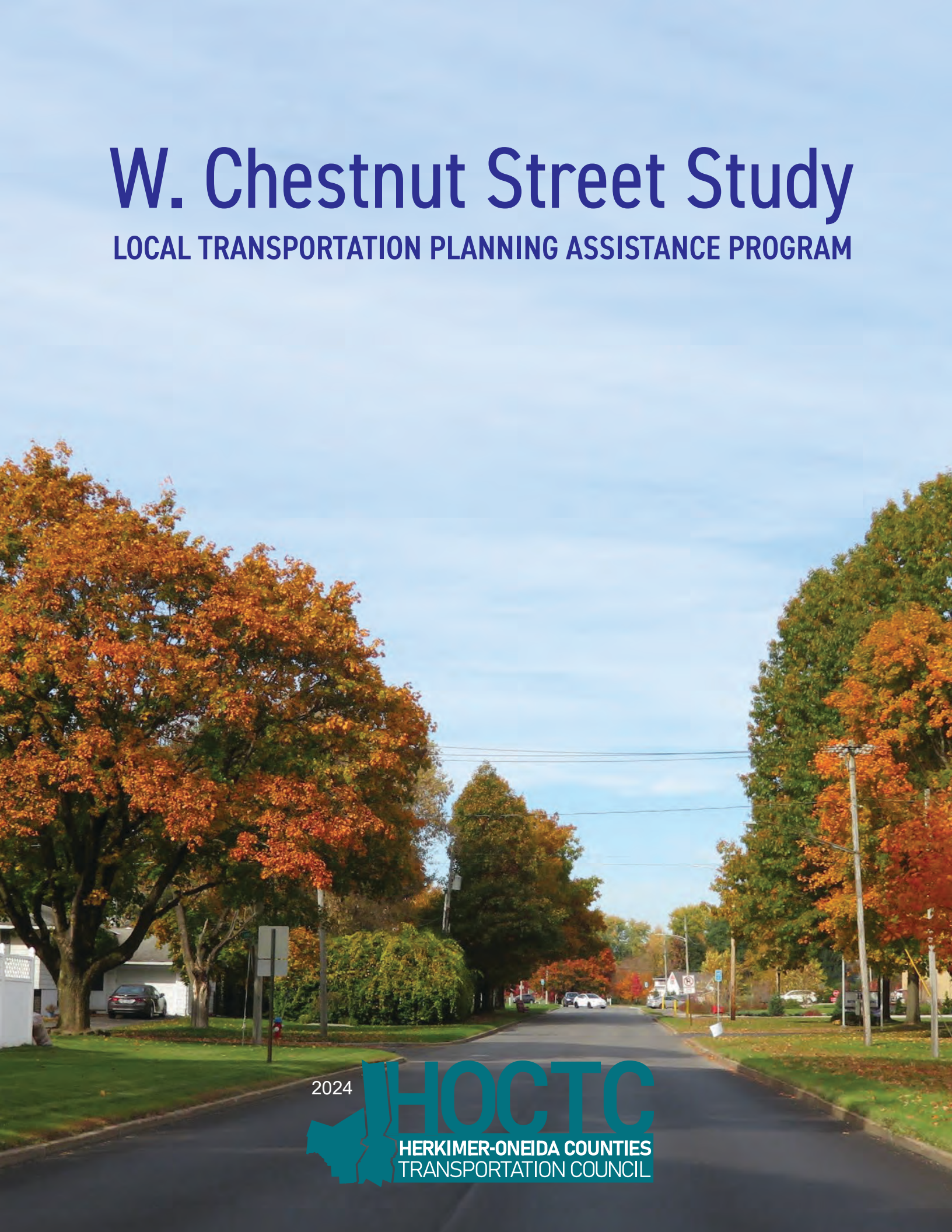
W. Chestnut Street Study

LOCAL TRANSPORTATION PLANNING ASSISTANCE PROGRAM



2024

HOCTC

HERKIMER-ONEIDA COUNTIES
TRANSPORTATION COUNCIL

PROJECT TEAM

The Herkimer-Oneida Counties Transportation Council (HOCTC) produced the W. Chestnut St. Study Report utilizing staff and partner agency resources. Portions of the Local Transportation Planning Assistance Program (LTPAP) W. Chestnut St. Study were provided planning and technical support from the consultant team of Planning4Places, Weston & Sampson, Sam Schwartz Engineering, and CLA Site Design.

LOCAL GOVERNMENT PARTNERS

Local government partners were critical to the development of the Study Report. Many had a critical role as members of the Project Steering Committee. The following list indicates both partners and Steering Committee members (**denotes also a member of the Project Steering Committee)*:

- City of Rome, Department of Engineering*
- City of Rome, Department of Community and Economic Development*
- City of Rome, Mayor Lanigan
- City of Rome, 5th Ward Councilperson Anderson*
- City of Rome, 6th Ward Councilperson Dursi*
- Oneida County Executive Picente
- Oneida County Board of Legislators Chairman Fiorini
- New York State Department of Transportation, Region 2

The Project Steering Committee (PSC) was established to provide input and facilitate the flow of information. In addition, the PSC assisted with the identification of problems, potential solutions, and education regarding the project.

ACKNOWLEDGMENTS

The Herkimer-Oneida Counties Transportation Council (HOCTC) is the Metropolitan Planning Organization (MPO) for the region, responsible for establishing regional transportation goals and objectives for the HOCTC Metropolitan Planning Area, which encompasses all of Herkimer and Oneida Counties. HOCTC shares responsibility with NYS Department of Transportation to develop cooperative transportation plans and programs for the two-county area and provides a public forum for the identification of transportation needs. Funding is provided by both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) via federal transportation legislation.

The Local Transportation Planning Assistance Program (LTPAP) provides access to transportation planning and engineering expertise for local transportation projects. The LTPAP utilizes FHWA Metropolitan Planning funding allocated to HOCTC for FFY 2023-2024. Additional resources were made available to HOCTC through the Infrastructure Investment Act and Jobs Act (IIJA) as part of the funding set aside for Increasing Safe & Accessible Transportation Options through Metropolitan Planning. The study furthers the goals and objectives identified in the HOCTC Long Range Transportation Plan 2020-2040 ‘Going Places’.

The recommendations contained herein are derived from several best practices documents, including the National Association of City Transportation Officials Urban Street Design Guide, the Federal Highway Administration’s Transportation to Health in Transportation Corridor Planning Framework, and the Urban Land Institute’s Healthy Corridors project.

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The W. Chestnut St. Study

The Herkimer-Oneida Counties Transportation Council (HOCTC), the region's long-range transportation planning agency, led the W. Chestnut St. Corridor Study and worked closely with the City of Rome. The study aims to foster improved connectivity, safety, and efficient transportation by considering roadway users of all ages and abilities, whether driving, cycling, walking, or taking transit. The study, which is an independent evaluation of transportation options on W. Chestnut St., had four distinct phases. These include: 1) Existing Conditions Analysis, 2) Development of Focus Elements and Draft Concepts, 3) Refinement of Concepts, 4) Final Document

Through the study process, HOCTC identified problems and opportunities with the existing road, considered possible solutions that would fit within the current right-of-way, and developed a recommendation for transitioning W. Chestnut St. into a space that provides safe travel, connectivity, and accessibility for everyone. In each study phase, HOCTC shaped the work with guidance from local government partners, insight from the Steering Committee, extensive public participation, and integration of applicable industry best practices. The following objectives were considered during each of the study phases:

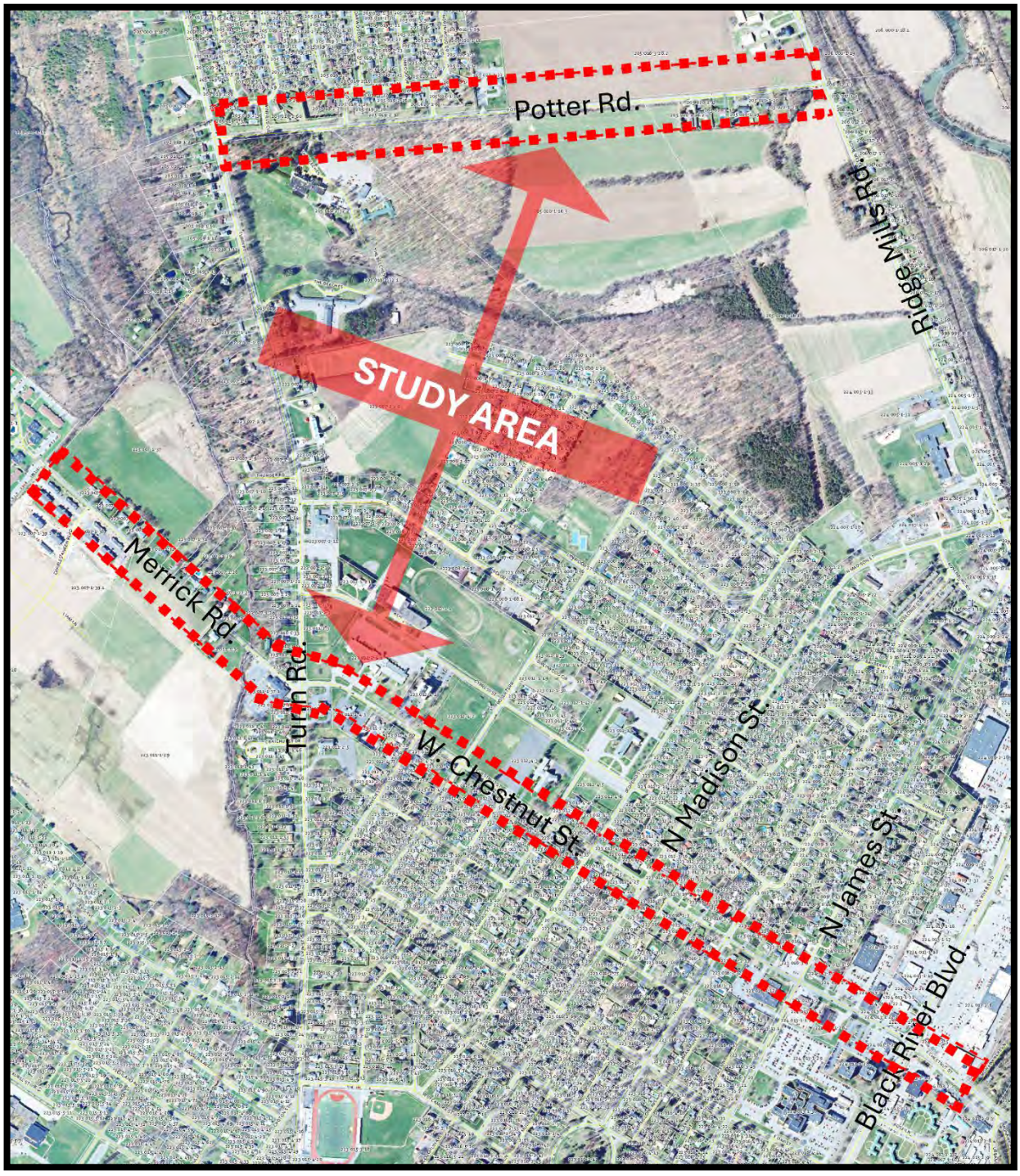
- Enhance safety for pedestrians and bicyclists
- Address local concerns pertaining to traffic (speed and heavy trucks)
- Identify alternatives to improve traffic operations and vehicle safety
- Identify critical intersection improvements

Study Area at a Glance

W. Chestnut St. has been identified as a local roadway of concern due to operations, safety, and accessibility issues. This study area includes both E. Chestnut St. from just east of the Black River Blvd. intersection, the entirety of W. Chestnut St., through the Turin Rd. intersection, and to the end of Merrick Rd. The study also included Potter Rd., as it relates to traffic routing on W. Chestnut St. and will be mentioned at times in this report and is discussed further in the Traffic Analysis found in Appendix A. The study considers all vehicles, heavy trucks, pedestrians, cyclists, and transit riders. Existing conditions, mobility, and safety needs were identified, and corridor limitations and opportunities were evaluated. The project identifies potential design and operation enhancements centered on connectivity, safety, and community that will enable all users to safely travel along the corridor.

The City of Rome owns W. Chestnut St. and serves as the primary connector between NY Route 26 (Turin Rd.) and NY Route 46 (Black River Boulevard). W. Chestnut St. was originally a residential street and still functions as that, conveying access to residential areas and connecting commercial areas to the residences. Commuters, shoppers, residents, and connecting traffic all travel in and through the area. The W. Chestnut corridor is the string that connects it all, however, with an ill-defined roadway, car-centric design, safety concerns, and a growing desire for active transportation W. Chestnut St. is ripe for a makeover. The growth of commercial bookends has reshaped the utilization of W. Chestnut St., while the road itself has not changed to meet current needs.

Project Study Area



Study Process

The W. Chestnut St. Study and resulting recommendations are the culmination of a 12-month planning process. Throughout 2022 and 2023, the study benefited from the involvement of hundreds of people, the technical assistance of more than a dozen professionals, and guidance from senior government and elected officials.

Phase 1: Existing Conditions Analysis

This portion of the study had a two-part approach. First, HOCTC collected data and analyzed W. Chestnut St. as it is today, identifying design, safety, and utility issues that should be addressed. Second, public survey #1 examined what people wanted in the study area and their concerns about the road. Phase 1 work took place between October 2022 and February 2023, concluding with public workshop #1 in March 2023 to share the results of the baseline analysis.

For the W. Chestnut St. study, the Federal Highway Administration's Health in Transportation Corridor Planning Framework was a key resource for addressing health issues throughout the study process. HOCTC determined that the application of the health profile would be beneficial to understanding the existing conditions and informing the concepts. The complete health profile is discussed in a later section.

Phase 2: Development of Focus Elements and Draft Concepts

HOCTC led the development of preliminary design concepts after reviewing technical data and community responses from phase 1. No single solution could fully address all the corridor's critical needs, looking at the road holistically, key elements and components were identified. Safety took precedence, unifying the ideas for how W. Chestnut St. could become more complete for all users. The safety solutions grew out of specific concerns that came up during Phase 1 and were developed in a way that could be implemented with any concept.

Preliminary concepts and safety alternatives were presented at public meeting #2. The public was presented with options to examine, ask questions, and give feedback. This was coupled with public survey #2, which provided an additional opportunity for the public to share preferences for specific types of design and elements under consideration. Phase 2 occurred from March through June 2023.

Phase 3: Refinement of Concepts

Using public feedback from earlier phases final concepts were drafted. HOCTC worked with consultants and local government partners to refine the ideas into a recommended concept, which includes components and several elements derived from the integrated public engagement feedback loop. These organic and evolutionary processes remained responsive and allowed for a community sourced outcome in producing the recommended concepts.

Phase 3 started in June 2023 and culminated with an outreach period and public meeting #3. At this meeting, visual renderings of the draft final concepts were presented. Each concept was explained, and a curated exercise asked people to 'fund' their priorities. Public survey #3 examined how the public was feeling regarding the process and the value placed on their comments. Phase 3 activities focused on verifying that the concepts developed were in line with the public sentiment.

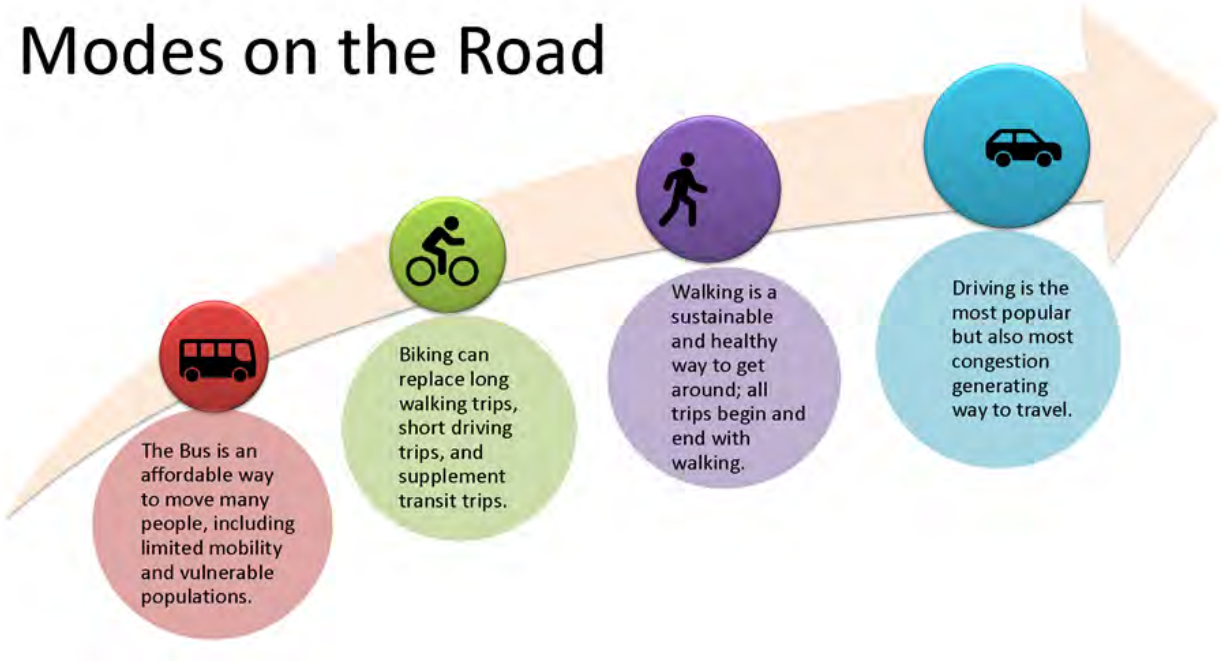
Phase 4: Final Document

The W. Chestnut St. study documents the process, voice of the people, and includes finalized visual renderings of the recommended upgrades, an implementation outline, and a cost estimate. The finalized

document is intended to be used by local municipal officials for implementation and for grant applications to acquire the funding needed from a variety of sources.

Best Practices

A roadway should provide space with all users – people walking, biking, taking the bus, and driving. Modal best practices are outlined by the Federal Highway Administration.



A best practice supports vulnerable users while maintaining mobility for all roadway users.

Existing Conditions on W. Chestnut St.

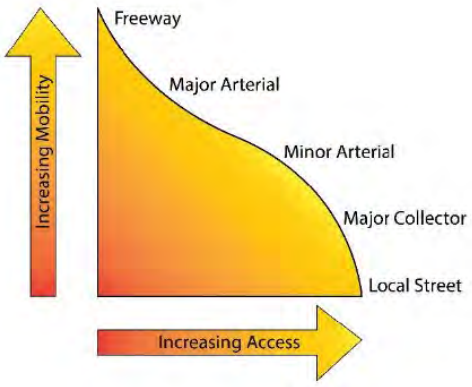
W. Chestnut St. Needs Attention

W. Chestnut St. was reported by the community to be a 'corridor of concern'. Originally this stemmed from the concerns regarding traffic speed, lack of pedestrian and bicycle accommodations, the dual use of the roadway (residential and heavy truck traffic), and congestion at major intersections. To better understand the existing traffic conditions, a Traffic Analysis was completed by Sam Schwartz Engineering. A summary is provided herein, with the full analysis in Appendix A.

Functional Classification

Individual roads do not serve travel independently but as part of a network through which traffic moves. Functional classification is the process by which roads, streets, and highways are grouped into classes according to the character of service they provide. As such, roadways must balance competing functions such as access (the ability to reach a destination) and mobility (the ability to flow through an area). Functional classification is defined by the Federal Highway Administration (FHWA) based on the extent to which they balance these needs, as depicted in the chart below.

FHWA Functional Classification of a Roadway
(W. Chestnut St. is an urban major collector)



The urban major collector road is a Functional Classification 5 (FC 5). These roads provide both land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. The collector road collects traffic from local streets in residential neighborhoods and channels it into the arterial system. FC 5 roads are Federal Aid eligible for project funding administered by the Federal Highway Administration.

At first glance, W. Chestnut St. is a typical FC 5 road that is primarily used by people traveling to/from their homes to work, school, or to access establishments for basic daily life needs.

Roadway Ownership

W. Chestnut St., within the legal boundaries of the road, known as the right-of-way, is owned and maintained by the City of Rome. Drainage structures are owned both by the City and the NYS Department of Transportation, depending on the location. From field observation and reference of as-built drawing the right-of-way is significantly larger than the paved roadway surface. A survey of the roadway and as-built drawings provides legal verification of the varying right-of-way and will determine the land that is part of the public domain.

Intersection Control

There are four signalized intersections along Chestnut St.: (1) Black River Boulevard (NYSDOT owned), (2) N. James St. (City owned), (3) N. Madison St. (City owned), and (4) Turin Rd. (City owned). There are six (6) intersecting stop-controlled roadways along the corridor: Anken St., Roser Terrace, Craig St., Carroll St., Bedford St., and George St..

Traffic Data

The current operations are consistent with major collector roads aligning with the importance of this road to the network of roads to the overall system. To identify potential deficiencies that need to be addressed during the development of the recommendations for this corridor study, the project team has assessed the existing conditions for the Chestnut St. corridor and Potter Rd. Data includes the alignment of the roadway, intersection control type, pedestrian facilities, and a level of services analysis. Selected conditions are summarized below with further information located in Appendix A – Traffic Analysis.

Traffic Volumes

W. Chestnut St. accommodates an Average Annual Daily Traffic (AADT) of 10,000 vehicles between Black River Blvd and N. Madison St. The section from N. Madison St. to Turin Rd. has a reduced volume with an AADT of 7,200. For the entire roadway, the peak hour volumes occur from 8:45 - 9:45 am and 3:45 – 4:45 pm. While the roadway can carry a larger volume of traffic, the ease of flow is directly impacted by the numerous driveways and intersections located within the corridor. The numerous accesses create a high number of conflict points, leading to increased congestion during peak hour periods.

Speed

Based on the NYS Department of Transportation traffic data viewer, the speed within the W. Chestnut St. corridor is generally slightly above the posted speed of 30 mph. The average speed is 35 mph from Black River Blvd. to N Madison St. and from N. Madison St. to Turin Rd., travel speed increases to 37 mph.

Heavy Vehicles

Based on the NYS Department of Transportation traffic data viewer, Black River Blvd from North Madison St. to Potter Rd. experienced the highest truck traffic volumes. Northbound truck traffic is 244 and southbound truck traffic is 224 per day. Turin St. from Jervis Ave. to W. Chestnut St. experienced the second-highest truck traffic volumes with 184 northbound and 177 southbound per day.

Potter Rd.

W. Chestnut St. has historically been tied to Potter Rd. due to the vehicle traffic that utilizes both roads as a way to travel between NYS Route 26 & 46. This study did not focus directly on the relationship nor did it re-open previous studies conducted by the City of Rome or NYS Department of Transportation. The Traffic Analysis completed for this study, located in Appendix A, discusses heavy vehicle traffic, geometric limitations, and the next steps to move toward a technical analysis.

Pavement Condition

W. Chestnut St. has variable pavement conditions. As of 2022, the section of W. Chestnut St. nearest Black River Blvd. to N. Madison St. is rated in good condition with a score of 7.5 out of 10. Going towards Turin Rd. pavement is rated in good to fair to excellent condition; this variation is likely due to spot paving projects. Aside from intersection areas no roadway striping or markings were observed along the entire roadway. The roadway shoulders are constrained with curbing along the entire roadway.

Bicycle Conditions

There is no dedicated bicycle infrastructure on the roadway and no signage to indicate bicyclists may be present in the roadway. Several bicyclists were observed during field visits. The shoulders are not delineated with white striping but are constrained by curbing and are estimated to vary from 0-6' in width which provides limited space for accommodating bicyclists beyond the roadway. The lack of lane striping creates confusion and safety issues, as spaces for bicycles and vehicles are not defined nor signed and both are allowed to use the roadway.

Pedestrian Conditions

Several sidewalk sections are observed along W. Chestnut St., none of which form a connected network that is accessible for pedestrians. Sidewalks typically end in front yards of residences or businesses. The few existing structures are 4' or less in width. Most of the available crossings fail to provide appropriate ramps for those with mobility limitations, according to the Americans with Disabilities Act (ADA). This includes the absence of defined crosswalk signage or any provision for the pedestrian to safely interact with traffic.

Trail Connectivity

Although W. Chestnut St. does not have any existing bicycle facilities, it is important to note that there is a shared-use path just outside of the project area to the east of Black River Blvd. on E. Chestnut St./ NY Route 825. This multi-use path is part of the Mohawk River Trail that begins at Bellamy Harbor Park connecting to the Empire State Trail and then runs north along the Mohawk River to its northern terminus at Wright Settlement Rd.). Field observations confirmed that bicycle and pedestrian traffic is traversing the corridor to reach the trail connections, despite the lack of facilities or safety features.

Transit

The Central New York Transit Authority (CNYRTA) operates transit service in Oneida County under the name Centro. Centro launched a new transit model in January 2024, which was after the conclusion of public outreach and technical analysis. The system, known as MOVE functions as an on-demand transit system providing flexibility for people to choose the time and destination. The implementation of this system resulted in the removal of all the fixed bus stop locations on W. Chestnut St. Transit service is still available on W. Chestnut St. through the MOVE system. Several central routes operate from the Centro hub located on W. Liberty St. and serve to connect people with services and locations throughout the area.

Water and Stormwater

The W. Chestnut St. corridor is serviced by the City of Rome storm and sanitary sewer system. There are no reported issues or concerns with this underground infrastructure. The one area of concern is Merrick Rd. and the culvert that is located near the pumping station. In the second half of 2023 the City of Rome was awarded BridgeNY funding to replace the culvert and upgrade it to a bridge structure. This will address localized water concerns and provide the funding to right-size infrastructure accommodations for the development on Merrick Rd.

Land Use

When evaluating W. Chestnut St., three general uses exist:

- Residential – spanning the area from N. George St. to Roser Terrace and separately Merrick Rd., consisting of residential uses, with a 2-lane roadway

- Mixed-use – N. George St. to Black River Blvd., residential uses mix with professional offices and commercial uses, the roadway transitions from 2 to 4 lanes; the area of Anken St. to Turin Rd. is also mixed use
- Commercial – Black River Blvd. intersection, mid-size commercial uses mix with professional offices and restaurants, with a 4-lane roadway. This area contains large-scale, chain, and local commercial uses. This includes Dunkin Donuts, Walgreens, McDonald's, Burger King, several local convenience stores and gas stations, and a shopping center.

Future Development

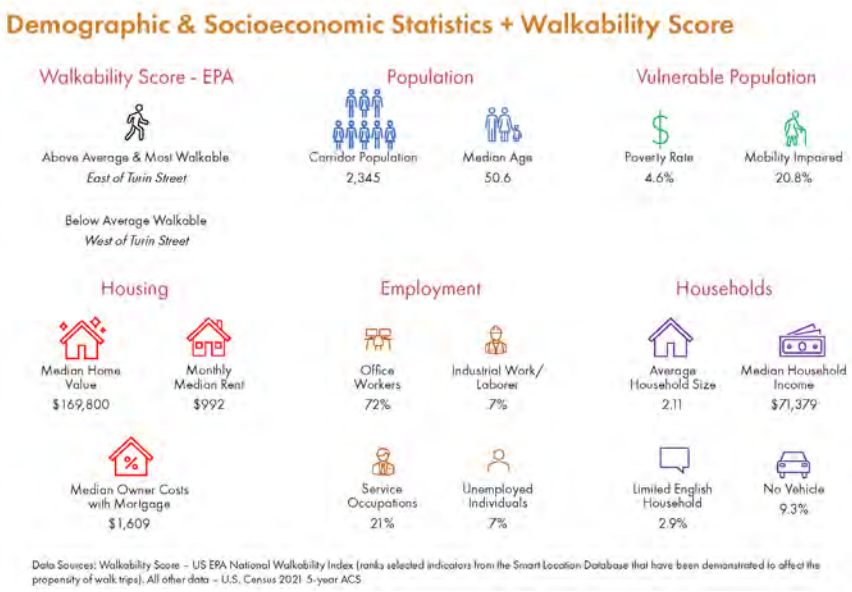
New residential development is occurring Merrick Rd. This development is phased and projected to increase traffic by approximately 30 cars during the peak hour period. The development will result in diminished capacity at the Turin Rd and W. Chestnut St. intersection. A public safety concern is also identified as Merrick Rd. is currently a dead-end, narrow roadway, and has an undersized stream crossing. It also has been field observed that the road has no formal accommodations for existing pedestrian and bicyclist activity along Merrick Rd. or at the Turin Rd. and W Chestnut St. intersection.

Landscaping

The landscape along the road, for the most part, is simple and observed to be linked to personal property owners. There is no landscaping designed to provide shade or buffers from traffic for pedestrians or bicyclists. The landscaping that does exist is pushed back from the roadway creating a clear and open viewshed of the roadway, giving the impression of a more boulevard type area not that of a residential neighborhood. This openness of the roadway has been linked through many technical studies to an increased speed of vehicle travel and distracted driving.

Socio-demographics

Using the U.S. Census 2020 and American Community Survey, socio-demographics were analyzed to better understand the W. Chestnut St. neighborhood. Analysis provides a snapshot of the corridor, and residences, providing data points about the community that are resources when conducting community outreach, selecting preferred alternatives, and identifying fund sources.



Commercial and Small-Businesses

The W. Chestnut St. corridor serves as a conduit that connects residents to their daily needs, whether they live there or travel through it daily. As part of this study, all businesses were contacted directly and asked to participate in a phone survey regarding their concerns and desires for W. Chestnut St.. Of the 30 businesses contacted, 13 participated, 1 refused to participate, and the remainder never responded to email and phone call follow-ups to the initial survey request. A full detail of the responses received can be found in Appendix B.

Prior Studies Relevant to W. Chestnut St.

The W. Chestnut St. corridor has been highlighted and discussed through prior planning studies undertaken by the City of Rome. A summary of each and its relevance to W. Chestnut St. is provided.

2004 City of Rome Comprehensive Plan

The City of Rome Comprehensive Plan supports strengthening connections between the Central Business District and the residential neighborhoods by bicycle, walking, or driving. It calls for the installation of a unified system of street furniture and accessories, including bicycle racks and bus shelters. The development of a designated truck route system and prohibition of all non-local truck traffic from local residential streets are discussed. As an update, Appendix F: Sustainability was adopted on September 26, 2018. This update includes policies focused on six categories: growth, development, economic development, agriculture, natural resources, and multimodal transportation. Of the six, four are transportation focused:

- As new development or redevelopment occurs, it should promote greater connectivity utilizing a "Complete Streets" philosophy…
- …encourage alternate modes of transportation in order to reduce transportation costs, improve air quality, ease traffic and parking congestion, and provide accessibility for all individuals.
- New and existing development must participate in consistent signage and wayfinding methods in use to support the larger system.
- Smart Growth and Complete Street practices must be recognized as an opportunity when maintaining existing infrastructure.

Two are policy strategies:

- create and implement a city-wide bicycle route plan
- adopt local Complete Streets legislation.

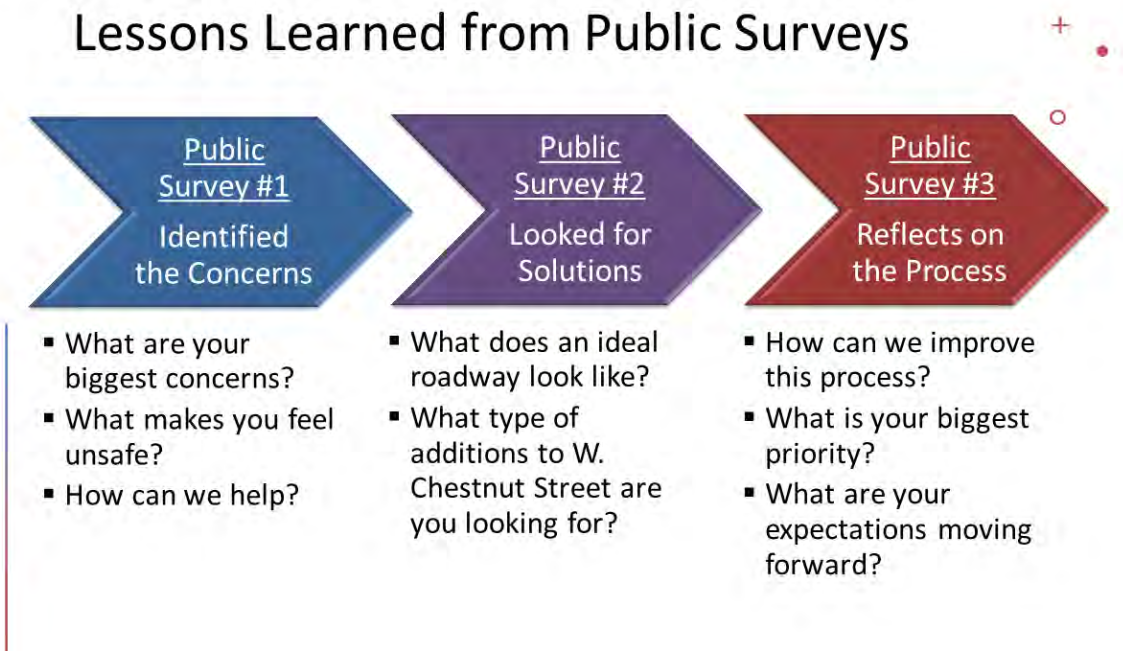
Merrick Rd. Drainage Summary

A review of existing hydrographic reports and studies indicates that the current system is an aging, closed storm sewer system on W. Chestnut St. that collects road drainage and runoff from adjacent properties and conveys it to nearby natural water courses. This drainage study was used by the City to support the successful Bridge NY application, funded in 2024.

Public Engagement

While this study engaged in a data-oriented approach to identifying existing conditions and traffic operating conditions on W. Chestnut St., it is important to provide the public with a meaningful way to contribute their knowledge of issues and ideas for potential solutions. Public involvement was conducted throughout the entire planning process and provided means to ensure the project was public-orientated. Over 600 people responded to surveys and over 100 people participated in community meetings. Survey demographics indicated that the 65+ and 45 – 54 age cohorts were the most engaged.

The three surveys were conducted to bring the community through the planning process with the outcome of a consensus being the goal. A summary of the lessons learned, and the purpose of the surveys is presented to illustrate how they were used to move the public through the planning process.

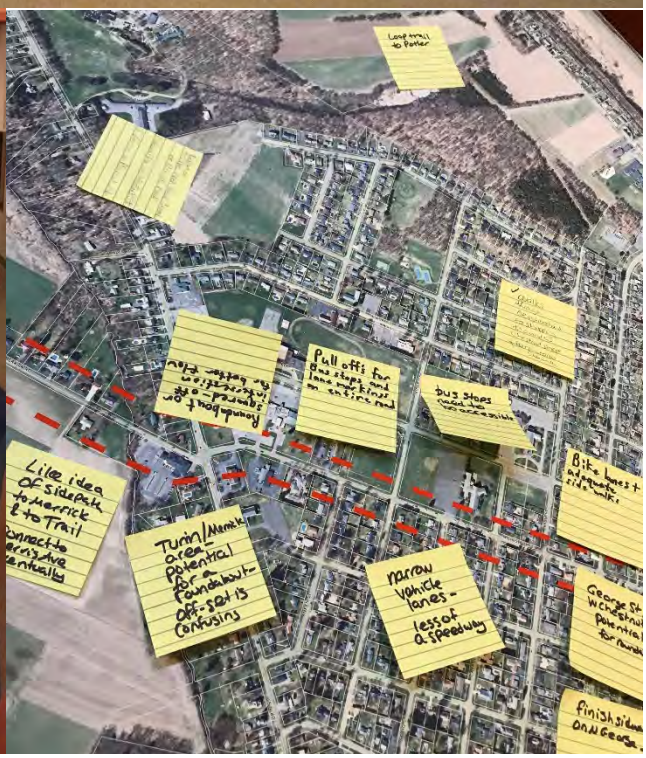


The surveys were coordinated with a three-part public engagement process, which is outlined here and summarized in the coming pages.

- Public Meeting #1, with over 50 attendees, a preliminary technical analysis and summary of the current study area and preliminary survey data were shared
- Public Meeting #2, summarized technical data and was held at two different times allowing people to talk about preferred design concepts and refine elements
- Public Meeting #3, to present the recommended corridor plan get community input, and answer questions on the recommendations and process

Public Meeting # 1 – Identify the Concerns

The meeting was held in an open house format with stations on land use/active transportation/ green infrastructure, neighborhood visioning, placemaking, and traffic and safety. In a short presentation the purpose of the project, study process, public engagement process, and schedule were explained to attendees. They were then asked to provide comments on poster boards regarding issues, concerns, wants, needs, visions, and anything critical for the project team to know about the area.



Public Meeting #2 – Options for Consideration

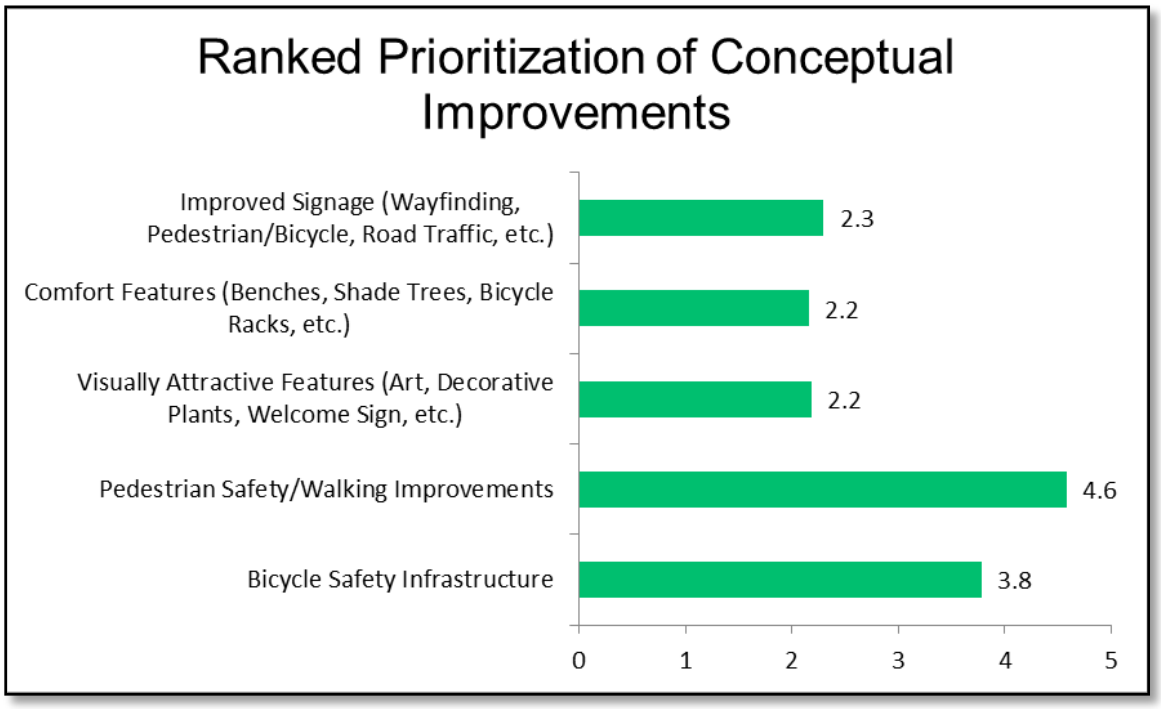
The existing conditions analysis and findings were summarized and potential draft transportation concepts for the corridor were presented. Details regarding corridor safety covering crash data, access management opportunities, and potential intersection improvement concepts were discussed. Regarding truck traffic, comments were raised, and the utilization of Potter Rd. and alternatives were discussed. Following the presentation, attendees reviewed display boards showing renderings of existing conditions and draft concepts and reviewed details on best practices for non-vehicular infrastructure placement.

Public Meeting #3 – Refining Outcomes

This meeting summarized the tasks completed to date by HOCTC, which included a discussion on public engagement efforts, a summary of existing roadway conditions and operations, and a community health profile. Five conceptual designs, each depicting different segments of W. Chestnut St., were revealed once the presentation concluded. Each conceptual design highlighted the strengths and weaknesses of the design. Feedback was via interactive activity, discussions with staff, and comment cards to and was utilized to inform the finalization of the concept designs and study.

Impact on Recommendations

The input provided by the community determining the strengths, weaknesses, threats, and opportunities in the corridor resulted in a direct impact on the recommendations selected for W. Chestnut St. Included is a sample summarizing how the survey data helped to inform the designs and conversely let the community see how they were included in the process. The full summary of each survey is provided in Appendix – B Public Engagement.



Least Preferred Treatments

Roundabouts	Murals/Art Displays	Sharrows
		
Results from Public Meeting #2: 9% of participants approved/preferred	Results from Public Survey #2: 15 % of participants approved/preferred	Results from Public Survey #2: 10% of participants approved/preferred

Most Preferred Treatments

High Visibility Crosswalks	Pedestrian Lighting	Sidewalks & Sidepaths
		
Results from Public Survey #2: 81% of participants approved/preferred	Results from Public Survey #2: 70% of participants approved/preferred	Results from Public Meeting #2: 86% of participants approved/preferred

Health Profile

Everyone benefits from using roadways, streets, sidewalks, trails, and public transportation for everyday needs. People use these facilities to get to and from work, school, recreational activities, and to access necessities, such as health services and grocery stores. Transportation systems can also have harmful effects. These range from decreased air quality to a lack of safe places to walk, bike, and engage in physical activity without unnecessary risk.

The health profile highlights the connection between transportation and public health while helping inform transportation decision-making.

Three separate assessment tools from three nationally recognized agencies were used. The findings provided the opportunity to objectively evaluate W. Chestnut St.'s existing condition and inform on ways the overall health and well-being of the neighborhood could be improved through transportation and community investments. The profile enables a comparison of the local area with state and national key health and transportation indicators enabling local municipalities to have access to additional state and federal streetscape improvement funding from non-traditional sources.

Existing Conditions Health Profile

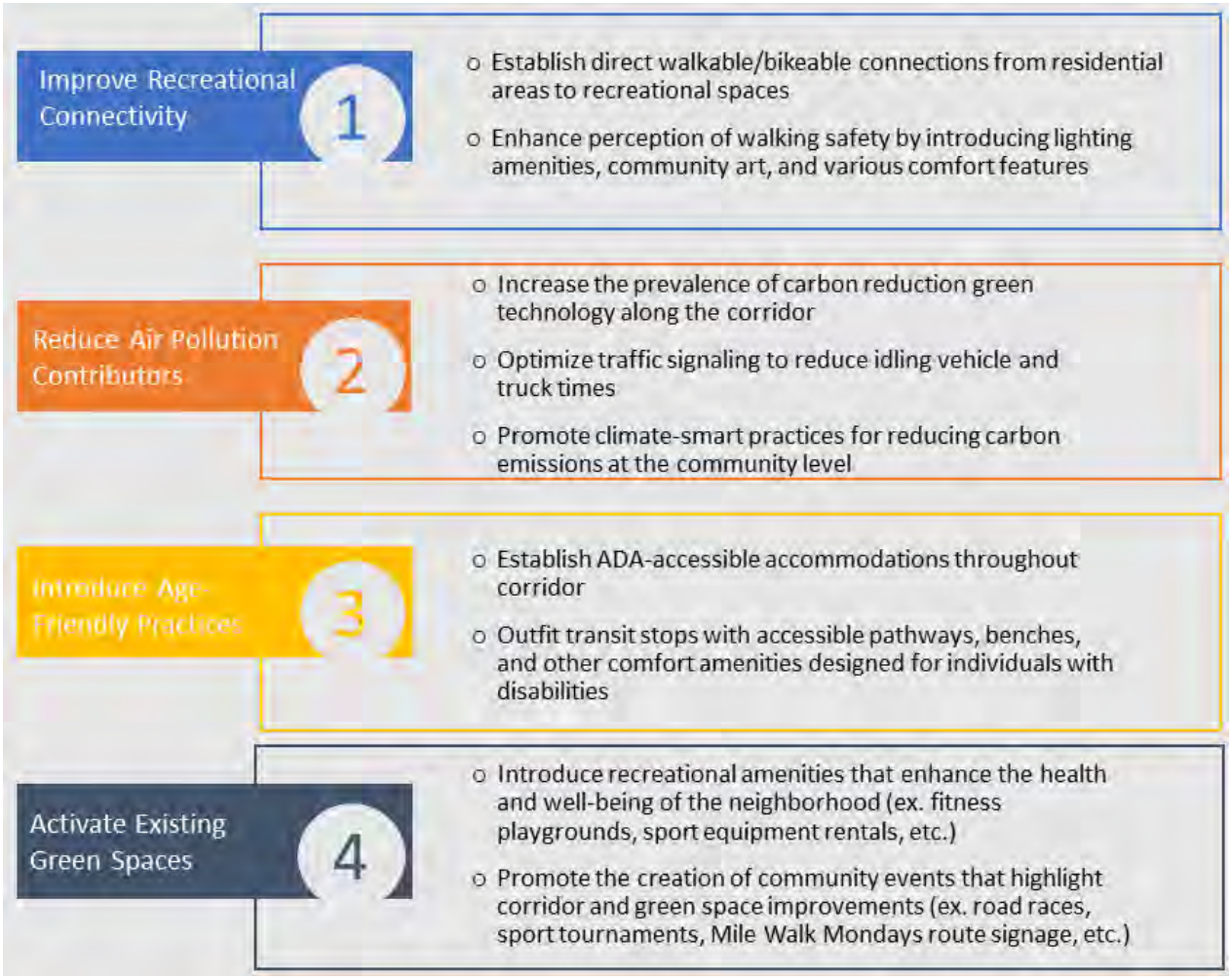
These audits scored five different elements land use, transportation, walking environment, bicycling environment, and facilities/aesthetics. The W. Chestnut St. corridor received a walk score of 53 out of 100 from the Community Walking and Bicycling Audit. The audits concluded due to the corridor lacking many features, alternative modes of transportation are not easily utilized. The following strengths and areas for improvement were identified through the remaining walk audits:

- Strengths
  - high-quality road condition
  - fresh food access
  - trees along the corridor
  - variety of land uses

- Weaknesses
  - lack of defined walkable space
  - no bike lanes
  - no crossing aids
  - lack of comfort
  - lack of attractive features
  - unsheltered bus stops
  - noise/air pollution

Healthy Corridor Recommendations

Listed below are the recommendations that support improving the health and wellness of the W. Chestnut corridor. Implementing these recommended improvements, by incorporating them into future transportation and improvement projects will promote healthy behaviors and a healthier community.



Recommended Design for W. Chestnut St.

The W. Chestnut St. corridor is integral to the community it serves, providing not only access to the state highway network but also connecting people to necessary daily needs, employment, and to the community. Utilizing nearly 1,000 comments relative to the wants, needs, preferences, and priorities of the community concept designs were created for the corridor. The recommended design for W. Chestnut St. is presented by focus elements and the roadway is divided into segments, for visual depictions of the future roadway.

Focus Elements for the new W. Chestnut St.

The goal is to create a corridor that is safe for everyone, accessible, and promotes mobility. The focus elements address existing issues and look ahead with the common theme of making W. Chestnut St. a roadway for everyone.

