**	0	1	**1**	0	0	0	**285**	35	38
17:00	0	3	10	18	79	**115**	46	3	**3**	0	0	0	0	0	277	35	38
18:00	0	1	9	28	74	63	23	5	1	0	0	0	0	0	204	33	38
19:00	0	3	12	27	75	63	20	4	0	0	0	0	0	0	204	33	37
20:00	1	0	6	20	44	49	21	8	1	0	0	0	0	0	150	35	39
21:00	0	1	9	13	43	25	6	3	0	0	0	0	0	0	100	32	37
22:00	0	3	2	11	16	16	8	0	1	0	0	0	0	0	57	34	37
23:00	1	2	1	9	10	7	3	1	0	0	0	0	0	0	34	33	37
Total	11	48	169	383	1046	1008	365	69	13	6	1	0	0	0	3119		
Percent	0.4%	1.5%	5.4%	12.3%	33.5%	32.3%	11.7%	2.2%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00	07:00	08:00	07:00	11:00	08:00	07:00	09:00	07:00	09:00					11:00		
Vol.	1	4	12	27	62	62	21	5	3	1					168		
PM Peak	15:00	14:00	12:00	13:00	14:00	17:00	16:00	16:00	17:00	12:00	16:00				16:00		
Vol.	3	7	18	35	106	115	48	11	3	1	1				285		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/16/22	0	1	2	3	7	6	1	3	0	0	0	0	0	0	23	36	42
01:00	0	2	0	3	5	5	2	2	0	0	0	0	0	0	19	36	41
02:00	0	0	0	2	1	2	0	0	0	0	0	0	0	0	5	32	33
03:00	0	0	2	2	4	3	0	0	0	0	0	0	0	0	11	31	33
04:00	0	0	0	1	4	2	0	0	0	0	0	0	0	0	7	31	33
05:00	0	1	0	4	16	8	2	0	0	0	0	0	0	0	31	32	35
06:00	0	0	3	10	27	13	10	1	0	0	0	0	0	0	64	34	37
07:00	0	1	10	15	28	46	17	0	1	0	**1**	0	0	0	119	34	37
08:00	1	1	9	13	54	**72**	19	4	1	0	0	0	0	0	174	33	38
09:00	1	3	8	25	43	55	**22**	**6**	**2**	0	0	0	0	0	165	35	38
10:00	0	5	14	38	65	64	15	2	2	0	0	0	0	0	205	33	36
11:00	**4**	**7**	**40**	**45**	**72**	47	13	6	1	0	0	0	0	0	**235**	32	37
12 PM	**4**	4	**17**	22	72	78	17	3	2	0	0	0	0	0	219	33	37
13:00	0	4	11	**42**	83	64	27	7	0	0	0	0	0	0	238	33	38
14:00	0	4	14	39	**94**	93	42	9	0	0	0	0	0	0	295	34	38
15:00	1	6	14	33	82	**115**	35	9	2	1	0	0	0	0	**298**	34	38
16:00	0	**7**	12	23	64	86	48	13	**3**	1	**1**	0	0	0	258	36	40
17:00	2	7	8	24	73	83	**49**	**15**	0	**2**	1	0	0	0	264	36	40
18:00	0	3	9	21	67	79	31	4	1	0	1	0	0	0	216	34	38
19:00	1	3	6	29	72	56	14	2	2	0	0	0	0	0	185	33	37
20:00	0	6	14	25	50	36	8	4	0	1	0	0	0	0	144	32	37
21:00	1	6	8	21	32	37	17	4	1	1	0	0	0	0	128	35	38
22:00	1	4	2	12	32	30	14	1	0	0	0	0	0	0	96	34	37
23:00	1	4	5	5	20	21	8	1	0	0	0	0	0	0	65	33	37
Total	17	79	208	457	1067	1101	411	96	18	6	4	0	0	0	3464		
Percent	0.5%	2.3%	6.0%	13.2%	30.8%	31.8%	11.9%	2.8%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	08:00	09:00	09:00	09:00		07:00				11:00		
Vol.	4	7	40	45	72	72	22	6	2		1				235		
PM Peak	12:00	16:00	12:00	13:00	14:00	15:00	17:00	17:00	16:00	17:00	16:00				15:00		
Vol.	4	7	17	42	94	115	49	15	3	2	1				298		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/17/22	0	4	1	4	15	13	7	1	1	0	0	0	0	0	46	35	38
01:00	0	2	5	11	17	7	0	1	0	0	0	0	0	0	43	30	33
02:00	0	2	0	1	8	2	1	0	0	0	0	0	0	0	14	31	35
03:00	**1**	1	1	3	3	5	1	0	0	0	0	0	0	0	15	32	35
04:00	0	0	0	3	1	1	2	0	0	0	0	0	0	0	7	36	38
05:00	0	0	0	1	1	5	0	0	0	0	0	0	0	0	7	32	33
06:00	0	1	0	2	10	7	2	0	0	0	0	0	0	0	22	33	36
07:00	0	1	3	9	21	24	4	2	0	0	0	0	0	0	64	33	37
08:00	0	0	2	4	35	30	9	0	0	0	0	0	0	0	80	33	36
09:00	0	**5**	4	14	47	44	21	3	0	0	0	0	0	0	138	34	38
10:00	1	0	**7**	15	57	62	**24**	**8**	0	0	0	0	0	0	174	35	38
11:00	0	2	5	**18**	**79**	**73**	23	7	**2**	0	0	0	0	0	**209**	34	38
12 PM	1	4	6	32	74	64	16	9	0	2	0	0	0	0	208	33	39
13:00	0	5	10	32	**87**	**80**	**36**	4	1	0	0	0	0	0	**255**	34	37
14:00	0	2	11	**34**	87	69	30	5	1	0	0	0	0	0	239	34	38
15:00	0	2	12	28	64	76	24	8	1	0	0	0	0	0	215	34	38
16:00	0	**7**	9	18	71	72	26	3	2	**3**	0	0	0	0	211	34	38
17:00	1	6	7	16	64	65	23	**13**	2	0	0	0	0	0	197	35	40
18:00	1	5	**15**	20	62	56	15	4	0	0	0	0	0	0	178	33	37
19:00	1	6	11	28	70	45	16	2	0	0	0	0	0	0	179	33	36
20:00	0	3	9	25	44	36	9	2	**3**	1	0	0	0	0	132	33	38
21:00	0	7	11	23	42	27	7	1	0	0	0	0	0	0	118	32	35
22:00	**2**	4	8	12	25	20	8	2	1	0	**1**	0	0	0	83	33	38
23:00	0	4	4	8	19	14	11	0	0	0	0	0	0	0	60	34	37
Total	8	73	141	361	1003	897	315	75	14	6	1	0	0	0	2894		
Percent	0.3%	2.5%	4.9%	12.5%	34.7%	31.0%	10.9%	2.6%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	03:00	09:00	10:00	11:00	11:00	11:00	10:00	10:00	11:00						11:00		
Vol.	1	5	7	18	79	73	24	8	2						209		
PM Peak	22:00	16:00	18:00	14:00	13:00	13:00	13:00	17:00	20:00	16:00	22:00				13:00		
Vol.	2	7	15	34	87	80	36	13	3	3	1				255		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

Serving Transporatation Professionals since 1995

Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start	1	10	15	20	25	30	35	40	45	50	55	60	65	70		85th	95th
Time	9	14	19	24	29	34	39	44	49	54	59	64	69	9999	Total	Percent	Percent
09/18/22	0	**1**	**10**	7	18	14	3	1	0	0	0	0	0	0	54	32	36
01:00	0	0	1	3	8	8	4	2	0	0	0	0	0	0	26	36	40
02:00	0	0	1	7	9	3	3	1	0	0	0	0	0	0	24	34	38
03:00	0	0	0	1	6	2	2	0	1	0	0	0	0	0	12	36	45
04:00	0	0	0	1	2	4	1	0	0	0	0	0	0	0	8	33	36
05:00	0	1	0	1	5	2	0	0	0	0	0	0	0	0	9	30	32
06:00	0	0	1	1	6	9	3	0	1	0	0	0	0	0	21	35	38
07:00	0	0	1	2	11	8	5	3	0	0	0	0	0	0	30	37	41
08:00	**1**	0	3	7	16	25	6	2	0	0	0	0	0	0	60	33	38
09:00	1	1	4	9	38	44	15	**6**	**2**	**1**	0	0	0	0	121	35	41
10:00	0	1	6	**11**	43	37	**27**	4	2	0	0	0	0	0	131	36	38
11:00	1	1	4	11	**51**	**55**	21	5	1	0	0	0	0	0	**150**	35	38
12 PM	1	1	11	**25**	66	64	22	**6**	1	0	0	0	0	0	**197**	33	38
13:00	0	3	8	18	62	**70**	**24**	5	0	**1**	0	0	**1**	0	192	34	38
14:00	**2**	3	10	22	**69**	53	19	5	**2**	1	0	0	0	0	186	33	38
15:00	0	2	**14**	17	63	55	16	6	0	0	0	0	0	0	173	33	38
16:00	0	**5**	5	12	59	51	21	1	1	0	0	0	0	0	155	33	37
17:00	0	3	11	16	38	38	12	2	0	0	0	0	0	0	120	33	37
18:00	0	2	3	21	35	41	13	3	0	0	0	0	0	0	118	33	37
19:00	0	5	2	15	43	28	10	4	0	0	0	0	0	0	107	33	38
20:00	0	0	7	9	31	18	10	2	0	0	0	0	0	0	77	34	38
21:00	0	2	1	1	8	14	4	1	0	0	0	0	0	0	31	34	38
22:00	1	0	1	10	7	7	9	0	0	0	0	0	0	0	35	36	38
23:00	0	0	4	3	6	8	4	0	0	0	0	0	0	0	25	34	37
Total	7	31	108	230	700	658	254	59	11	3	0	0	1	0	2062		
Percent	0.3%	1.5%	5.2%	11.2%	33.9%	31.9%	12.3%	2.9%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	00:00	00:00	10:00	11:00	11:00	10:00	09:00	09:00	09:00					11:00		
Vol.	1	1	10	11	51	55	27	6	2	1					150		
PM Peak	14:00	16:00	15:00	12:00	14:00	13:00	13:00	12:00	14:00	13:00			13:00		12:00		
Vol.	2	5	14	25	69	70	24	6	2	1			1		197		

Tri-State Traffic Data Inc.

184 Baker Rd
Coatesville PA 19320

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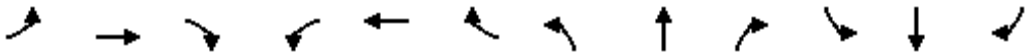
Location: TROY, NY
Road Name: FERRY ST
Segment: 60' W OF 6TH AVE
Date: 09/19/2022

EB

Start Time	1 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 9999	Total	85th Percent	95th Percent
09/19/22	0	1	3	3	11	4	2	0	0	0	0	0	0	0	24	31	35
01:00	0	1	0	2	2	2	1	1	0	0	0	0	0	0	9	37	41
02:00	0	1	0	1	2	2	0	0	0	0	0	0	0	0	6	31	33
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	36	38
05:00	0	1	0	2	10	8	3	2	0	0	0	0	0	0	26	35	40
06:00	0	0	4	15	23	23	5	0	0	0	0	0	0	0	70	32	35
07:00	**3**	2	**16**	17	36	42	**26**	**3**	0	**1**	0	0	0	0	146	35	38
08:00	0	0	4	15	49	**57**	26	0	0	0	0	0	0	0	151	34	37
09:00	0	**3**	14	22	**59**	46	15	1	**1**	0	0	0	0	0	**161**	33	36
10:00	0	3	14	**28**	53	36	13	2	0	0	0	0	0	0	149	32	36
11:00	1	2	10	24	57	39	14	2	0	0	0	0	0	0	149	33	37
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	14	65	129	303	260	106	11	1	1	0	0	0	0	894		
Percent	0.4%	1.6%	7.3%	14.4%	33.9%	29.1%	11.9%	1.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	07:00	10:00	09:00	08:00	07:00	07:00	09:00	07:00					09:00		
Vol.	3	3	16	28	59	57	26	3	1	1					161		
PM Peak Vol.																	
Total	57	295	816	1820	4803	4631	1704	367	68	25	8	0	1	0	14595		
Percent	0.4%	2.0%	5.6%	12.5%	32.9%	31.7%	11.7%	2.5%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%			

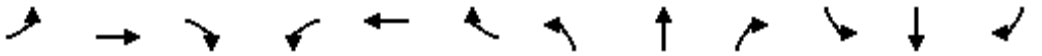
	15th Percentile :	21 MPH
	50th Percentile :	28 MPH
	85th Percentile :	33 MPH
	95th Percentile :	38 MPH

Stats		
	10 MPH Pace Speed :	25-34 MPH
	Number in Pace :	9434
	Percent in Pace :	64.6%
	Number of Vehicles > 30 MPH :	5878
	Percent of Vehicles > 30 MPH :	40.3%
	Mean Speed(Average) :	29 MPH



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	119	473	108	0	0	0	0	0	87	12
Future Volume (vph)	0	0	119	473	108	0	0	0	0	0	87	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.0	5.0	5.0						5.0	
Lane Util. Factor			1.00	0.95	0.95						1.00	
Frpb, ped/bikes			0.99	1.00	1.00						0.99	
Flpb, ped/bikes			1.00	1.00	1.00						1.00	
Frt			0.86	1.00	1.00						0.98	
Flt Protected			1.00	0.95	0.97						1.00	
Satd. Flow (prot)			1621	1646	1675						1841	
Flt Permitted			1.00	0.95	0.97						1.00	
Satd. Flow (perm)			1621	1646	1675						1841	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	137	544	124	0	0	0	0	0	100	14
RTOR Reduction (vph)	0	0	57	138	88	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	80	194	248	0	0	0	0	0	106	0
Confl. Peds. (#/hr)	17		3	3		17	15					15
Heavy Vehicles (%)	3%	3%	0%	4%	5%	3%	3%	3%	3%	3%	1%	0%
Turn Type			Perm	Perm	NA						NA	
Protected Phases					6						4	
Permitted Phases			2	6								
Actuated Green, G (s)			36.0	36.0	36.0						16.0	
Effective Green, g (s)			35.0	35.0	35.0						15.0	
Actuated g/C Ratio			0.58	0.58	0.58						0.25	
Clearance Time (s)			4.0	4.0	4.0						4.0	
Lane Grp Cap (vph)			945	960	977						460	
v/s Ratio Prot											c0.06	
v/s Ratio Perm			0.05	0.12	0.15							
v/c Ratio			0.08	0.20	0.25						0.23	
Uniform Delay, d1			5.5	5.9	6.1						17.9	
Progression Factor			1.00	0.03	0.01						1.00	
Incremental Delay, d2			0.2	0.5	0.6						1.2	
Delay (s)			5.7	0.7	0.7						19.1	
Level of Service			A	A	A						B	
Approach Delay (s)		5.7			0.7			0.0			19.1	
Approach LOS		A			A			A			B	

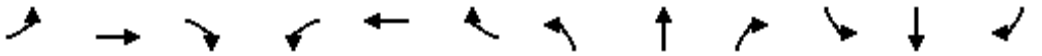
Intersection Summary			
HCM 2000 Control Delay	3.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	47	542	0	0	0	0	0	101	39
Future Volume (veh/h)	0	0	0	47	542	0	0	0	0	0	101	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	0.90
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1811	0				0	1796	1781
Adj Flow Rate, veh/h				49	571	0				0	106	41
Peak Hour Factor				0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %				5	6	0				0	7	8
Cap, veh/h				152	1578	0				0	365	141
Arrive On Green				0.17	0.17	0.00				0.00	0.33	0.35
Sat Flow, veh/h				167	3239	0				0	1094	423
Grp Volume(v), veh/h				330	290	0				0	0	147
Grp Sat Flow(s),veh/h/ln				1758	1566	0				0	0	1517
Q Serve(g_s), s				0.0	9.9	0.0				0.0	0.0	4.3
Cycle Q Clear(g_c), s				9.7	9.9	0.0				0.0	0.0	4.3
Prop In Lane				0.15		0.00				0.00		0.28
Lane Grp Cap(c), veh/h				948	783	0				0	0	506
V/C Ratio(X)				0.35	0.37	0.00				0.00	0.00	0.29
Avail Cap(c_a), veh/h				948	783	0				0	0	506
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				16.6	16.6	0.0				0.0	0.0	14.7
Incr Delay (d2), s/veh				1.0	1.3	0.0				0.0	0.0	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	4.1	0.0				0.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.6	18.0	0.0				0.0	0.0	16.1
LnGrp LOS				B	B	A				A	A	B
Approach Vol, veh/h					620						147	
Approach Delay, s/veh					17.8						16.1	
Approach LOS					B						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	11.9	6.3
Green Ext Time (p_c), s	3.7	0.6

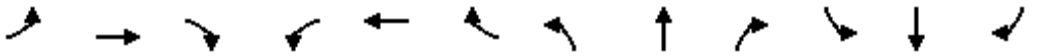
Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	464	51	125	89	0	0	0	0
Future Volume (veh/h)	0	0	0	0	464	51	125	89	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1796	1841	1796	1856	0			
Adj Flow Rate, veh/h				0	473	52	128	91	0			
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %				0	7	4	7	3	0			
Cap, veh/h				0	1468	161	378	245	0			
Arrive On Green				0.00	0.50	0.52	0.33	0.33	0.00			
Sat Flow, veh/h				0	3025	321	849	735	0			
Grp Volume(v), veh/h				0	274	251	219	0	0			
Grp Sat Flow(s),veh/h/ln				0	1706	1550	1584	0	0			
Q Serve(g_s), s				0.0	5.7	5.8	4.8	0.0	0.0			
Cycle Q Clear(g_c), s				0.0	5.7	5.8	6.2	0.0	0.0			
Prop In Lane				0.00		0.21	0.58		0.00			
Lane Grp Cap(c), veh/h				0	853	775	623	0	0			
V/C Ratio(X)				0.00	0.32	0.32	0.35	0.00	0.00			
Avail Cap(c_a), veh/h				0	853	775	623	0	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh				0.0	8.9	8.9	15.3	0.0	0.0			
Incr Delay (d2), s/veh				0.0	1.0	1.1	1.6	0.0	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	2.0	1.9	2.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	9.9	10.0	16.9	0.0	0.0			
LnGrp LOS				A	A	A	B	A	A			
Approach Vol, veh/h					525			219				
Approach Delay, s/veh					10.0			16.9				
Approach LOS					A			B				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	7.8	8.2
Green Ext Time (p_c), s	3.3	0.9

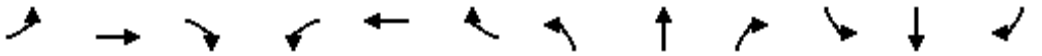
Intersection Summary	
HCM 6th Ctrl Delay	12.0
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	81	415	0	0	0	0	0	258	100
Future Volume (veh/h)	0	0	0	81	415	0	0	0	0	0	258	100
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1826	0				0	1841	1604
Adj Flow Rate, veh/h				84	428	0				0	266	103
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	5	0				0	4	20
Cap, veh/h				273	1276	0				0	941	353
Arrive On Green				0.15	0.15	0.00				0.00	0.38	0.40
Sat Flow, veh/h				431	2919	0				0	2547	920
Grp Volume(v), veh/h				271	241	0				0	187	182
Grp Sat Flow(s),veh/h/ln				1688	1578	0				0	1749	1627
Q Serve(g_s), s				3.9	8.2	0.0				0.0	4.4	4.6
Cycle Q Clear(g_c), s				8.3	8.2	0.0				0.0	4.4	4.6
Prop In Lane				0.31		0.00				0.00		0.57
Lane Grp Cap(c), veh/h				838	710	0				0	670	624
V/C Ratio(X)				0.32	0.34	0.00				0.00	0.28	0.29
Avail Cap(c_a), veh/h				838	710	0				0	670	624
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				17.5	17.6	0.0				0.0	12.8	12.6
Incr Delay (d2), s/veh				1.0	1.3	0.0				0.0	1.0	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.7	3.3	0.0				0.0	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.5	18.8	0.0				0.0	13.8	13.8
LnGrp LOS				B	B	A				A	B	B
Approach Vol, veh/h					512						369	
Approach Delay, s/veh					18.7						13.8	
Approach LOS					B						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	32.0	28.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	28.0	24.0
Max Q Clear Time (g_c+I1), s	10.3	6.6
Green Ext Time (p_c), s	2.9	2.0

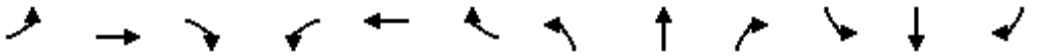
Intersection Summary	
HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	374	92	122	271	0	0	0	0
Future Volume (veh/h)	0	0	0	0	374	92	122	271	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1856	1841	1811	1648	0			
Adj Flow Rate, veh/h				0	390	96	127	282	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	3	4	6	17	0			
Cap, veh/h				0	1106	269	415	859	0			
Arrive On Green				0.00	0.42	0.43	0.14	0.14	0.00			
Sat Flow, veh/h				0	2747	645	767	2136	0			
Grp Volume(v), veh/h				0	257	229	217	192	0			
Grp Sat Flow(s),veh/h/ln				0	1763	1537	1403	1425	0			
Q Serve(g_s), s				0.0	6.0	6.1	6.8	7.3	0.0			
Cycle Q Clear(g_c), s				0.0	6.0	6.1	8.2	7.3	0.0			
Prop In Lane				0.00		0.42	0.59		0.00			
Lane Grp Cap(c), veh/h				0	734	640	680	594	0			
V/C Ratio(X)				0.00	0.35	0.36	0.32	0.32	0.00			
Avail Cap(c_a), veh/h				0	734	640	680	594	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	12.0	11.8	18.6	18.2	0.0			
Incr Delay (d2), s/veh				0.0	1.3	1.6	1.2	1.4	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	2.3	2.1	3.0	2.7	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	13.3	13.4	19.8	19.7	0.0			
LnGrp LOS				A	B	B	B	B	A			
Approach Vol, veh/h					486			409				
Approach Delay, s/veh					13.3			19.7				
Approach LOS					B			B				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	30.0	30.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	26.0	26.0
Max Q Clear Time (g_c+I1), s	8.1	10.2
Green Ext Time (p_c), s	2.8	2.1

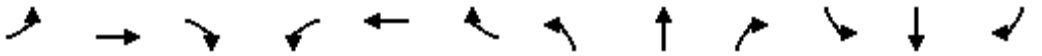
Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	223	367	0	0	0	0	0	101	99
Future Volume (veh/h)	0	0	0	223	367	0	0	0	0	0	101	99
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	0.90
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1841	1870	0				0	1900	1870
Adj Flow Rate, veh/h				269	442	0				0	122	119
Peak Hour Factor				0.83	0.83	0.83				0.83	0.83	0.83
Percent Heavy Veh, %				4	2	0				0	0	2
Cap, veh/h				880	1540	0				0	341	333
Arrive On Green				0.43	0.43	0.00				0.00	0.43	0.43
Sat Flow, veh/h				1753	3647	0				0	788	768
Grp Volume(v), veh/h				269	442	0				0	0	241
Grp Sat Flow(s),veh/h/ln				1753	1777	0				0	0	1556
Q Serve(g_s), s				6.2	4.8	0.0				0.0	0.0	6.2
Cycle Q Clear(g_c), s				6.2	4.8	0.0				0.0	0.0	6.2
Prop In Lane				1.00		0.00				0.00		0.49
Lane Grp Cap(c), veh/h				880	1540	0				0	0	674
V/C Ratio(X)				0.31	0.29	0.00				0.00	0.00	0.36
Avail Cap(c_a), veh/h				880	1540	0				0	0	674
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				11.4	11.0	0.0				0.0	0.0	11.4
Incr Delay (d2), s/veh				0.9	0.5	0.0				0.0	0.0	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.3	1.8	0.0				0.0	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.3	11.5	0.0				0.0	0.0	12.9
LnGrp LOS				B	B	A				A	A	B
Approach Vol, veh/h					711						241	
Approach Delay, s/veh					11.8						12.9	
Approach LOS					B						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	30.0	30.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	26.0	26.0
Max Q Clear Time (g_c+I1), s	8.2	8.2
Green Ext Time (p_c), s	3.5	1.3

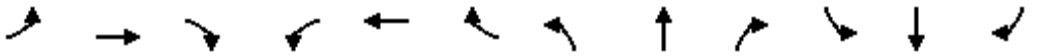
Intersection Summary	
HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	48	401	157	33	105	0	0	96	156
Future Volume (veh/h)	0	0	0	48	401	157	33	105	0	0	96	156
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1841	1826	1900	1781	0	0	1885	1885
Adj Flow Rate, veh/h				59	489	191	40	128	0	0	117	190
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	4	5	0	8	0	0	1	1
Cap, veh/h				111	945	393	192	561	0	0	288	467
Arrive On Green				0.14	0.14	0.14	0.45	0.45	0.00	0.00	0.45	0.45
Sat Flow, veh/h				266	2269	943	261	1247	0	0	639	1038
Grp Volume(v), veh/h				405	0	334	168	0	0	0	0	307
Grp Sat Flow(s),veh/h/ln				1827	0	1651	1508	0	0	0	0	1678
Q Serve(g_s), s				12.4	0.0	11.2	0.1	0.0	0.0	0.0	0.0	7.4
Cycle Q Clear(g_c), s				12.4	0.0	11.2	7.5	0.0	0.0	0.0	0.0	7.4
Prop In Lane				0.15		0.57	0.24		0.00	0.00		0.62
Lane Grp Cap(c), veh/h				761	0	688	753	0	0	0	0	755
V/C Ratio(X)				0.53	0.00	0.49	0.22	0.00	0.00	0.00	0.00	0.41
Avail Cap(c_a), veh/h				761	0	688	753	0	0	0	0	755
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				20.4	0.0	19.9	10.0	0.0	0.0	0.0	0.0	11.1
Incr Delay (d2), s/veh				2.6	0.0	2.5	0.7	0.0	0.0	0.0	0.0	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.4	0.0	5.3	1.3	0.0	0.0	0.0	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.1	0.0	22.4	10.7	0.0	0.0	0.0	0.0	12.7
LnGrp LOS				C	A	C	B	A	A	A	A	B
Approach Vol, veh/h					739			168			307	
Approach Delay, s/veh					22.8			10.7			12.7	
Approach LOS					C			B			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		29.0		31.0				31.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		25.0		27.0				27.0				
Max Q Clear Time (g_c+I1), s		14.4		9.4				9.5				
Green Ext Time (p_c), s		3.5		1.8				0.8				

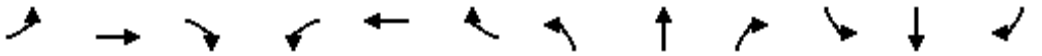
Intersection Summary		
HCM 6th Ctrl Delay		18.6
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	381	51	0	0	0	0	0	0	166	173	0
Future Volume (veh/h)	0	381	51	0	0	0	0	0	0	166	173	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1841	1870							1841	1826	0
Adj Flow Rate, veh/h	0	419	56							182	190	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	4	2							4	5	0
Cap, veh/h	0	1341	178							880	791	0
Arrive On Green	0.00	0.43	0.43							0.14	0.14	0.00
Sat Flow, veh/h	0	3187	411							1753	1826	0
Grp Volume(v), veh/h	0	236	239							182	190	0
Grp Sat Flow(s),veh/h/ln	0	1749	1757							1753	1826	0
Q Serve(g_s), s	0.0	5.3	5.4							5.5	5.5	0.0
Cycle Q Clear(g_c), s	0.0	5.3	5.4							5.5	5.5	0.0
Prop In Lane	0.00		0.23							1.00		0.00
Lane Grp Cap(c), veh/h	0	758	761							880	791	0
V/C Ratio(X)	0.00	0.31	0.31							0.21	0.24	0.00
Avail Cap(c_a), veh/h	0	758	761							880	791	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	11.1	11.2							16.9	16.9	0.0
Incr Delay (d2), s/veh	0.0	1.1	1.1							0.5	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.0							2.3	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.2	12.2							17.5	17.7	0.0
LnGrp LOS	A	B	B							B	B	A
Approach Vol, veh/h		475									372	
Approach Delay, s/veh		12.2									17.6	
Approach LOS		B									B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		7.4		7.5								
Green Ext Time (p_c), s		2.7		1.5								

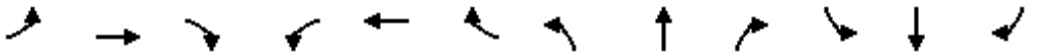
Intersection Summary												
HCM 6th Ctrl Delay			14.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	415	0	0	0	0	0	261	153	0	0	0
Future Volume (veh/h)	132	415	0	0	0	0	0	261	153	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	0.90			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1678	1870	0				0	1811	1885			
Adj Flow Rate, veh/h	145	456	0				0	287	168			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	15	2	0				0	6	1			
Cap, veh/h	384	1120	0				0	866	491			
Arrive On Green	0.14	0.14	0.00				0.00	0.43	0.43			
Sat Flow, veh/h	684	2669	0				0	2090	1132			
Grp Volume(v), veh/h	314	287	0				0	246	209			
Grp Sat Flow(s),veh/h/ln	1652	1617	0				0	1721	1411			
Q Serve(g_s), s	7.9	9.7	0.0				0.0	5.7	5.9			
Cycle Q Clear(g_c), s	10.2	9.7	0.0				0.0	5.7	5.9			
Prop In Lane	0.46		0.00				0.00		0.80			
Lane Grp Cap(c), veh/h	803	701	0				0	746	612			
V/C Ratio(X)	0.39	0.41	0.00				0.00	0.33	0.34			
Avail Cap(c_a), veh/h	803	701	0				0	746	612			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	18.8	18.7	0.0				0.0	11.2	11.3			
Incr Delay (d2), s/veh	1.4	1.8	0.0				0.0	1.2	1.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.7	4.2	0.0				0.0	2.1	1.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	20.5	0.0				0.0	12.4	12.8			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		601						455				
Approach Delay, s/veh		20.4						12.6				
Approach LOS		C						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		7.9		12.2								
Green Ext Time (p_c), s		2.7		3.1								

Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	480	88	0	0	0	0	0	127	80	244	0
Future Volume (vph)	0	480	88	0	0	0	0	0	127	80	244	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0							4.5	5.0	4.0	
Lane Util. Factor		0.95							1.00	1.00	1.00	
Frpb, ped/bikes		1.00							0.99	1.00	1.00	
Flpb, ped/bikes		1.00							1.00	1.00	1.00	
Frt		0.98							0.86	1.00	1.00	
Flt Protected		1.00							1.00	0.95	1.00	
Satd. Flow (prot)		3440							1572	1699	1881	
Flt Permitted		1.00							1.00	0.95	1.00	
Satd. Flow (perm)		3440							1572	1699	1881	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	0	539	99	0	0	0	0	0	143	90	274	0
RTOR Reduction (vph)	0	25	0	0	0	0	0	0	82	53	0	0
Lane Group Flow (vph)	0	613	0	0	0	0	0	0	61	38	274	0
Confl. Peds. (#/hr)	7		2	2		7	11		3	3		11
Heavy Vehicles (%)	3%	2%	3%	3%	3%	3%	3%	3%	3%	6%	1%	3%
Turn Type		NA							Perm	Perm	NA	
Protected Phases		2									4	
Permitted Phases									8	4		
Actuated Green, G (s)		26.0							25.5	26.0	26.0	
Effective Green, g (s)		25.0							25.5	25.0	26.0	
Actuated g/C Ratio		0.42							0.42	0.42	0.43	
Clearance Time (s)		4.0							4.5	4.0	4.0	
Lane Grp Cap (vph)		1433							668	707	815	
v/s Ratio Prot		c0.18									c0.15	
v/s Ratio Perm									0.04	0.02		
v/c Ratio		0.43							0.09	0.05	0.34	
Uniform Delay, d1		12.4							10.3	10.4	11.3	
Progression Factor		0.62							1.00	1.83	1.29	
Incremental Delay, d2		0.9							0.3	0.1	1.1	
Delay (s)		8.6							10.6	19.3	15.7	
Level of Service		A							B	B	B	
Approach Delay (s)		8.6			0.0			10.6			16.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	11.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	9.5
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

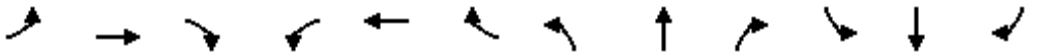
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	138	549	0	0	144	0
Future Vol, veh/h	138	549	0	0	144	0
Conflicting Peds, #/hr	7	0	0	7	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	1080	409536	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	2	3	3	3	4
Mvmt Flow	155	617	0	0	162	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	7	0	631	-
Stage 1	-	-	7	-
Stage 2	-	-	624	-
Critical Hdwy	4.22	-	6.86	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.86	-
Follow-up Hdwy	2.26	-	3.53	-
Pot Cap-1 Maneuver	1583	-	411	0
Stage 1	-	-	-	0
Stage 2	-	-	494	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1572	-	344	-
Mov Cap-2 Maneuver	-	-	344	-
Stage 1	-	-	-	-
Stage 2	-	-	491	-

Approach	EB	SB
HCM Control Delay, s	1.8	24.4
HCM LOS		C

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	1572	-	344
HCM Lane V/C Ratio	0.099	-	0.47
HCM Control Delay (s)	7.5	0.4	24.4
HCM Lane LOS	A	A	C
HCM 95th %tile Q(veh)	0.3	-	2.4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	464	170	0	10	683	368	0	123
Future Volume (vph)	0	0	0	0	464	170	0	10	683	368	0	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0			4.0	4.0	4.0		4.0
Lane Util. Factor					0.95			1.00	0.88	1.00		1.00
Frpb, ped/bikes					0.99			1.00	1.00	1.00		0.99
Flpb, ped/bikes					1.00			1.00	1.00	1.00		1.00
Frt					0.96			1.00	0.85	1.00		0.85
Flt Protected					1.00			1.00	1.00	0.95		1.00
Satd. Flow (prot)					3308			1900	2760	1719		1592
Flt Permitted					1.00			1.00	1.00	0.95		1.00
Satd. Flow (perm)					3308			1900	2760	1719		1592
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	0	527	193	0	11	776	418	0	140
RTOR Reduction (vph)	0	0	0	0	62	0	0	0	195	0	0	91
Lane Group Flow (vph)	0	0	0	0	658	0	0	11	581	418	0	49
Confl. Peds. (#/hr)	14		2	2		14	2		16	16		2
Heavy Vehicles (%)	3%	3%	3%	3%	4%	2%	3%	0%	3%	5%	3%	0%
Turn Type					NA			NA	custom	Prot		Perm
Protected Phases					2!			1	6	4		
Permitted Phases					2!			6!				4
Actuated Green, G (s)					16.0			31.0	31.0	21.0		21.0
Effective Green, g (s)					16.0			31.0	31.0	21.0		21.0
Actuated g/C Ratio					0.27			0.52	0.52	0.35		0.35
Clearance Time (s)					4.0			4.0	4.0	4.0		4.0
Lane Grp Cap (vph)					882			981	1426	601		557
v/s Ratio Prot					c0.20			0.00	c0.21	c0.24		
v/s Ratio Perm								0.00				0.03
v/c Ratio					0.75			0.01	0.41	0.70		0.09
Uniform Delay, d1					20.1			7.0	8.9	16.8		13.1
Progression Factor					1.00			2.05	3.20	1.00		1.00
Incremental Delay, d2					5.7			0.0	0.8	6.5		0.3
Delay (s)					25.8			14.5	29.3	23.3		13.4
Level of Service					C			B	C	C		B
Approach Delay (s)		0.0			25.8			29.1			20.8	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group

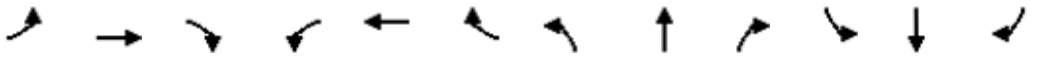
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	26	5	65	0	90	0	0	0	213	34
Future Vol, veh/h	0	0	26	5	65	0	90	0	0	0	213	34
Conflicting Peds, #/hr	7	0	8	8	0	7	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	4	20	1	10	7	3	3	3	3	0
Mvmt Flow	0	0	31	6	77	0	107	0	0	0	254	40

Major/Minor	Minor2			Minor1					Major2		
Conflicting Flow All	-	-	287	298	299	-			-	-	0
Stage 1	-	-	-	0	0	-			-	-	-
Stage 2	-	-	-	298	299	-			-	-	-
Critical Hdwy	-	-	6.24	7.3	6.51	-			-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-			-	-	-
Critical Hdwy Stg 2	-	-	-	6.3	5.51	-			-	-	-
Follow-up Hdwy	-	-	3.336	3.68	4.009	-			-	-	-
Pot Cap-1 Maneuver	0	0	747	620	615	0			0	-	-
Stage 1	0	0	-	-	-	0			0	-	-
Stage 2	0	0	-	674	668	0			0	-	-
Platoon blocked, %										-	-
Mov Cap-1 Maneuver	-	-	743	594	612	-			-	-	-
Mov Cap-2 Maneuver	-	-	-	594	612	-			-	-	-
Stage 1	-	-	-	-	-	-			-	-	-
Stage 2	-	-	-	646	665	-			-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	10.1	11.8	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	743	611	-	-
HCM Lane V/C Ratio	0.042	0.136	-	-
HCM Control Delay (s)	10.1	11.8	-	-
HCM Lane LOS	B	B	-	-
HCM 95th %tile Q(veh)	0.1	0.5	-	-

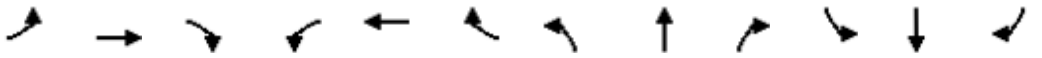


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	485	280	0	0	0	445	0	20	10	10	575
Future Volume (vph)	0	485	280	0	0	0	445	0	20	10	10	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0				5.0	5.0			5.0	5.0
Lane Util. Factor		1.00	1.00				0.95	0.95			1.00	1.00
Frt		1.00	0.85				1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00				0.95	0.96			0.98	1.00
Satd. Flow (prot)		1863	1583				1665	1654			1800	1568
Flt Permitted		1.00	1.00				0.74	0.73			0.85	1.00
Satd. Flow (perm)		1863	1583				1302	1260			1563	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	527	304	0	0	0	484	0	22	11	11	625
RTOR Reduction (vph)	0	0	149	0	0	0	0	47	0	0	0	269
Lane Group Flow (vph)	0	527	155	0	0	0	257	202	0	0	22	356
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type		NA	Perm				Perm	NA		Perm	NA	custom
Protected Phases		4						2			6	4
Permitted Phases			4				2			6		
Actuated Green, G (s)		28.7	28.7				17.7	17.7			17.7	28.7
Effective Green, g (s)		28.7	28.7				17.7	17.7			17.7	28.7
Actuated g/C Ratio		0.51	0.51				0.31	0.31			0.31	0.51
Clearance Time (s)		5.0	5.0				5.0	5.0			5.0	5.0
Vehicle Extension (s)		3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		948	805				408	395			490	797
v/s Ratio Prot		c0.28										0.23
v/s Ratio Perm			0.10				c0.20	0.16			0.01	
v/c Ratio		0.56	0.19				0.63	0.51			0.04	0.45
Uniform Delay, d1		9.5	7.5				16.5	15.8			13.5	8.8
Progression Factor		1.00	1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2		0.7	0.1				3.0	1.1			0.0	0.4
Delay (s)		10.2	7.7				19.6	16.9			13.5	9.2
Level of Service		B	A				B	B			B	A
Approach Delay (s/veh)		9.3			0.0			18.3			9.4	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	14.5
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	125	380	30	0	0	0	0	0	85	10
Future Volume (vph)	0	0	125	380	30	0	0	0	0	0	85	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.5		5.0						5.0	
Lane Util. Factor			1.00		1.00						1.00	
Frpb, ped/bikes			0.98		1.00						1.00	
Flpb, ped/bikes			1.00		1.00						1.00	
Frt			0.87		1.00						0.99	
Flt Protected			1.00		0.96						1.00	
Satd. Flow (prot)			1603		1741						1848	
Flt Permitted			1.00		0.96						1.00	
Satd. Flow (perm)			1603		1741						1848	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	0	144	437	34	0	0	0	0	0	98	11
RTOR Reduction (vph)	0	0	61	0	182	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	83	0	289	0	0	0	0	0	102	0
Confl. Peds. (#/hr)	17		3	3		17	15					15
Heavy Vehicles (%)	3%	3%	0%	4%	5%	3%	3%	3%	3%	3%	1%	0%
Turn Type			Perm	Perm	NA						NA	
Protected Phases					6						4	
Permitted Phases			2	6								
Actuated Green, G (s)			35.5		36.0						16.0	
Effective Green, g (s)			34.5		35.0						15.0	
Actuated g/C Ratio			0.57		0.58						0.25	
Clearance Time (s)			4.5		4.0						4.0	
Lane Grp Cap (vph)			921		1015						462	
v/s Ratio Prot											c0.06	
v/s Ratio Perm			0.05		0.17							
v/c Ratio			0.09		0.28						0.22	
Uniform Delay, d1			5.7		6.2						17.9	
Progression Factor			1.00		0.00						1.00	
Incremental Delay, d2			0.2		0.6						1.1	
Delay (s)			5.9		0.6						19.0	
Level of Service			A		A						B	
Approach Delay (s/veh)		5.9			0.6			0.0			19.0	
Approach LOS		A			A			A			B	

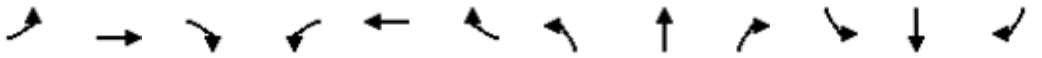
Intersection Summary			
HCM 2000 Control Delay (s/veh)	4.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	40	365	0	0	0	0	0	124	39
Future Volume (veh/h)	0	0	0	40	365	0	0	0	0	0	124	39
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	0.90
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1811	0				0	1796	1781
Adj Flow Rate, veh/h				48	435	0				0	148	46
Peak Hour Factor				0.84	0.84	0.84				0.84	0.84	0.84
Percent Heavy Veh, %				5	6	0				0	7	8
Cap, veh/h				90	812	0				0	392	122
Arrive On Green				0.17	0.17	0.00				0.00	0.33	0.35
Sat Flow, veh/h				179	1623	0				0	1175	365
Grp Volume(v), veh/h				483	0	0				0	0	194
Grp Sat Flow(s),veh/h/ln				1802	0	0				0	0	1541
Q Serve(g_s), s				14.7	0.0	0.0				0.0	0.0	5.7
Cycle Q Clear(g_c), s				14.7	0.0	0.0				0.0	0.0	5.7
Prop In Lane				0.10		0.00				0.00		0.24
Lane Grp Cap(c), veh/h				901	0	0				0	0	514
V/C Ratio(X)				0.54	0.00	0.00				0.00	0.00	0.38
Avail Cap(c_a), veh/h				901	0	0				0	0	514
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				18.7	0.0	0.0				0.0	0.0	15.2
Incr Delay (d2), s/veh				2.3	0.0	0.0				0.0	0.0	2.1
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	0.0				0.0	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				21.0	0.0	0.0				0.0	0.0	17.3
LnGrp LOS				C								B
Approach Vol, veh/h					483						194	
Approach Delay, s/veh					21.0						17.3	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	16.7	7.7
Green Ext Time (p_c), s	2.7	0.8

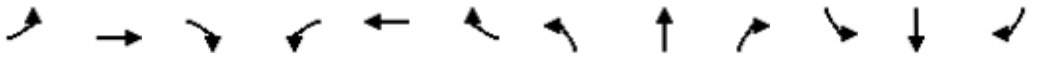
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	19.9
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	330	51	75	40	0	0	0	0
Future Volume (veh/h)	0	0	0	0	330	51	75	40	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1796	1841	1870	1796	0			
Adj Flow Rate, veh/h				0	337	52	77	41	0			
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %				0	7	4	2	7	0			
Cap, veh/h				0	681	105	378	201	0			
Arrive On Green				0.00	0.50	0.52	0.33	0.33	0.00			
Sat Flow, veh/h				0	1363	210	1135	604	0			
Grp Volume(v), veh/h				0	0	389	118	0	0			
Grp Sat Flow(s),veh/h/ln				0	0	1573	1740	0	0			
Q Serve(g_s), s				0.0	0.0	9.8	2.9	0.0	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	9.8	2.9	0.0	0.0			
Prop In Lane				0.00		0.13	0.65		0.00			
Lane Grp Cap(c), veh/h				0	0	787	580	0	0			
V/C Ratio(X)				0.00	0.00	0.49	0.20	0.00	0.00			
Avail Cap(c_a), veh/h				0	0	787	580	0	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	9.9	14.3	0.0	0.0			
Incr Delay (d2), s/veh				0.0	0.0	2.2	0.8	0.0	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	3.3	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	12.1	15.1	0.0	0.0			
LnGrp LOS						B	B					
Approach Vol, veh/h					389			118				
Approach Delay, s/veh					12.1			15.1				
Approach LOS					B			B				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	11.8	4.9
Green Ext Time (p_c), s	2.3	0.5

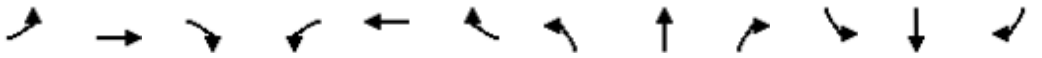
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	12.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	59	320	0	0	0	0	0	290	47
Future Volume (veh/h)	0	0	0	59	320	0	0	0	0	0	290	47
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1826	0				0	1841	1604
Adj Flow Rate, veh/h				61	330	0				0	299	48
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	5	0				0	4	20
Cap, veh/h				127	688	0				0	1151	182
Arrive On Green				0.15	0.15	0.00				0.00	0.38	0.40
Sat Flow, veh/h				283	1529	0				0	3096	475
Grp Volume(v), veh/h				391	0	0				0	172	175
Grp Sat Flow(s),veh/h/ln				1812	0	0				0	1749	1730
Q Serve(g_s), s				11.9	0.0	0.0				0.0	4.0	4.1
Cycle Q Clear(g_c), s				11.9	0.0	0.0				0.0	4.0	4.1
Prop In Lane				0.16		0.00				0.00		0.27
Lane Grp Cap(c), veh/h				815	0	0				0	670	663
V/C Ratio(X)				0.48	0.00	0.00				0.00	0.26	0.26
Avail Cap(c_a), veh/h				815	0	0				0	670	663
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.1	0.0	0.0				0.0	12.7	12.6
Incr Delay (d2), s/veh				2.0	0.0	0.0				0.0	0.9	1.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	0.0				0.0	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				21.1	0.0	0.0				0.0	13.6	13.6
LnGrp LOS				C							B	B
Approach Vol, veh/h					391						347	
Approach Delay, s/veh					21.1						13.6	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	32.0	28.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	28.0	24.0
Max Q Clear Time (g_c+I1), s	13.9	6.1
Green Ext Time (p_c), s	2.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	17.6
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	390	113	10	330	0	0	0	0
Future Volume (veh/h)	0	0	0	0	390	113	10	330	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1826	1781	1811	1648	0			
Adj Flow Rate, veh/h				0	406	118	10	344	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	5	8	6	17	0			
Cap, veh/h				0	507	147	36	1301	0			
Arrive On Green				0.00	0.42	0.43	0.14	0.14	0.00			
Sat Flow, veh/h				0	1217	354	87	3205	0			
Grp Volume(v), veh/h				0	0	524	190	164	0			
Grp Sat Flow(s),veh/h/ln				0	0	1570	1644	1566	0			
Q Serve(g_s), s				0.0	0.0	17.5	6.2	5.6	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	17.5	6.2	5.6	0.0			
Prop In Lane				0.00		0.23	0.05		0.00			
Lane Grp Cap(c), veh/h				0	0	654	685	652	0			
V/C Ratio(X)				0.00	0.00	0.80	0.28	0.25	0.00			
Avail Cap(c_a), veh/h				0	0	654	685	652	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.2	17.8	17.5	0.0			
Incr Delay (d2), s/veh				0.0	0.0	10.0	1.0	0.9	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	7.1	2.5	2.1	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	25.2	18.8	18.4	0.0			
LnGrp LOS						C	B	B				
Approach Vol, veh/h					524			354				
Approach Delay, s/veh					25.2			18.6				
Approach LOS					C			B				

