



**West Village Healthy Streets Initiative
A Temporary Traffic Calming Project**

November 2021



GOBike

Report Contents

Background	3
Design and Implementation	4
Community Feedback	5
Post-Implementation Speed Analysis	6
Next Steps	8

Background



The West Village neighborhood is nestled between the City of Buffalo's central business district and Niagara Street. It has city, state and national historic designation status. While land use in the neighborhood is mostly residential, Hutchinson Central Technical High School and Evergreen Health Services, both destinations for people from outside the neighborhood, are located in the project area. The neighborhood is predominantly Hispanic (53%). 23% of residents live with a disability, 11% are seniors (65+) and 10% are school-aged children (17 and under). 37% of households are car-free. 18% of residents walk, 8% take public transit and 2% bicycle to work.¹

Due to the neighborhood's proximity to downtown, there is also a heavy influx of vehicles that enter the community in the morning, park along neighborhood streets during the work week and use neighborhood streets as a cut through in the afternoon to return to I-190 via the Virginia Street ramps. The majority of the streets in the subject area are one-way. Between 2014-2019, there have been 4 vehicle crashes with bicycles and 12 with pedestrians that led to injuries.²

During the pandemic and up to today, the neighborhood has also witnessed an uptick in drug use. Many vehicles not owned by residents enter the neighborhood, use the drugs they've purchased, and promptly speed away. Unfortunately, many of these drivers park illegally, drive dangerously, and leave a mess of needles in their wake. By summer 2021, the situation had become untenable for many neighbors. Following calls to City Councilmember Nowakowski and meetings with Evergreen Health, one of the identified solutions was to address the illegal parking and dangerous driver behaviors as many neighbors had found the simple act of crossing the street difficult.

1 Source: Census American Community Survey, 2019-15

2 Source: GBNRTC bicycle and pedestrian crashes in Erie County 2019-14



Intersection of Georgia, Chippewa and Whitney Before Treatment. Photo by GObike Buffalo.



Intersection of Georgia, Chippewa and Whitney After Treatment

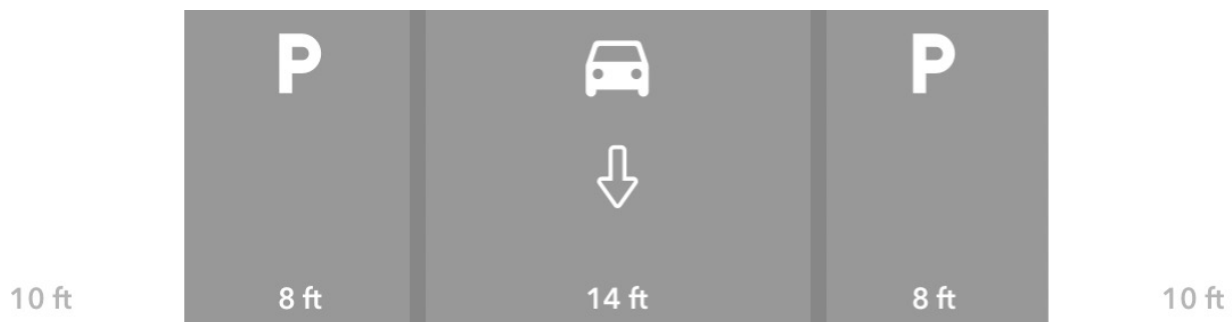


Design and Implementation

With funding support from both Councilmember Nowakowski and Evergreen Health, GObike's Complete Streets Engineer, Jim Jones, developed a simple design solution for quick-build projects.

Designs included adding painted bump-outs, artificial extensions of the curb, with delineator posts, flexible plastic poles, lining the bump-out perimeters. These bump-outs and posts were proposed at the intersections to reduce pedestrian crossing distances, discourage illegal parking, and ensure clear lines of sight in the intersections. The designs also added crosswalks and stop lines, basic elements that were not present previously. Considering an estimated 86 bicyclists use Prospect Ave daily (2019), our designs incorporated a contra-flow bicycle lane to improve bicycle accessibility and safety. This design allowed us to narrow the travel lane to 12' at the intersections; 11' is the targeted maximum lane width in the City of Buffalo.