Trail Connections

Building out the roadway to accommodate travel by other modes than vehicles provides the opportunity to connect people to their community. As part of the public engagement process, a significant community sentiment was the desire to develop trails and multi-use paths to connect and expand the existing network. For W. Chestnut St. to evolve and meet the needs of the community, it is recommended that connections to the Mohawk Rivel Trail be added:

- Through installation of an 8 – 12 ft. multi-use side paths
- Through the combination of a 5 – 6 ft. sidewalk with designated and signed bicycle lanes
- Through connections to existing or incomplete facilities:
    - Black River Blvd. north of the E. Chestnut intersection
        - connection to the trail approximately ½ mile from the intersection on the east side of the roadway
        - installation of sidewalks on the west side of the road to the N. Madison St. intersection
    - N. James St. to the Black River Blvd. intersection
    - N. Madison St. to and through the Black River Blvd. & Pennystreet Rd. intersection
    - Signal and Intersection upgrade at N. Madison St./ Black River Blvd./ Ridge Mills Rd/ Pennystreet Rd. to provide protected bicycle and pedestrian signal crossing phases
    - Ridge Mills Rd. (NY Route 46) multi-use sidepath on the west side (connecting to Ridge Mills Elementary) to Potter Rd. intersection
    - Potter Rd. multi-use sidepath on the south side of the road with mid-block RRFB crossings to the residential development on the north side
    - Turin Rd. multi-use sidepath on the west side of the road to the W. Chestnut St./ Merrick Rd. intersection

Access Management

W. Chestnut St. has historically been a residential corridor with commercial businesses anchoring on the east and small businesses on the west. The result is many driveways in a short distance, which increases conflict points creating unsafe travel conditions and unnecessary confusion. The observed non-standardized driveway width is another contributing factor for conflict points. For W. Chestnut St. to

embrace access management to enhance the safety of all users, it is recommended that access management be integrated in the following ways:

- Residential and commercial driveway widths should be standardized to meet City zoning code
- Commercial businesses that share parking areas should also have a shared driveway, with no more than one ingress and egress to the parking area.
- The addition of curb lines and lane striping will organize the street for where vehicle movements should be occurring and visually narrow the roadway.

Signal Optimization

Signal optimization involves implementing the best possible timing settings that govern the operation of a traffic signal. The goal is to respond to the demands of motor vehicles, bicycles, and pedestrians safely. Signal optimization leads to minimizing stops and delays, reducing fuel consumption and air pollution emissions. The signals on W. Chestnut St. are part of the network that can be utilized to efficiently control traffic flow along the entire corridor, to achieve this, it is recommended that:

- The signal at Turin/W. Chestnut/Merrick should be upgraded to NYSDOT signal standards. NYSDOT could operate and maintain the signal allowing its operations to ease traffic congestion and be incorporated into an effective redesign of the intersection.
- The NYSDOT signal at Black River Blvd. should be optimized to reduce backup during rush hour conditions and minimize delays at times of minimal traffic.
- To facilitate smooth traffic flow along the corridor, the signals at N. James St. should be upgraded to allow it to be coordinated with the NYSDOT signal at Black River Blvd.
- The signal at N. Madison St should be upgraded to allow for vehicle detection and pedestrian crossings, this upgrade eliminates idle time when no vehicles are present.

Geometric Improvements

Geometric improvements change the physical layout of the roadway. They may include simple restriping or as complicated as straightening a curve in the roadway. W. Chestnut St. was originally a local collector road and now functions more as a minor arterial. The intersection of Turin Rd./ W. Chestnut St./ Merrick Rd., with a skewed four-leg alignment creates confusion and unnecessary conflicts, exemplifying why geometric improvements are critical to redesigning the W. Chestnut St. corridor. Geometric improvements coordinated with signal upgrades that incorporate bicycle and pedestrian facilities will achieve a safer and more user-friendly intersection, to achieve this, it is recommended that:

- The intersection is ‘squared’ such that clear visual sight lines and direct lane connections, be established to delineate how users are to move through the intersections
- Establishment of signed bicycle and pedestrian crossings with actuated signals will communicate their presence to drivers.
- The upgrade will allow for the signal to be operated in a manner that can clear the backlog on various legs during rush-hour conditions.
- Geometric improvements be made to facilitate the need to expand the footprint of the intersection, to ensure that all users are safely accommodated.
- Other intersections may require altering the vehicle travel path to accommodate all roadway users, reduce collisions, improve safety, and adjust the roadway to better fit its actual use.

Roundabouts

Roundabouts are a design utilized by traffic engineers to benefit both the safety and operations of the roadway and are typically utilized on low-speed roadways with skewed alignments. A roundabout was considered at the Turin Rd./ W. Chestnut St./ Merrick Rd. intersection due to its skewed alignment and unbalanced traffic volumes. Although it geometrically fits and has benefits for safety, operations, bicycles, and pedestrians, the public engagement presented mixed support. The roundabout was not progressed in the design concepts but is included in Appendix A and may be further investigated by the City as an option for the redesign of the Turin Rd./ W. Chestnut St./ Merrick Rd. intersection.

Pedestrian & Bicyclist Improvements

Pedestrians and cyclists will share a minimum of an 8 ft. (12 ft. maximum) wide sidepath along the roadway. Separating accommodations for bicyclists and pedestrians provides designated areas and further separation of roadway users by speed of travel. A complementing narrower 5 – 6 ft. sidewalk on the opposite side of the roadway from the sidepath provides for this separation and options for how people move through the community. The sidepath and sidewalk network buildout in this area can improve mobility, accessibility, and connectivity, directly reflecting the input from local stakeholders. W. Chestnut St. pedestrian and bicycle improvements are a catalyst project that benefits the neighborhood and the greater Rome area. To achieve this, it is recommended that:

- A combination of sidewalks and sidepaths be installed on W. Chestnut St. and continued to the end of Merrick Rd.
- The sidewalks and sidepaths are extended throughout the residential streets, connecting to existing facilities and closing gaps in the network
- Sidepaths should be extended on Turin Rd. to Potter Rd. and along Potter Rd. to the Ridge Mills Rd. intersection, turning south and connecting to the Mohawk River Trailhead just south of Wright Settlement Rd.
- Sidewalks or sidepaths should be extended along the north side of W. Chestnut St. from N. James St. to Turin Rd.
- Bicycle signage should be placed on roadways or painted with in-lane markings where sidepath connections should not maintained

Landscaping and Street Trees

Landscaping with street trees will enhance the corridor's visual appeal and provide shade for pedestrians and bicyclists. The National Association of City Transportation Officials (NACTO) Urban Street Design Guide says trees "can reduce speeding and crashes, improving safety for all street users" because they visually narrow the street and provide a well-defined roadside edge. A secondary benefit is that landscaping visually narrows the roadway and re-orientates the focus of motorists to driving, potentially reducing travel speeds. It is recommended that:

- Street trees be added to existing gaps in the existing trees along the roadway
- Benches with landscaping be placed at the more open corners to create rest areas and provide a friendly landscape

Rapid Reflective Flashing Beacons (RRFBs)

At unsignalized and mid-block crossings, RRFBs are user-activated flashing lights used to warn motorists of pedestrian and bicyclist movement across the roadway. The unique flashing pattern of the RRFBs has

been shown to induce vehicle yielding at a higher rate than the traditional constant on warning lights. The RRFB promotes slow speeds and encourages drivers to yield to people crossing the road. It is recommended that:

- The curb lines at the intersections and crossing points are designed to extend and narrow the travel lane
- RRFBs be installed at non-signalized intersection crossings at:
    - N. George St.
    - Roser Terrace
    - Merrick Rd. at Wood Creek

Drainage/Water Infrastructure

Improving the roadway operations includes evaluating the underground infrastructure and its impacts. The upgrade of the culvert located on Merrick Rd. to a bridge structure will mitigate existing stormwater concerns. This provides a secondary opportunity to increase pedestrian and bicycle infrastructure by increasing the surface area of the roadway overtop the bridge structure. The surface area added provides critical safe and separated pedestrian and bicycle accommodations.

Interim Opportunities

These are short-term options to address specific issues that arose from public engagement. This can include the following:

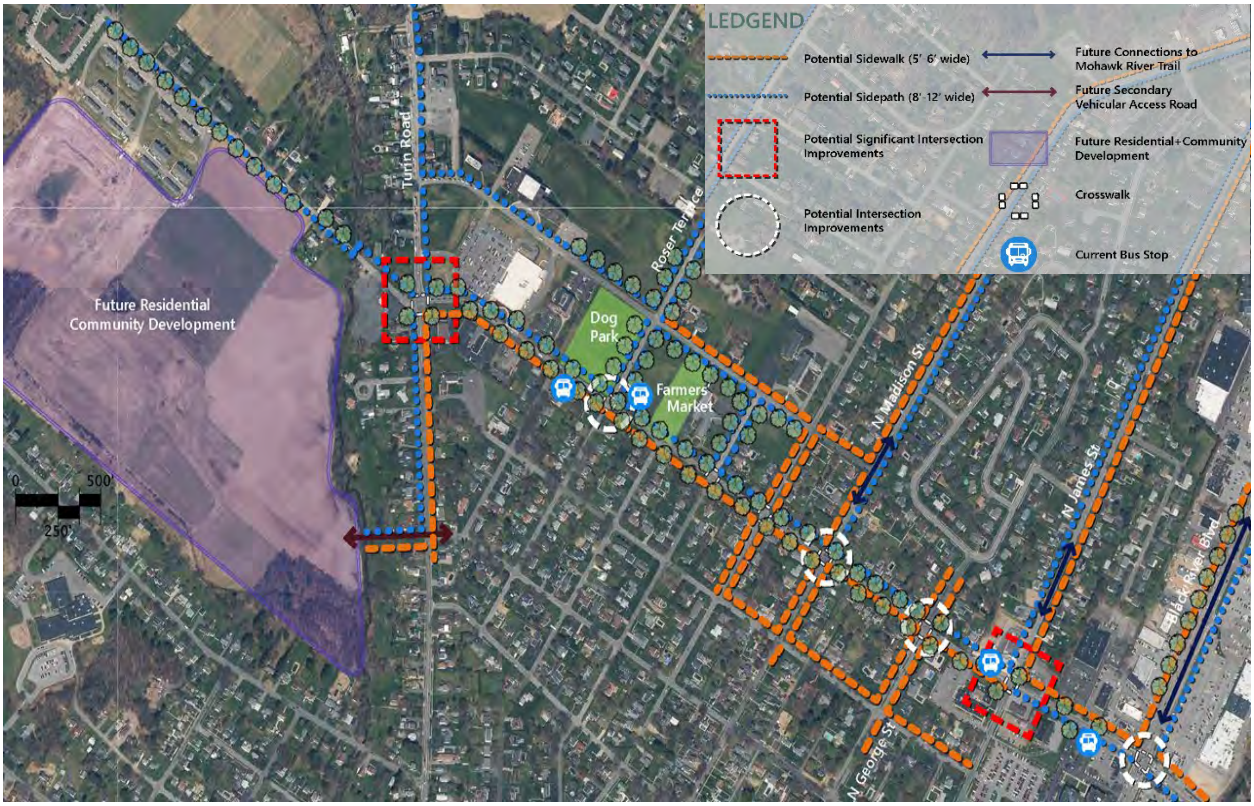
- The striping of non-primary features (shoulder lines, stop bars on side streets)
- Installation of crosswalks on W. Chestnut St.
- Installation of RRFBs along the corridor
- Signal optimization and upgrade
- Placement of speed monitoring trailers along the corridor
- Demonstration projects to test the recommendations outlined– lasting not more than two weeks – to test a concept before it is permanently implemented

Transforming W. Chestnut St. - Recommendations

The existing conditions of W. Chestnut St. dictate that recommendations for improvements are to be considered retrofits that seek to improve the multimodal options through urban corridors. A holistic approach is required to fully evaluate the design options and identify the best options to carry forward. Multimodal corridors are for everyone as they improve both transportation access and safety by emphasizing the user, not the vehicle. They provide additional travel opportunities and options while supporting community and environmental sustainability.

W. Chestnut St. Overall Preferred Concept

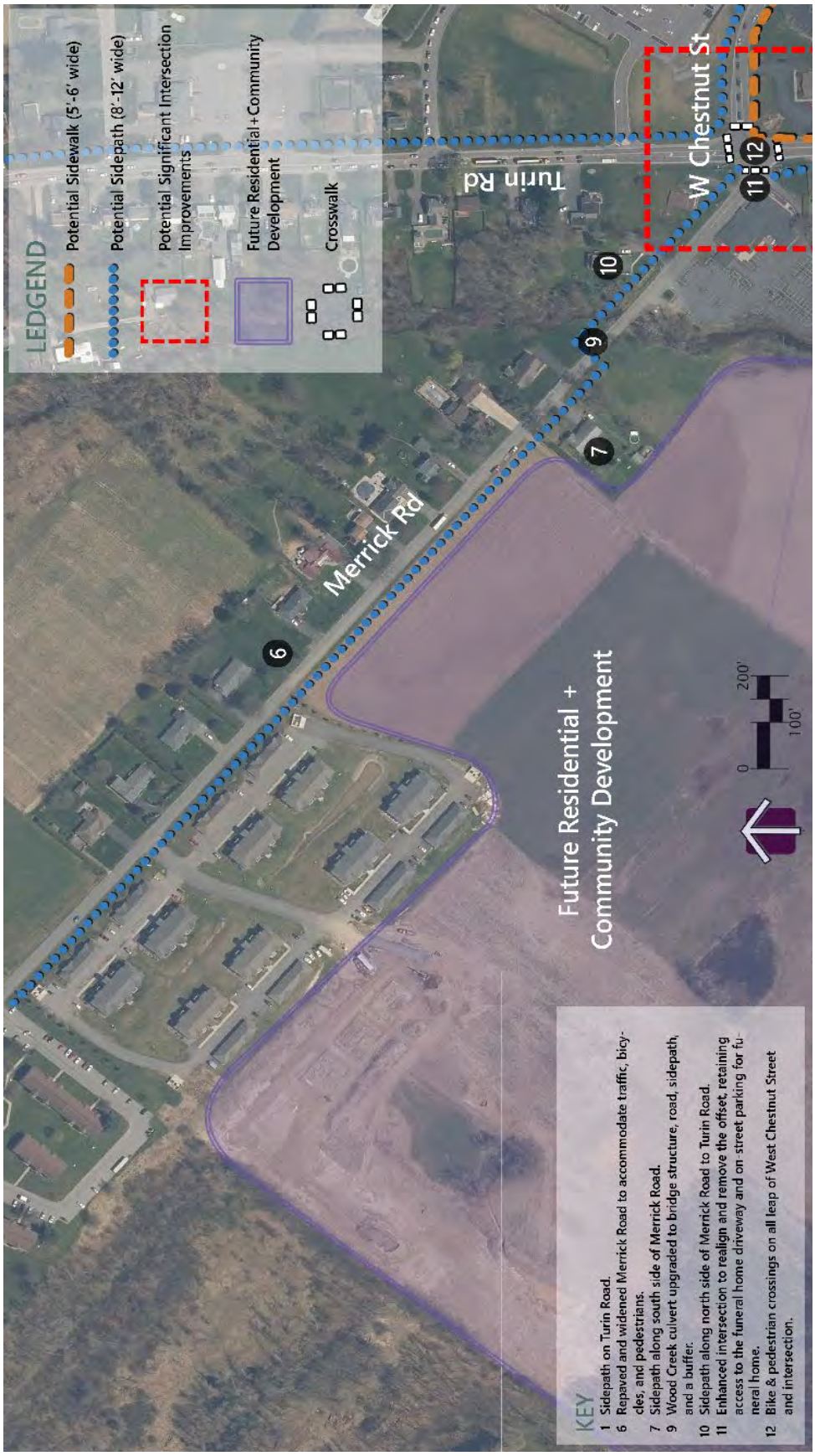
The graphic below summarizes the preferred concept developed as the outcome of this study. The graphic does not illustrate every design element nor guarantee what is shown will be built exactly as shown. The concept presents the aggregated consensus balancing the public desire, safety concerns, roadway functionality, and accepted traffic engineering practices, with the needs of the City.



To better understand the transformation, the preferred concept map has been divided into three enlargements. The study recommendations shown on the Preferred Concept enlargements are conceptual and may vary significantly from the final design. The recommended design for W. Chestnut St. combines a series of features to address a key safety problem identified during the study process.

Preferred Concept – Enlargement One

Merrick Rd. area extending to the W. Chestnut St. and Turin Rd. intersection.

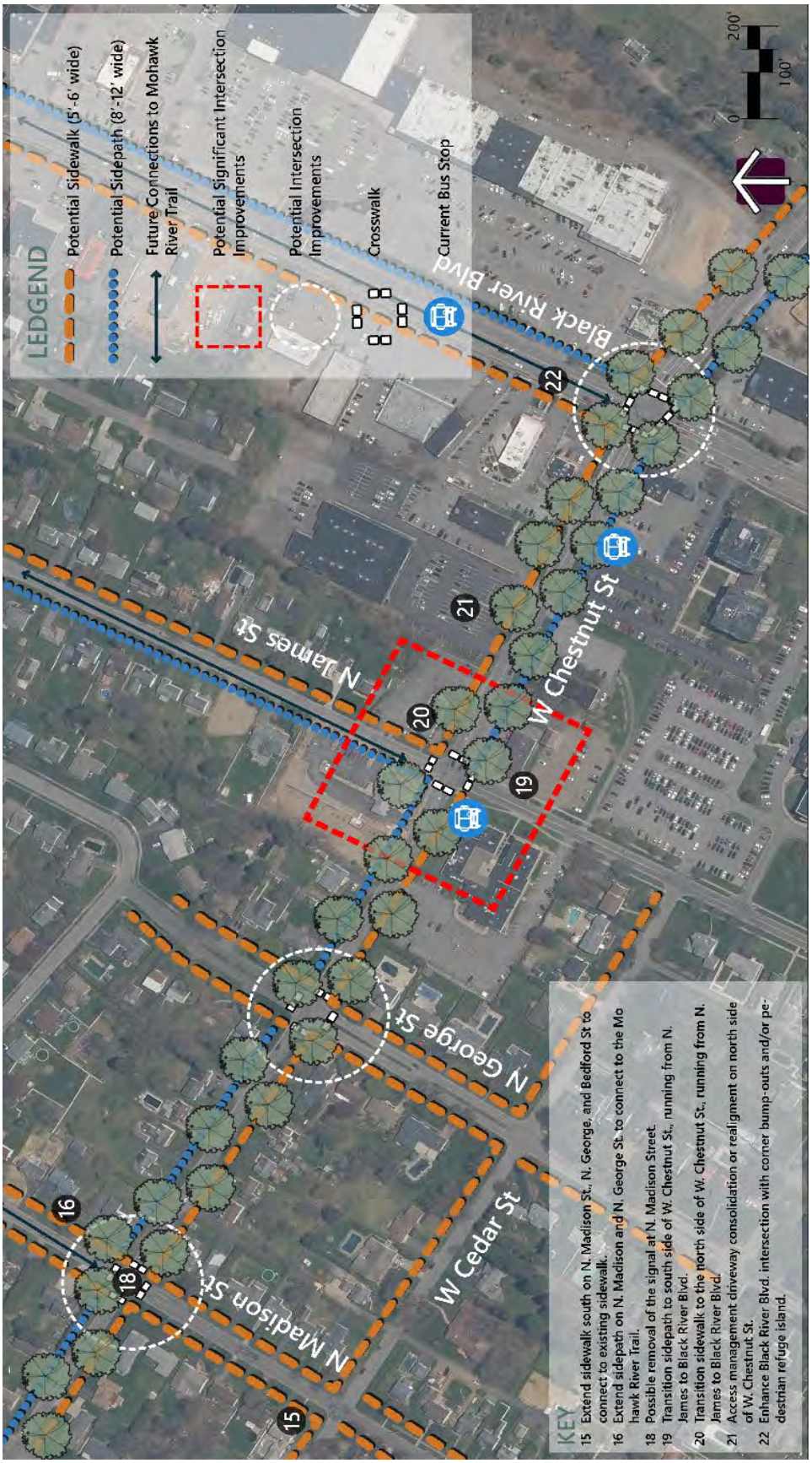


Preferred Concept – Enlargement Two

W. Chestnut St./ Turin Rd./ Merrick Rd. intersection to Bedford St.

Preferred Concept – Enlargement Three

N. Madison St. to and through the Black River Blvd. intersection.



Preferred Concepts and Recommended Designs by Section

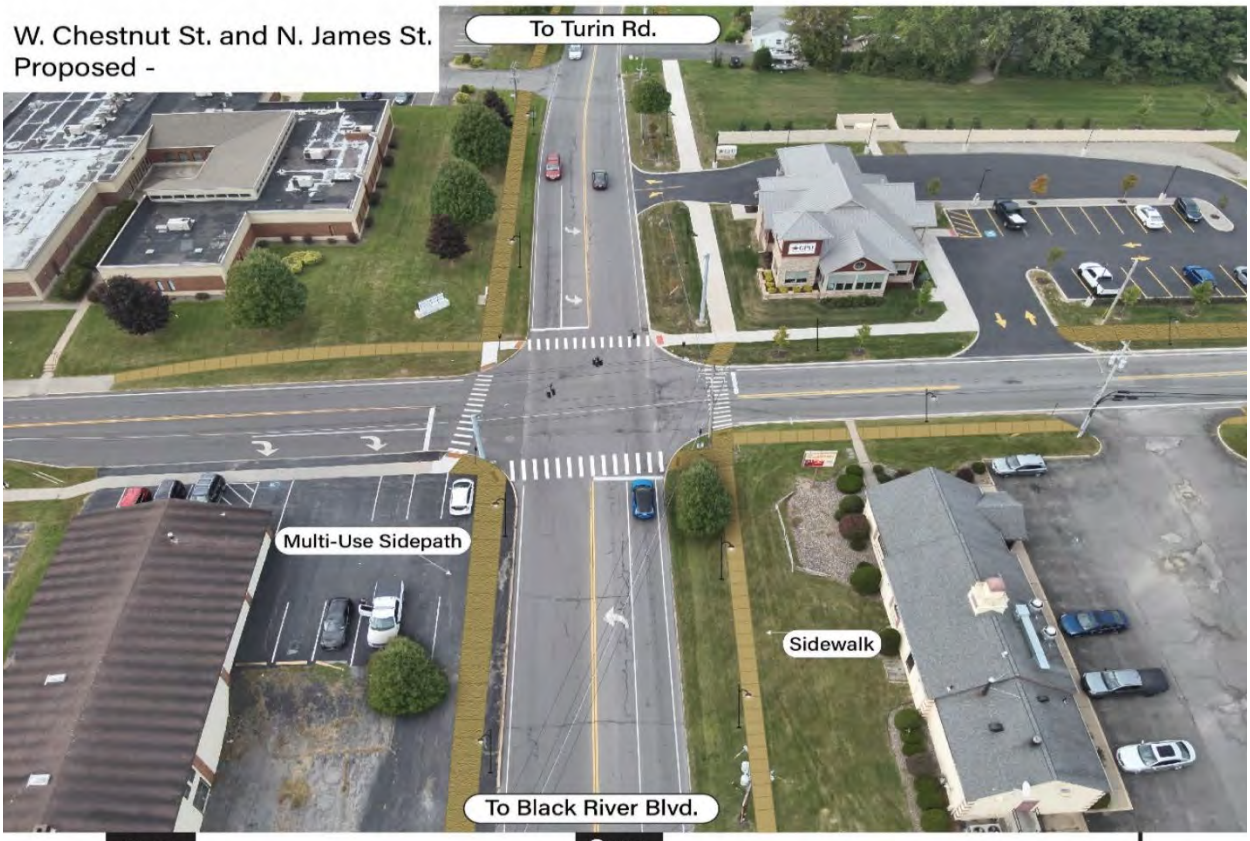
The following series of visual renderings present the Preferred Concepts as they developed throughout the study process, resulting in the recommended design. The series is presented in the same manner that was used during the public engagement and highlights the pros and cons for each while discussing the technical need balance with the public input. These designs are conceptual and will require final design and engineering to ensure that all applicable building, construction, roadway, and codes are met.

W. Chestnut St. and N. James St. Intersection

W. Chestnut St. begins at the intersection with N. James St., this area is also marked by a notable transition from commercial (east of N. James St.) to residential uses (west of N. James St.). Access management will play a significant role in defining the roadway, pedestrian, and bicycle space.

Recommendations:

- A sidepath on the south side of W. Chestnut St. up to the N. James St. intersection and on the north side after the N. James St. intersection
- A sidepath on the west side of N. James St.
- A sidewalk on the north side of W. Chestnut St. up to the N. James St. intersection and on the south side after the N. James St. intersection
- A sidewalk on the east side of N. James St.
- Upgraded crossings and signal to provide a protected crossing for bicyclists and pedestrians



Pros	Cons
- Connects and extends the existing sidewalks	- Limited comfort features offered
- Enhances safety at a signalized intersection crossing	- Bicyclists may experience confusion with the location of sidepath changing

W. Chestnut and N. Madison St.

This area is defined by its residential character, large setbacks of residences, and lack of definition of the roadway. This area profile is representative of a large portion of W. Chestnut St.

Recommendations:

- Continuation of the sidepath on the north side of W. Chestnut St. into the residential community; supports safety for bicyclists
- Installation of crosswalks at the signalized intersections; supports safety and can be a speed management tool
- Continue sidewalk on the south side of W. Chestnut St.; supports safety and provides pedestrian-only space
- Extension of sidewalk north and south on N. Madison St.; supports safety for pedestrians

W. Chestnut St. and N. Madison St.
Existing -

W. Chestnut St. and N. Madison St.
Proposed -

Pros

- Establishes pedestrian/bicycle connections with the residential streets
- Enhances safety at a signalized intersection crossing

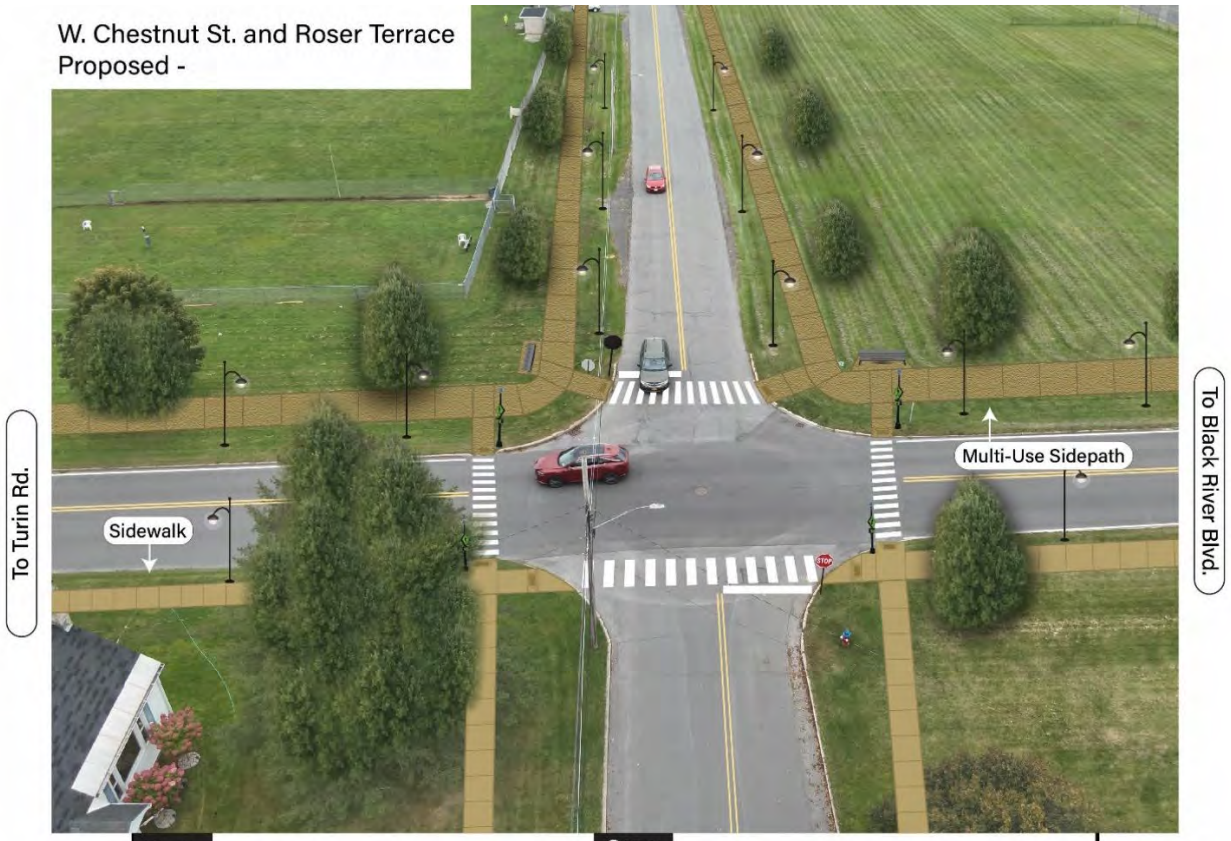
Cons

- Multi-use sidepath is only located on north side of the street
- Signal operation may have to be adjusted to accommodate pedestrian crossings

W. Chestnut and Roser Terrace

This area is residential, with assets for residential and community activities. Field observations indicated that pedestrian and bicyclist activity is regularly occurring. Recommendations for this intersection seek to define the area:

- Continuation of the sidepath on the north side of W. Chestnut St.; supports safety for bicyclists
- Installation of crosswalks at the intersection with RRFB; supports safety and can be a speed management tool
- Continuation of sidewalk on the south side of W. Chestnut St.; supports safety and provides connection to the residential areas
- Extension of sidepath north on Roser Terrace to connect residents and community spaces
- Extension of sidewalk south on Roser Terrace to connect to residences.



Pros

- Establishes pedestrian/bicycle connections with the residential streets
- Links to nearby parks, youth sport areas, and elderly-designated facilities

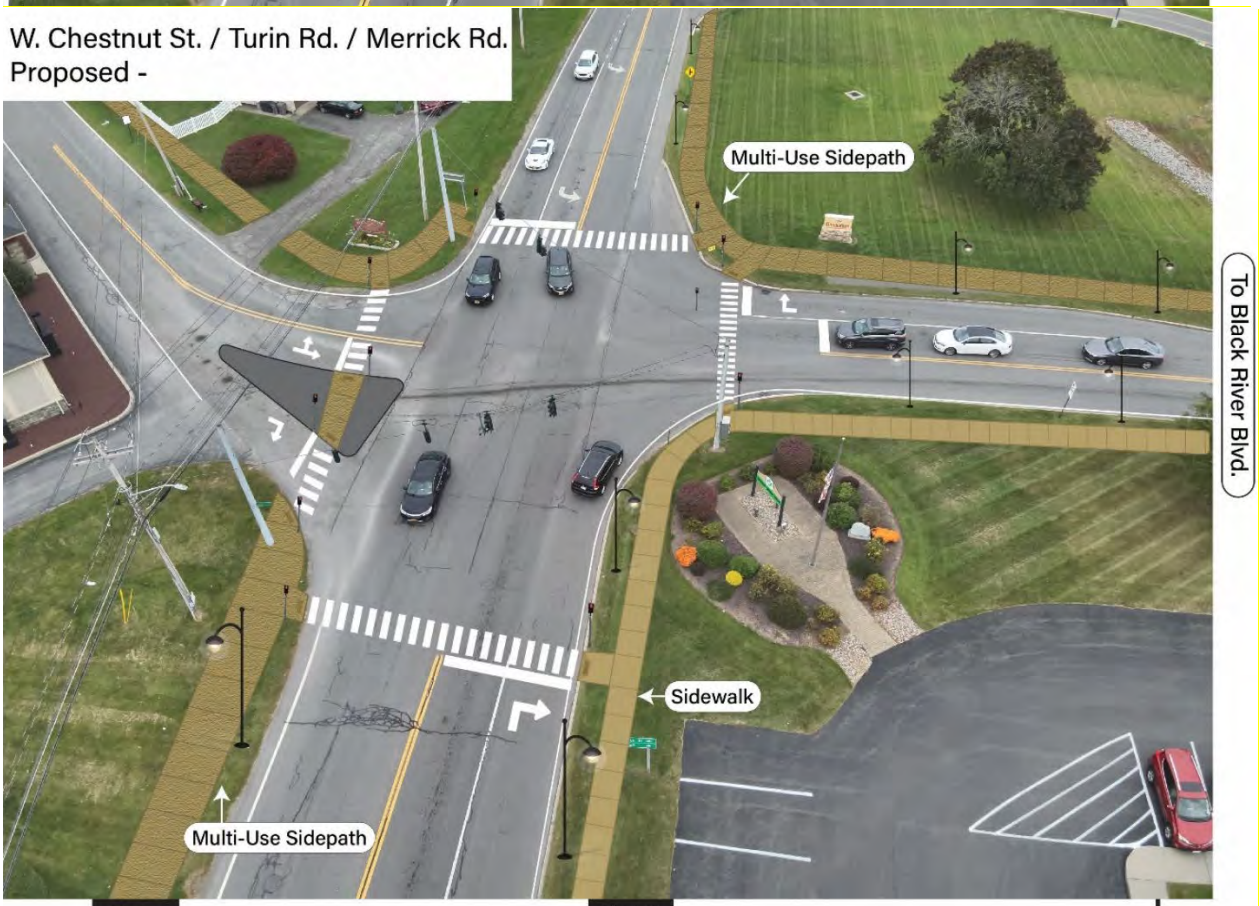
Cons

- Does not further enhance existing greenspaces/parks beyond existing usage
- May create delay for traffic with mid-block RRFB pedestrian crossing

W. Chestnut St. / Turin Rd. / Merrick Rd.

This intersection is located at the beginning of W. Chestnut St. and is a signalized 4-way intersection, with a skewed alignment. During the AM and PM peak hours, some congestion is present. Safety reviews did not reveal any significant safety issues however additional residential construction on Merrick Rd. will stress the traffic operations. To address operations the following are recommended:

- Upgrade the signal to an actuated signal that provides pedestrian and bicycle crossing phases; including installation of pedestrian signals.
- Multi-use sidepath on the north side of W. Chestnut St., turns right and continues north on Turin Rd.
- Merrick Rd. is aligned to W. Chestnut St. with a separated right turn lane to Turin Rd.
- Multi-use sidepath continues on the north side of Merrick Rd.
- Turin Rd. (south) has the sidewalk continued on the east side and the sidepath on the west side



Pros

- Intersection is aligned to be a more traditional 4-way intersection
- Organizes and provides space for pedestrians/bicyclists to safely move through the intersection

Cons

- Traffic volume and speed will remain relatively unchanged
- Crossing times allowing pedestrians and bicyclists may delay vehicle movements

Merrick Rd. at Wood Creek

This area is developing as a residential neighborhood with additional units approved and planned to be built within the next 10 years. The grocery store and recreational opportunities that exist along or via W. Chestnut St. make key that Merrick Rd. is considered as part of the W. Chestnut St. corridor. Additionally, funding was secured by the City of Rome in 2024 for the upgrade of the culvert structure crossing Wood Creek to a bridge, providing opportunities for safety enhancements for all users. The following elements are recommended:

- Multi-use sidepath continued on the north side of Merrick Rd. to Wood Creek
- Crosswalk and RRFB be installed on the east side of the Wood Creek crossing
- Multi-use side path continued on the south side of Merrick Rd.

Pros

- Connects residential developments to commercial areas
- Enhances and upgrades the culvert/bridge to improve flood resiliency, facilitate emergency access and provide space for pedestrian/bicyclists

Cons

- Multi-use sidepath is only located on the south side of the roadway after Wood Creek
- Connections will be needed into private residential developments

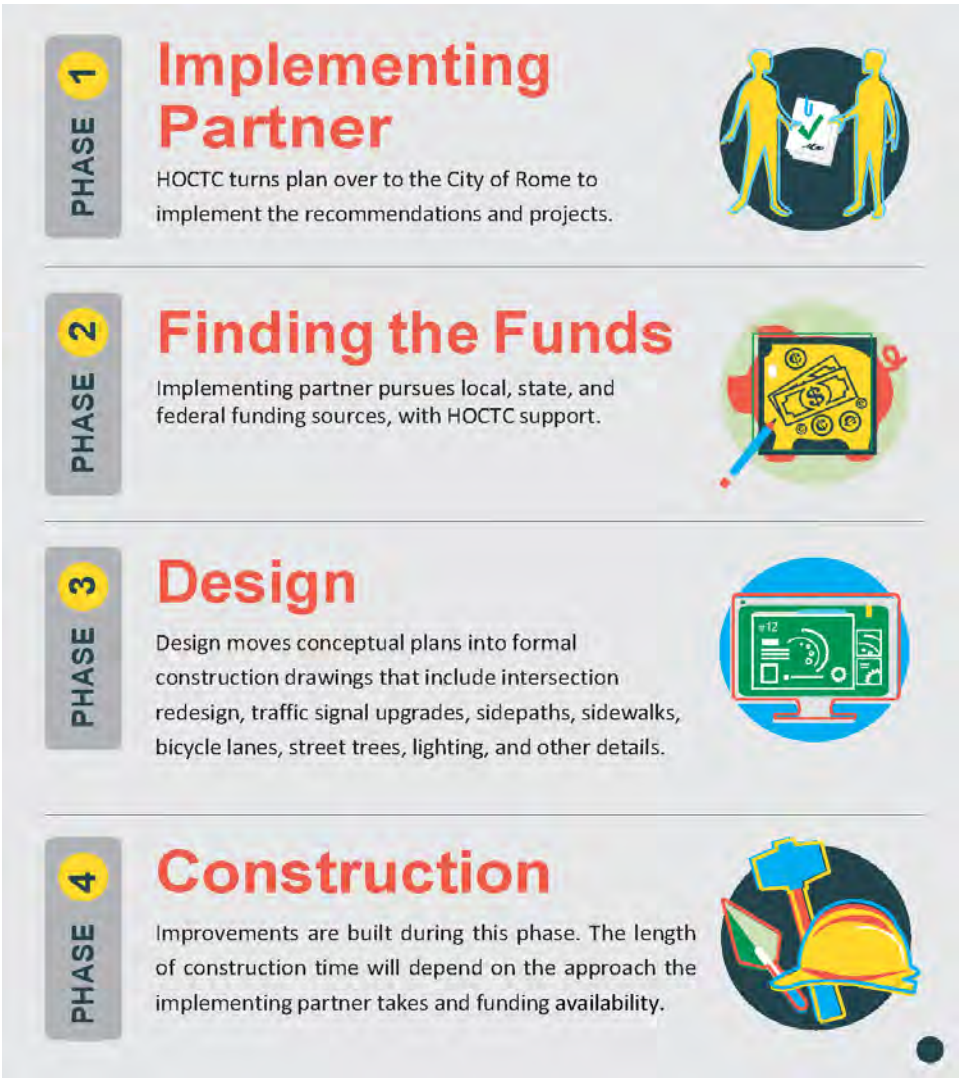
Moving Forward

Now that the study has concluded and there is a recommended design for W. Chestnut St., what's next? Local governments will identify funding, finish design, and oversee construction. The W. Chestnut St. Study achieves 20% of the total design.

Implementing the recommended design for W. Chestnut St. is dependent solely on the City of Rome and will require coordination with NYSDOT at certain points.

Future-proofing is building flexibility into a plan so it can adapt to changes that might occur. The W. Chestnut St. Study was a process to identify and develop a conceptual road design that creates safe transportation options available in this economically vibrant area. Conditions could change over the coming decades, especially with the rapid pace of innovation occurring in transportation. This could result in a mode shift trend away from single-occupancy vehicles to other types of transportation. This conceptual plan seeks to achieve that multi-modal future by supporting investment in existing infrastructure and enhancements that support safety for the entire roadway.

What Needs To Happen To Make This Plan A Reality



Implementation

The W. Chestnut St. recommended improvements will require joint efforts for full implementation. Local government will need to identify and likely apply for funding for implementation. There are three potential options for making this plan a reality, although in any option acquiring funding may take some time. However, it should be noted due to its functional classification W. Chestnut St. is eligible for federal and state transportation funding. The implementation will likely require a mix of federal and local funding due to the ever-increasing transportation infrastructure costs. An overview of each approach, including cost is provided in the following sections.

Estimated Timeline

After the implementing partner and funds are identified, the design, engineering, and construction phases still need to be completed. The timelines here describe how quickly the project can be accomplished once funding becomes available. The implementing partner will determine the exact procedures for completing the remaining project phases. Timelines are generalized and do not account for local government processes such as procurement changes to accommodate drainage or other utility relocations, and any necessary coordination with state and federal agencies.

The design and engineering phase will require survey work, environmental review, and utilization of an engineer for the advancement of construction plans. This is estimated to be an additional 6 – 12 months. The Construction follows the design phase and a contractor will need to be procured. It is expected the construction phase for the full recommended plan is about 10 months.

Estimated Costs

To provide a preliminary opinion of probable cost W. Chestnut St. was separated into 5 sections. The sections provide a starting point to prioritize projects, identify funding sources, develop funding applications, and determine the scale of each. These estimates are provided for planning purposes only and have not been evaluated by an engineer.

It must be noted that the estimated costs do not include drainage and utility upgrades. It is recommended that these upgrades be completed in conjunction with roadway enhancements to reduce the amount of pavement reconstruction. The graphic illustrates the identified sections for cost estimation purposes.

Approaches for Implementation

Within the next decade, the usage of W. Chestnut St. will continue to increase as development in north Rome continues. The approaches outlined offer options for implementation and assess the value of each. Approach 1 is based on completing all enhancements and upgrades as a single project. Approach 2 separates elements into two projects spread over a longer timeline. Approach 3 uses a phased approach to build upon previous enhancements throughout the separate projects.

Resurfacing/ Repaving

It is recommended that all approaches include resurfacing or repaving the entirety of W. Chestnut St.. While the current pavement condition rating varies from fair to good, the delay in start dates will result in varying pavement conditions. If the funds identified in Approaches 1 – 3 are invested the best value will be realized when new pavement is set as the base of the roadway. The probable estimate of the cost for resurfacing W. Chestnut St. in 2024 dollars is $650,000.

Striping

It is recommended that all approaches include striping the entirety of W. Chestnut St. The application of uniform striping will provide a defined roadway and promote slower speeds. If the funds identified in Approaches 1 – 3 are invested the best value will be realized when striping is uniformly applied for the roadway. The probable estimate of the cost for striping W. Chestnut St. in 2024 dollars is $300,000.

Street lighting

It is recommended that all approaches include the installation of pedestrian scale lighting for the entirety of W. Chestnut St. The street lighting is a proven safety mitigation, providing better visibility of bicyclists and pedestrians by drivers. If the funds identified in Approaches 1 – 3 are invested the best value will be realized when lighting is installed for the entirety of the roadway. The probable estimate of the cost for pedestrian scale lighting for W. Chestnut St. in 2024 dollars is $1.5M.

Trail Connections

The Preferred Concept show connections to existing trails, bicycle, and pedestrian facilities. This includes completing the City sidewalk grid to both the north and south of W. Chestnut St. More significant trail connections are shown for Black River Blvd., N. James St., N. Madison St., and Turin Rd that would provide connectivity to the Mohawk River Trail. The connections beyond the immediate W. Chestnut St. corridor have not been included in the cost estimates.

Approach 1: Sprint to the Finish

Approach 1 is to design, engineer, and build all enhancements and upgrades as one project, with the intersection reconstruction noted as a large component. The project includes:

- Implementation of the Preferred Concept as one project
- Full intersection reconstruction at W. Chestnut St./ Turin Rd./ Merrick Rd. intersection

For this implementation plan to be accomplished within three years from the time design work starts, the necessary funding would have to be allocated and implementation would require coordination with the NYS Department of Transportation for the Black River Blvd. and Turin Rd. intersection. Once funding is secured, design, engineering, and construction can progress.

The cost estimate does not include any potential drainage or utility upgrades. It is advised that any planned upgrades of this type be completed in conjunction with roadway improvements to minimize construction impacts and maximize the value of the project.

Total Estimated Cost: $12.4M

Pros

- *All construction is completed at the same time*
- *Quickest timeline for full implementation*
- *Cheapest overall approach*

Cons

- *Have to obtain all funding at the same time*
- *Several years before any improvements are implemented*
- *Does not address immediate issues*

Approach 2: Jog to the Finish

Approach 2 breaks the implementation by focus elements into three separate projects and estimates completion of all within six years. The projects for implementation are:

1. Complete full intersection reconstruction at W. Chestnut St./ Turin Rd./ Merrick Rd. intersection
2. Complete access management adjustments, roadway safety improvements, and striping.
3. Complete sidewalks, sidepaths, crosswalks, RRFBs, street lighting, and landscaping.

Project 1 would modernize a key intersection for access to the corridor and improve roadway safety.

Project 2 would address immediate needs, including making the road safer for all users, and can be completed in a shorter time frame.

Project 3 would enhance mobility and safety for non-automobile users by developing the pedestrian and bicycle network.

The projects will require design, engineering, and construction phases that are independent of the other projects, which could lead to higher implementation costs. There is potential that improvements made in one project may need to be replaced to accommodate other projects, as they are advanced. For these reasons, an additional $2 million contingency has been added to the total estimated cost.

Total Estimated Cost: $17.4M

Pros	*Cons*
▪ *Easier to find the initial funding for interim safety features*	▪ *Costs more than doing full design at one time*
▪ *Community benefits by receiving some safety features more quickly*	▪ *Construction takes place in two phases with longer disturbance*

Approach 3: Walk to the Finish

Approach 3 divides the implementation into multiple projects, that are estimated to be take more than 8 years to complete. The projects for implementation are:

1. Complete full intersection reconstruction at W. Chestnut St./ Turin Rd./ Merrick Rd. intersection
2. Completing signal upgrades, access management adjustments, safety improvements, crosswalks, and striping
3. Complete sidewalks, sidepaths, and RRFBs
4. Complete landscaping and street lighting in the entire corridor

Project 1 addresses the traffic flow and operations with signal upgrades.

Project 2 addresses the defining user space in the entire corridor and safety concerns.

Project 3 completes all sidewalks, sidepaths, crosswalks, and RRFBs.

Project 4 completes the corridor with landscaping and street lighting.

Multiple projects will increase the total project cost to implement the full recommendation. Survey work, design, and construction will need to be completed independently for each project. Delays in project delivery could extend the time of construction and cause longer disturbance to the public. It is also likely that extended implementation will lead to multiple rounds of funding and approvals. For these reasons, an additional $5 million contingency has been added to the total project cost.

Total Estimated Cost: $22.4M

Pros	*Cons*
▪ *Community sees long-term investment in the roadway*	▪ *Most expensive approach*
▪ *Some safety features and issues are more quickly addressed*	▪ *Construction disruption is many years*
	▪ *Increased cost*
	▪ *Longest timeline for full design*

Conclusion

The W. Chestnut St. Study has brought to the forefront situations the community must address.

The recommended design for W. Chestnut St. is safer, more attractive, and attainable. It would alleviate the greatest community concerns and make the road safer and more accessible for all users. While it comes with a 7-figure price tag, funds are available through state and federal programs to bring this vision a reality. Doing nothing is simply not a reasonable option.

W. Chestnut St. has evolved organically, and the importance of the street today is clear. The W. Chestnut St. area should serve as a connector between neighborhoods, be a safe place for people to travel regardless of mode, support economic development in Rome, enhance the health of the corridor, promote mobility, and enhance accessibility for all those who use it.

