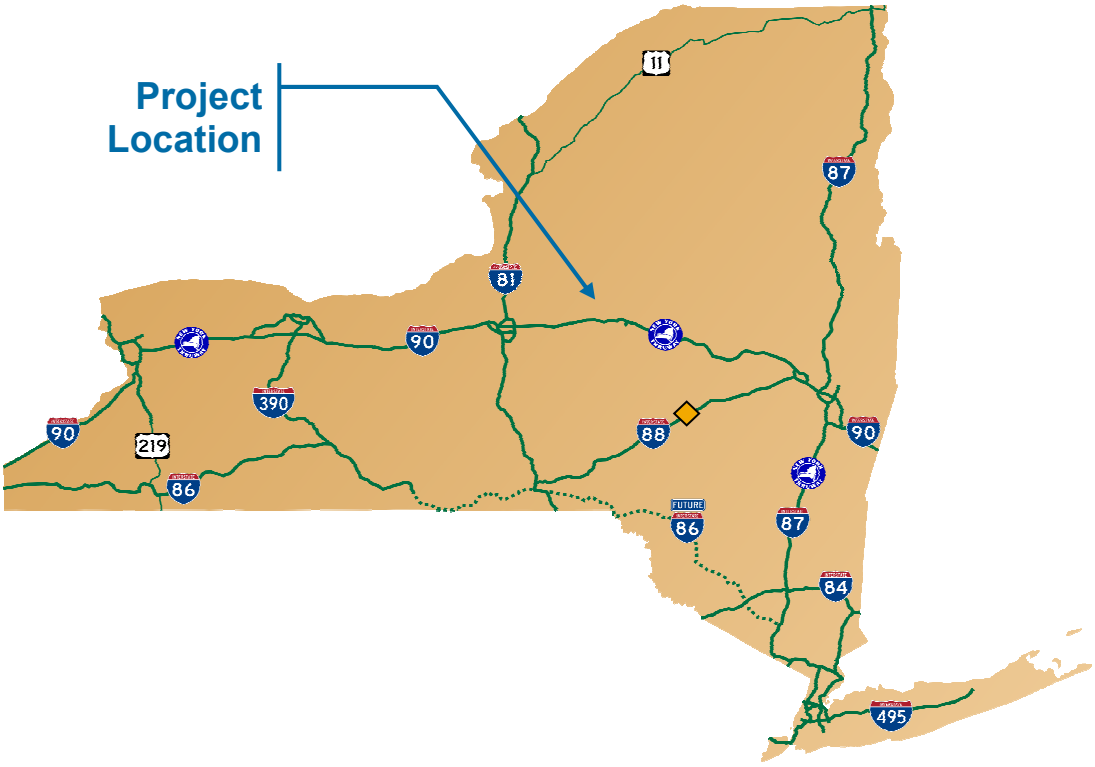
Transportation Project Report

[Draft] Project Scoping Report/Final Design Report

July 2021

Project Title/Description: Erie Boulevard Downtown Transportation Alternative
Project Identification Number (PIN): 2650.57
City of Rome
Oneida County



NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ROME NY the copper city

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. Deborah S. Windecker, Regional Program Manager	Date
B. Recommendation for Scope, Design, and Nonstandard Feature Approval:	All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained. The nonstandard features have been adequately justified and it is not prudent to eliminate them as part of this project. Responsible Local Official	Date
C. Public Hearing Certification (Pursuant to 23 USC 128 and 23 CFR 771.111):	A public hearing was not required. Responsible Local Official	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. Linda A Lubey, Regional Director	Date
E. Local Project Nonstandard Feature Approval	No nonstandard features are being retained or created on NHS local roadways. Responsible Local Official	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. Responsible Local Official	Date

List of Preparers

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

Prepared By: Jeff Gentzler, P.E.
Project Engineers, Greenman-Pedersen, Inc.

Reviewed By: Christopher C. Cornwell, P.E.
Vice President/Director Civil-Highway Engineering, Greenman-Pedersen, Inc.

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

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

Table of Contents

Table of Appendices

CHAPTER 1 – PROJECT DEVELOPMENT

1.1. Introduction

This report was prepared in accordance with the NYSDOT Project Development Manual, 6NYCRR Part 617 (New York Codes, Rules and Regulations) 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 federally funded under the Transportation Alternatives Program (TAP) – Congestion Mitigation and Air Quality Improvement Program (CMAQ) with the City of Rome providing the local match.

The Erie Boulevard Downtown Transportation Alternative Project is focused on the improvement of the segment between S. James Street and S. George Street. This 0.25-mile segment is located in an urban commercial area within walking distance of the Rome City Hall. The project area consists of a 4-lane boulevard roadway with an access road that parallels Erie Boulevard on the northern side of the roadway. The existing development along the south side of the corridor coupled with its proximity to the downtown district and residential housing to the north has led to a significant need to improve but restrict the pedestrian access throughout the project area. The City noted that a significant safety concern is the ability of pedestrians to cross Erie Boulevard outside of the three signalized intersections. This became very evident during the initial kickoff for the project on November 17, 2020 when in the span of less than hour no less than three people crossed the roadway outside of marked crosswalks. To improve pedestrian safety the City's main objective is to remove the access road and use the remaining space to construct a shared use path and on-street parking. The project will also look to improve the existing median to restrict pedestrians from crossing the roadway and improve the signalized crossings by constructing refuge islands. The project will incorporate new bicycle lanes at the S. James Street intersection that is part of a project being designed by NYSDOT. Secondary improvements, pending available funding, may include improvements to signage, wayfinding, and landscaping. It is noted that in 2015 New York State Department of Transportation (NYSDOT) replaced the existing curb ramps and upgraded the pedestrian signals within the project area. All curb ramp conditions will be documented, and only minor improvement are anticipated to be required to bring these features into conformance with ADA.

Funding for the project per the Statewide Transportation Improvement Program (STIP) allocates $1.1 Million for construction costs 80% federal/20% local match. The City has indicated that it will contributing other $1.0 Million in federal relief funding that does not appear on the STIP that will increase the construction funding to approximately $2.1 million.

1.1.1. Project Location

A. NY 46/49/69
B. Erie Boulevard
C. NY 46/49/69 Overlap – Urban Principal Arterial - Other
D. City of Rome
E. Oneida County
F. Approx. 1,300 feet
G. From RM 46 26022021 to RM 46 26022024

1.2. Purpose, Need and Objectives

1.2.1. Project Need

The need for the project is based upon the increased pedestrian and bicycle generators in the project area. There is a large draw for pedestrians to cross Erie Boulevard from its northern side to access the shopping centers located to the south. Given that the annual average daily traffic or Erie Boulevard within the project area is approximately 27,000 vehicles per day, the risk of pedestrian accidents is significant. There is also a diminished need for the access road along Erie Boulevard based upon building usage making the area more useful as a as a side path.

The existing project area primarily consist of either asphalt or concrete so as part of this project, the City desires to soften the character of the corridor to transfer it from primary a commercial section to make it more appealing to future developers and business owners. With the access road removed, new landscaping can be constructed with the sidepath. Likewise, the existing median is overrun with weeds and in need of repair. A cursory review of the signage in the project area reveals signage clutter that makes it difficult to read and a potential distraction to drivers.

1.2.2. Project Purpose

The primary purpose of this project is to provide a safer means of access throughout the project corridor for both bicyclists and pedestrians. This will be completed with the construction of new sidewalks, a sidepath, improved signal timings, and improvements to the existing median. The secondary propose of the project is to improve roadway/wayfinding signage and install new landscaping/green infrastructure.

1.2.3 Project Objectives

Primary Objectives

1. Improve pedestrian connections by means of a new sidepath, sidewalks, refuge islands and a new mid-block crossing.
2. Removal of the access road that extends from along the westbound lane of Erie Boulevard with the goal of increasing on-street parking and green space.
3. Improve pedestrian safety by modifying the existing median to prevent mid-block pedestrian crossings.
4. Evaluate the existing traffic signals to identify sources of delay, develop congestion mitigation measures, and ensure proper pedestrian and bicycle phases are included.
5. Improve Erie Boulevard building frontages to promote the systemic vacancy and associated blight among the commercial building spaces.

Secondary Objectives:

6. Improve streetscape aesthetics by replacing the existing vegetation within the Erie Boulevard median and planting new trees/vegetation with the removal of the access road.
7. Consolidate and/or remove unnecessary traffic signs within the project areas.
8. Reduce stormwater runoff by removing pavement area along with installing green infrastructure practices and vegetation.

1.3. Project Alternative(s)

All the following alternatives are consistent in that they remove the existing access road and utilize the space for additional pedestrian/bicycle accommodations and greenspace. Below is a bulleted list of features that are common to all and considered the “base” alternative:

- Extend the existing driveways to Erie Boulevard and construct drainage improvements as necessary.
- Construct a minimum 10-foot-wide path along Erie Boulevard with sidewalk connections to the adjacent building entrances
- Construct new pedestrian signals at the Freedom Plaza and S. George Street intersections on the minor approaches

- Plant street trees and shrubs with other landscaping amenities as desired by the City
- Remove unnecessary signage along Erie Boulevard

Alternatives 1A through 1D pertain to potential changes to curbing of the median and lane widths whereas Alternatives 2A and 2B focus on the interior of the median.

Alternative 1A: This alternative includes the construction of a signalized mid-block crossing located approximately 430 feet west of S. James Street. The crossing would include new mast arm poles, striping, and associated curb ramps. The existing median would be modified to provide a 10-foot-wide opening that would be improved with ramps and detectable warnings.

Alternative 1B: To facilitate pedestrians crossing Erie Boulevard the existing median on the north side of the roadway near S. George Street and on the south side of the roadway near S. James Street would be widened to a minimum of six feet. By providing a six-foot width the project meets the minimum width required for a refuge island. The refuge island is an important safety features for those not able to cross Erie Boulevard (66-75 feet) under one traffic signal cycle. This alternative is designed to require the absolute minimum amount of new curbing and impact to the median and thereby reduce the cost of the improvements. By shifting the curb lines the lanes widths are impacted which necessitates a minor adjustment. The most noticeable adjustments are the left turn lanes on Erie Boulevard at both S. James Streets and S. George Street where the widths are reduced to 10’-6” and 10’-3” respectively. The thru travel lanes are wider with the eastbound lanes near S. James Street being reduced to 11’-8”. The plans are shown in Appendix A.

Alternative 1C: This alternative also modifies the existing median but focuses the curb line changes to the westbound travel direction only. This leaves the eastbound travel lanes in their existing alignment and widths. As the access road is being removed, the northern curb line can be adjusted as necessary to ensure the westbound travel thru lanes remain a minimum of 12 feet wide which meets the design standard in table 2-5.1. The left turn lanes for both the Freedom Plaza and S. George Street will be increased to 12 feet wide.

Alternative 2A: This alternative is the less costly improvement for the interior of the median on Erie Boulevard. The existing median has two established planting areas that are overgrown and unmanaged so the solution would be to infill the median with a concrete apron coupled with limited street trees and possibly small planting beds. The concrete aprons would likely be stamped concrete or Flexipave to make the median more aesthetically pleasing. The City has indicated their desire to have a solution that requires minimal to no maintenance. To minimize the impervious area to promote a greener approach the City has will also considered porous pavers. The cross section below has a two-foot-wide concrete apron with the remaining area as green space. In areas where the median reduces down to eight feet wide or less the existing concrete would be removed and replaced with the hardscape of choice. (see Exhibit 1.3A below)

Exhibit 1.3A

Alternative 2B: A more in depth alternate for the median of Erie Boulevard is to remove the existing concrete and planters and construct a precast barrier that resembles the historic blue stone that is in Fort Stanwix that is pictured in exhibits 1.3A and 1.3B. The barrier shown in exhibit 1.3C would be located in the areas where the median is six to nine feet wide with the intent to discourage pedestrians from crossing Erie Boulevard outside of the marked crosswalk. Surrounding the barrier would be a form of hardscape that would be determined in final design such as Flexipave or a more aesthetic stamped and dyed concrete that incorporates local significance (see exhibit 1.3D). The final design chosen by the City would be bookended with an attenuating system such as Quadguard or Trinity Attenuating Crash Cushion (TRACC) which are detailed in section 10.2.6.3 of the highway design manual. A similar design was used in Region 1 on Central Avenue in Albany to prevent the crossing of pedestrians between bus stops on opposites sides of the road (see exhibit 1.3E below). Where the medians widen from eight to fourteen feet new trees and shrubs would be planted for a more environmentally friendly design.

Exhibit 1.3A

Exhibit 1.3B

Exhibit 1.3C

Exhibit 1.3D

Exhibit 1.3E

Alternatives Found to Be Not Reasonable:

No Build: The no-build alternative represents a cost savings but achieves none of the project goals which are defined in Section 1.2.3 to provide for a safer, more accessible pedestrian connections on Erie Boulevard. For this reason alone, the alternative was rejected.

Alternative 1D: This alternative was developed early in the project prior to a May 2021 conference call with the Kearney Realty Group concerning the Copper City Loft Apartments. In that conference call and subsequent follow up conversation it was explained that the development of the project is situated on the parcel bordered in yellow below in Exhibit 1.3E. The building was laid out and designed with the assumption of an access road which enables the placement of the garbage and recycling containers as shown. By not constructing a small access road with parking a garbage truck would be forced to back into Erie Boulevard making for an unsafe maneuver. With the building footprint as shown there are no other suitable locations for the garbage dumpsters which essentially requires the small access road for safe access.

Also noted is that part of the site plan approval for the apartments was the inclusion of a 12-foot x 35-foot loading zone in the southeast corner of the parcel (red arrow below). The construction of the parallel parking in from of the apartments renders a loading zone unnecessary so there is an opportunity to convert the loading zone into additional greenspace for the residents.

Exhibit 1.3E

For a more in-depth discussion of the design criteria and nonstandard features for the reasonable alternative(s) under consideration 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:	Type II	BY	Responsible Local Official	

1.4.2 Comparison of Considered Alternatives

			Exhibit 1-2 Comparison of Considered Alternatives	
Category		**Alternatives Evaluated**		**Alternatives Found Not Reasonable**

	No Build	Base	1A	1B	1C	Alt 2A	Alt 2B	1D
	Environmental Impacts							
Wetlands	None	None						
Cultural Resources (Section 106)	None	None						
Section 4(f)	None	None						
Endangered/ Threatened Species	None	No effect-activity based						
Noise	None	None						
	Social Impacts							
Property/Relocations	None	10 Properties	None					1 Property
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	Improved ped & bicycle mobility			None	None	Limits access across Erie Blvd	No effect
Environmental Justice	No Effect	Project benefits low-income populations by improving non-motorized forms of travel						
General Social Groups	No Effect	Beneficial for mobility/improved landscaping			No Effect	Improved landscaping	Improved landscaping	Improved landscaping
Crash Costs	High	Low				Medium	Low	Low
	Economic and/or Operational Impacts							
Economic Impacts	No Effect	None						
Temporary Detours	No Effect	None						
Reduction of Parking	No Effect	None						
Operation at ETC	36.8 sec	37.1[1] sec	1.5[2] sec	Not Applicable				
Utilities	None	Street light pole relocations, water valve adjustments, manhole/catch basin adjustments						
Construction Cost	None	1.89M	0.170 M	0.400 M	0.450M	0.390M	$1.080M	N/A

1. Increased delay in PM peak hour as a comparison of existing to build condition at the S. James Street, Freedom Plaza, and S. George Street intersections.

2. This is the number of seconds of delay the average vehicle experiences as a result of the mid-block crossing.

1.4.3 Anticipated Permits/Coordination/Certificate

Exhibit 1-3 Anticipated Permits/Certifications/Coordination
Permits
NYS Department of Environmental Conservation (NYSDEC):
• State Pollutant Discharge Elimination System (SPDES) General Permit
Others
• Highway Work Permit (Perm 32/Perm 33-COM)
Coordination
Federal Highway Administration
New York State Historic Preservation Officer (SHPO)
City of Rome
Metropolitan Planning Organization - Herkimer-Oneida Counties Transportation Study
Utilities -Water, Sewer,Gas,Electric

1.5 Preferred Alternative

Only one reasonable alternative that meets the project objectives is the combination of 1A, 1C and 2A. This achieves a balance of providing additional pedestrian facilities yet deters them from using unauthorized crossing locations. For motorists this combination maintains travel lane widths and improves safety by restricting problematic turning movements at both the S. James Street and S. George Street intersections. 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 1-6A - Project Schedule	
Activity	**Date Occurred/Tentative**
Scope/Design Approval	August 2021
ROW Acquisition	Not Required
Construction Start	April/May 2022
Construction Complete	August 2022

Exhibit 1.6B Project Costs - Design Bid Build				
Potential Alternatives		**BASE**	**Alt 1A**	**Alt 1B**
Earthwork		$101,600	$0	$15,000
Pavement and Subbase		$440,000	$0	$76,400
Drainage		$45,500	$0	$4,000
Large Culvert		$0	$0	$0
Guide Rail and Median Barrier		$0	$0	$0
Sidewalks and Curb Ramps		$156,400	$0	$95,500
Signs & Pavement Markers		$20,000	$0	$14,800
Retaining Walls and Noise Barriers		$0	$0	$0
Traffic Signals		$80,000	$87,600	$0
Lighting		$20,000	$0	$0
Misc. Utilities (Water/Sewer)		$10,000	$0	$0
WZTC		$61,000	$5,430	$17,500
Landscaping		$126,000	$0	$0
Bridge		$0	$0	$0
Structures Demolition		$0	$0	$0
Wetland Mitigation		$0	$0	$0
Stormwater/SPDES		$0	$0	$0
Miscellaneous/Incidentals	10%	$106,050	$9,303	$22,320
Field Change	5%	$58,000	$5,000	$12,000
Mobilization	4%	$48,982	$4,293	$10,301
Subtotal in Base Year Dollars		**$1,273,532**	**$111,626**	**$267,821**
Contingency/Risk	20%	$254,706	$22,325	$53,564
Subtotal in Base Year Dollars		**$1,528,238**	**$133,952**	**$321,385**
Cost Data Year and Midpoint of Construction Year	*2021*	*2022*	*2022*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$45,847	$4,019	$9,700
Award/Construction Cost		**$1,574,086**	**$137,970**	**$331,085**
Final Design	10%	$157,409	$13,797	$33,108
QC & Administration of Final Design and Contract	3%	$47,223	$4,139	$9,933
Construction Inspection	7%	$110,186	$9,658	$23,176
ROW		$0	$0	$0
Total Project Cost		**$1,888,903**	**$165,564**	**$397,302**
Rounded to nearest $10K		**$1,890,000**	**$170,000**	**$400,000**

Exhibit 1.6B Project Costs - Design Bid Build				
Potential Alternatives		**Alt 1C**	**Alt 2A**	**Alt 2B**
Earthwork		$14,300	$13,300	$13,300
Pavement and Subbase		$101,140	$8,200	$12,700
Drainage		$4,000	$0	$0
Large Culvert		$0	$0	$0
Guide Rail and Median Barrier		$0	$0	$434,000
Sidewalks and Curb Ramps		$95,500	$110,200	$85,400
Signs & Pavement Markers		$14,800		$0
Retaining Walls and Noise Barriers		$0	$0	$0
Traffic Signals		$0	$0	$0
Lighting		$0	$0	$0
Misc. Utilities (Water/Sewer)		$0	$0	$0
WZTC		$21,850	$11,900	$35,400
Landscaping		$0	$77,000	$24,900
Bridge		$0	$0	$0
Structures Demolition		$0	$0	$0
Wetland Mitigation		$0	$0	$0
Stormwater/SPDES		$0	$0	$0
Miscellaneous/Incidentals	10%	$25,159	$22,060	$60,570
Field Change	5%	$14,000	$12,000	$33,000
Mobilization	4%	$11,630	$10,186	$27,971
Subtotal in Base Year Dollars		**$302,379**	**$264,846**	**$727,241**
Contingency/Risk	20%	$60,476	$52,969	$145,448
Subtotal in Base Year Dollars		**$362,855**	**$317,816**	**$872,689**
Cost Data Year and Midpoint of Construction Year	*2021*	*2022*	*2022*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$10,900	$9,600	$26,200
Award/Construction Cost		**$373,755**	**$327,416**	**$898,889**
Final Design	10%	$37,375	$32,742	$89,889
QC & Administration of Final Design and Contract	3%	$11,213	$9,822	$26,967
Construction Inspection	7%	$26,163	$22,919	$62,922
ROW		$0	$0	$0
Total Project Cost		**$448,506**	**$392,899**	**$1,078,667**
Rounded to nearest $10K		**$450,000**	**$390,000**	**$1,080,000**

1.7 Public Involvement

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

Exhibit 1-7A
Public Involvement Plan Schedule of Milestone Dates

Activity	Date Occurred/Tentative
Initial Environmental Findings	Not Required
Field Pre-Scoping Meeting (all groups)	November 17, 2020
In-house DOT scoping meeting	Not Required
Stakeholder Meeting	TBD
Focus Group Meeting	
Meeting with City Officials	
Meeting with SHPO	
Public Informational Meeting	TBD
Current Project Letting date	Winter 2022

For additional information or to provide comments, please contact. . .

- You can contact:

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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 46	S. James St	S. George St
Functional Classification	Urban Principal Arterial - Other	Major Collector	Major Collector
National Highway System (NHS)	Yes	No	No
Designated Truck Access Route	Yes	Yes (southern leg only)	No
Qualifying Highway	Yes	No	No
Within 1 mile of a Qualifying Highway	Yes	Yes	Yes
Within the 16 ft vertical clearance network	Yes	No	No

2.2 Planning Considerations

2.2.1 Abutting Highway Segments and Future Plans

Refer to abutting highway segments match the typical section of the existing highway with the project limits.

NYSDOT has indicated they are working on design to construct bike lanes on Erie Boulevard at the S. James Street intersection. It is unclear if this will impact the existing curb lines, but the bike lanes will be integrated into the proposed shared-use path that will constructed as part of this project.

2.2.2 Local Plans for the Project Area

This project is on the approved Herkimer-Oneida Counties Transportation Study (2020 – 2025) Transportation Improvement Program (TIP) as TIP Number 2650.57. Project funding has been fully allocated on the TIP. The City has also indicated that an additional one million dollars in federal recovery funding has been allocated to the project.

The City has indicated that a new 64-unit apartment complex is to be constructed in Exhibit 2-1 in the shaded area below whose site plans are contained in Appendix F.

Exhibit 2.2.2

2.2.3. Access Control

Within the project area is a roughly 20-foot wide access road that separates the Erie Boulevard from the existing businesses and parking areas. The access road intersects Erie Boulevard at two locations, one for an entrance and one for an exit. The proposed improvements will remove the access road and connect the five business/parking lots directly to Erie Boulevard. Seen in Exhibit 2 below there will be a net increase of three curb cuts in the westbound travel directions of Erie Boulevard. In the eastbound side the access control will not be impacted.

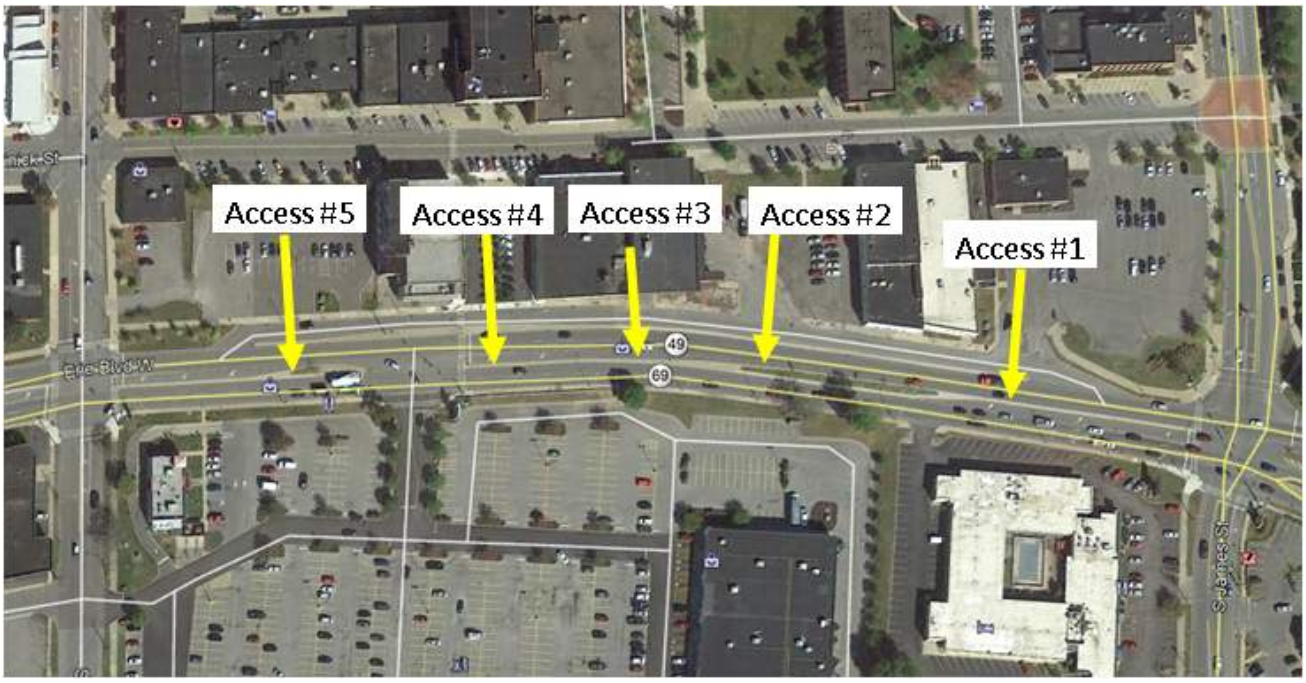


Exhibit 2.2.3

The reconstruction of the access driveways will primarily rely on right turn in/out with raised islands. Access #1, #4, and #5 will all be designed in a similar fashion that develop an entry width of 17 to 24 feet wide and an exit driveway that intersects Erie Boulevard at a 60-degree angle. The varying driveway widths are the result of tying into existing curb lines and developing a driveway layout that attempts to minimize the impacts to private property. For Access points #2 and #3 the driveways will be shared by entering and exiting vehicles. To facilitate vehicle movement the driveways widths, vary between 20-22 feet wide with 33-foot radii. It is noted that the Access Point #2 is subject to minor changes as this project continues to coordinate with the site plans for the Copper City Loft Apartments.

2.3. Traffic Considerations

2.3.1 Traffic Volumes and Operations

Traffic count data for the corridor was obtained through traffic counts performed in December 2020 (see Appendix C for count data sheets). Since the traffic counts were conducted during the COVID-19 pandemic, where traffic conditions may vary from "normal" regarding travel and daily commuting, the traffic counts were adjusted to account for any potential drop in overall traffic volumes as a result of the pandemic conditions. To determine an adjustment factor for these conditions, the December 2020 counts above were compared to NYSDOT's historic traffic count data at count station #260111, located along Erie Blvd W in the vicinity of the project area. Based on this comparison, it was concluded that the correction factor to bring the counted data to what should be seen on a typical non-pandemic day in the year 2020 is **1.34**. The counted traffic volumes were adjusted by this COVID adjustment factor to develop the 2020 Existing Peak Hour Traffic Volumes. These volumes are depicted on Figure 1 – "2020 Existing Peak Hour Traffic Volumes (Adjusted for COVID Impacts)" in Appendix C.

NYSDOT historic traffic count data at count station #26011 was further utilized to calculate the annual traffic growth rate within the project area. The annual traffic growth was found to be **1.3%**. This growth rate was used to forecast future traffic volumes. Exhibit 2-4 summarizes existing and forecasted daily traffic volumes.

Exhibit 2-4
Existing and Forecasted Daily Traffic Volumes
Erie Blvd W

Year	AADT
Existing (2020)	27,400
ETC (2022)	28,100

Peak hour traffic volumes for the ETC Year (2022) are depicted on Figure 2 – "ETC (2022) Year Peak Hour Traffic Volumes" in Appendix C, and along with the 2020 Existing Peak Hour Traffic Volumes described above, were used to assess peak hour traffic operations for the existing and future no-build traffic conditions.

To assess traffic operations within the project corridor, Synchro 11 traffic analysis software was used. The results of these analyses can be compared to the level of service (LOS) criteria information in the *Highway Capacity Manual,* 6th Edition (HCM6), published by the Transportation Research Board to determine levels of service for the various coordinated signalized intersections within the corridor. Exhibit 2-5 lists the level of service criteria for signalized intersections.

Exhibit 2-5 Level of Service Criteria	
LOS	**Signalized Intersection Delay Per Vehicle (sec.)**
A	≤ 10.0
B	> 10.0 and ≤ 20.0
C	> 20.0 and ≤ 35.0
D	> 35.0 and ≤ 55.0
E	> 55.0 and ≤ 80.0
F	> 80.0

Exhibit 2-6 below shows the Synchro analysis results for the existing condition and future no-build condition analyses. Synchro output sheets are included in Appendix C.

Exhibit 2-6 Existing and No-Build Condition LOS Summary					
Intersection		**2020 Existing Condition**		**2022 No-Build Condition**	
		AM Peak Hour	**PM Peak Hour**	**AM Peak Hour**	**PM Peak Hour**
Erie Boulevard at S George Street (Signalized)	Eastbound	A (4.5)	B (10.1)	A (4.6)	B (10.5)
	Westbound	A (0.7)	A (2.5)	A (0.7)	A (2.7)
	Northbound	D (39.1)	C (34.9)	D (39.0)	C (34.7)
	Southbound	D (39.5)	D (35.7)	D (39.5)	D (35.5)
	Overall	**A (5.6)**	**A (9.7)**	**A (5.7)**	**A (9.9)**
Erie Boulevard at Freedom Plaza (Signalized)	Eastbound	A (0.5)	A (1.3)	A (0.6)	A (1.4)
	Westbound	A (0.2)	A (0.8)	A (0.3)	A (0.8)
	Northbound	D (41.8)	D (36.2)	D (41.8)	D (36.0)
	Overall	**A (1.1)**	**A (3.6)**	**A (1.1)**	**A (3.6)**
Erie Boulevard at S James Street (Signalized)	Eastbound	A (1.3)	C (22.7)	A (1.3)	C (29.6)
	Westbound	A (8.5)	B (18.6)	A (8.6)	B (19.4)
	Northbound	D (36.9)	C (32.2)	D (36.8)	C (32.3)
	Southbound	D (36.9)	C (33.6)	D (36.8)	C (34.0)
	Overall	**B (11.2)**	**C (23.5)**	**B (11.3)**	**C (26.2)**

NOTE: X (XX.X) = Level of Service (Delay per Vehicle in Seconds)

As shown in the table above, the peak hour levels of service are LOS C or better for all studied intersections with no approach operating worse than a LOS D in the existing condition. These levels of services continue into the no-build condition of the ETC Year (2022).

2.3.2 Operation Analysis of Build Condition

The preferred alternative incorporates several pedestrian and vehicle safety improvements that could impact traffic capacity. New pedestrian signals would be installed across the northbound and southbound approaches of the intersection of Erie Blvd W. and S. George Street, as well as across the northbound approach of the intersection of Erie Blvd W. and Freedom Plaza Entrance. The permitted/protected left turn phases for the eastbound and westbound approaches of the intersections of Erie Blvd W./S. George Street and Erie Blvd W./S. James Street would be changed to protected only left turn phases and no turn on red restrictions will be placed on the northbound approach of S. James Street. In addition to the improvements at the existing intersections, a signalized mid-block pedestrian crossing would also be

installed approximately 450' to the west of the intersection of Erie Blvd and S. James St. This crossing would utilize an exclusive pedestrian phase and be pedestrian actuated.

The above changes were made to the future build condition Synchro traffic models and signal timings were optimized. The proposed mid-block pedestrian crossing was added to the coordinated signal system along the corridor and the signal system offsets of all four intersections were optimized. The updated Synchro models were run to provide an analysis of the level of service (LOS) at the project intersections. This analysis was performed using the methodology set forth in the *Highway Capacity Manual,* same as the analyses performed for the existing and no-build conditions. Traffic volumes used in the build condition analysis are the same as reported in Section 2.3.1 for the no-build condition, as changes in the build condition are not expected to affect traffic patterns.

Exhibit 2-7 below shows the Synchro analysis results for the future build condition analyses. Synchro output sheets are included in Appendix C.

Exhibit 2-7
ETC Year (2022) Build Condition LOS Summary

Intersection		AM Peak Hour	PM Peak Hour	Build Improvements
Erie Boulevard at S George Street (Signalized)	Eastbound	A (7.4)	B (11.8)	EB and WB protected only left turns. Pedestrian signals crossing the NB and SB approaches.
	Westbound	A (1.2)	A (4.0)	
	Northbound	D (40.1)	D (36.2)	
	Southbound	D (40.7)	D (37.0)	
	Overall	**A (7.4)**	**B (11.2)**	
Erie Boulevard at Freedom Plaza (Signalized)	Eastbound	A (0.6)	A (1.3)	Pedestrian signals crossing the NB approach.
	Westbound	A (0.3)	A (0.9)	
	Northbound	D (41.8)	D (37.3)	
	Overall	**A (1.1)**	**A (3.8)**	
Erie Boulevard at S James Street (Signalized)	Eastbound	A (2.8)	B (11.2)	EB and WB protected only left turns. No right turn on red on the NB approach of S. James St.
	Westbound	B (11.5)	C (21.7)	
	Northbound	D (37.5)	D (35.3)	
	Southbound	D (37.9)	D (40.4)	
	Overall	**B (13.2)**	**C (22.1)**	
Erie Boulevard at Mid-Block Crossing (Pedestrian Signal)	Eastbound	A (1.5)	A (1.4)	New mid-block pedestrian crossing located approximately 450' west of S. James St.
	Westbound	A (1.5)	A (1.6)	
	Overall	**A (1.5)**	**A (1.5)**	

NOTE: X (XX.X) = Level of Service (Delay per Vehicle in Seconds)

As shown in the table above, all locations under the build condition operate at an overall LOS C or better with all approaches operating at LOS D or better in the both the AM and PM peak hours. All operations are comparable to what is seen in the no-build condition. There are no approaches in the build condition that have more than 2 seconds of additional delay per vehicle over what is seen in the no build condition. The Erie Blvd signalized mid-block crossing operates at LOS A on all approaches, so it appears to add minimal delay to the corridor.

Part of the analysis, with the addition of a traffic signal at the proposed Erie Blvd mid-block crossing, was the investigation of queuing of this location and its potential effect on the adjacent signals. As proposed, there would be approximately 415 feet of vehicular storage between the mid-block crossing and the intersection of Erie Blvd W. and S. James Street and approximately 385 feet of vehicular storage between the mid-block crossing and the intersection of Erie Blvd W. and Freedom Plaza. Through the analysis, it was found that the 95th percentile (maximum) queues at the proposed mid-block crossing would be under

100 feet in both the eastbound and westbound direction in both the AM and PM peak hours. These queues are well below the available vehicular storage and should not be cause any significant impact for corridor traffic.

2.3.3 Speed Studies

The 85th percentile operating speeds for the corridor was determine through field study and was determined to be as shown in Exhibit 2-8.

Exhibit 2-8
Speed Data

Route	NY 49
Existing Speed Limit (mph)	30 mph
Operating Speed (mph) and Method Used for Measurement	37 mph (eastbound) 38 mph (westbound)

2.3.4 Safety and Crash History Analysis

A crash analysis was performed for each of the project area intersections. The analysis reviewed the 4-year period between 2017 and 2021. These crash records were obtained from the City of Rome Police Department. The results of the crash analysis revealed that all three of the intersections within the project area had a crash rate above the statewide average for similar intersections, indicating a need to review in more detail. Exhibit 2-9 summarizing the crash types, severity, and rates at each location is located at the end of this section. Findings from the detailed crash review are separated out by intersection below. Summary sheets of the crashes broken down by location can be found in Appendix C.

Erie Blvd W. and South George Street – There were 14 crashes over the 4-year period studied at this location resulting in a crash rate that was 1.40 times higher than the statewide average. Of these 14 crashes, 22% are Right Angle, 22% are Pedestrian, and 14% are Left Turn type crashes; these proportions are all higher than what would be anticipated at an intersection of this type.

For the right angle crashes it was shown that 1 of the 3 right angle crashes was due to a vehicle's brakes malfunctioning and the other 2 were the result of drivers disregarding the traffic signal. A review of the traffic signal operations and intersection geometry indicated no deficiencies that would contribute to these crashes.

Upon review of the Pedestrian and Left Turn crash types it was discovered there are several improvements that could be made to potentially reduce these types of crashes. To help remediate the Pedestrian crashes, it is recommended to install pedestrian signals across the northbound and southbound approaches of the intersection as no signals currently exist. It is also recommended to expand the pedestrian refuge on the of the pedestrian crossing of the westbound approach, helping to effectively shorten the longer crossing distance. To help remediate the left turn crashes, it is recommended to change the permitted/protected eastbound and westbound left turn signals to protected left turn only. This may also help further decrease the number of pedestrian crashes as it reduces the number of conflicting vehicles traveling across the pedestrian crossing during the walk phase of the pedestrian signals.

Erie Blvd W. and Freedom Plaza Entrance – At this location there were 8 crashes over the study period resulting in a crash rate that is 1.24 times higher than the statewide average. Of these 8 crashes, 6 of them were either Sideswipe or Rear End type crashes, which are the most common crash types. The

number of all other crash types (one Right Turn crash and one Backing crash) were insignificant. A review of the traffic signal operations and intersection geometry indicated no deficiencies that would contribute to these crashes, so no safety improvements are proposed.

Erie Blvd W. and South James Street – The crash rate at this location is 4.33 times higher than the statewide average. With the crash rate being much higher than average, a crash diagram was developed to better assess crash patterns. The crash diagram can be found in Appendix C. Upon review of crash information, several crash patterns were identified. Of the 54 crashes that occurred at this intersection 8 were Left Turn crashes, twice as many as would be expected. 7 of these 8 Left Turn crashes were also in the eastbound or westbound directions. To help remediate these crashes, it is recommended to change the permitted/protected eastbound and westbound left turn signals to protected left turn only.

Rear End crashes occurred at an expected proportion for an intersection of this type (39%). However, there was a significant cluster of Rear End crashes in the eastbound direction. Upon review of the intersection, this cluster may be a result of poor and unintuitive wayfinding signage on this approach. Eastbound traffic diverges into two separate ramps on the east side of the intersection and the existing signing appears to be inadequate to direct drivers to the proper route. It is recommended to update the signage to better display lane assignments to certain destinations to help alleviate driver confusion. This reduction in driver confusion may cut down on Rear End crashes on this approach.

There were 5 Pedestrian/Bicycle crashes at this location during study period. While 3 of these 5 crashes were at the fault of the pedestrian/bicyclist, this number of incidences is still higher than desired. The crossing of the eastbound approach is the longest crossing at the intersection and is the predominate location of these crashes. Due to this, it is recommended to install a pedestrian refuge in the median of the eastbound approach to help improve pedestrian and bicyclist safety while crossing.

Finally, Right Turn crashes occurred at a 2 times higher proportion than what would be typically expected at an intersection of this type. 2 of the 4 right turn crashes occurred from northbound vehicles on S. James Street turning right on red onto Erie Blvd and colliding with eastbound traffic. This right turn from northbound S James Street to Erie Blvd W. is a potentially unconventional movement, with vehicles having the ability to cross what is effectively two lanes (Erie Blvd E. and a median) before turning right onto the ramp to Black River Blvd. Due this combination of a higher crash rate of right turns and an unconventional movement, it is recommended to restrict right turn on red movements on the northbound approach of S. James Street.

Exhibit 2-9 Intersection Crash Summary			
Crash Data Period:	**1/1/2017**	**to**	**12/31/2020**
Location:	**Erie Boulevard and South George Street**	**Erie Boulevard and Freedom Plaza**	**Erie Boulevard and South James Street**
Time of Day			
6:00 AM - 8:59 AM	4		3
9:00 AM - 3:29 PM	3	2	23
13:30 PM - 5:29 PM	5	4	14
5:30 PM - 11:59 PM	1	2	13
12:00 AM - 5:59 AM	1		1
Pavement Condition			
Dry	10	6	43
Wet	2	1	8
Snow/Ice	2	1	2
Slush			1
Type of Collision			
Pedestrian/Bicycle	3		5
Right Angle	3		5
Sideswipe (Overtake)	1	2	9
Rear End	3	4	21
Left Turn	2		8
Right Turn	2	1	4
Backing		1	1
Fixed Object			1
Severity			
Fatal			
Injury	3	2	15
Property Damage	11	6	39
Total	**14**	**8**	**54**
Avg. No. of Daily Vehicles Entering Intersection*	28,210	27,790	35,080
Crash Rate (CR/MEV)	0.36	0.21	1.13
Statewide Average (CR/MEV)	0.26	0.17	0.26
Below or Above Statewide Average	x1.40	x1.24	x4.33

* AADT for 2020 was prorated by a 1/3 reduction of the Daily Traffic shown in the table due to the COVID-19 Pandemic Shutdowns.

MEV = Million Entering Vehicles

2.3.5 Pedestrians, Bicyclists and Transit (Complete Streets)

Pedestrians

The project area is centered between the origin of pedestrian traffic and their destination. Located two blocks north is W. Liberty Street which acts as a dividing line. North of the street is concentrated residential housing and south is the beginning of commercial businesses including shopping, restaurants, and various services. This commercial buildout continues south of Erie Boulevard with the Freedom Plaza that has a grocery store and clothing stores among others. Critical to the success of the project is its ability to promote east/west travel along Erie Boulevard. Increased foot traffic coupled with the future apartment buildings is hopefully the beginning of the redevelopment of the north side of Erie Boulevard.

Also critical to the project is to provide north/south access across Erie Boulevard. This is achieved by both constructing the mid-block crossing located 430 feet west of S. James Street and by incorporating refuge islands at the three existing crosswalks. The goal is to make the crossing of Erie Boulevard as seamless as possible to help ensure pedestrians are not tempted to cross outside of marked crosswalks.

Bicyclists

The existing potential for bicycling within the project limits is moderate due to the future construction of bicycle lanes that will be installed at the Erie Boulevard/ S. James Street intersection. The westbound bicycle lane will terminate west of the intersection which will be transitioned into the proposed shared use path. The existing travel lanes widths on Erie Boulevard are less than the minimum 13-foot width required for bicycle ridership under a shared use condition. Additionally, the roadway does not have any shoulders. For these reasons, a shared-use path in the westbound direction will be constructed to facilitate east/west travel. Once future funding has been secured the City has indicated that the next segment of Erie Boulevard between S. George Street and S. Madison Street

Transit

Operating in the City of Rome is the Centro bus service. All of the six bus routes operating all have stops in Liberty Street at the Downtown stop which is located two blocks north of the project area. Located south of the project area on Ridge Street is the South Rome Senior Center that has stops of three of bus routes. Although the bus routes frequently travel through the project area there are no dedicated stops on Erie Boulevard for ease of access to the Freedom Plaza.

2.5 Design Standards

2.5.1 Critical Design Elements

Exhibit 2.5.1-1
Critical Design Elements for NY 46 (Erie Boulevard)

PIN	2650.57	**BIN** (if applicable)		N/A	
Functional Class:	Urban Principal Arterial - Other	**NHS**	Yes	**Non-NHS**	
Design Class:	Arterial	**Context Class:**		Urban	
Project Type:	Reconstruction/New Construction	**Terrain:**		Flat	
Design Year AADT:	27,000[1]	**Percentage of Trucks:**		8.1[2]	
Truck Access or Qualifying Highway (QH)?	Both	**If not a QH, is project within 1 mi of a QH?**		Yes	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition
1	Design Speed	30 mph Min/45 mph Max HDM Section 2.7.2.4A	30 mph posted / 37-38 mph[1] 85th Percentile	30 mph
2	Lane Width (All Lanes)	12 ft HDM Section 2.7.2.4B	12'-0" to 13'-0"	12'-0"
	Turning Lane Width	11 ft Min/ 12 ft Desirable HDM Section 2.7.2.4B	10'-10" to 15'-6"	12'-0" (WB) Retain Existing (EB)
3	Shoulder Width	Left Shoulder – 0 ft Min/ 1-2 ft Desirable Right Shoulder – 0 ft Min/ 4 ft Desirable HDM Section 2.7.2.4C	No shoulder	No shoulder
4	Horizontal Curve Radius	250 ft Min (at e_{max}=4%) HDM Section 2.7.2.4D	Approx. 1050 ft	Approx. 1100 ft
5	Superelevation	e_{max} = 4% HDM Section 2.7.2.4E	N/A	N/A
6	Stopping Sight Distance (Horizontal and Vertical)	200 ft Min. HDM Section HDM Section 2.7.2.4F	700+ ft	Retain Existing
7	Maximum Grade	7% HDM Section 2.7.2.4G	3% or less	Retain Existing
8	Cross Slope	1.5% Min., 2.5% Max. HDM Section HDM Section 2.7.2.4H	1.1% to 2.5%	Retain Existing
9	Vertical Clearance	16 ft Min.BM Section 2.3.1, Table 2-2	16 ft	Retain Existing
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	N/A	N/A
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Existing pedestrian facilities do not Not comply with HD M Chapter 18 standards	Proposed pedestrian facilities will comply with HDM Chapter 18 and If pedestrian facilities are found to have noncompliant elements that cannot be made compliant, they will be justified as nonstandard.

