



# NORTH CASTLE COMMUNITY PLANNING WORKSHOP REPORT



**RUTGERS**

Edward J. Bloustein School  
of Planning and Public Policy  
ALAN M. VOORHEES  
TRANSPORTATION CENTER

**January 2023**

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## INTRODUCTION

The New York Metropolitan Transportation Council (NYMTC) is the Metropolitan Planning Organization (MPO) for New York City, Long Island, and the Lower Hudson Valley region. NYMTC's planning area includes 2,440 square miles and a 2020 population of 13.17 million, approximately 65% of New York State's population and 4% of the nation's population. As an MPO, NYMTC provides a collaborative planning forum to address transportation-related issues, develop regional plans and make decisions using federal transportation funds for its jurisdiction. As a follow-up to their recent long-range regional transportation plan, *Moving Forward*, NYMTC has partnered with The Public Outreach and Engagement Team (POET) at The Alan M. Voorhees Transportation Center (VTC) at Rutgers University to plan and execute Community Planning Workshops in municipalities throughout the NYMTC region. These workshops will serve as informative catalysts and aid in advising future infrastructure projects in the participating municipalities. This report will outline the Community Planning Workshop results and recommendations for one of the towns in this series: The Town of North Castle.

### *Moving Forward Overview*

*Moving Forward* is the long-range regional transportation plan for fiscal years 2022-2050 for the NYMTC planning area; it is one of the four planning products NYMTC is federally required to produce as part of the metropolitan transportation planning process to secure federal funding for the region. The Plan currently fulfills federal planning requirements and maintains NYMTC's eligibility for federal funding for transportation planning and improvement projects. *Moving Forward* is a blueprint to help support sustainable growth and guide transportation investment in the region; it includes forecasts for future conditions and needs and potential transportation improvements and outlines a shared strategic vision for transportation and development within the NYMTC planning area. *Moving Forward* has outlined six *Coordinated Development Emphasis Areas* (CDEAs) as a targeting mechanism to guide the planning process in communities seeking transportation planning assistance from NYMTC.

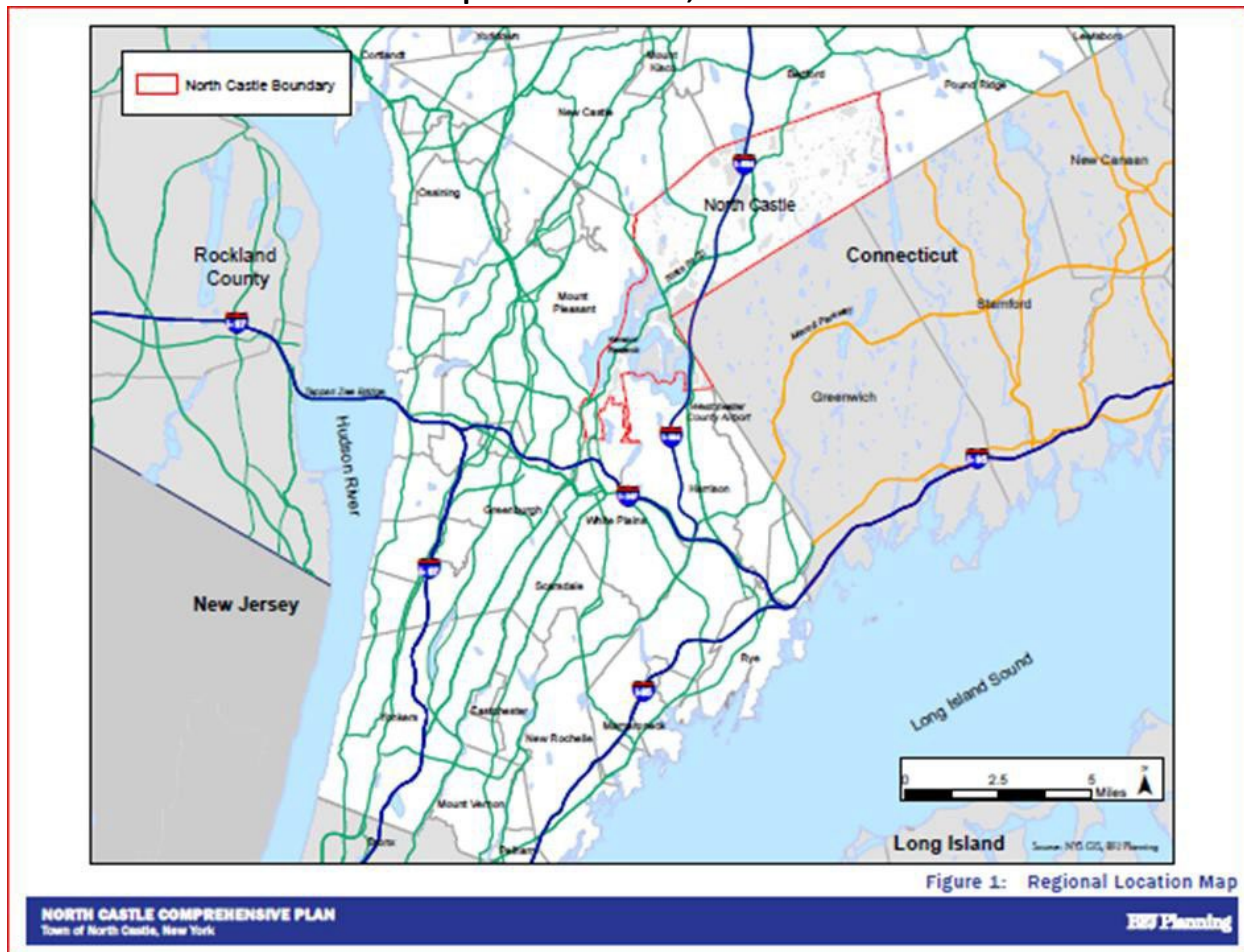
1. **Encourage development in centers and downtowns to reinforce walkable, aesthetically pleasing, and transit-accessible environments.**
2. **Include local transportation issues in comprehensive/master planning and community visioning processes.**
3. **Make walking safer and more convenient through safety and streetscape improvements.**
4. **Support downtown development/redevelopment.**
5. **Encourage walkability, Complete Streets, and remote parking in targeted centers.**
6. **Complete and distribute the MTA First Mile/Last Mile Station Access Toolkit.**

