



APPENDIX

**A**

# COMMUNITY ENGAGEMENT SUMMARY MEMORANDUM



To: Mayor Thomas Roach (City of White Plains)  
Ingrid Richards (City of White Plains)

Date: June 12, 2025

Memorandum

From: Ankita Rathi (VHB)

Re: Community Engagement Summary

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## Introduction

Community engagement played a crucial role in developing the Vision Zero Action Plan for the City of White Plains, ensuring that the voices of residents were heard and incorporated into the City's efforts to achieving safer streets. By hosting public meetings and conducting an online survey, the City provided a platform for local residents to share their concerns, experiences, and suggestions regarding road safety. This engagement allowed the consultant team to better understand key problem areas and challenges faced by local pedestrians, cyclists, and drivers. Through this process, residents helped shape a more effective and relevant plan, ensuring that it addressed the needs of the community.

Feedback from the public is invaluable when creating a Vision Zero plan because it allows for a more comprehensive understanding of real-world issues. Residents have firsthand knowledge of the areas that pose the greatest risks, whether due to poor infrastructure, high traffic volume, or unsafe pedestrian crossings. By actively involving the community, the City can craft a plan that is not only data-driven but also reflective of the lived experiences of its people. This collaborative approach fosters trust, ensures that the plan is well-rounded, and increases the likelihood of successful implementation and lasting impact.

## Community Engagement Survey Results

A public survey was made available on the White Plains Vision Zero from July 2024 to December 2024. The survey was promoted through the City of White Plains website, the City's social media channels, at the in-person public meeting held in October 2024, the pop-up event held at White Plains Train Station in September 2024, and The National Night Out in August 2024. In total, over 520 responses were collected, providing valuable input on a variety of topics, including transportation modes used by residents, their perceptions of safety, key transportation safety concerns, desired improvements, and demographic information. This feedback is essential for shaping the Vision Zero Action Plan to ensure it aligns with the needs and priorities of the community. Figure 1 on the following page displays the distribution of respondents' residences across different zip codes that fall within White Plains.

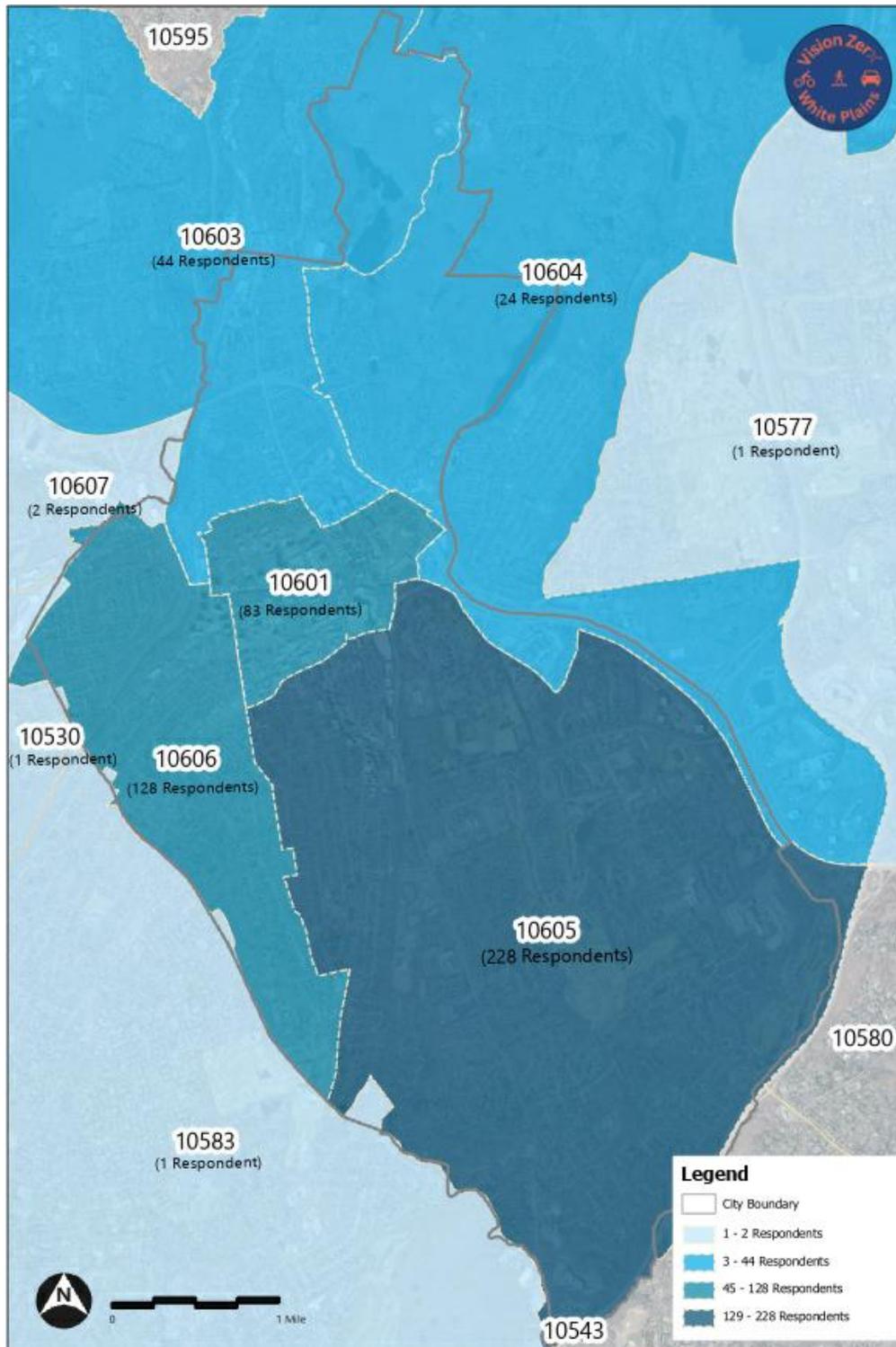


Figure 1 Survey Responses by Zip Code Map

### Mode Utilization

The survey results indicate varied frequency in the use of different transportation methods among residents. Walking and driving a motor vehicle are predominant, with 47% walking and 66% driving daily. Conversely, biking, bus usage, train usage, and scooter riding are less common. Notably, 53% never bike, 69% never take a bus, and 92% never ride a scooter, while train usage has a somewhat balanced distribution across different frequencies, with 31% using it at least once a year and 28% monthly. Overall, walking and driving emerge as the most relied upon daily transport options compared to other methods. Figure 2 shows the breakdown of the results.

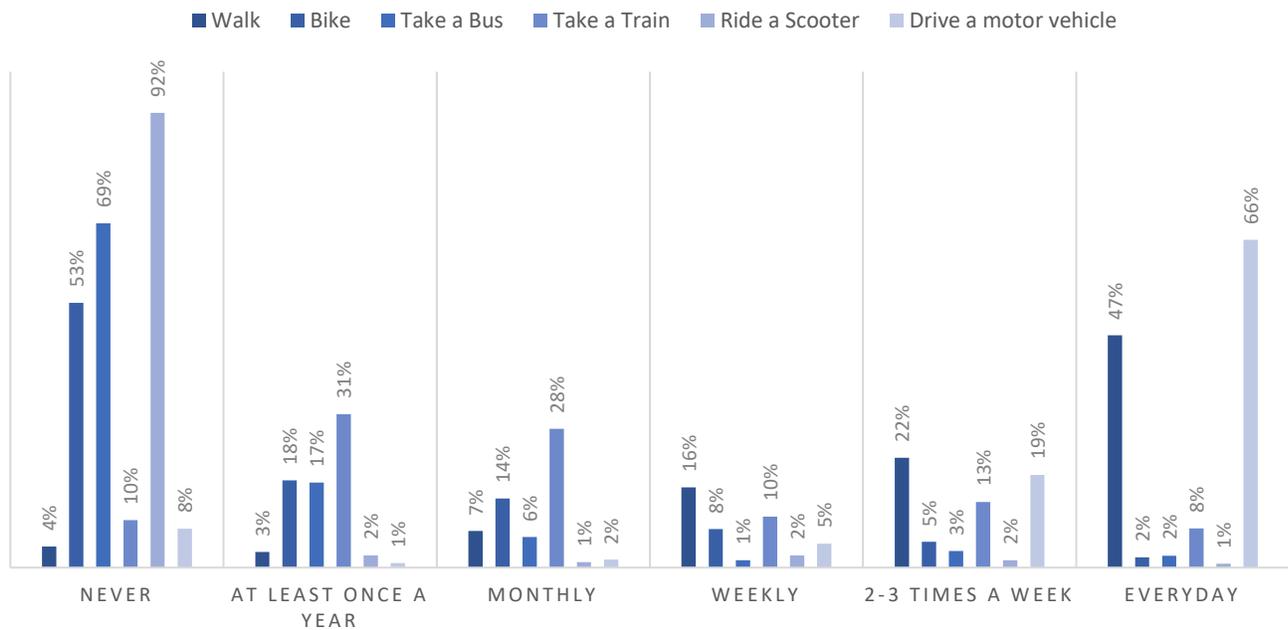


Figure 2 Mode Utilization

### Safety Perception by Mode

Walking is considered safe by a moderate portion of the populace, with 43% rating it safe or very safe, though 20% find it unsafe. Cycling has the least favorable safety perception, with 44% labeling it unsafe and only 11% considering it safe or very safe. Bus transportation fares better in perceived safety, with 68% of respondents finding it safe or very safe and only 8% deeming it unsafe. Train travel is viewed most favorably, with 84% considering it safe or very safe and a mere 2% viewing it as unsafe. Driving is also mostly seen as safe, with 63% rating it safe or very safe, but 5% perceive it as unsafe. Overall, buses and trains are viewed as the safest transportation options in White Plains, while cycling has the lowest safety perception. Figure 3 illustrates the breakdown of the results.

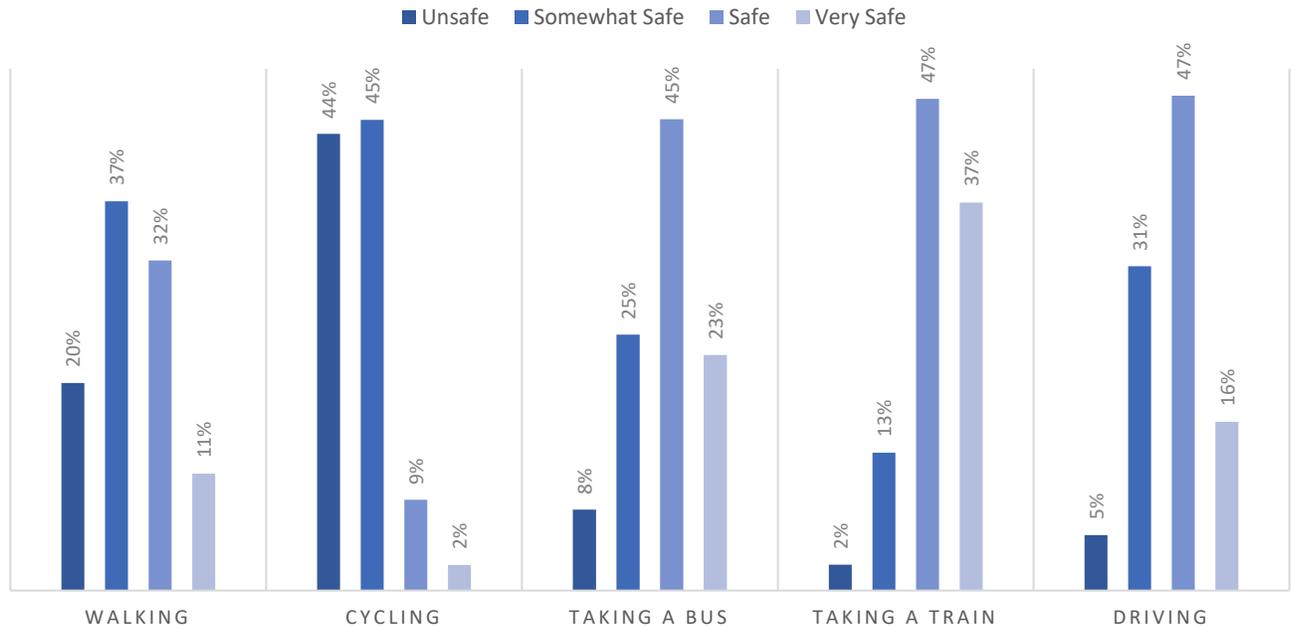


Figure 3 Safety Perception by Mode

### Safety Issues/Concerns

Aggressive or distracted driving is the leading concern, cited by 60% of respondents. Pedestrian safety follows closely at 58%, and speeding is a concern for 49% of residents. On the lower end, only 9% of respondents are concerned about public transit options, while 27% worry about bike safety. Sidewalk conditions are a concern for 37%, and access for people with disabilities is a concern for 11%. Conditions of streets draw attention from 28% of respondents, while 25% worry about cut-through traffic. School-related concerns and drunk or impaired driving are the least mentioned issues, each cited by 8% and 12% of the population, respectively. Overall, the most pressing issues for White Plains residents revolve around driving behaviors and pedestrian safety. Figure 4 shows the distribution of the survey results.

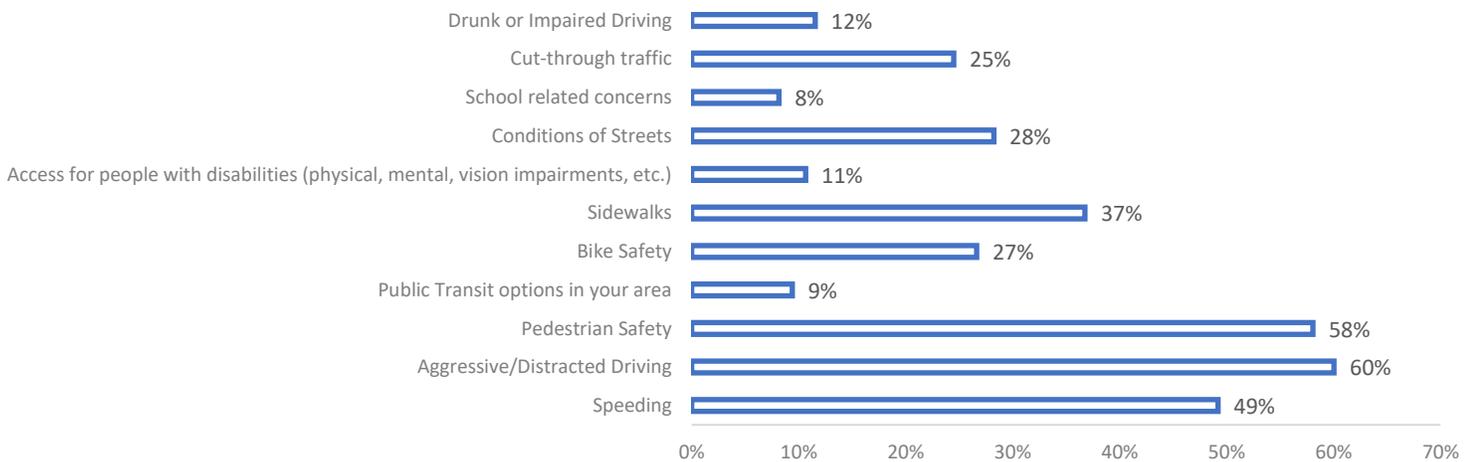


Figure 4 Safety Issues/Concerns

### Transportation Safety Improvements

There is strong support for strengthening enforcement of traffic laws, with 49% of respondents endorsing it, and expanding the network of safe bike lanes and sidewalks, with 46% backing it. Both incorporating inclusive designs for people with disabilities and exploring high-tech solutions are also significantly supported, with 46% and 37% of respondents respectively supporting these to a great extent. Conversely, education and outreach initiatives see the lowest levels of strong support, with 22% not supporting them at all and 33% supporting them very little. Media campaigns have mixed responses, with 37% somewhat supporting them. Overall, the priority improvements residents would like to see are enforcing traffic laws, enhancing infrastructure for safety, and implementing inclusive and high-tech solutions.

### Demographics

Demographic questions were included in the survey to ensure that the feedback collected represented a diverse and accurate cross-section of the White Plains population. By gathering information on age, self-identification, income, etc. the project team could better understand how different groups of residents experience transportation safety and identify specific needs or concerns within various segments of the community. This approach helps ensure that the Vision Zero Action Plan is informed by the actual demographics of the City, allowing for decisions that reflect the priorities and challenges faced by all residents, rather than just a limited subset. The inclusion of demographic data ultimately contributes to creating a more equitable and effective plan.

#### Age

The age distribution of respondents closely aligns with the demographic data for White Plains.

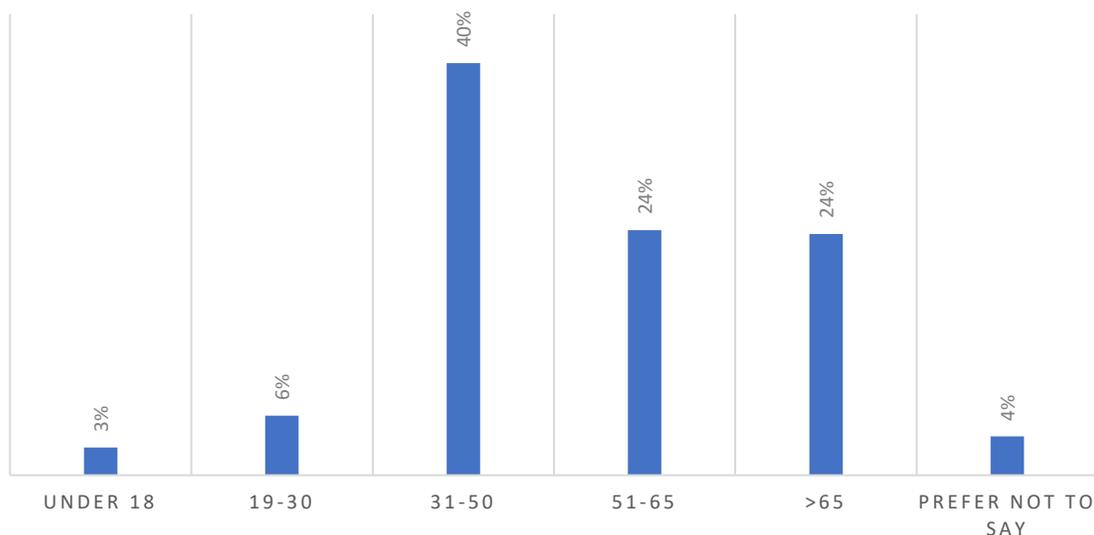


Figure 5 Respondent Age Distribution

### Self-Identification

This distribution of respondents closely mirrors the self-identification data for White Plains.

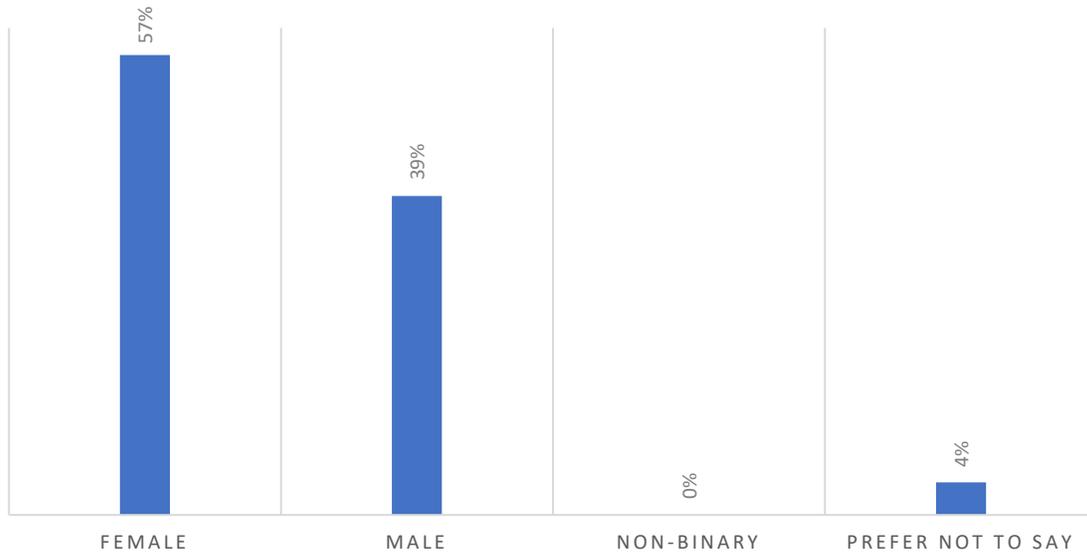


Figure 6 Respondent Self-Identification Distribution

### Annual Household Income

The pop-up event effectively engaged White Plains residents from lower income brackets.

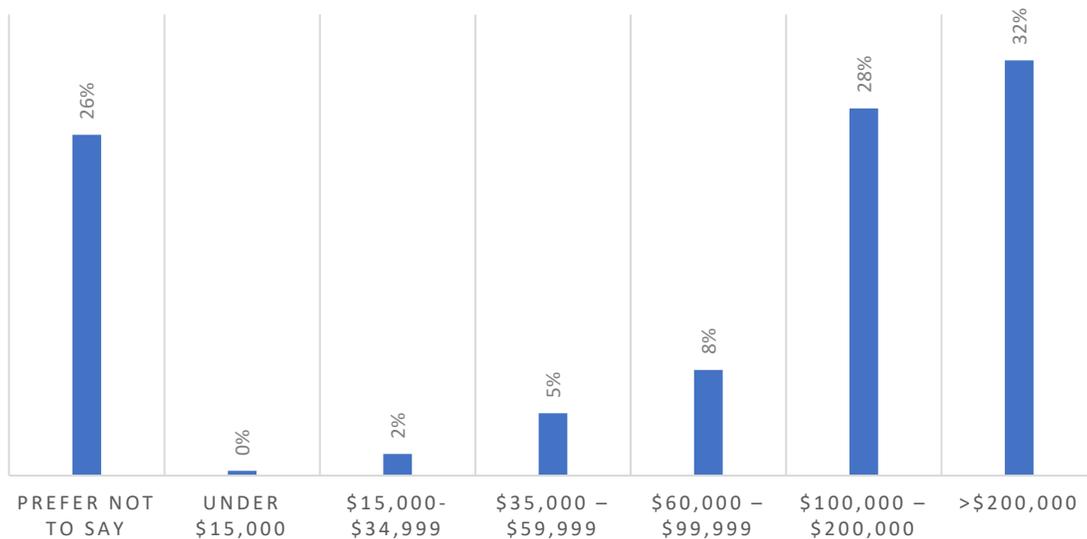


Figure 7 Respondent Annual Household Income Distribution

### Ethnicity

The ethnic composition of survey respondents mirrors the demographics of White Plains, with 45% identifying as White, 12% as African American, and 7.5% as Asian or Pacific Islander.

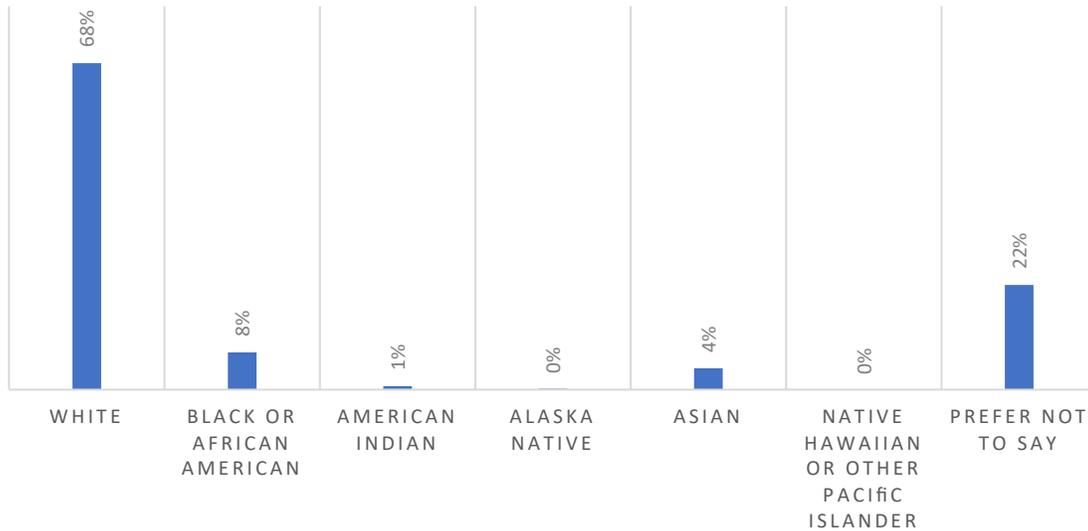


Figure 8 Respondent Ethnicity Distribution

### Hispanic/Latino Identification

One-third of residents in White Plains identify as Hispanic or Latino, which is consistent with the survey results.

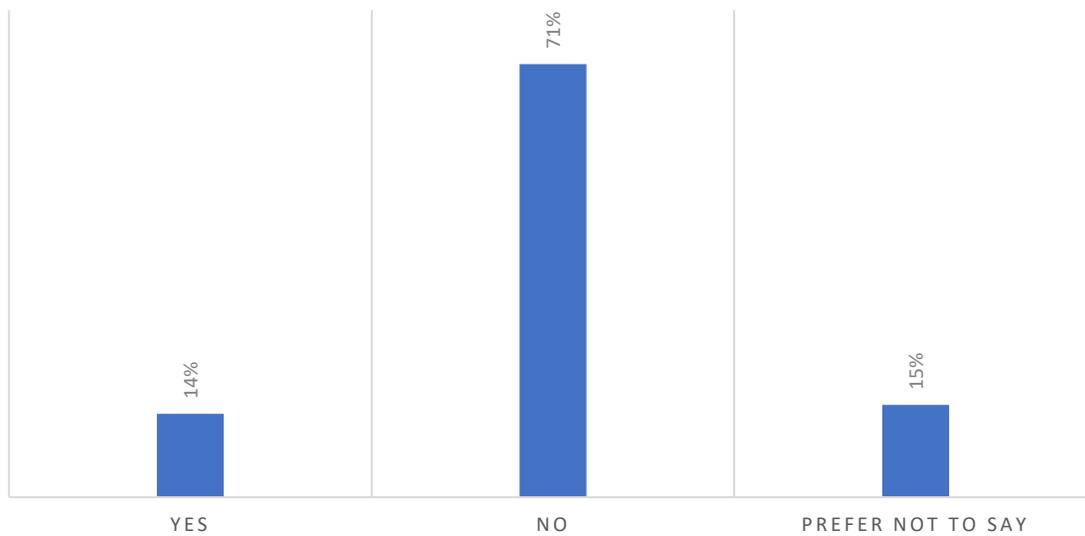


Figure 9 Respondent Hispanic/Latino Identification Distribution

## Disability

This data demonstrates a well-rounded representation of the various types of disabilities experienced by residents of White Plains.

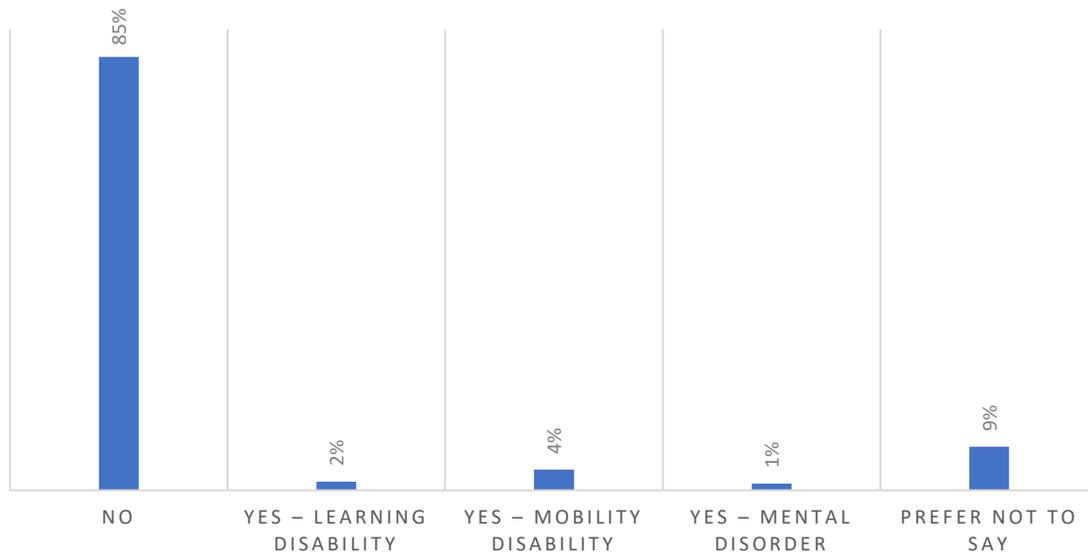


Figure 10 Respondent Disability Distribution

## Community Engagement Meetings

Community engagement was a central component of the Vision Zero Action Plan development process. Meaningful input from residents, stakeholders, and the advisory committee helped shape the Plan's priorities, strategies, and implementation approach.

### Public Meetings & Pop-up Events

Public meetings were essential to the development of the White Plains Vision Zero Action Plan because they ensured community voices were heard and incorporated into safety priorities and solutions. They provided a platform for residents to share lived experiences, identify local safety concerns, and build public trust and support for the plan. This engagement helped create a more equitable, data-informed strategy that reflected the community's needs and values.

Two general public meetings were held over the course of the development of the Vision Zero Action Plan.

- October 23, 2024, included a presentation summary of the findings of the conducted crash analysis, the preliminary results of the public survey, and an overview of the identified corridors and intersections of the High Injury Network. Following the presentation, maps of the individual corridors of the High Injury Network were laid out, and attendees were invited to discuss specific issues pertaining to each corridor with members of the consultant team.
- April 24, 2025, presented the final set of recommendations, including physical safety countermeasures and citywide strategies, that would be integrated into the Vision Zero Action Plan. Additional feedback on the recommendations was collected during this meeting and incorporated into the final Action Plan.

Community feedback heard from White Plains residents during these two public meetings is categorized into the following key types of concerns:

### *Pedestrian Safety Concerns*

- Frequent concerns about unsafe crossings, blind spots, mid-block crossings, and insufficient crossing time.
- Strong support for raised crosswalks, pedestrian signals (e.g., LPIs), and increased crosswalk visibility.
- Many requests for new or improved sidewalks in residential neighborhoods, especially near schools and transit routes.
- Feedback emphasized the lack of safe pedestrian space in areas like Knollwood, Ridgeway, and Bryant Avenue.

### *Driver Behavior and Enforcement*

- Reports of red light running, speeding, illegal turns, and failure to yield, particularly near schools and busy corridors.
- Requests for increased enforcement and expanded use of speed and red-light cameras.
- Specific recommendations to address speeding near religious institutions and schools.

### *Bike Infrastructure Support*

- Broad support for protected and buffered bike lanes, with concerns about delivery bikes on sidewalks and lack of safe bike infrastructure.
- Specific mention of dangerous conditions for students biking in hilly areas and through downtown streets.

### *Traffic Operations and Intersection Improvements*

- Problematic intersections called out for signal timing, turning conflicts, and congestion.
- Requests to reconfigure South Lexington as a two-way street and improve signal phasing at key intersections.

### *Parking and Curb Management Issues*

- Issues with illegal parking, loading conflicts, and valet zones backing up traffic.
- Calls to remove or repurpose curbside parking to reduce unsafe crossings and improve pedestrian visibility.

### *Placemaking and Streetscape Enhancements*

- Support for asphalt art, parklets, and curb extensions to calm traffic and improve the pedestrian environment.
- Interest in wayfinding and placemaking strategies to enhance the downtown experience.

### Signal and Signage Improvements

- Requests for additional stop signs, digital speed displays, and better signage at high-risk locations.
- Need for clearer lane markings and regulation of turn-only lanes misused as through lanes.

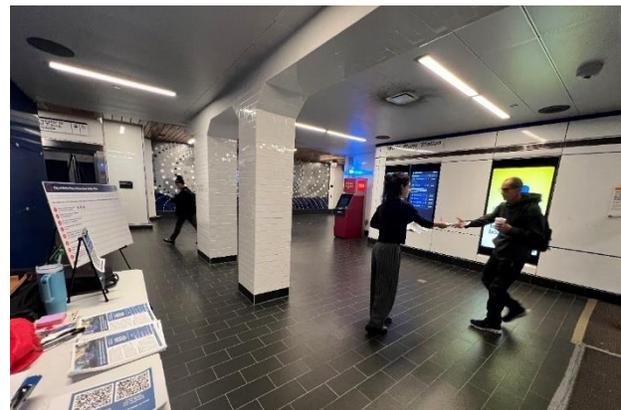


*Photo of the October 23, 2024 White Plains Vision Zero Public Meeting*

Two pop-up events for the Vision Zero Action Plan were held on August 21, 2024, during the 2024 White Plains National Night Out event and on September 18, 2024, at the White Plains Train Station during the weekday morning rush hour. During the events, members of the consultant team talked with residents about the background of the Vision Zero initiative and learned about residents' experiences with traveling around White Plains by foot, bike, and vehicle, among other modes. Residents were also offered the opportunity to complete the Vision Zero public survey in-person during the event and provide feedback via interactive dot boards.



*Photo of the Vision Zero Pop-Up event held during the 2024 White Plains National Night Out Event*



*Photo of the Vision Zero Pop-Up event held at the White Plains Train Station on September 18, 2024*

## Plan Advisory Committee (PAC) Meetings

The White Plains Vision Zero Plan Advisory Committee (PAC) was formed to support the development and implementation of the City's Vision Zero Action Plan, aimed at eliminating traffic-related fatalities and serious injuries. The committee was composed of members from diverse fields, including city leadership, economic development, equity, engineering, planning, law enforcement, emergency response, education, public health, and safety. A list of the members of the PAC is included under the "Acknowledgments" of this Action Plan. This multidisciplinary and collaborative approach ensured a comprehensive understanding of the project's purpose and needs. The PAC played a critical role in guiding the Action Plan's development, implementation, and monitoring by facilitating leadership commitment, setting goals, reviewing draft deliverables, and providing feedback. Additionally, the committee assisted with project outreach and engagement efforts.

Four meetings of the PAC, in total, were held over the course of the plan development process.

- The first two meetings of the PAC were held on June 10, 2024, and September 10, 2024, and focused on introducing the Vision Zero effort, presenting initial findings of the conducted crash analysis for the Action Plan, and collecting feedback on the existing conditions and locations of concern along the White Plains roadway network.
- The final two meetings on December 10, 2024, and April 15, 2025, respectively, focused on presenting the preliminary and final recommended strategies developed by the Vision Zero Action Plan consultant team to address the identified High Injury Network.

Feedback heard from the PAC is categorized into the following key types of concerns:

### *Pedestrian Safety and Crossings*

- Widespread support for improved pedestrian crossings, especially on Maple Ave, East Post Road, and Bryant Ave.
- Requests for raised crosswalks, particularly near Brookfield Commons and high-pedestrian areas.
- Calls for pedestrian signal upgrades, including LPIs, RRFBs, and detection on all approaches.
- Need for improved pedestrian infrastructure near schools and hospitals, including sidewalk expansions and better visibility.

### *Traffic Operations and Intersection Design*

- Concerns about intersection geometry, grade, and drainage
- Feedback on roundabout concepts at East Post Road noted the need for additional space and coordination with property owners.
- Multiple locations (e.g., Church St & Main St, Old Mamaroneck Rd & Bryant Ave) identified for realignment and signal improvements.

### *Speeding and Road Diet Opportunities*

- Speeding highlighted as an issue along Main Street, North St, and Mamaroneck Ave, especially near schools.

- Road diets were recommended for East Post Road and sections of Mamaroneck Avenue with lower volumes.
- Some locations were identified as too narrow or congested for additional treatments, including midblock crossings.

#### *Bicycle Infrastructure and Multi-Use Paths*

- Feedback emphasized the need for expanded bike networks, including extending facilities to Highland Elementary and Old Mamaroneck Rd.
- Shoulders and faded sharrows on Bryant Ave are currently used by cyclists—residents support upgrading to multi-use paths.
- Suggestion to consider greenway-adjacent bike facilities on Mamaroneck Ave.

#### *Access and Mobility Near Key Institutions*

- Hospital-related traffic and valet operations are causing backups; two-way conversion near hospital expansion was proposed.
- Congestion and access issues raised near WPHS, Grace Church, and the train station due to complex ramp and limited ROW.

#### *Signalization and Control Enhancements*

- Need for updated signal controllers, phasing modifications, and detection systems at intersections throughout the city.
- School speed signs recommended for upgrades at locations like North St & Bryant Ave.

#### *Streetscape and Maintenance Considerations*

- Support for landscaped medians and downtown greening, with reminders to consider maintenance needs (e.g., watering, mowing).
- Caution expressed about introducing features that may not be feasible due to ROW or congestion constraints.



*Photo of the December 10, 2024 PAC Meeting*



*Photo of the December 10, 2024 PAC Meeting*

### Stakeholder Meetings

A diverse coalition of community advocacy groups, neighborhood and civic organizations, and representatives from the City of White Plains were invited to a dedicated community stakeholder meeting on September 24, 2024, to apply their unique perspectives of their respective constituencies to the pursuit of eliminating fatalities and serious injuries on the roadways of White Plains. Following a short presentation, the attendees of the stakeholder meeting were invited to markup maps of the identified High Injury Network for White Plains and identify specific locations of concern within the city.

### Common Council Meetings

The White Plains Common Council serves as the legislative body of the City of White Plains, New York. It is composed of the mayor and six elected Council Members who are responsible for adopting local laws, approving the city budget, and overseeing policy decisions. The Council plays a central role in guiding the city's development, infrastructure, and public safety initiatives.



*Photo of the June 10, 2025 Common Council Meeting*

During the August 26, 2024, Special Meeting of the Common Council, the City's Vision Zero Action Plan consultant team delivered an introductory presentation outlining the foundation of the Plan. The presentation introduced the Safe System Approach, a framework that emphasizes shared responsibility among roadway users and system designers to prevent fatal and serious injuries. The team also presented the overarching goals of Vision Zero, which include the elimination of all traffic-related fatalities and serious injuries while increasing safe, healthy, and equitable mobility for all. Additional topics covered included the project development timeline, and key milestones in the planning process.

At the final Vision Zero Action Plan presentation to the Common Council on June 10, 2025, the consultant team presented the completed City of White Plains Vision Zero Action Plan for formal adoption. The presentation included a recap of Vision Zero principles and objectives, a summary of the final plan development timeline, and a detailed review of crash trend analyses specific to White Plains, highlighting key patterns and geographic concentrations that informed the Plan's focus areas. The team also presented an overview of bicycle network enhancements, highlighted corridor

improvement projects, and explained the project prioritization matrix used to guide short- and long-term infrastructure investments. A range of Vision Zero strategies was outlined, spanning from placemaking and wayfinding improvements to policy changes, enforcement strategies, and educational initiatives. The presentation concluded with a discussion of implementation considerations, including interagency coordination, funding strategies, and performance tracking. Following the presentation, the City of White Plains Vision Zero Action Plan was unanimously adopted by the Common Council. The resolution certifying this adoption is included within this Plan as Appendix I.



APPENDIX

**B**

# **MEMORANDUM ON THE ASSESSMENT OF CRASH TRENDS IN WHITE PLAINS**

To: Mayor Thomas Roach (City of White Plains)  
Ingrid Richards (City of White Plains)

Date: October 17, 2024

From: Alanna Moran (VHB)  
Ankita Rath (VHB)  
Ryan Wolf (VHB)

Re: **Summary of Task Three (Crash Analysis) Findings**  
City of White Plains Vision Zero Action Plan

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## Introduction

A community pursuing Vision Zero cannot eliminate roadway fatalities and serious injuries without first understanding the primary locations, trends and contributing factors of crashes that result in fatalities and serious injuries (known hereinafter as KSI (“Killed and Seriously Injured”) crashes)<sup>1</sup>. As a result, at the heart of every Vision Zero Action Plan are “data-driven indicators [that] evaluate the current performance of the transportation system as necessary to set strategic directions for the future, analyze how funding is programmed, and evaluate investment outcomes.”<sup>2</sup> Once a community understands the crash trends and factors that afflict their roadways, they can develop targeted improvement projects and prioritize available funding towards investments with the greatest potential for increasing roadway safety.

To inform the development of the City of White Plains’ Vision Zero Action Plan, VHB conducted a thorough crash analysis using data from 2014 through 2023. **Appendix A** provides a detailed overview of the methodology utilized for this crash analysis.

The centerpiece of this crash analysis was the identification of the City of White Plains’ High Injury Network. A High Injury Network assists municipalities like the City of White Plains with identifying continuous street corridors and intersections with a history of severe crashes of similar type. Such a network empowers municipalities to pinpoint high priority locations where targeted investments can foster the greatest extent of roadway safety improvements possible. By addressing the 15 miles of city- and county-owned roadways in the High Injury Network, as presented in this document, it is anticipated that the City of White Plains could successfully improve the safety of the corridors and intersections where 76 percent of all crashes resulted in fatalities or serious injuries between 2019 and 2023. The High Injury Network will serve as the foundation for the development of recommended roadway improvements and interventions, pursuant to Task 4 of the White Plains Vision Zero Action Plan.

In addition to the identification of the High Injury Network, which is used as a resource to identify locations for physical roadway improvements, among other improvements, the crash analysis incorporated a high-level systemic review of crash trends within the City. This systemic review of crash trends identified focus or priority facility types and crash types that represent the greatest risk for severe crashes within the City. Not only was the conducted review relevant to the development of proposed improvements at high priority locations (i.e. Task 4), but to target City policy and programs for update to better align with Vision Zero goals and principles. By knowing the most significant risk

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<sup>1</sup> In New York State, a “serious injury” is defined as the following: loss of a fetus, fractures (broken bones), significant disfigurement and dismemberment, permanent loss of function of some body part, including an organ, significant limitation of a bodily function/system and all daily activities for 90 out of the next 180 days following a [crash]. Source: *New York Insurance Law Section §5102(d), The Laws of New York State*, <https://www.nysenate.gov/legislation/laws/ISC/5102>

<sup>2</sup> “Performance-Based Planning,” Southern New Hampshire Planning Commission, <https://www.snhpc.org/transportation/transportation-planning/pages/performance-based-planning>.

factors of severe crashes within the City, it is possible to not only target roadway fatalities and serious injuries through engineering, but through all of the five E's of transportation safety, namely education, enforcement, emergency response, and equity. Through informed updates of the City of White Plains' policies and programs, the City can empower its agencies and residents to follow and promote a citywide safety culture<sup>3</sup>.