Appendices

Appendix A – Traffic Analysis

W. CHESTNUT STREET CORRIDOR STUDY

TRAFFIC ANALYSIS TECHNICAL MEMORANDUM

OCTOBER 2023

Contents

1. Introduction

The Herkimer-Oneida Counties Transportation Council (HOCTC) has provided the City of Rome with Local Transportation Planning Assistance Program (LTPAP) funds to complete a Corridor Study on Chestnut Street from Black River Boulevard to Turin Road. The City of Rome provided local funding to have this Traffic Analysis completed, as it was beyond the original scope of work for the LTPAP project. The Traffic Analysis includes the intersections of Potter Road and Ridge Mills Road, and Potter Road and Turin Road. The purpose of the corridor study is to foster improved connectivity, safety, and efficient transportation along the corridor. The purpose of the Traffic Analysis is to look at the operations and capacity of the roadway. The overall study will consider all travelers and transportation modes, including pedestrians, cyclists, transit riders and motorists.

While the Chestnut Street corridor appears to adequately serve the needs of motorized travel, it does not accommodate the needs of alternative modes of transportation such as walking and bicycling. This leads to inefficient travel and barriers to transportation options within the community. Additionally, the project is assessing potential improvements to the truck routes of Potter Road and W. Chestnut Street.

This memorandum describes the data collection efforts and provides a summary of the existing conditions on W. Chestnut Street focusing on motorists. An overview of the data collection effort and summary of the existing conditions related to land use, pedestrian facilities, and transit services, as well as a traffic analysis of the existing conditions are all outlined in detail below. The data includes traffic data provided by the city and turning movement counts conducted in March 2023

2. Data Collection

In support of the existing conditions analysis and recommendations development further in the study, existing documentation was obtained from publicly available sources, HOCTC, and the City of Rome directly. Data included Turning Movement Counts, crash data, information on existing pedestrian facilities, and transit routes.

2.1 Existing Traffic Volume Data

Traffic volume data is used by transportation engineers and planners to assess the existing traffic conditions along roadways and develop appropriate and effective improvement recommendations. Traffic volumes data can be expressed through several means:

- **Annual Average Daily Traffic (AADT)** expresses the average daily volume of cars on a roadway throughout the year, including seasonal influx. Higher summer volumes are averaged with lower winter volumes to provide an average daily traffic metric.
- **Peak Hour Volume (PHV)** is a measure of a roadway's average traffic volume during its most trafficked hour each day, known as the peak hour, or more colloquially as 'rush hour.'
- **Motor vehicle classification** distinguishes between vehicle types based on the number of axles, the spacing between those axles, vehicle size, and gross weight. This classification helps determine the characteristic needs of facilities such as lane width and curvature.
- **Heavy Vehicle Percentage (%HV)** measures the percentage of a roadway's volume that is classified as a heavy vehicle, such as trucks and buses.

Each has correlations with driver behavior, crash performance, bicycle and pedestrian stress, safety, and appropriate traffic control. These data are also key factors considered when designing safe and appropriate transportation facilities.

AADT data for the City of Rome were sourced from the NYSDOT Data Services Bureau for Black River Boulevard (NY-46), Turin Road (NY-26), and W. Chestnut Street. Among these roads Black River Boulevard between W. Chestnut Street and North Madison Street experienced the highest total vehicle volume in a day with 18,324 vehicles in both directions. This area of Black River Boulevard hosts several commercial establishments including Burger King, McDonald's, and Dunkin Donuts. There are also grocery and retail Stores, hardware stores, beauty salons, auto shops, and banks in this area.

Truck AADT data was also provided. Black River Boulevard from North Madison Street to Potter Road experienced the highest truck traffic volumes. Northbound truck traffic is 244 and southbound truck traffic is 224 per day. Turin Street from Jervis Avenue to W. Chestnut Street experienced the second highest truck traffic volumes with 184 northbound and 177 southbound per day.

1. The City of Rome provided Turning Movement Data for the Chestnut Street corridor at two of the four intersections along the corridor: Black River Boulevard (NY 46) and Madison Street, this data was collected in 2021 and 2017-2018 respectively. Sam Schwartz conducted on-site field counts for the other two intersections along the corridor. These locations are N. James Street and Turin Road (NY 26). The counts were conducted between two different days: Wednesday, March 8, 2023, for the afternoon peak, and Thursday, March 9, 2023, for the morning peak.
2. Sam Schwartz also conducted on-site field counts for the two intersections along Potter Road—Ridge Mills Road (NY 46) and Turin Road (NY 26). The counts were conducted between two different days: Wednesday, March 8, 2023, for the afternoon peak, and Thursday, March 9, 2023, for the morning peak.

Based on the available data, the following peak hours were identified:

- **AM Peak Hour:** 8:45 – 9:45 AM
- **PM Peak Hour:** 3:45 – 4:45 PM

Figure 1, Figure 2, Figure 3, and Figure 4 depict the peak hour volumes at the six intersections during the two evaluated peak periods.

FIGURE 1. CHESTNUT STREET - AM PEAK HOUR VOLUMES

FIGURE 2. CHESTNUT STREET - PM PEAK HOUR VOLUMES

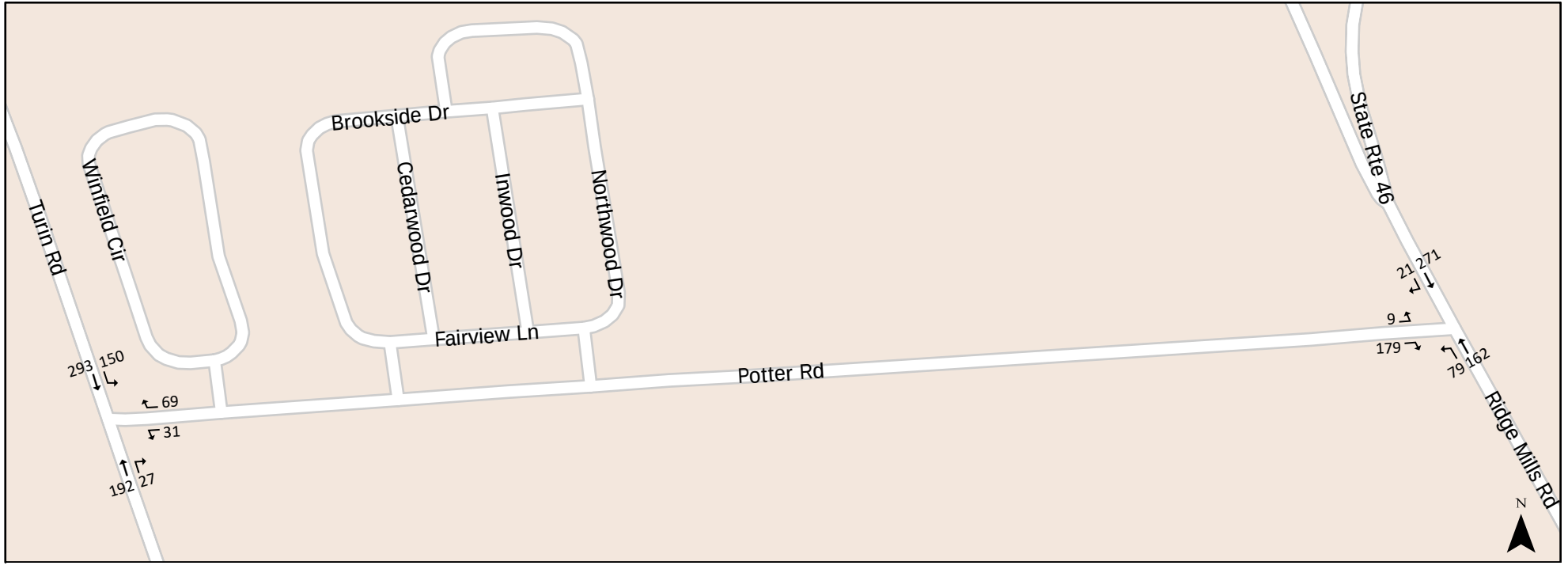


FIGURE 3. POTTER ROAD - AM PEAK HOUR VOLUMES

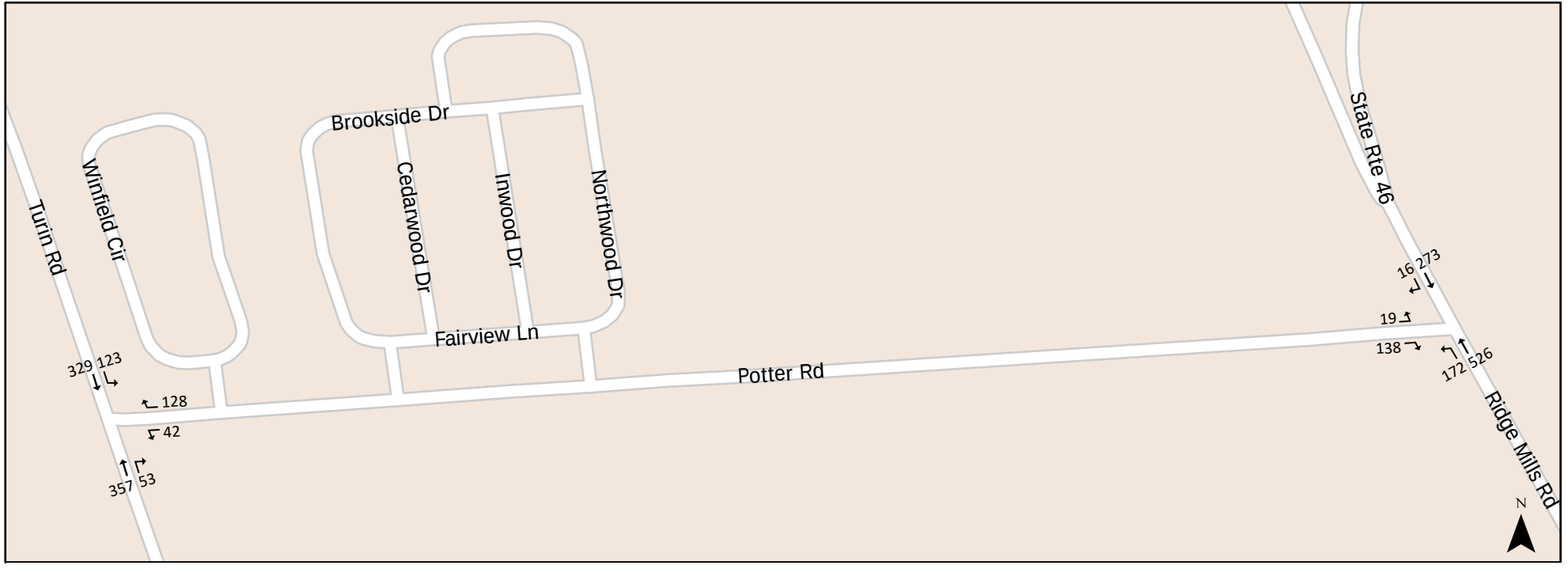
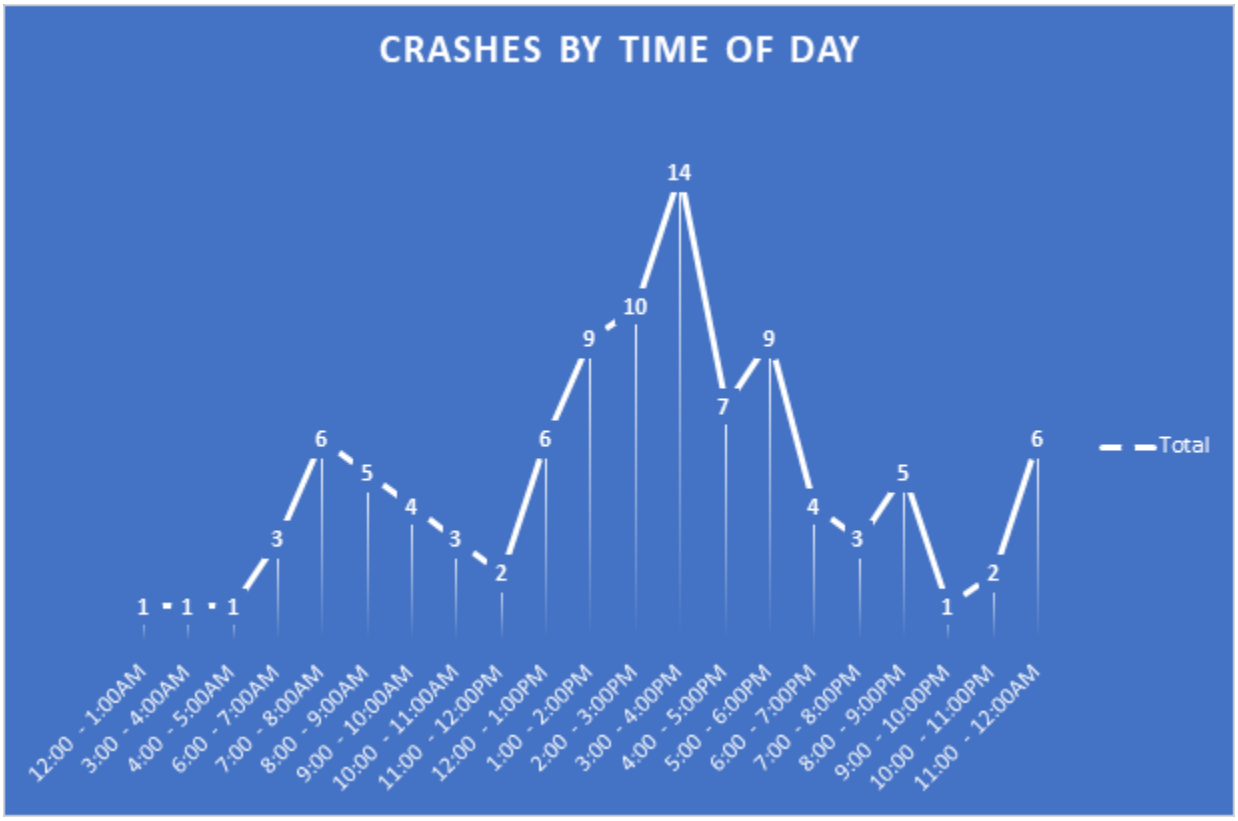


FIGURE 4. POTTER ROAD - PM PEAK HOUR VOLUMES

2.2 Historical Crash Data

Historical crash data provides a thorough history of safety performance along a roadway due to existing conditions and traveler behavior. The data provides valuable insight in determining crash hot spots, diagnosing safety issues, and identifying contributing causes for crashes. For this effort, crash data were provided by HOCTC and the City of Rome for the most recent three years of complete data (2019-2022). A total of 126 crashes – including motor vehicle, bicycle, and pedestrian crashes – were reported during that time, 24 of the 126 crashes occurred within a parking lot along the corridor.

One pedestrian crash was reported during the timeframe of data provided. The majority of crashes resulted in property damage (89) and 12 resulted in injury. The most common crash types were rear end crashes (29) and right-angle crashes (20), additionally, 83 of the crashes occurred during daylight hours. The graph below shows crashes throughout the day. There is a clear spike in the number of crashes from 1:00 – 6:00PM. Additional analysis of the crashes along this corridor will be included in the full Corridor Study Report document.



2.3 Existing Transit Service

There are two CENTRO bus routes that serve Chestnut Street, including Route 4 (Purple Route) and Route 5 (Green Route). There are bus stops at every block along the corridor. A brief summary of the routes is included below.

- **Route 4** runs from Downtown Rome to the northernmost point at Williams Road and Bielby Road, and south to South Rome Senior Center. From W. Chestnut Street and Turin Road, the route operates across Turin Road onto Merrick Road to the circle in front of Springbrook Apartments. It then returns to W. Chestnut Street and continues the route to Dominick Street. The route operates with a 30-minute to an hour and 30-minute headways all day, daily (including Saturday). There is no service provided on Sundays.
- **Route 5** runs from Downtown Rome to the easternmost point at Griffiss Business and Technology Park, and west to W. Chestnut Street and N. Madison Street. The route operates with a 30-minute to an hour and 30-minute headways all day, daily (including Saturday). There is no service provided on Sundays.

There are currently no CENTRO bus routes that serve Potter Road.

3. Corridor Inventory

To identify potential deficiencies that need to be addressed during the development of the recommendations for this corridor study, the project team has performed an assessment of the existing conditions for the Chestnut Street corridor and Potter Road. Data includes the alignment of the roadway, intersection control type, pedestrian facilities, and a level of services analysis.

3.1 Alignment

There are two distinct alignments along the Chestnut Street corridor. Between Turin Road (NY-26) and N. James Street, the corridor includes one lane in each direction with no adjacent street parking permitted on both sides of the street. The travel lanes are 14 feet wide in the Westbound direction and 12 feet wide in the Eastbound direction. The total travel way width is 26 feet. This section of the corridor is formally known as W. Chestnut Street.

The roadway opens-up east of N. James Street to Black River Boulevard with a total travel way width of 40 feet. This section of the corridor is formally known as E. Chestnut Street. The corridor includes four lanes: two lanes in each direction. There is no adjacent street parking permitted on both sides of the street. The eastbound and westbound approaches on N. James Street consist of one thru and right lane and one left turn lane. The travel lanes along this segment are generally 10 feet wide.

The posted speed is 30 miles per hour for the length of the corridor, and overhead lighting is provided throughout the study area.

Potter Road has one lane in each direction with no adjacent street parking permitted on both sides. The travel lanes along this road are generally 11 feet wide. There are minor roadways that intersect Potter Road between Turin Road (NY 26) and Ridge Mills Road (NY 46): Northwood Drive, Brookside Drive, and Winfield Circle. These roads lead to residential subdivisions with no outlets.

3.2 Intersection Control

There are four (4) signalized intersections along Chestnut Street: (1) Black River Boulevard, (2) N. James Street, (3) N. Madison Street, and (4) Turin Road. Most of these intersections do not have protected turn phases or turn restrictions, with an exception at the intersection of E. Chestnut Street and Black River Boulevard, which includes protected/permitted left turn phasing for vehicles turning left at every approach.

There are six (6) side-street stop-controlled roads along the corridor: Anken Street, Roser Terrace, Craig Street, Carroll Street, Bedford Street, and George Street.

Potter Road has two main intersections on either end of the roadway: (1) Turin Road, at the west-end; and (2) Ridge Mills Road, at the east-end. These two intersections are both stop controlled on Potter Road. There are also three (3) side-street stop-controlled roads along the roadway: Northwood Drive, Brookside Drive, and Winfield Circle.

3.3 Bicycle & Pedestrian Facilities

W. Chestnut Street currently lacks continuous sidewalks along the corridor and does not have any existing bicycle facilities. The only existing sidewalks are located west of Anken Street on the north side of the corridor and continues to Turin Road and west of N. James Street on the north side of the corridor. These sidewalks are both 8 feet wide. Additionally, the only marked crossings along the corridor are at the intersection of E. Chestnut Street and Black River Boulevard (NY-46).

Although Chestnut Street does not have any existing bicycle facilities, it is important to note that there is a shared use path just outside of the project area to the east of Black River Boulevard on the same street. This Shared Use path is part of the Mohawk River Trail that begins at Bellamy Harbor Park in the southern terminus and runs along the Mohawk River before its northern terminus at Wright Settlement Road (at the intersection of NY46/Black River Boulevard) connecting to the Empire State trail.

Potter Road has no continuous sidewalks, nor does it have any existing bicycle facilities along the corridor.

3.4 Traffic Analysis

A traffic analysis of the existing conditions was conducted on Synchro 11. The resulting Level of Service (LOS) and intersection delays were identified for the intersections on Chestnut Street. During the AM peak hour, the intersection delay ranged from 11 seconds to 26 seconds, which is deemed acceptable LOS. For the PM peak hour, the intersection delay ranged from 13 seconds to 26 seconds, which is also generally deemed acceptable (*Table 1*)

Table 1. LOS and Delay of each intersection for each Peak period on Chestnut Street

Chestnut Street Intersection	AM Peak (8:45-9:45 AM)		PM Peak (3:45-4:45 PM)	
	LOS	Delay (seconds)	LOS	Delay (seconds)
1. Black River Boulevard (NY-46)	C	26	C	26
2. N. James Street	B	12	B	19
3. N. Madison Street	B	13	B	15
4. Turin Road (NY-26)/Merrick Road	B	11	B	13

The two intersections on Potter Road, Turin Road (NY 26) and Ridge Mills Road (NY 46) are unsignalized. An HCM 2000 traffic analysis for unsignalized intersections was used to determine the average delay and LOS at the stop-controlled approaches for each intersection. During the AM peak hour, both intersections experience an average intersection delay of 4 seconds. For the PM peak hour, the Ridge Mills Road intersection and Turin Road intersection experienced an average delay of 3 seconds and 4 seconds, respectively.

Table 2. LOS and Delay of each intersection for each Peak period on Potter Road (unsignalized)

Potter Road Intersection	AM Peak (8:45-9:45 AM)		PM Peak (3:45-4:45 PM)	
	LOS	Delay (seconds)	LOS	Delay (seconds)
1. Ridge Mills Road (NY-46)	a	4	a	3
2. Turin Road (NY-26)	a	4	a	4

**Note: LOS for unsignalized intersections are notated in lower case letters.*

The full Synchro reports for the existing conditions can be found in **Appendix A.**

3.5 Delta Community Traffic Analysis (Trip Generation)

The intent of this analysis is to estimate new vehicle trips associated with the proposed development and quantify their impact to traffic operations of the adjacent roadway network.

There are 50 additional units currently being built as part of the Delta Community development. There are an additional 34 Single-Family Housing units and 36 Multifamily Housing (Mid-Rise) units proposed. The analysis will consider the trips generated by these additional units. As detailed in *Table 3* below, a proposed 50-unit Single-Family Attached Housing would generate up to 24 and 28 vehicles per hour during the AM and PM weekday peak hours of the adjacent street traffic, respectively. A proposed 34-unit Single-Family Detached Housing would generate up to 24 and 32 vehicles per hour during the AM and PM weekday peak hours of the adjacent street traffic, respectively. A proposed 36-unit Multifamily Housing (Mid-Rise) would generate up to 13 vehicles per hour in the AM weekday peak and 14 vehicles per hour in the PM weekday peak.

Table 3. Site Generate Trips

Land Use Inputs	Analysis Period	Entry	Exit	Total
• ITE Land Use Code 215-Single-Family Attached Housing • General Urban/Suburban Setting • 50 Dwelling Units	AM Peak	6 (25%)	18 (75%)	24 (100%)
	PM Peak	28 (59%)	15 (41%)	28 (100%)
• ITE Land Use Code 210-Single-Family Detached Housing • General Urban/Suburban Setting • 34 Dwelling Units	AM Peak	6 (25%)	18 (75%)	24 (100%)
	PM Peak	20 (63%)	12 (37%)	32 (100%)
• ITE Land Use Code 221-Multifamily Housing (Mid-Rise) • Not Close to Rail Transit • General Urban/Suburban Setting • 36 Dwelling Units	AM Peak	3 (23%)	10 (77%)	13 (100%)
	PM Peak	9 (61%)	5 (39%)	14 (100%)

The full ITE Trip Gen Manual, 11th Edition results can be found in **Appendix B**.

A traffic analysis with the additional trips generated was conducted on Synchro 11. The resulting Level of Service (LOS) and intersection delays were identified. *Table 4* displays the results from the Synchro Analysis. There are no significant changes to the intersection LOS and delays. There was a 5 second increase in the delay for the AM Peak for the intersection of N. Madison Street and W. Chestnut Street, but this can be deemed negligible. There was a 1 second increase in delay in the PM Peak for the intersection of N. James Street and Chestnut Street. This increase in delay also changed the intersection LOS from a B to a C. There was also a 1 second increase in delay for the PM Peak at the intersection of N. Madison Street and W. Chestnut Street. This increase in delay is also negligible. Overall, the trips that would be generated by the additional dwelling units in the Delta Community development will not create a significant increase in traffic and will not significantly impact the existing levels of services and delays at these key intersections.

Table 4. Intersection LOS and Delay with projected build volumes from Delta Community

Chestnut Street Intersection	AM Peak (8:45-9:45 AM)		PM Peak (3:45-4:45 PM)	
	LOS	Delay (seconds)	LOS	Delay (seconds)
1. Black River Boulevard (NY-46)	C	26	C	26
2. N. James Street	B	12	C	20
3. N. Madison Street	B	18	B	16
4. Turin Road (NY-26)/Merrick Road	B	11	B	13

The full Synchro reports for the Build Conditions can be found in **Appendix C.**

While the development will not have significant impacts, in terms of traffic, on surrounding intersections, it is still recommended that an alternative access point to the community is constructed to allow for redundancy for emergency vehicles in the event that the access from the Merrick Road and W. Chestnut Street intersection is unavailable.

4. Recommendations

As a result of the above analysis recommendations have been developed to improve travel through the area. This memorandum includes recommendations based on the traffic analysis as well as recommendations for the identification of Potter Road as a truck route. Recommendations for pedestrian and bicyclist facilities as well as additional key locations will be included in the final report document for the Chestnut Street Corridor Study.

4.1 W. Chestnut Street Recommendations

Recommendations have been developed based on the results of the traffic analysis for the intersection of E. Chestnut Street and Black River Boulevard and the intersection of W. Chestnut Street and Turin Road.

Intersections are one of the most critical parts of any transportation network. They are key points for all users as they travel through a street network and can act as important nodes of activity for community life. While they can have positive impacts on community life they also account for the most serious and frequent conflicts between all travel modes. If an intersection does not function properly, it can dramatically reduce mobility and safety for all modes. However, a well-designed intersection that facilitates visibility and predictability for all users can reduce crashes and improve overall safety. Intersection design should allow the street space to be effectively shared by pedestrians, bicyclists, and drivers.

- **E. Chestnut Street & Black River Boulevard**
  - Option 1: Curb Extensions on the northeast and southeast corners
    - Implementation of curb extensions at these locations would tighten the curve radius for turning vehicles and therefore slow down those vehicles. Additionally, the curb extensions shorten the crossing distance for pedestrians looking to get from one side of E. Chestnut Street to the other.
  - Option 2: Curb Extension on the northeast corner and Pedestrian Refuge Island/Right-Turn Slip Lane on the southeast corner.
    - Similar to Option 1, the curb extensions on the northeast corner would tighten the curve radius and slow down turning vehicles while also shortening the crossing distance. The implementation of a pedestrian refuge island provides a space for pedestrians to wait while crossing the road. This also shortens the crossing distance on this leg of the intersection.
  - Additional Recommendations:
    - The level of service at this location is “C.” It is recommended that the signal timing is optimized to improve the flow of traffic through this intersection.
- **W. Chestnut Street/Merrick Road & Turin Road**
  - Option 1: Curb Extensions on the southwest corner to tighten the turn radius onto Turin Road.
    - A curb extension is recommended on the southwest corner of this intersection to tighten the curve radius and slow down turning vehicles, this recommendation also helps to square up the existing intersection so that the connection between Merrick Road and W. Chestnut Street are not as offset as the existing condition.

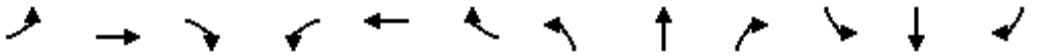
- Option 2A and B: A Roundabout
  - Two roundabout options at this location were considered. One that was centered on the existing intersection and another that was pushed into the northeast corner. Both options would have significant impacts on the surrounding properties. A roundabout is not currently needed to address capacity issues. According to the full build analysis of the Delta Community in section 3.5, the resulting level-of-service (LOS) for the AM and PM peaks are LOS B with an intersection delay of 11 seconds and 13 seconds, respectively. The additional dwelling units in the Delta Community development will not create a significant increase in traffic and will not significantly impact the existing levels of services and delays at this intersection. The roundabout would not be necessary for capacity reasons until the intersection delay increases to 80 seconds or greater, when the existing intersection fails. If the city does choose to implement a roundabout there would be safety benefits as a roundabout is an inherently safer intersection.
- Due to the significant impacts as well as the current traffic volumes and crash history, Option 1 is the preferred recommendation at this intersection.

Conceptual sketches for each of these options are included in **Appendix D.**

4.2 Potter Road Recommendations

Potter Road was included in this traffic analysis to observe if additional truck traffic could be accommodated on the roadway. Based on the Level of Service analysis, the roadway does have the capacity to accommodate the truck traffic, however, based on field observations it is recommended that an intersection sight distance study be conducted to assess the approach sight triangles at the intersection of Potter Road and NY-46, due to the vertical curve to the north. Appropriate sight distance is needed to allow for safe turning movements. If further evaluation confirms the sight distance is not sufficient for truck stopping distances, mitigation efforts would need to be identified in order for this recommendation to move forward.

APPENDIX A:
Existing Conditions Synchro Report

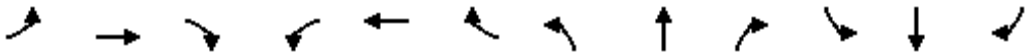


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	304	45	59	123	53	98	251	118	294	310	50
Future Volume (vph)	58	304	45	59	123	53	98	251	118	294	310	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	14	14	11	11	11	12	11	12	12	11	12
Storage Length (ft)	0		0	200		0	210		155	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.981				0.850			0.850		0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1949	0	1711	1801	1531	1770	3421	1583	1770	3349	0
Flt Permitted	0.671			0.418			0.521			0.950		
Satd. Flow (perm)	1167	1949	0	753	1801	1531	970	3421	1583	1770	3349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9				79			128		32	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			526			451			2523	
Travel Time (s)		19.8			12.0			10.3			57.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	330	49	64	134	58	107	273	128	320	337	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	379	0	64	134	58	107	273	128	320	391	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	0.92	0.92	1.04	1.04	1.04	1.00	1.04	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Prot	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2		2			
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	12.0	12.0	12.0	5.0	5.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	9.5	27.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	25.0	55.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	38.9%	33.3%	33.3%	33.3%	27.8%	61.1%	
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	25.0	25.0	25.0	20.5	50.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	
Recall Mode	Max	Max		Max	Max	Max	C-Min	C-Min	C-Min	None	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	23.0	23.0		23.0	23.0	23.0	18.0	18.0	18.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	
Act Effct Green (s)	39.0	39.0		39.0	39.0	39.0	17.4	17.4	17.4	19.1	41.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	0.43	0.19	0.19	0.19	0.21	0.46	
v/c Ratio	0.12	0.45		0.20	0.17	0.08	0.57	0.41	0.31	0.85	0.25	
Control Delay	14.7	16.4		20.1	17.9	3.2	45.0	33.4	7.5	61.4	11.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.7	16.4		20.1	17.9	3.2	45.0	33.4	7.5	61.4	11.8	
LOS	B	B		C	B	A	D	C	A	E	B	
Approach Delay		16.2			15.1			29.3			34.1	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 65.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Black River Blvd & Chestnut St

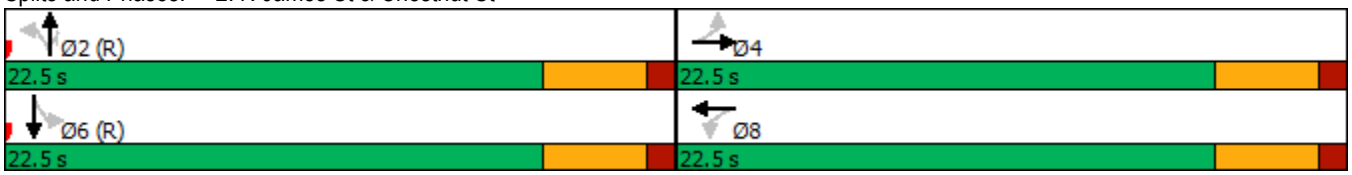


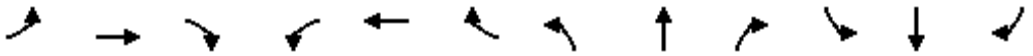
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	293	26	41	224	24	16	31	66	19	31	8
Future Volume (vph)	19	293	26	41	224	24	16	31	66	19	31	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	10	10	10	10	10	13	13	13
Storage Length (ft)	180		0	0		0	0		120	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.988			0.986				0.850		0.981	
Flt Protected	0.950			0.950				0.984			0.984	
Satd. Flow (prot)	1652	1779	0	1652	1714	0	0	1711	1478	0	1858	0
Flt Permitted	0.586			0.494				0.928			0.928	
Satd. Flow (perm)	1019	1779	0	859	1714	0	0	1613	1478	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			14				72		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1280			870			485			498	
Travel Time (s)		29.1			19.8			11.0			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	318	28	45	243	26	17	34	72	21	34	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	346	0	45	269	0	0	51	72	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	18.0	18.0		18.0	18.0			18.0	18.0		18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.05	0.48		0.13	0.39			0.08	0.11		0.09	
Control Delay	8.6	14.0		9.9	10.9			8.9	3.4		8.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	8.6	14.0		9.9	10.9			8.9	3.4		8.0	
LOS	A	B		A	B			A	A		A	
Approach Delay		13.7			10.7			5.7			8.0	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 42.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: N James St & Chestnut St



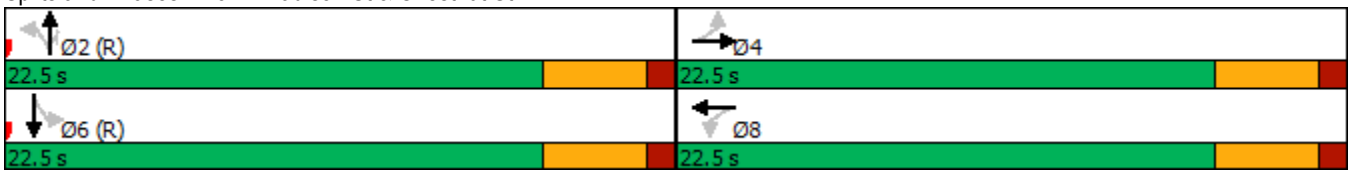


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	369	33	41	226	24	16	31	65	29	48	12
Future Volume (vph)	24	369	33	41	226	24	16	31	65	29	48	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	14	14	12	12	12	13	13	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989				0.850		0.982	
Flt Protected		0.997			0.993			0.984			0.984	
Satd. Flow (prot)	0	1839	0	0	1951	0	0	1833	1583	0	1860	0
Flt Permitted		0.971			0.910			0.921			0.918	
Satd. Flow (perm)	0	1791	0	0	1788	0	0	1716	1583	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12				71		13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2473			1280			381			326	
Travel Time (s)		56.2			29.1			8.7			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	401	36	45	246	26	17	34	71	32	52	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	463	0	0	317	0	0	51	71	0	97	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		18.0			18.0			18.0	18.0		18.0	
Actuated g/C Ratio		0.40			0.40			0.40	0.40		0.40	
v/c Ratio		0.64			0.44			0.07	0.11		0.14	
Control Delay		14.3			14.5			8.8	3.4		8.3	
Queue Delay		0.0			0.0			0.0	0.0		0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		14.3			14.5			8.8	3.4		8.3	
LOS		B			B			A	A		A	
Approach Delay		14.3			14.5			5.6			8.3	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 12.7		Intersection LOS: B	
Intersection Capacity Utilization 46.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: N Madison St & Chestnut St

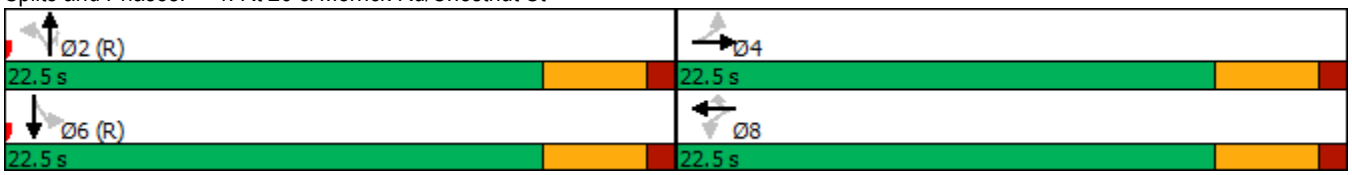


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	24	13	77	10	72	10	124	98	120	173	7
Future Volume (vph)	5	24	13	77	10	72	10	124	98	120	173	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	11	11	11	12	11	12	12
Storage Length (ft)	0		0	0		125	0		200	270		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958				0.850			0.850		0.994	
Flt Protected		0.994			0.958			0.996		0.950		
Satd. Flow (prot)	0	2010	0	0	1844	1531	0	1793	1583	1711	1852	0
Flt Permitted		0.979			0.764			0.977		0.664		
Satd. Flow (perm)	0	1980	0	0	1471	1531	0	1759	1583	1196	1852	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14				78			107		6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			283			1241			1436	
Travel Time (s)		7.5			6.4			28.2			32.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	26	14	84	11	78	11	135	107	130	188	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	0	95	78	0	146	107	130	196	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	1.04	1.04	1.04	1.00	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	
Act Effct Green (s)		18.0			18.0	18.0		18.0	18.0	18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40		0.40	0.40	0.40	0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.06			0.16	0.12		0.21	0.15	0.27	0.26	
Control Delay		6.7			20.8	12.9		9.9	3.1	11.1	10.0	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		6.7			20.8	12.9		9.9	3.1	11.1	10.0	
LOS		A			C	B		A	A	B	A	
Approach Delay		6.7			17.3			7.0			10.4	
Approach LOS		A			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.27			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 39.3%		ICU Level of Service A	
Analysis Period (min) 15			

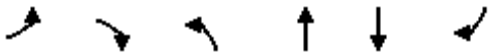
Splits and Phases: 4: Rt 26 & Merrick Rd/Chestnut St



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	69	192	27	150	293
Future Volume (Veh/h)	31	69	192	27	150	293
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	75	209	29	163	318
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	853	209			238	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	853	209			238	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	88	91			88	
cM capacity (veh/h)	289	831			1329	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1
Volume Total	109	209	29	481
Volume Left	34	0	0	163
Volume Right	75	0	29	0
cSH	524	1700	1700	1329
Volume to Capacity	0.21	0.12	0.02	0.12
Queue Length 95th (ft)	19	0	0	10
Control Delay (s)	13.7	0.0	0.0	3.5
Lane LOS	B			A
Approach Delay (s)	13.7	0.0		3.5
Approach LOS	B			

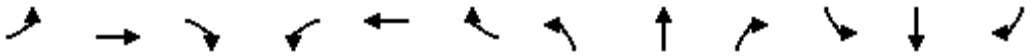
Intersection Summary			
Average Delay	3.9		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	179	79	162	271	12
Future Volume (Veh/h)	9	179	79	162	271	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	195	86	176	295	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	650	302	308			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	650	302	308			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	74	93			
cM capacity (veh/h)	404	738	1253			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	205	86	176	308
Volume Left	10	86	0	0
Volume Right	195	0	0	13
cSH	710	1253	1700	1700
Volume to Capacity	0.29	0.07	0.10	0.18
Queue Length 95th (ft)	30	6	0	0
Control Delay (s)	12.1	8.1	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	12.1	2.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

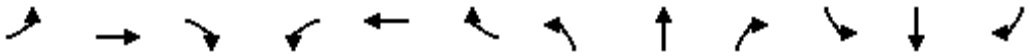


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	200	85	192	310	237	135	581	87	203	535	120
Future Volume (vph)	156	200	85	192	310	237	135	581	87	203	535	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	14	14	11	11	11	12	11	12	12	11	12
Storage Length (ft)	0		0	130		0	210		155	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.955				0.850			0.850		0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1898	0	1711	1801	1531	1770	3421	1583	1770	3329	0
Flt Permitted	0.465			0.495			0.381			0.950		
Satd. Flow (perm)	808	1898	0	891	1801	1531	710	3421	1583	1770	3329	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31				258			95		48	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			528			451			2523	
Travel Time (s)		19.8			12.0			10.3			57.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	217	92	209	337	258	147	632	95	221	582	130
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	309	0	209	337	258	147	632	95	221	712	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	0.92	0.92	1.04	1.04	1.04	1.00	1.04	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Prot	NA	
Protected Phases		4			8			2		1	6	

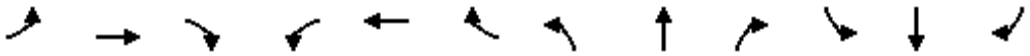
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2		2			
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	12.0	12.0	12.0	5.0	5.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	9.5	27.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	15.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%	43.8%	37.5%	37.5%	37.5%	18.8%	56.3%	
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	25.0	25.0	25.0	10.5	40.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	
Recall Mode	Max	Max		Max	Max	Max	C-Min	C-Min	C-Min	None	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	23.0	23.0		23.0	23.0	23.0	18.0	18.0	18.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	
Act Effct Green (s)	33.9	33.9		33.9	33.9	33.9	21.1	21.1	21.1	10.5	36.1	
Actuated g/C Ratio	0.42	0.42		0.42	0.42	0.42	0.26	0.26	0.26	0.13	0.45	
v/c Ratio	0.50	0.38		0.55	0.44	0.32	0.79	0.70	0.20	0.95	0.47	
Control Delay	24.8	16.9		25.9	19.9	3.7	56.1	30.7	5.8	85.8	14.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.8	16.9		25.9	19.9	3.7	56.1	30.7	5.8	85.8	14.7	
LOS	C	B		C	B	A	E	C	A	F	B	
Approach Delay		19.7			16.2			32.2			31.6	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 71.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Black River Blvd & Chestnut St



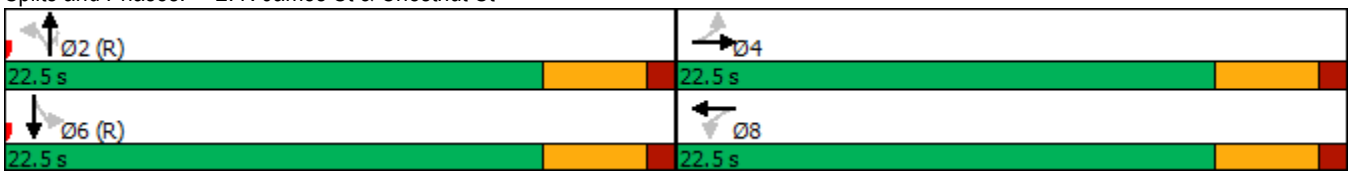
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	367	44	57	515	27	44	52	106	16	39	14
Future Volume (vph)	20	367	44	57	515	27	44	52	106	16	39	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	10	10	10	10	10	13	13	13
Storage Length (ft)	180		0	0		0	0		120	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.993				0.850		0.973	
Flt Protected	0.950			0.950				0.978			0.989	
Satd. Flow (prot)	1652	1772	0	1652	1726	0	0	1700	1478	0	1852	0
Flt Permitted	0.230			0.380				0.870			0.942	
Satd. Flow (perm)	400	1772	0	661	1726	0	0	1513	1478	0	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			7				115		15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1280			870			485			498	
Travel Time (s)		29.1			19.8			11.0			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	399	48	62	560	29	48	57	115	17	42	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	447	0	62	589	0	0	105	115	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	18.0	18.0		18.0	18.0			18.0	18.0		18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	

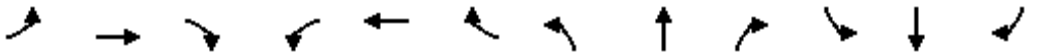


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.62		0.23	0.85			0.17	0.17		0.10	
Control Delay	11.5	16.6		11.8	27.5			9.7	3.2		7.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	11.5	16.6		11.8	27.5			9.7	3.2		7.6	
LOS	B	B		B	C			A	A		A	
Approach Delay		16.4			26.0			6.3			7.6	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Pretimed			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 18.8		Intersection LOS: B	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: N James St & Chestnut St



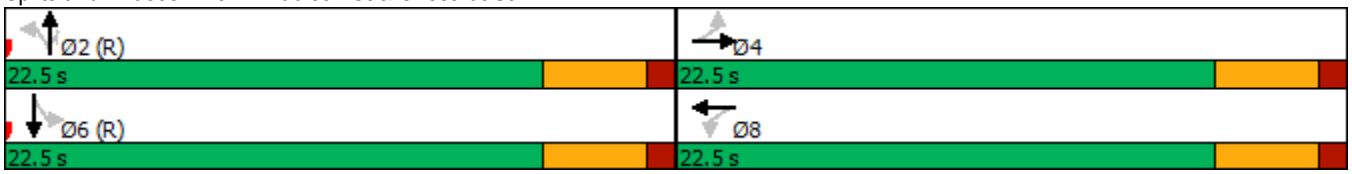


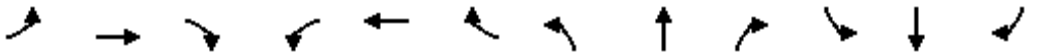
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	357	43	24	463	51	35	42	85	28	67	24
Future Volume (vph)	19	357	43	24	463	51	35	42	85	28	67	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	14	14	12	12	12	13	13	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986			0.987				0.850		0.973	
Flt Protected		0.998			0.998			0.978			0.989	
Satd. Flow (prot)	0	1833	0	0	1957	0	0	1822	1583	0	1852	0
Flt Permitted		0.967			0.970			0.862			0.935	
Satd. Flow (perm)	0	1776	0	0	1902	0	0	1606	1583	0	1751	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			14				92		26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2473			1280			381			326	
Travel Time (s)		56.2			29.1			8.7			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	388	47	26	503	55	38	46	92	30	73	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	456	0	0	584	0	0	84	92	0	129	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		18.0			18.0			18.0	18.0		18.0	
Actuated g/C Ratio		0.40			0.40			0.40	0.40		0.40	
v/c Ratio		0.63			0.76			0.13	0.13		0.18	
Control Delay		14.2			19.5			9.3	3.2		8.1	
Queue Delay		0.0			0.0			0.0	0.0		0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		14.2			19.5			9.3	3.2		8.1	
LOS		B			B			A	A		A	
Approach Delay		14.2			19.5			6.1			8.1	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Pretimed			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 14.8		Intersection LOS: B	
Intersection Capacity Utilization 56.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: N Madison St & Chestnut St



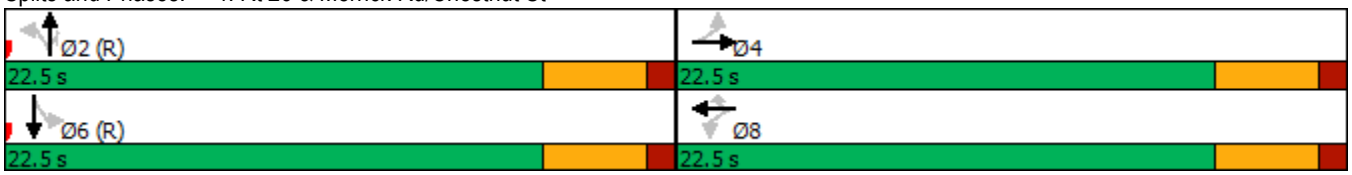


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	22	18	169	32	127	17	250	141	99	242	5
Future Volume (vph)	3	22	18	169	32	127	17	250	141	99	242	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	11	11	11	12	11	12	12
Storage Length (ft)	0		0	0		125	0		200	270		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943				0.850			0.850		0.997	
Flt Protected		0.997			0.960			0.997		0.950		
Satd. Flow (prot)	0	1985	0	0	1848	1531	0	1795	1583	1711	1857	0
Flt Permitted		0.984			0.727			0.974		0.560		
Satd. Flow (perm)	0	1959	0	0	1399	1531	0	1754	1583	1008	1857	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20				138			153		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			283			1241			1436	
Travel Time (s)		7.5			6.4			28.2			32.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	24	20	184	35	138	18	272	153	108	263	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	219	138	0	290	153	108	268	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	1.04	1.04	1.04	1.00	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	
Act Effct Green (s)		18.0			18.0	18.0		18.0	18.0	18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40		0.40	0.40	0.40	0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.06			0.39	0.20		0.41	0.21	0.27	0.36	
Control Delay		6.2			22.6	11.7		12.0	3.0	11.3	11.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		6.2			22.6	11.7		12.0	3.0	11.3	11.1	
LOS		A			C	B		B	A	B	B	
Approach Delay		6.2			18.4			8.9			11.2	
Approach LOS		A			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 56.1%		ICU Level of Service B	
Analysis Period (min) 15			