### *Community Planning Workshops*

NYMTC and POET are conducting ten virtual or hybrid (in-person and virtual) workshops in line with the Moving Forward regional transportation plan. The workshops will target suburban municipalities and New York City community boards in the NYMTC planning area. Workshop topics and locations will be established through NYMTC's member agencies using the Coordinated Development Emphasis Areas (CDEAs) identified in NYMTC's Regional Transportation Plan and the congested roadway corridors and bottleneck locations in NYMTC's 2021 Congestion Management Process (CMP) Status Report as targeting mechanisms. Workshop topics could include expanding non-motorized transportation, transit-oriented development, parking management, safety audits, reduced traffic congestion, and improved access to public transit. These workshops are intended to provide planning assistance to local municipalities and community boards. They will facilitate discussions enabling participants to develop, evaluate, and implement improvements consistent with the topic chosen.

## TOWN PROFILE- NORTH CASTLE

Map of North Castle, New York



Source: North Castle Comprehensive Plan, The Town of North Castle 2018.

The Town of North Castle, in Westchester County, is one of the ten host municipalities that expressed interest in participating in an NYMTC Community Planning Workshop. North Castle is approximately 26 square miles and is in east-central Westchester County. The Town is geographically divided by the Kensico Reservoir, with most of its spatial area lying north of the reservoir, and its most densely populated area is found to the south. North Castle comprises three distinct hamlet areas: North White Plains, Armonk, and Banksville. For this project, the Town of North Castle has identified critical areas of focus within its North White Plains hamlet.

### *Background On North White Plains*

North White Plains is located at the southwest corner of North Castle and borders the City of White Plains to the south and west and the Town/Village of Harrison to the east. The hamlet is the densest and most semi-urban portion of North Castle. North White Plains is physically separated from the rest of North Castle by the Kensico Reservoir and New York City Watershed lands. The hamlet's character is shaped by its compact single- and two-family neighborhoods, community assets such as the library and Clove Road Park, the commercial spine of Route 22/North Broadway, and its unique topography. North White Plains has a lower median household income than North Castle and is home to the largest minority population of Latinos in the Town.

### *Field Observations and Trip Patterns*

North White Plains has significant transit and regional roadway access. The North White Plains Metro-North station is located just outside-northwest the Town of White Plains. Its central corridor and primary local arterial, Route 22, connects to the Central Westchester Parkway, which intersects with I-287 to the south and the Taconic Parkway to the north. These roadways provide vital access to the region but also present challenges due to traffic and congestion. The four-lane road, NYS Route 22, carries an average daily volume of 10,853 vehicles in the North White Plains area. Data tells us that the most common mode of transportation in North White Plains is by automobile, where about 86% of residents travel by car, with the most common commutes to places of residence, shopping, and work. During a site visit, the NYMTC/POET project team observed similar patterns, with very few, if any, residents traveling by foot. Most movements in the area were due to cars, and most of the landscape was residential.