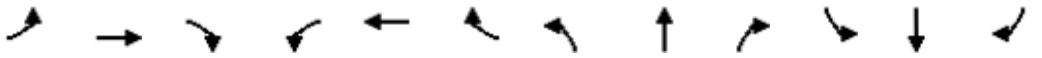
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	30.0	30.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	26.0	26.0
Max Q Clear Time (g_c+I1), s	19.5	8.2
Green Ext Time (p_c), s	1.9	1.9

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	22.5
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	225	380	0	40	0	0	0	107	61
Future Volume (vph)	0	0	0	225	380	0	40	0	0	0	107	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.5				4.0	
Lane Util. Factor					1.00		1.00				1.00	
Frpb, ped/bikes					1.00		1.00				0.99	
Flpb, ped/bikes					1.00		1.00				1.00	
Frt					1.00		1.00				0.95	
Flt Protected					0.98		0.95				1.00	
Satd. Flow (prot)					1812		1752				1599	
Flt Permitted					0.98		0.62				1.00	
Satd. Flow (perm)					1812		1150				1599	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	271	458	0	48	0	0	0	129	73
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	34	0
Lane Group Flow (vph)	0	0	0	0	729	0	48	0	0	0	168	0
Confl. Peds. (#/hr)				5								6
Heavy Vehicles (%)	3%	3%	3%	4%	2%	3%	3%	3%	3%	3%	0%	2%
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm				NA	
Protected Phases					2						4	
Permitted Phases				2			8					
Actuated Green, G (s)					26.0		25.5				26.0	
Effective Green, g (s)					26.0		25.5				26.0	
Actuated g/C Ratio					0.43		0.43				0.43	
Clearance Time (s)					4.0		4.5				4.0	
Lane Grp Cap (vph)					785		488				692	
v/s Ratio Prot											c0.11	
v/s Ratio Perm					0.40		0.04					
v/c Ratio					0.93		0.10				0.24	
Uniform Delay, d1					16.1		10.4				10.8	
Progression Factor					0.65		0.82				1.00	
Incremental Delay, d2					16.2		0.4				0.8	
Delay (s)					26.7		8.8				11.6	
Level of Service					C		A				B	
Approach Delay (s/veh)		0.0			26.7			8.8			11.6	
Approach LOS		A			C			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	67.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	48	380	169	30	72	0	0	130	180
Future Volume (veh/h)	0	0	0	48	380	169	30	72	0	0	130	180
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1841	1826	1900	1781	0	0	1885	1885
Adj Flow Rate, veh/h				59	463	206	37	88	0	0	159	220
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	4	5	0	8	0	0	1	1
Cap, veh/h				86	676	633	200	430	0	0	319	441
Arrive On Green				0.14	0.14	0.14	0.45	0.45	0.00	0.00	0.45	0.45
Sat Flow, veh/h				207	1623	1520	271	956	0	0	709	980
Grp Volume(v), veh/h				522	0	206	125	0	0	0	0	379
Grp Sat Flow(s),veh/h/ln				1830	0	1520	1227	0	0	0	0	1689
Q Serve(g_s), s				16.3	0.0	7.3	0.5	0.0	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s				16.3	0.0	7.3	10.0	0.0	0.0	0.0	0.0	9.5
Prop In Lane				0.11		1.00	0.30		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				763	0	633	630	0	0	0	0	760
V/C Ratio(X)				0.68	0.00	0.33	0.20	0.00	0.00	0.00	0.00	0.50
Avail Cap(c_a), veh/h				763	0	633	630	0	0	0	0	760
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				22.1	0.0	18.3	10.0	0.0	0.0	0.0	0.0	11.7
Incr Delay (d2), s/veh				4.9	0.0	1.4	0.7	0.0	0.0	0.0	0.0	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	2.8	1.0	0.0	0.0	0.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				27.1	0.0	19.6	10.7	0.0	0.0	0.0	0.0	14.0
LnGrp LOS				C		B	B					B
Approach Vol, veh/h					728			125			379	
Approach Delay, s/veh					25.0			10.7			14.0	
Approach LOS					C			B			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		29.0		31.0				31.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		25.0		27.0				27.0				
Max Q Clear Time (g_c+I1), s		18.3		11.5				12.0				
Green Ext Time (p_c), s		2.3		2.2				0.5				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			20.1									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	455	60	0	0	0	0	0	0	190	179	0
Future Volume (veh/h)	0	455	60	0	0	0	0	0	0	190	179	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							0.90	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1841	1870							1841	1826	0
Adj Flow Rate, veh/h	0	500	66							209	197	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	4	2							4	5	0
Cap, veh/h	0	688	91							684	791	0
Arrive On Green	0.00	0.43	0.43							0.14	0.14	0.00
Sat Flow, veh/h	0	1588	210							1578	1826	0
Grp Volume(v), veh/h	0	0	566							209	197	0
Grp Sat Flow(s),veh/h/ln	0	0	1798							1578	1826	0
Q Serve(g_s), s	0.0	0.0	15.6							7.1	5.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.6							7.1	5.8	0.0
Prop In Lane	0.00		0.12							1.00		0.00
Lane Grp Cap(c), veh/h	0	0	779							684	791	0
V/C Ratio(X)	0.00	0.00	0.73							0.31	0.25	0.00
Avail Cap(c_a), veh/h	0	0	779							684	791	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	14.1							17.6	17.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.9							1.2	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	6.7							2.8	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	19.9							18.8	17.8	0.0
LnGrp LOS			B							B	B	
Approach Vol, veh/h		566									406	
Approach Delay, s/veh		19.9									18.3	
Approach LOS		B									B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		17.6		9.1								
Green Ext Time (p_c), s		2.4		1.6								

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			19.2									
HCM 6th LOS			B									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	405	0	0	0	0	0	110	100	0	0	0
Future Volume (veh/h)	240	405	0	0	0	0	0	110	100	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	0.90			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1678	1870	0				0	1811	1885			
Adj Flow Rate, veh/h	264	445	0				0	121	110			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	15	2	0				0	6	1			
Cap, veh/h	296	499	0				0	746	588			
Arrive On Green	0.14	0.14	0.00				0.00	0.43	0.43			
Sat Flow, veh/h	684	1152	0				0	1811	1356			
Grp Volume(v), veh/h	709	0	0				0	121	110			
Grp Sat Flow(s),veh/h/ln	1836	0	0				0	1721	1356			
Q Serve(g_s), s	22.8	0.0	0.0				0.0	2.6	3.0			
Cycle Q Clear(g_c), s	22.8	0.0	0.0				0.0	2.6	3.0			
Prop In Lane	0.37		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	796	0	0				0	746	588			
V/C Ratio(X)	0.89	0.00	0.00				0.00	0.16	0.19			
Avail Cap(c_a), veh/h	796	0	0				0	746	588			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	24.3	0.0	0.0				0.0	10.4	10.5			
Incr Delay (d2), s/veh	14.3	0.0	0.0				0.0	0.5	0.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.0	0.0	0.0				0.0	0.9	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.6	0.0	0.0				0.0	10.8	11.2			
LnGrp LOS	D							B	B			
Approach Vol, veh/h		709						231				
Approach Delay, s/veh		38.6						11.0				
Approach LOS		D						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		5.0		24.8								
Green Ext Time (p_c), s		1.3		0.6								

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			31.8									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	440	65	0	0	0	0	40	162	90	252	0
Future Volume (veh/h)	10	440	65	0	0	0	0	40	162	90	252	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856				0	1856	1856	1811	1885	0
Adj Flow Rate, veh/h	11	494	73				0	45	182	101	283	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	2	3				0	3	3	6	1	0
Cap, veh/h	14	645	95				0	138	557	217	575	0
Arrive On Green	0.43	0.41	0.43				0.00	0.43	0.43	0.14	0.14	0.00
Sat Flow, veh/h	35	1560	230				0	321	1296	330	1338	0
Grp Volume(v), veh/h	578	0	0				0	0	227	384	0	0
Grp Sat Flow(s),veh/h/ln	1825	0	0				0	0	1617	1668	0	0
Q Serve(g_s), s	16.4	0.0	0.0				0.0	0.0	5.6	7.0	0.0	0.0
Cycle Q Clear(g_c), s	16.4	0.0	0.0				0.0	0.0	5.6	12.6	0.0	0.0
Prop In Lane	0.02		0.13				0.00		0.80	0.26		0.00
Lane Grp Cap(c), veh/h	754	0	0				0	0	695	764	0	0
V/C Ratio(X)	0.77	0.00	0.00				0.00	0.00	0.33	0.50	0.00	0.00
Avail Cap(c_a), veh/h	754	0	0				0	0	695	764	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.2	0.0	0.0				0.0	0.0	11.4	20.0	0.0	0.0
Incr Delay (d2), s/veh	7.3	0.0	0.0				0.0	0.0	1.3	2.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.0				0.0	0.0	2.0	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.5	0.0	0.0				0.0	0.0	12.7	22.4	0.0	0.0
LnGrp LOS	C								B	C		
Approach Vol, veh/h		578						227			384	
Approach Delay, s/veh		22.5						12.7			22.4	
Approach LOS		C						B			C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		30.0		30.5				30.5				
Change Period (Y+Rc), s		4.0		* 4.5				4.5				
Max Green Setting (Gmax), s		26.0		* 26				18.0				
Max Q Clear Time (g_c+I1), s		18.4		14.6				7.6				
Green Ext Time (p_c), s		2.3		1.9				0.9				

Intersection Summary		
HCM 6th Ctrl Delay, s/veh		20.6
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

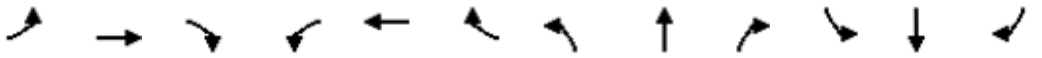
Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	119	560	0	0	140	0
Future Vol, veh/h	119	560	0	0	140	0
Conflicting Peds, #/hr	7	0	0	7	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	2	3	3	3	4
Mvmt Flow	134	629	0	0	157	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	7	0	909	-
Stage 1	-	-	7	-
Stage 2	-	-	902	-
Critical Hdwy	4.16	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	2.254	-	3.527	-
Pot Cap-1 Maneuver	1588	-	304	0
Stage 1	-	-	-	0
Stage 2	-	-	394	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1577	-	261	-
Mov Cap-2 Maneuver	-	-	261	-
Stage 1	-	-	-	-
Stage 2	-	-	391	-

Approach	EB	SB
HCM Ctrl Dly, s/v	1.3	37.7
HCM LOS		E

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	1577	-	261
HCM Lane V/C Ratio	0.085	-	0.603
HCM Ctrl Dly (s/v)	7.5	0	37.7
HCM Lane LOS	A	A	E
HCM 95th %tile Q (veh)	0.3	-	3.6



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	438	172	0	4	690	360	0	140
Future Volume (vph)	0	0	0	0	438	172	0	4	690	360	0	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0	4.0		4.0
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00		1.00
Frpb, ped/bikes					1.00	0.95		1.00	1.00	1.00		0.98
Flpb, ped/bikes					1.00	1.00		1.00	1.00	1.00		1.00
Frt					1.00	0.85		1.00	0.85	1.00		0.85
Flt Protected					1.00	1.00		1.00	1.00	0.95		1.00
Satd. Flow (prot)					1827	1511		1900	1568	1719		1577
Flt Permitted					1.00	1.00		1.00	1.00	0.95		1.00
Satd. Flow (perm)					1827	1511		1900	1568	1719		1577
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	0	498	195	0	5	784	409	0	159
RTOR Reduction (vph)	0	0	0	0	0	143	0	0	115	0	0	103
Lane Group Flow (vph)	0	0	0	0	498	52	0	5	669	409	0	56
Confl. Peds. (#/hr)	14		2	2		14	2		16	16		2
Heavy Vehicles (%)	3%	3%	3%	3%	4%	2%	3%	0%	3%	5%	0%	0%
Turn Type					NA	Perm		NA	custom	Prot		Perm
Protected Phases					2!			1	6	4		
Permitted Phases					2!	2		6!				4
Actuated Green, G (s)					16.0	16.0		31.0	31.0	21.0		21.0
Effective Green, g (s)					16.0	16.0		31.0	31.0	21.0		21.0
Actuated g/C Ratio					0.27	0.27		0.52	0.52	0.35		0.35
Clearance Time (s)					4.0	4.0		4.0	4.0	4.0		4.0
Lane Grp Cap (vph)					487	402		981	810	601		551
v/s Ratio Prot					c0.27			0.00	c0.43	c0.24		
v/s Ratio Perm						0.03		0.00				0.04
v/c Ratio					1.02	0.13		0.01	0.83	0.68		0.10
Uniform Delay, d1					22.0	16.7		7.0	12.2	16.6		13.1
Progression Factor					1.00	1.00		1.56	1.92	1.00		1.00
Incremental Delay, d2					46.6	0.7		0.0	8.4	6.1		0.4
Delay (s)					68.6	17.4		11.0	31.9	22.8		13.5
Level of Service					E	B		B	C	C		B
Approach Delay (s/veh)		0.0			54.2			31.8			20.2	
Approach LOS		A			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

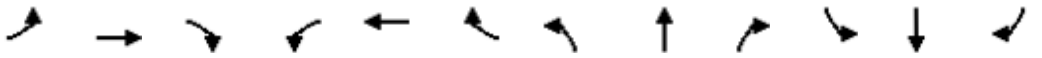
Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	26	5	65	260	90	200	0	0	258	34
Future Vol, veh/h	10	0	26	5	65	260	90	200	0	0	258	34
Conflicting Peds, #/hr	7	0	8	8	0	7	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	4	20	1	10	7	3	3	3	3	0
Mvmt Flow	12	0	31	6	77	310	107	238	0	0	307	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	985	-	340	803	804	245	352	0	-	-	-	0
Stage 1	332	-	-	452	452	-	-	-	-	-	-	-
Stage 2	653	-	-	351	352	-	-	-	-	-	-	-
Critical Hdwy	7.13	-	6.24	7.3	6.51	6.3	4.17	-	-	-	-	-
Critical Hdwy Stg 1	6.13	-	-	6.3	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.3	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	-	3.336	3.68	4.009	3.39	2.263	-	-	-	-	-
Pot Cap-1 Maneuver	226	0	698	281	318	775	1180	-	0	0	-	-
Stage 1	679	0	-	554	572	-	-	-	0	0	-	-
Stage 2	455	0	-	630	633	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	97	-	689	245	283	770	1174	-	-	-	-	-
Mov Cap-2 Maneuver	97	-	-	245	283	-	-	-	-	-	-	-
Stage 1	605	-	-	496	512	-	-	-	-	-	-	-
Stage 2	205	-	-	597	630	-	-	-	-	-	-	-

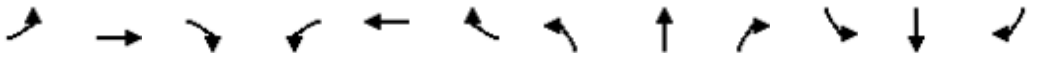
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	20.7	25	2.6	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1174	-	97	689	561	-	-
HCM Lane V/C Ratio	0.091	-	0.123	0.045	0.7	-	-
HCM Ctrl Dly (s/v)	8.4	0	47.2	10.5	25	-	-
HCM Lane LOS	A	A	E	B	D	-	-
HCM 95th %tile Q (veh)	0.3	-	0.4	0.1	5.5	-	-



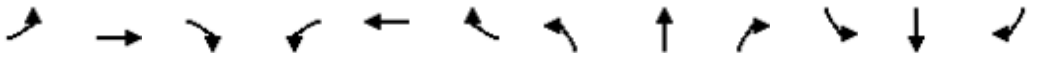
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	495	285	0	0	0	450	0	20	10	10	585
Future Volume (vph)	0	495	285	0	0	0	450	0	20	10	10	585
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0				5.0	5.0			5.0	5.0
Lane Util. Factor		1.00	1.00				0.95	0.95			1.00	1.00
Frt		1.00	0.85				1.00	0.99			1.00	0.85
Flt Protected		1.00	1.00				0.95	0.96			0.98	1.00
Satd. Flow (prot)		1863	1583				1665	1654			1800	1568
Flt Permitted		1.00	1.00				0.74	0.73			0.84	1.00
Satd. Flow (perm)		1863	1583				1302	1260			1557	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	538	310	0	0	0	489	0	22	11	11	636
RTOR Reduction (vph)	0	0	151	0	0	0	0	48	0	0	0	265
Lane Group Flow (vph)	0	538	159	0	0	0	254	209	0	0	22	371
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type		NA	Perm				Perm	NA		Perm	NA	custom
Protected Phases		4						2			6	4
Permitted Phases			4				2			6		
Actuated Green, G (s)		29.2	29.2				17.6	17.6			17.6	29.2
Effective Green, g (s)		29.2	29.2				17.6	17.6			17.6	29.2
Actuated g/C Ratio		0.51	0.51				0.31	0.31			0.31	0.51
Clearance Time (s)		5.0	5.0				5.0	5.0			5.0	5.0
Vehicle Extension (s)		3.0	3.0				3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		957	813				403	390			482	806
v/s Ratio Prot		c0.29										0.24
v/s Ratio Perm			0.10				c0.20	0.17			0.01	
v/c Ratio		0.56	0.20				0.63	0.54			0.05	0.46
Uniform Delay, d1		9.4	7.5				16.8	16.2			13.7	8.8
Progression Factor		1.00	1.00				1.00	1.00			1.00	1.00
Incremental Delay, d2		0.8	0.1				3.2	1.4			0.0	0.4
Delay (s)		10.2	7.6				20.0	17.7			13.8	9.2
Level of Service		B	A				C	B			B	A
Approach Delay (s/veh)		9.2			0.0			18.8			9.4	
Approach LOS		A			A			B			A	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	14.5
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	130	385	35	0	0	0	0	0	55	10
Future Volume (vph)	0	0	130	385	35	0	0	0	0	0	55	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.5		5.0						5.0	
Lane Util. Factor			1.00		1.00						1.00	
Frpb, ped/bikes			0.98		1.00						0.99	
Flpb, ped/bikes			1.00		1.00						1.00	
Frt			0.87		1.00						0.98	
Flt Protected			1.00		0.96						1.00	
Satd. Flow (prot)			1603		1741						1832	
Flt Permitted			1.00		0.96						1.00	
Satd. Flow (perm)			1603		1741						1832	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	144	428	39	0	0	0	0	0	61	11
RTOR Reduction (vph)	0	0	61	0	178	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	83	0	289	0	0	0	0	0	64	0
Confl. Peds. (#/hr)	17		3	3		17	15					15
Heavy Vehicles (%)	3%	3%	0%	4%	5%	3%	3%	3%	3%	3%	1%	0%
Turn Type			Perm	Perm	NA						NA	
Protected Phases					6						4	
Permitted Phases			2	6								
Actuated Green, G (s)			35.5		36.0						16.0	
Effective Green, g (s)			34.5		35.0						15.0	
Actuated g/C Ratio			0.57		0.58						0.25	
Clearance Time (s)			4.5		4.0						4.0	
Lane Grp Cap (vph)			921		1015						458	
v/s Ratio Prot											c0.03	
v/s Ratio Perm			0.05		0.17							
v/c Ratio			0.09		0.28						0.14	
Uniform Delay, d1			5.7		6.2						17.5	
Progression Factor			1.00		0.00						1.00	
Incremental Delay, d2			0.2		0.6						0.6	
Delay (s)			5.9		0.6						18.1	
Level of Service			A		A						B	
Approach Delay (s/veh)		5.9			0.6			0.0			18.1	
Approach LOS		A			A			A			B	

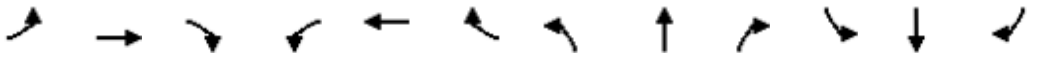
Intersection Summary			
HCM 2000 Control Delay (s/veh)	3.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	40	375	0	0	0	0	0	125	45
Future Volume (veh/h)	0	0	0	40	375	0	0	0	0	0	125	45
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	0.90
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1826	1811	0				0	1796	1781
Adj Flow Rate, veh/h				48	446	0				0	149	54
Peak Hour Factor				0.84	0.84	0.84				0.84	0.84	0.84
Percent Heavy Veh, %				5	6	0				0	7	8
Cap, veh/h				88	814	0				0	373	135
Arrive On Green				0.17	0.17	0.00				0.00	0.33	0.35
Sat Flow, veh/h				175	1627	0				0	1119	406
Grp Volume(v), veh/h				494	0	0				0	0	203
Grp Sat Flow(s),veh/h/ln				1802	0	0				0	0	1525
Q Serve(g_s), s				15.1	0.0	0.0				0.0	0.0	6.1
Cycle Q Clear(g_c), s				15.1	0.0	0.0				0.0	0.0	6.1
Prop In Lane				0.10		0.00				0.00		0.27
Lane Grp Cap(c), veh/h				901	0	0				0	0	508
V/C Ratio(X)				0.55	0.00	0.00				0.00	0.00	0.40
Avail Cap(c_a), veh/h				901	0	0				0	0	508
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00				0.00	0.00	1.00
Uniform Delay (d), s/veh				18.8	0.0	0.0				0.0	0.0	15.3
Incr Delay (d2), s/veh				2.4	0.0	0.0				0.0	0.0	2.3
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.6	0.0	0.0				0.0	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				21.2	0.0	0.0				0.0	0.0	17.6
LnGrp LOS				C								B
Approach Vol, veh/h					494						203	
Approach Delay, s/veh					21.2						17.6	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	17.1	8.1
Green Ext Time (p_c), s	2.7	0.9

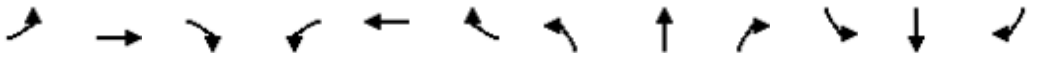
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	20.2
HCM 6th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	340	50	90	45	0	0	0	0
Future Volume (veh/h)	0	0	0	0	340	50	90	45	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1796	1841	1870	1796	0			
Adj Flow Rate, veh/h				0	347	51	92	46	0			
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %				0	7	4	2	7	0			
Cap, veh/h				0	687	101	386	193	0			
Arrive On Green				0.00	0.50	0.52	0.33	0.33	0.00			
Sat Flow, veh/h				0	1373	202	1159	579	0			
Grp Volume(v), veh/h				0	0	398	138	0	0			
Grp Sat Flow(s),veh/h/ln				0	0	1575	1738	0	0			
Q Serve(g_s), s				0.0	0.0	10.1	3.4	0.0	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	10.1	3.4	0.0	0.0			
Prop In Lane				0.00		0.13	0.67		0.00			
Lane Grp Cap(c), veh/h				0	0	787	579	0	0			
V/C Ratio(X)				0.00	0.00	0.51	0.24	0.00	0.00			
Avail Cap(c_a), veh/h				0	0	787	579	0	0			
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	10.0	14.5	0.0	0.0			
Incr Delay (d2), s/veh				0.0	0.0	2.3	1.0	0.0	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	3.4	1.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	12.3	15.5	0.0	0.0			
LnGrp LOS						B	B					
Approach Vol, veh/h					398			138				
Approach Delay, s/veh					12.3			15.5				
Approach LOS					B			B				

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	35.0	25.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	31.0	21.0
Max Q Clear Time (g_c+I1), s	12.1	5.4
Green Ext Time (p_c), s	2.4	0.6

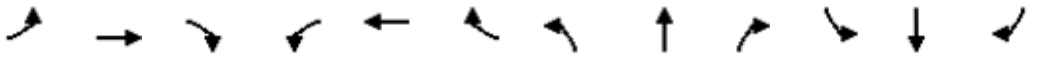
Intersection Summary	
HCM 6th Ctrl Delay, s/veh	13.1
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	65	330	0	0	0	0	0	390	50
Future Volume (veh/h)	0	0	0	65	330	0	0	0	0	0	390	50
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach					No						No	
Adj Sat Flow, veh/h/ln				1870	1826	0				0	1841	1604
Adj Flow Rate, veh/h				67	340	0				0	402	52
Peak Hour Factor				0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %				2	5	0				0	4	20
Cap, veh/h				134	681	0				0	1188	152
Arrive On Green				0.15	0.15	0.00				0.00	0.38	0.40
Sat Flow, veh/h				298	1513	0				0	3191	398
Grp Volume(v), veh/h				407	0	0				0	225	229
Grp Sat Flow(s),veh/h/ln				1811	0	0				0	1749	1748
Q Serve(g_s), s				12.4	0.0	0.0				0.0	5.5	5.5
Cycle Q Clear(g_c), s				12.4	0.0	0.0				0.0	5.5	5.5
Prop In Lane				0.16		0.00				0.00		0.23
Lane Grp Cap(c), veh/h				815	0	0				0	670	670
V/C Ratio(X)				0.50	0.00	0.00				0.00	0.34	0.34
Avail Cap(c_a), veh/h				815	0	0				0	670	670
HCM Platoon Ratio				0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				19.3	0.0	0.0				0.0	13.1	13.0
Incr Delay (d2), s/veh				2.2	0.0	0.0				0.0	1.4	1.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.3	0.0	0.0				0.0	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				21.5	0.0	0.0				0.0	14.5	14.4
LnGrp LOS				C							B	B
Approach Vol, veh/h					407						454	
Approach Delay, s/veh					21.5						14.4	
Approach LOS					C						B	

Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	32.0	28.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	28.0	24.0
Max Q Clear Time (g_c+I1), s	14.4	7.5
Green Ext Time (p_c), s	2.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	17.8
HCM 6th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	395	115	10	340	0	0	0	0
Future Volume (veh/h)	0	0	0	0	395	115	10	340	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00			
Parking Bus, Adj				1.00	1.00	0.90	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1826	1781	1811	1648	0			
Adj Flow Rate, veh/h				0	411	120	10	354	0			
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96			
Percent Heavy Veh, %				0	5	8	6	17	0			
Cap, veh/h				0	506	148	35	1302	0			
Arrive On Green				0.00	0.42	0.43	0.14	0.14	0.00			
Sat Flow, veh/h				0	1215	355	84	3208	0			
Grp Volume(v), veh/h				0	0	531	195	169	0			
Grp Sat Flow(s),veh/h/ln				0	0	1570	1644	1566	0			
Q Serve(g_s), s				0.0	0.0	17.9	6.4	5.8	0.0			
Cycle Q Clear(g_c), s				0.0	0.0	17.9	6.4	5.8	0.0			
Prop In Lane				0.00		0.23	0.05		0.00			
Lane Grp Cap(c), veh/h				0	0	654	685	652	0			
V/C Ratio(X)				0.00	0.00	0.81	0.28	0.26	0.00			
Avail Cap(c_a), veh/h				0	0	654	685	652	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	0.00	1.00	1.00	1.00	0.00			
Uniform Delay (d), s/veh				0.0	0.0	15.3	17.9	17.6	0.0			
Incr Delay (d2), s/veh				0.0	0.0	10.6	1.0	1.0	0.0			
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	0.0	7.3	2.6	2.2	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				0.0	0.0	25.9	18.9	18.6	0.0			
LnGrp LOS						C	B	B				
Approach Vol, veh/h					531			364				
Approach Delay, s/veh					25.9			18.7				
Approach LOS					C			B				

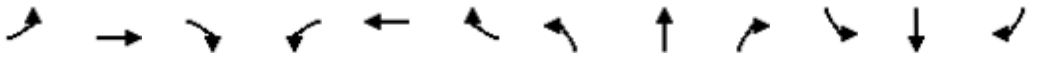
Timer - Assigned Phs	2	4
Phs Duration (G+Y+Rc), s	30.0	30.0
Change Period (Y+Rc), s	4.0	4.0
Max Green Setting (Gmax), s	26.0	26.0
Max Q Clear Time (g_c+I1), s	19.9	8.4
Green Ext Time (p_c), s	1.8	2.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	23.0
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	225	390	0	40	0	0	0	110	80
Future Volume (vph)	0	0	0	225	390	0	40	0	0	0	110	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0		4.5				4.0	
Lane Util. Factor					1.00		1.00				1.00	
Frpb, ped/bikes					1.00		1.00				0.99	
Flpb, ped/bikes					1.00		1.00				1.00	
Frt					1.00		1.00				0.94	
Flt Protected					0.98		0.95				1.00	
Satd. Flow (prot)					1812		1752				1581	
Flt Permitted					0.98		0.63				1.00	
Satd. Flow (perm)					1812		1165				1581	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	232	402	0	41	0	0	0	113	82
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	44	0
Lane Group Flow (vph)	0	0	0	0	634	0	41	0	0	0	151	0
Confl. Peds. (#/hr)				5								6
Heavy Vehicles (%)	3%	3%	3%	4%	2%	3%	3%	3%	3%	3%	0%	2%
Parking (#/hr)											0	0
Turn Type				Perm	NA		Perm				NA	
Protected Phases					2						4	
Permitted Phases				2			8					
Actuated Green, G (s)					26.0		25.5				26.0	
Effective Green, g (s)					26.0		25.5				26.0	
Actuated g/C Ratio					0.43		0.43				0.43	
Clearance Time (s)					4.0		4.5				4.0	
Lane Grp Cap (vph)					785		495				685	
v/s Ratio Prot											c0.10	
v/s Ratio Perm					0.35		0.04					
v/c Ratio					0.81		0.08				0.22	
Uniform Delay, d1					14.8		10.3				10.7	
Progression Factor					0.60		0.82				1.00	
Incremental Delay, d2					7.4		0.3				0.7	
Delay (s)					16.2		8.8				11.4	
Level of Service					B		A				B	
Approach Delay (s/veh)		0.0			16.2			8.8			11.4	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	14.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.5
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		

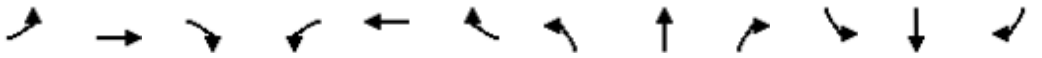
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	40	380	170	35	75	0	0	105	180
Future Volume (veh/h)	0	0	0	40	380	170	35	75	0	0	105	180
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	0.99		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1841	1826	1900	1781	0	0	1885	1885
Adj Flow Rate, veh/h				49	463	207	43	91	0	0	128	220
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	4	5	0	8	0	0	1	1
Cap, veh/h				73	690	633	218	418	0	0	277	476
Arrive On Green				0.14	0.14	0.14	0.45	0.45	0.00	0.00	0.45	0.45
Sat Flow, veh/h				175	1657	1520	307	928	0	0	616	1058
Grp Volume(v), veh/h				512	0	207	134	0	0	0	0	348
Grp Sat Flow(s),veh/h/ln				1832	0	1520	1236	0	0	0	0	1674
Q Serve(g_s), s				15.9	0.0	7.4	0.5	0.0	0.0	0.0	0.0	8.7
Cycle Q Clear(g_c), s				15.9	0.0	7.4	9.1	0.0	0.0	0.0	0.0	8.7
Prop In Lane				0.10		1.00	0.32		0.00	0.00		0.63
Lane Grp Cap(c), veh/h				763	0	633	635	0	0	0	0	753
V/C Ratio(X)				0.67	0.00	0.33	0.21	0.00	0.00	0.00	0.00	0.46
Avail Cap(c_a), veh/h				763	0	633	635	0	0	0	0	753
HCM Platoon Ratio				0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				22.0	0.0	18.3	10.0	0.0	0.0	0.0	0.0	11.5
Incr Delay (d2), s/veh				4.7	0.0	1.4	0.8	0.0	0.0	0.0	0.0	2.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.6	0.0	2.9	1.0	0.0	0.0	0.0	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				26.6	0.0	19.7	10.8	0.0	0.0	0.0	0.0	13.5
LnGrp LOS				C		B	B					B
Approach Vol, veh/h					719			134			348	
Approach Delay, s/veh					24.6			10.8			13.5	
Approach LOS					C			B			B	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		29.0		31.0				31.0				
Change Period (Y+Rc), s		4.0		4.0				4.0				
Max Green Setting (Gmax), s		25.0		27.0				27.0				
Max Q Clear Time (g_c+I1), s		17.9		10.7				11.1				
Green Ext Time (p_c), s		2.4		2.0				0.6				

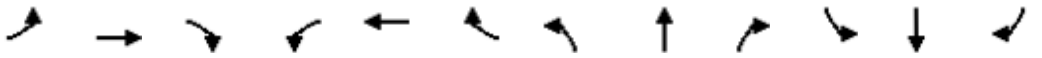
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			19.8									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	465	65	0	0	0	0	0	0	160	185	0
Future Volume (veh/h)	0	465	65	0	0	0	0	0	0	160	185	0
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							0.90	1.00	1.00
Work Zone On Approach		No									No	
Adj Sat Flow, veh/h/ln	0	1841	1870							1841	1826	0
Adj Flow Rate, veh/h	0	511	71							176	203	0
Peak Hour Factor	0.91	0.91	0.91							0.91	0.91	0.91
Percent Heavy Veh, %	0	4	2							4	5	0
Cap, veh/h	0	683	95							684	791	0
Arrive On Green	0.00	0.43	0.43							0.14	0.14	0.00
Sat Flow, veh/h	0	1577	219							1578	1826	0
Grp Volume(v), veh/h	0	0	582							176	203	0
Grp Sat Flow(s),veh/h/ln	0	0	1796							1578	1826	0
Q Serve(g_s), s	0.0	0.0	16.3							6.0	5.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	16.3							6.0	5.9	0.0
Prop In Lane	0.00		0.12							1.00		0.00
Lane Grp Cap(c), veh/h	0	0	778							684	791	0
V/C Ratio(X)	0.00	0.00	0.75							0.26	0.26	0.00
Avail Cap(c_a), veh/h	0	0	778							684	791	0
HCM Platoon Ratio	1.00	1.00	1.00							0.33	0.33	1.00
Upstream Filter(I)	0.00	0.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	14.3							17.1	17.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.5							0.9	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	7.0							2.3	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	0.0	20.7							18.0	17.9	0.0
LnGrp LOS			C							B	B	
Approach Vol, veh/h		582									379	
Approach Delay, s/veh		20.7									18.0	
Approach LOS		C									B	

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		18.3		8.0								
Green Ext Time (p_c), s		2.4		1.6								

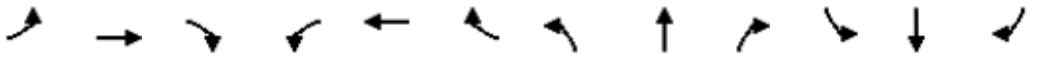
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			19.6									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	405	0	0	0	0	0	115	100	0	0	0
Future Volume (veh/h)	250	405	0	0	0	0	0	115	100	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	0.90			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1678	1870	0				0	1811	1885			
Adj Flow Rate, veh/h	275	445	0				0	126	110			
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91			
Percent Heavy Veh, %	15	2	0				0	6	1			
Cap, veh/h	304	492	0				0	746	588			
Arrive On Green	0.14	0.14	0.00				0.00	0.43	0.43			
Sat Flow, veh/h	701	1134	0				0	1811	1356			
Grp Volume(v), veh/h	720	0	0				0	126	110			
Grp Sat Flow(s),veh/h/ln	1835	0	0				0	1721	1356			
Q Serve(g_s), s	23.2	0.0	0.0				0.0	2.7	3.0			
Cycle Q Clear(g_c), s	23.2	0.0	0.0				0.0	2.7	3.0			
Prop In Lane	0.38		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	795	0	0				0	746	588			
V/C Ratio(X)	0.91	0.00	0.00				0.00	0.17	0.19			
Avail Cap(c_a), veh/h	795	0	0				0	746	588			
HCM Platoon Ratio	0.33	0.33	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	24.5	0.0	0.0				0.0	10.4	10.5			
Incr Delay (d2), s/veh	15.8	0.0	0.0				0.0	0.5	0.7			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.5	0.0	0.0				0.0	1.0	0.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.3	0.0	0.0				0.0	10.9	11.2			
LnGrp LOS	D							B	B			
Approach Vol, veh/h		720						236				
Approach Delay, s/veh		40.3						11.0				
Approach LOS		D						B				

Timer - Assigned Phs		2		4								
Phs Duration (G+Y+Rc), s		30.0		30.0								
Change Period (Y+Rc), s		4.0		4.0								
Max Green Setting (Gmax), s		26.0		26.0								
Max Q Clear Time (g_c+I1), s		5.0		25.2								
Green Ext Time (p_c), s		1.3		0.4								

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			33.1									
HCM 6th LOS			C									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	445	70	0	0	0	0	40	165	90	255	0
Future Volume (veh/h)	10	445	70	0	0	0	0	40	165	90	255	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1870	1856				0	1856	1856	1811	1885	0
Adj Flow Rate, veh/h	11	500	79				0	45	185	101	287	0
Peak Hour Factor	0.89	0.89	0.89				0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	2	3				0	3	3	6	1	0
Cap, veh/h	14	638	101				0	136	559	215	577	0
Arrive On Green	0.43	0.41	0.43				0.00	0.43	0.43	0.14	0.14	0.00
Sat Flow, veh/h	34	1544	244				0	316	1300	325	1343	0
Grp Volume(v), veh/h	590	0	0				0	0	230	388	0	0
Grp Sat Flow(s),veh/h/ln	1822	0	0				0	0	1616	1668	0	0
Q Serve(g_s), s	17.0	0.0	0.0				0.0	0.0	5.7	7.0	0.0	0.0
Cycle Q Clear(g_c), s	17.0	0.0	0.0				0.0	0.0	5.7	12.8	0.0	0.0
Prop In Lane	0.02		0.13				0.00		0.80	0.26		0.00
Lane Grp Cap(c), veh/h	753	0	0				0	0	695	764	0	0
V/C Ratio(X)	0.78	0.00	0.00				0.00	0.00	0.33	0.51	0.00	0.00
Avail Cap(c_a), veh/h	753	0	0				0	0	695	764	0	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.3	0.0	0.0				0.0	0.0	11.5	20.1	0.0	0.0
Incr Delay (d2), s/veh	8.0	0.0	0.0				0.0	0.0	1.3	2.4	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	0.0	0.0				0.0	0.0	2.0	6.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.3	0.0	0.0				0.0	0.0	12.7	22.5	0.0	0.0
LnGrp LOS	C								B	C		
Approach Vol, veh/h		590						230			388	
Approach Delay, s/veh		23.3						12.7			22.5	
Approach LOS		C						B			C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		30.0		30.5				30.5				
Change Period (Y+Rc), s		4.0		* 4.5				4.5				
Max Green Setting (Gmax), s		26.0		* 26				18.0				
Max Q Clear Time (g_c+I1), s		19.0		14.8				7.7				
Green Ext Time (p_c), s		2.2		1.9				1.0				

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	21.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

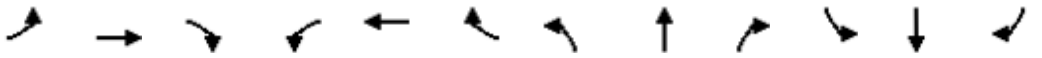
Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	120	570	0	0	140	0
Future Vol, veh/h	120	570	0	0	140	0
Conflicting Peds, #/hr	7	0	0	7	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	6	2	3	3	3	4
Mvmt Flow	135	640	0	0	157	0

Major/Minor	Major1		Minor2	
Conflicting Flow All	7	0	922	-
Stage 1	-	-	7	-
Stage 2	-	-	915	-
Critical Hdwy	4.16	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.43	-
Follow-up Hdwy	2.254	-	3.527	-
Pot Cap-1 Maneuver	1588	-	299	0
Stage 1	-	-	-	0
Stage 2	-	-	389	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	1577	-	256	-
Mov Cap-2 Maneuver	-	-	256	-
Stage 1	-	-	-	-
Stage 2	-	-	386	-

Approach	EB	SB
HCM Ctrl Dly, s/v	1.3	39.2
HCM LOS		E

Minor Lane/Major Mvmt	EBL	EBT	SBLn1
Capacity (veh/h)	1577	-	256
HCM Lane V/C Ratio	0.085	-	0.614
HCM Ctrl Dly (s/v)	7.5	0	39.2
HCM Lane LOS	A	A	E
HCM 95th %tile Q (veh)	0.3	-	3.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	440	180	0	10	700	360	0	140
Future Volume (vph)	0	0	0	0	440	180	0	10	700	360	0	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.0	4.0		4.0	4.0	4.0		4.0
Lane Util. Factor					1.00	1.00		1.00	1.00	1.00		1.00
Frpb, ped/bikes					1.00	0.95		1.00	1.00	1.00		0.98
Flpb, ped/bikes					1.00	1.00		1.00	1.00	1.00		1.00
Frt					1.00	0.85		1.00	0.85	1.00		0.85
Flt Protected					1.00	1.00		1.00	1.00	0.95		1.00
Satd. Flow (prot)					1827	1511		1900	1568	1719		1577
Flt Permitted					1.00	1.00		1.00	1.00	0.95		1.00
Satd. Flow (perm)					1827	1511		1900	1568	1719		1577
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	0	500	205	0	11	795	409	0	159
RTOR Reduction (vph)	0	0	0	0	0	150	0	0	115	0	0	103
Lane Group Flow (vph)	0	0	0	0	500	55	0	11	680	409	0	56
Confl. Peds. (#/hr)	14		2	2		14	2		16	16		2
Heavy Vehicles (%)	3%	3%	3%	3%	4%	2%	3%	0%	3%	5%	0%	0%
Turn Type					NA	Perm		NA	custom	Prot		Perm
Protected Phases					2!			1	6	4		
Permitted Phases					2!	2		6!				4
Actuated Green, G (s)					16.0	16.0		31.0	31.0	21.0		21.0
Effective Green, g (s)					16.0	16.0		31.0	31.0	21.0		21.0
Actuated g/C Ratio					0.27	0.27		0.52	0.52	0.35		0.35
Clearance Time (s)					4.0	4.0		4.0	4.0	4.0		4.0
Lane Grp Cap (vph)					487	402		981	810	601		551
v/s Ratio Prot					c0.27			0.00	c0.43	c0.24		
v/s Ratio Perm						0.04		0.00				0.04
v/c Ratio					1.03	0.14		0.01	0.84	0.68		0.10
Uniform Delay, d1					22.0	16.7		7.0	12.4	16.6		13.1
Progression Factor					1.00	1.00		1.58	1.90	1.00		1.00
Incremental Delay, d2					47.8	0.7		0.0	9.1	6.1		0.4
Delay (s)					69.8	17.4		11.1	32.6	22.8		13.5
Level of Service					E	B		B	C	C		B
Approach Delay (s/veh)		0.0			54.6			32.3			20.2	
Approach LOS		A			D			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.5%	ICU Level of Service	C
Analysis Period (min)	15		

! Phase conflict between lane groups.

c Critical Lane Group

Intersection	
Int Delay, s/veh	10.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	30	5	65	260	90	210	0	0	260	35
Future Vol, veh/h	10	0	30	5	65	260	90	210	0	0	260	35
Conflicting Peds, #/hr	7	0	8	8	0	7	5	0	5	5	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	3	3	4	20	1	10	7	3	3	3	3	0
Mvmt Flow	12	0	36	6	77	310	107	250	0	0	310	42

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1001	-	344	821	821	257	357	0	-	-	-	0
Stage 1	336	-	-	464	464	-	-	-	-	-	-	-
Stage 2	665	-	-	357	357	-	-	-	-	-	-	-
Critical Hdwy	7.13	-	6.24	7.3	6.51	6.3	4.17	-	-	-	-	-
Critical Hdwy Stg 1	6.13	-	-	6.3	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.3	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	-	3.336	3.68	4.009	3.39	2.263	-	-	-	-	-
Pot Cap-1 Maneuver	221	0	694	274	310	763	1174	-	0	0	-	-
Stage 1	676	0	-	545	565	-	-	-	0	0	-	-
Stage 2	448	0	-	625	630	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	93	-	685	237	276	758	1168	-	-	-	-	-
Mov Cap-2 Maneuver	93	-	-	237	276	-	-	-	-	-	-	-
Stage 1	602	-	-	487	505	-	-	-	-	-	-	-
Stage 2	199	-	-	588	627	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	20.2	26.2	2.5	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	WBLn1	SBT	SBR
Capacity (veh/h)	1168	-	93	685	550	-	-
HCM Lane V/C Ratio	0.092	-	0.128	0.052	0.714	-	-
HCM Ctrl Dly (s/v)	8.4	0	49.3	10.5	26.2	-	-
HCM Lane LOS	A	A	E	B	D	-	-
HCM 95th %tile Q (veh)	0.3	-	0.4	0.2	5.8	-	-

APPENDIX A

Introduction

The intent of this checklist is to assist in the identification of needs for Complete Streets design features on Capital projects, including locally-administered projects.

This checklist is one tool that NYSDOT employs in its integrated approach to Complete Streets considerations. It provides a focused project-level evaluation which aids in identifying access and mobility issues and opportunities within a defined project area. For broader geographic considerations (e.g., bicycle route planning, corridor continuity), NYSDOT and other state and local agencies use a system-wide approach to identifying complete streets opportunities.

Use of this checklist is initiated during the earliest phase of a project, when information about existing conditions and needs may be limited; it is therefore likely that the Preparer will only be able to complete Steps 1 and 2 at this time. As the project progresses, and more detailed information becomes available, the Preparer will be able to complete Step 3 and continue to refine earlier answers, to give an increasingly accurate indication of needs and opportunities for Complete Streets features.

Guidance for Steps 1, 2 and 3

Based on the guidance below, the Regions will assign the appropriate staff to complete each step in the Checklist. The Preparer should have expertise in the subject matter and be able to effectively work with and coordinate comments/responses with involved Regional Groups.