Notes:

1 Based on NYSDOT Count Stations 260111.

2 Based on Automatic Traffic Recorder in December 2020.

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 2.5.1-2
Critical Design Elements for S. James Street

PIN	2650.57	**BIN** (if applicable)	N/A
Functional Class:	Urban Major Collector	**NHS**	**Non-NHS** Yes
Design Class:	Collector	**Context Class:**	Urban
Project Type:	Reconstruction/New Construction	**Terrain:**	Flat
Design Year AADT:	6,600 (south) / 6,700 (north)[1]	**Percentage of Trucks:**	3%[1]
Truck Access or Qualifying Highway (QH)?	Truck Access (southern leg only)	**If not a QH, is project within 1 mi of a QH?**	Yes
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**	Low

	Element	Standard	Existing Condition	Proposed Condition
1	Design Speed	30 mph Min/ 40 mph Max HDM Section 2.7.3.3A	30 mph posted / 30-31[1] mph (85th percentile)	Retain Existing
2	Lane Width	10 ft Min/ 12 ft Desirable HDM Section 2.7.3.3B	12'-0"	Retain Existing
	Turning Lane Width		10'-0" to 15'-0"	Retain Existing
3	Shoulder Width	Right Shoulder – 0 ft Min/ 4 ft Desirable HDM Section 2.7.3.3C	No shoulder	Retain Existing
4	Horizontal Curve Radius	231 ft Min (at e_{max}=4%) HDM Section 2.7.3.3D	N/A	N/A
5	Superelevation	e_{max} = 4% HDM Section 2.7.3.3E	N/A	N/A
6	Stopping Sight Distance (Horizontal and Vertical)	175 ft Min. HDM Section HDM Section 2.7.3.3F	300+ ft	Retain Existing
7	Maximum Grade	9% HDM Section 2.7.3.3G	2.7%	Retain Existing
8	Cross Slope	1.5% Min., 3.0% Max. HDM Section HDM Section 2.7.3.3H	0% to 0.5%	Retain Existing
9	Vertical Clearance	14 ft Min./ 14'6" ft Desirable BM Section 2.3.1, Table 2-2	16 ft	Retain Existing
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	N/A	N/A
11	Americans with Disabilities Act Compliance[2]	HDM Chapter 18	Existing pedestrian facilities do comply with HDM Chapter 18 standards	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:

1 Based on NYSDOT Count Stations 2611009/261025

2 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 2.5.1-3
Critical Design Elements for S. George Street

PIN	2650.57	**BIN** (if applicable)		N/A	
Functional Class:	Urban Major Collector	**NHS**		**Non-NHS**	Yes
Design Class:	Collector	**Context Class:**		Urban	
Project Type:	Reconstruction/New Construction	**Terrain:**		Flat	
Design Year AADT:	2,850[1]	**Percentage of Trucks:**		3%[1]	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		Yes	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	30 mph Min/ 40 mph Max HDM Section 2.7.3.3A	30 mph posted / 30[1] mph (85th percentile)	Retain Existing
2	Lane Width	10 ft Min/ 12 ft Desirable HDM Section 2.7.3.3B	14'-6" to 15'-6"	Retain Existing
	Turning Lane Width		10'-8"	Retain Existing
3	Shoulder Width	Right Shoulder – 0 ft Min/ 4 ft Desirable HDM Section 2.7.3.3C	No shoulder	Retain Existing
4	Horizontal Curve Radius	231 ft Min (at e_{max}=4%) HDM Section 2.7.3.3D	N/A	N/A
5	Superelevation	e_{max} = 4% HDM Section 2.7.3.3E	N/A	N/A
6	Stopping Sight Distance (Horizontal and Vertical)	175 ft Min. HDM Section HDM Section 2.7.3.3F	300+ ft	Retain Existing
7	Maximum Grade	9% HDM Section 2.7.3.3G	5.8	Retain Existing
8	Cross Slope	1.5% Min., 3.0% Max. HDM Section HDM Section 2.7.3.3H	1.0% -3 1.8%	Retain Existing
9	Vertical Clearance	14 ft Min./ 14'6" ft Desirable BM Section 2.3.1, Table 2-2 BM Section 2.3.1, Table 2-2	16 ft	Retain Existing
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications NYSDOT LRFD Specifications NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	N/A	N/A
11	Americans with Disabilities Act Compliance[2]	HDM Chapter 18	Existing pedestrian facilities do comply with HDM Chapter 18 standards	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:

1 Based on NYSDOT Count Station 264104

2 Refer to Section 2.3.5 for detailed pedestrian facility information.

2.5.2 Other Design Parameters

Exhibit 2.5.2 Other Design Parameters			
Element	**Parameter**	**Existing Conditions**	**Proposed Condition**
Alignment			
Intersection turning radii (ft)	Greater of 30' minimum or design vehicle path	20'-50'	Retain Existing
Mobility			
Design Vehicle	SU	Unknown	Accessible for SU
Level of Service (for non-interstate projects)	LOS D	LOS A to C	LOS A to C
Bay Taper length	50'-100'	90' to 232'	80' to 240'
Bay (Queue) Storage length (ft)	42' minimum	75' to 244'	75' to 225'
Turn lane lengths, based on deceleration distance for constrained areas (ft)	Design Speed: 30mph Running Speed: 34 mph Deceleration Dist.:215'[1]	33' to 202'[2]	33' to 183'[2] *
Pedestrian refuge island	6'	N/A	6'-0" to 6'-5"
Roadside			
Lateral offset (minimum) (ft)	1.5' from face of curb (3' at intersections and driveway openings) OR greater of shoulder width or 4'	Some light poles with 1-foot separation	All infrastructure will meet design parameter
Curb at pedestrian refuge islands	Design spd. ≤ 40 mph - 6" vertical (non-mountable) Design spd. 45 mph -50 mph 4-6" sloping (mountable) preferred, 6" vertical face curb allowed Design spd. > 50 mph - 4", 1:3 traversable curb or uncurbed	6" vertical (non-mountable)	6" vertical (non-mountable)
Median width	4' minimum without left turn lanes 12' minimum with left turn lanes	Median width varies – 4'-6" to 14'-3"	6'-0" to 16'-2"
Driveways			
Driveway Opening	See Standard Sheet 608-03	17' to 80'+	16' to 24'
Maximum commercial driveway grade	6% urban	1.1% to 5.6%	Retain Existing

*Nonconforming feature

1. The average recorded speed was between 32 and 34 mph in December 2020. Taken from Exhibit 5-33 in Chapter 5 of the Highway Design manual interpolation for 34 mph produces a deceleration length of 215 mph.
2. Assumes total lane length minus minimum storage of 42'.

Exhibit 2.5.2 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	10 ft

Exhibit 2.5.2 Primary Design Values for Paved Shared-Use Path			
Element	**Standard Value**	**Source[1]**	**Proposed Value**
Adjacent Graded Width	2 ft min.	AASHTO	>5 ft
	1:6 max. cross slope		2%
Maximum Grade	4.5% max. or match grade of adjacent roadway	AASHTO	3% max
Cross Slope	1.5% max.	HDM Chapter 18	2% max
Horizontal Curvature	74 ft min.	AASHTO	74 ft min.
Stopping Sight Distance	195 ft min.	AASHTO	>700'[2]
Horizontal Sight Distance	56 ft min.	AASHTO	>100 ft[3]
Crest Vertical Curve	423 ft min.	AASHTO	
Horizontal Clearance	2 ft min.	AASHTO	2 ft min
Vertical Clearance	10 ft min.	AASHTO	>10ft
Separation from Roadways	5 ft min. from face of curb or edge of shoulder	AASHTO	>5'-6"

1. 2012 AASHTO Guide for the Development of Bicycle Facilities
2. Based on sight distance of the roadway due to lack of elevation change.
3. Includes driveway crossings
4. https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/hdm-repository/2017_10_10_EST_Design%20Guide_LR.pdf

2.5.3 Existing and Proposed Highway/Bridge Plan and Section

There are no existing or proposed bridges in the project area.

2.5.4 Nonstandard/Nonconforming Features

The following nonstandard and nonconforming features are proposed to be retained.

Nonstandard Features

None

Nonconforming Features

1) The westbound turn lane for the Freedom Plaza has a deceleration distance of 35 feet. This is calculated based on an 11-foot lane width and minimum storage area of 42 feet. At S. George Street has the deceleration length is approximately 110 feet.

The compliance of existing pedestrian facilities within the scope of this project (refer to Section 2.3.5) will be evaluated in final design using the applicable standards in the NYSDOT Critical Elements for the Design, Layout and Acceptance of Pedestrian Facilities found on the NYSDOT Highway Design Manual Chapter 18 webpage. If any facilities do not meet the applicable standards, then the procedural requirements identified in ED 15-004 - Design, Construction and Inspection of Pedestrian Facilities in the Public Right of Way will be followed and they will be rehabilitated, replaced or justified as nonstandard (in final design).

2.6 Other Infrastructure Considerations

2.6.1 Pavement and Shoulder Conditions

The roadway was last resurfaced in 2015 and in the most recent pavement elevation (2017) the pavement condition rating was a 9. There are no proposed pavement improvements unless necessitated due to construction activities.

2.6.2 Right of Way

There are 10 properties within the project area that will be impacted by either sidewalk replacement or driveway reconstruction. The City has indicated that they will speaking directly to the property owners to inquire if they would be interested in donation as the project is a betterment to property frontages. If donations are granted a statement of donation in Appendix 11-4 of the Procedures for Locally Administered Federal-Aid Projects Manual (PLAFAP) will be included in the PSE submission. If donations cannot be secured then the City will contact NYSDOT to modify the existing STIP to open ROW phases for the project. Based on the position of the highway boundary it is not feasible to construct this project without securing temporary or permanent easements.

It is noted that shown in the general plans are properties under Rome Urban Renewal. These properties were part of a previous program that was ended several years ago and are in fact owned by the City of Rome.

2.6.3 Geotechnical

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

2.6.4 Access Management

Shown in section 2.2.3 in Exhibit 2-2 there are five access points that connect to the existing access road along Erie Boulevard. Of these access points #1, #3, and #4 are well defined whereas #2 and #5 do not have any delineation and do not meet current design standards for a commercial driveway. As part of the project, access point #2 will be constructed to serve the parking area located adjacent to the parking garage that is shown in the site plan in Appendix F. Access Point #5 will be more defined by utilizing new curbing and landscaping to clearly establish right-in/right-out maneuvers. The exit driveway will be located as far south as practical to move it away from the S. George Street intersection.

2.6.5 Traffic Control Devices

There are three signalized intersections in the project area.

Erie Boulevard/S. James Street is a four-legged intersection with significant geometry that is coordinated with the two other signals in the project area. The northbound, southbound, and westbound approaches each have exclusive left and right turn lanes whereas the eastbound approach has an exclusive left turn lane and a shared right/thru lane. The eastbound, northbound, and southbound approaches each have a single thru lane while the westbound approach has two thru lanes. The intersection has pedestrian signals controlled by pushbuttons on its eastbound, northbound, and southbound approaches

Proposed improvements to the intersection include changing the phasing of the left turn lanes to protected only. The northbound right turn would also prohibit right turn on red to prevent driver confusion that can be caused by the two potential receiving lanes.

The Erie Boulevard/Freedom Plaza signal is a coordinated signal located approximately 930 feet east of S. James Street that allows vehicles to exit the Freedom Plaza. The northbound approach has an exclusive left and right turn lane whereas the westbound approach of Erie Boulevard has an exclusive left turn lane. The crossing has a push button controlled pedestrian crossing on the westbound approach with the project proposing to add new pedestrian signals to the northbound approach.

Erie Boulevard/ S. George Street is a four-legged coordinated intersection with exclusive left turn lanes on all four approaches. The eastbound/westbound approach of Erie Boulevard each have a thru trave lane and a shared thru/right lane. The approaches of S. George Street have a shared thru/right lane. The intersection has crosswalks on all four approach yet only has pedestrian signals on Erie Boulevard. Proposed improvements to the intersection include changing the phasing to make the left turn lanes on Erie Boulevard protected only and to install pedestrian signals to the minor approaches of S. George Street to improve pedestrian safety.

The final improvement that is proposed is the construction of the mid-block crossing elevated in section 2.3.2 of this report. The mid-block crossing is intended to bisect the S. James Street and Freedom Plaza crossings to encourage pedestrians to utilize a marked crossing rather than run across Erie Boulevard as shown in in Exhibit 2.6.8. The mid-block crossing will include new curb ramps, a refuge island in the median, and new traffic signal.

2.6.6 Drainage Systems

Erie Boulevard has an existing closed drainage system along both the eastbound and westbound approaches. The superelevation of the roadway causes the work to drain away from the median. Similarly, the existing access road is paved so that rainfall drains toward catch basins nearest the building faces. As part of the access road removal the majority of catch basins will remain, but the frame and grates will be removed and modified with a solid round top for future maintenance. As shown in the preliminary plans in Appendix A there are several catch basins that serve no function once the access road is removed and therefore will be abandoned.

2.6.7 Utilities and Lighting

Exhibit - 2.6.7
Utilities

Owner	Type	Location/Side	Length	Condition/Conflict
City	Sanitary Sewer	North of Erie Blvd	Entire Segment	Adjust grate elevations as necessary
City	Storm Sewer	Varies	Entire Segment	Add and Remove structures/ adjust grate elevations as necessary
City	Water Line	North of Erie Blvd	Entire Segment	Adjust valve box elevations as necessary
City	Lighting	Varies	Entire Segment	Relocate poles as necessary
Verizon	Communication	North of Erie Blvd	Entire Segment	None
Gas	National Grid	North of Erie Blvd	Entire Segment	Adjust valve box elevation as necessary
Underground Electric (lighting)	National Grid	North of Erie Blvd	Entire Segment	To be determined during final design

2.6.8 Guide Railing, Median/Roadside Barriers and Impact Attenuators

Within the project area is a median that splits into two segments that are 290 and 860 feet respectively. The median east of the midblock crossing is generally infilled with concrete with a 230-foot section that is a curbed planting bed that has a few small trees, weeds, and roadway signs. The median west of the midblock crossing being the much shorter segment has a planted area only 32 feet long with the remainder being infilled concrete.

The medians vary in width from four to fourteen feet and are in fair condition with a height of about 12-15 inches. The median height is not suitable for preventing pedestrian crossings as witnessed during field visits to the project area and as shown in the photo below taken by the City of Rome in April 2021.

Exhibit 2.6.8

There is also a concrete median that separates the travel lanes from the access road. It is 910 feet long and is about four and half feet wide.

The proposed improvement to the median includes modifying the curb lines as detailed in Alternatives 1B and 1C to widen the median to no less than six feet and up to more than 15 feet. To save money on the project budget the eastbound curbing will be retained. Within the median the existing planters and concrete will be removed. Shown in Appendix A the preferred alternative is to construct 620 feet of concrete barrier that 2'-4" wide and 3'-0" high. The wall will be embedded nine inches and resembles the blue stone in Fort Stanwix. The wall will be placed in areas where the inside curb to curb width is eight feet or less and surrounded with hardscape. In areas that exceed eight feet the median will be replaced with a combination of landscaping and hardscape that would be finalized during final design. The exact planting species will be determined but will include species that are hardier to resist road salts and lack of consistent watering. Within the trees the median may be infilled with other shrubs and delineated with hardscape for aesthetics. It is important to reiterate the goal of the City is to have a layout that requires minimal maintenance so it is anticipated that about six trees will be planted along with limited shrubs trees.

2.6.9 Intelligent Transportation Systems (ITS)

The three existing signals within the project area are part of a coordinated signal timing that operates on a 90 second cycle length. The proposed project, although changing phasing for several movements, will not impact this coordination.

2.6.10 Landscape and Community Enhancement Considerations

Landscaping and community enhancements are strong part of the project objectives. Outside of the median which has already been discussed the area between the building frontages and Erie Boulevard will be infilled with additional trees and landscaping. Similar to the median, the exact species and layout has yet to be determined and will also be influenced by input from the public information meeting and individual property owners. While topsoil and seed is always an obvious choice, the there is no guarantee the grass would be watered so other alternatives are being considered including Flexipave which has been installed in other parts of the City.

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

The proposed work zone required for this project will always maintain one lane of traffic in each direction. A lane closure will be required in each direction outside of the project area along Erie Boulevard to transition into the lane closures within the project area. It is also anticipated the project would need to be staged at times. It is an anticipated that both the westbound median curb line and the removal of access road curb line will require a lane closure and therefore cannot be done at the same time.

Due to the high volumes carried on Erie Boulevard it is expected that the project could lead to long delays which is why the project will explore the potential for night construction. The project area is entirely commercial (currently) therefore residences would not be impacted during construction. If night construction is not an option, then the project impacts could be mitigated by early public coordination. Early coordination would give the local traffic advanced notice to seek alternative routes that parallel the project area. Regardless of timing 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.

2.8 Additional Considerations

2.8.1 Constructability Review

The project will be reviewed by the City of Rome and NYSDOT Region 2 prior to the PS&E submission.

2.8.2 Ownership and Maintenance Jurisdiction

The ownership of Erie Boulevard will not be changed as part of this project. NYSDOT will continue to be responsible for maintenance of the roadway, traffic signals, and sidewalks. The existing utilities will continue to be the responsibility of the City of Rome.

2.8.3 NYS Smart Growth Public Infrastructure Policy Act (SGPIPA)

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act (SGPIPA). The project being located in a downtown area may not necessarily revitalize the area but will improve the character of Erie Boulevard by incorporating a more aesthetic landscape. By beatifying the project area, the City makes the area more attractive to both residents and prospective businesses. The pedestrian/bicycle improves that promote both east/west and north/south travel. This reduces automobile dependency and promotes use of Freedom Plaza south of Erie Boulevard.

To the extent practicable this project has met the relevant criteria as described in ECL § 6-0107. The Smart Growth Screening Tool was used to assess the project's consistency and alignment with relevant Smart Growth criteria; the tool was completed by the consultant on July 7, 2021 and reflects the current project scope. The Smart Growth Screening Tool is included in Appendix B.

2.8.4 Miscellaneous 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 action (Categorical Exclusion or CE) because it does not individually or cumulatively have a significant environmental impact. As a CE, it is excluded from the requirement for the preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA).

Per the Federal Highway Administration's regulations in 23 CFR 771.117, this project qualifies as a Categorical Exclusion (CE). The project meets both of the following sections from the C list and does not significantly impact the environment.

(3) Construction of bicycle and pedestrian lanes, paths, and facilities.

(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) of this section.

In accordance with the NYSDOT/FHWA Programmatic Agreement Regarding Categorical Exclusions, the NYSDOT on behalf of FHWA will make the NEPA environmental determination. Refer to the FEAW in Appendix B for the details of this determination.

3.1.1 NEPA Cooperating/Participating Agencies

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

Federal Highway Administration
New York State Historic Preservation Officer (SHPO)
City of Rome

3.2 State Environmental Quality Review Act (SEQRA)

This project is being processed as a SEQR Type II Action in accordance with 6 NYCRR Part 617, in which the City of Rome will be the lead agency. The project meets the criteria established for a Type II Action that has been determined not to have a significant effect on the environment. Since the project is classified as a Type II project, no further action under the SEQR regulations is necessary.

3.3 Additional Environmental Information

3.3.1 Wetlands

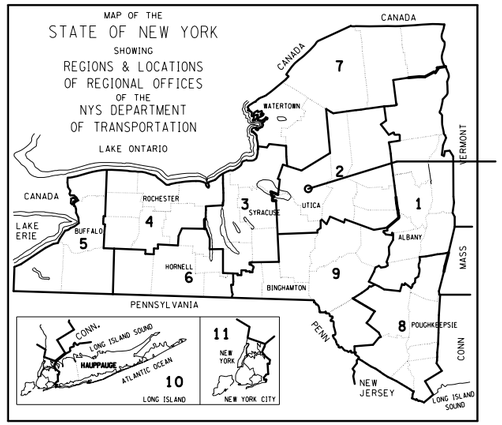
There are no wetlands within the project area.

3.3.2 Cultural Resources

Located in the northeast quadrant between Erie Boulevard and S. James Streets is Fort Stanwix which is listed as historical property. The fort is outside of the project limits and will not be impacted by construction. A project submittal package is being sent to SHPO for their concurrence which received a determination on July 7, 2021 that no historic properties would be affected by the project. The determination letter is contained in Appendix B.

Appendix A
Plans and Typical Sections

1. Preferred Alternate Plans
2. Other Alternates



PROJECT LOCATION

CITY OF ROME, N.Y. INCORPORATED 1870

ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE

CITY OF ROME, ONEIDA COUNTY

JUNE 2021

Preferred Alt Plans

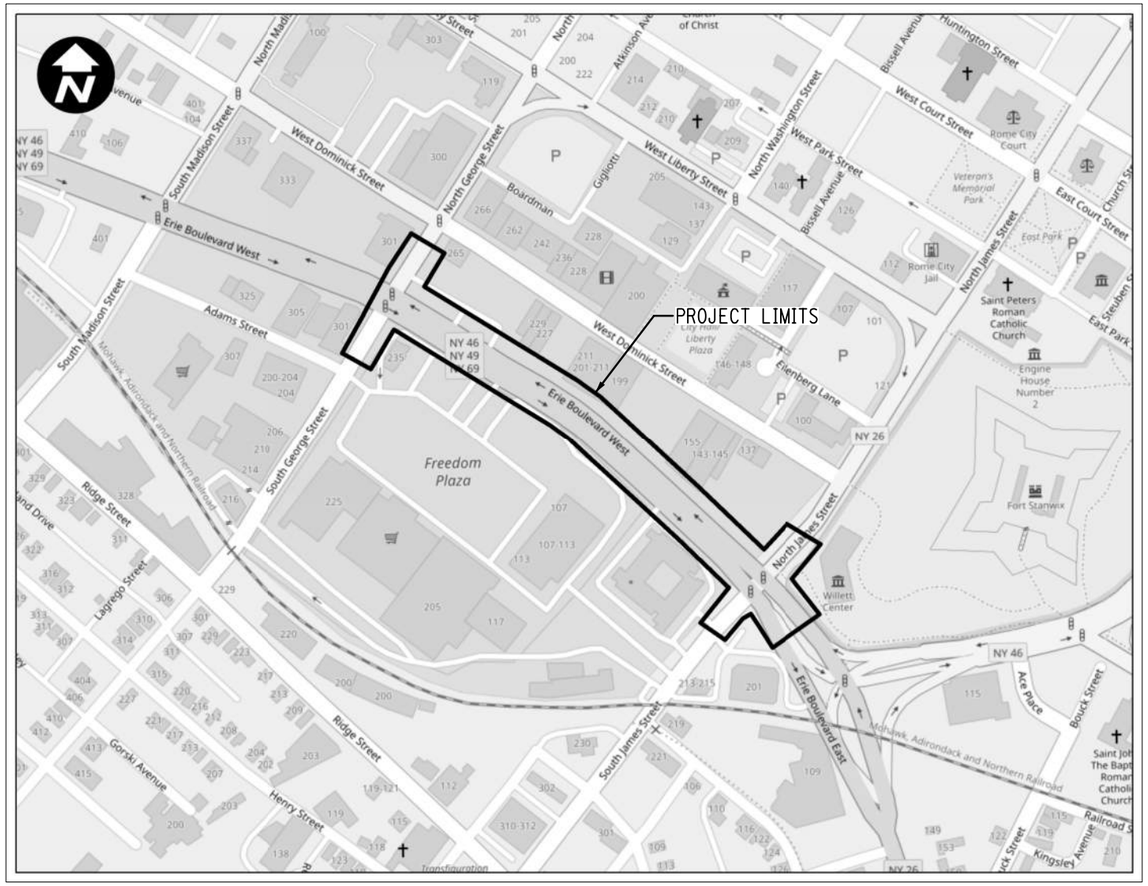
PRELIMINARY PLANS

XX SHEETS P.I.N. 2650.57 / D040238 ONEIDA COUNTY

THE LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY THE DEPARTMENT, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEET(S) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (US CUSTOMARY) REFERENCED IN THE CONTRACT PROJECT "PROPOSAL" EXCEPT AS MODIFIED BY THESE PLANS OR BY CHANGES SET FORTH IN THE CONTRACT PROJECT "PROPOSAL."

CONTRACT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH NYSDOT POLICIES AND GUIDELINES AND THE FINAL DESIGN REPORT APPROVED ON XX/2021



PROJECT LOCATION
NOT TO SCALE

CONTRACTOR'S NAME _____

AWARD DATE _____

COMPLETION DATE _____

FINAL ACCEPTANCE DATE _____

REGIONAL DIRECTOR _____

ENGINEER IN CHARGE _____

FINAL COST TOTAL _____

FISCAL SHARE COST(S)

APPROVED BY

_____ DATE

MAYOR, CITY OF ROME
JACQUELINE M IZZO

PREPARED AND RECOMMENDED BY:

NOT FOR CONSTRUCTION

CHRISTOPHER C. CORNWELL, P.E.,
VICE PRESIDENT/DIRECTOR OF CIVIL/HIGHWAY ENGINEERING

FRED MASTROIANNI, P.E., QA/QC
VICE PRESIDENT

GPI
Engineering
Design
Planning
Construction Management
518.453.9431 GPINET.COM
Greenman-Pedersen, Inc.
80 Wolf Road, Suite 300
Albany, NY 12205

ERIE BLVD DOWNTOWN TRANSPORTATION ALTERNATIVE		
CITY OF ROME		
COUNTY: ONEIDA		
FED. ROAD REG. NO.	STATE	SHEET NO.
1	N.Y.	1
CAPITAL PROJECT IDENTIFICATION NO. 2650.57		

INDEX ON SHEET NO. 2

PROJECT MANAGER | CHECK | DESIGN | JOB MANAGER | DESIGN SUPER
CHECKED BY | DRAFTING | DESIGNER | JOB MANAGER | DESIGN SUPERVISOR
DRAFTED BY | CHECK BY DRAFTING | CHECK BY DESIGNER | JOB MANAGER | DESIGN SUPERVISOR

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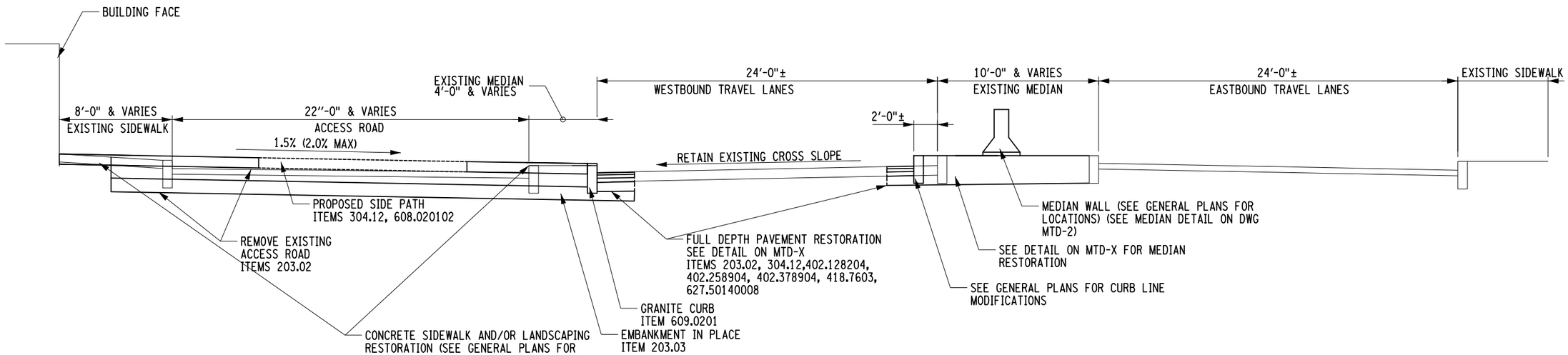
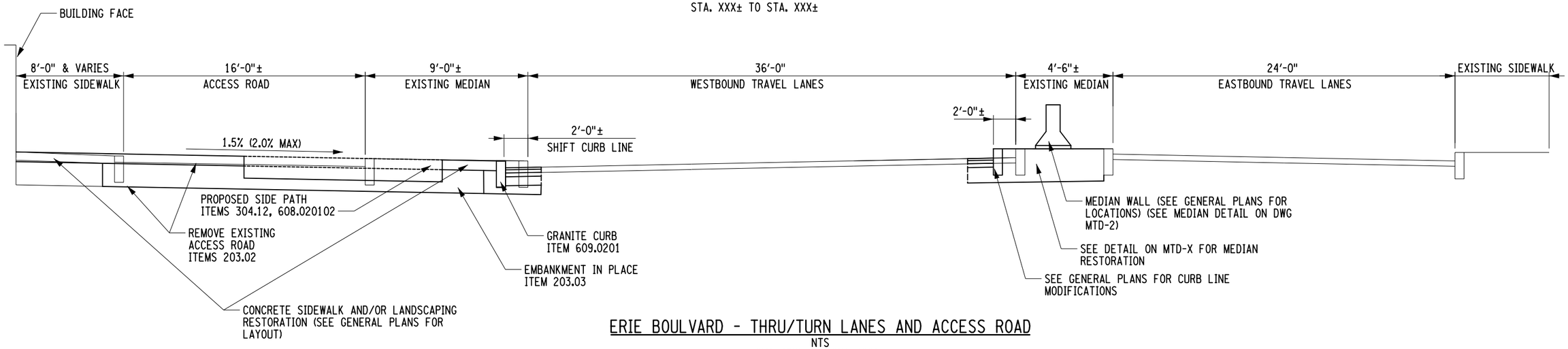


ERIE BOULVARD - THRU LANES AND ACCESS ROAD

NTS
STA. XXX± TO STA. XXX±



ERIE BOULVARD - THRU/TURN LANES AND ACCESS ROAD

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STA. XXX± TO STA. XXX±

ITEM	DESCRIPTION	UNIT	ITEM	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	LS	608.020102	HOT MIX ASPHALT (HMA) SIDEWALKS, DRIVEWAYS AND BICYCLE	TON
203.03	EMBANKMENT IN PLACE	CY	627.50140008	PATHS, AND VEGETATION CONTROL STRIPS	CY
209.1003	SEED AND MULCH- TEMPORARYSEDIMENT FILTER	CY			SY
304.12	SUBBASE COURSE, TYPE 2	SY			
402.128204	DILUTED TACK COAT	LF			
402.258904		CY			
402.378904		GAL			
418.7603		SF			
407.0102		LF			
608.0101					

NOTES:
1. THE PAVEMENT WIDTH VARIES THROUGHOUT THE PROJECT AREA DUE TO TURN LANE TAPERS AND STORAGE.
2. ITEM 407.0102 SHALL BE PROVIDED BETWEEN EACH PAVEMENT LIFT IN ACCORDANCE WITH THE SPECIFICATIONS.
3. TOPSOIL AND ESTABLISHING TURF SHALL BE PROVIDED FOR ALL DISTURBED GROUND AREAS.
4. FOR FENCING DETAILS SEE DWGS MTD-4 AND MTD-5 AND FOR LOCATIONS SEE DWG MTD-8.
5.

AFFIX SEAL: GREENMAN - PEDERSEN, INC
ON:

ALTERED BY:
ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE
CITY OF ROME
COUNTY: ONEIDA REGION: 2

PIN: 2650.53
UTIL QLVL: C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TYPICAL SECTION

CONTRACT NUMBER
D040238

DRAWING NO. TYP-1
SHEET NO. 5

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL
JOB MANAGER C. CORNWELL
DESIGN J. GENTZLER
CHECK R. WALSH
DRAFTING J. GENTZLER
PROJECT MANAGER J. GENTZLER

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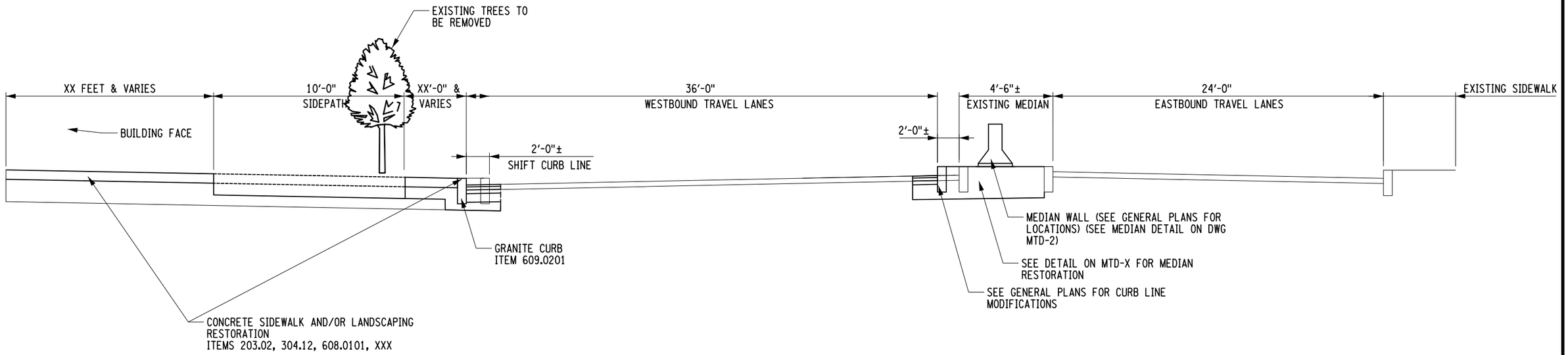

ERIE BOULVARD - THRU/TURN LANES AND NO ACCESS ROAD

NTS

STA. XXX± TO STA. XXX±

ITEM	DESCRIPTION	UNIT	ITEM	DESCRIPTION	UNIT
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	LS	608.020102	HOT MIX ASPHALT (HMA) SIDEWALKS, DRIVEWAYS AND BICYCLE	TON
203.03	EMBANKMENT IN PLACE	CY	627.50140008	PATHS, AND VEGETATION CONTROL STRIPS	CY
209.1003	SEED AND MULCH- TEMPORARYSEDIMENT FILTER	CY			SY
304.12	SUBBASE COURSE, TYPE 2	SY			
402.128204	DILUTED TACK COAT	LF			
402.258904		CY			
402.378904		GAL			
418.7603		SF			
407.0102		LF			
608.0101					

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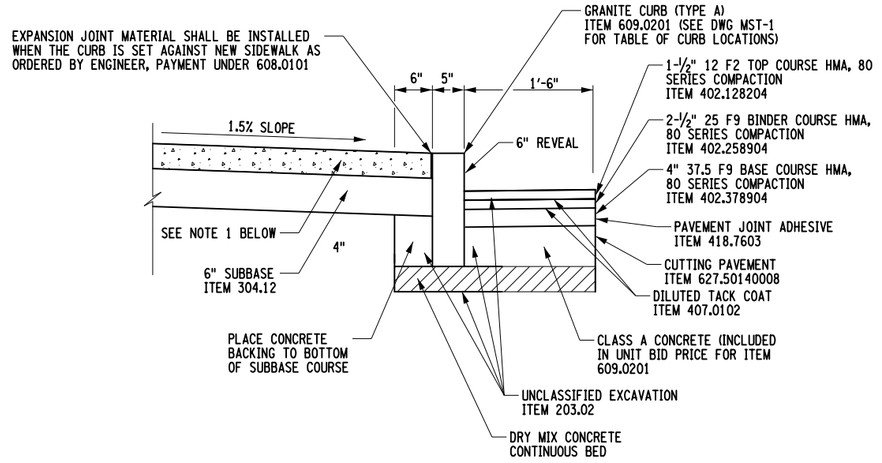

DETAIL "B"
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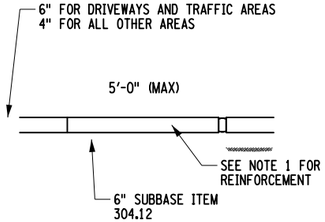

SIDEWALK INSTALLATION DETAIL
(NTS)

NOTES:

1. THE CONTRACTOR IS TO USE CLASS D CONCRETE WITH REINFORCEMENT PER 608-2.01D OF THE NYS STANDARD SPECIFICATIONS. CONTRACTORS ARE GIVEN THE OPTION OF USING 6"X6" WIRE MESH (W2.9 OR 23) OR USING FIBER REINFORCEMENT. WHERE THERE IS A COMMERCIAL DRIVEWAY, THE CONTRACTOR SHALL USE WIRE MESH ADDITIONAL FIBER REINFORCEMENT.

PARKING CURB MEDIAN INSTALLATION DETAIL
(NTS)

NOTES:

1. BEHIND THE PROPOSED CURB WILL BE 4" OF CONCRETE SIDEWALK (ITEM 608.0101), OR 4" OF ASPHALT TRAIL (ITEM 608.020102), OR 4" OF TOPSOIL AND TURF ESTABLISHMENT (ITEMS 610.1403 AND 610.1602). SEE GENERAL PLANS FOR THE RESPECTIVE MATERIAL.
2. THE DRY MIX CONCRETE AND TYPE A CONCRETE ARE TO BE PAID FOR UNDER ITEM 609.0201- STONE CURB, GRANITE, (TYPE A).
3. ITEM 608.020102 SHALL BE APPLIED IN TWO LIFTS AS FOLLOWS: 2½" TYPE 25MM BINDER, 1½" TYPE 9MM TOP.

AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:

LEGEND

SIDEPATH

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE CITY OF ROME COUNTY: ONEIDA REGION: 2	PIN: 2650.53 UTIL QLVL: C	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED MISCELLANEOUS TABLES AND DETAILS	CONTRACT NUMBER D040238 DRAWING NO. MTD-1 SHEET NO. 15

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL | JOB MANAGER C. CORNWELL | DESIGN J. GENTZLER | CHECK R. WALSH | DRAFTING J. GENTZLER | PROJECT MANAGER J. GENTZLER

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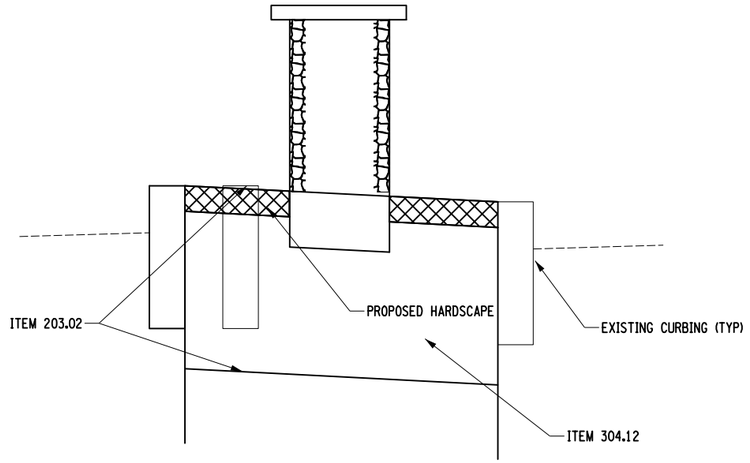

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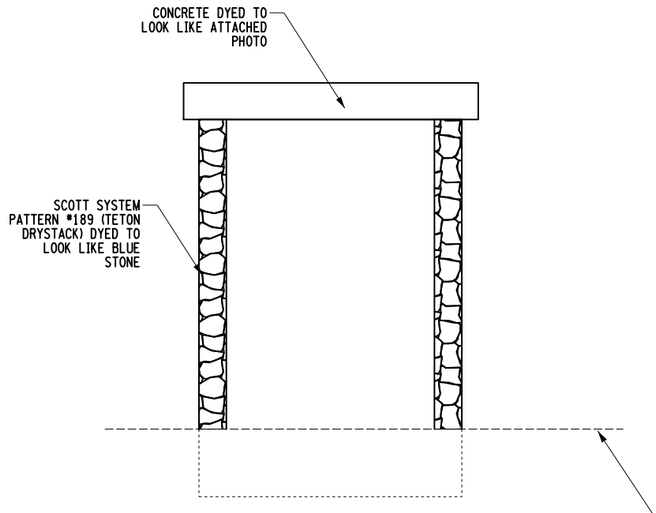
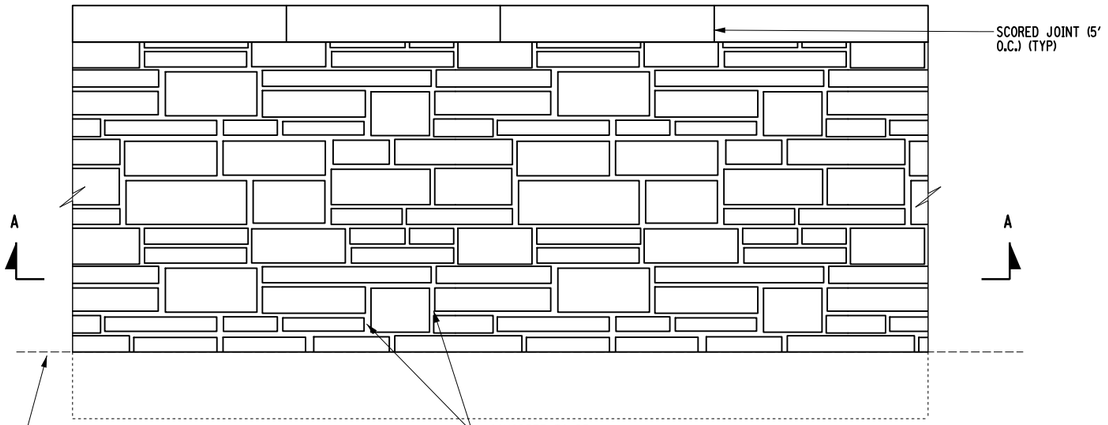


SECTION A-A
(NTS)



MEDIAN WALL
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AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:

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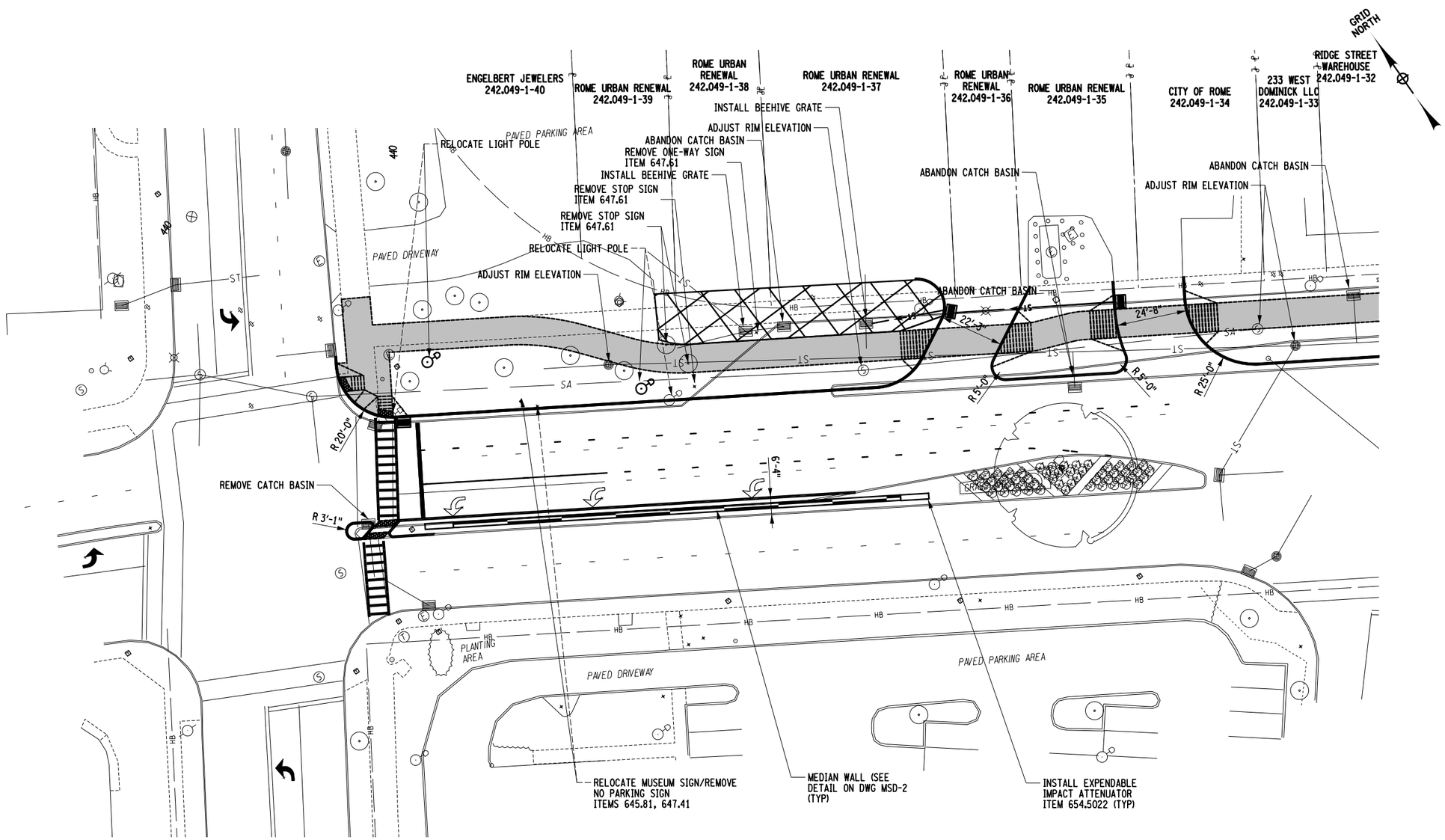

AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:

LEGEND

SIDEPATH

20 0 20 40 60 80'

AS-BUILT REVISIONS
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CITY OF ROME
COUNTY: ONEIDA REGION: 2

PIN: 2650.53
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BRIDGES

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ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER D040238