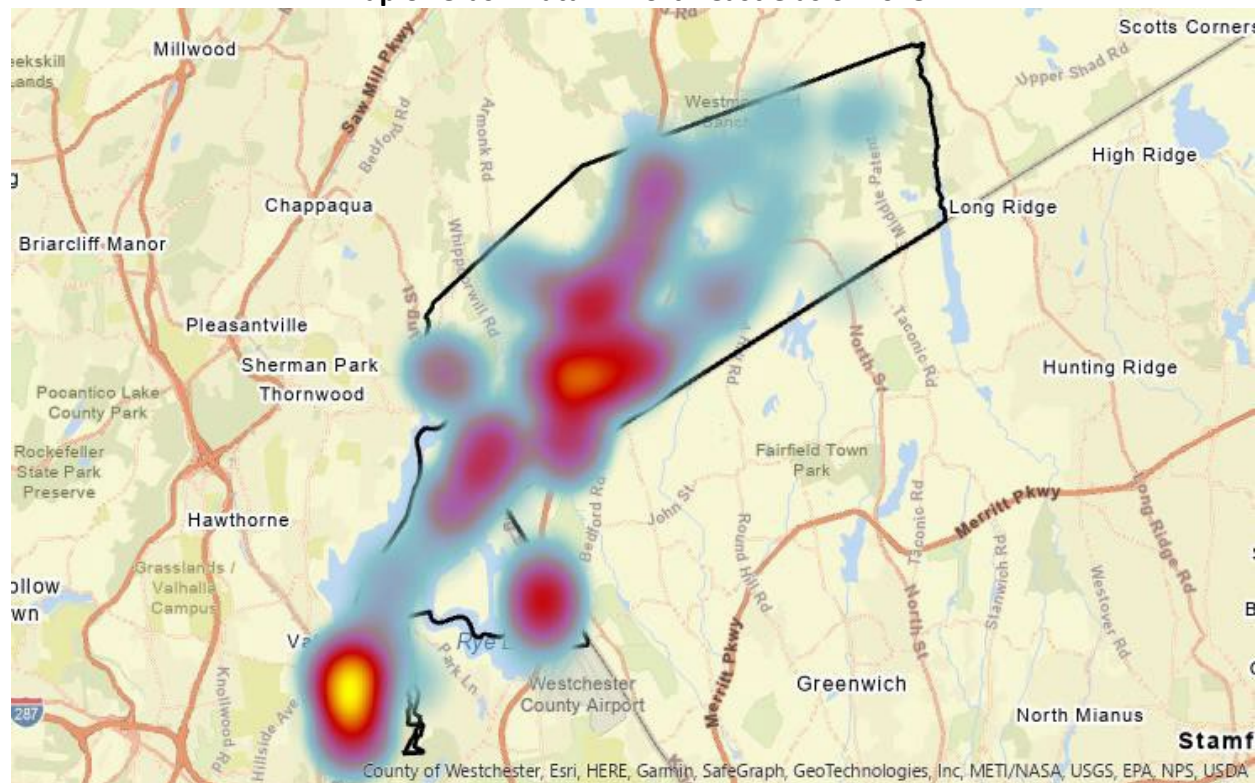
*Ralph's Italian Ices on Route 22, North White Plains, NY. Source: Google Maps.*

## PROBLEM STATEMENT: PEDESTRIAN SAFETY

### *Current Safety Conditions: Data Review*

Crash data from the New York State Department of Transportation (NYSDOT) for January 2014–December 2016 reported 842 crashes within North Castle. More than half of the crashes reported resulted in property damages. The intersection that claimed the highest number of high-severity hits for those years was the intersection of North Broadway, NYS Route 22, and Hillandale Ave, followed by the intersection of NYS Route 22 and Central Westchester Parkway. Reports by the Town Police Chief flag Route 22 between North White Plains and Armonk as a dangerous corridor that has historically claimed fatalities of cyclists, pedestrians, and drivers. Route 22 within North White Plains has high traffic volumes, limited visibility, poor alignments and design, and increased vehicle speeds. Most of the traffic safety issues that North Castle and surrounding towns face are due to the road conditions of Route 22. The result of these existing road network conditions creates an environment that deters residents and visitors from walking to businesses, the train station, and other locations and makes life dangerous for those who must navigate the area on foot, regardless of the conditions. Traffic safety improvements have been granularly implemented by the town, such as the new on-demand crosswalk and signage at Hillandale Avenue and North Broadway Ave.