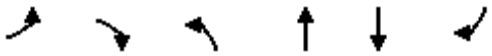
Splits and Phases: 4: Rt 26 & Merrick Rd/Chestnut St



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	42	128	357	53	123	329
Future Volume (Veh/h)	42	128	357	53	123	329
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	139	388	58	134	358
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	835	388			446	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	835	388			446	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	83	77			88	
cM capacity (veh/h)	269	611			1111	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	185	388	58	253	239
Volume Left	46	0	0	134	0
Volume Right	139	0	58	0	0
cSH	464	1700	1700	1111	1700
Volume to Capacity	0.40	0.23	0.03	0.12	0.14
Queue Length 95th (ft)	47	0	0	10	0
Control Delay (s)	17.8	0.0	0.0	5.1	0.0
Lane LOS	C			A	
Approach Delay (s)	17.8	0.0		2.6	
Approach LOS	C				

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	19	138	172	526	273	16
Future Volume (Veh/h)	19	138	172	526	273	16
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	150	187	572	297	17
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1252	306	314			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1252	306	314			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	87	80	85			
cM capacity (veh/h)	162	734	1246			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	171	187	572	314
Volume Left	21	187	0	0
Volume Right	150	0	0	17
cSH	512	1246	1700	1700
Volume to Capacity	0.33	0.15	0.34	0.18
Queue Length 95th (ft)	36	13	0	0
Control Delay (s)	15.5	8.4	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	15.5	2.1		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX B:
Trip Generation Manual, 11th Edition Results

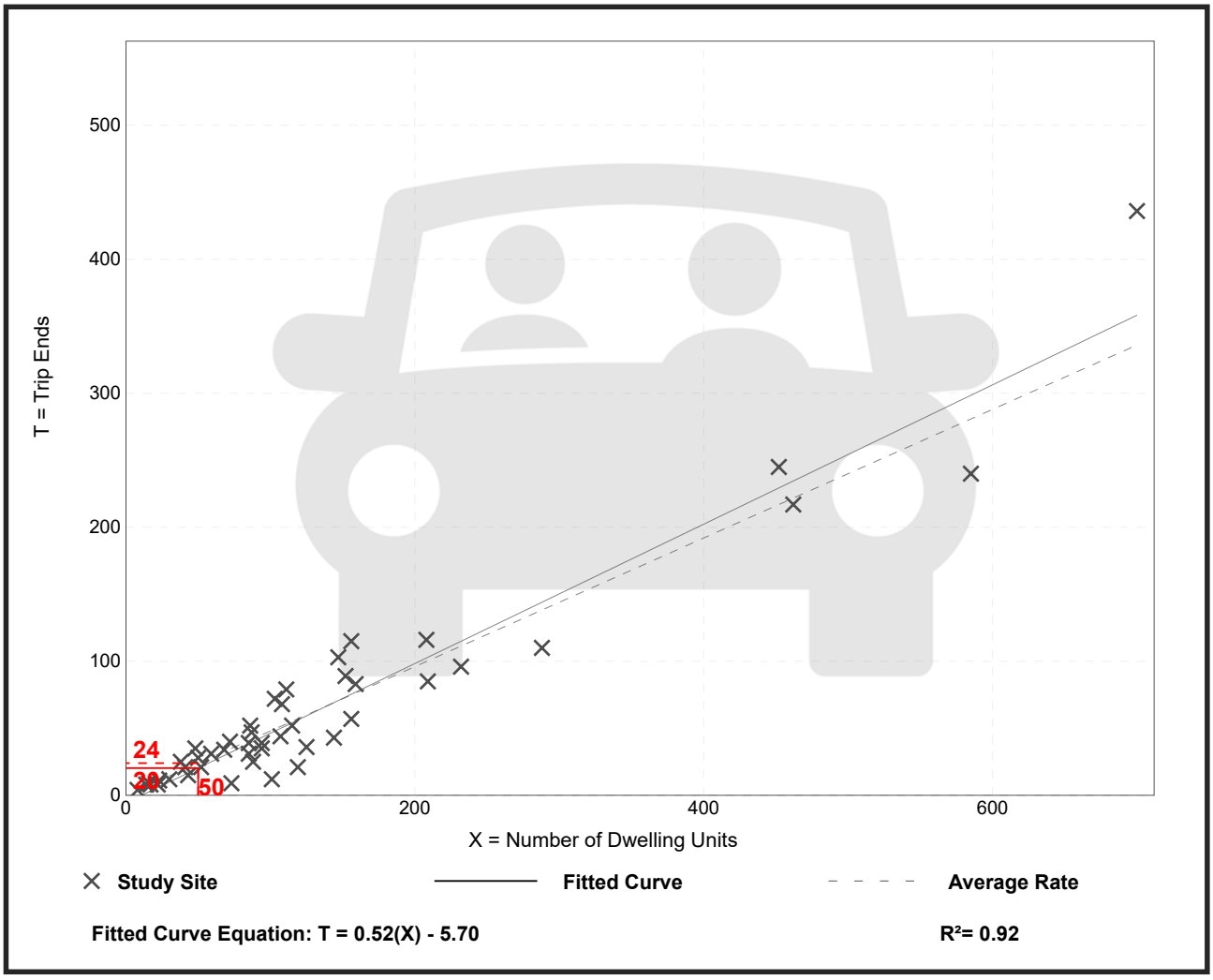
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 46
Avg. Num. of Dwelling Units: 135
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.48	0.12 - 0.74	0.14

Data Plot and Equation



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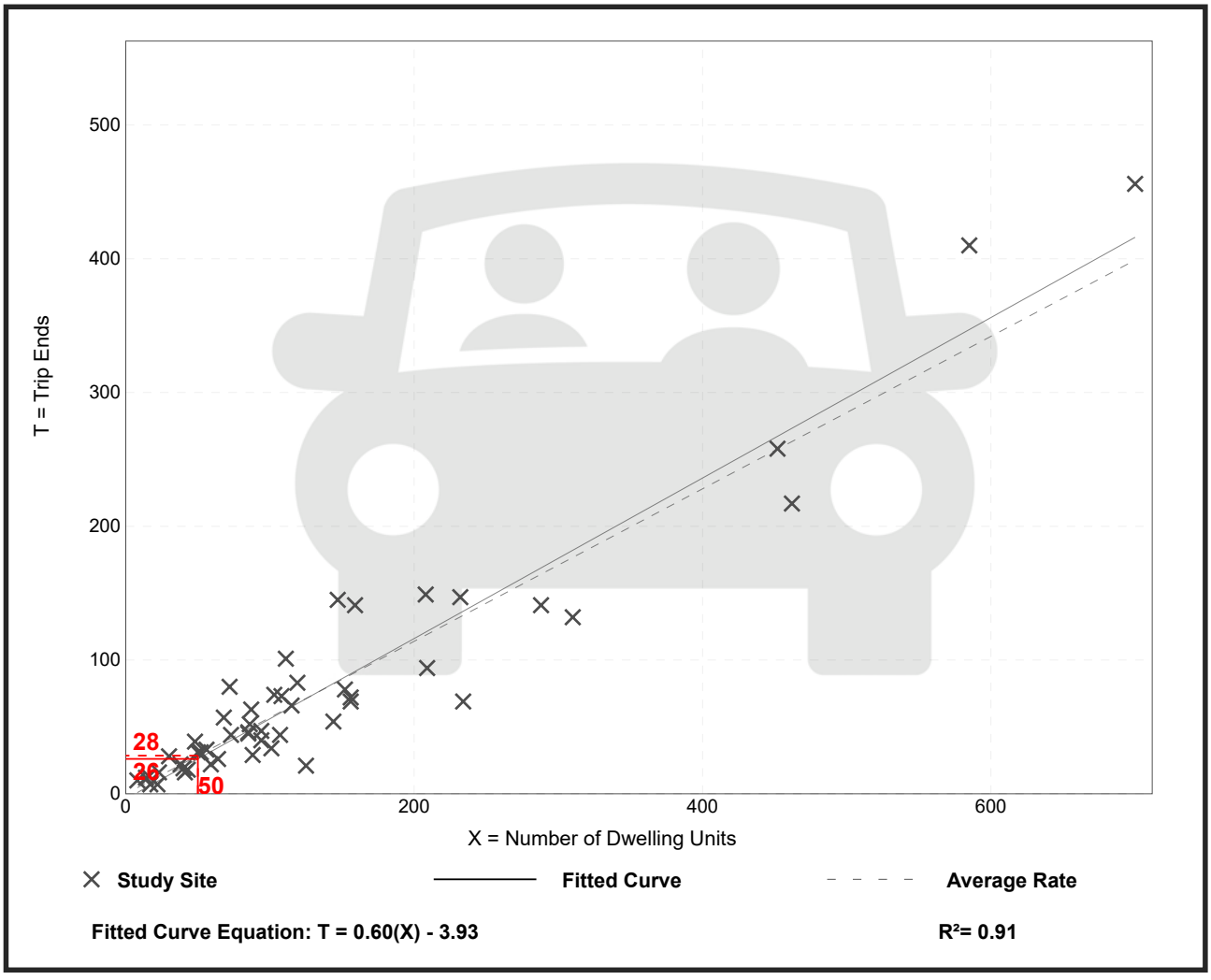
Single-Family Attached Housing
(215)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 51
Avg. Num. of Dwelling Units: 136
Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.57	0.17 - 1.25	0.18

Data Plot and Equation



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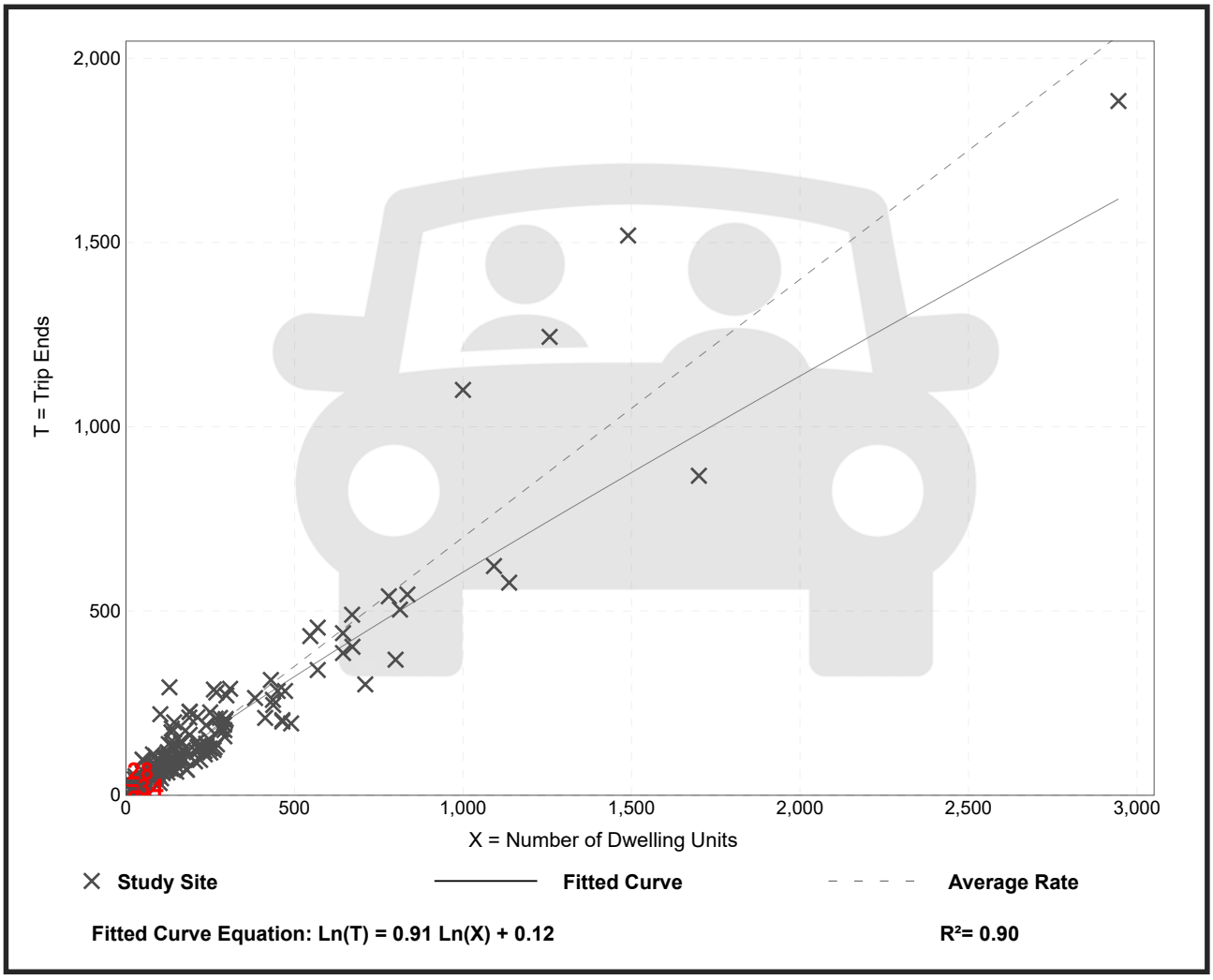
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 192
Avg. Num. of Dwelling Units: 226
Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



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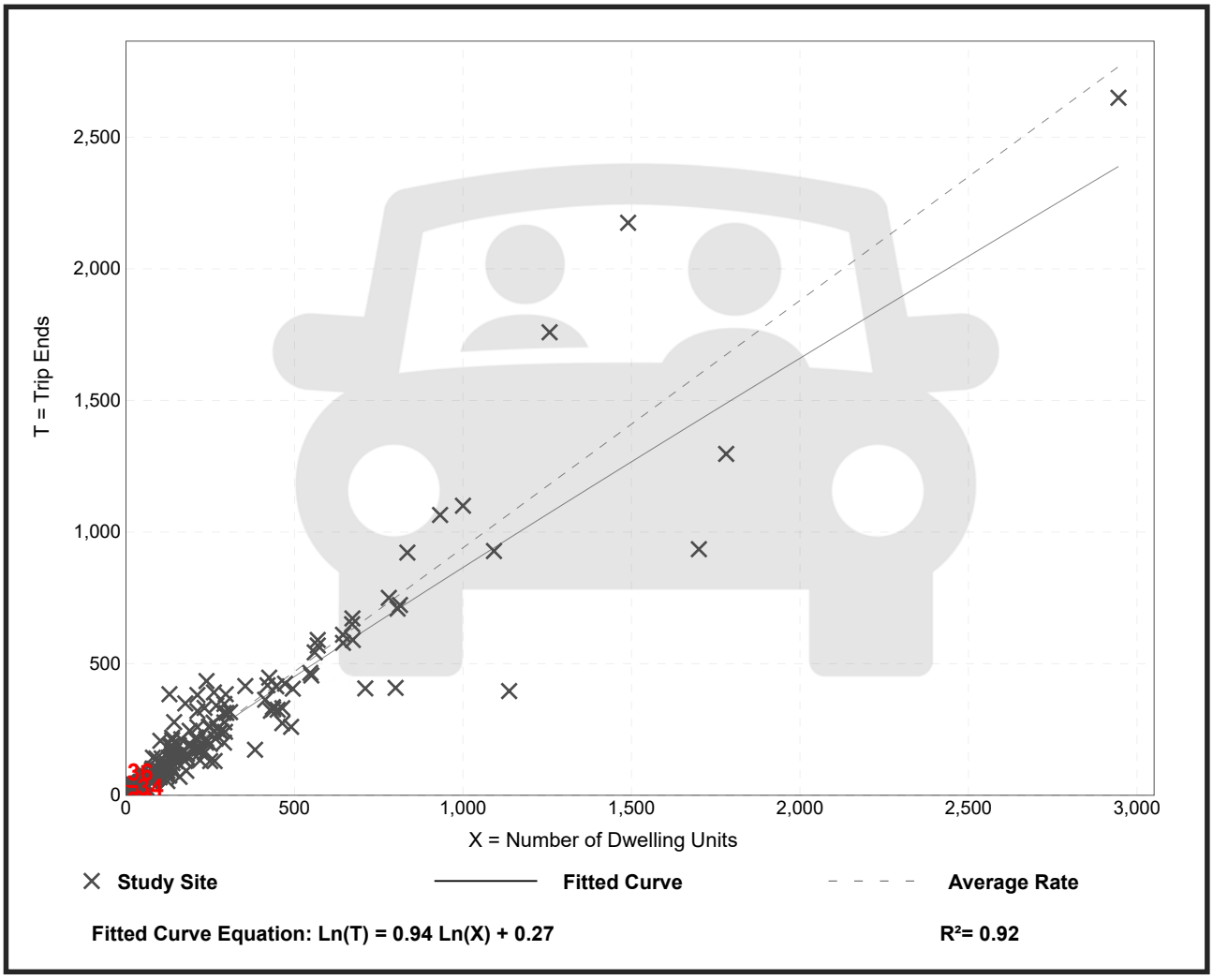
Single-Family Detached Housing
(210)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 208
Avg. Num. of Dwelling Units: 248
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



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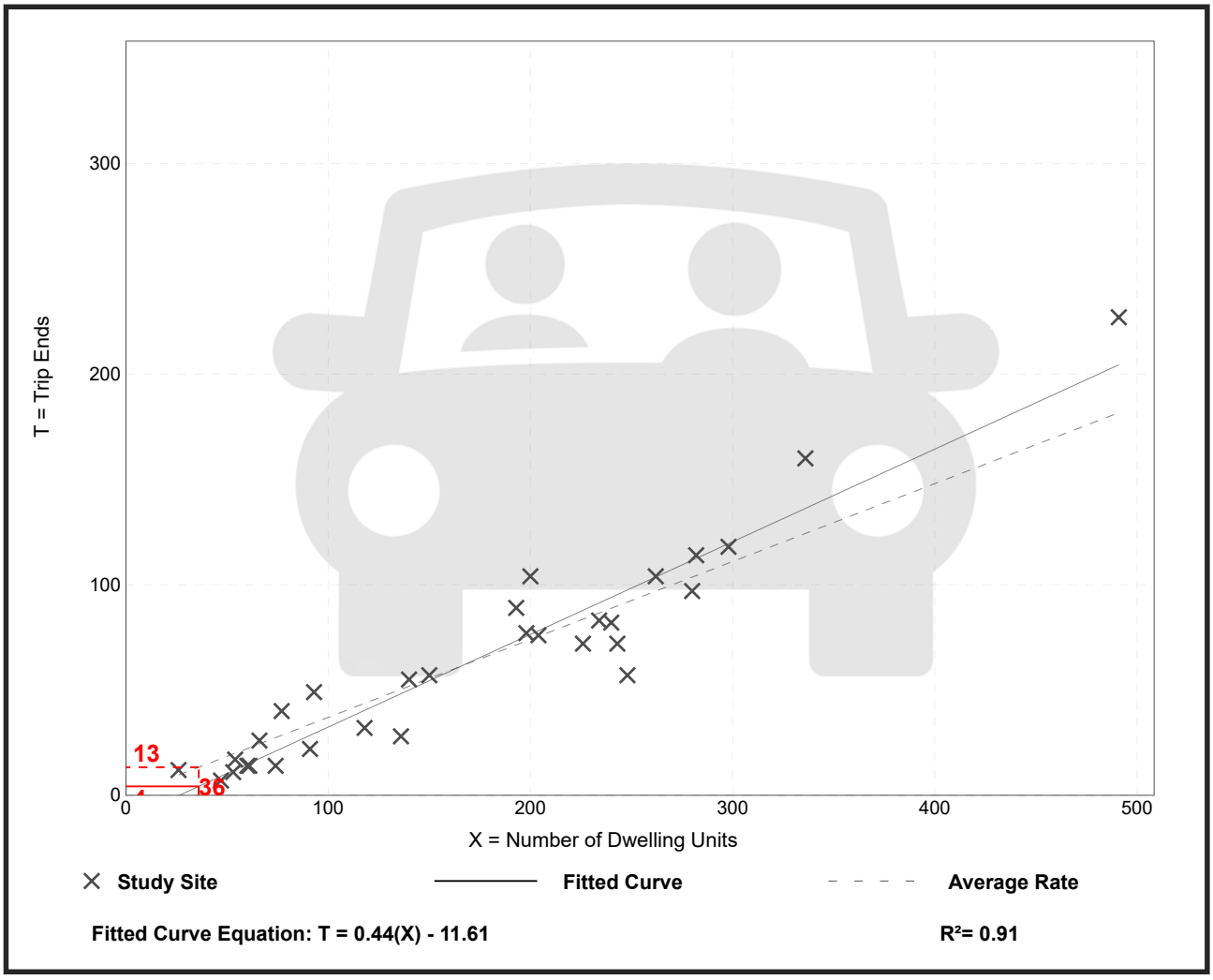
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 30
Avg. Num. of Dwelling Units: 173
Directional Distribution: 23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



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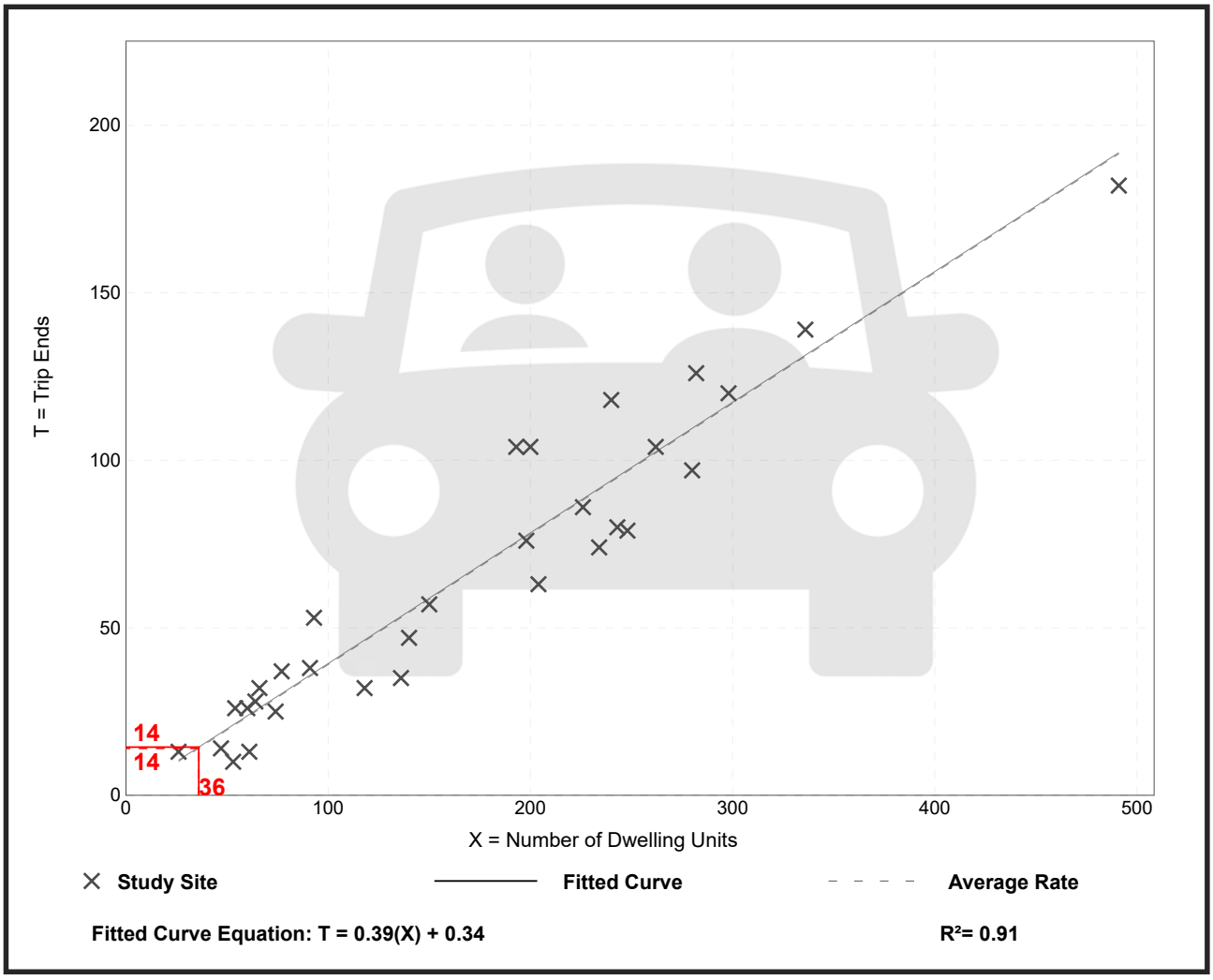
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



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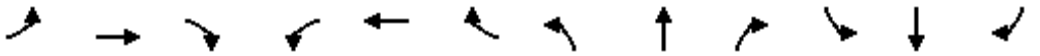
APPENDIX C:
Projected Build Conditions Synchro Reports

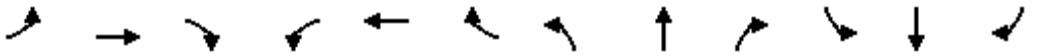


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	313	50	59	124	53	98	251	118	294	310	51
Future Volume (vph)	63	313	50	59	124	53	98	251	118	294	310	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	14	14	11	11	11	12	11	12	12	11	12
Storage Length (ft)	0		0	200		0	210		155	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.979				0.850			0.850		0.979	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1945	0	1711	1801	1531	1770	3421	1583	1770	3349	0
Flt Permitted	0.671			0.403			0.520			0.950		
Satd. Flow (perm)	1167	1945	0	726	1801	1531	969	3421	1583	1770	3349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				79			128		33	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			526			451			2523	
Travel Time (s)		19.8			12.0			10.3			57.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	340	54	64	135	58	107	273	128	320	337	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	394	0	64	135	58	107	273	128	320	392	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	0.92	0.92	1.04	1.04	1.04	1.00	1.04	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Prot	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2		2			
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	12.0	12.0	12.0	5.0	5.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	9.5	27.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	25.0	55.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	38.9%	33.3%	33.3%	33.3%	27.8%	61.1%	
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	25.0	25.0	25.0	20.5	50.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	
Recall Mode	Max	Max		Max	Max	Max	C-Min	C-Min	C-Min	None	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	23.0	23.0		23.0	23.0	23.0	18.0	18.0	18.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	
Act Effct Green (s)	39.0	39.0		39.0	39.0	39.0	17.4	17.4	17.4	19.1	41.0	
Actuated g/C Ratio	0.43	0.43		0.43	0.43	0.43	0.19	0.19	0.19	0.21	0.46	
v/c Ratio	0.13	0.46		0.20	0.17	0.08	0.57	0.41	0.31	0.85	0.25	
Control Delay	14.5	16.4		20.3	17.9	3.2	45.0	33.4	7.5	61.4	11.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.5	16.4		20.3	17.9	3.2	45.0	33.4	7.5	61.4	11.7	
LOS	B	B		C	B	A	D	C	A	E	B	
Approach Delay		16.1			15.2			29.3			34.1	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 26.0		Intersection LOS: C	
Intersection Capacity Utilization 66.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Black River Blvd & Chestnut St

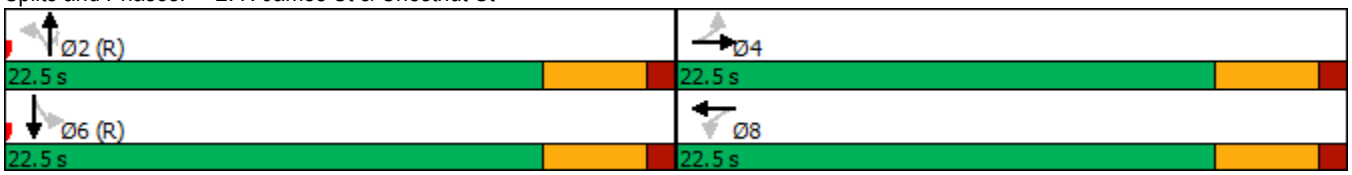


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	312	26	41	226	24	16	31	66	19	31	8
Future Volume (vph)	19	312	26	41	226	24	16	31	66	19	31	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	10	10	10	10	10	13	13	13
Storage Length (ft)	180		0	0		0	0		120	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.986				0.850		0.981	
Flt Protected	0.950			0.950				0.984			0.984	
Satd. Flow (prot)	1652	1781	0	1652	1714	0	0	1711	1478	0	1858	0
Flt Permitted	0.582			0.470				0.928			0.928	
Satd. Flow (perm)	1012	1781	0	817	1714	0	0	1613	1478	0	1752	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			14				72		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1280			870			485			498	
Travel Time (s)		29.1			19.8			11.0			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	339	28	45	246	26	17	34	72	21	34	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	21	367	0	45	272	0	0	51	72	0	64	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	18.0	18.0		18.0	18.0			18.0	18.0		18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.05	0.51		0.14	0.39			0.08	0.11		0.09	
Control Delay	8.5	14.4		10.1	10.9			8.9	3.4		8.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	8.5	14.4		10.1	10.9			8.9	3.4		8.0	
LOS	A	B		B	B			A	A		A	
Approach Delay		14.1			10.8			5.7			8.0	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: N James St & Chestnut St

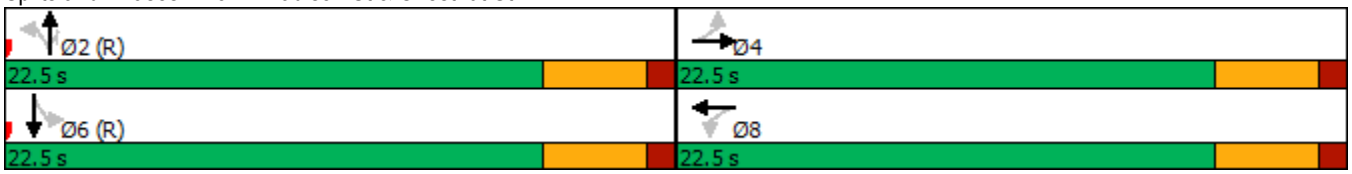


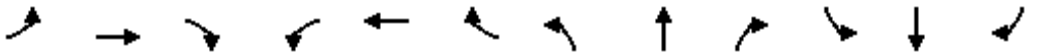
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	388	33	41	232	24	16	31	65	29	48	12
Future Volume (vph)	31	388	33	41	232	24	16	31	65	29	48	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	14	14	12	12	12	13	13	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.989				0.850		0.982	
Flt Protected		0.997			0.993			0.984			0.984	
Satd. Flow (prot)	0	1839	0	0	1951	0	0	1833	1583	0	1860	0
Flt Permitted		0.961			0.910			0.921			0.918	
Satd. Flow (perm)	0	1772	0	0	1788	0	0	1716	1583	0	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			12				71		13	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2473			1280			381			326	
Travel Time (s)		56.2			29.1			8.7			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	422	36	45	252	26	17	34	71	32	52	13
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	492	0	0	323	0	0	51	71	0	97	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		18.0			18.0			18.0	18.0		18.0	
Actuated g/C Ratio		0.40			0.40			0.40	0.40		0.40	
v/c Ratio		0.69			0.45			0.07	0.11		0.14	
Control Delay		24.6			14.6			8.8	3.4		8.3	
Queue Delay		0.0			0.0			0.0	0.0		0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		24.6			14.6			8.8	3.4		8.3	
LOS		C			B			A	A		A	
Approach Delay		24.6			14.6			5.6			8.3	
Approach LOS		C			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Pretimed			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 17.7		Intersection LOS: B	
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: N Madison St & Chestnut St



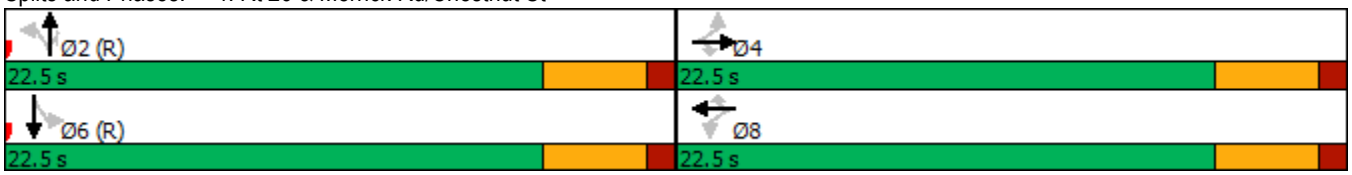


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	340	184	77	16	72	16	124	98	120	173	11
Future Volume (vph)	70	340	184	77	16	72	16	124	98	120	173	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	11	11	11	12	11	12	12
Storage Length (ft)	0		0	0		125	0		200	270		0
Storage Lanes	0		1	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850		0.991	
Flt Protected		0.992			0.960			0.994		0.950		
Satd. Flow (prot)	0	2094	1794	0	1848	1531	0	1790	1583	1711	1846	0
Flt Permitted		0.932			0.544			0.962		0.660		
Satd. Flow (perm)	0	1968	1794	0	1047	1531	0	1732	1583	1188	1846	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			200			78			107		9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			283			621			1436	
Travel Time (s)		7.5			6.4			14.1			32.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	370	200	84	17	78	17	135	107	130	188	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	446	200	0	101	78	0	152	107	130	200	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	1.04	1.04	1.04	1.00	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Act Effct Green (s)		18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	
Actuated g/C Ratio		0.40	0.40		0.40	0.40		0.40	0.40	0.40	0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.57	0.24		0.24	0.12		0.22	0.15	0.27	0.27	
Control Delay		14.0	2.7		22.4	12.9		10.0	3.1	11.1	9.9	
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		14.0	2.7		22.4	12.9		10.0	3.1	11.1	9.9	
LOS		B	A		C	B		A	A	B	A	
Approach Delay		10.5			18.3			7.1			10.4	
Approach LOS		B			B			A			B	

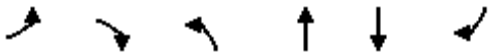
Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 10.8		Intersection LOS: B	
Intersection Capacity Utilization 59.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Rt 26 & Merrick Rd/Chestnut St



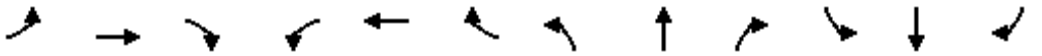
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	33	69	195	29	150	295
Future Volume (vph)	33	69	195	29	150	295
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10
Storage Length (ft)	0	0		280	0	
Storage Lanes	1	0		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.909			0.850		
Flt Protected	0.984					0.983
Satd. Flow (prot)	1611	0	1801	1531	0	1709
Flt Permitted	0.984					0.983
Satd. Flow (perm)	1611	0	1801	1531	0	1709
Link Speed (mph)	30		40			40
Link Distance (ft)	4217		2399			487
Travel Time (s)	95.8		40.9			8.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	75	212	32	163	321
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	212	32	0	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	11		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	11	179	79	162	271	14
Future Volume (vph)	11	179	79	162	271	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	11	11	11
Storage Length (ft)	0	0	125			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.873				0.993	
Flt Protected	0.997		0.950			
Satd. Flow (prot)	1621	0	1652	1801	1788	0
Flt Permitted	0.997		0.950			
Satd. Flow (perm)	1621	0	1652	1801	1788	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	4217			3261	476	
Travel Time (s)	95.8			74.1	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	195	86	176	295	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	207	0	86	176	310	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.09	1.04	1.04	1.04
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		

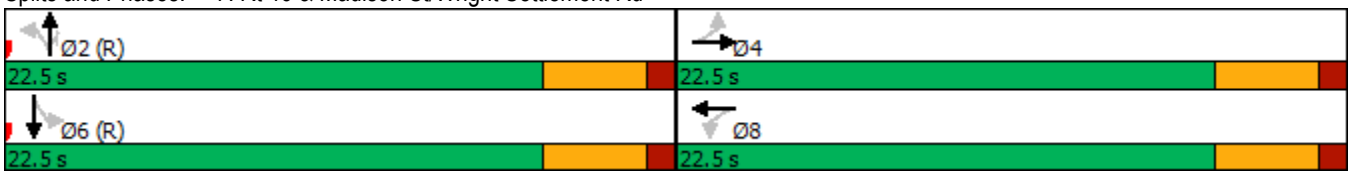


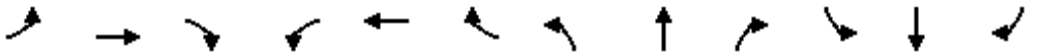
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	7	0	0	0	0	0	341	0	0	292	0
Future Volume (vph)	0	7	0	0	0	0	0	341	0	0	292	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	13	13	13	12	12	10	10	10	10
Storage Length (ft)	0		0	0		0	0		250	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1925	0	0	1925	0	0	1863	1739	0	1739	0
Flt Permitted												
Satd. Flow (perm)	0	1925	0	0	1925	0	0	1863	1739	0	1739	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		399			408			1353			3261	
Travel Time (s)		9.1			9.3			30.8			74.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	8	0	0	0	0	0	371	0	0	317	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	8	0	0	0	0	0	371	0	0	317	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	0.96	0.96	0.96	1.00	1.00	1.09	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type		NA						NA	Perm		NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		18.0						18.0			18.0	
Actuated g/C Ratio		0.40						0.40			0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.01						0.50			0.46	
Control Delay		8.3						9.8			12.6	
Queue Delay		0.0						0.0			0.0	
Total Delay		8.3						9.8			12.6	
LOS		A						A			B	
Approach Delay		8.3						9.8			12.6	
Approach LOS		A						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 11.0		Intersection LOS: B	
Intersection Capacity Utilization 29.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Rt 46 & Madison St/Wright Settlement Rd



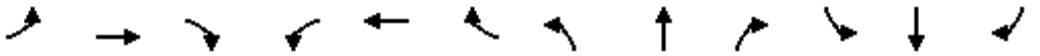


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	206	87	192	320	237	140	581	87	203	535	125
Future Volume (vph)	158	206	87	192	320	237	140	581	87	203	535	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	14	14	11	11	11	12	11	12	12	11	12
Storage Length (ft)	0		0	130		0	210		155	200		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.955				0.850			0.850		0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1898	0	1711	1801	1531	1770	3421	1583	1770	3325	0
Flt Permitted	0.452			0.483			0.379			0.950		
Satd. Flow (perm)	786	1898	0	870	1801	1531	706	3421	1583	1770	3325	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31				258			95		51	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		870			528			451			2523	
Travel Time (s)		19.8			12.0			10.3			57.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	224	95	209	348	258	152	632	95	221	582	136
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	319	0	209	348	258	152	632	95	221	718	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	0.92	0.92	1.04	1.04	1.04	1.00	1.04	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Prot	NA	
Protected Phases		4			8			2		1	6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2		2			
Detector Phase	4	4		8	8	8	2	2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	12.0	12.0	12.0	5.0	5.0	
Minimum Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	9.5	27.0	
Total Split (s)	35.0	35.0		35.0	35.0	35.0	30.0	30.0	30.0	15.0	45.0	
Total Split (%)	43.8%	43.8%		43.8%	43.8%	43.8%	37.5%	37.5%	37.5%	18.8%	56.3%	
Maximum Green (s)	30.0	30.0		30.0	30.0	30.0	25.0	25.0	25.0	10.5	40.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.0	
Lead/Lag							Lag	Lag	Lag	Lead		
Lead-Lag Optimize?							Yes	Yes	Yes	Yes		
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	
Recall Mode	Max	Max		Max	Max	Max	C-Min	C-Min	C-Min	None	C-Min	
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0		7.0	
Flash Dont Walk (s)	23.0	23.0		23.0	23.0	23.0	18.0	18.0	18.0		15.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0		0	
Act Effct Green (s)	33.6	33.6		33.6	33.6	33.6	21.4	21.4	21.4	10.5	36.4	
Actuated g/C Ratio	0.42	0.42		0.42	0.42	0.42	0.27	0.27	0.27	0.13	0.46	
v/c Ratio	0.52	0.39		0.57	0.46	0.33	0.81	0.69	0.19	0.95	0.47	
Control Delay	26.0	17.3		27.1	20.3	3.7	58.4	30.2	5.8	85.8	14.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	26.0	17.3		27.1	20.3	3.7	58.4	30.2	5.8	85.8	14.5	
LOS	C	B		C	C	A	E	C	A	F	B	
Approach Delay		20.3			16.8			32.4			31.3	
Approach LOS		C			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 26.1		Intersection LOS: C	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Black River Blvd & Chestnut St

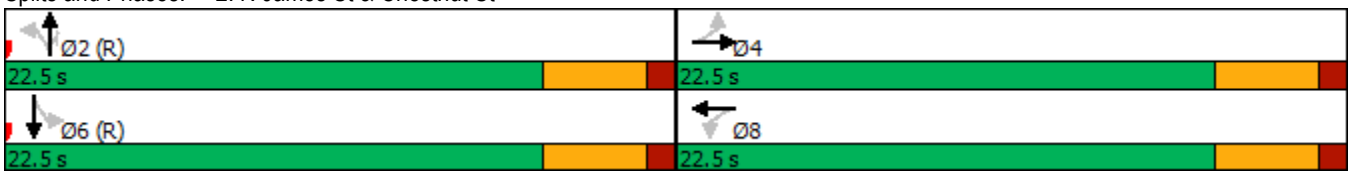


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	377	44	57	535	27	44	52	106	16	39	14
Future Volume (vph)	20	377	44	57	535	27	44	52	106	16	39	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	11	11	10	10	10	10	10	10	13	13	13
Storage Length (ft)	180		0	0		0	0		120	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.984			0.993				0.850		0.973	
Flt Protected	0.950			0.950				0.978			0.989	
Satd. Flow (prot)	1652	1772	0	1652	1726	0	0	1700	1478	0	1852	0
Flt Permitted	0.222			0.368				0.870			0.942	
Satd. Flow (perm)	386	1772	0	640	1726	0	0	1513	1478	0	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			7				115		15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1280			870			485			498	
Travel Time (s)		29.1			19.8			11.0			11.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	410	48	62	582	29	48	57	115	17	42	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	458	0	62	611	0	0	105	115	0	74	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.09	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)	18.0	18.0		18.0	18.0			18.0	18.0		18.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40	0.40		0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.64		0.24	0.88			0.17	0.17		0.10	
Control Delay	11.6	16.8		12.1	30.9			9.7	3.2		7.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay	11.6	16.8		12.1	30.9			9.7	3.2		7.6	
LOS	B	B		B	C			A	A		A	
Approach Delay		16.6			29.2			6.3			7.6	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 55			
Control Type: Pretimed			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 20.4		Intersection LOS: C	
Intersection Capacity Utilization 55.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: N James St & Chestnut St

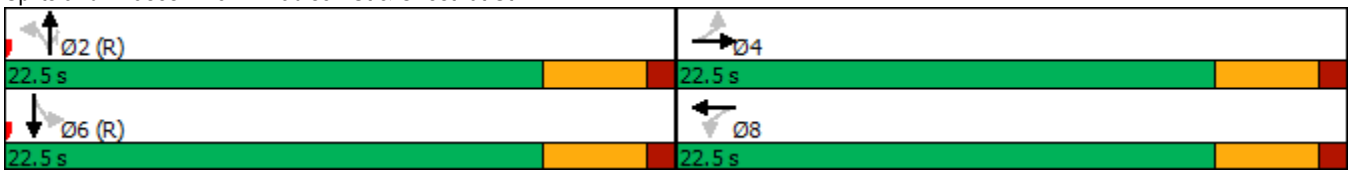


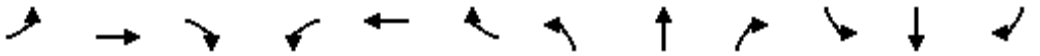
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	367	43	24	483	51	35	42	85	28	67	31
Future Volume (vph)	24	367	43	24	483	51	35	42	85	28	67	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	14	14	14	12	12	12	13	13	13
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.988				0.850		0.966	
Flt Protected		0.997			0.998			0.978			0.989	
Satd. Flow (prot)	0	1833	0	0	1959	0	0	1822	1583	0	1839	0
Flt Permitted		0.961			0.970			0.860			0.938	
Satd. Flow (perm)	0	1767	0	0	1904	0	0	1602	1583	0	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			13				92		34	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2473			1280			381			326	
Travel Time (s)		56.2			29.1			8.7			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	399	47	26	525	55	38	46	92	30	73	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	472	0	0	606	0	0	84	92	0	137	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00	0.96	0.96	0.96
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)		18.0			18.0			18.0	18.0		18.0	
Actuated g/C Ratio		0.40			0.40			0.40	0.40		0.40	
v/c Ratio		0.66			0.79			0.13	0.13		0.19	
Control Delay		15.3			20.3			9.3	3.2		7.8	
Queue Delay		0.0			0.0			0.0	0.0		0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		15.3			20.3			9.3	3.2		7.8	
LOS		B			C			A	A		A	
Approach Delay		15.3			20.3			6.1			7.8	
Approach LOS		B			C			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Pretimed			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 15.6		Intersection LOS: B	
Intersection Capacity Utilization 57.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: N Madison St & Chestnut St



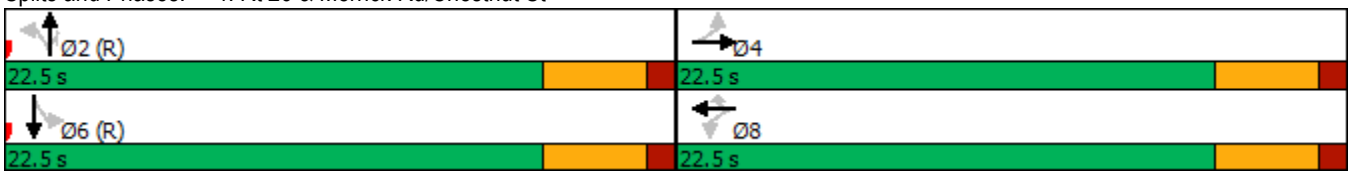


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	37	30	169	59	127	31	250	141	99	242	9
Future Volume (vph)	5	37	30	169	59	127	31	250	141	99	242	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	16	16	13	13	11	11	11	12	11	12	12
Storage Length (ft)	0		0	0		125	0		200	270		0
Storage Lanes	0		0	0		1	0		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943				0.850			0.850		0.995	
Flt Protected		0.997			0.964			0.994		0.950		
Satd. Flow (prot)	0	1985	0	0	1856	1531	0	1790	1583	1711	1853	0
Flt Permitted		0.981			0.732			0.946		0.541		
Satd. Flow (perm)	0	1953	0	0	1409	1531	0	1703	1583	974	1853	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33				138			153		5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			283			621			1436	
Travel Time (s)		7.5			6.4			14.1			32.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	40	33	184	64	138	34	272	153	108	263	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	248	138	0	306	153	108	273	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			11			11	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.85	0.85	0.85	0.96	0.96	1.04	1.04	1.04	1.00	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5			4.5	4.5		4.5	4.5	4.5	4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0	0	0	0	
Act Effct Green (s)		18.0			18.0	18.0		18.0	18.0	18.0	18.0	
Actuated g/C Ratio		0.40			0.40	0.40		0.40	0.40	0.40	0.40	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.10			0.44	0.20		0.45	0.21	0.28	0.37	
Control Delay		6.1			23.1	11.4		12.5	3.0	11.6	11.1	
Queue Delay		0.0			0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay		6.1			23.1	11.4		12.5	3.0	11.6	11.1	
LOS		A			C	B		B	A	B	B	
Approach Delay		6.1			18.9			9.3			11.2	
Approach LOS		A			B			A			B	