DRAWING NO. GNP-1
SHEET NO. XX

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL
JOB MANAGER C. CORNWELL
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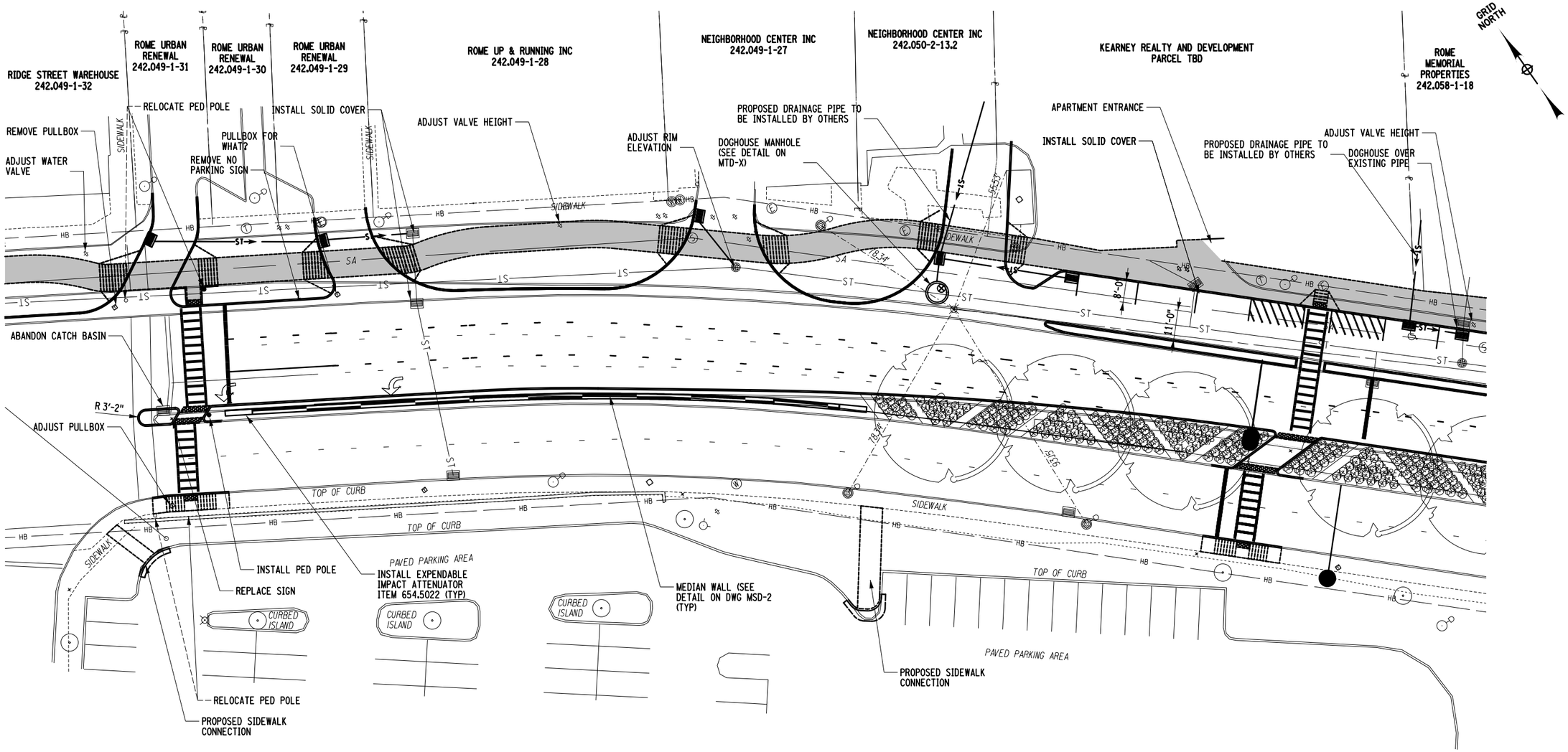

AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:

LEGEND

SIDEPATH

20 0 20 40 60 80'

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE CITY OF ROME COUNTY: ONEIDA REGION: 2	PIN: 2650.53 UTIL QLVL: C	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED GENERAL PLAN	CONTRACT NUMBER D040238 DRAWING NO. GNP-2 SHEET NO. XX

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL | JOB MANAGER C. CORNWELL | DESIGN J. GENTZLER | DRAFTING J. GENTZLER | CHECK R. WALSH | PROJECT MANAGER J. GENTZLER | CHECK R. WALSH

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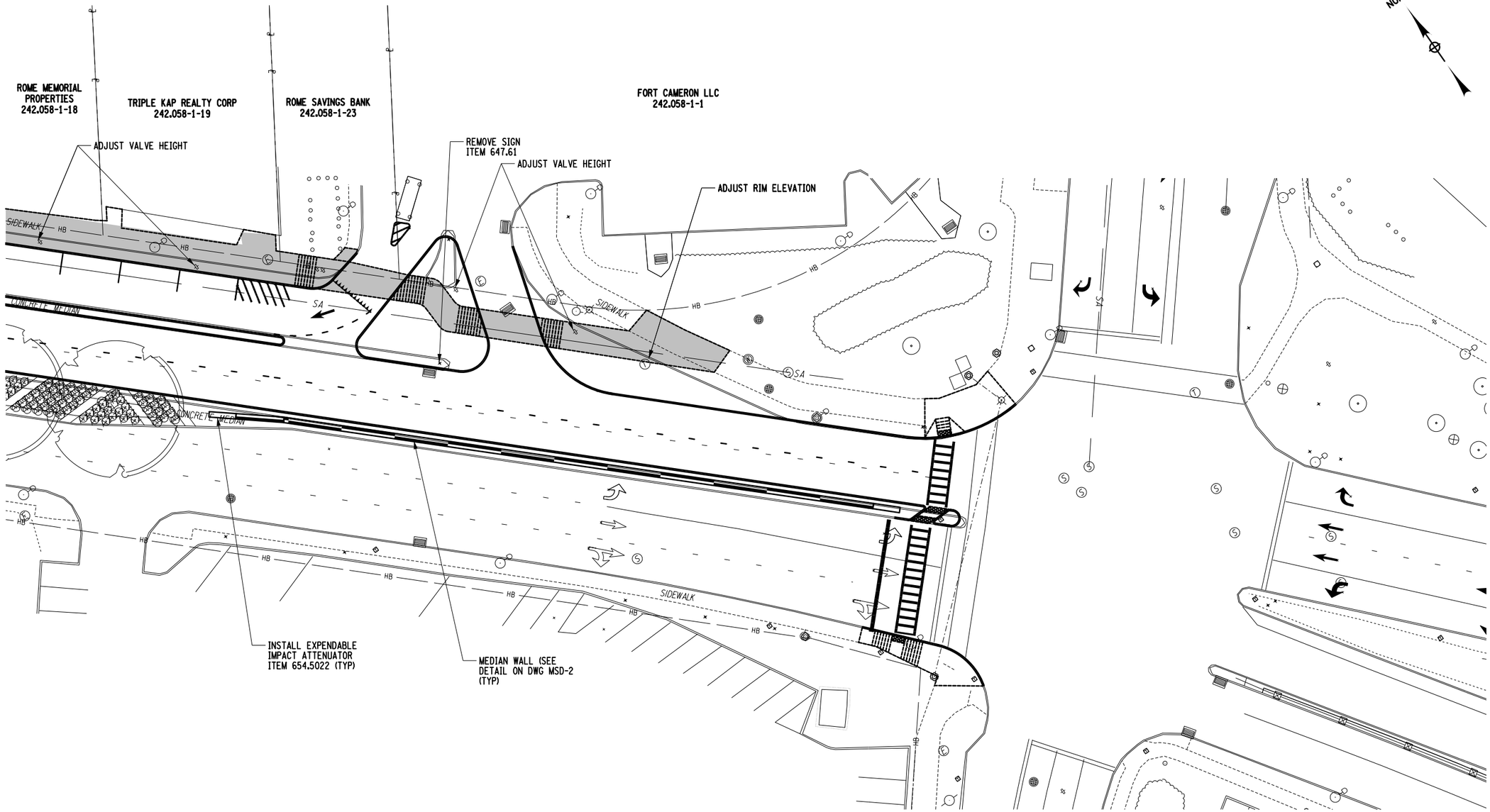

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LEGEND

SIDEPATH

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE
CITY OF ROME
COUNTY: ONEIDA REGION: 2

PIN: 2650.53
UTIL QLVL: C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER D040238

DRAWING NO. GNP-3
SHEET NO. XX

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL
JOB MANAGER C. CORNWELL
DESIGN J. GENTZLER
DRAFTING J. GENTZLER
CHECK R. WALSH
PROJECT MANAGER J. GENTZLER
CHECK R. WALSH

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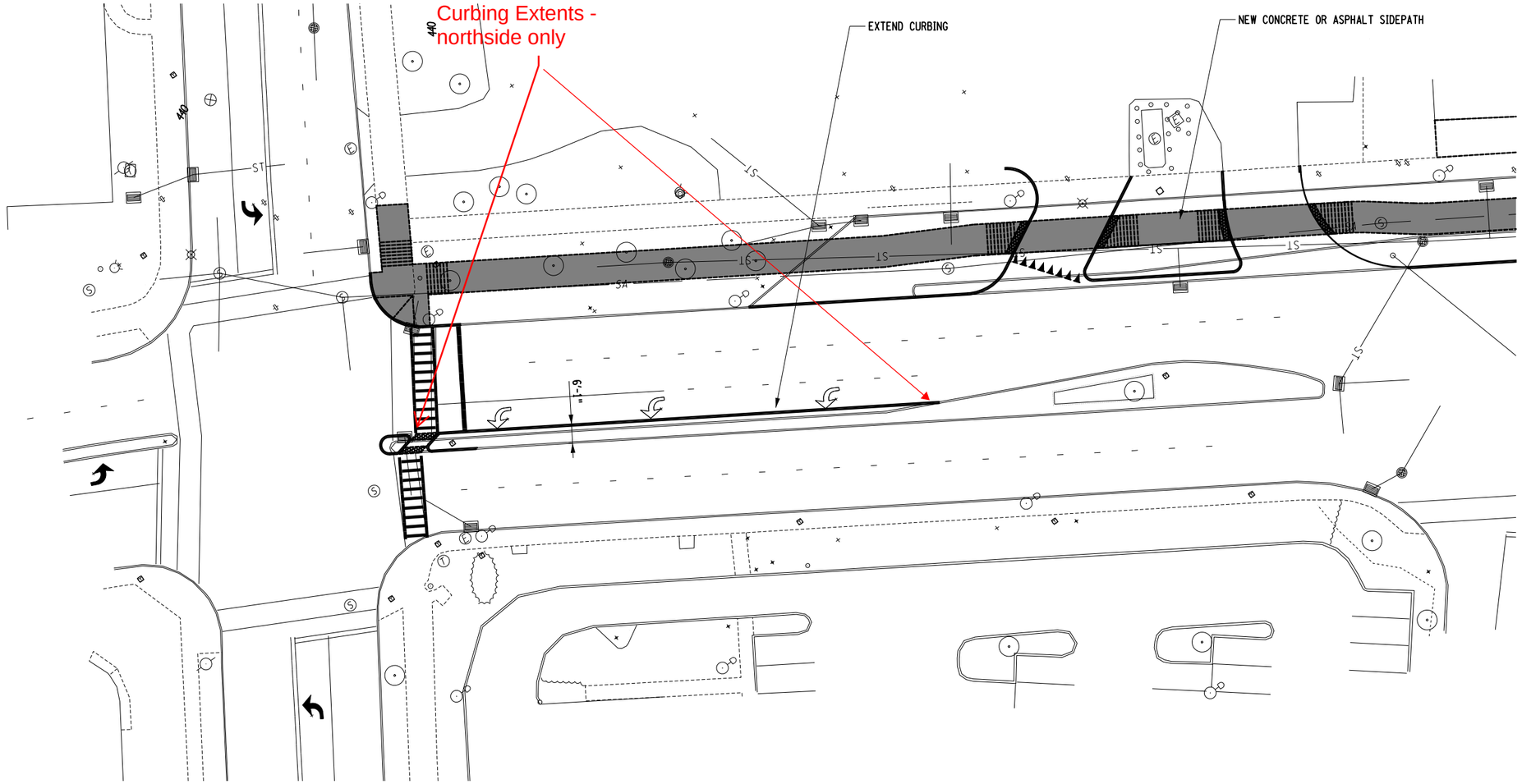

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SIDEPATH

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GENERAL PLAN

CONTRACT NUMBER
D040238

DRAWING NO. ALT 1B
SHEET NO. 1

GPI Engineering Design Planning Construction Management

CITY OF ROME

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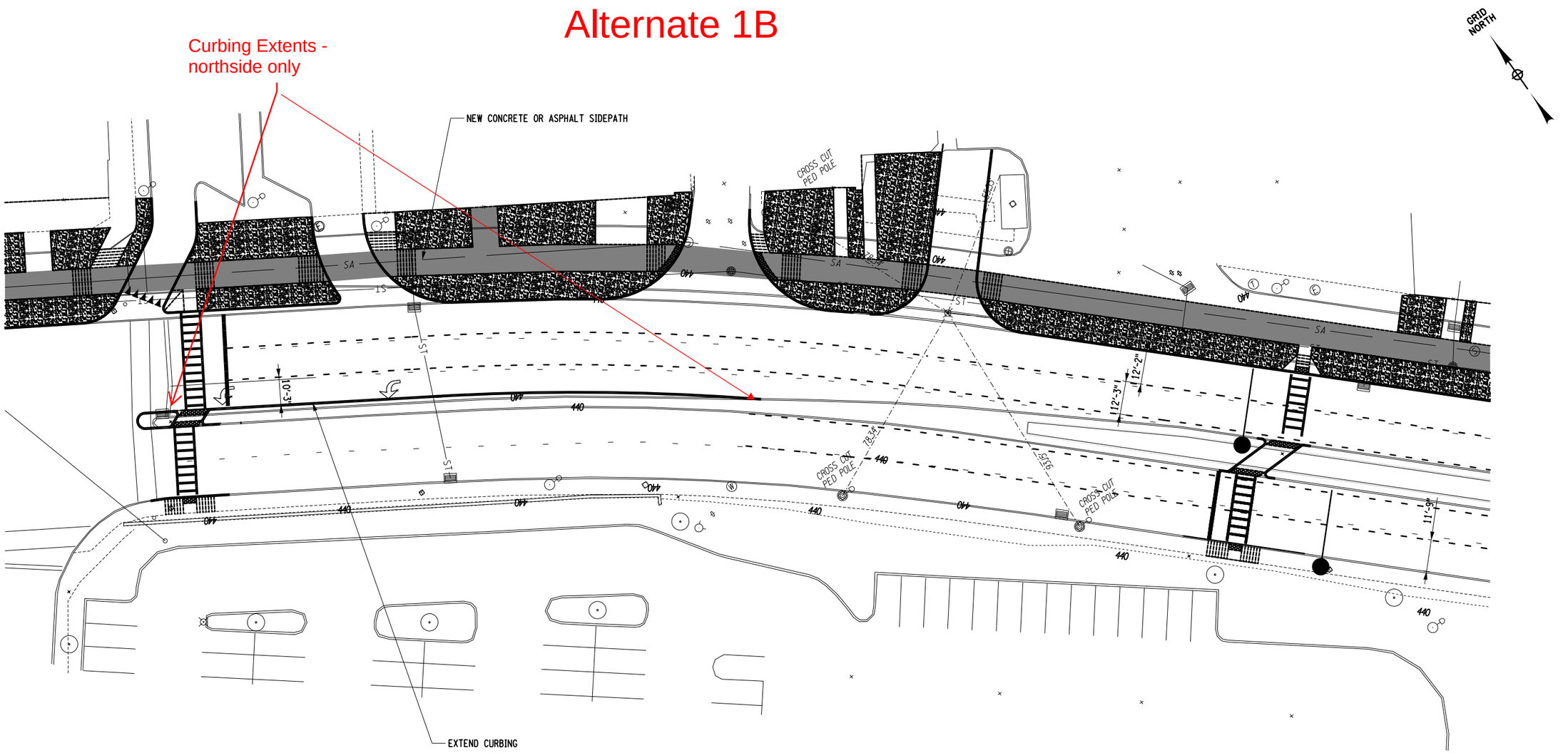

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AS-BUILT REVISIONS
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GENERAL PLAN

CONTRACT NUMBER
D040238

DRAWING NO. ALT 1B
SHEET NO. 2

GPI Engineering Design Planning Construction Management

CITY OF ROME

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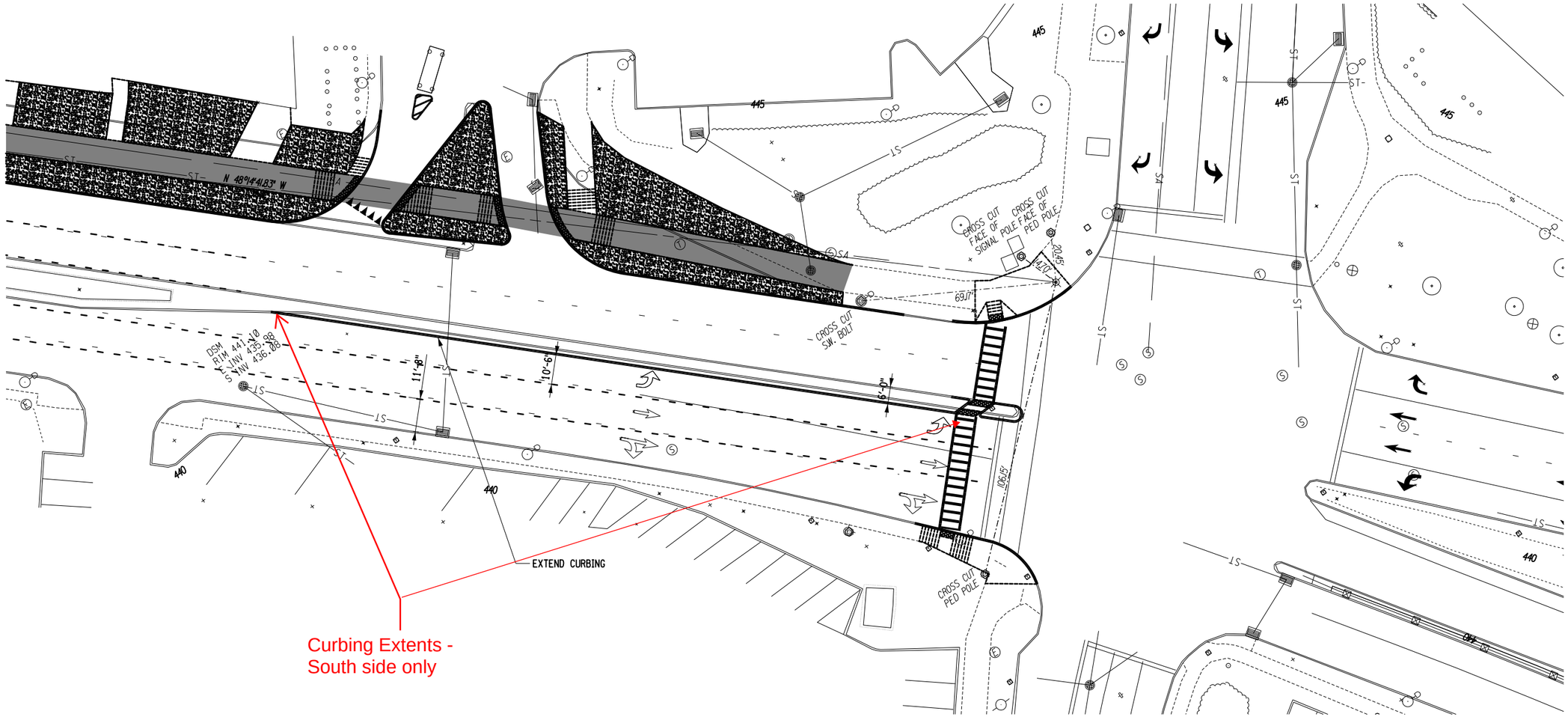

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CONTRACT NUMBER
D040238

DRAWING NO. ALT 1B
SHEET NO. 3

GPI Engineering Design Planning Construction Management

CITY OF ROME

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DRAFTING J. GENTZLER
CHECK R. WALSH
PROJECT MANAGER J. GENTZLER
CHECK R. WALSH

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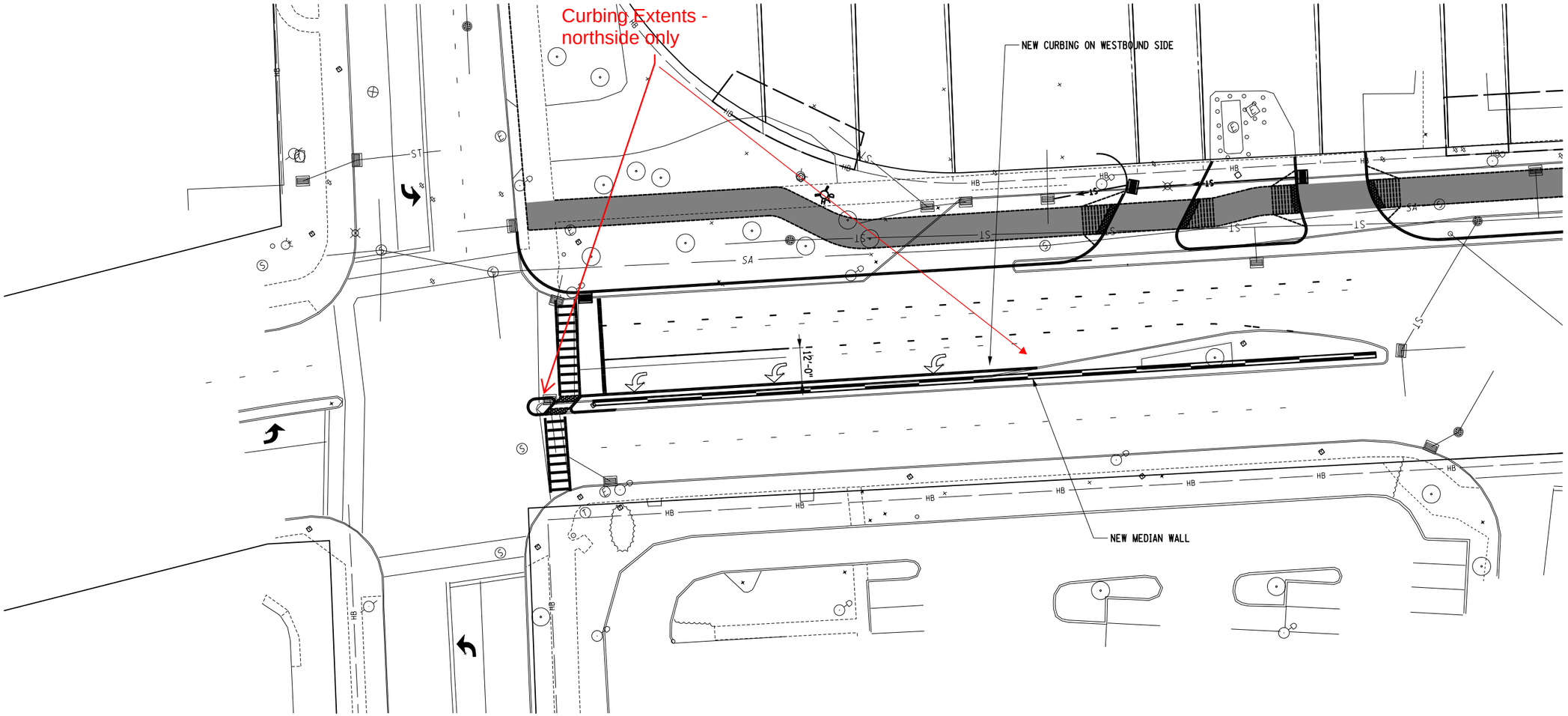

AFFIX SEAL: GREENMAN - PEDERSEN, INC ON:	ALTERED BY: ON:

LEGEND

SIDEPATH

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AS-BUILT REVISIONS
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CITY OF ROME
COUNTY: ONEIDA REGION: 2

PIN: 2650.53
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CONTRACT NUMBER D040238

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SHEET NO. 1

GPI Engineering Design Planning Construction Management

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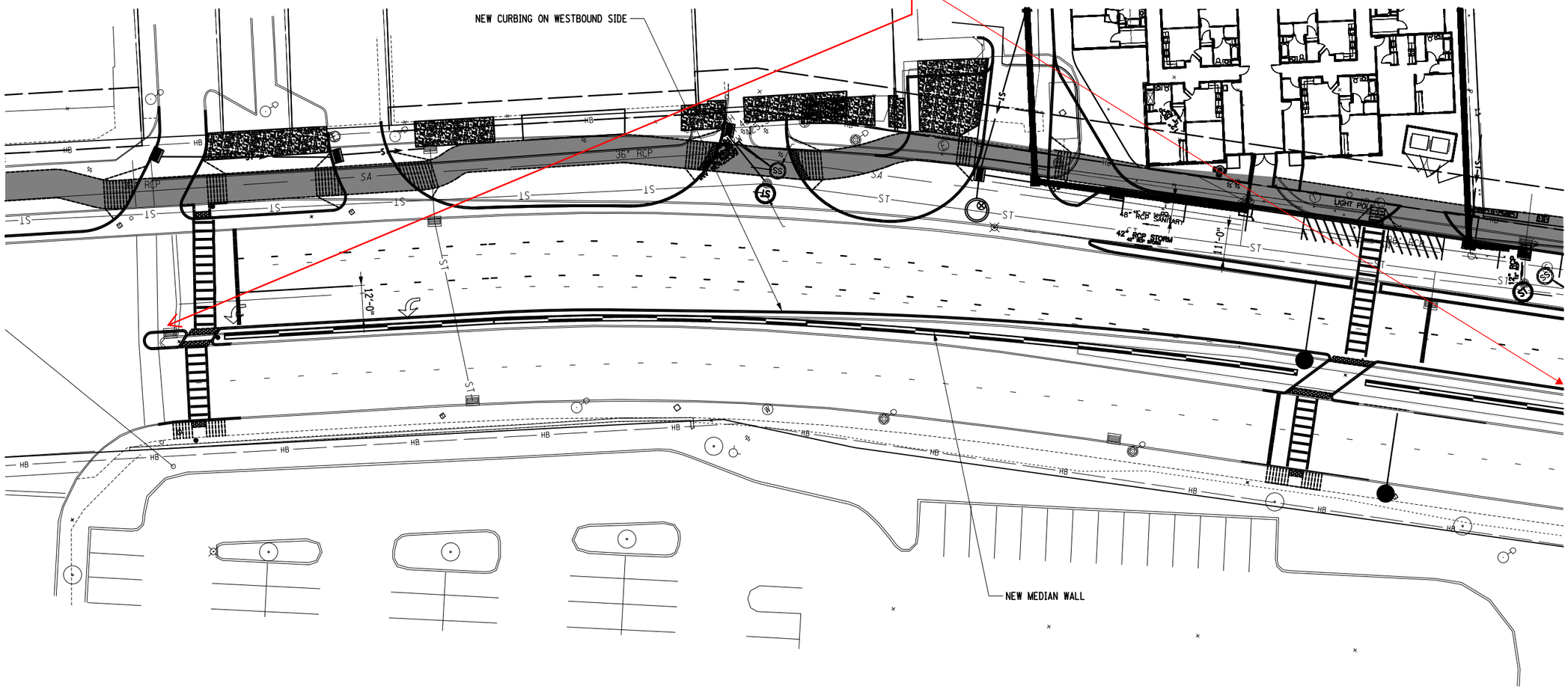

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CITY OF ROME

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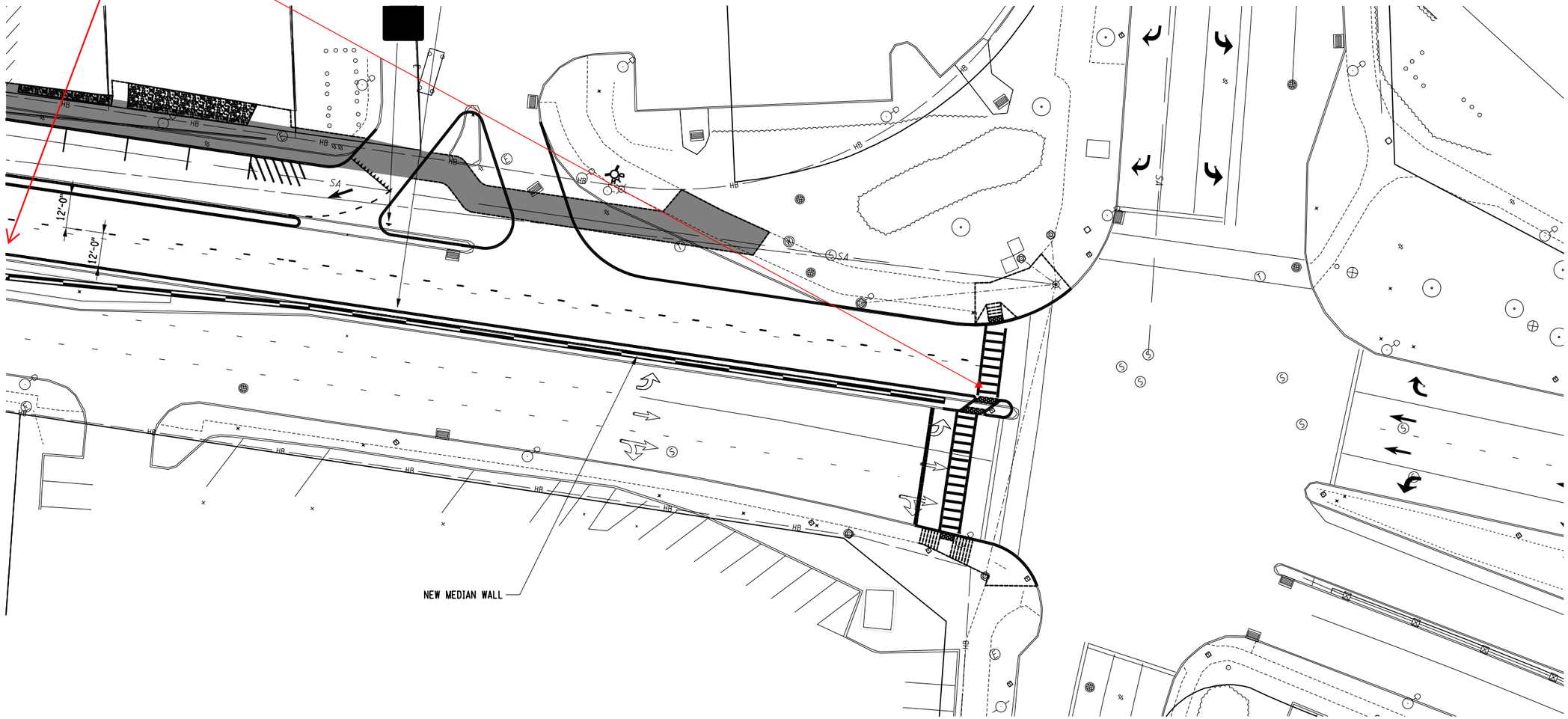
Alternate 1C

Curbing Extents -
Entire Median
northside only



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GENERAL PLAN

CONTRACT NUMBER
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DRAWING NO. ALT 1C
SHEET NO. 3

GPI Engineering Design Planning Construction Management

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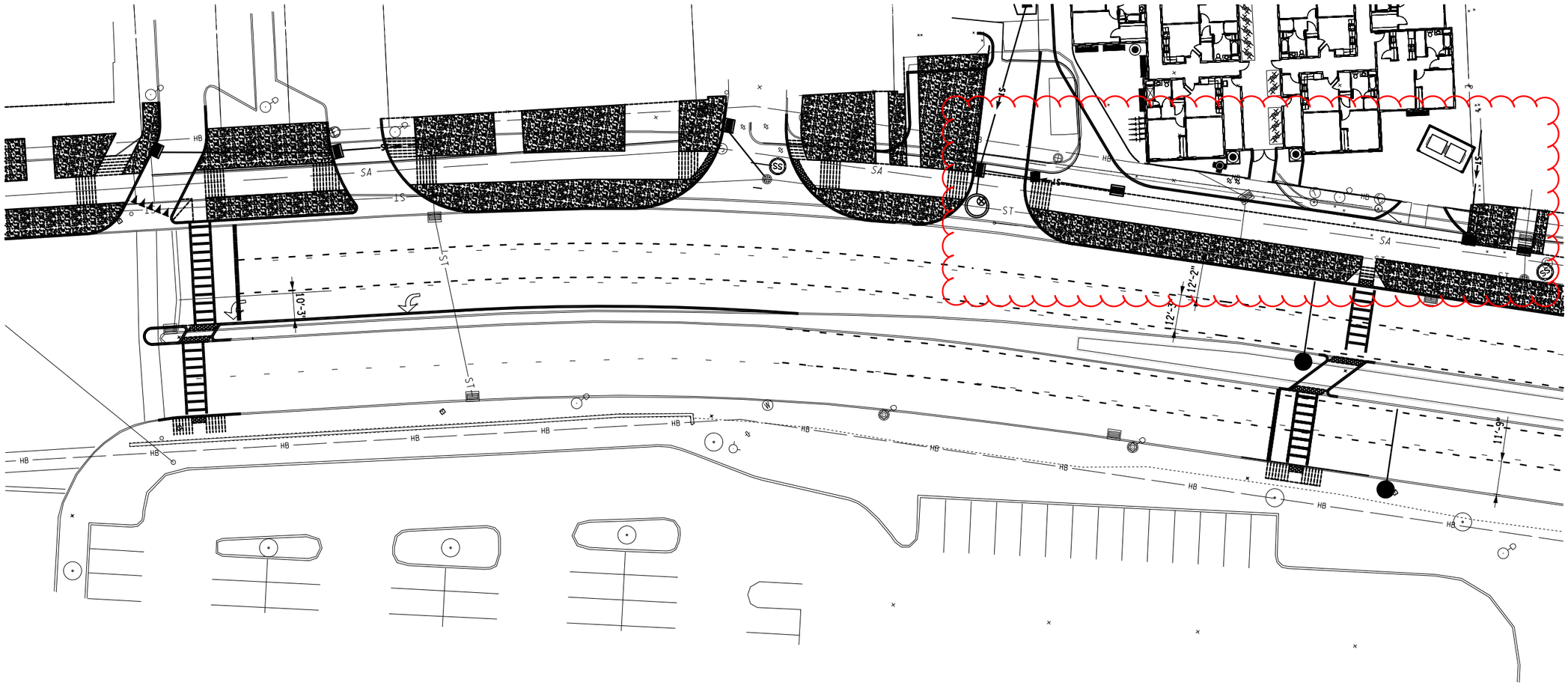
Alternate 1D

No on-street parking



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FILE NAME = $FILEABBREV$
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USER = $NTUSER$

Appendix B
Environmental Information

1. Federal Highway Administration Endangered Species Act Transmittal Sheet
2. Project Submittal Package
3. NYSDOT Smart Growth
4. Federal Environmental Approvals Worksheet
5. Social, Economic, and Environmental Checklist

PIN: **PROJECT NAME:** Wheels to Heels Streetscape Improvements, PIN 2650.57

Section 7 ESA Process: ESA/EFH Transmittal Sheet

Step 3: Documentation. Please complete the appropriate boxes below and complete the documentation as described.

	ESA/EFH Does Not Apply	No Effect, Activity-Based	No Effect, No Suitable Habitat or No Effect	BATS: MA, NLAA, 14-Day Form, or IPaC Submittal	NLEB: MA, LAA 30 Day Form, or IPaC Submittal	MA, NLAA, Traditional 7-step Process	MA, LAA, Formal Consultation
Northern Long-eared Bat	X		NA				
Indiana Bat	X		NA		NA		
Bog Turtle	X		NA	NA	NA		
Mollusks (Dwarf Wedge Mussel, Rayed Bean, Clubshell, Chittenango Ovate Amber Snail)	X			NA	NA		
Karner Blue Butterfly	X			NA	NA		
Sturgeon (Shortnose, Atlantic)	X			NA	NA		
Sea Turtles	X			NA	NA		
Atlantic Large Whales	X		NA	NA	NA		
EFH Resources (circle one)	EFH Does Not Apply	No Effect, Activity-Based	NA	NA	EFH Programmatic Agreement Applies	EFH Programmatic Agreement MAY Apply	Individual EFH Consultation is Required
Documentation Required	The IPaC/NMFS ESA/EFH Mapper report is included in the Design Report.	Record the corresponding number of the activity in the box above. This sheet and the IPaC/NMFS ESA/EFH printout are included in the Design Report.	NYSDOT submits "No Effect, No Suitable Habitat Determination" to FHWA. Concurrence has been obtained if 15 days passes without correspondence from FHWA.	NYSDOT submits 14-day Form to USFWS-cc: Area Engineer, OR submits through IPaC w/Area Engineer included.	NYSDOT submits 30-day Form to FHWA-then to USFWS, OR NYSDOT submits through IPaC w/ Area Engineer included.	NYSDOT submits either BE or BA to FHWA, who submits to USFWS for concurrence.	NYSDOT submits BA to FHWA for Initiation of Formal Consultation with USFWS or NMFS.

Instructions for Use: This Summary Sheet is sent to FHWA for concurrence for all submissions, except "ESA Does Not Apply" and "No Effect, Activity-Based". 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 Design Report.

Section 106 Project Submittal Package

PIN 2650.57 Wheels to Heels Streetscape Improvements, Erie Boulevard, City of Rome, Oneida County, New York

Prepared for:

GPI [
Greenman-Pederson, Inc.
80 Wolf Road, Suite 300
Albany, NY 12205
(518) 453-9431
www.gpinet.com

Prepared by:

Environmental Design & Research, D.P.C.
41 State Street, Suite 806
Albany, New York 12207
www.edrdpc.com

June 2021

NYS DEPARTMENT OF TRANSPORTATION PROJECT SUBMITTAL PACKAGE

Section 106 of the National Historic Preservation Act

For Locally-Administered Federal-Aid Projects

A Project Submittal Package is prepared by the Local Project Sponsor (Sponsor) or their consultants for federal aid transportation projects to provide sufficient information for NYSDOT assessment of Section 106 obligations.
The Sponsor sends the package to the Regional Local Project Liaison (RLPL) for Regional Cultural Resource Coordinator (RCRC) review. The RCRC will make recommendations to identify what is needed for Section 106 compliance for the project.

DATE: June 1, 2021 PIN: 2650.57 BIN(s): NA

IDENTIFICATION

Project Name (if any): Wheels to Heels Streetscape Improvements, Erie Boulevard, City of Rome, Oneida County
Project Area Boundaries: Erie Boulevard Approximately from James Street to George Street.

County: Oneida Town/City: Rome Village/Hamlet: NA

Have you consulted the NYSHPO web site at *http://nysparks.state.ny.us to determine the preliminary presence or absence of previously identified cultural resources within or adjacent to the project area? ☒ **Yes** ☐ **No**

If yes:

- Was the project site wholly or partially included within an identified archaeologically sensitive area? ☒ **Yes** ☐ **No**
- Does the project site involve or is it substantially contiguous to a National Register of Historic Places listed property? ☒ **Yes** ☐ **No** [Fort Stanwix National Monument, NR Date: 10/15/1966, NR #: 90NR02066]

*http://nysparks.state.ny.us then select **HISTORIC PRESERVATION** then **Historic Preservation Field Services Bureau** then **On Line Tools – CRIS**

ALL PROJECTS SUBMITTED FOR REVIEW SHOULD INCLUDE THE FOLLOWING INFORMATION

☒ **Project Description –** Attach a full description of the nature and extent of the work to be undertaken as part of this project. This should include, but not limited to, potential activities that might involve drainage, cutting, excavation, grading, filling, on-site detours, new sidewalks, right-of-way acquisition. Relevant portions of the project applications or environmental statements may be submitted. This could be from sections of the Draft Design Report/ Draft Scoping Document.

☒ **Location Maps -** Provide USGS Quad or DOT Planimetric map showing project area location. The map must clearly show street and road names surrounding the project area as well as all portions of the project.

☒ **Photos -** Provide clear, original color photographs of the entire project area keyed to a site plan. These photos should indicate:

- Buildings/structures more than 50 years old that are located along the property or on adjoining property.
- Areas of prior ground disturbance (removal of original topsoil; filling and plowing are not considered disturbance).

LOCAL SPONSOR CONTACT

Name: Matt Andrews Title: Deputy Director
Firm/Agency: City of Rome Department of Community and Economic Development
Address: 198.N Washington Street City: Rome State: NY Zip: 13440
Phone: (315) 339-7628 E-Mail: mandews@romecitygov.com

Consultant Name: Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.
Contact Information: 41 South Street, Suite 806, Albany, NY 12207
Phone: (518) 451-9150

1.0 PROJECT INFORMATION

This Section 106 Project Submittal Package for the Wheels to Heels Streetscape Improvements, Erie Boulevard project (PIN 2650.57), located in the City of Rome in Oneida County, New York, was prepared by Environmental Design & Research, Landscape Architecture, Engineering, & Environmental Services, D.P.C. (EDR) on behalf of Greenman-Pedersen, Inc. (GPI). Project figures are provided in Attachment A.

1.1 Project Description

PIN 2650.57 (hereafter "the Project") proposes to construct new sidewalks and upgrade existing sidewalks/ramps that are not ADA compliant. The project will mostly remove the existing access road that is along the westbound travel lane. The removal will allow the construction of a 10-foot wide side path and additional greenspace. A small segment of the access road that is about 540 feet long will be reconstructed to provide parallel parking that will serve the future Coper City Loft apartments (the existing vacant parcel). The impacts will require modifications to the storm drainage in the roadway. The City indicated that congestion is an issue along the project corridor so a traffic analysis will be performed to look at the existing signal timings and traffic operations to identify potential mitigation measures. To improve pedestrian connectivity a new signalized mid-block crossing is proposed along with new pedestrian signals at the Erie Boulevard/South George Street intersection. The new signals will serve South George Street only as there are currently pedestrian signals in place to facilitate crossing of Erie Boulevard. Lastly, the project will reconstruct the existing median by placing a new architectural wall within the curbing in areas where the width is eight feet or less. Where the median widens to eight feet or more, new planting areas will be established along with new street trees that are more suitable for the urban environment. The existing curb lines of the median are being retained in the eastbound direction whereas the westbound curb lines are being shifted north about two feet. By widening the median the project meets the six foot design standard necessary for the construction of pedestrian refuge islands within a median.

- **Area of Potential Effect (APE):** The APE for this Project consists of the proposed limits of work, which include the travel way and shoulders along Erie Boulevard as shown in the engineering drawings provided in Attachment B. Total area of disturbance is approximately 2,200 linear feet of roadway and 65,000 square feet (1.49 acres) in area. The maximum depth of disturbance will be approximately two feet for pavement and subbase excavation. The area within the Project limits, inclusive of currently existing pavement, utilities, and drainage has been previously disturbed. No buildings will be affected by the proposed Project.

1.2 Photographs

A site visit was conducted by EDR staff on May 15, 2021 to photograph existing conditions. A photolog of the project site with images retrieved from Google Maps street view on May 24, 2021 is provided in Attachment C.

LIST OF ATTACHMENTS

Attachment A. Project Figures

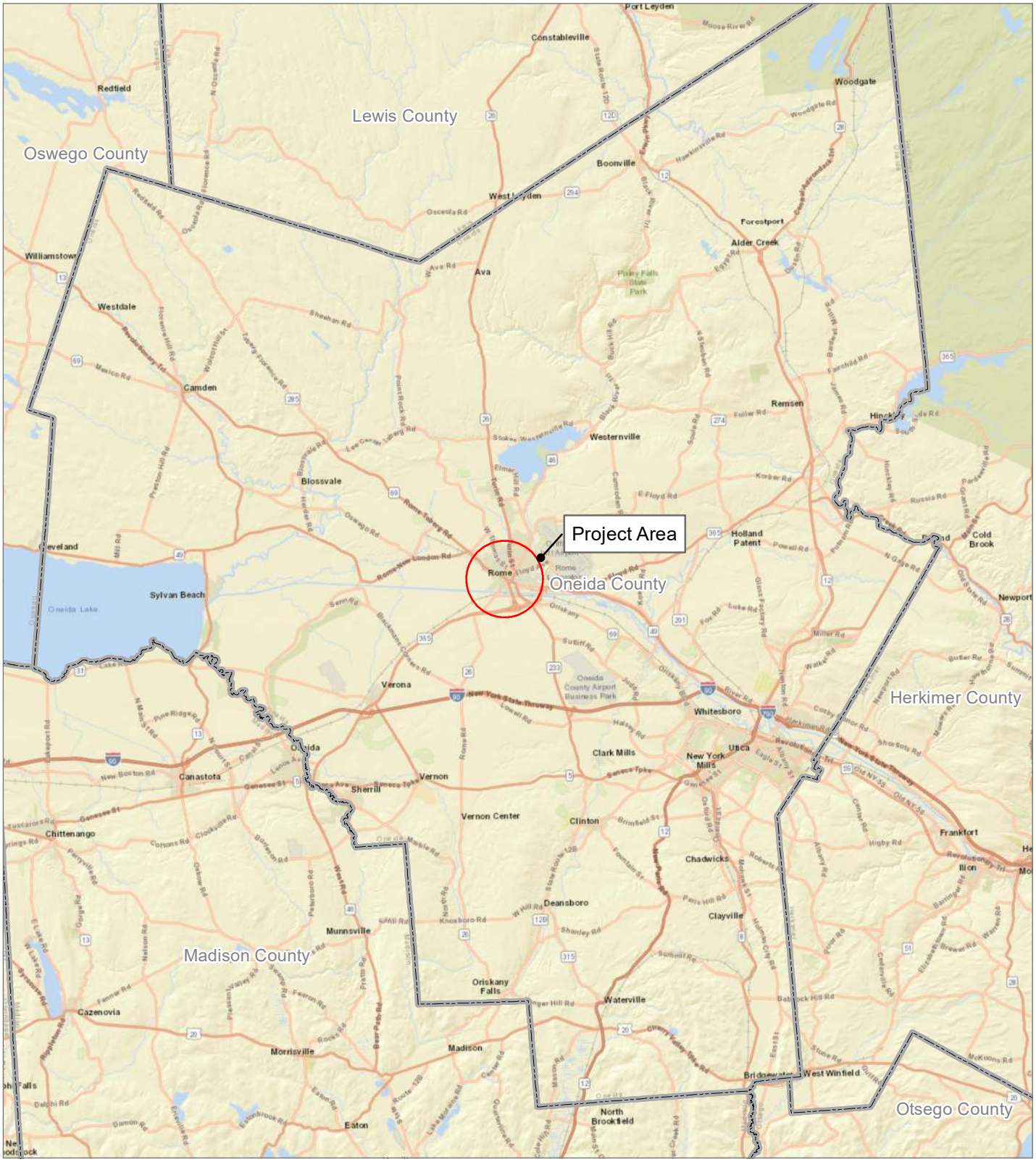
Attachment B. Engineering Drawings

Attachment C. Representative Photographs

Appendix A

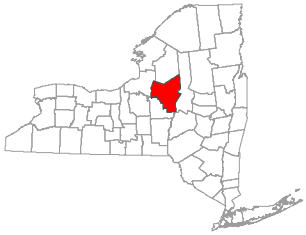
Figures

Regional Project Location



GPI - Erie Boulevard

City of Rome, Oneida County, New York



0 2.5 5 10

Miles

Prepared May 25, 2021

Basemap: ESRI ArcGIS Onlien "World Street Map" map service.