**Map of Crash Data in North Castle as of 2018**



*Source: North Castle Crash Data 2018, NYSDOT, a map produced by VTC.*

### *Goals for Proposed Improvements*

The Town identified the need for pedestrian safety and connectivity improvements in the hamlet of North White Plains. The connectivity improvements proposed by the Town include improving sidewalks and crossings, improving pedestrian lighting and sidewalk design, and improving bus shelters.

The goal of these improvements is to:

- Increase community safety and pedestrian experience
- Improve accessibility of town amenities for all residents
- Increase mobility and expand connectivity for commuters, including those in underserved communities
- Increase local economic or business activity due to improved connectivity

### *Key Locations and Areas of Interest*

The general areas of interest the Town seeks to pursue future improvements are along the Route 22 corridor, the Metro-North station area, and sections of Virginia Rd. North of the station. For this community planning workshop, the Town of North Castle pinpointed three critical locations of focus as follows:



*Photo depicting parallel Bee-Line Bus Stops on 845 North Broadway.  
Source: NYMTC-POET Images from Site Visit November 21, 2022.*

### 845 North Broadway

This location has a pedestrian walkway connecting the residential neighborhood. There is no crosswalk at the bottom of the walkway, and the road is unsafe due to high speeds. Bus stop accessibility is also challenging due to the lack of sidewalks and poor stop conditions. The town wants to add a crosswalk between the North and South bound bus stops and create ADA-compliant bus shelters with seating, lighting, and travel information.



*Photo depicting poor sidewalk conditions and the area for a proposed midblock crossing.  
Source: NYMTC-POET Images from Site Visit November 21, 2022.*

#### Palmer Avenue and McDougal Drive on North Broadway

The town wants to put in a midblock crossing here to connect Palmer Avenue and McDougal Drive. Like 845 North Broadway, this area experiences high-speed traffic and lacks proper sidewalks, increasing safety risks.



*Photo depicting the lack of sidewalk network along Virginia Road.  
Source: NYMTC-POET Images from Site Visit November 21, 2022.*

#### Virginia Road

The Town seeks to construct a sidewalk, curbing, and drainage along Virginia Road in the Hamlet of North White Plains, Town of North Castle. The new sidewalk has the potential to serve over 1,200 people who live on the west side of North Broadway and does not currently have a safe connection from their neighborhood to NYS Route 22 and the North White Plains station. Many pedestrians utilize Virginia Road to access the North White Plains hamlet business district and the nearby Metro-North station without the benefit of a sidewalk.

## WORKSHOP

### North Castle - North White Plains Community



*Screenshot of City Planner Adam Kaufman on Community Workshop on Zoom, Dec. 8, 2022.*

The North Castle Community Planning Workshop was the first in a series of ten workshops as part of the Community Workshop Project. The following sections detail the events leading up to the workshop and the meeting outcomes on December 8, 2022.

#### *Promotion and Outreach*

Rutgers-POET and NYMTC worked with the Town of North Castle to develop an outreach strategy plan. The Town of North Castle highlighted its existing Hispanic/Latino population as a priority group of focus, as it is the largest minority population in the area with a historically low turnout to participatory planning efforts in the past. The outreach plan outlined promotional collateral and dissemination strategies through the Town of North Castle's social media pages, such as Facebook, Instagram, Twitter, and LinkedIn. Additionally, the plan outlined the deliverables to be produced by POET, such as social media graphics, flyers, and a contact list. Through desktop research, POET found businesses, institutions, local non-profits, and Facebook groups in the North Castle area to invite to the Community Planning Workshop via phone and email. Particular focus was given to minority-owned or focused institutions, groups, and businesses. Promotional collateral and mass emails were translated and shared in Spanish as well. Given time constraints, the outreach strategy plan's timeline was limited to two weeks, which could be reflected in the workshop's turnout.