## Overall Crash Trends

### Fatal and Injury Crashes Within White Plains (2014 – 2023)

Between 2014 and 2023, 907 crashes resulting in one or more fatalities (9), serious injuries (300), and/or evident injuries (598)<sup>4</sup> were reported within the City of White Plains (excluding crashes occurring on interstate and state highway, please see **Appendix A** for more information)<sup>5</sup>. Fatal, serious injury and evident injury crashes represented roughly 5 percent of all 19,361 crashes within the City of White Plains that occurred between 2014 and 2023. The vast majority of crashes that occurred within this time frame were reported as property damage-only crashes, while 9 percent of crashes were reported as "possible injury"<sup>6</sup>.

Of the 907 fatal and injury crashes, 27 percent involved a collision with a pedestrian, 49 percent involved a collision with a motor vehicle and 7 percent involved a collision with a bicyclist, with the remaining crashes involving a crash with a fixed object (or overturned car, ran-off road car or other crash type). Nearly half (49 percent) of crashes with a fixed object involved either a light/utility pole or a tree. Between the five-year periods of 2014 to 2018 and 2019 to 2023, the share of motor vehicle crashes increased by roughly 8 percent (44 percent to 52 percent) and the share of bicyclist crashes increased slightly (5 percent to 8 percent), while the share of crashes involving pedestrians decreased slightly (31 percent to 25 percent). The share of "other" crashes (i.e. fixed objects or no objects) decreased during the same time period from 20 percent to 13 percent.

Despite the slight decrease in the percentage of crashes involving pedestrians over the studied 10-year period, crashes involving pedestrians posed the greatest risk for fatalities (**Figure 1**). Specifically, 7 of the 9 recorded crashes that resulted in at least one fatality between 2014 and 2023 involved a pedestrian. Pedestrians additionally had the second highest percentage (>35 percent) of serious injuries, after the crashes involving a fixed object or no object (i.e. overturned vehicle) (>39 percent). Crashes involving a collision with a bicyclist had a significantly lower rate of serious injuries and fatalities, with 12.5 percent of crashes with bicyclists resulting in serious injury and no fatalities involving a collision with a bicyclist.

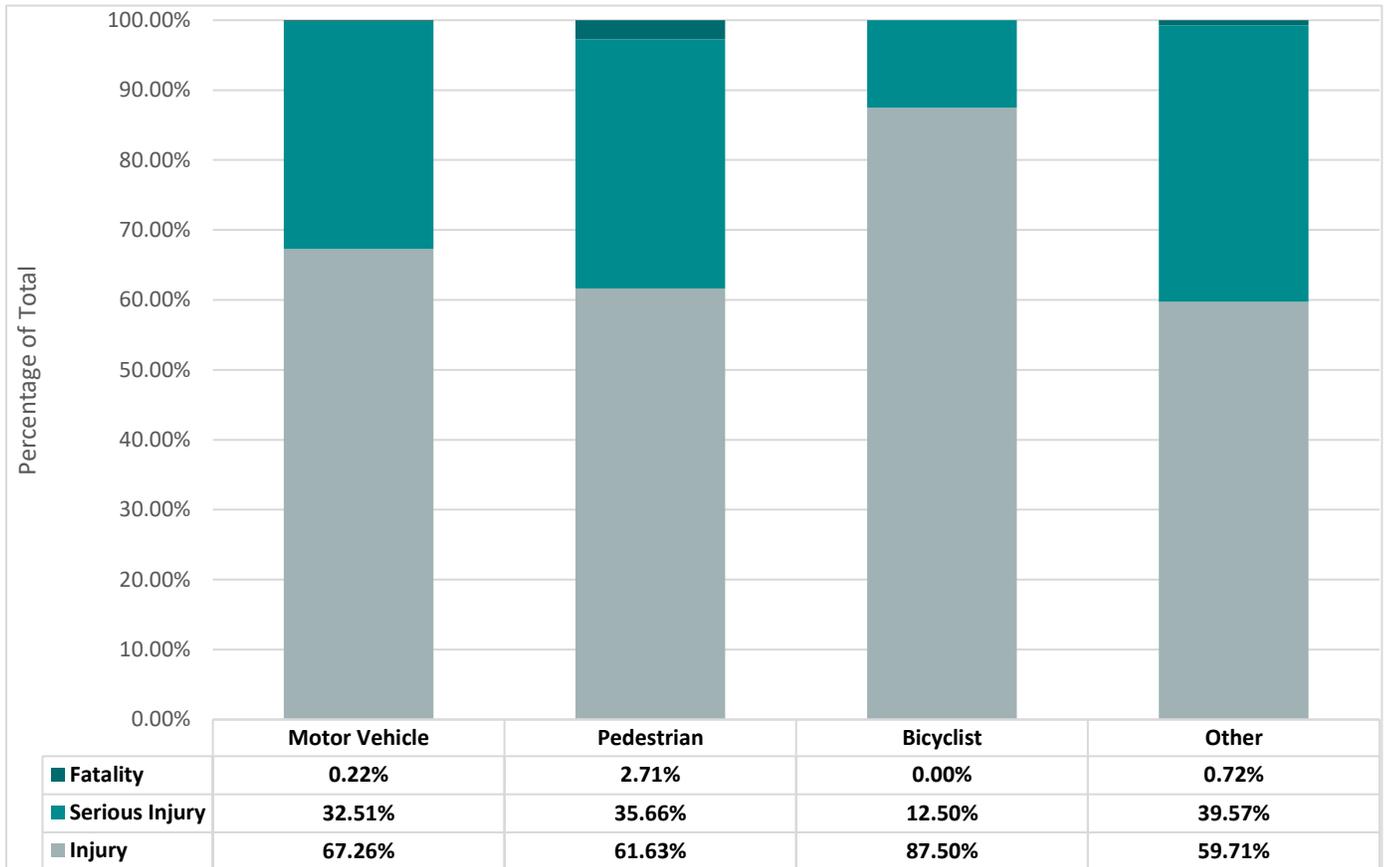
<sup>3</sup> A "safety culture" is defined as "the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands"

<sup>4</sup> "Evident Injury" is defined as injuries that involve "lumps on the head, abrasions, minor laceration or any other visible injuries not included under the threshold for "serious injury". Source: <https://highways.dot.gov/media/20141>

<sup>5</sup> Data was sourced from the New York State Department of Transportation's CLEAR system, the premier crash record and analysis database available in New York State. Please see Appendix B on a discussion of the use and accuracy of this data, including the impacts of the COVID-19 Pandemic on crash data.

<sup>6</sup> "Possible Injury" was excluded from the analysis of crash trends as the classification, which includes possible limping or temporary loss of consciousness with no visible injury does not align with the main objectives of Vision Zero. In order to prevent cases involving "possible injuries" from skewing results and obfuscating the factors that most directly lead to severe crashes, this category was excluded.

**Figure 1: Crash Type by Severity**



**Common Natural and Roadway Conditions Associated with Crashes**

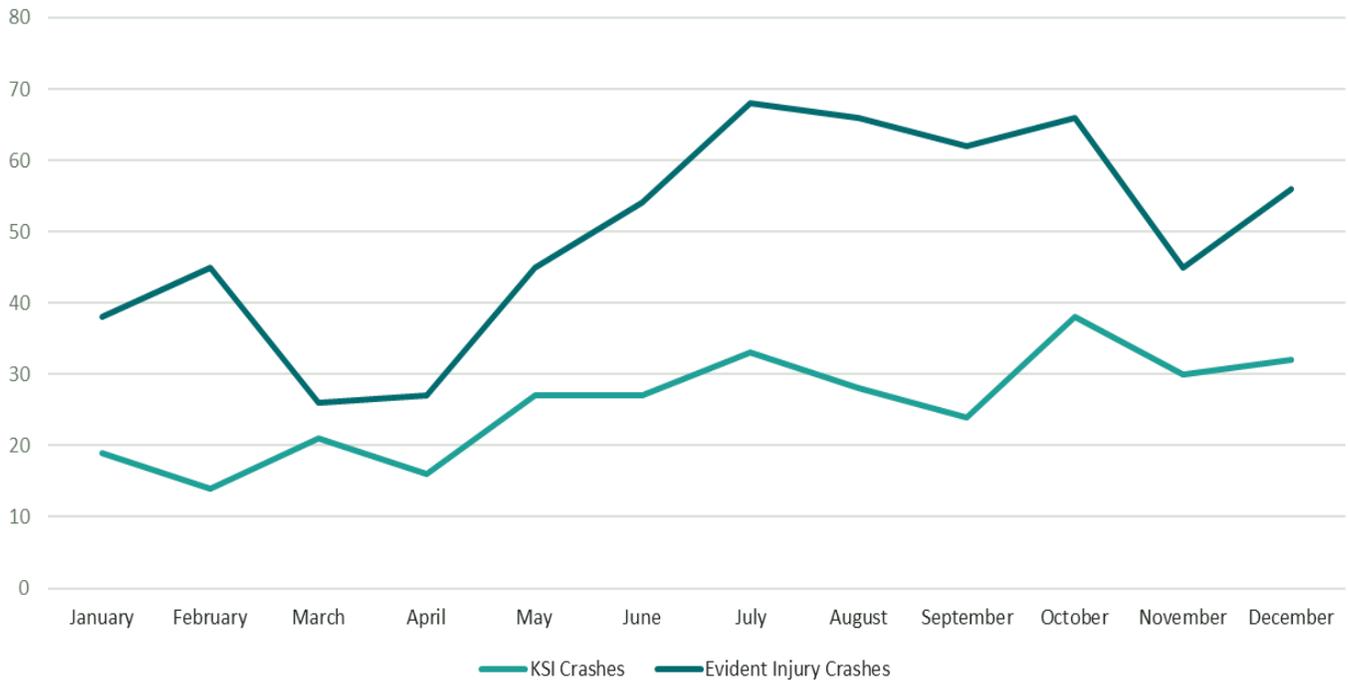
A total of 8 of the 9 recorded crashes that resulted in at least one fatality between 2014 and 2023 occurred under dark-road lighted conditions or dusk conditions, with 86 percent of all pedestrian fatalities occurring under these conditions. More than 75 percent of the 907 observed fatal and injury crashes occurred during clear days with dry road surfaces. Between 2014 and 2023, crashes were most common during the summer and early fall months (June to October), while April had the fewest crashes in total (43 crashes).

When separating KSI crashes from evident injury crashes as distinct crash types, it is possible to identify additional insights into the natural conditions that place road users at increased risk of being involved in a KSI crash. For example, the following differences in KSI crashes and evident injury crashes were found to exist within the City of White Plains:

- › KSI crashes have a lower likelihood of occurring during the day (60 percent) than evident injury crashes (70 percent)
- › KSI crashes have a slightly higher likelihood of occurring during clear weather conditions (77 percent) than evident injury crashes (72 percent)

- › The increase in crashes from the winter months to the peak summer months is more gradual for KSI crashes (57 percent increase in the number of crashes between March and July) than for evident injury crashes (161 percent increase in the number of crashes between March and July) (**Figure 2**)

**Figure 2: Crash Severity by Month**



In terms of the physical roadway conditions that were found to be common among the studied crashes, roughly 70 percent of all crashes occurred on a straight and level roadway. 72 percent of serious injury crashes occurred at an intersection or were intersection-related, with 40 percent of serious injury crashes occurring at an intersection that has a traffic signal. In contrast to serious injury crashes, a majority (55 percent) of fatalities did not occur at an intersection and were not intersection related. Please see “**Systemic Review of Crash Trends**” below for more information on roadway conditions of concern for KSI crashes.

Over 60 percent of the KSI crashes with an associated roadway speed limit occurred on a roadway with a speed limit of 30 mph, which had characterized a majority of city-owned roadways within White Plains prior to the adoption of a 25-mph speed limit on all local roadways<sup>7</sup>. While the reduction in speed limits are intended to contribute to a reduction in fatalities and serious injuries to a certain extent, it is too early to determine the extent to which travel speeds of motor vehicles in the City will be reduced as a result of this change in law<sup>8</sup>. The locations of high concentration of crashes are still a high priority for roadway safety improvements to mitigate the circumstances that pose the potential for KSI crashes.

<sup>7</sup> City of White Plains, White Plains Citywide Speed Limit Reduced to 25 Miles Per Hour, <https://www.cityofwhiteplains.com/CivicAlerts.aspx?AID=1933>

<sup>8</sup> At an impact speed of 25 mph, an estimated 30 percent of pedestrians sustain a severe injury, and about 12 percent are killed, per the Federal Highway Administration.

One-quarter of all fatal and injury crashes between 2014 and 2023 occurred on three roadways: 1) Mamaroneck Avenue (12.35 percent), 2) Maple Avenue (8.27 percent), and 3) Main Street (4.96 percent) and half of all fatal and injury crashes occurred on ten roadways within the City (**Figure 3**).

**Figure 3: Roadways By Number of Crashes**

Rank	Roadway Name	# of Crashes	Crashes/Length (Ft)	% of Total Crashes
1	MAMARONECK AVENUE	112	.005	12.35%
2	MAPLE AVENUE	75	.009	8.27% <span style="color: orange;">25%</span>
3	MAIN STREET	45	.008	4.96%
4	WESTCHESTER AVENUE	39	.006	4.30%
5	CENTRAL AVENUE	37	.008	4.08%
6	NORTH BROADWAY	33	.004	3.64%
7	HAMILTON AVENUE	32	.009	3.53% <span style="color: orange;">50%</span>
8	TARRYTOWN ROAD	29	.009	3.20%
9	BRYANT AVENUE	28	.002	3.09%
10	EAST POST ROAD	24	.007	2.65%
11	S LEXINGTON AVE	23	.004	2.54%
12	LAKE STREET	20	.004	2.21%

### Equity and Crash Trends

Within the City of White Plains, areas of particular concern surrounding equity are largely concentrated within the northern half of the City, specifically including the downtown and North White Plains areas. Both federally designated Justice40 Census Tracts and New York State designated Disadvantaged Community Census Tracts within the City are exclusively concentrated in and around the City’s downtown and North White Plains community<sup>9</sup>. Unfortunately, given the baseline traffic volumes present within these areas, crashes occur at a higher frequency within these areas of the City. Such concentrations of crashes within the vicinity of disadvantaged communities and vulnerable roadway users creates inequities in the roadway network. Specific potential inequities in terms of crash concentrations and trends include:

- › 45 percent of the 907 fatal and injury crashes are located within a Federally-Designated Justice40 Census Tract (**Figure 4**)
- › 70 percent of all studied crashes are located within a NYS-designated Disadvantaged Community census tract (**Figure 4**)

<sup>9</sup> Information on the Federal Justice40 Program can be found here: <https://www.whitehouse.gov/environmentaljustice/justice40/> and information on the NYS Disadvantaged Communities List can be found here: <https://www.nyserda.ny.gov/ny/Disadvantaged-Communities>.

- › 28 percent of the 907 fatal and injury crashes occurred in Census Block Groups where 50 percent or more of the population is low to moderate income<sup>10</sup>
- › 58 percent of the 907 fatal and injury crashes occurred in Census Block Groups where the non-White Population (which makes up 56 percent of the total population citywide) made up two-thirds or more of the population<sup>11</sup>  
**(Figure 5)**
  - 53 percent of the 907 fatal and injury crashes occurred in a Census Block Group where Hispanic/Latinos made up more than 40 percent of the total population
    - *Note: Citywide, the Hispanics/Latino population makes up 32 percent of the total city population.*
  - 30 percent of the 907 fatal and injury crashes occurred in Census Block Groups where the Black/African American population represents 15 percent or more of the total population
    - *Note: Citywide, the Blacks/African American population makes up 12 percent of the total city population*
  - 27 percent of the 907 fatal and injury crashes occurred in Census Block Groups where the Asian population represents 15 percent or more of the total population
    - *Note: Citywide, the Asian population makes up 8 percent of the total city population*

<sup>10</sup> All demographic data was sourced from the US American Community Survey five-year estimates (2014 – 2018 and 2018 – 2022)

<sup>11</sup> Since the proportion of population that was analyzed (i.e. Census Blocks where the non-White population equals more than 2/3rds of the population) is greater than the proportion estimated citywide (i.e. 56 percent), the non-White population can, therefore, be considered overburdened by crashes within the City.

Figure 4: NYS DAC List and Federal Justice40 Census Tracts in White Plains

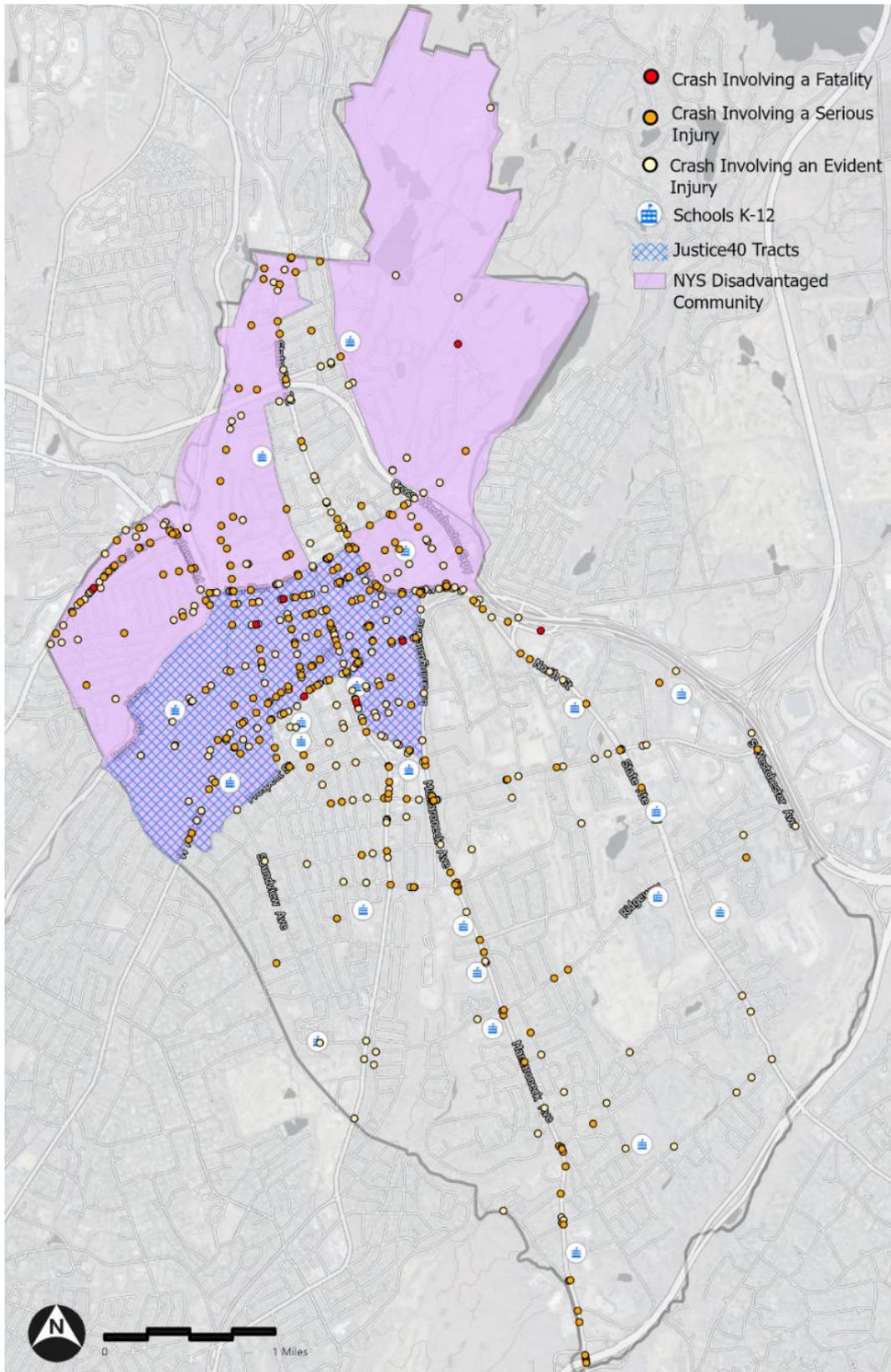
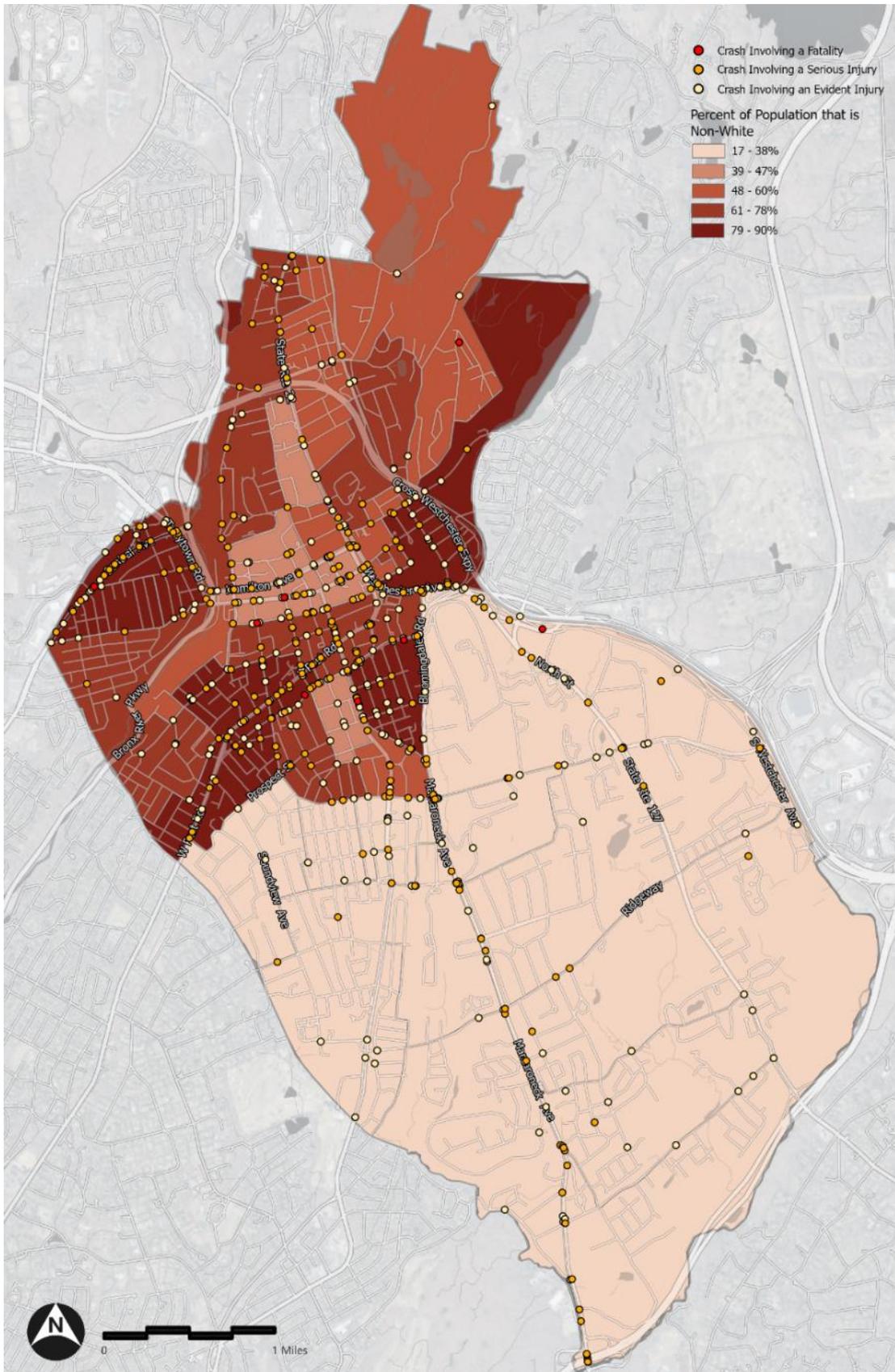


Figure 5: Percent of Non-White Population By Census Tract



### Common Contributing Factors

Over the previous 10-year period, the two most common contributing factors of KSI and evident injury crashes were “*failure to yield the right of way (ROW)*” and “*driver inattention*” (both attributed as a contributing factor in 26 percent of crashes from 2019 to 2023). Other notable contributing factor trends are:

- › Between the periods of 2014 to 2018 and 2019 to 2023, the contributing factor of alcohol involvement decreased from 10 percent to 4 percent
- › The contributing factor of unsafe speed was 6 percent for 2014 to 2018 and 2019 to 2023
- › The frequency in which the contributing factor of “traffic control device disregard” increased from 7.5 percent to 11 percent between 2014 to 2018 and 2019 to 2023

### Systemic Review of Crash Trends

To supplement the analysis of crash trends within the City of White Plains, a separate systemic review of the analyzed data was conducted. This review provided further support for the identified common roadway characteristics and contributing factors that lead to crashes within White Plains.

The systemic review primarily utilized crash trees to delve deeper into crash trends and uncover insights within the dataset. A crash tree is a hierarchical diagram that organizes and visually represents crash data, breaking it down from broad categories to more specific contributing factors. The crash tree analyses offer valuable insights into the various crash trends within the City of White Plains, particularly concerning intersections, vulnerable roadway users, and dark-road conditions<sup>12</sup>. A review of the methodology employed for this analysis is contained within **Appendix A** and a comprehensive summary of the findings of the systemic review and a copy of each crash tree developed as part of this analysis, is also contained within **Appendix B**.

By comparing city-level data with the emphasis areas identified by the New York State Strategic Highway Safety Plan (SHSP)<sup>13</sup>, the systemic analysis found the following emphasis areas were a particular concern for KSI crashes within the City of White Plains and require intervention:

- › **Intersection Crashes:** Crashes occurring at roadway intersections.
  - 54 percent of KSI crashes were an intersection crash compared to 44 percent of all crashes. As identified as part of the City’s 10-year crash trends, intersections are a frequent characteristic of crashes within White Plains.
  - 66 percent of intersection-related crashes were found to occur on roads with a 30-mph speed limit compared to 49 percent of non-intersection-related crashes occurring on 30 mph roads.
- › **Vulnerable Roadway User Crashes:** Crashes involving cyclists, pedestrians, motorized wheelchairs, or construction workers on foot.
  - 33 percent of KSI crashes involved a Vulnerable Roadway User compared to 4 percent of all crashes. As noted above, 7 of the 9 observed fatalities within White Plains between 2014 and 2023 involved a collision with a pedestrian and over 38 percent of all crashes involving a pedestrian was a KSI crash.

<sup>12</sup> Systemic analyses are most effective when supported by extensive crash and infrastructure data, including signal phasing, signal back plating, and detailed roadway characteristics. The absence of these data points in the available data sourced from the NYS CLEAR data system limited the depth of the presented findings. Future analyses could benefit from the integration of more robust data sources to enhance the systemic review.

<sup>13</sup> The 2023 – 2027 New York State SHSP identifies the following seven emphasis areas for improving roadway safety: 1) intersections, 2) vulnerable roadway users, 3) road user behavior, 4) roadway departures, 5) alternate road vehicles and commercial vehicles, 6) age-related, 7) aggressive driving. Source: <https://www.dot.ny.gov/divisions/operating/oss/highway-repository/SHSP2023.pdf>

- 60% of left-turn crashes involve a VRU and 62% of right-turn crashes involve a VRU
- › **Road User Behavior Crashes:** Crashes involving alcohol, drugs, cellphones, distracted driving, or falling asleep while driving.
  - 52 percent of KSI crashes were attributed to road user behavior compared to 43 percent of all crashes. The main road user behavior identified as a contributing crash factor is driver inattention/distracted driving.
- › **Alternate Road Vehicle:** Crashes involving motorcycles, trucks, or buses.
  - 11 percent of KSI crashes involved an alternate road vehicle compared to 8 percent of all crashes
- › **Aggressive Driving:** Crashes involving speeding, aggressive driving, or road rage.
  - 8 percent of KSI crashes involved aggressive driving compared to 3 percent of all crashes

When comparing the findings of the conducted systemic analysis with the observed overall crash trends within the City of White Plains, crashes centering around **1) Intersections, 2) Vulnerable Roadway Users and 3) Road User Behaviors** become apparent focus areas for addressing severe crashes. The conducted systemic review delved into potential trends between these characteristics utilizing crash trees. For example, the following was found for the overlap between intersection and vulnerable roadway user crashes:

- › 39 percent of intersection-related crashes involve VRUs compared to 26 percent of non-intersection crashes involving VRUs.
- › 40 percent of intersection-related VRU crashes occurred due to a failure to yield the right of way. VRUs are particularly at risk at intersections as 64 percent of VRU crashes occur at intersections.

The systemic analysis considered the functional class of roadways within White Plains. Functional class is a federally mandated classification for public roads that carries with it expectations about roadway design, including speed, capacity, and relationship to existing and future land use development.<sup>14</sup> Based upon this analysis, it was concluded that the following functional classes of roadway are of a particular concern within the City of White Plains:

- › **Minor Arterials:** These roads represent 20 percent of KSI crashes and only 7 percent of the roadway network, indicating a significant overrepresentation.
  - The systemic review found that 31 percent of intersection-related crashes occur on Minor Arterials compared to 14 percent of non-intersection-related crashes. Intersection-related crashes on these roadways are, therefore, a risk factor in crashes in White Plains.
- › **Principal Arterials - Other:** These routes make up 34 percent of KSI crashes but only 5 percent of road mileage, highlighting another overrepresentation.
  - The systemic review found that 41 percent of intersection-related crashes occur on Principal Arterial Other roadways compared to 37 percent of non-intersection-related crashes. Intersection-related crashes on these roadways are, therefore, a risk factor in crashes in White Plains.

The above summary offers insights into the leading types of crashes, helping to identify the corridors and intersections of the High Injury Network and guide policy and program changes across the City that could help to foster a "safety culture" within White Plains.

<sup>14</sup> US Federal Highway Administration, "Highway Functional Classification Concepts, Criteria and Procedures" (2023), <https://www.fhwa.dot.gov/planning/processes/statewide/related/hwy-functional-classification-2023.pdf>

## The City of White Plains High Injury Network

A “High Injury Network” is typically a small fraction of roadway segments and intersections within a municipality that account for a large portion of roadway fatalities and serious injuries. Identification of the High Injury Network is an essential step to prioritizing and leveraging available investments to the roadway segments and intersections that will produce the greatest reduction in the potential for KSI crashes.

The development of the White Plains High Injury Network was based upon multiple factors, including observed hotspots of KSI crashes and the locations of the highest potential for safety improvement derived from the conducted network screening, proximity of segments and intersections to high priority land uses, such as parks, schools, first responders, government facilities, among others, and equity considerations, namely the location of high concentrations of vulnerable roadway users<sup>15</sup>. The methodology used to determine the selected High Injury Network is explained in further detail in **Appendix A**.

### Defining the High Injury Network

The High Injury Network of the City of White Plains consists of 27 roadway segments (i.e. corridors) and 25 high priority intersections. These roadway segments and intersections are primarily owned and maintained by the City of White Plains and Westchester County<sup>16</sup>. In total, the High Injury Network consists of 15 miles of city- and county-owned roadway segments, which is equivalent to less than 10 percent of all city and county roadways within the City<sup>17</sup>. **Figure 6** shows the corridors and intersections encompassed within the High Injury Network.

<sup>15</sup> Vulnerable Roadway Users, include, but are not limited to People of Color, Youths (Under 18 Years of Age), Senior Citizens (Over 65 Years of Age), People with Disabilities, Users Living in Household at or Below 200% of the Federal Poverty Level, Users with Limited English Proficiency and Users with No Access to a Motor Vehicle

<sup>16</sup> Some roadways within White Plains are co-signed as state routes, including NY-22 and NY-119, but are owned and maintained by Westchester County within county boundaries, including within White Plains. A full list of county-owned roadways within White Plains is provided here: <https://www.cityofwhiteplains.com/483/Westchester-County-Owned-Roads>

<sup>17</sup> Percentage of city and county owned roadways within the High Injury Network was determined by using roadway mile estimates listed on the following webpages of the City of White Plains website: <https://www.cityofwhiteplains.com/468/HIGHWAY>, <https://www.cityofwhiteplains.com/483/Westchester-County-Owned-Roads>

Figure 6: The City of White Plains High Injury Network



### Priority Intersections

The following is a list of the top 25 priority intersections identified as part of the High Injury Network. Nearly 40 percent of all KSI crashes reported within the City of White Plains between 2019 and 2023, and 20 percent of all KSI and evident injury crashes reported within the City between 2014 and 2023 occurred within these 25 identified intersections<sup>18</sup>. The order of the intersections follows the numbering shown on **Figure 6** and does not indicate the recommended priority order of improvement.

Table 1 High Injury Network Top 25 Priority Intersections

No.	Intersection	Primary Factors Used to Determine Prioritization	Number of Crashes KSI (KSI + Ev Injury)
1	Maple Avenue and South Lexington Avenue	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community, 3) Within 500 Feet of White Plains Hospital	6 (23)
2	East Post Road and Mamaroneck Avenue (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	4 (8)
3	Ridgeway and Mamaroneck Avenue (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Within 500 Feet of Ridgeway School	4 (13)
4	Central Avenue and Chatterton Avenue (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Census Tract Listed as a NYS Disadvantaged Community	2 (3)
5	Mamaroneck Avenue and Maple Avenue	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community, 3) Within 500 Feet of a White Plains Fire Department Station	3 (22)
6	East Post Road and Dr. Martin Luther King Jr. Boulevard (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	3 (11)
7	Bryant Avenue and Westchester Avenue (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1)	2 (5)
8	Main Street and Dr. Martin Luther King Jr. Boulevard	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community, 3) Within 500 Feet of the Proposed District Galleria (Former Site of the Galleria Mall)	4 (10)

<sup>18</sup> While KSI crashes were the priority of the conducted crash analysis, crashes resulting in evident injuries were also taken into account when identifying the High Injury Network, due to the limited number of KSI crash records as a result of the relatively small study area (i.e. the boundaries of the City of White Plains). In order to more accurately identify corridors and intersections of concern, KSI + evident injury crashes were balanced with KSI-only crashes.

9	Bryant Avenue and Old Mamaroneck Road (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1)	2 (2)
10	Barker Avenue and Cottage Place	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Census Tract Listed as a NYS Disadvantaged Community	2 (4)
11	Orchard Street and North Broadway (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Census Tract Listed as a NYS Disadvantaged Community	2 (5)
12	Shapham Place and Old Mamaroneck Road (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Within 500 Feet of Mamaroneck Avenue Elementary School	2 (2)
13	North Broadway and Otis Avenue/Bond Street (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Census Tract Listed as a NYS Disadvantaged Community, 3) Within 500 Feet of North White Plains Train Station	1 (2)
14	Battle Avenue and Tarrytown Road (involves NYS ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	3 (4)
15	West Post Road and Highland Avenue (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	1 (5)
16	Maple Avenue and Rathbun Avenue	1) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	1 (6)
17	Westchester Avenue and Paulding Street (involves County ROW)	1) Crash Frequency (Potential for Safety Improvement1), 2) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	2 (3)
18	Amherst Place and Main Street	1) Located Within a Census Tract Listed as a NYS Disadvantaged Community, 2) Within 500 Feet of Turnure Park, 3) Within 500 Feet of White Plains Middle School	2 (3)
19	Lake Street and Stewart Place	1) Located Within a Census Tract Listed as a NYS Disadvantaged Community, 2) Within 500 Feet of Turnure Park, 3) Within 500 Feet of White Plains Fire Department Station	0 (5)
20	Lake Street and North Kensico Avenue	1) Located Within a Census Tract Listed as a NYS Disadvantaged Community, 2) Within 500 Feet of White Plains Fire Department Station	1 (5)
21	Hamilton Avenue and Cottage Place (involves County ROW)	1) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community	1 (10)
22	Hamilton Avenue and North Broadway (involves County ROW)	1) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community, 2) Within 500 Feet of Tibbits Park	1 (4)
23	Maple Avenue and Davis Avenue	1) Located Within a Federal Justice40 Census Tract and a Census Tract Listed as a NYS Disadvantaged Community, 2) Within 500 Feet of White Plains Hospital	1 (8)

24	Gedney Way and Mamaroneck Avenue (involves County ROW)	1) Within 500 Feet of Gillie Park	3 (14)
25	Gedney Circle and Mamaroneck Avenue (involves County ROW)	1) Within 500 Feet of Our Lady of Sorrows School and Archbishop Stepinac High School	2 (4)
1	See Appendix A for a detailed discussion on how “Potential for Safety Improvement”, the primary metric used to identify intersections with high frequencies of crashes, is determined and used.		

### Priority Corridors

The following is a list of the 27 identified roadway segments of the White Plains High Injury Network. The entity that owns and maintains each corresponding roadway and the length of each identified segment is also identified below. Notable points of interest within proximity to the High Injury Network was also considered in the identification and prioritization of the selected corridors due to their potential to generate foot and vehicle activity. Lastly, total KSI crashes (2019 – 2023) and KSI + evident injury crashes (2014 – 2023) are presented in the table.<sup>19</sup> The order of the corridors does not indicate the recommended priority order of improvement.

Table 2 High Injury Network Roadway Segments

Roadway Name (Owner)	Segment Length (feet) <sup>1</sup>	Notable Points of Interest Along Corridor	Number of Crashes KSI (KSI + Ev. Injury) <sup>2</sup>
Central Avenue (County) Battle Ave to Tarrytown Rd	3,900	The College of Westchester	7 (37)
Chatterton Avenue (City) Harding Ave to Tarrytown Rd	700	Chatterton Park	1 (6)
Ferris Avenue (City) Richard St to Hamilton Ave	2,900	White Plains Train Station, TransCenter Bus Hub, White Plains Fire Department Station	5 (9)
Hamilton Avenue (County) Bronx St to North Lexington Ave	800	White Plains Train Station, TransCenter Bus Hub	1 (17)
Dr. Martin Luther King Jr. Blvd to North Broadway	1,900	Tibbits Park	1 (40)
NY-22/North Broadway (County) Rockledge Ave Crane Ave	1,000	Pace University, 52 North Broadway Redevelopment Site	0 (10)

<sup>19</sup> While KSI crashes were the priority of the conducted crash analysis, crashes resulting in evident injuries were also taken into account when identifying the High Injury Network, due to the limited number of KSI crash records as a result of the relatively small study area (i.e. the boundaries of the City of White Plains). In order to more accurately identify corridors and intersections of concern, KSI + evident injury crashes were balanced with KSI-only crashes.

Orchard St to Virginia Rd/ Harwood Ave	3,000	North White Plains Train Station	4 (14)
NY-22/Post Road (County)			
Van Wart Ave South Broadway	6,700	Mattison Park, Post Road School, White Plains Hospital, White Plains Senior Citizens Center	14 (75)
Lake Street (City)			
North Broadway Hall Ave	1,600	Turnure Park, White Plains Fire Department Station	2 (15)
Canfield Avenue/Amherst Place (City)			
Lake St to Franklin Ave	1,300	Turnure Park, White Plains Middle School	3 (5)
NY-119/Main Street (City)			
Battle Ave to South Kensico Ave	5,500	Redevelopment Site of the Galleria Mall, White Plains City Hall, Tibbits Park, Turnure Park, White Plains Middle School	13 (59)
Westchester Avenue (County)			
Franklin Ave to South Kensico Ave	1,800	The Westchester Mall	5 (24)
Martine Avenue (City)			
Dr. Martin Luther King Jr. Blvd to South Broadway	2,000	Redevelopment Site of the Galleria Mall, White Plains Public Library	4 (18)
Quarropas Street (City)			
Dr. Martin Luther King Jr. Blvd to Mamaroneck Ave	900	White Plains Public Library, Thomas H Slater Center, White Plains County Government Center	1 (10)
Maple Avenue (City)			
Rathbun Ave to Waller Ave	3,600	White Plains Hospital, White Plains Fire Department Station	17 (87)
Hale Ave to Bloomingdale Rd	600	The Westchester Mall	2 (13)
Waller Avenue (City)			
East Post Rd to Maple Ave	700	White Plains Fire Department Station	1 (6)
Dr. Martin Luther King Jr. Boulevard (City)			
Main St to East Post Rd	1,800	Redevelopment Site of the Galleria Mall, White Plains Public Library, Thomas H Slater Center, White Plains County Government Center	10 (34)
South Lexington Avenue (City)			
Main St to Prospect St	4,000	White Plains Police Department, White Plains County Government Center, White Plains Hospital, Druss Park	11 (51)
Fischer Avenue (City)			

Irving Pl to Midland Ave	1,700	Kittrell Park, Rochambeau School	0 (8)
<hr/>			
Mamaroneck Avenue (co-owned by County/City)			
Main St to Bryant Ave	5,900	White Plains Fire Department Station, Mamaroneck Avenue Elementary School, Bryant-Mamaroneck Nature Area	11 (84)
Gedney Way to Ethelridge Rd	4,500	Gillie Park, Our Lady of Sorrows School, Archbishop Stepinac High School, Ridgeway School	10 (39)
Carrigan Ave to Purdy Ave	3,900	The Windward School - Westchester Lower School, Saxon Woods Park	4 (18)
<hr/>			
Old Mamaroneck Road (County)			
Mamaroneck Ave to Gedney Way	3,900	Mamaroneck Avenue Elementary School, White Plains Fire Department Station	4 (23)
<hr/>			
Gedney Way (City)			
Old Mamaroneck Rd to Mamaroneck Ave	1,500	White Plains Fire Department Station, Gillie Park	4 (18)
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Bryant Avenue (City)			
Old Mamaroneck Rd to North St	5,600	Mamaroneck Avenue Elementary School, Mamaroneck Avenue Elementary School	3 (25)
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North Street (County)			
White Plains Ave to Roger Pl	7,400	White Plains High School, White Plains Fire Department Station, German School of NY	2 (14)

- 1 The length of each corridor was calculated following identification of the High Injury Network in order to contextualize the scope of work required on each individual corridor to improve the entire 15-mile HIN
- 2 Crashes within Roadway intersections were included for the purposes of the presented totals. As a result, crashes in intersections of two HIN corridors were incorporated into crash counts for both cross streets. As an example, crashes that occurred within the intersection of Mamaroneck Avenue and Maple Avenue were counted towards the crash totals for both corridors of Mamaroneck Avenue and Maple Avenue.

### Efficacy of the High Injury Network

The development of the High Injury Network is intended to assist the City of White Plains with reaching the goal of zero roadway fatalities and serious injuries by guiding where physical roadway investments should be directed.