EDR

Project Site

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Project Site

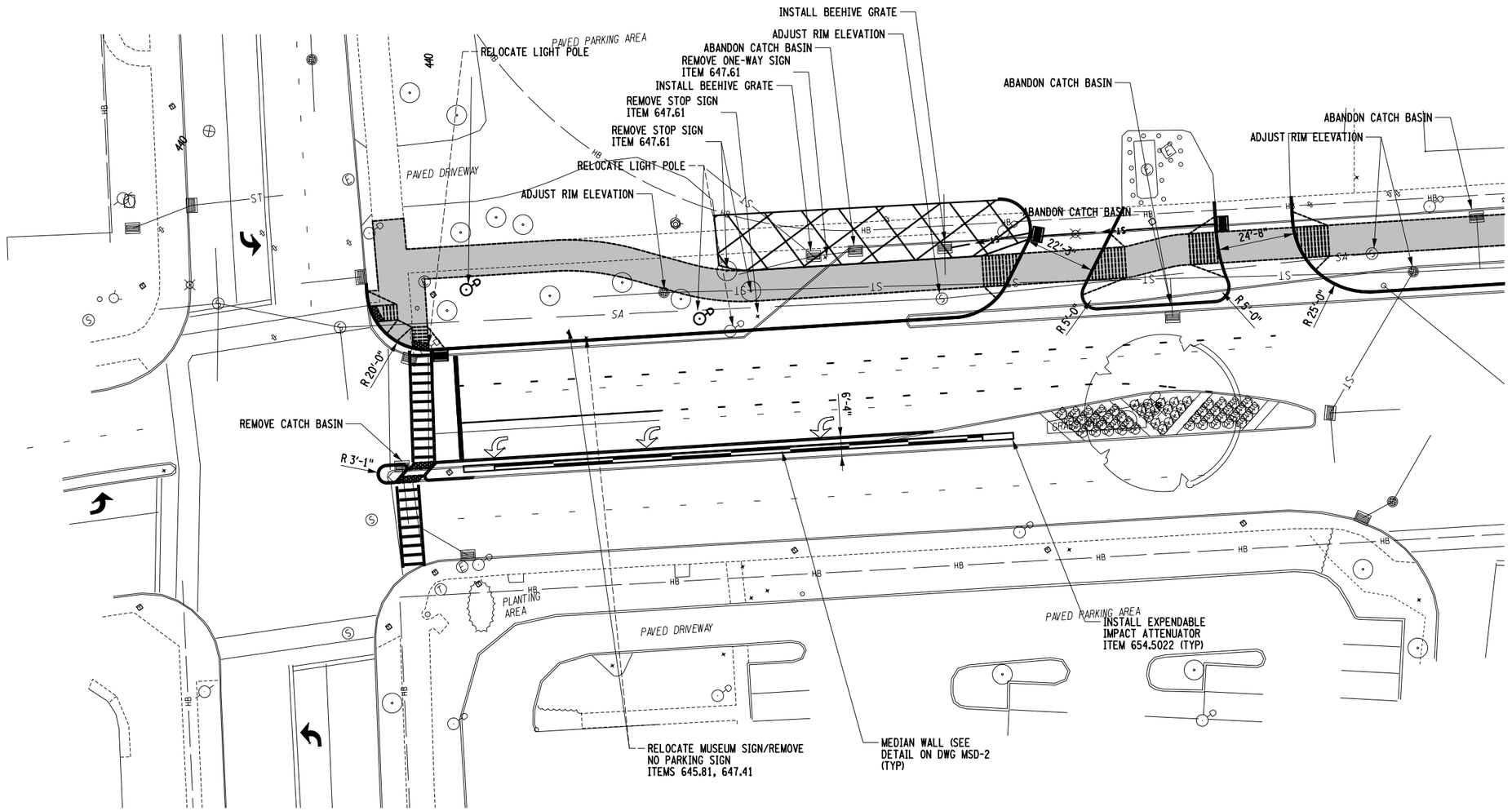
0 50 100 200
Feet

Prepared May 25, 2021
Basemap: NYSDOP "2017" orthoimagery map service.

EDR

APPENDIX B

Engineering Drawings



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AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE
CITY OF ROME
COUNTY: ONEIDA REGION: 2

PIN: 2650.53
UTIL QLVL: C

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN

CONTRACT NUMBER D040238

DRAWING NO. GNP-1
SHEET NO. XX

GPI Engineering Design Planning Construction Management

CITY OF ROME

DESIGN SUPERVISOR C. CORNWELL
JOB MANAGER C. CORNWELL
DESIGN J. GENTZLER
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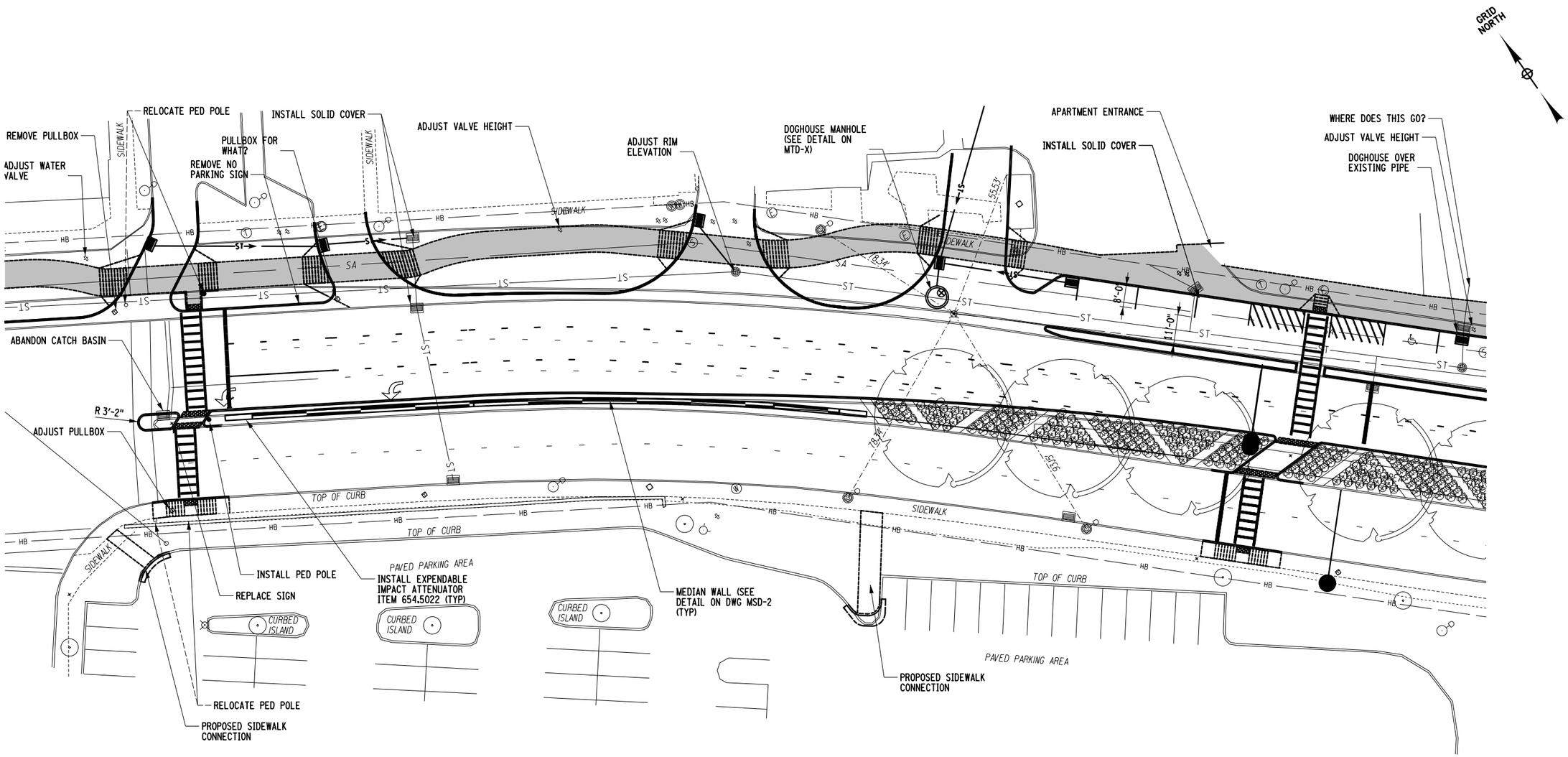

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GPI Engineering Design Planning Construction Management

CITY OF ROME

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PROJECT MANAGER J. GENTZLER
CHECK R. WALSH

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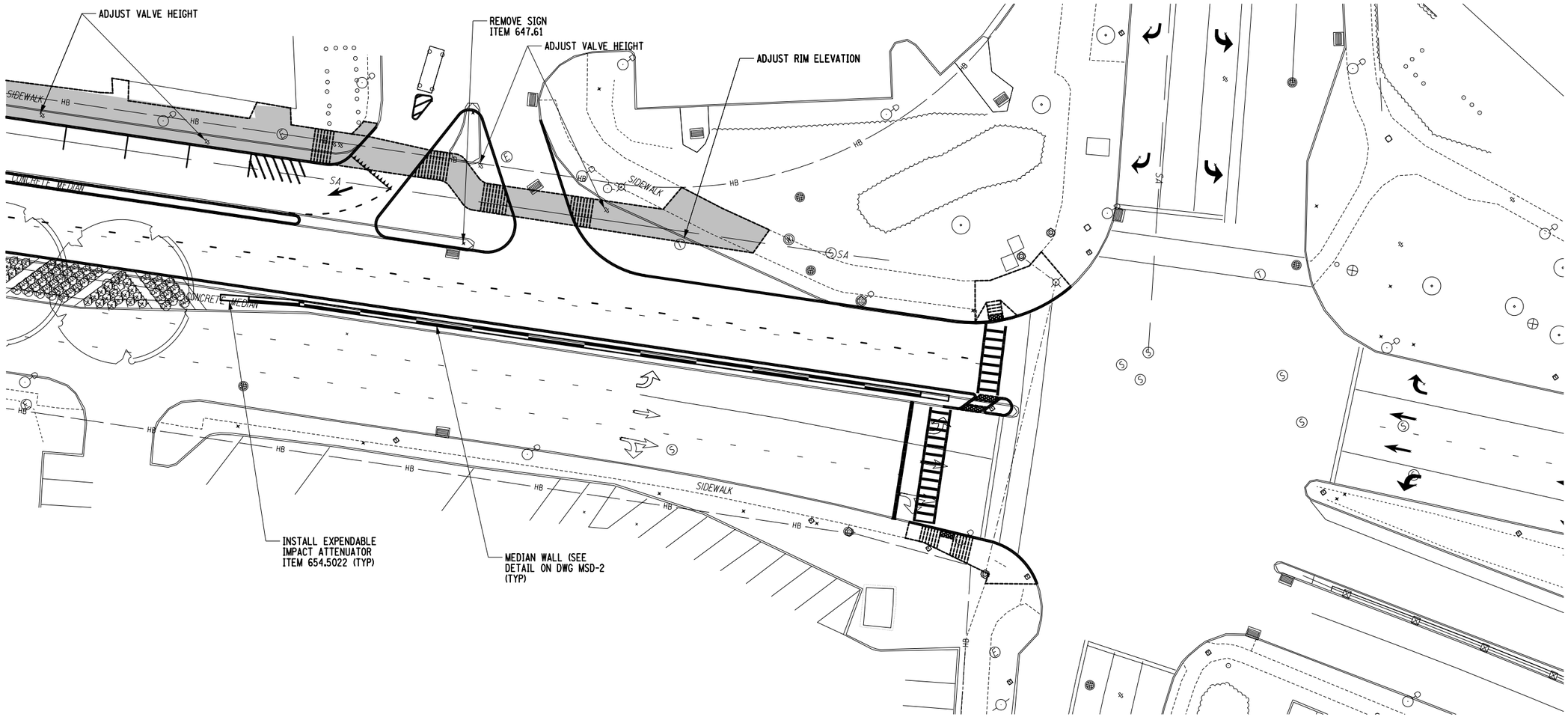

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GPI Engineering Design Planning Construction Management

CITY OF ROME

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USER = $NTUSER$

APPENDIX C

Photo Log

Photo 1

Erie Blvd. at S. James Street, looking west

Photo 2

Erie Blvd. at S. James Street, looking east

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Photo 3

Erie Blvd. midway between S. James Street and Freedom Plaza, looking west

Photo 4

Erie Blvd. midway between S. James Street and Freedom Plaza, looking east

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Photo 5

Erie Blvd. at Freedom Plaza looking west

Photo 6

Erie Blvd. at Freedom Plaza, looking east

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Photo 7

Erie Blvd. at S. George Street, looking west

Photo 8

Erie Blvd. at S. George Street looking east

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Photo 9

Erie Blvd. at S. James Street looking northeast

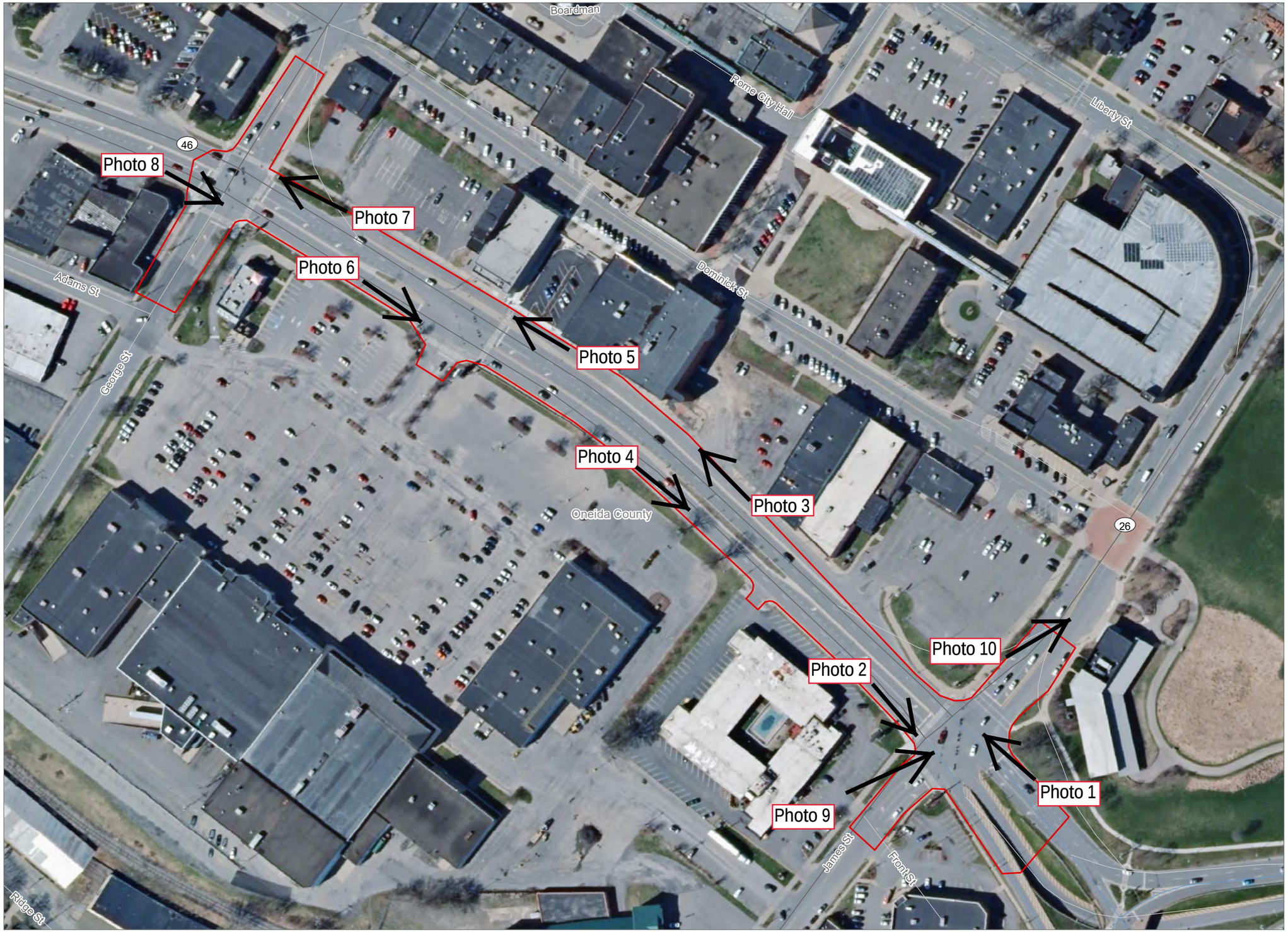
Photo 10

James Street at Erie Blvd. looking northeast

GPI - Erie Boulevard

City of Rome, Oneida County, New York

Project Site



GPI - Erie Boulevard

City of Rome, Oneida County, New York

Project Site

0 50 100 200
Feet

Prepared May 25, 2021
Basemap: NYSDOP "2017" orthoimagery map service.

EDR

Smart Growth Screening Tool

PIN **2650.57**

Prepared By: Environmental Design & Research, D.P.C.

Smart Growth Screening Tool (STEP 1)

NYSDOT & Local Sponsors – Fill out the Smart Growth Screening Tool until the directions indicate to **STOP** for the project type under consideration. For all other projects, complete answering the questions. For any questions, refer to Smart Growth Guidance document.

Title of Proposed Project: Wheels to Heels Streetscape Improvements

Location of Project: Rome

Brief Description: To provide ADA comlient pedestrian connections, on-street parking opportunities and other streetscape improvements along a 2,200 linear segment of Erie Boulevard (NY 46) from James Street to George Street.

A. Infrastructure:

Addresses SG Law criterion a. –
(To advance projects for the use, maintenance or improvement of existing infrastructure)

1. Does this project use, maintain, or improve existing infrastructure?

Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above – the form has no limitations on the length of your narrative)

This Project proposes to construct new sidewalks and upgrade existing sidewalks/ramps that are not ADA compliant. The project will mostly remove the existing access road that is along the westbound travel lane. The removal will allow the construction of a 10-foot wide side path and additional greenspace. A small segment of the access road that is about 540 feet long will be reconstructed to provide parallel parking that will serve the future Copper City Loft apartments (the existing vacant parcel).

The impacts will require modifications to the storm drainage in the roadway. The City indicated that congestion is an issue along the project corridor so a traffic analysis will be performed to look at the existing signal timings and traffic operations to identify potential mitigation measures. To improve pedestrian connectivity a new signalized mid-block crossing is proposed along with new pedestrian signals at the Erie Boulevard/South George Street intersection. The new signals will serve South George Street only as there are currently pedestrian signals in place to facilitate crossing of Erie Boulevard. Lastly, the project will reconstruct the existing median by placing a new architectural wall within the curbing in areas where the width is eight feet or less. Where the median widens to eight feet or more, new

planting areas will be established along with new street trees that are more suitable for the urban environment. The existing curb lines of the median are being retained in the eastbound direction whereas the westbound curb lines are being shifted north about two feet. By widening the median the project meets the six foot design standard necessary for the construction of pedestrian refuge islands within a median.

Maintenance Projects Only

a. Continue with screening tool for the four (4) types of maintenance projects listed below, as defined in **NYSDOT PDM Exhibit 7-1 and described in 7-4:** https://www.dot.ny.gov/divisions/engineering/design/dqab/pdm

- Shoulder rehabilitation and/or repair;
- Upgrade sign(s) and/or traffic signals;
- Park & ride lot rehabilitation;
- 1R projects that include single course surfacing (inlay or overlay), per Chapter 7 of the NYSDOT Highway Design Manual.

b. For all other maintenance projects, **STOP here.** Attach this document to the programmatic Smart Growth Impact Statement and signed Attestation for Maintenance projects.

For all other projects (other than maintenance), continue with screening tool.

B. Sustainability:

NYSDOT defines Sustainability as follows: A sustainable society manages resources in a way that fulfills the community/social, economic and environmental needs of the present without compromising the needs and opportunities of future generations. A transportation system that supports a sustainable society is one that:

- Allows individual and societal transportation needs to be met in a manner consistent with human and ecosystem health and with equity within and between generations.
- Is safe, affordable, and accessible, operates efficiently, offers choice of transport mode, and supports a vibrant economy.
- Protects and preserves the environment by limiting transportation emissions and wastes, minimizes the consumption of resources and enhances the existing environment as practicable.

For more information on the Department's Sustainability strategy, refer to Appendix 1 of the Smart Growth Guidance and the NYSDOT web site, www.dot.ny.gov/programs/greenlites/sustainability

(Addresses SG Law criterion j **:** to promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future

generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain and implement.)

1. Will this project promote sustainability by strengthening existing communities?

   Yes ☒ **No** ☐ **N/A** ☐

2. Will the project reduce greenhouse gas emissions?

   Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above)

The Project will improve pedestrian facilities within this segment of Erie Boulevard which is intended to increase non-motorized travel within the area. The Project is expected to have a negligble impact on greenhouse gas emissions. The project is consistent with the NYSDOT Smart Growth Sustainability goals and initiatives.

C. Smart Growth Location:

Plans and investments should preserve our communities by promoting its distinct identity through a local vision created by its citizens.

(Addresses SG Law criteria b and c**:** to advance projects located in municipal centers; to advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan.)

1. Is this project located in a developed area?

   Yes ☒ **No** ☐ **N/A** ☐

2. Is the project located in a municipal center?

   Yes ☒ **No** ☐ **N/A** ☐

3. Will this project foster downtown revitalization?

   Yes ☒ **No** ☐ **N/A** ☐

4. Is this project located in an area designated for concentrated infill development in a municipally approved comprehensive land use plan, waterfront revitalization plan, or Brownfield Opportunity Area plan?

   Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above)

Several empty lots along this segment of Erie Boulevard may be developed in the future. One lot is the site of a proposed residential development, the Copper City apartments. The Project site area supports a variety of land uses and is municipal center within the downtown portion of the City of Rome.

D. Mixed Use Compact Development:

Future planning and development should assure the availability of a range of choices in housing and affordability, employment, education transportation and other essential services to encourage a jobs/housing balance and vibrant community-based workforce**.**

(Addresses SG Law criteria e and i: to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income groups; to ensure predictability in building and land use codes.)

1. Will this project foster mixed land uses?

   Yes ☒ **No** ☐ **N/A** ☐

2. Will the project foster brownfield redevelopment?

   Yes ☒ **No** ☐ **N/A** ☐

3. Will this project foster enhancement of beauty in public spaces?

   Yes ☒ **No** ☐ **N/A** ☐

4. Will the project foster a diversity of housing in proximity to places of employment and/or recreation?

   Yes ☒ **No** ☐ **N/A** ☐

5. Will the project foster a diversity of housing in proximity to places of commercial development and/or compact development?

   Yes ☒ **No** ☐ **N/A** ☒

6. Will this project foster integration of all income groups and/or age groups?

   Yes ☒ **No** ☐ **N/A** ☐

7. Will the project ensure predictability in land use codes?

   Yes ☒ **No** ☐ **N/A** ☐

8. Will the project ensure predictability in building codes?

Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above)

The Project will provide multiple improvements to this segment of Erie Boulevard that will benefit the variety of existing land uses and promote new land uses and increased pedestrian activity.

E. Transportation and Access:

NYSDOT recognizes that Smart Growth encourages communities to offer a wide range of transportation options, from walking and biking to transit and automobiles, which increase people's access to jobs, goods, services, and recreation**.**

(Addresses SG Law criterion f**:** to provide mobility through transportation choices including improved public transportation and reduced automobile dependency.)

1. Will this project provide public transit?

   Yes ☒ **No** ☐ **N/A** ☐

2. Will this project enable reduced automobile dependency?

   Yes ☒ **No** ☐ **N/A** ☐

3. Will this project improve bicycle and pedestrian facilities (such as shoulder widening to provide for on-road bike lanes, lane striping, crosswalks, new or expanded sidewalks or new/improved pedestrian signals)?

   Yes ☒ **No** ☐ **N/A** ☐

   (Note: Question 3 is an expansion on question 2. The recently passed Complete Streets legislation requires that consideration be given to complete street design features in the planning, design, construction, reconstruction and rehabilitation, but not including resurfacing, maintenance, or pavement recycling of such projects.)

   Explain: (use this space to expand on your answers above)

   The project is intended to promote pedestrian use with improved and safer ADA compliant facilities.

F. Coordinated, Community-Based Planning:

Past experience has shown that early and continuing input in the transportation planning process leads to better decisions and more effective use of limited resources. For information on community based planning efforts, the MPO may be a good resource if the project is located within the MPO planning area.

(Addresses SG Law criteria g and h: to coordinate between state and local government and inter-municipal and regional planning; to participate in community based planning and collaboration.)

1. Has there been participation in community-based planning and collaboration on the project?

   Yes ☒ **No** ☐ **N/A** ☐

2. Is the project consistent with local plans?

   Yes ☒ **No** ☐ **N/A** ☐

3. Is the project consistent with county, regional, and state plans?

   Yes ☒ **No** ☐ **N/A** ☐

4. Has there been coordination between inter-municipal/regional planning and state planning on the project?

   Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above)

The Project is located entirely within the City of Rome and is consistent with local, county and state plans as it is an improvement of existing public infrastructure. There has been coordination between state and local officials.

G. Stewardship of Natural and Cultural Resources:

Clean water, clean air and natural open land are essential elements of public health and quality of life for New York State residents, visitors, and future generations. Restoring and protecting natural assets, and open space, promoting energy efficiency, and green building, should be incorporated into all land use and infrastructure planning decisions.

(Addresses SG Law criterion d :To protect, preserve and enhance the State's resources, including agricultural land, forests surface and ground water, air quality, recreation and open space, scenic areas and significant historic and archeological resources.)

1. Will the project protect, preserve, and/or enhance agricultural land and/or forests?

Yes ☐ No ☐ N/A ☒

2. Will the project protect, preserve, and/or enhance surface water and/or groundwater?

Yes ☐ No ☐ N/A ☒

3. Will the project protect, preserve, and/or enhance air quality?

Yes ☒ No ☐ N/A ☐

4. Will the project protect, preserve, and/or enhance recreation and/or open space?

Yes ☐ No ☐ N/A ☒

5. Will the project protect, preserve, and/or enhance scenic areas?

Yes ☐ No ☐ N/A ☒

6. Will the project protect, preserve, and/or enhance historic and/or archeological resources?

Yes ☒ No ☐ N/A ☐

Explain: (use this space to expand on your answers above)

The Project is not expected to protect, preserve, or enhance agricultural, water resources, recreational and/or open space lands, or scenic areas, as these resources do not occur within the project site. The project is located in an areas with cultural resources and the project will comply with any recommendations from the NY State Historic Preservation to protect identified historic or archaeological resources. The Project is consistent with the NYSDOT Smart Growth goals and initiatives.

Smart Growth Impact Statement (STEP 2)

NYSDOT: Complete a Smart Growth Impact Statement (SGIS) below using the information from the Screening Tool.

Local Sponsors: The local sponsors are **not** responsible for completing a Smart Growth Impact Statement. Proceed to **Step 3**.

Smart Growth Impact Statement

PIN: 2650.57

Project Name: Wilbur Avenue Pavement Improvement Project

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act. This project has been determined to meet the relevant criteria, to the extent practicable, described in ECL Sec. 6-0107. Specifically, the project:

- Utilizes the existing roadway right of way;
- Improves the integrity and prolongs the useful life of the existing road;
- Avoids impacts to environmental and cultural resources.
-
-
-

This publically supported infrastructure project complies with the state policy of maximizing the social, economic and environmental benefits from public infrastructure development. The project will not contribute to the unnecessary costs of sprawl development, including environmental degradation, disinvestment in urban and suburban communities, or loss of open space induced by sprawl.

Review & Attestation Instructions (STEP 3)

Local Sponsors: Once the Smart Growth Screening Tool is completed, the next step is to submit the project certification statement **(Section A)** to Responsible Local Official for signature. After signing the document, the completed Screening Tool and Certification statement should be sent to NYSDOT for review as noted below.

NYSDOT: For state-let projects, the Screening Tool and SGIS is forwarded to Regional Director/ RPPM/Main Office Program Director or designee for review, and upon approval, the attestation is signed **(Section B.2).** For locally administered projects, the sponsor's submission and certification statement is reviewed by NYSDOT staff, the appropriate box **(Section B.1)** is checked, and the attestation is signed (Section B.2).

A. CERTIFICATION (LOCAL PROJECT)

I HEREBY CERTIFY, to *the best of my knowledge, all of the above to be true and correct.*

Preparer of this document:

Signature	Date
Title	Printed Name

Responsible Local Official (for local projects):

Signature	Date
Title	Printed Name

B. ATTESTATION (NYSDOT)

1. ***I HEREBY:***

   ☐ *Concur with the above certification, thereby attesting that this project is in compliance with the State Smart Growth Public Infrastructure Policy Act*

   ☐ *Concur with the above certification, with the following conditions (information requests, confirming studies, project modifications, etc.):*

   (Attach additional sheets as needed)

   ☐ do not concur with the above certification, thereby deeming this project ineligible to be a recipient of State funding or a subrecipient of Federal funding in accordance with the State Smart Growth Public Infrastructure Policy Act.

2. ***NOW THEREFORE,*** pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act, to the extent practicable, as described in the attached Smart Growth Impact Statement.

NYSDOT Commissioner, Regional Director, MO Program Director,
Regional Planning & Programming Manager (or official designee):

Signature	Date
Title	Printed Name

Federal Environmental Approval Worksheet

PIN: 2650.57	Completed by: EDR	Date Completed: 6/8/21	FUNDING TYPE: Federal
DESCRIPTION: To provide ADA compliant pedestrian connections, on-street parking opportunities and other streetscape improvements along a 2,200 linear foot segment of Erie Boulevard (NY 46) from James Street to George Street.			NEPA CLASS: Class II: CE SEQR TYPE: Type II
LOCALITY (Village, Town, City): City of Rome			COUNTY: Oneida

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 2017.
- 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) 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 (40 CFR 1508.4). Actions that do not individually or cumulatively have a significant environmental effect are excluded from the requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) (23 CFR 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 – 23 CFR 771.117(b)
Do any, or the potential for any, unusual circumstances exist[1]?

- Significant environmental impacts **YES☐ NO☒**
- Substantial controversy on environmental grounds **YES☐ NO☒**
- Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act **YES☐ NO☐ TBD**
- Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the project **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.

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.**

[1] See definitions and examples of unusual circumstances *in FEAW_Instructions.doc*

Federal Environmental Approval Worksheet

Project ID Number: 2650.57

Step 2: FHWA environmental actions required prior to CE determination[2]
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[3]	FHWA independent determination/ concurrence required	Date 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		☐	☐	Date Issued	☒
Section 106 of National Historic Preservation Act		☐	☐	Date Issued	☐
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[3]**	**Threshold exceeded; FHWA approval, compliance or concurrence required**		**Resource not present, or present but threshold not exceeded**
EO 11988 Floodplains		☐	☐		☒
EO 13112 Invasive Species			☐		☒
EO 12898 Environmental Justice			☐		☒
Safe Drinking Water Act Section 1424(e)			☐		☒
US Army Corps of Engineers, Section 404/10 NWP #23			☐		☒
Section 6(f) Land and Water Conservation Funds			☐		☒
Migratory Bird Treaty Act			☐		☒
23CFR772 Type I Noise abatement			☐		☒
2.3	**Other Environmental Issues requiring FHWA notification**	**PARCE threshold exceeded[3]**	**FHWA notification threshold exceeded**		**Resource not present, or present but threshold not exceeded**
US Army Corps of Engineers, Section 404/10 Individual Permit		☐	☐		☒
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[3]**			**Resource not present, or present but threshold not exceeded**
Property Acquisition		☐			☒
Major Traffic Disruptions		☐			☒
Changes in Access Control		☐			☒

[2] **This table does not represent all environmental issues and actions that a project is subject to**. Classification as a CE does not exempt the project from further environmental review. Refer to the PDM and The Environmental Manual (TEM) to determine review requirements.
[3] 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 are contained within ***the FEAW Thresholds document.***

Federal Environmental Approval Worksheet

Project ID Number: 2650.57

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 **Shell 4.** • For all other projects, 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 **Shell 3**. **Proceed to Step 4.**
3B	**Are any of the CE Thresholds from the PARCE not met** (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 **Shell 4.** • For all other projects, 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 **Shell 3**. **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 **Shell 4.** • For all other projects, 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 **Shell 3**. **Proceed to Step 4.** **NO** ☒ If No, the NYSDOT makes the NEPA CE determination. **Proceed to 3D.**
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)? **YES** ☐ 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 using **Shell 1. Proceed to step 5.** **NO** ☒ 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 **Shell 2**. **Proceed to step 4.**

Federal Environmental Approval Worksheet

Project ID Number: 2650.57

Step 4: Summary and Recommendation

- The project **is not** 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[4].** Transportation conformity requirements **have** been met at the time of this signature.
- This project does qualify to be progressed as a Categorical Exclusion.
- The NEPA Determination will be made by NYSDOT
- Project is 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)..." [4]
- All outstanding FHWA environmental approvals will be obtained and are listed here:
  - NYSDOT RCRC concurrence with Section 106 PSP
- 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) 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: _____

Environmental Consultant

Environmental Design & Research,
Landscape Architecture, Engineering &
Environmental Services, D.P.C. (EDR) Date_____

Print Name and Title: _____

Changes that may have occurred since the preparation of the FEAW which would create the need to go through the FEAW again include, but are not limited to: a change in the scope of the proposed project; a change in the social, economic or environmental circumstances or the setting of the project study area (i.e. the affected environment); a change in the federal statutory environmental standards: discovering new information not considered in the original process; and a significant amount of time has passed (equal or greater than three years).

[4] See additional information on identifying (c)26, (c)27 & (c)28 versus d (13) *in FEAW_Instructions.doc*

Social, Economic and Environmental Resources Checklist

PIN:2650.57	FUNDING TYPE: STP/CMAQ
DESCRIPTION: ERIE BOULEVARD DOWNTOWN TRANSPORTATION ALTERNATIVE	DATE:7/6/21
	REVISION DATE:
MUNICIPALITY: CITY OF ROME	NEPA CLASS: Class II CE
COUNTY: ONEIDA	SEQRA TYPE: Type II

SCOPE: The project will reconstruct the Stoneleigh Avenue/ Drewville Road intersection. This will include geometric improvements, stormwater treatment systems, guiderail replacement, and signing age replacement. The project will also install a new traffic signal at the Stoneleigh Avenue/ Northern Putnam Hospital Center driveway

SOCIAL, ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS	IF YES, GO TO IMPACT OR ISSUE; IF NO CHECK BOX BELOW	IMPACT[1] OR ISSUE?	
	NO	YES	NO
Social			
A. Land Use			
1. Is there potential to affect current land use/zoning?	☐	☐	☒
2. Is there a lack of consistency with community's comprehensive plan and/or other local or regional planning goals?	☒	☐	☐
3. Will the project affect any planned or future development?	☐	☒	☐
B. Neighborhoods and Community Cohesion			
1. Are relocations of homes or businesses proposed or acquisition of community resources anticipated?	☒	☐	☐
2. Is there potential for changes to neighborhood character?	☒	☐	☐
3. Is there a potential to impact transportation options (e.g., transit, walking, bicycling)?	☐	☒	☐
4. Are there potential changes to travel patterns that could affect neighborhood quality of life?	☒	☐	☐
5. Will the project divide or isolate portions of the community or generate new development that could affect the current community structure?	☒	☐	☐
C. General Social Groups			
1. Are there potential effects to the ability of transit dependent, elderly, or disabled populations to access destinations (particularly local businesses and health care facilities)?	☐	☒	☐
2. Does the project have the potential to disproportionately impact low income or minority populations (Environmental Justice)?	☒	☐	☐
3. Are there alterations to pedestrian facilities that would affect the elderly or disabled such as lengthening pedestrian crossings or providing median refuge?	☐	☒	☐
D. Community Services			
1. Is there potential to affect access to or use of Schools, Recreation Areas or Places of Worship (e.g., detours, sidewalk removal, addition of curb ramps, crosswalks, pedestrian signals,	☒	☐	☐

SOCIAL, ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS	IF YES, GO TO IMPACT OR ISSUE; IF NO CHECK BOX BELOW	IMPACT[1] OR ISSUE?	
	NO	YES	NO
etc.)?			
2. Is there potential to affect emergency service response?	☒	☐	☐
Economic			
A. Regional and Local Economies			
1. Is there potential to affect local economic viability (e.g., development potential, tax revenues, employment opportunities, retail sales or public expenditures)?	☐	☒	☐
2. Is there a potential to divert traffic away from businesses?	☒	☐	☐
B. Business Districts			
1. Are there potential effects on the viability or character of Business Districts?	☐	☒	☐
2. Will the project affect transportation options available for patrons getting into or out of the District?	☐	☒	☐
3. Will sidewalks, bicycling opportunities or transit opportunities to or within the district be affected?	☐	☒	☐
4. Will parking within the district be affected?	☐	☒	☐
C. Specific Business Impacts			
1. Are effects to specific businesses anticipated? (e.g., sidewalks, bicycling opportunities, or handicapped access to and from businesses)?	☐	☒	☐
2. Will the project affect available transportation options for patrons to businesses?	☐	☒	☐
3. Will the project affect the ability of businesses to receive deliveries?	☐	☐	☒
4. Will parking for businesses be affected?	☒	☐	☐
Environmental			
1. Are there wetlands within or immediately adjacent to the project limits? *See Environmental Procedures Manual (EPM) 4.A.R, Executive Order (EO) 11990 may apply.*	☒	☐	☐
2. Are there Surface Waters (other than wetlands) within or immediately adjacent to the project limits? *lakes, ponds streams or wetlands of any jurisdiction*	☒	☐	☐
3. Is there a designated Wild or Scenic River within or immediately adjacent to the project limits? *(See The Environmental Manual (TEM) 4.4.3)*	☒	☐	☐
4. Will the project require a U.S. Coast Guard Bridge Permit? *Project area includes a bridge over navigable waters of U.S.*	☒	☐	☐
5. Does the project area contain waters regulated as Navigable by U. S. Army Corps of Engineers? *Section 404/10 Individual Permit or NWP 23 may be required*	☒	☐	☐
6. Is the project in a mapped Flood Zone? *TEM section 4.?, EO 11988*	☒	☐	☐
7. Is the project in or could it affect a designated coastal area? *FAN and/or Consistency determination may be required. See TEM 4.6*	☒	☐	☐
8. Is the project area above a Sole Source Aquifer? *See TEM 4.4*	☒	☐	☐

SOCIAL, ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS	IF YES, GO TO IMPACT OR ISSUE; IF NO CHECK BOX BELOW	IMPACT[1] OR ISSUE?	
	NO	YES	NO
Coordination with FHWA and/or EPA may be required.			
9. Will the project involve one (1) acre of ground disturbance (or 5,000 sf in the East of Hudson watershed)?	☐	☒	☐
10. Are federally/state listed endangered species or designated critical habitat indicated for the project county? *Coordination with DEC and/or a FHWA determination may be required. See TEM 4.4.9.3*	☐	☐	☒
11. Is the project in a designated Critical Environmental Area? *TEM 4.4.11(SEQR issue)*	☒	☐	☐
12. Are there any resources protected by Section 106 (or Section 1409) within the project limits or immediate area? *See TEM 4.4.12 Appendix G*	☒	☐	☒
13. Is Native American coordination required outside of Section 106 consultation? *The project on or affecting Native American Lands or other areas of interest*	☒	☐	☐
14. Is there a use, constructive use or temporary occupancy of a 4(f) resource? *See SECTION 4(f) POLICY PAPER and contact Area Engineer.*	☒	☐	☐
15. Will the project involve conversion of a 6(f) resource? *listed as having Land and Water Conservation funds spent on the resource*	☒	☐	☐
16. Is there any potential to affect the character of important and possibly significant the visual resources of the project area and its environs? (*See PDM Chapter 3.2.2.2)*	☒	☐	☐
17. Will the project convert land protected by the Federal Farmland Protection Act? *See TEM 4.4.15*	☒	☐	☐
18. Will the project acquire active farmland from an Agricultural District? *(SEQR issue)*	☒	☐	☐
19. Is the project in a non-attainment area and exceed the CO screening criteria? *see EPM Chapter 1 1.1-19 an Air Quality Analysis required*	☒	☐	☐
20. Is the project in a non-attainment area and exceed the PM screening criteria? *see EPM Chapter 1 1.1-19? A hot spot analysis is required*	☒	☐	☐
21. Is the project a Type I Noise project as per 23 CFR 772? *See TEM 4.4.18*	☒	☐	☐
22. Will the project require the removal of Asbestos Containing Materials? *See TEM 4.4.19*	☒	☐	☐
23. Does the project area contain Contaminated and Hazardous Materials?	☒	☐	☐
24. Will the project increase the height of towers, construct new towers or other obstructions in a known migratory bird flyway?	☒	☐	☐

NOTES:

[1] The term “impacts” means both positive and negative effects. Both types of effects should be discussed in the body of the report as appropriate.

PREPARED BY (Print Name and Title)**: Jeff Gentzler, P.E. - Project Engineer – Greenman-Pedersen, Inc.**

CERTIFICATION:

I certify that the information provided above is true and accurate.