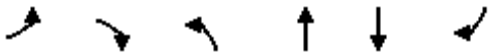
Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.45			
Intersection Signal Delay: 12.5		Intersection LOS: B	
Intersection Capacity Utilization 58.5%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: Rt 26 & Merrick Rd/Chestnut St



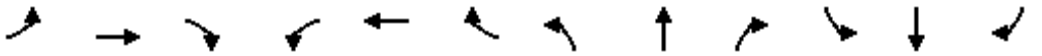
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	44	128	358	54	123	331
Future Volume (vph)	44	128	358	54	123	331
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	10
Storage Length (ft)	0	0		280	0	
Storage Lanes	1	0		1	0	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.900			0.850		
Flt Protected	0.987					0.987
Satd. Flow (prot)	1600	0	1801	1531	0	3260
Flt Permitted	0.987					0.987
Satd. Flow (perm)	1600	0	1801	1531	0	3260
Link Speed (mph)	30		40			40
Link Distance (ft)	4217		2399			487
Travel Time (s)	95.8		40.9			8.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	139	389	59	134	360
Shared Lane Traffic (%)						
Lane Group Flow (vph)	187	0	389	59	0	494
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	11		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.09
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 51.9%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	138	172	526	273	18
Future Volume (vph)	20	138	172	526	273	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	10	11	11	11
Storage Length (ft)	0	0	125			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.882				0.991	
Flt Protected	0.994		0.950			
Satd. Flow (prot)	1633	0	1652	1801	1784	0
Flt Permitted	0.994		0.950			
Satd. Flow (perm)	1633	0	1652	1801	1784	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	4217			3261	476	
Travel Time (s)	95.8			74.1	10.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	150	187	572	297	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	172	0	187	572	317	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			10	10	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.09	1.04	1.04	1.04
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	44.6%	ICU Level of Service	A
Analysis Period (min)	15		

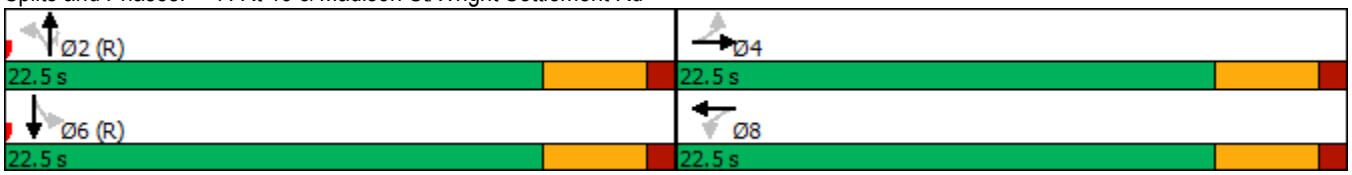


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	0	0	0	0	341	0	0	292	0
Future Volume (vph)	0	0	0	0	0	0	0	341	0	0	292	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	13	13	13	12	12	10	10	10	10
Storage Length (ft)	0		0	0		0	0		250	0		0
Storage Lanes	0		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt												
Flt Protected												
Satd. Flow (prot)	0	1925	0	0	1925	0	0	1863	1739	0	1739	0
Flt Permitted												
Satd. Flow (perm)	0	1925	0	0	1925	0	0	1863	1739	0	1739	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		399			408			1353			3261	
Travel Time (s)		9.1			9.3			30.8			74.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0	0	371	0	0	317	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	0	0	0	371	0	0	317	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			10			10	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.96	0.96	0.96	0.96	0.96	0.96	1.00	1.00	1.09	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type								NA	Perm		NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (s)	22.5	22.5		22.5	22.5		22.5	22.5	22.5	22.5	22.5	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0	18.0	18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	
Total Lost Time (s)		4.5			4.5			4.5	4.5		4.5	
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0	7.0	7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effct Green (s)								18.0			18.0	
Actuated g/C Ratio								0.40			0.40	

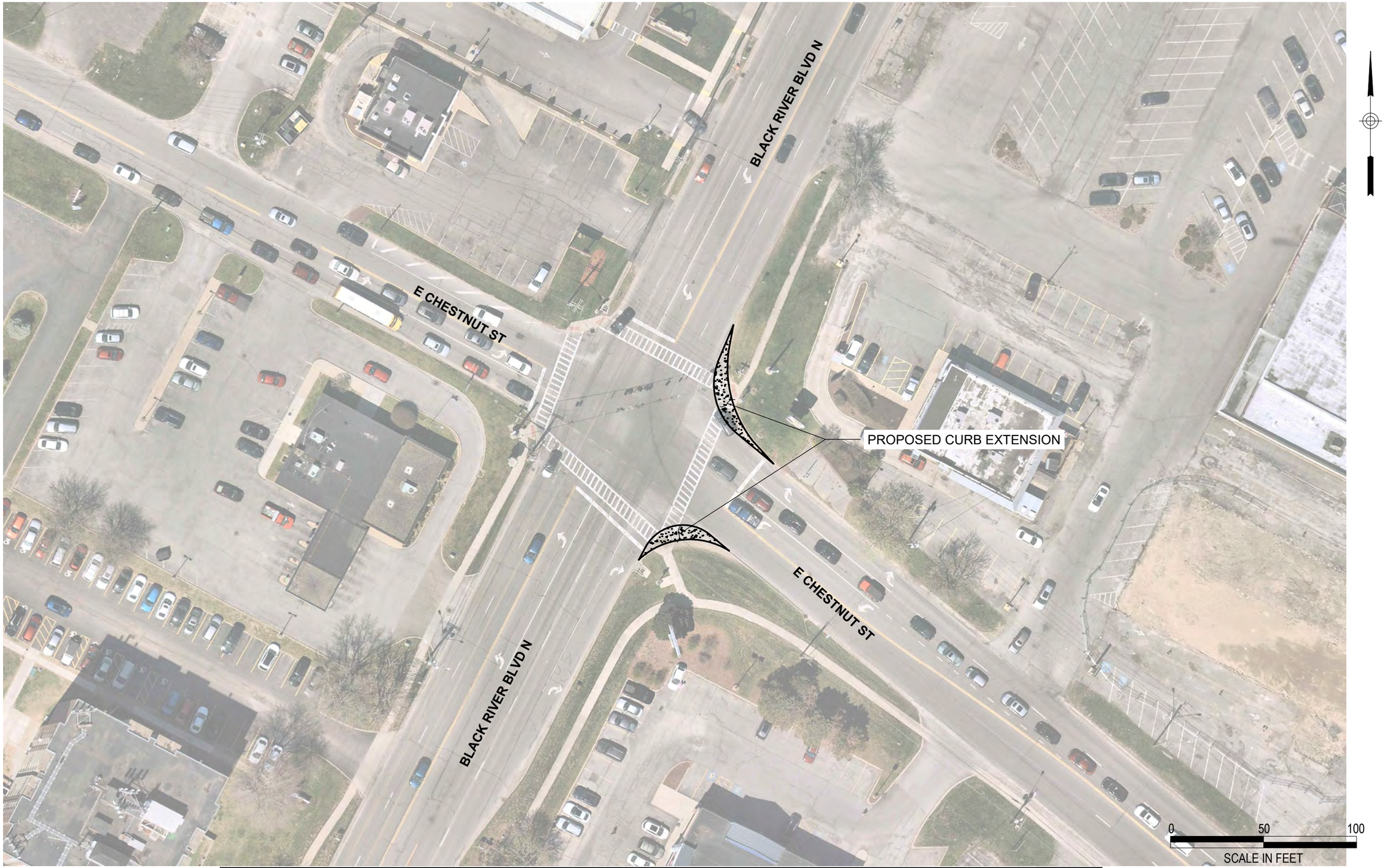
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio								0.50			0.46	
Control Delay								13.0			12.6	
Queue Delay								0.0			0.0	
Total Delay								13.0			12.6	
LOS								B			B	
Approach Delay								13.0			12.6	
Approach LOS								B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Pretimed			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 12.8		Intersection LOS: B	
Intersection Capacity Utilization 21.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 7: Rt 46 & Madison St/Wright Settlement Rd



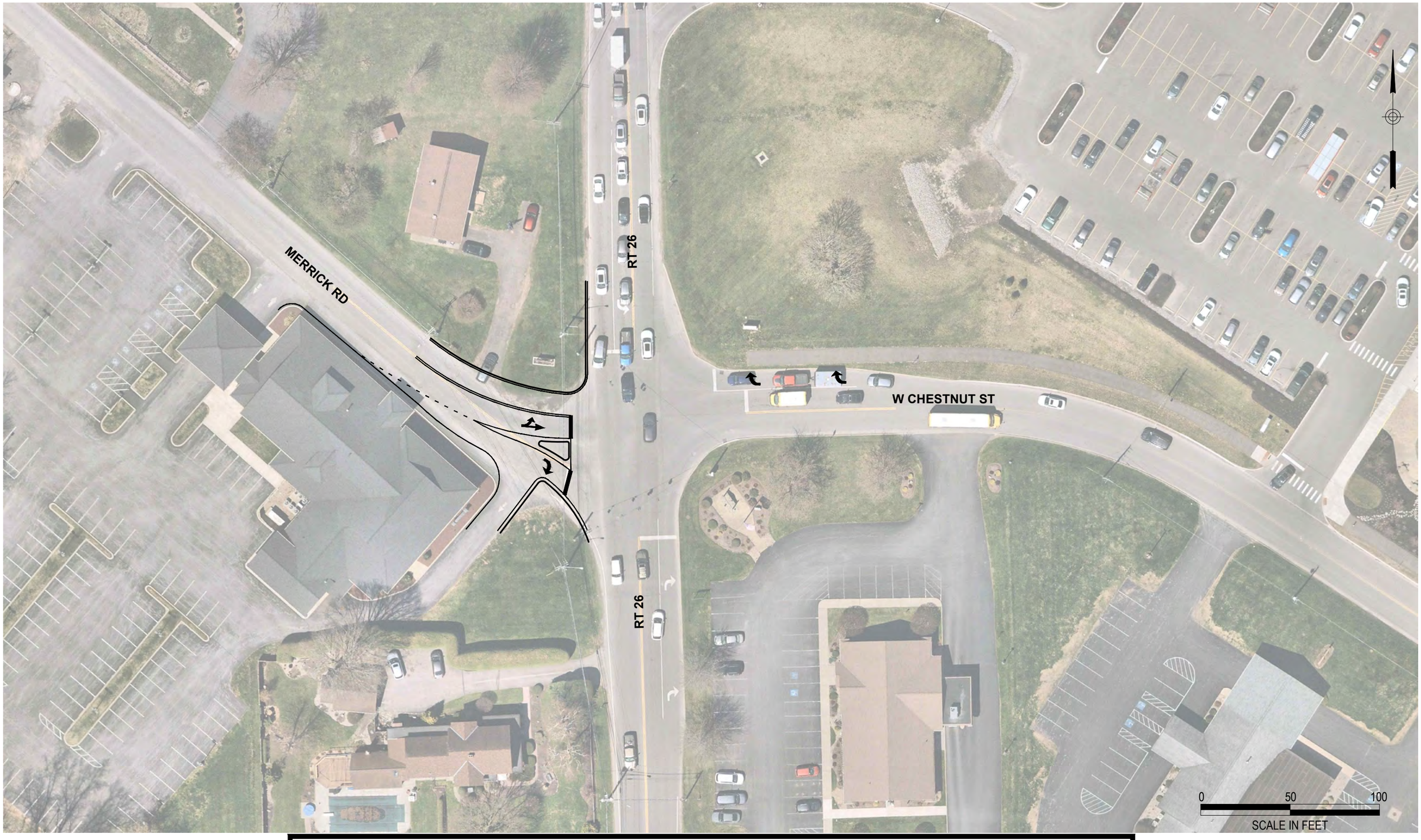
APPENDIX D:
Conceptual Sketches


BLACK RIVER BLVD N
E CHESTNUT ST
PROPOSED CURB EXTENSION
E CHESTNUT ST
BLACK RIVER BLVD N
0
50
100
SCALE IN FEET

CONCEPT # 1


BLACK RIVER BL VD N
E CHESTNUT ST
PROPOSED CURB EXTENSION
BLACK RIVER BLVD N
E CHESTNUT ST
PROPOSED CURB LINE
0
50
100
SCALE IN FEET

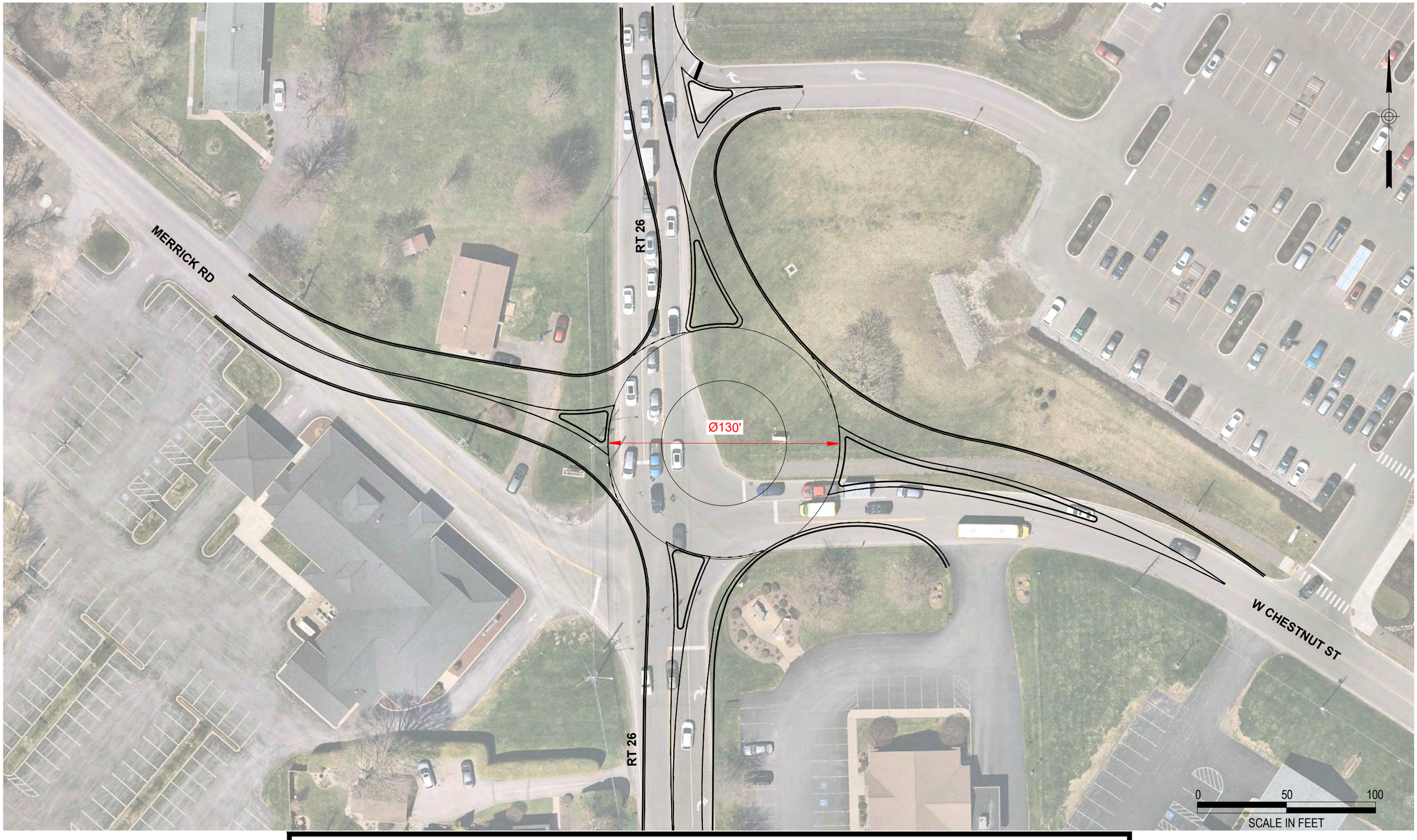
CONCEPT # 2



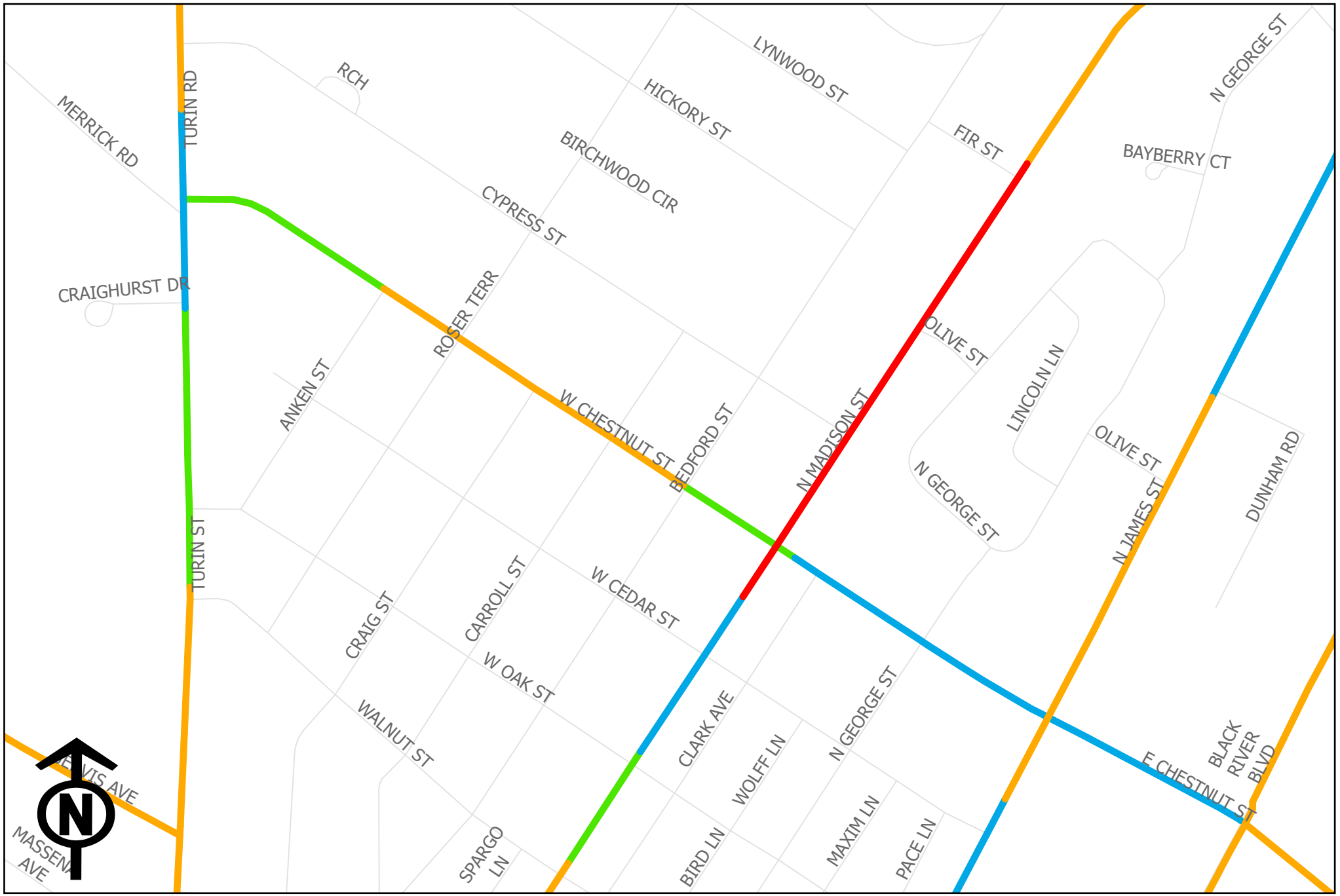
CONCEPT # 3


MERRICK RD
RT 26
Ø130.00'
W CHESTNUT ST
RT 26
0
50
100
SCALE IN FEET

CONCEPT # 4



CONCEPT # 5



Surface Score 2022

- Excellent (9-10)
- Good (7-8)
- Fair (6)
- Poor (1-5)

0 200 400 600 Feet

W Chestnut Pavement Scores 2022

Site 260126000000

Site Data

AADT
16,979
N: 8,187
S: 8,791

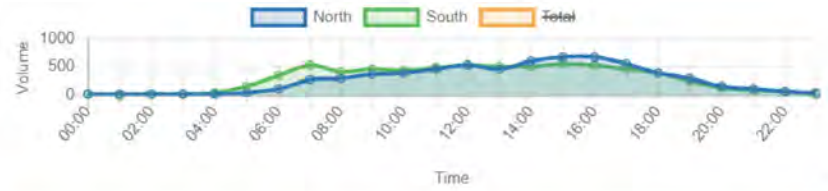
260126 - NY46 from CHESTNUT ST to N MADISON ST
City: Rome **County:** Oneida
Route number: 46
Functional class: 3U - Principal Arterial - Other (Urban)

Count History

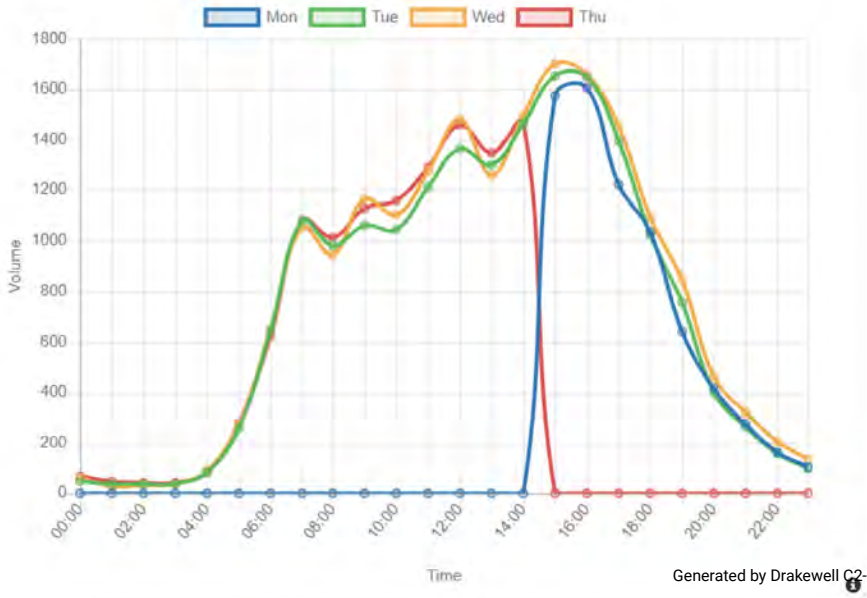
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	September	Class	0 hours	90 hours	96 hours
2021	August	Class	0 hours	56 hours	56 hours
2017	September	Class	0 hours	68 hours	68 hours
2011	December	Volume	0 hours	71 hours	71 hours

AADT Trend

Average Hourly Volume 2023



Daily Volume 2023



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.		69	0.50%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.		10,777	78.34%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		2,541	18.47%
Passenger Vehicles		13,387	97.31%
4. Buses 2- or 3-axle, full length.		95	0.69%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		158	1.15%
6. Single-unit trucks 3-axle, single-unit trucks.		49	0.35%
7. Single-unit trucks 4 or more axle, single-unit trucks.		8	0.06%
Medium Weight Trucks		310	2.25%
8. Single-trailer trucks		23	0.17%

Site 260099000000

Site Data

AADT
15,102
N: 7,438
S: 7,664

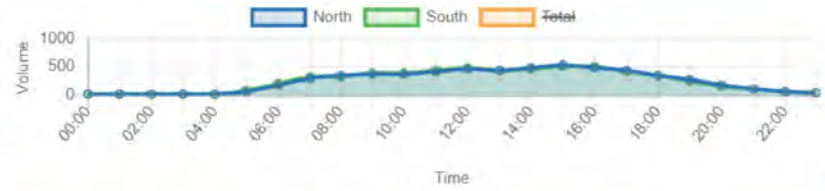
260099 - NY46 from LINDEN ST to CHESTNUT ST
City: Rome **County:** Oneida
Route number: 46
Functional class: 3U - Principal Arterial - Other (Urban)

Count History

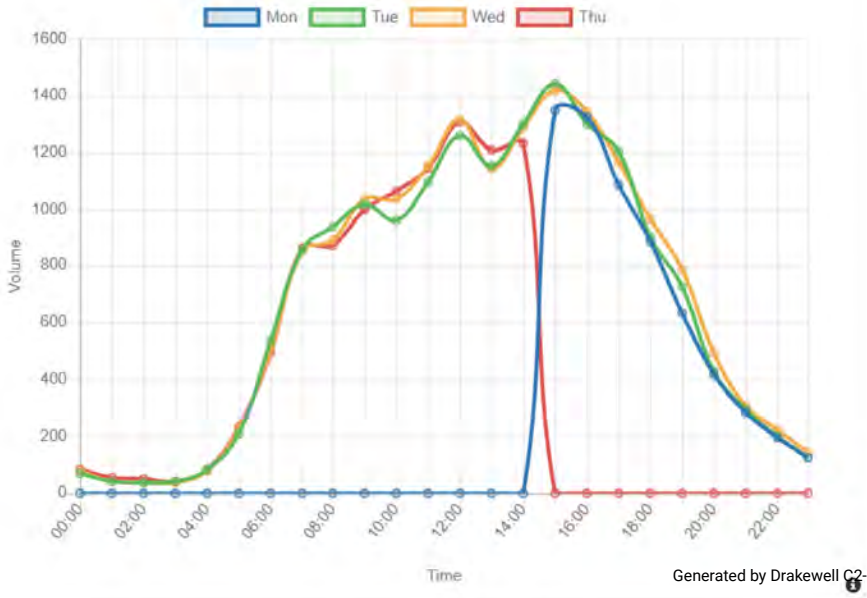
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	September	Class	0 hours	90 hours	96 hours
2021	October	Class	0 hours	54 hours	54 hours
2017	September	Class	0 hours	68 hours	68 hours

AADT Trend

Average Hourly Volume 2023



Daily Volume 2023



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	57	0.46%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	9,706	79.51%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	2,128	17.43%
Passenger Vehicles	11,891	97.40%
4. Buses 2- or 3-axle, full length.	71	0.58%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	144	1.18%
6. Single-unit trucks 3-axle, single-unit trucks.	48	0.39%
7. Single-unit trucks 4 or more axle, single-unit trucks.	7	0.06%
Medium Weight Trucks	270	2.21%
8. Single-trailer trucks	22	0.18%

Site 260404000000

Site Data

AADT
11,368
N: 5,700
S: 5,668

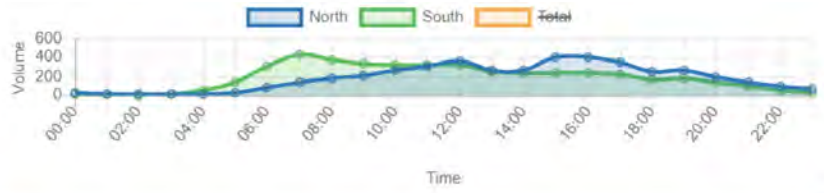
260404 - NY46 from N MADISON ST to ROME CL / WESTERN TL
City: Rome - Low Tax **County:** Oneida
Route number: 46
Functional class: 4U - Minor Arterial (Urban)

Count History

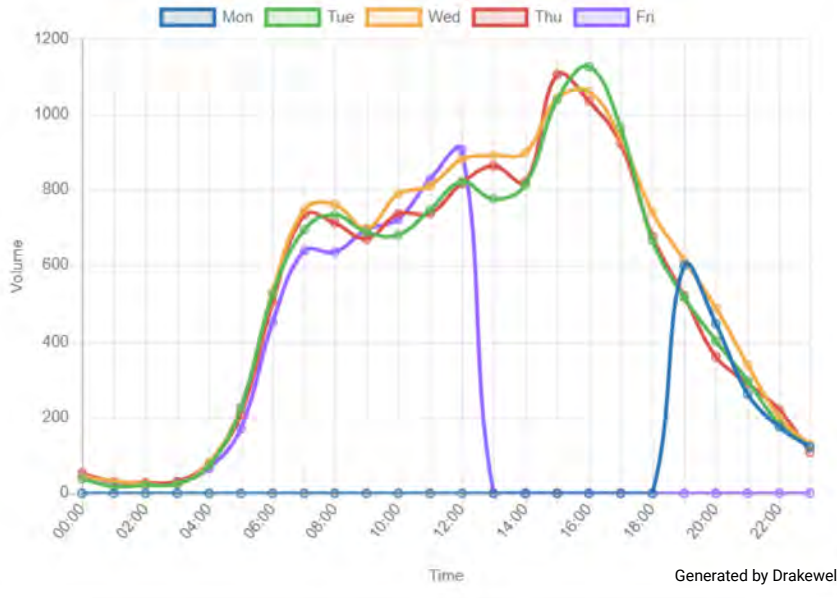
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	August	Class	0 hours	89 hours	90 hours
2018	October	Class	0 hours	59 hours	59 hours
2015	June	Class	48 hours	79 hours	145 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	68	0.77%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	6,718	75.72%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	1,703	19.20%
Passenger Vehicles	8,490	95.69%
4. Buses 2- or 3-axle, full length.	27	0.30%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	236	2.66%
6. Single-unit trucks 3-axle, single-unit trucks.	19	0.21%
7. Single-unit trucks 4 or more axle, single-unit trucks.	2	0.03%
Medium Weight Trucks	285	3.21%
8. Single-trailer trucks	57	0.65%

Site 260059000000

Site Data

AADT
13,731
N: 6,838
S: 6,893

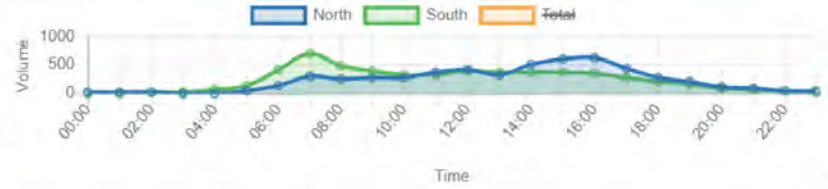
260059 - NY825 from FLOYD AVE to RT 46 BLACK RVR BLVD END RT
City: Rome **County:** Oneida
Route number: 825
Functional class: 4U - Minor Arterial (Urban)

Count History

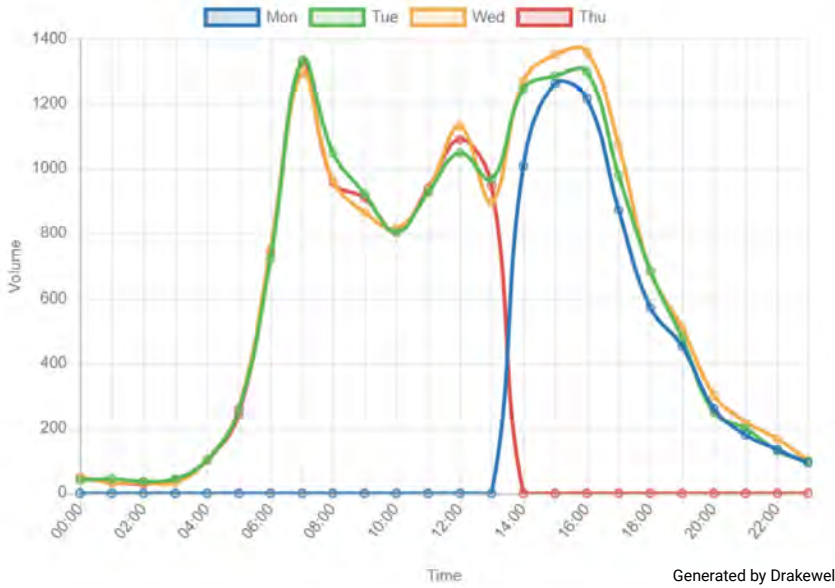
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	September	Class	0 hours	90 hours	96 hours
2015	October	Class	0 hours	68 hours	68 hours

AADT Trend

Average Hourly Volume 2023



Daily Volume 2023



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	41	0.37%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	8,734	78.67%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	1,949	17.56%
Passenger Vehicles	10,724	96.60%
4. Buses 2- or 3-axle, full length.	128	1.15%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	123	1.11%
6. Single-unit trucks 3-axle, single-unit trucks.	47	0.42%
7. Single-unit trucks 4 or more axle, single-unit trucks.	4	0.04%
Medium Weight Trucks	302	2.72%
8. Single-trailer trucks	15	0.14%

Site 262007000000

Site Data

AADT
9,651
E: 4,984
W: 4,667

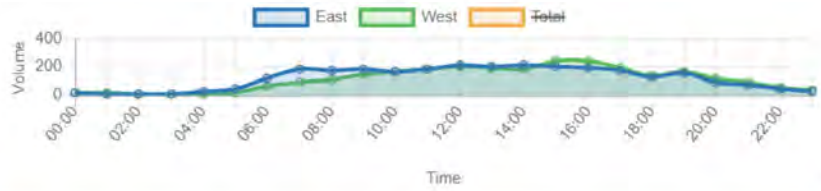
262007 - CHESTNUT ST from MADISON ST to NY 46/BLACK RIVER BLVD N
City: Rome **County:** Oneida
Functional class: 5U - Major Collector (Urban)

Count History

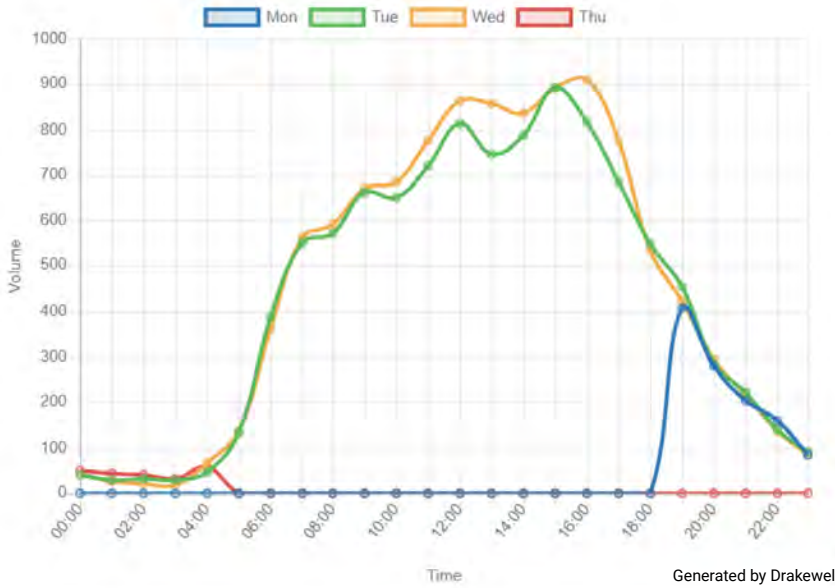
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	August	Volume	0 hours	58 hours	58 hours
2017	November	Class	0 hours	69 hours	69 hours
2011	May	Class	0 hours	72 hours	72 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	7	0.08%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	6,891	84.66%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	986	12.11%
Passenger Vehicles	7,883	96.85%
4. Buses 2- or 3-axle, full length.	100	1.23%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	124	1.53%
6. Single-unit trucks 3-axle, single-unit trucks.	12	0.15%
7. Single-unit trucks 4 or more axle, single-unit trucks.	2	0.02%
Medium Weight Trucks	238	2.93%
8. Single-trailer trucks	5	0.06%

Site 264101000000

Site Data

AADT
7,094
E: 3,483
W: 3,610

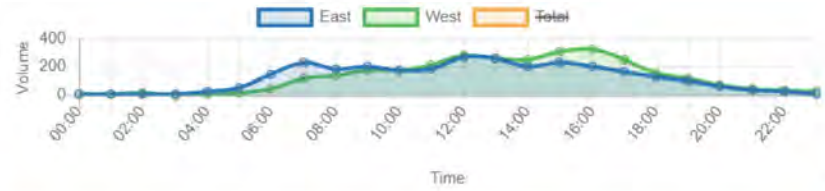
264101 - CHESTNUT ST from TURIN RD to MADISON ST
City: Rome **County:** Oneida
Functional class: 5U - Major Collector (Urban)

Count History

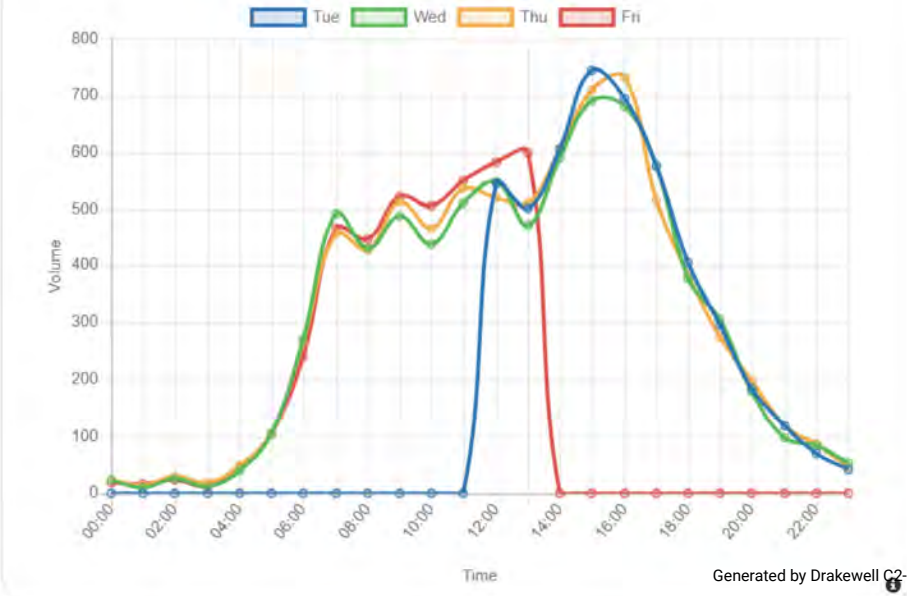
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2021	September	Class	0 hours	72 hours	74 hours
2019	June	Class	0 hours	90 hours	94 hours
2016	September	Volume	0 hours	69 hours	69 hours
2013	May	Class	0 hours	92 hours	92 hours
2010	May	Volume	0 hours	90 hours	90 hours

AADT Trend

Average Hourly Volume 2021



Daily Volume 2021



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.		12	0.20%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.		4,748	79.01%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		971	16.16%
Passenger Vehicles		5,731	95.37%
4. Buses 2- or 3-axle, full length.		53	0.88%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		154	2.57%
6. Single-unit trucks 3-axle, single-unit trucks.		19	0.32%
7. Single-unit trucks 4 or more axle, single-unit trucks.		10	0.16%
Medium Weight Trucks		236	3.93%
8. Single-trailer trucks		19	0.32%

Site 264105000000

Site Data

AADT

2,335

N: 1,332

S: 1,002

264105 - JAMES STREET from BLOOMFIELD ST to CHESTNUT ST

City: Rome **County:** Oneida

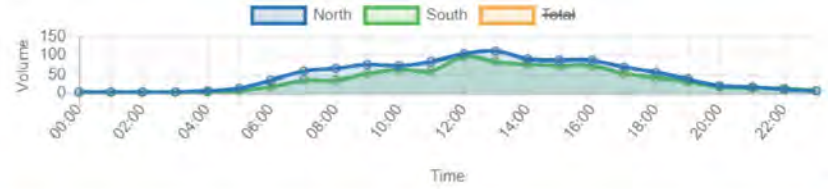
Functional class: 5U - Major Collector (Urban)

Count History

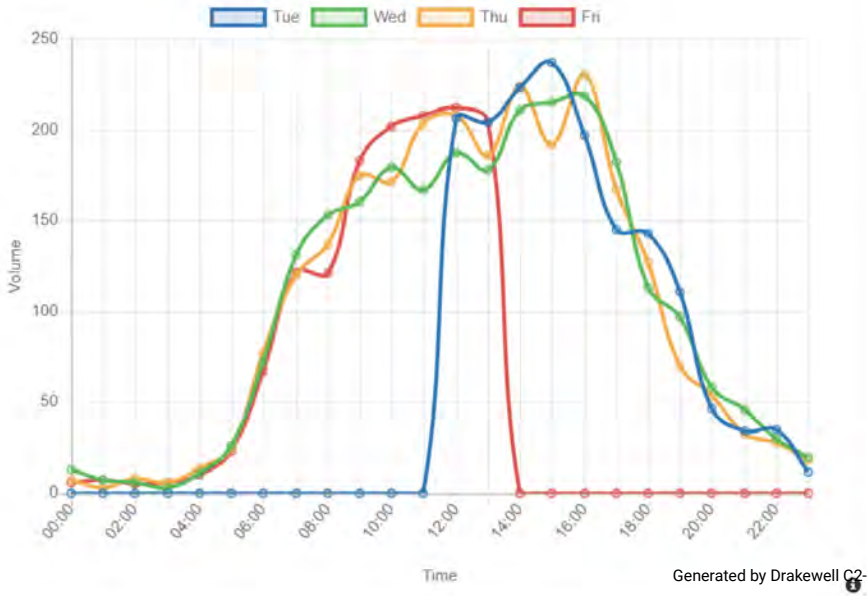
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2021	September	Class	0 hours	72 hours	74 hours
2019	June	Volume	0 hours	62 hours	62 hours
2015	April	Volume	0 hours	70 hours	70 hours
2012	September	Volume	0 hours	91 hours	91 hours

AADT Trend

Average Hourly Volume 2021



Daily Volume 2021



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	2	0.09%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	1,645	82.88%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	273	13.75%
Passenger Vehicles	1,919	96.71%
4. Buses 2- or 3-axle, full length.	14	0.71%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	46	2.29%
6. Single-unit trucks 3-axle, single-unit trucks.	2	0.11%
7. Single-unit trucks 4 or more axle, single-unit trucks.	0	0%
Medium Weight Trucks	62	3.11%
8. Single-trailer trucks	3	0.16%

Site 264106000000

Site Data

AADT
1,318
N: 750
S: 568

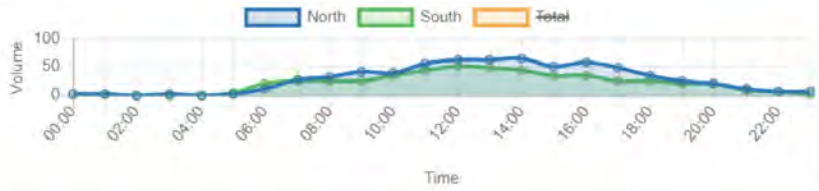
264106 - JAMES STREET from CHESTNUT ST to ROUTE 46
City: Rome **County:** Oneida
Functional class: 5U - Major Collector (Urban)

Count History

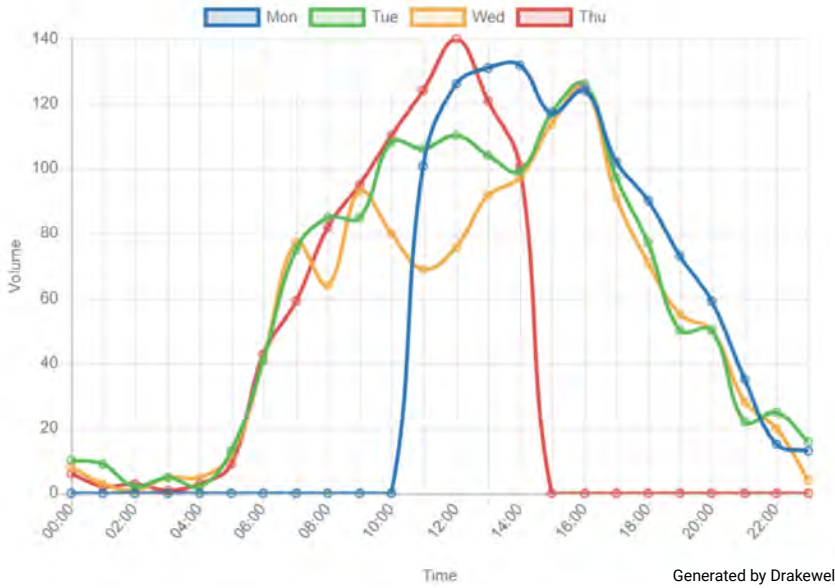
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2021	August	Volume	0 hours	76 hours	76 hours
2018	October	Volume	0 hours	66 hours	66 hours
2015	September	Class	0 hours	72 hours	73 hours
2013	May	Class	0 hours	91 hours	91 hours
2012	May	Class	0 hours	73 hours	73 hours

AADT Trend

Average Hourly Volume 2021



Daily Volume 2021



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	8	0.59%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	1,140	81.40%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	214	15.28%
Passenger Vehicles	1,362	97.27%
4. Buses 2- or 3-axle, full length.	5	0.36%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	29	2.03%
6. Single-unit trucks 3-axle, single-unit trucks.	2	0.14%
7. Single-unit trucks 4 or more axle, single-unit trucks.	0	0%
Medium Weight Trucks	36	2.53%
8. Single-trailer trucks	3	0.20%

Site 262048000000

Site Data

AADT
2,700
N: 1,447
S: 1,253

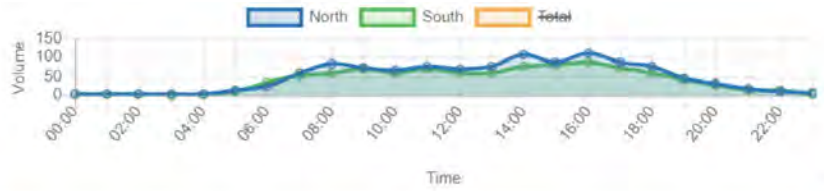
262048 - N MADISON ST from OLD CORP LINE to RIDGE MILLS RD
City: Rome **County:** Oneida
Functional class: 4U - Minor Arterial (Urban)

Count History

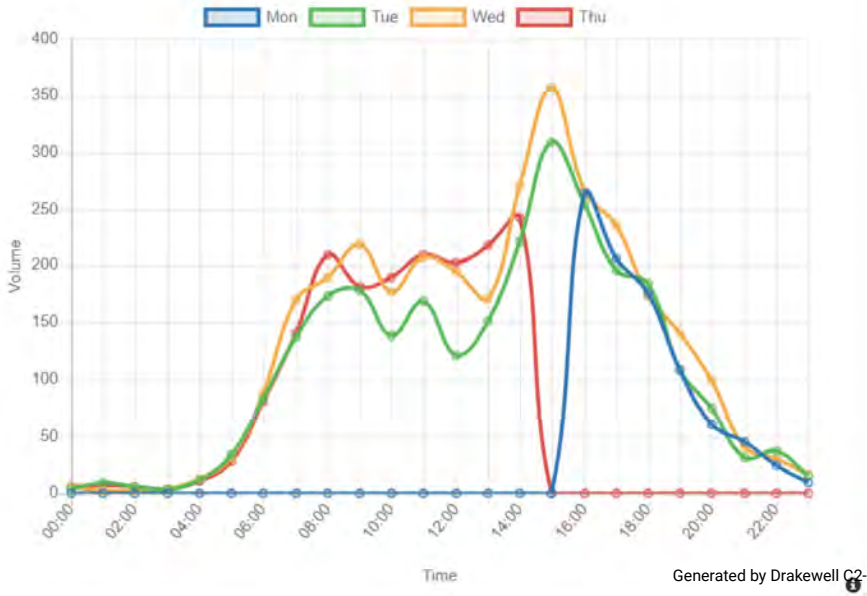
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	September	Volume	0 hours	71 hours	71 hours
2020	August	Volume	0 hours	70 hours	70 hours
2018	October	Volume	0 hours	67 hours	67 hours
2015	June	Class	0 hours	71 hours	71 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	17	0.63%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	2,124	78.92%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	462	17.18%
Passenger Vehicles	2,603	96.73%
4. Buses 2- or 3-axle, full length.	11	0.39%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	42	1.55%
6. Single-unit trucks 3-axle, single-unit trucks.	7	0.25%
7. Single-unit trucks 4 or more axle, single-unit trucks.	1	0.02%
Medium Weight Trucks	60	2.21%
8. Single-trailer trucks	4	0.15%