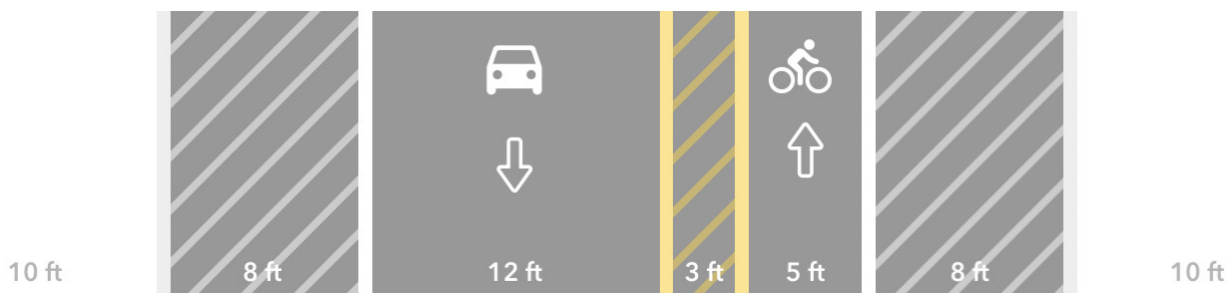
After presenting the design to the community and providing people with the ability to provide feedback, the designs were submitted to the City of Buffalo's Department of Public Works for review by their engineering department to ensure all standards were met before issuing a permit for installation.



Pre-Treatment Typical Section - Whitney Pl.



Post-Treatment Typical Section - Whitney Pl.



Proposed Typical Section - Georgia St.



Community Feedback

GObike staff received immediate push back upon installation, with neighbors voicing the following concerns:

- Treatments were not aesthetically-pleasing or needed in this neighborhood.
- Concern that the design was too complex for children getting on and off schoolbuses or in the case of an emergency.
- Concern that the reduced lane widths would not be able to safely accommodate police vehicles, fire trucks or snowplows.

As a temporary project, treatment aesthetics were not prioritized. Instead, treatments were designed with pedestrian safety at the forefront while still ensuring access for all vehicle types. With regard to school bus access and safety, the temporary lane width reductions at the intersections help to prevent drivers from passing school buses illegally. Lastly, the lane widths used met city standards, were produced and reviewed by certified engineers, and were permitted by the City of Buffalo Dept. of Public Works.

In addition to collecting feedback and comments submitted by neighbors, GObike conducted a survey to better understand people's experience with the temporary traffic calming project and how it may have impacted them. The survey was made available online through the project's webpage and was distributed to Hutchinson Technical High School, Evergreen Health Services, Councilmember Nowakowski and to a neighborhood email list, which reaches 58 residents.

The response rate was low with only 22 people completing the survey. The majority of respondents were women (55%), white (72%), in the 30-39 age range (31%), and they travel in the neighborhood daily (86%) because they live there (86%).

Key findings from the survey include:

- While most people frequently drive (59%), people who walk and bicycle make up a third of the respondents (32%).
- 65% of people said that the new crosswalks and bumpouts make them feel safer crossing the street and that they noticed traffic slowing down as a result.
- 60% noticed less cars parking illegally as well.
- 50% observed less distracted driving.
- Cyclists did not feel that the added treatments at the intersection made them safer with 25% saying "no" and 45% saying they "don't know."
- 65% of survey respondents wanted to see the traffic calming improvements made permanent.

The project's primary detractors came from Rabin Terrace, where residents are less likely to experience excessive speeding for a number of factors. By design, Rabin Terrace is calmer; it is a two-way street with narrower travel lanes, appropriate for a residential neighborhood street.



Post-Implementation Speed Analysis

GObike conducted a post-implementation speed study³ on Prospect Avenue between Georgia and Carolina from Monday, October 11 to Wednesday, October 20, 2021. At the point of study, Prospect Avenue is a one-way street heading north. It's roadway is 36 feet wide with parking lanes on both sides of the street. The block is 700 feet long.

There were a total of 8,472 vehicles that drove along the corridor during the study period for an average of 941 vehicles per day. Of those, 165 vehicles travelled above the posted 30mph speed limit, an average of 18 vehicles per day, and 142 vehicles traveled in the wrong direction down the one-way street, an average of 16 vehicles per day.