- Steps 1 & 2: Preparer is from Planning; review occurs as part of the normal IPP process.
- Step 3: Preparer is Project Designer; review occurs as part of Design Approval Document review/approval process.
- For Local Projects - Local Project Sponsors will be responsible for completing all steps.

a. A check of “yes” indicates a need to further evaluate the project for Complete Streets features.

b. Use the “Comment/Action” text box for brief remarks that clarify answers and indicate direction for the project. Use the section titled “Additional comments, supporting documentation and clarifications” at the end of Step 3 of the checklist for any supporting information or remarks that do not fit in the Comment/Action text box provided. Append additional pages if necessary. For additional text entered at the end, reference the step and checklist number.

c. Answers to the questions should be checked with the local municipality, transit provider, MPO, etc., as appropriate, to ensure accuracy and evaluate needed items versus desirable items (i.e., prioritize needs).

d. Answers to the questions should be coordinated with NYSDOT Regional program areas as appropriate (e.g., Traffic and Safety, Landscape Architecture, Maintenance, etc.)

e. This checklist should be reviewed during the development of the IPP, Scoping Document, and Design Approval Document; and revisited due to a project delay or if site conditions or local planning changes during the project development process. Continued coordination with the Regional Bicycle and Pedestrian Coordinator is necessary throughout project scoping and design.

f. It will be assumed that the Project Description and Limits will be as described in the IPP for Step I, the Scoping Document for Step 2 and the Design Approval Document for Step 3. Preparers should describe any deviations from this assumption under “Preparer’s Supporting Documentation”.

g. For the purposes of this checklist, the “project area” is within 0.5 mi (800 m) for pedestrian facilities and 1.0 mi

(1600 m) for bicycle facilities. In some circumstances, bicyclists may travel up to 7 miles for a unique generator, attraction or event. These special circumstances may be considered and described as appropriate.

h. For background on Complete Streets features and terminology, please visit the following websites:

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/design_guidance/design_nonmotor/highway/index.cfm
http://www.fhwa.dot.gov/publications/publicroads/10julaug/03.cfm
http://www.smartgrowthamerica.org/complete-streets/

i. Refer to *Highway Design Manual* Chapter 18, Section 18.5.1 for further information and guidance on the use of this checklist.

j. For projects with multiple sites, Preparers may choose to prepare multiple checklists for each site.

Definitions

- CAMCI (Comprehensive Asset Management/Capital Investment) Viewer - A web-based GIS application used for planning purposes and located at http://gisweb/camci/.
- Generator - A generator, in this document, refers to both origins and destinations for bicycle and/or pedestrian trips (e.g., schools, libraries, shopping areas, bus stops, transit stations, depots/terminals).
- HDM - New York State Department of Transportation's *Highway Design Manual*.
- Maintenance project - For the purposes of this checklist, maintenance projects are listed as the following project types: Rigid pavement repairs, pavement grooving, drainage system restoration, recharge basin reconditioning, SPDES facilities maintenance, underdrain installation, guide rail and/or median barrier upgrading, impact attenuator repair, and/or replacement, reference marker replacement, traffic management systems maintenance, repair and replace loop detectors, highway lighting upgrades, noise wall rehab/replacement, retaining wall rehab/replacement, graffiti removal/prevention, vegetation management, permanent traffic count detectors, weigh-in-motion detectors, slope stabilization, ditch cleaning, bridge washing/cleaning, bridge joint repair, bridge painting and crack sealing.
- MPO (Metropolitan Planning Organization) - A federally mandated and federally funded transportation policy-making organization made up of representatives from local government and governmental transportation authorities.
- Raised Pedestrian Refuge Medians and Corner Islands - Raised elements within the street at an intersection or midblock crossing that provide a clear or safety zone to separate pedestrians, bicyclists, and other non-motorized modes, from motor vehicles . See FHWA's *Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations* at http://www.fhwa.dot.gov/publications/research/safety/04100/04100.pdf.
- Road diet - A transportation planning technique used to achieve systemic improvements to safety or provide space for alternate modes of travel. For example, a two-way, four lane road might be reduced to one travel lane in each direction, with more space allocated to pedestrian and cyclist facilities. Also known as a lane reduction or road re-channelization.
- Transit facilities - Includes facilities such as transit shelters, bus turnouts and standing pads.
- 1R project - A road resurfacing project that includes the placement or replacement of the top and/or binder pavement course(s) to extend or renew the existing pavement design life and to improve serviceability while not degrading safety.
- 2R project - A multicourse structural pavement and resurfacing project that may include: milling, super elevation, traffic signals, turn lanes, driveway modifications, roadside work, minor safety work, lane and shoulder widening, shoulder reconstruction, drainage work, sidewalk curb ramps, etc.

PIN:	1761.61	**Project Location:**	City of Troy, Rensselaer County
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	NY 2 Corridor, River/Ferry Street Intersection Improvement & Ferry Street Tunnel Rehabilitation Project		

STEP 1- APPLICABILITY OF CHECKLIST		
1.1	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? *If **no**, continue to question 1.2. If **yes**, stop here.*	○ **Yes** ◉ **No**
1.2	a. Is this project a 1R* Maintenance project? *If **no**, continue to question 1.3. If **yes**, go to part b of this question.*	○ **Yes** ◉ **No**
1.2	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? • Sidewalk curb ramps and crosswalks • Shoulder condition and width • Pavement markings • Signing *Document opportunities or deficiencies in the IPP and **stop here.*** ** Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.*	○ **Yes** ○ **No**
1.3	Is this project a Cyclical Pavement Marking project? *If **no**, continue to question 1.4. If **yes**, review EI 13-021* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:* • Travel lane width • Shoulder width • Markings for pedestrians and bicyclists *Document opportunities or deficiencies in the IPP and **stop here.*** ** EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".*	○ **Yes** ◉ **No**
1.4	Is this a Maintenance project *(as described in the "Definitions" section of this checklist)* and different from 1.2 and 1.3 projects? *If **no**, continue to Step 2. If **yes,** the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and **stop here.***	○ **Yes** ◉ **No**

STEP 1 prepared by: Zachary Swere Date: 6/29/2025

STEP 2 - IPP LEVEL QUESTIONS (At Initiation)	**Comment / Action**

2.1	Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? *Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.*	◉ Yes ○ No	Yes the Troy Bicycle Connections Plan.
2.2	Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?	◉ Yes ○ No	There are existing sidewalks through the city and bicycles ride within the shared travel lanes.
2.3	a. Is the highway part of an existing or planned State, regional or local bicycle route? *If **no**, proceed to question 2.4. If **yes**, go to part b of this question.* b. Do the existing bicycle accommodations meet the minimum standard guidelines of HDM Chapter 17 or the AASHTO "Guide for the Development of Bicycle Facilities"? * *Contact Regional Bicycle/Pedestrian Coordinator* ** Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.*	◉ Yes ○ No ◉ Yes ○ No	Yes the Troy Bicycle Connections Plan. Bicycles ride within shared travel lanes. This project aims to give bikes their own travel lane.
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	◉ Yes ○ No	Yes the city has a high amount of bicyclists.
2.5	Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? *Contact Regional Traffic and Safety*	◉ Yes ○ No	There are local farmers markets and college events that affect traffic on the routes.
2.6	Are there existing or proposed generators within the project area (*refer to the "Guidance" section*) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? *Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.*	◉ Yes ○ No	Yes there are multiple apartment buildings, businesses and colleges located withing the project limit that generate transit.
2.7	Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) < 15,000 vehicles per day? *If **yes**, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.*	○ Yes ◉ No	

2.8	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	○ Yes ◉ No	

STEP 2 prepared by: Zachary Swere Date: 6/29/2025

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment: ◉ Yes ○ No

ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.

STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)			**Comment / Action**
3.1	Is there an identified need for bicycle/pedestrian/ transit or "way finding" signs that could be incorporated into the project?	◉ Yes ○ No	Appropriate destination signs are going to be investigated as part of this project.
3.2	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	○ Yes ◉ No	
3.3	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per HDM Chapter 18?	◉ Yes ○ No	These existing non-standard ramps are to be replaced as part of this project.
3.4	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? *Refer to EI 13-021.*	○ Yes ◉ No	
3.5	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	◉ Yes ○ No	Bump outs are being analyzed as part of this project.
3.6	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	◉ Yes ○ No	Yes bicycles travel within the existing travel lanes with cars.
3.7	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	◉ Yes ○ No	Yes lighting will be improved at the new proposed intersection.
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	◉ Yes ○ No	Yes bike rack and street furniture will be assessed as part of this project.

3.9	Are there gaps in the bike/pedestrian connections between existing/planned generators? *Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)*	◉ Yes ○ No	Yes this project aims to help connect existing generators in the area.
3.10	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) *Consult with Traffic and Safety and transit operator, as appropriate*	◉ Yes ○ No	Yes this project aims to consolidate existing stops and add new stops where there are opportunities.
3.11	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	◉ Yes ○ No	Parking will be assessed during this project.
3.12	Is the project on a “local delivery” route and/or do area businesses rely upon truck deliveries that need to be considered in design?	◉ Yes ○ No	Yes, local businesses rely on truck deliveries and it will be taken into consideration.
3.13	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	◉ Yes ○ No	Landscaping and green space will be assessed as part of this project.
3.14	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	◉ Yes ○ No	Yes. Bicycle lanes are a part of this project.

STEP 3 prepared by: Zachary Swere Date: 6/29/2025

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Appendix D – Structures

New York State Department of Transportation
General Bridge Inspection Report

Inspection Date: April 26, 2023

Structure Information

BIN: **1054320**
Feature Carried: FIRST & SECOND ST
Feature Crossed: Ferry Street EB
Orientation: 1 - NORTH

Region: 01 - ALBANY
County: RENSSELAER
Political Unit: City of TROY
Approximate Year Built: 1965

Primary Owner: 42 - City
Primary Maintenance Responsibility: 72 - Other
General Type Main Span: 1 - Concrete, 19 - Culvert
This Bridge is not a Ramp
Number of Spans: 1

Postings

Posted Load Matches Inventory: Yes
Posted Load in field: Not Posted

Posted Vertical Clearances Match Inventory: N/A
Inventory On: Not Posted
Inventory Under: Not Posted

Number of Flags Issued

Red PIA: 0
Red: 0
Yellow: 0
Safety PIA: 0

New York State Inspection Overview

General Recommendation: 4

Federal NBI Ratings

NBI Deck Condition: N
NBI Superstructure Condition: N
NBI Substructure Condition: N

NBI Channel Condition: N
NBI Culvert Condition: 5

Action Items

Non-Structural Condition Observations noted: YES
Vulnerability Reviews Recommended: NO
Diving Inspection Requested: NO
Further Investigation Requested: NO

Inspector & Reviewer Signature Information

Inspection Signature: Frank Salvaggio, P.E. 090988 *Date:* April 27, 2023
Review Signature: Louis Rehder, P.E. 077993-1 *Date:* May 22, 2023
Processed by : Todd Hermann, P.E. 069681-1 *Date:* May 23, 2023

Report Printed: May 23, 2023 9:25:14 AM

Additional Information

Overloads Observed

No overload vehicles observed during this inspection.

Notes to Next Inspector

The BIN plate is located on the begin left wingwall, near the abutment.
2021 and 2023 Access: Walking, bucket truck, lane closure w/ shadow vehicle.
2019 Access: Walking, NYSDOT bucket truck, lane closure with shadow vehicle.

Improvements Observed

2023: No improvements observed.
2021: Concrete was removed by others to address the previous PIA Safety Flag 1B19VLW003 and the flag was removed prior to this inspection.
New PIA Safety Flag 1B2182W004 is issued for loose concrete over traffic.
Two of the three tunnel lights reported in the 2019 inspection have been repaired.

2019: Removed concrete from PIA Safety Flag 1B17XLW011. Flag was removed. New PIA Safety Flag for new loose concrete issued this inspection.

Pedestrian Fence Height

None

Snow Fence

None

Bin Plate Condition

Damaged

Scour Critical Rating

N - Bridge not over waterway.

Field Notes

Staff Present During Inspection		
Name	**Title**	**Organization**
Andre Campbell	WZTC	BER Construction
Krikor Mahserdjian	ATL	NYSDOT R1
Sadeq Ramadan	WZTC	BER Construction

General Equipment Required for Inspection*
Access Type
13 - Walking
19 - Up to 30 Foot Lift
28 - Lane Closure Without Shadow Vehicle
29 - Lane Closure With Shadow Vehicle

*** For span specific equipment requirements refer to the Active Inventory's**

Detailed Time & Weather Conditions				
Field Date	**Arrival**	**Departure**	**Temp (F)**	**Weather Conditions**
04/26/2023	08:45 AM	04:00 PM	60	Mostly Sunny

Inspection Times (hours)	
Time required for travel, inspection and report preparation	13
Lane closure usage	6
Railroad flagging time	No

Element Quantities

Element Assessment Summary Table							
Element	**Total Quantity**	**Unit**	**CS-1**	**CS-2**	**CS-3**	**CS-4**	**CS-5**
220 - Reinforced Concrete Pile Cap/Footing	84	ft					84
241 - Reinforced Concrete Culvert	516	ft		96	420		0
800 - Erosion or Scour	84	ft	84				0
853 - Wingwall	84	ft		84			0
860 - Headwall	85	ft	85				0

Element Assessment by Span							
Element**	**Total Quantity**	**Unit**	**CS-1**	**CS-2**	**CS-3**	**CS-4**	**CS-5**
Span Number : 1							
BW220 - Reinforced Concrete Pile Cap/Footing	42	ft					42
BW800 - Erosion or Scour	42	ft	42				0
BW853 - Wingwall	42	ft		42			0
EW220 - Reinforced Concrete Pile Cap/Footing	42	ft					42
EW800 - Erosion or Scour	42	ft	42				0
EW853 - Wingwall	42	ft		42			0
241 - Reinforced Concrete Culvert	516	ft		96	420		0
860 - Headwall	85	ft	85				0

** Elements with a prefix designate the locations of BA-Begin Abutment, BW-Begin Wingwall, EA-End Abutment, EW-End Wingwall, CO-Culvert Outlet, and PR-Pier. No prefix generally

Inspection Notes

General Notes

Nomenclature:
JT1: "Joint 1"
P1: "Panel 1"

Element Condition Notes

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 241 - Reinforced Concrete Culvert	516	0	96	420	0	0

Condition State 3 Note

Referenced Photo(s): 5, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29

Referenced Sketch(es): 1, 2, 4

PART 1 OF 2:

The culvert consists of a 516 FT-long four-sided concrete box with panels +/- 25 FT long each. The panel joints are leaking at many locations. Due to the leakage, the joints and immediate adjacent area exhibit some or all of the following: active drip, dampness, efflorescence, spalling with exposed rebar (10 to 15% section loss, unless otherwise stated), and scattered isolated areas of hollowness upon hammer sounding at both the spalled areas, and unspalled areas at the near-vicinity of

the joint. Refer to the panel sketch for more information, and the photo location map for clarity. All spalls and immediately surrounding areas (especially at the joints) were struck with a small sledge hammer to remove any loose delamination that was a danger to traffic. Spall dimensions noted are approximate. Deterioration at the joints/panels is as follows:

P4: The topside of this unit exhibits the most spalling, and the most concentrated deterioration. At JT3 on the P4 side, there is spalling up to 5 FT wide and 6 IN deep nearly throughout the span length, with scattered areas of hollowness throughout the spall. The corner bar and two adjacent bars are debonded for a length of 28 FT with 10 to 15% section loss.
Photo 5, 23, 25
The begin left quadrant exhibits a spall 8 FT long x 10 FT wide x 2 to 3 IN deep. The left half at 0.5L exhibits a spall 7 FT wide x 4 FT long x 3 to 4 IN deep.
Photo 26
The begin left corner exhibits a spall 4 FT long x 2 FT wide x 2 to 3 IN deep, with a 1 FT wide x 2 FT tall x 2 IN deep spall on the begin stem below the junction box.
Photo 28
JT4 on the P4 side exhibits spalling up to 2 FT wide x 2 to 3 IN deep to 0.9L, with plumes of efflorescence up to 4 IN long.
Photo 24, 27
These spalls are most notable - other lesser spalls are present.

JT5: Exhibits a spall on the P5 side above the left lane 15 FT long x up to 15 IN wide x up to 3 IN deep.
Photo 21

JT6: Exhibits intermittent edge spalling at P6 side up to 2-1/2 FT wide and 3 to 4 IN deep, to 3/4L. P7 side exhibits numerous spalls, the largest of which is at 0.5L 7 FT wide x 5 FT long x 2 to 3 IN deep. Heavy drippage is present to 3/4L.
Photo 19, 20

JT9: Active dampness to 3/4L, with a spall 12 FT long x up to 1 FT wide x up to 4 IN deep on the P10 side above the right lane. The drip at the begin terminus is heavily efflorescenced.
Photo 17, 18

JT12: Near-vicinity of joint exhibits several spalls, the largest is at 0.5L on the P12 side, 4 FT in diameter and up to 3 IN deep. The P13 side exhibits thin mapcracking at 6 to 12 IN spaces, within 6 FT of the joint with plumes of efflorescence up to 1 IN.
Photo 13, 14

P13 on the begin stem at mid-panel exhibits a spall 15 IN wide x 6 FT tall x 1 to 2 IN deep.
Photo 29

JT15: Active leakage (extending to 3/4L) is present with mild efflorescence throughout. P15 side within 6 FT of the joint exhibits (2) spalls, one at midspan and one at end, up to 5 FT wide x up to 10 FT long x 3 to 4 IN deep.
Photo 11, 12

JT18: Spalling 1 to 7 FT wide, up to 6 IN deep, worst near the begin terminus on the P18 side, and along nearly the entire length on the P19 side. Above the right lane, 1 corner bar is nearly completely debonded for a length of 8 FT on P19. Two corner bars are nearly completely debonded above the left lane - 1 for 8 FT on the P18 side, one for 12 FT on the P19 side, all with approximately 10% section loss. Panel 18 at end right exhibits (2) smaller spalls, the largest of which is 10 FT long x 4 FT wide x 3 IN deep. JT18 at the end stem exhibits a spall 18 IN wide x 3 FT tall x 1 to 2 IN deep at 3/4 HT.
Photo 9, 10
Photo 8 (end stem spall is on left side of photo)

JT19: Mild efflorescence staining 1 to 3 FT wide along the joint.
Photo 7

	TQ	CS-1	CS-2	CS-3	CS-4	CS-5
Span 1: 241 - Reinforced Concrete Culvert	516	0	96	420	0	0

Condition State 3 Note

Referenced Photo(s): 8

Referenced Sketch(es): None

PART 2 OF 2:

P19: A heavy-efflorescenced vertical crack is present at 0.7L on the end stem, extending to within 3 FT of the top corner. P20 at the same location exhibits a similar crack 4 FT tall
Photo 8

The most significant change seems to be at JT6, where delamination removal by maintenance crews revealed more spalling.

420 FT CS3
Remainder CS2

Non-Structural Condition Observations

Category: APPROACH - Other -Approach pavement deterioration at begin and end side Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 2,3,6
Referenced Sketch(es): NONE

Begin approach pavement edge exhibits a nearly 3 FT wide strip of wide asphalt map cracking, with various spalls, up to 2 FT in diameter and 4 IN deep in the right lane with wire welded fabric exposed.
Photo 2
Just to the left and along the lane line, a 17 FT wide x up to 15 IN long x up to 4 IN deep spall is present.
Photo 3

End approach pavement edge exhibits similar deterioration to the begin approach pavement edge, but less severe.
Photo 6

Category: ATTACHMENTS - Fascia Mounted Signs -Sign deterioration at left fascia Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 1
Referenced Sketch(es): NONE

The 'Actual Vertical Clearance 14 FT' sign on the left fascia is degraded and illegible.
Photo 1

Category: ATTACHMENTS - Lighting Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 4
Referenced Sketch(es): NONE

First light at end side (on panel 1) is not functional.
Photo 4

Category: APPROACH - Drainage Quantity: 4 Unit: ea

Referenced Element(s): NONE

Referenced Photo(s): 30
Referenced Sketch(es): NONE

On 1st St, the drainage catch basins in all four quadrants are clogged and filled with water, worst at begin left and right. No change since last inspection.
Photo 30

Category: OTHER -Feature-carried sidewalks Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 31,34
Referenced Sketch(es): NONE

The westerly sidewalk on 1st St exhibits 2 lines of slab edge spalling 1 to 9 IN wide, 1 IN deep.
Photo 31
The easterly sidewalk on 2nd St exhibits similar partial-length linear spalling 4 to 5 IN wide. Concentrated wide mapcracking is present at the end 15%. The right pavement edge immediately adjacent to the sidewalk is spalled +/- 1 IN deep over a 12 to 24 IN wide strip, with dampness, suggesting that ponding is occuring at this location.
Photo 34

Category: OTHER -Feature-carried pavement Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 32,33
Referenced Sketch(es): NONE

1st St pavement at topside exhibits wide mapcracking at a 2 to 3 FT pattern over a 7 FT wide strip along the first third of the span. The remaining two thirds of the span exhibits scattered longitudinal cracks along the same width of pavement
Photo 32

2nd St pavement at topside exhibits several individual wide longitudinal and transverse cracks of no pattern.
Photo 33

Category: OTHER -Concrete wearing surface defects at underside Quantity: NONE Unit: NONE

Referenced Element(s): NONE

Referenced Photo(s): 14,15,16,18,20,22
Referenced Sketch(es): NONE

The concrete wearing surface at underside exhibits numerous cracks and spalls throughout, with the worst conditions in the right lane. The two most notable locations of spalling are as follows:

The right lane at the near-vicinity of JT12 exhibits a heavily mapcracked area 6 FT long x 30 FT wide, with cracked portions sunken up to 3 IN. Ride quality is terrible. Ponding is occuring in the most sunken area.
Photo 14, 15, 16

A 3 FT long x 7 FT wide area below JT15 exhibits similar deterioration as described above, with cracked portions sunken up to 4 IN.
Photo 22

Also see photo 18, 20

Inspection Photographs

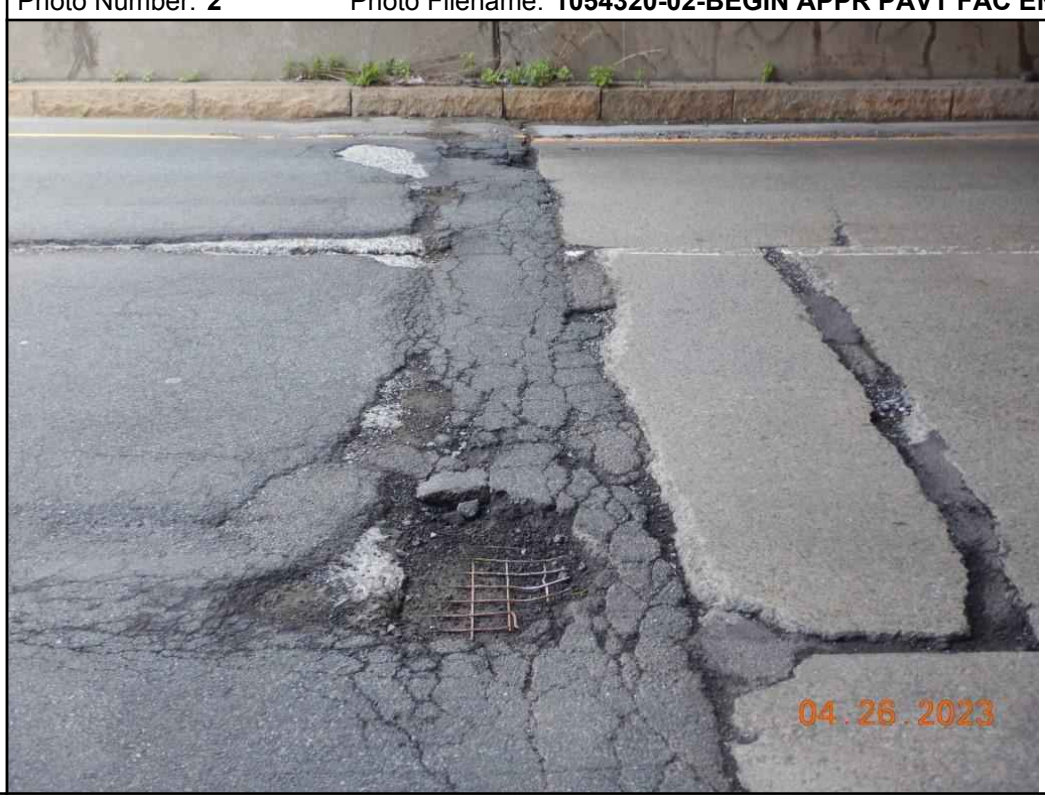
Attachment Description:
1054320-01-ACTUAL CLEARANCE SIGN AT LEFT FASCIA.JPG

Photo Number: **1** Photo Filename: **1054320-01-ACTUAL CLEARANCE SIGN AT**



Attachment Description:
1054320-02-BEGIN APPR PAVT FAC END.JPG

Photo Number: **2** Photo Filename: **1054320-02-BEGIN APPR PAVT FAC END.JPG**



Attachment Description:
1054320-03-BEGIN APPR PAVT FACE RT.JPG

Photo Number: **3** Photo Filename: **1054320-03-BEGIN APPR PAVT FACE RT.JPG**



Attachment Description:
1054320-04-LIGHT 1 AT END SIDE.JPG

Photo Number: **4** Photo Filename: **1054320-04-LIGHT 1 AT END SIDE.JPG**



Attachment Description:
1054320-05-JT 3 FAC END.JPG

Photo Number: **5** Photo Filename: **1054320-05-JT 3 FAC END.JPG**



Attachment Description:
1054320-06-END APPR PAVT FAC END.JPG

Photo Number: **6** Photo Filename: **1054320-06-END APPR PAVT FAC END.JPG**



Attachment Description:
1054320-07-JT 19 FAC END.JPG

Photo Number: **7** Photo Filename: **1054320-07-JT 19 FAC END.JPG**



Attachment Description:
1054320-08-PANEL 19 FAC END.JPG

Photo Number: **8** Photo Filename: **1054320-08-PANEL 19 FAC END.JPG**



Attachment Description:
1054320-09-JT 18 AT BEG TERMINUS, LOOKING UPWARD.JPG

Photo Number: **9** Photo Filename: **1054320-09-JT 18 AT BEG TERMINUS,**



Attachment Description:
1054320-10-JT 18 FAC END.JPG

Photo Number: **10** Photo Filename: **1054320-10-JT 18 FAC END.JPG**



Attachment Description:
1054320-11-JT 15 FAC END PHOTO 1.JPG

Photo Number: **11** Photo Filename: **1054320-11-JT 15 FAC END PHOTO 1.JPG**



Attachment Description:
1054320-12-JT 15 FAC END PHOTO 2.JPG

Photo Number: **12** Photo Filename: **1054320-12-JT 15 FAC END PHOTO 2.JPG**



Attachment Description:
1054320-13-JT 12 FAC END PHOTO 1.JPG

Photo Number: **13** Photo Filename: **1054320-13-JT 12 FAC END PHOTO 1.JPG**



Attachment Description:
1054320-14-JT 12 FAC END PHOTO 2.JPG

Photo Number: **14** Photo Filename: **1054320-14-JT 12 FAC END PHOTO 2.JPG**



Attachment Description:
1054320-15-RT LANE WS SPALLING BELOW JT 12, FAC RT PHOTO 1.JPG

Photo Number: **15** Photo Filename: **1054320-15-RT LANE WS SPALLING BELOW**



Attachment Description:
1054320-16-RT LANE WS SPALLING BELOW JT 12, FAC RT PHOTO 2.JPG

Photo Number: **16** Photo Filename: **1054320-16-RT LANE WS SPALLING BELOW**



Attachment Description:
1054320-17-JT 9 FAC END.JPG

Photo Number: **17** Photo Filename: **1054320-17-JT 9 FAC END.JPG**



Attachment Description:
1054320-18-JT 9 ROAD DRIP AT RT LANE.JPG

Photo Number: **18** Photo Filename: **1054320-18-JT 9 ROAD DRIP AT RT LANE.**



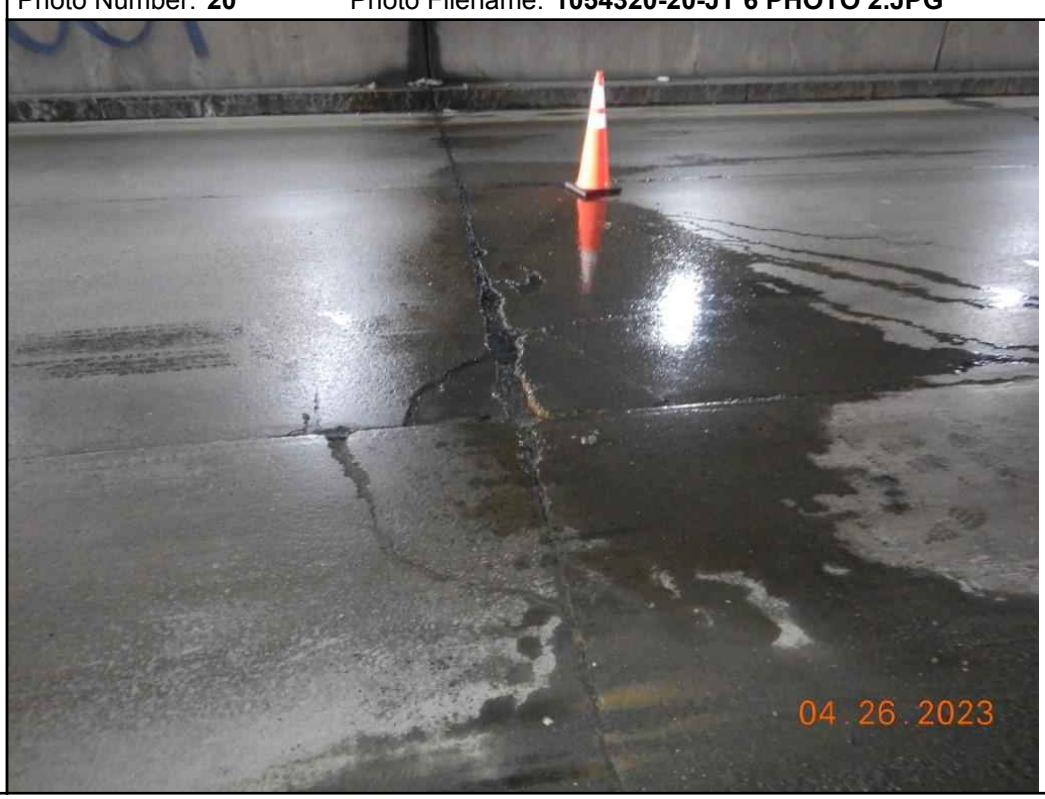
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1054320-19-JT 6 PHOTO 1.JPG

Photo Number: **19** Photo Filename: **1054320-19-JT 6 PHOTO 1.JPG**



Attachment Description:
1054320-20-JT 6 PHOTO 2.JPG

Photo Number: **20** Photo Filename: **1054320-20-JT 6 PHOTO 2.JPG**



Attachment Description:
1054320-21-JT 5 FAC END.JPG

Photo Number: **21** Photo Filename: **1054320-21-JT 5 FAC END.JPG**



Attachment Description:
1054320-22-RT LANE PAVT SPALLING BELOW JT 5.JPG

Photo Number: **22** Photo Filename: **1054320-22-RT LANE PAVT SPALLING**



Attachment Description:
1054320-23-PANEL 4 LHS FAC END.JPG

Photo Number: **23** Photo Filename: **1054320-23-PANEL 4 LHS FAC END.JPG**



Attachment Description:
1054320-24-JT 4 FAC END.JPG

Photo Number: **24** Photo Filename: **1054320-24-JT 4 FAC END.JPG**



Attachment Description:
1054320-25-PANEL 4 LHS FAC BEGIN.JPG

Photo Number: **25** Photo Filename: **1054320-25-PANEL 4 LHS FAC BEGIN.JPG**



Attachment Description:
1054320-26-PANEL 4 SPALLS AT BEG LEFT QUAD.JPG

Photo Number: **26** Photo Filename: **1054320-26-PANEL 4 SPALLS AT BEG LEFT**



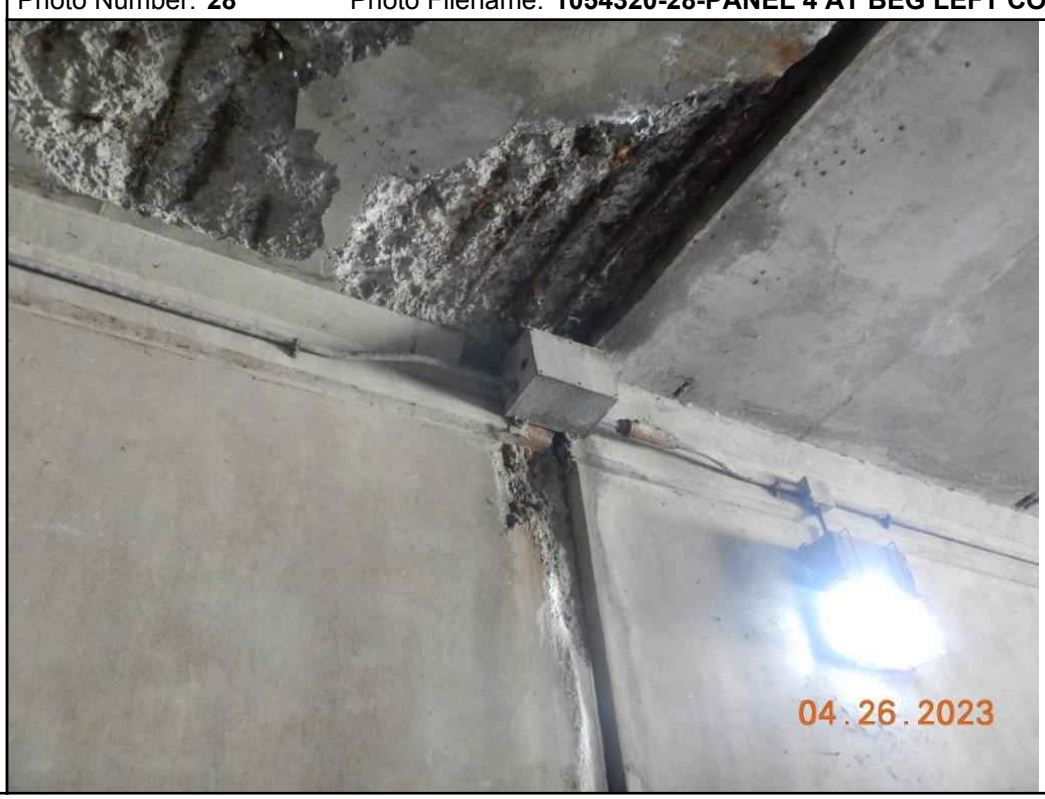
Attachment Description:
1054320-27-JT 4 FAC BEGIN.JPG

Photo Number: **27** Photo Filename: **1054320-27-JT 4 FAC BEGIN.JPG**



Attachment Description:
1054320-28-PANEL 4 AT BEG LEFT CORNER.JPG

Photo Number: **28** Photo Filename: **1054320-28-PANEL 4 AT BEG LEFT CORNER.**



Attachment Description:
1054320-29-PANEL 13 BEG SIDE.JPG

Photo Number: **29** Photo Filename: **1054320-29-PANEL 13 BEG SIDE.JPG**



Attachment Description:
1054320-30-BEG LEFT CATCH BASIN ON 1ST STREET.JPG

Photo Number: **30** Photo Filename: **1054320-30-BEG LEFT CATCH BASIN ON 1ST**



Attachment Description:
1054320-31-WESTERLY SIDEWALK ON 1ST STREET FAC NORTH.JPG

Photo Number: **31** Photo Filename: **1054320-31-WESTERLY SIDEWALK ON 1ST**



Attachment Description:
1054320-32-1ST ST FAC NORTH.JPG

Photo Number: **32** Photo Filename: **1054320-32-1ST ST FAC NORTH.JPG**



Attachment Description:
1054320-33-2ND ST FAC NORTH.JPG

Photo Number: **33** Photo Filename: **1054320-33-2ND ST FAC NORTH.JPG**



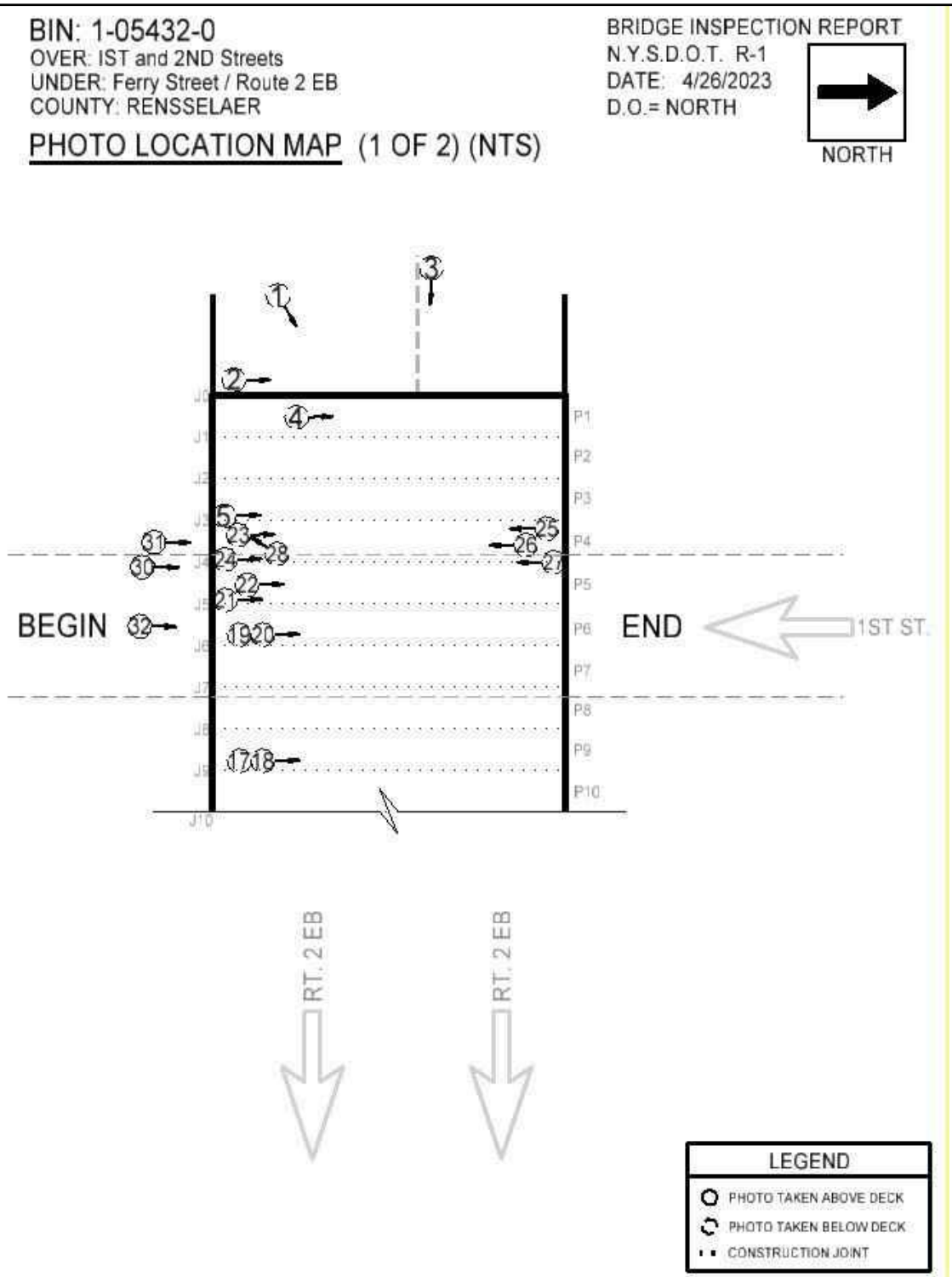
Attachment Description:
1054320-34-EASTERLY SIDEWALK ON 2ND ST FAC NORTH.JPG

Photo Number: **34** Photo Filename: **1054320-34-EASTERLY SIDEWALK ON 2ND**



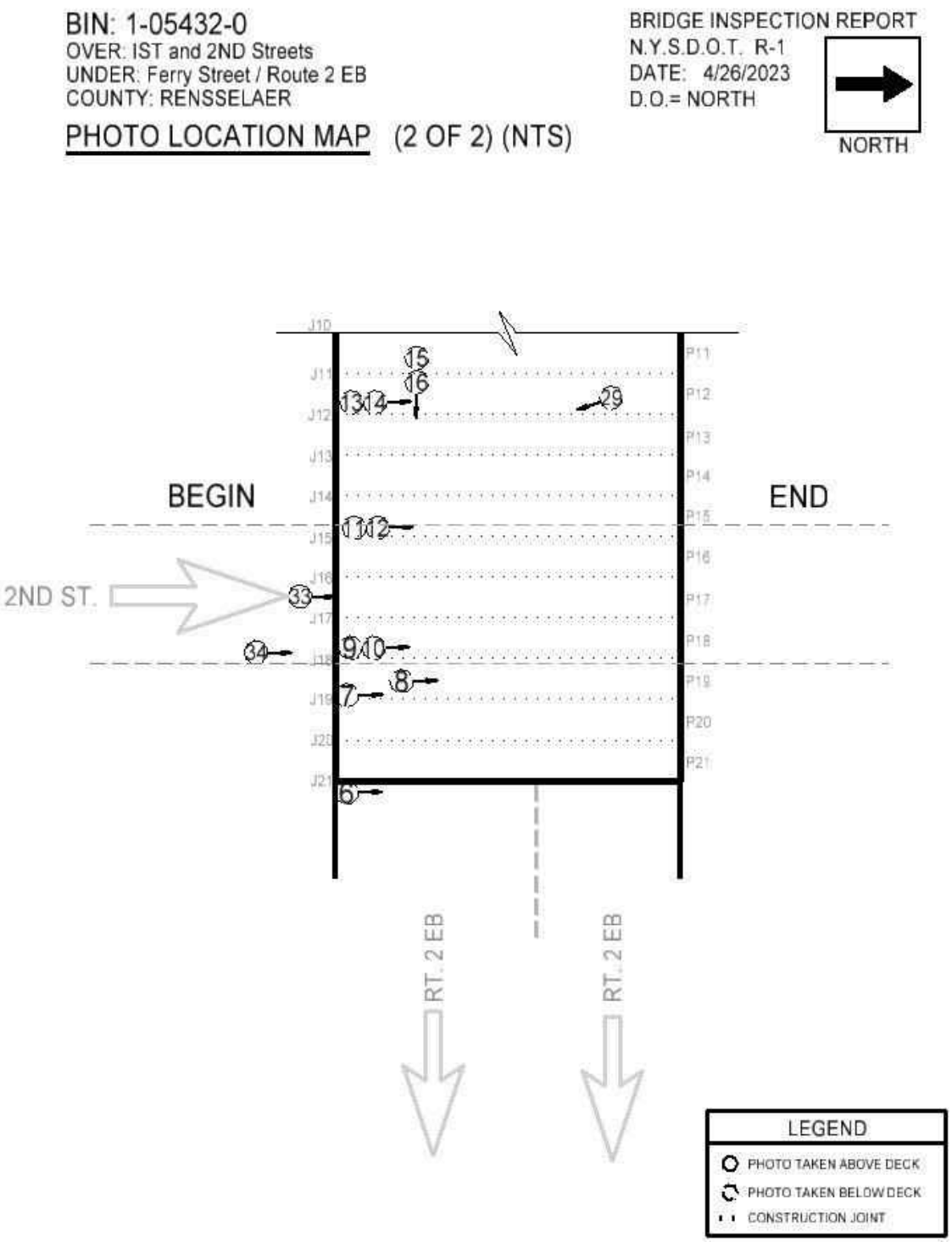
Inspection Sketches

Sketch Number: **1** Sketch Filename: **1054320 PG1.JPG**



Sketch Description: Photo location map - PAGE 1

Sketch Number: **2** Sketch Filename: **1054320 PG2.JPG**



Sketch Description: Photo location map - PAGE 2

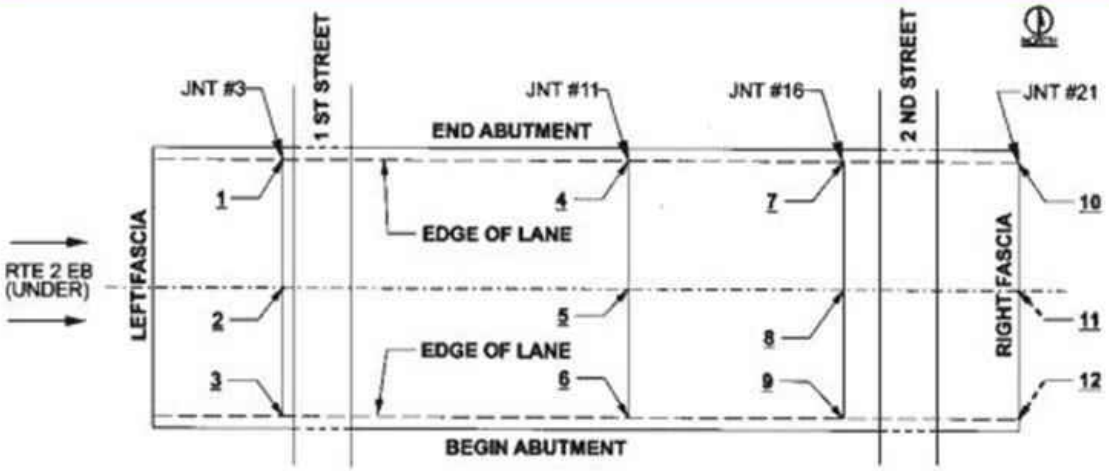
Sketch Number: **3** Sketch Filename: **1054320_VC.JPG**