For the City of White Plains High Injury Network, roughly 76 percent of all KSI crashes recorded within the past five years and 68 percent of KSI and evident injury crashes recorded within the past ten years occurred on a corridor or within an intersection on the High Injury Network<sup>20</sup>. Therefore, by improving roadway safety for all 15 miles of the High Injury Network, which represents just 10 percent of the city/county-owned roadways within the City, there is potential to target more than two-thirds of crashes resulting in a bodily injury.

<sup>20</sup> The High Injury Network also encompasses 82 percent of all of the KSI crashes involving pedestrians recorded from 2019 to 2023

Nearly half (49 percent) of all KSI crashes recorded within the past five years and 45 percent of all KSI crashes recorded within the past 10 years occurred on four miles of the High Injury Network (equivalent to 27 percent of the High Injury Network and three percent of all city/county-owned roadways within White Plains), as depicted on **Figure 7** as the "Priority High Injury Network". Improving these four miles of roadway could target nearly half of the KSI crashes within White Plains.

Overall, it is concluded that the High Injury Network meets the intended purpose of such an analytical tool by capturing a supermajority of high frequency crash locations within the City, while minimizing the mileage of roadway that will require targeted safety investments.

Figure 7: The City of White Plains "Priority" High Injury Network



## Notable Characteristics of the High Injury Network

### *Proximity to High Priority Land Uses:*

As discussed above, land uses such as parks, schools, emergency services and government services, among others were a focus of the conducted crash analysis that developed the High Injury Network. These uses have a high potential to generate extensive foot, bicycle, and vehicle traffic and, therefore, represent higher risk for a KSI crash, particularly when located near roadways that experience frequent crashes that result in bodily injury (i.e., the High Injury Network).

The following points of interest are located within 500 feet of the High Injury Network (**Figure 8**):

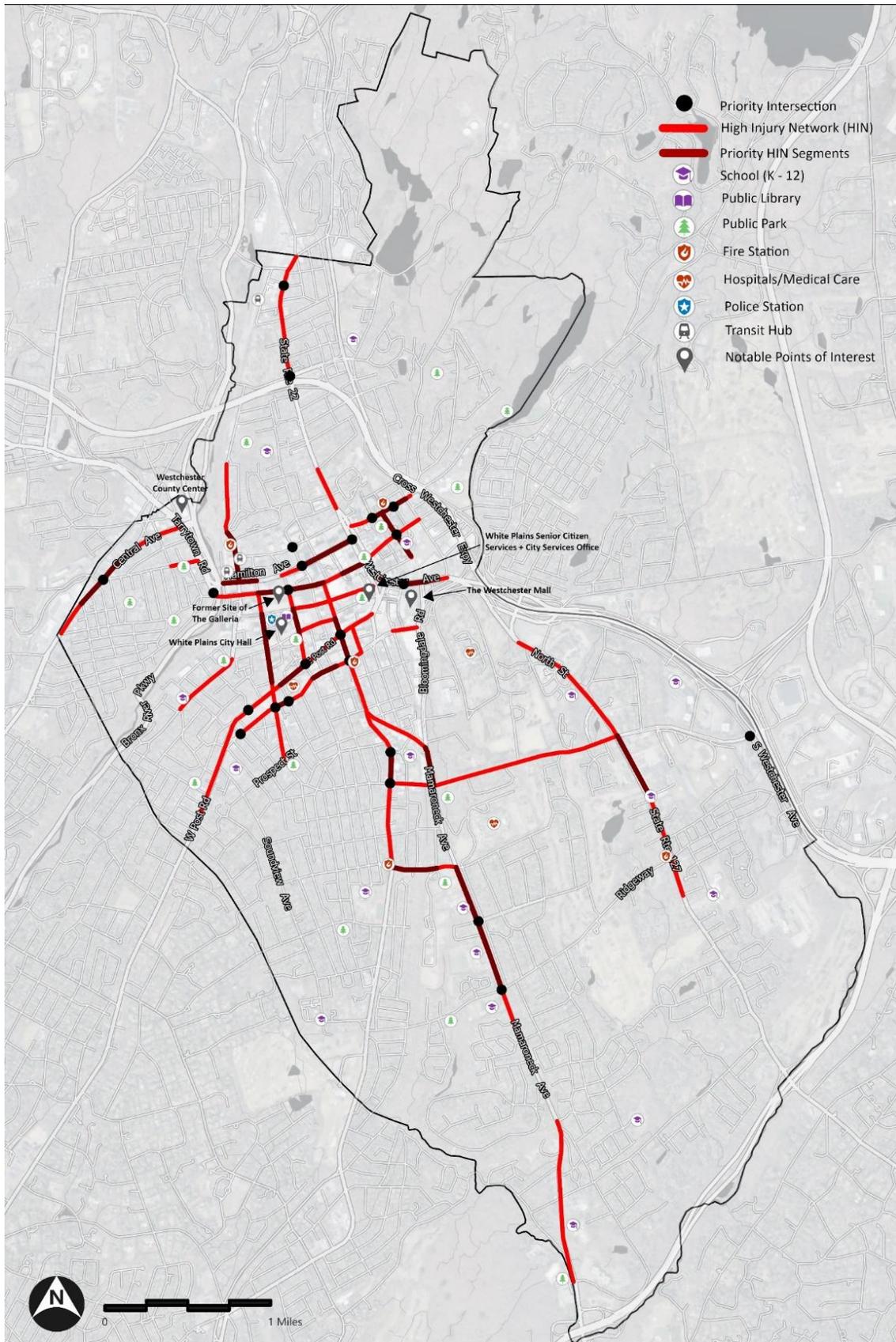
- › 58 percent (10) of all K-12 schools within the City
- › 55 percent (11) of all public parks within the City
- › Three transit hubs including White Plains and North White Plains Metro-North Train Stations, and the White Plains TransCenter
- › All five fire stations of the City of White Plains
- › The White Plains Public Library
- › City Hall
- › White Plains Police HQ
- › White Plains Hospital
- › White Plains Senior Center
- › The Westchester Mall

Extensive development and redevelopment is currently under construction or proposed for key properties across the City of White Plains. Such development, including mixed-use and large-scale commercial projects, will generate additional activity along the City's roadway network. While crash trends cannot be accurately predicted based upon the redevelopment projects, it is important to account for such projects in planning efforts for roadway safety improvements. Significant redevelopment projects located within 500 feet of the High Injury Network include, but are not limited to:

- › The Hamilton Green (200 Hamilton Avenue) anticipated to include: 860 residential units, 72,136 SF of park space, 85,627 SF of commercial space and 964 parking spaces
- › District Galleria (Site of the Former Galleria Mall, 100 Main Street) anticipated to include: 3,200 residential units, 46% dedication to park/open space, 228,940 SF of commercial space and 3,400 parking spaces
- › 52 North Broadway anticipated to include: 308 residential units, 152,024 SF of park space and 274 parking spaces
- › 60 South Broadway anticipated to include: 814 residential units, 18,580 SF of park space, 28,014 SF of commercial space and 957 parking spaces
- › Adora Row (80 Westchester Avenue) anticipated to include: 334 residential units, 14,821 SF of commercial space and 808 parking spaces

Overall, the proximity of the high priority points of interest to the High Injury Network further highlights the importance of targeting roadway improvements to the corridors and intersections deemed to have a high rate of KSI crashes (i.e. the High Injury Network).

Figure 8: Proximity of High Priority Land Uses to the High Injury Network



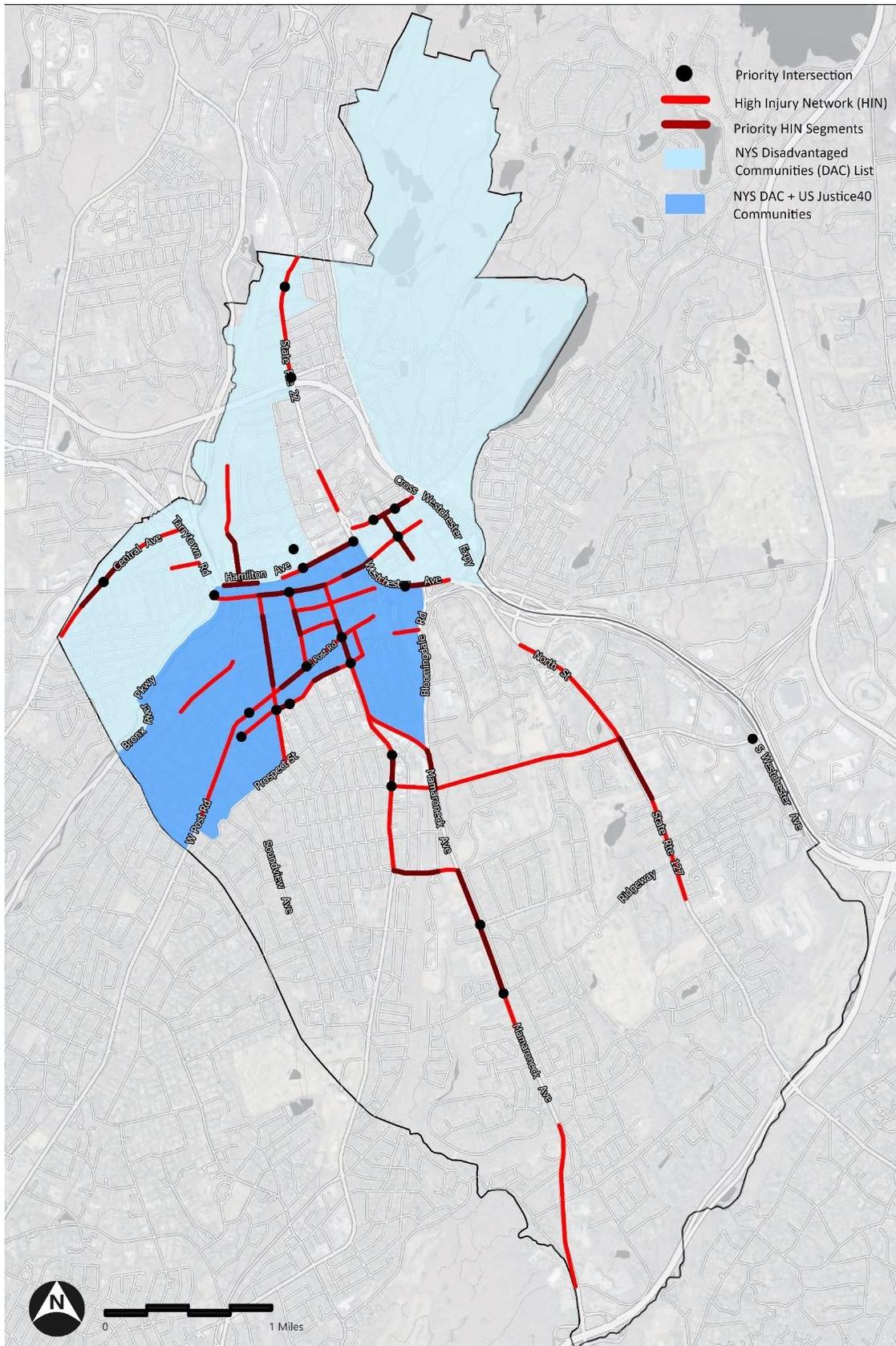
### *Proximity to Vulnerable Roadway Users*

As noted previously, crashes within the City of White Plains frequently overburden disadvantaged communities, including areas with higher concentrations of vulnerable roadway users (pedestrians and bicyclists) with limited supporting infrastructure (sidewalks, bike lanes, and shared use paths). As a result, large portions of the High Injury Network were found to traverse areas of the City with particular equity concerns (**Figure 9**). Specifically:

- › 42 percent of the HIN is located within a Federally-Designated Justice40 Census Tract (*equal to .96 square miles or 10 percent of the City land area*)
- › 63 percent of the HIN is located within a Census Tract identified as a NYS Disadvantaged Community (*equal to 3.49 square miles or 35 percent of the City land area*)

Overall, the High Injury Network's proximity to vulnerable roadway users and disadvantaged communities will help to target interventions to these areas and mitigate existing inequities with the distribution of crashes within the City of White Plains.

Figure 9: Proximity of Vulnerable Roadway Users to the High Injury Network



### *Common Characteristics of the High Injury Network*

While each corridor and intersection within the High Injury Network may have unique design features that need to be addressed to reduce crashes at these locations, some common characteristics shared across the High Injury Network (many of which are also observed in citywide crash trends) can help to inform common interventions and countermeasures that can expedite the reduction of roadway fatalities and serious injuries. Such commonalities between the corridors and intersections on the High Injury Network include, but are not limited to:

#### Crash Characteristics

- › 76 percent of KSI crashes (2019 – 2023) on the High Injury Network were at intersections or intersection related
  - 60 percent of KSI crashes on the High Injury Network occurred at a traffic signal
- › 33 percent of KSI crashes (2019 – 2023) on the High Injury Network occurred during dark/night conditions
- › The three most common crash types for KSI crashes on the High Injury Network include: “other” (60 percent), rear-end (16 percent) and right angle (13 percent)
- › 33 percent and 25 percent of the crashes on the High Injury Network include “Drive Inattention” and “Failure to Yield ROW”, respectively, as a primary contributing crash factor

#### Roadway Characteristics

- › Of the 25 priority intersections identified as part of the High Injury Network:
  - 20 are signalized intersections
    - 17 are four legged intersections (three are three legged intersections)
    - 13 are bidirectional in all directions (i.e. no one-way streets)
  - 5 are unsignalized intersections:
    - Four are three legged intersections
    - Four have a stop sign on one of the two intersecting roadways (one intersection has no traffic control)
    - Four are bidirectional in all directions
- › Of the 27 identified corridors contained within the High Injury Network:
  - 15 corridors are primarily classified as Principal Arterials (Other (Urban))<sup>21</sup>
  - 5 corridors are primarily classified as Major Collectors (Urban)
  - 6 corridors are primarily classified as Minor Arterial (Urban)
  - 1 corridor (Canfield Avenue/Amherst Place) is classified as a Local (Urban) roadway

The High Injury Network’s inclusion of a high percentage of principal arterials and minor arterials (21 out of 27 corridors) is consistent with the findings of the systemic analyses. In other words, the High Injury Network effectively captures the facility types that pose the greatest risk for KSI crashes within White Plains.

<sup>21</sup> Definitions of each roadway functional class is located here: <https://www.dot.ny.gov/divisions/engineering/applications/traffic-data-viewer/dv-definitions/Functional-Classifications.htm>

## Policy, Plan and Program Review

The defined High Injury Network not only serves to pinpoint locations for roadway improvements to target KSI crashes, but provides insight on the gaps or needs in existing policies and programs established by the City of White Plains. Relevant citywide policies, plans and programs must be reviewed to identify opportunities to create Vision Zero-friendly policies, plans and programs. VHB conducted a review of relevant City policies and programs as included in **Appendix C**. The following were incorporated as part of this review:

- › White Plains Complete Streets Policy (2013)
  - The White Plains Complete Streets Policy seeks to create a transportation network that is safe, accessible, and convenient for all users, including pedestrians, bicyclists, public transportation riders, and vehicle drivers and passengers.
- › White Plains Bike Lane Safety Tips
  - The White Plains Bike Lane Safety Tips document provides important guidelines for drivers, bicyclists, and pedestrians to ensure the safe and efficient use of bike lanes. Its focus is on promoting awareness, proper behavior, and adherence to traffic rules, with the aim of reducing crashes and fostering harmony among different road users.
- › Bike 101
  - The Biking 101 document, developed by the City of White Plains, provides crucial guidelines and safety tips for cyclists to promote a safe and enjoyable biking experience. It covers essential rules, safety measures, and best practices to ensure that all cyclists are informed about safe riding habits.
- › Downtown White Plains Transit District Strategic Plan (2016)
  - The Downtown White Plains Transit District Strategic Plan (2016) seeks to revitalize the area surrounding the White Plains Metro-North Station by transforming it into a vibrant, accessible, and sustainable transit-oriented district. The plan focuses on enhancing transportation connectivity, stimulating economic growth, and improving the quality of life for both residents and visitors. A main priority is enhancing connectivity through development of pedestrian and bicycle infrastructure.
- › Red Light Safety Program
  - The White Plains Red Light Safety Program, is operated through a private vendor from 2018 to 2029 and aims to improve traffic safety by reducing red-light violations, collisions, and injuries through the use of red-light cameras at key intersections. The intersections where red light cameras are currently installed include:
    - SB Mamaroneck Ave at Bryant Ave
    - NB Mamaroneck Ave at Bryant Ave
    - EB Main St at Martin Luther King Jr Blvd
    - EB Main St at Bank St
    - WB Martine Ave at Mamaroneck Ave
    - NB Bank St at Hamilton Ave
    - WB Hamilton Ave at Bank St.
    - WB Hamilton Ave at Cottage Pl
    - EB Westchester Ave at South Kensico Ave
    - WB Westchester Ave at South Kensico Ave
    - SB North Broadway at Hamilton Ave
    - NB Mamaroneck Ave at Ridgeway

- SB South Lexington at Maple Ave
- NB North St at Bryant Ave
- SB Tarrytown Rd at Central Ave

Data collected through the Red Light Safety Program shows a substantial reduction in crashes at intersections with an installed red light camera. Total crashes at these locations were found to decrease by 38.3 percent (from 1,163 to 718) and injury crashes decreased by 52.5 percent (from 202 to 96) between August 1, 2013 (before the program) to September 10, 2024. In terms of types of crashes, the intersections with an installed red light camera saw over a 50 percent reduction in both ALP (angle, left-turn, pedestrian) crashes, and rear-end crashes between August 1, 2013 and September 10, 2024.

Overall, the review of listed policies, plans, and programs revealed several opportunities to better align White Plains' policies and programs to Vision Zero's goals and more effectively promote a citywide safety culture.

Recommendations on the manner in which the City can proceed with such opportunities are presented in the Recommendations and Conclusions and are also contained within **Appendix C**.

## Recommendations and Conclusions

This memorandum is intended to direct available investments to the roadway segments and intersections that will generate the greatest reduction in severe crashes. In other words, the findings of this memorandum provide insight into where and how roadway safety improvements should be carried out throughout the City of White Plains and will serve as the basis for the White Plains Vision Zero Action Plan. In summary, the preceding memorandum, informed by a thorough analysis of crash data for the City of White Plains found the following:

### *Existing Condition Findings*

- › Using the roadway network as a pedestrian or during nighttime/dark conditions, and traveling through an intersection are the primary severe crash risk factors within the City of White Plains
- › Distracted driving (i.e. driver inattention) and a failure to yield the ROW are two of the most important road user behaviors that can contribute to a severe crash within White Plains
- › Roadways that are classified as Principal Arterial – Other and Minor Arterials, per NYS Functional Class definitions, within White Plains pose the greatest facility risk factor for severe crashes within White Plains
- › Inequities exist in the distribution of the location of severe crashes within White Plains, with 70 percent of all studied crashes located within a NYS-designated Disadvantaged Community census tract

### *High Injury Network Findings*

- › The developed High Injury Network, containing roughly just 10 percent of all city and county-owned roadways within White Plains, was designed to encompass 76 percent of all KSI crashes that occurred within White Plains over the past five years and 68 percent of KSI and evident injury crashes that occurred within White Plains over the past ten years.
- › 76 percent of KSI crashes (2019 – 2023) on the High Injury Network were intersection or intersection related, thereby addressing an identified primary risk factor within White Plains
- › 82 percent of KSI crashes involving pedestrians that occurred within White Plains between 2019 and 2023 occurred at a location on the High Injury Network

- › Over half of all public and private K – 12 schools and parks within White Plains are located within 500 feet of the High Injury Network
- › 21 of the 27 corridors encompassed within the High Injury Network are classified as either a Principal Arterial – Other or Minor Arterials, the two main facility risk factors identified within White Plains
- › 63 percent of the HIN is located within a Census Tract identified as a NYS Disadvantaged Community

Guided by these findings, Task 4 of the White Plains Zero Action Plan will develop interventions and countermeasures. In considering how to implement its Vision Zero Action Plan, the City should look towards implementing such interventions through wide corridor redesigns and enhancements based upon common roadway characteristics and anticipated needs that expand upon and complement the recommended priority intersection improvements to capitalize on investments and expedite the improvement of vast sections of the identified High Injury Network. In addition, widespread improvements independent of individual locations and based upon the observed common characteristics of the High Injury Network may be pursued to supplement corridor projects and leverage investments across the City. Both types of potential physical improvement projects would be primarily informed by the Federal Highway Administration's inventory of Proven Safety Countermeasures<sup>22</sup>.

Examples of potential corridor improvement projects, consisting of roadway segments grouped for their common characteristics, that may be explored during Task 4 include, but are not limited to<sup>23</sup>:

- › Examples of Downtown White Plains Corridor Improvement Projects (4):
  1. **The Transit District/District Galleria Improvement Project:** This corridor improvement project would leverage the City's Downtown White Plains Transit District Strategic Plan, the proposed redevelopment of the Galleria Mall and the high concentration of city and county government municipal buildings within close proximity to the City's train station and bus hub to create a comprehensive network of roadway safety improvements, and pedestrian and bicyclist facilities. This corridor is defined by the highest pedestrian and bicyclist activity within the City, including extensive numbers of visitors to the City, mixed with high concentrations of motor vehicle traffic, both of which is anticipated to increase with the planned development of the District Galleria proposal. Combination of the City's Vision Zero effort with its Downtown Transit District Strategic Plan will support the pursuit of multiple City objectives and will create a comprehensive vision and identity for the core of the City's downtown.
    - **HIN Corridors Included:** 1) Ferris Avenue (Hamilton Avenue to Water Street), 2) Hamilton Avenue (Bronx Street to South Broadway), 3) Main Street (Battle Avenue to Mamaroneck Avenue), 4) Martine Avenue (Dr. Martin Luther King Jr Blvd to Mamaroneck Avenue), 5) Quarropas Street (Dr. Martin Luther King Jr Blvd to Mamaroneck Avenue), 6) South Lexington Avenue (Main Street to Quarropas Street), 7) Dr. Martin Luther King Jr Blvd (Main Street to Quarropas Street)
    - **Priority Intersections Included:** 1) Battle Avenue/Main Street/Tarrytown Road, 2) Main Street/Dr. Martin Luther King Jr Blvd, 3) Hamilton Avenue/Cottage Place, 4) Hamilton Avenue/South Broadway
  2. **Shopping District Improvement Project:** The "shopping district" improvement project would be concentrated within the eastern half of the City's Downtown and would incorporate the roadway network that immediately

<sup>22</sup> FHWA, "Proven Safety Countermeasures", <https://highways.dot.gov/safety/proven-safety-countermeasures>

<sup>23</sup> Examples of potential corridor improvements are intended to only be illustrative of how the findings of Task 3 of the White Plains Vision Zero Action Plan can be applied to the development of physical interventions for reducing roadway fatalities and serious injuries within the City. The presented corridor improvements exemplify potential corridor projects that share characteristics, including common surrounding land uses, common road users, and common roadway geometries and designs. The final concepts for corridor projects developed during Task 4 of the Action Plan will refine these examples and will consider additional roadway attributes, including owner and maintenance jurisdictions.

serves the City's premier shopping destinations, including The Westchester Mall and the White Plains City Center. This area is defined by extensive numbers of shoppers and residents walking and biking to/from these shopping destinations. As this project would feature extensive connections to the above summarized "Transit District/District Galleria Improvement Project", similar countermeasures may be proposed for both corridors.

- **HIN Corridors Included:** 1) Main Street (Mamaroneck Avenue to South Broadway), 2) Martine Avenue (Mamaroneck Avenue to South Broadway), 3) Post Road (Mamaroneck Avenue to South Broadway), 4) Maple Avenue (Hale Avenue to Bloomingdale Road), 5) Maple Avenue (Mamaroneck Avenue to Waller Avenue), and 6) Waller Avenue (Post Road to Maple Avenue)
3. **Mamaroneck Avenue (Main Street to Maple Avenue):** Representing the Downtown (and city-owned) segment of Mamaroneck Avenue, this corridor is the highest density corridor of Mamaroneck Avenue and largely serves as the spine between the two portions of the City's Downtown as defined above (i.e. Transit District and Shopping District). This corridor is unique within the Downtown as an unseparated bidirectional four lane arterial (two lanes in both directions).
- **HIN Corridors Included:** Mamaroneck Avenue (Main Street to Maple Avenue):
  - **Priority Intersections Included:** 1) Mamaroneck Avenue/Post Road
4. **White Plains Hospital Roadway Network Improvement Project:** This potential corridor improvement project encompasses the roadway network immediately surrounding and/or connecting to the White Plains Hospital. This area of Downtown White Plains is unique compared to the other areas of the City's Downtown due to the partial presence of single-family residential use, with such uses south and west of the Hospital (while multi-family residential uses are located north and east of the Hospital). Therefore, this corridor particularly has extensive residential foot and bicycle traffic in addition to implications for post-crash care and the circulation of emergency responses. The frequent presence of emergency response vehicles utilizing these roadways can pose additional implications for the placement of countermeasures.
- **HIN Corridors Included:** 1) Post Road (Maple Avenue to Mamaroneck Avenue), 2) South Lexington Avenue (Quarropas Street to Maple Avenue), 3) Maple Avenue (Rathbun Avenue to Mamaroneck Avenue), 4) Dr. Martin Luther King Jr Blvd (Quarropas Street to Post Road)
  - **Priority Intersections Included:** 1) Maple Avenue/Davis Avenue, 2) Maple Avenue/South Lexington Avenue, 3) Maple Avenue/Rathbun Avenue, 4) Post Road/Highland Avenue, 5) Post Road/Dr. Martin Luther King Jr. Blvd
- › Examples of South White Plains Corridor Improvement Projects (4)
- South White Plains is identified as a distinct geographic region of the City of White Plains, due to the dominance of single-family residential land uses across the area in direct contrast to the land uses observed within Downtown White Plains. While there is no formal established boundary between the more urbanized Downtown White Plains and the suburban South White Plains, the roadway of Maple Avenue was selected as a boundary for the purposes of exploring potential corridor improvement projects. The roadways within South White Plains, including Mamaroneck Avenue, Old Mamaroneck Road, and North Street, among others are largely surrounded by single-family residential land uses, and are characterized by wider roadways, faster travel speeds and less pedestrian and bicyclist activity. Due to these differences, the needed improvements for South White Plains' roadways differ from those within Downtown White Plains.
5. **Mamaroneck Avenue (Maple Avenue to Bryant Avenue):** The segment of Mamaroneck Avenue between Maple Avenue and Bryant Avenue represents the transition between more urbanized and suburban sections of Mamaroneck Avenue and represents the southern most portion of Mamaroneck Avenue that is city-owned and maintained (note: Mamaroneck Avenue from Bryant Avenue to the border with Harrison is owned by Westchester

County). Half of this segment of Mamaroneck Avenue is characterized as a bidirectional two-lane roadway, while the southern portion of this segment transitions into a bidirectional four lane roadway (two lanes in both directions). South of Bryant Avenue, Mamaroneck Avenue is separated by a median and speed limits increase to 40 MPH.

- **HIN Corridors Included:** 1) Mamaroneck Avenue (Maple Avenue to Bryant Avenue)
  - **HIN Priority Intersections Included:** 1) Mamaroneck Avenue/Maple Avenue
6. **Old Mamaroneck Road (from Mamaroneck Avenue to Gedney Way), Gedney Way (from Old Mamaroneck Road to Mamaroneck Avenue), and Bryant Avenue (Old Mamaroneck Road to North Street):** These segments of Old Mamaroneck Road, Gedney Way and Bryant Avenue were grouped into a corridor improvement project due to the significant single family/low density residential land uses surrounding these roadways and a similar roadway facility type (bidirectional two lane roadway). These roadways also all provide significant connections to large single family residential areas and also serve as primary connectors to larger corridors, namely Mamaroneck Avenue and North Street.
- **HIN Corridors Included:** 1) Old Mamaroneck Road (from Mamaroneck Avenue to Gedney Way), 2) Gedney Way (from Old Mamaroneck Road to Mamaroneck Avenue), and 3) Bryant Avenue (Old Mamaroneck Road to North Street)
  - **HIN Priority Intersections Included:** 1) Old Mamaroneck Road/Shapham Place, 2) Old Mamaroneck Road/Bryant Avenue
7. **Mamaroneck Avenue (Gedney Way to Ethelridge Road) and North Street (White Plains Avenue to Roger Place):** The two roadway segments of Mamaroneck Avenue (Gedney Way to Ethelridge Road) and North Street (White Plains Avenue to Roger Place) are included as a single potential corridor improvement project due to similar land uses, including a close proximity to K – 12 schools and similar roadway facility types (bidirectional separated (median) arterials with two lanes in both directions). Both segments are additionally owned and maintained by Westchester County.
- **HIN Corridors Included:** 1) Mamaroneck Avenue (Gedney Way to Ethelridge Road) and 2) North Street (White Plains Avenue to Roger Place)
  - **HIN Priority Intersections Included:** 1) Mamaroneck Avenue/Gedney Way, 2) Mamaroneck Avenue/Gedney Circle, 3) Mamaroneck Avenue/Ridgeway
8. **Mamaroneck Avenue (Carrigan Avenue to Purdy Avenue):** This segment of Mamaroneck Avenue is significantly suburban/rural and provides a primary entrance/exit into and out of the City of White Plains.
- **HIN Corridors Included:** 1) Mamaroneck Avenue (Carrigan Avenue to Purdy Avenue)
- › Examples of Other Corridor Improvement Projects (1)
9. **Eastview Neighborhood Corridor Improvement Project:** This improvement project would be intended to improve the roadway safety in the Eastview Neighborhood, which includes the Eastview Middle School, Turnure Park and a high concentration of high density residential developments such as the Stewart Place Condominiums and the Parkview Condominiums. The Eastview neighborhood is relatively isolated from the rest of Downtown White Plains and the predominantly residential areas of North and South White Plains as a result of North/South Broadway and Tibbits Park to the west, Westchester Avenue to the south, the Cross Westchester Expressway to the east and the grounds of Pace University and Grace Church Community Center to the north. The roadways within this area, including Lake Street and Main Street, while characterized by multi-family residential land uses, experience significant traffic from motorists traveling to/from Downtown White Plains. Overall, the relatively

geographic isolation and unique nature of the land uses within the Eastview Neighborhood warrant a dedicated corridor improvement project to safeguard the motorists, park visitors and students traveling to Eastview Middle School.

- **HIN Corridors Included:** 1) Lake Street (North Broadway to Hall Avenue), 2) Main Street (South Broadway to South Kensico Avenue), 3) Amherst Place/Canfield Avenue (Lake Street to Franklin Avenue)
- **HIN Priority Intersections Included:** 1) Amherst Place/Main Street, 2) Stewart Place/Lake Street and 3) Lake Street/South Kensico Avenue

These 9 example corridor improvement projects would incorporate 20 of the 25 identified priority intersections of the High Injury Network.

Examples of potential improvements intended to target the identified common characteristics of the High Injury Network include:

- › Curb extensions at crosswalks to improvement visibility of pedestrians
- › Transverse rumble strips/high friction surface treatment at intersections to improve driver attentiveness
- › Improved lighting and rectangular rapid flashing beacons at specified locations to improve visibility during dark conditions

Physical investments alone, however, cannot foster the safety culture that is required in order to sustain a Vision Zero effort for decades. A community's policies, plans and programs must be tailored towards promoting the tenets of Vision Zero. By applying the above discussed policy, plan and program review to the insights revealed by the conducted crash analysis, a number of potential actions that can be taken by the City of White Plains in order to increase the likelihood of success of its Vision Zero efforts and improve public awareness of road safety practices were identified. Such policy, planning and programmatic recommendations include:

- › The City of White Plains should explore opportunities to expand the Red Light Safety Program to a select number of the 20 signalized priority intersections within the High Injury Network.
  - Relevant Crash Findings
    - 40 percent of serious injury crashes occurring at an intersection that has a traffic signal
    - Red Light Camera programs have been found to reduce the occurrence of right angle crashes<sup>24</sup>. Right-angle crashes are the third most common type of crash along the High Injury Network (13 percent of all crashes)
- › The City of White Plains [current webpage on pedestrian safety](#) is dedicated to explaining High-intensity Activated Crosswalks (HAWKs)<sup>25</sup>. The City should create educational resources on pedestrian safety similar to the City's Bike 101 and Bike Lane Safety Tips materials to increase pedestrian safety in White Plains.
  - Relevant Crash Findings
    - 38 percent of crashes involving a collision with a pedestrian were characterized as KSI crashes, while 12.5 percent of crashes involving a collision with a bicyclist were characterizes as a KSI crashes

<sup>24</sup> Cohn et al, Red light camera interventions for reducing traffic violations and traffic crashes: A systematic review (2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8356316/>

<sup>25</sup> City of White Plains, Pedestrian Safety, <https://www.cityofwhiteplains.com/922/Pedestrian-Safety>

- 7 of the 9 recorded crashes that resulted in at least one fatality between 2014 and 2023 involved a pedestrian, while no collisions with bicyclists resulted in a fatality
- › Educational materials should be produced by the City that are geared towards motorists in order to increase awareness of pedestrian and bicyclist users and promote safe practices, including safe passing (i.e. giving at least three feet of space when passing a bicyclist), among others.
- Relevant Crash Findings
    - The two most common contributing factors of KSI and evident injury crashes were “failure to yield the right of way (ROW)” and “driver inattention” (both attributed as a contributing factor in 26 percent of crashes from 2019 to 2023).
- › The City of White Plains should consider comprehensively linking the Vision Zero planning effort with the established “White Plains Transit District Strategic Plan” and its recommendations, and with the proposed redevelopment of the Galleria Mall (i.e. the District Galleria project). Pursue a cohesive, single corridor project (listed as “the Transit District/District Galleria Corridor Improvement Project” above) that will link the proposed multimodal transportation center (the White Plains Train Stations and the TransCenter) with the Galleria Mall redevelopment site and the White Plains Government Center.

Additional broader policy recommendations identified as part of the conducted policy, plan and program review, but separate the findings of the conducted crash analysis are included in **Appendix C**.

## Appendix A: Crash Analysis Methodology

The prepared memorandum summarizing the crash analysis conducted by VHB over the Summer of 2024 was based upon an approach that has been widely advanced by Federal entities such as the Federal Highway Administration and utilized by municipalities, local community organizations and private planning practitioners alike to identify ways to improve roadway safety and attain “Vision Zero”<sup>26</sup>. The methodology employed for this memorandum sought to comprehensively ascertain the primary locations and risk factors associated with severe crashes within White Plains, with the ultimate goal of identifying White Plains’ High Injury Network - a portion of a municipality’s roadways that account for a large portion of roadway fatalities and serious injuries. Through this process, the intent was to identify locations that are recommended for improvement in order to achieve the greatest possible reduction in roadway fatalities and serious injuries within the City.

Specifically, the crash analysis consisted of three primary components:

### 1. Identification of Crash Trends

- A spatial analysis of ten years of crash data (2014 – 2023) to determine the frequency, characteristics and hotspots of crashes within White Plains. This approach contextualizes crash history within White Plains, with consideration given to the location of crash hotspots in relation to vulnerable populations and high priority land uses, and supports the identification of the primary types of roadway users, roadways and conditions that lead to severe crashes.

### 2. High-Level Systemic Analysis of Crashes

- The conducted systemic analysis utilized crash trees, a hierarchical diagram that organizes and visually represents crash data by breaking data down from broad categories to more specific contributing factors. This method helps in identifying common risk factors of crashes, including, but not limited to focus facility types (i.e. roadway characteristics), common pre-crash conditions, and common contributing factors.

### 3. Network Screening Analysis/Development of the High Injury Network

- A network screening approach factors in crash history, roadway factors, and traffic characteristics to prioritize corridors and intersections within a municipality based upon their potential for safety improvement (PSI). As discussed below, PSI is a metric that represents the difference in the observed average crash frequency of the respective studied location and the predicted average crash frequency that would be expected from the studied location based upon its roadway characteristics and experienced traffic volumes. Once PSI is calculated for each studied location, each can be ranked based upon this metric to determine priority locations for improvement.

The findings of the first two components of the crash analysis, combined with the results of this network screening, are then utilized to develop a “High Injury Network”. Identification of the HIN is a key step to prioritize and utilize safety investments in a way that that will produce the greatest reduction in the potential for KSI crashes.

Such an approach is the preferred method of safety planning and analysis nationally, with the United States incorporating the Safe System Approach, which this methodology stems from, into its National Roadway Safety

<sup>26</sup> FHWA, Making our Roads Safer through a Safe System Approach (2022), <https://highways.dot.gov/public-roads/winter-2022/01#:~:text=The%20Safe%20System%20Approach%20considers,requires%20strengthening%20all%20five%20elements>.

Strategy. The Safe System Approach strives to achieve the following: 1) Safer Road Users, 2) Safer Vehicles, 3) Safer Speeds, 4) Safer Roads and 5) Better Post-Crash Care. The prepared memorandum prioritized identifying the ways in which White Plains can attain Safer Road Users, Safer Speeds and Safer Roads through this approach, with a majority of presented recommendations centering on these three goals. These recommendations were based upon the findings of the conducted crash analysis, combined with findings of the conducted policy and program review, as summarized in the prepared memorandum.

The data sources, process of analysis and limitations of analysis that were utilized across all three components to reach these findings are presented below.

## Data Sources

The following data sources were utilized throughout all three steps of the conducted crash analysis:

- › Crash Data from NYS CLEAR (Crash Location and Engineering Analysis Repository) System
- › Crash Data provided by the City of White Plains' crash record system
- › The New York State Climate Justice Working Group (CJWG)'s List of Disadvantaged Communities
- › Federally-Designated Justice40 Census Tracts identified through the Climate and Economic Justice Screening Tool
- › The United States Census Bureau's American Community Survey, Five-Year Estimates
- › Spatial analysis of land uses and notable points of interest and community facilities within the City of White Plains (i.e. schools, hospitals, parks, law enforcement, etc.)

## Crash Data

The conducted crash analysis was primarily informed by a dataset sourced from the New York State CLEAR safety management information system containing all fatal, serious injury or evident injury crashes occurring within the City of White Plains from January 1, 2014, to December 31, 2023. While Vision Zero programs are primarily concerned with crashes that result in fatalities and serious injuries, the crashes chosen to be exported was broadened to include "evident injuries", a lower injury (i.e. non-incapacitating injuries) threshold than "serious injury" crashes, in order to improve the accuracy of observations regarding 10-year crash trends (see "Limitations of Analysis – Small Sample Size" below). As the City of White Plains is a relatively small study area for a crash analysis, with limited KSI crash records to determine long-term trends, evident injuries helped to improve the accuracy of the analysis' results. It is important to note, however, that the use of evident injury crashes was primarily only used in the outlined preliminary first step of the conducted analysis (i.e. 10-Year Crash History). The identification of the recommended High Injury Network and intersections of concern were based on KSI crashes between 2019 and 2023 alone, while the conducted systemic analysis was based upon crashes that occurred between 2017 and 2023.

Information for each recorded crash sourced from the NYS CLEAR system included, but was not limited to:

- › Crash Severity (i.e. resulting in a fatality, serious injury and or evident injury)
- › Crash Type (i.e. by roadway user, action/fault reported)
- › Apparent Contributing Crash Factor (i.e. speeding, failure to yield right of way, alcohol/drug use, etc.)
- › Roadway Type (i.e. number of lanes, AADT, local/county ownership)
- › Roadway Characteristics (i.e. at intersection, signal, crosswalk, posted speed, straight or curved roadway)
- › Traffic Control (i.e. Signalized, stop sign, uncontrolled, etc.)
- › Temporal Variations (i.e. case year, time-of-day, day-of-week, month)

- › Weather Conditions (i.e. dry/wet road surface, clear/cloudy/snow/rain, etc.

Reported crashes occurring on state highways or interstates (ex. Cross Westchester Expressway (I-287), Bronx River Parkway, and Hutchinson River Parkway) were excluded from the conducted analysis, due to the unique characteristics of high-speed highways and the low potential for safety improvements associated with state highways and interstates. The high speeds observed on these corridors, lack of pedestrian and bicyclist activity, limited opportunities for safety improvements and the lack of any jurisdiction by the City of White Plains reduce the efficacy of applying Vision Zero principles and dedicating limited local funding to these roadways. Instead, city-owned and, county-owned roadways and a handful of state-owned arterial roadways that are primary (vehicular, pedestrian and bicyclist) corridors through the heart of the City of White Plains were the primary corridors of concern for the conducted crash analysis.

It is important to note that separate crash record datasets were also provided by the City of White Plains (sourced from the City's crash record system). While both the NYS CLEAR system and the City of White Plains' own crash record system source data from NYS Department of Motor Vehicle (DMV) records, the NYS CLEAR system were primarily utilized for VHB's conducted crash analysis due to the comprehensive data set (including PDF files of crash reports) and analytical tools available through the CLEAR system. The data supplied by the City of White Plains were used to compare VHB's findings and further contextualize crash trends within the City (see Section II.2 below).

In addition to the City's crash data itself, VHB also compare its findings with the recommended 19 intersections of improvement that are contained within the adopted 2024 *One White Plains Comprehensive Plan*<sup>27</sup>. These 19 intersections, based upon crash data spanning from 2019 – 2021 and organized by both total number of injuries and crashes, included:

- › Hamilton Avenue - Ferris Avenue/Bank Street
- › Tarrytown Road - Central Avenue
- › Westchester Avenue - Bloomingdale Road
- › MLK Boulevard - Martine Avenue
- › Main Street - Mamaroneck Avenue
- › Hamilton Avenue - N Broadway (NB)
- › Main Street - North Broadway/S Broadway - Westchester Avenue
- › Bryant Avenue - Mamaroneck Avenue
- › Chatterton Avenue - Tarrytown Road
- › Bank Street-Main Street
- › Tarrytown Road - Battle Ave / Hamilton Ave
- › Aqueduct Road - Central Avenue
- › Westchester Avenue - South Kensico Avenue
- › Maple Avenue - Mamaroneck Avenue
- › Bryant Avenue - North Street
- › Main Street - North Lexington/South Lexington
- › Martine Avenue - Mamaroneck Avenue
- › E Post Road - Mamaroneck Avenue
- › Main Street - City Place/EJ Conroy Drive

<sup>27</sup> The 2024 Comprehensive Plan also included a table of all intersection crashes involving pedestrians between 2015 and November 2022, which VHB also compared its findings with.

