

GENESEE TRANSPORTATION COUNCIL

RESOLUTION

Resolution 21-3 Accepting the Vulnerable Road Users Safety Assessment Program as evidence of completion of UPWP Task 6240

WHEREAS,

1. The *FY 2020-2021 Unified Planning Work Program* includes Task 6240, Vulnerable Road Users Safety Assessment Program, for the purpose of conducting an analysis of crashes involving vulnerable users (e.g., bicyclists, pedestrians, and motorcyclists, horse/buggy) for ten locations using the Roadway Safety Assessment methodology;
2. Said Task included the analysis of crashes for vulnerable users regionwide to determine candidate locations for investigation, conducting Road Safety Assessments (RSA) for the ten sites in multiple contexts around the region, and summarize the process and findings in an Executive Summary;
3. Said Task has been completed and has resulted in the *Vulnerable Road Users Safety Assessment Program*; and
4. Said Plan has been reviewed by GTC staff and member agencies through the GTC committee process and has been found to be consistent with the goals, objectives, and recommendations of the Long Range Transportation Plan.

NOW, THEREFORE, BE IT RESOLVED

1. That the Genesee Transportation Council hereby accepts the Vulnerable Road Users Safety Assessment Program as evidence of completion of UPWP Task 6240; and
2. That this resolution takes effect immediately.

CERTIFICATION

The undersigned duly qualified Secretary of the Genesee Transportation Council certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the Genesee Transportation Council held on February 25, 2021.

Date _____

KEVIN C. BUSH, Secretary
Genesee Transportation Council

Genesee Transportation Council Vulnerable Users Safety Assessment Program



Executive Summary



Prepared for

GENESEE
TRANSPORTATION
COUNCIL

Prepared by



EXECUTIVE SUMMARY

This project documents the findings and recommendations of a series of Road Safety Audits (RSAs) conducted along ten corridors identified as having notable concentrations of crashes involving “vulnerable users,” including pedestrians, bicyclists, and motorcyclists, across the planning area of the Genesee Transportation Council. A Road Safety Audit (RSA) is a formal safety



performance examination of an identified length of roadway corridor multidisciplinary team. Participants in RSAs work together through data analysis and field observations to identify potential road safety issues and recommend opportunities for improvements in safety for all road users, and in these cases, with special emphasis on the identified vulnerable users.

The ten Road Safety Audits were conducted between July 2018 and October 2018.

Corridor Identification and Selection

The identification of the corridors from this effort was the result of a regional review of crashes occurring between the years 2012 to 2017 and involving the vulnerable user types. Clusters of crashes were identified visually from a map of crash locations, and ten corridors were selected for closer review based on staff and stakeholder consensus, with consideration given to including a broad variety of setting types, including rural, villages and small cities, suburban, and urban, as well as geographic dispersal across the GTC planning area.

The process ultimately settled on ten locations for the proposed RSAs including the following:

- Varysburg Road (US 20A), from NYS Route 98 to NYS Route 77, Town of Sheldon, Wyoming County;
- W Main Street (NYS Route 5), from Colonial Boulevard to Bank Street, City of Batavia, Genesee County;
- Chili Avenue (NYS Route 33A), W Main Street (NYS Route 33) and Genesee Street, from Thurston Road to Arnett Boulevard, City of Rochester, Monroe County;
- Lyell Avenue (NYS Route 31), between Avery Street and Lake Avenue, City of Rochester, Monroe County
- Lake Avenue, between Stonewood Avenue and Pattonwood Drive, City of Rochester, Monroe County;
- Lyell Avenue (NYS Route 31), between Avery Street and Lake Avenue, City of Rochester, Monroe County;
- Clinton Avenue, between Upper Falls Boulevard and Norton Street, City of Rochester, Monroe County;
- Monroe Avenue (NYS Route 31), between S Union Street and Interstate 490, City of Rochester, Monroe County;
- West Henrietta Road (NYS Route 15), between Jefferson Road and Interstate 390, Towns of Henrietta and Brighton, Monroe County
- Main Street (NYS Route 332) and Fort Hill Avenue, from NYS Route 5/US 20 to the VA Medical Center, City of Canandaigua, Ontario County; and

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- Castle Street and Exchange Street (NYS Route 14), from Main Street to North Street, City of Geneva, Ontario County.