NYS DEPT OF TRANSPORTATION

BIN 1054320

FEATURE CARRIED FIRST STREET AND SECOND STREET
FEATURE CROSSED FERRY STREET – RT 2 EASTBOUND

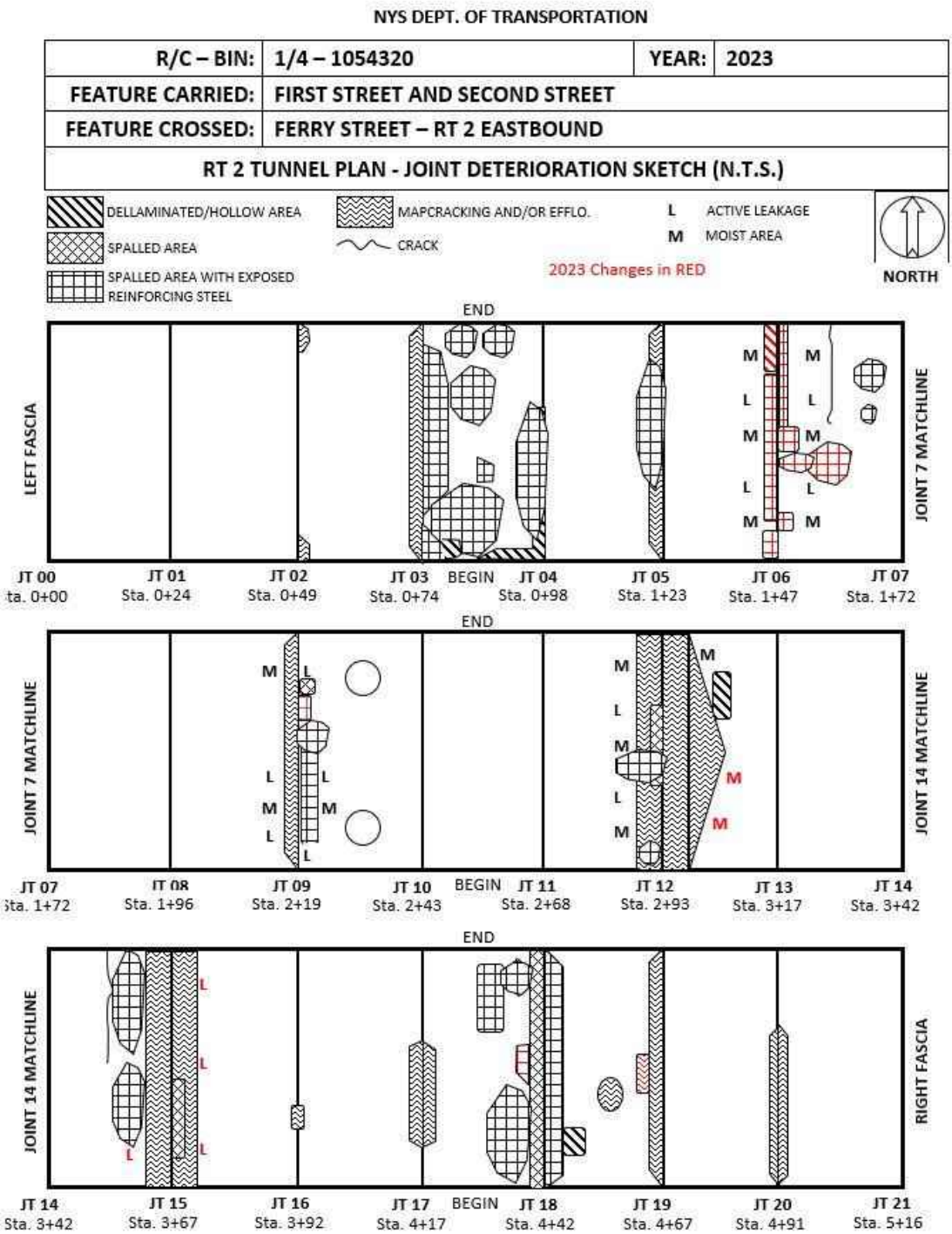
VERTICAL CLEARANCE READINGS



STA	VERTICAL CLEARANCE READINGS						
	2009	2011	2015	2017	2019	2021	2023
1	14'-6"	14'-6"	14'-6"	14'-6"	14'-5"	14'-5"	14'-5"
2	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"	14'-3"
3	14'-8"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"	14'-7"
4	14'-4"	14'-5"	14'-6"	14'-6"	14'-5"	14'-5"	14'-5"
5	14'-1"	14'-2"	14'-1"	14'-2"	14'-1"	14'-1"	14'-1"
6	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"	14'-6"
7	14'-5"	14'-5"	14'-5"	14'-6"	14'-5"	14'-5"	14'-5"
8	14'-1"	14'-1"	14'-1"	14'-2"	14'-1"	14'-1"	14'-1"
9	14'-6"	14'-6"	14'-6"	14'-7"	14'-7"	14'-7"	14'-7"
10	14'-3"	14'-4"	14'-0"	14'-4"	14'-4"	14'-4"	14'-4"
11	14'-0"	14'-0"	14'-3"	14'-0"	14'-0"	14'-0"	14'-0"
12	14'-5"	14'-6"	14'-5"	14'-5"	14'-5"	14'-5"	14'-5"
MIN.	**14'-0"**	**14'-0"**	**14'-0"**	**14'-0"**	**14'-0"**	**14'-0"**	**14'-0"**

Sketch Description: Vertical clearances

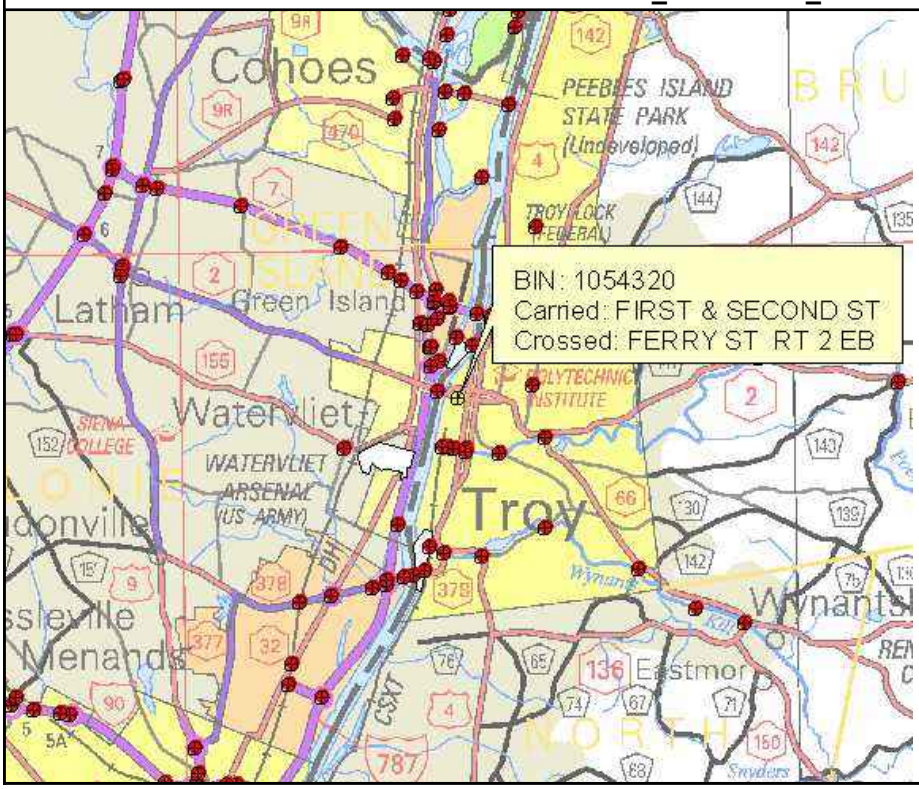
Sketch Number: **4** Sketch Filename: **1054320 Panel Sketch.JPG**



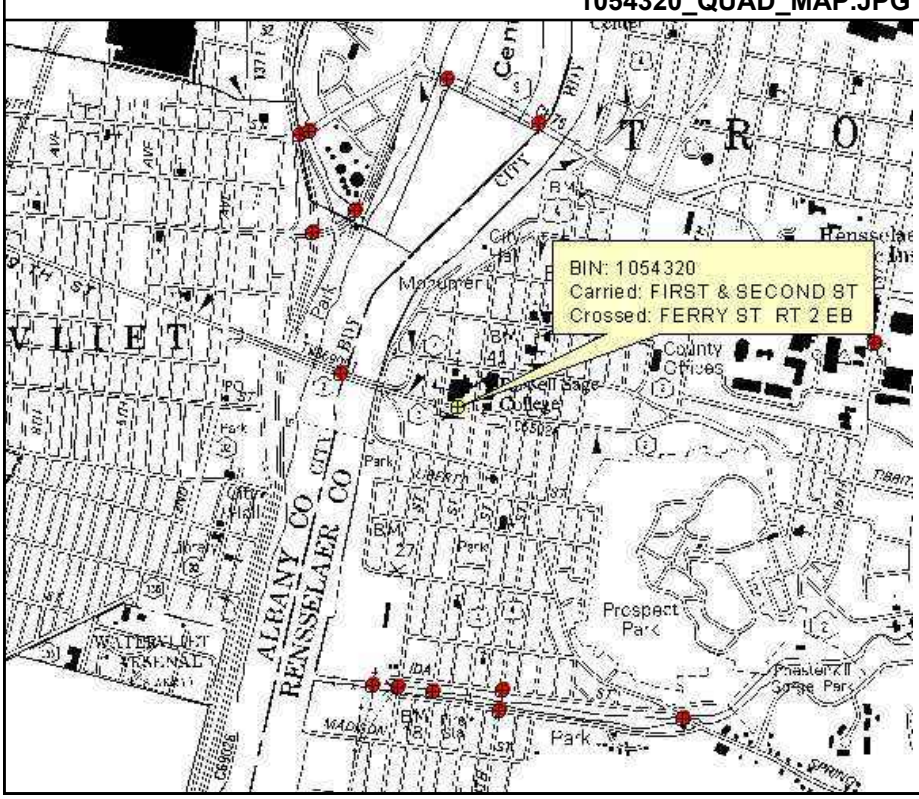
Sketch Description: Panel sketch

Standard Photographs

1054320_LOCATION_MAP.JPG



1054320_QUAD_MAP.JPG



AbutmentBegin.JPG



AbutmentEnd.JPG



ApproachBeginLeft.JPG



ApproachBeginRight.JPG



ApproachEndLeft.JPG



ApproachEndRight.JPG



ElevationLeft.JPG



ElevationRight.JPG



FeatureCrossedLeft.JPG



FeatureCrossedRight.JPG



Framing.JPG



TopOfDeck.JPG



MEMO

gai consultants

Date:	July 1, 2025
Project No.	R245478.00
To:	Creighton Manning, Jeff Pangburn, P.E.
From:	GAI Engineering Consultants of New York, P.C.; Patrick Moore, P.E.
cc:	Eugene Werner
Subject:	**Ferry Street Tunnel Ventilation Evaluation**

Background:
Creighton Manning is performing analysis and redesign work to Ferry Street in Troy, NY. Included in Ferry Street is a portion that tunnels under Russel Sage College for approximately 500 ft. Originally, the tunnel had a ventilation system that would exhaust the tunnel air from the midpoint of the tunnel to the surface above on the college grounds. This ventilation was eventually abandoned, and the tunnel currently has no active ventilation system. The existing tunnel is a two-lane, unidirectional street eastbound between River Street and 3rd Street. Creighton Manning has proposed modifying the tunnel interior to allow for one-lane, unidirectional vehicular traffic and a pedestrian multi-use path. This change in function requires a review to determine if ventilation is required. The changes can be seen below in Figure 1:

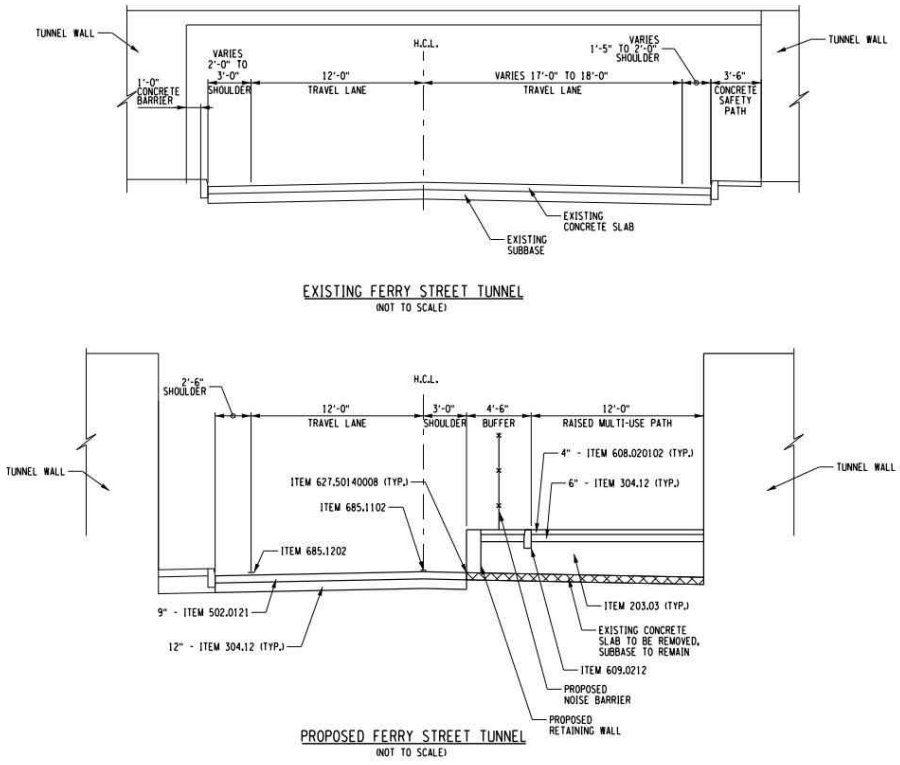


Figure 1: Proposed Tunnel Changes (Cross section)

Ventilation Regulations:
There are no specific regulations that define when tunnels need to be ventilated. However, several sources can be used to establish the requirements and determine if the tunnel will need to be ventilated.

- NFPA 502 – *Road Tunnels, Bridges, and Other Limited Access Highways*
  - Chapter 7 identifies "Tunnels longer than 800 ft (240 m) shall be provided with ventilation for smoke control."
- PIARC (World Road Association) Publication 2019R02EN – *Road Tunnels: Vehicle Emissions Air Demand For Ventilation*
  - Section 2 identifies that the emissions of CO, particulate matter and NOx are considered the reference emissions of internal combustion driven vehicles for road tunnel ventilation.
  - Section 4 identifies that less than 100 ppm of CO is acceptable for normal operations. To allow contingency, 70 ppm should be used as a design limit.
  - Section 4 identifies that 1 ppm of NO_2 should be used as an average level acceptable for normal operation. Note that NO_2 is estimated at 20% of the total NO_x values.
  - Section 4 identifies that the factor associated with opacity design value is set at 0.005 m^{-1}.

Ventilation Evaluation:
To determine if a ventilation system is needed, the vehicle emissions generation rates will need to be quantified. The emissions generation rate will be a summation of the factored emission rate per vehicle from each category within each section of the tunnel.

$$G = \sum_{i=1}^{n_{cat}} g_{fac,i}\, n_{veh,i}$$

1. Vehicle Traffic

To calculate the vehicle traffic, a vehicular volumetric study was performed on the existing roadway configuration and estimated traffic volume rates for the updated configuration. As the traffic study did not identify the different vehicle types, an assumption of 85% of gasoline passenger cars (PC), 10% gasoline light commercial vehicles (LCV), and 5% of diesel heavy goods vehicle (HGV) will be used. The parameters of emission limits are identified in PIARC publication 2019R02EN. Measured Ferry Street vehicle volumes along with the assumed breakdown per vehicle type are shown in Table 1 below:

Tunnel Traffic Time	Tunnel Traffic Rates (vehicles/hr)	PC Rates (PC/hr)	LCV Rates (LCV/hr)	HGV Rates (HGV/hr)
Existing AM Peak Hour Traffic Volumes	280	238	28	14
Existing PM Peak Hour Traffic Volumes	432	367	43	22
ETC AM Peak Hour Traffic Volumes	393	334	39	20
ETC PM Peak Hour Traffic Volumes	515	438	52	26
ETC+10 AM Peak Hour Traffic Volumes	403	343	40	20
ETC+10 PM Peak Hour Traffic Volumes	525	446	53	26

Table 1: Tunnel Traffic Rates

To calculate the number of vehicles in a section of tunnel, the traffic density (traffic rate/speed) for each vehicle type should be multiplied to the length of the tunnel section.

$$n_{cat} = DL_{sec}a_{cat} \qquad \text{where } D = q/v$$

The tunnel exits prior to a traffic signal which causes slowing and stopping of traffic thereby reducing average speeds in the tunnel. GAI assumes the average speed is then reduced in half of the stated speed limit (which is 30 mph). Therefore, the traffic density and the number of vehicles in a section of tunnel is calculated below (Note that the tunnel profile slopes down approximately -3.5% for the first half of the tunnel and slopes up approximately 4% for the second half. Therefore, there would be two sections of the tunnel with a length of 250 ft.).

	n_{cat}	D (v/mile)	q (v/hr)	v (mph)	L_{sec} (ft)	a_{cat}
PC	1.41	35	525	15	250	0.85
LCV	0.17	35	525	15	250	0.1
HGV	0.08	35	525	15	250	0.05

Table 2: Number of Vehicles per Section per Vehicle Type

2. Vehicle Emission Rate

The factored emissions rates are based on published data for standard emissions groups. Technology standard A emissions data is used for North American vehicles and the data is determined using average vehicle speed and gradient. This is defined in the tables in section 6 of the PIARC publication 2019R02EN. The influence of continual improvement can be applied by a factor on the emission rates. The time factor for year 2025 is included below. No other factors are applicable. The rates are documented below:

Speed	30 km/h*					
Gradient	-2% Gradient**			4% Gradient		
Emission Type	CO e	NOx e	Particles	CO e	NOx e	Particles
PC	11.1	2.1	0.1	22.8	4.3	0.3
PC (with Factor)	8.7	1.3	0.1	17.8	2.7	0.3
LCV	51.9	3.1	0.1	79.7	10.7	0.5
LCV (with Factor)	29.6	1.0	0.1	45.4	3.4	0.4
HGV	18.3	75.2	5.6	48.1	111	9.9
HGV (with Factor)	13.9	25.6	5.2	36.6	37.7	9.1

* 15mph = 24.1 km/h – Utilize 30 km/h to be conservative.

** Gradient of first half of tunnel is ~-3.5%. Utilize -2% to be conservative.

Table 3: Emissions Rates

3. Tunnel Emission Rates and Ventilation Flowrates

Utilizing the ventilation rates equation, we can define the rate of emissions and required ventilation flowrates to maintain acceptable air quality. This can be utilized to determine if ventilation is needed. The total emissions per different types are calculated by adding up the total amount of emissions generation for each section and multiplying times the number of cars per section. The total rates are defined below:

	CO (g/h)	NO (g/h)	Particles (m^2/h)
PC	37.25	5.59	0.54
LCV	12.43	0.73	0.08
HGV	4.18	5.25	1.18
Total	**53.86**	**11.57**	**1.80**

Table 4: Total Emissions Per Category

Using a density of CO as ~1.2 kg/m^3, 70 ppm is equivalent to 0.084 g CO/m^3. Determining the required ventilation of the total CO emissions (53.86 g/h) to maintain the 70 ppm limit, the necessary flowrate for the tunnel 641 m^3/h (377 CFM).

Using a density of NO_2 as ~1.9 kg/m^3 (20% of total NO_x concentration), 1 ppm of NO_2 is equivalent to 0.002 g NO_2/m^3. Determining the required ventilation of the total NO_2 emissions (11.57*20% = 2.3 g/h) to maintain the 1 ppm limit, the necessary flowrate for the tunnel is 1157 m^3/h (681 CFM).

Using a standard opacity design value of K=0.005 m^{-1}, the necessary flowrate for the tunnel is 360 m^3/h (212 CFM).

4. Tunnel Vehicular Ventilation

For short tunnels, there is natural ventilation that occurs due to the piston effect. The piston effect is the forced air flow inside a tunnel caused by moving vehicles. Utilizing a typical vehicle cross sectional area of 22 sqft, the ventilation from the vehicles in this cross-sectional area is 681 cfm/22 sqft = 31 ft/min (0.35 mph). This would be the minimum amount of forced air though the car lane to ventilate the tunnel. As this forced air is not constant and moves around the cars due to aerodynamics, the speed of the vehicles will need to be significantly greater than the required ventilation speeds. Speed data provided showed the average vehicle speed was 31 mph. This is greater than 88 times the required ventilation speed and therefore this adequately satisfies the ventilation requirements of the tunnel.

Conclusions

This evaluation utilized design data identified in PIARC publication 2019R02EN to determine the emission rate generated in the tunnel and provide the ventilation rate needed to maintain acceptable conditions. The limiting ventilation flowrate is the NO_2 ventilation requirement of 681 CFM. At recorded vehicular speeds, the vehicles' movement will allow air flow from one side to the other (benefits of unidirectional traffic flow) and provide adequate natural ventilation from the vehicle movement. Furthermore, the tunnel's relatively short length would allow for adequate natural ventilation. Therefore, GAI had determined that the tunnel has adequate natural ventilation, and the air quality is within acceptable limits.

Signed & Dated:	
Printed Name:	Patrick J. Moore, P.E.

Appendix E – Public Involvement

NY 2 (Congress and Ferry Streets) Corridor & River/Ferry Street Intersection Improvements Project

PUBLIC INFORMATION MEETING

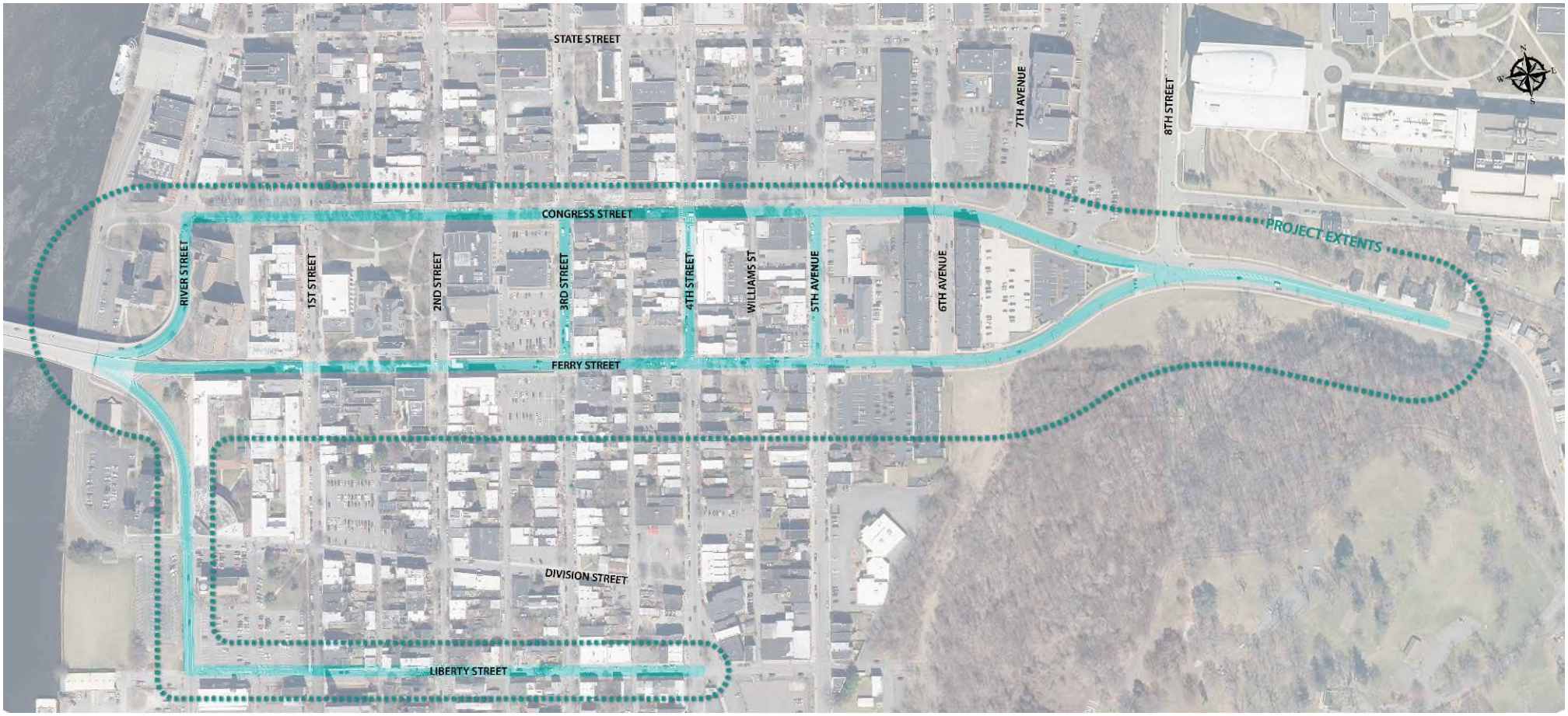
PIN 1761.61

July 30, 2024

Agenda

- Project Overview
  - Project Limits
  - Background, Objectives and Funding
  - Existing Conditions
  - Proposed Work
  - Construction Impacts
- Next Steps and Schedule
- Questions/Comments

Project Limits



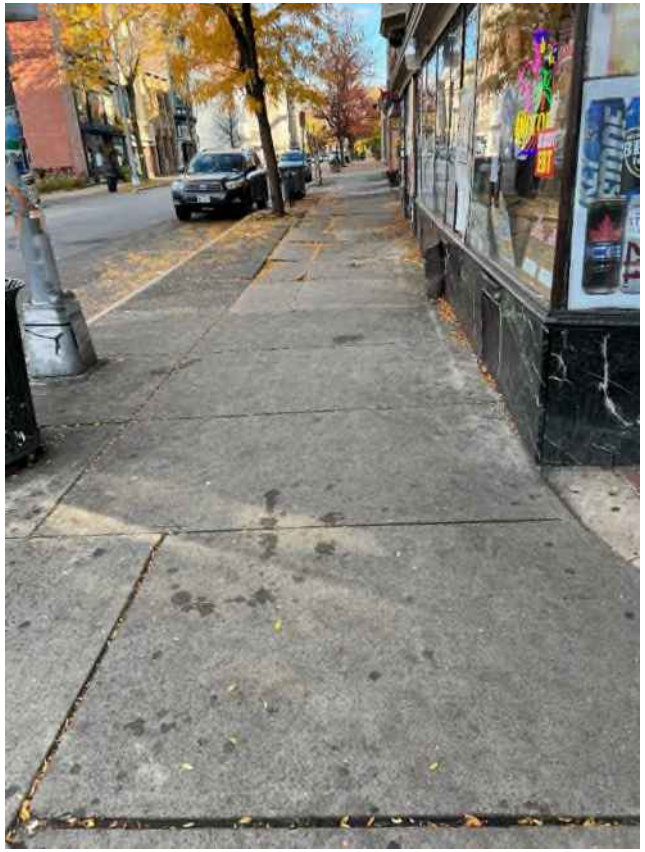
Background, Objectives and Funding

- Background
  - Listed on the CRTC TIP and NYSDOT STIP
  - Consists of 3 components:
    - NY 2 (Congress and Ferry Streets) Corridor Improvements
    - River/Ferry Street Intersection Improvements
    - Ferry Street Tunnel Rehabilitation
  - Connection to Watervliet and points east
  - Construct project in coordination with Taylor Apartments

Background, Objective and Funding

- Project Objectives
  - Provide increased mobility for all users throughout the corridor
  - Congress & Ferry - Complete Streets (sidewalks, curb ramps, curb extensions & bicycle accommodations)
  - River/Ferry Street intersection - Address geometric deficiencies to improve traffic flow
  - Rehabilitate Ferry Street tunnel
- Funding
  - $9.789M - Engineering, Construction & Inspection
  - Cost Split: 80% Federal/20% City

Existing Conditions - Congress & Ferry Streets

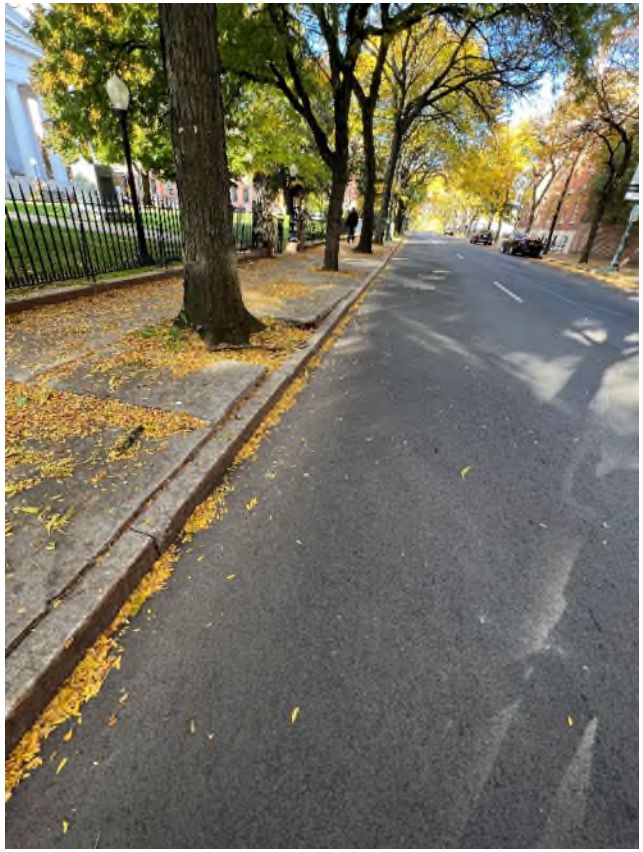






Existing Conditions - Congress & Ferry Streets







Proposed Work - Congress & Ferry Streets

- ADA compliant sidewalks, curb ramps & crosswalks
- Pavement rehabilitation
- Drainage improvements
- Landscaping & striping
- Intersection improvements
- Bicycle accommodations

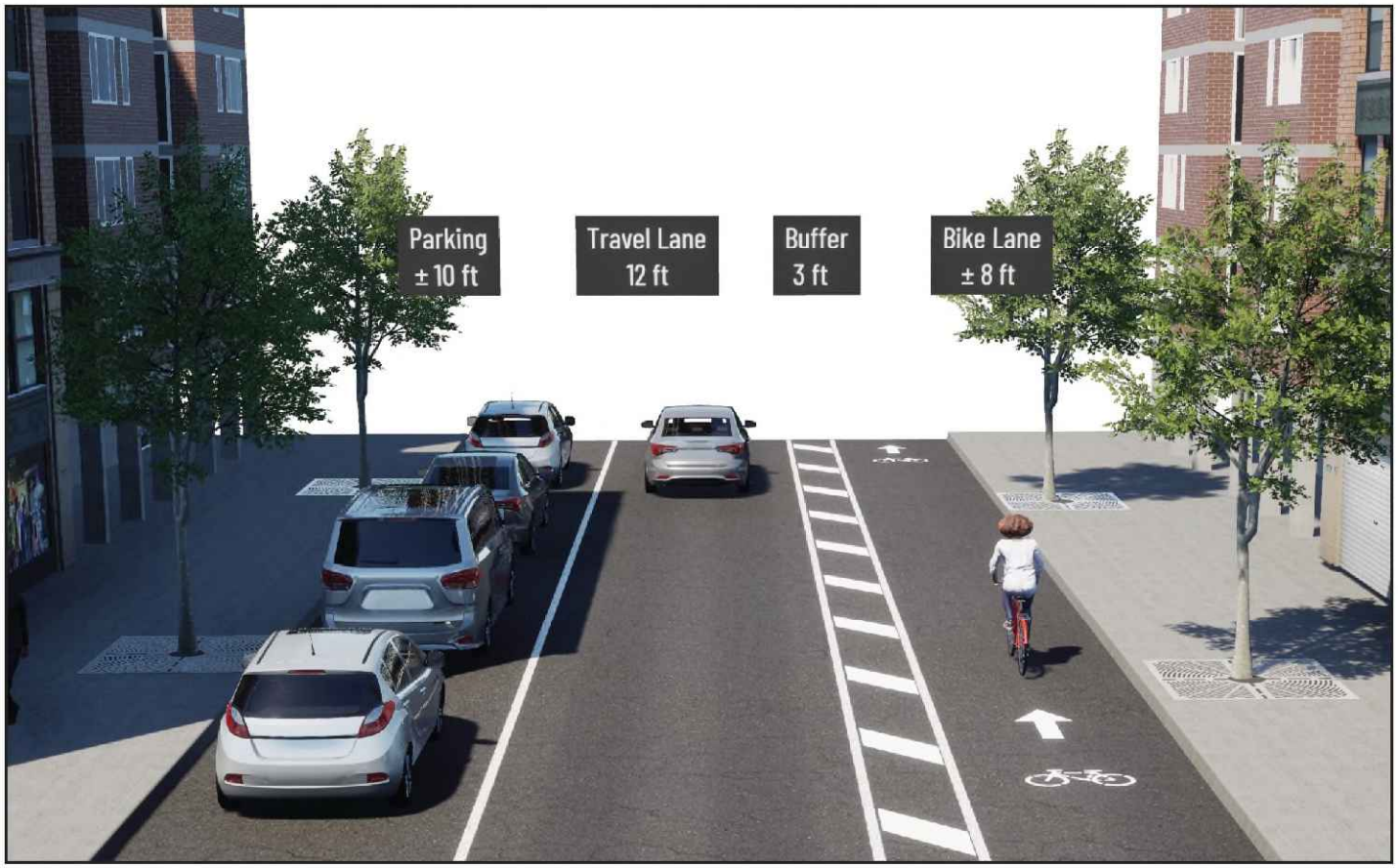
Proposed Work - Bicycle Accommodations

- Alternative 1A – Congress and Ferry Streets One-Way Buffered Bike Lanes
- Alternative 1B – Congress Street Two-Way Buffered Bike Lanes
- Alternative 1C - Liberty Street Contra Flow Bike Lane

1A – Congress and Ferry Streets One-Way Buffered Bike Lanes

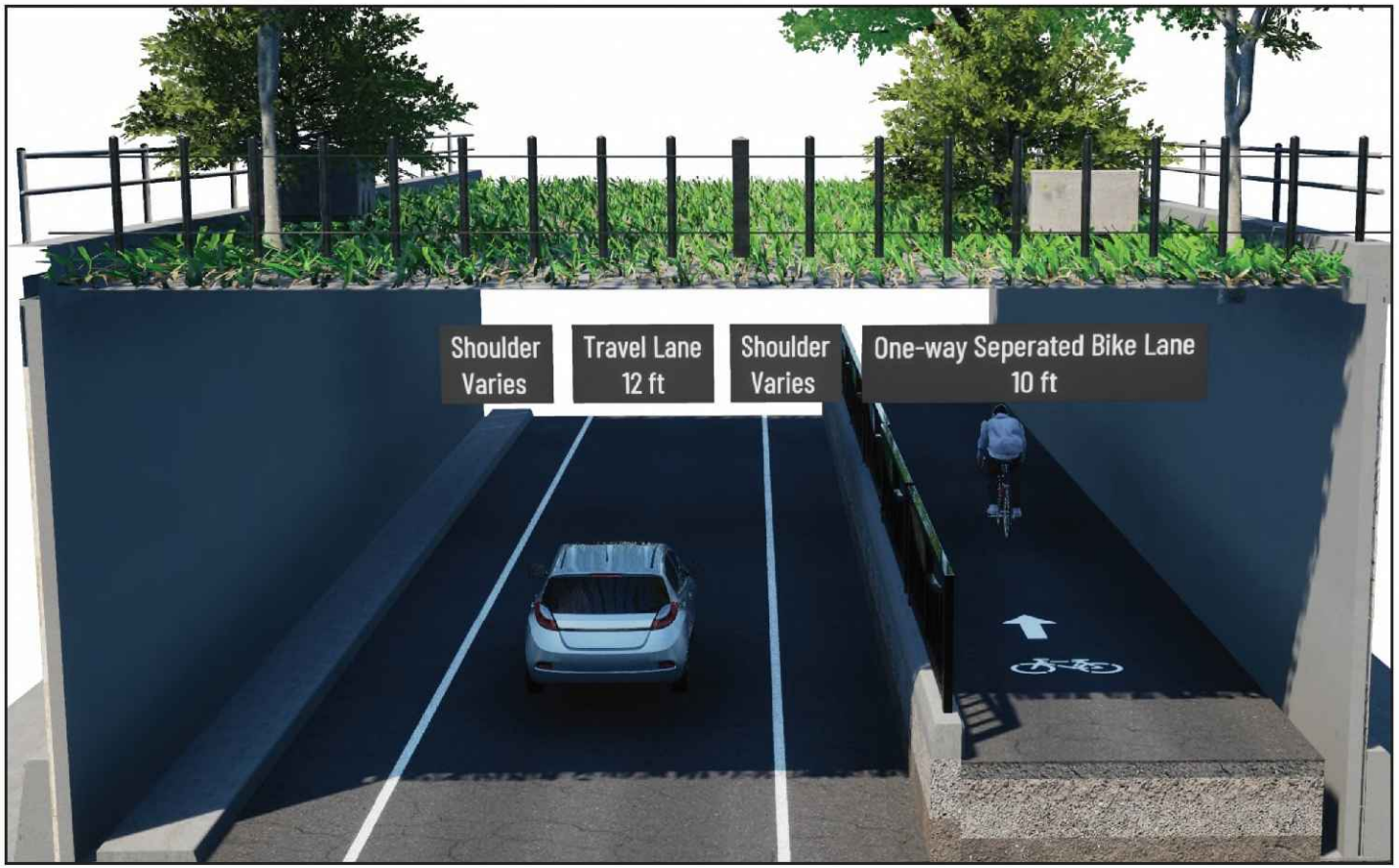


1A – Congress and Ferry Streets One-Way Buffered Bike Lanes



Congress Street Looking West
Ferry Street Looking East

1A – Congress and Ferry Streets One-Way Buffered Bike Lanes

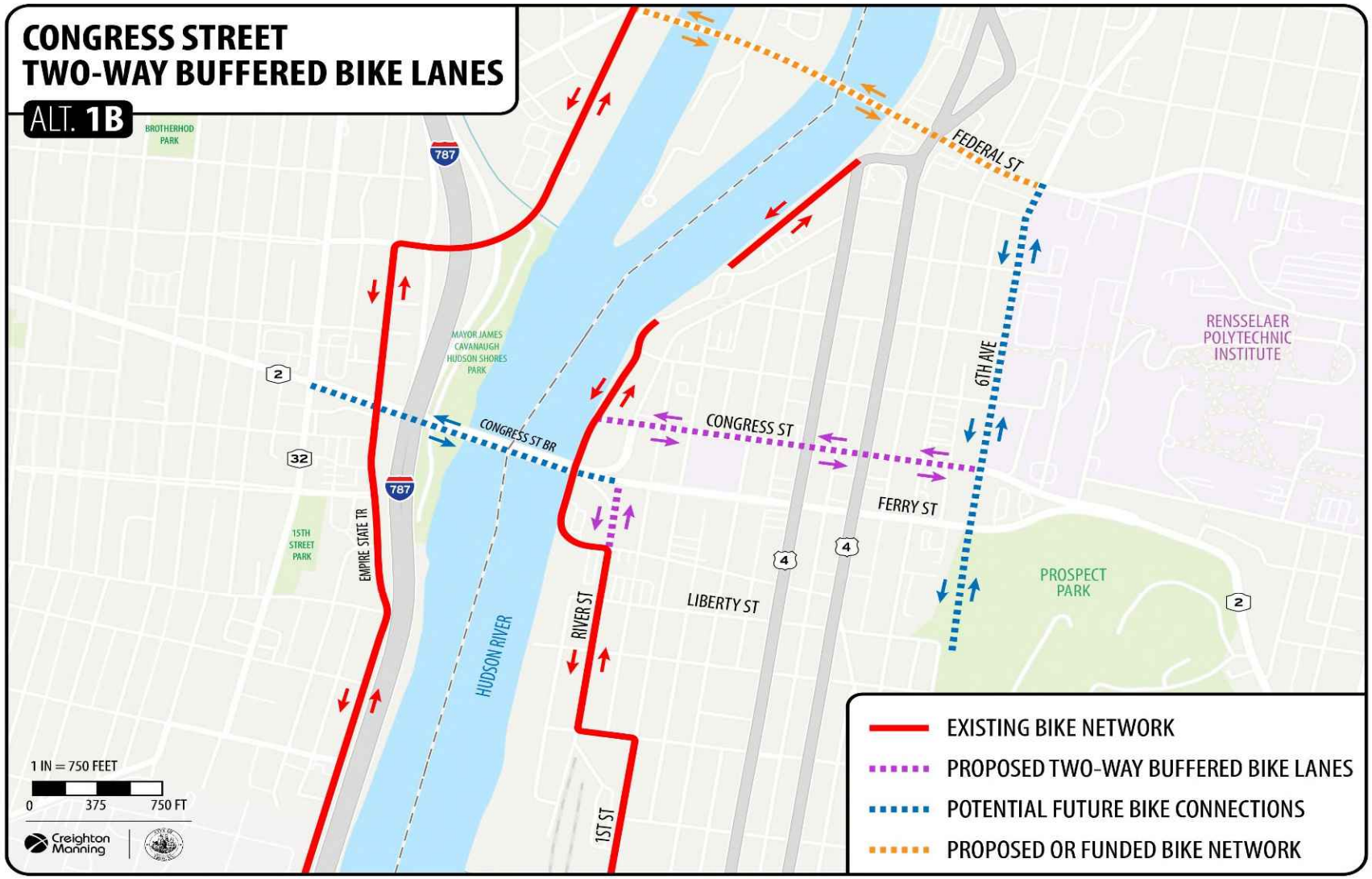


Ferry Street Tunnel Looking East

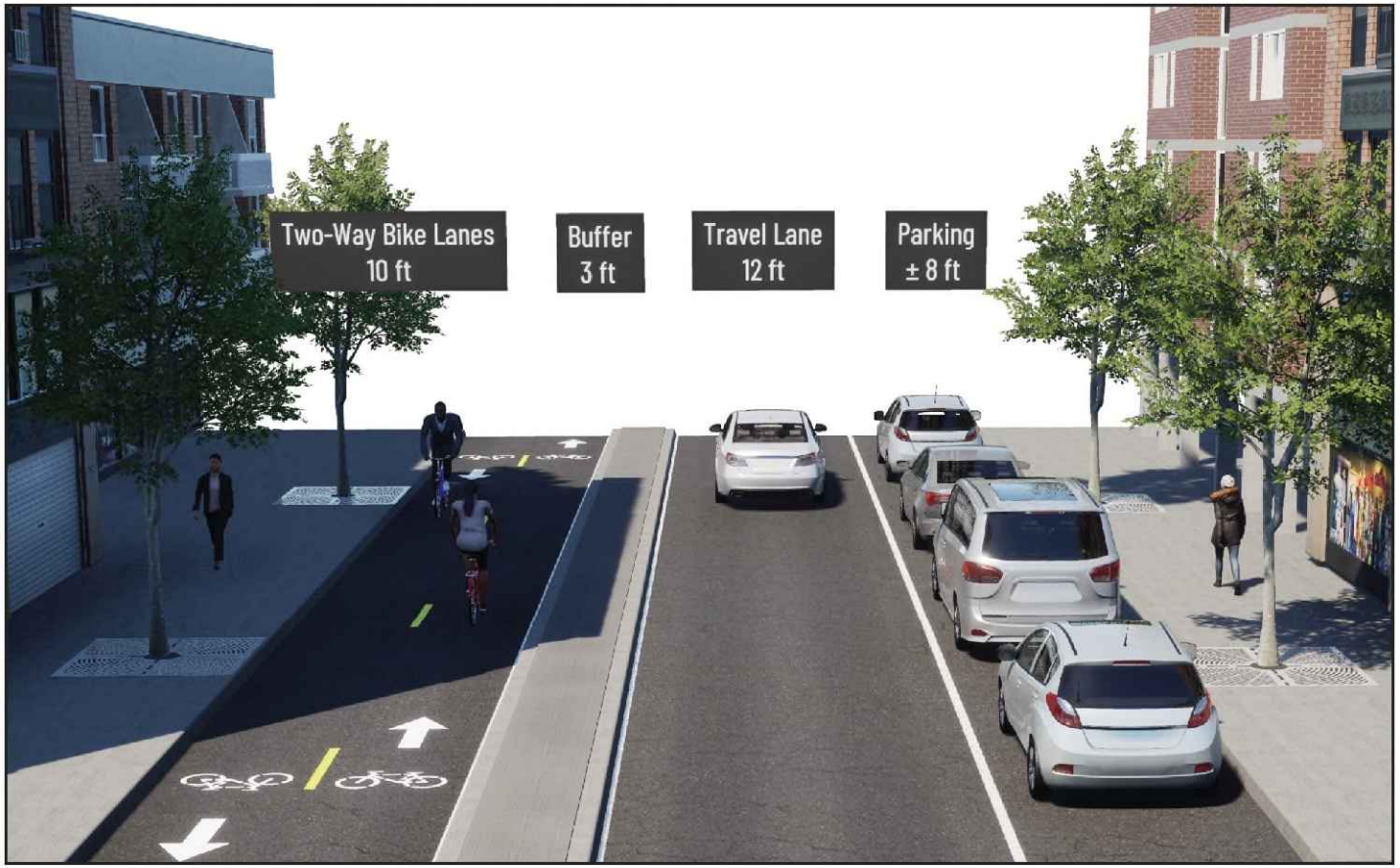
1A – Congress and Ferry Streets One-Way Buffered Bike Lanes