### *Format and Agenda*

The Town of North Castle, NYMTC, and VTC-POET convened for a virtual Community Planning Workshop on December 8, 2022, at 7 pm. The primary purpose of the meeting was to collect feedback from North Castle Residents on walkability and pedestrian safety improvements which could be funded through the federal process with a particular focus on the neighborhood of North White Plains. POET facilitated an open discussion, two polls, and a Google Jamboard activity to collect feedback from residents. James Sinclair, Manager of the New Jersey Bicycle Pedestrian Resource Center, served as a subject-matter expert for the workshop.

Community members also gave verbal feedback on potential sidewalk improvements and solutions presented throughout the meeting via discussion and chat messages. The session was recorded and subsequently posted online on the township website for community members who could not attend the meeting but were interested in submitting comments. Participants included seven facilitators or speakers (POET, NYMTC, and municipal staff); twenty participants were residents.

#### The meeting agenda was as follows:

- I. Welcome and Overview: Adam Kaufman, Director of Planning for North Castle, NY
- II. NYMTC Background and Moving Forward: David Drita, NYMTC
- III. Community Workshop Purpose and North Castle Context: Miriam Salerno, Rutgers-POET
  - a. Pedestrian Safety and Connectivity
  - b. Geographic Areas of Focus
- IV. Pedestrian Safety Subject-Matter Expert Presentation: James Sinclair, Rutgers/NJ Bike Ped Resource Center
  - a. Potential solutions:
    - i. Completing sidewalk networks
    - ii. Additional crosswalks and demand-activated crossings
    - iii. Improve bus stops and shelters
    - iv. Implement traffic calming and streetscaping
- V. Jamboard Activity/Facilitated discussion: All participants
  - a. Activity overview
  - b. Facilitated discussion
- VI. Wrap-Up/Next Steps: David Drita, NYMTC

### *Public Participation in Activities*

POET used NYMTC's CDEAs and the Town of North Castle's transportation improvement goals to generate activities to engage North Castle residents in the Community Planning Workshop. The following sections discuss resident participation patterns in the activities presented throughout the workshop.

#### **Zoom Polls**

The two polls measured participant opinions on the most significant barriers to mobility and prioritization of the solutions presented during the meeting.

##### **Poll #1: Barriers to Mobility**

Question: What are your biggest barriers to mobility when walking in the area?

Options:

- Lack of sidewalk connections
- Poor sidewalk conditions
- Unsafe pedestrian crossings
- Not enough pedestrian crossings
- High speeds on North Broadway

Eleven of the twenty participants voted in the first poll question. Participants were allowed to select all the options that applied, totaling thirty-seven votes for the five different barriers. Participants' votes were distributed evenly throughout the five barriers presented (See Figure A, Appendix A). Additional barriers were shared verbally and captured in our Jamboard activity (see Appendix A). The even dispersal of votes indicated that participants found all options to be barriers to mobility in the North White Plains neighborhood- greater North Castle area.

##### **Poll #2: Solution Prioritization**

Question: Of the solutions discussed, which should be addressed by the town first?

Options:

- Completing sidewalks at Route 22
- Add additional crosswalks and demand-activated crossings
- Improve bus stops and shelters
- Implement traffic calming and streetscaping

Eight of the twenty participants voted in the second poll question. Participants were allowed to select only one solution, totaling eight votes for the four solutions. Overall, participants believed that additional crosswalks and demand-activated should be prioritized as an improvement to the North White Plains neighborhood- greater North Castle area- and the completion of sidewalks along Route 22 (see Figure B, Appendix A).

## **Google Jamboards**

The Jamboard activity gathered public input for potential improvements in the three key locations previously identified by the town and for general streetscape aspirations of the city. During the Jamboard activity, facilitators collected verbal and written input via Zoom chat and through participants posting directly onto Google Jamboards. (See Appendix B)

For this activity, each resident's comment was categorized into one theme. However, some comments could fall into more than one theme. Additionally, the identified themes are not exhaustive of all possible themes discussed; they are merely reference points for classification. The site-specific discussions led to the following findings:

### **Board #1: 845 North Broadway**

**Discussion Questions-** The following questions guided the discussion for this site:

- Have you ever used either of these bus stops? If so, what was the experience like?
- Do you use that pedestrian walkway? Why? Why not?
- What safety measures would encourage you to walk or bike on this road?
- Have you ever seen anyone crossing N. Broadway?
- Would you feel safe using a ped crossing with a proper crosswalk and warnings at this location?
- Would vehicle speeds need to be reduced to feel safe?
- Other thoughts or comments on this location?