A map of all locations is provided in Figure 1, with a close-up inset map of Monroe County sites.

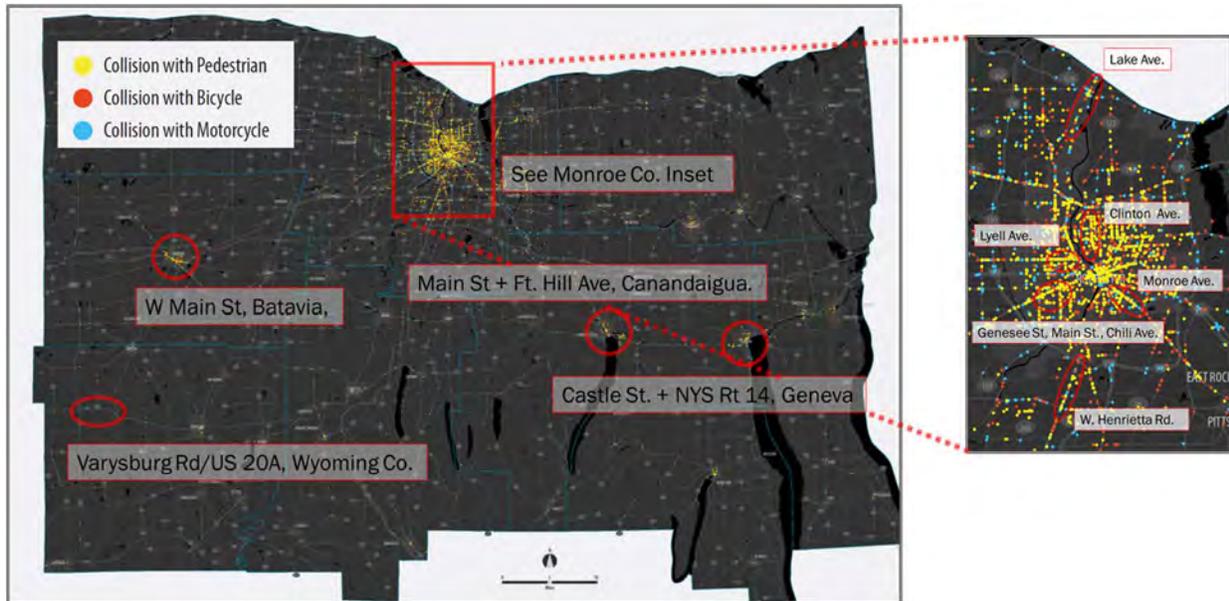


Figure 1

RSA Participants

While the exact makeup of RSA participants varied among the sites, the audits included a broad variety of stakeholders at each. In addition to GTC staff and the consultant team, participants included staff from public works, transportation, and planning staff from the cities, towns, and counties responsible for the roadways that were subject to audits; staff from NYSDOT participated when audit corridors included state roadways.

Other government agencies represented included police departments, fire and rescue departments, transit agencies, and school districts. Public stakeholders included representatives of a business improvement district, a chamber of commerce, a city planning commission, a bicycle advocacy organization, and residents of the areas near the study corridors. Additional stakeholders included representatives of Common Ground Health, the health research and planning organization for Finger Lakes region. The specific participants for each audit are named in the individual reports.



Highlights of Recommendations

The study corridors are all established thoroughfares and have established and constrained rights of way. While there was one truly rural corridor, most of the settings are built out and all have established land uses in their settings. Thus, most observations made and recommendations developed address specific modifications to the corridors as they are, but can, as a whole, be vital steps towards more safely accommodating vulnerable users within the study corridors, and can serve as examples of how to address similar challenges across the GTC region.