Regional/Main Office Environmental Unit Supervisor _____ Date _____

Print Name and Title: _____

Appendix C
Traffic Info & Complete Streets Checklist

1. Turning Movement Counts
2. Existing Traffic Volumes
3. No-Build & Build Condition Traffic Volumes
4. Synchro Output Sheets
5. Accident Summary Sheets
6. Accident Diagram
7. Complete Streets Checklist
8. Erie Blvd/ S. George Street Signal Timings
9. Erie Blvd/ S. James Street Signal Timings
10. Erie Blvd/ Freedom Plaza Signal Timings

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Rome, NY
Erie Blvd & S.George St
Tuesday, December 8, 2020
Location: 43.212215, -75.462164

Count Name: Erie Blvd W & S George St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Data

Start Time	Erie Blvd W Eastbound							Erie Blvd W Westbound							S George St Northbound							S George St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	3	143	1	0	0	0	147	5	73	3	0	0	0	81	0	1	1	1	0	0	3	7	3	0	1	0	1	11	242
7:15 AM	5	144	1	0	0	0	150	3	98	8	0	0	0	109	1	1	3	1	0	0	6	6	3	0	1	0	0	10	275
7:30 AM	7	161	3	1	0	0	172	1	102	10	1	0	0	114	3	6	3	1	0	0	13	5	2	1	0	0	0	8	307
7:45 AM	14	133	4	1	0	0	152	3	123	12	0	0	1	138	4	4	3	0	0	0	11	5	3	3	2	0	0	13	314
Hourly Total	29	581	9	2	0	0	621	12	396	33	1	0	1	442	8	12	10	3	0	0	33	23	11	4	4	0	1	42	1138
8:00 AM	7	120	0	0	0	1	127	1	116	15	0	0	2	132	2	1	0	0	0	0	3	7	5	4	2	0	0	18	280
8:15 AM	8	123	2	1	0	0	134	0	98	28	0	0	2	126	2	8	1	1	0	0	12	4	8	2	5	0	0	19	291
8:30 AM	11	111	4	0	0	0	126	3	121	11	0	0	1	135	2	2	2	2	0	0	8	5	6	2	2	0	0	15	284
8:45 AM	9	122	3	1	0	0	135	5	129	8	0	0	0	142	1	2	2	1	0	0	6	7	7	0	1	0	1	15	298
Hourly Total	35	476	9	2	0	1	522	9	464	62	0	0	5	535	7	13	5	4	0	0	29	23	26	8	10	0	1	67	1153
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly 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	0
4:00 PM	11	195	5	2	0	3	213	8	254	13	0	0	1	275	9	14	10	2	0	2	35	10	10	7	4	0	0	31	554
4:15 PM	6	176	6	0	0	2	188	6	226	13	1	0	2	246	11	12	8	5	0	0	36	7	9	6	6	0	0	28	498
4:30 PM	5	181	5	0	0	1	191	15	240	12	2	0	0	269	12	11	4	7	0	0	34	22	15	7	7	0	0	51	545
4:45 PM	4	155	10	1	0	0	170	12	242	10	2	0	0	266	8	6	8	5	0	0	27	20	11	4	7	0	0	42	505
Hourly Total	26	707	26	3	0	6	762	41	962	48	5	0	3	1056	40	43	30	19	0	2	132	59	45	24	24	0	0	152	2102
5:00 PM	9	200	7	1	0	0	217	9	195	8	0	0	2	212	11	12	10	1	0	0	34	6	9	3	2	0	0	20	483
5:15 PM	7	151	10	0	0	0	168	14	215	12	1	0	3	242	6	10	5	4	0	0	25	7	8	1	3	0	0	19	454
5:30 PM	4	149	8	0	0	0	161	5	176	2	0	0	2	183	14	7	5	4	0	0	30	5	15	3	4	0	0	27	401
5:45 PM	9	141	5	0	0	0	155	6	179	4	0	0	1	189	9	13	6	2	0	0	30	3	5	3	1	0	0	12	386
Hourly Total	29	641	30	1	0	0	701	34	765	26	1	0	8	826	40	42	26	11	0	0	119	21	37	10	10	0	0	78	1724
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	119	2405	74	8	0	7	2606	96	2587	169	7	0	17	2859	95	110	71	37	0	2	313	126	119	46	48	0	2	339	6117
Approach %	4.6	92.3	2.8	0.3	0.0	-	-	3.4	90.5	5.9	0.2	0.0	-	-	30.4	35.1	22.7	11.8	0.0	-	-	37.2	35.1	13.6	14.2	0.0	-	-	-
Total %	1.9	39.3	1.2	0.1	0.0	-	42.6	1.6	42.3	2.8	0.1	0.0	-	46.7	1.6	1.8	1.2	0.6	0.0	-	5.1	2.1	1.9	0.8	0.8	0.0	-	5.5	-
Lights	114	2309	73	7	0	-	2503	93	2450	160	7	0	-	2710	93	101	70	36	0	-	300	124	111	46	47	0	-	328	5841
% Lights	95.8	96.0	98.6	87.5	-	-	96.0	96.9	94.7	94.7	100.0	-	-	94.8	97.9	91.8	98.6	97.3	-	-	95.8	98.4	93.3	100.0	97.9	-	-	96.8	95.5
Buses	0	7	0	0	0	-	7	0	6	6	0	0	-	12	0	9	0	0	0	-	9	1	6	0	0	0	-	7	35
% Buses	0.0	0.3	0.0	0.0	-	-	0.3	0.0	0.2	3.6	0.0	-	-	0.4	0.0	8.2	0.0	0.0	-	-	2.9	0.8	5.0	0.0	0.0	-	-	2.1	0.6
Trucks	5	89	1	1	0	-	96	3	131	3	0	0	-	137	2	0	1	1	0	-	4	1	2	0	1	0	-	4	241
% Trucks	4.2	3.7	1.4	12.5	-	-	3.7	3.1	5.1	1.8	0.0	-	-	4.8	2.1	0.0	1.4	2.7	-	-	1.3	0.8	1.7	0.0	2.1	-	-	1.2	3.9
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	5.9	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	7	-	-	-	-	-	-	16	-	-	-	-	-	-	2	-	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	94.1	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

Rome, NY
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Tuesday, December 8, 2020
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Count Name: Erie Blvd W & S George St
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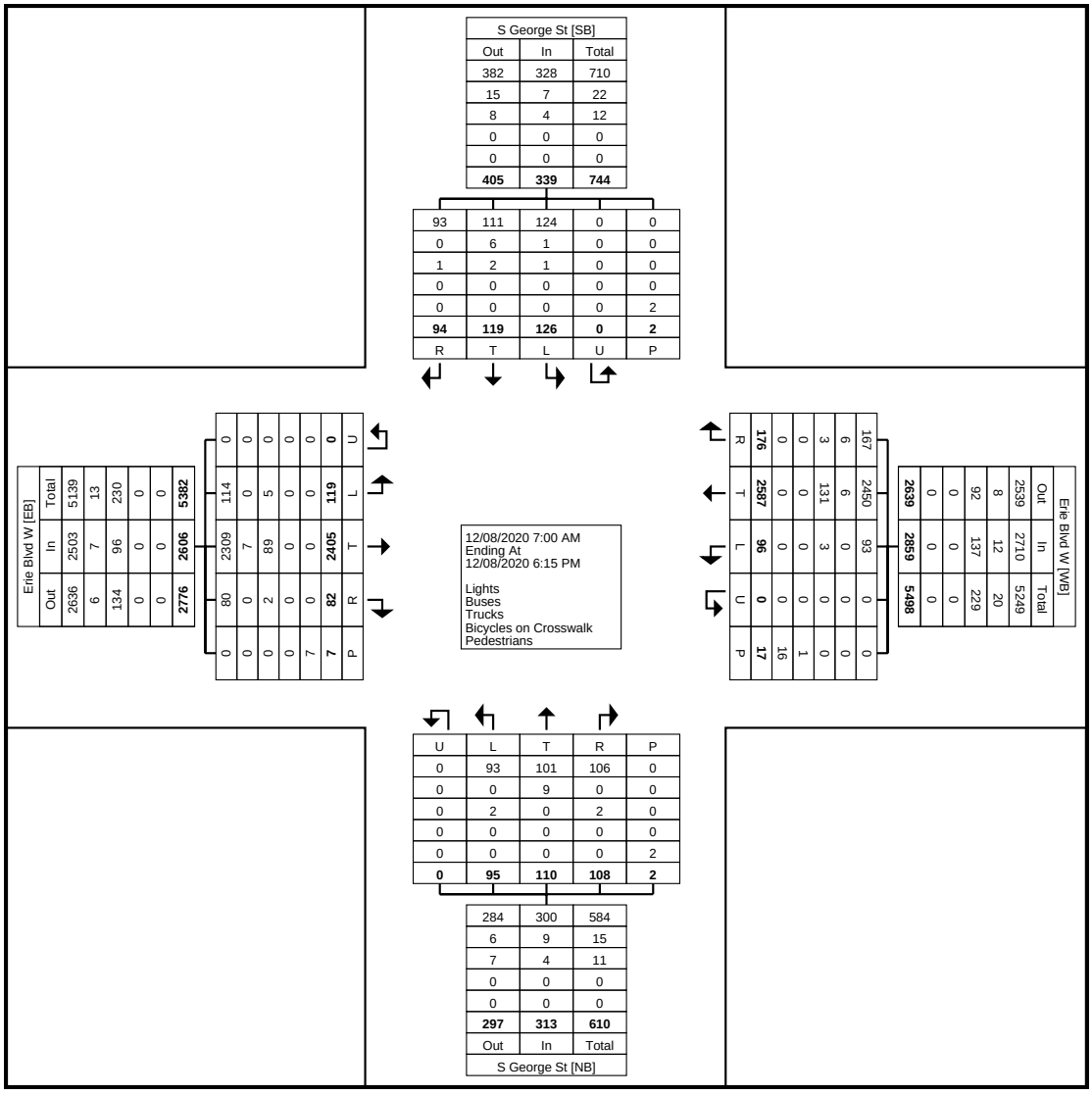
Page No: 2



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Count Name: Erie Blvd W & S George St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Erie Blvd W Eastbound							Erie Blvd W Westbound							S George St Northbound							S George St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:30 AM	7	161	3	1	0	0	172	1	102	10	1	0	0	114	3	6	3	1	0	0	13	5	2	1	0	0	0	8	307
7:45 AM	14	133	4	1	0	0	152	3	123	12	0	0	1	138	4	4	3	0	0	0	11	5	3	3	2	0	0	13	314
8:00 AM	7	120	0	0	0	1	127	1	116	15	0	0	2	132	2	1	0	0	0	0	3	7	5	4	2	0	0	18	280
8:15 AM	8	123	2	1	0	0	134	0	98	28	0	0	2	126	2	8	1	1	0	0	12	4	8	2	5	0	0	19	291
Total	36	537	9	3	0	1	585	5	439	65	1	0	5	510	11	19	7	2	0	0	39	21	18	10	9	0	0	58	1192
Approach %	6.2	91.8	1.5	0.5	0.0	-	-	1.0	86.1	12.7	0.2	0.0	-	-	28.2	48.7	17.9	5.1	0.0	-	-	36.2	31.0	17.2	15.5	0.0	-	-	-
Total %	3.0	45.1	0.8	0.3	0.0	-	49.1	0.4	36.8	5.5	0.1	0.0	-	42.8	0.9	1.6	0.6	0.2	0.0	-	3.3	1.8	1.5	0.8	0.8	0.0	-	4.9	-
PHF	0.643	0.834	0.563	0.750	0.000	-	0.850	0.417	0.892	0.580	0.250	0.000	-	0.924	0.688	0.594	0.583	0.500	0.000	-	0.750	0.750	0.563	0.625	0.450	0.000	-	0.763	0.949
Lights	32	508	9	2	0	-	551	5	390	61	1	0	-	457	11	14	6	2	0	-	33	19	16	10	8	0	-	53	1094
% Lights	88.9	94.6	100.0	66.7	-	-	94.2	100.0	88.8	93.8	100.0	-	-	89.6	100.0	73.7	85.7	100.0	-	-	84.6	90.5	88.9	100.0	88.9	-	-	91.4	91.8
Buses	0	1	0	0	0	-	1	0	3	3	0	0	-	6	0	5	0	0	0	-	5	1	1	0	0	0	-	2	14
% Buses	0.0	0.2	0.0	0.0	-	-	0.2	0.0	0.7	4.6	0.0	-	-	1.2	0.0	26.3	0.0	0.0	-	-	12.8	4.8	5.6	0.0	0.0	-	-	3.4	1.2
Trucks	4	28	0	1	0	-	33	0	46	1	0	0	-	47	0	0	1	0	0	-	1	1	1	0	1	0	-	3	84
% Trucks	11.1	5.2	0.0	33.3	-	-	5.6	0.0	10.5	1.5	0.0	-	-	9.2	0.0	0.0	14.3	0.0	-	-	2.6	4.8	5.6	0.0	11.1	-	-	5.2	7.0
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	-	4	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	80.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Rome, NY
Erie Blvd & S.George St
Tuesday, December 8, 2020
Location: 43.212215, -75.462164

Count Name: Erie Blvd W & S George St
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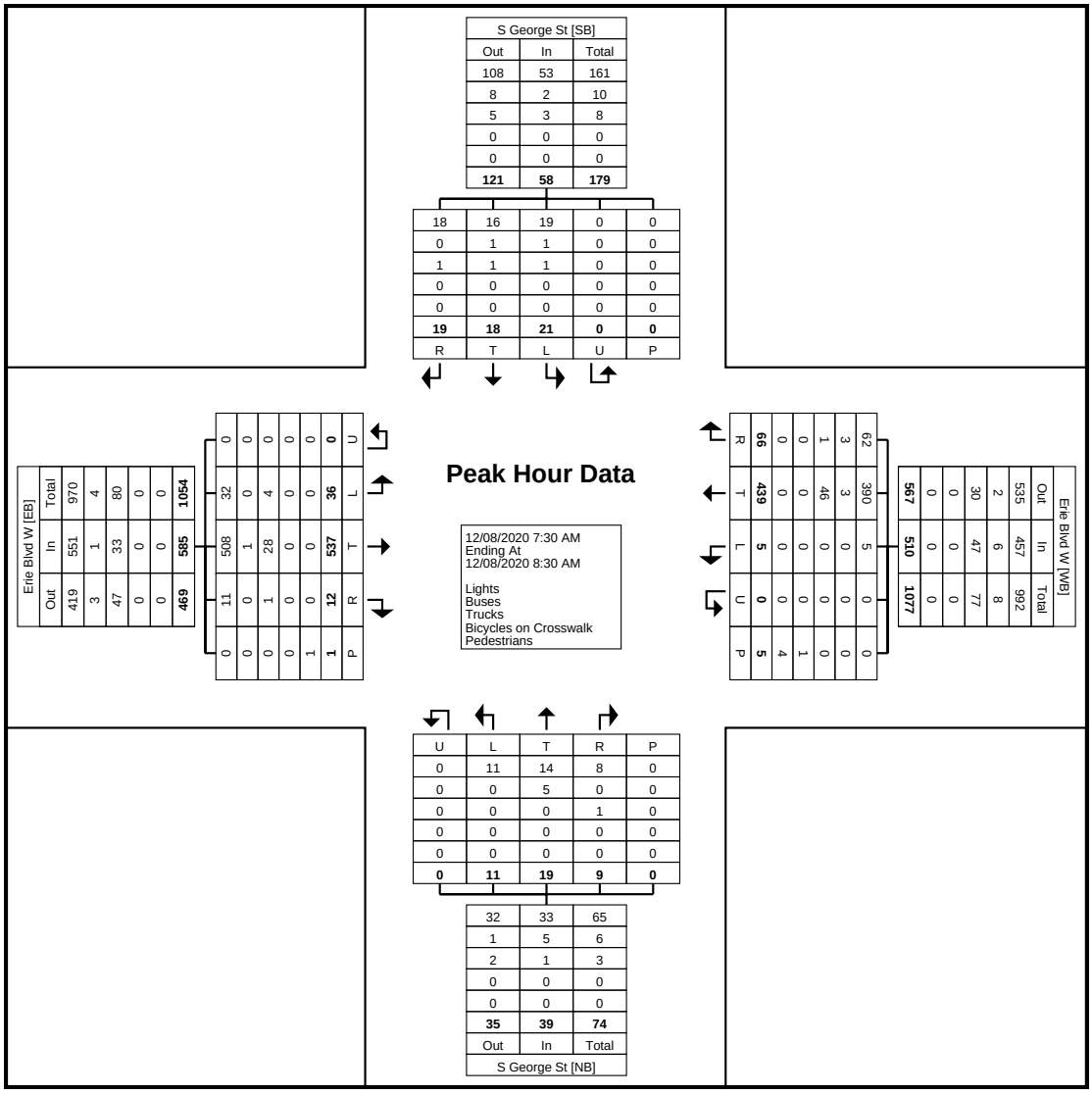

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Location: 43.212215, -75.462164

Count Name: Erie Blvd W & S George St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Erie Blvd W Eastbound							Erie Blvd W Westbound							S George St Northbound							S George St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
4:00 PM	11	195	5	2	0	3	213	8	254	13	0	0	1	275	9	14	10	2	0	2	35	10	10	7	4	0	0	31	554
4:15 PM	6	176	6	0	0	2	188	6	226	13	1	0	2	246	11	12	8	5	0	0	36	7	9	6	6	0	0	28	498
4:30 PM	5	181	5	0	0	1	191	15	240	12	2	0	0	269	12	11	4	7	0	0	34	22	15	7	7	0	0	51	545
4:45 PM	4	155	10	1	0	0	170	12	242	10	2	0	0	266	8	6	8	5	0	0	27	20	11	4	7	0	0	42	505
Total	26	707	26	3	0	6	762	41	962	48	5	0	3	1056	40	43	30	19	0	2	132	59	45	24	24	0	0	152	2102
Approach %	3.4	92.8	3.4	0.4	0.0	-	-	3.9	91.1	4.5	0.5	0.0	-	-	30.3	32.6	22.7	14.4	0.0	-	-	38.8	29.6	15.8	15.8	0.0	-	-	-
Total %	1.2	33.6	1.2	0.1	0.0	-	36.3	2.0	45.8	2.3	0.2	0.0	-	50.2	1.9	2.0	1.4	0.9	0.0	-	6.3	2.8	2.1	1.1	1.1	0.0	-	7.2	-
PHF	0.591	0.906	0.650	0.375	0.000	-	0.894	0.683	0.947	0.923	0.625	0.000	-	0.960	0.833	0.768	0.750	0.679	0.000	-	0.917	0.670	0.750	0.857	0.857	0.000	-	0.745	0.949
Lights	26	686	26	3	0	-	741	40	936	46	5	0	-	1027	39	41	30	18	0	-	128	59	43	24	24	0	-	150	2046
% Lights	100.0	97.0	100.0	100.0	-	-	97.2	97.6	97.3	95.8	100.0	-	-	97.3	97.5	95.3	100.0	94.7	-	-	97.0	100.0	95.6	100.0	100.0	-	-	98.7	97.3
Buses	0	1	0	0	0	-	1	0	0	2	0	0	-	2	0	2	0	0	0	-	2	0	2	0	0	0	-	2	7
% Buses	0.0	0.1	0.0	0.0	-	-	0.1	0.0	0.0	4.2	0.0	-	-	0.2	0.0	4.7	0.0	0.0	-	-	1.5	0.0	4.4	0.0	0.0	-	-	1.3	0.3
Trucks	0	20	0	0	0	-	20	1	26	0	0	0	-	27	1	0	0	1	0	-	2	0	0	0	0	0	-	0	49
% Trucks	0.0	2.8	0.0	0.0	-	-	2.6	2.4	2.7	0.0	0.0	-	-	2.6	2.5	0.0	0.0	5.3	-	-	1.5	0.0	0.0	0.0	0.0	-	-	0.0	2.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	-	3	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

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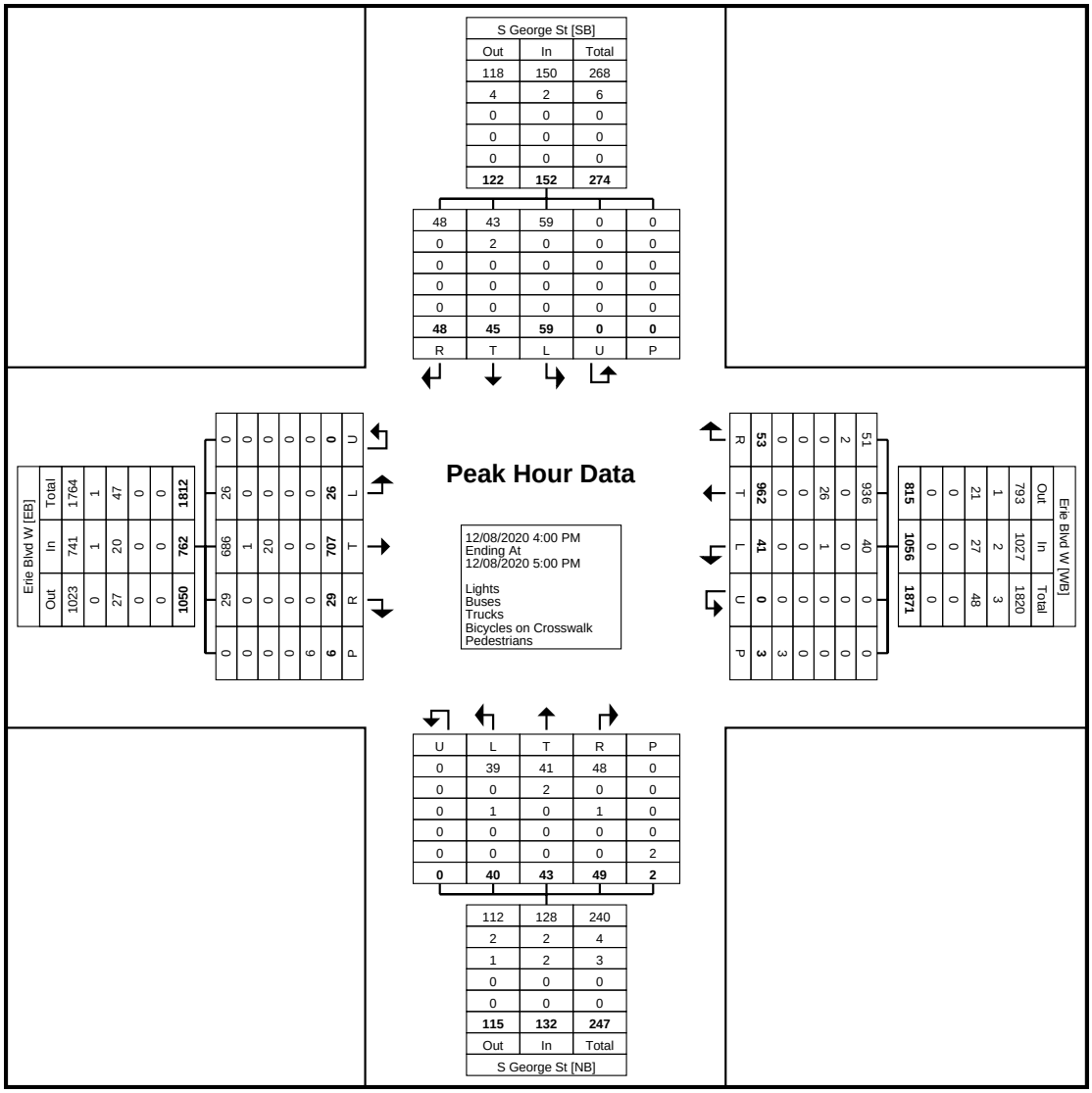
Site Code: Rome, New York
Start Date: 12/08/2020



Turning Movement Peak Hour Data Plot (4:00 PM)

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184 Baker Rd

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610-466-1469
Serving Transportation Professionals Since 1995

Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Data

Start Time	Erie Blvd W Eastbound						Erie Blvd W Westbound					Freedom Plaza Entrance Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:00 AM	153	0	0	0	0	153	2	90	0	0	92	1	0	3	0	0	4	249
7:15 AM	153	2	0	0	0	155	4	99	0	1	103	0	0	3	0	0	3	261
7:30 AM	166	0	0	0	0	166	8	123	0	0	131	1	0	2	0	0	3	300
7:45 AM	143	4	0	0	0	147	1	141	0	0	142	2	1	2	0	0	5	294
Hourly Total	615	6	0	0	0	621	15	453	0	1	468	4	1	10	0	0	15	1104
8:00 AM	116	1	0	0	0	117	3	121	0	1	124	1	2	4	0	0	7	248
8:15 AM	130	4	0	0	0	134	6	122	0	0	128	2	0	1	0	0	3	265
8:30 AM	117	5	0	0	0	122	4	139	0	2	143	2	3	2	0	0	7	272
8:45 AM	115	8	2	0	0	125	8	138	0	1	146	1	2	4	0	0	7	278
Hourly Total	478	18	2	0	0	498	21	520	0	4	541	6	7	11	0	0	24	1063
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	205	6	2	0	0	213	33	278	0	2	311	12	14	15	0	0	41	565
4:15 PM	196	5	3	0	0	204	25	227	0	3	252	11	16	10	0	0	37	493
4:30 PM	197	5	1	0	0	203	24	244	0	0	268	13	15	13	0	0	41	512
4:45 PM	185	13	0	0	0	198	24	248	0	1	272	12	9	13	0	0	34	504
Hourly Total	783	29	6	0	0	818	106	997	0	6	1103	48	54	51	0	0	153	2074
5:00 PM	194	11	0	0	0	205	31	193	0	0	224	15	15	12	0	0	42	471
5:15 PM	149	13	2	0	0	164	25	218	0	0	243	7	16	8	0	0	31	438
5:30 PM	160	8	0	0	0	168	24	183	0	0	207	10	12	4	0	0	26	401
5:45 PM	153	7	1	0	0	161	17	166	0	0	183	12	11	10	0	2	33	377
Hourly Total	656	39	3	0	0	698	97	760	0	0	857	44	54	34	0	2	132	1687
Grand Total	2532	92	11	0	0	2635	239	2730	0	11	2969	102	116	106	0	2	324	5928
Approach %	96.1	3.5	0.4	0.0	-	-	8.0	92.0	0.0	-	-	31.5	35.8	32.7	0.0	-	-	-
Total %	42.7	1.6	0.2	0.0	-	44.5	4.0	46.1	0.0	-	50.1	1.7	2.0	1.8	0.0	-	5.5	-
Lights	2432	91	11	0	-	2534	236	2587	0	-	2823	101	116	105	0	-	322	5679
% Lights	96.1	98.9	100.0	-	-	96.2	98.7	94.8	-	-	95.1	99.0	100.0	99.1	-	-	99.4	95.8
Buses	8	0	0	0	-	8	0	12	0	-	12	0	0	0	0	-	0	20
% Buses	0.3	0.0	0.0	-	-	0.3	0.0	0.4	-	-	0.4	0.0	0.0	0.0	-	-	0.0	0.3
Trucks	92	1	0	0	-	93	3	131	0	-	134	1	0	1	0	-	2	229
% Trucks	3.6	1.1	0.0	-	-	3.5	1.3	4.8	-	-	4.5	1.0	0.0	0.9	-	-	0.6	3.9
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	11	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

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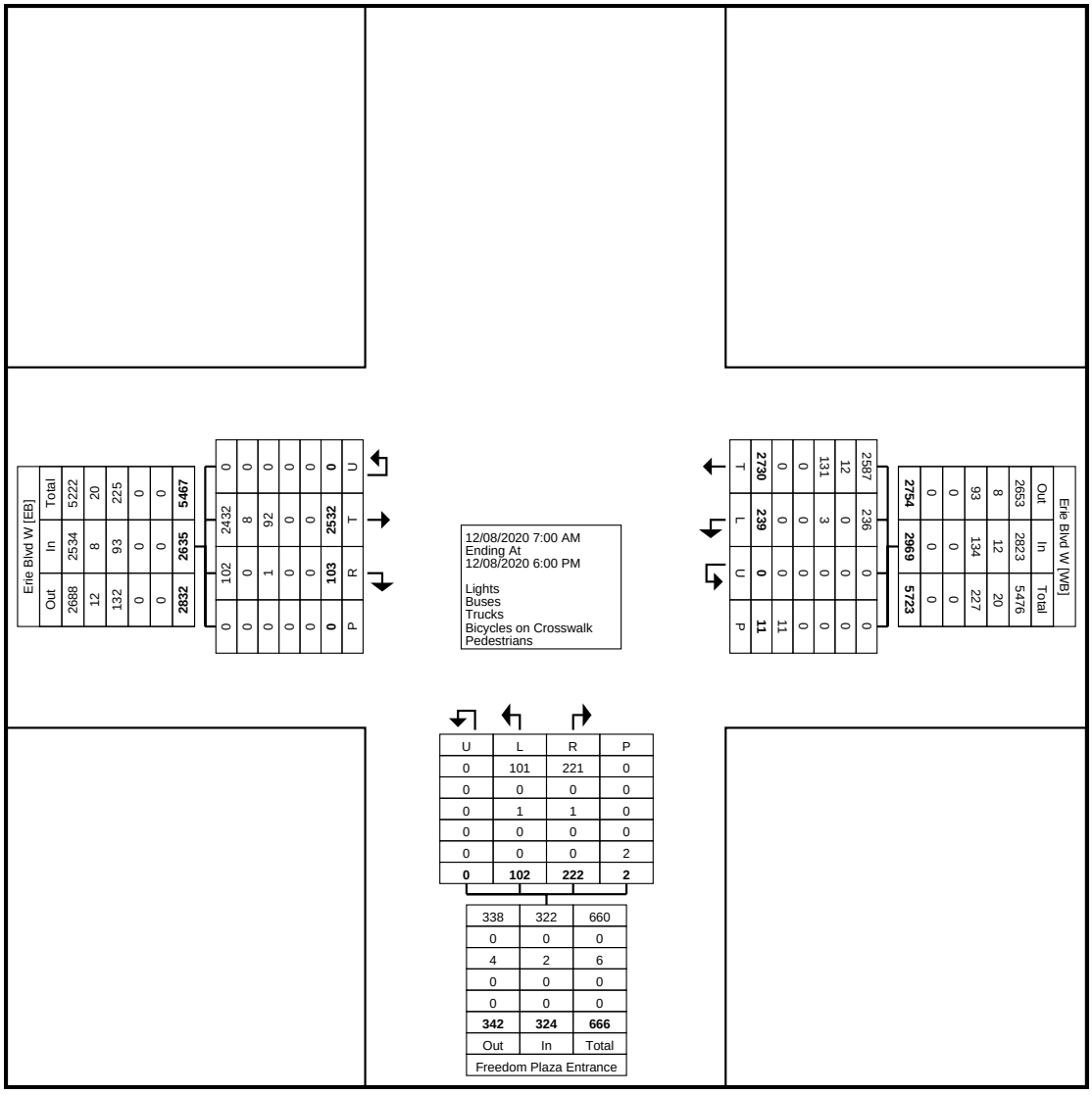
Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020



Turning Movement Data Plot

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Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Erie Blvd W Eastbound						Erie Blvd W Westbound					Freedom Plaza Entrance Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:30 AM	166	0	0	0	0	166	8	123	0	0	131	1	0	2	0	0	3	300
7:45 AM	143	4	0	0	0	147	1	141	0	0	142	2	1	2	0	0	5	294
8:00 AM	116	1	0	0	0	117	3	121	0	1	124	1	2	4	0	0	7	248
8:15 AM	130	4	0	0	0	134	6	122	0	0	128	2	0	1	0	0	3	265
Total	555	9	0	0	0	564	18	507	0	1	525	6	3	9	0	0	18	1107
Approach %	98.4	1.6	0.0	0.0	-	-	3.4	96.6	0.0	-	-	33.3	16.7	50.0	0.0	-	-	-
Total %	50.1	0.8	0.0	0.0	-	50.9	1.6	45.8	0.0	-	47.4	0.5	0.3	0.8	0.0	-	1.6	-
PHF	0.836	0.563	0.000	0.000	-	0.849	0.563	0.899	0.000	-	0.924	0.750	0.375	0.563	0.000	-	0.643	0.923
Lights	520	9	0	0	-	529	17	455	0	-	472	6	3	8	0	-	17	1018
% Lights	93.7	100.0	-	-	-	93.8	94.4	89.7	-	-	89.9	100.0	100.0	88.9	-	-	94.4	92.0
Buses	4	0	0	0	-	4	0	6	0	-	6	0	0	0	0	-	0	10
% Buses	0.7	0.0	-	-	-	0.7	0.0	1.2	-	-	1.1	0.0	0.0	0.0	-	-	0.0	0.9
Trucks	31	0	0	0	-	31	1	46	0	-	47	0	0	1	0	-	1	79
% Trucks	5.6	0.0	-	-	-	5.5	5.6	9.1	-	-	9.0	0.0	0.0	11.1	-	-	5.6	7.1
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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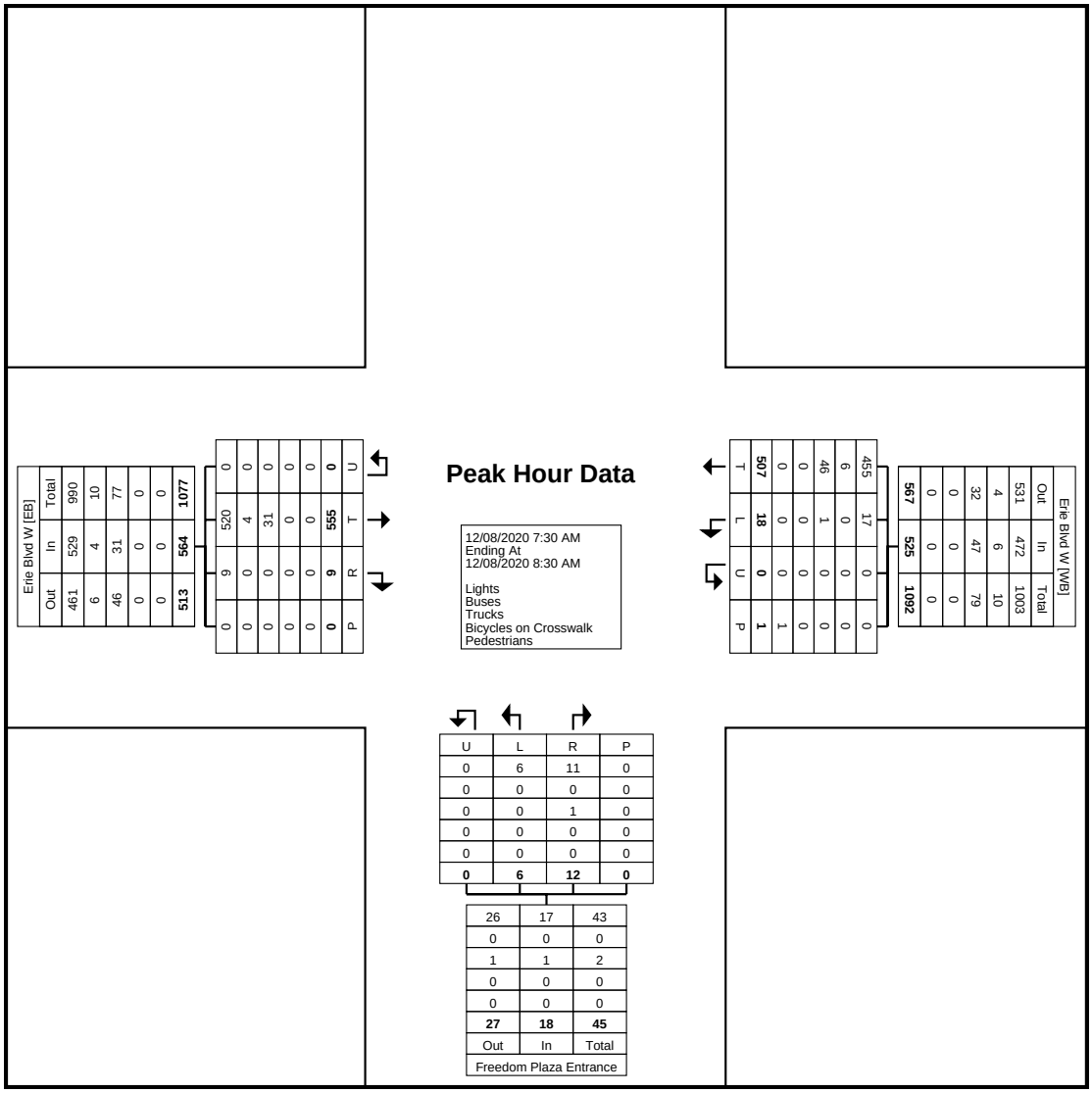
Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

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Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Erie Blvd W Eastbound						Erie Blvd W Westbound					Freedom Plaza Entrance Northbound						
	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	U-Turn	Peds	App. Total	Left	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
4:00 PM	205	6	2	0	0	213	33	278	0	2	311	12	14	15	0	0	41	565
4:15 PM	196	5	3	0	0	204	25	227	0	3	252	11	16	10	0	0	37	493
4:30 PM	197	5	1	0	0	203	24	244	0	0	268	13	15	13	0	0	41	512
4:45 PM	185	13	0	0	0	198	24	248	0	1	272	12	9	13	0	0	34	504
Total	783	29	6	0	0	818	106	997	0	6	1103	48	54	51	0	0	153	2074
Approach %	95.7	3.5	0.7	0.0	-	-	9.6	90.4	0.0	-	-	31.4	35.3	33.3	0.0	-	-	-
Total %	37.8	1.4	0.3	0.0	-	39.4	5.1	48.1	0.0	-	53.2	2.3	2.6	2.5	0.0	-	7.4	-
PHF	0.955	0.558	0.500	0.000	-	0.960	0.803	0.897	0.000	-	0.887	0.923	0.844	0.850	0.000	-	0.933	0.918
Lights	760	29	6	0	-	795	105	969	0	-	1074	48	54	51	0	-	153	2022
% Lights	97.1	100.0	100.0	-	-	97.2	99.1	97.2	-	-	97.4	100.0	100.0	100.0	-	-	100.0	97.5
Buses	1	0	0	0	-	1	0	2	0	-	2	0	0	0	0	-	0	3
% Buses	0.1	0.0	0.0	-	-	0.1	0.0	0.2	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.1
Trucks	22	0	0	0	-	22	1	26	0	-	27	0	0	0	0	-	0	49
% Trucks	2.8	0.0	0.0	-	-	2.7	0.9	2.6	-	-	2.4	0.0	0.0	0.0	-	-	0.0	2.4
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

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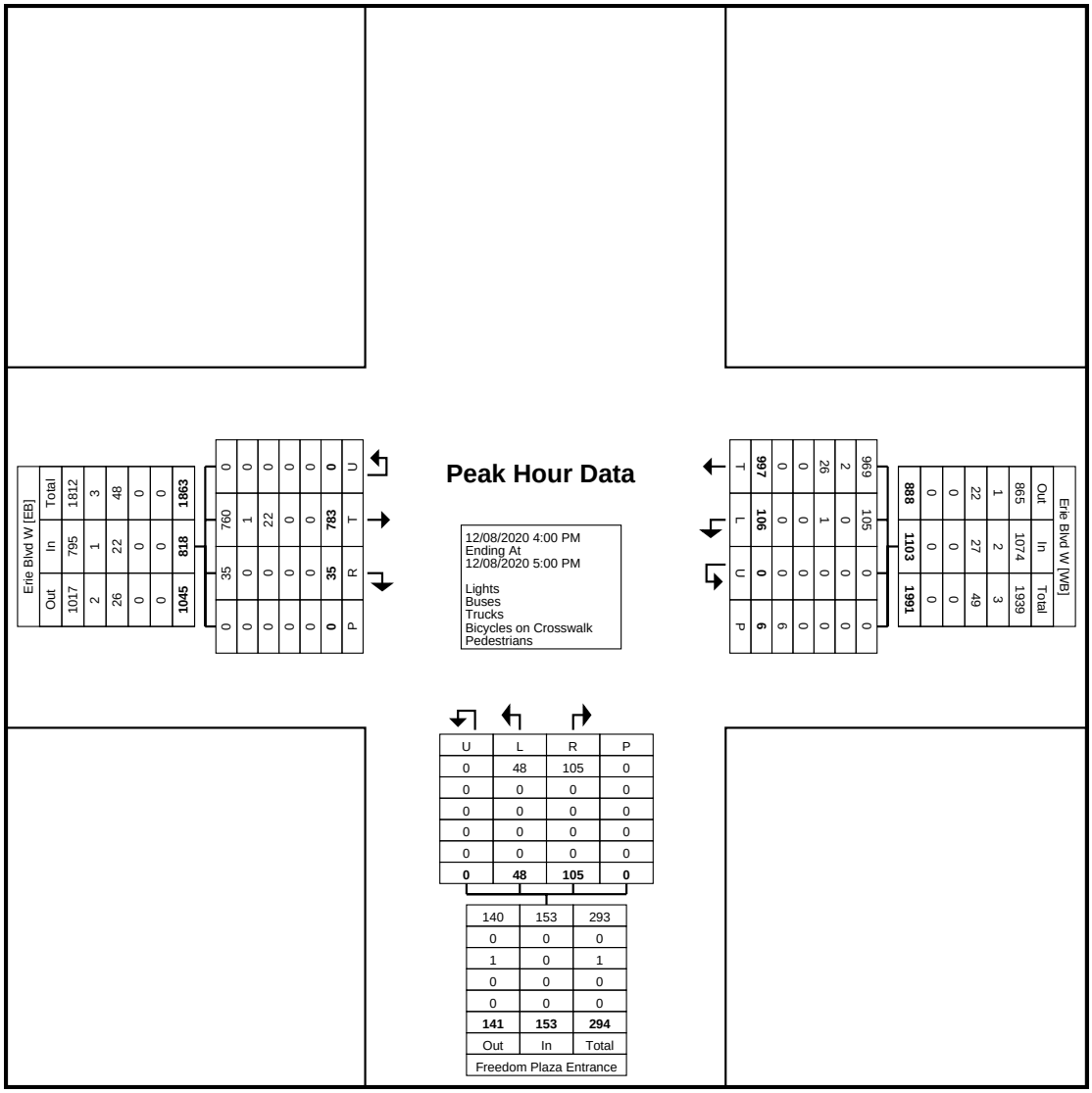
Location: 43.211519, -75.4612

Count Name: Erie Blvd W & Freedom Plaza Entrance
Site Code: Rome, New York
Start Date: 12/08/2020
Page No: 6



Erie Blvd W [EB]								
	Out	In	Total					
U	1017	795	1812	3	48	0	0	**1863**
T	2	1	3					
R	26	22	48					
P	0	0	0					
	1045	**818**	**1863**					

U	0	0	0	0	0	**0**		
T	760	1	22	0	0	**783**		
R	35	0	0	0	0	**35**		
P	0	0	0	0	0	**0**		

T	**997**	0	0	26	2	969		
L	**106**	0	0	1	0	105		
U	**0**	0	0	0	0	0		
P	**6**	0	0	0	0	0		

Erie Blvd W [WB]								
	Out	In	Total					
	865	1074	1939					
	1	2	3					
	22	27	49					
	0	0	0					
	888	**1103**	**1991**					

U	L	R	P
0	48	105	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	**48**	**105**	**0**

140	153	293
0	0	0
1	0	1
0	0	0
0	0	0
141	**153**	**294**
Out	In	Total
Freedom Plaza Entrance		

Turning Movement Peak Hour Data Plot (4:00 PM)

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Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

Count Name: Erie Blvd E & S James St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Data

Start Time	NY 46 - Erie Blvd W Eastbound							NY 46 - Erie Blvd E Westbound							S James St Northbound							S James St Southbound							Int. Total
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	
7:00 AM	4	141	9	0	0	0	154	4	79	7	1	0	0	91	6	6	2	0	0	0	14	13	6	1	1	0	1	21	280
7:15 AM	3	145	8	0	0	0	156	5	97	9	0	0	0	111	9	12	2	1	0	0	24	8	5	2	1	0	0	16	307
7:30 AM	2	157	11	2	0	0	172	14	106	18	1	0	0	139	9	6	1	3	0	0	19	24	17	4	0	0	0	45	375
7:45 AM	3	123	15	0	0	2	141	14	122	36	0	0	0	172	21	13	6	2	0	0	42	19	14	0	4	0	0	37	392
Hourly Total	12	566	43	2	0	2	623	37	404	70	2	0	0	513	45	37	11	6	0	0	99	64	42	7	6	0	1	119	1354
8:00 AM	6	115	8	1	0	1	130	10	114	17	3	0	0	144	17	6	6	3	0	1	32	16	18	0	6	0	0	40	346
8:15 AM	8	103	14	2	0	1	127	10	116	20	1	0	0	147	13	6	5	7	0	1	31	20	15	2	3	0	0	40	345
8:30 AM	4	109	6	0	0	2	119	6	121	14	0	0	0	141	16	14	4	6	0	1	40	22	7	0	2	0	0	31	331
8:45 AM	5	110	11	0	0	1	126	13	131	13	3	0	0	160	22	16	6	2	0	1	46	13	7	4	2	0	2	26	358
Hourly Total	23	437	39	3	0	5	502	39	482	64	7	0	0	592	68	42	21	18	0	4	149	71	47	6	13	0	2	137	1380
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	12	195	25	2	0	4	234	29	233	16	2	0	0	280	36	31	22	4	0	2	93	37	23	9	6	0	2	75	682
4:15 PM	11	181	14	7	0	0	213	26	216	20	2	0	0	264	33	22	23	12	0	0	90	31	17	11	7	0	0	66	633
4:30 PM	11	205	20	0	0	7	236	30	223	15	3	0	0	271	26	22	16	8	0	0	72	55	16	7	9	0	2	87	666
4:45 PM	10	169	18	0	0	3	197	25	224	18	2	0	0	269	35	29	23	8	0	0	95	31	21	8	9	0	0	69	630
Hourly Total	44	750	77	9	0	14	880	110	896	69	9	0	0	1084	130	104	84	32	0	2	350	154	77	35	31	0	4	297	2611
5:00 PM	11	201	18	3	0	0	233	24	182	16	3	0	1	225	36	28	17	10	0	0	91	27	22	6	8	0	0	63	612
5:15 PM	12	140	21	2	0	2	175	21	210	7	2	0	0	240	22	29	15	9	0	0	75	29	20	11	5	0	0	65	555
5:30 PM	9	143	17	0	0	1	169	29	161	17	1	0	0	208	26	23	13	8	0	0	70	23	18	6	3	0	0	50	497
5:45 PM	6	140	18	1	0	1	165	26	154	17	0	0	0	197	27	25	8	10	0	1	70	16	13	8	4	0	1	41	473
Hourly Total	38	624	74	6	0	4	742	100	707	57	6	0	1	870	111	105	53	37	0	1	306	95	73	31	20	0	1	219	2137
6:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	117	2377	233	20	0	25	2747	286	2490	260	24	0	1	3060	354	288	169	93	0	7	904	384	239	79	70	0	8	772	7483
Approach %	4.3	86.5	8.5	0.7	0.0	-	-	9.3	81.4	8.5	0.8	0.0	-	-	39.2	31.9	18.7	10.3	0.0	-	-	49.7	31.0	10.2	9.1	0.0	-	-	-
Total %	1.6	31.8	3.1	0.3	0.0	-	36.7	3.8	33.3	3.5	0.3	0.0	-	40.9	4.7	3.8	2.3	1.2	0.0	-	12.1	5.1	3.2	1.1	0.9	0.0	-	10.3	-
Lights	117	2279	231	20	0	-	2647	278	2361	251	24	0	-	2914	337	277	167	93	0	-	874	370	227	75	68	0	-	740	7175
% Lights	100.0	95.9	99.1	100.0	-	-	96.4	97.2	94.8	96.5	100.0	-	-	95.2	95.2	96.2	98.8	100.0	-	-	96.7	96.4	95.0	94.9	97.1	-	-	95.9	95.9
Buses	0	10	0	0	0	-	10	4	8	4	0	0	-	16	3	8	1	0	0	-	12	10	9	1	0	0	-	20	58
% Buses	0.0	0.4	0.0	0.0	-	-	0.4	1.4	0.3	1.5	0.0	-	-	0.5	0.8	2.8	0.6	0.0	-	-	1.3	2.6	3.8	1.3	0.0	-	-	2.6	0.8
Trucks	0	88	2	0	0	-	90	4	121	5	0	0	-	130	14	3	1	0	0	-	18	4	3	3	2	0	-	12	250
% Trucks	0.0	3.7	0.9	0.0	-	-	3.3	1.4	4.9	1.9	0.0	-	-	4.2	4.0	1.0	0.6	0.0	-	-	2.0	1.0	1.3	3.8	2.9	-	-	1.6	3.3
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	4.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	24	-	-	-	-	-	-	0	-	-	-	-	-	-	7	-	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	96.0	-	-	-	-	-	-	0.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