1B – Congress Street Two-Way Buffered Bike Lanes

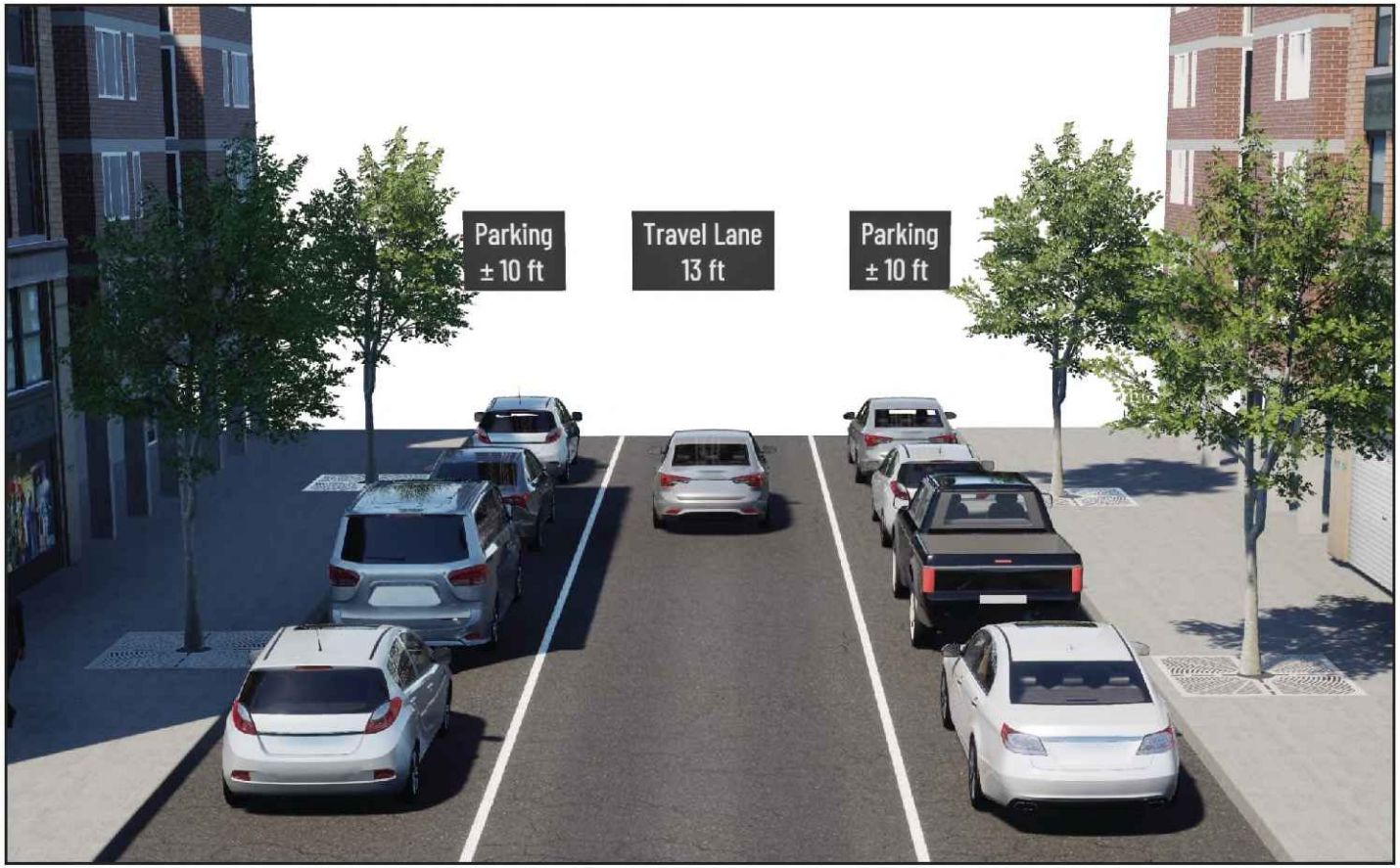


1B – Congress Street Two-Way Buffered Bike Lanes



Congress Street Looking West

1B – Congress Street Two-Way Buffered Bike Lanes



Ferry Street Looking East

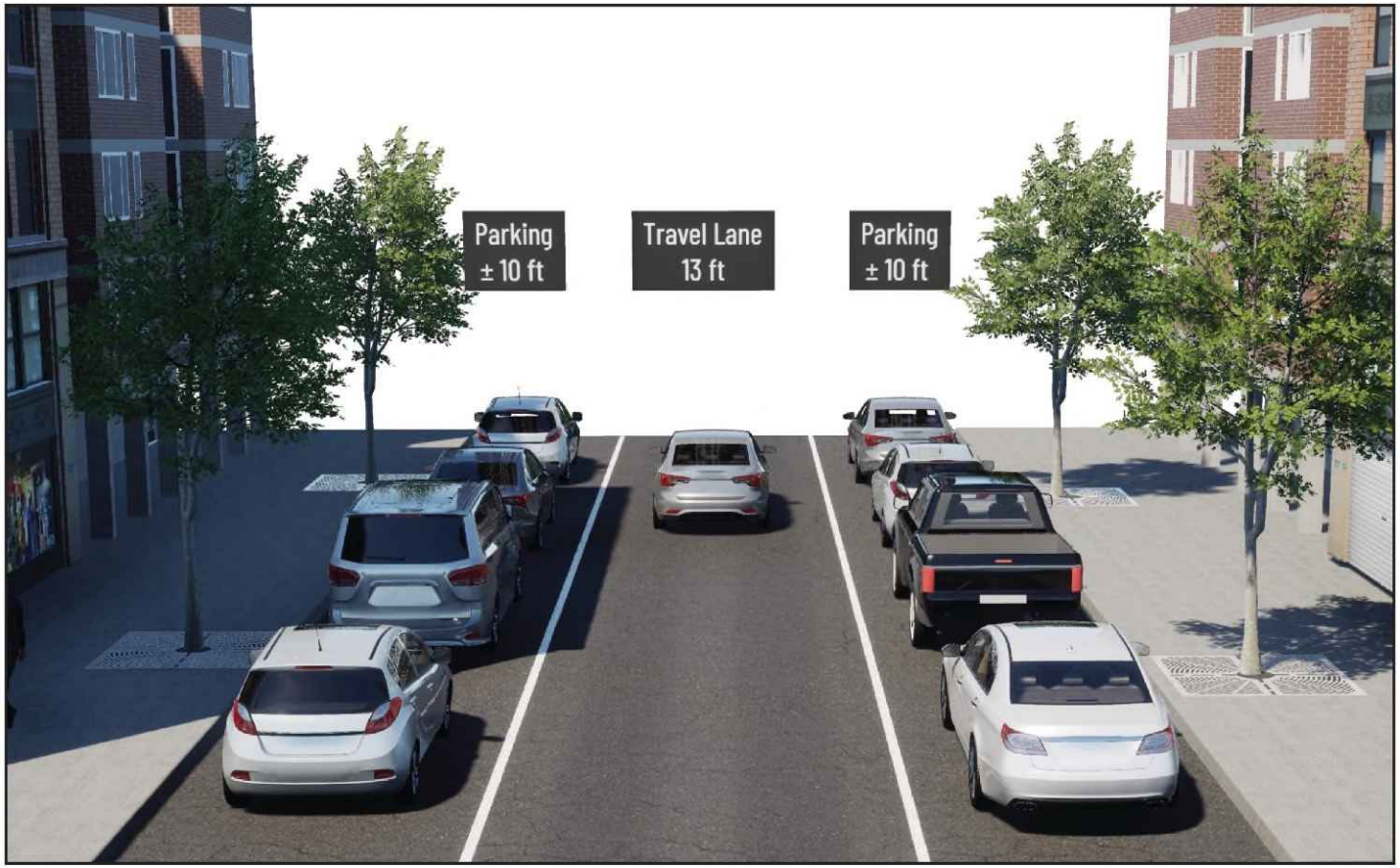
1B – Congress Street Two-Way Buffered Bike Lanes



1C – Liberty Street Contra Flow Bike Lane

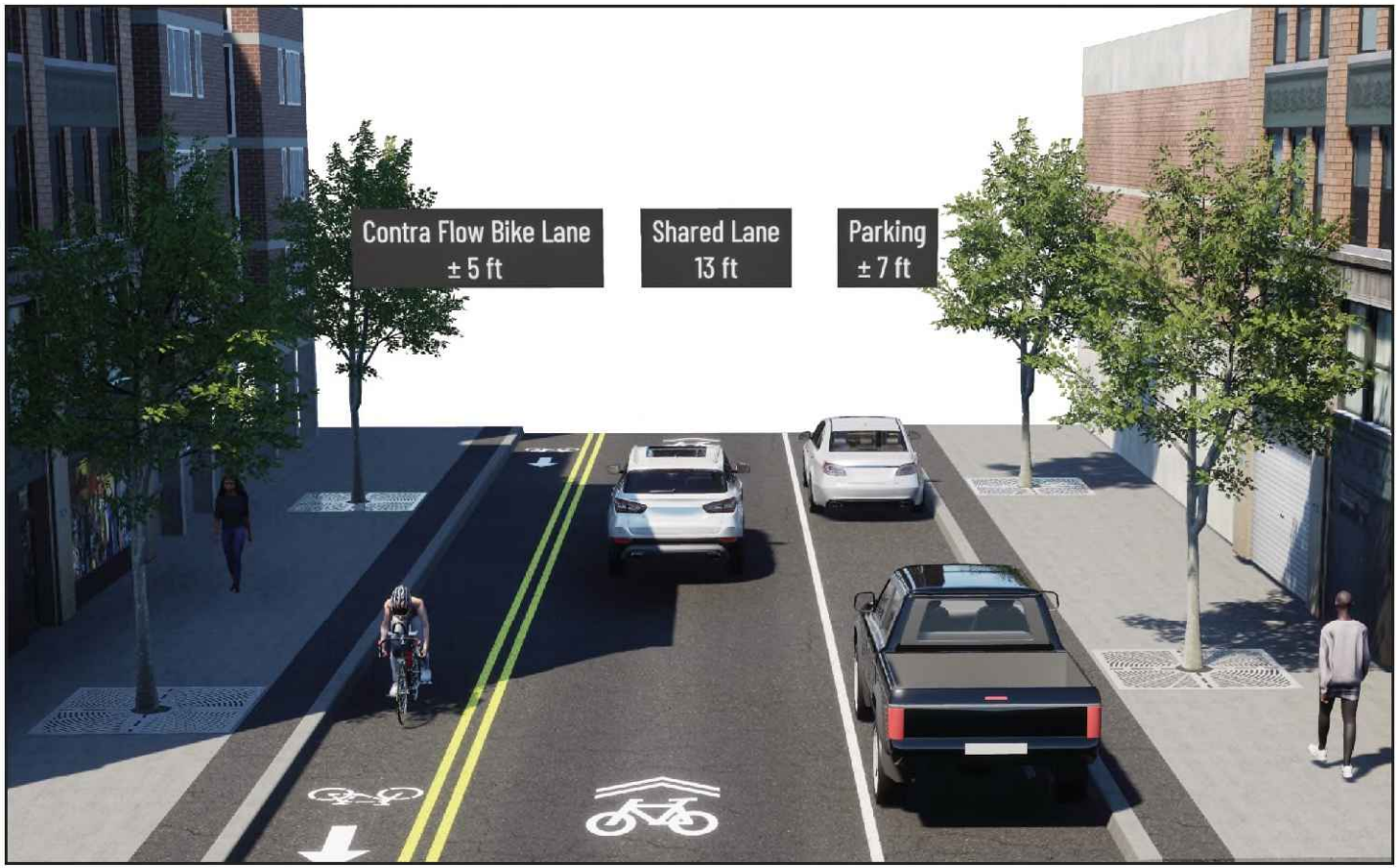


1C – Liberty Street Contra Flow Bike Lane



Congress Street Looking West
Ferry Street Looking East

1C – Liberty Street Contra Flow Bike Lane



Liberty Street Looking East

1C – Liberty Street Contra Flow Bike Lane





Existing Conditions - Congress Street Bridge at River/Ferry Street

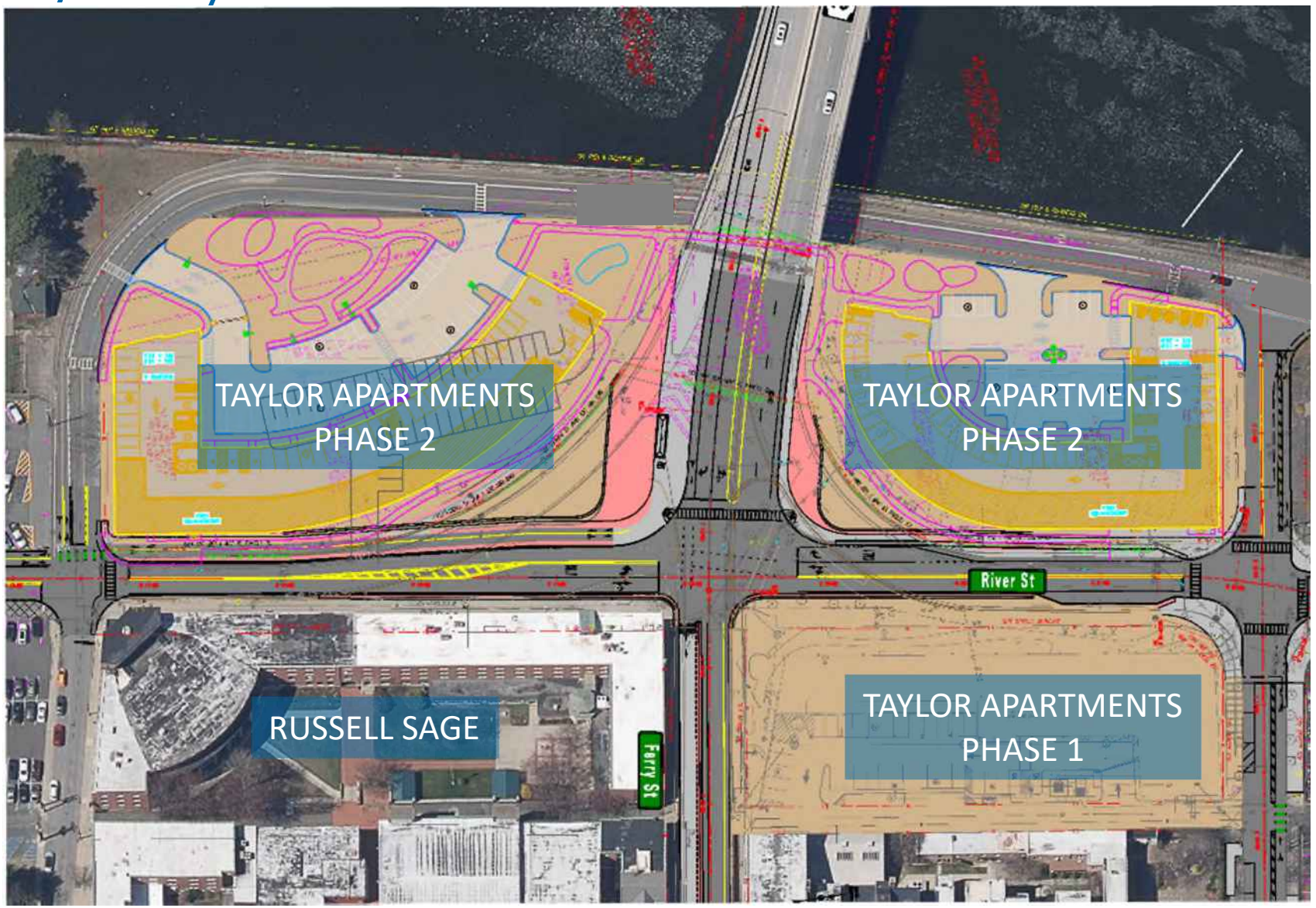


Existing Conditions - Congress Street Bridge at River/Ferry Street





Proposed Work - Congress Street Bridge at River/Ferry Street



Existing Conditions - Ferry Street Tunnel



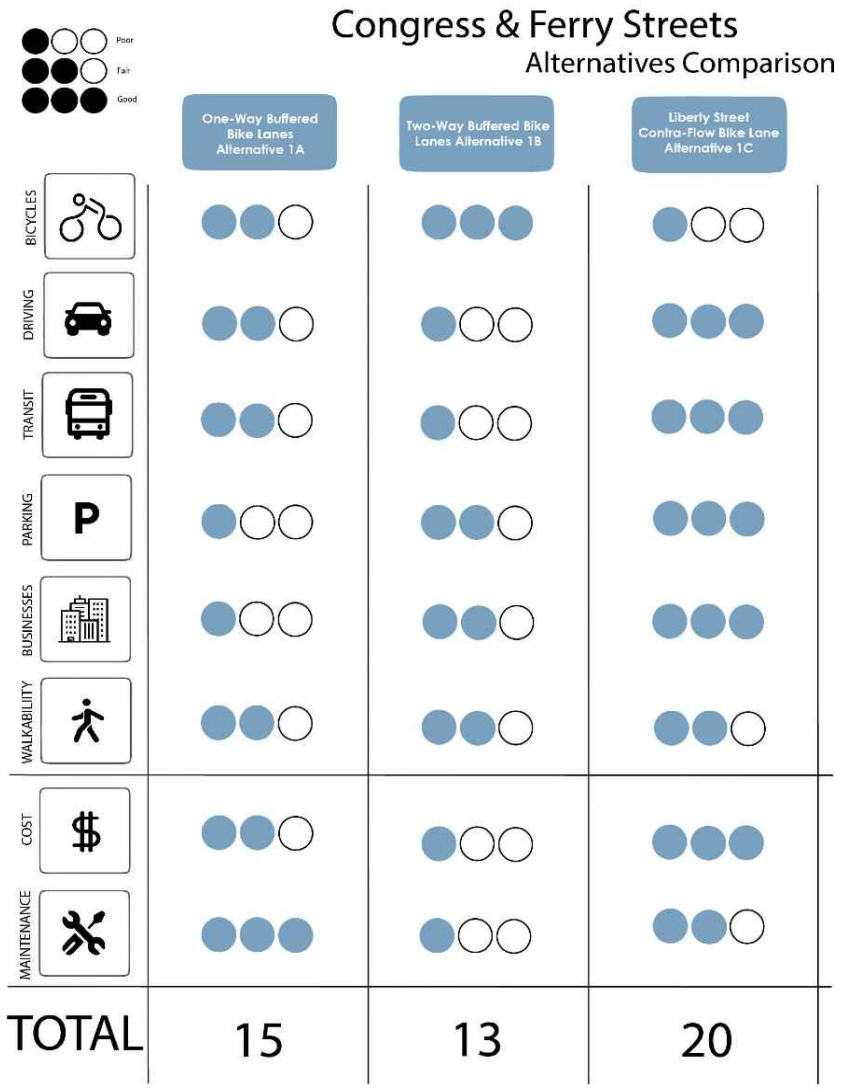


Proposed Work – Ferry Street Tunnel

- Concrete Repairs – Roof, walls and floor slab
- Waterproofing roof joints
- New lighting
- Noise protection (Alternative 1A)
- Construction access from top and within tunnel

Proposed Alternatives Comparison

Cost Comparison	
Alternative 1A - Congress and Ferry Street One-Way Buffered Bike Lanes	$10.0 M
Alternative 1B - Congress Street Two-Way Buffered Bike Lanes	$10.1 M
Alternative 1C - Liberty Street Contra Flow Bike Lane	$9.1 M



What to Expect During Construction

- Traffic Impacts
  - Access to businesses and residential to remain open
  - Businesses, residents and schools notified prior to construction beginning
  - Temporary shoulder/lane closures to be utilized
  - Staged construction for intersection
  - 1st St. and 2nd St. closure with detour for tunnel work. Closures to occur separately and in coordination with Russell Sage College.

- Construction Schedule Restrictions
  - No Work on Major Holidays
  - No Lane Closures During Peak Commuter Hours



- Full access for Emergency Vehicles

Next Steps/Schedule

- Design & Agency Coordination → Ongoing
- Public Meeting & Comments → Summer 2024
- Design Approval → Summer 2024
- Detailed Design → Fall 2024
- Project Out to Bid → Winter 2025
- Construction Begins → Spring 2025
- Construction Substantially Complete → Summer 2026

Project Contacts

Andrew Kreshik
Planner, Planning & Economic Development
City of Troy
Andrew.Kreshik@troyny.gov
(518) 279-7153

Chris Geroux, P.E.
Project Manager
Creighton Manning Engineering
cgeroux@cmellp.com
(518) 689-1847

Website - https://congressandferrycorridor.altago.site/

NY 2 CORRIDOR (CONGRESS AND FERRY STREETS) AND RIVER ST./FERRY ST. INTERSECTION IMPROVEMENT PROJECT

The City of Troy will hold a public informational meeting on Tuesday, July 30, 2024 from 6:00 to 7:30 PM at Russell Sage College to discuss the proposed corridor improvements along NY Route 2 (Congress and Ferry Streets) and intersection improvements at Congress Street Bridge/River Street/ Ferry Street. The public meeting will be held at Russel Sage College's Bush Memorial Center, 50 1st Street, Troy, NY 12180. The meeting will begin with a brief, formal presentation at 6:00 PM followed by an open house. At the meeting, participants will have the opportunity to discuss the project with City representatives and provide comments.

The City is sponsoring the project to improve mobility along the corridor and improve traffic flow at the new intersection. Any suggestions and/or comments made at the meeting will be considered by the team as the project is progressed. Construction is scheduled to begin in 2025. The project is funded through the Federal Highway Administration and the New York State Department of Transportation with 80% of project costs covered by FHWA. Interested individuals who are not able to attend on this date may obtain project information or submit comments, by writing to: Andrew Kreshik, Planner, City of Troy, 433 River Street, 5th Floor, Troy, NY 12180; or by email to Andrew.Kreshik@troyny.gov.

7/18/2024, 7/25/2024
#NY0120117

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LEGAL NOTICE

NOTICE OF FORMATION OF LIMITED LIABILITY COMPANY. NAME: T&L Marketing Strategies LLC. Articles of organization were filed with the Secretary of State of New York (SSNY) on 07/05/2024. Office location: Rensselaer County. SSNY has been designated as agent of the LLC upon whom process against it may be served. SSNY shall mail a copy of the process to the LLC, T&L Marketing Strategies LLC. Purpose: For any lawful purpose.
7/25, 8/1, 8/8, 8/15, 8/22, 8/29
#NY0120684

NOTICE OF FORMATION OF LIMITED LIABILITY COMPANY. NAME: Teator & Sons, LLC. Articles of Organization were filed with the Secretary of State of New York (SSNY) on 6/19/2024. Office location: Rensselaer County. SSNY has been designated as agent of the LLC upon whom process against it may be served. SSNY shall mail a copy of process to the LLC, 999 Stony Point Road; Castleton, NY 12033. Purpose: For any lawful purpose.
7/11, 7/18, 7/25, 8/1, 8/15
#NY0119491

3253 SEVENTH AVE LLC. Arts. of Org. filed with the SSNY on 04/10/24. Office: Rensselaer County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 264 9th Street, Troy, NY 12180. Purpose: Any lawful purpose.
07/25/24-08/29/24
#NY0120673

RUSTIC WAY LLC. Arts. of Org. filed with the SSNY on 04/07/23. Office: Rensselaer County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 190 Pershing Avenue, Wynantskill, NY 12198. Purpose: Any lawful purpose.
07/25/24-08/29/24
#NY0120671

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LEGAL NOTICES

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7/18/2024, 7/25/2024
#NY0120117

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LEGAL NOTICE

NOTICE OF SALE SUPREME COURT RENSSELAER COUNTY

U.S. BANK TRUST NATIONAL ASSOCIATION NOT IN ITS INDIVIDUAL CAPACITY BUT SOLELY AS OWNER TRUSTEE FOR CITIGROUP MORTGAGE LOAN TRUST 2021-RP6, Plaintiff against

CHRISTA A. MCGLYNN, et al Defendant(s)

Attorney for Plaintiff(s) Knuckles & Manfro, LLP, 120 White Plains Road, Suite 215, Tarrytown, NY 10591.

Pursuant to a Judgment of Foreclosure and Sale entered June 6, 2024, I will sell at public auction to the highest bidder at Rensselaer County Courthouse, Main Rotunda, 80 2nd Street, Troy, New York, 12180 on August 7, 2024 at 10:00 AM. Premises known as 1498 Second Street, Rensselaer, NY 12144. Sec 144.21 Block 5 Lot 30. All that tract or parcel of land, with the buildings and improvements thereon situate, lying and being in the 8th Ward of the City of Rensselaer, in the County of Rensselaer and State of New York. Approximate Amount of Judgment is $114,813.71 plus interest, fees, and costs. Premises will be sold subject to provisions of filed Judgment Index No EF2023-273322. Cash will not be accepted at the sale.

The foreclosure sale will be conducted in accordance with 3rd Judicial District's Covid-19 Policies and foreclosure auction rules. The Referee shall enforce any rules in place regarding facial coverings and social distancing.

Stephanie A. Henry, Esq., Referee File # 2267-004167
7/4/2024, 7/11/2024, 7/18/2024, 7/25/2024.
#NY0118584

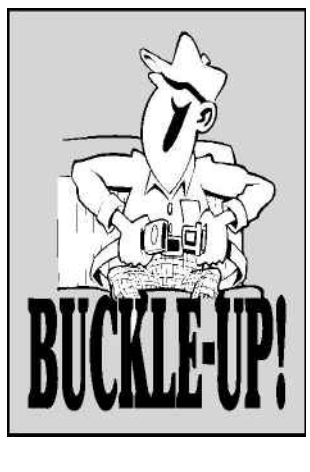
LEGAL NOTICE

The Board of Fire Commissioners of the Hoags Corners fire district #1 will hold a budget workshop at 7:15 PM on August 20 and again on September 17, 2024. The workshop will be held at the Hoags Corners fire company located at 7237 Route 66 East Nassau NY 12062.
7/25/24
#NY0120733

71 INGALLS AVE LLC. Arts. of Org. filed with the SSNY on 04/10/24. Office: Rensselaer County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 264 9th Street, Troy, NY 12180. Purpose: Any lawful purpose.
07/25/24-08/29/24
#NY0120674

LEWIS & BROS HAULING, LLC. Arts. of Org. filed with the SSNY on 04/18/24. Office: Rensselaer County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 264 9th Street, Troy, NY 12180. Purpose: Any lawful purpose.
07/25/24-08/29/24
#NY0120666

HOTEP LLC. Arts. of Org. filed with the SSNY on 02/25/22. Office: Rensselaer County. SSNY designated as agent of the LLC upon whom process against it may be served. SSNY shall mail copy of process to the LLC, 264 9th St, Troy, NY 12180. Purpose: Any lawful purpose.
07/25/24-08/29/24
#NY0120664



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Thursday, July 25, 2024

Daily Bridge Club

Self-correcting play?

By FRANK STEWART
Tribune Content Agency

Rumor has it that the inventor of auto-correct has died: Restroom in piece.

I've often wished that some of my plays could be self-correcting: When I'm about to pull a wrong card, it would magically change to the right one.

Against 3NT, West led a spade: queen, king. South ducked twice and won the third spade. He next let the queen of clubs ride. East won and led a diamond, and South had to guess: He could win nine tricks if the diamond finesse worked or if hearts broke 3-3. When South finessed, West took the king — and two spades.

HEARTS

South might have taken the ace of diamonds and tried the hearts. If the suit didn't break 3-3, South could lead a diamond toward his queen at the end, succeeding if East had the king and no more hearts.

But South's club finesse at Trick Four needed auto-correct. South must instead test the hearts. When the suit breaks 3-3, he is safe. If hearts broke 4-2, South would know he needed the diamond finesse if the club finesse failed.

DAILY QUESTION

You hold: ♠ J 9 6 5 2 ♡ J 8 7 ◇ K J 7 ♣ 5 3. The dealer, at your left, opens one diamond. Your partner doubles, you bid one spade and he raises to two spades. What do you say?

ANSWER: To double and raise your response (for which you might have had no points at all), partner has a big hand. If your opponent had opened one heart, your K-J of diamonds would be useful, and you could bid again to try for game. As it is, those honors may be worthless. Pass.

South dealer
N-S vulnerable

NORTH
♠ Q 4
♡ A Q 5 2
◇ 9 6 3
♣ A 9 8 6

WEST
♠ J 9 6 5 2
♡ J 8 7
◇ K J 7
♣ 5 3

EAST
♠ K 10 8
♡ 10 9 6
◇ 10 8 5 2
♣ K 7 2

SOUTH
♠ A 7 3
♡ K 4 3
◇ A Q 4
♣ Q J 10 4

South	West	North	East
1 NT	Pass	2 ♣	Pass
2 ◇	Pass	3 NT	All Pass

Opening lead — ♠ 5

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Thursday, July 18, 2024 » MORE UPDATES AT FACEBOOK.COM/troyrecord AND TWITTER.COM/troyrecord www.troyrecord.com

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LEGAL NOTICES

NOTICE OF FORMATION OF LIMITED LIABILITY COMPANY. NAME: Teator & Sons, LLC. Articles of Organization were filed with the Secretary of State of New York (SSNY) on 6/19/2024. Office location: Rensselaer County. SSNY has been designated as agent of the LLC upon whom process against it may be served. SSNY shall mail a copy of process to the LLC, 999 Stony Point Road; Castleton, NY 12033. Purpose: For any lawful purpose.
7/11, 7/18, 7/25, 8/1, 8/15
#NY0119491

LEGAL NOTICE

Notice is hereby given that a license, number (PENDING) for (beer & cider) has been applied for by Restaurante La Coco LLC . to sell (beer & cider) at retail in a (MEXICAN RESTAURANT) under the Alcoholic Beverage Control Law at (3301 6th Ave , TROY N.Y.
12180, COUNTY OF RENSSELAER) for on premise consumption
7/11, 7/18
#NY0119405

EITHER BUYING, selling, or trading, a classified is a good investment.

LEGAL NOTICES

LEGAL NOTICE

The July monthly meeting for the Booard of Fire Commissioners of the Hoags Corners Fire district was rescheduled for July 23rd at 6:30; meeting will be held at the Hoags corners Fire company located at 7237 rt 66 East Nassau NY
7/18/24
#NY0120175

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LEGAL NOTICES

NY 2 CORRIDOR (CONGRESS AND FERRY STREETS) AND RIVER ST./FERRY ST. INTERSECTION IMPROVEMENT PROJECT

The City of Troy will hold a public informational meeting on Tuesday, July 30, 2024 from 6:00 to 7:30 PM at Russell Sage College to discuss the proposed corridor improvements along NY Route 2 (Congress and Ferry Streets) and intersection improvements at Congress Street Bridge/River Street/ Ferry Street. The public meeting will be held at Russel Sage College's Bush Memorial Center, 50 1st Street, Troy, NY 12180. The meeting will begin with a brief, formal presentation at 6:00 PM followed by an open house. At the meeting, participants will have the opportunity to discuss the project with City representatives and provide comments.

The City is sponsoring the project to improve mobility along the corridor and improve traffic flow at the new intersection. Any suggestions and/or comments made at the meeting will be considered by the team as the project is progressed. Construction is scheduled to begin in 2025. The project is funded through the Federal Highway Administration and the New York State Department of Transportation with 80% of project costs covered by FHWA. Interested individuals who are not able to attend on this date may obtain project information or submit comments, by writing to: Andrew Kreshik, Planner, City of Troy, 433 River Street, 5th Floor, Troy, NY 12180; or by email to Andrew.Kreshik@troyny.gov.
7/18/2024, 7/25/2024
#NY0120117

PLEASE RECYCLE this newspaper

LEGAL NOTICES

LEGAL NOTICE

NOTICE OF SALE SUPREME COURT RENSSELAER COUNTY

U.S. BANK TRUST NATIONAL ASSOCIATION NOT IN ITS INDIVIDUAL CAPACITY BUT SOLELY AS OWNER TRUSTEE FOR CITIGROUP MORTGAGE LOAN TRUST 2021-RP6, Plaintiff against

CHRISTA A. MCGLYNN, et al Defendant(s)

Attorney for Plaintiff(s) Knuckles & Manfro, LLP, 120 White Plains Road, Suite 215, Tarrytown, NY 10591.

Pursuant to a Judgment of Foreclosure and Sale entered June 6, 2024, I will sell at public auction to the highest bidder at Rensselaer County Courthouse, Main Rotunda, 80 2nd Street, Troy, New York, 12180 on August 7, 2024 at 10:00 AM. Premises known as 1498 Second Street, Rensselaer, NY 12144. Sec 144.21 Block 5 Lot 30. All that tract or parcel of land, with the buildings and improvements thereon situate, lying and being in the 8th Ward of the City of Rensselaer, in the County of Rensselaer and State of New York. Approximate Amount of Judgment is $114,813.71 plus interest, fees, and costs. Premises will be sold subject to provisions of filed Judgment Index No EF2023-273322. Cash will not be accepted at the sale.

The foreclosure sale will be conducted in accordance with 3rd Judicial District's Covid-19 Policies and foreclosure auction rules. The Referee shall enforce any rules in place regarding facial coverings and social distancing.

Stephanie A. Henry, Esq., Referee File # 2267-004167
7/4/2024, 7/11/2024, 7/18/2024, 7/25/2024.
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Thursday, July 18, 2024

Daily Bridge Club

Telling the difference

By FRANK STEWART
Tribune Content Agency

"I heard that now you're dating one of a pair of twins," I said to Cy the Cynic. "Do you have trouble telling them apart?"

"It's not hard," Cy said. "Karen has a birthmark on her left leg. Kevin has a beard."

Today's West must deal with a tough situation. Against four spades, East takes the ace of hearts and returns the deuce (not best). South wins and puts it to West by leading the seven of clubs. If that's a singleton, West will lose his ace if he ducks, but if he wins, dummy's K-Q will be winners.

How can West tell the difference between when he must win and when he must duck?

DISCARDS

West can see three defensive tricks, but South surely has the ace of diamonds. If West takes his ace, South will get two diamond discards and make his game. If West plays low, South loses no clubs but two diamonds.

In such a position, win if you have the setting trick to cash or if you have no hope of winning other tricks. Duck if by winning you'll give declarer vital discards.

DAILY QUESTION

You hold: ♠ K 5 ♡ Q 10 8 4 ♢ Q 9 3 ♣ A 10 8 2. Your partner opens one diamond, the next player overcalls one spade and you double (negative). Partner then bids two hearts. What do you say?

ANSWER: You have 11 points, enough in theory to invite game. But all of your points are "working." You have an ace, the queen of the first suit your partner bid, and a king of spades that looks well placed. Moreover, your ten of hearts may be useful. Bid four hearts.

South dealer
N-S vulnerable

NORTH
♠ J 9 6 4
♡ 7 5
♢ J 6 4
♣ K Q 5 3

WEST
♠ K 5
♡ Q 10 8 4
♢ Q 9 3
♣ A 10 8 2

EAST
♠ 2
♡ A 9 3 2
♢ K 10 7 5
♣ J 9 6 4

SOUTH
♠ A Q 10 8 7 3
♡ K J 6
♢ A 8 2
♣ 7

South	West	North	East
1 ♠	Pass	2 ♠	Pass
4 ♠(!)	All Pass		

Opening lead — ♡ 4

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a GAI Company

SIGN-IN SHEET

Project: NY 2 (Congress and Ferry Streets) Corridor & River/Ferry Intersection Improvements
Subject: Public Information Meeting
Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
ANDREW KRESHIK	CITY OF TROY	ANDREW.KRESHIK@TROYNY.GOV	CITY OF TROY
DEBRA LOCKEW	CITY OF TROY		
Dan + Melissa Froment	137 1st St Troy	danfroment@gmail.com	
Michael O'Brien	157 2nd St Troy		citizen
Jody Brooks	37 1st St		" "
Christine Warner	Graden 148 2ND Troy	cimabuehw@gmail	Troy Hunt St
David Graham	" "	Starchief9@gmail	
Kathy Shannon	149 2nd St Troy	ummma195-@gmail.	C.H.C.P.A Museum
Jim Scully	120 2nd St	JSCULLY194@GMAIL	—
MARK DEVITT	301 3RD ST	mdevitt@gmail.com	Citizen
Jim Lewis	154 4th St	JIMMER57@GMAIL	Self/Springwood Studio
Michele Vennard	40 1st St	mlvennard@gmail.com	Self
PAUL MARANO	137 3rd St	paul@cogent-technologies.com	Neighbor

* *Property owner, business, local official, etc.*

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Subject: Public Information Meeting
Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
Kathleen Kernan	82 Ferry St.	Kernk3@gmail.com	self (homeowner)
CARL ERICKSON	180 4TH ST		
Liz Reiss	265 River St.	elizabeth.dartentruly.ny	
Leslie LeBon	460 Pawling Ave.	lleboneyahoo.com	myself
Pauline & Fred Miller	33 2ND ST TROY	Kammil@aol.com	
Shawn Allan	149 3RD ST Troy	shawn.allan@gmail.com	self
Nick Hepler	149 3RD ST Troy	nick@nickhepler.com	Self
Jennifer Quinn	50 BrunswickRd	jennifer Q99@gmail	self
James Rath	398 Williams St.	james@capitalstreets.org	Capital Streets
Meric Karadag	133 4TH ST TROY NY	karadagmeric@gmail.com	CFL/self
CHRISTIANNA GIBEAU	249 2ND ST. TROY	PUBLICLIBRARYFAN @GMAIL.COM	LIBRARY
Sara Tack	127 2nd Street Troy	SARATACK@ME.COM	SELF
Samantha Hirtler	250 Washington St. Troy	hirtsa27@gmail.com	Self

** Property owner, business, local official, etc.*

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Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
Ronny Shamon	1938 5th Ave	rronnie@shamon.com	RSC, ME,
Marie Ganzzi			
Russ Brooks	37 1st ST.	rbrooks514@gmail.com	
Evelyn Greenstein	12 Joseph St	EKGEKG@nycap.rr.com	Troy Public Library
Jennifer Tedesco	147-3RD ST	jentedesco@gmail.com	neighbor
Brian Carroll	147-3RD ST	"	"
Katie McLaren	42 Woodrow Ct Troy	Katesm4@aol.com	City Council
Sue Steele	1610 Peoples Ave	suesteele4troy@gmail.com	City Council
Lee Kemp	138 3rd St	lkemp1623@gmail.com	myself.
ROGER KEMP	" "	" "	"
Andrew Costello	340 Taylor Ct	adcostello@gmail.com	Bicycle Rider
AMY FACCA	162 4th ST	afacca12@gmail.com	Pottery District
Susan Ridler	185 2nd St	sridler@nycap.rr.com	

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Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
KEITH PICKARD	43 1ST ST.	KEITHDPICKARD@GMAIL.COM	
Rich Kiernan	82 Ferry St	rkiernan225@gmail.com	
Tom Poland	133 4th ST	THE.TOM.POLAND@GMAIL.COM	
Sandra Guida	147 3rd St	Sandraguida@gmail.com	
Suzi Pickard	43 1st St	suzidream@gmail.com	
Amee Barthwell	3202 South	ameetroy@gmail	North Central
KARSTEN LORCHER	9 BANKS ST	klorcher@gmail	

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Subject: Public Information Meeting
Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
MARK SHIPLEY	127 2nd ST.	MARKSHIPLEY@ME.COM	SELF
H. Cargill Cramer	69 3rd St	hcargillcramer@gmail.com	Self
Randy Coburn	433 River St.	randy.coburn@troyny.gov	City Planning
JAMES KENNEY	102 4TH ST	JKENNEY@MHUDGROUP.COM	TILCO
K Alexandra Campbell		acampbell.718@gmail.com	
David Garden	324 Congress St	TheLuckTroyNY@gmail.com	Mr. Jhbrkd / BID / The Luck

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Subject: Public Information Meeting
Date: 7/30/2024

NAME (Please Print)	MAILING ADDRESS	EMAIL	REPRESENTING*
Stephen Ryder	185 2nd St Troy NY		Resident
Lindsay Vera	252 Hill St Troy	Lindsayzeffiro@gmail.com	Resident
Aaron Vera	"	aaronvera@gmail.com	Resident / Council
Alexander Hanse	337 4th St. Troy, NY 12180	hanseaw@gmail.com	Resident / Troy Public Library
Greg C-C	342 Congress St, Troy, NY 12180	greg:introy@gmail.com	Resident
Stephen Maples	92 Ida St, Troy, NY 12180	SSMaples@gmail	Resident
Mary Simon	120 2nd St		Resident
SYLVIE BROWNE	9 BANK ST TROY	sylvan.beach6@gmail.com	RESIDENT / USER
PETER GELWERT-DITT	167 1ST STREET TROY	PK71391@EARTHLINK.NET	RESIDENT
Michael Gardner	60 2nd St Troy	gardner.j.michael@gmail	Resident

** Property owner, business, local official, etc.*

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Tuesday, July 30, 2024 8:12 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Alexander Hanse
Zip code
12180
Email
hansea94@gmail.com
Phone number
(518) 751-0342
Question, comment, or feedback

Hello,

Thank you for the thoughtful presentation of the proposed plan this evening (30JUL2024).
A few comments:

1) Neither 1A, 1B, or 1C looked at improving the intersection between Ferry Street, Congress Street, and Eighth Street. Before going ahead with any of the plans, studying a road diet of this intersection would make it easier for pedestrians to navigate. The overwhelming majority of pedestrians are students at RPI who live in the College Station suites immediately adjacent to the RPI campus or those living in the Downtown and South Central neighborhoods. Reducing the number of lanes from 3 to 2 (going from 1 turning lane and two travel lanes to one turning lane (onto 8th) and one travel lane) in both directions would allow for the street to be narrowed and could be coupled with raised walkways and signal improvements to facilitate access through a challenging intersection. I strongly encourage you to consider studying this intersection for improvement. The fact that it is not necessarily problematic as it exists does not mean it can't be improved.

2) As a Trustee of the Troy Public Library I am a strong proponent of option 1A for the improved rehabilitation and reconfiguration of the Sage Tunnel. The creation of the tunnel (approved by the Library well, well before I was born and in hindsight from older Trustees and Library representatives, a poor choice in hindsight) has done a significant amount of structural damage to the building, including settling that caused cracks throughout the structure and the caustic effect of car exhaust deteriorating the marble facade. But beyond architecturally, the Library's services are deleteriously impacted by the vehicular traffic. Traffic can be heard from the Children's room, the Troy Room (where archival material is stored) and the first floor of the stacks. Reducing the traffic lanes, adding a bicycle lane, and improving the venting and most importantly, reducing the noise coming from the tunnel would be a significant boon for the Library and the services we offer while enhancing the space as an oasis for all patrons. In addition, the Lighting on the sidewalks that line the Sage Tunnel should be improved from its present condition, which is minimal. The sidewalk servicing the Ferry St. entrance of the Library has one light, which mainly serves to illuminate the Court House Parking lot. Due to constraints placed upon us by historic structure authorities, we cannot install floodlights or improve the existing lighting on the Library building, leading to the sidewalk being dark. A similar situation is present on the Russel Sage side of Ferry St. Improving the lighting makes the pedestrian access easier, and safer. Please consider this when finalizing improvements to Ferry Street.

Finally, as a citizen, I believe that you should consider combining the Ferry Street improvements from 1A with the Congress Street improvements in 1B, and make all the bike lanes buffered.

I'm against 1C as increasing the amount of parking Downtown only induces demand for car traffic. The majority of businesses in Troy are supported by people who access the businesses as pedestrians, not individuals who drive to them. There are numerous studies from urban municipalities across the country that confirm this.

Thank you for your time. I appreciate you reading my thoughts, and hope they both are logical and reasonable and worth considering.

-Alex

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Wednesday, July 31, 2024 4:16 AM
To: Chris Geroux
Subject: New submission from Contact

Full name
Charles abrams jr.
Zip code
12180
Email
abrams.charli@icloud.com
Phone number
(518) 545-7664
Question, comment, or feedback
This is unacceptable the roads in south Troy are horrible yet another project for downtown. There has been extensive work done in burgh/downtown already! Please fix the roads in south Troy even just spot paving for needed areas would be a huge improvement! Thank you.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Monday, August 05, 2024 4:19 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Christiann Gibeau
Zip code
12180
Email
publiclibraryfan@gmail.com
Phone number
(518) 961-5987
Question, comment, or feedback
The Troy Public Library, at the corner of 2nd and Ferry Streets, already has signs of sagging toward the underpass with cracks and marble pieces being pushed outward due to pressure - visible within the interior. How do the engineers/planners envision supporting the structure so that it doesn't land on Ferry Street in the future with the design work taking place? And, has anyone reached out to the Library Board of Trustees regarding these plans?

TROY | NY
Est. 1816

Creighton Manning
a GAI Company

alta

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name_____ Date_____

Address_____

City/Town_____ State_____ Zip Code_____

Email_____

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane

I/We wish to comment about the following aspects of the project:

24 Hour Notice ?!?

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

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a GAI Company
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NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Michael O'Brien Date 7/30

Address 157 Second St

City/Town Troy State NY Zip Code 12180

Email

Preferred Option:

☒ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane — This option will make my area lose muchneeded parking spaces especially on Fridays w/ mandatory Street cleaning and alternative parking - which forces us to use Liberty St.

I/We wish to comment about the following aspects of the project:

- Establish clear cut policy of who takes care of the tunnel, the litter & maintamance in and around it, and who take care of the graffiti on the walls - inside and out. Such a bad look as you enter Troy.
- Who maintains the landscaping, litter & Trees in the off ramp areas?

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Lee Kemp Date 7-30-24

Address 138 3rd St Flr 1

City/Town Troy State NY Zip Code 12180

Email Kempl4423@gmail.com

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes 9,789 million 80 Fed 20 Lit

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane - bikes down to Liberty

I/We wish to comment about the following aspects of the project:

1A has like the tunnel.

1B = can you walk under the bridge?

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Leslie LeBon Date 7/30/24

Address 460 Pawling Ave + 104 Ferry St.

City/Town Troy State NY Zip Code 12180

Email lleboh@yahoo.com

Preferred Option:

☒ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane

I/We wish to comment about the following aspects of the project:

I'm a building owner on Ferry St. I believe 1A would be least disruptive to the neighborhood.

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

TROY | NY
Est. 1816

Creighton Manning
a GAI Company

alta

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Greg Campbell-Cohen Date 7/30/24

Address 342 Congress Street #1

City/Town Troy State NY Zip Code 12180

Email gregintroy@gmail.com

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☒ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane

I/We wish to comment about the following aspects of the project:

- Second lane going up the hill on Congress is (almost) exclusively used for bad behavior. Would love to see it whittled down to one lane.

- More trees or other shade would make the sidewalk going up Congress more usable. It's a steep hill and gets light foot traffic when it's slippery, but it's also a pretty sweaty trek in the summer. Not a lot of views as is.

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

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Creighton Manning
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alta

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Andrew Costello Date 7/30/24

Address 340 Taylor Ct

City/Town Troy State NY Zip Code 12180

Email adcostello@gmail.com

Preferred Option:

☒ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane

I/We wish to comment about the following aspects of the project:

My preferred option is 1A. I would suggest a few tweaks to make it safer for cyclists.
1) Utilize physical separation instead of paint.
2) An advanced bike green signal to allow for reduced conflict turns (ie, turning left across thru traffic)
Overall I think this is a great option. I appreciate the raised path through the tunnel with lighting. I also think it's important to keep cyclists close to the businesses and not routed away to Liberty. Time and time again, businesses along bike routes see increased foot traffic. The loss of parking spaces will hardly be felt by businesses.
One "nice to have" would be on-street secure bike parking in place of a few car parking spaces. 5-10 bikes could fit in the space of one car.

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

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Est. 1816

Creighton Manning
a GAI Company
alta

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Kathleen Kiernan Date 8.1.24

Address 42 Ferry St.

City/Town Troy State NY Zip Code 12180

Email Kkiernan35@gmail.com

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☑ Alternative 1C: Liberty Street Contra-Flow Bike Lane

I/We wish to comment about the following aspects of the project:

I selected the Liberty Street option for two reasons:

1) More parking would be available on Ferry and Congress

2) Bringing bike traffic to Liberty seems a better option than adding more volume of any kind to two already busy streets

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

TROY | NY
Est. 1816

Creighton Manning
a GAI Company

alta

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project

Name Jim Lewis Date July 30 2024

Address 154 4th St

City/Town Troy State Zip Code

Email JIMMER57@GMAIL.COM

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

☐ Alternative 1C: Liberty Street Contra-Flow Bike Lane I like the added parking but doubt bikes will use Liberty St.