**Public Commentary -** The following are the summarized points of feedback for this site:

- Area experiences a high volume of pedestrian traffic.
- Pedestrian walkway is an essential node for resident connectivity to businesses.
- Walkway is in desperate need of routine maintenance and lighting for safe access.
- Crosswalks or demand-activated crossings are desperately needed on site.
- Creation of paths or additional interventions are needed to create safe access between Route 22 and Virginia Road, a "no man's land island".
- Sidewalk expansion and improvements are needed for safe bus stop access.

**Major themes:** Resident Volume, Location, Design,  
Topography, Bus system, Mode share- bikes

## Board #2: Palmer Avenue and McDougal Drive on North Broadway

**Discussion Questions-** The following questions guided the discussion:

- Are you familiar with this area?
- Would you use a midblock crossing at this location?
- Would a midblock crossing in this location be preferable to 845 N. Broadway?
- What other concerns or challenges are present in this location?

**Public Commentary** - The following are the summarized points of feedback for this site:

- Depending on the direction of travel, accessing this intersection can be tricky because of topography.
- The possibility of two midblock crossings.
- Crosswalks should be placed next to bus stops.
- Accessing bus line data to assess common bus use patterns to determine crosswalk placement.
- Bike groups are causing traffic concerns for drivers.
- Consider interventions to mitigate mode share tensions.
- Sidewalk design needs improvement.

**Major themes:** Maintenance, Design, Location, Resident volume, and behavior

## Board #3: Virginia Road

**Discussion Questions** - The following questions guided the discussion:

- Do you think adding sidewalks would encourage residents to walk to the train station?
- Do you walk to this train station? If so, how safe do you feel?
- What else can the town do to make this road safer?

**Public Commentary** - The following are the summarized points of feedback for this site:

- Sidewalks along Virginia Road would allow for safer paths for commuters to the train.
- A sidewalk would be an essential linkage to Route 22 and the Bronx River Pathway.
- Dire improvements are needed on Virginia Road conditions.
- There are conflicts of jurisdiction that need to be addressed for improvements to be made on the train crossing portion of Virginia Road.

**Major themes:** Design, Jurisdiction, Access/Connectivity

#### Board #4: General streetscaping, lighting, and other amenities

**Discussion Questions** - The following questions guided the discussion:

- Where and what amenities would you like to see in North White Plains?
- Where is there better street lighting needed?
- Would you take the bus if there were better amenities at stops?

**Public Commentary** - The following are the summarized points of feedback for this site:

- Residents would like a more “downtown feel” and to see more shops open.
- Streetscaping would make North Broadway Ave more inviting for businesses and shoppers.
- Additional sidewalk space is needed for street furniture.
- One-on-one conversations are needed with business owners to trigger aesthetic improvements.
- Slowing traffic interventions should be implemented primarily in pedestrian-congested areas like churches and near parking locations.
- Plans for changes are incremental and should be realistic.
- Midblock crossing at Seneca and North Broadway and Seneca Ave.

**Major themes:** Implementation strategies, Maintenance,  
Design, Resident behavior

### *Summary of Results*

Workshop participants were generally positive and enthusiastic about the Town's proposed infrastructure improvements and the solutions presented by the project team. The three major themes discussed across all sites included maintenance, design, and location. Many concerns echoed the need for intervention to current site conditions, making it difficult and unsafe for residents to get around. Residents agreed that calming traffic measures, improved streetscaping, speed feedback, amenities and street furniture, and lighting could help improve town walkability and experience.

Questions about jurisdiction, feasibility, implementation, and resident behavior (pedestrians, cyclists, and motorists) were presented by residents and noted by the Town stakeholders, who will take the following steps in considering these concerns and feedback to their plans.

#### **Major Themes Identified in Jamboard Discussions**

| Themes              | Number of comments |                                |               |                       | Theme totals |
|---------------------|--------------------|--------------------------------|---------------|-----------------------|--------------|
|                     | 845 North Broadway | Palmer Avenue & McDougal Drive | Virginia Road | General Streetscaping |              |
| Maintenance         | 9                  |                                | 2             |                       | 11           |
| Design              | 9                  | 2                              | 2             | 7                     | 20           |
| Location            | 5                  |                                |               | 6                     | 11           |
| Resident behavior   | 1                  |                                |               | 4                     | 5            |
| Resident volume     | 2                  | 2                              |               |                       | 4            |
| Topography          |                    | 1                              |               |                       | 1            |
| Bus system          |                    | 2                              |               |                       | 2            |
| Mode share- bikes   |                    | 6                              |               |                       | 6            |
| Jurisdiction        |                    |                                | 2             |                       | 2            |
| Access/Connectivity |                    |                                | 4             |                       | 4            |
| Implementation      |                    |                                |               | 4                     | 4            |
| Comments per board  | 26                 | 13                             | 10            | 21                    |              |
| Total comments      | 70                 |                                |               |                       |              |