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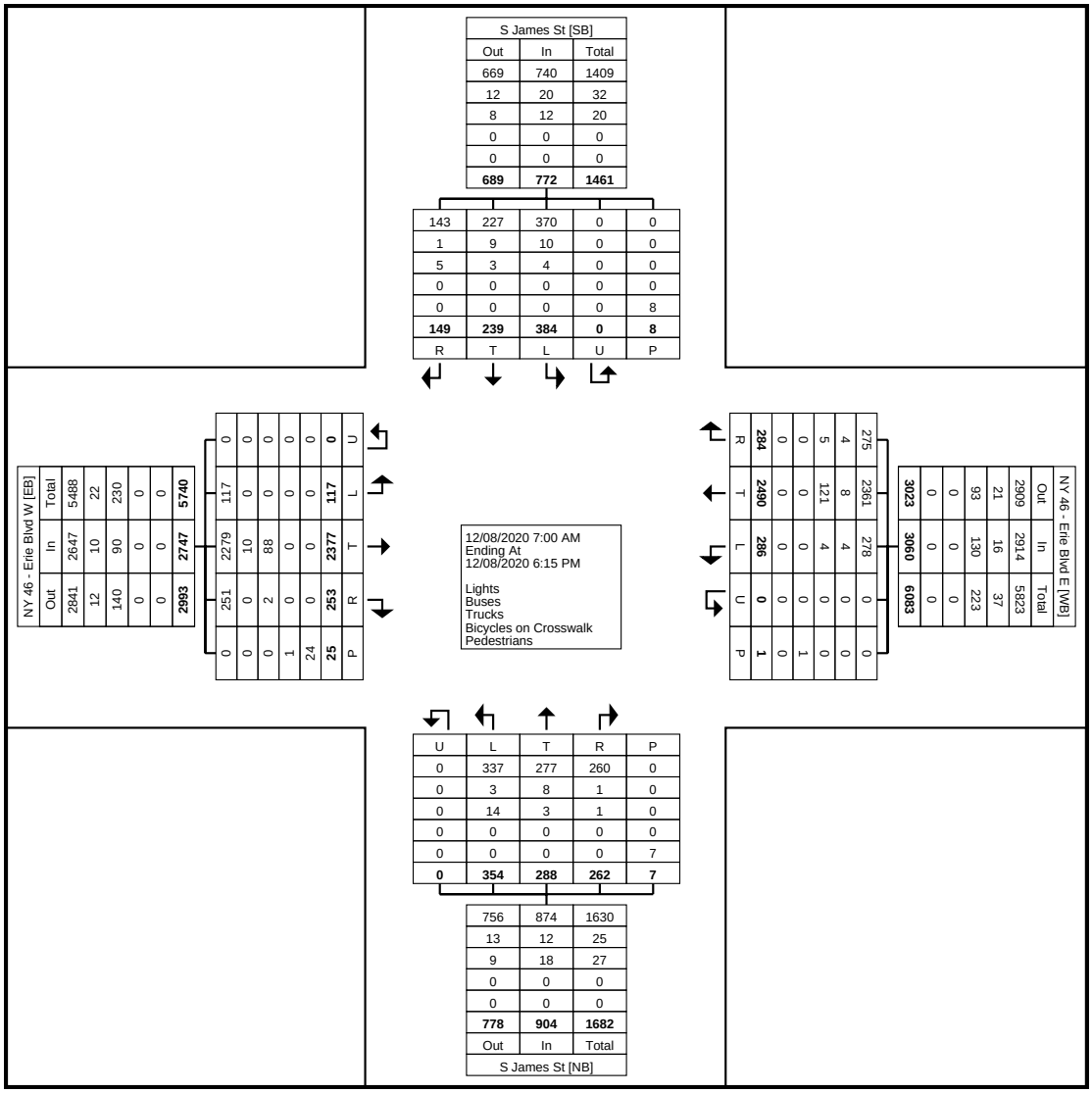
Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

Count Name: Erie Blvd E & S James St
Site Code: Rome, New York
Start Date: 12/08/2020



Turning Movement Data Plot

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Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

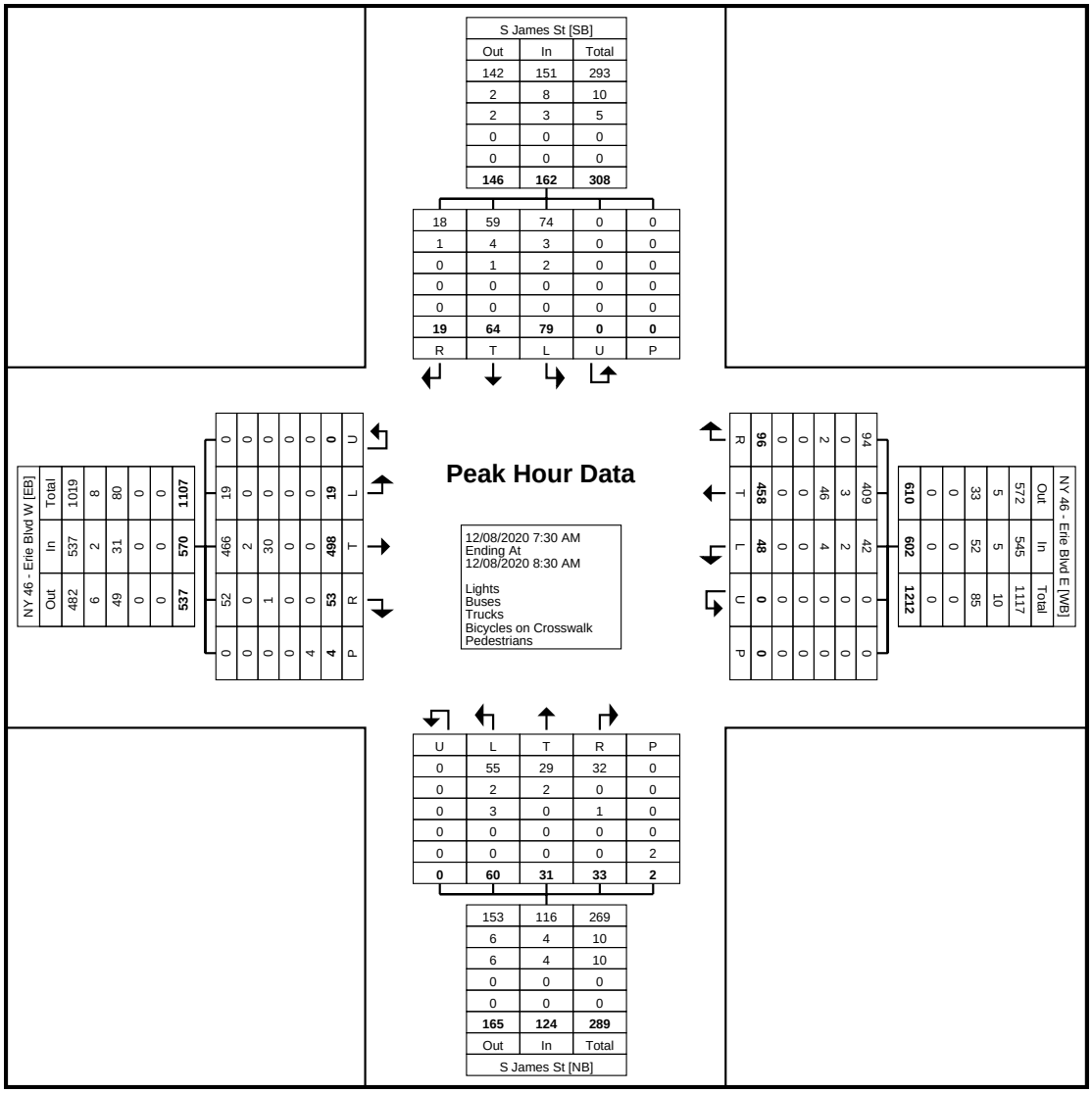
Count Name: Erie Blvd E & S James St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (7:30 AM)

Start Time	NY 46 - Erie Blvd W Eastbound							NY 46 - Erie Blvd E Westbound							S James St Northbound							S James St Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
7:30 AM	2	157	11	2	0	0	172	14	106	18	1	0	0	139	9	6	1	3	0	0	19	24	17	4	0	0	0	45	375
7:45 AM	3	123	15	0	0	2	141	14	122	36	0	0	0	172	21	13	6	2	0	0	42	19	14	0	4	0	0	37	392
8:00 AM	6	115	8	1	0	1	130	10	114	17	3	0	0	144	17	6	6	3	0	1	32	16	18	0	6	0	0	40	346
8:15 AM	8	103	14	2	0	1	127	10	116	20	1	0	0	147	13	6	5	7	0	1	31	20	15	2	3	0	0	40	345
Total	19	498	48	5	0	4	570	48	458	91	5	0	0	602	60	31	18	15	0	2	124	79	64	6	13	0	0	162	1458
Approach %	3.3	87.4	8.4	0.9	0.0	-	-	8.0	76.1	15.1	0.8	0.0	-	-	48.4	25.0	14.5	12.1	0.0	-	-	48.8	39.5	3.7	8.0	0.0	-	-	-
Total %	1.3	34.2	3.3	0.3	0.0	-	39.1	3.3	31.4	6.2	0.3	0.0	-	41.3	4.1	2.1	1.2	1.0	0.0	-	8.5	5.4	4.4	0.4	0.9	0.0	-	11.1	-
PHF	0.594	0.793	0.800	0.625	0.000	-	0.828	0.857	0.939	0.632	0.417	0.000	-	0.875	0.714	0.596	0.750	0.536	0.000	-	0.738	0.823	0.889	0.375	0.542	0.000	-	0.900	0.930
Lights	19	466	47	5	0	-	537	42	409	89	5	0	-	545	55	29	17	15	0	-	116	74	59	5	13	0	-	151	1349
% Lights	100.0	93.6	97.9	100.0	-	-	94.2	87.5	89.3	97.8	100.0	-	-	90.5	91.7	93.5	94.4	100.0	-	-	93.5	93.7	92.2	83.3	100.0	-	-	93.2	92.5
Buses	0	2	0	0	0	-	2	2	3	0	0	0	-	5	2	2	0	0	0	-	4	3	4	1	0	0	-	8	19
% Buses	0.0	0.4	0.0	0.0	-	-	0.4	4.2	0.7	0.0	0.0	-	-	0.8	3.3	6.5	0.0	0.0	-	-	3.2	3.8	6.3	16.7	0.0	-	-	4.9	1.3
Trucks	0	30	1	0	0	-	31	4	46	2	0	0	-	52	3	0	1	0	0	-	4	2	1	0	0	0	-	3	90
% Trucks	0.0	6.0	2.1	0.0	-	-	5.4	8.3	10.0	2.2	0.0	-	-	8.6	5.0	0.0	5.6	0.0	-	-	3.2	2.5	1.6	0.0	0.0	-	-	1.9	6.2
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-

Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

Count Name: Erie Blvd E & S James St
Site Code: Rome, New York
Start Date: 12/08/2020



Turning Movement Peak Hour Data Plot (7:30 AM)

Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

Count Name: Erie Blvd E & S James St
Site Code: Rome, New York
Start Date: 12/08/2020

Turning Movement Peak Hour Data (4:00 PM)

Start Time	NY 46 - Erie Blvd W Eastbound							NY 46 - Erie Blvd E Westbound							S James St Northbound							S James St Southbound							
	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Left	Thru	Right	Right on Red	U-Turn	Peds	App. Total	Int. Total
4:00 PM	12	195	25	2	0	4	234	29	233	16	2	0	0	280	36	31	22	4	0	2	93	37	23	9	6	0	2	75	682
4:15 PM	11	181	14	7	0	0	213	26	216	20	2	0	0	264	33	22	23	12	0	0	90	31	17	11	7	0	0	66	633
4:30 PM	11	205	20	0	0	7	236	30	223	15	3	0	0	271	26	22	16	8	0	0	72	55	16	7	9	0	2	87	666
4:45 PM	10	169	18	0	0	3	197	25	224	18	2	0	0	269	35	29	23	8	0	0	95	31	21	8	9	0	0	69	630
Total	44	750	77	9	0	14	880	110	896	69	9	0	0	1084	130	104	84	32	0	2	350	154	77	35	31	0	4	297	2611
Approach %	5.0	85.2	8.8	1.0	0.0	-	-	10.1	82.7	6.4	0.8	0.0	-	-	37.1	29.7	24.0	9.1	0.0	-	-	51.9	25.9	11.8	10.4	0.0	-	-	-
Total %	1.7	28.7	2.9	0.3	0.0	-	33.7	4.2	34.3	2.6	0.3	0.0	-	41.5	5.0	4.0	3.2	1.2	0.0	-	13.4	5.9	2.9	1.3	1.2	0.0	-	11.4	-
PHF	0.917	0.915	0.770	0.321	0.000	-	0.932	0.917	0.961	0.863	0.750	0.000	-	0.968	0.903	0.839	0.913	0.667	0.000	-	0.921	0.700	0.837	0.795	0.861	0.000	-	0.853	0.957
Lights	44	724	76	9	0	-	853	110	872	67	9	0	-	1058	125	102	84	32	0	-	343	151	75	34	31	0	-	291	2545
% Lights	100.0	96.5	98.7	100.0	-	-	96.9	100.0	97.3	97.1	100.0	-	-	97.6	96.2	98.1	100.0	100.0	-	-	98.0	98.1	97.4	97.1	100.0	-	-	98.0	97.5
Buses	0	3	0	0	0	-	3	0	2	1	0	0	-	3	0	2	0	0	0	-	2	3	1	0	0	0	-	4	12
% Buses	0.0	0.4	0.0	0.0	-	-	0.3	0.0	0.2	1.4	0.0	-	-	0.3	0.0	1.9	0.0	0.0	-	-	0.6	1.9	1.3	0.0	0.0	-	-	1.3	0.5
Trucks	0	23	1	0	0	-	24	0	22	1	0	0	-	23	5	0	0	0	0	-	5	0	1	1	0	0	-	2	54
% Trucks	0.0	3.1	1.3	0.0	-	-	2.7	0.0	2.5	1.4	0.0	-	-	2.1	3.8	0.0	0.0	0.0	-	-	1.4	0.0	1.3	2.9	0.0	-	-	0.7	2.1
Bicycles on Crosswalk	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	13	-	-	-	-	-	-	0	-	-	-	-	-	-	2	-	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	92.9	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-

Rome, NY
Erie Blvd & S.James St
Tuesday, December 8, 2020
Location: 43.209826, -75.458509

Count Name: Erie Blvd E & S James St
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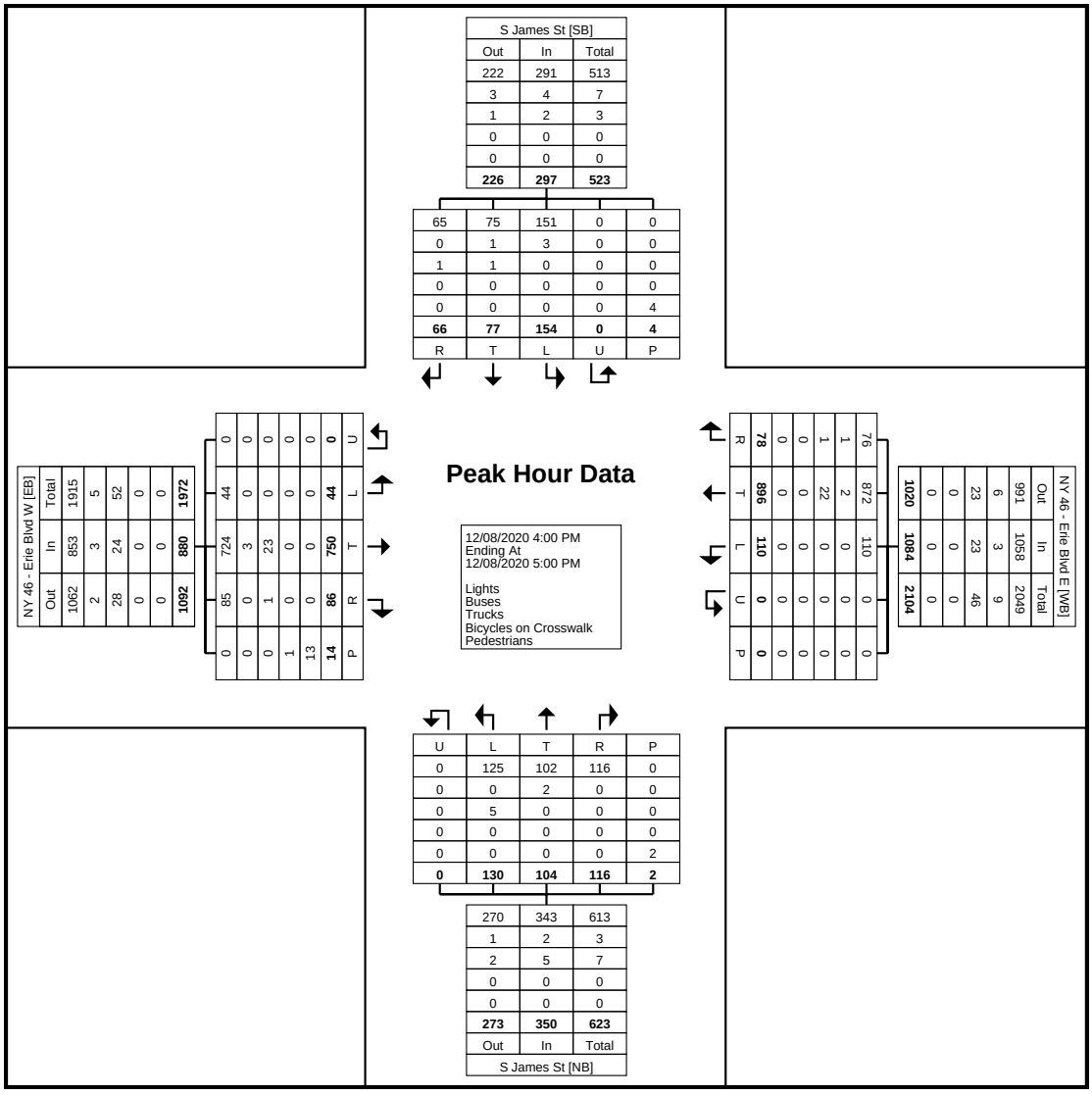
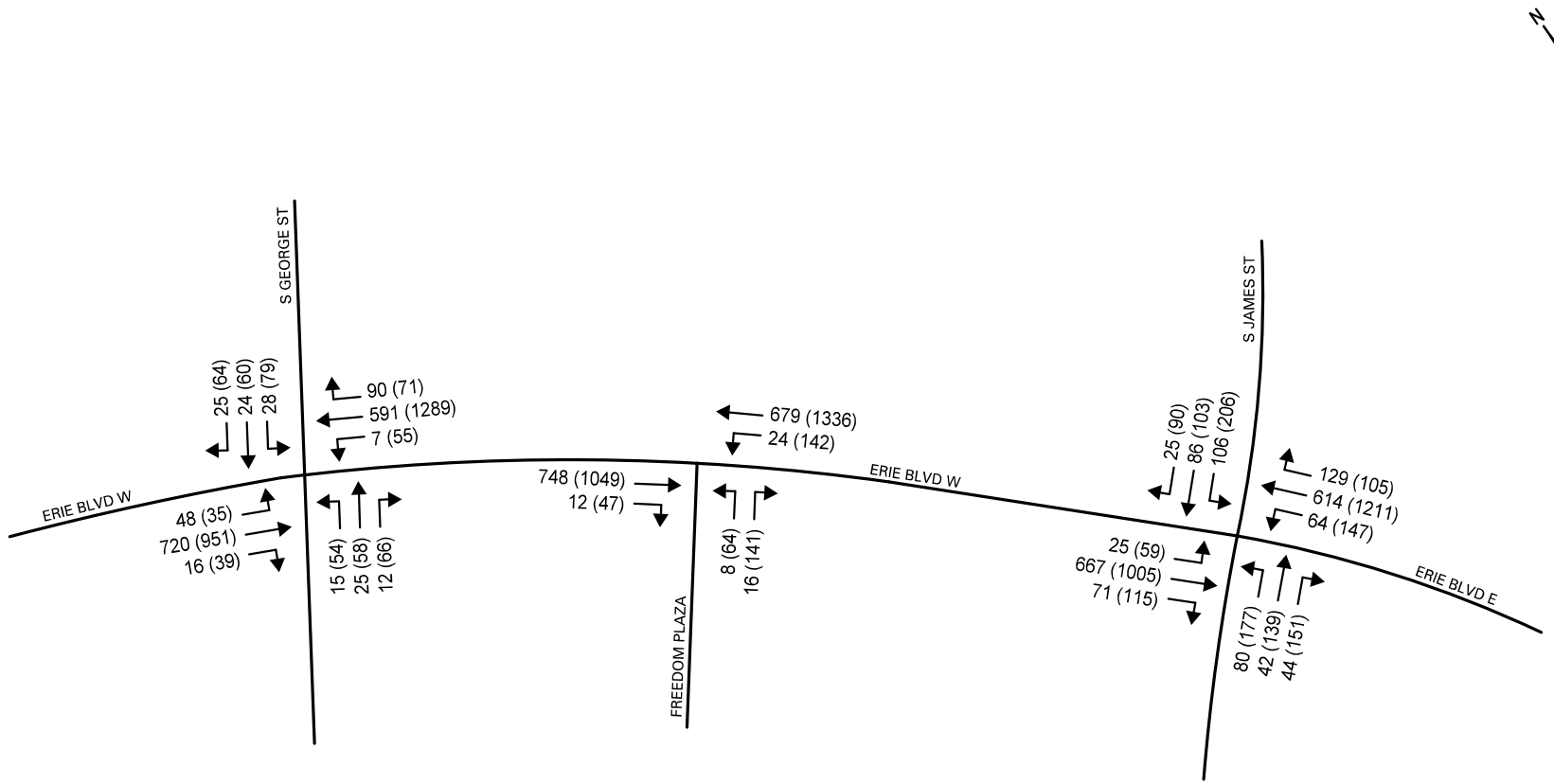


Turning Movement Peak Hour Data Plot (4:00 PM)



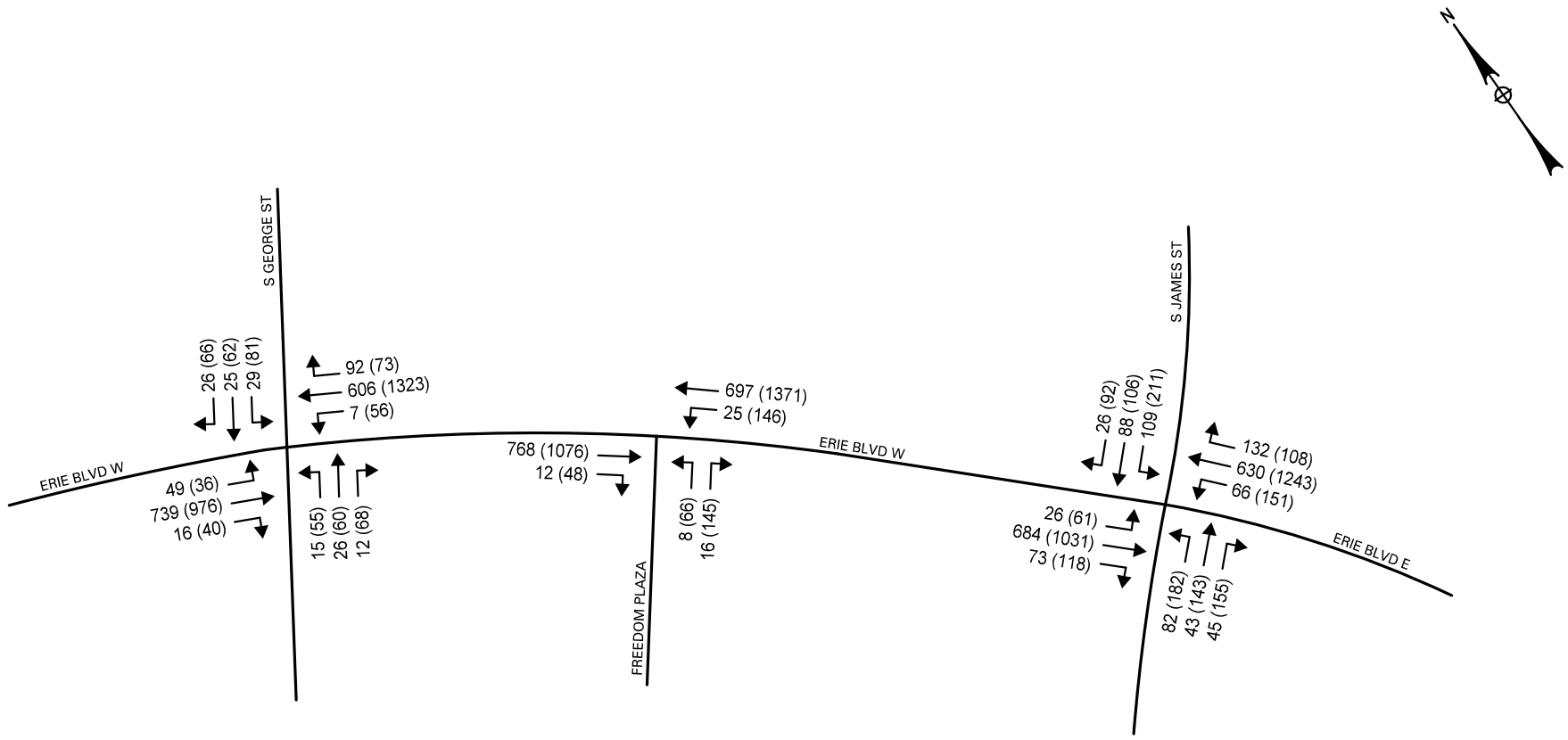
XXX (XXX) = AM (PM) PEAK HOUR TRAFFIC VOLUMES

GPI Engineering Design Planning Construction Management

ERIE BOULEVARD DOWNTOWN
TRAFFIC ALTERNATIVE
CITY OF ROME, NEW YORK

2020 EXISTING PEAK HOUR TRAFFIC VOLUMES
(ADJUSTED FOR COVID IMPACT)

PROJECT NO.	SCALE:	DATE:	FIGURE NO.
2020139.00	NO SCALE	MAY 2021	1



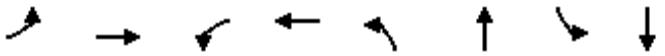
XXX (XXX) = AM (PM) PEAK HOUR TRAFFIC VOLUMES

GPI Engineering Design Planning Construction Management

ERIE BOULEVARD DOWNTOWN
TRAFFIC ALTERNATIVE
CITY OF ROME, NEW YORK

2022 BUILD/NO BUILD
PEAK HOUR TRAFFIC VOLUMES

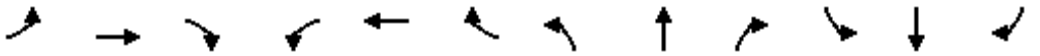
PROJECT NO.	SCALE:	DATE:	FIGURE NO.
2020139.00	NO SCALE	MAY 2021	2



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	775	7	717	16	39	29	51
v/c Ratio	0.09	0.29	0.01	0.30	0.11	0.19	0.20	0.25
Control Delay	4.2	5.4	1.3	2.2	33.5	26.1	36.3	22.0
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	4.2	5.4	1.3	2.3	33.5	26.1	36.3	22.0
Queue Length 50th (ft)	4	38	1	34	9	14	16	14
Queue Length 95th (ft)	24	185	m1	22	23	35	34	38
Internal Link Dist (ft)		625		314		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	578	2684	561	2413	344	474	340	462
Starvation Cap Reductn	0	0	0	577	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.29	0.01	0.39	0.05	0.08	0.09	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



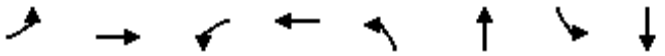
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	720	16	7	591	90	15	25	12	28	24	25
Future Volume (veh/h)	48	720	16	7	591	90	15	25	12	28	24	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1767	1767	1767	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	51	758	17	7	622	95	16	26	13	29	25	26
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	3	3	3	5	5	5
Cap, veh/h	642	2538	57	528	2081	317	159	103	51	169	72	75
Arrive On Green	0.03	0.74	0.74	0.01	1.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1725	3441	77	1682	2920	445	1325	1160	580	1317	812	845
Grp Volume(v), veh/h	51	379	396	7	357	360	16	0	39	29	0	51
Grp Sat Flow(s),veh/h/ln	1725	1721	1797	1682	1678	1686	1325	0	1739	1317	0	1657
Q Serve(g_s), s	0.7	6.7	6.7	0.1	0.0	0.0	1.0	0.0	1.9	1.9	0.0	2.6
Cycle Q Clear(g_c), s	0.7	6.7	6.7	0.1	0.0	0.0	3.6	0.0	1.9	3.8	0.0	2.6
Prop In Lane	1.00		0.04	1.00		0.26	1.00		0.33	1.00		0.51
Lane Grp Cap(c), veh/h	642	1269	1326	528	1196	1202	159	0	154	169	0	147
V/C Ratio(X)	0.08	0.30	0.30	0.01	0.30	0.30	0.10	0.00	0.25	0.17	0.00	0.35
Avail Cap(c_a), veh/h	740	1269	1326	666	1196	1202	395	0	464	404	0	442
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.0	4.0	4.0	3.6	0.0	0.0	40.3	0.0	38.2	40.0	0.0	38.6
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.0	0.6	0.6	0.1	0.0	0.3	0.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.0	2.1	0.0	0.2	0.2	0.3	0.0	0.8	0.6	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.0	4.6	4.6	3.6	0.6	0.6	40.4	0.0	38.6	40.2	0.0	39.1
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		826			724			55			80	
Approach Delay, s/veh		4.5			0.7			39.1			39.5	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.4		13.0	7.9	69.1		13.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	43.0		24.0	8.0	43.0		24.0				
Max Q Clear Time (g_c+I1), s	2.1	8.7		5.8	2.7	2.0		5.6				
Green Ext Time (p_c), s	0.0	5.6		0.2	0.0	5.3		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			5.6									
HCM 6th LOS			A									

Notes

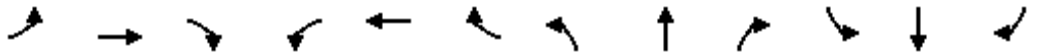
User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	37	1042	58	1432	57	130	83	130
v/c Ratio	0.15	0.46	0.16	0.60	0.38	0.45	0.55	0.46
Control Delay	5.9	10.2	2.2	6.6	39.7	23.1	47.5	24.1
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	5.9	10.2	2.2	6.8	39.7	23.1	47.5	24.1
Queue Length 50th (ft)	4	134	4	111	31	36	46	38
Queue Length 95th (ft)	19	280	m4	302	57	75	78	77
Internal Link Dist (ft)		625		314		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	304	2288	412	2373	294	498	295	496
Starvation Cap Reductn	0	0	0	238	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.46	0.14	0.67	0.19	0.26	0.28	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	951	39	55	1289	71	54	58	66	79	60	64
Future Volume (veh/h)	35	951	39	55	1289	71	54	58	66	79	60	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	1001	41	58	1357	75	57	61	69	83	63	67
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	2	2	2
Cap, veh/h	359	2157	88	393	2148	118	213	139	157	212	144	153
Arrive On Green	0.03	0.63	0.63	0.07	1.00	1.00	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1767	3451	141	1767	3397	187	1251	796	901	1251	825	877
Grp Volume(v), veh/h	37	511	531	58	703	729	57	0	130	83	0	130
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1767	1763	1821	1251	0	1697	1251	0	1702
Q Serve(g_s), s	0.7	13.8	13.8	1.0	0.0	0.0	3.8	0.0	6.2	5.7	0.0	6.1
Cycle Q Clear(g_c), s	0.7	13.8	13.8	1.0	0.0	0.0	10.0	0.0	6.2	11.9	0.0	6.1
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.53	1.00		0.52
Lane Grp Cap(c), veh/h	359	1102	1144	393	1114	1152	213	0	296	212	0	297
V/C Ratio(X)	0.10	0.46	0.46	0.15	0.63	0.63	0.27	0.00	0.44	0.39	0.00	0.44
Avail Cap(c_a), veh/h	469	1102	1144	490	1114	1152	328	0	453	328	0	454
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.6	8.9	8.9	6.4	0.0	0.0	37.7	0.0	33.2	38.5	0.0	33.2
Incr Delay (d2), s/veh	0.0	1.4	1.4	0.1	2.3	2.3	0.2	0.0	0.4	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.1	5.3	0.3	0.7	0.7	1.2	0.0	2.5	1.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.6	10.3	10.3	6.4	2.3	2.3	37.9	0.0	33.6	39.0	0.0	33.6
LnGrp LOS	A	B	B	A	A	A	D	A	C	D	A	C
Approach Vol, veh/h		1079			1490			187			213	
Approach Delay, s/veh		10.1			2.5			34.9			35.7	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	61.3		20.7	7.4	61.9		20.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	43.0		24.0	8.0	43.0		24.0				
Max Q Clear Time (g_c+I1), s	3.0	15.8		13.9	2.7	2.0		12.0				
Green Ext Time (p_c), s	0.0	7.9		0.4	0.0	14.5		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	826	26	738	9	17
v/c Ratio	0.29	0.05	0.24	0.06	0.11
Control Delay	2.3	0.5	0.3	34.8	13.9
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	2.4	0.5	0.3	34.8	13.9
Queue Length 50th (ft)	32	0	0	5	0
Queue Length 95th (ft)	64	2	11	17	15
Internal Link Dist (ft)	314		897	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2882	595	3106	340	260
Starvation Cap Reductn	602	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.04	0.24	0.03	0.07

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	748	12	24	679	8	16
Future Volume (veh/h)	748	12	24	679	8	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1811	1811	1767	1767	1811	1811
Adj Flow Rate, veh/h	813	13	26	738	9	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	9	9	6	6
Cap, veh/h	2704	43	605	2877	55	82
Arrive On Green	1.00	1.00	0.04	1.00	0.03	0.03
Sat Flow, veh/h	3557	55	1682	3445	1725	1535
Grp Volume(v), veh/h	404	422	26	738	9	17
Grp Sat Flow(s),veh/h/ln	1721	1801	1682	1678	1725	1535
Q Serve(g_s), s	0.0	0.0	0.2	0.0	0.5	1.0
Cycle Q Clear(g_c), s	0.0	0.0	0.2	0.0	0.5	1.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1342	1405	605	2877	55	82
V/C Ratio(X)	0.30	0.30	0.04	0.26	0.16	0.21
Avail Cap(c_a), veh/h	1342	1405	774	2877	345	340
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.4	0.0	42.4	40.8
Incr Delay (d2), s/veh	0.6	0.5	0.0	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.0	0.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.5	1.4	0.2	42.9	41.3
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	826			764	26	
Approach Delay, s/veh	0.5			0.2	41.8	
Approach LOS	A			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		82.1			6.9	75.2	7.9
Change Period (Y+Rc), s		5.0			5.0	5.0	5.0
Max Green Setting (Gmax), s		62.0			11.0	46.0	18.0
Max Q Clear Time (g_c+I1), s		2.0			2.2	2.0	3.0
Green Ext Time (p_c), s		6.3			0.0	6.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1191	154	1452	70	153
v/c Ratio	0.50	0.43	0.50	0.37	0.50
Control Delay	6.5	11.7	2.5	41.3	22.4
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	6.6	11.7	2.6	41.3	22.4
Queue Length 50th (ft)	109	7	38	38	47
Queue Length 95th (ft)	122	m49	110	70	81
Internal Link Dist (ft)	314		897	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2360	429	2895	354	381
Starvation Cap Reductn	212	0	0	0	0
Spillback Cap Reductn	0	0	208	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.55	0.36	0.54	0.20	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1049	47	142	1336	64	141
Future Volume (veh/h)	1049	47	142	1336	64	141
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	1140	51	154	1452	70	153
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	2	2	2	2
Cap, veh/h	2308	103	481	2754	203	257
Arrive On Green	1.00	1.00	0.10	1.00	0.11	0.11
Sat Flow, veh/h	3530	154	1781	3647	1781	1585
Grp Volume(v), veh/h	584	607	154	1452	70	153
Grp Sat Flow(s),veh/h/ln	1763	1828	1781	1777	1781	1585
Q Serve(g_s), s	0.0	0.0	2.3	0.0	3.3	8.1
Cycle Q Clear(g_c), s	0.0	0.0	2.3	0.0	3.3	8.1
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1184	1227	481	2754	203	257
V/C Ratio(X)	0.49	0.49	0.32	0.53	0.35	0.60
Avail Cap(c_a), veh/h	1184	1227	613	2754	356	393
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	0.67	0.67	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	3.2	0.0	36.8	35.0
Incr Delay (d2), s/veh	1.3	1.3	0.1	0.5	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.6	0.2	1.4	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.3	1.3	3.3	0.5	37.2	35.8
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	1191			1606	223	
Approach Delay, s/veh	1.3			0.8	36.2	
Approach LOS	A			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		74.8			9.3	65.4	15.2
Change Period (Y+Rc), s		5.0			5.0	5.0	5.0
Max Green Setting (Gmax), s		62.0			11.0	46.0	18.0
Max Q Clear Time (g_c+I1), s		2.0			4.3	2.0	10.1
Green Ext Time (p_c), s		17.8			0.1	10.8	0.2

Intersection Summary	
HCM 6th Ctrl Delay	3.6
HCM 6th LOS	A

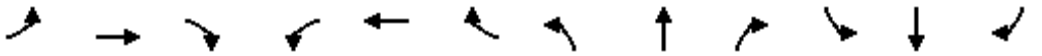
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	27	796	69	660	139	86	45	47	114	92	27
v/c Ratio	0.06	0.44	0.18	0.35	0.12	0.32	0.20	0.13	0.38	0.38	0.07
Control Delay	13.2	20.1	11.1	15.2	2.5	27.3	33.8	1.7	27.2	37.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	20.1	11.1	15.2	2.5	27.3	33.8	1.7	27.2	37.5	0.4
Queue Length 50th (ft)	5	129	13	107	0	39	24	0	53	51	0
Queue Length 95th (ft)	41	#330	48	230	31	54	44	6	68	76	0
Internal Link Dist (ft)		897		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	517	1814	416	1879	1156	293	534	419	316	558	428
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.44	0.17	0.35	0.12	0.29	0.08	0.11	0.36	0.16	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	667	71	64	614	129	80	42	44	106	86	25
Future Volume (veh/h)	25	667	71	64	614	129	80	42	44	106	86	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1767	1767	1767	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	27	717	79	69	660	139	86	45	47	114	92	27
Peak Hour Factor	0.93	0.93	0.90	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	9	9	9	3	3	3	2	2	2
Cap, veh/h	453	1852	204	520	2023	1014	244	144	178	285	177	182
Arrive On Green	0.04	1.00	1.00	0.04	0.60	0.60	0.06	0.08	0.08	0.08	0.09	0.09
Sat Flow, veh/h	1739	3150	347	1682	3357	1495	1767	1856	1548	1781	1870	1565
Grp Volume(v), veh/h	27	395	401	69	660	139	86	45	47	114	92	27
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1682	1678	1495	1767	1856	1548	1781	1870	1565
Q Serve(g_s), s	0.6	0.0	0.0	1.4	8.8	3.0	4.0	2.1	2.5	5.2	4.2	1.4
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.4	8.8	3.0	4.0	2.1	2.5	5.2	4.2	1.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	453	1020	1036	520	2023	1014	244	144	178	285	177	182
V/C Ratio(X)	0.06	0.39	0.39	0.13	0.33	0.14	0.35	0.31	0.26	0.40	0.52	0.15
Avail Cap(c_a), veh/h	589	1020	1036	627	2023	1014	316	557	522	329	561	504
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.1	0.0	0.0	6.6	8.8	5.1	35.3	39.2	36.4	34.5	38.8	35.8
Incr Delay (d2), s/veh	0.0	1.1	1.1	0.0	0.4	0.3	0.3	0.5	0.3	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	0.5	3.0	0.9	1.7	0.9	0.9	2.2	2.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.1	1.1	1.1	6.7	9.3	5.4	35.6	39.7	36.7	34.8	39.7	35.9
LnGrp LOS	A	A	A	A	A	A	D	D	D	C	D	D
Approach Vol, veh/h		823			868			178			233	
Approach Delay, s/veh		1.3			8.5			36.9			36.9	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	57.9	10.3	13.5	7.0	59.2	11.8	12.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	25.0	9.0	27.0	9.0	25.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	3.4	2.0	6.0	6.2	2.6	10.8	7.2	4.5
Green Ext Time (p_c), s	0.0	5.3	0.0	0.3	0.0	4.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

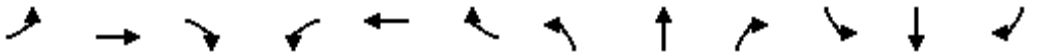
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	1167	153	1261	109	184	145	157	215	107	94
v/c Ratio	0.30	0.77	0.65	0.74	0.12	0.52	0.53	0.29	0.62	0.38	0.24
Control Delay	14.0	30.5	28.3	25.8	4.4	28.4	40.2	7.3	32.8	36.0	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	30.5	28.3	25.8	4.4	28.4	40.2	7.3	32.8	36.0	5.5
Queue Length 50th (ft)	16	286	34	289	5	84	79	15	99	57	0
Queue Length 95th (ft)	m34	#578	#134	#604	37	106	111	45	122	86	26
Internal Link Dist (ft)		897		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	259	1523	262	1695	930	357	540	556	348	558	442
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.77	0.58	0.74	0.12	0.52	0.27	0.28	0.62	0.19	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



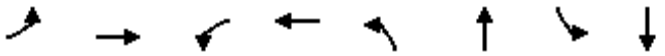
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	1005	115	147	1211	105	177	139	151	206	103	90
Future Volume (veh/h)	59	1005	115	147	1211	105	177	139	151	206	103	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.97	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	1047	120	153	1261	109	184	145	157	215	107	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	1495	171	297	1776	947	364	268	324	334	268	273
Arrive On Green	0.03	0.47	0.47	0.07	0.50	0.50	0.10	0.14	0.14	0.10	0.14	0.14
Sat Flow, veh/h	1767	3186	365	1781	3554	1579	1781	1870	1542	1781	1870	1521
Grp Volume(v), veh/h	61	579	588	153	1261	109	184	145	157	215	107	94
Grp Sat Flow(s),veh/h/ln	1767	1763	1788	1781	1777	1579	1781	1870	1542	1781	1870	1521
Q Serve(g_s), s	1.6	23.4	23.4	3.9	24.8	2.7	7.8	6.5	8.1	9.0	4.7	4.9
Cycle Q Clear(g_c), s	1.6	23.4	23.4	3.9	24.8	2.7	7.8	6.5	8.1	9.0	4.7	4.9
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	827	839	297	1776	947	364	268	324	334	268	273
V/C Ratio(X)	0.27	0.70	0.70	0.52	0.71	0.12	0.51	0.54	0.48	0.64	0.40	0.34
Avail Cap(c_a), veh/h	345	827	839	359	1776	947	364	561	566	334	561	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.86	0.86	0.86	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	18.9	18.9	15.1	17.5	7.7	28.9	35.8	31.4	29.8	35.0	32.4
Incr Delay (d2), s/veh	0.2	4.2	4.2	0.5	2.4	0.2	0.5	0.6	0.4	3.3	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	9.9	10.1	1.5	10.0	0.9	3.3	3.0	3.0	4.2	2.1	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	23.1	23.1	15.7	19.9	8.0	29.3	36.4	31.8	33.1	35.4	32.7
LnGrp LOS	B	C	C	B	B	A	C	D	C	C	D	C
Approach Vol, veh/h		1228			1523			486			416	
Approach Delay, s/veh		22.7			18.6			32.2			33.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	47.2	14.0	17.9	8.1	50.0	14.0	17.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	25.0	9.0	27.0	9.0	25.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	5.9	25.4	9.8	6.9	3.6	26.8	11.0	10.1
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

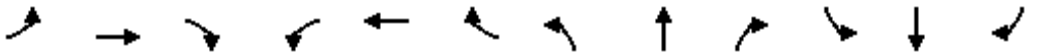
User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	795	7	735	16	40	31	53
v/c Ratio	0.10	0.30	0.01	0.30	0.11	0.19	0.22	0.25
Control Delay	4.2	5.5	1.4	2.4	33.5	26.3	36.6	22.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	4.2	5.5	1.4	2.5	33.5	26.3	36.6	22.1
Queue Length 50th (ft)	4	40	1	36	9	15	17	14
Queue Length 95th (ft)	24	191	m1	24	23	36	36	39
Internal Link Dist (ft)		625		314		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	569	2681	551	2411	342	474	339	462
Starvation Cap Reductn	0	0	0	562	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.30	0.01	0.40	0.05	0.08	0.09	0.11

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



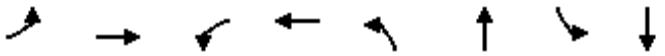
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	739	16	7	606	92	15	26	12	29	25	26
Future Volume (veh/h)	49	739	16	7	606	92	15	26	12	29	25	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1767	1767	1767	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	52	778	17	7	638	97	16	27	13	31	26	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	3	3	3	5	5	5
Cap, veh/h	633	2535	55	517	2077	315	159	106	51	170	73	76
Arrive On Green	0.03	0.74	0.74	0.01	1.00	1.00	0.09	0.09	0.09	0.09	0.09	0.09
Sat Flow, veh/h	1725	3443	75	1682	2922	444	1323	1176	566	1316	813	844
Grp Volume(v), veh/h	52	389	406	7	366	369	16	0	40	31	0	53
Grp Sat Flow(s),veh/h/ln	1725	1721	1798	1682	1678	1687	1323	0	1742	1316	0	1657
Q Serve(g_s), s	0.7	6.9	6.9	0.1	0.0	0.0	1.0	0.0	1.9	2.0	0.0	2.7
Cycle Q Clear(g_c), s	0.7	6.9	6.9	0.1	0.0	0.0	3.7	0.0	1.9	3.9	0.0	2.7
Prop In Lane	1.00		0.04	1.00		0.26	1.00		0.32	1.00		0.51
Lane Grp Cap(c), veh/h	633	1267	1323	517	1193	1199	159	0	157	170	0	149
V/C Ratio(X)	0.08	0.31	0.31	0.01	0.31	0.31	0.10	0.00	0.26	0.18	0.00	0.36
Avail Cap(c_a), veh/h	731	1267	1323	655	1193	1199	393	0	465	403	0	442
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.1	4.0	4.0	3.7	0.0	0.0	40.3	0.0	38.1	40.0	0.0	38.5
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.0	0.7	0.7	0.1	0.0	0.3	0.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	2.1	2.2	0.0	0.2	0.2	0.3	0.0	0.8	0.7	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	3.1	4.7	4.6	3.7	0.7	0.7	40.4	0.0	38.5	40.2	0.0	39.0
LnGrp LOS	A	A	A	A	A	A	D	A	D	D	A	D
Approach Vol, veh/h		847			742			56			84	
Approach Delay, s/veh		4.6			0.7			39.0			39.5	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.3		13.1	7.9	69.0		13.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	43.0		24.0	8.0	43.0		24.0				
Max Q Clear Time (g_c+I1), s	2.1	8.9		5.9	2.7	2.0		5.7				
Green Ext Time (p_c), s	0.0	5.8		0.2	0.0	5.4		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			5.7									
HCM 6th LOS			A									

Notes

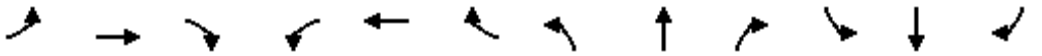
User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	38	1069	59	1470	58	135	85	134
v/c Ratio	0.16	0.47	0.16	0.62	0.39	0.47	0.57	0.47
Control Delay	6.1	10.4	2.4	7.3	40.0	23.7	48.8	24.6
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	6.1	10.4	2.4	7.4	40.0	23.7	48.8	24.6
Queue Length 50th (ft)	4	140	3	193	31	39	47	40
Queue Length 95th (ft)	19	290	m5	316	58	78	80	80
Internal Link Dist (ft)		625		314		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	294	2282	401	2366	289	498	288	496
Starvation Cap Reductn	0	0	0	185	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.47	0.15	0.67	0.20	0.27	0.30	0.27