I/We wish to comment about the following aspects of the project:

The bumpouts/dining terrace/traffic narrowing on 4th St. at Congress cause a 5-block traffic jam on 4th at busy times. In any plans for this corridor this should be corrected

Ferry St Tunnel Brick Wall adjacent to courthouse/side parking Collects graffiti — should be fixed w/ graffiti resistant/cleanable surface

Return to:

Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Wednesday, July 31, 2024 4:16 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Dara Silbermann
Zip code
12180
Email
darasilb@gmail.com
Question, comment, or feedback
Hello! I wasn't able to make last night's last minute meeting, but the report I got from an attendee indicated that the plan currently preferred will reroute cyclists off the Ferry/Congress corridor, rerouting them on a 1/4 mile detour off the corridor via Liberty Street. I don't understand how that plan fulfills the vision described above to give cyclists consideration in downtown traffic design. If the goal is to make Congress and Ferry "complete streets," I don't see how you can meet that goal without incorporating cyclists into the corridor. Without including cyclists in the new downtown traffic patterns this project will create, I fail to see how it is a good use of public funding and resources. We might as well keep the roads in place until they reach end of their utility. The preferred plan seems designed to facilitate commutes for the suburbanites in and around Troy while offering little to the people in the denser neighborhoods. I greatly prefer either plan with either 2 one-way protected bike lanes or a combined 2-way lane on Congress. If the plan to reroute traffic outside of the downtown neighborhood is pursued, I predict cyclists choosing the most direct path and biking in the Ferry/Congress corridor anyway, which won't make things better for the cyclists or the cars.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Friday, August 02, 2024 2:25 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
David Graham
Zip code
12180
Email
starchief9@gmail.com
Phone number
(518) 892-6767
Question, comment, or feedback
I attended the meeting on July 30. First, the presentation was terrible. The presenter spoke too quickly and did not enunciate, in spite of my request to do so. He seemed to be reading from what was on the screen, and that provided no clear differentiation between the options. There was no time provided for questions from the floor. You offered only one day notice of the meeting, perhaps you could have prepared a better presentation had you given yourself and us more time. This was wasted effort. For some reason I am unable to open the downloads that describe the options. From what little I can understand about this, I suggest that option 1b is preferable, as rude people will park in the bike lane if it is available. On the other hand, most bike traffic is likely to be north/south rather than east/west so perhaps diverting to Liberty St opens parking downtown. The common elements seem to make sense.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Monday, August 05, 2024 2:51 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Jeffrey D English
Zip code
12180
Email
englishintroy@verizon.net
Phone number
(518) 274-8068
Question, comment, or feedback
I submit these comments as a near-daily traveller in the project area: as a bicyclist, a CDTA bus rider and a motorist. I have experience with navigating around downtown Troy for over sixty years and have seen many changes both good and for ill. First, I will state some general principles and make statements that apply to all alternatives: - At age 71, I am perfectly comfortable cycling with motor vehicle traffic in the travel lanes. I don't think that makes me a dinosaur, because I see plenty of young adults doing it too and they appear to be biking for transportation, not recreation. The alternative, installing separate bike lanes is not so good a solution as is currently popular, especially when maintenance falls behind. This alone makes me lean toward Alternative 1C. - In my experience, two-way bike lanes are not very practical (which renders alternative 1B a non-starter as far as I'm concerned. Besides the awkwardness of putting opposing bike movements artificially close to each other when there's plenty more real estate to separate them (as in Alternative 1A), there's also the long-term maintenance issue (the two-way lane on River Street between Division and Adams is pretty much obliterated after about five years). - If separate bike lanes are to be the preference, why is it that NONE of the three alternatives make any attempt to provide such lanes east of Sixth Avenue? This area happens to be where I, and other cyclists, ride every day. It certainly has nothing to do with inability to acquire the needed right-of-way. - There is no justification for having two parallel travel lanes in the same direction anywhere within a dense urban fabric. The worst consequence is that motor vehicle speeds instantly increase in those areas, rendering the adjacent land undesirable for the type of "new urbanist" development that is desired in the currently undeveloped area east of Sixth (created in the 1950s by another ill-advised highway project that ended up never being built, thank goodness). The fact that this area is on a significant grade means the higher speeds make collisions more likely in winter conditions. All three of the proffered alternatives mostly maintain the existing two-parallel-travel-lane status quo east of Fifth Ave, which would appear to be a very bad thing. - The same argument is just as valid against keeping two travel lanes within the Ferry Street Tunnel, particularly with respect to vehicle speed approaching the intersection with Third Street. Necking down the last couple of hundred feet is not sufficient to keep speeds down in the first place. Here's a bold idea: while getting rid of parallel travel lanes in the tunnel why not make the whole tunnel route a two-way street for motor vehicles all the way between Third Street and the new intersection with River Street? There would probably be room for separate bike lanes on both sides, too. There could be a lot of benefits to this, including northbound-to-bridge vehicles not having to go to ped-heavy Congress; I can see some downsides as well. - For eastbound vehicular traffic on Ferry Street approaching the intersection with Eighth Street, there should be a slip lane for traffic (vehicular, transit and bicycle) continuing east on Ferry. The current configuration (which all three Alternatives replicate functionally) causes a colossal waste of energy when east bound traffic is brought to a halt on a

considerable climbing grade for no practical reason. With a slip lane, the only conflict (traffic entering from Eighth) can be handled with a merge east of the intersection beyond the end of the slip lane. Also, this intersection's signals seem currently to lack any occupancy detection, which, if installed, would also help immensely with saving fuel and reducing delay.
- One of the most significant problems with the current conditions is that, in areas where there is no on-street parking, existing building fronts are not buffered from the noise and safety risk of the vehicular traffic that is too close and too fast. The heavy aggregate trucks aggravate this, but perhaps there is nothing to be done about that. The lack of commercial or residential activity at those locations is palpable, with few exceptions. The solution is to restore the former on-street parking (eliminated inadvisably decades ago) wherever feasible and the space is not needed for a more desirable purpose (such as CDTA bus stops). This is another argument in favor of Alternative 1C.
- I understand that the problem of delivery trucks occupying a travel lane has been pointed out. I agree that it is a problem and that increasing on-street parking could make it worse. The solution is for there to be designated areas for delivery trucks (possibly taking away some of the new on-street parking), that may or may not be immediately in front of the receiving business. If the delivery drivers don't like having to go a few extra steps, well too bad – their behavior has also been a big part of the problem. The solution is enforcement (a far higher priority for the City than enforcing other parking regulations). Another party that needs to be more active in managing this problem is the Downtown Troy BID.
- I see that all Alternatives provide for a CDTA stop at Ferry and River just off the bridge; this is an excellent development! Correspondingly, there should be a stop on River Street for busses just about to turn onto the bridge, whether or not there's room for it to be separated from the travel lane.
- The utility of the provision for northbound traffic on River from Ferry to Congress would be greatly increased if River Street were reversed from one-way south to one-way north between Congress and State Street. If the objective is to make it easier for vehicles coming off the bridge to go north sooner than getting to Fourth Street, the new arrangement still requires them to go around to Front Street and back up at State Street, so not much difference except now they will also have to wait for a left-turn arrow at the new intersection. The downside of my suggestion is that southbound vehicles on River Street would have to take a similar detour down to Front Street instead of the direct route they enjoy now, but the upside is perhaps it's more desirable to keep these vehicles off of River Street in the first place (for the sake of quietude on River between First and Congress) and have them use First Street to get to Congress. In any case, the eastbound movement of vehicles from Front Street can be somewhat unsafe at the intersection with River Street due to limited sight distance and the severe grade and vertical curvature.
- The idea to make Fifth Avenue two-way between Congress and Ferry is interesting but I'm not sure what the intended benefit might be; all the traffic that might want to use that route to get to Congress Street to proceed west (i.e., coming from the Hill Street/Little Italy area) can already achieve this outcome by using Fourth Street to get to Congress. There are two downsides of the proposal. One is that it is facilitated by perpetuating the lack of on-street parking on that very block, mostly on the east side of Fifth. The other downside is that it would be a break in the long-established pattern of alternating one-way streets in the downtown core.
- Another street with artificially limited on-street parking is Third Street between Congress and Ferry. This is within the project perimeter but not planned for any changes; it should be included in the project scope for providing on-street parking on the west side. There is absolutely no logical reason to keep this obsolete restriction.
- The plans show some geometric difference in the treatment of the crosswalks where First and Second cross above the Ferry Street Tunnel. The travel lane on First appears to be pinched down narrower than the equivalent location on Second. Why are these different? I can see no reason for this to be so.
- While slick pavement markings are nice, they need maintenance. Troy has been very poor at maintaining pavement markings and there's no reason to think that's going to change much. This is especially a problem where underground utility work disrupts to markings; they seldom get restored. Moreover, few motorists, or cyclists for that matter, understand the green conflict zone thing.
- In the area west of Fifth, both Congress and Ferry are mostly lined with what are now beautifully mature black locust trees which would be tragic to lose. Some of these trees date back to the 1960s when the bridge and tunnel were first built. It would be a tragedy to lose them, but I understand that sometimes underground utility work and sidewalk restoration may make it necessary.

Comments specific to Alternative 1A
- The elevated bike lane through the tunnel is intriguing from a route functionality standpoint, but I think it would still be a somewhat daunting prospect. For one thing the noise from motor vehicles in the tunnel would be uncomfortable if not damaging to one's hearing. Moreover I could see the tunnel becoming an attractive nuisance, with pedestrian encroachment bringing illicit behaviors, particularly at night. It could also be attractive as a homeless encampment.
- The on-street parking on only one side is reversed on Congress from it's traditional north side to the south side; there are businesses who could justifiably complain about losing the ability for their customers to park in front. People can be this petty sometimes. On the other hand, those on the opposite side might welcome the change.
- Existing on-street parking is eliminated on both sides of Ferry between Fifth and Sixth. I don't see any justification for this; refer to my general comments about the desirability to preserve on-street parking.
- The "two-way cycle track" on lower River is a waste of pavement markings.

Comments specific to Alternative 1B
- This alternative does not appear to offer any help for cyclists coming into Troy over the bridge to get from the intersection of River to the two-way path you're installing on Congress.
- There are two locations on Ferry where the single lane approaching the next intersection goes through awkward divergence from the otherwise straight lines of the grid (at Third and Fifth). The one at Fifth still doesn't really align with either of the two lanes (should be only one!) on the far side of the intersection. Oozing pavement markings only encourage oozing driving habits.

- I just don't like two-way bike lanes. You get awkwardly close to opposing bike traffic where I've had to use these. Don't like 'em, and I actively avoid them.
- And the "two-way cycle track" on lower River is a waste of pavement markings.

Comments specific to Alternative 1C
- Same oozing misdirection on Ferry as in Alt 1B, and now you have a new one on Congress between Sixth and Fifth. No oozing.
- This Alternative unwisely retains the two travel lanes in the tunnel.
- The "two-way cycle track" on lower River is a waste of pavement markings.
- Sorry I can't think of a more polite term, but the "contra-flow bike lane" on Liberty Street is one of the most spectacularly idiotic ideas I've seen presented in a bicycle transportation planning document. This is an unreasonably long detour away from the desirable downtown areas cyclists are presumably trying to get to and from. In real life few would actually use it. Biking against the traffic direction is something to be avoided at all cost! I have biked on Liberty hundreds of times and never felt the need for a bike lane; and if there was one that could send opposing bikes right at me I would NEVER use it!
- If you can't give up on a formal bike route offering in lieu of none on Congress and Ferry, why didn't you at least pick Division, which is a block less out of the way? Liberty and Division and both pretty narrow with not a lot of vehicular traffic (at moderate speeds, too), rendering them fine for cycling in the travel lane.
- Alternative 1C is by far the most attractive, with two exceptions: first the foolish diversion discussed above, and second the lack of needed improvements east of Sixth as discussed in my general comments above. The primary positive aspects are that it eliminates two-parallel-travel lanes west of Fifth (would be even better if also east of Fifth), maximizes on-street parking (again, should extend further east), and will provide a conducive environment for pedestrians, bicycles, transit and motor vehicles to coexist as safely as possible.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Wednesday, July 31, 2024 1:43 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
John Paul Kane
Zip code
12180
Email
johnpaulkane@gmail.com
Phone number
(415) 952-6313
Question, comment, or feedback
Please post or send link to recording of Jul 30 public meeting. I was not able to attend owing to the short notice.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Thursday, August 01, 2024 6:53 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Keith Pickard
Zip code
12180
Email
keithdpickard@gmail.com
Phone number
(518) 424-3946
Question, comment, or feedback
I am a homeowner in downtown Troy with my property located on 1st Street very close to Congress. I walk , drive and bike in Troy and actually commute by bike a few days a week to Albany. I am excited to hear that Troy has an interest in improving the quality of life of downtown. After examining the plans, only 1a and 1b make sense if you are trying to make biking a reasonable and safe alternative. NO ONE will use 1c to enter or leave Troy as it is out of the way and will become another path that no biker will use. I do favor 1B with a concrete barrier between cars and bikes which will be the safest and encourage more people to bike whether its families or students or visitors to Troy. It will slow down traffic which is good for pedestrians, children, bikers and business. And hopefully it will discourage the Valenti gravel trucks etc, who actually create damage to our roads just by their payloads. We must be looking toward the future and prepare for the connectivity with Watervliet via the Congress Street bridge. Downtown Troy does not have a drugstore or a supermarket and the closest ones are just across the bridge and many people walk and bike across the bridge, so we need SAFE connectivity. Shared bikeways and painted surfaces do not work, as drivers are so distracted because of phones or they just don't respect painted markings. This is well known by pedestrians and bikers alike. This is why concrete buffers are the ONLY way to go. There are many cities such as Seattle, Portland , Montreal that separate their bikeways and it has lessened the need for cars and encouraged the benefits of using bicycles. Please feel free to contact me and in the future, we need to have better notice of meetings. We also need to allow room for public dialogue. Keith Pickard 43 1st street

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Tuesday, August 06, 2024 11:39 AM
To: Chris Geroux
Subject: New submission from Contact

Full name
Mark Shipley
Zip code
12180
Email
markdshipley@me.com
Phone number
(518) 423-8200
Question, comment, or feedback

Mark Shipley
127 2nd Street
Troy, NY 12180
518-423-8200
markdshipley@me.com

RE: Congress & Ferry Street Improvements

My relationship to the project:
Resident in the middle of the improvement area
Automobile driver & parker in the improvement area
Daily road & gravel bicycle rider in the improvement area
Daily pedestrian & dog walker in the improvement area
Owner & operator of an marketing firm for 35 years, based in Troy

I attended the informational meeting at Bush Memorial on the Russell Sage campus on Tuesday July, 30, 2024.

It is my understanding that this project, in addition to repairing the roadways and sidewalks, it is intended to improve the biking experience in downtown Troy and provide biking pathways that will eventually connect Troy to the Empire State Trail network.

It has been my experience as a bike rider and a marketing agency owner that people will only change their behavior if they perceive that the change is in their best interest or

improves their personal experience, regardless of the reality.

Perception = reality

Hence, if a presented option does not provide a perceived benefit to a bicycle rider, they will not change their behavior and will either continue riding their bicycles through Troy as they do presently, or avoid downtown Troy altogether.

Here are my impressions of the three options presented:

1A & 1B:
Either of these solutions work for automobile traffic & Parker's, bicycle riders and pedestrians, with the following changes:

1A - The painted protective barrier between bicycles and automobile traffic is inadequate to change behavior. Bicyclists all know that automobiles often cross painted barriers into bike lanes and in places where there is high traffic, bicyclists are hit by automobiles. In order for this option to change behavior, the protective barrier would need to be physical, as in option 1B.

1B - With River Street being two lane between Congress and Ferry Street, there is no provision for bicycles to access the Congress Street Bridge.

The implication in presentation is that bikers would continue down Congress to Front Street and loop around to Division to meet River Street and head North to the proposed bike path for the Congress Street Bridge.

While I am a strong enough rider to make climb up River Street to the bridge and from Front Street heading East on Congress, I wouldn't do it. I, and many other road bikers like me, would simply use the sidewalk or road, as we do now, as this option would be far less convenient, direct and desirable than the existing conditions.

The average casual biker and/or children wouldn't use it either as they do not have the strength to make the River Street and Congress Street climbs.

Hence, without a provision for bicycles to access the Congress Street Bridge heading South on River, this option would not change behavior.

1C - The Liberty Street option would be virtually ignored by all road bicyclist for two reasons:

Firstly, the lane shared between automobiles and bikers offers no improvement in safety from the current conditions, and includes a significant detour from their current path, hence regular bicycle riders would continue to use their existing paths on the road and sidewalks - making this option a folly as it would fail to change behavior. There is no adequate solution to this option that eliminates the detour.

Secondly, the bicycle rider most likely to use this option would be casual riders, children and families. The first one of these people who are hit by an automobile in the shared lane would cause body injury and potentially death, trigger lawsuits implicating the city and a public outcry and blame game pointing at the designers and decision makers behind this project.

Hence, while this option save money in the short run, it is the most costly option in the long run and should be avoided at all costs.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Wednesday, August 14, 2024 8:58 PM
To: Chris Geroux
Subject: New submission from Contact

Full name

Michael Gardner

Zip code

12180

Email

gardner.j.michael@gmail.com

Phone number

(518) 917-2969

Question, comment, or feedback

The Route 2 traffic that travels through Troy, New York is detrimental to the community of downtown Troy.
The city's traffic system is pretty simple: a grid of one-ways, alternating direction that has been established since 1787.
It wasn't until 1970 that the Congress Street bridge was completed which has since changed the purpose of Congress and Ferry Street.
The issue with Congress and Ferry Street is that it's distributing the load of traffic incorrectly, and for the wrong audience.

By "wrong audience", I'm meaning wrong consumer audience like how a product is designed for a market.
We must de-prioritize cars as our market segment-- this is what I mean by the "wrong audience."
The traffic of Route 2 brings noise, violence, and bad attitudes from people who don't plan to contribute here.
Every summer night, motorcycles with modified exhausts rev and peel out through Congress street.
Accidents are all too frequent with Congress and 4th street having seen multiple vehicle-to-person collisions and fatalities.
The current placement of the route makes it too easy for brash drivers to enter the downtown at speeds exceeding the limits set by the city.

Every week, I can count well into the teens the number of times speeding cars (rolling off of Route 2 onto 2nd street to cut north) run stop signs where families and children exist.
And by run, I'm not saying rolling stop.

All of the proposed solutions do not solve this problem at the root cause, because the problem cannot be solved effectively without de-prioritizing cars.
All solutions presented align on a road diet that reduces the lanes to one lane per direction.
Additionally, one solution (C) suggests moving the bicycle lanes away from the traffic, which doesn't make sense with the goals of the project.

My proposal is:

1. Make Ferry Street bidirectional for all of Route 2 traffic
2. Add a two lane bicycle path to Congress

This aligns with proposal 1B, except the Ferry Street component.

Implementing a bidirectional Ferry Street for all Route 2 traffic would significantly contribute to the redistribution of traffic and alleviate aggressive traffic from downtown Troy.
While this proposal will worsen the experience for cars, it aligns with the goal of de-prioritizing cars and prioritizing alternative modes of transportation.
Although it may result in increased traffic through a tunnel, this is precisely what the tunnel is designed for: cars!
Additionally, this will allow for Congress Street to return to being a more local street instead of a route.

Local-izing Congress Street would benefit from adding a two-lane bicycle path to prioritize bicycle transportation for not only locals but Russel Sage and RPI students.
Separating the bicycle lanes from the *Route 2* traffic will enhance the safety and comfort of cyclists, encouraging more people to choose biking as a viable transportation option.
Not just residents, college students too; creating a bicycle route on Congress creates an inviting route for Russel Sage and RPI students to easily cross the river and explore the rest of the capital region.

So, the NY Route 2 Corridor Improvements Project should prioritize the needs of the community over the convenience of passing traffic.
By implementing a bidirectional Ferry Street for all Route 2 traffic and adding a two-lane bicycle path to Congress Street, we can effectively redistribute traffic, enhance safety for cyclists, and create a more balanced transportation system.

It is important to remember that while traffic may spend only a few minutes passing through downtown Troy, the residents and businesses spend their lives here.
The Congress Street bridge has only existed since the year 1970 (which allows for this passage) while the Troy grid's design has existed since 1787 (here's a [cool map](https://bostonraremaps.com/inventory/john-klein-troy-new-york-1818/) I found), which is one hundred twenty-one years before the Model T was produced for the public.
Two blocks of streets should not be dedicated to the purpose of Route 2's modern existence. We must isolate this to one street and use the tunnel to dampen the noise for everyone.
By de-prioritizing cars in the evaluation of Route 2, we can create a more livable and vibrant community.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Thursday, August 01, 2024 12:51 PM
To: Chris Geroux
Subject: New submission from Contact

Full name

Russell Brooks

Zip code

12180

Email

rbrooks5147@gmail.com

Question, comment, or feedback

Suggestions:
• Make River Street One-way Southbound between Congress and Ferry
o This would provide room for a buffered continuous two-way bike path from Watervliet to Sixth Ave in Troy.
o If it is made two-way there is nowhere for the Northbound traffic to go except down Congress Street to Front Street which will only be Northbound once Taylor 2 is complete. This sends all traffic up the State St hill to a three-way stop intersection.
• Move the bike lane to the North side of the Congress Street Bridge
o CDTA shelter/station is on the South side.
o Bike traffic can then go north on a buffered 2-way bike lane to Congress Street and connect with the 2-way bike lane in proposal 1B.
Alternate 1A
• A bike lane and/or pedestrian traffic through the tunnel is not realistic and will likely not be used due to perceived safety and noise.
• A bike lane Eastbound through the tunnel will often not be used and bike traffic will use the West-bound one-way bike lane on Congress to go East.
Alternate 1B
• Best solution with comments above.
Alternate 1C
• Liberty Steet bike lane will not be used, and bike traffic will use Congress Steet and pedestrian way.
• This is a poor option.

Comments on the Presentation at Bush Memorial, July 30th:
• It was disappointing that there was not a proper Q&A session following the presentation. It would have been constructive.
• There were many professionals in the audience with experience in business, marketing, municipal planning and politics and they came away with the clear impression that the intent of the presentation was to sell Alternate 1C. This was a bad decision to approach the project this way. Alternate 1C is by far the worst option.
• After all the work done by Alta and the three public presentations back in 2021, where did Alternate 1C come from and what is driving this alternate other than a $1M lower cost?

Please feel to call me with any questions.
Russ Brooks

37 1st St
518.421.8194

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Tuesday, July 30, 2024 9:54 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Sam Kent
Zip code
12180
Email
Sam.j.kent@outlook.com
Question, comment, or feedback
I prefer the bike path with the concrete median.

Chris Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Thursday, August 01, 2024 6:15 PM
To: Chris Geroux
Subject: New submission from Contact

Full name
Sugi Pickard
Zip code
12180
Email
sugidream@gmail.com
Phone number
(518) 424-7291
Question, comment, or feedback
I am passionately in favor of a plan that includes protected bike lanes. This would allow Troy to be positioned as a livable/walkable/bike friendly city that is a leader for change in transportation habits . Many cities have created bike lines which encourage tourism and home ownership. Of the 3 plans , only Plan 1b has a vertical barrier to separate motor vehicles from bicyclists. This is the safest alternative. I reject plan 1 C as it does not improve the current situation for bikes and in fact makes the situation worse. I am a property owner and resident on 1 st Street. I bike, walk and drive in Troy and I want our city to embrace this improvement. Before making a final decision I am expecting additional meetings with public input and discussion . I would hope that a plan to reroute the heavy truck traffic on Congress St is also up for discussion. Sincerely, Sugi Pickard 43 1 st St Troy, NY 12180

Chris Geroux

From: Timothy Farrell
Sent: Wednesday, July 31, 2024 8:05 AM
To: Chris Geroux
Subject: Troy

Chris,

Troy needs to go with option C (bikes on Liberty Street). Troy cannot afford to lose parking in the downtown business area (or any area for that matter). Full disclosure, I grew up on Congress Street, and spending the first 38 years of my life living in Troy.

Tim

Timothy Farrell
Resident Engineer
Cell 518.378.6440
email tfarrell@cmellp.com
web www.cmellp.com

Creighton Manning
a GAI Company

2 Winners Circle | Albany | NY | 12205

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NY 2 (Congress and Ferry Streets) Corridor & River/Ferry Street Intersection Improvements Project

PUBLIC MEETING #2

WEDNESDAY

OCT. 9, 2024

6:00 PM to 7:30 PM

ITALIAN COMMUNITY CENTER

1450 5TH AVE. TROY, NY 12180

The City of Troy, along with their engineering consultants, Creighton Manning and Alta, have been working to provide complete streets improvements along the NY Route 2 corridor, as well as intersection improvements to Congress Street Bridge/River Street/Ferry Street intersection.

We would like your feedback on the proposed alternatives for the NY Route 2 Corridor.

Questions?

Please contact Andrew Kreshik, City Planner ✉ andrew.kreshik@troyny.gov

Project Info:
https://congressandferrycorridor.altago.site/

NY 2 (Congress and Ferry Streets) Corridor & River/Ferry Street Intersection Improvements Project

PUBLIC INFORMATION MEETING #2

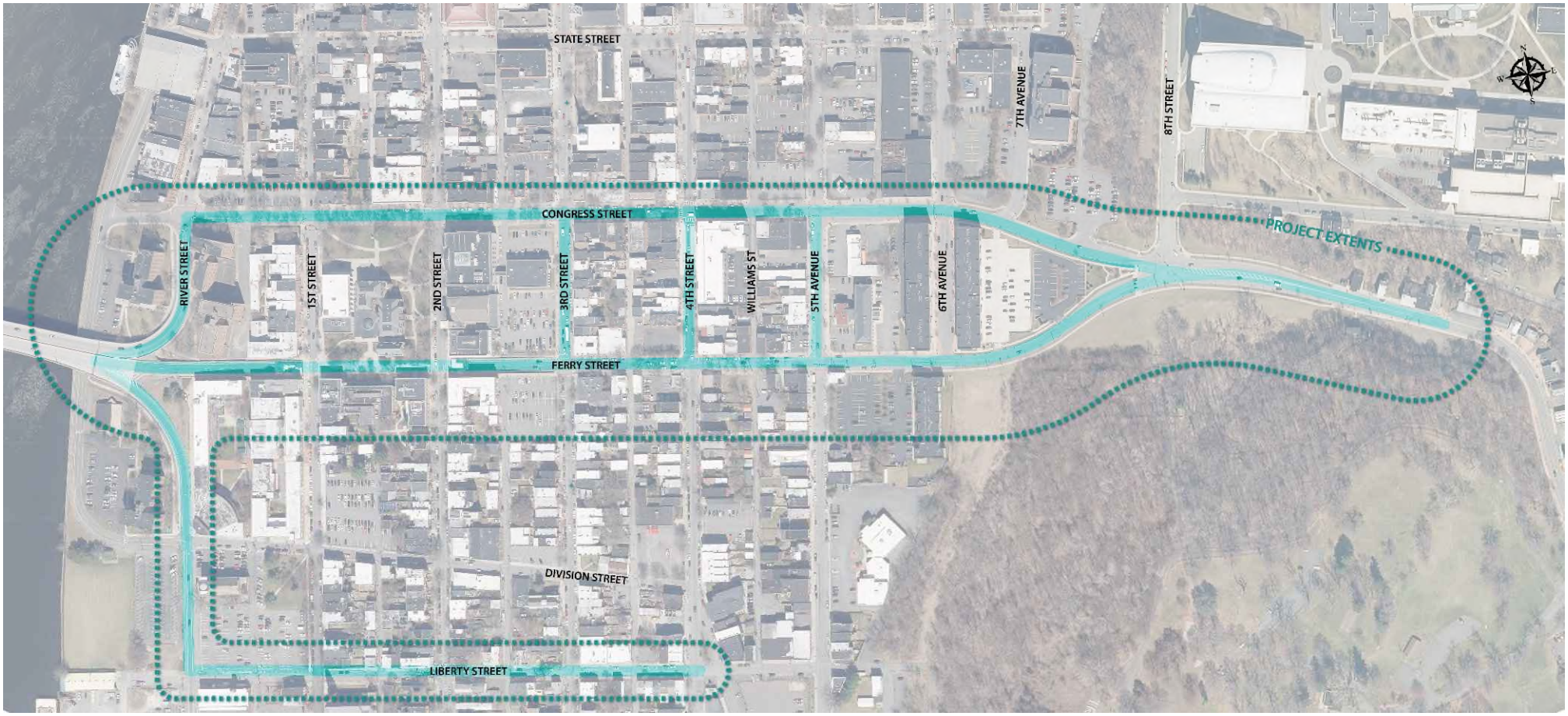
PIN 1761.61

October 9, 2024

Agenda

- Project Overview
  - Project Limits
  - Background, Objectives and Funding
  - Existing Conditions
  - Proposed Work
- Construction Impacts
- Next Steps and Schedule
- Comment Period

Project Limits



Background, Objectives and Funding

- Background
  - Consists of 3 components:
    - NY 2 (Congress and Ferry Streets) Corridor Improvements
    - River/Ferry Street Intersection Improvements
    - Ferry Street Tunnel Rehabilitation
  - Connection to Watervliet and points east
  - Construct project in coordination with Taylor Apartments

Background, Objective and Funding

- Project Objectives
  - Provide increased mobility for all users throughout the corridor
  - Congress & Ferry - Complete Streets (sidewalks, curb ramps, curb extensions & bicycle accommodations)
  - River/Ferry Street intersection - Address geometric deficiencies to improve traffic flow
  - Rehabilitate Ferry Street tunnel
- Funding
  - ~$9.8M - Engineering, Construction & Inspection
  - Cost Split: 80% Federal/20% City

Existing Conditions

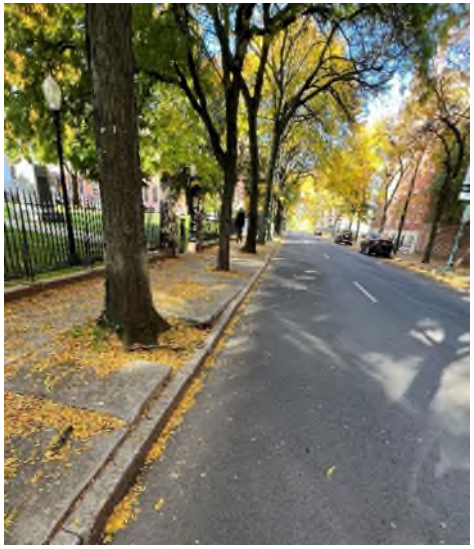
- Posted speed limit – 30 mph
- Two 12-foot travel lanes
- On-street parking
- Sidewalk w/ curbing both sides
- Mix of commercial & residential

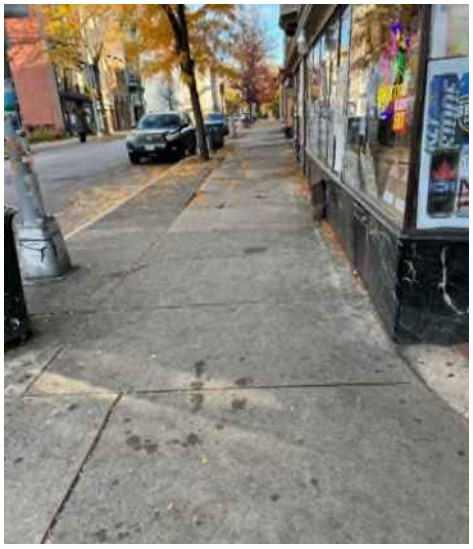




Existing Conditions









Existing Conditions



Existing Conditions





Existing Conditions

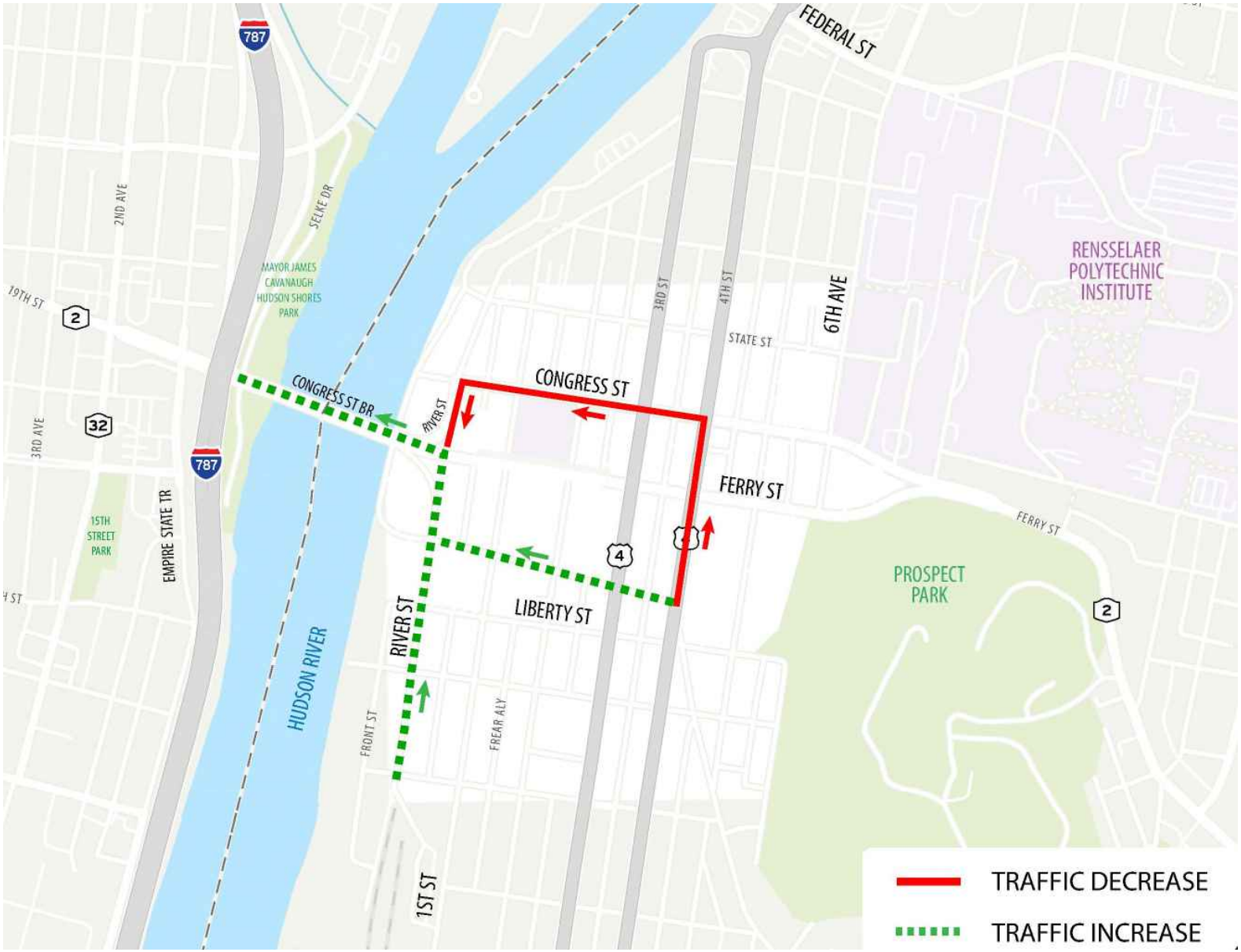




Proposed Work

- ADA compliant sidewalks, curb ramps & crosswalks
- Pavement rehabilitation
- Drainage improvements
- Landscaping & striping
- Intersection improvements – traffic diverted

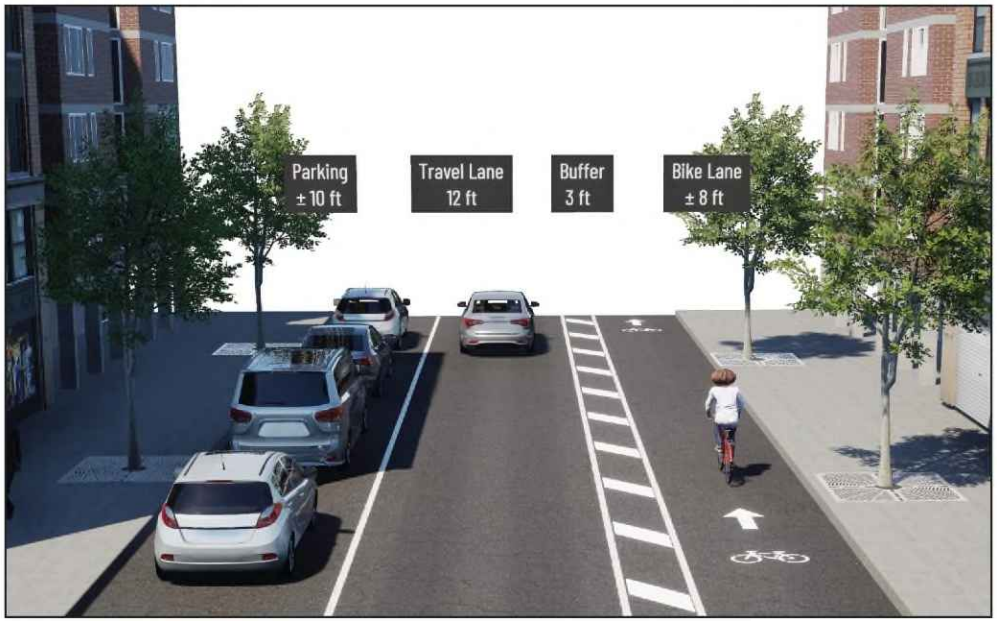
Proposed Work – Traffic Diverted



Proposed Work

- Tunnel Rehabilitation
  - Concrete repairs
  - Waterproofing roof joints
  - New lighting
  - Noise protection (Alternative 1A)
- Bicycle accommodations
  - 1A – Congress & Ferry One-Way Buffered Bike Lanes
  - 1B – Congress Street Two-Way Buffered Bike Lanes

Proposed Work
1A – Congress & Ferry Streets One-Way Buffered Bike Lanes



Congress Street Looking West
Ferry Street Looking East

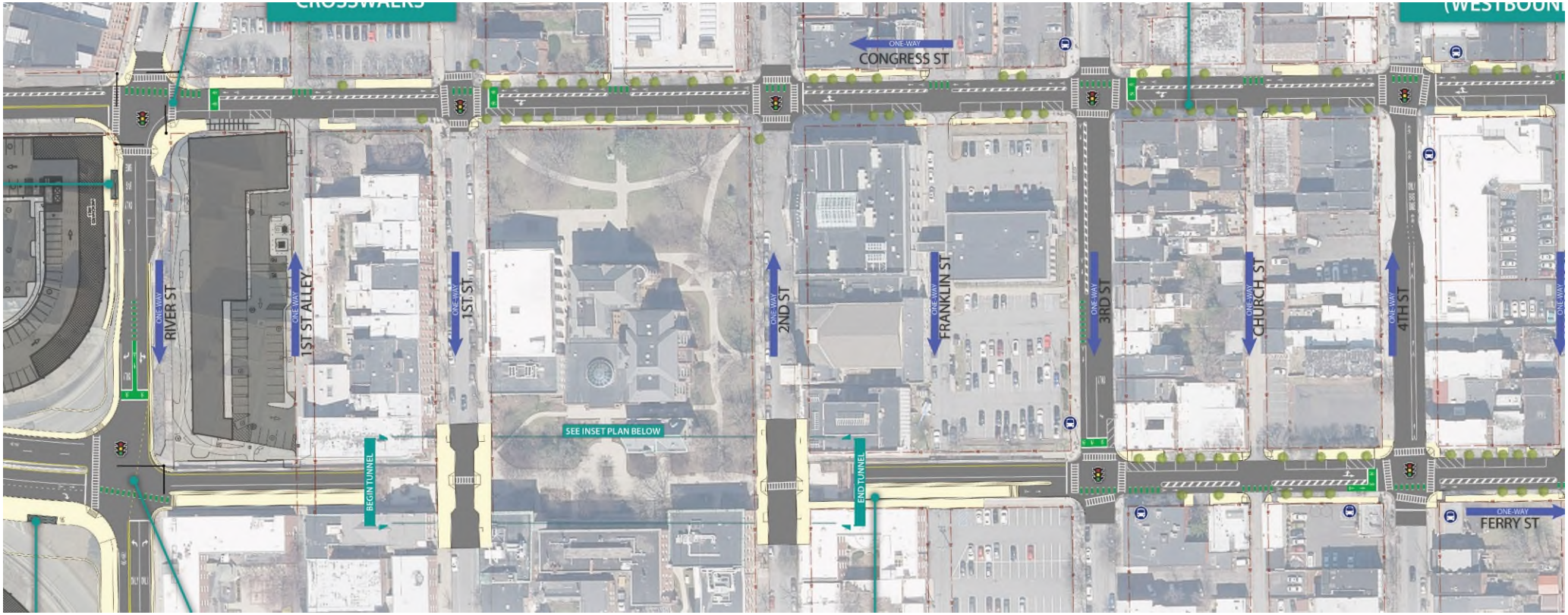
- 12-foot travel lane
- 10-foot parking lane
- 3-foot buffer space
- 8-foot bike lane



Ferry Street Tunnel Looking East

- 12-foot travel lane
- Shoulder width varies
- 10-foot separated bike lane

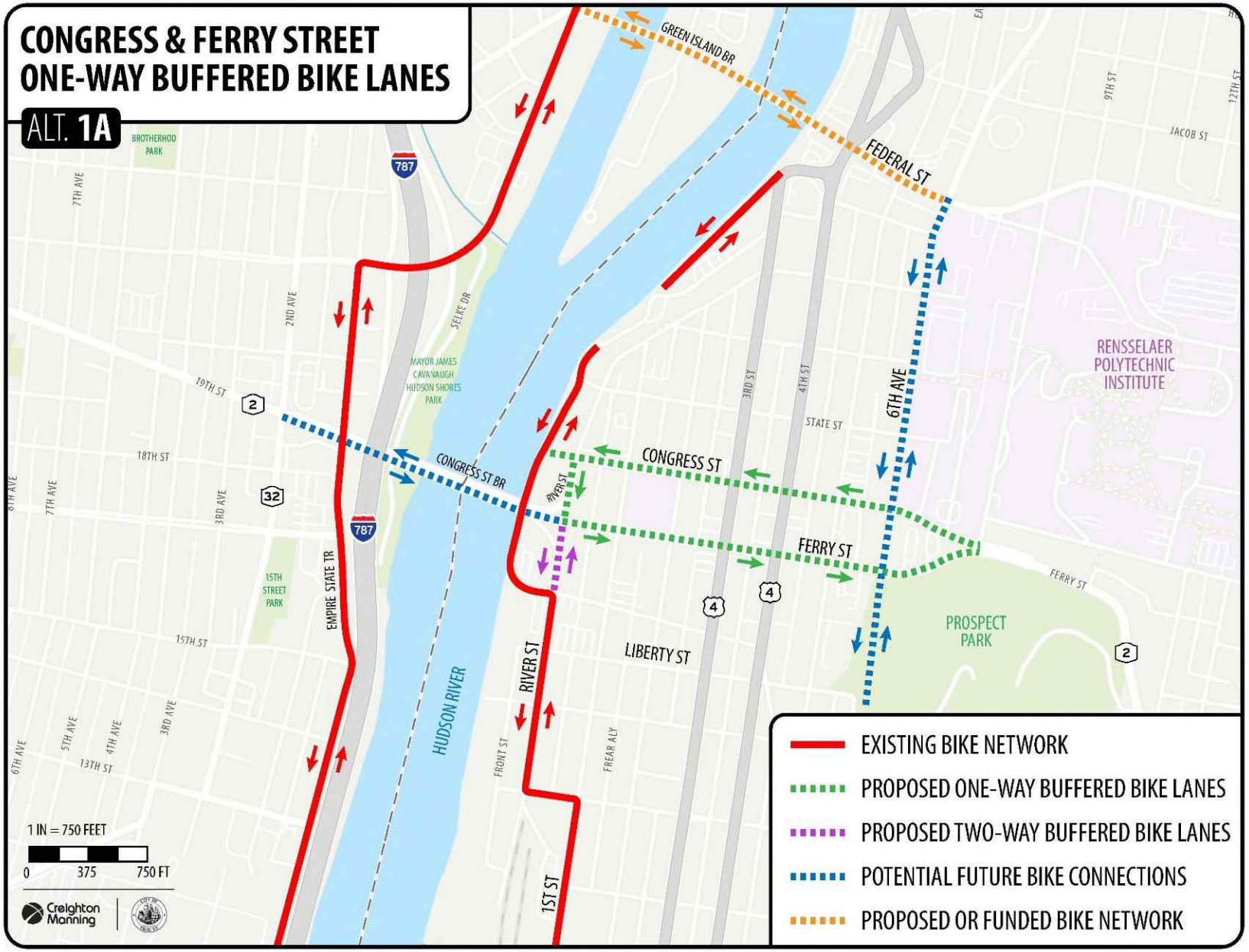
Proposed Work
1A – Congress & Ferry Streets One-Way Buffered Bike Lanes



Proposed Work
1A – Congress & Ferry Streets One-Way Buffered Bike Lanes



Proposed Work – How it fits into bike network



CITY OF TROY, NY

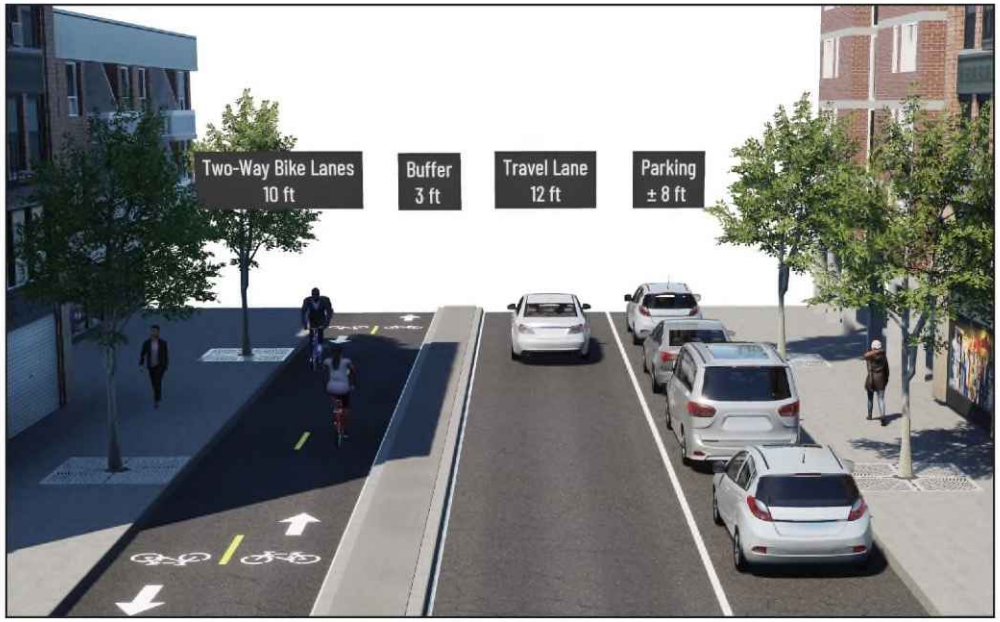
alta

Creighton Manning
a GAI Company

Proposed Work
1A – Congress & Ferry Streets One-Way Buffered Bike Lanes

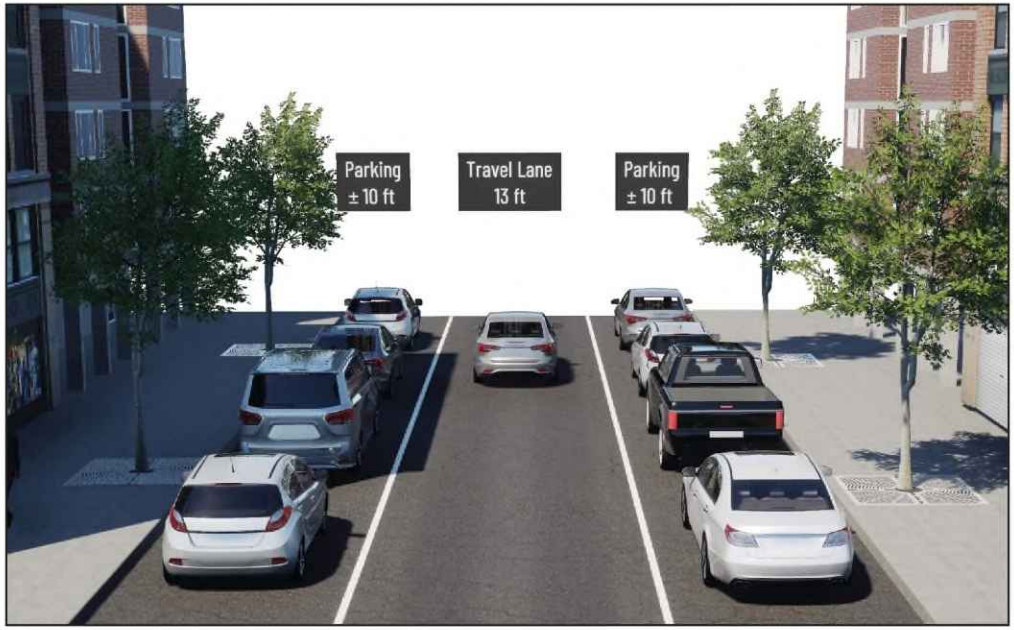
- 1A Overview
  - 1 travel lane = slower speeds
  - Parking – 56 spaces
  - Protection with plastic delineators, colored pavement or mountable curbing
  - Transit stops maintained, modifications necessary
  - Sidewalk, curb ramps & curb extensions
  - Lower maintenance
  - Cost ~ $10 M