The findings of VHB's conducted crash analysis significantly differed from these 19 intersections recommended for improvement within the City's Comprehensive Plan. The discrepancy originates from the differing areas of focus of the two analyses. Whereas the City of White Plains' Comprehensive Plan high-level crash analysis included crashes solely involving "property damage" and "possible injuries", the conducted crash analysis that is the subject of this memorandum focused on crashes involving fatalities and evident injuries. VHB's conducted analysis excluded "property damage" and "possible injury" crashes in accordance with the main priorities of the principles of Vision Zero (i.e. eliminating fatalities and serious injuries). By excluding such crashes from the crash analysis, the intersections that pose the greatest physical threat to roadway users can be identified, rather than those intersections that may experience many crashes, but less frequent life-threatening impacts.

As a result of these discrepancies and additional concerns regarding the unique travel patterns produced by the COVID-19 Pandemic in 2020 and 2021, which the 2019 – 2021 period of the 2024 Comprehensive Plan's crash analysis encompassed, it is recommended that the 25 intersections of concern identified within this memorandum be prioritized for attaining Vision Zero in lieu of the intersection recommendations contained within the City's Comprehensive Plan.

#### Equity/Demographic Data

Both the NYS CJWG's Disadvantaged Communities List and the Federal Justice40 Census Tracts were utilized to identify the location of crashes in relation to disadvantaged communities within the City of White Plains. The Disadvantaged Communities List encompasses 35 percent of all Census Tracts in New York State and identified communities "on the basis of 45 indicators about "Environmental and Climate Change Burdens and Risks" and "Population Characteristics and Health Vulnerabilities"<sup>28</sup>. Justice40 Communities are communities that have been "marginalized by underinvestment and overburdened by pollution"<sup>29</sup>. Communities that are included within the Justice40 program are found to be disadvantaged within one or more of the following areas: climate change, clean energy and energy efficiency, clean transit, affordable and sustainable housing, training and workforce development, remediation and reduction of legacy pollution, and the development of critical clean water and wastewater infrastructure.

Both the NYS and Federal programs were utilized to analyze crash locations and trends on the basis of equity concerns and to determine whether crashes were concentrated near Vulnerable Roadway Users. Specifically, seven Census Tracts are identified by the NYS CJWG as a Disadvantaged Community and three Census Tracts are identified by the Climate and Economic Justice Screening Tool as Justice40 Census Tracts<sup>30</sup>. All identified Census Tract are located within the northern portion of the City, centered around the more highly dense Downtown area.

Specific demographic and economic data for US Census Block Groups within the City of White Plains were derived from the United States Census Bureau's American Community Survey in order to further inform the conducted equity analysis and determine any potential burdens on vulnerable roadway users as a result of crash trends in the City. As outlined in the best practices memorandum prepared by VHB and submitted to the City in July 2024, priority vulnerable roadway users include, but are not limited to:

<sup>28</sup> NY Climate, "Disadvantaged Communities Criteria FAQs", [Link Here](#)

<sup>29</sup> White House, "What is the Justice40 Initiative", <https://www.whitehouse.gov/environmentaljustice/justice40/>

<sup>30</sup> The seven Census Tracts identified as Disadvantaged Communities by the NYS CJWG are: 36119008902, 36119008800, 36119009000, 36119009100, 36119009200, 36119009300, and 36119009400. The last three listed are also designated as Federal Justice40 communities.

- › People of Color
- › Youths (Under 18 years of age)
- › Senior Citizens (Over 65 years of age)
- › People with Disabilities
- › Users Living in Households at or Below 200% of the Federal Poverty Level
- › Users with Limited English Proficiency
- › Users with No Access to a Motor Vehicle

The specific data sourced from the American Community Survey for the conducted equity analysis is provided below under "Identification of Vulnerable Roadway Users". When available, data by US Census Block Group were used as the geographic unit for analysis in order to determine the location of vulnerable roadway user populations to the greatest accuracy possible. Such ACS data included: racial distribution by Block Group, income by Block Group, age by Block Group, means of transportation to work by Block Group, disability characteristics by Census Tract, among others.

To further contextualize the reported location of crashes, a spatial analysis of notable points of interest and community facilities within the City of White Plains (i.e. schools, hospitals, parks, law enforcement, etc.) was manually conducted by VHB. This analysis, specifically, focused on collecting location data for facilities relating to the Five E's of Safety (*Engineering, Enforcement, Education, Emergency Response, Equity*), as outlined in VHB's July 2024 best practices memorandum, as well as other facilities and land uses that are potentially high generators of foot and bicycle traffic. Such community facilities inventoried by VHB included schools, hospitals, parks, first responders, senior citizen facilities, low-income and affordable housing developments, libraries, and public transportation pick-up/drop-off locations, among others.

## **The Crash Analysis Process**

### **Step One - Identification of Crash Trends**

Following the export of data, the first step in the conducted crash analysis was the preliminary spatial analysis and quantitative summary of crash data aimed at contextualizing the recent crash history and trends observed within the City of White Plains. This contextualization of crash trends helps to define the problem of KSI crashes within the City, *pinpoint underlying implications of these crash trends and inform goal setting for the City as it pursues the long-term objective of zero roadway fatalities and serious injuries.*

The 10 years of crash records (spanning from January 2014 to December 2023) exported from the NYS CLEAR system was input into the geographic information system software known as ArcGIS Pro for analysis. The data was then filtered by crash severity in order to determine the distribution of crashes involving fatalities, serious injuries and evident injuries. The crash data was subsequently filtered by each of the following attributes in order to determine the distribution of crashes on the basis of a variety of factors and characteristics:

- › *Crash Type (i.e. by roadway user, action/fault reported)*
- › *Roadway Type (i.e. number of lanes, AADT, local/county ownership)*
- › *Roadway Characteristics (i.e. at intersection, signal, crosswalk, posted speed, straight or curved roadway)*
- › *Traffic Control (i.e. Signalized, stop sign, uncontrolled, etc.)*
- › *Temporal Variations (i.e. case year, time-of-day, day-of-week, month)*
- › *Weather Conditions (i.e. dry/wet road surface, clear/cloudy/snow/rain, etc.)*
- › *Contributing Crash Factors*

Percent breakdowns for each of these attributes were also calculated to determine the most common characteristics of crashes. The year-by-year crash data was also plotted on charts to depict the evolution of any potential trends over time. Lastly, pivot tables were generated by utilizing Microsoft Excel (i.e. primarily the “analyze data” tool) to further analyze the exported crash data and identify correlations between crash characteristics.

In addition to quantitatively summarize the crash data, the location of crashes were analyzed based upon their proximity to priority populations (i.e. vulnerable roadway users) and community facilities. An equity analysis was conducted which overlaid the 10-year crash data with New York State’s Disadvantaged Communities List and the Federal Justice40 Census Tracts. The crashes that intersect with the Census Tracts included within this program were filtered to determine the number and types of crashes most impacting disadvantaged areas of the City. A similar methodology was applied to American Community Survey demographic data (i.e. race, income, age, etc.) sourced from the US Census Bureau’s website (data.census.gov). After import into ArcGIS, crashes located within block groups where each set of demographic data exceeds a specific threshold were filtered to determine if crashes within White Plains overburdens certain demographic groups.

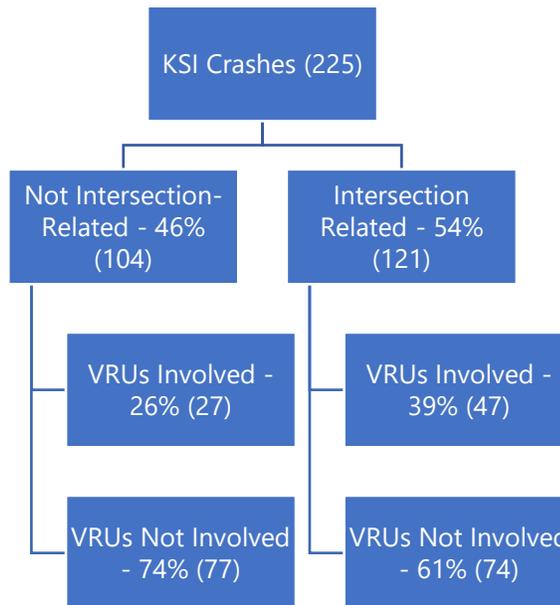
Notably, the threshold determined for the demographic characteristic of race was determined by the percent share of each racial group within City of White Plains. For example, as the Hispanic/Latino population makes up 32 percent of the citywide population, the block groups where the Hispanic/Latino population makes up 40 percent or more of the block group’s total population were chosen and crashes that intersect with these block groups were filtered. In other words, this process helped to identify the areas where the Hispanic/Latino population is most highly concentrated within the City and determined the degree to which crashes impact such areas of the City. Lastly, the crash data was overlaid with community facility point data that was manually inventoried by VHB. 500 and 1,000-foot buffers were generated around each type of community facility (i.e. schools, hospitals, parks, etc.) to identify all crashes within 500 and 1,000 feet of such facilities.

## **Step Two - High-Level Systemic Analysis of Crashes**

The conducted systemic analysis utilized a subset of crash data from the New York State Department of Transportation (NYSDOT), covering the years 2017 through 2023. This crash data was obtained through a Freedom of Information Law request submitted to the Department in July 2024. The requested data included all crash data that occurred across New York State between 2017 and 2023. The statewide data was necessary in order to compare findings within the City to statewide trends as part of the systemic analysis in order to find factors that are overrepresented for crashes within the City (in other words, a factor of concern).

Once obtained, the crash data was compiled, processed and input into Microsoft Power BI, a data visualization tool in order to conduct the analysis and develop crash trees through a crash tree-generating tool within Power BI. As discussed above, a crash tree is a hierarchical diagram that organizes and visually represents crash data, breaking it down from broad categories to more specific contributing factors. This method helps in identifying patterns such as common pre-crash conditions, frequent contributing factors, and environmental influences associated with crashes. The analysis began by reviewing the seven focus crash types based on emphasis areas (EAs) identified in New York’s Strategic Highway Safety Plan (SHSP). The project team then compared White Plains fatal and serious injury (KSI) crashes against total crashes and looked for EAs that had a greater share of KA crashes compared to total crashes. The project team then used the roadway attributes listed in the crash data to hone in on focus facility types.

For example, Figure A1 presents a crash tree for fatal and serious injuries categorized by (1) whether the crash was intersection-related, and (2) whether the crash involved VRUs. This structured approach enables us to draw specific safety insights, such as recognizing that 47% of fatal and serious injury crashes at intersections involved VRUs.



From the range of possible crash trees generated, the team selected those that provided the most relevant and significant insights, which are presented in the prepared memorandum. All generated crash trees are presented in **Appendix B**.

### Step Three - Network Screening Analysis/Development of the High Injury Network

Following the identification of common risk factors that contribute to severe crashes within White Plains, the development of the High Injury Network within the City centered around three main considerations: 1) the calculated Potential for Safety Improvement (PSI) metric for each intersection and corridor within the White Plains roadway network, 2) the proximity of notable points of interest within the City to crash hotspots and 3) equity and the proximity of vulnerable roadway users to crash hotspots. The first factor in the development of the High Injury Network, **Potential for Safety Improvement (PSI)**, was automatically calculated using the “network screening” function of the NYS CLEAR safety data system. PSI represents the difference in the average observed crash frequency (averaged over the study time period) and the expected average crash frequency based upon characteristics like the roadway’s geometry, facility type and observed traffic volumes. The primary value in utilizing PSI as a metric is the ability to identify the intersections and corridors that would have the highest potential for minimizing crash frequencies to the greatest extent possible (i.e. a site ranking system). In other words, such a metric helps to direct investments to locations that have the greatest potential for reducing crashes. However, as PSI solely considers the number of crashes at a given location and not the circumstances that led to those crashes, using the calculated PSI alone is not advisable in identifying locations that have the greatest potential for reducing crashes.

A manual review of the crash data at the locations highlighted as part of the network screening is subsequently required to filter locations that may have a high PSI measure, but may not necessarily have factors or characteristics that are indicative of a crash trend or significant challenge that can be solved. For example, as part of the conducted

analysis, the intersection of Mamaroneck Avenue and Saxon Woods Drive was determined to have 25<sup>th</sup> highest PSI among all intersections within the City, based upon reported KSI crashes between 2019 and 2023. However, a manual review of the crash data at this location revealed that one serious injury crash occurred at this intersection over the study period, with the crash that led to the serious injury a result of an “animal action”. Such a crash primarily is circumstantial and limited opportunities for planning for location with just one crash that involves an animal action (i.e. not indicative of an issue with animal crossings, etc.) exist. A primary reason why locations with limited and circumstantial crashes were highlighted as part of the network screening analysis is the relatively small sample size of crash data within White Plains (please see more under “Limitations of Analysis”).

To supplement the consideration of the PSI score for each intersection and corridor, a manual analysis of the proximity of notable land uses to the hotspots of crashes was factored into the selection of the High Injury Network. Particularly, land uses that are likely generators of significant foot and bicycle traffic were primarily taken into consideration. These land uses included schools (K – 12), public parks, libraries, municipal buildings, train stations, the White Plains TransCenter, cultural facilities, age-related facilities such as senior centers, and first responders (i.e. hospitals, police, fire stations). These land uses were identified through a manual inventory process conducted through ArcGIS Pro. In addition to these select land uses, the project sites for certain proposed or underway development projects across the City were also identified for their potential for generating pedestrian, bicyclist and vehicular activity. These projects were identified by using the City of White Plains’ “Projects & Proposals” webpage located here: <https://city-of-white-plains-projects-and-proposals-wp-planning.hub.arcgis.com/>. Crash locations with significant proximity to such land uses were given priority in the development of the High Injury Network.

In addition to land uses, the calculated PSI was additionally supplemented by giving priority to crash locations within identified equity locations throughout the City. In particular, crash locations within the identified Justice40 Census Tracts and NYS Disadvantaged Communities were given additional priority in the development of the High Injury Network.

Based upon the ranking of corridors and intersection based upon a mix of PSI, land use and equity considerations, the High Injury Network was subsequently developed. Once the HIN was developed, the proportion of recorded crashes captured on the High Injury Network was determined through analysis conducted in ArcGIS Pro (i.e. the selection tool). Additional metrics of the High Injury Network were additionally determined using the selection tool in ArcGIS Pro and through the generation of a 500 foot buffer from the HIN corridors to estimate the percentage of notable land uses within close proximity to the High Injury Network.

## **Limitations of Analysis**

While VHB is confident in the accuracy of the findings of the conducted crash analysis, it is important to recognize some limitations in the available crash data that was utilized.

### **1. Missing Attributes in Crash Records**

Following processing, the utilized data was found to feature gaps in certain attributes frequently relied upon to contextualize crash data. As an example, the apparent contributing factors for 78 (9 percent) of the KSI + evident injury crashes recorded over the 10 year period of 2014 to 2023 were listed as either “not applicable” or “unknown”. Missing records for attributes such as functional classification, roadway width, and posted speed limits (i.e. missing in 305 records) limited the depth of the conducted systemic analysis. Systemic analyses are most effective when supported by extensive crash and infrastructure data, including signal phasing, signal back plating, and detailed roadway characteristics.

## **2. Small Sample Size of Crash Records**

The strength of the findings of a data analysis are directly tied to the number of available records. Due to the study area (i.e. the boundary of the City of White Plains) of the conducted crash analysis being relatively small in scope, there were limited numbers of crash records available for analysis. Between 2014 and 2023, 309 KSI crashes were reported within the City of White Plains, with 144 KSI Crashes occurring between 2019 and 2023. Due to the limited number of records, while KSI crash data was prioritized to determine crash trends and develop the high injury network, the scope of analysis needed to be expanded to include evident injuries (classified as “B” crashes) to supplement the KSI crash records.

## **3. Human Error in Crash Reports**

Crash data used in the analysis was exported from the New York State CLEAR data system. The primary source of the data contained within the CLEAR system is police crash reports recorded by the New York State Department of Motor Vehicles. As crash reports are completed by the police officer reporting to a crash, the information included in each crash report is subject to human error and personal preferences between each officer (i.e. personal tendency/choice of report officer to select which contributing factor that can create inconsistencies between each report. Therefore, certain inaccuracies that originate from such crash reports may be carried over into the crash data exported from the CLEAR system. For example, a fatality that occurred within the City in October 2023 was incorrectly classified as a “serious injury” on a crash report and, subsequently, carried over into the CLEAR system. While conducting its crash analysis, VHB corrected this record to reflect the accurate severity of the reported crash.

## **4. Changes to Evident Injury Reporting (B-Level Crashes)**

An observed increase in the number of evident injury crashes in 2022 and 2023 was attributed to assumed revisions to the method in which such crashes are coded and classified. From 2014 to 2021, the number of reported evident injury crashes ranged between 26 to 43 crashes. The 2022 and 2023 cases of evident injuries in the City of White Plains increased to 129 and 192, respectively. It is anticipated that this change in the way in which B-level (evident injury) crashes are reporting, which resulted in this increase, did not significantly impact the findings of the conducted analysis. The priority focus of the analysis and the development of the High Injury Network was on fatal and serious injury crashes, which remain largely unimpacted by this reporting change. Evident injury crashes in the conducted analysis was primarily used for identifying crash trends and factors that occurred within the City between 2014 and 2023. As such trends focused upon the proportion of crash attributes (i.e. contributing factors, road conditions and natural conditions), the change in how crash severity was reported did not significantly impact this analysis.

## **5. Crash Trends and the COVID-19 Pandemic**

As stated previously, the five- and ten-year study periods encompassed the years of 2020 and 2021. Nationally during both years, significant declines in roadway traffic and increases in walking and biking activity due to the COVID-19 Pandemic and associated lockdown (i.e. remote work) represent potential outliers in crash trends and records. With the unique shift in travel mode trends during this time period, it is important to recognize that crash trends may be impacted by the COVID-19 Pandemic. Unfortunately, as five- and ten-year periods are necessary to accurately identify and gauge crash trends, such a limitation has been unavoidable in the recent years immediately following the COVID-19 Pandemic.

## Appendix B: Comprehensive Findings of the Conducted Systemic Review and Developed Crash Trees

To supplement the analysis of crash trends within the City of White Plains, a systemic review of the analyzed data was conducted. This review provided further support for the identified common roadway characteristics and contributing factors that lead to crashes within White Plains.

The systemic, or risk-based, analysis consists of three principal components:

1. Identify focus crash types
2. Identify focus facility types for focus crash types
3. Identify risk factors related to focus crashes on focus facilities

### Focus Crash Type Approach

The project team began by reviewing focus crash types based on emphasis areas (EAs) identified in New York's Strategic Highway Safety Plan (SHSP).<sup>31</sup> EAs considered as part of the analysis include:

- **Intersection Crashes:** Crashes occurring at roadway intersections.
- **Vulnerable Road User Crashes:** Crashes involving cyclists, pedestrians, motorized wheelchairs, or construction workers on foot.
- **Drive Responsibly Crashes:** Crashes involving alcohol, drugs, cellphones, distracted driving, or falling asleep while driving.
- **Roadway Departure Crashes:** Crashes involving roadway departures, head-on collisions, or sideswipes.
- **Alternate Road Vehicle Crashes:** Crashes involving motorcycles, trucks, or buses.
- **Age Related:** Crashes involving older drivers or younger drivers.
- **Aggressive Driving:** Crashes involving speeding, aggressive driving, or road rage.

To identify focus crash types, the project team compared White Plains fatal and serious injury (KSI) crashes against total crashes and looked for EAs that had a greater share of KA crashes compared to total crashes. For instance, if Roadway Departure accounts for 47% of KA crashes but only 18% of total crashes, then Lane Departure should be considered a priority for further risk factor development.

### Focus Facility Type Approach

The project team used the roadway attributes listed in the crash data to hone in on focus facility types. For the purposes of this review, the project team focused on NYSDOT's functional class attributes. The project team compared the proportion of crashes that occurred on a given facility type (e.g., a functional classification) against the proportion of mileage for that facility. For instance, if 22% of roadway departure KSI crashes occurred on Minor Arterials and 3% of all roads in White Plains are Minor Arterials, then those facilities would be a focus for further risk factor analysis.

<sup>31</sup> <https://www.dot.ny.gov/divisions/operating/osss/highway-repository/SHSP2023.pdf>

## Crash Tree Approach

The systemic review utilized crash trees to delve deeper into crash trends and uncover insights within the dataset. A crash tree is a hierarchical diagram that organizes and visually represents crash data, breaking it down from broad categories to more specific contributing factors. The crash tree analyses offer valuable insights into the various crash trends within the City of White Plains, particularly concerning intersections, vulnerable roadway users, and dark-road conditions<sup>32</sup>.

## Focus Crash Type Results

### White Plains KA Crashes Relative to White Plains Total Crashes

In Error! Reference source not found. **B1**, *Intersections, Drive Responsibly, VRUs, Alternate Road Vehicle, and Aggressive Driving* EAs are overrepresented in KA crashes compared to all crashes. For instance, VRU crashes constitute 33% of KA crashes but only 4% of all crashes. These EAs are critical focal points for White Plains, indicating the types of countermeasures, policies, and interventions that may have the most impact on improving road safety.

Please note that crashes per county will add up to more than 100%. This is because one crash can be associated with multiple EAs. This overlap will be important in future steps of the analysis, as countermeasures for one EA could help with crashes in another EA (e.g., reducing speeds could help prevent lane departure).

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<sup>32</sup> Systemic analyses are most effective when supported by extensive crash and infrastructure data, including signal phasing, signal back plating, and detailed roadway characteristics. The absence of these data points in the available data sourced from the NYS CLEAR data system limited the depth of the presented findings. Future analyses could benefit from the integration of more robust data sources to enhance the systemic review.

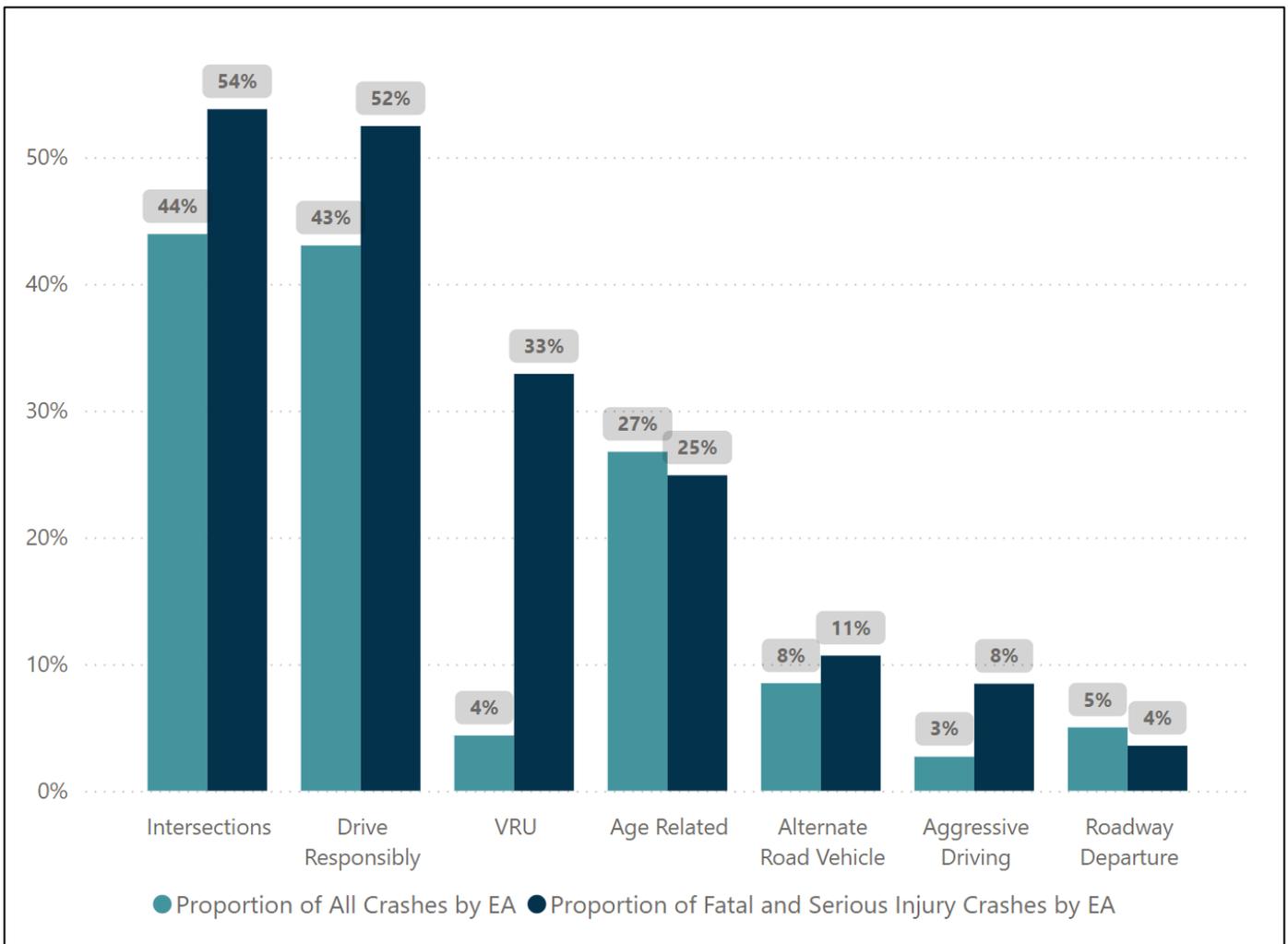


Figure B1: Comparison of Emphasis Area (EA) in All Crashes vs. Fatal and Serious Injury Crashes

There are five focus crash types recommended based on overrepresentation:

- Intersections,
- Drive Responsibly,
- Vulnerable Road Users,
- Alternate Road Vehicle,
- Aggressive Driving

**Focus Network Results**

Based on focus crash types (i.e., EAs), the analysis then reviewed roadway types that have a disproportionately high number of KA crashes.

### Federal Functional Class

Functional class is a Federally mandated classification for public roads. Per the Federal Highway Administration (FHWA), “functional classification carries with it expectations about roadway design, including its speed, capacity and relationship to existing and future land use development.”<sup>33</sup> Error! Reference source not found. **B2** below compares the

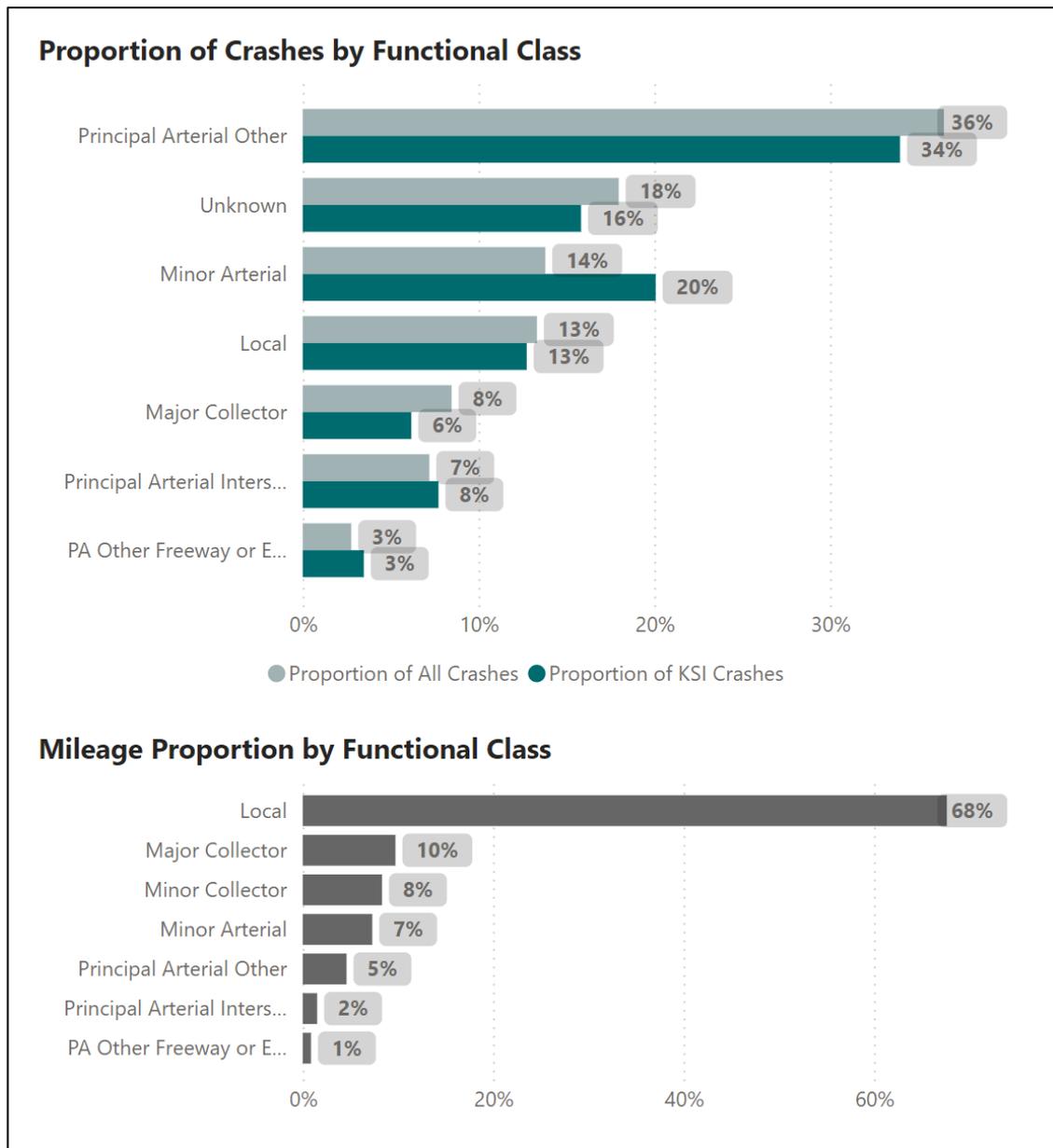


Figure B2: Disparity in Crash Distribution vs. Road Mileage by Functional Class

<sup>33</sup> <https://www.fhwa.dot.gov/planning/processes/statewide/related/hwy-functional-classification-2023.pdf>

proportion of KSI crashes and total crashes on each functional classification, as well as the total mileage in White Plains.

Key takeaways include:

- **Local Roads:** Although they account for 68% of road mileage, they are involved in only 13% of KSI crashes, a considerable underrepresentation.
- **Minor Arterials:** These roads represent 20% of KA crashes while comprising only 7% of the road network, indicating a significant overrepresentation.
- **Principal Arterials - Other:** These routes make up 34% of KA crashes but only 5% of road mileage, highlighting another overrepresentation.
- **Major Collectors:** These routes make up 6% of KA crashes and 10% of road mileage, a slight underrepresentation.
- **Interstate:** With 2% of the mileage contributing to 8% of KA crashes, interstates are also notably overrepresented. However, these facilities carry far more traffic per mile than other facilities in the region. On a per vehicle basis, these facilities are likely not substantially overrepresented and are not included in this analysis.

### Overrepresented Networks

**Figure** below compares the distribution of fatal and serious injury crashes by focus crash type on the White Plains road network. The three "Fatal and Serious Injury Crash Proportion" columns list the percentage of crashes that occur on each functional class, and the "Mileage Proportion" columns list the proportion of road mileage in select classes. The "Difference" columns show the difference between the two; a positive difference is indicative of key parts of the network that would be the focus for more detailed risk factors.

Emphasis Area(s)	Fatal and Serious Injury Crash Proportion			Mileage Proportion			Difference		
	Principal Arterial	Minor Arterial	Major Collector	Principal Arterial	Minor Arterial	Major Collector	Principal Arterial	Minor Arterial	Major Collector
<b>Intersection</b>	40%	31%	3%	5%	7%	10%	35%	24%	-7%
<b>Drive Responsibly</b>	40%	21%	10%	5%	7%	10%	35%	14%	0%
<b>VRUs</b>	45%	27%	4%	5%	7%	10%	20%	20%	-6%
<b>Age Related</b>	27%	25%	11%	5%	7%	10%	22%	18%	1%
<b>Alternate Road Vehicle</b>	38%	33%	4%	5%	7%	10%	33%	26%	-6%
<b>Aggressive Driving</b>	21%	32%	16%	5%	7%	10%	16%	25%	6%
<b>Roadway Departure</b>	25%	38%	25%	5%	7%	10%	20%	31%	15%

Figure B3: Disparity in Fatal and Serious Injury Crashes by Functional Class and Focus Area

**Crash Tree Results**

Based on the results noted in the previous sections, the project team pursued risk factor identification for the identified crash types and facilities for White Plains. The following crash tree summary tables show a structured breakdown of factors and events selected by the project team to illustrate leading crashes. Each level introduces a category of crash risk into the analysis. The full crash trees can be found below within this Appendix.

Table B1: Intersection-Related Crash Trees:

Focus Area	Crash Tree No.	Level One	Level Two
Intersections	1	Intersection-Related	VRUs
	2	Intersection-Related	Posted Speed
	3	Intersection-Related	Functional Class

**Intersection Crash Tree 1:**

- 39% (47 crashes) of intersection-related crashes involve VRUs compared to just 26% (27 crashes) of non-intersection crashes involving VRUs.

**Intersection Crash Tree 2:**

- 66% (80 crashes) of intersection-related crashes occur on roads with a 30-mph speed limit compared to 49% (51 crashes) of non-intersection-related crashes occurring on 30 mph roads.

**Intersection Crash Tree 3:**

- 41% (49 crashes) of intersection-related crashes occur on Principal Arterial Other roadways compared to 37% of non-intersection-related crashes (38 crashes)
- 31% (37 crashes) of intersection-related crashes occur on Minor Arterials compared to 14% (15 crashes) of non-intersection-related crashes

Table B2: Vulnerable Road User Crash Trees:

Focus Area	Crash Tree No.	Level One	Level Two	Level Three
Vulnerable Road Users	1	VRUs	Light Conditions	
	2	VRUs	Intersection Related	Primary Contributing Factor
	3	VRUs	Pre-Crash Conditions	Functional Class

**VRU Crash Tree 1:**

- 35% (26 crashes) of crashes involving VRUs occurred in dark road lighted conditions while 25% (38 crashes) of crashes not involving VRUs occurred in dark road lighted conditions

**VRU Crash Tree 2:**

- 40% (19 crashes) of intersection-related VRU crashes occurred due to a failure to yield the right of way. VRUs are particularly at risk at intersections as 64% (47 crashes) of VRU crashes occur at intersections.

**VRU Crash Tree 3:**

- 60% (28 crashes) of left-turn crashes involve a VRU and 62% (8 crashes) of right-turn crashes involve a VRU
- Of the VRU-involved left-turn crashes, 46% (13 crashes) of them occur on Principal Arterial Other roadways compared to 37% (7 crashes) of non-VRU-involved left-turn crashes
- Left turn crashes on minor arterials are also more likely to involve a VRU with 39% (11 crashes) of VRU-involved left turn crashes occurring on minor arterials compared to 26% (5 crashes) of non-VRU-involved crashes.

Table B3: Light Conditions Crash Trees:

Focus Area	Crash Tree No.	Level One	Level Two
Light Conditions	1	Light Conditions	Aggressive Driving
	2	Light Conditions	Road Character
	3	Light Conditions	Traffic Signal Control

**Light Conditions Crash Tree 1:**

- Aggressive Driving is involved in just 6% (8 crashes) of daylight KSI crashes but is involved in 11% (7 crashes) and 29% (2 crashes) of dark-road lighted and dark-road unlighted conditions, respectively. Aggressive Driving crashes involve speeding, aggressive driving, or road rage, indicating that these types of behaviors are more prevalent at night and especially so on unlit roads.

**Light Conditions Crash Tree 2:**

- 17% (3 crashes) of dark-road unlighted fatal, serious injury, or injury crashes occurred on curved roads compared to 6% of both daylight crashes (34 crashes) and dark-road lighted crashes (11 crashes).

**Light Conditions Crash Tree 3:**

- 67% (12 crashes) of killed, seriously injured, and injury crashes during dark-road unlighted conditions had no traffic control in place compared to 40% (219 crashes) and 41% (75 crashes) of daylight crashes and dark-road lighted crashes, respectively.

Table B4: Drive Responsibly Crash Trees:

Focus Area	Crash Tree No.	Level One	Level Two
Drive Responsibly	1	Drive Responsibly	Traffic Signal Control
	2	Drive Responsibly	Functional Class

**Drive Responsibly Crash Tree 1:**

- 50% (59 crashes) of KSI Driver Responsibly crashes had no traffic control in place compared to just 39% (42 crashes) of non-Drive Responsibly crashes.

**Drive Responsibly Crash Tree 2:**

- Major collector roadways are slightly overrepresented in Drive Responsibly crashes with 10% (12 crashes) of KSI Drive Responsibly crashes occurring on major collectors compared to just 4% (4 crashes) of non-Driver Responsibly crashes

*Table B5: Aggressive Driving Crash Trees:*

Focus Area	Crash Tree No.	Level One	Level Two
Aggressive Driving	1	Aggressive Driving	Road Characteristic

**Aggressive Driving Crash Tree 1:**

- 16% (9 crashes) of Aggressive Driving fatal, serious injury, or injury crashes occurred on curved roads compared to 6% (47 crashes) of crashes that did not involve aggressive driving.

*Table B5: Alternate Road Vehicle Crash Trees:*

Focus Area	Crash Tree No.	Level One	Level Two
Alternate Road Vehicle	1	Alternate Road Vehicle	Collision Type

The above summary of the developed crash trees offer insights into the leading types of crashes, helping to identify the corridors and intersections of the High Injury Network (**Section III**) and guide policy and program changes across the City that could help to foster a “safety culture” within White Plains (**Section IV**).