While the median speed was 20 mph, the maximum speed was 41mph. Speeding was more frequent on weekdays. Weekday traffic volumes peaked in the morning at the 7:00 a.m. hour and then again between 3:00 p.m. and 5:00 p.m. in the afternoon. Peak volume on weekends was at the 1:00 p.m. hour.

The Greater Buffalo Niagara Regional Transportation Council's (GBNRTC) Transportation Data Management System, reports similar totals:

- Chippewa Street (between S. Elmwood Ave and Georgia St) - 3021 daily vehicles (2016);
- Rabin Terrace - 464 daily vehicles⁴ (2016);
- Georgia - 1638 daily vehicles (2015);
- Prospect Ave - 1092 daily vehicles (2016);
- Carolina Street - 2783 daily vehicles (2016); and
- Virginia Street - 5306 daily vehicles (2016).

GObike also conducted traffic turning movement counts, for all modes, at the intersection of Chippewa, Georgia and Whitney Place on Thursday October 14, 2021 to capture a weekday and on Saturday October 16, 2021 to capture a day on the weekend.

Our weekday count reported 1600 pedestrians, 90 bicyclists, 2954 light vehicles, 33 trucks and 26 buses. Our weekend count reported 1028 pedestrians, 51 bicyclists, 1835 light vehicles, 11 trucks and 2 buses.

3 Speed data prior to the intersection treatments is not available.

4 Note: Rabin Terrace is a two-way street.

Design works. Speed kills.

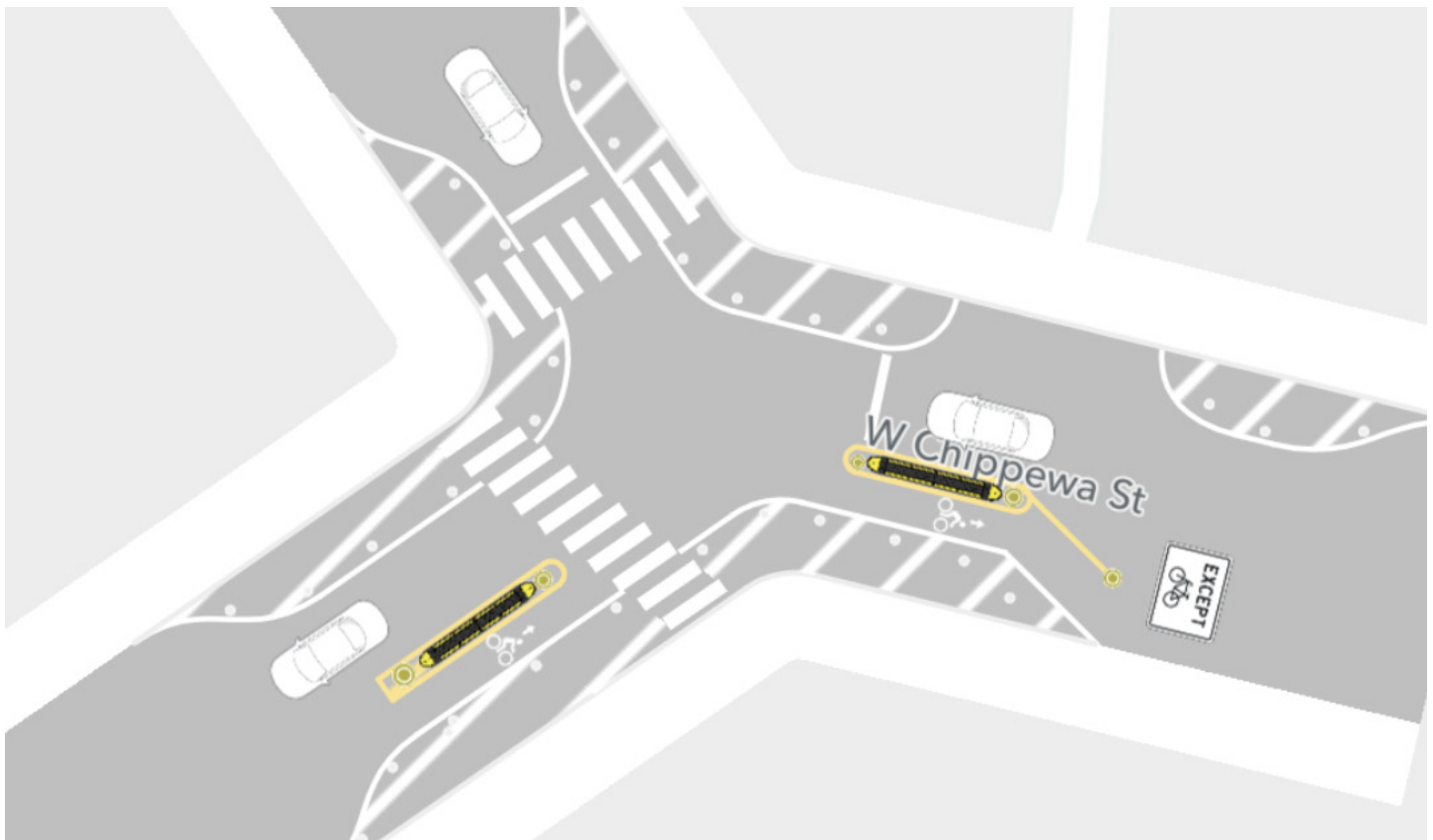
Utilizing design to influence driver speeds is important because as motor vehicle speeds increase, the risk of serious injury or fatality for a pedestrian also increases. Also, motorist visual field and peripheral vision is reduced at higher speeds. At 20 mph pedestrian fatality and risk of serious injury is 18%, at 30mph the risk jumps up to 50% and at 40mph risk is 77%⁵.