Proposed Work
1B – Congress Street Two-Way Buffered Bike Lanes



Congress Street Looking West

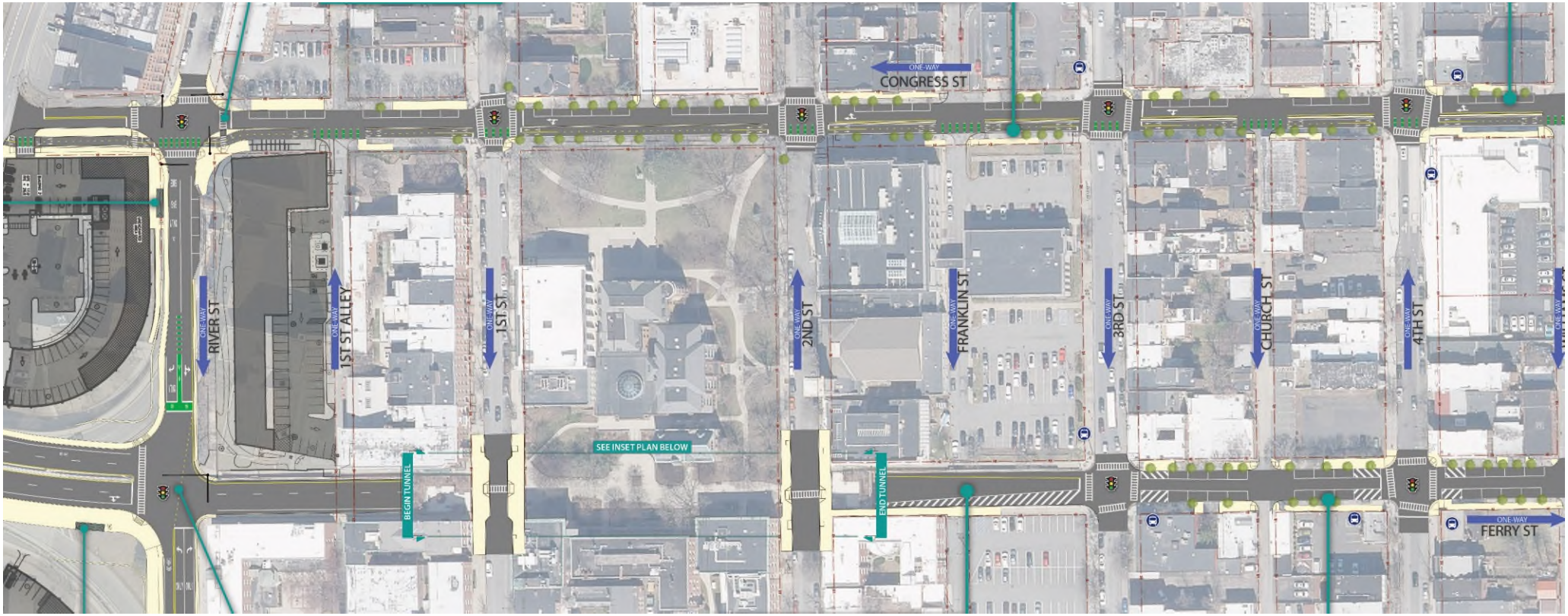
- 12-foot travel lane
- 8-foot parking lane
- 3-foot buffer space
- 10-foot two-way bike lanes



Ferry Street Looking East

- 13-foot travel lane
- 10-foot parking lanes

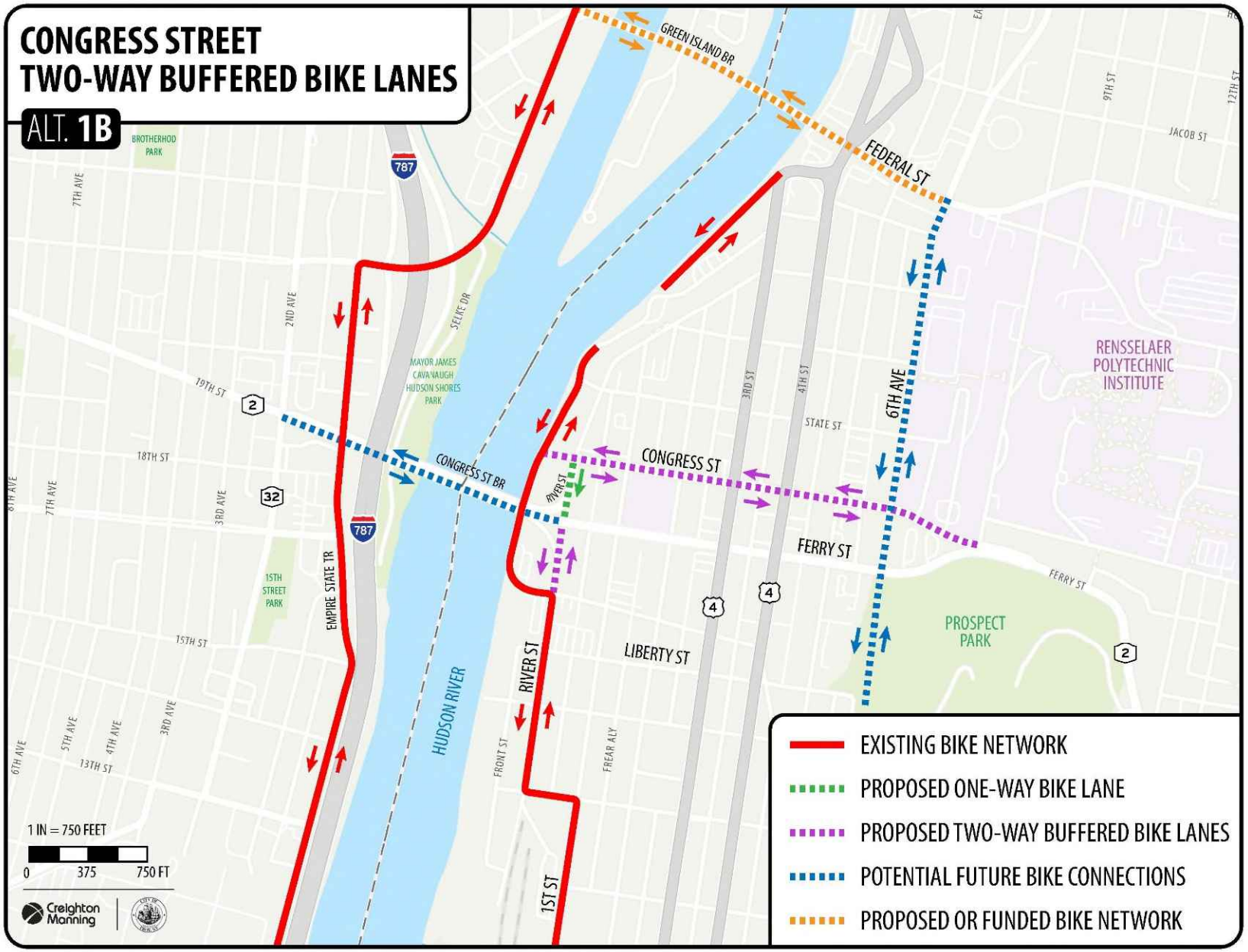
Proposed Work
1B – Congress Street Two-Way Buffered Bike Lanes



Proposed Work
1B – Congress Street Two-Way Buffered Bike Lanes



Proposed Work – How it fits into bike network



Proposed Work
1B – Congress Street Two-Way Buffered Bike Lanes

- 1B Overview
  - 1 travel lane = slower speeds
  - Parking – 69 spaces
  - Signal modifications x6
  - Transit stops maintained, modifications necessary
  - Sidewalk, curb ramps & curb extensions
  - Higher maintenance
  - Cost ~ $10.1 M

Public Meeting #1 Feedback

"I don't like two-way bike lanes, you get awkwardly close to opposing bike traffic"

"I am a strong proponent of option 1A for the improved rehabilitation and reconfiguration of the Sage Tunnel"

"With River St being two lane between Congress and Ferry Street, there is no provision for bicycles to access the Congress Street Bridge."

"Evaluate one lane between 6th Ave. and 8th St., and going up hill on Congress St."

"Make River St. one-way southbound between Congress & Ferry"

"Can the unprotected bike infrastructure shown in the concepts be protected?"

"Can more curb extensions be included?"

"1st St. and 2nd St. pavement/sidewalk work differs above tunnel, can they match?"

"I am passionately in favor of a plan that includes protected bike lanes."

"Black locust trees line Congress & Ferry – Would be tragic to lose"

"Bike lane through the tunnel will likely not be used due to perceived safety and noise. "

"Restore on-street parking where possible to provide buffer between building frontages and vehicular traffic"

"Who takes care of tunnel (graffiti, litter, etc.) and landscaping in ramp areas?"

"Can on-street parking be provided on west side of 3rd St. between Congress & Ferry?"

"On-street secure bike parking"

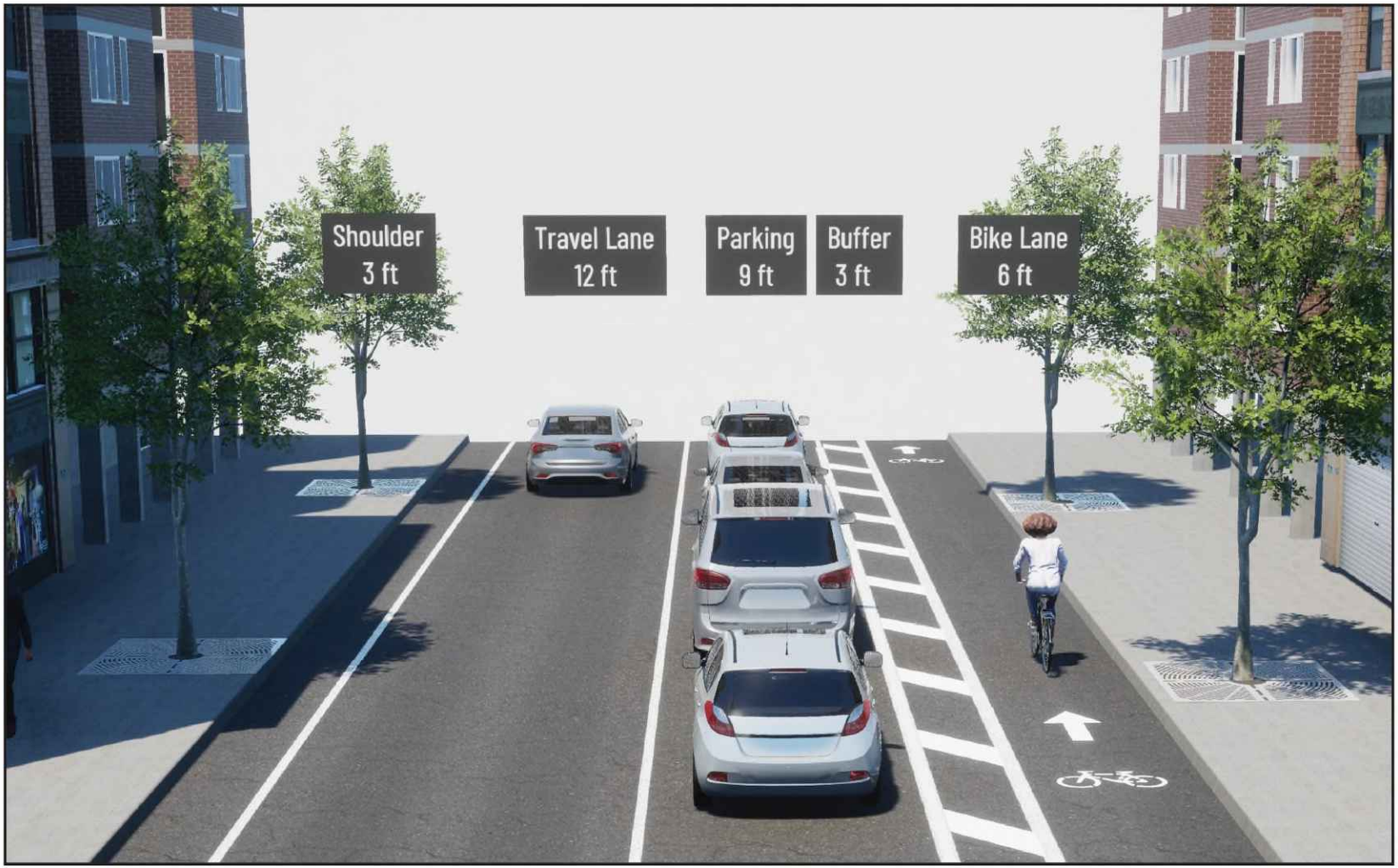
"I prefer the bike path with concrete median"

"Pavement markings need maintenance, and motorists don't understand green conflict zone markings"

"CDTA stop just off bridge excellent development. There should be a stop on River St. for buses turning right onto bridge"

"Designated areas for delivery trucks"

Proposed Work
1A Mod. – Parking Protected One-Way Buffered Bike Lanes



Congress Street Looking West
Ferry Street Looking East

What to Expect During Construction

- Traffic Impacts
  - Access to businesses and residential to remain open
  - Businesses, residents and schools notified prior to construction beginning
  - NY2 - Temporary shoulder/lane closures
  - Intersection - Staged construction
  - Tunnel - 1st and 2nd St. closures w/ detour
- Construction Schedule Restrictions
  - No Work on Major Holidays
  - No Lane Closures During Peak Commuter Hours
- Full access for Emergency Vehicles



Next Steps/Schedule

- Design & Agency Coordination → Ongoing
- Public Meetings & Comments → Summer/Fall 2024
- Design Approval → Winter 2025
- Project Out to Bid → Spring 2025
- Construction Begins → Summer 2025
- Construction Complete → Fall 2026

Comments

Andrew Kreshik
Planner, Planning & Economic Development
City of Troy
Andrew.Kreshik@troyny.gov
(518) 279-7153

Chris Geroux, P.E.
Project Manager
Creighton Manning Engineering
cgeroux@cmellp.com
(518) 689-1847

Website - https://congressandferrycorridor.altago.site/

NY 2 Corridor (Congress and Ferry Streets) & River/Ferry Intersection Improvements Project
Public Information Meeting #2

Name ANONYMOUS Date 10/9/24

Address

City/Town TROY State NY Zip Code 12180

Email

Preferred Option:

☐ Alternative 1A: Congress & Ferry Street One-Way Buffered Bike Lanes > NEITHER THEY SUCK

☐ Alternative 1B: Congress Street Two-Way Buffered Bike Lanes

I/We wish to comment about the following aspects of the project:

THIS WHOLE PLAN - / - IDEA STINKS

WHAT WERE YUU PEOPLE THINKING

Return to: Andrew Kreshik
Planner
City of Troy
433 River Street, 5th Floor
Troy, NY 12180
Email: Andrew.Kreshik@troyny.gov

OR

Chris Geroux
Project Manager
Creighton Manning Engineering
2 Winners Circle
Albany, NY 12205
cgeroux@cmellp.com

OR

Visit and provide comments through website:
https://congressandferrycorridor.altago.site/

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Monday, October 07, 2024 2:06 PM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important <https://aka.ms/LearnAboutSenderIdentification>

Full name
Beren
Zip code
12180
Email
beren.r.evans@gmail.com <mailto:beren.r.evans@gmail.com>
Phone number
(860) 639-4806
Question, comment, or feedback
I have lived and recreated in the area of concern for 12 years. Please please please do everything you can to slow down cars and make walking/cycling safer, especially for families. Please. We would love to put down roots in Troy, own a home, start a family, and continue to contribute to the community, but if I feel like my child is going to get killed by a car, I won't do it. Instead, we will have to take our tax dollars elsewhere. CITY OF TROY, please keep this in mind when making a final decision. Every decision counts and the city needs to prioritize making people with young families feel safe, so that they will choose to live in Troy instead of moving out to the suburbs.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Thursday, October 03, 2024 4:16 PM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important

Full name

Delaney Hafener

Zip code

12180

Email

delaneyjhafener@gmail.com

Phone number

(631) 680-3402

Question, comment, or feedback

It's imperative to make sure cycling is always considered in all plans moving forward, including places to lock bikes and ideally parking-protected bike lanes that allow cyclists to ride on the right side of parked cars, thus limiting the risk of being struck by opening doors and cars pulling away from the curb.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Sunday, October 06, 2024 11:35 AM
To: Chris A. Geroux
Subject: New submission from Contact

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Full name
Dylan R Salica
Zip code
12180
Email
dylanrsalica@gmail.com <mailto:dylanrsalica@gmail.com>
Question, comment, or feedback
A two lane protected bike lane would be what the city needs to ensure safety of cyclists and better traffic flow in downtown. Any street in Troy without bike infrastructure is incomplete. I'm in support of the capital streets proposal

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Sunday, November 03, 2024 9:12 PM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important <https://aka.ms/LearnAboutSenderIdentification>

Full name
Michael Gardner
Zip code
12180
Email
gardner.j.michael@gmail.com <mailto:gardner.j.michael@gmail.com>
Phone number
(518) 917-2969
Question, comment, or feedback
My recommendations for the Route 2 Corridor Improvement Project are as follows:

1. Consolidate Route 2 onto Ferry street as a bi-directional route.
2. Consolidate the bike path onto Congress street as a bi-directional bike route, with one-way car traffic; 3. Protect the bike path with a concrete barrier, and convert a few parking spots on the opposite side to serve as loading zones.
4. Designate one parking spot per block for bike-only parking.
This aligns most closely with the new Proposal 1B.
Historically, nearby communities used this route, but not in the way we see today.
Before the current bridge, a trolley ran along Congress Street, connecting the area to neighboring towns. This was local transit, not an expressway like today's Route 2. Reallocating Route 2 to Ferry Street would restore Congress Street to its original function as a local route.

As someone who has run on several streets in and out of Troy—from Eagle Mills to Emma Willard, from Monument Square up the Approach, past the RPI President's mansion on Tibbits, and onto Route 2 and back down—I know firsthand that certain roads here aren't suited for bikes. I won't ride my bike on Route 2 because it feels like a death sentence, particularly with the speeding out-of-state drivers who show little regard for local traffic. We can't change the behavior of drivers from across state lines, which is precisely why this project needs #2: our bicycle traffic consists of locals and families who commute daily.

At the meeting, several residents voiced similar hopes, including a family excited to bike safely across the river to Price Chopper and other long-time residents who depend on Congress Street for their daily commutes.

Before the current bridge, a trolley ran along Congress Street, connecting the area to neighboring towns. This was local transit, not an expressway like today's Route 2. Reallocating Route 2 to Ferry Street would restore Congress Street to its original function as a local route.

As someone who has run on several streets in and out of Troy—from Eagle Mills to Emma Willard, from Monument Square up the Approach, past the RPI President's mansion on Tibbits, and onto Route 2 and back down—I know firsthand that certain roads here aren't suited for bikes. I won't ride my bike on Route 2 because it feels like a death sentence, particularly with the speeding out-of-state drivers who show little regard for local traffic. We can't change the behavior of drivers from across state lines, which is precisely why this project needs #2: our bicycle traffic consists of locals and families who commute daily.

At the meeting, several residents voiced similar hopes, including a family excited to bike safely across the river to Price Chopper and other long-time residents who depend on Congress Street for their daily commutes.

"The reason why bike lanes suck in this town, compared to Montreal, is we lack commitment to a quality, permanent solution-- not these painted on divisions that can be scraped away in a week. This is a solved problem in other NE cities; the problem isn't a lack of solution, it's a lack of commitment."

Finally, to serve the biking community better, we should provide free parking for bicycles. Dedicating one parking spot per block to bikes would enhance Congress Street's capacity to welcome visitors and improve accessibility. We could even look at installing charging stations for electric bikes in the future.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Tuesday, October 08, 2024 11:10 PM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important <https://aka.ms/LearnAboutSenderIdentification>

Full name
Ira Share
Zip code
12138
Email
share@fairpoint.net <mailto:share@fairpoint.net>
Phone number
(518) 478-3608
Question, comment, or feedback
This area needs extreme traffic calming with protected bike lanes. I ride through here often in a car but mostly on a bicycle. I also walk this are. It is dangerous for people on foot and on bicycles. The drivers of automobiles are too fast. Let’s build a future for all in Troy. Let’s create a walkable, livable community.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Saturday, October 05, 2024 6:10 PM
To: Chris A. Geroux
Subject: New submission from Contact

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Full name
John D Hutchison
Zip code
12180
Email
dhutch92@gmail.com <mailto:dhutch92@gmail.com>
Phone number
(518) 577-3946
Question, comment, or feedback
I am in support of Capital Streets organizations proposed feedback, which is:

A maximum lane width of 11' and a concept with parking-protected bike lanes on Congress and Ferry. This will create a safer corridor for all while also increasing parking in Downtown Troy.

Capital Streets suggests the following layouts for both Congress and Ferry Streets (33' curb-to-curb width)*:

11' Travel Lane

7.5' Parking Lanes (on each side)

Parking-Protected Bike Lane with a

5' Bike Lane

2' Buffer

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Monday, October 07, 2024 5:10 PM
To: Chris A. Geroux
Subject: New submission from Contact

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Full name
Joshua Kurian
Zip code
12110
Email
Joshuakurian6@gmail.com <mailto:Joshuakurian6@gmail.com>
Phone number
(518) 690-5070
Question, comment, or feedback
I believe that out of all of the options presented for this streets improvement, 1A is the closest to what the residents and visitors of the city needs in order to promote a safe and livable environment. I would suggest some improvements to 1A's design such as parking-protected bike lanes which will make bicyclists safer, encouraging additional bike trips, and making it harder to park in the bike lanes.

The city would also stand to benefit from an extension of infrastructure improvements to at least 8th street to allow direct access to RPI on protected bike lanes. Remember that bicycle infrastructure works best when it's part of a network that connects multiple areas. With a connection to RPI, it would make it easier for students and faculty to access Downtown Troy which can be beneficial to local businesses. Overall i'm all for improving connectivity in the local area while promoting safe and sustainable practices. The proposals made by Capital Streets also should be deeply considered.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Friday, October 11, 2024 9:37 AM
To: Chris A. Geroux
Subject: New submission from Contact

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Full name
Keith Pickard
Zip code
12180
Email
keithdpickard@gmail.com <mailto:keithdpickard@gmail.com>
Phone number
(518) 424-3946
Question, comment, or feedback
As a homeowner in downtown off of Congress Street and a bicyclist who uses the roadways, I want to advocate for separated and protected bike lanes. The best plan the City could initiate is a concrete separation of bike lane and autos. After attending the most recent meeting, it became apparent that the city does not have the will nor the finances to make this a reality. So there is really only one plan that comes close to insuring the safety of bicyclists and calms the speed of traffic. That is the alternative that had one lane for traffic, a "parking" protected bike lane with a 3' painted buffer between the parking spots and the bike lane.This should also have some sort of raised piece alerting the drivers parking their cars that they should be within their designated area. When you build a "truly" protected bike lane the people will come to use it. I would also encourage the plans for the bike lanes to have protected connectivity from the Congress street lanes to accessing the Congress St. bridge and the bike path south. Another point I would like to make is the importance of our trees along lower Congress. It is visually one of the most beautiful streets in Troy, an asset to introducing people to our larger community. We have to make a EVERY effort to preserve them. There are many examples of what the cutting of mature trees and the subsequent replacement with much smaller trees does to the character and feel of the neighborhood and its not good.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Thursday, November 07, 2024 4:28 PM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important <https://aka.ms/LearnAboutSenderIdentification>

Full name
Stephen Maples
Zip code
12180
Email
ssmaples@gmail.com <mailto:ssmaples@gmail.com>
Phone number
(404) 277-1417
Question, comment, or feedback
• 1A Comments:
o This option makes the most sense if the city is willing to provide meaning physical protection. That is, either removable protections like the armadillo-shaped delineators, flexible delineators, etc. or more permanent protections like jersey barriers or so-called “tall-curbs”(https://nacto.org/publication/transit-street-design-guide/transit-lanes-transitways/lane-elements/separation-elements/; https://bouldercolorado.gov/news/boulder-installs-protected-bike-lane-infrastructure-new-us). Parking protected lanes could also work, if also paired with some delineators to encourage proper usage of the space and protect vulnerable users. The maintenance concerns around snow removal are easily surmountable if the city is willing to entertain new approaches. This option has the least number of potential conflicts, particularly in turning movements, throughout the corridor. However, if the city is unwilling to install any protections, then there will be no practical means to keep the bike lanes free of obstruction and could actually make biking in the corridor less safe than current conditions, as well as rendering all of the time and money spent on the corridor a waste.
o I think a bike box would be in order for the intersection of Ferry & 5th for bike traffic travelling north. I think there is also opportunity for a different treatment at Ferry & 6th, as the current treatment doesn’t really provide a safe means for bike traffic to turn N onto 6th.
• 1B Comments:
o If the city commits to providing protection for the two-way bike path, then this is the preferrable option despite the additional possible turning conflicts along Congress St. and likely additional travel times for all street users due to more complex turning movements. The protection is really the central feature being offered in this option, as well as the simplicity in navigating the corridor knowing the bike facility is on only one of the streets. I will emphasize that without vertical separation, that there is little advantage to this option and would instead prefer option 1A (which at least could be retrofitted and would have simpler operations).
• Common elements:

o More robust treatment of the intersection with 8th Street is on order to handle somewhat complicated movements with bikes on an incline and a large amount of open asphalt.
o Adding the climbing lane east of 8th is great, but I think perhaps transitioning to a side path on the south side might be safer and simply operations. The current sidewalk is lightly used, is mostly on public land, and would need minimal expansion for a shared path.
o Would love to see more effort in pedestrian crossings being more perpendicular to the street (parking lot entrance b'twn 7th & 8th, at 7th, at 6th northside, etc).
o Relatedly, avoiding apex curb ramps wherever possible, as these are not preferred in PROWAG/ADA for the dangers that they pose to vulnerable users (https://www.access-board.gov/ada/guides/chapter-4-ramps-and-curb-ramps/#diagonal-curb-ramps). This design should definitely be avoided for all proposed reconstructions of ramps.
o Also relatedly, more curb extensions are warranted throughout the corridor (even if phased installation with quick build materials https://crcog.org/wp-content/uploads/2020/03/CRCOG_TUGuide-FINAL.pdf)
o Investigating the possibility of moving the CDTA station to the NE corner of Congress St. (perhaps using a floating bus island for option 1A) could simplify operations on River Street and allow for protected bike lanes up to the bridge.
• Rt 2 Consolidation - As others have mentioned, looking at consolidating Rt 2 onto Ferry (two-way traffic) to reduce vehicle volumes using Congress St could make for much safer conditions for bike and pedestrian circulation. Markings and gateway treatments at 8th Street could encourage most vehicular traffic onto Ferry.

Chris A. Geroux

From: congressandferry@altago.site on behalf of Congress and Ferry Corridor Website Admin <congressandferry@altago.site>
Sent: Monday, October 21, 2024 11:02 AM
To: Chris A. Geroux
Subject: New submission from Contact

You don't often get email from congressandferry@altago.site. Learn why this is important <https://aka.ms/LearnAboutSenderIdentification>

Full name
Sugi Pickard
Zip code
12180
Email
sugidream@gmail.com <mailto:sugidream@gmail.com>
Phone number
(518) 424-7291
Question, comment, or feedback
I am pleased with the transparency shown at the recent public information hearing for the Corridor. A scenario discussed at the meeting, but not currently pictured on the site, were bike lanes protected by parked cars and a buffer zone. Absent a barrier like flexible vertical posts or low concrete curbs, I believe a parking protected bike lane is the best option.
I will reiterate my comments that protecting the existing trees along the routes should be a priority. The character and beauty of Troy is trifold - the architecture, the urban forest (comprised of street trees, residential trees, plants and vegetation) , and the people. Please balance these three aspects when designing this project.

Chris A. Geroux

From: Andrew.Kreshik <Andrew.Kreshik@troyny.gov>
Sent: Tuesday, October 08, 2024 1:49 PM
To: Jared.Barringer
Cc: Richard.Cellucci; Chris A. Geroux
Subject: RE: Possible reduction of travel lanes and widths of lanes in Congress St Corridor

Thank you Jared. I'll add TFD's comment to the project file.

-Andrew.

From: Jared.Barringer <Jared.Barringer@troyny.gov>
Sent: Tuesday, October 8, 2024 12:42 PM
To: Andrew.Kreshik <Andrew.Kreshik@troyny.gov>
Cc: Richard.Cellucci <Richard.Cellucci@troyny.gov>
Subject: Possible reduction of travel lanes and widths of lanes in Congress St Corridor

I am writing to express my concerns with the proposed changes to the Congress St and Ferry St Corridors. The City of Troy Fire Department is not in favor in reducing travel lanes and reduction in lane width. Due to the size of the emergency vehicles that travel through this area regularly and numerous times daily any reduction in travel lanes will cause congestion and possibly cause this area to be impassible especially at times of high congestion. Due to the length and width of the emergency vehicles the City of Troy Fire Department is not in favor in any reduction in width of any travel lanes in this area. Due to the extreme turning radius of these vehicles as well as outrigger set up width any reduction in lane width will be detrimental and hinder response times as well as the ability to properly operate at emergency scenes in this area. I can be reached at 518-256-2688 to discuss any future changes and concerns on this topic.

Thank you

Jared Barringer
Deputy Chief
City of Troy Fire Department
518-256-2688

Appendix F – Miscellaneous

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Exhibit 2-15a
Nonstandard Feature Justification for Pedestrian Facilities

PDF Version Rev. 05/31/18

This form is used to justify pedestrian facilities that cannot comply with current standards [1]. Use the "Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities" checklist (on Page 5 of this file) to identify applicable standards and any non-compliant elements for a facility. Nonstandard features may be identified and justified during preliminary design, final design, or construction. A separate form must be completed for each noncompliant facility. Instructions for completing the form are included on Page 3 of this file, "Instructions - Exhibit 2-15a."

1. Project and Location Information

PIN: 1761.61 | **Project Description:** Congress and Ferry Street Rehabilitation Project

D Number: | **Project Type:** Highway - reconstruction

Location *(for a linear feature, e.g., sidewalk)* **FROM** Lat: Long:

TO Lat: Long:

Location *(for a point feature, e.g., curb ramp)* Lat: 42.72730 Long: -73.68852

Location Description *(if needed, in addition to coordinates)*

SE curb ramp at the intersection of Ferry Street and 5th Avenue

Road/Highway: Ferry Street | **Side of Road or Intersection:** South

Intersecting Road/Highway *(if applicable)* **:** 5th Avenue

City or Town: Troy | **County:** Rensselaer

2. Nonstandard Features

Facility or Element of a Facility

- [x] A. Curb Ramp or Blended Transition
- [ ] B. Tactile Warning Device (Detectable Warning)
- [ ] C. Sidewalk
- [ ] D. Surface
- [ ] E. Crosswalk (Pedestrian Street Crossing)
- [ ] F. Ramp (other than a curb ramp)
- [ ] G. Railing
- [ ] H. Stairs
- [ ] I. Drainage
- [ ] J. Pedestrian Signal
- [ ] K. Accessible Parking
- [ ] L. Bus Stop (Transit Stop)
- [ ] M. Ped. At-Grade Railroad Crossing
- [ ] N. Other:

Noncompliant element(s)

The **Limit for element** is the measurement or dimension that cannot be met for the element to be compliant with current standards[1]. The **Closest practicable value** is the best measurement or dimension (closest to current standards) that can be achieved within the project's scope and constraints.

Element:	Limit for element:	Closest practicable value:
Running Slope	8.3%	10.0%

3. Justification for Nonstandard Features *Check all that apply*

Design Constraints or Reasons for Technical Infeasibility

- [ ] A. Underlying terrain
- [ ] B. Right-of-way availability
- [ ] C. Underground structures
- [x] D. Adjacent developed facilities
- [ ] E. Drainage
- [ ] F. Presence of a notable natural feature
- [ ] G. Presence of a notable historic feature
- [ ] H. Other:

Design Alternatives Considered

Design Alternative	Leave existing non compliant ramp in place	☐ Selected ☑ Not Selected	Reason	Not selected because it was possible to build a ramp that was closer to being compliant
Design Alternative	Build ramp as close to desirable values as possible, with existing constraints	☑ Selected ☐ Not Selected	Reason	Selected because it made the ramp/corner as accessible as possible with existing feature constraints
Design Alternative	Build ramp to full ADA compliance standards	☐ Selected ☑ Not Selected	Reason	Not selected due to existing stair proximity to ramp and other issues that prevent it from being practical.

4. Future Considerations for Facility *Check only one*

- ◉ This facility could not be made compliant within the scope of the current project, but it should be placed on the ADA Transition Plan to be made compliant in the future.
- ○ The constraints causing this facility to be noncompliant are not a condition of project scope. It cannot be made compliant in the forseeable future.

5. Supporting Information

Supporting information (i.e., drawings, sketches and/or photos) should be inserted on the Supporting Information Page (Page 6), or filed along with this form. See the "Instructions - Exhibit 2-15a" on Page 3 for requirements for supporting information.

6. Approval and Filing

Nonstandard features that are compliant to the maximum extent practicable, and can be justified using criteria A through G from Section 3, above, are to be approved by the Regional Director.

All "H. Other" nonstandard ADA justifications are to be immediately conveyed along with supporting information (e.g., drawing/sketch and photo) by the Regional Director's designated licensed staff[2] to the Deputy Chief Engineer (Design) for timely approval.

For locally administered federal-aid projects, all justifications are to be approved by the Responsible Local Official.

Justifications are to be e-mailed as an attachment to the appropriate party for approval. Once the appropriate party has approved the nonstandard feature, the completed form should be e-mailed back to the party seeking the approval, with a copy sent to the Regional ADA Specialist.

Copies of approved justifications for state projects are to be retained in the project file and those on the state system are to be placed in the "ADA Nonstandard Feature" folder in ProjectWise under:

NYSDOT\Documents\Main Office\ADA Nonstandard Feature\

Form Prepared by:	Jeffrey Pangburn	Title:	Project Manager
Agency or Firm:	Creighton Manning		
NYS License No.:	076931	Professional Engineer	
Phone:	(518) 689-1822	E-mail: jpangburn@cmellp.com	Date: 07/23/2025

SPACE BELOW TO BE COMPLETED BY THE INDIVIDUAL APPROVING THE NONSTANDARD FEATURE JUSTIFICATION

Approved By:		Title:	
Date of Approval:	01/01/2001		

[1] *Highway Design Manual (HDM) Chapter 18, 2011 Proposed Right-of-Way Accessibility Guidelines (PROWAG), 2010 Building Code of New York State (BCNYS), 2009 Manual of Uniform Traffic Control Devices (MUTCD)*

[2] *Licensed staff designated by the Regional Director to provide field reviews and technical assistance to construction staff on state projects, including the layout of ADA compliant pedestrian facilities (Pursuant to ED 15-004)*

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Instructions for Completing
Exhibit 2-15a - Nonstandard Feature Justification for Pedestrian Facilities

1. Project and Location Information

PIN NYSDOT Project Identification Number

Project Description Name of project, e.g., "Route 9 Pedestrian Improvement Project"

D Number Contract number, if known. If no contract number has been assigned, enter "N/A"

Project Type Type of work proposed or underway, e.g., "1R - Paving" or "2R- Intersection reconstruction"

Location should be given in coordinates as latitude (Lat.) and longitude (Long.). Coordinates can be found by using Google Maps (right click a point and select "What's Here?") or by using any one of a number of websites that furnish coordinates for a point selected on a map, including:

http://maps.cga.harvard.edu/gpf/

http://www.findlatitudeandlongitude.com/

Linear features require a location start point and a location end point. A linear feature will typically be a sidewalk, but could also be something like a pedestrian bridge. Any feature longer than 75 ft. should be considered a linear feature.

Point features require only one location point. Typical point features are curb ramps, crosswalks, and landings. Any feature 75 ft. long or less should be considered a point feature.

Location Description is optional, and may be used to pinpoint the location of a facility where coordinates may not provide enough information. For instance, if there are two curb ramps in one corner, in close proximity to each other, it may be ncecessary to distinguish them with a description.

Road/Highway is the road bordering on, or nearest to, the pedestrian facility.

Intersecting Road/Highway is applicable if the pedestrian facility is located on or near a corner. If there is no intersecting road or highway, enter "N/A".

Side of Road or Intersection Choose the cardinal or intercardinal direction that best reflects the location of the facility in relation to the road or center of the intersection.

2. Nonstandard Features

Facility Type and Elements of a Facility

Select the type of facility or facility element that will not meet standards

Curb Ramp A ramp that cuts through or is built up to the curb, with a running slope greater that 5 percent. Curb ramps can be perpendicular or parallel to a road crossing, or a combination of parallel and perpendicular ramps. *(Source: Proposed Right-of-Way Accessibility Guidelines (PROWAG))*

Blended Transition A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a running slope of 5 percent or less. *(Source: PROWAG)*

Surface inlcudes the surface area of sidewalks and other pedestrian circulation paths (e.g., boardwalks), pedestrian street crossings, at-grade rail crossings, pedestrian overpasses, pedestrian underpasses and similar structures, curb ramps, and blended transitions.

Ramp A pedestrian ramp other than a curb ramp. The standards for ramps are found in R407 of PROWAG and Section F of the "Critical Elements for the design, Layout, and Acceptance of Pedestrian Facilities" table.

Ramp Landing A level area located at the top or bottom of a sloped pedestrian ramp run.

Railing A rail to be grasped by the hand for support or a barrier consisting of a rail and supports.

Guardrail A barrier or fence to prevent persons from falling off a drop off or steep embankment .

Stairs A series of steps or flights of steps connecting one level to another.

Stair Landing A level area at the top or bottom of a flight of steps.

Noncompliant element(s)

Element Any Critical Element of the facility that will not meet the standard.

Limit for Element is the "limit" for that element to meet standards, i.e. the maximum allowable slope, minimum allowable width, etc.. Standard limits can be found on the table "Critical Elements for the Design, Layout, and Acceptance of Pedestrian Facilities" on the "Critical Elements" tab. Limits are based on the Highway Design Manual (HDM) Chapter 18, 2011 Proposed Right-of-Way Accessibility Guidelines (PROWAG), 2010 Building Code of New York State (BCNYS), 2009 Manual on Uniform Traffic Control Devices (MUTCD).

Closest practicable value is the best measurement or dimension (the closest to current standards) that can be achieved within the project's scope and constraints.

3. Justification for Nonstandard Features *Check all that apply*

Design Constraints or Reasons for Technical Infeasibility

The 2011 PROWAG "recognize[s] that it is not always possible for altered elements, spaces, or facilities to fully comply with new construction requirements because of existing physical constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature. The proposed guidelines permit flexibility in alterations to existing facilities where needed."

A. Underlying terrain Existing grade separations may be too steep, or grade separations too great for pedestrian facilities to comply with maximum slopes. For example, a pedestrian path intended to replace a set of stairs on a steep natural grade may not be able to achieve the maximum 8.3% running slope without extensive grading and negative impacts to adjacent properties. If a compliant ramp or sidewalk cannot be furnished within the available space, a facility with the minimum practicable slope should be installed.

B. Right-of-way availability If adequate public right-of-way cannot be acquired, or permission to access private property is not granted by a property owner to construct a facility, it may not be possible to achieve fully compliant dimensions or slopes within the space available. ROW aquisitions are outside the scope of a 1R project. For guidance on the procedures to address ROW for ADA-complaint pedestrian facilities on 1R projects, see NYSDOT Highway Design Manual, Section 7.3.2.2.

C. Underground structures Existing underground structures may limit the ability to adjust grade to comply with maximum accessible slopes. For example, the elevation of a sidewalk crossing over the top of an existing utility vault will be fixed above the top of the vault. This "fixed" elevation may necessitate a sidewalk slope exceeding the maximum compliant slope. Additionally, relocating utilities is outside the scope of a 1R project.

D. Adjacent developed facilities Existing facilities may introduce constraints that cannot be addressed in a practical manner. For example, a segment of sidewalk installed alongside a developed block of road with a 12% grade could probably not achieve the maximum 8.3% running slope without excessive grading and/or negative impacts to adjacent properties.

E. Drainage Standing or frozen water can make a facility inaccessible, unsafe and prone to faster deterioration. If the maximum compliant slope of a pedestrian facility is not adequate to drain it in certain conditions, or will impede the drainage of a larger area, a slope exceeding the maximum will be necessary. If building a fully compliant facility on a 1R project would require moving a closed drainage structure, relocation of the drainage structure is outside the scope of a 1R project.

F. Presence of a notable historic feature It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a historic feature. For example, if replacing a noncompliant 3-foot wide sidewalk with a compliant 4-foot wide sidewalk would require the removal of a historic stone retaining wall, the segment of 3-foot wide walk along the wall may be acceptable.

G. Presence of a notable natural feature It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a natural feature. For example, if replacing a noncompliant 3-foot wide sidewalk with a compliant 4-foot wide sidewalk would require the removal of a row of valued, mature street trees, segments of 3-foot wide walk near the trees may be acceptable.

H. Other Any design constraint or technical infeasibility that does not fit the criteria of A- G, above. The factor must be described in the text box.

Design Alternatives Considered

Identify up to 3 design alternatives that were considered, including the one that was ultimately selected, and briefly explain why each alternative was or was not chosen.

4. Future Considerations for Facility

If the subject facility cannot be made compliant within the scope of the current project, but should be placed on the NYSDOT ADA Transition Plan to be made compliant in the future, check the first radio button. For instance, if the project is a 1R project and right-of-way acquisition would have been needed to install a fully compliant curb ramp, the facility should be placed on the Transition Plan to be included in a future 2R or 3R project that could include right-of-way acquisition.

If the constraint(s) causing the facility to be noncompliant are not a condition of project scope, and it cannot be made compliant in the foreseeable future, check the second radio button. For example, if a curb ramp's running slope exceeds the maximum compliant slope because there is inadequate space between the curb and a building, the constraint is unlikely to change in the foreseeable future.

5. Supporting Information

Supporting information such as drawings/sketches and photos should be included with each justification form, as appropriate. These should be either inserted in the final .pdf in the"Supporting Information" page (Page 6), or filed separately with file names that include the PIN and allow the supporting information for a facility to be associated with the relevant form. For example, image "912345_nsj_photo_loc_01.jpg" would clearly relate to "912345_nsj_form_loc_01.pdf" .

Supporting information such as drawings/sketches and photos ***MUST*** *be included with each justification form that uses criterion H ("Other") and is sent to the Deputy Chief Engineer (Design) for approval.*

6. Approval and Filing

Nonstandard features that are compliant to the maximum extent practicable, and can be justified using criteria A through G (in Section 3) may be approved by the Regional Director.

All "Other" nonstandard ADA justifications are to be immediately conveyed along with supporting information (e.g., drawing/sketch and photo) by the Regional Director's designated licensed staff[2] to the Deputy Chief Engineer (Design) for timely approval.

For locally administered federal-aid projects, all justifications are to be approved by the responsible local official with copies sent to the Region.

Copies of approved justifications for state projects are to be retained in the project file and those on the state system are to be placed in the "ADA Nonstandard Feature" folder in ProjectWise under "Main Office":

NYSDOT\Documents\Main Office\ADA Nonstandard Feature

The names of all files placed in this folder are to begin with the PIN, e.g "PIN_dat_ada_nfj_DECRIPTION.pdf"

Form Prepared By Name of individual completing the form

Title Title of individual completing the form, e.g., CEII, LA, or Town Engineer

Agency or Firm e.g., NYSDOT R5 Design, Town of Springfield, or Smith Engineering Consultants

Phone and **E-mail** in case clarification is needed.

Date form was completed

Supporting Information

To insert images in Adobe Acrobat DC: Select **Tools** > **Content Editing** > **Add Image**

CRITICAL ELEMENTS FOR THE DESIGN, LAYOUT, AND ACCEPTANCE OF PEDESTRIAN FACILITIES

This document is intended to serve as a tool for the evaluation of existing pedestrian facilities, and the layout and inspection of new pedestrian facilities. There is no requirement to file this sheet. However, pedestrian facilities must meet the applicable values on this sheet, or be justified as nonstandard features using Exhibit 2-15a from the NYSDOT Highway Design Manual, Chapter 2.

U.S. Customary Version - NYSDOT - Revised 05/31/18 - Issued by EB 18-021

Prepared By: | PIN/D Contract: | Date: | Location:

Existing Ramps to Remain on 1R Projects *Subject to 1991 ADAAG* [1,3,5]	Reference *(1991 ADAAG unless otherwise noted)* [2]	1991 ADA Limits	ADA Limits for 1R Projects	Inspection Methods *(See Note 2 on reverse)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1 on reverse)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
A Curb Ramp									
Clear width	4.3.3	36" min.	36" min	D					
Flare slope for ramps in walkable area	4.7.5	10% max.	10% max.	B					
Cross slope at crossing with yield or stop control	4.3.7 & PROWAG R304.5.3	2% max.	2% max.[2]	B					
Cross slope at crossing without yield or stop control (including any signal but flashing red)	4.3.7 & PROWAG R304.5.3	2% max.	Highway grade is max.[2]	B					
Curbed ramp edge or flare slopes exceeding 10%	4.7.5	Located in non-walkable area	Located in non-walkable area						
Grade (running slope)	4.8.2	8.33% max.	8.33% max.	A					
Grade (running slope), if space is limited	4.1.6	10% for 6" rise	10% for 6" rise	A					
Clear space for diagonal ramps	4.7.10	48" x 48" min.	48" x 48" min.	D & E					
Grating spaces (in walking surface)	4.5.4	0.5" max.	0.5" max.	E					
Vertical changes	4.5.2	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	F					
B Detectable Warnings[3,4]									
Where required	See Note 3	Present, if required[3]	Present, if required[3]						
Width	PROWAG R305.1.4 and R305.2[4]	Full width of ramp (2" border allowed)	Full width of ramp (2" border allowed)	D					
Length (depth)	PROWAG R305.1.4 and R305.2[4]	24" min. in direction of pedestrian travel	24" min. in direction of pedestrian travel	E					
Placement	PROWAG R305.2.1[4]	At grade break if < 60" from curb, otherwise at back of curb	At grade break if < 60" from curb, otherwise at back of curb	E					
Dome dimensions and spacing	4.29.2	Raised domes with diameter of nominal 0.9", height of nominal 0.2" , and center-to-center spacing of 2.35".	Raised domes with diameter of nominal 0.9", height of nominal 0.2" , and center-to-center spacing of 2.35".	E & F					
Contrast of warning device	4.29.2	Light-on-dark or dark-on-light	Light-on-dark or dark-on-light						

Notes:

[1] *On 1R projects, curb ramps built prior to March 15, 2012 do not need to be modified to meet current (PROWAG) standards if they comply with the curb ramp requirements in the 1991 ADAAG Standards.*

[2] *Curb ramp cross slopes on 1R projects may be evaluated by current (PROWAG) standards.*

[3] *As detailed in the "Supplement to the 2013 DOJ/DOT Joint Technical Assistance on the Title II of the ADA Requirements To Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing", detectable warnings are required on curb ramps built or altered during the following periods:*

July 26, 1991 - May 12, 1994
July 26, 1998 - December 23, 1998
July 26, 2001 - March 15, 2012

If a curb ramp was built or last altered during the periods above, or if the date of construction or last alteration cannot be determined, the ramp requires a detectable warning.