**Crash Trees**

Figure B4: Intersection Crash Tree One

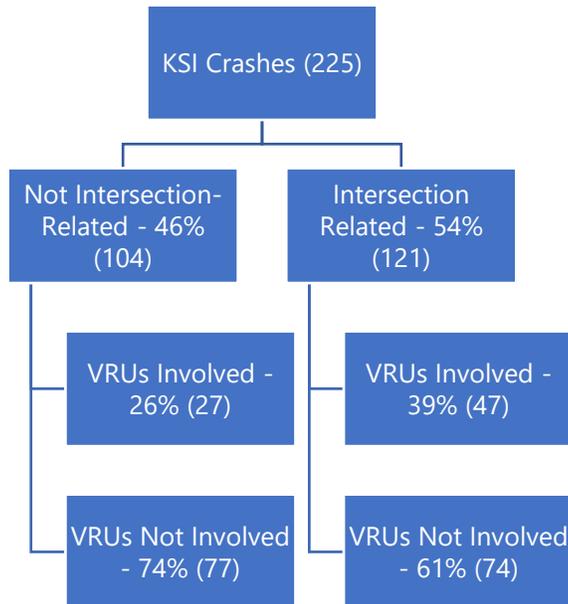


Figure B5: Intersection Crash Tree Two

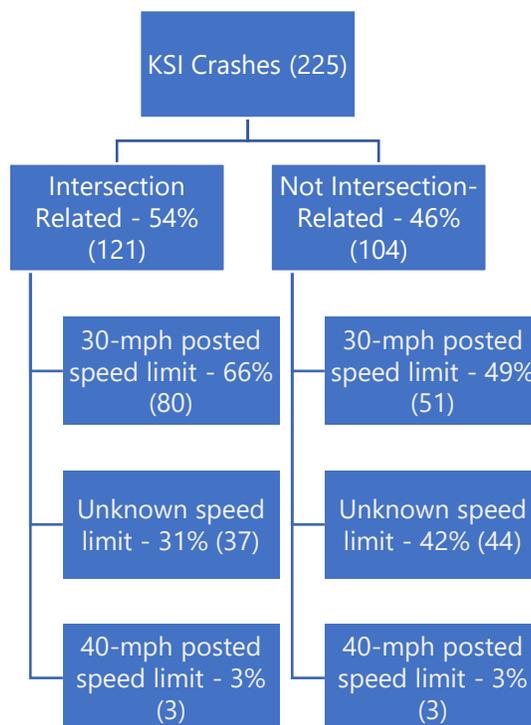


Figure B6: Intersection Crash Tree Three

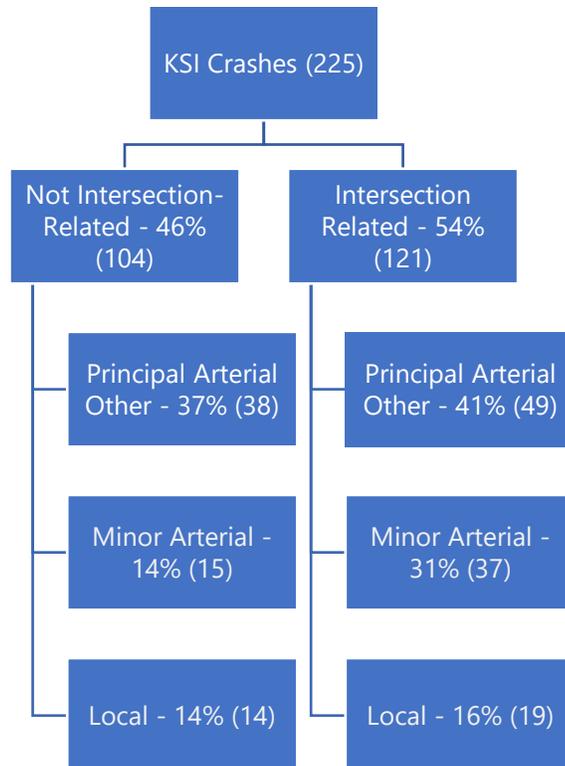


Figure B7: VRU Crash Tree One

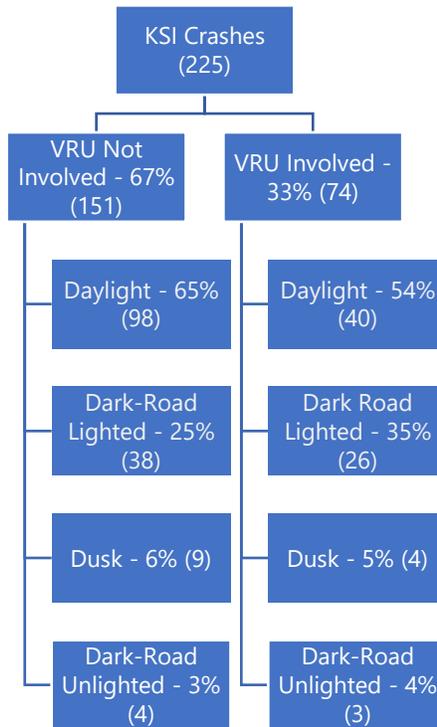


Figure B8: VRU Crash Tree Two

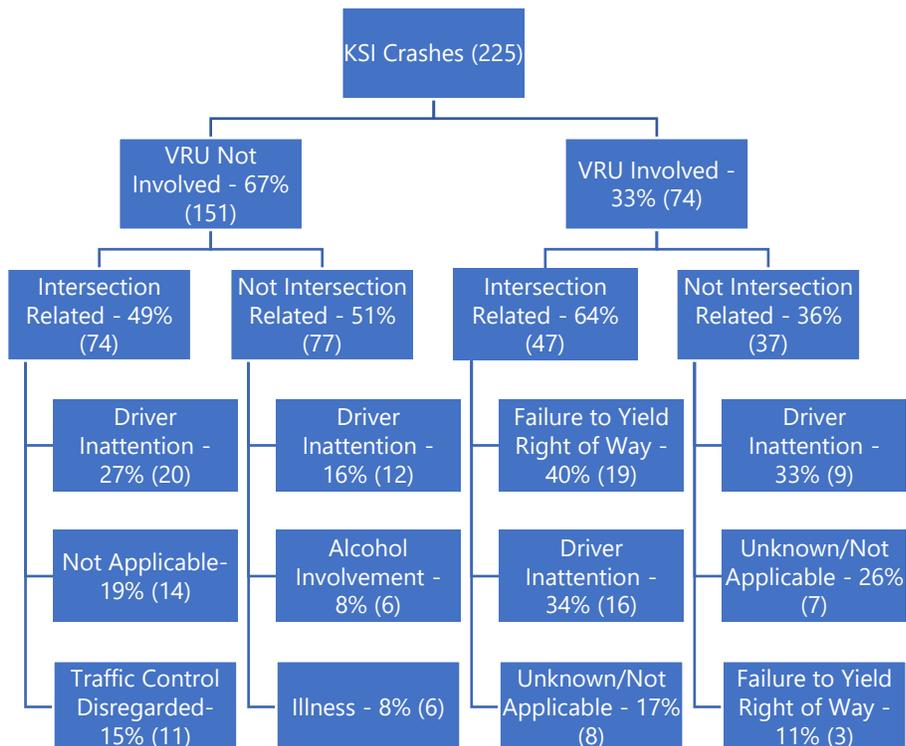


Figure B9: VRU Crash Tree Three

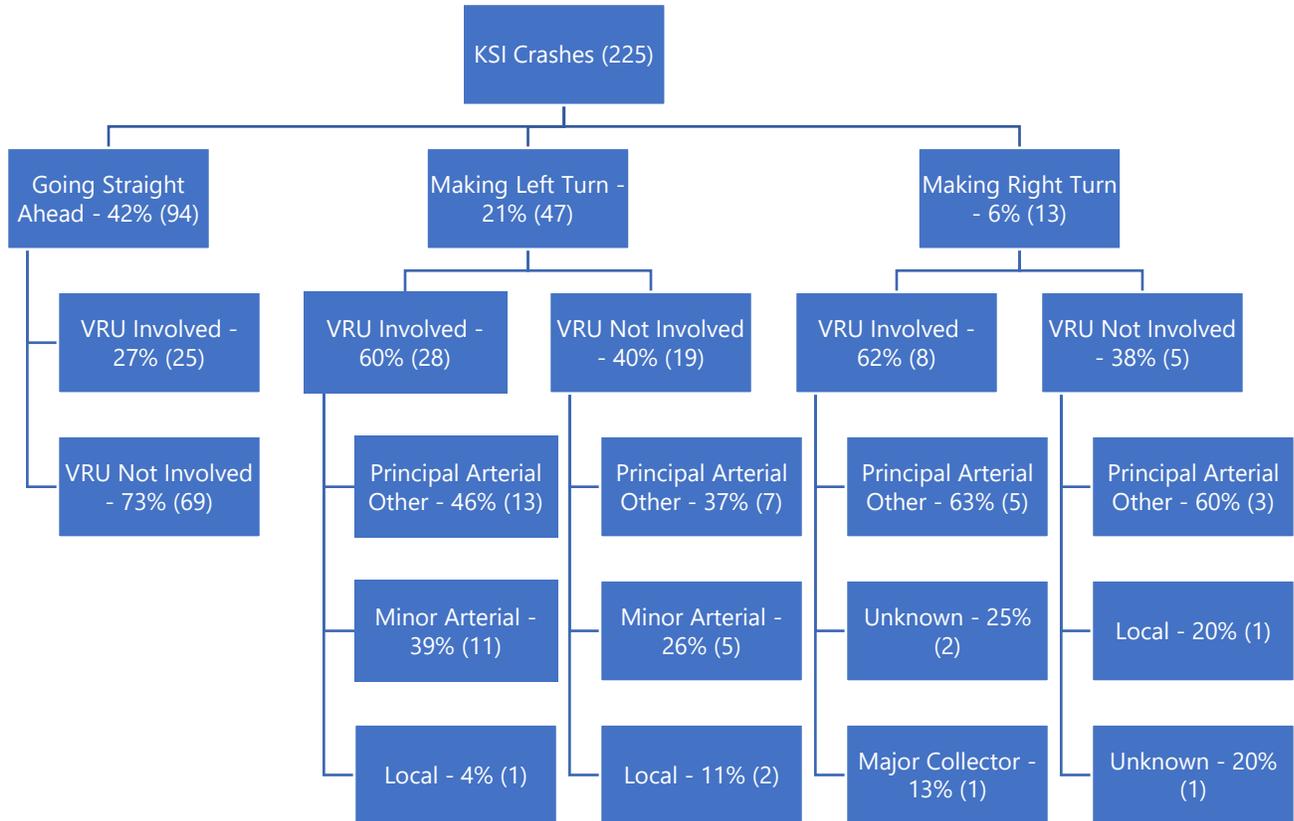


Figure B10: Light Conditions Crash Tree One

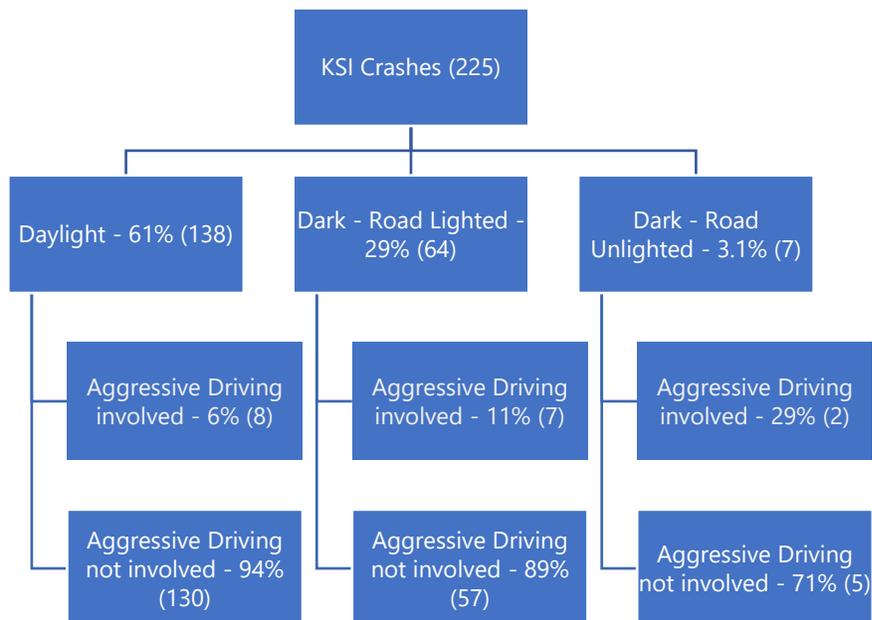


Figure B11: Light Conditions Crash Tree Two

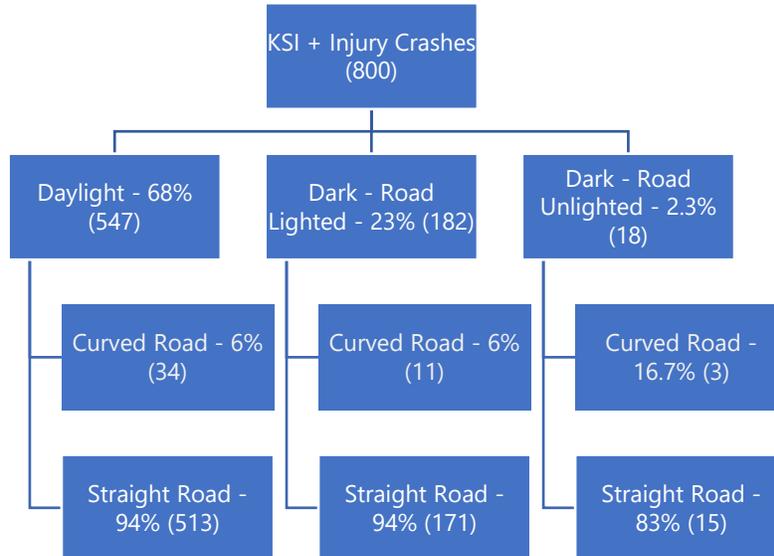


Figure B12: Light Conditions Crash Tree Three

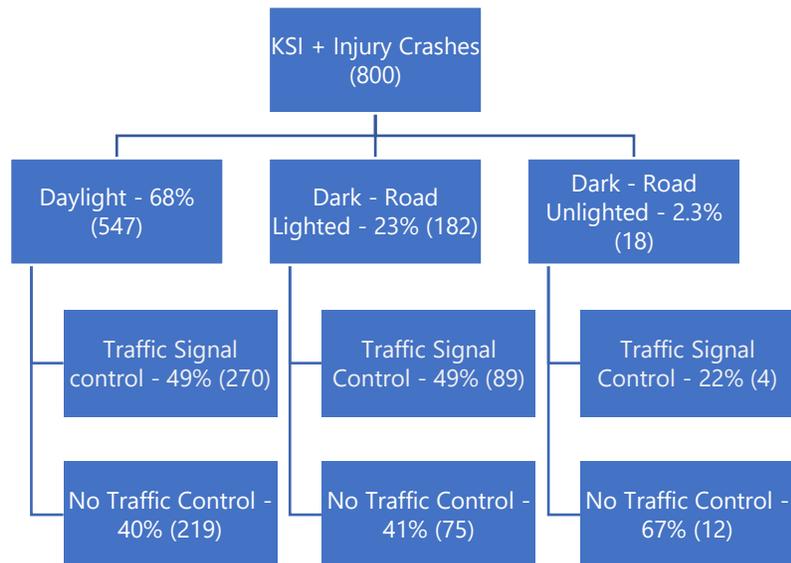


Figure B13: Drive Responsibly Crash Tree One

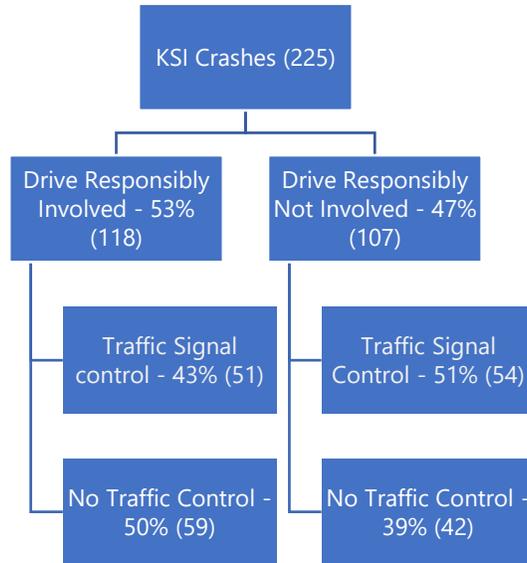


Figure B14: Drive Responsibly Crash Tree Two

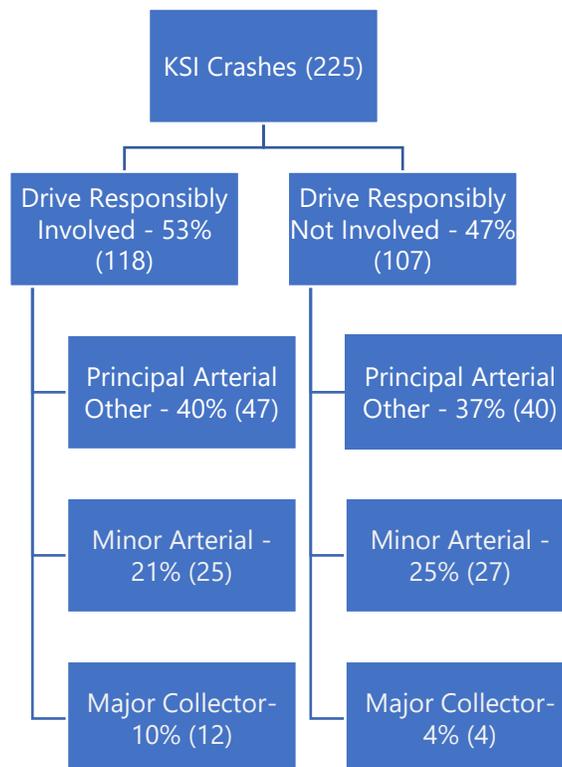


Figure B15: Aggressive Driving Crash Tree One

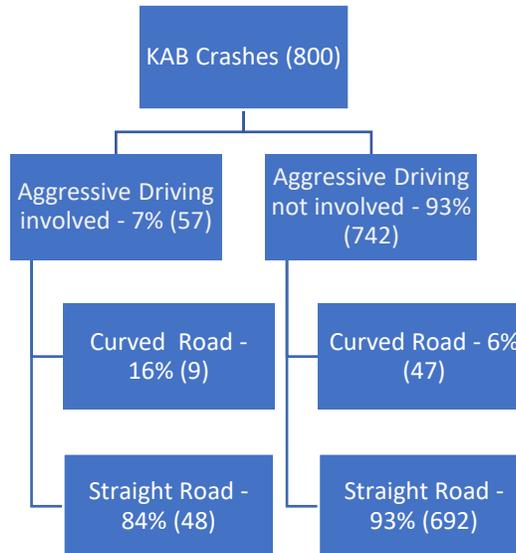
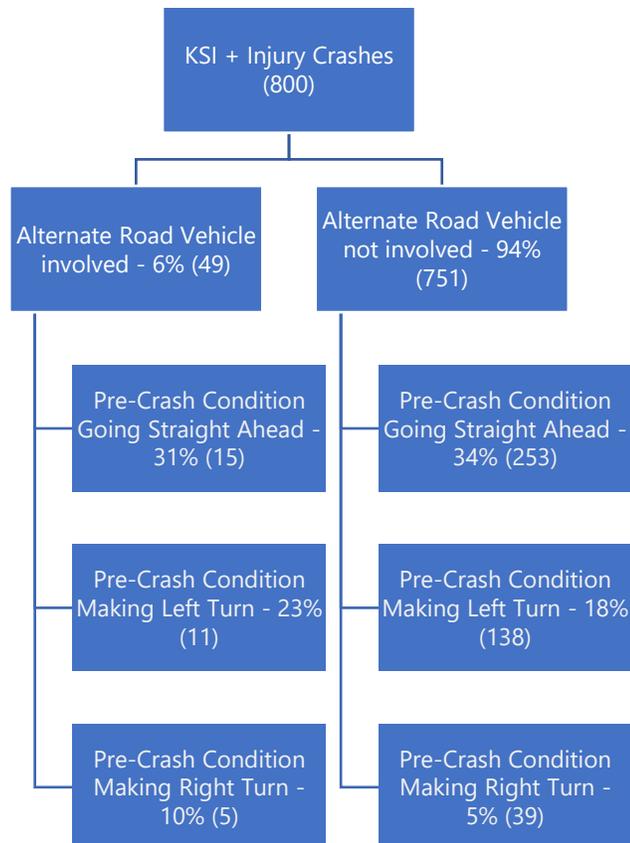


Figure B16: Alternate Road Vehicle Crash Tree One



## Appendix C: Comprehensive Findings of the White Plains Policy, Plan and Program Review

As outlined in the prepared memorandum, VHB conducted a review of the City of White Plains' policies, plans and programs with relevance to roadway safety and transportation planning to identify the ways in which the City's current goals and regulations align with the principles of Vision Zero and opportunities to strengthen the City's policies, plans and programs to make them more Vision Zero friendly and foster a citywide safety culture. These policies, plans and programs included: the White Plains Complete Streets Policy, the White Plains Bike Lane Safety Tips and the Bike 101 educational materials, Downtown White Plains Transit District Strategic Plan and the City's Red Light Camera Safety Program.

The detail findings of this review are included below, with the most relevant takeaways also summarized within the body of the prepared memorandum:

### White Plains Complete Streets Policy (2013)

The White Plains Complete Streets Policy (2013) seeks to create a transportation network that is safe, accessible, and convenient for all users, including pedestrians, bicyclists, public transportation riders, and vehicles. However, the policy remains part of a broader resolution and lacks the necessary detail to stand as an independent document.

For the policy to be effective, it should begin with a clear vision aligned with community goals and be supported by binding language that ensures compliance. It should apply universally to all new and retrofit projects, with minimal, clearly defined exceptions. Prioritization of underserved communities is critical, making equity a key focus of implementation.

Stakeholder engagement at every stage is essential to ensure buy-in and community support. The policy should also include updated design guidelines reflecting best practices and ensure adequate funding mechanisms are in place to support both implementation and maintenance. Accountability must be clearly defined, assigning specific responsibilities to various stakeholders.

Furthermore, performance measures should be established to track the policy's progress, identify successes, and address areas for improvement. A well-defined implementation plan with specific actions and timelines is essential for guiding the policy forward.

In conclusion, the policy would benefit from a more structured approach, incorporating detailed guidelines, data-driven decision-making, and leadership-level adoption to ensure its long-term success and effectiveness.

### **Key Recommendations:**

- The plan should offer detailed guidelines on street design, specifically a context-based classification that reflects the community's future vision rather than reinforcing current patterns. The plan should address user needs, connectivity, walkability, placemaking, and livability. A typology-based approach (categorizing similar items) would help structure the plan's recommendations.
- A clear statement supporting the Vision Zero Initiative, which aims to eliminate all traffic fatalities, should be included.
- The plan does not currently include a comprehensive method for identifying high-risk areas. It could benefit from using crash data and other metrics to prioritize interventions in areas with the most need, especially useful for selecting priority corridors.

- Implementation Steps:
  - Reevaluate project prioritization to focus on vulnerable users.
  - Update planning and scoping processes to incorporate Complete Streets elements.
  - Establish methods to manage project trade-offs.
  - Provide training to staff and partner agencies.
  - Engage with stakeholders, particularly those representing underserved communities.
  - Continuously review and adjust processes to align better with Complete Streets principles.
- For successful implementation, it's crucial that the Complete Streets policy is adopted at the leadership level, ensuring clear direction and support for planners, engineers, and operational staff.

### White Plains Bike Lane Safety Tips

The White Plains Bike Lane Safety Tips document provides important guidelines for drivers, bicyclists, and pedestrians to ensure the safe and efficient use of bike lanes. Its main focus is on promoting awareness, proper behavior, and adherence to traffic rules, with the aim of reducing crashes and fostering harmony among different road users.

#### **Key Recommendations:**

- Adding a breakdown of different types of bike lanes (e.g., sharrows, protected bike lanes), as well as comfort levels or levels of traffic stress.
- Incorporating interactive elements, such as QR codes linking to safety videos or maps of bike facilities.
- Mentioning guidance for e-bikes and scooters.
- Increasing the visibility of the resource by sharing it with stakeholders, community events, and including it on the White Plains Vision Zero website or similar platforms.

These enhancements would make the document more comprehensive and increase its usefulness as a safety tool for the community.

### Bike 101

The Biking 101 document, developed by the City of White Plains, provides crucial guidelines and safety tips for cyclists to promote a safe and enjoyable biking experience. It covers essential rules, safety measures, and best practices to ensure that all cyclists are informed about safe riding habits.

#### **Key Recommendations:**

- Include more detailed safety protocols, such as how to navigate intersections, roundabouts, and high-traffic areas.
- Add guidelines for safe riding in different weather conditions.
- Provide emergency procedures for bicyclists, including steps to take in case of a crash, along with emergency contact numbers and first aid tips.

- Increasing the visibility of the resource by sharing it with stakeholders, community events, and including it on the White Plains Vision Zero website or similar platforms.

Incorporating these enhancements would help ensure that the document is a more comprehensive resource for bicyclists, providing additional guidance for various biking situations and emergencies.

### **Downtown White Plains Transit District Strategic Plan (2016)**

The Downtown White Plains Transit District Strategic Plan (2016) seeks to revitalize the area surrounding the White Plains Metro-North Station by transforming it into a vibrant, accessible, and sustainable transit-oriented district. The plan focuses on enhancing transportation connectivity, stimulating economic growth, and improving the quality of life for both residents and visitors.

One of its main priorities is enhancing connectivity, particularly through the development of pedestrian and bicycle infrastructure. This approach ensures smooth transitions between different transportation modes and improves the overall transit experience. The plan also emphasizes economic development by making the area more attractive to businesses and investors. By creating a functional and visually appealing urban landscape, it aims to draw new businesses and stimulate local investments. Sustainability is another key component, with the integration of environmentally friendly practices such as green infrastructure and energy-efficient building designs to reduce environmental impact. A strong focus on public spaces aims to improve the quality of life for both residents and visitors, making the area more livable and enjoyable.

The One White Plains Comprehensive Plan (2024) establishes the groundwork for future City decisions on development, zoning, housing, infrastructure, public services, capital spending, and overall policy, incorporating and building upon the findings from the Downtown White Plains Transit District Strategic Plan (2016).

### **Key Recommendations:**

- The document could better address accessibility for people with disabilities by detailing plans for curb ramps, tactile paving, and audible signals at crosswalks.
- The plan would benefit from clearer interdepartmental coordination, particularly regarding Vision Zero strategies. More explicit efforts are needed to integrate transportation, public health, and law enforcement efforts to ensure road safety.
- While safety improvements are mentioned, the plan lacks a comprehensive data-driven approach to identify high-risk areas. Incorporating crash data and other relevant metrics could help prioritize safety interventions more effectively.
- A more detailed outline of funding sources and resources could be added to support Vision Zero initiatives. The inclusion of specific policies prioritizing safety over vehicle speed and convenience would strengthen this alignment.
- The plan should include more specific language addressing the use of e-bikes and scooters, as well as further expanding on bike-sharing programs mentioned.

This strategic plan could benefit from additional focus on accessibility, safety, and coordination across city departments to meet its goals of creating a thriving, sustainable transit district.

## Red Light Safety Program

The White Plains Red Light Safety Program, established under a contract from 2018 to 2029, aims to improve traffic safety by reducing red-light violations, collisions, and injuries through the use of red-light cameras at key intersections.

Red-light cameras are installed at several intersections throughout White Plains, including key spots like Mamaroneck Ave, Main St, and Hamilton Ave. Most of downtown White Plains, including many red-light camera locations, fall under disadvantaged equity areas.

From August 1, 2013, to September 10, 2024, the Red Light Safety Program data shows significant reductions in crashes at monitored intersections:

- Total Crashes decreased by 38.3%, from 1,163 before the program to 718 after.
- Angle, Left-Turn, Pedestrian (ALP) Crashes dropped by 54.3%, from 256 before to 117 after.
- Injury Crashes fell by 52.5%, from 202 before to 96 after.
- Rear-End Crashes were reduced by 53.4%, from 421 before to 196 after.

This reduction in crash frequency and severity indicates the effectiveness of the Red Light Camera program.

Four intersections in the Red Light Safety Program are among the top 25 high-crash locations as part of the High Injury Network (HIN). Additionally, 10 intersections are part of the HIN but do not rank among the top 25 for crash frequency intersections.

### **Key Recommendations:**

Expanding the program to include some of the top 25 high-crash frequency intersections, particularly near schools, parks, and other notable areas, could be beneficial. Although current red-light camera locations might not experience high crash rates, their presence likely deters violations, as evidenced by the program review which shows a reduction in both crash frequency and severity. This program can be viewed as an effective tool or intervention.

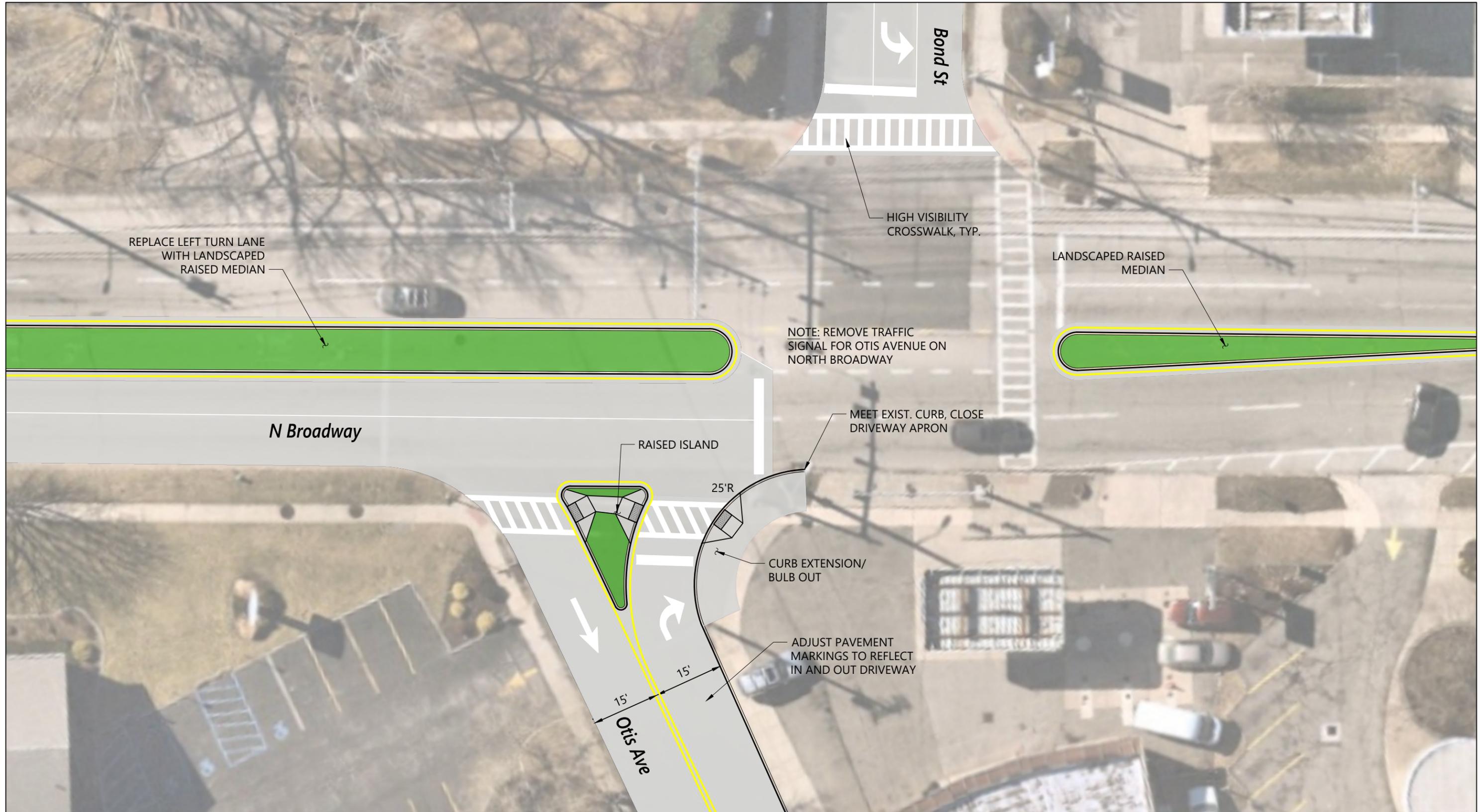
## Appendix D: Review of Crash Analysis PowerPoint Presentation

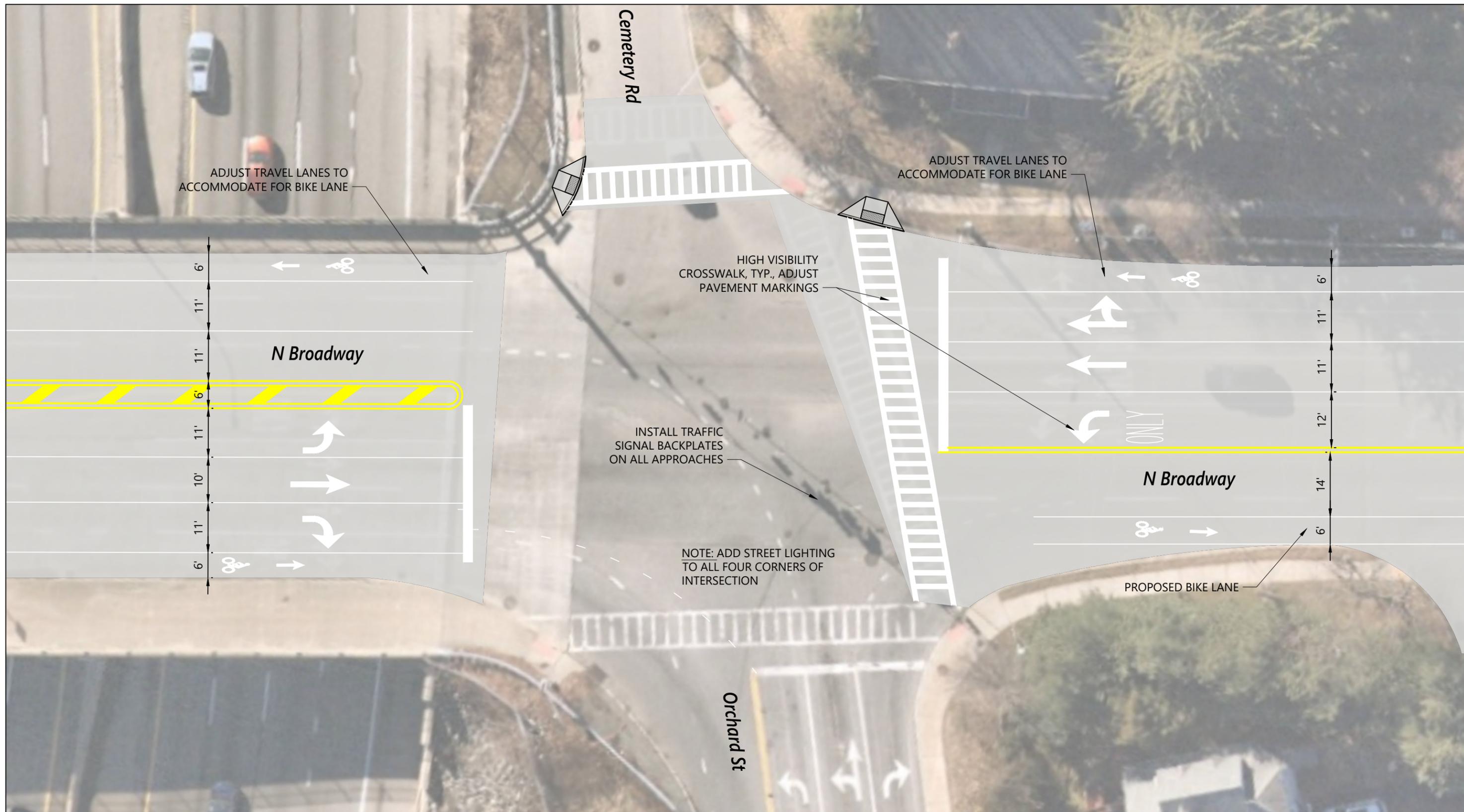


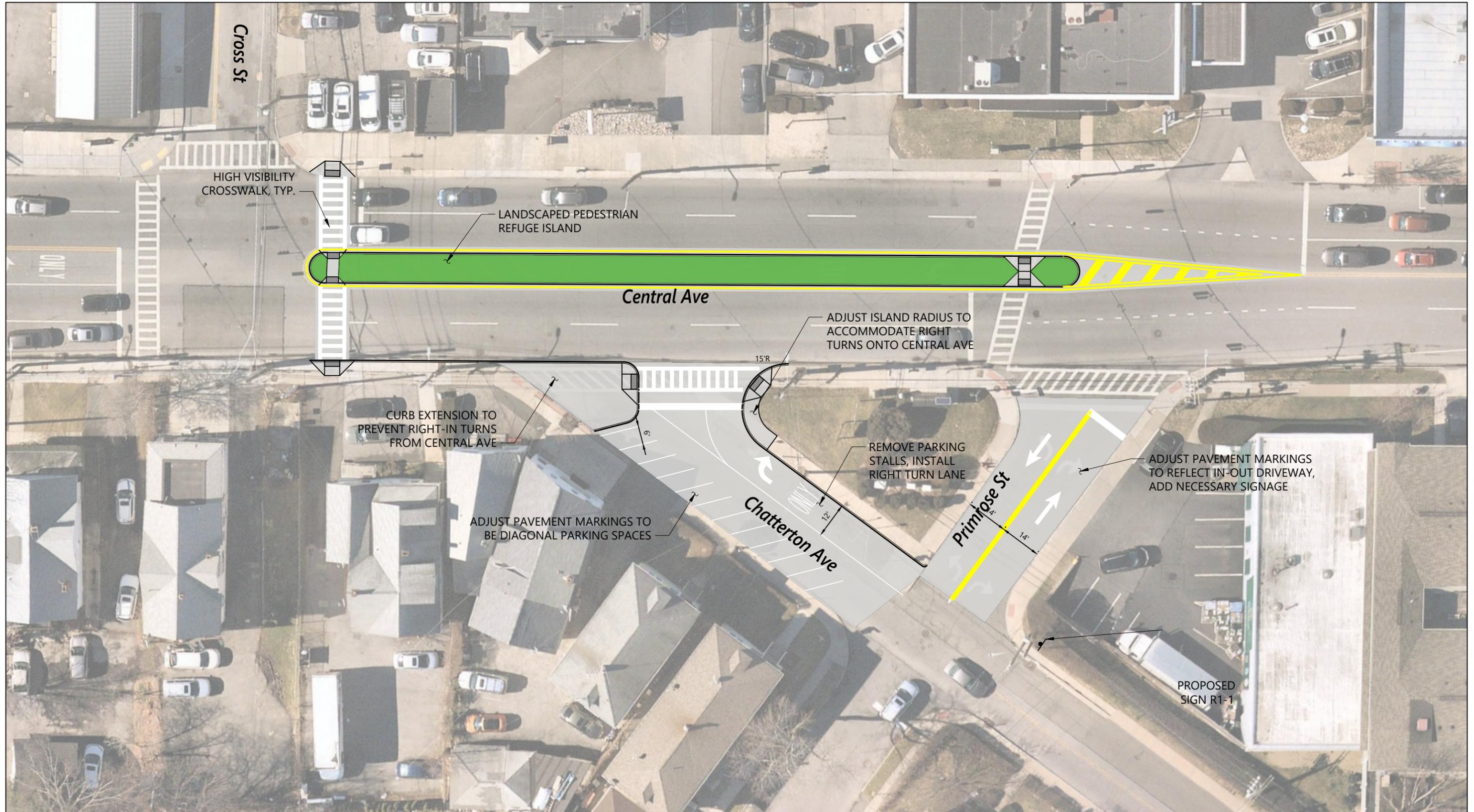
APPENDIX

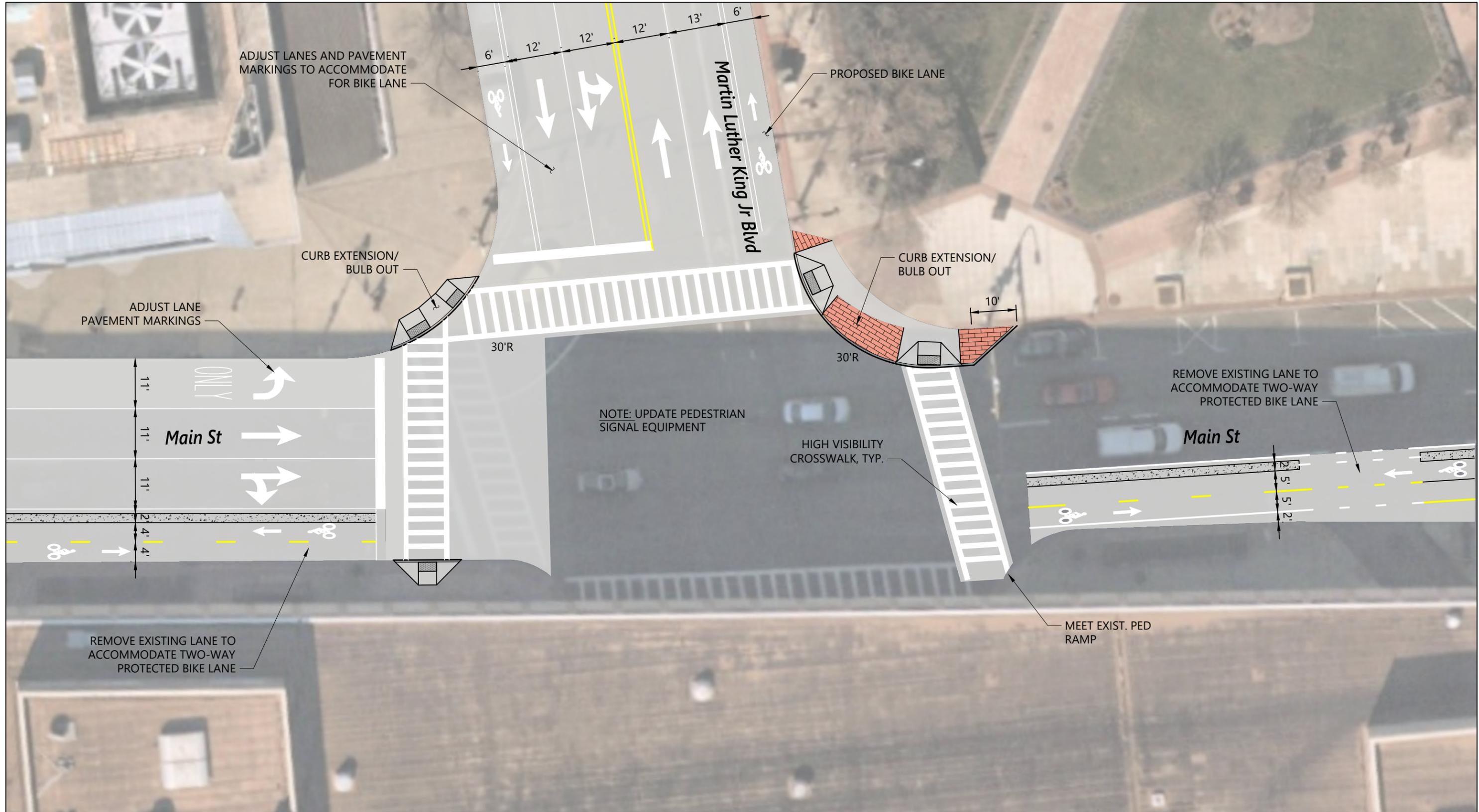
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# **PRIORITY INTERSECTION REDESIGN CONCEPTS**