Except for Rabin Terrace, Chippewa, Georgia and Prospect are all one-way streets. After accounting for the 8' parking lanes on either side of the street, these neighborhood streets have 20' wide travel lanes.

The American Association of State Highway Transportation Officials' (AASHTO) Green Book allows a range of between 9 and 12' depending on desired speed, capacity, and context of a roadway (2011, p. 4-7). Further, the guidance allows 10-foot travel lanes in low speed environments (45 mi/h or less) (2011, pp. 4-7-4-8). The travel lanes in the neighborhood are out of context and, with a full 8' in excess of recommended maximum lane widths, do not meet federal, state and local design standards. This added width contributes to speeding.

In a neighborhood with high pedestrian and bicycle counts, like in the West Village, designing for lower speeds can be the difference between life and death in the event of a collision.

Proposed Intersection Design for Chippewa St, Georgia St and Whitney Pl



5 AARP Impact Speed and a Pedestrian's Risk of Severe Injury or Death, 2011.



Next Steps

Whether young or old, out of choice or necessity, there is a significant population that does not drive in the West Village community. These vulnerable roadway users are more susceptible to injury. With an average of 18 vehicles a day significantly exceeding the speed limit, the need for traffic calming measures is apparent.

According to post-implementation survey results, the majority of residents feel the project has made it safer to cross the street and that vehicles are now less likely to illegally park. Due to the wide travel lanes, vehicle speeding is still a concern.

GObike recommends the following next steps for the West Village Traffic Calming Project:

1. Refresh the crosswalk treatments in 2022..
2. Make the bump-outs more aesthetically-pleasing by having artists to paint them⁶ and adding planters, or other elements, to improve the attractiveness of the new pedestrian spaces.
3. Install the bicycle facilities next year to narrow the travel lanes and identify other measures to slow vehicles down between blocks, such as those identified in the City's Slow Streets program.
4. Work with the Fillmore District Councilmember and the City's public works department to identify resources to add permanent curb extensions and ADA compliant curb ramps.

But, why is this temporary?

Most of the work we do is temporary. GObike creates a first step by using paint and temporary delineators that will be removed or fade within 1-2 years. While they're in action, GObike collects data to share with the city and neighborhood about how well the design worked or did not work.

Then it's up to the residents of the surrounding neighborhoods and anyone in the city who'd like to see the temporary changes made permanent with bollards, heavy duty paint and permanent concrete extensions of curbs, to contact their city representatives consistently and often to prioritize permanent design changes. Without community involvement, permanent changes are less likely to be made.

⁶ See the partnership between Albright Knox Gallery, the Buffalo Niagara Medical Campus and GObike on Ellicott Street in 2021 as a local example.