[4] *ADAAG 4.7.7 required detectable warnings to extend the full width and depth of a curb ramp. Full coverage was later determined to be excessive and undesirable for wheelchair users. Requirements for detectable warning dimensions and placement are to be evaluated by current (PROWAG) standards.*

[5] *For Crosswalk requirements, refer to E. under "New and Replacement Facilities".*

New and Replacement Facilities *Subject to 2011 PROWAG , Building Code of New York State, and National Manual of Uniform Traffic Control Devices*	Reference *(2011 PROWAG unless otherwise noted)*	Design and Layout Limits	Limits for Work Acceptance	Inspection Methods *(See Note 2 on reverse)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1 on reverse)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
A Curb Ramp / Blended Transition									
Clear width	R304.5.1	48" min.	48" min.	D					
Slope of flared sides, within pedestrian circulation path	R304.2.3	9.5% max.	10% max.	B					
Slope of flared side, outside pedestrian circulation path	R304.2.3	No max. slope, may be curbed	No max. slope, may be curbed	B					
Grade (running slope) for curb ramp	R304.3.2	7.5% max.	8.3% max.	A					
Grade (running slope) for blended transition	R304.1 & R304.4.1	4.5% max.	5% max.	A					
Cross slope (at crossing with yield or stop control)	R304.5.3	1.5% max.	2% max.	B					
Cross slope (at crossing without yield or stop control, including any signal but flashing red)	R304.5.3	Highway grade is max.	Highway grade is max.	B					
Length of a curb ramp, if the ramp must exceed maximum allowable grade (running slope) due to steep terrain, (i.e., "chasing grade")	R304.2.2 & R304.3.2	15' - 1" min.	15' min.	D					
Turning space, with no constraints	R304.2.1 & R304.3.1	48" x 48" min.	48" x 48" min.	D & E					
Turning space, with constraint at back of sidewalk	R304.2.1	48" x 60" min.	48" x 60" min.	D & E					
Turning space, with constraints on two sides	R304.3.1	48" x 60" min.	48" x 60" min.	D & E					
Slope of turning space, in any direction	R304.2.2 & R304.3.2	1.5% max.	2% max.	C					
Counter slope at bottom of ramp	R304.5.4	4.5% max.	5% max.	A					
Clear space (beyond bottom grade break, outside of parallel vehicle path; can include drop curb)	R304.5.5	48" x 48" min.	48" x 48" min.	D & E					
Grade breaks (no rounding)	R304.5.2	Perpendicular to direction of ped. travel	Perpendicular to direction of ped. travel						
B Detectable Warnings *(for ped. rail crossings, refer to M.)*									
Covered by Specs: Dome dimensions and spacing	R305.1.1 & R305.1.2	On DOT Approved List	On DOT Approved List						
Covered by Specs: Contrast of warning device	R305.1.3	Light on dark or dark on light	Light on dark or dark on light						
Alignment	R304.5.2	Perpendicular to grade break between ramp run and street	Perpendicular to grade break between ramp run and street						
Width	R305.2	Full width of ramp (2" border allowed)	Full width of ramp (2" border allowed)	D					
Length (depth)	R305.1.4	24" min. in direction of pedestrian travel	24" min. in direction of pedestrian travel	E					
Placement	R305.2.1	At grade break if < 60" from curb, otherwise at back of curb	At grade break if < 60" from curb, otherwise at back of curb	E					
Where not required	R208.2	Refuge islands where ped. route is < 72" long	Refuge islands where ped. route is < 72" long	E					
C Sidewalk									
Clear width of Ped. Access Route (excluding curb)	R302.3	48" min.	48" min.	D					
Grade (running slope) where hwy. grade is 5% or less	R302.5	4.5% max.	5% max.	A					
Grade (running slope) where hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.	A					
Cross slope	R302.6	1.5% max.	2% max.	B					
Passing space interval (if Ped. Access Route is less than 60" wide)	R302.4	200' max.	200' max.	E					
Passing space dimensions	R302.4	60" x 60" min	60" x 60" min	D & E					
D Surfaces									
Material	R302.7	HMA or PCC	Firm, stable, and slip resistant						
Horizontal openings (such as gratings and joints)	R302.7.3	0.5" max.	0.5" max	E					
Vertical discontinuities	R302.7.2	0.25" max.	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	F					
E Crosswalk (Pedestrian Street Crossing)									
Width	R302.3	72" min.	48" min.	D					
Cross slope at intersection with yield or stop control	R302.6.1	1.5% max.	2% max.	B					
Cross slope at intersection without yield or stop control (including any signal but flashing red)	R302.6.1	4.5% max.	5% max.	B					
Cross slope, midblock	R302.6.2	Highway grade is max.	Highway grade is max.						
Grade (running slope), e.g., highway cross slope	R302.5.1	4.5% max.	5% max.	A					
Markings	MUTCD 3B.18	L, S, or LS Type	L, S, LS, Diagonal, or other						
Clear width, within median or pedestrian refuge island	R302.3.1	60" min.	60" min.	D					
F Pedestrian Ramps *(for Curb Ramps, refer to A.)*									
Clear width	R407.4	36" min.	36" min.	D					
Cross slope	R407.3	1.5% max.	2% max.	B					
Grade (running slope)	R407.2	7.5% max.	5% min. - 8.3% max.	A					
Vertical rise, between landings	R407.5	30" max.	30" max.	F					
Landing width, with no change of ped. direction	R407.6.2	Width of widest ramp leading to landing	Width of widest ramp leading to landing	D					
Landing width, with a change of ped. direction	R407.6.4	60" min.	60" min.	D					
Landing length	R407.6.3	60" min.	60" min.	E					
Landing slope, in any direction	R407.6.1	1.5% max.	2% max.	C					

New and Replacement Facilities *Subject to 2011 PROWAG , Building Code of New York State, and National Manual of Uniform Traffic Control Devices*	Reference (*2011 PROWAG unless otherwise noted)*	Design and Layout Limits	Limits for Work Acceptance	Inspection Methods *(See Note 2, below)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1, below)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
G Railings for Pedestrian Ramps and Stairs									
Ramp (with a rise of over 6") or stairs	R409.1	Req. on both sides	Req. on both sides						
Height of handrail (from walking surface or stair nosing to top of gripping surface)	R409.4 & BCNYS 1014.2	34" - 38"	34" - 38"	F					
Height of guards, for vertical drops > 30" *(Does not apply to highway segments, highway ramps, or highway bridges with bridge or highway barriers)*	BCNYS 1013.1 & 1013.2	42" min.	42" min.	F					
Opening limitations for guards *(Does not apply to highway segments, highway ramps, or highway bridges with bridge or highway barriers)*	BCNYS 1013.3	4" max. up to 34", then 8" max. up to 42"	4" max. up to 36", then 4-3/8" max. up to 42"	Cannot pass a sphere of given diameter					
Handrail clearance (between gripping surface and wall)	R409.5	1.5" min,	1.5" min.	D					
Outside diameter of circular handrail	R409.7.1	1.25"min. - 2" max.	1.25"min. - 2" max.	G					
Outside perimeter of non-circular handrail	R409.7.2	4"min. -6.25" max.	4"min. -6.25" max.	G					
Cross-section dimension of non-circular handrail	R409.7.2	2.25" max.	2.25" max.	G					
Handrail extension at top or bottom of ramp	R409.10.1	12" min. past ramp run	12" min. past ramp run	E					
Handrail extension at top of stairs	R409.10.2	12" min. past first riser nosing	12" min. past first riser nosing	D					
Handrail extension at bottom of stairs	R409.10.3	Min. of one tread depth past last riser	Min. of one tread depth past last riser	D					
Handrail extension returns to wall, guard, or landing	R409.10.2 & R409.10.3	Yes	Yes						
Edge protection for ramp	R407.9	Ramp surface extends 12" min. beyond handrail **OR** 4" sphere cannot pass within 4" of finish surface	Ramp surface extends 12" min. beyond handrail **OR** 4" sphere cannot pass within 4" of finish surface	D **or** cannot pass a sphere of given diameter					
H Stairs									
Riser height (must be uniform on flight)	R408.2	4" min. - 7" max.	4" min. - 7" max.	F					
Clear width of stairs	BCNYS 1011.2	48" min.	44" min.	D					
Depth of tread (must be uniform on flight)	R408.2	11" min.	11" min.	E					
Tread surface	HDM CH 18	Level to 1.5% max.	Level to 2% max.	C					
Tread nosing	R408.5 & BCNYS 1011.5	0.5" max. radius on leading edge, 1.25" max. extension over tread below	0.5" max. radius on leading edge, 1.25" max. extension over tread below	E					
Closed riser	R408.3	Yes	Yes						
Rise between landings	BCNYS 1011.8	144" max.	144" max.	F					
Landing	BCNYS 1011.6	Req. at top and bottom of stairs	Req. at top and bottom of stairs						
Landing width	BCNYS 1011.6	Min. width equal to stairway width	Min. width equal to stairway width	D					
Landing length	BCNYS 1011.6	Min. length equal to stairway width, up to 48"	Min. length equal to stairway width, up to 48"	E					
Landing slope, in any direction	HDM CH 18	1.5% max.	2% max.	C					
I Drainage									
Adequate drainage	HDM CH 8	No low spots that will pond water within Ped. Access Route	No low spots that will pond water within Ped. Access Route						
J Pedestrian Signals									
Push button height	R406.2 & R406.3	36" min. - 42" max.	15"min. - 48" max.	F					
Push button distance from pedestrian access route	R406.3	9" max.	10" max.	D					
Dimensions of clear space adjacent to push button	R302.7 &R404.3	30" x 48" min.	30" x 48" min.	D					
Grade (running slope) of clear space adjacent to push button	R404.2	Match grade of adjacent Ped. Access Route	Match grade of adjacent Ped. Access Route	A					
Cross slope of clear space adjacent to push button	R404.2	1.5% max.	2% max.	B					
Clearance timing	R306.2	3.5 ft/s max. walking speed	3.5 ft/s max. walking speed						
K Accessible Parking									
Width of street-level access aisle for parallel parking, if width of adjacent sidewalk or available ROW is > 14'	R309.2.1	60" min. for length of space	60" min. for length of space	D					
Parallel parking space located at end of block face, if width of adjacent sidewalk or available ROW is ≤ 14'	R309.2.2	Yes	Yes						
Width of street-level access aisle for perpendicular or angled parking	R309.2.3	96" min., for length of space	96" min., for length of space	D					
Sign displaying International Symbol of Accessibility	R211.3 & R411	Yes	Yes						
Number of accessible on-street parking spaces required	R214	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201						
L Bus Stops (Transit Stops)									
Dimensions of boarding area	R308.1.1.1	60" min. parallel to hwy., 96" min. perpendicular to curb	60" min. parallel to hwy., 96" min. perpendicular to curb	E					
Slope of boarding area, parallel to highway	R308.1.1.2	Match highway grade	Match highway grade	A					
Slope of boarding area, perpendicular to highway	R308.1.1.2	1.5% max.	2% max.	B					
M Pedestrian At-grade Rail Crossings									
Track gaps, crossing freight tracks	R302.7.4	3" max.	3" max.	E					
Track gaps, crossing passenger tracks	R302.7.4	2.5" max.	2.5" max.	E					
Detectable warnings, at a ped. crossing not located within a highway	R305.2.5	6' min. - 15' max. from rail, both sides	6' min. - 15' max. from rail, both sides	E					
Grade (running slope), where adjacent hwy. grade is ≤ 5%	R302.5	4.5% max	5% max	A					
Grade (running slope), where adjacent hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.	A					
Cross slope	R302.6	1.5% max.	2% max.	B					

NOTES:

1 Justifications for Noncompliance, per R202.3.1:

- **A** Underlying terrain
- **B** Right-of-way availability
- **C** Underground structures
- **D** Adjacent developed facilities
- **E** Drainage
- **F** Presence of a notable natural feature
- **G** Presence of a notable historic feature
- **H** Other

2 Inspection Methods and Acceptance Criteria

- **A** **Grade (Running Slope)**
  Average of at least 3 digital level measurements using a 4 foot straight edge, along the centerline (direction of travel) and offset at least 18" to each side of the centerline of the ramp, roadway, curb ramp, etc. Acceptance based on grades less than or equal to the ADA limit.
- **B** **Cross Slope**
  Average of at least 2 digital level measurements using a 4 foot straight edge, perpendicular to the centerline (direction of travel) of the sidewalk, taken (when length allows) at 5' to 10' intervals. For flares, use an average of at least 2 digital level measurements taken within the 48" pedestrian circulation route and parallel to the curbline. Acceptance based on slopes less than or equal to the ADA limit.
- **C** **Area Slope**
  Take Grade (Running Slope) and Cross Slope measurements (as stated above). Acceptance based on slopes less than or equal to the ADA limit.
- **D** **Widths and Offsets**
  Average of at least 2 measuring tape measurements taken perpendicular to the centerline (direction of travel) of the sidewalk at either the restriction/point or (when length allows) 10' intervals. Acceptance based on widths greater to or equal to the ADA limit.
- **E** **Lengths**
  Average of at least 2 measuring tape, wheel, or reel measurements taken within a foot of the centerline (direction of travel) or railing, ramp, sidewalk, etc., with the measurement along the grade of the railing, sidewalk, ramp, curb ramp, etc. (i.e., not a horizontal measurement for sloped surfaces). Acceptance based on lengths greater to or equal to the ADA limit and passing area separation less than or equal to the ADA limit.
- **F** **Rise or Vertical Distance**
  Average of at least 2 measurements vertically. For landings or step risers, take at least a foot apart. For landings, average of at least 2 measurements using a survey rod and level at the nose/edge of the landing and base of ramp or stairs.
- **G** **Diameter, Perimeter, and all others**
  As directed by item specification.

3 References

- **A** NYSDOT Highway Design Manual (HDM) Chapters 7,8, and 18
- **B** US Access Board's Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Rights of Way, 2011, a.k.a. Public Right of Way Accessibility Guidelines (PROWAG).
- **C** ADA Accessibility Guidelines (ADAAG) for Buildings and Facilities in 28 CFR, 1991
- **D** 2015 New York State Building Code (BCNYS)
- **E** United States Access Board
- **F** National Manual of Uniform Traffic Control Devices (MUTCD)

4 Contact for questions

- **A** Design Bureau, NYSDOT, 50 Wolf Rd, Albany, NY 12232

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Exhibit 2-15a
Nonstandard Feature Justification for Pedestrian Facilities

PDF Version Rev. 05/31/18

This form is used to justify pedestrian facilities that cannot comply with current standards [1]. Use the "Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities" checklist (on Page 5 of this file) to identify applicable standards and any non-compliant elements for a facility. Nonstandard features may be identified and justified during preliminary design, final design, or construction. A separate form must be completed for each noncompliant facility. Instructions for completing the form are included on Page 3 of this file, "Instructions - Exhibit 2-15a."

1. Project and Location Information

PIN: 1761.61 **Project Description:** Congress and Ferry Street Rehabilitation Project

D Number: **Project Type:** Highway - reconstruction

Location *(for a linear feature, e.g., sidewalk)* **FROM** Lat: Long:

TO Lat: Long:

Location *(for a point feature, e.g., curb ramp)* Lat: 42.72733 Long: -73.68870

Location Description *(if needed, in addition to coordinates)*

SW curb ramp at the intersection of Ferry Street and 5th Avenue

Road/Highway: Ferry Street **Side of Road or Intersection:** South

Intersecting Road/Highway *(if applicable)* **:** 5th Avenue

City or Town: Troy **County:** Rensselaer

2. Nonstandard Features

Facility or Element of a Facility

- [x] A. Curb Ramp or Blended Transition
- [ ] B. Tactile Warning Device (Detectable Warning)
- [ ] C. Sidewalk
- [ ] D. Surface
- [ ] E. Crosswalk (Pedestrian Street Crossing)
- [ ] F. Ramp (other than a curb ramp)
- [ ] G. Railing
- [ ] H. Stairs
- [ ] I. Drainage
- [ ] J. Pedestrian Signal
- [ ] K. Accessible Parking
- [ ] L. Bus Stop (Transit Stop)
- [ ] M. Ped. At-Grade Railroad Crossing
- [ ] N. Other:

Noncompliant element(s)

The **Limit for element** is the measurement or dimension that cannot be met for the element to be compliant with current standards[1]. The **Closest practicable value** is the best measurement or dimension (closest to current standards) that can be achieved within the project's scope and constraints.

Element:	Limit for element:	Closest practicable value:
Running Slope	8.3%	12.6%

3. Justification for Nonstandard Features *Check all that apply*

Design Constraints or Reasons for Technical Infeasibility

- [ ] A. Underlying terrain
- [ ] B. Right-of-way availability
- [ ] C. Underground structures
- [x] D. Adjacent developed facilities
- [ ] E. Drainage
- [ ] F. Presence of a notable natural feature
- [ ] G. Presence of a notable historic feature
- [ ] H. Other:

Design Alternatives Considered

Design Alternative	Leave existing non compliant ramp in place	☐ Selected ☑ Not Selected	Reason	Not selected because it was possible to build a ramp that was closer to being compliant
Design Alternative	Build ramp as close to desirable values as possible, with existing constraints	☑ Selected ☐ Not Selected	Reason	Selected because it made the ramp/corner as accessible as possible with existing feature constraints
Design Alternative	Build ramp to full ADA compliance standards	☐ Selected ☑ Not Selected	Reason	Not selected due to existing stair proximity to ramp and other issues that prevent it from being practical

4. Future Considerations for Facility *Check only one*

- ◉ This facility could not be made compliant within the scope of the current project, but it should be placed on the ADA Transition Plan to be made compliant in the future.
- ○ The constraints causing this facility to be noncompliant are not a condition of project scope. It cannot be made compliant in the forseeable future.

5. Supporting Information

Supporting information (i.e., drawings, sketches and/or photos) should be inserted on the Supporting Information Page (Page 6), or filed along with this form. See the "Instructions - Exhibit 2-15a" on Page 3 for requirements for supporting information.

6. Approval and Filing

Nonstandard features that are compliant to the maximum extent practicable, and can be justified using criteria A through G from Section 3, above, are to be approved by the Regional Director.

All "H. Other" nonstandard ADA justifications are to be immediately conveyed along with supporting information (e.g., drawing/sketch and photo) by the Regional Director's designated licensed staff[2] to the Deputy Chief Engineer (Design) for timely approval.

For locally administered federal-aid projects, all justifications are to be approved by the Responsible Local Official.

Justifications are to be e-mailed as an attachment to the appropriate party for approval. Once the appropriate party has approved the nonstandard feature, the completed form should be e-mailed back to the party seeking the approval, with a copy sent to the Regional ADA Specialist.

Copies of approved justifications for state projects are to be retained in the project file and those on the state system are to be placed in the "ADA Nonstandard Feature" folder in ProjectWise under:

NYSDOT\Documents\Main Office\ADA Nonstandard Feature\

Form Prepared by:	Jeffrey Pangburn	Title:	Project Manager
Agency or Firm:	Creighton Manning		
NYS License No.:	076931	Professional Engineer	
Phone:	(518) 689-1822	E-mail: jpangburn@cmellp.com	Date: 07/23/2025

SPACE BELOW TO BE COMPLETED BY THE INDIVIDUAL APPROVING THE NONSTANDARD FEATURE JUSTIFICATION

Approved By:		Title:	
Date of Approval:	01/01/2001		

[1] *Highway Design Manual (HDM) Chapter 18, 2011 Proposed Right-of-Way Accessibility Guidelines (PROWAG), 2010 Building Code of New York State (BCNYS), 2009 Manual of Uniform Traffic Control Devices (MUTCD)*

[2] *Licensed staff designated by the Regional Director to provide field reviews and technical assistance to construction staff on state projects, including the layout of ADA compliant pedestrian facilities (Pursuant to ED 15-004)*

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Instructions for Completing
Exhibit 2-15a - Nonstandard Feature Justification for Pedestrian Facilities

1. Project and Location Information

PIN NYSDOT Project Identification Number

Project Description Name of project, e.g., "Route 9 Pedestrian Improvement Project"

D Number Contract number, if known. If no contract number has been assigned, enter "N/A"

Project Type Type of work proposed or underway, e.g., "1R - Paving" or "2R- Intersection reconstruction"

Location should be given in coordinates as latitude (Lat.) and longitude (Long.). Coordinates can be found by using Google Maps (right click a point and select "What's Here?") or by using any one of a number of websites that furnish coordinates for a point selected on a map, including:

http://maps.cga.harvard.edu/gpf/

http://www.findlatitudeandlongitude.com/

Linear features require a location start point and a location end point. A linear feature will typically be a sidewalk, but could also be something like a pedestrian bridge. Any feature longer than 75 ft. should be considered a linear feature.

Point features require only one location point. Typical point features are curb ramps, crosswalks, and landings. Any feature 75 ft. long or less should be considered a point feature.

Location Description is optional, and may be used to pinpoint the location of a facility where coordinates may not provide enough information. For instance, if there are two curb ramps in one corner, in close proximity to each other, it may be ncecessary to distinguish them with a description.

Road/Highway is the road bordering on, or nearest to, the pedestrian facility.

Intersecting Road/Highway is applicable if the pedestrian facility is located on or near a corner. If there is no intersecting road or highway, enter "N/A".

Side of Road or Intersection Choose the cardinal or intercardinal direction that best reflects the location of the facility in relation to the road or center of the intersection.

2. Nonstandard Features

Facility Type and Elements of a Facility

Select the type of facility or facility element that will not meet standards

Curb Ramp A ramp that cuts through or is built up to the curb, with a running slope greater that 5 percent. Curb ramps can be perpendicular or parallel to a road crossing, or a combination of parallel and perpendicular ramps. *(Source: Proposed Right-of-Way Accessibility Guidelines (PROWAG))*

Blended Transition A raised pedestrian street crossing, depressed corner, or similar connection between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that has a running slope of 5 percent or less. *(Source: PROWAG)*

Surface inlcudes the surface area of sidewalks and other pedestrian circulation paths (e.g., boardwalks), pedestrian street crossings, at-grade rail crossings, pedestrian overpasses, pedestrian underpasses and similar structures, curb ramps, and blended transitions.

Ramp A pedestrian ramp other than a curb ramp. The standards for ramps are found in R407 of PROWAG and Section F of the "Critical Elements for the design, Layout, and Acceptance of Pedestrian Facilities" table.

Ramp Landing A level area located at the top or bottom of a sloped pedestrian ramp run.

Railing A rail to be grasped by the hand for support or a barrier consisting of a rail and supports.

Guardrail A barrier or fence to prevent persons from falling off a drop off or steep embankment .

Stairs A series of steps or flights of steps connecting one level to another.

Stair Landing A level area at the top or bottom of a flight of steps.

Noncompliant element(s)

Element Any Critical Element of the facility that will not meet the standard.

Limit for Element is the "limit" for that element to meet standards, i.e. the maximum allowable slope, minimum allowable width, etc.. Standard limits can be found on the table "Critical Elements for the Design, Layout, and Acceptance of Pedestrian Facilities" on the "Critical Elements" tab. Limits are based on the Highway Design Manual (HDM) Chapter 18, 2011 Proposed Right-of-Way Accessibility Guidelines (PROWAG), 2010 Building Code of New York State (BCNYS), 2009 Manual on Uniform Traffic Control Devices (MUTCD).

Closest practicable value is the best measurement or dimension (the closest to current standards) that can be achieved within the project's scope and constraints.

3. Justification for Nonstandard Features *Check all that apply*

Design Constraints or Reasons for Technical Infeasibility

The 2011 PROWAG "recognize[s] that it is not always possible for altered elements, spaces, or facilities to fully comply with new construction requirements because of existing physical constraints. Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature. The proposed guidelines permit flexibility in alterations to existing facilities where needed."

A. Underlying terrain Existing grade separations may be too steep, or grade separations too great for pedestrian facilities to comply with maximum slopes. For example, a pedestrian path intended to replace a set of stairs on a steep natural grade may not be able to achieve the maximum 8.3% running slope without extensive grading and negative impacts to adjacent properties. If a compliant ramp or sidewalk cannot be furnished within the available space, a facility with the minimum practicable slope should be installed.

B. Right-of-way availability If adequate public right-of-way cannot be acquired, or permission to access private property is not granted by a property owner to construct a facility, it may not be possible to achieve fully compliant dimensions or slopes within the space available. ROW aquisitions are outside the scope of a 1R project. For guidance on the procedures to address ROW for ADA-complaint pedestrian facilities on 1R projects, see NYSDOT Highway Design Manual, Section 7.3.2.2.

C. Underground structures Existing underground structures may limit the ability to adjust grade to comply with maximum accessible slopes. For example, the elevation of a sidewalk crossing over the top of an existing utility vault will be fixed above the top of the vault. This "fixed" elevation may necessitate a sidewalk slope exceeding the maximum compliant slope. Additionally, relocating utilities is outside the scope of a 1R project.

D. Adjacent developed facilities Existing facilities may introduce constraints that cannot be addressed in a practical manner. For example, a segment of sidewalk installed alongside a developed block of road with a 12% grade could probably not achieve the maximum 8.3% running slope without excessive grading and/or negative impacts to adjacent properties.

E. Drainage Standing or frozen water can make a facility inaccessible, unsafe and prone to faster deterioration. If the maximum compliant slope of a pedestrian facility is not adequate to drain it in certain conditions, or will impede the drainage of a larger area, a slope exceeding the maximum will be necessary. If building a fully compliant facility on a 1R project would require moving a closed drainage structure, relocation of the drainage structure is outside the scope of a 1R project.

F. Presence of a notable historic feature It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a historic feature. For example, if replacing a noncompliant 3-foot wide sidewalk with a compliant 4-foot wide sidewalk would require the removal of a historic stone retaining wall, the segment of 3-foot wide walk along the wall may be acceptable.

G. Presence of a notable natural feature It may not be possible to build a fully compliant facility without negatively affecting the existence or integrity of a natural feature. For example, if replacing a noncompliant 3-foot wide sidewalk with a compliant 4-foot wide sidewalk would require the removal of a row of valued, mature street trees, segments of 3-foot wide walk near the trees may be acceptable.

H. Other Any design constraint or technical infeasibility that does not fit the criteria of A- G, above. The factor must be described in the text box.

Design Alternatives Considered

Identify up to 3 design alternatives that were considered, including the one that was ultimately selected, and briefly explain why each alternative was or was not chosen.

4. Future Considerations for Facility

If the subject facility cannot be made compliant within the scope of the current project, but should be placed on the NYSDOT ADA Transition Plan to be made compliant in the future, check the first radio button. For instance, if the project is a 1R project and right-of-way acquisition would have been needed to install a fully compliant curb ramp, the facility should be placed on the Transition Plan to be included in a future 2R or 3R project that could include right-of-way acquisition.

If the constraint(s) causing the facility to be noncompliant are not a condition of project scope, and it cannot be made compliant in the foreseeable future, check the second radio button. For example, if a curb ramp's running slope exceeds the maximum compliant slope because there is inadequate space between the curb and a building, the constraint is unlikely to change in the foreseeable future.

5. Supporting Information

Supporting information such as drawings/sketches and photos should be included with each justification form, as appropriate. These should be either inserted in the final .pdf in the"Supporting Information" page (Page 6), or filed separately with file names that include the PIN and allow the supporting information for a facility to be associated with the relevant form. For example, image "912345_nsj_photo_loc_01.jpg" would clearly relate to "912345_nsj_form_loc_01.pdf" .

Supporting information such as drawings/sketches and photos ***MUST*** *be included with each justification form that uses criterion H ("Other") and is sent to the Deputy Chief Engineer (Design) for approval.*

6. Approval and Filing

Nonstandard features that are compliant to the maximum extent practicable, and can be justified using criteria A through G (in Section 3) may be approved by the Regional Director.

All "Other" nonstandard ADA justifications are to be immediately conveyed along with supporting information (e.g., drawing/sketch and photo) by the Regional Director's designated licensed staff[2] to the Deputy Chief Engineer (Design) for timely approval.

For locally administered federal-aid projects, all justifications are to be approved by the responsible local official with copies sent to the Region.

Copies of approved justifications for state projects are to be retained in the project file and those on the state system are to be placed in the "ADA Nonstandard Feature" folder in ProjectWise under "Main Office":

NYSDOT\Documents\Main Office\ADA Nonstandard Feature

The names of all files placed in this folder are to begin with the PIN, e.g "PIN_dat_ada_nfj_DECRIPTION.pdf"

Form Prepared By Name of individual completing the form

Title Title of individual completing the form, e.g., CEII, LA, or Town Engineer

Agency or Firm e.g., NYSDOT R5 Design, Town of Springfield, or Smith Engineering Consultants

Phone and **E-mail** in case clarification is needed.

Date form was completed

Supporting Information

To insert images in Adobe Acrobat DC: Select **Tools** > **Content Editing** > **Add Image**

CRITICAL ELEMENTS FOR THE DESIGN, LAYOUT, AND ACCEPTANCE OF PEDESTRIAN FACILITIES

This document is intended to serve as a tool for the evaluation of existing pedestrian facilities, and the layout and inspection of new pedestrian facilities. There is no requirement to file this sheet. However, pedestrian facilities must meet the applicable values on this sheet, or be justified as nonstandard features using Exhibit 2-15a from the NYSDOT Highway Design Manual, Chapter 2.

U.S. Customary Version - NYSDOT - Revised 05/31/18 - Issued by EB 18-021

Prepared By: | PIN/D Contract: | Date: | Location:

Existing Ramps to Remain on 1R Projects *Subject to 1991 ADAAG* [1,3,5]	Reference *(1991 ADAAG unless otherwise noted)* [2]	1991 ADA Limits	ADA Limits for 1R Projects	Inspection Methods *(See Note 2 on reverse)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1 on reverse)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
A Curb Ramp									
Clear width	4.3.3	36" min.	36" min	D					
Flare slope for ramps in walkable area	4.7.5	10% max.	10% max.	B					
Cross slope at crossing with yield or stop control	4.3.7 & PROWAG R304.5.3	2% max.	2% max.[2]	B					
Cross slope at crossing without yield or stop control (including any signal but flashing red)	4.3.7 & PROWAG R304.5.3	2% max.	Highway grade is max.[2]	B					
Curbed ramp edge or flare slopes exceeding 10%	4.7.5	Located in non-walkable area	Located in non-walkable area						
Grade (running slope)	4.8.2	8.33% max.	8.33% max.	A					
Grade (running slope), if space is limited	4.1.6	10% for 6" rise	10% for 6" rise	A					
Clear space for diagonal ramps	4.7.10	48" x 48" min.	48" x 48" min.	D & E					
Grating spaces (in walking surface)	4.5.4	0.5" max.	0.5" max.	E					
Vertical changes	4.5.2	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	F					
B Detectable Warnings[3,4]									
Where required	See Note 3	Present, if required[3]	Present, if required[3]						
Width	PROWAG R305.1.4 and R305.2[4]	Full width of ramp (2" border allowed)	Full width of ramp (2" border allowed)	D					
Length (depth)	PROWAG R305.1.4 and R305.2[4]	24" min. in direction of pedestrian travel	24" min. in direction of pedestrian travel	E					
Placement	PROWAG R305.2.1[4]	At grade break if < 60" from curb, otherwise at back of curb	At grade break if < 60" from curb, otherwise at back of curb	E					
Dome dimensions and spacing	4.29.2	Raised domes with diameter of nominal 0.9", height of nominal 0.2" , and center-to-center spacing of 2.35".	Raised domes with diameter of nominal 0.9", height of nominal 0.2" , and center-to-center spacing of 2.35".	E & F					
Contrast of warning device	4.29.2	Light-on-dark or dark-on-light	Light-on-dark or dark-on-light						

Notes:

[1] *On 1R projects, curb ramps built prior to March 15, 2012 do not need to be modified to meet current (PROWAG) standards if they comply with the curb ramp requirements in the 1991 ADAAG Standards.*

[2] *Curb ramp cross slopes on 1R projects may be evaluated by current (PROWAG) standards.*

[3] *As detailed in the "Supplement to the 2013 DOJ/DOT Joint Technical Assistance on the Title II of the ADA Requirements To Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing", detectable warnings are required on curb ramps built or altered during the following periods:*

July 26, 1991 - May 12, 1994
July 26, 1998 - December 23, 1998
July 26, 2001 - March 15, 2012

If a curb ramp was built or last altered during the periods above, or if the date of construction or last alteration cannot be determined, the ramp requires a detectable warning.

[4] *ADAAG 4.7.7 required detectable warnings to extend the full width and depth of a curb ramp. Full coverage was later determined to be excessive and undesirable for wheelchair users. Requirements for detectable warning dimensions and placement are to be evaluated by current (PROWAG) standards.*

[5] *For Crosswalk requirements, refer to E. under "New and Replacement Facilities".*

New and Replacement Facilities *Subject to 2011 PROWAG , Building Code of New York State, and National Manual of Uniform Traffic Control Devices*	Reference *(2011 PROWAG unless otherwise noted)*	Design and Layout Limits	Limits for Work Acceptance	Inspection Methods *(See Note 2 on reverse)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1 on reverse)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
A Curb Ramp / Blended Transition									
Clear width	R304.5.1	48" min.	48" min.	D					
Slope of flared sides, within pedestrian circulation path	R304.2.3	9.5% max.	10% max.	B					
Slope of flared side, outside pedestrian circulation path	R304.2.3	No max. slope, may be curbed	No max. slope, may be curbed	B					
Grade (running slope) for curb ramp	R304.3.2	7.5% max.	8.3% max.	A					
Grade (running slope) for blended transition	R304.1 & R304.4.1	4.5% max.	5% max.	A					
Cross slope (at crossing with yield or stop control)	R304.5.3	1.5% max.	2% max.	B					
Cross slope (at crossing without yield or stop control, including any signal but flashing red)	R304.5.3	Highway grade is max.	Highway grade is max.	B					
Length of a curb ramp, if the ramp must exceed maximum allowable grade (running slope) due to steep terrain, (i.e., "chasing grade")	R304.2.2 & R304.3.2	15' - 1" min.	15' min.	D					
Turning space, with no constraints	R304.2.1 & R304.3.1	48" x 48" min.	48" x 48" min.	D & E					
Turning space, with constraint at back of sidewalk	R304.2.1	48" x 60" min.	48" x 60" min.	D & E					
Turning space, with constraints on two sides	R304.3.1	48" x 60" min.	48" x 60" min.	D & E					
Slope of turning space, in any direction	R304.2.2 & R304.3.2	1.5% max.	2% max.	C					
Counter slope at bottom of ramp	R304.5.4	4.5% max.	5% max.	A					
Clear space (beyond bottom grade break, outside of parallel vehicle path; can include drop curb)	R304.5.5	48" x 48" min.	48" x 48" min.	D & E					
Grade breaks (no rounding)	R304.5.2	Perpendicular to direction of ped. travel	Perpendicular to direction of ped. travel						
B Detectable Warnings *(for ped. rail crossings, refer to M.)*									
Covered by Specs: Dome dimensions and spacing	R305.1.1 & R305.1.2	On DOT Approved List	On DOT Approved List						
Covered by Specs: Contrast of warning device	R305.1.3	Light on dark or dark on light	Light on dark or dark on light						
Alignment	R304.5.2	Perpendicular to grade break between ramp run and street	Perpendicular to grade break between ramp run and street						
Width	R305.2	Full width of ramp (2" border allowed)	Full width of ramp (2" border allowed)	D					
Length (depth)	R305.1.4	24" min. in direction of pedestrian travel	24" min. in direction of pedestrian travel	E					
Placement	R305.2.1	At grade break if < 60" from curb, otherwise at back of curb	At grade break if < 60" from curb, otherwise at back of curb	E					
Where not required	R208.2	Refuge islands where ped. route is < 72" long	Refuge islands where ped. route is < 72" long	E					
C Sidewalk									
Clear width of Ped. Access Route (excluding curb)	R302.3	48" min.	48" min.	D					
Grade (running slope) where hwy. grade is 5% or less	R302.5	4.5% max.	5% max.	A					
Grade (running slope) where hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.	A					
Cross slope	R302.6	1.5% max.	2% max.	B					
Passing space interval (if Ped. Access Route is less than 60" wide)	R302.4	200' max.	200' max.	E					
Passing space dimensions	R302.4	60" x 60" min	60" x 60" min	D & E					
D Surfaces									
Material	R302.7	HMA or PCC	Firm, stable, and slip resistant						
Horizontal openings (such as gratings and joints)	R302.7.3	0.5" max.	0.5" max	E					
Vertical discontinuities	R302.7.2	0.25" max.	0.5" max., with 1:2 max. bevel between 0.25" and 0.5" high	F					
E Crosswalk (Pedestrian Street Crossing)									
Width	R302.3	72" min.	48" min.	D					
Cross slope at intersection with yield or stop control	R302.6.1	1.5% max.	2% max.	B					
Cross slope at intersection without yield or stop control (including any signal but flashing red)	R302.6.1	4.5% max.	5% max.	B					
Cross slope, midblock	R302.6.2	Highway grade is max.	Highway grade is max.						
Grade (running slope), e.g., highway cross slope	R302.5.1	4.5% max.	5% max.	A					
Markings	MUTCD 3B.18	L, S, or LS Type	L, S, LS, Diagonal, or other						
Clear width, within median or pedestrian refuge island	R302.3.1	60" min.	60" min.	D					
F Pedestrian Ramps *(for Curb Ramps, refer to A.)*									
Clear width	R407.4	36" min.	36" min.	D					
Cross slope	R407.3	1.5% max.	2% max.	B					
Grade (running slope)	R407.2	7.5% max.	5% min. - 8.3% max.	A					
Vertical rise, between landings	R407.5	30" max.	30" max.	F					
Landing width, with no change of ped. direction	R407.6.2	Width of widest ramp leading to landing	Width of widest ramp leading to landing	D					
Landing width, with a change of ped. direction	R407.6.4	60" min.	60" min.	D					
Landing length	R407.6.3	60" min.	60" min.	E					
Landing slope, in any direction	R407.6.1	1.5% max.	2% max.	C					

New and Replacement Facilities *Subject to 2011 PROWAG , Building Code of New York State, and National Manual of Uniform Traffic Control Devices*	Reference (*2011 PROWAG unless otherwise noted)*	Design and Layout Limits	Limits for Work Acceptance	Inspection Methods *(See Note 2, below)*	In Compliance with Acceptable Values?	Justified Per R202.3.1 and HDM 2.8? *(See Note 1, below)*	Add to Transition Plan?	GPS Northing	GPS Easting or Westing
G Railings for Pedestrian Ramps and Stairs									
Ramp (with a rise of over 6") or stairs	R409.1	Req. on both sides	Req. on both sides						
Height of handrail (from walking surface or stair nosing to top of gripping surface)	R409.4 & BCNYS 1014.2	34" - 38"	34" - 38"	F					
Height of guards, for vertical drops > 30" *(Does not apply to highway segments, highway ramps, or highway bridges with bridge or highway barriers)*	BCNYS 1013.1 & 1013.2	42" min.	42" min.	F					
Opening limitations for guards *(Does not apply to highway segments, highway ramps, or highway bridges with bridge or highway barriers)*	BCNYS 1013.3	4" max. up to 34", then 8" max. up to 42"	4" max. up to 36", then 4-3/8" max. up to 42"	Cannot pass a sphere of given diameter					
Handrail clearance (between gripping surface and wall)	R409.5	1.5" min,	1.5" min.	D					
Outside diameter of circular handrail	R409.7.1	1.25"min. - 2" max.	1.25"min. - 2" max.	G					
Outside perimeter of non-circular handrail	R409.7.2	4"min. -6.25" max.	4"min. -6.25" max.	G					
Cross-section dimension of non-circular handrail	R409.7.2	2.25" max.	2.25" max.	G					
Handrail extension at top or bottom of ramp	R409.10.1	12" min. past ramp run	12" min. past ramp run	E					
Handrail extension at top of stairs	R409.10.2	12" min. past first riser nosing	12" min. past first riser nosing	D					
Handrail extension at bottom of stairs	R409.10.3	Min. of one tread depth past last riser	Min. of one tread depth past last riser	D					
Handrail extension returns to wall, guard, or landing	R409.10.2 & R409.10.3	Yes	Yes						
Edge protection for ramp	R407.9	Ramp surface extends 12" min. beyond handrail **OR** 4" sphere cannot pass within 4" of finish surface	Ramp surface extends 12" min. beyond handrail **OR** 4" sphere cannot pass within 4" of finish surface	D **or** cannot pass a sphere of given diameter					
H Stairs									
Riser height (must be uniform on flight)	R408.2	4" min. - 7" max.	4" min. - 7" max.	F					
Clear width of stairs	BCNYS 1011.2	48" min.	44" min.	D					
Depth of tread (must be uniform on flight)	R408.2	11" min.	11" min.	E					
Tread surface	HDM CH 18	Level to 1.5% max.	Level to 2% max.	C					
Tread nosing	R408.5 & BCNYS 1011.5	0.5" max. radius on leading edge, 1.25" max. extension over tread below	0.5" max. radius on leading edge, 1.25" max. extension over tread below	E					
Closed riser	R408.3	Yes	Yes						
Rise between landings	BCNYS 1011.8	144" max.	144" max.	F					
Landing	BCNYS 1011.6	Req. at top and bottom of stairs	Req. at top and bottom of stairs						
Landing width	BCNYS 1011.6	Min. width equal to stairway width	Min. width equal to stairway width	D					
Landing length	BCNYS 1011.6	Min. length equal to stairway width, up to 48"	Min. length equal to stairway width, up to 48"	E					
Landing slope, in any direction	HDM CH 18	1.5% max.	2% max.	C					
I Drainage									
Adequate drainage	HDM CH 8	No low spots that will pond water within Ped. Access Route	No low spots that will pond water within Ped. Access Route						
J Pedestrian Signals									
Push button height	R406.2 & R406.3	36" min. - 42" max.	15"min. - 48" max.	F					
Push button distance from pedestrian access route	R406.3	9" max.	10" max.	D					
Dimensions of clear space adjacent to push button	R302.7 &R404.3	30" x 48" min.	30" x 48" min.	D					
Grade (running slope) of clear space adjacent to push button	R404.2	Match grade of adjacent Ped. Access Route	Match grade of adjacent Ped. Access Route	A					
Cross slope of clear space adjacent to push button	R404.2	1.5% max.	2% max.	B					
Clearance timing	R306.2	3.5 ft/s max. walking speed	3.5 ft/s max. walking speed						
K Accessible Parking									
Width of street-level access aisle for parallel parking, if width of adjacent sidewalk or available ROW is > 14'	R309.2.1	60" min. for length of space	60" min. for length of space	D					
Parallel parking space located at end of block face, if width of adjacent sidewalk or available ROW is ≤ 14'	R309.2.2	Yes	Yes						
Width of street-level access aisle for perpendicular or angled parking	R309.2.3	96" min., for length of space	96" min., for length of space	D					
Sign displaying International Symbol of Accessibility	R211.3 & R411	Yes	Yes						
Number of accessible on-street parking spaces required	R214	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201	1 for every 25 up to 100, 1 for each additional 50 over 100, 4% of total spaces over 201						
L Bus Stops (Transit Stops)									
Dimensions of boarding area	R308.1.1.1	60" min. parallel to hwy., 96" min. perpendicular to curb	60" min. parallel to hwy., 96" min. perpendicular to curb	E					
Slope of boarding area, parallel to highway	R308.1.1.2	Match highway grade	Match highway grade	A					
Slope of boarding area, perpendicular to highway	R308.1.1.2	1.5% max.	2% max.	B					
M Pedestrian At-grade Rail Crossings									
Track gaps, crossing freight tracks	R302.7.4	3" max.	3" max.	E					
Track gaps, crossing passenger tracks	R302.7.4	2.5" max.	2.5" max.	E					
Detectable warnings, at a ped. crossing not located within a highway	R305.2.5	6' min. - 15' max. from rail, both sides	6' min. - 15' max. from rail, both sides	E					
Grade (running slope), where adjacent hwy. grade is ≤ 5%	R302.5	4.5% max	5% max	A					
Grade (running slope), where adjacent hwy. grade is > 5%	R302.5	Hwy. edge of pvmt. grade is max.	Hwy. edge of pvmt. grade is max.	A					
Cross slope	R302.6	1.5% max.	2% max.	B					

NOTES:

1 Justifications for Noncompliance, per R202.3.1:

- **A** Underlying terrain
- **B** Right-of-way availability
- **C** Underground structures
- **D** Adjacent developed facilities
- **E** Drainage
- **F** Presence of a notable natural feature
- **G** Presence of a notable historic feature
- **H** Other

2 Inspection Methods and Acceptance Criteria

- **A** **Grade (Running Slope)**
  Average of at least 3 digital level measurements using a 4 foot straight edge, along the centerline (direction of travel) and offset at least 18" to each side of the centerline of the ramp, roadway, curb ramp, etc. Acceptance based on grades less than or equal to the ADA limit.
- **B** **Cross Slope**
  Average of at least 2 digital level measurements using a 4 foot straight edge, perpendicular to the centerline (direction of travel) of the sidewalk, taken (when length allows) at 5' to 10' intervals. For flares, use an average of at least 2 digital level measurements taken within the 48" pedestrian circulation route and parallel to the curbline. Acceptance based on slopes less than or equal to the ADA limit.
- **C** **Area Slope**
  Take Grade (Running Slope) and Cross Slope measurements (as stated above). Acceptance based on slopes less than or equal to the ADA limit.
- **D** **Widths and Offsets**
  Average of at least 2 measuring tape measurements taken perpendicular to the centerline (direction of travel) of the sidewalk at either the restriction/point or (when length allows) 10' intervals. Acceptance based on widths greater to or equal to the ADA limit.
- **E** **Lengths**
  Average of at least 2 measuring tape, wheel, or reel measurements taken within a foot of the centerline (direction of travel) or railing, ramp, sidewalk, etc., with the measurement along the grade of the railing, sidewalk, ramp, curb ramp, etc. (i.e., not a horizontal measurement for sloped surfaces). Acceptance based on lengths greater to or equal to the ADA limit and passing area separation less than or equal to the ADA limit.
- **F** **Rise or Vertical Distance**
  Average of at least 2 measurements vertically. For landings or step risers, take at least a foot apart. For landings, average of at least 2 measurements using a survey rod and level at the nose/edge of the landing and base of ramp or stairs.
- **G** **Diameter, Perimeter, and all others**
  As directed by item specification.

3 References

- **A** NYSDOT Highway Design Manual (HDM) Chapters 7,8, and 18
- **B** US Access Board's Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Rights of Way, 2011, a.k.a. Public Right of Way Accessibility Guidelines (PROWAG).
- **C** ADA Accessibility Guidelines (ADAAG) for Buildings and Facilities in 28 CFR, 1991
- **D** 2015 New York State Building Code (BCNYS)
- **E** United States Access Board
- **F** National Manual of Uniform Traffic Control Devices (MUTCD)

4 Contact for questions

- **A** Design Bureau, NYSDOT, 50 Wolf Rd, Albany, NY 12232