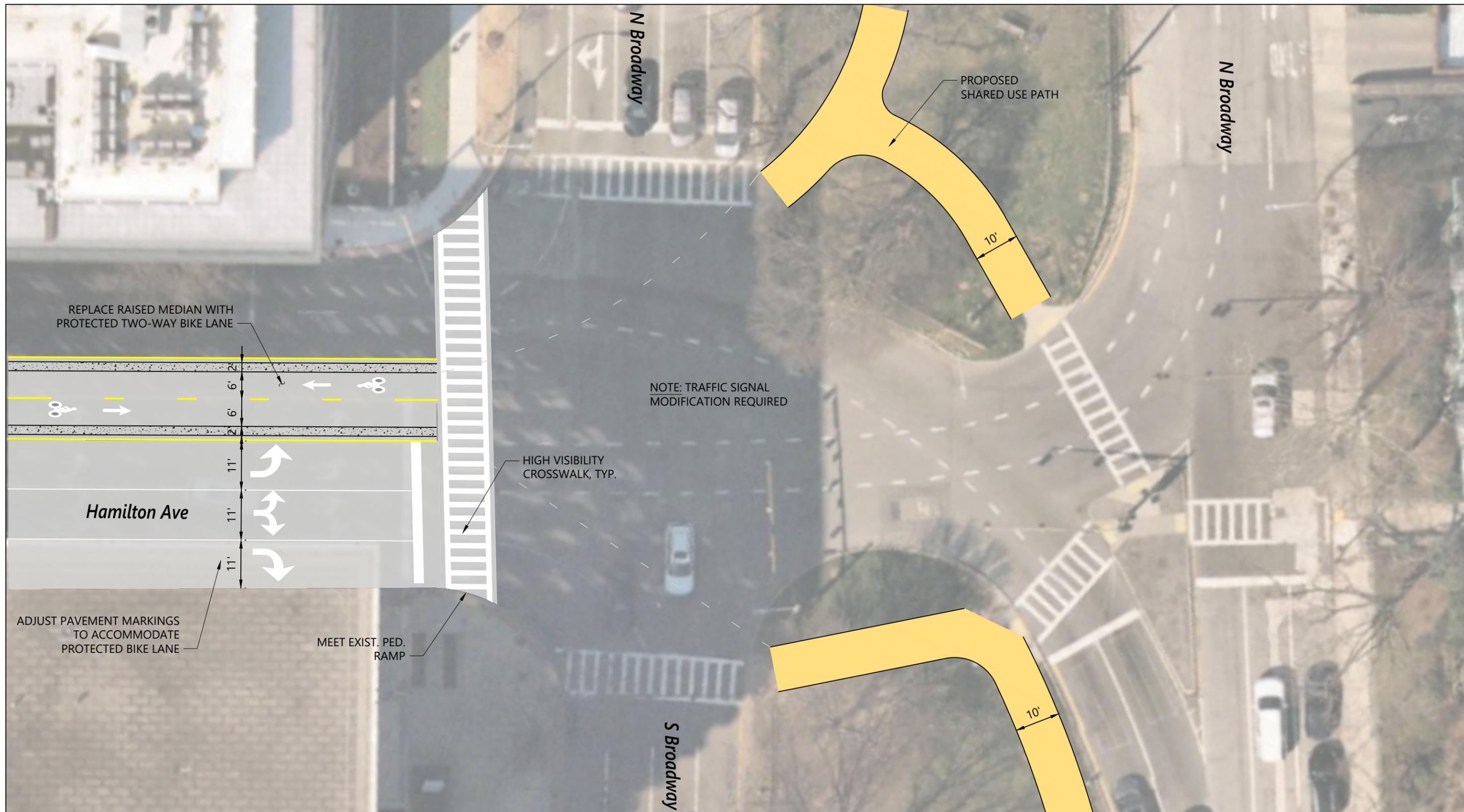


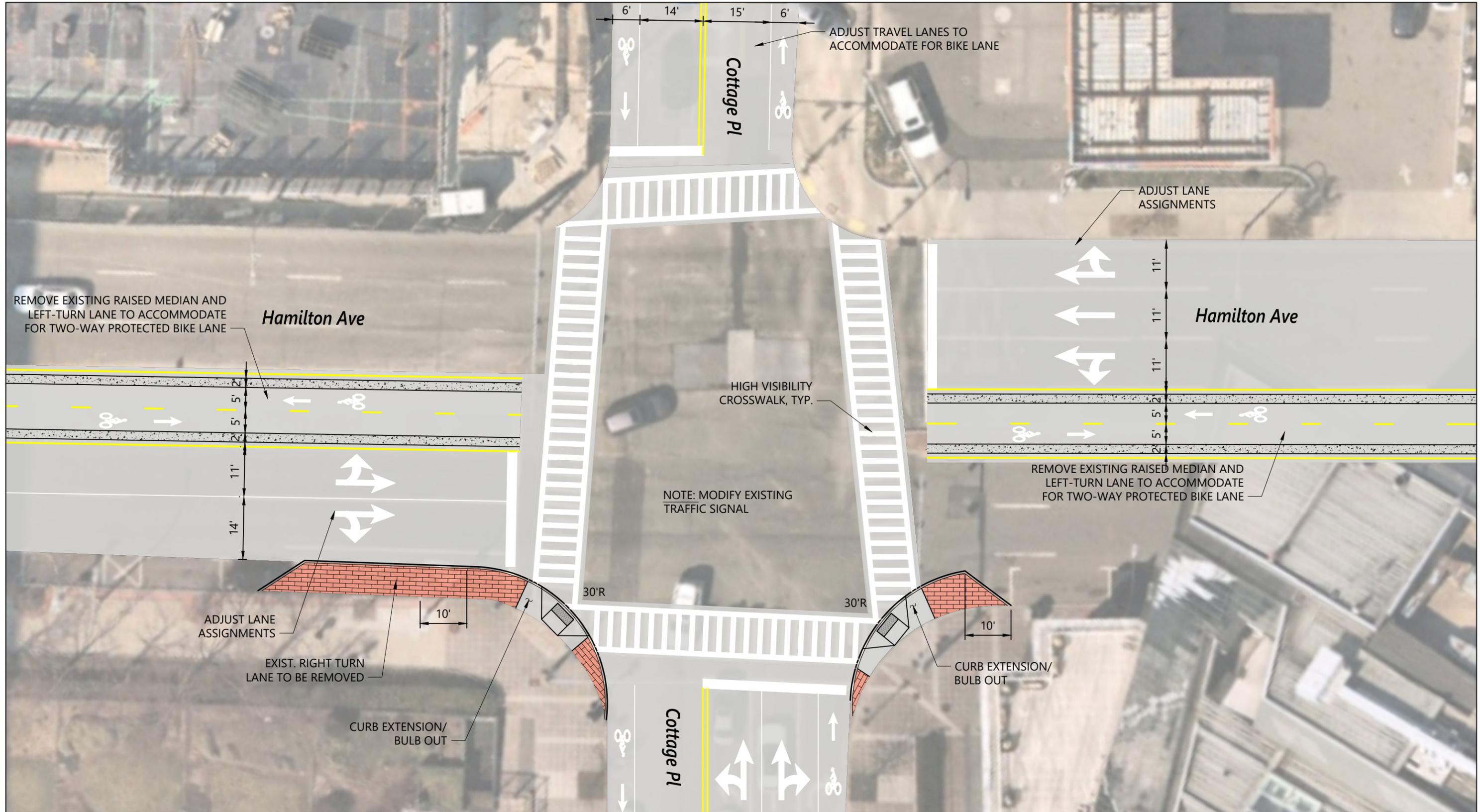


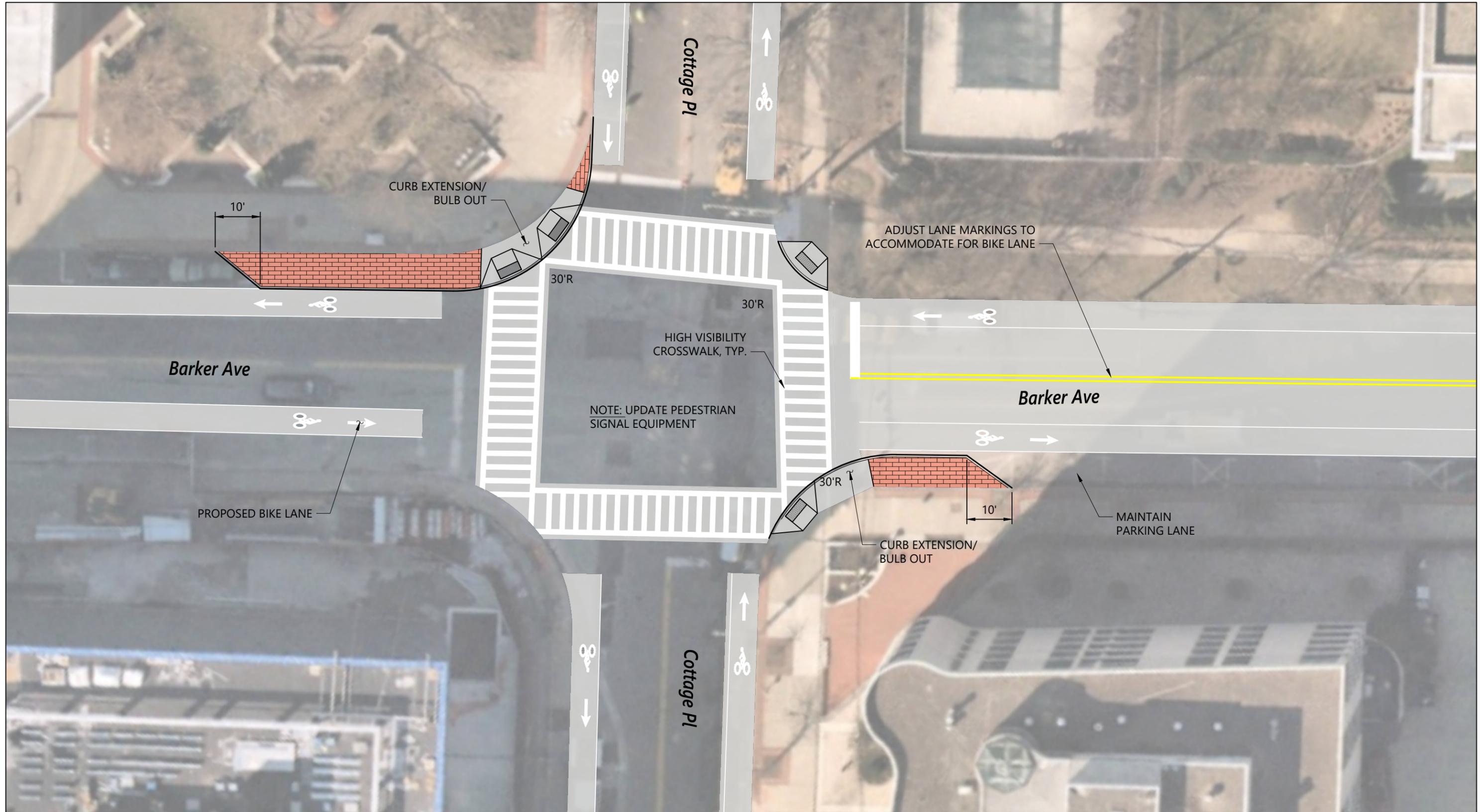


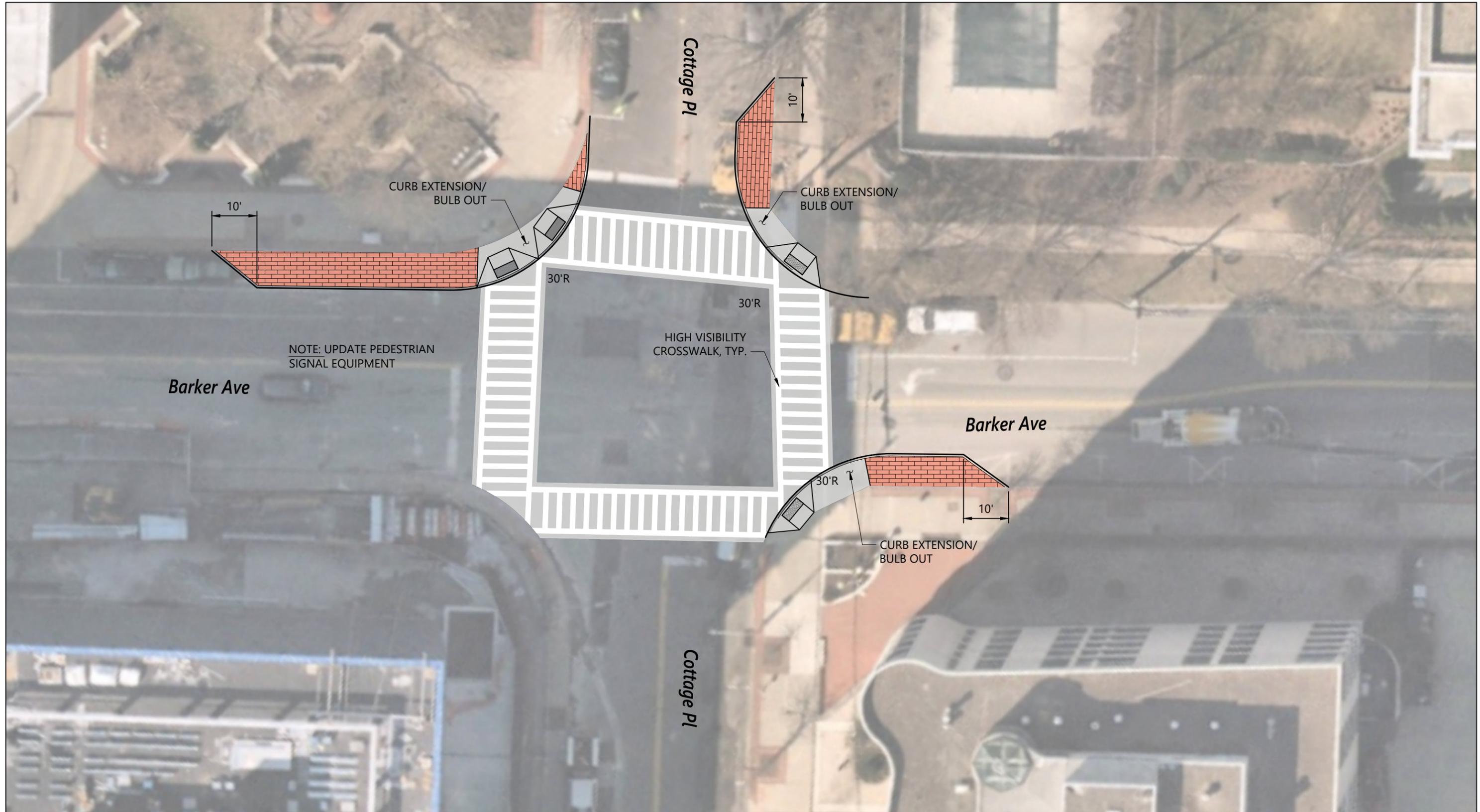


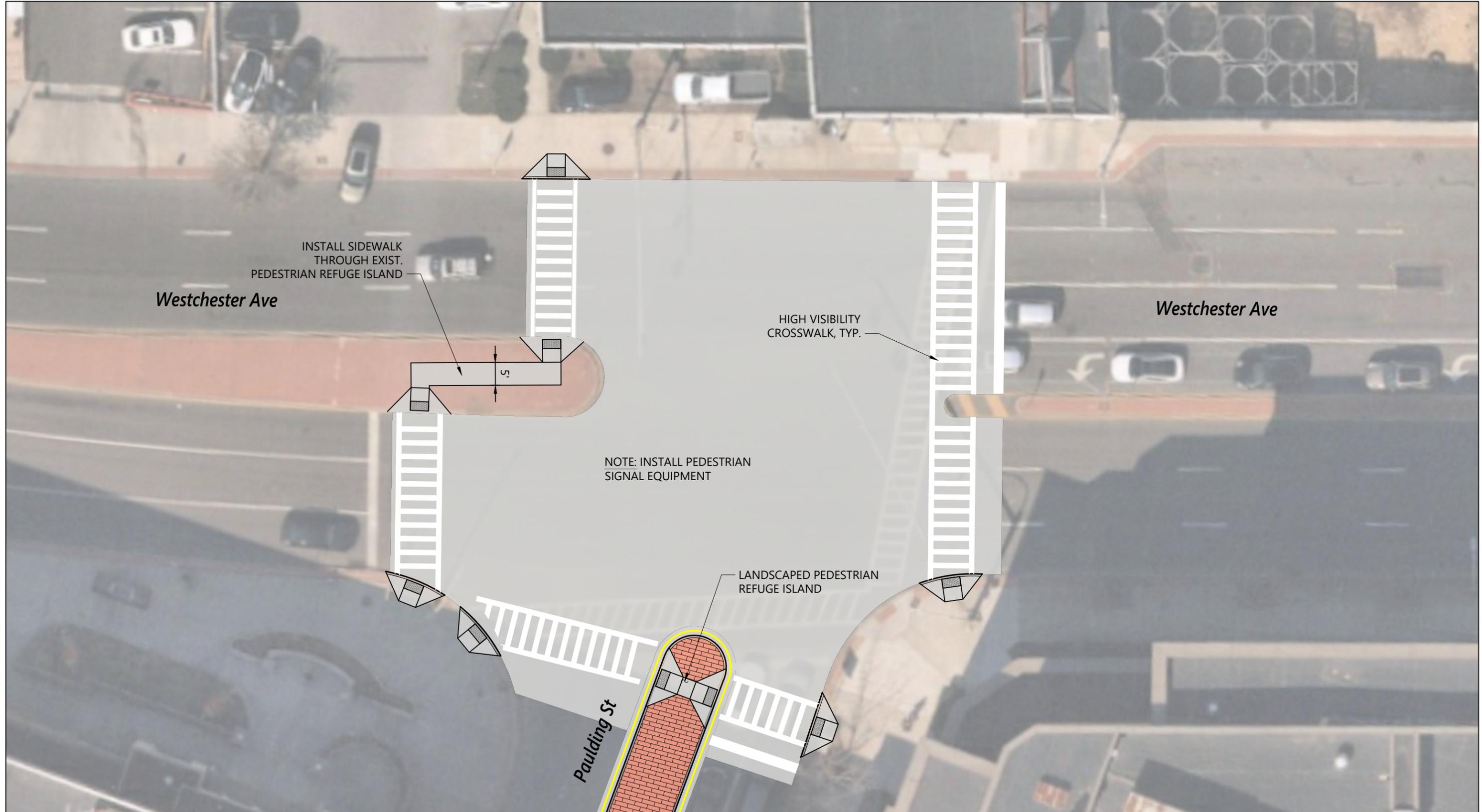




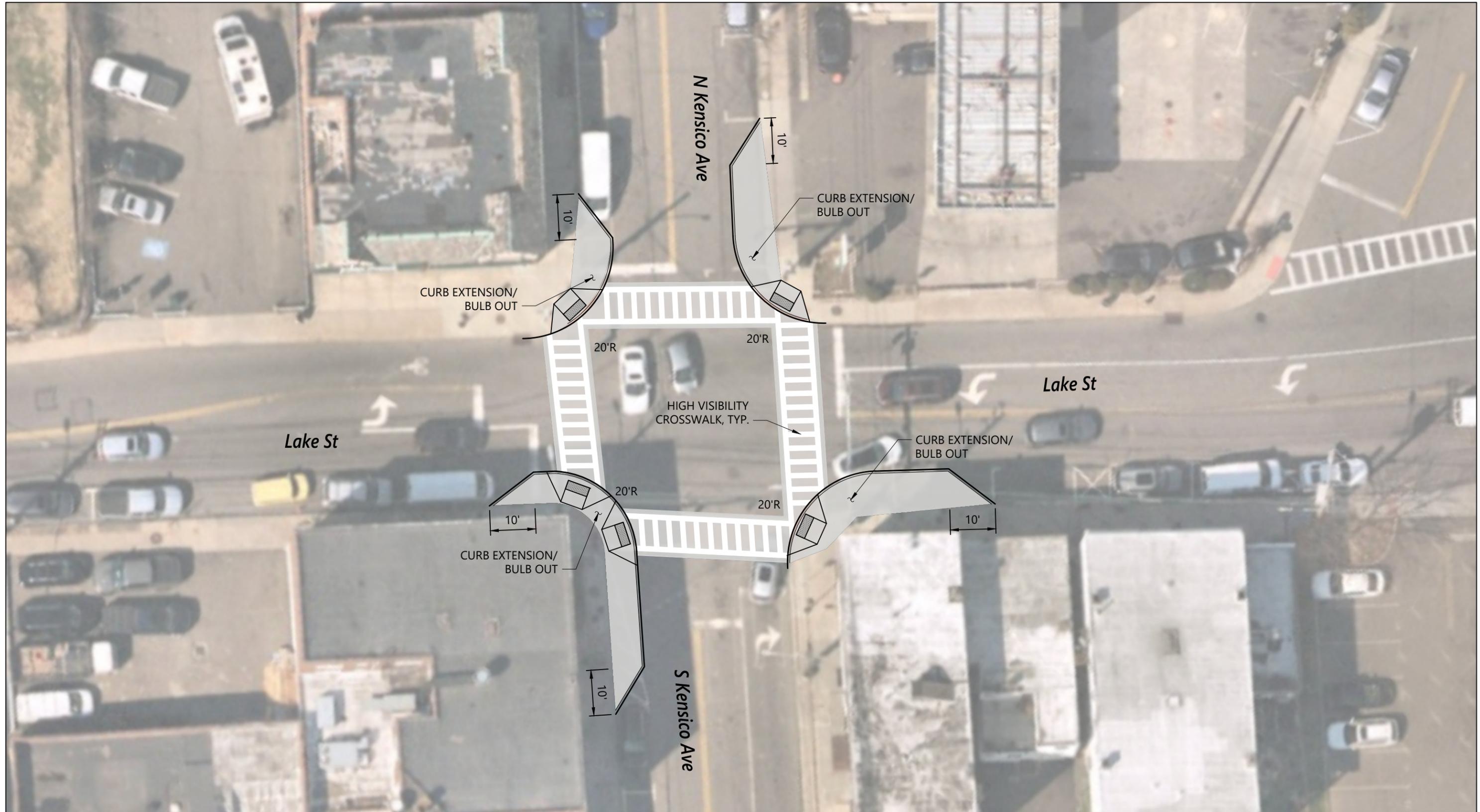


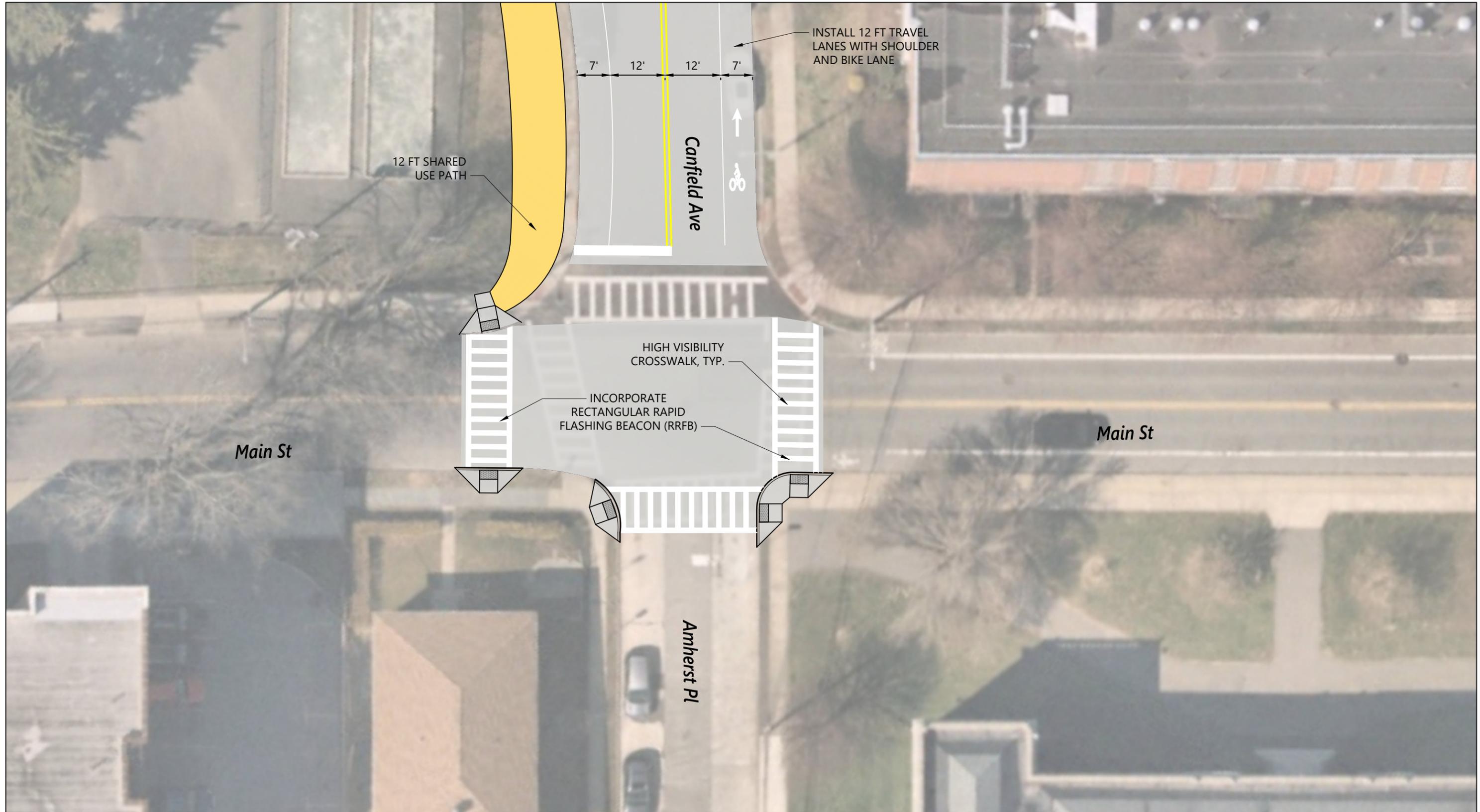


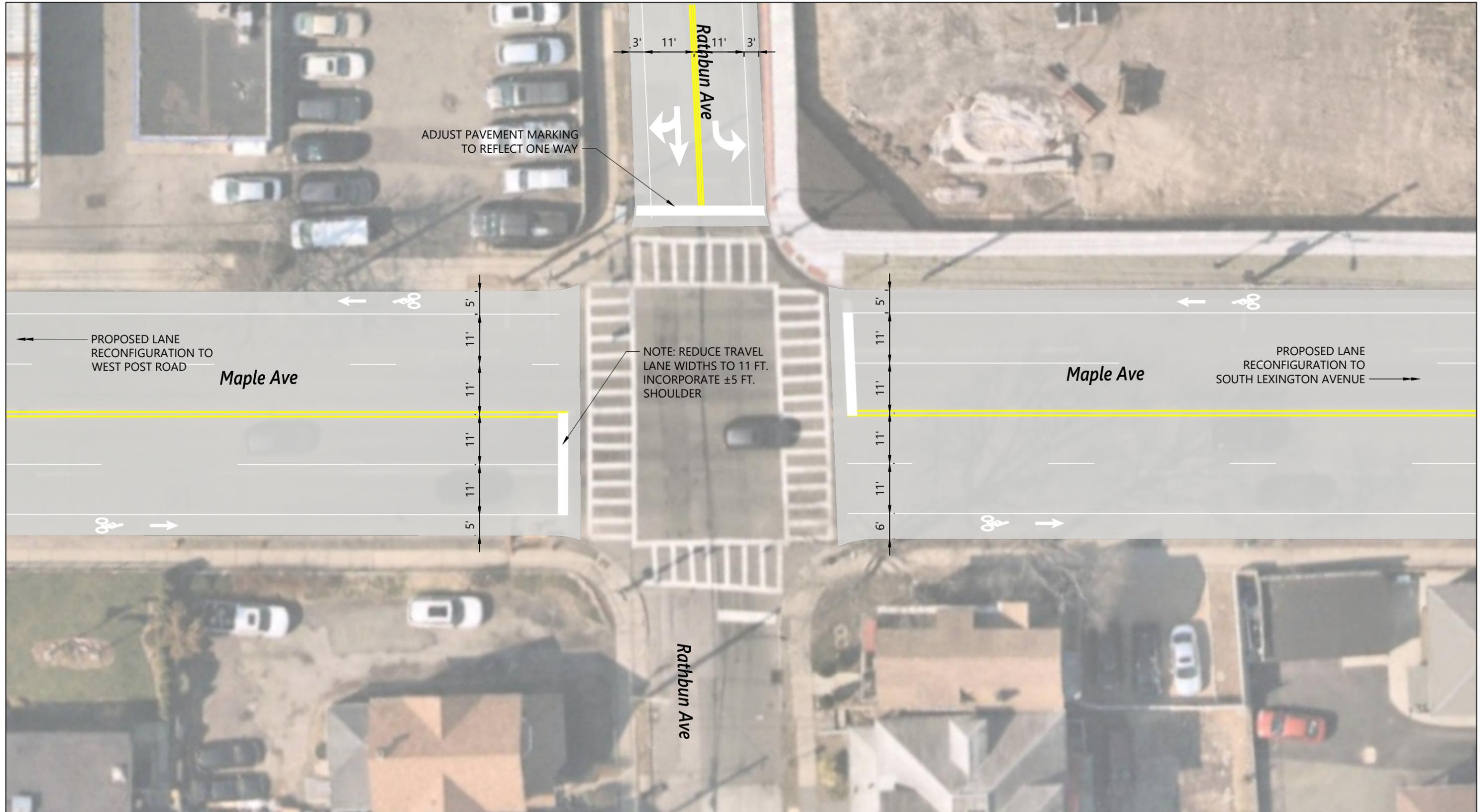


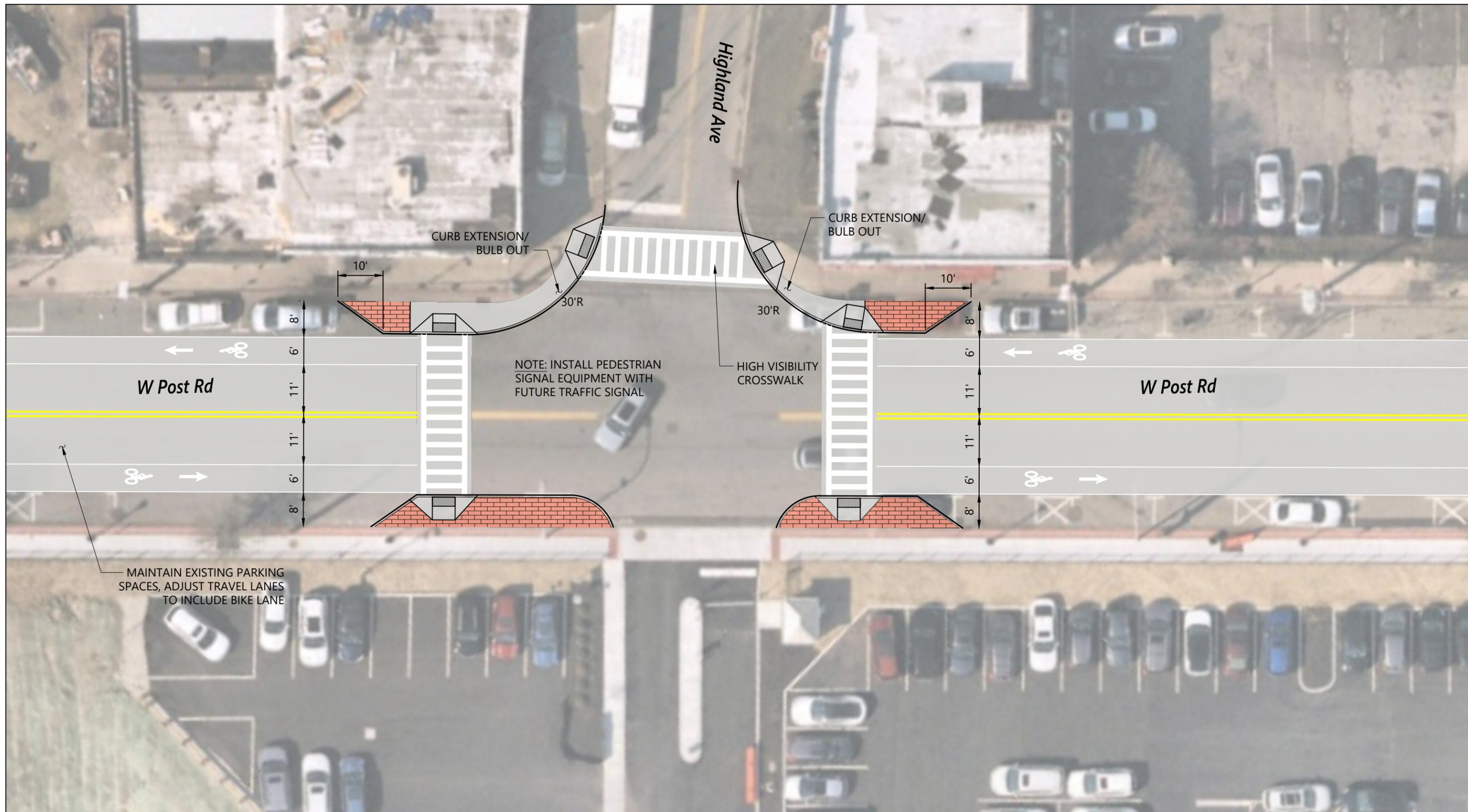


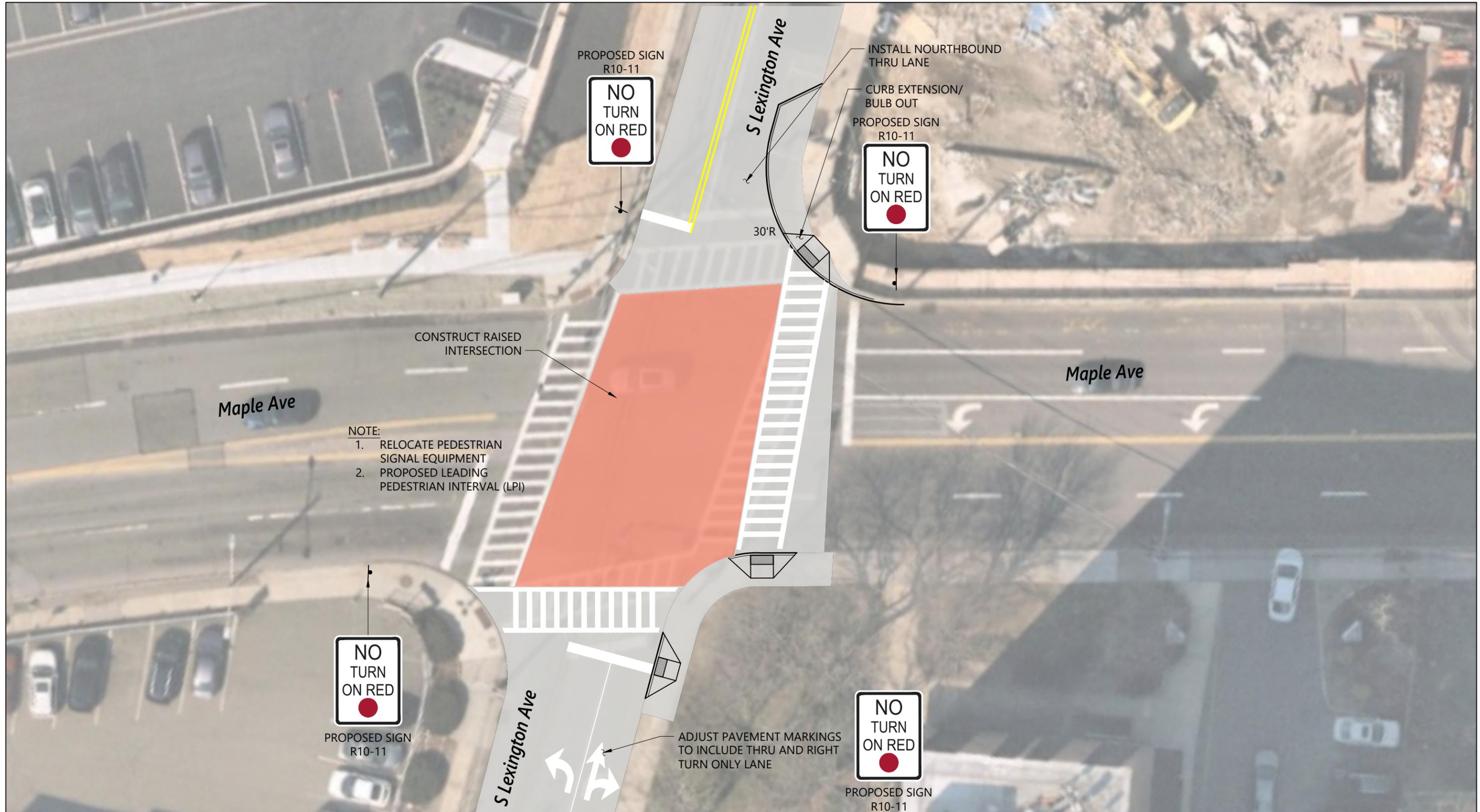


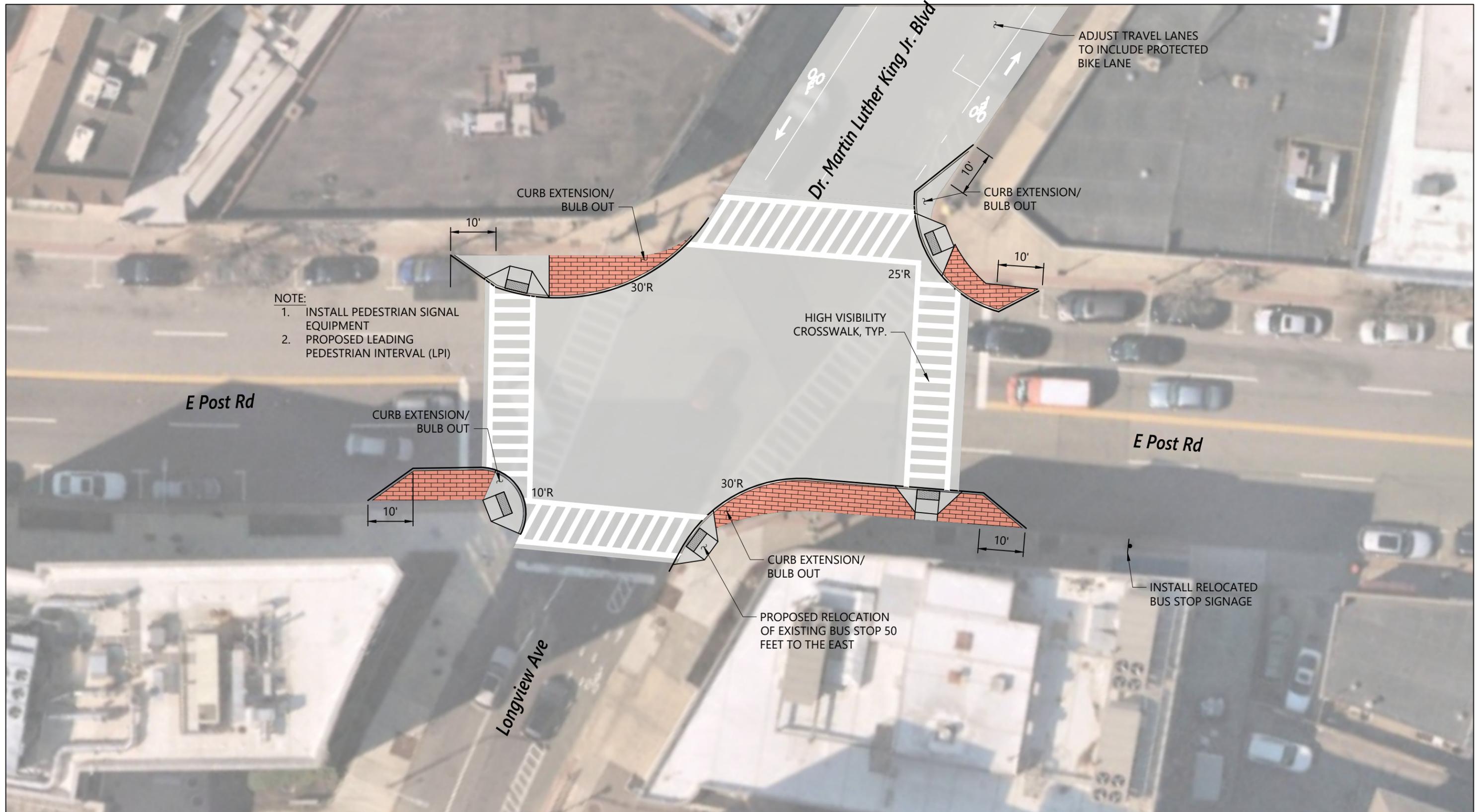


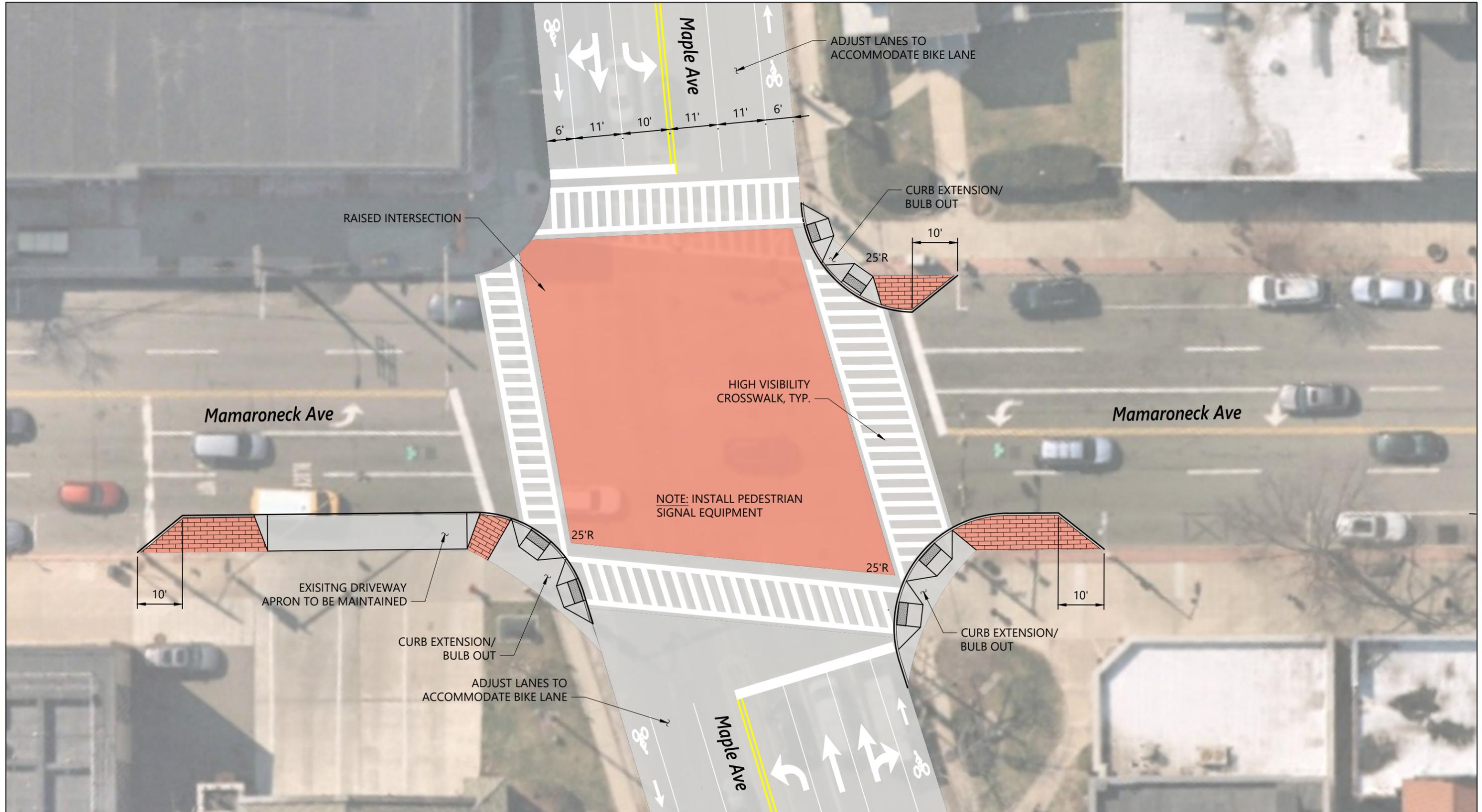


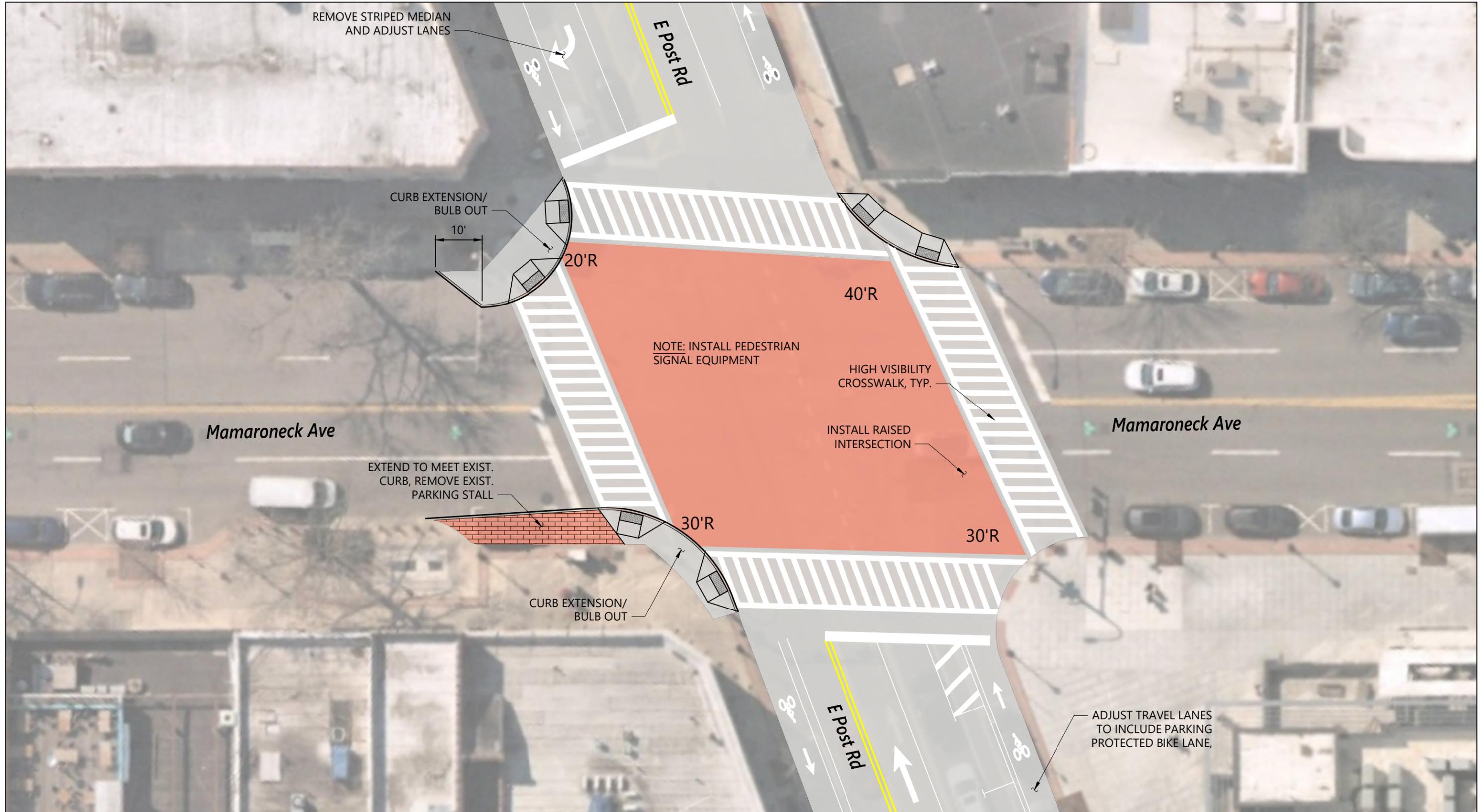












Old Mamaroneck Road & Shapham Place

Old Mamaroneck Road - Gedney Way - Bryant Avenue Improvement Project

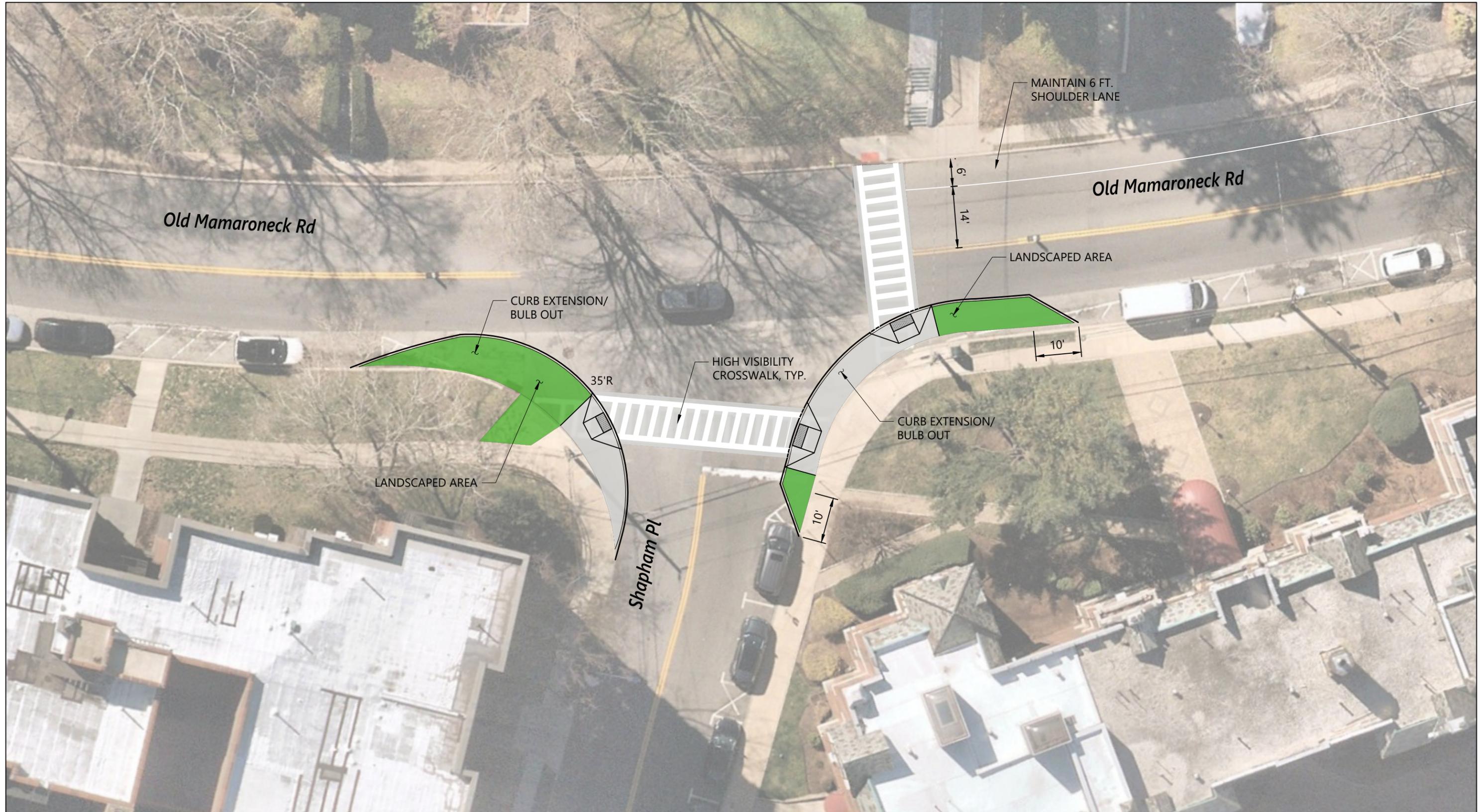
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Old Mamaroneck Road & Shapham Place (Alternative Concept)

Old Mamaroneck Road - Gedney Way - Bryant Avenue Improvement Project

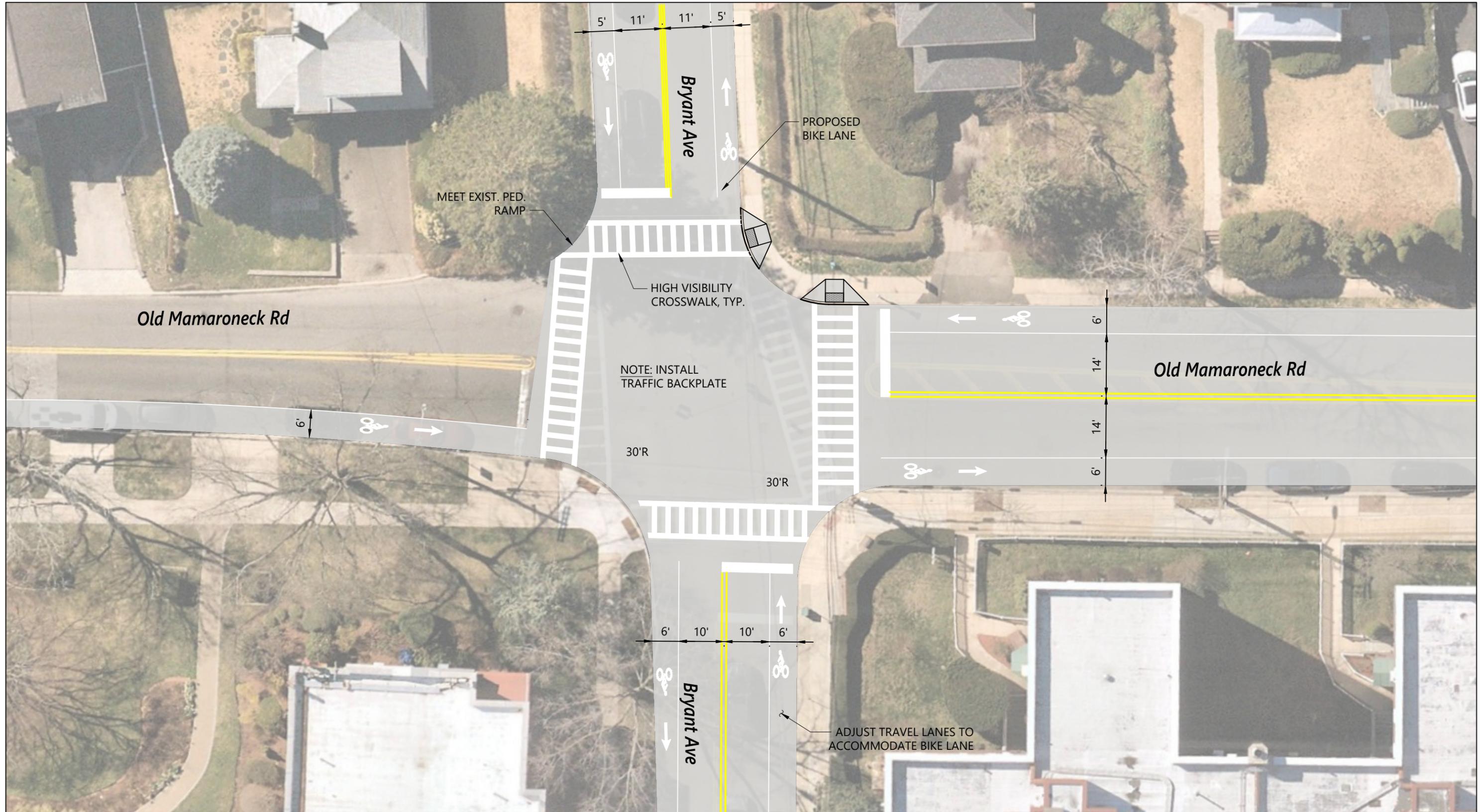
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# Old Mamaroneck Road & Bryant Avenue

Old Mamaroneck Road - Gedney Way - Bryant Avenue Improvement Project

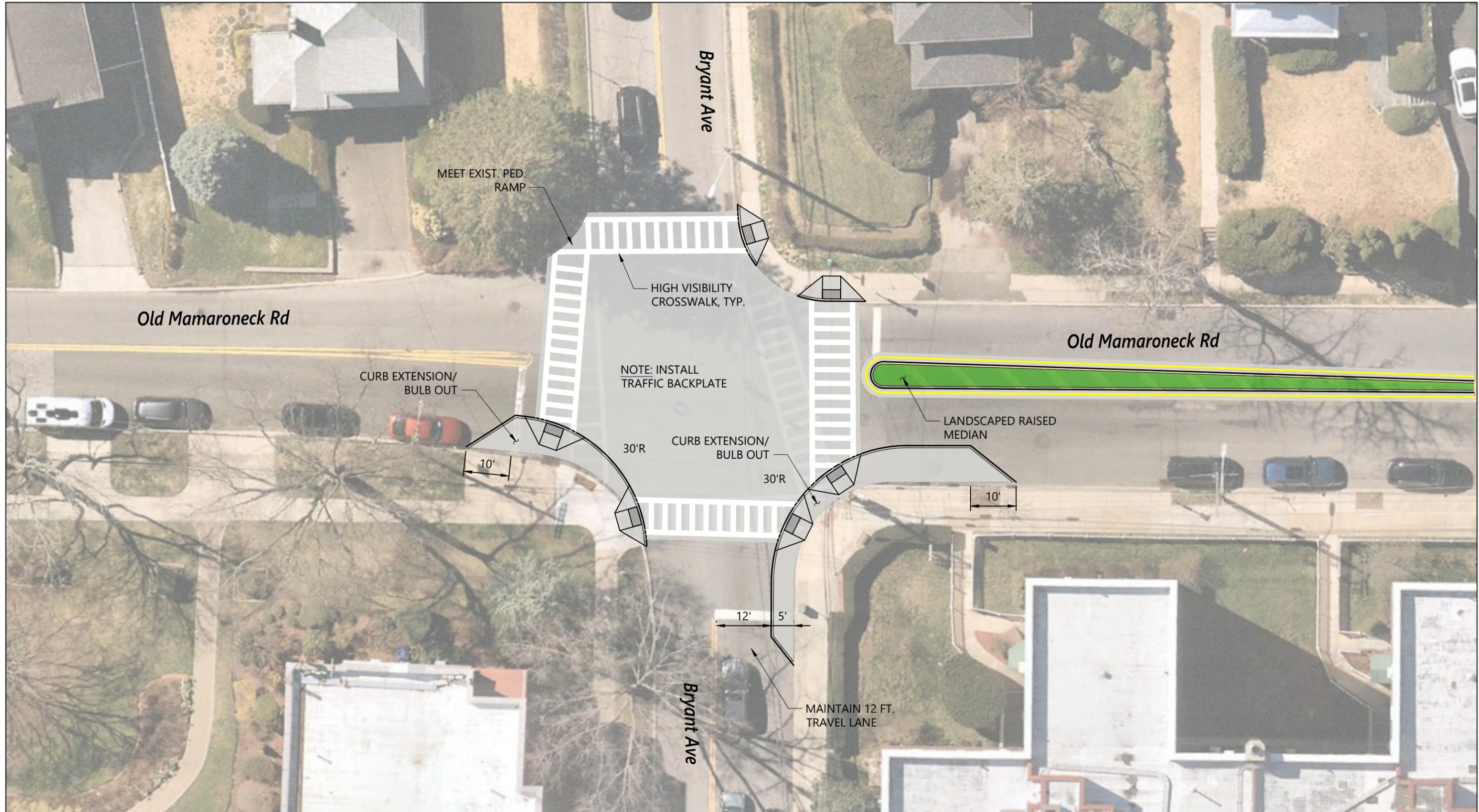
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**Old Mamaroneck Road & Bryant Avenue (Alternative Concept)**

Old Mamaroneck Road - Gedney Way - Bryant Avenue Improvement Project

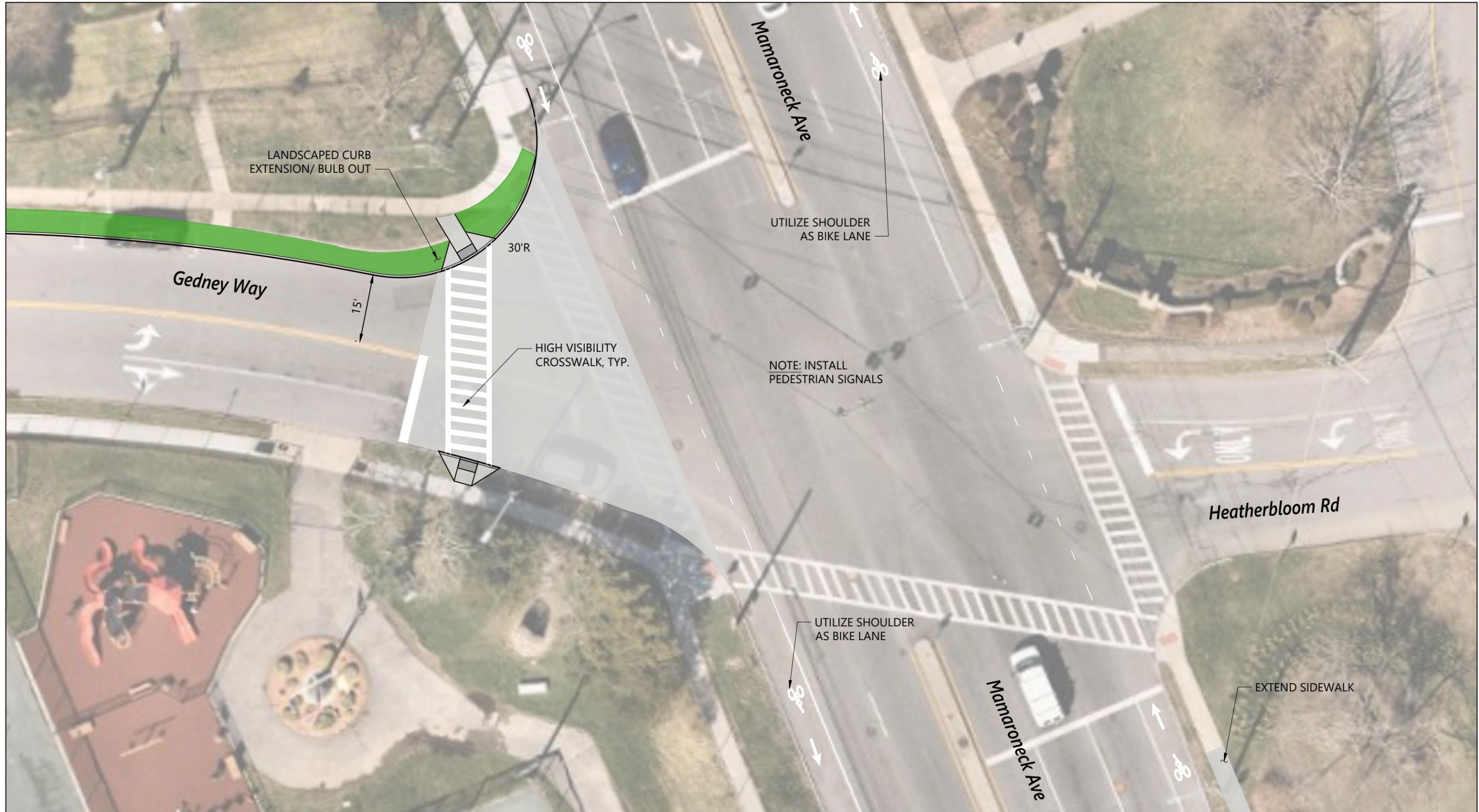
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Mamaroneck Avenue & Gedney Way

Mamaroneck Avenue (Gedney Way to Ethelridge Road) Improvement Project

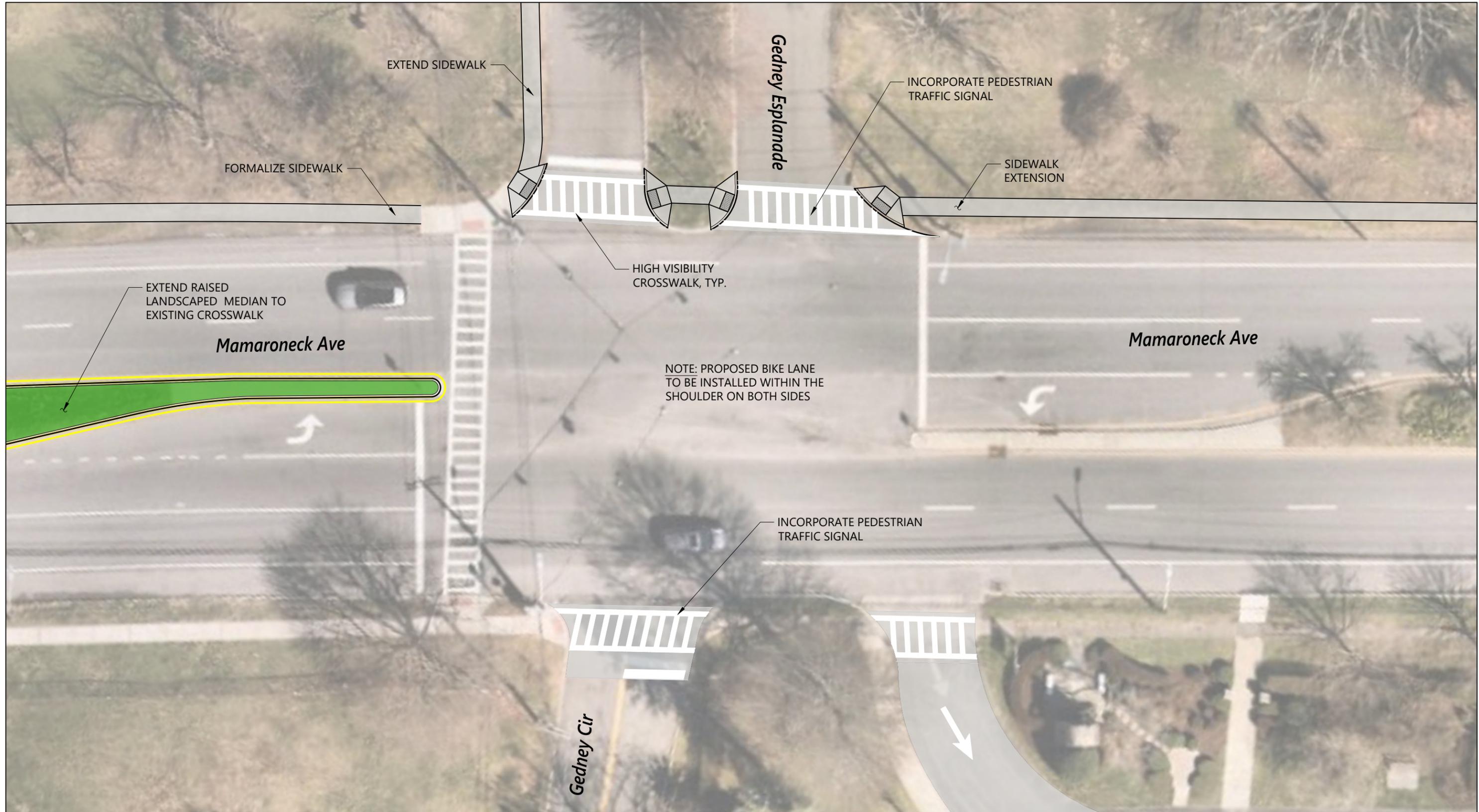
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**Mamaroneck Avenue & Gedney Circle**

Mamaroneck Avenue (Gedney Way to Ethelridge Road) Improvement Project

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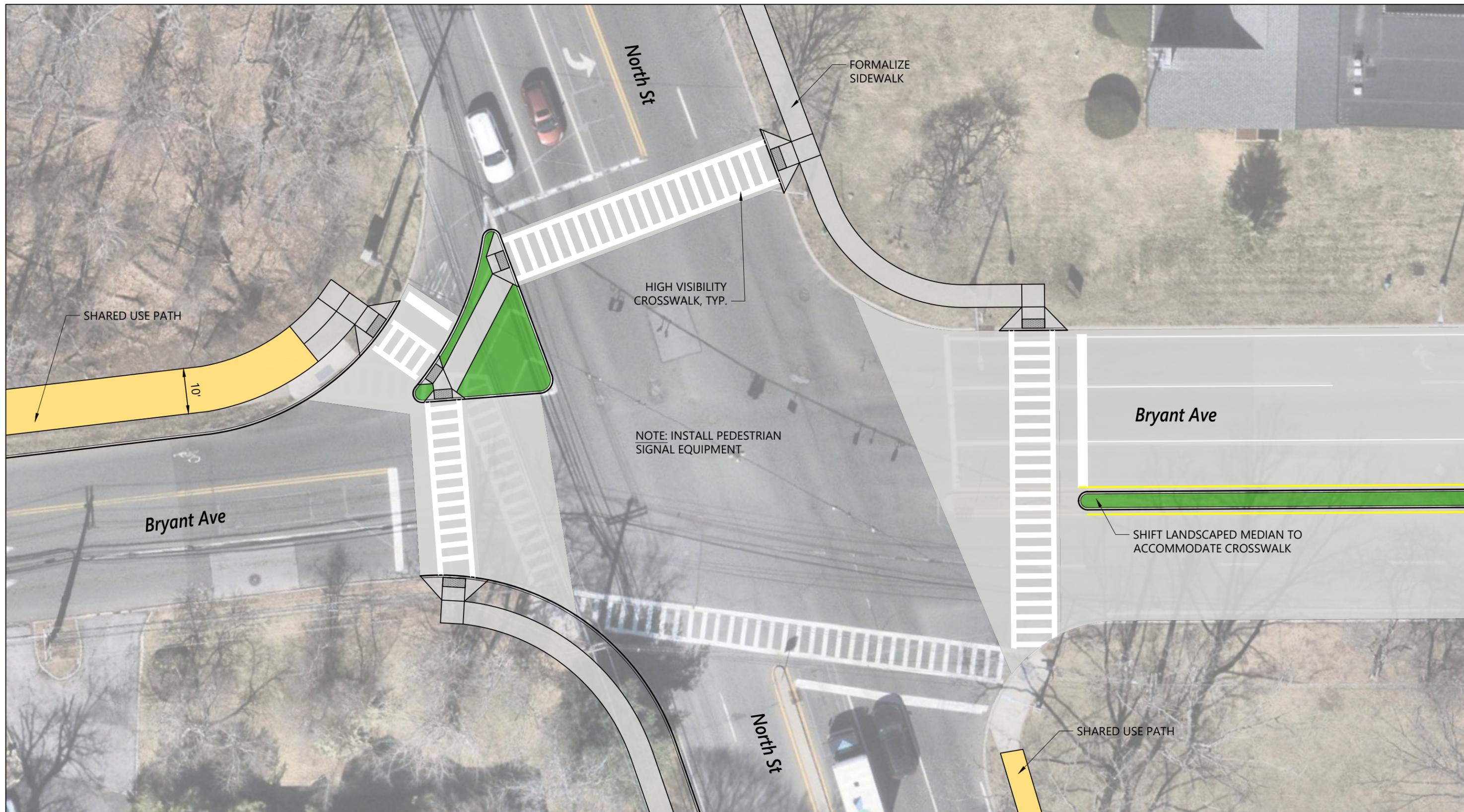


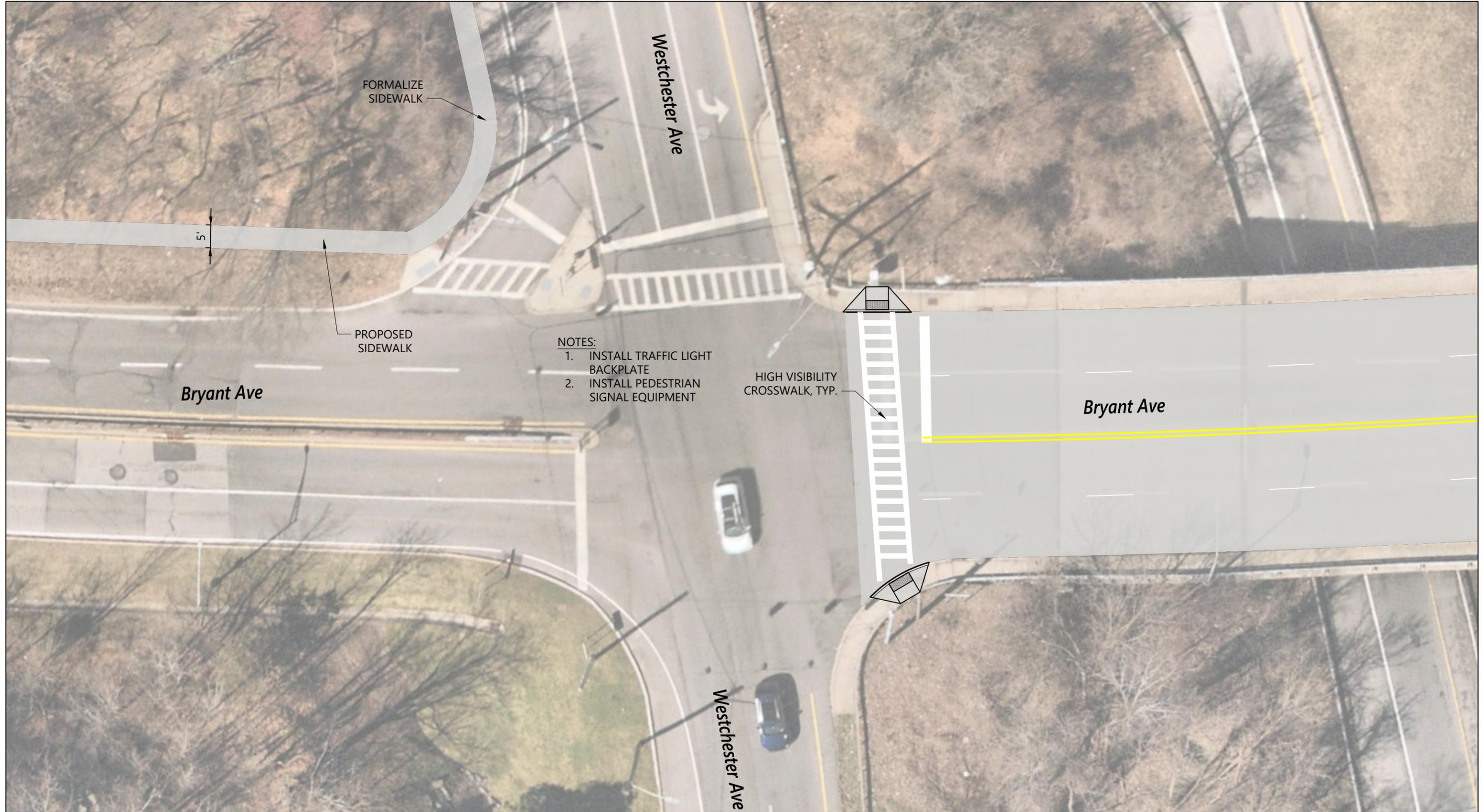
# Mamaroneck Avenue & Ridgeway

Mamaroneck Avenue (Gedney Way to Ethelridge Road) Improvement Project

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APPENDIX

D

# HIGH INJURY NETWORK IMPROVEMENT PROJECT PRIORITIZATION MATRIX

Evaluation Criteria		North White Plains	Central Avenue	Transit District /District Galleria	Shopping District	Eastview Neighborhood	White Plains Hospital Roadway Network	Mamaroneck Ave (Downtown)	Mamaroneck Ave (Maple Ave to Bryant Ave)	Old Mamaroneck Rd/Gedney Way/Bryant Ave	Mamaroneck Ave (Gedney Way to Ethelridge Road)	North Street	Mamaroneck Ave (Carrigan Ave to Purdy Ave)
<b>Objective 1: Enhance Safety for all users (Weighted: x2)</b>													
1.1. Addresses Emphasis Areas of the Vision Zero Action Plan	<b>Good:</b> Addresses safety concerns pertaining to multiple emphasis areas, including, but not limited to intersections and vulnerable roadway users, including pedestrians and bicyclists. <b>Fair:</b> Addresses safety concerns pertaining to one emphasis area.	2	3	3	3	3	3	3	2	3	3	2	2
1.2. Integrates recent/on-going safety/multi-modal improvements	<b>Good:</b> Includes recent or ongoing projects that have effectively reduced conflicts between different modes of transportation (e.g., pedestrians, cyclists, vehicles). <b>Fair:</b> Applies to upcoming projects with potential to reduce multi-modal conflict. <b>Low:</b> No substantial recent or ongoing improvement efforts.	1	1	3	2	1	3	2	1	1	1	1	1
1.3. Aligns with VZ goal to eliminate fatalities & serious injuries	<b>Good:</b> The majority of the corridor is located within the priority High Injury Network (HIN). <b>Fair:</b> A portion of the corridor is located within the priority HIN. <b>Low:</b> The corridor is outside the priority HIN but still within the broader HIN.	1	3	2	2	3	2	3	2	2	3	2	1
<b>Objective 2: Improve multi-modal network and accessibility</b>													
2.1. Improves pedestrian access and connectivity	<b>Good:</b> Extensively improves pedestrian connectivity (e.g., sidewalks, shared-use paths, ADA ramps, pedestrian signals). <b>Fair:</b> Moderately improves pedestrian connectivity. <b>Low:</b> Has limited pedestrian connectivity improvements included.	1	1	3	2	2	3	2	1	3	3	3	1
2.2. Improves bicycle access and connectivity	<b>Good:</b> Extensively improves bicyclist connectivity and wayfinding (e.g., bike lanes, shared-use path, signage). <b>Fair:</b> Moderately improves bicyclist connectivity. <b>Low:</b> Has limited bicyclist connectivity improvements included.	3	1	3	3	3	3	1	1	3	3	2	3
2.3. Improves multi-modal access in high density/commercial/mixed use areas	<b>Good:</b> Located in high-density, commercial, or mixed-use areas. <b>Fair:</b> Located in a medium-density commercial or mixed use area. <b>Low:</b> Located within a low density, suburban, residential area.	2	3	3	3	1	3	3	3	1	1	1	1
<b>Objective 3: Ensure Equitable distribution of projects and benefits</b>													
3.1. Improves safety and access for vulnerable populations	<b>Good:</b> Located near schools, parks, municipal and service buildings, age-related facilities, or hospitals.	1	2	3	2	3	3	1	3	3	3	3	3
3.2. Improves mobility within underserved areas	<b>Good:</b> Located within an established underserved area boundary. <b>Low:</b> Not located within an established underserved area boundary.	3	3	3	3	3	3	3	3	1	1	1	1
<b>Objective 4: Aligns with other City Initiatives and Implementable by the City</b>													
4.1. Aligns with other City Initiatives	<b>Good:</b> Included in the White Plains Transit District Plan or Downtown Revitalization Initiative (DRI). <b>Fair:</b> Mentioned in the White Plains Comprehensive Plan	2	2	3	3	2	3	3	2	2	2	2	2
4.2. Right-of-Way Impacts / Parking Impacts	<b>Good:</b> Includes changes that <b>DO NOT</b> involve parking removal, due to bike lanes and road diet studies, or right-of-way (ROW) acquisition. <b>Fair:</b> Involves limited removal of parking or ROW acquisition. <b>Low:</b> Involves removal of parking or ROW acquisition.	2	2	1	2	2	1	2	3	3	3	3	3
4.3. Multi-stakeholder Coordination	<b>Good:</b> No coordination required. <b>Fair:</b> Involves coordination on County roads, State roads, or private entities.	2	2	2	2	3	3	3	3	2	2	2	2
<b>Objective 5: Potential to integrate sustainability and reduce environmental impacts</b>													