Site 264109000000

Site Data

AADT
2,306
S: 1,168
N: 1,138

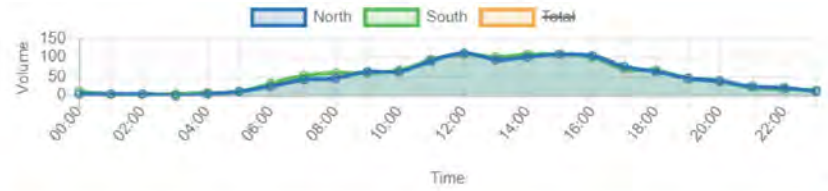
264109 - N MADISON ST from TURIN ST to OLD CORP LINE
City: Rome **County:** Oneida
Functional class: 4U - Minor Arterial (Urban)

Count History

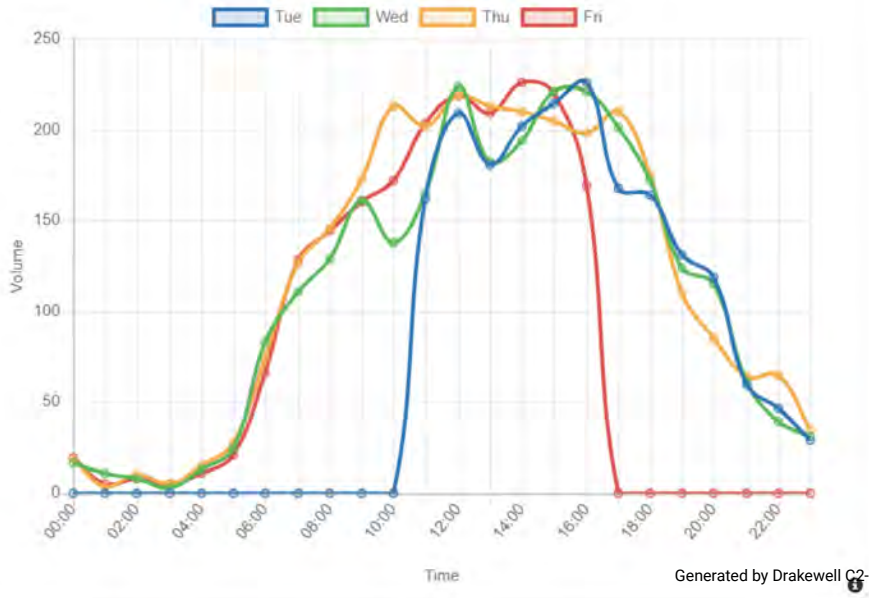
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2023	July	Volume	0 hours	73 hours	78 hours
2021	September	Class	0 hours	91 hours	95 hours
2019	June	Class	0 hours	64 hours	64 hours
2015	April	Volume	0 hours	69 hours	69 hours
2012	September	Class	0 hours	91 hours	91 hours

AADT Trend

Average Hourly Volume 2023



Daily Volume 2023



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	11	0.55%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	1,546	78.54%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	327	16.61%
Passenger Vehicles	1,884	95.69%
4. Buses 2- or 3-axle, full length.	17	0.86%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	59	3.02%
6. Single-unit trucks 3-axle, single-unit trucks.	4	0.20%
7. Single-unit trucks 4 or more axle, single-unit trucks.	0	0.01%
Medium Weight Trucks	81	4.09%
8. Single-trailer trucks	4	0.19%

Site 264009000000

Site Data

AADT
3,565
E: 1,949
W: 1,616

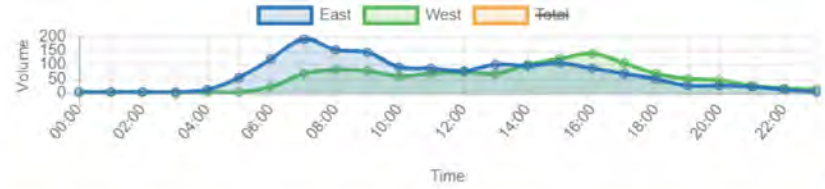
264009 - POTTER ROAD from TURIN ROAD to ROME WESTERVIL
City: Rome **County:** Oneida
Functional class: 7U - Local (Urban)

Count History

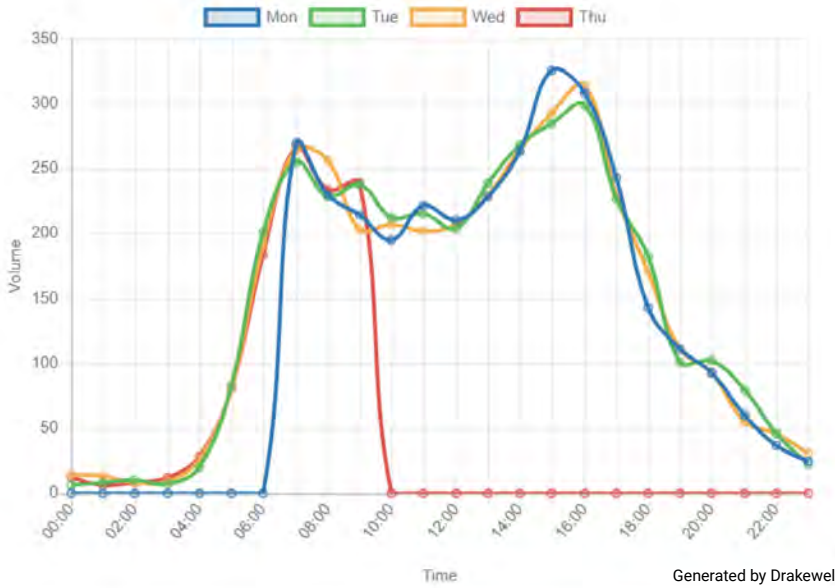
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	December	Volume	0 hours	75 hours	75 hours
2013	June	Class	0 hours	95 hours	95 hours
2012	May	Class	0 hours	73 hours	73 hours
2011	May	Volume	0 hours	87 hours	87 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.		25	0.74%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.		2,781	81.52%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.		516	15.12%
Passenger Vehicles		3,323	97.39%
4. Buses 2- or 3-axle, full length.		10	0.28%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.		51	1.48%
6. Single-unit trucks 3-axle, single-unit trucks.		6	0.18%
7. Single-unit trucks 4 or more axle, single-unit trucks.		2	0.05%
Medium Weight Trucks		68	2.00%
8. Single-trailer trucks		10	0.29%

Site 260105000000

Site Data

AADT
8,730
N: 4,384
S: 4,346

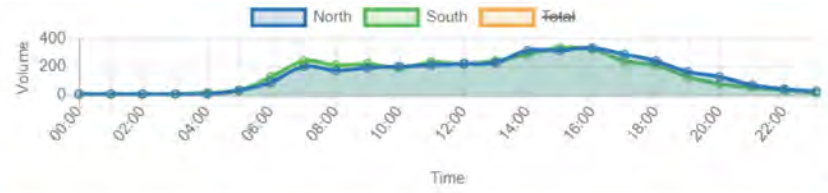
260105 - NY26 from JERVIS AVE to W CHESTNUT ST
City: Rome **County:** Oneida
Route number: 26
Functional class: 4U - Minor Arterial (Urban)

Count History

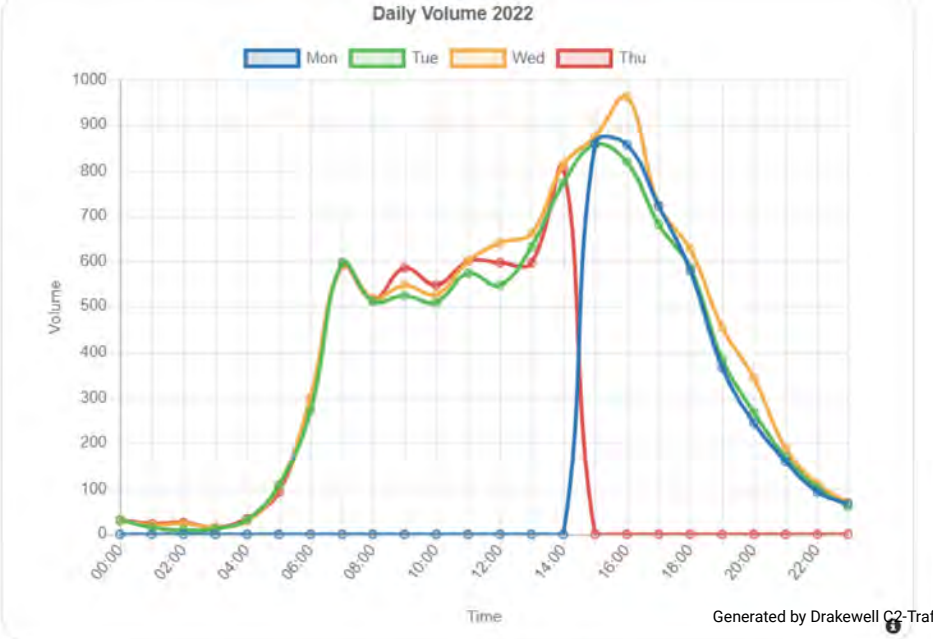
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	September	Class	0 hours	72 hours	72 hours
2020	August	Volume	0 hours	68 hours	68 hours
2018	October	Volume	0 hours	68 hours	68 hours
2015	June	Class	48 hours	78 hours	144 hours
2013	July	Volume	0 hours	70 hours	70 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	15	0.21%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	5,304	75.32%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	1,372	19.48%
Passenger Vehicles	6,691	95.01%
4. Buses 2- or 3-axle, full length.	74	1.05%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	218	3.10%
6. Single-unit trucks 3-axle, single-unit trucks.	11	0.16%
7. Single-unit trucks 4 or more axle, single-unit trucks.	3	0.04%
Medium Weight Trucks	306	4.35%
8. Single-trailer trucks	27	0.39%

Site 260375000000

Site Data

AADT

8,150

N: 4,038

S: 4,112

260375 - NY26 from W CHESTNUT ST to ROME NORTH CITY LINE

City: Rome - Low Tax **County:** Oneida

Route number: 26

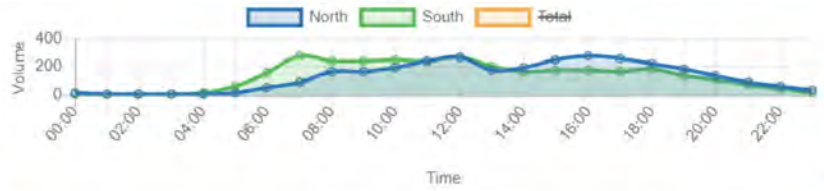
Functional class: 4U - Minor Arterial (Urban)

Count History

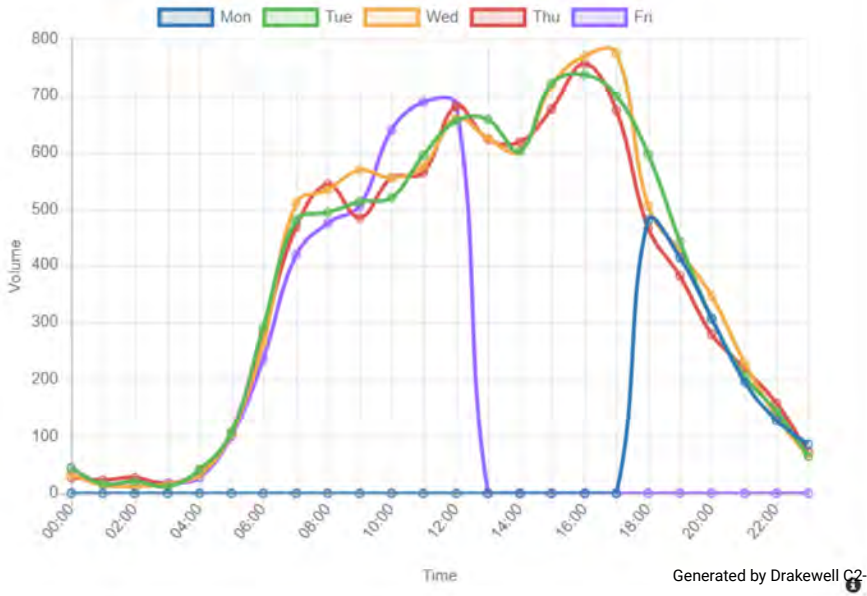
Year	Month	Count type	Weekend Duration	Workweek Duration	Duration
2022	August	Class	0 hours	90 hours	91 hours
2020	August	Volume	0 hours	70 hours	70 hours
2018	October	Volume	0 hours	68 hours	68 hours
2015	June	Class	48 hours	78 hours	144 hours
2012	July	Volume	0 hours	70 hours	70 hours

AADT Trend

Average Hourly Volume 2022



Daily Volume 2022



Vehicle Classification

1. Motorcycles 2 axles, 2 or 3 wheels.	32	0.49%
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	4,945	76.57%
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	1,170	18.12%
Passenger Vehicles	6,147	95.19%
4. Buses 2- or 3-axle, full length.	50	0.77%
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	177	2.73%
6. Single-unit trucks 3-axle, single-unit trucks.	14	0.22%
7. Single-unit trucks 4 or more axle, single-unit trucks.	5	0.08%
Medium Weight Trucks	246	3.81%
8. Single-trailer trucks	36	0.56%

Central New York Regional Transit Authority/ Centro Ridership Data for Chestnut Street

2022 Chestnut Street Bus Stop Ridership	2022		2019	
Row Labels	**Boardings**	**Alightings**	**Boardings**	**Alightings**
1143	**287**	**358**	**230**	**156**
Chestnut St/Anken St	5	0	9	0
Chestnut St/Bedford St	0	0	0	0
Chestnut St/Carroll St	15	0	12	0
Chestnut St/James St	1	43	1	5
Chestnut St/Roser Ter	8	0	2	0
N James St/Chestnut St	31	145	6	88
W Chestnut St/Anken St	26	102	31	40
W Chestnut St/Bedford St	2	5	2	1
W Chestnut St/Carroll St	8	25	0	2
W Chestnut St/N George St	12	13	0	3
W Chestnut St/N Madison St	4	5	7	1
W Chestnut St/Roser Ter	175	20	160	16
1148	**265**	**501**	**131**	**154**
Chestnut St/Bell Rd S	0	9	5	32
Chestnut St/Rome Towers North Side	151	98	87	29
Chestnut St/Urbandale Pkwy	78	388	36	90
Madison St and W Chestnut St	28	3	0	2
N James St/Chestnut St	8	3	2	1
W Chestnut St/Black River Blvd S	0	0	1	0
1161	**130**	**147**	**230**	**152**
Chestnut St/Bell Rd S	2	7	0	20
Chestnut St/Rome Towers North Side	84	52	177	90
Chestnut St/Urbandale Pkwy	35	53	34	39
Madison St/Chestnut St East	9	35	19	3
(blank)				
(blank)				
Grand Total	**682**	**1006**	**591**	**462**

Appendix B – Public Engagement

W. Chestnut Street LTPAP Public Meeting #1
St. Paul's Roman Catholic Church – 1807 Bedford Street
March 8, 2003 @6:00 PM – 7:30 PM

Attendees:

Dana Crisino, MBA, AICP, Oneida County Deputy Commissioner of Planning, /Director - HOCTC

Julie Richmond, MPA, Transportation Program Manager – HOCTC

Adam Palmer, MPA, Senior Planner - HOCTC

Alexander Turner, Planner - HOCTC

Kassandra Burkhart, Planning Specialist - HOCTC

Katherine Ember, AICP - Planning4Places, LLC

James Levy, AICP – Planning4Places, LLC

Steve Wong, AICP, PP, PTP, RSP 1, PMP – Sam Schwartz

Doug Gerber, RLA – Weston & Sampson

Peter Loyola, RLA – CLA Site

Additional Attendees – see sign-in sheet

The meeting was held in an open house format with stations on land use/active transportation/ green infrastructure, neighborhood visioning, placemaking, and traffic and safety. Anthony J. Picente Jr., County Executive provided a welcome explaining the intent of the meeting. Mayor Jacqueline M. Izzo also welcomed meeting attendees. Dana Crisino elaborated on the planning process and the project schedule.

A resident of W. Chestnut Street noted that this area was studied previously and expressed concern that previously master plan study discussions for the rerouting truck traffic to Potter Road appeared left unimplemented and then noted that truck turning movements onto Potter Road turn would be challenging under the current configuration. Commercial traffic, along with pedestrian safety, are two of the biggest issues. The resident also recommended that traffic be slowed with a light at N. George Street.

What We Heard

- Land Use – some residents noted an interest in additional park options such as a splash pad, dog park, and pocket parks. A Farmer's Market opportunity was also suggested.
- Placemaking – there was interest in connecting to the surrounding City neighborhoods (including the Historic District). Pocket parks/gathering areas were also discussed as noted above. There is a gateway potential at N. George Street & W. Chestnut. A suggestion was made to utilize both churches' open space for combined community events.

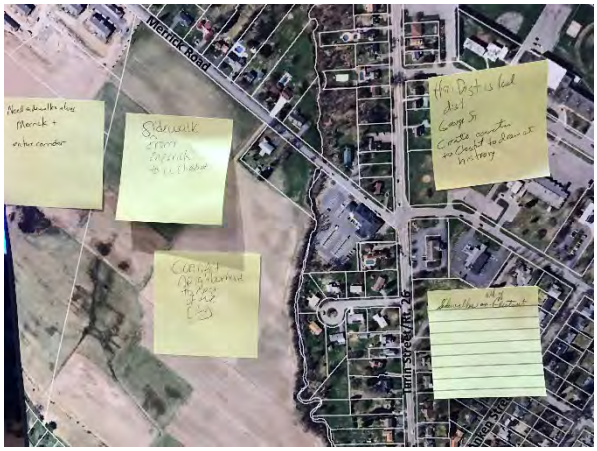
- Active Transportation – sidewalks are a priority for the W. Chestnut Street and Merrick Road areas. Safe bicycle infrastructure needs were also mentioned but to a lesser degree with an interest in multi-use paths (sidepath). N. George Street is major ped/bike corridor north/south. A second major ped/bike corridor north/south is Roser Terrace.
- Transit – accessible bus stops were discussed. If facilities were improved and routes easier to navigate, more people may choose to use transit.
- Traffic and Safety –
    - The intersection of W. Chestnut Street and N. Madison Street is dangerous – people run the red light often. Residents would like to see more police presence to address the behavior.
    - The W. Chestnut Street crossing at N. George Street was cited as an unsafe crossing. N. George Street is a popular street for people to walk on.
    - Crosswalks and pedestrian signals are needed at the intersection of W. Chestnut Street and N. James Street.
    - Residents reported crashes occur at the intersection of Bedford Street and W. Chestnut.
    - People asked about redirecting trucks to Potter Road. Most were in favor of this option, but one person was concerned about how the residents that live off Potter might feel.
    - Several people voiced support for sidewalks along W. Chestnut Street/Merrick Road. One resident stated she will not walk on W. Chestnut Street, instead, uses parallel routes through the neighborhoods.
    - Bike lanes, streetlighting and refreshed pavement markings were also recommended, along the length of the corridor
    - Several people thought a roundabout at Turin Road and W. Chestnut Street/Merrick Road would be a good idea. A couple of people were not in favor of a roundabout at that location.
    - Look at intersections of N. George St./W. Chestnut, N. James St/W. Chestnut St, N. Madison St./W. Chestnut St., Bedford St./W. Chestnut St. for safety improvements. Safer crosswalks at Black River Blvd were also discussed.
- Vision – overall the public expressed enthusiasm for sidewalks and safer crossings in the W. Chestnut Street Study Area with an interest in connections to the Hospital and greater connections to surrounding neighborhoods and the rest of the City.

Raw Notes from Aerial Boards by Topic

Visioning Board

- Pedestrian Corridor – Roser Terrace
- Bedford is a cut through
- Dog Park Lutheran Church School
- Node – Farmers Market/Park Opportunity (W. Chestnut & Roser Terrace circled on map)
- Bridge over Wood Creek
- School buses stop at each house (Merrick Road circled on map)
- Bike routes to base
- Cedar Street is an alternative for bicycles
- N. James Street/N. George Street pedestrian corridor
- Rome's North Broadway in Saratoga (N. George Street)

Land Use/Active Transportation/Green Infrastructure/Natural Resources



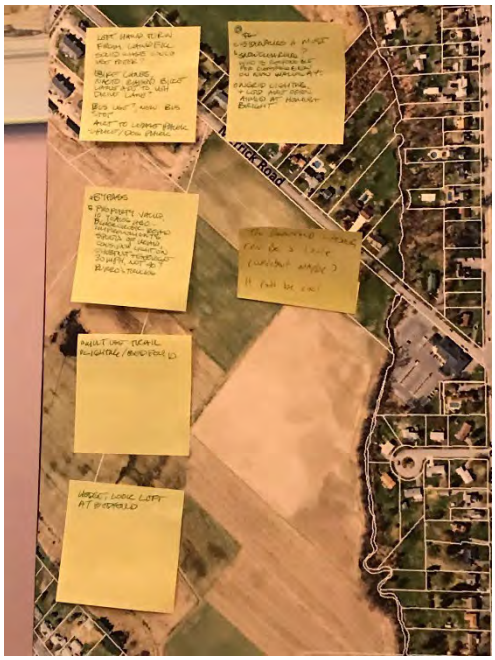
- Need sidewalks along Merrick & entire corridor
- Sidewalk from Merrick to W. Chestnut
- Connect neighborhood to rest of the City
- Historic District along N. George Street – create connection to W. Chestnut to draw at history
- Sidewalks on all of W. Chestnut
- Sidewalks on Jervis Avenue
- Use Cedar to access trail not W. Chestnut
- Splash pad and trail connection
- Sidewalks on Madison & crosswalks on W. Chestnut
- No trucks on W. Chestnut
- Accidents at N. Madison
- Don't widen road
- Too much traffic
- Dunkin Donuts – congestion, suggestion for 4-lanes or turn lanes
- Sidewalk to Hospital
- Sidewalk and bike lane near dog park
- Concern about use of roundabout at Turin/Merrick
- Sidewalks on side of Merrick
- Cornell Study

Traffic and Safety

- Traffic light at N. Madison
- N. George Street unsafe crossing
- N. James Street – people walk in the street
- No police presence
- Crashes – Bedford Street
- Trucks – Potter Road
- Sidewalk
- Will not walk on W. Chestnut
- Bike lanes
- Paint
- Roundabout

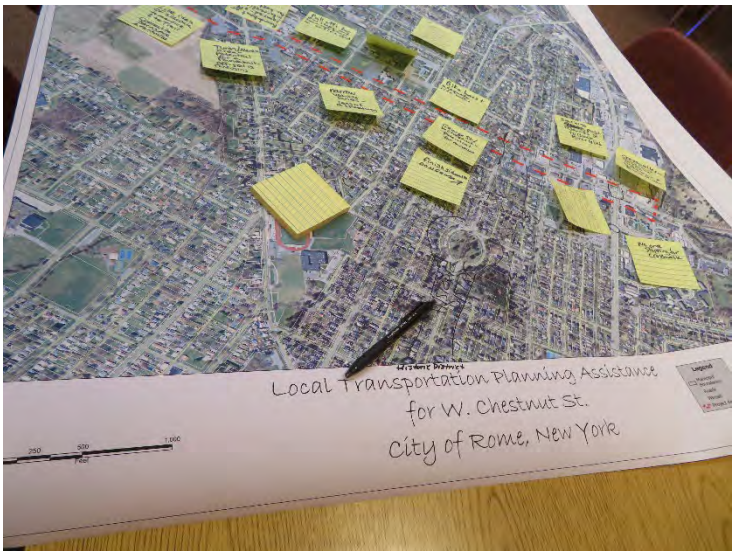
Placemaking

- Left hand turn from landfill solid waste could use Potter?
- Bike lanes, NACTO, raised bike lane adjacent to vehicle drive lane?
- Bus use? New bus stop
- Adjacent to lease park space/dog park
- Sidewalks a must
- Snow clearing? Who is responsible for clearing snow on new walkways
- National Grid lighting & LED are often aimed at homes & bright
- Bypass
- Property value, 10 years ago – Black River road improvements.
- Speed of road, consider light on W. Chestnut & N. George 30 MPH, not 40?
- Burro's trucks
- The Hannaford intersection can be a little roundabout maybe? It could be cool.
- Multi-use trail
- Light/Bedford
- Street lights
- Remove vegetation in ROW, blocks traffic view
- Safer ped crossings
- Hedge look left at Bedford



Study Area Map

- Create path to Rome Cemetery from Merrick Rd area. There is no good way to walk to the Cemetery.
- Like idea of sidepath to Merrick and to trail. Connect Jervis Avenue eventually.
- Turin/Merrick area – potential for a roundabout. Off-set is confusing.
- Narrow vehicle lanes – less of a speedway.
- Pull offs for bus stops and lane markings on entire road
- Finish sidewalks on N. George
- N. George St./W. Chestnut – potential for roundabout
- Stacking past James St. to Black River Blvd.
- Bus stops need to be accessible.
- Bike lanes and adequate sidewalks
- No one stopping or crosswalks (Black River Blvd & Rose Lane)
- Crosswalks – peds hard to see at night (W. Chestnut St. & Black River Blvd.)
- Need a safer crossing at Black River Blvd. Don't forget trees – Black River is barren.
- Walks through neighborhood to shopping area (around W. Chestnut) as there are no sidewalks.
- Replace bridge over Wood Creek on Merrick Road.
- Sidewalks on W. Chestnut Street.
- Sidewalks on Merrick Road.
- At Turin & Merrick – roundabout or squared off intersection for better flow
- Loop trail to Potter



W. Chestnut Street Survey Discussion Appendix

A community feedback survey was created on January 24, 2023, to get the opinion of residents, commuters, and regular users of the W. Chestnut Street corridor. The purpose of the survey was to collect the opinions from the public to better identify the issues prevalent along W. Chestnut Street, understand the transportation priorities of the community, and incorporate the community's vision of a safer and more accessible roadway into the study. The survey received responses between February 5th and March 22nd, approximately two weeks following the first W. Chestnut Street public meeting.

The survey received a total of 353 responses. Responses were collected using a variety of public outreach tools such as traditional mailings and social media. A postcard with a QR code and web link to the online survey was sent to 217 unique mailing addresses within or directly adjacent to the project area. In-person outreach efforts were conducted in the project area with flyers containing a web link to the survey distributed to businesses and commercial residential locations. The survey was widely distributed by local elected officials, regional transportation partners, several paper and online news agencies, and through private social media posts.

Characteristics of W. Chestnut Street *Travelers*

A review of the survey results found that the age of the respondents tended to trend evenly among those over the age of 35 years old. The age group providing the highest frequency of responses to the survey was those 35-44 years old (21.3%). This is followed closely by individuals over the age of 65 years old (20.4%), 35-44 years old (18.6%), and 55-64 years old (18.6%). By comparison, just 21% of all survey respondents were under the age of 35.

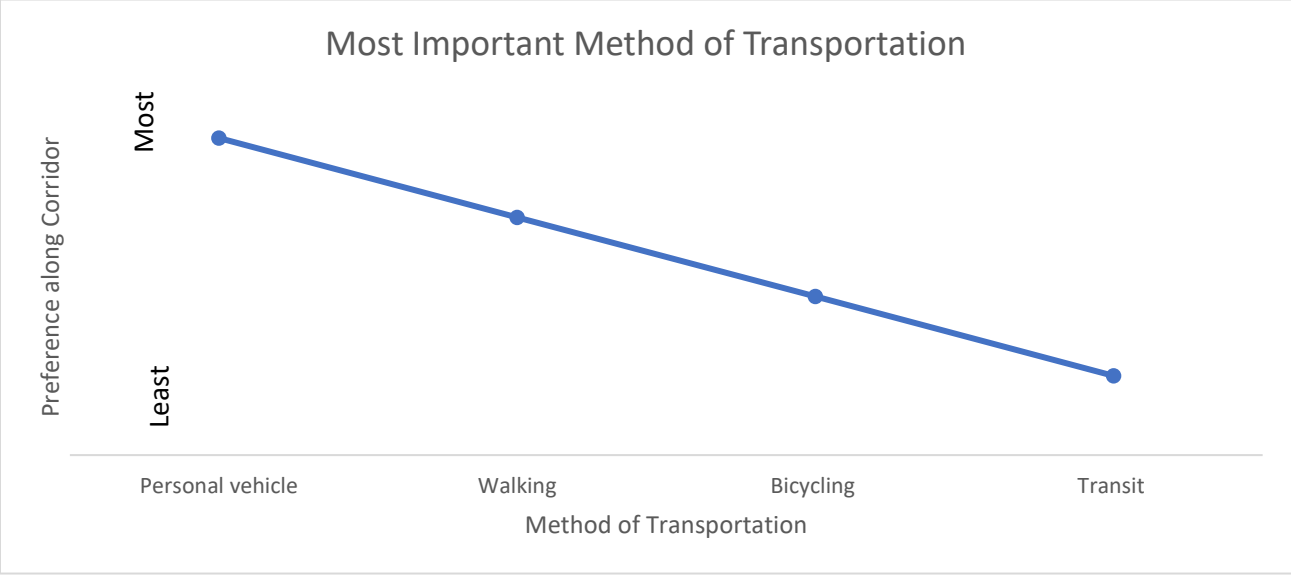
Most (73.6%) of the respondents of W. Chestnut Street have been regular users of the corridor for over 11 years. A much smaller share of respondents (13%) have used the corridor for between 6 and 10 years, while a similar share (13.4%) is relatively new users of the corridor for less than 5 years. These figures represent a total of 335 (94.9%) respondents who have indicated they are regular users of the W. Chestnut Street corridor.

Existing Preferences and Uses of W. Chestnut Street *Travelers*

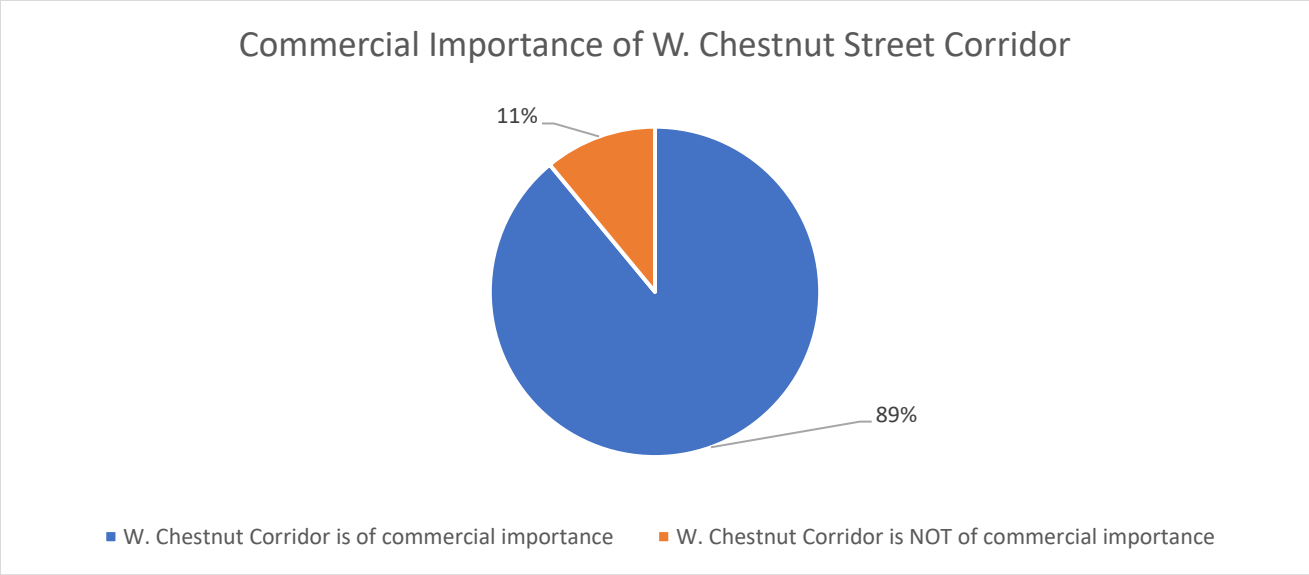
Respondents indicated in the survey that under the current roadway conditions, there is a large preference for the use of vehicles to navigate W. Chestnut Street. Just over half (52.6%) of respondents drive their single-occupant vehicle more than five days a week, with another 23.3% driving their vehicle 3-4 days per week. In total, 95.9% of respondents chose to drive a vehicle through W. Chestnut Street at least once throughout the week. Regarding shared motorized vehicle experiences, 59.1% of respondents chose to carpool at least once a week, while only 2.5% utilized the bus for transportation. The preference for vehicles on W. Chestnut Street under the current roadway conditions is reaffirmed in other survey questions where

most respondents (82.7%) indicate their personal vehicle is the most important transportation method to them for use on W. Chestnut Street.

Compared to the usage of motorized vehicles, there is some, though considerably less, preference for walking or alternative forms of transportation under the current roadway conditions. Respondents reported walking or utilizing a mobility assisting device along the corridor at least once per week 20.8% of the time, while 15.8% of respondents utilized a bicycle or scooter at least once a week. Among those who walked or utilized a bicycle, the majority of respondents reported using this method of transportation just one or two days per week. Only 7.4% of respondents later in the survey stated that walking was personally the most important transportation method along W. Chestnut Street. Comments left in this section emphasized the importance of ensuring all modes of transportation were made safe and that sidewalks along W. Chestnut Street would improve pedestrian safety.



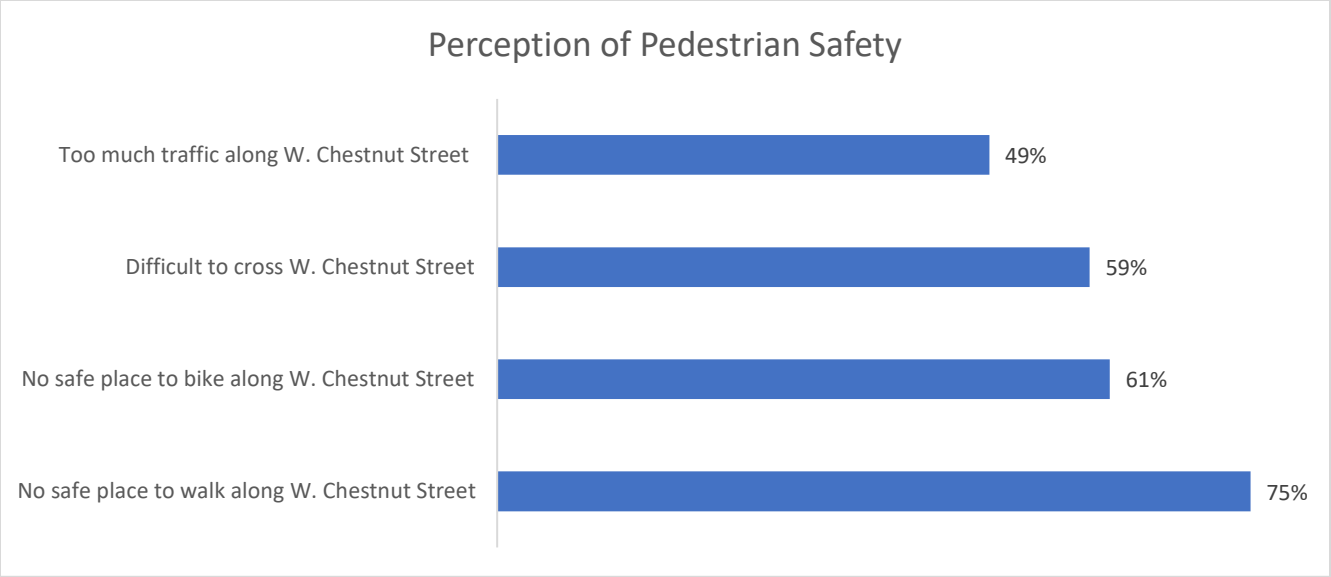
The large majority of respondents (88.9%) highlighted W. Chestnut Street's commercial importance by indicating that their most frequented reason for using W. Chestnut Street was to run errands such as grocery shopping, access the pharmacy, or complete other necessary tasks. The percentage of respondents who use the corridor for other commercial uses drops by almost 30% for purposes such as going to a restaurant (59.4%) or going retail shopping (57.2%). A large number of respondents also indicated they use the corridor for non-commercial purposes such as visiting family and friends (53.5%) or commuting to work (52.4%), which highlights the mixed usage of the corridor as both a major residential and business thoroughfare. The smallest usage of W. Chestnut Street was for the purposes of commuting to school (15.5%).



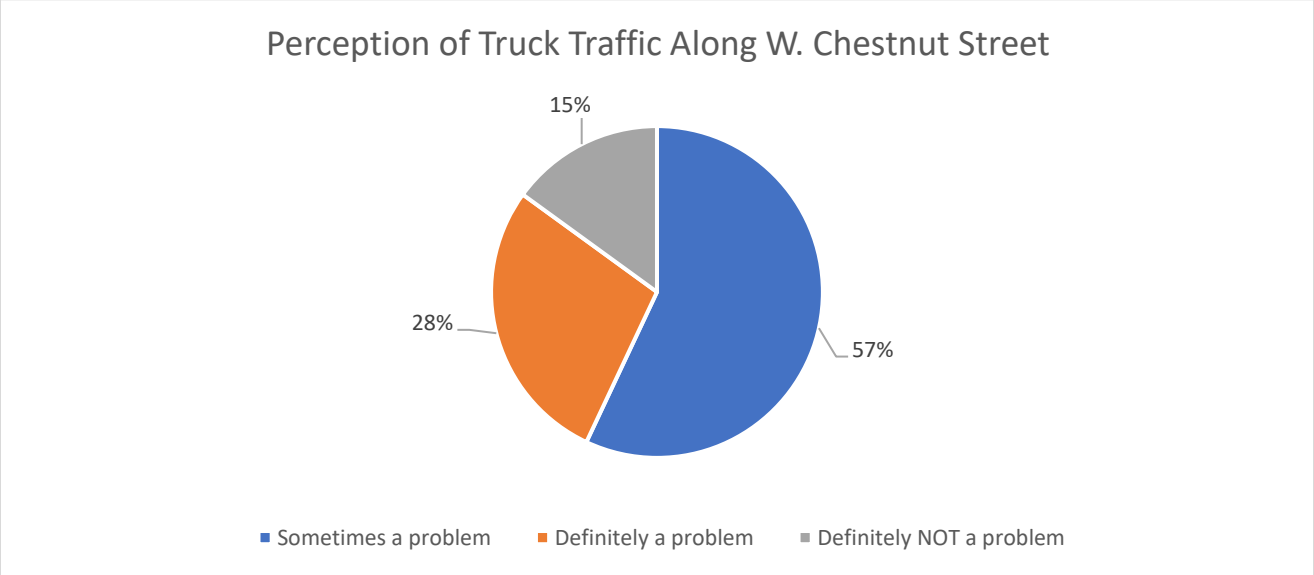
Concerns of W. Chestnut Street *Travelers*

Survey respondents traveling on W. Chestnut Street have a shared perception that the roadway is generally unsafe for pedestrians and bicyclists. When asked how safe users of W. Chestnut Street would feel if walking or biking on the corridor, the level of safety was ranked at a 3 out of 10. On a separate question respondents were asked to rate pedestrian mobility/walkability in the W. Chestnut Street Neighborhood from one (very difficult to walk/access) to four (extremely walkable/accessible), respondents provided an average of a 1.5 rating. More specifically, respondents found schools to be the least accessible (46.7%) from W. Chestnut Street, followed by work (40.4%), and stores (33.5%) from a pedestrian and bicyclist perspective. It should be noted that no more than 10% of respondents labeled any of the above-mentioned locations, in addition to parks or other neighborhoods, as “extremely accessible”.

Regarding traffic concerns more broadly, there were several potential issues respondents felt accurately applied to W. Chestnut Street. Chief among these concerns was that there was no place to walk safely (75.4%), followed by having no place to safely bike across the road (61.2%), difficulty crossing the road (59%), and there being too much traffic (49.3%). Inversely, just 16% of respondents indicated there was no place they wanted to go within walking distance, suggesting that W. Chestnut Street hosts a wide variety of commercial and recreational venues, but that such locations may be difficult to access.



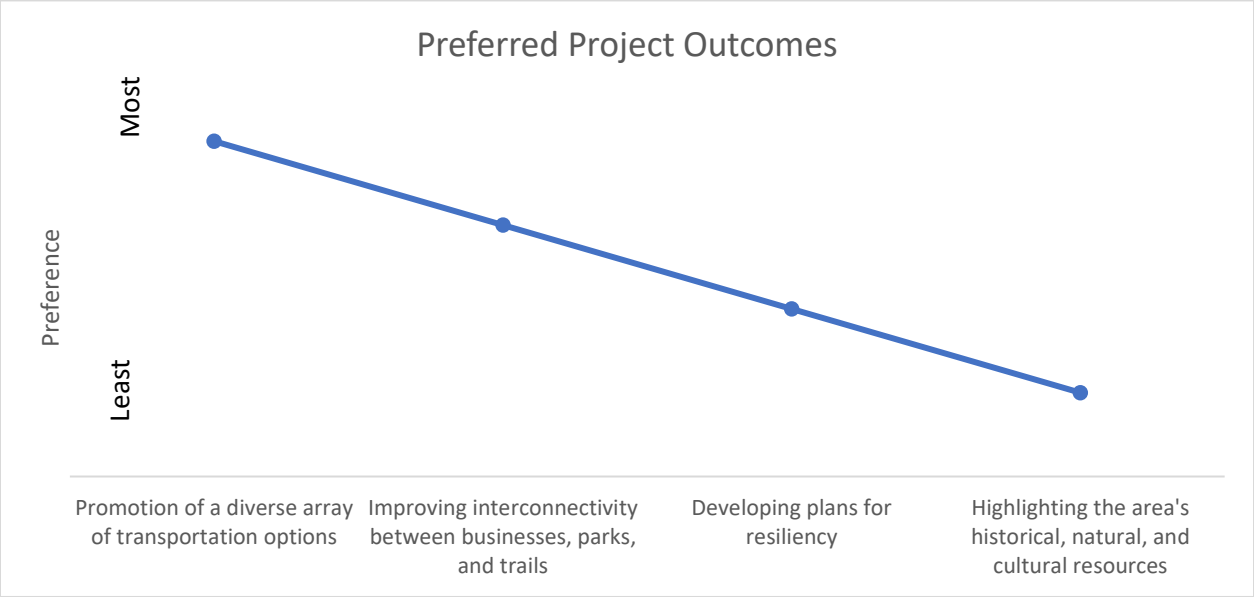
The survey also touched on the topic of commercial truck traffic, as this was frequently discussed by residents in the community and City stakeholders alike as a potential traffic safety concern. When asked if respondents thought commercial truck traffic was a problem along W. Chestnut Street, 77.5% of users responded it was a problem at least some of the time. Over a quarter of residents (28.4%) thought truck traffic was definitely a problem, while just 15% felt it was definitely not a problem.



Suggested Improvements and Outcomes from W. Chestnut Street *Travelers*

Respondents were provided an opportunity to rank several high-level conceptual project outcomes on a scale of one to five, with one being the most important outcome. The possible outcomes include: the promotion of a diverse array of transportation options, providing a sense of place, improving interconnectivity between nearby community assets, creating additional

climate and flood resiliency measures, and highlighting the area's historical and cultural resources. The most frequently number one ranked outcome was the promotion of a diverse array of transportation options that are safe for bicycling, walking, running, public transit, and/or vehicles (56.1%). This is followed by improving interconnectivity between businesses, parks, and trails (42.5%) in rank two, and developing plans for resiliency (29.5%) in rank three. The least important outcome, with 62.16% of respondents ranking it at a five, was highlighting the area's historical, natural, and cultural resources.



When prompted to prioritize the specific improvements respondents would like to see along W. Chestnut Street, there was a notable preference for pedestrian-accommodating roadway improvements. Specifically, respondents were most interested in sidewalks (83%), intersection improvements (67.8%), and wide road shoulders (48.5%). There was a lesser degree of, though still notable, enthusiasm regarding bicycle infrastructure, as 41.8% of respondents wanted to see bike lanes added. Placemaking elements such as street trees (25.2%), planters or hanging flowers (18.5%), decorative banners (11.5%), and gateway signage (11.2%) were the least prioritized element for the corridor. Additional lighting including pedestrian-scale lighting (27.8%) and road-scale lighting (21.5%) also received some, though comparatively little, enthusiasm. Finally, bio-retention infrastructure and rain gardens were a priority by just 21.5% of respondents.

Finally, respondents were provided a list of less tangible improvements that could be made to the W. Chestnut Street neighborhood and were prompted to choose what improvements they would like to see made. The most preferred improvement was to decrease traffic congestion in the neighborhood (63%). This is followed by respondents who want to see a reduction in the number of trucks traveling through the area (48.1%). Next, returning to the theme of pedestrian connectivity, there was some level of interest in accessibility and pedestrian improvements such as improved connectivity between parks and trails (44.3%) and the addition

of non-vehicular transportation options (34.7%). As evident from the responses to other questions, there was a comparative lack of interest in placemaking components such as street trees (25.6%), additional public recreational spaces (23.3%), and more event spaces (10.3%), as well as a lack of interest in increasing bus transit options (14.5%).

W. Chestnut LTPAP Public Meeting #2
St. Paul's Roman Catholic Church
May 23, 2023 @5:30 PM and 7:00 PM

Meeting Overview

The meeting was hosted by Herkimer Oneida County Transportation Council (HOCTC) staff and Oneida County Planning Staff with support provided by the Consultant Team including Planning4Places, LLC, Sam Schwartz, CLA Site, and Weston and Sampson. Mayor Jacqueline M. Izzo and City Common Council member Frank Anderson were in attendance.

Two meetings were held consecutively to provide an opportunity for the public to both hear the presentation and engage with HOCTC staff, the Consultant Team, and other attendees at the Open House portion of the meetings. A demonstration project was established at the entrance to the meeting to show attendees the different widths that a sidepath and sidewalk could potentially be to help provide a first-hand experience of what each width would feel like for a pedestrian.

The meetings started with a PowerPoint presentation by Dana Crisino (HOCTC) and the consultant team. The presentations summarized the intent of the meeting and discussed next steps. The existing conditions analysis and findings were summarized and potential draft transportation enhancements concepts for the corridor were presented. HOCTC staff provided an overview of findings from the first public survey.