Across the ten study sites, steps to improve pedestrian conditions were the most common, as pedestrian facilities, while consistently provided throughout the urban corridors of the region, are often constrained and in need of maintenance and repair. Conditions at intersections reflect historical priority given to motor vehicle capacity along major thoroughfares. Constrained corridors often result in very basic accommodation for pedestrians, making the space necessary for features such as street trees and benches that make the environment more inviting and comfortable seem to be at a premium. But it is important to remember that personal comfort, or lack thereof, can greatly impact the degree to which walking is experience as a useful travel option. Environments that feel unsafe or uncomfortable re

Pedestrian Considerations

Common recommendations related to walking include:

- Consistency in marking crosswalks to make safe crossing locations apparent to motorists and pedestrians alike
 - Updating faded crosswalk markings
 - Modifying markings to a high visibility design
 - Adding additional marked crosswalks at intersections where there are none
 - Adding additional marked crosswalks where they are not presently across all approaches
- Consistency in provision of pedestrian signal hardware, timing, and phasing
 - Inclusion of pedestrian signal heads across all crossings at intersections
 - Timing of pedestrian clearance intervals (Walk plus flashing Don't Walk phases) to allow crossing at 4.5 feet per second (fps), with flexibility to provide a crossing at 3.5 fps when needed
 - Use of Leading Pedestrian Intervals where appropriate
 - Consideration of blank-out-signs or other methods to restrict right-turns-on-red that impact pedestrian crossings
- Consistency in providing accessible pedestrian facilities
 - Sidewalks and curb ramps that meet ADA criteria for accessible routes, including surface conditions, horizontal and vertical clearances, and running and cross slopes
 - Pedestrian signal hardware and timing that are consistent with existing and anticipated ADA criteria.
- Geometric modifications to calm traffic and otherwise benefit pedestrians
 - Reducing curb radii at intersections to slow tuning vehicles and shorten crossing distances
 - Constructing of curb extensions, refuge islands, and other features to shorten crossing distances and enhance visibility for crossing pedestrians

Bicycle Considerations

Significant improvements to bicycling conditions can be challenging in established corridors without major reconstruction of the roadway. Comprehensive “complete streets” projects along many of the corridors may reveal opportunities for adding specific bicycle facilities such as bike lanes, cycle tracks, or roadside pathways. More detailed study of for such opportunities within these corridors could be revealing. However, even within overview audits such as those performed here short-term improvements can be identified. Some of the recommendations made at specific locations among the study sites include:

- Refreshing bike lane markings to make them more conspicuous
- Altering bike lane positioning and/or dashing as appropriate to promote optimal positioning at intersections or other conflict points
- Adding bike lanes as conditions allow, either through removing through lanes that provide capacity beyond anticipated future volumes or removing or relocating parking that is not essential to the location.
- Adding Shared Lane Markings to help position bicyclists along constrained segments that provide connectivity between bicycle facilities or otherwise have significant bicycle traffic.
- Adding features such as two-stage left turn boxes to help bicyclists negotiate left turns at large intersections
- Reviewing hardware and locations to provide secure and convenient opportunities for bike parking that is adequate to both existing and anticipated demand along a corridor

Additionally, crash reports in some corridors did indicate some recurring bicyclist behaviors, such as riding against the flow of traffic, that could be addressed first through educational campaigns, followed up by enforcement if concerns persist.

Motorcycle Considerations

Very few of the motorcycle crashes can be even indirectly attributed to a physical condition of the corridors. Some examples of debris contributing to single-vehicle motorcycle crashes were noted, so it is important to note that debris removal is a safety consideration that benefits motorcyclists and bicyclists especially. Other crash reports indicate that other motorists may not be seeing motorcycles when scanning before turns and lane changes, and that motorcyclists will sometimes make risky maneuvers such as jumping a queue in a congested area or making turns in gaps that turn out to be inadequate. Existing educational campaigns regarding specific scanning for motorcycles and discouraging risky riding (coupled with enforcement when necessary) should be tailored to corridors with documented crash concentrations.

Draft Submittal and Response from Agencies

Upon completion of draft RSA reports, GTC and consultant team staff met with representatives of the numerous agencies with jurisdiction over roadways within the RSA study corridors, including the Cities of Batavia, Geneva, and Rochester, Monroe County, and NYSDOT. Agencies were generally supportive of the RSA recommendations and were able to report that some recommendations were consistent of with other initiatives already implemented or underway.