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	976	40	56	1323	73	55	60	68	81	62	66
Future Volume (veh/h)	36	976	40	56	1323	73	55	60	68	81	62	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	1027	42	59	1393	77	58	63	72	85	65	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	2	2	2
Cap, veh/h	350	2143	88	382	2133	118	215	141	161	213	147	156
Arrive On Green	0.03	0.62	0.62	0.07	1.00	1.00	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1767	3451	141	1767	3397	187	1247	792	905	1246	826	876
Grp Volume(v), veh/h	38	524	545	59	721	749	58	0	135	85	0	134
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1767	1763	1821	1247	0	1697	1246	0	1702
Q Serve(g_s), s	0.7	14.5	14.5	1.1	0.0	0.0	3.9	0.0	6.4	5.9	0.0	6.3
Cycle Q Clear(g_c), s	0.7	14.5	14.5	1.1	0.0	0.0	10.2	0.0	6.4	12.3	0.0	6.3
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.53	1.00		0.51
Lane Grp Cap(c), veh/h	350	1095	1136	382	1107	1144	215	0	302	213	0	303
V/C Ratio(X)	0.11	0.48	0.48	0.15	0.65	0.65	0.27	0.00	0.45	0.40	0.00	0.44
Avail Cap(c_a), veh/h	459	1095	1136	478	1107	1144	325	0	452	324	0	454
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.7	9.2	9.2	6.6	0.0	0.0	37.6	0.0	33.0	38.5	0.0	33.0
Incr Delay (d2), s/veh	0.1	1.5	1.4	0.1	2.5	2.5	0.2	0.0	0.4	0.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	5.4	5.6	0.3	0.8	0.8	1.2	0.0	2.6	1.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.7	10.7	10.7	6.7	2.5	2.5	37.8	0.0	33.4	39.0	0.0	33.4
LnGrp LOS	A	B	B	A	A	A	D	A	C	D	A	C
Approach Vol, veh/h		1107			1529			193			219	
Approach Delay, s/veh		10.5			2.7			34.7			35.5	
Approach LOS		B			A			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	60.9		21.0	7.5	61.5		21.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	8.0	43.0		24.0	8.0	43.0		24.0				
Max Q Clear Time (g_c+I1), s	3.1	16.5		14.3	2.7	2.0		12.2				
Green Ext Time (p_c), s	0.0	8.1		0.4	0.0	15.2		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	9.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	848	27	758	9	17
v/c Ratio	0.29	0.05	0.24	0.06	0.11
Control Delay	2.4	0.5	0.4	34.8	13.9
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	2.4	0.5	0.4	34.8	13.9
Queue Length 50th (ft)	33	0	0	5	0
Queue Length 95th (ft)	66	2	11	17	15
Internal Link Dist (ft)	314		897	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2882	586	3106	340	260
Starvation Cap Reductn	576	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.05	0.24	0.03	0.07

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	768	12	25	697	8	16
Future Volume (veh/h)	768	12	25	697	8	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1811	1811	1767	1767	1811	1811
Adj Flow Rate, veh/h	835	13	27	758	9	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	9	9	6	6
Cap, veh/h	2704	42	595	2877	55	82
Arrive On Green	1.00	1.00	0.04	1.00	0.03	0.03
Sat Flow, veh/h	3558	54	1682	3445	1725	1535
Grp Volume(v), veh/h	414	434	27	758	9	17
Grp Sat Flow(s),veh/h/ln	1721	1801	1682	1678	1725	1535
Q Serve(g_s), s	0.0	0.0	0.3	0.0	0.5	1.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	0.0	0.5	1.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1341	1404	595	2877	55	82
V/C Ratio(X)	0.31	0.31	0.05	0.26	0.16	0.21
Avail Cap(c_a), veh/h	1341	1404	764	2877	345	340
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.95	0.95	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.4	0.0	42.4	40.7
Incr Delay (d2), s/veh	0.6	0.6	0.0	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.0	0.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.6	1.4	0.2	42.9	41.2
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	848			785	26	
Approach Delay, s/veh	0.6			0.3	41.8	
Approach LOS	A			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		82.1			7.0	75.2	7.9
Change Period (Y+Rc), s		5.0			5.0	5.0	5.0
Max Green Setting (Gmax), s		62.0			11.0	46.0	18.0
Max Q Clear Time (g_c+I1), s		2.0			2.3	2.0	3.0
Green Ext Time (p_c), s		6.5			0.0	6.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1222	159	1490	72	158
v/c Ratio	0.52	0.45	0.52	0.38	0.51
Control Delay	6.1	10.1	2.2	41.5	23.6
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	6.2	10.1	2.3	41.5	23.6
Queue Length 50th (ft)	127	8	15	40	52
Queue Length 95th (ft)	103	m39	123	72	84
Internal Link Dist (ft)	314		897	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2349	418	2892	354	379
Starvation Cap Reductn	104	0	0	0	0
Spillback Cap Reductn	0	0	224	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.38	0.56	0.20	0.42

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1076	48	146	1371	66	145
Future Volume (veh/h)	1076	48	146	1371	66	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	1170	52	159	1490	72	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	2	2	2	2
Cap, veh/h	2294	102	473	2744	208	263
Arrive On Green	1.00	1.00	0.10	1.00	0.12	0.12
Sat Flow, veh/h	3531	153	1781	3647	1781	1585
Grp Volume(v), veh/h	600	622	159	1490	72	158
Grp Sat Flow(s),veh/h/ln	1763	1828	1781	1777	1781	1585
Q Serve(g_s), s	0.0	0.0	2.4	0.0	3.3	8.3
Cycle Q Clear(g_c), s	0.0	0.0	2.4	0.0	3.3	8.3
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1176	1220	473	2744	208	263
V/C Ratio(X)	0.51	0.51	0.34	0.54	0.35	0.60
Avail Cap(c_a), veh/h	1176	1220	602	2744	356	395
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	0.64	0.64	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	3.2	0.0	36.6	34.8
Incr Delay (d2), s/veh	1.4	1.3	0.1	0.5	0.4	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.6	0.2	1.5	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.4	1.3	3.3	0.5	37.0	35.6
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	1222			1649	230	
Approach Delay, s/veh	1.4			0.8	36.0	
Approach LOS	A			A	D	

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		74.5			9.4	65.0	15.5
Change Period (Y+Rc), s		5.0			5.0	5.0	5.0
Max Green Setting (Gmax), s		62.0			11.0	46.0	18.0
Max Q Clear Time (g_c+I1), s		2.0			4.4	2.0	10.3
Green Ext Time (p_c), s		18.7			0.1	11.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	3.6
HCM 6th LOS	A

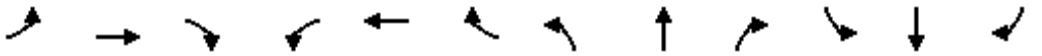
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	816	71	677	142	88	46	48	117	95	28
v/c Ratio	0.06	0.45	0.20	0.36	0.12	0.32	0.20	0.13	0.38	0.38	0.08
Control Delay	13.3	20.3	11.2	15.4	2.5	27.3	33.6	1.7	27.2	37.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	20.3	11.2	15.4	2.5	27.3	33.6	1.7	27.2	37.6	0.4
Queue Length 50th (ft)	5	124	14	112	0	40	25	0	54	52	0
Queue Length 95th (ft)	43	#344	49	237	31	55	44	7	70	77	0
Internal Link Dist (ft)		897		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	507	1805	406	1871	1155	294	534	421	318	558	431
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.45	0.17	0.36	0.12	0.30	0.09	0.11	0.37	0.17	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	684	73	66	630	132	82	43	45	109	88	26
Future Volume (veh/h)	26	684	73	66	630	132	82	43	45	109	88	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1767	1767	1767	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	28	735	81	71	677	142	88	46	48	117	95	28
Peak Hour Factor	0.93	0.93	0.90	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	9	9	9	3	3	3	2	2	2
Cap, veh/h	443	1842	203	512	2012	1012	246	146	180	289	180	186
Arrive On Green	0.04	1.00	1.00	0.04	0.60	0.60	0.06	0.08	0.08	0.08	0.10	0.10
Sat Flow, veh/h	1739	3150	347	1682	3357	1495	1767	1856	1549	1781	1870	1565
Grp Volume(v), veh/h	28	405	411	71	677	142	88	46	48	117	95	28
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1682	1678	1495	1767	1856	1549	1781	1870	1565
Q Serve(g_s), s	0.6	0.0	0.0	1.5	9.1	3.1	4.1	2.1	2.5	5.3	4.4	1.4
Cycle Q Clear(g_c), s	0.6	0.0	0.0	1.5	9.1	3.1	4.1	2.1	2.5	5.3	4.4	1.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	443	1014	1031	512	2012	1012	246	146	180	289	180	186
V/C Ratio(X)	0.06	0.40	0.40	0.14	0.34	0.14	0.36	0.31	0.27	0.40	0.53	0.15
Avail Cap(c_a), veh/h	578	1014	1031	618	2012	1012	316	557	523	329	561	505
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	0.0	0.0	6.7	9.1	5.2	35.2	39.2	36.3	34.3	38.7	35.6
Incr Delay (d2), s/veh	0.0	1.1	1.1	0.0	0.5	0.3	0.3	0.5	0.3	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.3	0.5	3.1	0.9	1.7	1.0	1.0	2.3	2.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.3	1.1	1.1	6.8	9.5	5.5	35.5	39.6	36.6	34.7	39.6	35.8
LnGrp LOS	A	A	A	A	A	A	D	D	D	C	D	D
Approach Vol, veh/h		844			890			182			240	
Approach Delay, s/veh		1.3			8.6			36.8			36.8	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	57.6	10.4	13.6	7.0	58.9	12.0	12.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	25.0	9.0	27.0	9.0	25.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	3.5	2.0	6.1	6.4	2.6	11.1	7.3	4.5
Green Ext Time (p_c), s	0.0	5.5	0.0	0.3	0.0	4.4	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

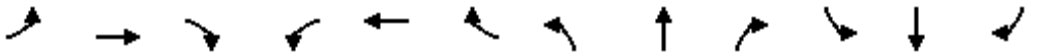
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	1197	157	1295	113	190	149	161	220	110	96
v/c Ratio	0.32	0.79	0.67	0.77	0.12	0.53	0.54	0.30	0.63	0.39	0.24
Control Delay	13.4	31.7	30.1	26.6	4.5	28.8	40.4	7.8	33.3	36.0	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	31.7	30.1	26.6	4.5	28.8	40.4	7.8	33.3	36.0	5.5
Queue Length 50th (ft)	20	359	36	304	5	86	81	18	102	59	0
Queue Length 95th (ft)	m31	#588	#140	#629	39	109	114	48	124	87	26
Internal Link Dist (ft)		897		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	259	1516	260	1686	927	358	540	556	348	558	446
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.79	0.60	0.77	0.12	0.53	0.28	0.29	0.63	0.20	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



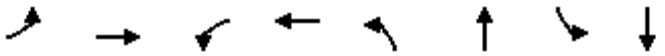
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1031	118	151	1243	108	182	143	155	211	106	92
Future Volume (veh/h)	61	1031	118	151	1243	108	182	143	155	211	106	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.98		0.97	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	1074	123	157	1295	112	190	149	161	220	110	96
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1488	170	277	1770	945	363	270	328	332	270	276
Arrive On Green	0.02	0.31	0.31	0.07	0.50	0.50	0.10	0.14	0.14	0.10	0.14	0.14
Sat Flow, veh/h	1767	3186	365	1781	3554	1579	1781	1870	1542	1781	1870	1522
Grp Volume(v), veh/h	64	594	603	157	1295	112	190	149	161	220	110	96
Grp Sat Flow(s),veh/h/ln	1767	1763	1788	1781	1777	1579	1781	1870	1542	1781	1870	1522
Q Serve(g_s), s	1.7	26.9	27.0	4.1	25.9	2.8	8.1	6.7	8.3	9.0	4.8	5.0
Cycle Q Clear(g_c), s	1.7	26.9	27.0	4.1	25.9	2.8	8.1	6.7	8.3	9.0	4.8	5.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	823	835	277	1770	945	363	270	328	332	270	276
V/C Ratio(X)	0.29	0.72	0.72	0.57	0.73	0.12	0.52	0.55	0.49	0.66	0.41	0.35
Avail Cap(c_a), veh/h	337	823	835	336	1770	945	363	561	568	332	561	513
HCM Platoon Ratio	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	25.7	25.7	16.8	17.8	7.8	28.9	35.8	31.3	30.0	35.0	32.3
Incr Delay (d2), s/veh	0.2	4.6	4.6	0.7	2.7	0.3	0.7	0.7	0.4	3.9	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.7	12.9	1.6	10.5	0.9	3.5	3.0	3.1	4.4	2.2	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.5	30.3	30.3	17.5	20.6	8.1	29.6	36.5	31.7	34.0	35.4	32.6
LnGrp LOS	B	C	C	B	C	A	C	D	C	C	D	C
Approach Vol, veh/h		1261			1564			500			426	
Approach Delay, s/veh		29.6			19.4			32.3			34.0	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	47.0	14.0	18.0	8.2	49.8	14.0	18.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	25.0	9.0	27.0	9.0	25.0	9.0	27.0
Max Q Clear Time (g_c+I1), s	6.1	29.0	10.1	7.0	3.7	27.9	11.0	10.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

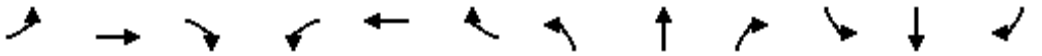
User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	52	795	7	735	16	40	31	53
v/c Ratio	0.34	0.29	0.07	0.31	0.14	0.23	0.26	0.30
Control Delay	43.8	4.2	37.1	7.4	37.9	30.1	42.0	25.8
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	43.8	4.2	37.1	7.5	37.9	30.1	42.0	25.8
Queue Length 50th (ft)	28	40	4	68	9	15	17	14
Queue Length 95th (ft)	62	152	m18	96	26	41	41	45
Internal Link Dist (ft)		625		316		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	160	2739	133	2430	214	301	212	299
Starvation Cap Reductn	0	0	0	566	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.29	0.05	0.39	0.07	0.13	0.15	0.18

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



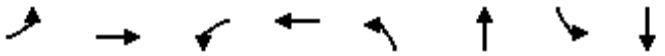
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	739	16	7	606	92	15	26	12	29	25	26
Future Volume (veh/h)	49	739	16	7	606	92	15	26	12	29	25	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1767	1767	1767	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	52	778	17	7	638	97	16	27	13	31	26	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	6	6	9	9	9	3	3	3	5	5	5
Cap, veh/h	70	2589	57	15	2105	320	143	92	44	154	63	66
Arrive On Green	0.04	0.75	0.75	0.02	1.00	1.00	0.08	0.08	0.08	0.08	0.08	0.08
Sat Flow, veh/h	1725	3443	75	1682	2922	444	1321	1175	566	1314	812	843
Grp Volume(v), veh/h	52	389	406	7	366	369	16	0	40	31	0	53
Grp Sat Flow(s),veh/h/ln	1725	1721	1798	1682	1678	1687	1321	0	1741	1314	0	1655
Q Serve(g_s), s	2.7	6.5	6.5	0.4	0.0	0.0	1.1	0.0	2.0	2.1	0.0	2.7
Cycle Q Clear(g_c), s	2.7	6.5	6.5	0.4	0.0	0.0	3.8	0.0	2.0	4.0	0.0	2.7
Prop In Lane	1.00		0.04	1.00		0.26	1.00		0.32	1.00		0.51
Lane Grp Cap(c), veh/h	70	1294	1352	15	1209	1215	143	0	136	154	0	129
V/C Ratio(X)	0.75	0.30	0.30	0.47	0.30	0.30	0.11	0.00	0.29	0.20	0.00	0.41
Avail Cap(c_a), veh/h	144	1294	1352	140	1209	1215	260	0	290	270	0	276
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.98	0.98	0.98	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	3.6	3.6	44.0	0.0	0.0	41.3	0.0	39.2	41.0	0.0	39.5
Incr Delay (d2), s/veh	14.5	0.6	0.6	20.5	0.6	0.6	0.1	0.0	0.4	0.2	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.9	2.0	0.2	0.2	0.2	0.3	0.0	0.8	0.7	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	4.2	4.1	64.4	0.6	0.6	41.5	0.0	39.6	41.3	0.0	40.3
LnGrp LOS	E	A	A	E	A	A	D	A	D	D	A	D
Approach Vol, veh/h		847			742			56			84	
Approach Delay, s/veh		7.4			1.2			40.1			40.7	
Approach LOS		A			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	72.7		12.0	8.1	69.8		12.0				
Change Period (Y+Rc), s	4.5	5.0		5.0	4.5	5.0		5.0				
Max Green Setting (Gmax), s	7.5	53.0		15.0	7.5	53.0		15.0				
Max Q Clear Time (g_c+I1), s	2.4	8.5		6.0	4.7	2.0		5.8				
Green Ext Time (p_c), s	0.0	5.9		0.1	0.0	5.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

Notes

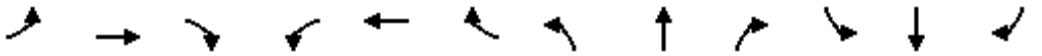
User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	38	1069	59	1470	58	135	85	134
v/c Ratio	0.34	0.46	0.50	0.61	0.46	0.53	0.67	0.53
Control Delay	47.8	9.3	49.8	7.2	47.2	29.5	62.2	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	9.3	49.8	7.2	47.2	29.5	62.2	30.5
Queue Length 50th (ft)	21	152	32	68	31	43	47	44
Queue Length 95th (ft)	52	224	m69	94	67	94	92	96
Internal Link Dist (ft)		625		316		678		541
Turn Bay Length (ft)	190		140		125		180	
Base Capacity (vph)	131	2310	131	2399	175	329	174	326
Starvation Cap Reductn	0	0	0	51	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.46	0.45	0.63	0.33	0.41	0.49	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	976	40	56	1323	73	55	60	68	81	62	66
Future Volume (veh/h)	36	976	40	56	1323	73	55	60	68	81	62	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	1027	42	59	1393	77	58	63	72	85	65	69
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	2	2	2	2	2	2
Cap, veh/h	48	2169	89	75	2187	121	193	129	147	192	134	142
Arrive On Green	0.03	0.63	0.63	0.08	1.00	1.00	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	1767	3451	141	1767	3397	187	1247	791	904	1245	825	876
Grp Volume(v), veh/h	38	524	545	59	721	749	58	0	135	85	0	134
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1767	1763	1821	1247	0	1696	1245	0	1701
Q Serve(g_s), s	1.9	14.2	14.2	2.9	0.0	0.0	4.0	0.0	6.5	6.0	0.0	6.4
Cycle Q Clear(g_c), s	1.9	14.2	14.2	2.9	0.0	0.0	10.4	0.0	6.5	12.5	0.0	6.4
Prop In Lane	1.00		0.08	1.00		0.10	1.00		0.53	1.00		0.51
Lane Grp Cap(c), veh/h	48	1108	1150	75	1135	1172	193	0	275	192	0	276
V/C Ratio(X)	0.79	0.47	0.47	0.79	0.64	0.64	0.30	0.00	0.49	0.44	0.00	0.49
Avail Cap(c_a), veh/h	137	1108	1150	137	1135	1172	198	0	283	197	0	284
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.5	8.8	8.8	40.8	0.0	0.0	39.0	0.0	34.3	40.0	0.0	34.3
Incr Delay (d2), s/veh	10.1	1.5	1.4	5.7	2.3	2.3	0.3	0.0	0.5	0.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.2	5.4	1.3	0.7	0.7	1.2	0.0	2.7	1.8	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	10.3	10.2	46.5	2.3	2.3	39.3	0.0	34.8	40.6	0.0	34.8
LnGrp LOS	D	B	B	D	A	A	D	A	C	D	A	C
Approach Vol, veh/h		1107			1529			193			219	
Approach Delay, s/veh		11.8			4.0			36.2			37.0	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	61.6		19.6	7.5	62.9		19.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	7.0	53.0		15.0	7.0	53.0		15.0				
Max Q Clear Time (g_c+I1), s	4.9	16.2		14.5	3.9	2.0		12.4				
Green Ext Time (p_c), s	0.0	8.8		0.0	0.0	16.1		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.2
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	848	27	758	9	17
v/c Ratio	0.29	0.05	0.24	0.07	0.13
Control Delay	1.3	0.2	0.2	38.2	16.3
Queue Delay	0.1	0.0	0.0	0.0	0.0
Total Delay	1.4	0.2	0.2	38.2	16.3
Queue Length 50th (ft)	15	1	0	5	0
Queue Length 95th (ft)	33	0	0	19	17
Internal Link Dist (ft)	316		368	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2937	622	3157	208	270
Starvation Cap Reductn	637	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.37	0.04	0.24	0.04	0.06

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	768	12	25	697	8	16
Future Volume (veh/h)	768	12	25	697	8	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1811	1811	1767	1767	1811	1811
Adj Flow Rate, veh/h	835	13	27	758	9	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	6	9	9	6	6
Cap, veh/h	2704	42	595	2877	55	82
Arrive On Green	1.00	1.00	0.04	1.00	0.03	0.03
Sat Flow, veh/h	3558	54	1682	3445	1725	1535
Grp Volume(v), veh/h	414	434	27	758	9	17
Grp Sat Flow(s),veh/h/ln	1721	1801	1682	1678	1725	1535
Q Serve(g_s), s	0.0	0.0	0.3	0.0	0.5	1.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	0.0	0.5	1.0
Prop In Lane		0.03	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1341	1404	595	2877	55	82
V/C Ratio(X)	0.31	0.31	0.05	0.26	0.16	0.21
Avail Cap(c_a), veh/h	1341	1404	802	2877	211	221
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	1.4	0.0	42.4	40.7
Incr Delay (d2), s/veh	0.6	0.6	0.0	0.2	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.0	0.1	0.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.6	0.6	1.4	0.2	42.9	41.2
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	848			785	26	
Approach Delay, s/veh	0.6			0.3	41.8	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	7.0	75.2				82.1	7.9
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	13.0	51.0				69.0	11.0
Max Q Clear Time (g_c+I1), s	2.3	2.0				2.0	3.0
Green Ext Time (p_c), s	0.0	6.5				6.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	1.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Group Flow (vph)	1222	159	1490	72	158
v/c Ratio	0.50	0.44	0.51	0.45	0.54
Control Delay	5.2	11.2	2.7	47.1	23.6
Queue Delay	0.0	0.0	0.1	0.0	0.0
Total Delay	5.2	11.2	2.7	47.1	23.6
Queue Length 50th (ft)	101	21	98	40	42
Queue Length 95th (ft)	110	54	32	80	91
Internal Link Dist (ft)	316		368	252	
Turn Bay Length (ft)		190		30	
Base Capacity (vph)	2424	460	2949	216	402
Starvation Cap Reductn	57	0	227	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.35	0.55	0.33	0.39

Intersection Summary

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1076	48	146	1371	66	145
Future Volume (veh/h)	1076	48	146	1371	66	145
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		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	No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	1170	52	159	1490	72	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	2	2	2	2
Cap, veh/h	2301	102	474	2751	204	260
Arrive On Green	1.00	1.00	0.10	1.00	0.11	0.11
Sat Flow, veh/h	3531	153	1781	3647	1781	1585
Grp Volume(v), veh/h	600	622	159	1490	72	158
Grp Sat Flow(s),veh/h/ln	1763	1828	1781	1777	1781	1585
Q Serve(g_s), s	0.0	0.0	2.4	0.0	3.4	8.3
Cycle Q Clear(g_c), s	0.0	0.0	2.4	0.0	3.4	8.3
Prop In Lane		0.08	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1180	1223	474	2751	204	260
V/C Ratio(X)	0.51	0.51	0.34	0.54	0.35	0.61
Avail Cap(c_a), veh/h	1180	1223	643	2751	218	272
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.86	0.86	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	3.2	0.0	36.8	34.9
Incr Delay (d2), s/veh	1.4	1.3	0.1	0.7	0.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.6	0.3	1.5	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.4	1.3	3.3	0.7	37.1	37.3
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	1222			1649	230	
Approach Delay, s/veh	1.3			0.9	37.3	
Approach LOS	A			A	D	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.4	65.2				74.7	15.3
Change Period (Y+Rc), s	5.0	5.0				5.0	5.0
Max Green Setting (Gmax), s	13.0	51.0				69.0	11.0
Max Q Clear Time (g_c+I1), s	4.4	2.0				2.0	10.3
Green Ext Time (p_c), s	0.1	11.4				19.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	3.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø8
Lane Configurations							
Traffic Volume (vph)	784	0	0	738	0	0	
Future Volume (vph)	784	0	0	738	0	0	
Satd. Flow (prot)	3406	0	0	3312	0	0	
Flt Permitted							
Satd. Flow (perm)	3406	0	0	3312	0	0	
Satd. Flow (RTOR)							
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Heavy Vehicles (%)	6%	6%	9%	9%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	843	0	0	794	0	0	
Turn Type	NA			NA			
Protected Phases	2			6			8
Permitted Phases							
Total Split (s)	63.0			63.0			27.0
Total Lost Time (s)	5.0			5.0			
Act Effct Green (s)	84.2			84.2			
Actuated g/C Ratio	0.94			0.94			
v/c Ratio	0.26			0.26			
Control Delay	1.5			1.5			
Queue Delay	0.0			0.0			
Total Delay	1.5			1.5			
LOS	A			A			
Approach Delay	1.5			1.5			
Approach LOS	A			A			
Queue Length 50th (ft)	0			1			
Queue Length 95th (ft)	81			85			
Internal Link Dist (ft)	368			437	173		
Turn Bay Length (ft)							
Base Capacity (vph)	3186			3098			
Starvation Cap Reductn	101			0			
Spillback Cap Reductn	0			0			
Storage Cap Reductn	0			0			
Reduced v/c Ratio	0.27			0.26			

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 86 (96%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.26	
Intersection Signal Delay: 1.5	Intersection LOS: A
Intersection Capacity Utilization 29.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Mid Block Crossing & Erie Blvd W

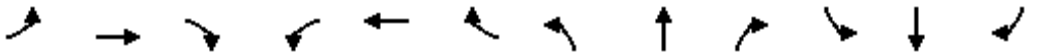
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	Ø8
Lane Configurations							
Traffic Volume (vph)	1221	0	0	1517	0	0	
Future Volume (vph)	1221	0	0	1517	0	0	
Satd. Flow (prot)	3505	0	0	3539	0	0	
Flt Permitted							
Satd. Flow (perm)	3505	0	0	3539	0	0	
Satd. Flow (RTOR)							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	1327	0	0	1649	0	0	
Turn Type	NA			NA			
Protected Phases	2			6			8
Permitted Phases							
Total Split (s)	63.0			63.0			27.0
Total Lost Time (s)	5.0			5.0			
Act Effct Green (s)	83.6			83.6			
Actuated g/C Ratio	0.93			0.93			
v/c Ratio	0.41			0.50			
Control Delay	1.4			1.6			
Queue Delay	0.0			0.0			
Total Delay	1.4			1.6			
LOS	A			A			
Approach Delay	1.4			1.6			
Approach LOS	A			A			
Queue Length 50th (ft)	0			10			
Queue Length 95th (ft)	100			64			
Internal Link Dist (ft)	368			437	173		
Turn Bay Length (ft)							
Base Capacity (vph)	3256			3287			
Starvation Cap Reductn	17			104			
Spillback Cap Reductn	0			0			
Storage Cap Reductn	0			0			
Reduced v/c Ratio	0.41			0.52			

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 86 (96%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 1.5	Intersection LOS: A
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: Mid Block Crossing & Erie Blvd W

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	28	816	71	677	142	88	46	48	117	95	28
v/c Ratio	0.27	0.45	0.47	0.35	0.12	0.38	0.29	0.17	0.42	0.51	0.08
Control Delay	51.7	10.8	48.3	12.5	1.4	32.1	41.7	27.2	31.4	47.8	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	10.8	48.3	12.5	1.4	32.1	41.7	27.2	31.4	47.8	0.4
Queue Length 50th (ft)	18	101	39	114	0	40	25	22	54	52	0
Queue Length 95th (ft)	36	96	78	181	20	72	56	45	91	97	0
Internal Link Dist (ft)		437		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	114	1831	220	1961	1215	304	257	349	306	248	381
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.45	0.32	0.35	0.12	0.29	0.18	0.14	0.38	0.38	0.07

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	684	73	66	630	132	82	43	45	109	88	26
Future Volume (veh/h)	26	684	73	66	630	132	82	43	45	109	88	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1826	1826	1826	1767	1767	1767	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	28	735	81	71	677	142	88	46	48	117	95	28
Peak Hour Factor	0.93	0.93	0.90	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	5	5	9	9	9	3	3	3	2	2	2
Cap, veh/h	39	1825	201	90	2049	1030	231	124	187	275	157	167
Arrive On Green	0.04	1.00	1.00	0.05	0.61	0.61	0.06	0.07	0.07	0.08	0.08	0.08
Sat Flow, veh/h	1739	3150	347	1682	3357	1495	1767	1856	1544	1781	1870	1562
Grp Volume(v), veh/h	28	405	411	71	677	142	88	46	48	117	95	28
Grp Sat Flow(s),veh/h/ln	1739	1735	1763	1682	1678	1495	1767	1856	1544	1781	1870	1562
Q Serve(g_s), s	1.4	0.0	0.0	3.8	8.9	2.9	4.1	2.1	2.5	5.4	4.4	1.5
Cycle Q Clear(g_c), s	1.4	0.0	0.0	3.8	8.9	2.9	4.1	2.1	2.5	5.4	4.4	1.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	39	1005	1021	90	2049	1030	231	124	187	275	157	167
V/C Ratio(X)	0.72	0.40	0.40	0.79	0.33	0.14	0.38	0.37	0.26	0.43	0.60	0.17
Avail Cap(c_a), veh/h	116	1005	1021	224	2049	1030	359	268	307	353	249	244
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	0.0	42.1	8.6	4.8	36.1	40.2	36.0	35.2	39.8	36.6
Incr Delay (d2), s/veh	8.7	1.2	1.1	5.7	0.4	0.3	0.4	0.7	0.3	0.4	1.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	0.3	1.7	3.0	0.8	1.8	1.0	1.0	2.3	2.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	1.2	1.1	47.8	9.0	5.1	36.5	40.9	36.2	35.6	41.1	36.8
LnGrp LOS	D	A	A	D	A	A	D	D	D	D	D	D
Approach Vol, veh/h		844			890			182			240	
Approach Delay, s/veh		2.8			11.5			37.5			37.9	
Approach LOS		A			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	57.1	10.5	12.6	7.0	59.9	12.1	11.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	12.0	6.0	40.0	11.0	13.0
Max Q Clear Time (g_c+I1), s	5.8	2.0	6.1	6.4	3.4	10.9	7.4	4.5
Green Ext Time (p_c), s	0.0	6.0	0.0	0.1	0.0	5.8	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

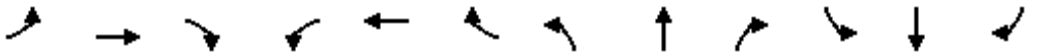
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	64	1197	157	1295	113	190	149	161	220	110	96
v/c Ratio	0.58	0.85	0.74	0.76	0.11	0.70	0.74	0.45	0.89	0.50	0.25
Control Delay	59.6	32.0	59.3	23.8	1.2	53.3	61.0	20.4	74.1	44.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	32.0	59.3	23.8	1.2	53.3	61.0	20.4	74.1	44.9	3.2
Queue Length 50th (ft)	37	264	86	328	0	107	82	47	124	58	0
Queue Length 95th (ft)	#92	#293	#167	420	10	#222	#165	84	#250	110	14
Internal Link Dist (ft)		437		599			940			848	
Turn Bay Length (ft)	250		145		145	140		140	110		
Base Capacity (vph)	116	1407	236	1711	1014	271	220	375	255	248	387
Starvation Cap Reductn	0	1	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.85	0.67	0.76	0.11	0.70	0.68	0.43	0.86	0.44	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	1031	118	151	1243	108	182	143	155	211	106	92
Future Volume (veh/h)	61	1031	118	151	1243	108	182	143	155	211	106	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	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			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	1074	123	157	1295	112	190	149	161	220	110	96
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	1427	163	190	1808	995	304	191	325	295	182	219
Arrive On Green	0.09	0.90	0.90	0.11	0.51	0.51	0.13	0.10	0.10	0.12	0.10	0.10
Sat Flow, veh/h	1767	3186	365	1781	3554	1579	1781	1870	1524	1781	1870	1500
Grp Volume(v), veh/h	64	594	603	157	1295	112	190	149	161	220	110	96
Grp Sat Flow(s),veh/h/ln	1767	1763	1788	1781	1777	1579	1781	1870	1524	1781	1870	1500
Q Serve(g_s), s	3.2	9.7	9.7	7.8	25.4	0.7	9.4	7.0	5.4	6.5	5.1	5.3
Cycle Q Clear(g_c), s	3.2	9.7	9.7	7.8	25.4	0.7	9.4	7.0	5.4	6.5	5.1	5.3
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	790	801	190	1808	995	304	191	325	295	182	219
V/C Ratio(X)	0.79	0.75	0.75	0.82	0.72	0.11	0.63	0.78	0.50	0.74	0.60	0.44
Avail Cap(c_a), veh/h	118	790	801	238	1808	995	318	229	356	337	249	273
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	3.1	3.1	39.4	17.1	1.7	38.4	39.4	14.3	36.5	39.0	35.3
Incr Delay (d2), s/veh	10.8	6.0	6.0	14.2	2.5	0.2	2.5	10.9	0.4	6.1	1.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	2.6	2.7	4.1	10.2	0.3	4.2	3.7	2.2	5.0	2.4	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	9.1	9.1	53.5	19.6	1.9	41.0	50.3	14.7	42.5	40.2	35.8
LnGrp LOS	D	A	A	D	B	A	D	D	B	D	D	D
Approach Vol, veh/h		1261			1564			500			426	
Approach Delay, s/veh		11.2			21.7			35.3			40.4	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	45.3	16.3	13.8	9.1	50.8	15.9	14.2
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	12.0	34.0	12.0	12.0	6.0	40.0	13.0	11.0
Max Q Clear Time (g_c+I1), s	9.8	11.7	11.4	7.3	5.2	27.4	8.5	9.0
Green Ext Time (p_c), s	0.0	8.9	0.0	0.2	0.0	7.7	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

COUNTY: ONEIDA P.I.N.: 2650.57

CITY OF ROME

ROUTE NO. OR STREET NAME: ERIE BOULEVARD (NY 46)

AT INTERSECTION WITH/OR BETWEEN: ERIE BOULEVARD AT SOUTH GEORGE STREET

GPI
Engineering | Design | Planning | Construction Management

TIME PERIOD: FROM: 01/01/2017 TO: 12/31/2020

No. OF MONTHS: 48

ENVIRONMENTAL:
Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

[1]Use Codes from MV 104 Police Report

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DIRECTION	TYPE[1]	DESCRIPTION	REFERENCE MARKER
1	01/17/17	19:47	2	PDO	4	2	2	3	FAILURE TO YIELD RIGHT OF WAY	NORTH / WEST	1	RIGHT TURN	17-01149
2	02/16/17	9:45	2	PDO	1	1	1	2	BRAKES DEFECTIVE	WEST / NORTH	1	RIGHT ANGLE	17-03189
3	05/19/17	8:46	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	17-09941
4	01/16/18	16:52	2	PI	4	1	4	4	FAILURE TO YIELD RIGHT OF WAY	WEST / EAST	1	LEFT TURN	18-00881
5	01/30/18	16:46	2	PDO	3	1	4	1	FAILURE TO YIELD RIGHT OF WAY	EAST / WEST	1	LEFT TURN	18-01926
6	04/04/18	16:50	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	WEST	1	REAR END	18-06887
7	10/19/18	8:13	2	PI	1	1	1	1	GLARE	EAST / NORTH	1	RIGHT TURN	18-22562
8	12/20/18	10:12	1	PDO	1	1	1	1	DRIVER INATTENTION/DISTRACTION	SOUTH	2	PEDESTRIAN	18-26838
9	07/15/19	13:40	2	PDO	1	1	1	1	UNSAFE LANE CHANGING	EAST	1	SIDESWIPE	19-15153
10	02/20/20	15:40	3	PDO	1	1	1	2	TRAFFIC CONTROL DISREGARDED	WEST / SOUTH	1	RIGHT ANGLE	20-03881
11	05/18/20	11:04	1	PDO	1	1	1	1	TURNING IMPROPERLY	SOUTH	2	PEDESTRIAN	20-10564
12	05/22/20	16:46	2	PDO	1	1	1	1	TRAFFIC CONTROL DISREGARDED	EAST / NORTH	1	RIGHT ANGLE	20-10885
13	10/26/20	8:50	1	PI	1	1	2	3	PEDESTRIAN CONFUSION/ERROR	WEST	2	PEDESTRIAN	20-23676
14	12/15/20	7:58	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	WEST	1	REAR END	20-20714

COUNTY: ONEIDA **P.I.N.:** 2650.57

CITY OF ROME

ROUTE NO. OR STREET NAME:
ERIE BOULEVARD (NY 46)

AT INTERSECTION WITH/OR BETWEEN:
ERIE BOULEVARD AT FREEDOM PLAZA ENTRANCE

GPI
Engineering | Design | Planning | Construction Management

TIME PERIOD: **FROM:** 01/01/2017 **TO:** 12/31/2020

No. OF MONTHS: 48

ENVIRONMENTAL:
Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

[1]Use Codes from MV 104 Police Report

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DIRECTION	TYPE[1]	DESCRIPTION	REFERENCE MARKER
1	08/20/18	15:06	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	18-18001
2	09/07/18	16:40	3	PI	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	18-19385
3	01/29/19	17:15	2	PDO	4	1	4	4	DRIVER INATTENTION/DISTRACTION	NORTH / EAST	1	RIGHT TURN	19-01877
4	05/21/19	16:36	2	PDO	1	1	1	1	UNSAFE LANE CHANGING	EAST	1	SIDESWIPE	19-10827
5	05/24/19	18:45	2	PDO	1	1	1	1	BACKING UNSAFELY	SOUTH	1	BACKING	19-11010
6	12/27/19	17:26	2	PDO	4	1	2	2	PASSING OR LANE USE IMPROPER	WEST	1	SIDESWIPE	19-27721
7	01/31/20	17:38	2	PI	4	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	20-02240
8	09/28/20	12:07	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	20-21687

COUNTY: ONEIDA P.I.N.: 2650.57

CITY OF ROME

ROUTE NO. OR STREET NAME: ERIE BOULEVARD (NY 46)

AT INTERSECTION WITH/OR BETWEEN: ERIE BOULEVARD AT SOUTH JAMES STREET

GPI
Engineering | Design | Planning | Construction Management

TIME PERIOD: FROM: 01/01/2017 TO: 12/31/2020

No. OF MONTHS: 48

ENVIRONMENTAL:
Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

[1]Use Codes from MV 104 Police Report

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DIRECTION	TYPE[1]	DESCRIPTION	REFERENCE MARKER
1	01/10/17	11:15	2	PDO	1	1	2	2	UNSAFE LANE CHANGE	WEST	1	SIDESWIPE	17-00644
2	01/26/17	17:15	3	PI	3	1	2	3	FAILURE TO YIELD RIGHT OF WAY	EAST / WEST	1	LEFT TURN	17-01763
3	02/19/17	16:33	2	PDO	1	1	1	1	TRAFFIC CONTROL DISREGARDED	WEST / NORTH	1	RIGHT ANGLE	17-03422
4	04/01/17	11:13	2	PDO	1	1	2	2	UNSAFE LANE CHANGE	WEST	1	SIDESWIPE	17-06347
5	04/03/17	16:30	2	PDO	1	1	1	1	DRIVER INATTENTION/DISTRACTION	NORTH	1	REAR END	17-06513
6	04/12/17	20:40	2	PDO	4	1	1	1	FAILURE TO YIELD RIGHT OF WAY	WEST / EAST	1	LEFT TURN	17-07290
7	05/14/17	13:56	2	PI	1	1	1	2	FOLLOWING TOO CLOSELY / CELL PHONE	SOUTH	1	REAR END	17-09553
8	05/23/17	9:57	2	PDO	1	1	1	2	FOLLOWING TOO CLOSELY	NORTH	1	REAR END	17-10227
9	06/05/17	15:41	1	PI	1	1	1	1	BICYCLIST FAILED TO YIELD RIGHT OF WAY	EAST / SOUTH	3	BICYCLE	17-11242
10	06/23/17	17:32	2	PI	1	1	1	1	UNSAFE LANE CHANGE	EAST	1	SIDESWIPE	17-12622
11	08/23/17	15:08	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	17-17104
12	09/06/17	10:21	1	PDO	1	1	1	2	FAILURE TO YIELD RIGHT OF WAY	NORTH	2	PEDESTRIAN	17-18082
13	09/09/17	20:15	2	PDO	4	1	1	1	-	WEST / SOUTH	1	RIGHT TURN	17-18326
14	10/31/17	11:03	1	PI	1	1	2	3	PEDESTRIAN ERROR/CONFUSION	WEST	2	PEDESTRIAN	17-21835
15	11/04/17	11:49	2	PDO	1	1	1	2	FOLLOWING TOO CLOSELY	EAST	1	REAR END	17-22109
16	11/15/17	7:42	2	PI	1	1	1	1	FAILURE TO YIELD RIGHT OF WAY	NORTH / SOUTH	1	LEFT TURN	17-22673
17	11/21/17	16:03	3	PDO	1	1	1	1	BRAKES DEFECTIVE	WEST	1	REAR END	17-23025
18	12/07/17	16:50	3	PDO	3	1	1	2	-	SOUTH	1	REAR END	17-23913
19	01/25/18	12:18	2	PDO	1	1	1	2	TRAFFIC CONTROL DISREGARDED	EAST / WEST	1	LEFT TURN	18-01517
20	04/17/18	13:46	3	PI	1	1	1	2	DRIVER INATTENTION/DISTRACTION	WEST	1	REAR END	18-07841
21	04/19/18	10:30	2	PDO	1	2	4	4	PAVEMENT SLIPPERY / UNSAFE SPEED	SOUTH	1	REAR END	18-08000
22	05/05/18	17:55	2	PDO	1	1	1	1	CELL PHONE (HAND-HELD)	EAST	1	REAR END	18-09237
23	05/08/18	7:50	2	PDO	1	1	1	1	TURNING IMPROPERLY	EAST / NORTH	1	RIGHT TURN	18-09467
24	06/29/18	12:54	2	PDO	1	1	1	1	PASSING / IMPROPER LANE USAGE	WEST	1	SIDESWIPE	18-13929
25	07/05/18	16:18	2	PI	1	1	1	1	DRIVER INATTENTION/DISTRACTION	NORTH / EAST	1	RIGHT TURN	18-14434

COUNTY: ONEIDA P.I.N.: 2650.57

CITY OF ROME

ROUTE NO. OR STREET NAME: ERIE BOULEVARD (NY 46)

AT INTERSECTION WITH/OR BETWEEN: ERIE BOULEVARD AT SOUTH JAMES STREET

GPI
Engineering | Design | Planning | Construction Management

TIME PERIOD: FROM: 01/01/2017 TO: 12/31/2020

No. OF MONTHS: 48

ENVIRONMENTAL: Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

[1]Use Codes from MV 104 Police Report

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DIRECTION	TYPE[1]	DESCRIPTION	REFERENCE MARKER
26	10/12/18	11:41	2	PDO	1	1	1	2	TURNING IMPROPERLY	NORTH	1	SIDESWIPE	18-22056
27	10/25/18	16:51	2	PDO	1	1	1	2	FOLLOWING TOO CLOSELY	EAST	1	REAR END	18-23041
28	10/30/18	17:19	2	PDO	1	1	1	1	FAILURE TO YIELD RIGHT OF WAY	WEST / EAST	1	LEFT TURN	18-23386
29	12/11/18	13:14	2	N/R	1	1	1	2	PASSING / IMPROPER LANE USAGE	NORTH	1	SIDESWIPE	18-26247
30	12/14/18	14:30	2	PDO	1	1	1	2	CELL PHONE (HAND-HELD)	EAST	1	REAR END	18-26463
31	12/19/18	18:39	3	PI	4	1	1	1	FAILURE TO YIELD RIGHT OF WAY	WEST / EAST	1	LEFT TURN	18-26795
32	02/20/19	20:44	1	PI	4	1	4	5	DRUGS / PAVEMENT SLIPPERY	EAST	22	FIXED OBJECT	19-03402
33	03/07/19	15:28	2	PI	1	1	2	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	19-04579
34	04/01/19	1:25	1	PDO	4	2	5	4	UNSAFE SPEED / PAVEMENT SLIPPERY	WEST	11	FIXED OBJECT	19-06675
35	04/18/19	20:47	1	PI	4	1	1	1	BICYCLIST FAILED TO YIELD RIGHT OF WAY	SOUTH / EAST	3	BICYCLE	19-08181
36	06/17/19	15:27	2	PDO	1	1	1	1	PASSING / IMPROPER LANE USAGE	WEST	1	SIDESWIPE	19-12954
37	07/03/19	15:23	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	19-14223
38	07/10/19	17:13	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	WEST	1	REAR END	19-14770
39	07/11/19	16:52	2	PDO	1	1	1	1	REACTION TO OTHER UNINVOLVED VEHICLE	WEST	1	SIDESWIPE	19-14843
40	08/11/19	14:31	2	PDO	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	19-17159
41	08/18/19	9:37	2	PDO	1	1	1	1	FAILURE TO YIELD RIGHT OF WAY	NORTH / EAST	1	RIGHT TURN	19-17720
42	08/24/19	18:45	4	PDO	1	1	1	1	TRAFFIC CONTROL DISREGARDED	WEST / NORTH	1	RIGHT ANGLE	19-18234
43	09/26/19	11:40	4	PI	1	1	2	3	FAILURE TO YIELD RIGHT OF WAY	EAST / WEST	1	LEFT TURN	19-20688
44	10/16/19	20:08	2	PDO	4	1	2	3	UNSAFE LANE CHANGE	EAST	1	SIDESWIPE	NY 22105
45	11/22/19	19:11	2	PDO	4	1	1	1	BACKING UNSAFELY	EAST / WEST	1	BACKING	19-25184
46	11/26/19	8:28	1	PI	1	1	1	1	TRAFFIC CONTROL DISREGARDED	SOUTH / EAST	3	BICYCLE	19-25492
47	03/12/20	9:30	2	N/R	1	2	1	2	FOLLOWING TOO CLOSELY	SOUTH	1	REAR END	20-05671
48	03/15/20	18:44	2	PDO	1	1	1	1	FAILURE TO YIELD RIGHT OF WAY	WEST / EAST	1	LEFT TURN	20-05938
49	03/23/20	17:18	2	PDO	1	1	4	4	FOLLOWING TOO CLOSELY	SOUTH	1	REAR END	20-06551
50	07/02/20	13:55	2	PDO	1	1	1	1	DRIVER INATTENTION/DISTRACTION	EAST	1	REAR END	20-14768