Overall, attendees expressed support for adding the implementation of sidewalk and sidepath infrastructure to the corridor, crosswalks to provide dedicated places to cross the road, and sidewalk connections from W. Chestnut Street to other streets (including filling sidewalk gaps). These findings are consistent with input received at Public Meeting #1 and Survey #1. Other comments received at the meeting included a desire to address truck traffic, noise abatement (putting in trees and bushes to block sound from motorcycles) and identifying whether or not signage could be added to restrict right turns on red at signals. Attendees also would like to see bike parking and noted a need for a bus stop at Hannaford and the adjacent nursing home.

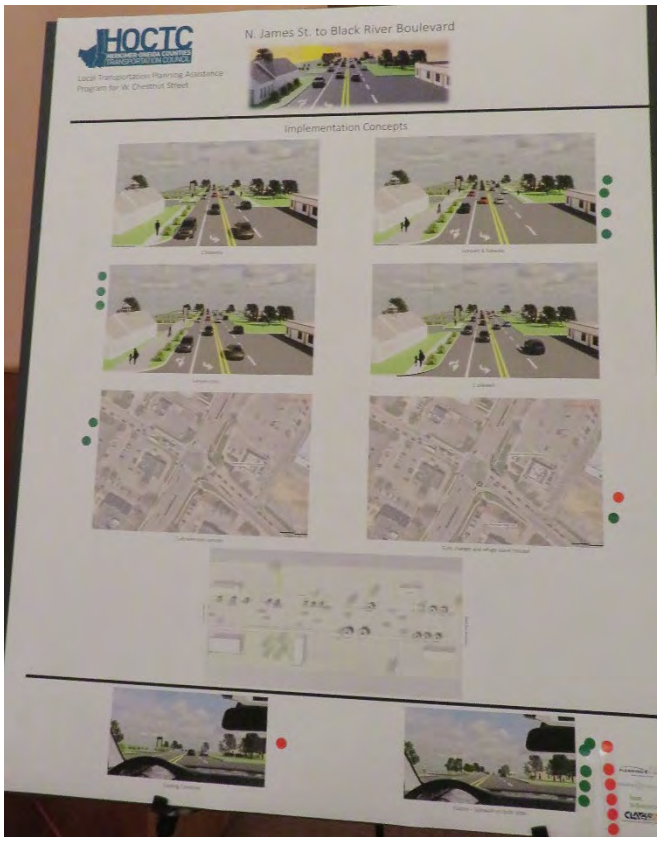
Attendees voiced preference for road realignment at the Turin Road and W. Chestnut Street intersection over the concepts of a roundabout. Enhancements to improve safety at the W. Chestnut Street and Black River Boulevard intersection were desired.

Regarding truck traffic, comments were raised during the presentation asking about the status of rerouting truck traffic to Potter Road as prohibiting pass-through truck traffic in this corridor should be implemented. A comment card further noted that while Potter Road is an alternative, the larger issue of garbage trucks running up Rte. 26 to the Ava Landfill is a concern and that trucks should be rerouted to Rte. 12 instead.

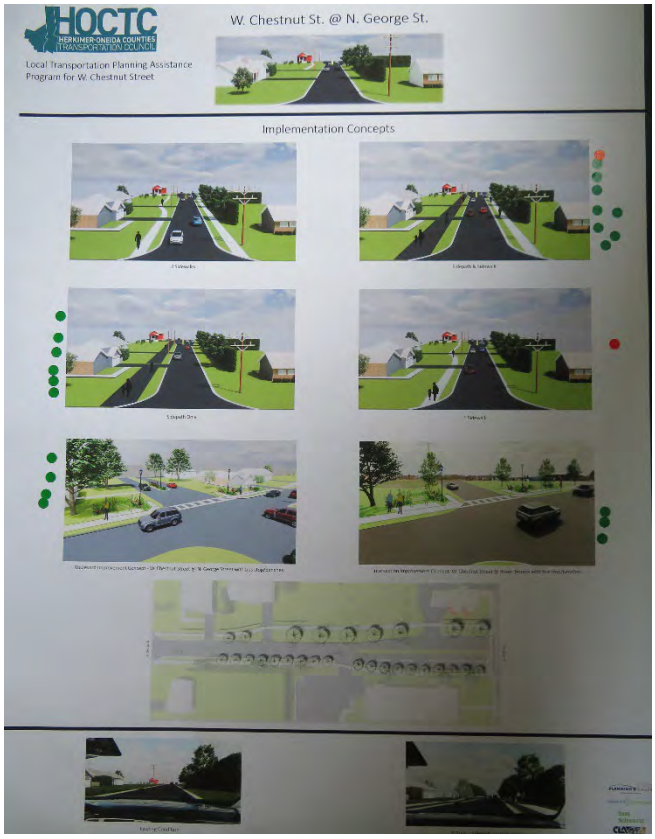
Following the presentation, attendees reviewed display boards showing renderings of existing conditions and draft concepts, and reviewed details on best practices for non-vehicular infrastructure placement. Attendees were asked to place a green sticker dot on concepts they preferred and a red dot on concepts that they did not prefer. Additional comments were provided via sticky notes and comment cards.

What We Heard

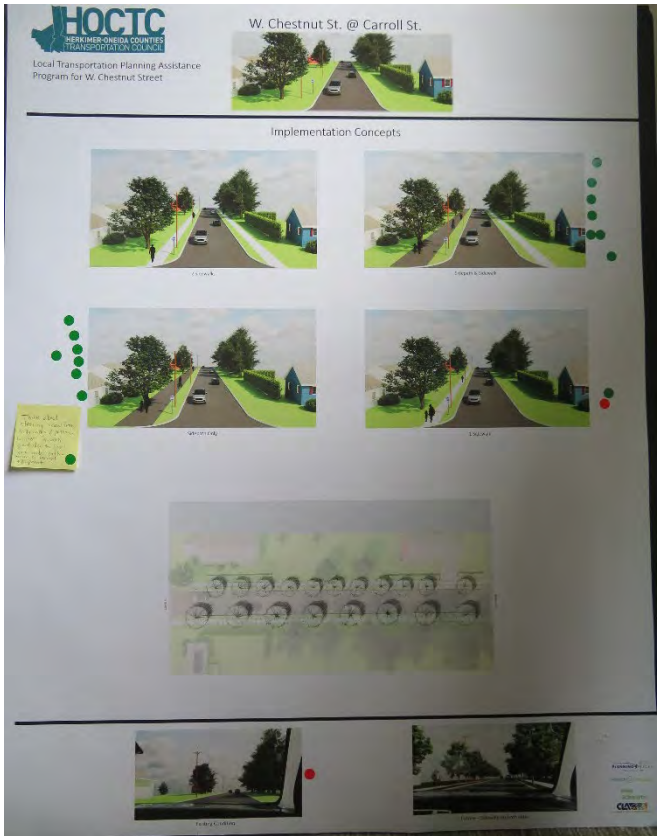
- N. James St. to Black River Boulevard
    - The concept of installing a sidewalk and sidepath along W. Chestnut Street (one on each side of the road) was the most popular, with just a sidewalk and just a sidepath also receiving positive input.
    - The curb extension concept at Black River Boulevard was preferred over the refuge island concept which had some opposition.



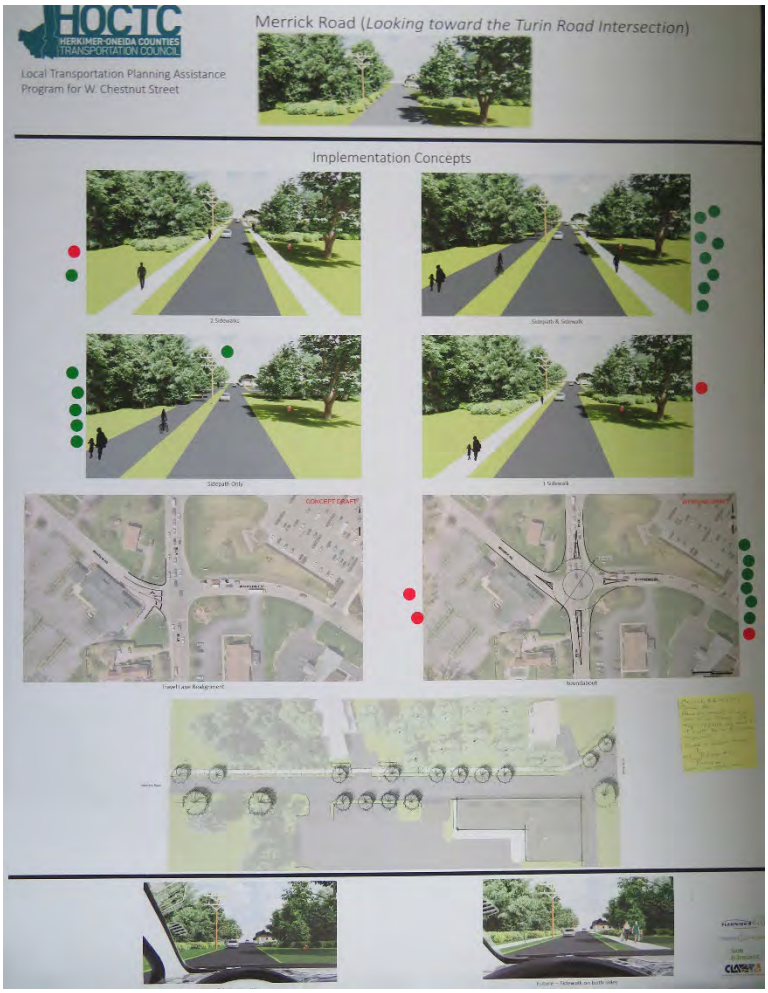
- W. Chestnut St. @ N. George St.
    - The concept of installing a sidewalk and sidepath along W. Chestnut Street (one on each side of the road) was the most popular, with just a sidepath also receiving significant positive input. Just a sidewalk was not a desired option.
    - The intersection with a boulevard improvement concept representative schematic using the intersection of W. Chestnut Street @ N. George St. received positive feedback.
    - The intersection improvement concept representative schematic using the intersection of W. Chestnut Street @ Roser Terrace received positive feedback.



- W. Chestnut Street @ Carroll St.
    - The concept of installing a sidewalk and sidepath along W. Chestnut Street (one on each side of the road) was the most popular, with just a sidepath also receiving significant positive input. Just a sidewalk was not a desired option.
    - A note was posted requesting consideration of snow clearing from sidewalks/paths in winter. It was noted that a wider path would make for easier [plow type] removal equipment access.



- Merrick Road (Looking toward the Turin Road intersection)
    - The concept of installing a sidewalk and sidepath along Merrick Road (one on each side of the road) was the most popular, with just a sidepath also receiving significant positive input. A single sidewalk or sidewalks on both sides was not a desired option.
    - A suggestion was made to consider building a second bridge and undertake repairs once it is completed.



For a closer view of the Concept Meeting Boards, view the PowerPoint Presentation at: https://www.romerises.com/w-chestnut-street-corridor-study W. Chestnut Street Public Meeting Slide Presentation.

W. Chestnut Street Visual Survey Discussion Appendix

A visual preference survey was released on May 9, 2023, to get the opinion of residents, commuters, and regular users of the W. Chestnut Street corridor regarding how they would like to improve their community's safety and aesthetic. The purpose of this survey was to ask respondents to rate their preferences on a series of roadway elements that could impact the future physical design concepts for W. Chestnut Street. The survey was open from May 9 until June 8, 2023.

The survey received a total of 290 responses during the time it was open. Responses were garnered using a variety of public outreach tools such as traditional mailings and social media. A postcard with a QR code and web link to the online survey was sent to 217 unique mailing addresses within or directly adjacent to the project area. The survey was widely distributed by local elected officials, regional transportation partners, several paper and online news agencies, and through private social media posts. The survey was distributed at the second public meeting on May 23, 2023, and left open for two weeks following the meeting to allow for community participation.

Characteristics of W. Chestnut Street *Travelers*

A review of the survey results found that the majority of respondents tended to be over the age of 35. The age group providing the highest frequency of responses to the survey was those 35-44 years old (25.8%), followed by those 45-54 years old (20.5%). The third largest party of respondents included those ranging from 25-34 years old and 55-64 years old (17.0%). 14.5% of respondents were 65+ years old, while 5.3% were under the age of 24. Approximately 97% of respondents reported themselves regularly utilizing W. Chestnut Street for daily transportation.

Existing Preferences and Uses of W. Chestnut Street *Travelers*

When participants were asked if they felt safe enough to ride their bicycle along the corridor, only 8.4% responded yes. It was clear that respondents preferred separated bike lanes with high visibility paint as opposed to a sharrow or a bike lane delineated with only a white line. When asked to rank these options, 87.0% of respondents chose a high visibility bike lane as their first choice, 86.0% chose a traditional bike lane as their second choice, and nearly 90.0% of respondents chose a sharrow as their least favorable option. When asked about the perception of safety regarding different off-street bicycle facilities, 45.5% ranked a marked dual lane as safest while 43.9% of participants ranked a marked single lane as safest. Only 26% of participants felt a pavement side path and bicycle facility was a safe option.

When asked about what would best encourage an increase in usage of public transit, participants generally agreed that a bus stop with a covering was the best option (78.4%), while 17.4% preferred a bench with a bus stop sign, and 4.4% preferred only a bus stop sign in the grass by the curb and no amenities.

Participants were asked to evaluate their comfort level when crossing different intersection configurations from a scale of 1 to 10, 1 being the least comfortable and 10 being the most. When asked about a more comprehensive four-way intersection with protected bike lanes as well as both pedestrian and bike crosswalks, the average comfort level was rated to be a 3. The intersection design included bump outs and detailed crossing delineations, which may be unfamiliar concepts to Rome residents as they are not yet common in the area. This image showed a higher level of vehicular traffic and did not include turning lanes.

When asked about a mini-roundabout with no designated bike lanes or crosswalks, the average comfort level was also rated to be a 3. This could be partially due to the lack of safety features, including lane markings and protection for bicyclists.

When asked about a highly delineated multi-mode friendly four-way intersection with a designated left turning lane and a pedestrian refuge island, respondents on average rated their comfort level to be a 4. This image was the highest rated intersection in the visual preference survey. It featured a plentiful number of markings on the roadway delineating bike lanes and pedestrian crossings. The higher comfort level may have been influenced by the presence of a pedestrian refuge island.

When asked about a single-lane conventional roundabout, respondents on average rated their comfort level to be a 3. While there were lane markings depicted in the image, there were no other safeguards for bicyclists or pedestrians.

When asked about how safe respondents felt using different kinds of crosswalks, crosswalks supplemented with rectangular rapid flashing beacons (RRFB), textured or high visibility standard crosswalks, and ladder style crosswalks all scored highly. The continental-style crosswalk scored low, and the 3-dimensional paint did not impact the results of this crosswalk type. 82.1% felt an RRFB was the safest, 64.5% felt a standard crosswalk with high visibility marking was the safest, over 50.0% felt a traditional ladder style crosswalk was the safest, and 43.5% felt a standard crosswalk textured with a brick inlay was the safest. A majority of respondents felt a 3-dimensional continental crosswalk, a standard continental crosswalk, or a typical standard crosswalk was the least safe.

When asked about crosswalks from the perspective of a driver, respondents felt RRFB's, and high visibility standard crosswalks were the safest. Less than 10% of drivers felt that all the other options would encourage them to be more aware of pedestrians and drive more safely.

When asked about which placemaking features would be preferred within the community, respondents rated a landscape median the highest (60.7%). The next highest-ranking amenity

was a pocket park (59.2%), followed by pedestrian scale lighting (56.0%), benches (49.1%), a building mural (31.6%), and ranking last was an artistic bike rack (28.0%).

Participants were asked to rank public spaces which they could spend their leisure time on a scale from 1 to 10, 1 being the least likely and 10 being the most. Respondents did not have a strong preference for any of the public spaces in the visual preference survey. On average a pavilion, kid's playground, dog park, and sunken auditorium were all ranked a 3. While the pavilion and dog park offer open space, the kid's playground included slides, shrubbery, and benches. The sunken auditorium did not depict much landscaping, which is why it could've been rated a 3 instead of a 4. A highly landscaped, garden style park which included lots of outdoor space was rated to be a 4, the highest ranking out of all the options.

W. Chestnut LTPAP Public Meeting #3
St. Paul's Roman Catholic Church
November 9, 2023, at 3:30 PM and 6:00 PM

Meeting Overview

The meeting was hosted by Herkimer-Oneida Counties Transportation Council (HOCTC) staff. Two identical meetings were held at different times to provide the public with an opportunity to attend when most convenient for them. Public Meeting #3 was hosted at different times than past meetings to encourage attendance from residents who were unable to make past meetings due to a time conflict.

HOCTC Presentation

The meetings started with a PowerPoint presentation by Dana Crisino and Adam Palmer (HOCTC). The presentation provided a status update of the plan, this included an overview of the work that was completed in previous phases of the planning process. The presentation also introduced a community health profile and an analysis of existing roadway conditions and operations. The results of past public surveys were presented and demonstrated the impact of how public feedback has guided the development of conceptual designs. Lastly, the participants were walked through a visual diagram overview.

Our presentation was aligned with what the public's thoughts and ideas were based on past public engagement efforts. Addressing connectivity to activated parks, services, commercial amenities, and events for youth and neighborhood residents was a high priority throughout the planning process. Pedestrian and bicycle safety infrastructure was emphasized in the presentation to address improvements to all intersections within the corridor. This includes signal optimization, as well as, separated and/or defined spaces for walking and biking. Additional opportunities for amenities such as street trees, transit stops, and streetlights were integrated into the visioning diagram.

What We Heard

HOCTC staff collected and documented verbal feedback from the public and encouraged participants to post written feedback before exiting the meeting. The following comments were recorded:

- Traffic frequently exceeds the speed limit throughout W. Chestnut Street and needs to be addressed
- There was interest in traffic signaling from Merrick Road to Black River Boulevard, with the inclusion of traffic optimization technology
- There was concern over how much space would be needed within the ROW to build sidewalks and sidepaths, and whether it would have any effect on existing resident's lawns or other occupied spaces
- There were inquiries regarding whether a sidepath and/or a sidewalk were necessary on both sides of the corridor
- Attendees stated that there was a need for long-term solutions to drivers speeding down the roadway using either traffic engineering or law enforcement solutions
- There were concerns regarding how future development and increases in traffic may not be able to be accommodated with the installation of sidewalks or sidepaths restricting road size'
- Attendees stated that the Potter Road and Route 46 intersection needs to be made safer before they can expect trucks to stop using W. Chestnut Street
- Some attendees expressed a positive view towards added sidewalks and sidepaths but expressed a desire to ensure that sidepaths for bikes flowed continuously and in a linear fashion
- There was interest in adding additional bump-outs near proposed crosswalks to slow traffic at those locations

Conceptual Design Review and Activities

The focus of the second half of the meeting was to present the conceptual designs. The content included in the designs was influenced by the public's feedback from previous meetings and surveys. Five conceptual designs, each depicting different segments of W. Chestnut Street, were revealed once the presentation concluded. Each conceptual design board highlighted the strengths and weaknesses of the corridor segment if the design were to be implemented.

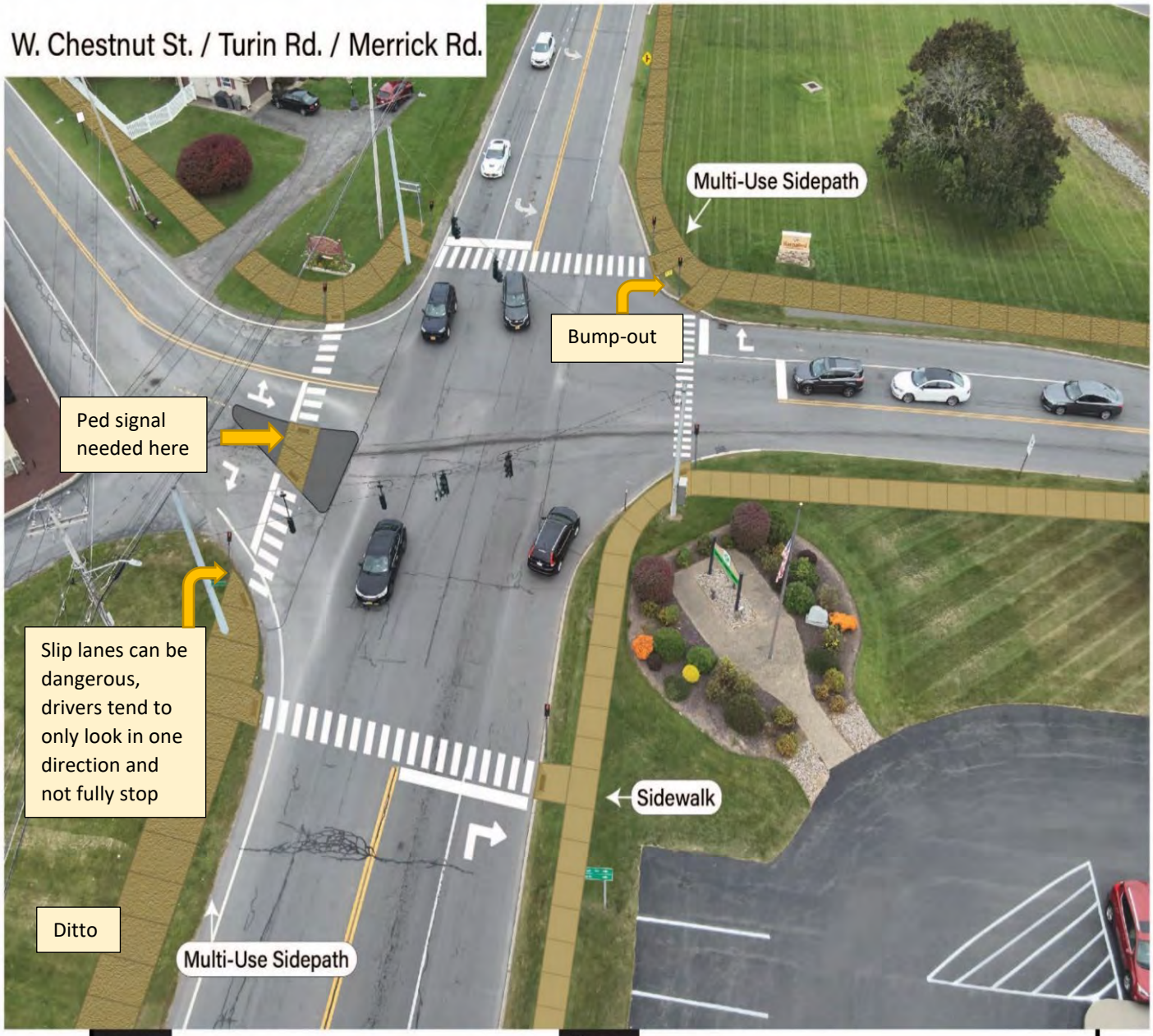
HOCTC encouraged attendees to participate in an activity called "Be the Banker" to collect input regarding the designs. Participants used $1 million "HOCTC dollars" consisting of 10 bills to deposit their money into the bucket(s) attached to each design they wanted to "invest" in. This investment would be based on which concept they felt was most beneficial, should be prioritized, and/or using another rationale indicating their preference for that concept. Participants also had the opportunity to

apply additional input to any conceptual design board using Post-it notes.

Once this was completed, the participants were asked a yes or no question about whether the concepts captured their thoughts/ideas about the corridor. HOCTC received 18 responses, of these, 89% of the participants agreed that the concepts captured their thoughts and ideas about the corridor. Attendees had the opportunity to leave additional comments of any last thoughts or concerns regarding the entirety of the project in a drop box.

Below is a table of the 5 concepts that were presented. The table presents the order of their ranking. The following graphics depict what was shown to the public and include comments that were posted on the designs during the public meeting in yellow boxes.

Preference Ranking	Corridor Segment/Intersection	Activity Funds Allocated
1	W. Chestnut St./Turin Rd./Merrick Rd.	$5.3 Million
2	W. Chestnut St. and N. Madison St.	$3.6 Million
3	Merrick Rd. at Wood Creek	$3.5 Million
4	W. Chestnut St. and N. James St.	$2.7 Million
5	W. Chestnut St. and Roser Terrace	$2.5 Million



Pros

- Intersection is aligned to be a more traditional 4-way intersection
- Organizes and provides space for pedestrians/bicyclists to safely move through the intersection

Cons

- Traffic volume and speed will remain relatively unchanged
- Crossing times allowing pedestrians and bicyclists may delay vehicle movements

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W. Chestnut St. and N. Madison St.

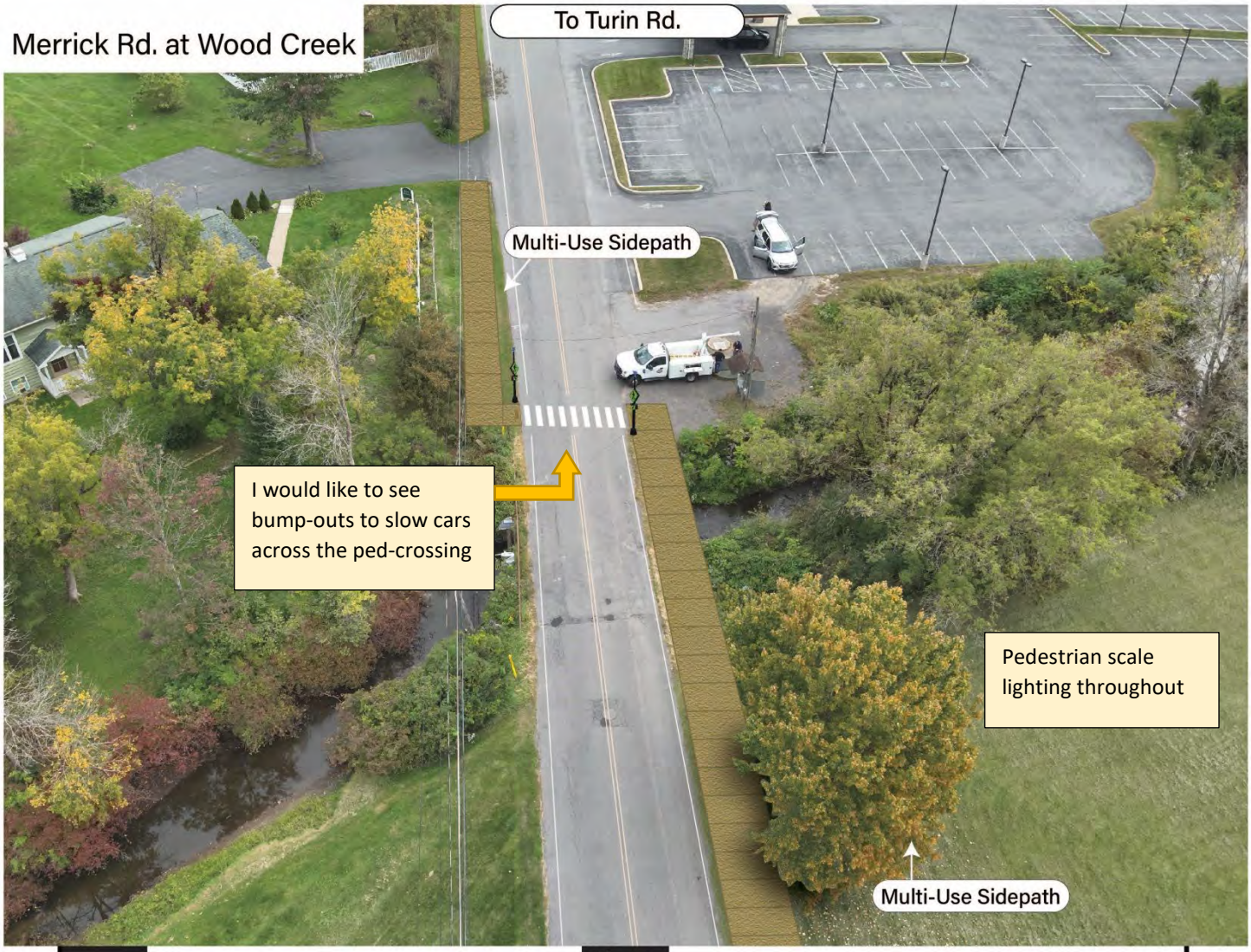
Pros

- Establishes pedestrian/bicycle connections with the residential streets
- Enhances safety at a signalized intersection crossing

Cons

- Multi-use sidepath is only located on north side of the street
- Signal operation may have to be adjusted to accommodate pedestrian crossings

Merrick Rd. at Wood Creek



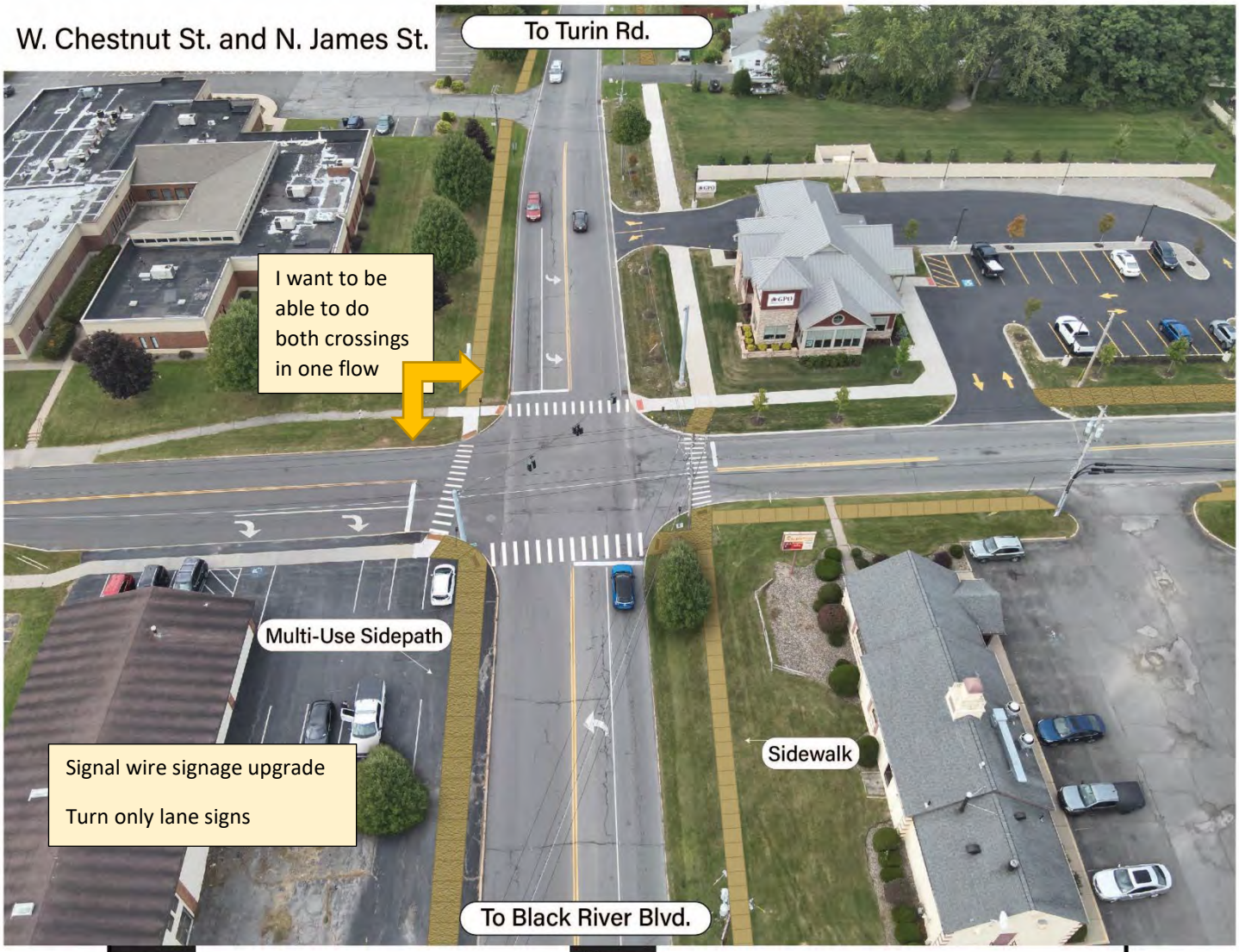
Pros

- Connects residential developments to commercial areas
- Enhances and upgrades the culvert/bridge to improve flood resiliency, facilitate emergency access and provide space for pedestrian/bicyclists

Cons

- Multi-use sidepath is only located on the south side of the roadway after Wood Creek
- Connections will be needed into private residential developments

W. Chestnut St. and N. James St.



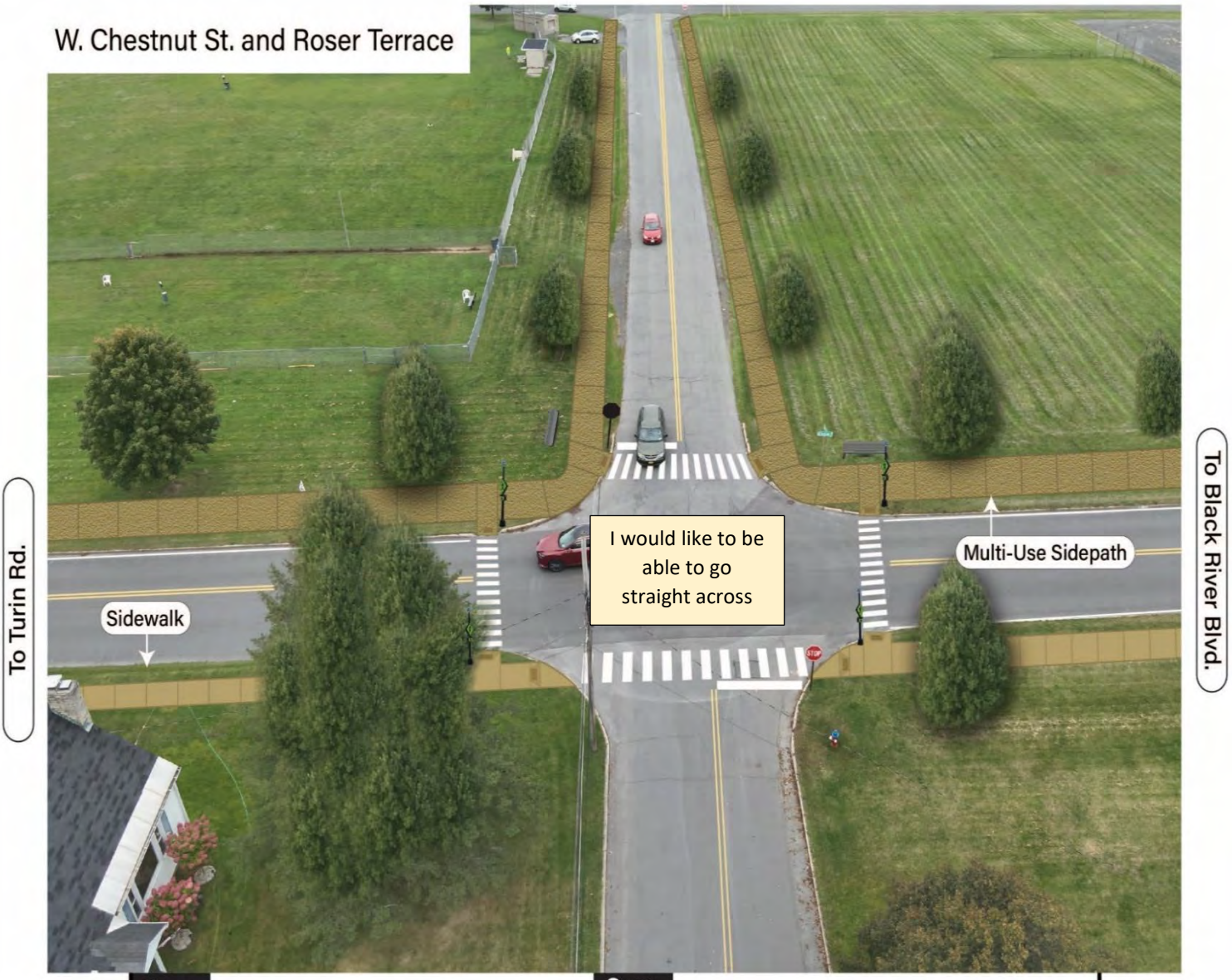
Pros

- Connects and extends the existing sidewalks
- Enhances safety at a signalized intersection crossing

Cons

- Limited comfort features offered
- Bicyclists may experience confusion with the location of sidepath changing

HOCTC
HERKIMER-ONEIDA COUNTIES TRANSPORTATION COUNCIL



Pros

- Establishes pedestrian/bicycle connections with the residential streets
- Links to nearby parks, youth sport areas, and elderly-designated facilities

Cons

- Does not further enhance existing greenspaces/parks beyond existing usage
- May create delay for traffic with mid-block RRFB pedestrian crossing

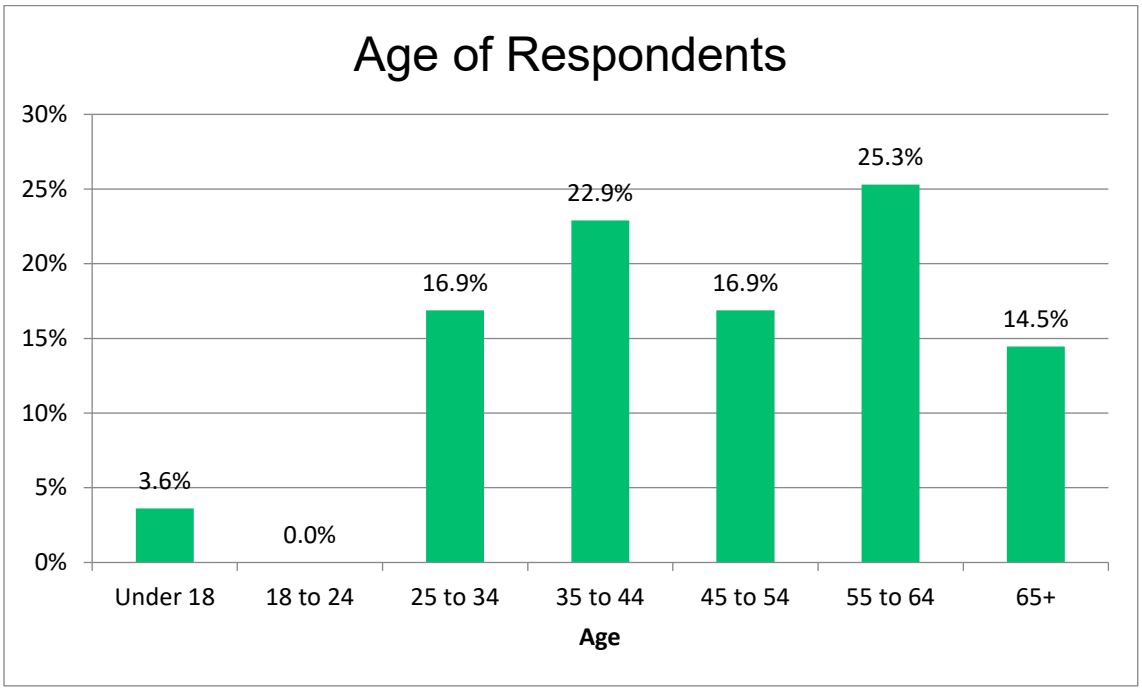
West Chestnut Street Survey #3 Summary & Discussion

The third and final public survey for the Local Transportation Plan for W. Chestnut Street was released on October 11th. This survey was designed for residents, commuters, and users of the corridor to communicate their feelings about the planning process to date, and what their expectations are for the plan's implementation. The survey was open from October 11th to November 23rd.

The survey received 83 responses during the time that it was open. Responses were gathered utilizing a variety of public outreach tools such as direct mailings, in-person meetings, and social media. A postcard was mailed to 217 unique properties within or directly adjacent to the project area. The postcard had a QR code and web link to the online survey. The survey was also widely distributed by local elected officials, regional transportation partners, newspaper and online news agencies, and in private social media posts. HOCTC staff distributed paper copies of the survey at the third public meeting on November 9, 2023, and left it open for two weeks following the meeting to allow for adequate community participation.

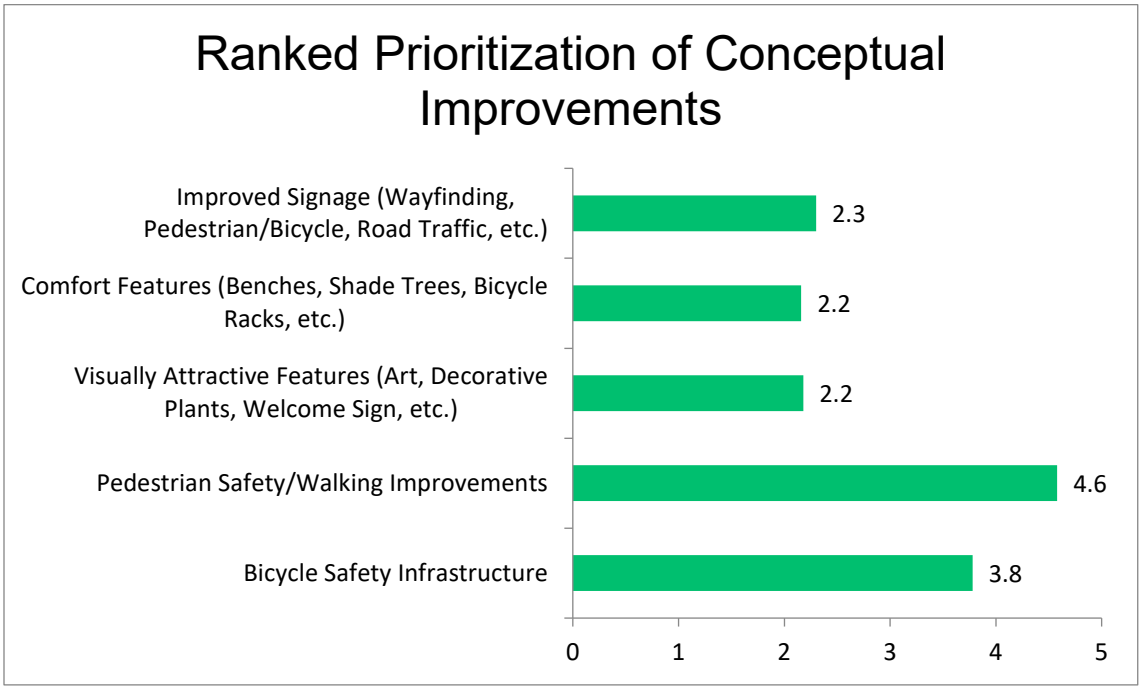
Characteristics of W. Chestnut Street Travelers

A review of the survey results found that there was a relatively balanced participation rate by all age groups ranging from age 25 to age 65 or older, with all highlighted age groupings varying by just over 10%. However, respondents under the age of 25 accounted for just 3.6% of survey participants. Similar to past surveys is that nearly all respondents (97.6%) reported themselves as regularly utilizing W. Chestnut Street for daily transport.



Project Implementation Expectations

Respondents ranked a list of thematic roadway improvements for the corridor based on what they would like to see addressed the quickest. Respondents indicated that they would like to see pedestrian safety/walking improvements addressed first, followed by bicycle safety infrastructure improvements. The least prioritized improvements were the installation of comfort features such as benches or shade trees and visually attractive features. When asked about the anticipated timeline for implementing these projects once the conceptual plan was finished, 59.7% said they would expect it to take less than two years.



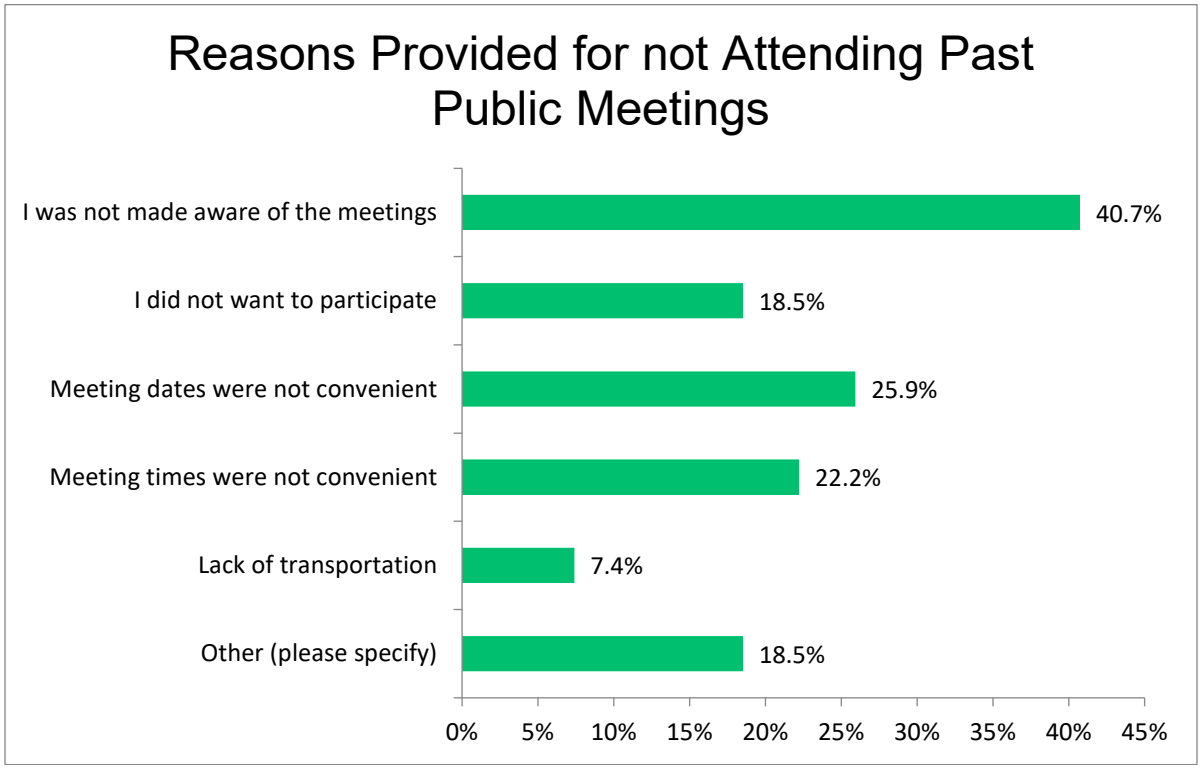
Respondents were also asked an open-ended question about where else (outside of the project area) they would like to see similar improvements made within the City of Rome. Several respondents highlighted an interest in improving pedestrian and bicyclist safety beginning at Turin Road and extending such safety accommodations towards Jervis Avenue and other nearby high residential areas. Respondents also mentioned the need for such improvements on Black River Boulevard (18.6%) and Erie Boulevard (14.0%). Other, less frequently mentioned roadways included James Street and Potter Road.

Public Participation Strategy Effectiveness

Survey participants were asked several questions about the public participation process, and how effective they felt the tools utilized by HOCTC staff were for capturing their thoughts. Overall, 77.6% of respondents felt that they had an adequate opportunity to express their concerns or thoughts on the project. Specifically relating to some of the strategies used, respondents on average rated the survey tool a 3.8/5 on its effectiveness in capturing their

thoughts and Ideas. Respondents on average rated the public meeting experiences as a 3.7/5 on its effectiveness in capturing their thoughts and ideas.

Members of the public who had not attended past meetings were asked about the barriers that prevented them from attending. Among the 27 responses received on this question, a combined 48.1% of respondents said that either the meeting dates or times were not convenient for their schedule, 40.7% of respondents were unaware of the existence of past meetings, and 18.5% did not want to participate in past meetings. Those who selected "other" indicated that they either had a schedule conflict or had forgotten.