City of Batavia staff reported that they are generally aware and moving forward in coordination with NYSDOT with improvements to accessibility along the Main Street Corridor including curb ramp and pushbutton updates as well as the timing of crossing intervals. They are supportive of the concept of

identifying alternate routes and/or bike boulevards such as along Richmond Avenue and North Street.

City of Geneva Staff were able to report that the RSA recommendations are highly compatible with an ongoing Downtown Streetscape Improvement project, and that many of the recommendations are addressed by elements of that project which was in design as of April 2020 and expected to be constructed by 2022. A detailed description of these elements of the streetscape project are included as Appendix A to this report.

City of Rochester and Monroe County staff report that many initiatives already in underway are consistent with the recommendations of the RSA reports, these include verifying that pedestrian clearance intervals are timed for 3.5 fps consistently, that ADA-compliant ramps and crossing hardware are being continuously updated, that crosswalk markings are installed and refreshed to uniform in accord with their own standard. Monroe County DOT does not support the use of blank-out No Turn on Red signs.

NYSDOT staff reviewed all RSA reports for study corridors that included State roadways and were broadly supportive of recommendations and the urgency of improving safety for vulnerable users. Staff report that NYSDOT presently has a practice of timing pedestrian clearance intervals for a crossing speed of 3.5 fps and will consider using 4.5 fps where there is a documented need. NYSDOT are generally cautious about constructing roadside pathways to accommodate bicycle travel in areas with frequent conflict points such as driveways and intersections.

Moving Forward

In addition to the specific recommendations made within the RSA reports for the individual corridors that were the focus of this study, the process of assessing these corridors and coordinating recommendations among responsible agencies has also brought to light steps that GTC can take to more broadly support and coordinate the accommodation of vulnerable users in the regional transportation system. These steps are described below.

Data Coordination

GTC should continue to coordinate regional data on the state of the regional multimodal network, assisting agencies in the region with gathering and sharing uniform data. Regional user data should be compiled that bicycle and pedestrian user counts, cohort profiles, and mode share rates. Facilities data should also be coordinated including sidewalk inventory (with accessibility attributes) and bicycle facility inventory. GTC should also continue coordinating data compilation and mapping of crashes involving vulnerable users, looking for emerging hotspots and changes withing previously identified hotspots.

Facility Guidance

GTC should develop or coordinate facility planning and design guidance among regional agencies, with consideration to the diversity of land use and character types across the region. Regional consistency should be encouraged with respect to the comfortable accommodation of pedestrians including comfortable sidewalk corridors and safe crossing opportunities. Regional guidance for bicycling should emphasize the provision of low stress facilities within activity nodes and connecting the region's centers with regional trails, separated facilities along major corridors, and alternative routes, where necessary. Guidance should clarify the including the roles and responsibilities across agencies ranging from GTC itself to NYSDOT, counties, towns, and municipalities. Planning guidance

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should address the considerations and steps to be encouraged as appropriate facilities are identified for appropriate settings.

Staff Support and Development

GTC should coordinate among regional agencies to support and develop the skills of agency staff to develop and implement transportation facilities that accommodate all modes and meaningfully accommodate vulnerable users, including sharing or promoting opportunities for training on emerging best practices that promote safety for non-motorized users.

Continuing RSAs

GTC should continue to identify safety hotspots for vulnerable users and select corridors for a continuing program of Road Safety Audits. In addition to providing opportunities for collaborative problem-solving among regional partners, these audits will help build a body of short, medium, and long term steps that can be taken to address concerns on the subject corridors as well as provide examples for application to other corridors and sites across the region.

Ongoing Evaluation of Safety Initiatives

GTC should evaluate safety improvements and campaigns as they are implemented. Staff should identify expected changes in behavior or crashes prior to implementation of countermeasures and a evaluation/data collection plan developed to help determine if the desired outcomes are actually being realized. This approach will allow GTC staff to evaluate what countermeasures are working, which provide the most value for costs, and which may not be effective. With this knowledge GTC can better prioritize safety improvement efforts.