5.1. Promotes sustainable and active mobility	<b>Good:</b> Corridors that directly advance sustainable and active mobility through a combination of sidewalks, dedicated bike lanes, shared-use paths, and convenient access to transit, providing safe and accessible routes for pedestrians, cyclists, and transit users. <b>Fair:</b> Corridors that indirectly advance sustainable and active mobility or connects to corridors that directly promote it. <b>Low:</b> Corridors that do not advance sustainable and active mobility or connects to corridors that directly promote it	3	1	3	3	3	3	2	2	3	3	3	3
5.2. Provides opportunity to integrate sustainable building materials	<b>Good:</b> Projects that incorporate sustainable design features, such as bulb-outs, pedestrian refuge islands, medians, or pedestrian plazas. <b>Fair:</b> Projects that include infrastructure like sidewalks or bike lanes, which provide opportunities for sustainable mobility but are less directly related to building materials or environmental impact. <b>Low:</b> Projects that focus on traffic management infrastructure, such as traffic signals or speed feedback signs, which offer limited opportunities for incorporating sustainable building materials.	3	2	3	3	3	3	3	3	3	2	2	2
<b>Performance Score</b>		<b>30</b>	<b>33</b>	<b>43</b>	<b>40</b>	<b>39</b>	<b>44</b>	<b>39</b>	<b>34</b>	<b>36</b>	<b>37</b>	<b>32</b>	<b>29</b>
<b>Performance Rating for Objectives</b>													
<b>Good / High</b>		3											
<b>Fair / Moderate</b>		2											
<b>No Improvement over Existing Conditions / Low</b>		1											
<b>Total Priority Level</b>													
<b>Tier 1 (Anticipated Completion Dates Within First 5 Years of Action Plan)</b>		38+											
<b>Tier 2 (Anticipated Completion Dates Within First 10 Years of Action Plan)</b>		32 - 37											
<b>Tier 3 (Anticipated Completion Dates Within First 15 Years of Action Plan)</b>		30 or less											



APPENDIX

**E**

# **HIGH INJURY NETWORK IMPROVEMENT PROJECT COST ESTIMATES**

**Improvement Project Cost Estimates**

Vision Zero Toolkit			Improvement Projects												
Intervention Type	Unit Cost	Unit	North White Plains	Central Avenue	Transit District	Shopping District	Eastview Neighborhood	White Plains Hospital Network	Downtown Mamaroneck Avenue	Mamaroneck Avenue (Maple Avenue to Bryant Avenue)	Old Mamaroneck Avenue/Gedney Way/Bryant Avenue	Mamaroneck Avenue (Gedney Way to Ethelridge Road)	North Street	Mamaroneck Avenue (Carrigan Avenue to Purdy Avenue)	Total
High Visibility Crosswalk	\$3,000	EA	\$15,000	\$6,000	\$21,000	\$33,000	\$3,000	\$21,000	\$3,000	\$12,000	\$15,000	\$0	\$24,000	\$0	\$153,000
Raised Crosswalk	\$70,000	EA	\$0	\$0	\$0	\$350,000	\$350,000	\$70,000	\$0	\$0	\$280,000	\$0	\$0	\$0	\$1,050,000
Raised Intersection	\$50	SF	\$0	\$0	\$350,000	\$220,000	\$0	\$0	\$287,000	\$0	\$0	\$0	\$0	\$0	\$857,000
Sidewalk	\$150	LF	\$0	\$0	\$0	\$172,500	\$0	\$0	\$0	\$0	\$0	\$315,000	\$825,000	\$120,000	\$1,432,500
Sidewalk Extension	\$30	SF	\$0	\$105,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,000
Landscaped Area	\$5	SF	\$0	\$21,050	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,050
Curb Extension	\$18,000	EA	\$54,000	\$0	\$198,000	\$162,000	\$0	\$40,000	\$144,000	\$270,000	\$72,000	\$0	\$0	\$0	\$940,000
Curb Ramp/Tactile Pad	\$8,000	EA	\$0	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,000
Pedestrian Refuge Island	\$10,000	EA	\$0	\$0	\$10,000	\$10,000	\$0	\$10,000	\$30,000	\$0	\$0	\$10,000	\$10,000	\$10,000	\$90,000
Leading Pedestrian Interval	\$500	EA	\$0	\$0	\$0	\$0	\$0	\$0	\$500	\$0	\$0	\$0	\$0	\$0	\$500
RRFB Signal	\$25,000	LUMP SUM	\$0	\$0	\$0	\$150,000	\$75,000	\$75,000	\$25,000	\$0	\$175,000	\$0	\$0	\$0	\$500,000
HAWK Signal	\$90,000	LUMP SUM	\$0	\$0	\$270,000	\$90,000	\$0	\$0	\$0	\$0	\$0	\$90,000	\$180,000	\$0	\$630,000
Marked Bike Lanes	\$10	LF	\$50,000	\$0	\$186,000	\$48,000	\$56,000	\$212,500	\$0	\$0	\$0	\$0	\$0	\$76,000	\$628,500
Buffered Bike Lanes	\$15	LF	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000	\$10,500	\$67,500	\$64,500	\$0	\$0	\$145,500
Protected Bike Lanes	\$70	LF	\$0	\$0	\$168,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$168,000
Shared Use Path	\$224	LF	\$0	\$0	\$0	\$380,800	\$129,920	\$0	\$0	\$0	\$896,000	\$0	\$112,000	\$0	\$1,518,720
Pavement Marking - Symbols	\$200	EA	\$400	\$600	\$8,000	\$2,000	\$2,600	\$8,800	\$200	\$400	\$1,800	\$2,000	\$0	\$5,000	\$31,800
Pavement Marking - Lane Lines	\$2	LF	\$10,000	\$3,000	\$34,000	\$0	\$3,200	\$31,200	\$0	\$0	\$0	\$0	\$0	\$0	\$81,400
Raised Median	\$35	SF	\$0	\$175,000	\$73,500	\$110,250	\$0	\$122,500	\$98,000	\$122,500	\$252,000	\$0	\$0	\$0	\$953,750
Roundabout	\$1,000,000	LUMP SUM (Excluding ROW Acquisition)	\$0	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000,000
Traffic Signal Improvements (for Road Diet Modifications)	\$150,000	Lump Sum	\$0	\$0	\$1,650,000	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,400,000
Traffic Signal Installation	\$300,000	LUMP SUM	\$600,000	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$600,000	\$1,500,000
Stop Sign	\$1,000	EA	\$0	\$1,000	\$0	\$0	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000
Speed Enforcement Sign	\$9,000	EA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,000	\$18,000	\$9,000	\$45,000
HIN Intersection Costs	-	-	\$255,507	\$188,252	\$427,877	\$174,804	\$304,321	\$621,969	\$733,348	\$0	\$137,792	\$254,751	\$154,324	\$0	\$3,252,943
Sub-Total	-	-	\$984,907	\$507,902	\$3,396,377	\$3,203,354	\$926,041	\$1,962,969	\$1,324,048	\$415,400	\$1,897,092	\$754,251	\$1,323,324	\$820,000	\$17,515,663
Soft Costs (15%)	-	-	\$147,736	\$76,185	\$509,456	\$480,503	\$138,906	\$294,445	\$198,607	\$62,310	\$284,564	\$113,138	\$198,499	\$123,000	\$2,627,349
Contingency (25%)	-	-	\$184,670	\$95,232	\$636,821	\$600,629	\$173,633	\$368,057	\$248,259	\$77,888	\$355,705	\$141,422	\$248,123	\$153,750	\$3,284,187
<b>Total Cost</b>	-	-	<b>\$1,317,312</b>	<b>\$679,319</b>	<b>\$4,542,654</b>	<b>\$4,284,485</b>	<b>\$1,238,580</b>	<b>\$2,625,470</b>	<b>\$1,770,914</b>	<b>\$555,598</b>	<b>\$2,537,361</b>	<b>\$1,008,811</b>	<b>\$1,769,946</b>	<b>\$1,096,750</b>	<b>\$23,427,199</b>

\*All cost estimates are preliminary and subject to change based upon further engineering and design evaluation