COUNTY: ONEIDA **P.I.N.:** 2650.57

CITY OF ROME

ROUTE NO. OR STREET NAME:
ERIE BOULEVARD (NY 46)

AT INTERSECTION WITH/OR BETWEEN:
ERIE BOULEVARD AT SOUTH JAMES STREET

GPI
Engineering | Design | Planning | Construction Management

TIME PERIOD: **FROM:** 01/01/2017 **TO:** 12/31/2020

No. OF MONTHS: 48

ENVIRONMENTAL:
Use Codes from MV 104 (shown at right) for these categories

Light Conditions:
1. Daylight
2. Dawn
3. Dusk
4. Dark Road Lighted
5. Dark Road Unlighted

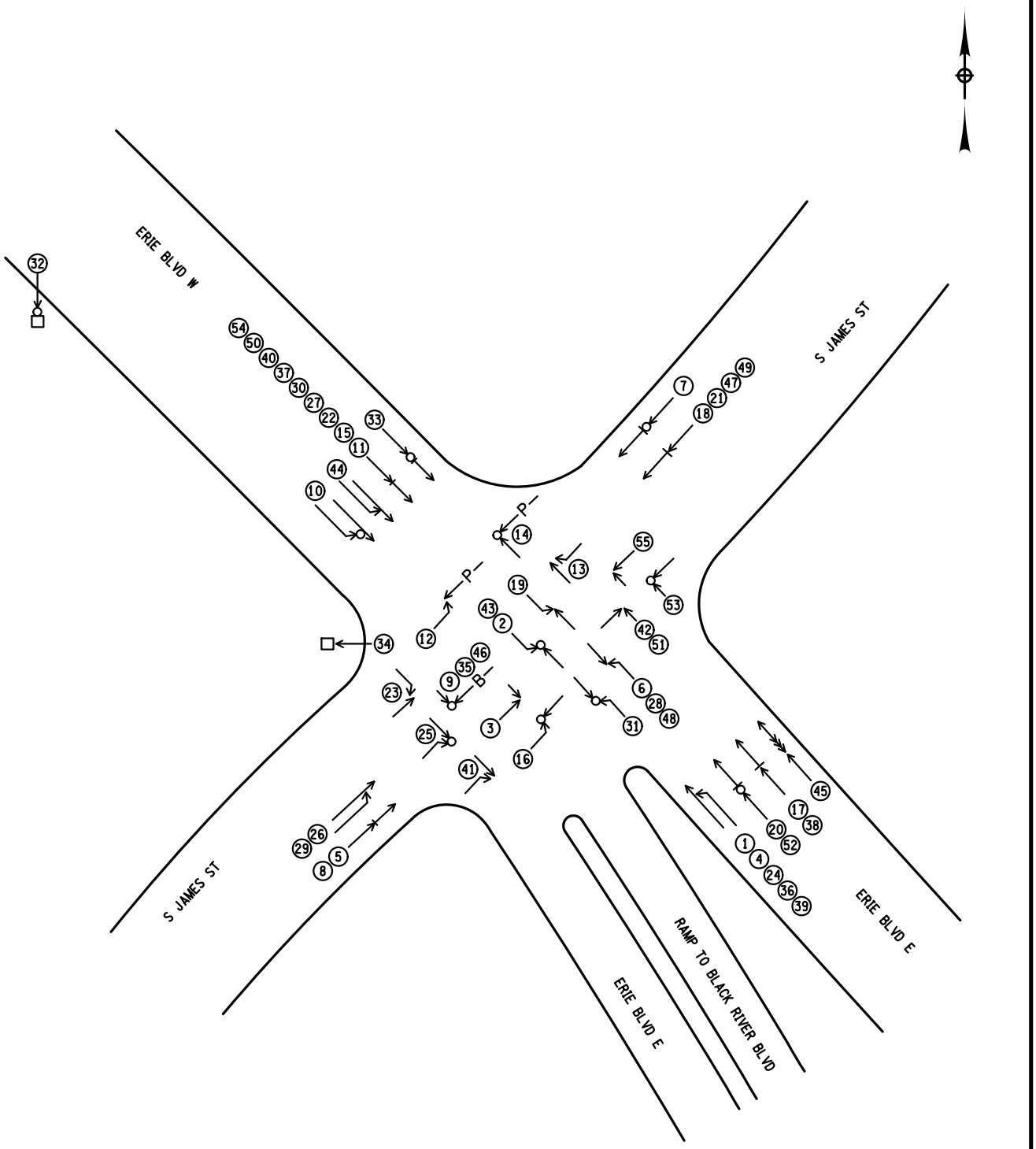
Roadway Character:
1. Straight & Level
2. Straight & Grade
3. Straight & Hillcrest
4. Curve & Level
5. Curve & Grade
6. Curve & Hillcrest

Roadway Surface Condition:
1. Dry
2. Wet
3. Muddy
4. Snow/Ice
5. Slush

Weather:
1. Clear
2. Cloudy
3. Rain
4. Snow
5. Sleet/Hail/Freezing Rain
6. Fog/Smog/Smoke
10. Other

[1]Use Codes from MV 104 Police Report

ACCIDENT No.	DATE	TIME	No. of VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DIRECTION	TYPE[1]	DESCRIPTION	REFERENCE MARKER
51	07/19/20	22:34	2	PDO	4	1	1	1	TRAFFIC CONTROL DISREGARDED	WEST / NORTH	1	RIGHT ANGLE	20-16333
52	07/22/20	15:52	2	PI	1	1	2	3	FOLLOWING TOO CLOSELY	WEST	1	REAR END	20-16564
53	07/28/20	20:56	2	PI	4	1	1	1	TRAFFIC CONTROL DISREGARDED	WEST / SOUTH	1	RIGHT ANGLE	20-17055
54	07/28/20	17:57	2	N/R	1	1	1	1	FOLLOWING TOO CLOSELY	EAST	1	REAR END	20-17040
55	09/23/20	15:40	2	PDO	1	1	1	1	BRAKES DEFECTIVE	SOUTH / EAST	1	RIGHT ANGLE	20-21331



PERIOD:	4 YEARS
FROM:	01/01/2017
TO:	12/31/2020

NOTE:
CRASH #32 OCCURRED 400' TO THE WEST OF THE INTERSECTION AND THEREFORE WAS EXCLUDED FROM THE INTERSECTION'S CRASH ANALYSIS.

MOVING VEHICLE	P— PEDESTRIAN	BACKING	RIGHT ANGLE
BACKING VEHICLE	B— BICYCLE	REAR END	RIGHT TURN (OPPO. DIR.)
FIXED OBJECT	PERSONAL INJURY	SIDESWIPE	RIGHT TURN (SAME DIR.)
(X) CRASH NUMBER	FATAL INJURY (NONE)	LEFT TURN	

GPI Engineering Design Planning Construction Management

ERIE BOULEVARD DOWNTOWN TRAFFIC ALTERNATIVE CITY OF ROME, NEW YORK

CRASH DIAGRAM ERIE BLVD/S JAMES ST

SCALE:	DATE:	FIGURE NO.
NO SCALE	MAY 2021	3

Chapter 18, Appendix A - CAPITAL PROJECTS **COMPLETE STREETS CHECKLIST** (18A-4)

PIN:	2650.57	**Project Location:**	Erie Bouldvard (NY 46)
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	Erie Boulevard Downtown Transportation Alternative		

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: Jeff Gentzler Date: 6-15-2021

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**	NYSDOT is currently designing a project to include bicycle lanes that will extend through the S. James Street intersection.
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**	The project will construct a new shared use path north of Erie Boulevard..
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**	NYSDOT is currently designing a project to include bicycle lanes that will extend through the S. James Street intersection.
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	( ) **Yes** (●) **No**	
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**	
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**	The generators are located to the north and south of the project area as there are shopping centers, restaurants, and services.
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**	Yes there is heavy pedestrian travel throughout the proejct area.

STEP 2 prepared by: Jeff Gentzler Date: 6-15-2021

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**	The signage along Erie Boulavrd needs to be evaluated to reduce the signage clutter.
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**	
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**	Pedestrians cross Erie Boulvard outside of marked crosswalks. This has been witnessed by the City and during the kickoff meeting of the 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**	The project will create an addtional mid-block crossing betrween S. James Street and the Freedom Plaza.
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**	
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	◉ **Yes** ○ **No**	The project will incorporate new appurtenances during final design.

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**	
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**	
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**	The driveway at access point #5 will be redesigned to provide a more defined driveway opening.
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**	
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**	Green Infrastructure practices will likely be incorporated into the median.
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**	

STEP 3 prepared by: Jeff Gentzler Date: 6-15-2021

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	4	15		6	4	15		6
Gap, Ext	2	3		2	2	3		2
Max 1	10	38		30	10	38		30
Max 2								
Yel Clearance	4	4	3.5	4	4	4	3.5	4
Red Clearance	1	1	1.5	1	1	1	1.5	1
Walk				7				7
Ped Clearance				21				21
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	On	On		On	On	On		On
Min Recall		On				On		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

6948 RT 46,49,69 @ S. GEORGE ST.

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	90	10	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	13	48	0	29	13	48	0	29	13	Coor	0	0	0	0	0	0	0	0
	2	NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

6948

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	On
2	1	RED	On
3	1	RED	Off
4	1	RED	On
5	2	RED	On
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

07/06/21 **Page 1**

Times [1.1.1]	1	2	3	4	5	6	7	8
Min Green	4	18	4	6	4	18	4	6
Gap, Ext	2	3	2	2	2	3	2	2
Max 1	10	30	10	30	10	30	10	30
Max 2								
Yel Clearance	4	4	4	4	4	4	4	4
Red Clearance	1	1	1	1	1	1	1	1
Walk		4		4		4		
Ped Clearance		20		24		17		
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]	1	2	3	4	5	6	7	8
Enable	On	On	On	On	On	On	On	On
Min Recall		On				On		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay	0	0	0	0	0	0	0	0

6950 RT 46,49,69 @ S. JAMES ST.

Coord Patterns [2.4] and Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	90	47	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Coor	14	30	14	32	14	30	14	32	0	0	0	0	0	0	0	0
	2	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

Split		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
9	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
13	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
14	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
15	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
16	Coor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON

User Phase Mode

Phase>8 or Rings > 2

Coord Modes [2.1]	
Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED
Auto Flash [1.4.1]	
Auto Flash	PH OVER
Flash Yel	45
Flash Red	20
Unit Params [1.2.1]	
Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	3
Free Ring Seq	1
Auxswitch	STOPTM
SDLC RetryTm	0
TS2 Det Faults	ON
Auto Ped Clear	OFF

<- Mode NON is Blank

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green		15			4	15		6
Gap, Ext		3			2	3		2
Max 1		28			11	28		22
Max 2								
Yel Clearance	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clearance	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								7
Ped Clearance								18
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable		On			On	On		On
Min Recall		On				On		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		On		On		On		On
Enable Simul Gap	On	On	On	On	On	On	On	On
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

6949 RT 46,49,69 @ STAPLES DRWY

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	90	10	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	67	0	23	16	51	0	23	13	Coor	0	0	0	0	0	0	0	0
	2	NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

6949

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	RED	Off
2	1	RED	On
3	1	RED	Off
4	1	RED	Off
5	2	RED	On
6	2	RED	On
7	2	RED	Off
8	2	RED	On

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	FLOAT
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	USER
Loc Flsh Start	RED
Start Flash(s)	0
Start AllRed(s)	6
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Appendix D
Pavement Evaluation

1. Pavement Evaluation Report – Erie Boulevard
2. ESAL Pavement Calculations

PAVEMENT EVALUATION & TREATMENT SELECTION REPORT

General

Region: 02 County: Oneida Route No.: Erie Boulevard
PIN: 2650.57

Project Identification: Erie Boulevard Downtown Transportation Alternative

Begin Limit: The intersection of Erie Boulevard and S. James Street End Limit: The intersection of Erie Boulevard/S. George Street Total Length: 0.26 miles

Original Contract Date(s): 1/26/2021

Roadway Features

Roadway: Divided ☒ Non-Divided ☐

Median: Flush ☐ Raised ☒ Concrete Median Barrier ☐

Curbs: Mountable ☐ Non-Mountable ☒ HMA ☐ PCC ☐ Stone ☒

Pavement:

Lanes: 4 Lanes that are generally 12-feet wide.

Type: Reinforced PCC ☐ Non-Reinforced PCC ☐ HMA ☐ HMA over PCC ☒

Thickness (normal): 10.5”

Reinforced and Non-Reinforced PCC Pavements only:

Slab Length: Unknown

Load Transfer Type: Dowels ☐ 2 Component ☐

Transverse Joints: Contraction ☐ Expansion ☐

Subbase: Type: gravel Thickness (nominal): 12”

Shoulders: N/A

Type: HMA ☐ PCC ☐ Gravel ☐ Thickness:

HMA or Surface Treatment/Stabilized Gravel ☐ Thickness:

Width: N/A

Drainage Type: Open System ☐ Closed System ☒

Related Pavement Data:

Traffic AADT (Range): 217,000 Date: 1/2020 % Trucks: 8.1%

Sufficiency Rating Surface Score: 6 Date: 20017

Prepared by: Jeff Gentzler Date: 6-15-2021

PAVEMENT EVALUATION & TREATMENT SELECTION REPORT

PAVEMENT DISTRESS SEVERITY – Typical for Length of Project COMMENTS

Wheelpath Cracking	☒None	☐Low	☐Medium	☐High
Transverse Cracking	☐None	☒Low	☐Medium	☐High
Longitudinal Cracking	☒None	☐Low	☐Medium	☐High
Edge Cracking	☒None	☐Low	☐Medium	☐High
Raveling	☒None	☐Low	☐Medium	☐High
Rutting	☒None	☐Low	☐Medium	☐High
Corrugations	☒None	☐Low	☐Medium	☐High
Settlements/Heaves	☒None	☐Low	☐Medium	☐High
Other	☒None	☐Low	☐Medium	☐High

SHOULDER DISTRESS SEVERITY – Typical for Length of Project COMMENTS

Cracking	☒None	☐Low	☐Medium	☐High
Separation	☒None	☐Low	☐Medium	☐High
Drop Off	☒None	☐Low	☐Medium	☐High
Deformation	☒None	☐Low	☐Medium	☐High

EXISTING PAVEMENT CONDITION REMARKS:

The existing pavement generally is in very good condition and shows almost no signs of distress. The proposed project will retain existing pavement to all extents possible.

EXISTING SHOULDER REMARKS:

Not Applicable

REMARKS AND PAVEMENT RECOMMENDATIONS:

GEOTECHNICAL REMARKS AND RECOMMENDATIONS:

PAVEMENT EVALUATION & TREATMENT SELECTION REPORT

Treatment Options:

None

Results of Life Cycle Cost Analysis:

Recommendations:

Prepared by: Jeff Gentzler
Date: 6-15-2021

Approved by: Chris Cornwell
Date: 6-20-2021

80 kN ESAL Calculation Sheet Date: 6/15/2021
Version 3.2 Updated 11/1/2017 MPH
Prepared by: Jeff G (Author)
This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method.
These calculations were taken from Figure 4-1 of the NYS Comprehensive Pavement
Design Manual (June 2000). Enter the parameters for items 0 through 8 below in the blue blocks.
The 80 kN ESAL count is calculated based on a compound traffic growth rate
ENTER DATA IN ALL SHEETS BEFORE PRINTING

PIN #:	2650.57
Project:	Erie Blvd TAP
Location:	Rome, NY Oneida County
Date:	15-Jun-21

INPUT PARAMETERS:

0.	Construction Year	2022
1.	Design Life (use 50 years for determining pavement thickness)	50
2.	Projected Construction Year AADT	27000
3.	Percent Heavy Trucks Class 4 or greater	8%
4.	Percent Trucks in Design Direction	50%
5.	Percent Trucks in Design Lane	100%
6.	Truck Equivalency Factor (avg. ESAL per truck)	1.35
7.	Truck Volume Growth Rate	2.00%
8.	Annual Truck Weight Growth Rate	0.25%
9.	Modulus of Resilience Value	34

14	Enter the Functional Classification Code of the highway
No	Does this road have full or partial access control?
NO	Is there a possibility of damaging homes, historic sites, etc., due to excessive vibration during compaction.
YES	Will there be less than 2000 MT of each course placed?
No	Is the highway located in either Dutchess, Orange, Rockland, Putnam, Westchester, Nassau, Suffolk, Sullivan County or the City of New York?
YES	Are there are more than 3 lanes on this road?

RESULTS:

AADT for Design Year 2072 71,248

- Use 'F' series high friction asphalt.

Total 80 kN ESAL Count for the Design Life 52,206,487

- The 'Estimated Traffic' level should be < 100.0 million 80 Kn ESALs.
- 64V-22
-

PAVEMENT THICKNESS TABLE

80 kN ESAL Calculation Sheet — Date: 6/15/2021
Version 3.2 — Updated 11/1/2017 MPH
Prepared by: (Author)

This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method. These calculations were taken from Figure 4-1 of the NYS Comprehensive Pavement Design Manual (June 2000). Enter the parameters for items 0 through 8 below in the blue blocks. The 80 kN ESAL count is calculated based on a compound traffic growth rate

Enter data also in pavt. thickness sheet. Print this sheet + item numbers

TOTAL ESAL VALUE	52,206,487	
Total HMA Thickness	7	inches

SELECT GRANULAR SUBGRADE	GRAVEL	BASE	BINDER	TOP
inches	inches	inches	inches	inches
0	12	3.0	2.5	1.5

ACTUAL PAVEMENT THICKNESSES TO USE

	THICKNESS	
SELECT GRANULAR SUBGRADE	0	in.
GRAVEL	12	in.
BASE	3	in.
BINDER	2.5	in.
TOP	1.5	in.

Appendix E
Public Information Presentation

1. XXX

Appendix F
Other Information

1. Copper City Apartments Site Plan

LEGEND

- PROJECT PARCEL BOUNDARY
- LOD — LIMIT OF DISTURBANCE BOUNDARY
- 440 — EX. CONTOURS
- EX. WATER MAIN AND HYDRANT
- SS — EX. SEWER MAIN AND MANHOLE
- ST — EX. STORM DRAINAGE, CATCH BASIN AND MANHOLE
- GAS — EX. GAS MAIN
- UGE — EX. UNDERGROUND ELECTRIC LINE
- OHL — EX. OVERHEAD UTILITY LINE AND UTILITY POLE
- T — EX. UNDERGROUND COMMUNICATION LINE
- EX. EDGE OF CURB AND EDGE PAVEMENT
- EX. SURVEYED PARCEL BOUNDARY
- EX. ONEIDA TAX PARCEL BOUNDARIES (MODIFIED AT PROJECT SITE)
- AREA OF EX. SIDEWALK AND CURB REPLACEMENT
- AREA OF EX. PAVEMENT REPAIR AND OVERLAY

LANDS NOW OR FORMERLY OF
ROME URBAN RENEWAL
#242.049-0001-029

LANDS NOW OR FORMERLY OF
ROME UP & RUNNING, INC.
#242.049-0001-028

LANDS NOW OR FORMERLY OF
NEIGHBORHOOD CENTER
#242.049-0001-027

LANDS NOW OR FORMERLY OF
NEIGHBORHOOD CENTER
#242.050-0002-013.002

LANDS NOW OR FORMERLY OF
CITY OF ROME
#242.050-0002-013.001

LANDS NOW OR FORMERLY OF
ANTONOWICZ, PETER
#242.050-0002-022.003

LANDS NOW OR FORMERLY OF
ROME URBAN RENEWAL
#242.050-0002-022.001

LANDS NOW OR FORMERLY OF
ROME MEMORIAL PROPERTIES
#242.058-0001-018

LANDS NOW OR FORMERLY OF
KAPLAN, CHARLES, ETAL.
#242.058-0001-019

LANDS NOW OR FORMERLY OF
ROME SAVINGS BANK
#242.058-0001-023

LANDS NOW OR FORMERLY OF
BOSTWICK LIQUORS INC.
#242.058-0001-024.003

LANDS NOW OR FORMERLY OF
FORT CAMERON LLC
#242.058-0001-001

LANDS NOW OR FORMERLY OF
DDR GLH FREEDOM PLAZA LLC
#242.057-0001-003

SERVICE ROAD

ERIE BOULEVARD WEST

WEST DOMINICK STREET

SANITARY MANHOLE
RIM=449.02'
INVERT(E)=441.98'

BENCHMARK #1
NORTHEASTERLY BOLT
451.7'

DRAINAGE INLET
RIM=449.31'
INVERT(E)=445.91'
INVERT(NW)=446.01

STORM MANHOLE
RIM=449.73'
INVERT(CL)=446.23'

STORM MANHOLE
RIM=450.13'
INVERT(N)=446.58'
INVERT(E)=445.51'
INVERT(W)=445.56'

SANITARY MANHOLE
RIM=450.00'
INVERT(W)=439.02'

DRAINAGE INLET
RIM=450.09'
INVERT(S)=447.42'

STORM MANHOLE
RIM=450.40'
INVERT(N)=447.4'
INVERT(E)=445.4'
INVERT(W)=445.3'

SMH
RIM:439.57
INV IN:425.99

SMH
RIM=440.51
INV OUT:426.33

SECTIONS OF CHAIN LINK FENCE TO BE REMOVED

EX. TREES TO BE REMOVED (4)

EX. TIME WARNER COMMUNICATION LINE TO BE RELOCATED

EX. CONCRETE STEPS TO BE REMOVED

EX. LIGHT POLE TO BE PROTECTED

EX. COMMUNICATIONS BOX TO BE RELOCATED

BOUNDARY OF PROPOSED PROPERTY ACQUISITION

EX. STORM DRAINS TO BE REMOVED AND REPLACED AS SHOWN ON UTILITY PLAN

EX. CATCH BASIN TO BE REMOVED AND REPLACED AS SHOWN ON UTILITY PLAN

EX. ABANDONED UTILITY VAULT TO REMOVED AND/OR BACKFILLED PER TRAFFIC BEARING UTILITY TRENCHING DETAIL

ABANDONED UTILITY VAULT

156.65

151.95

185.96

154.97

MAPPING ACKNOWLEDGEMENTS

ORTHO IMAGERY – NYS GIS CLEARINGHOUSE, EXPOSED 2017

2' LIDAR CONTOURS – NYS GIS CLEARINGHOUSE, ONIEDA COUNTY GEODATABASE, ELEVATIONS CONFIRMED WITH SURVEY

MAP ENTITLED, TOPOGRAPHIC SURVEY OF LANDS OF, ROME URBAN RENEWAL AGENCY, WEST DOMINICK STREET & ERIE BOULEVARD WEST, CITY OF ROME, ONEIDA COUNTY, NY BY MOORE LAND SURVEYING, P.C. DATED 6-12-19

TAX PARCEL BOUNDARY LINES, ONEIDA COUNTY DIGITAL DATA, 2018.

CITY REQUIRED PARKING	
CITY OF ROME ZONING CODE §14.10 (b) iii. IN THE C-3 DISTRICT, NO OFF-STREET VEHICLE PARKING IS REQUIRED, BUT BICYCLE PARKING IS NECESSARY	
64 DWELLING UNITS x 0.5 BICYCLE SPACES (REDUCTION TAKEN) §14.3 a (iv.) AFTER THE FIRST 25 REQUIRED BICYCLE PARKING SPACES ARE PROVIDED, ADDITIONAL BICYCLE PARKING SPACES MAY BE PROVIDED AT A 50% REDUCTION.	29 REQUIRED, 30 TOTAL PROVIDED

OWNER/APPLICANT:
KEARNEY REALTY AND DEVELOPMENT GROUP
57 ROUTE 6, SUITE 207
BALDWIN PLACE, NY 10505

ZONE – C-3 CENTRAL COMMERCIAL
LOT AREA – NONE
FRONT SETBACK – 0'-15' BUILD TO ZONE
REAR SET BACK – NONE
SIDE SET BACK – NONE
MAX. BUILDING HEIGHT – 70'
MIN. BUILDING HEIGHT – 24' / MIN. 2 STORIES

20 0 10 20 40
PLAN SCALE=1"= 20'

DATE: 11/5/19
DRAWN BY: MO
SCALE: 1"=20'
REVIEWED BY: DRO
PROJECT NO.:
FILE: CITY OF ROME

DELAWARE ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
55 SOUTH MAIN STREET, ONEONTA, NY 13820 - 607.432.8073
28 MADISON AVENUE EXTENSION, ALBANY, NY 12203 - 518.452.1290
6 TOWNSEND STREET, WALTON, NY 13856 - 607.865.9235
31 N. MAIN STREET, LIBERTY, NY 12754 - 845.747.9962
16 EAST MARKET STREET, RED HOOK, NY 12571 - 518.452.1290

REVISIONS

NO.	DATE	DESCRIPTION
1	4/3/2020	PLANNING BOARD COMMENTS

CITY OF ROME
ONEIDA COUNTY, NY

PARKVIEW DEVELOPMENT
& CONSTRUCTION, LLC
COPPER CITY LOFTS
EXISTING SITE LAYOUT

SHEET:
C-10

LEGEND

- PROJECT PARCEL BOUNDARY
- EX. CONTOURS
- EX. WATER MAIN AND HYDRANT
- EX. SEWER MAIN AND MANHOLE
- EX. STORM DRAINAGE, CATCH BASIN AND MANHOLE
- EX. GAS MAIN
- EX. UNDERGROUND ELECTRIC LINE
- EX. OVERHEAD UTILITY LINE AND UTILITY POLE
- EX. UNDERGROUND COMMUNICATION LINE
- EX. EDGE OF CURB AND EDGE PAVEMENT
- EX. SURVEYED PARCEL BOUNDARY
- EX. ONEIDA TAX PARCEL BOUNDARIES (MODIFIED AT PROJECT SITE)
- NEW WATER SERVICE
- NEW STORM DRAINAGE AND CATCHBASIN
- NEW CURB AND EDGE OF PAVEMENT
- NEW SIDEWALK
- NEW PAVEMENT
- NEW GRASSED AREA
- PROPOSED CONTOURS

LANDS NOW OR FORMERLY OF
ROME URBAN RENEWAL
#242.049-0001-029

LANDS NOW OR FORMERLY OF
ROME UP & RUNNING, INC.
#242.049-0001-028

LANDS NOW OR FORMERLY OF
NEIGHBORHOOD CENTER
#242.049-0001-027

LANDS NOW OR FORMERLY OF
CITY OF ROME
#242.050-0002-013.001

LANDS NOW OR FORMERLY OF
NEIGHBORHOOD CENTER
#242.050-0002-013.002

LANDS NOW OR FORMERLY OF
ANTONOWICZ, PETER
#242.050-0002-022.003

LANDS NOW OR FORMERLY OF
ROME URBAN RENEWAL
#242.050-0002-022.001

LANDS NOW OR FORMERLY OF
DDR GLH FREEDOM PLAZA LLC
#242.057-0001-003

LANDS NOW OR FORMERLY OF
ROME MEMORIAL PROPERTIES
#242.058-0001-018

LANDS NOW OR FORMERLY OF
KAPLAN, CHARLES, ETAL.
#242.058-0001-019

LANDS NOW OR FORMERLY OF
ROME SAVINGS BANK
#242.058-0001-023

LANDS NOW OR FORMERLY OF
BOSTWICK LIQUORS INC.
#242.058-0001-024.003

LANDS NOW OR FORMERLY OF
FORT CAMERON LLC
#242.058-0001-001

SERVICE ROAD

ERIE BOULEVARD WEST

WEST DOMINICK STREET

SANITARY MANHOLE
RIM=449.02'
INVERT(E)=441.98'

BENCHMARK #1
NORTHEASTERLY BOLT
451.7'

DRAINAGE INLET
RIM=449.31'
INVERT(E)=445.91'
INVERT(NW)=446.01'

STORM MANHOLE
RIM=449.73'
INVERT(CL)=446.23'

STORM MANHOLE
RIM=450.13'
INVERT(N)=446.58'
INVERT(E)=445.51'
INVERT(W)=445.56'

SANITARY MANHOLE
RIM=450.00'
INVERT(W)=439.02'

DRAINAGE INLET
RIM=450.09'
INVERT(S)=447.42'

STORM MANHOLE
RIM=450.40'
INVERT(N)=447.4'
INVERT(E)=445.4'
INVERT(W)=445.3'

SMH
RIM:439.57
INV IN:425.99

EX. STORM MANHOLE 2
RIM:440.16
42" INV OUT:425.16

NEW RETAINING WALL

TOW:450.00

TOW:440.50

BOW:440.00

BOC:439.50

STABILIZED GRASS BANK

NEW CB 3
TF:438.75
INV IN:433.16
INV OUT:432.77

EX. CATCH BASIN TO BE REMOVED AND REPLACED

EX. CB 3
RIM:438.19
8" INV IN:433.84
12" INV OUT:433.59

EX. STORM DRAINS TO BE REMOVED

"COPPER CITY LOFTS"
(NEW 64 UNIT-5 STORY
HOUSING COMPLEX- 70,436 SF)
FIRST LEVEL FFE=440.00
SECOND LEVEL FFE=450.00

GRASSED DRAINAGE SWALE

NEW CB 1B
TF:440.75
INV OUT:436.00

NEW RETAINING WALL

BOUNDARY OF PROPOSED
PROPERTY ACQUISITION

TIE NEW ROOF DRAINS
INTO EX. CB 2

NEW SIDEWALK

PROTECT LIGHT POLE

NEW CB 3A
TF:439.50
INV IN:432.15
INV OUT:432.15

EX. CB 2
RIM:439.70
12" INV IN:431.40
12" INV OUT:430.42
NEW 12" INV. IN=431.40

NEW CB 1A
TF:±440.00
INV IN:434.77
INV OUT:434.77

EX. CB 1
RIM:439.94
12" INV OUT:430.72
NEW 12" INV.=434.37

NEW CURB CUT

EX. STORM MANHOLE 1
RIM:440.67
12" INV IN:430.67

SMH
RIM:440.51
INV OUT:426.33

23.02
7.29
33.91
10.12
37.20
6.90
7.80
16.27
34.94

NOTES:

EX. CONTOURS USED FOR GRADING PLAN FROM MAP ENTITLED, TOPOGRAPHIC SURVEY OF LANDS OF, ROME URBAN RENEWAL AGENCY, WEST DOMINICK STREET & ERIE BOULEVARD WEST, CITY OF ROME, ONEIDA COUNTY, NY BY MOORE LAND SURVEYING, P.C. DATED 6-12-19

20 0 10 20 40
PLAN SCALE=1"= 20'

DATE: 11/5/19
DRAWN BY: MO
SCALE: 1"=20'
REVIEWED BY: DRO
PROJECT NO.:
FILE: CITY OF ROME

DELAWARE ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
55 SOUTH MAIN STREET, ONEONTA, NY 13820 - 607.432.8673
28 MADISON AVENUE EXTENSION, ALBANY, NY 12203 - 518.452.1290
6 TOWNSEND STREET, WALTON, NY 13856 - 607.865.9235
31 N. MAIN STREET, LIBERTY, NY 12754 - 845.747.9962
16 EAST MARKET STREET, RED HOOK, NY 12571 - 518.452.1290

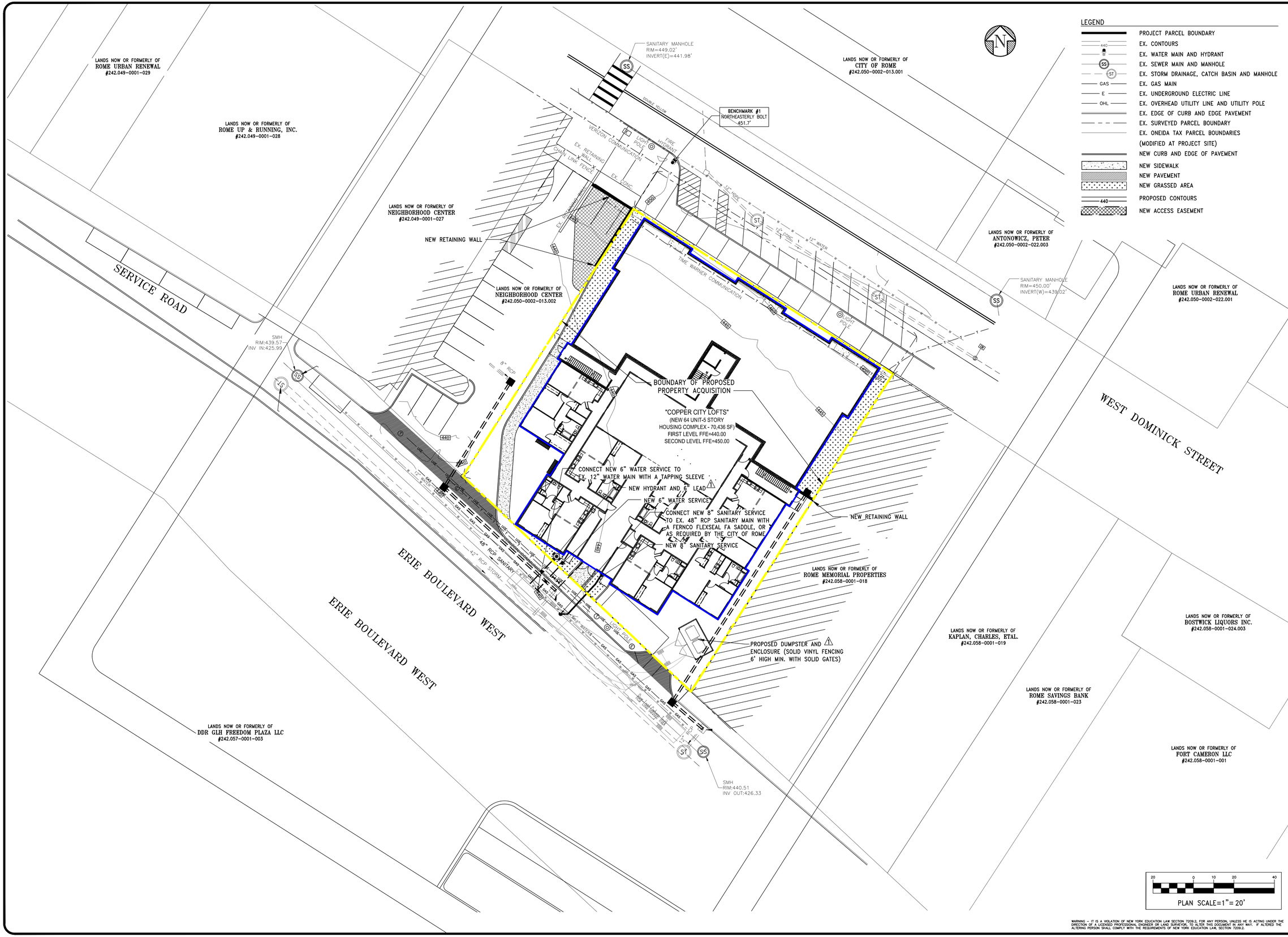
REVISIONS

NO.	DATE	DESCRIPTION
1	4/3/2020	PLANNING BOARD COMMENTS

CITY OF ROME
ONEIDA COUNTY, NY

PARKVIEW DEVELOPMENT
& CONSTRUCTION, LLC
COPPER CITY LOFTS
GRADING AND DRAINAGE PLAN

SHEET:
C-20



DATE: 11/5/19
DRAWN BY: MO
SCALE: 1"=20'
REVIEWED BY: DRO
PROJECT NO.:
FILE: CITY OF ROME

DELAWARE ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
55 SOUTH MAIN STREET, ONEONTA, NY 13820 - 607.432.8073
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16 EAST MARKET STREET, RED HOOK, NY 12571 - 518.452.1290

REVISIONS

NO.	DATE	DESCRIPTION
1	4/3/2020	PLANNING BOARD COMMENTS

CITY OF ROME
ONEIDA COUNTY, NY

PARKVIEW DEVELOPMENT
& CONSTRUCTION, LLC
COPPER CITY LOFTS
UTILITIES PLAN

SHEET:
C-30

5' HIGH DECORATIVE FENCING
NEW SIDEWALK
AREA RESERVED FOR LOW PROFILE ANNUAL PLANTINGS
18" HIGH DECORATIVE GARDEN FENCING
NEW RETAINING WALL
GRASSED AREA
NEW PAVEMENT, TYP.
NEW CURBING, TYP.
EX. TREES TO BE REMOVED (4)
BOUNDARY OF PROPOSED PROPERTY ACQUISITION
"COPPER CITY LOFTS"
(NEW 64 UNIT-5 STORY HOUSING COMPLEX - 70,436 SF)
FIRST LEVEL FFE=440.00
SECOND LEVEL FFE=450.00
LIGHT POLE
WEST DOMINICK STREET
RECTANGULAR CONCRETE PLANTERS (±2'x8'x2'H WITH FORKLIFT KNOCKOUTS, COLOR BY OWNER) PLANTED WITH PERENNIAL HOSTAS IN THE REAR, FRONT SPACE RESERVED FOR LOW GROWING ANNUAL PLANTINGS
PARK BENCHES (TO MATCH CITY STANDARD)
ANGLED BIKE RACKS, TYP. IN WALKWAY TO COURTYARD (24 BIKE CAPACITY)
CIRCULAR CONCRETE PLANTERS (3) (±4'øx3'H PLANTED WITH DWARF BLUE SPRUCE TREES – SPACE AROUND RESERVED FOR ANNUAL PLANTINGS)
BIKE RACKS, TYP. (6 BIKE CAPACITY)
GRASS AREA
NEW SIDEWALK
12'x35' MIN. DEDICATED LOADING ZONE
ERIE BOULEVARD WEST
NEW PAVEMENT, TYP.
RECTANGULAR CONCRETE PLANTERS (±2'x8'x2'H WITH FORKLIFT KNOCKOUTS, COLOR BY OWNER) PLANTED WITH PERENNIAL HOSTAS IN THE REAR, FRONT SPACE RESERVED FOR LOW GROWING ANNUAL PLANTINGS
PROPOSED DUMPSTER AND ENCLOSURE (SOLID VINYL FENCING 6' HIGH MIN. WITH SOLID GATES)

PLANTING LEGEND:

- TYPICAL PERENNIAL PLANTING
- TYPICAL ANNUAL PLANTING AREA
- PLANT QUANTITY / PLANT SYMBOL

PLANTING NOTES

1. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO COMMENCING PLANTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF CONDITIONS DETRIMENTAL TO NEW AND EXISTING PLANT MATERIAL ARE ENCOUNTERED.
2. ALL PLANT BEDS/PLANTERS SHALL RECEIVE 4" OF SHREDDED BARK MULCH.
3. THE CONTRACTOR SHALL TOPSOIL 4" AND SEED GRASSED AREAS.

PLANT LIST

SYMBOL	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
PERENNIALS					
EP	20	ECHINACEA 'ORANGE YOU AWESOME'	'ORANGE YOU AWESOME' CONEFLOWER	12"–18"	#2 CONT.
HH	20	HEMEROCALLIS X 'HAPPY RETURNS'	'HAPPY RETURNS' DAYLILY	12"–18"	#2 CONT.
SS	24	SALVIA X SYLVESTRIS 'MAY NIGHT'	'MAY NIGHT' SALVIA	12"–18"	#2 CONT.
AH	24	ASPARAGACEAE X HOSTA 'ABBY'	'ABBY' HOSTA	12"–18"	#1 CONT.
PP	3	PICEA PUNGENS 'BLUE DIAMOND'	'BLUE DIAMOND' DWARF BLUE SPRUCE	±3–4'	#10 CONT.

PLAN SCALE=1"= 12'

DATE: 11/5/19
DRAWN BY: MO
SCALE: 1"=20'
REVIEWED BY: DRO
PROJECT NO.:
FILE: CITY OF ROME

DELAWARE ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
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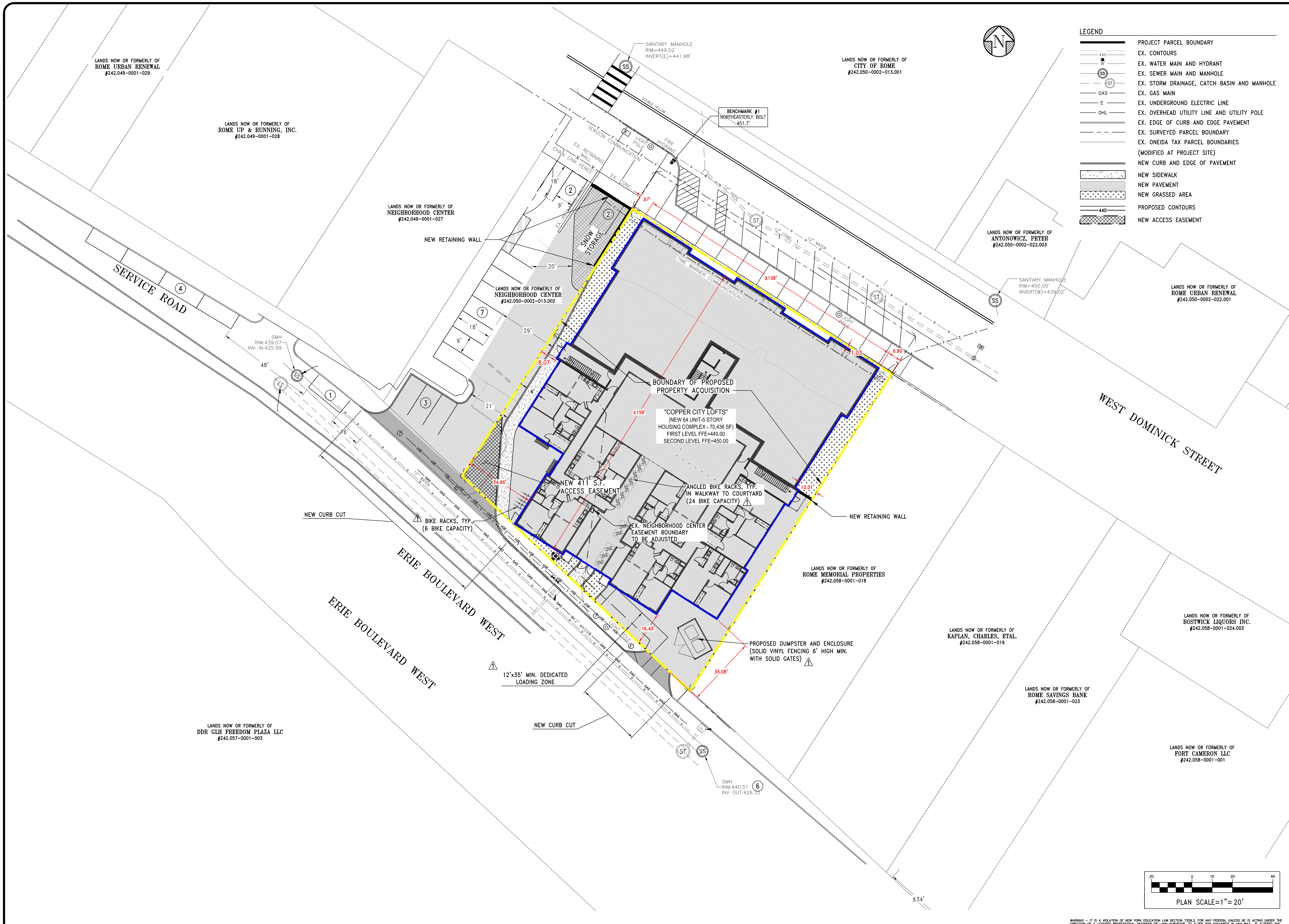
REVISIONS

NO.	DATE	DESCRIPTION
1	4/3/2020	PLANNING BOARD COMMENTS

CITY OF ROME
ONEIDA COUNTY, NY

PARKVIEW DEVELOPMENT & CONSTRUCTION, LLC
COPPER CITY LOFTS
LANDSCAPING PLAN

SHEET: C-40



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DATE: 11/14/19
DRAWN BY: MO
SCALE: 1"=20'
REVIEWED BY: DRO
PROJECT NO.:
FILE: CITY OF ROME

DELAWARE ENGINEERING, D.P.C.
CIVIL AND ENVIRONMENTAL ENGINEERING
55 SOUTH MAIN STREET, ONEONTA, NY 13820 - 607.432.8073
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6 TOWNSEND STREET, WALTON, NY 13856 - 607.865.9235
31 N. MAIN STREET, LIBERTY, NY 12754 - 845.747.5652
16 EAST MARKET STREET, RED HOOK, NY 12571 - 518.452.1290

REVISIONS

NO.	DATE	DESCRIPTION
1	4/3/2020	PLANNING BOARD COMMENTS

CITY OF ROME

ONEIDA COUNTY, NY

PARKVIEW DEVELOPMENT & CONSTRUCTION, LLC
COPPER CITY LOFTS
SITE PLAN WITH EASEMENT

SHEET: EX