*Source: Adapted from Jamboard Data, See Appendix B.*

## RECOMMENDATIONS AND NEXT STEPS

### *Project Priorities and Recommendations*

The original key locations of interest included Palmer Avenue and McDougal Drive on North Broadway, 845 Broadway Ave, and Virginia Road, however the Town of North Castle altered their project priorities for infrastructure improvements to the following general locations after the results of the community workshop: North Broadway Ave/ NY RT22 and Virginia Road.

Upon consultation, the proposed mid-cross blocking at 845 Broadway Ave was prioritized over the one on Palmer Avenue and McDougal Drive. Both proposed crossings sit approximately halfway between Hillandale Ave and Reservoir Road and more than a half mile from the nearest accessible crosswalk along Broadway Ave. Though both are desired and necessary, 845 Broadway should be prioritized due to its popularity, as seen through the results of the public engagement activities and general comments from residents in the area during the virtual workshop. Beyond being the location that received the most comments on the Jamboard activity (See Appendix B, Figure C), there has also been contention about the high vehicle traffic in the area as early as 2018. Due to its popularity, Ralph's Italian Ice is a community staple that has drawn reason for concern, receiving high foot traffic from the neighborhoods east and west on Broadway. Additional reasons for safety concerns include the crossing of students to and from the school in the area. <sup>1</sup> A crosswalk on 845 Broadway Ave would also improve public transit access and catalyze improvements along the popular pedestrian trail east of Broadway (a common shortcut for residents from uphill Nethermont Ave) and the bus stops in the area.

Considering public input, impact, and project feasibility, the Town of North Castle is recommended to seek funding for the realization of the following improvements:

1. To fill in the missing sidewalks along N. Broadway
2. Implement a midblock crossing at the pedestrian path by 845 N. Broadway
3. Aesthetic improvements along the N. Broadway corridor for non-driver safety
4. Create a sidewalk along Virginia Road

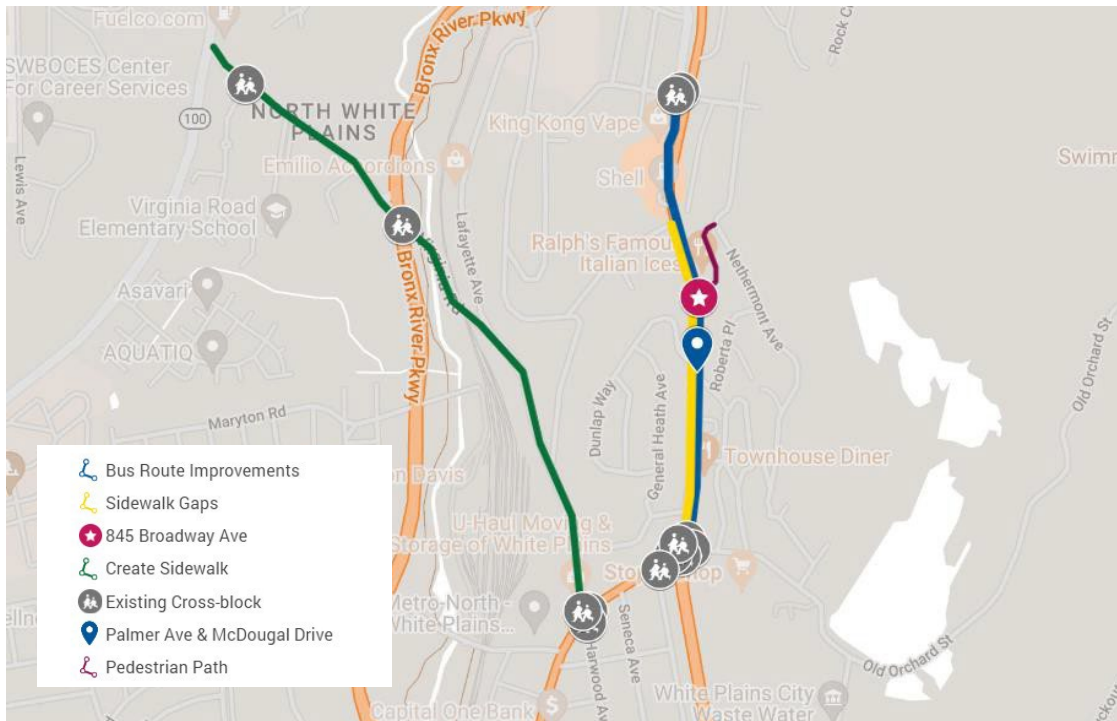
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<sup>1</sup> Wilbur, M. (2018) Residents Detail Safety Quality of Life Concerns at Ralph's Ices. *The Examiner*.