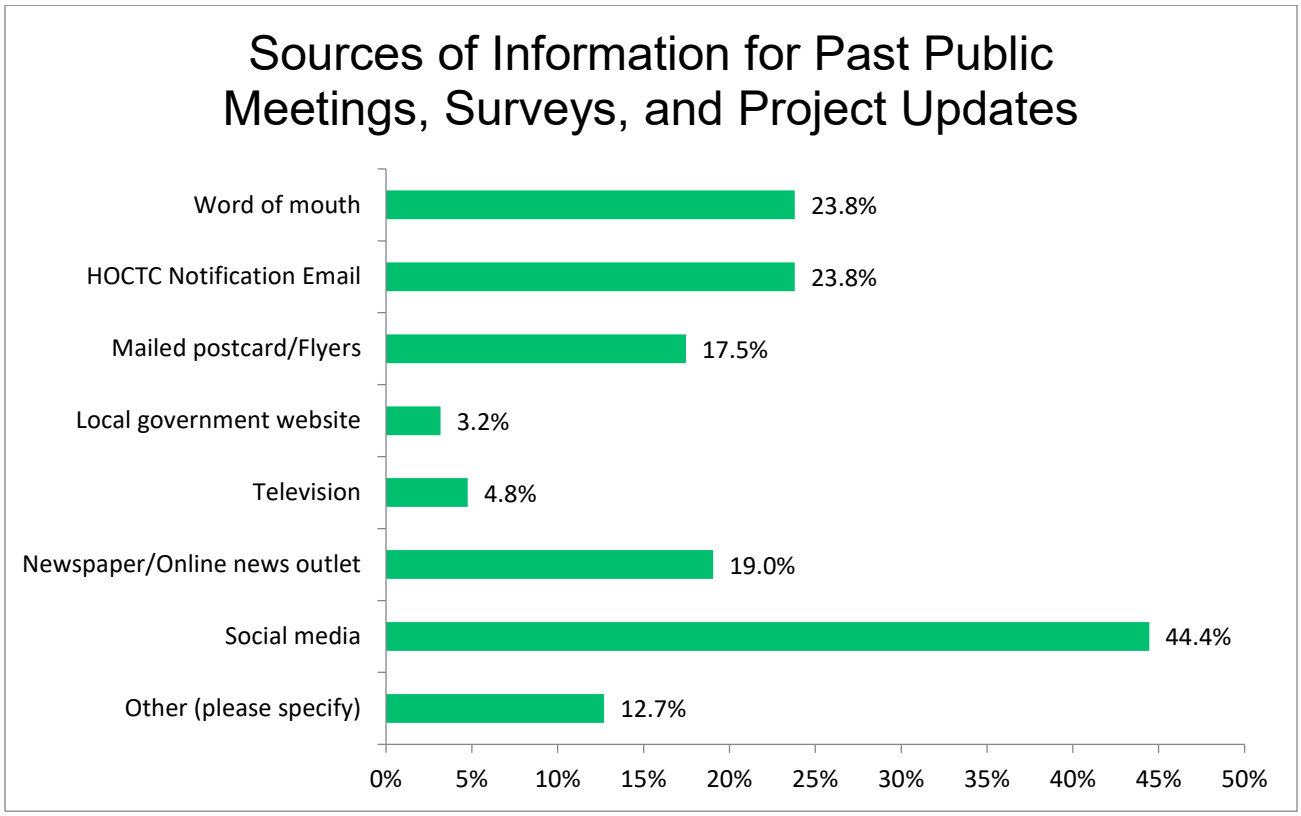


A similar question was asked regarding why members of the public did not participate in past surveys, in which only 10 respondents answered. Among these 10, eight (80%) were aware of past surveys, and two (20%) either lacked the technology or knowledge on how to access the survey.

Public Participation Notification Effectiveness

Throughout the planning process, the public was informed about upcoming public engagement opportunities using multiple mediums of communication. Respondents were asked about which methods they personally relied on to receive important project updates. The results show that 44.4% of respondents saw updates advertised on social media, with the other top sources of information being HOCTC notification emails (23.8%) and word of mouth (23.8%). The least

effective forms of notification were by either a local government website (3.2%) or television (4.8%).



Summary of Business Stakeholder Outreach – W. Chestnut Street

HOCTC Staff contacted business stakeholders located in the W. Chestnut Street project area during the months of April and May. Stakeholders were interviewed over the phone to discuss the existing conditions of W. Chestnut Street including current safety concerns, concerns expressed by customers, and the stakeholder's vision for a safer and more accessible roadway.

HOCTC staff attempted to contact a total of 30 businesses along the corridor. Among these, thirteen agreed to participate in an interview, one declined to interview, and the remaining sixteen did not respond to the request for an interview. Businesses that did not respond to a request for an interview were left a follow-up voicemail, called at a later date, and in some cases sent an email containing the interview questions.

The following information identifies businesses that completed the interview, declined the interview, and that did not respond. Additional information regarding the content of each interview will follow.

Completed Interviews

1. Berkshire Bank – Interview completed.
2. Care Givers Home Care – Interview completed.
3. Chestnut Commons Physical Therapy – Interview completed.
4. GPO Federal Credit Union – Interview completed.
5. Hematology-Oncology Associates of Central NY – Interview completed.
6. LabCorp – Interview completed.
7. Mohawk Valley Radiation Medicine – Interview completed.
8. Mohawk Valley Women's Health Associates – Interview completed.
9. Rome Eye Clinic – Interview completed.
10. Rome Health Obstetrics and Gynecology – Interview completed.
11. Rome Orthopedics & Sports Medicine – Interview completed.
12. Strong Burns & Sprock Funeral Homes – Interview completed.
13. Rome Teachers Federal Credit Union – Interview completed.

Declined Interview

1. Hannaford – Declined to participate.

No Response

1. Barry Funeral Home
2. Burger King – No response to phone calls.
3. Dunkin Donuts – Multiple attempts to call unsuccessful; received busy signal and/or automated recording.
4. Empire Hearing and Audiology – Spoke over the phone and then emailed interview questions.
5. HJ Obeid, MD, PLLC Sinus, ENT, & Hearing – Spoke over the phone and then emailed interview; undeliverable.
6. Kingdom Hall of Jehovah's Witnesses - Voicemail on 04/06 and 04/10.
7. Mohawk Valley Health System Lab
8. Nascentia Neighborhood (The Beeches) – Spoke over the phone and then emailed interview questions on 04/27.
9. Nuccio Chiropractic – Spoke over the phone and then emailed interview questions.
10. Raspberries Café of Rome - Message left with business on 04/06.
11. Rome Alliance Church
12. Rome Catholic School – Left message for the principal on 04/06.
13. Rome WIC (OC) – Spoke over the phone and then emailed interview questions on 04/27.
14. St. John's Lutheran Church
15. The Abone Agency Real Estate – Emailed interview on 04/27.
16. Walgreens – Left message for manager that was on vacation on both 04/06 and 04/10.

Berkshire Bank

- Mr. Grabowski works for JLL – they are a third-party facilities manager for the bank. He works from Pittsfield to Syracuse. JLL just took on the bank as a client in October of last year. He is not all that familiar with the Rome site.
- Mr. Grabowski stated that most customers drive to the bank and that he is not aware of a large number of walk-ins.

Caregivers Homecare

- Appreciates that the Hannaford Grocery store was added to the corridor.
- Concerned about the condition of the road itself, which includes the presence of potholes and the rapid merging from two lanes to one lane.
- Stakeholder uses a vehicle to travel in the corridor but noted that some staff do not have cars and rely on public transport to travel to the office and to some clients.
- Stakeholder recommended improvements to the intersection to include better/updated lines painted on the roadway and updating signage.
- Sees potential for the development of more bus routes. This would also help to connect the neighborhoods better.
- Stakeholder has received client feedback that there is difficulty getting a bus to get to the business if the client does not have a car, and that clients who do drive say the condition of the road is a concern.
- Overall, would like to see an increase in the number of bus stops, well-maintained sidewalks, and good signage.

GPO Federal Credit Union

- Stakeholder likes that the corridor is centrally located just off Black River Boulevard.
- Stakeholder stated the corridor is unique due to the hospital and businesses that provide foot traffic and that creates mixed-use aspect of the corridor.
- Stakeholder indicated no major concerns
- Stakeholder noted that Dunkin Donuts can get congested but doesn't see it as a major issue.
- Stakeholder noted that pedestrians typically come from Commons Plaza but that most customers and commuters drive in.
- Would like to see better pedestrian traffic connectivity provide non-vehicular option for customers. Does expect more foot traffic if sidewalks/path installed.
- Would like to see existing sidewalks connected to the rest of the corridor.

- Stakeholder stated than an ideal corridor would have a pedestrian connection throughout.
- Stakeholder stated that they definitely want to see the path on the north side of the road. The bank invested the money in the wide sidewalk based on discussions that it would connect to a sidewalk/path in both directions along W. Chestnut. They would have preferred to do an escrow and construct it when the rest of the system did it, but it was not an option provided during the development review process.

Rome Health
(LabCorp, Rome Eye Clinic, Mohawk Valley Women's Health Associates, Chestnut Commons Physical Therapy, Mohawk Valley Radiation Medicine, Rome Orthopedics & Sports Medicine, Hematology-Oncology Associates of Central New York, Rome Health Obstetrics and Gynecology)

- Stakeholder appreciates the easy access to public areas such as doctor's offices and the hospital.
- Stakeholder's main concern was how to improve access from Rome Health Hospital to Chestnut Commons. Rome Health would like to bridge the gap through the 1614 North James Street location and add a cross walk for pedestrian traffic. Stakeholder noted that a lot of the patient traffic relies on public transportation and walking from facility to facility.
- The stakeholder stated that the Black River Boulevard intersection needs to be addressed as far as access to buildings like Dunkin Donuts; and notes that it seems to very hectic at times.
- The stakeholder noted that access to Rome Health for walking patients has become a challenge as Rome Health grows.
- The stakeholder would like to see a crosswalk from Rome Health Hospital to Chestnut Commons.
- The stakeholder stated that delivery trucks and refuse pickups at local businesses on the corner of the Black River Boulevard and West Chestnut are very problematic.
- The stakeholder stated that he has had patients complain about the lack of connectivity of the buildings.
- The stakeholder described the ideal corridor as requiring:
    - The relocation of the Dunkin Donuts entrances to out the back of the parking lot like McDonalds, noting that this would cut down on the congestion of the area.

- The addition of a crosswalk from 1614 North James Street to the Chestnut Commons building for their patients to be able to access the building and service lines easier from the main campus.
- The removal all tractor trailer traffic from Chestnut except for local deliveries.

Strong Burns & Sprock Funeral Homes

- The stakeholder noted that this site has the footprint and usage of an event center, with significant vehicle traffic at times.
- The stakeholder notes that the intersection of Turin/Merrick/W. Chestnut functions fine currently, it just needs sidewalks and crosswalks installed.
- The stakeholder is concerned about any intersection improvement at Turin/Merrick/W. Chestnut that makes accessing the driveway to his property difficult or impossible. Even the idea of a right turn lane in front of his building is a concern as it could eliminate the ability to use the driveway closest to the intersection.
- The stakeholder is concerned about losing parking along the frontage of the property where vehicles park.
- The Funeral Home has seating for over 300 people. Cars for large events fill the parking lot and cars park along Merrick Road – sometimes to the Apartments.
- There is concern about the ability to park cars along Merrick Road once the new housing comes online. Road width to continue to provide on-street parking is important.
- The stakeholder noted that he has been in the location for 6 years and moved there from a more urban setting because they needed more space.

Rome Teachers Federal Credit Union

- The stakeholder noted that after Hannaford came in, there was a noticeable increase in foot traffic and bike traffic cutting through the property to get to Hannaford.
- The installation of sidewalks is desirable because they see a significant number of people on foot in the area, including people crossing Turin Rd.
- The FCU gets overflow traffic from the funeral home and people who cross Turin Rd. This is not a formal agreement, but the FCU does not have an issue with people using the parking lot.

- Most customers use a car to access the FCU. They get a few walkers/bikers occasionally.
- Staff notices that several people walk to Hannaford from Merrick Road.
- Truck traffic is noticeable but isn't a specific concern. However, trucks do occasionally cut the corner and damage the grass at the intersection.
- The FCU is ok with the idea of pedestrian facilities being placed along the frontage of their property. It would enhance safety and that is a concern that they have for pedestrians in the area.

Draft Report Comments received from the City of Rome

- Mohawk River Trail connection - When traveling eastbound on W Chestnut I would probably prefer to hang a left onto North James and cross the boulevard at James or Madison to the north to reach the MRT, rather than deal with the Chestnut/Black River intersection and all of its complexities. The plan offers both options which is excellent.

- Pedestrian bridge crossings - Speaking of the Chestnut/Black River intersection, are pedestrian bridges still considered for modern planning? There may be only 2 or 3 intersections in Rome busy enough to justify but I really enjoy these when I find them as a cyclist. Example - Whirly Twirly bridge near Buffalo AKG Art Museum: https://urbantraipsing.com/2024/07/15/buffalo-bridges-delaware-park/

- Chestnut - Potter Loop - Wonderful idea.

- Chestnut and Turin intersection - This is more car-related - when approaching the light on W Chestnut westbound I've noticed traffic can get congested to where the right turn lane is blocked. Not sure if the tables in the traffic study shows data to back that up, but if so maybe the right lane can be extended another 1-2 car lengths, or perhaps the signal update will improve the flow. I can see why the roundabout was proposed, although roundabouts don't exactly feel pedestrian/cyclist friendly.

Appendix C – Health Profile

Existing Conditions on W. Chestnut St.

Health Profile

The Health Profile consists of three major themes:
1) Neighborhood Health Score
2) Air Quality
3) Recreational Value

The **Neighborhood Health Score** is composed of five key health factors:

- Obesity
- Asthma
- Diabetes
- Coronary Heart Disease
- Cholesterol

These five factors were scored on a scale of 0-20 with 20 being the healthiest score. These scores were then added together to get the total Neighborhood Health Score.

Air quality is an important determinant in understanding certain adverse health outcomes in the community. Certain traffic characteristics serve as major contributors to poor air quality and an overall increase in harmful emissions. Air quality along the W. Chestnut St. corridor was reviewed using CDC environmental data and information gathered from various walk audit tools.

Recreational value provides insight on activities that promote a healthy lifestyle and are available to the public surrounding the corridor. A diversity of recreational offerings can encourage people to visit the corridor and engage in healthy lifestyle activities.

Existing Conditions on W. Chestnut St.

Health Profile

Neighborhood Health Score: 54.6/100

Obesity: **19.0** out of 20

Asthma: **18.7** out of 20

Diabetes: **11.5** out of 20

Coronary Heart Disease: **4.3** out of 20

Cholesterol: **1.2** out of 20

Air Quality

- AQI higher than Oneida County average of 7.478
- Ranked 17th out of 76 census tracks for most unhealthy air
- Air pollution detectable through odors
- High concentration of freight traffic

Recreational Value

- ✓ Open green space
- ✓ Sports field/court
- ✓ Dog Park
- ⊘ Trail Access
- ⊘ Playground

Existing Conditions on W. Chestnut St.

HOCTC used three different walk audit tools to assess the safety and the health friendliness of the corridor:

1) Community Walking and Bicycling Audit Tool
2) Pedestrian Environment Data Scan (PEDS)
3) Active Neighborhood Checklist.

These audits scored five different elements:

- Land use environment
- Transportation environment
- Walking environment
- Bicycling environment
- Facilities/aesthetics

The W. Chestnut St. corridor received a walk score of 53 from the Community Walking and Bicycling Audit.

The audits concluded due to the corridor lacking many features, alternative modes of transportation are not easily utilized. The following strengths and areas for improvement were identified through the remaining walk audits:

Strengths

- High quality road condition
- Fresh food access
- Some trees along corridor
- Wide variety of land usage

Weaknesses

- Lack of walkable space
- No bike lanes
- No crossing aids
- Lack of comfort features
- Lack of attractive features
- Noise/Air pollution
- Bus stops are unsheltered

Appendix D – Cost Estimates

City of Rome, New York

Local Transportation Planning Assistance Program - W. Chestnut St.

W. Chestnut & E. Chestnut St.: 225' east of Black River Blvd. to N. George St.

Preliminary Opinion of Probable Cost

Item	Qty	Unit	Unit Cost	Ext Cost
Site Preparation				
Site Demolition, Preparation & Earthwork	10,000	SF	$ 1.91	$ 19,100.00
Clearing & Grubbing	0	SF	$ 0.85	$ -
Pavement & Site Construction				
Crushed Stone Pavement (Trails)	0	SF	$ 3.16	$ -
Asphalt Pavement (Parking & Driveways)	3000	SF	$ 6.63	$ 19,890.00
Asphalt Pathway (10' wide)	13200	SF	$ 11.59	$ 152,988.00
Concrete Pavement (Sidewalks - 5' wide)	10000	SF	$ 15.22	$ 152,200.00
Unit Brick Paving with Concrete Base (Plazas, Walkways)	0	SF	$ 31.90	$ -
Granite Curb (Parking & Driveways)	500	LF	$ 44.00	$ 22,000.00
ADA Curb Ramp	40	EA	$ 3,900.00	$ 156,000.00
Stormwater Management	0	LS	$ -	$ -
Assumed Utility Allowance	0	LS	$ -	$ -
Site Amenities				
Benches	0	EA	$ 2,681.88	$ -
RRFB	1	EA	$ 10,000.00	$ 10,000.00
PHB	0	EA	$ 50,000.00	$ -
Tables & Chairs	0	EA	$ 4,500.00	$ -
Bike Racks	0	EA	$ 615.83	$ -
Bollards	0	EA	$ 743.89	$ -
Trash Receptacles	0	EA	$ 1,609.41	$ -
Planters	0	EA	$ 1,267.20	$ -
Tree Grates	18	EA	$ 1,413.58	$ 25,444.44
Lighting (Ped style, incl. pole, luminaire, footing, elec, conduit)	15	EA	$ 11,750.00	$ 176,250.00
Flag Pole (30' height)	0	EA	$ 4,884.76	$ -
Monumental Signage	0	EA	$ -	$ -
Wayfinding Signage	0	EA	$ -	$ -
Informational Signage	0	EA	$ -	$ -
Decorative Fence	0	LF	$ 205.86	$ -
Decorative Vehicular Gates	0	EA	$ 2,253.39	$ -
Signal Upgrades				
Fully Actuated Signal with Ped Phasing	1	EA	$ 365,000.00	$ 365,000.00
Pavement / Traffic Markings & Signage				
Traffic Signage (Sign, post, footing & install)	10	EA	$ 711.57	$ 7,115.70
Traffic Markings	8000	LF	$ 3.31	$ 26,480.00
Sharrow Marking	0	EA	$ 175.00	$ -
Bike Lanes (Decorative, Ruby Glass, 4' wide)	0	LF	$ 9.38	$ -
Bike Lanes (Painted)	0	LF	$ 3.04	$ -
Crosswalks (Decorative, Ruby Glass, 8' wide)	0	LF	$ 15.72	$ -
Crosswalks (Elevated, incl pavement install)	0	LF	$ 510.06	$ -
Crosswalks (Painted)	1300	LF	$ 19.40	$ 25,220.00
Landscaping Improvements				
Tree Plantings	18	EA	$ 1,095.78	$ 19,724.04
Shrub & Perennial Planting	0	EA	$ 70.65	$ -
Turf & Grasses	40,000	SF	$ 2.25	$ 90,000.00
			Subtotal	**$ 1,267,412.18**
Contingencies				
Drainage & Erosion Control (5%)	1	LS	$	63,370.61
Mobilization, Bonds & Insurance (8%)	1	LS	$	101,392.97
Maintenance of Traffic (8%)	1	LS	$	101,392.97
General Conditions (8%)	1	LS	$	101,392.97
Escalation (6%)	1	LS	$	76,044.73
Construction / Design Contingency (25%)	1	LS	$	316,853.05
			CONSTRUCTION TOTAL:	**$ 2,027,859.49**
Consulting & Engineering Fees				
Site Survey (10%)	1	LS	$	202,785.95
Design & Engineering ($20,000 + 10%)	1	LS	$	222,785.95
Permitting & Public Engagement (15%)	1	LS	$	304,178.92
Construction Administration & Oversight (15%)	1	LS	$	304,178.92
			CONSULTING & ENGINEERING TOTAL:	**$ 1,033,929.74**
			GRAND TOTAL:	**$ 3,061,789.23**
			SAY	**$ 3,020,000.00**

These estimated items represent a reasonable opinion of cost based on a combination of NYSDOT pay items, RS Means pricing, and past and recent contractor bids. We assume future bids for these projects will fluctuate according to market conditions at the time of bidding, level of detail used in the preparation of the design documentation and specifications, final material selection, the bidding environment, and other variables. These preliminary estimates of probable construction costs are expected to fall within a range of bids from multiple competitive bid submissions from multiple qualified contractors.

City of Rome, New York

Local Transportation Planning Assistance Program - W. Chestnut St.

W. Chestnut St.: N. George St. to Bedford St.

Preliminary Opinion of Probable Cost

Item	Qty	Unit	Unit Cost	Ext Cost
Site Preparation				
Site Demolition, Preparation & Earthwork	10,000	SF	$ 1.91	$ 19,100.00
Clearing & Grubbing	0	SF	$ 0.85	$ -
Pavement & Site Construction				
Crushed Stone Pavement	0	SF	$ 3.16	$ -
Asphalt Pavement (Parking & Driveways)	1000	SF	$ 6.63	$ 6,630.00
Asphalt Pathway (10' wide)	11000	SF	$ 11.59	$ 127,490.00
Concrete Pavement (Sidewalks - 5' wide)	5500	SF	$ 15.22	$ 83,710.00
Unit Brick Paving with Concrete Base (Plazas, Walkways)	0	SF	$ 31.90	$ -
Granite Curb (Parking & Driveways)	800	LF	$ 44.00	$ 35,200.00
ADA Curb Ramp	18	EA	$ 3,900.00	$ 70,200.00
Stormwater Management	0	LS	$ -	$ -
Assumed Utility Allowance	0	LS	$ -	$ -
Site Amenities				
Benches	0	EA	$ 2,681.88	$ -
PHB	0	EA	$ 50,000.00	$ -
Tables & Chairs	0	EA	$ 4,500.00	$ -
Bike Racks	0	EA	$ 615.83	$ -
Bollards	0	EA	$ 743.89	$ -
Trash Receptacles	0	EA	$ 1,609.41	$ -
Planters	0	EA	$ 1,267.20	$ -
Tree Grates	10	EA	$ 1,413.58	$ 14,135.80
Lighting (Ped style, incl. pole, luminaire, footing, elec, conduit)	24	EA	$ 11,750.00	$ 282,000.00
Flag Pole (30' height)	0	EA	$ 4,884.76	$ -
Monumental Signage	0	EA	$ -	$ -
Wayfinding Signage	0	EA	$ -	$ -
Informational Signage	0	EA	$ -	$ -
Decorative Fence	0	LF	$ 205.86	$ -
Decorative Vehicular Gates	0	EA	$ 2,253.39	$ -
Signal Upgrades				
Pedestrian Signal - RRFB	0	EA	$ 12,000.00	$ -
Pavement / Traffic Markings & Signage				
Traffic Signage (Sign, post, footing & install)	12	EA	$ 711.57	$ 8,538.84
Traffic Markings	6600	LF	$ 3.31	$ 21,846.00
Sharrow Marking	0	EA	$ 175.00	$ -
Bike Lanes (Decorative, Ruby Glass, 4' wide)	0	LF	$ 9.38	$ -
Bike Lanes (Painted)	0	LF	$ 3.04	$ -
Crosswalks (Decorative, Ruby Glass, 8' wide)	0	LF	$ 15.72	$ -
Crosswalks (Elevated, incl pavement install)	0	LF	$ 510.06	$ -
Crosswalks (Painted)	640	LF	$ 19.40	$ 12,416.00
Landscaping Improvements				
Tree Plantings	10	EA	$ 1,095.78	$ 10,957.80
Shrub & Perennial Planting	10	EA	$ 70.65	$ 706.50
Turf & Grasses	20,000	SF	$ 2.25	$ 92,664.00
			Subtotal	**$ 785,594.94**
Contingencies				
Drainage & Erosion Control (5%)	1	LS	$	39,279.75
Mobilization, Bonds & Insurance (8%)	1	LS	$	62,847.60
Maintenance of Traffic (8%)	1	LS	$	62,847.60
General Conditions (8%)	1	LS	$	62,847.60
Escalation (6%)	1	LS	$	47,135.70
Construction / Design Contingency (25%)	1	LS	$	196,398.74
			CONSTRUCTION TOTAL:	**$ 1,256,951.90**
Consulting & Engineering Fees				
Site Survey (10%)	1	LS	$	125,695.19
Design & Engineering ($20,000 + 10%)	1	LS	$	145,695.19
Permitting & Public Engagement (15%)	1	LS	$	188,542.79
Construction Administration & Oversight (15%)	1	LS	$	188,542.79
			CONSULTING & ENGINEERING TOTAL:	**$ 648,475.95**
			GRAND TOTAL:	**$ 1,905,427.86**
			SAY	**$ 2,000,000.00**

These estimated items represent a reasonable opinion of cost based on a combination of NYSDOT pay items, RS Means pricing, and past and recent contractor bids. We assume future bids for these projects will fluctuate according to market conditions at the time of bidding, level of detail used in the preparation of the design documentation and specifications, final material selection, the bidding environment, and other variables. These preliminary estimates of probable construction costs are expected to fall within a range of bids from multiple competitive bid submissions from multiple qualified contractors.

City of Rome, New York

Local Transportation Planning Assistance Program - W. Chestnut St.

W. Chestnut St.: Bedford St. to Hannaford access

Preliminary Opinion of Probable Cost

Item	Qty	Unit	Unit Cost	Ext Cost
Site Preparation				
Site Demolition, Preparation & Earthwork	10,000	SF	$ 1.91	$ 19,100.00
Clearing & Grubbing	0	SF	$ 0.85	$ -
Pavement & Site Construction				
Crushed Stone Pavement (Trails)	0	SF	$ 3.16	$ -
Asphalt Pavement (Parking & Driveways)	1200	SF	$ 6.63	$ 7,956.00
Asphalt Pathway (10' wide)	20000	SF	$ 11.59	$ 231,800.00
Concrete Pavement (Sidewalks - 5' wide)	10000	SF	$ 15.22	$ 152,200.00
Unit Brick Paving with Concrete Base (Plazas, Walkways)	0	SF	$ 31.90	$ -
Granite Curb (Parking & Driveways)	120	LF	$ 44.00	$ 5,280.00
ADA Curb Ramp	30	EA	$ 3,900.00	$ 117,000.00
Stormwater Management	0	LS	$ -	$ -
Assumed Utility Allowance	0	LS	$ -	$ -
Site Amenities				
Benches	4	EA	$ 2,681.88	$ 10,727.52
PHB	0	EA	$ 50,000.00	$ -
Tables & Chairs	0	EA	$ 4,500.00	$ -
Bike Racks	0	EA	$ 615.83	$ -
Bollards	0	EA	$ 743.89	$ -
Trash Receptacles	0	EA	$ 1,609.41	$ -
Planters	0	EA	$ 1,267.20	$ -
Tree Grates	15	EA	$ 1,413.58	$ 21,203.70
Lighting (Ped style, incl. pole, luminaire, footing, elec, conduit)	40	EA	$ 11,750.00	$ 470,000.00
Flag Pole (30' height)	0	EA	$ 4,884.76	$ -
Monumental Signage	0	EA	$ -	$ -
Wayfinding Signage	0	EA	$ -	$ -
Informational Signage	0	EA	$ -	$ -
Decorative Fence	0	LF	$ 205.86	$ -
Decorative Vehicular Gates	0	EA	$ 2,253.39	$ -
Signal Upgrades				
Pedestrian Signal - RRFB	2	EA	$ 12,000.00	$ 24,000.00
Pavement / Traffic Markings & Signage				
Traffic Signage (Sign, post, footing & install)	12	EA	$ 711.57	$ 8,538.84
Traffic Markings	4000	LF	$ 3.31	$ 13,240.00
Sharrow Marking	0	EA	$ 175.00	$ -
Bike Lanes (Decorative, Ruby Glass, 4' wide)	0	LF	$ 9.38	$ -
Bike Lanes (Painted)	0	LF	$ 3.04	$ -
Crosswalks (Decorative, Ruby Glass, 8' wide)	0	LF	$ 15.72	$ -
Crosswalks (Elevated, incl pavement install)	0	LF	$ 510.06	$ -
Crosswalks (Painted)	2000	LF	$ 19.40	$ 38,800.00
Landscaping Improvements				
Tree Plantings	15	EA	$ 1,095.78	$ 16,436.70
Shrub & Perennial Planting	10	EA	$ 70.65	$ 706.50
Turf & Grasses	20,000	SF	$ 2.25	$ 92,664.00
			Subtotal	**$ 1,229,653.26**
Contingencies				
Drainage & Erosion Control (5%)	1	LS	$	61,482.66
Mobilization, Bonds & Insurance (8%)	1	LS	$	98,372.26
Maintenance of Traffic (8%)	1	LS	$	98,372.26
General Conditions (8%)	1	LS	$	98,372.26
Escalation (6%)	1	LS	$	73,779.20
Construction / Design Contingency (25%)	1	LS	$	307,413.32
			CONSTRUCTION TOTAL:	**$ 1,967,445.22**
Consulting & Engineering Fees				
Site Survey (10%)	1	LS	$	196,744.52
Design & Engineering ($20,000 + 10%)	1	LS	$	216,744.52
Permitting & Public Engagement (15%)	1	LS	$	295,116.78
Construction Administration & Oversight (15%)	1	LS	$	295,116.78
			CONSULTING & ENGINEERING TOTAL:	**$ 1,003,722.61**
			GRAND TOTAL:	**$ 2,971,167.82**
			SAY	**$ 3,000,000.00**

These estimated items represent a reasonable opinion of cost based on a combination of NYSDOT pay items, RS Means pricing, and past and recent contractor bids. We assume future bids for these projects will fluctuate according to market conditions at the time of bidding, level of detail used in the preparation of the design documentation and specifications, final material selection, the bidding environment, and other variables. These preliminary estimates of probable construction costs are expected to fall within a range of bids from multiple competitive bid submissions from multiple qualified contractors.

City of Rome, New York

Local Transportation Planning Assistance Program - W. Chestnut St.

W. Chesnut & Merrick Rd.: Intersection of W. Chestnut St./ Turin Rd./ Merrick Rd.

Preliminary Opinion of Probable Cost

Item	Qty	Unit	Unit Cost	Ext Cost
Site Preparation				
Site Demolition, Preparation & Earthwork	50,000	SF	$ 1.91	$ 95,500.00
Clearing & Grubbing	0	SF	$ 0.85	$ -
Pavement & Site Construction				
Crushed Stone Pavement (Trails)	0	SF	$ 3.16	$ -
Asphalt Pavement (Parking & Driveways)	2000	SF	$ 6.63	$ 13,260.00
Asphalt Pathway (10' wide)	5000	SF	$ 11.59	$ 57,950.00
Concrete Pavement (Sidewalks - 5' wide)	3000	SF	$ 15.22	$ 45,660.00
Unit Brick Paving with Concrete Base (Plazas, Walkways)	0	SF	$ 31.90	$ -
Granite Curb (Parking & Driveways)	500	LF	$ 44.00	$ 22,000.00
ADA Curb Ramp	20	EA	$ 3,900.00	$ 78,000.00
Stormwater Management	0	LS	$ -	$ -
Assumed Utility Allowance	0	LS	$ -	$ -
Site Amenities				
Benches	2	EA	$ 2,681.88	$ -
PHB	0	EA	$ 50,000.00	$ -
Tables & Chairs	0	EA	$ 4,500.00	$ -
Bike Racks	1	EA	$ 615.83	$ 615.83
Bollards	10	EA	$ 743.89	$ 7,438.90
Trash Receptacles	0	EA	$ 1,609.41	$ -
Planters	0	EA	$ 1,267.20	$ -
Tree Grates	0	EA	$ 1,413.58	$ -
Lighting (Ped style, incl. pole, luminaire, footing, elec, conduit)	25	EA	$ 11,750.00	$ 293,750.00
Flag Pole (30' height)	0	EA	$ 4,884.76	$ -
Monumental Signage	0	EA	$ -	$ -
Wayfinding Signage	0	EA	$ -	$ -
Informational Signage	0	EA	$ -	$ -
Decorative Fence	0	LF	$ 205.86	$ -
Decorative Vehicular Gates	0	EA	$ 2,253.39	$ -
Signal Upgrades				
Fully Actuated Signal with Ped Phasing	1	EA	$ 365,000.00	$ 365,000.00
Pavement / Traffic Markings & Signage				
Traffic Signage (Sign, post, footing & install)	14	EA	$ 711.57	$ 9,961.98
Traffic Markings	5000	LF	$ 3.31	$ 16,550.00
Sharrow Marking	0	EA	$ 175.00	$ -
Bike Lanes (Decorative, Ruby Glass, 4' wide)	0	LF	$ 9.38	$ -
Bike Lanes (Painted)	0	LF	$ 3.04	$ -
Crosswalks (Decorative, Ruby Glass, 8' wide)	0	LF	$ 15.72	$ -
Crosswalks (Elevated, incl pavement install)	0	LF	$ 510.06	$ -
Crosswalks (Painted)	1000	LF	$ 19.40	$ 19,400.00
Landscaping Improvements				
Tree Plantings	15	EA	$ 1,095.78	$ 16,436.70
Shrub & Perennial Planting	10	EA	$ 70.65	$ 706.50
Turf & Grasses	5,000	SF	$ 2.25	$ 92,664.00
			Subtotal	**$ 1,134,893.91**
Contingencies				
Drainage & Erosion Control (5%)	1	LS	$	56,744.70
Mobilization, Bonds & Insurance (8%)	1	LS	$	90,791.51
Maintenance of Traffic (8%)	1	LS	$	90,791.51
General Conditions (8%)	1	LS	$	90,791.51
Escalation (6%)	1	LS	$	68,093.63
Construction / Design Contingency (25%)	1	LS	$	283,723.48
			CONSTRUCTION TOTAL:	**$ 1,815,830.26**
Consulting & Engineering Fees				
Site Survey (10%)	1	LS	$	181,583.03
Design & Engineering ($20,000 + 10%)	1	LS	$	201,583.03
Permitting & Public Engagement (15%)	1	LS	$	272,374.54
Construction Administration & Oversight (15%)	1	LS	$	272,374.54
	CONSULTING & ENGINEERING			**$ 927,915.13**
			GRAND TOTAL:	**$ 2,743,745.38**
			SAY	**$ 2,750,000.00**

These estimated items represent a reasonable opinion of cost based on a combination of NYSDOT pay items, RS Means pricing, and past and recent contractor bids. We assume future bids for these projects will fluctuate according to market conditions at the time of bidding, level of detail used in the preparation of the design documentation and specifications, final material selection, the bidding environment, and other variables. These preliminary estimates of probable construction costs are expected to fall within a range of bids from multiple competitive bid submissions from multiple qualified contractors.

City of Rome, New York

Local Transportation Planning Assistance Program - W. Chestnut St.

Merrick Rd.: 1000' from intersection of Turin Rd. to end

Preliminary Opinion of Probable Cost

Item	Qty	Unit	Unit Cost	Ext Cost
Site Preparation				
Site Demolition, Preparation & Earthwork	30,000	SF	$ 1.91	$ 57,300.00
Clearing & Grubbing	15000	SF	$ 0.85	$ 12,750.00
Pavement & Site Construction				
Crushed Stone Pavement (Trails)	0	SF	$ 3.16	$ -
Asphalt Pavement (Parking & Driveways)	1000	SF	$ 6.63	$ 6,630.00
Asphalt Pathway (10' wide)	25000	SF	$ 11.59	$ 289,750.00
Concrete Pavement (Sidewalks - 5' wide)	0	SF	$ 15.22	$ -
Unit Brick Paving with Concrete Base (Plazas, Walkways)	0	SF	$ 31.90	$ -
Granite Curb (Parking & Driveways)	100	LF	$ 44.00	$ 4,400.00
ADA Curb Ramp	6	EA	$ 3,900.00	$ 23,400.00
Stormwater Management	0	LS	$ -	$ -
Assumed Utility Allowance	0	LS	$ -	$ -
Site Amenities				
Benches	2	EA	$ 2,681.88	$ 5,363.76
PHB	0	EA	$ 50,000.00	$ -
Tables & Chairs	0	EA	$ 4,500.00	$ -
Bike Racks	0	EA	$ 615.83	$ -
Bollards	0	EA	$ 743.89	$ -
Trash Receptacles	0	EA	$ 1,609.41	$ -
Planters	0	EA	$ 1,267.20	$ -
Tree Grates	0	EA	$ 1,413.58	$ -
Lighting (Ped style, incl. pole, luminaire, footing, elec, conduit)	15	EA	$ 11,750.00	$ 176,250.00
Flag Pole (30' height)	0	EA	$ 4,884.76	$ -
Monumental Signage	0	EA	$ -	$ -
Wayfinding Signage	0	EA	$ -	$ -
Informational Signage	0	EA	$ -	$ -
Decorative Fence	0	LF	$ 205.86	$ -
Decorative Vehicular Gates	0	EA	$ 2,253.39	$ -
Signal Upgrades				
Pedestrian Signal - RRFB	1	EA	$ 12,000.00	$ 12,000.00
Pavement / Traffic Markings & Signage				
Traffic Signage (Sign, post, footing & install)	10	EA	$ 711.57	$ 7,115.70
Traffic Markings	9000	LF	$ 3.31	$ 29,790.00
Sharrow Marking	0	EA	$ 175.00	$ -
Bike Lanes (Decorative, Ruby Glass, 4' wide)	0	LF	$ 9.38	$ -
Bike Lanes (Painted)	0	LF	$ 3.04	$ -
Crosswalks (Decorative, Ruby Glass, 8' wide)	0	LF	$ 15.72	$ -
Crosswalks (Elevated, incl pavement install)	0	LF	$ 510.06	$ -
Crosswalks (Painted)	100	LF	$ 19.40	$ 1,940.00
Landscaping Improvements				
Tree Plantings	10	EA	$ 1,095.78	$ 10,957.80
Shrub & Perennial Planting	10	EA	$ 70.65	$ 706.50
Turf & Grasses	10,000	SF	$ 2.25	$ 92,664.00
			Subtotal	**$ 731,017.76**
Contingencies				
Drainage & Erosion Control (5%)	1	LS	$	36,550.89
Mobilization, Bonds & Insurance (8%)	1	LS	$	58,481.42
Maintenance of Traffic (8%)	1	LS	$	58,481.42
General Conditions (8%)	1	LS	$	58,481.42
Escalation (6%)	1	LS	$	43,861.07
Construction / Design Contingency (25%)	1	LS	$	182,754.44
			CONSTRUCTION TOTAL:	**$ 1,169,628.42**
Consulting & Engineering Fees				
Site Survey (10%)	1	LS	$	116,962.84
Design & Engineering ($20,000 + 10%)	1	LS	$	136,962.84
Permitting & Public Engagement (15%)	1	LS	$	175,444.26
Construction Administration & Oversight (15%)	1	LS	$	175,444.26
	CONSULTING & ENGINEERING			**$ 604,814.21**
			GRAND TOTAL:	**$ 1,774,442.62**
			SAY	**$ 1,800,000.00**

These estimated items represent a reasonable opinion of cost based on a combination of NYSDOT pay items, RS Means pricing, and past and recent contractor bids. We assume future bids for these projects will fluctuate according to market conditions at the time of bidding, level of detail used in the preparation of the design documentation and specifications, final material selection, the bidding environment, and other variables. These preliminary estimates of probable construction costs are expected to fall within a range of bids from multiple competitive bid submissions from multiple qualified contractors.

Appendix E – Funding Opportunities

The following is a list of common sources of funding, in New York State/Central New York that are relevant to the types of components included in the Local Transportation Plan for the City of Rome. This is not intended to be considered a comprehensive list of all potential funding opportunities.

Oneida County Programs

Oneida County Flood Mitigation Grant Program

This funding program can be used for a variety of projects. The program is a unique local program created to combat recent, historic, devastating flooding events allowing communities to rebuild stronger and safer. Grant applications need a local match, which can include in-kind labor and equipment or other state and/or federal grant funds.
Program Website: Oneida County Flood Mitigation Program

Street Trees/Nature Development Grant Programs

NYS Department of Environmental Conservation – Forestry Service

The NYSDEC Trees for Tribs is a statewide program to plant trees and shrubs along streams to create a forested riparian (streamside) buffer that helps decrease erosion, reduce flooding damage, improve wildlife, and stream habitat, and protect water quality. The Buffer in a Bag program provides organizations and private landowners with free tree and shrub seedlings to help establish or improve a stream buffer on their property. Anyone who owns or manages land in New York State with at least 50' along a stream or waterbody is eligible to receive a free bag of seedlings. Organizations or individuals with permission to plant on a given property with stream or waterbody access may also participate. Applicants are limited to one bag per property.
NYSDEC Trees for Tribs Website: https://dec.ny.gov/nature/forests-trees/saratoga-tree-nursery/trees-for-tribs

Rails-to-Trails Conservancy

RTC's Trail Grants program invests in the infrastructure and programming that's necessary to create more access to trails for more people across the country. These grants help organizations and government agencies accelerate their trail network plans, while supporting community-based organizations working to connect more people to these spaces in neighborhoods across the country. RTC's 2023 grantees are working to support, develop and activate local and regional trail networks. The projects and programs funded are helping to create equitable access to safe spaces where people can walk, bike and be active outside in the communities where they live.
Rails-to-Trails Grant Website: https://www.railstotrails.org/our-work/grants/

SLELO PRISM (St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management)

The Partnership offers a program for municipalities where they will pay up to $5,000 for the community to plant non-invasive species. This grant could be used for tree planting and planting other native species.
SLELO PRISM Website: https://www.sleloinvasives.org/

Statewide Economic Development-Related Funding

Downtown Revitalization Initiative (DRI)

The DRI program is a strategic planning and project implementation Initiative where communities submit applications to their Regional Economic Development Council (REDC) for potential nomination by the REDC. Led by the Department of State (NYS DOS) in partnership with Empire State Development (NYS ESD), NYS Homes and Community Renewal (NYS HCR), and New York State Energy Research and Development Authority (NYSERDA), selected communities are awarded nearly $10M to advance "…the most transformative projects from the Strategic Investment Plan."

DRI Program Website: https://www.ny.gov/programs/downtown-revitalization-initiative

NY Forward

This program is intended to invigorate and enliven downtowns in New York's smaller and rural communities – the type of downtowns found in villages, hamlets, and other small, neighborhood-scale municipal centers. The program utilizes the same "Plan-then-Act" strategy as the DRI and has an allocation of $100M for the first round. Each of the State's Regional Economic Development Councils (REDCs) will have the option of recommending two communities for $4.5M or three communities one of which would receive $4.5M and two with an award of $2.25M.

NY Forward Website: https://www.ny.gov/programs/ny-forward

Regional Economic Development Councils (REDC)/Consolidated Funding Application

The Consolidated Funding Application (CFA) was created to "…support the Regional Economic Development Council (REDC) initiative" through a streamlined and expedited grant application process for state resource allocation. The programs and funding initiatives can, and do, change periodically so assessing the current program via the CFA website is the best option to fully understand what funding opportunities are available through this process.

CFA Application Website: https://apps.cio.ny.gov/apps/cfa/

Statewide Transportation-Focused Funding

Bridge NY

The New York State Department of Transportation (NYSDOT) solicits candidate projects under the BRIDGE NY program which provides enhanced assistance for local governments to rehabilitate and replace bridges and culverts. Projects that address poor structural conditions; mitigate weight restrictions or detours; facilitate economic development or increase competitiveness; consider Environmental Justice; improve resiliency and/or reduce the risk of flooding are prioritized. FY 2021 – $150M funding was available for bridges; $50M for culverts.

Bridge NY Website: https://www.dot.ny.gov/bridgeny

Consolidated Local Street and Highway Improvement Program (CHIPS)

CHIPS provides State funds to municipalities to support the construction and repair of highways, bridges, highway-railroad crossings, and other facilities that are not on the State highway system. Eligible projects include activities related to highway resurfacing, highway

reconstruction, traffic control devices, bridge/culvert rehabilitation or replacement, and other transit and transportation-related improvements.
CHIPS Program Website: https://www.dot.ny.gov/programs/chips

Statewide Transportation Improvement Program (STIP)
The Statewide Transportation Improvement Program (STIP) is a comprehensive list of projects proposed to receive funding under Title 23 U.S.C. and 49 U.S.C Chapter 53 for a four-year period (the current STIP was approved on October 24, 2019, and runs through September 30, 2023). The STIP is developed by the New York State Department of Transportation in consultation with MPOs and for rural areas, and local officials. The STIP includes highway, transit, and non-motorized projects in both urban and rural areas.
NYSDOT STIP Website: https://www.dot.ny.gov/programs/stip

Transportation Alternatives Program (TAP) & Congestion Mitigation Air Quality (CMAQ)
TAP and CMAQ are Federal Highway Administration funds that provide up to 80% of total project costs (20% match). The programs are administered by the NYSDOT. A competitive solicitation process is utilized to assess how proposed projects would increase the use of non-vehicular transportation alternatives, reduce vehicle emissions, and/or mitigate traffic congestion.

TAP and CMAQ projects promote environmentally friendly modes of travel and make it easier and safer to walk, bike, or hike. Support the construction of new sidewalks, shared-use paths, and other enhancements that facilitate the use of non-motorized modes of travel. Funds are also focused on projects that benefit Environmental Justice Communities (low-and-moderate-income families living in identified geographical areas).
TAP/CMAQ Program Website: https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/tap-cmaq

Federal Funding

Bipartisan Infrastructure Law (BIL)/Infrastructure Investment and Jobs Act (IIJA)
The Infrastructure Investment and Jobs Act (IIJA, also known as the Bipartisan Infrastructure Law – BIL) is a $550 billion long-term federal investment in infrastructure from the Fiscal Year 2022 – 2026, for roads, bridges, mass transit, water infrastructure, resilience, and broadband. Within this program is $350 billion for highway programs. While there are many new programs within IIJA/BIL, the program also sponsors long-term programs.
BIL/IIJA Program Website: https://www.transportation.gov/bipartisan-infrastructure-law/bipartisan-infrastructure-law-grant-programs

Long-Term USDOT & FTA Grant Funding
Many ongoing federal funding programs have existed for decades. Many federally funded programs are managed/programmed by MPOs, Transit Agencies, the NYSDOT, and others (such as the New York State Thruway Authority). A list of existing federal funding lines from USDOT and FTA follows below:
USDOT funding website: https://www.transportation.gov/grants

FTA Transit funding website: Grant Programs | FTA (dot.gov)

Thriving Communities Program

The USDOT Thriving Communities Program supports communities with planning and project development of transformative infrastructure projects that increase affordable transportation options, enhance economic opportunity, reduce environmental burdens, improve access and quality of life, and provide other benefits to disadvantaged communities. DOT partnership HUD. Thriving Communities Program Website: https://www.transportation.gov/grants/thriving-communities