**Intersection Cost Estimates**

Improvement Project			North White Plains		Central Avenue	Transit District				Shopping District	Eastview Neighborhood			
Intersection Name			North Broadway/Bond Street	North Broadway/Orchard Street	Central Avenue / Chatterton Avenue	Main Street / Dr. MLK Jr. Blvd	Battle Avenue/Tarrytown Road	Hamilton Avenue / North Broadway	Hamilton Avenue / Cottage Place	Barker Avenue / Cottage Place	Westchester / Paulding	Lake Street / Stewart Place	Lake Street / South Kensico Avenue	Main Street / Canfield Avenue
Interventions	Unit Cost	Unit												
Pavement Marking - High Visibility Crosswalk	\$ 2.00	LF	\$1,872.00	\$2,904.00	\$1,272.00	\$4,572.00	\$1,128.00	\$2,040.00	\$7,812.00	\$6,186.00	\$5,784.00	\$0.00	\$3,660.00	\$2,652.00
Pavement Marking - Stop Line	\$ 2.00	LF	\$516.00	\$516.00	\$180.00	\$528.00	\$204.00	\$0.00	\$100.00	\$0.00	\$792.00	\$0.00	\$0.00	\$0.00
Pavement Marking - Lane Lines	\$ 2.00	LF	\$1,174.00	\$1,000.00	\$2,336.00	\$528.00	\$174.00	\$56.00	\$100.00	\$0.00	\$186.00	\$0.00	\$0.00	\$0.00
Pavement Marking - Symbols	\$ 200.00	EA	\$800.00	\$800.00	\$400.00	\$200.00	\$400.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pavement Marking - Letters	\$ 100.00	EA	\$0.00	\$400.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pavement Marking Removal	\$ 1.50	LF	\$2,677.50	\$3,327.00	\$954.00	\$3,429.00	\$846.00	\$1,530.00	\$5,859.00	\$4,639.50	\$5,071.50	\$300.00	\$2,745.00	\$1,989.00
Raised Crosswalk	\$ 70,000.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$70,000.00	\$0.00	\$0.00
Curb Ramp	\$ 8,000.00	EA	\$24,000.00	\$16,000.00	\$48,000.00	\$40,000.00	\$8,000.00	\$16,000.00	\$24,000.00	\$32,000.00	\$56,000.00	\$0.00	\$40,000.00	\$64,000.00
Curb Extension	\$ 90.00	LF	\$45,090.00	\$2,700.00	\$59,760.00	\$12,330.00	\$11,520.00	\$20,340.00	\$16,830.00	\$21,960.00	\$17,550.00	\$0.00	\$22,410.00	\$16,740.00
Proposed Signage	\$ 500.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Pedestrian Refuge Island	\$ 10,000.00	EA	\$10,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Bump Out Concrete	\$ 20.00	SF	\$60,000.00	\$0.00	\$60,000.00	\$17,000.00	\$6,820.00	\$0.00	\$10,540.00	\$8,280.00	\$0.00	\$0.00	\$24,720.00	\$4,340.00
Bump Out Brick	\$ 35.00	SF	\$0.00	\$0.00	\$0.00	\$6,825.00	\$10,710.00	\$0.00	\$9,170.00	\$26,355.00	\$14,420.00	\$0.00	\$0.00	\$0.00
Landscaped Area	\$ 5.00	SF	\$6,730.00	\$0.00	\$15,350.00	\$0.00	\$0.00	\$3,065.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$765.00
Leading Pedestrian Interval	\$ 500.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Traffic Signal Improvements	\$ 75,000.00	Lump Sum	\$0.00	\$75,000.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.00
Rectangular Rapid Flashing Beacon	\$ 25,000.00	Lump Sum	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$25,000.00
Raised Intersection	\$ 50.00	SF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Total Intersection Cost</b>			<b>\$152,659.50</b>	<b>\$102,647.00</b>	<b>\$188,252.00</b>	<b>\$85,812.00</b>	<b>\$114,802.00</b>	<b>\$53,031.00</b>	<b>\$74,811.00</b>	<b>\$99,420.50</b>	<b>\$174,803.50</b>	<b>\$95,300.00</b>	<b>\$93,535.00</b>	<b>\$115,486.00</b>

Improvement Project			White Plains Hospital Network				Downtown Mamaroneck Avenue		Old Mamaroneck Road/Gedney		Mamaroneck Avenue (Gedney Way to Ethelridge Road)			North Street	
Intersection Name			Maple Avenue & Rathbun Avenue	West Post Road / Highland Avenue	Maple Avenue / South Lexington Avenue	Dr. MLK Jr. Blvd / East Post Road	Mamaroneck Avenue/ Maple Avenue	Mamaroneck Avenue / East Post Road	Old Mamaroneck Road / Shapham Place	Old Mamaroneck Road / Bryant Avenue	Mamaroneck Avenue / Gedney Way	Mamaroneck Avenue / Gedney Circle	Mamaroneck Avenue / Ridgeway	North Street / Bryant Avenue	Westchester Avenue / Bryant Avenue
Interventions	Unit Cost	Unit													
Pavement Marking - High Visibility Crosswalk	\$ 2.00	LF	\$0.00	\$2,232.00	\$2,916.00	\$5,130.00	\$5,562.00	\$6,996.00	\$1,992.00	\$3,684.00	\$1,248.00	\$3,042.00	\$1,770.00	\$2,896.00	\$1,296.00
Pavement Marking - Stop Line	\$ 2.00	LF	\$552.00	\$0.00	\$240.00	\$0.00	\$0.00	\$0.00	\$0.00	\$240.00	\$156.00	\$408.00	\$0.00	\$336.00	
Pavement Marking - Lane Lines	\$ 2.00	LF	\$3,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$156.00	\$640.00	\$544.00	\$712.00	\$396.00	\$352.00	\$0.00	
Pavement Marking - Symbols	\$ 200.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$800.00	\$200.00	\$200.00	\$0.00	\$0.00	
Pavement Marking - Letters	\$ 100.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Pavement Marking Removal	\$ 1.50	LF	\$2,754.00	\$765.00	\$2,187.00	\$3,847.50	\$4,171.50	\$5,247.00	\$1,494.00	\$2,763.00	\$1,314.00	\$985.50	\$1,327.50	\$540.00	
Raised Crosswalk	\$ 70,000.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Curb Ramp	\$ 8,000.00	EA	\$0.00	\$32,000.00	\$24,000.00	\$40,000.00	\$48,000.00	\$64,000.00	\$24,000.00	\$16,000.00	\$16,000.00	\$32,000.00	\$24,000.00	\$40,000.00	
Curb Extension	\$ 90.00	LF	\$0.00	\$28,800.00	\$18,000.00	\$26,820.00	\$21,870.00	\$33,750.00	\$17,820.00	\$40,590.00	\$76,500.00	\$23,490.00	\$58,500.00	\$0.00	
Proposed Signage	\$ 500.00	EA	\$0.00	\$0.00	\$2,000.00	\$500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Pedestrian Refuge Island	\$ 10,000.00	EA	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Bump Out Concrete	\$ 20.00	SF	\$0.00	\$2,580.00	\$14,460.00	\$5,700.00	\$16,480.00	\$15,540.00	\$7,020.00	\$15,720.00	\$0.00	\$0.00	\$3,260.00	\$14,000.00	
Bump Out Brick	\$ 35.00	SF	\$0.00	\$13,510.00	\$0.00	\$31,605.00	\$17,290.00	\$19,670.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Landscaped Area	\$ 5.00	SF	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$865.00	\$3,415.00	\$2,110.00	\$3,020.00	\$2,485.00	\$2,345.00	\$0.00	
Leading Pedestrian Interval	\$ 500.00	EA	\$0.00	\$0.00	\$500.00	\$500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Traffic Signal Improvements	\$ 75,000.00	Lump Sum	\$0.00	\$75,000.00	\$75,000.00	\$75,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$75,000.00	
Rectangular Rapid Flashing Beacon	\$ 25,000.00	Lump Sum	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Raised Intersection	\$ 50.00	SF	\$0.00	\$0.00	\$132,250.00	\$0.00	\$232,500.00	\$241,250.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
<b>Total Intersection Cost</b>			<b>\$6,426.00</b>	<b>\$154,887.00</b>	<b>\$271,553.00</b>	<b>\$189,102.50</b>	<b>\$345,873.50</b>	<b>\$387,474.00</b>	<b>\$56,381.00</b>	<b>\$81,411.00</b>	<b>\$99,834.00</b>	<b>\$62,754.50</b>	<b>\$92,162.50</b>	<b>\$57,436.00</b>	<b>\$96,888.00</b>

APPENDIX

F

# INVENTORY OF EXISTING AND PROPOSED BICYCLE FACILITIES

## Facilities of the Existing White Plains Bicycle Network

Roadway Name	From	To	Facility Type	Length (Mi)
Barker Avenue	Church Street	North Broadway	Shared Lane Marking (Sharrow)	.17
Bryant Avenue	Near Bryant Crescent	Near Hathaway Lane	Marked Two-Way Bike Lane	.26
Bryant Avenue	Near Hathaway Lane	Near North Street	Shared Lane Marking (Sharrow)	.22
Bryant Avenue	Mamaroneck Avenue	Near Bryant Crescent	Shared Lane Marking (Sharrow)	.21
Bronx River Parkway Trail	-	-	Off-Road Shared Use Path	2.2
Canfield Avenue	Lake Street	Main Street	Shared Lane Marking (Sharrow)	.11
Court Street	East Post Road	Martine Avenue	Marked One-Way Bike (NB)	.17
Dr. MLK Jr. Boulevard	Maple Avenue	Water Street	Marked One-Way Bike (NB)	.60
East Post Road	South Broadway	Mamaroneck Avenue	Marked One-Way Bike (WB)	.15
Lake Street	130 Feet Southwest of N/S Kensico Avenue	N/S Kensico Avenue	Shared Lane Marking (Sharrow)	.025
Lake Street	North Broadway	Near Stewart Place	Shared Lane Marking (Sharrow)	.08
Lake Street	Near Stewart Place	South Kensico	Marked Two-Way Bike Lane	.17
Main Street	Amherst Place	South Kensico Avenue	Marked Two-Way Bike Lane	.11
Mamaroneck Avenue	Shapham Place	Waller Avenue	Shared Lane Marking (Sharrow)	.13
Martine Avenue (South Side)	Mamaroneck Avenue	South Lexington Avenue	Separated Two-Way Bike Lane	.30
Martine Avenue	South Lexington Avenue	100 Feet West of South Lexington Avenue	Marked One-Way Bike (WB)	.01
South Broadway	Mamaroneck Avenue	Maple Avenue	Marked One-Way Bike (SB)	.40
South Lexington Avenue	East Post Road	Water Street	Marked One-Way Bike (SB)	.60
Waller Avenue	Edgewood Street	Maple Avenue	Marked One-Way Bike (NB)	.28

**Facilities of the Existing White Plains Bicycle Network** *(continued)*

Roadway Name	From	To	Facility Type	Length (Mi)
<b>Waller Avenue</b>	Mamaroneck Avenue	Edgewood Street	Shared Lane Marking (Sharrow)	.02
<b>Waller Avenue</b>	Maple Avenue	East Post Road	Shared Lane Marking (Sharrow)	.12
<b>Water Street/Barker Avenue</b>	Ferris Avenue	Church Street	Marked Two-Way Bike Lane	.32

**Facilities of the Proposed White Plains Bicycle Network**

Roadway Name	From	To	Facility Type	Length (Mi)
<b>Albro Lane</b>	Church Street	Gardella Park Entrance	Marked Two-Way Bike Lane	.08
<b>Battle Avenue</b>	Chatterton Parkway	Harding Avenue	Signage to Dismount and Use Sidewalk	.11
<b>Battle Avenue</b>	Harding Avenue	Central Avenue	Marked Two-Way Bike Lane	.56
<b>Beech Street W</b>	Orchard Street	Grant Avenue	Marked Two-Way Bike Lane	.16
<b>Bronx River Parkway Trail</b>	-	-	Off-Road Shared Use Path	2.2
<b>Bronx Street</b>	Main Street	Bronx River Parkway Trail Trailhead	Shared Lane Marking (Sharrow)	.12
<b>Bryant Avenue</b>	Mamaroneck Avenue	North Street	Off-Road Shared Use Path	.86
<b>Bryant Avenue</b>	Overlook Road	Mamaroneck Avenue	Dismount and Use Sidewalk Signage	.13
<b>Bryant Avenue</b>	South Lexington Avenue	Overlook Road	Marked Two-Way Bike Lane	.38
<b>Canfield Avenue</b>	Lake Street	Main Street	Off-Road Shared Use Path	.11
<b>Central Avenue</b>	Bronx River Parkway	Westchester County Center East Lot	Marked Two-Way Bike Lane	.09
<b>Central Avenue</b>	Harding Avenue	Tarrytown Road	Marked Two-Way Bike Lane	.12
<b>Central Avenue (North Side)</b>	Tarrytown Road	Bronx River Parkway	Separated Two-Way Bike Lane	.04
<b>Chatterton Avenue</b>	Harding Avenue	County Center CCW Parking	Marked Two-Way Bike Lane	.16
<b>Chester Avenue</b>	Maple Avenue	East Post Road	Marked Two-Way Bike Lane	.08
<b>Chestnut Hill Avenue</b>	Orawaupum Street	Highland Avenue	Marked Two-Way Bike Lane	.11
<b>Court Street/Cottage Place/Church Street/Westview Avenue</b>	East Post Road	North Broadway	Marked Two-Way Bike Lane	1.27
<b>Cromwell Place</b>	Maple Avenue	East Post Road	Marked One-Way Bike Lane (Southbound)	.08
<b>Dekalb Avenue</b>	Schuyler Place	Mamaroneck Avenue	Marked One-Way Bike Lane (Southbound)	.09

**Facilities of the Proposed White Plains Bicycle Network** *(continued)*

Roadway Name	From	To	Facility Type	Length (Mi)
<b>Doyer Avenue</b>	Longview Avenue	Greenridge Avenue	Marked Two-Way Bike Lane	.07
<b>Dr. MLK Jr. Boulevard</b>	East Post Road	Water Street	Parking Protected Two-Way Bike Lane (following proposed roadway conversion)	.52
<b>Fisher Avenue</b>	Highland Avenue	Midland Avenue	Marked Two-Way Bike Lane	.23
<b>Gedney Way</b>	Greenridge Avenue	Mamaroneck Avenue	Marked Two-Way Bike Lane	.33
<b>Grant Avenue</b>	Beech Street W	North Broadway	Buffered Two-Way Bike Lane	.30
<b>Grant Avenue</b>	North Kensico Avenue	Beech Street	Marked Two-Way Bike Lane	.06
<b>Greenridge Avenue</b>	Maple Avenue	Thomas Place	Marked Two-Way Bike Lane	1.0
<b>Hamilton Avenue</b>	Dr. MLK Jr. Boulevard	North Broadway	Protected Two-Way Bike Lane (Center Lane)	.36
<b>Hamilton Avenue</b>	Tarrytown Road	Dr. MLK Jr. Boulevard	Marked Two-Way Bike Lane	.32
<b>Harding Avenue</b>	Battle Avenue	Central Avenue	Marked Two-Way Bike Lane	.34
<b>Hartsdale Avenue</b>	Soundview Avenue	Beverly Road	Marked Two-Way Bike Lane	.51
<b>Hawthorne Street</b>	McBride Avenue	Orchard Street	Shared Lane Marking (Sharrow)	.16
<b>Highland Avenue</b>	Fisher Avenue	Nutgrove Street	Marked Two-Way Bike Lane	.13
<b>Lake Street</b>	100 Feet West of N/S Kensico Avenue	North Broadway	Marked Two-Way Bike Lane	.25
<b>Lake Street</b>	Hall Avenue	100 Feet West of N/S Kensico Avenue	Shared Lane Marking (Sharrow)	.05
<b>Lake Street</b>	Kensico Place	Hall Avenue	Marked Two-Way Bike Lane	.07
<b>Layfayette Street</b>	Nutgrove Street	Fisher Avenue	Marked One-Way Bike Lane (Northwest Bound)	.14
<b>Longview Avenue</b>	Maple Avenue	East Post Road	Existing Marked One-Way Bike Lane (North Bound)	.07

**Facilities of the Proposed White Plains Bicycle Network** *(continued)*

Roadway Name	From	To	Facility Type	Length (Mi)
<b>Longview Avenue</b>	Rutherford Avenue	Bryant Avenue	Marked Two-Way Bike Lane	.41
<b>Main Street</b>	Bank Street	Main Street	Protected Two-Way Bike Lane (South Side)	.37
<b>Main Street</b>	Main Street	South Kensico Avenue	Marked Two-Way Bike Lane	.53
<b>Main Street</b>	Southbound Bronx River Parkway Ramp	Bank Street	Marked Two-Way Bike Lane	.11
<b>Maple Avenue</b>	West Post Road	Waller Avenue	Marked Two-Way Bike Lane	.77
<b>Mamaroneck Avenue</b>	Bryant Avenue	Purdy Avenue	Marked Two Bike Lane	2.37
<b>Mamaroneck Avenue</b>	Shapham Place	Waller Avenue	Marked One-Way Bike Lane (Northwest Bound)	.14
<b>Mamaroneck Avenue</b>	Quarropas Street	Mitchell Place	Marked Two-Way Bike Lane	.02
<b>Martine Avenue</b>	Bank Street	South Lexington Avenue	Protected Two-Way Bike Lane (South Side of Martine Avenue)	.11
<b>Martine Avenue</b>	South Lexington Avenue	Court Street	Existing Protected Two-Way Bike Lane (South Side of Martine Avenue)	.25
<b>McBride Avenue</b>	North Broadway	Hawthorne Street	Shared Lane Marking (Sharrow)	.13
<b>McKinley Avenue</b>	Battle Avenue	Chatterton Avenue	Shared Lane Marking (Sharrow)	.22
<b>Midland Avenue</b>	Fisher Avenue	West Post Road	Marked Two-Way Bike Lane	.37
<b>Mitchell Place</b>	Mamaroneck Avenue	South Broadway	Marked Two-Way Bike Lane	.21
<b>North/South Lexington Avenue</b>	Water Street	Post Road	Parking Protected Two-Way Bike Lane (following proposed roadway conversion)	.62
<b>Nutgrove Street</b>	Highland Avenue	Layfayette Street	Marked Two-Way Bike Lane	.10
<b>Nutgrove Street</b>	Tibbits Avenue	Layfayette Street	Marked One-Way Bike Lane (Northeast Bound)	.05

**Facilities of the Proposed White Plains Bicycle Network** *(continued)*

Roadway Name	From	To	Facility Type	Length (Mi)
North Broadway	Barker Avenue	Mitchell Place	Off-Road Shared Use Path (through Tibbits Park)	.37
North Broadway	Crane Avenue	Barker Avenue	Off-Road Shared Use Path (East Side of North Broadway)	.25
North Broadway	Fisher Lane	Crane Avenue	Marked Two-Way Bike Lane	.94
North Kensico Avenue/ Kensico Place	Grant Avenue	Lake Street	Marked Two-Way Bike Lane	.52
North Street	Bryant Avenue	White Plains High School Entrance	Off-Road Shared Use Path (East Side of North Street)	.10
Off Road	Bronx River Parkway Trail Trailhead	Battle Avenue/ Chatterton Parkway	Off-Road Shared Use Path	.07
Off Road	Central Avenue	Hamilton Avenue/ Tarrytown Road	Off-Road Shared Use Path	.27
Off-Road	Kensico Place/Lake Street	Delfino Park	Off-Road Shared Use Path	.06
Old Mamaroneck Road	Bryant Avenue	Shapham Place	Marked Two-Way Bike Lane	.14
Old Mamaroneck Road	Gedney Way	Ridgeway	Marked Two-Way Bike Lane	.75
Orawaupum Street	Quarropas Street/ Fisher Avenue	Chestnut Hill Avenue	Marked Two-Way Bike Lane	.08
Orchard Street	George Washington School Entrance	Beech Street W	Marked Two-Way Bike Lane	.03
Orchard Street	Hawthorne Street	Beech Street W	Off-Road Shared Use Path	.13
Orchard Street	Hawthorne Street	North Broadway	Signage to Dismount and Use Sidewalk	.16
Overlook Road	Gedney Way	Bryant Avenue	Marked Two-Way Bike Lane	.38
Post Road	Merritt Avenue	South Broadway	Marked Two-Way Bike Lane	1.34
Prescott Avenue	Soundview Avenue	Greenridge Avenue	Marked Two-Way Bike Lane	.45
Private Road (coordination with property owner required)	Main Street	Bank Street	Shared Lane Marking (Sharrow)	.10

**Facilities of the Proposed White Plains Bicycle Network** *(continued)*

Roadway Name	From	To	Facility Type	Length (Mi)
Prospect Street	Soundview Avenue	Longview Avenue	Marked Two-Way Bike Lane	.51
Quarropas Street	Orawaupum Street	Mamaroneck Avenue	Marked Two-Way Bike Lane	.41
Ridgeway	Old Mamaroneck Road	Haviland Lane	Marked Two-Way Bike Lane	2.2
Rosedale Avenue	Mamaroneck Avenue	North Street	Marked Two-Way Bike Lane	1.18
Rutherford Avenue	Longview Avenue	Greenridge Avenue	Marked Two-Way Bike Lane	.09
Schuyler Place	South Broadway	Dekalb Avenue	Marked One-Way Bike Lane (East Bound)	.05
Shapham Place	Old Mamaroneck Road	Mamaroneck Avenue	Marked Two-Way Bike Lane	.12
Soundview Avenue	West Post Road	Old Mamaroneck Road	Marked Two-Way Bike Lane	1.47
South Broadway	Maple Avenue	Schuyler Place	Marked One-Way Bike Lane (South Bound)	.36
South Lexington Avenue	Post Road	Bryant Avenue	Marked Two-Way Bike Lane	.45
South Kensico Avenue	Lake Street	Minerva Place	Shared Lane Marking (Sharrow)	.17
Sterling Avenue	Maple Avenue	Prospect Street	Marked Two-Way Bike Lane	.21
Thomas Place	Greenridge Avenue	Grandview Avenue	Marked Two-Way Bike Lane	.04
Tibbits Avenue	Fisher Avenue	Nutgrove Street	Marked One-Way Bike Lane (Southeast Bound)	.15
Waller Avenue	Mamaroneck Avenue	Maple Avenue	Marked One-Way Bike Lane (North Bound)	.33
Waller Avenue	Maple Avenue	East Post Road	Marked Two-Way Bike Lane	.13
Water Street	White Plains Train Station	North Broadway	Marked Two-Way Bike Lane	.56



APPENDIX

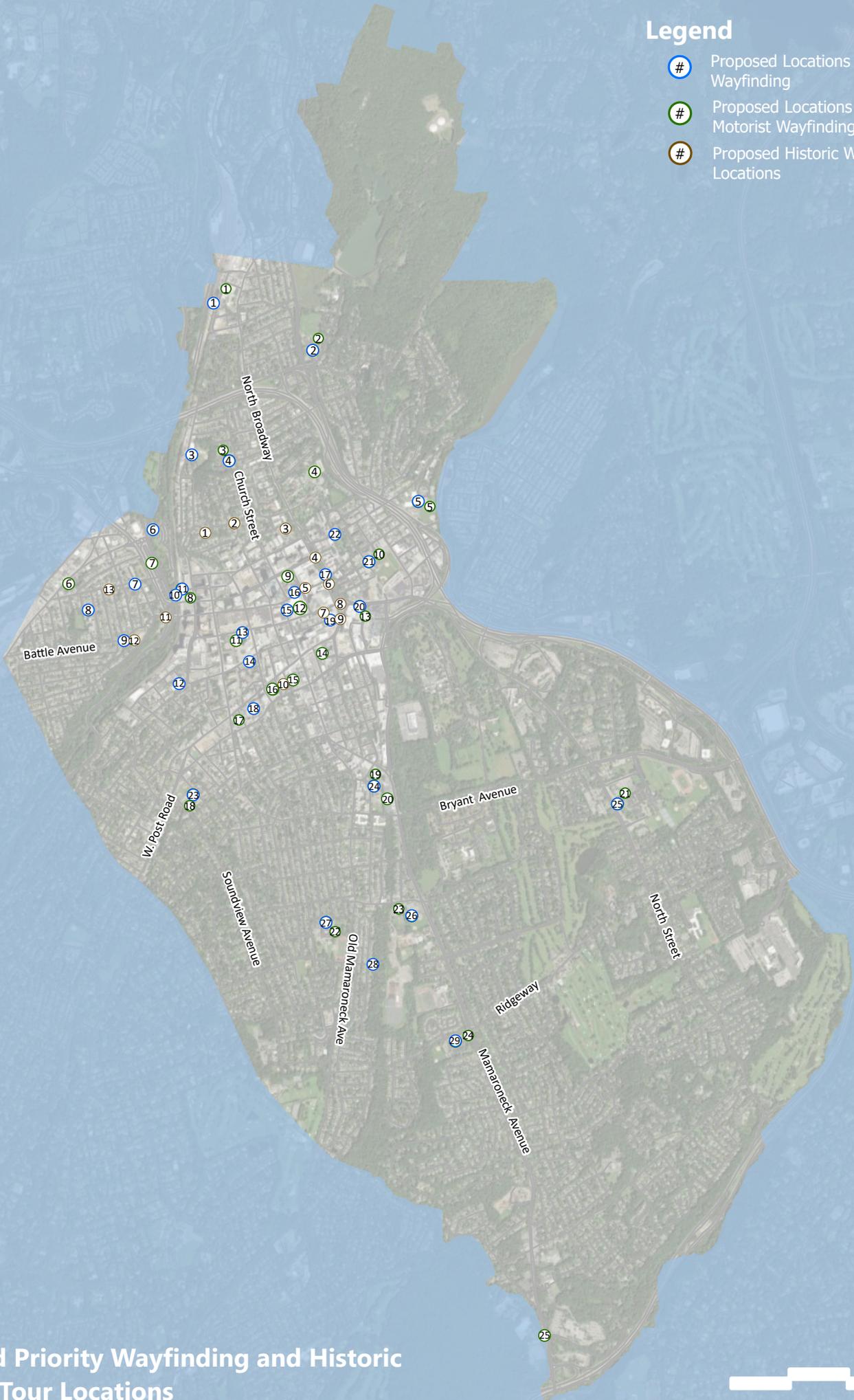
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**PROPOSED PRIORITY  
WAYFINDING LOCATIONS &  
HISTORIC WALKING TOUR  
LOCATIONS**



### Legend

- Proposed Locations for Pedestrian Wayfinding
- Proposed Locations for Motorist Wayfinding
- Proposed Historic Walking Tour Locations



Proposed Priority Wayfinding and Historic Walking Tour Locations



**Pedestrian Wayfinding Locations**

Locationn Number	Location Name
1	North White Plains Train Station
2	George Washington School
3	Gardella Park
4	Church Street School
5	Delfino Park
6	Bronx River Pathway Trailhead
7	Chatterton Park
8	Battle Hill Park
9	Battle of White Plains Park
10	Bronx River Pathway Trailhead
11	White Plains Train Station
12	Kittrell Park
13	White Plains Public Library
14	Thomas Slater Community Center
15	White Plains City Center
16	White Plains City Hall
17	Tibbits Park
18	White Plains Hospital
19	White Plains Senior Citizens Center
20	The Westchester Mall
21	Eastview Middle School

**Pedestrian Wayfinding Locations (continued)**

Locationn Number	Location Name
22	Turnure Park
23	Post Road School
24	Mamaroneck Avenue School
25	White Plains High School
26	Gillie Park
27	Highlands Middle School
28	Jack Harrington Greenway Trailhead
29	Ridgeway School

**Motorist Wayfinding Locations**

Locationn Number	Location Name
1	North White Plains Train Station
2	George Washington School
3	Church Street School
4	School of Law at Pace University
5	Delfino Park
6	The College of Westchester
7	County Center CCW Parking
8	White Plains Train Station
9	Hamilton/Main Parking Garage
10	Eastview Middle School
11	White Plains Public Library
12	White Plains City Center
13	The Westchester Mall
14	Lyon Place Garage Parking
15	Chester-Maple Parking Garage
16	Longview-Cromwell Parking Garage
17	White Plains Hospital
18	Post Road School
19	Mamaroneck Avenue School
20	Municipal Parking
21	White Plains High School

**Motorist Wayfinding Locations (continued)**

Locationn Number	Location Name
22	Highlands Middle School
23	Gillie Park
24	Ridgeway School
25	Saxon Woods Park

Historic Walking Tour Locations	
Locationn Number	Location Name
1	Jacob Purdy House
2	Cuba Free Monument
3	White Plains Presbyterian Church & Cemetery
4	Soldiers Sailors Marines Memorial
5	White Plains City Hall
6	Civil War Statue
7	White Plains Masonic Lodge
8	Lily Pond House & Hawks Memorial Fountain
9	White Plains Armory & D.A.R Monument
10	Percy Grainger Home and Studio
11	Battle of White Plains Cannon & Monument
12	Battle of White Plains
13	Chatterton Hill Church



APPENDIX

H

# MEMORANDUM ON AWARENESS AND EDUCATION CAMPAIGN STRATEGIES

TO: **White Plains Vision Zero Task Force**  
FROM: **White Plains Vision Zero Action Plan Project Team**

DATE: **February 28, 2025**

SUBJECT: **White Plains Vision Zero Public Awareness & Safety Education Campaign**

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## I. Purpose

This memorandum details the Public Awareness and Safety Education Campaign for White Plains Vision Zero, a comprehensive strategy aimed at eliminating traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. The campaign will educate residents and students about traffic safety and responsible road behaviors, serve as a tool for behavioral change, and support infrastructure improvements and enforcement efforts. This memo is intended to serve as the foundation for the City's Public Awareness Campaign, a key component of the Vision Zero effort.

## II. Campaign Goals

- Increase public awareness of traffic safety and Vision Zero objectives
- Promote safer driving, walking, and cycling behaviors
- Engage a wide range of community members, including residents, students, and local organizations
- Foster collaboration among city agencies, community-based organizations, and businesses and faith-based groups
- Support infrastructure improvements and enforce traffic laws using data-driven strategies, ultimately reducing traffic crashes, injuries, and fatalities

## III. Outreach and Implementation

### Stakeholder Engagement

A broad coalition of partners will be engaged to support the initiative, distribute materials, and reinforce messaging. These partners include:

- **City Agencies:** Common Council, WP Department of Public Safety, WPDPW
- **Community-Based Organizations:** YMCA, Westchester Safe Streets Coalition White Plains, Bike Walk Alliance of Westchester & Putnam, Westchester Disabled on the Move, Inc., Mothers Against Drunk Driving (MADD) Westchester,

- Neighbors Link, WP Beautification Foundation, Westchester Community Foundation, WP Greenway Committee, Westchester Independent Living Center
- **Community Groups:** PTA Council, White Plains Rotary Club, White Plains Public Library, White Plains Lions Club, Westchester Asian American Advisory Board, White Plains Moms Club, WP Council of Neighborhood Associations
  - **Facebook & Online Groups:** WP Parents Group, WP Neighborhood Watch, Westchester County Safe Streets & Advocacy, WP Runners & Cyclists, Westchester Families for Safe Streets
  - **Youth:** White Plains High School, Pace University, Westchester Community College, WP Youth Bureau, WP City School District, Westchester Children's Association, Girl Scouts & Boy Scouts of Westchester-Putnam, Westchester Youth Congress
  - **Business Associations:** WP Business Improvement District, WP Chamber of Commerce, Westchester County Association, WP Farmers' Market
  - **Families and Non-English Speaking Groups:** El Centro Hispano, Thomas H. Slater Center, Westchester Jewish Coalition for Immigration, Westchester Latinos Unidos, WP Asian American Community Network
  - **Faith-Based and Senior Advocates:** Bethel Baptist Church, Congregation Kol Ami, WP Senior Center, Grace Episcopal Church, Bet Am Shalom Synagogue, Masjid Al-Tawheed, Westchester Senior Voice & Aging in Place Groups, WP Interfaith Council

## Digital and In-Person Outreach

The campaign will be promoted through the dedicated White Plains Vision Zero Website, the City of White Plains website, and a robust social media strategy that includes bi-monthly posts and special updates ahead of each initiative (see *Appendix A*). Content will include infographics, testimonials, interactive safety challenges, and community-generated stories, designed to maximize engagement and share real-life impact. In addition, local news outlets including The White Plains Examiner and News 12 Westchester, and in-person events at key community locations, such as the White Plains Train Station, Rock the Block, National Night Out, and the White Plains Farmers' Market, will support a wide-reaching and inclusive campaign.

## IV. Community Initiatives and Events

### 1. Every Corner Counts: A Pedestrian & Cyclist Safety Initiative

Every Corner Counts addresses the daily challenges that pedestrians and cyclists face at busy intersections and high-traffic corridors. Inspired by Roanoke's successful "Every Corner is a Crosswalk" campaign, high-visibility street decals will be temporarily installed at key crosswalks to reinforce pedestrian safety<sup>1</sup>. Decals will display messages such as "Every Corner Counts. Yield to Pedestrians!" and "Look Up, Walk Safe." In addition to visual cues, trained volunteers will conduct on-site interactive demonstrations to educate residents and students on pedestrian and cyclist safety, with multilingual outreach, including Spanish, to support accessibility.

### 2. Smart Routes for Students: A School-Focused Initiative

Smart Routes for Students is designed to protect young commuters by establishing safe, structured routes for walking and biking to school. Inspired by Oregon's Safe Routes to School program, which achieved an 18% increase in student walking and biking participation<sup>2</sup>, this initiative combines elements of traditional Safe Routes to School while incorporating practices like Walking School Buses and Bike Trains. Students will travel along designated safe routes, developed in collaboration with school administrations, local officials, and community groups, and will be accompanied by trained volunteers including parents, teachers, and crossing guards. A signature feature is the enhanced Walk & Roll to School Challenge, a week-long program during which students record their commuting methods and earn incentives, such as prizes, certificates, and school recognition, that reward safe travel and raise traffic safety awareness. This comprehensive approach is expected to drive active participation and help establish a lasting culture of safety around schools.

### 3. Slow Down, White Plains!: A Driver-Focused Initiative

Slow Down, White Plains! addresses speeding through online outreach and in-person advocacy. Drawing inspiration from San Francisco's "Safe Speeds SF" campaign<sup>3</sup>, this initiative will employ a series of informative videos and materials, and a social media campaign to illustrate the dangers of speeding. A key feature is the Safe Streets

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<sup>1</sup> City of Roanoke. (September 2020). *Every corner is a crosswalk pedestrian safety campaign*. City of Roanoke. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://planroanoke.org/wp-content/uploads/2020/11/Roanoke\_Final\_SummaryAppendix\_FINAL-1.pdf.

<sup>2</sup> McDonald, N. C., Yang, Y., Abbott, S. M., & Bullock, A. N. (2014). Impacts of the Safe Routes to School program on walking and biking. *Journal of the American Planning Association*, 80(2), 153–167. Retrieved from [https://mcdonald.web.unc.edu/wp-content/uploads/sites/8583/2014/12/McDonald\\_etal\\_ImpactsSRTS\\_JAPA2014.pdf](https://mcdonald.web.unc.edu/wp-content/uploads/sites/8583/2014/12/McDonald_etal_ImpactsSRTS_JAPA2014.pdf)

<sup>3</sup> San Francisco Municipal Transportation Agency. (n.d.). *Safe Speeds SF campaign*. SFMTA. <https://www.sfmta.com/getting-around/safety-and-security/safety-education-campaigns/safe-speeds-sf-campaign>

Pledge, which invites local businesses and residents to publicly commit to safer driving practices. Educational materials will be distributed in key high-traffic areas, such as Mamaroneck Avenue, near the White Plains Train Station, and Main Street, where community leaders, school district representatives, and parent-teacher organizations will conduct live safety workshops alongside law enforcement officers. Hashtags such as *#SlowDownWhitePlains* and *#DriveLikeYouKnowPeople* will be used to relay a cohesive message to promote a culture of safe driving for current and future drivers.

#### 4. Vision Zero Day: A Community-Wide Safety Event

Vision Zero Day is designed to be the flagship event that unites residents, students, and stakeholders around traffic safety. Scheduled to coincide with the World Day of Remembrance for Road Traffic Victims in November, when school networks are fully active, the event will be hosted at a central community hub such as the White Plains Public Library. The venue will be transformed into an interactive place featuring several educational stations:

- A **Street Safety Art Contest Launch**, which will encourage students to express road safety messages creatively through art.
- A **Helmet Fitting and Bike Safety Checks Station**, staffed by local bike shop professionals, to offer helmet fittings and practical advice on safety gear.
- A **"Be Seen, Be Safe" Visibility Station**, providing hands-on demonstrations and activities that teach safe practices in low-light conditions, along with the distribution of reflective stickers and safety accessories.

The event will also include personal testimonials from crash survivors and families affected by traffic incidents, adding a human dimension to the campaign. Campaign promotional materials such as yard signs and bumper stickers will be distributed (see *Appendix A*).

A comprehensive communication plan, including school newsletters, flyers, local media coverage, and a social media campaign using hashtags such as *#SlowDownWhitePlains* and *#DriveLikeYouKnowPeople*, will support sustained engagement, while campaign materials (see *Appendix A*) will reinforce visibility and shared messaging. The event will serve as a launchpad for ongoing advocacy, offering opportunities for students and community members to remain engaged with the campaign throughout the year.

## V. Language Access and Community Inclusion

To ensure that community members, especially those from underserved groups and non-English speakers, can engage with the campaign, materials will be produced in multiple languages. In addition to English and Spanish, translations may be provided in Haitian Creole and/or other languages. Campaign materials will include QR codes linking to online resources with translated content, ensuring that every resident can easily obtain the safety messages in their preferred language.

## VI. Conclusion

The Public Awareness and Safety Education Campaign aims to make White Plains a safer place for all road users. Building on successful strategies from other cities, it focuses on key areas such as pedestrian and cyclist safety, protecting young commuters, promoting responsible driving, and uniting the community through Vision Zero Day. With a clear plan, strong partnerships, and a commitment to inclusion, the campaign lays the groundwork for meaningful change, reducing traffic injuries and fatalities while fostering a safer, more connected city.

## Appendix A: Outreach and Engagement Materials

To reinforce visibility, common messaging, and a sense of shared responsibility, materials such as yard signs, social media posts, posters and flyers, and bumper stickers will be distributed to promote each event, and during each event.

### Safe Streets Pledge

*1/3-page flyer designed for quick distribution at community events.*



### Sample Social Media posts (2)

*To be posted in advance of events and to promote campaigns*

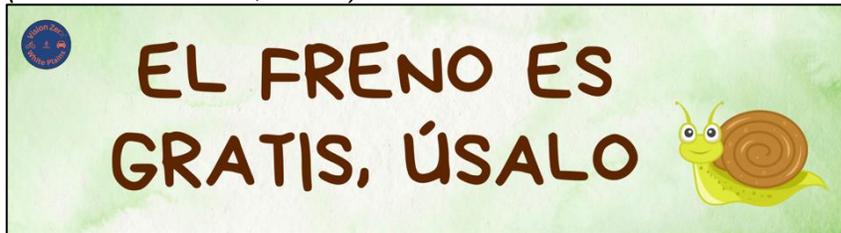


**Bumper Sticker Mockups (5)**

*To be distributed at Vision Zero Day*



*(The brake is free, use it)*



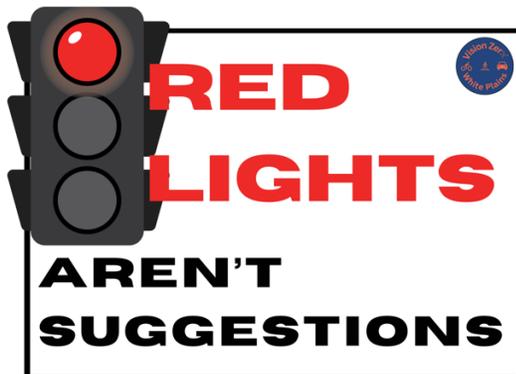
Street Decal Mockups (2)

For the Every Corner Counts initiative



Yard Sign Mockups (4)

To be distributed at Vision Zero Day





APPENDIX

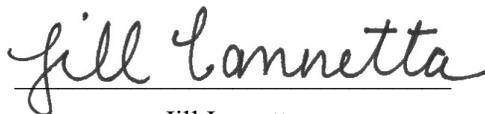
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**WHITE PLAINS COMMON  
COUNCIL RESOLUTION  
ADOPTING THE VISION ZERO  
ACTION PLAN, JUNE 10, 2025**

STATE OF NEW YORK }  
COUNTY OF WESTCHESTER } ss.:  
CITY OF WHITE PLAINS }

I, the undersigned, City Clerk, of the City of White Plains, NY, do hereby certify that I have compared the proceeding with the original resolution, adopted by the Common Council of the City of White Plains, NY, by a vote of the majority of the members of the Common Council at the Regular Stated Meeting, held the 10<sup>th</sup> June 2025, and I do hereby certify the same to be a correct transcript therefrom and of the whole of said original.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of the City of White Plains, NY, this 11<sup>th</sup> June 2025.



Jill Iannetta

City Clerk, City of White Plains, NY

**CERTIFIED COPY**

*from the*

CITY OF WHITE PLAINS  
255 Main Street  
White Plains, NY 10601



**CERTIFIED COPY**

*of a(an)*

**RESOLUTION**

**A Resolution adopting a Vision Zero Action  
Plan for the City of White Plains**

**ADOPTED BY THE  
COMMON COUNCIL  
of the  
CITY OF WHITE PLAINS**

35

10<sup>th</sup> June 2025

**A RESOLUTION ADOPTING A VISION ZERO ACTION PLAN FOR THE CITY OF WHITE PLAINS**

**WHEREAS**, pursuant to a grant funded by the Federal Highway Administration’s Safe Streets and Roads for All program, the City contracted with VHB Engineering, Surveying, Landscape Architecture and Geology, P.C. (“VHB”) to undertake a White Plains Vision Zero Action Plan (the “Action Plan”); and

**WHEREAS**, VHB has completed the Action Plan and the Action Plan has been reviewed by City staff and presented to the Common Council; and

**WHEREAS**, the Common Council desires to adopt the Action Plan as submitted and presented.

**NOW, THEREFORE, BE IT**

**RESOLVED** that the Common Council hereby adopts the Action Plan; and be it further

**RESOLVED** that this Resolution shall be effective immediately.