## Priority Infrastructure Areas in North White Plains, Town of North Castle

| North Broadway Ave / Route 22          |                                     |                                     |                                                   |                                                              |                                          |
|----------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------------------|--------------------------------------------------------------|------------------------------------------|
| Location                               | From                                | To                                  | Infrastructure                                    | Category                                                     | Funding Program Recommended              |
| Commercial Corridor                    | Washington Place                    | Reservoir Road                      | Fill in sidewalk gaps                             | Non-driver access to enhanced mobility                       | Transportation Alternative Program (TAP) |
| Pedestrian Path by Ralphs Italian Ices | 845 N. Broadway West- Bus stop 2739 | 844 N. Broadway East- Bus stop 2926 | Midblock crossing                                 | Community improvement activities                             | Transportation Alternative Program (TAP) |
| Bee-Line Bus Stops                     | Hillandale Ave                      | Reservoir Road                      | Amenities-Bus shelters, Pedestrian Scale lighting | On/off-road pedestrian and bicycle facilities                | Transportation Alternative Program (TAP) |
| Virginia Road                          |                                     |                                     |                                                   |                                                              |                                          |
| Corridor                               | Grasslands Road                     | N. Broadway                         | Create sidewalk                                   | Projects for planning, designing, or constructing boulevards | Transportation Alternative Program (TAP) |

## Map of North White Plains Recommendations



### *Funding Opportunities*

The Town of North Castle can apply for multiple federal aid assistance programs for improvements they seek to implement along the NY RT22 and Virginia Road in North White Plains. The most common federally funded improvement program used by local municipalities to correct and beautify a corridor traveled on by pedestrians and bicyclists is the Transportation Alternatives Program (TAP). TAP provides funding for programs and projects that include:

- On/off-road pedestrian and bicycle facilities
- Infrastructure projects for improving non-driver access to public transportation and enhanced mobility
- Community improvement activities and environmental mitigation
- Recreational trail program projects
- Safe routes to school projects
- Projects for planning, designing, or constructing boulevards and,
- Other roadways primarily in the right-of-way of former Interstate System routes or other divided highways

To apply for TAP, the Town will have to submit an application that carefully follows the program requirements. The following are essential requirements that the Town will need to meet to apply for the program:

- Projects must have an eligible Sponsor.
- Sponsors must provide a minimum of 20 percent local match and first-instance project costs.
- Projects must fit into one of the selected program eligibility categories and meet the specific program requirements detailed in NYSDOT's Application Process ([Appendix B](#)).
- Project costs must meet the Minimum/Maximum Award criteria.
- Completed Applications must be submitted through Grants Gateway by the deadline.
- Sponsors must attend the Informational Workshop.
- The project must relate to surface transportation and cannot be exclusively recreational.

The criteria by which the state will measure and rank projects are very structured, and the Town's application will need to gain as many points as possible to compete against other projects in the state.

### *TAP Project Evaluation Criteria*

| Category                                                   | Evaluation Criteria                                                                                                                                                       | Available Points |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Project Benefits                                           | <ul style="list-style-type: none"><li>• Project benefits and proposed solutions</li><li>• Innovation and creativity</li><li>• Improves safety</li></ul>                   | 20               |
| Project Alignment                                          | <ul style="list-style-type: none"><li>• Alignment with the TAP program and other surface transportation plans, projects, and systems</li></ul>                            | 20               |
| Essential Project Management Elements                      | <ul style="list-style-type: none"><li>• Schedule</li><li>• Budget</li><li>• Right-of-Way assurance</li><li>• Match Assurance and ability to deliver the project</li></ul> | 60               |
| Total Points:                                              |                                                                                                                                                                           | 100              |
| Sponsor Submitted Application for Pre-review Bonus Points: |                                                                                                                                                                           | 5                |
| NYS Professional Engineer Project Review:                  |                                                                                                                                                                           | Bonus 5          |

NYSDOT last held a TAP solicitation in 2021, and is due for a new one, most likely in 2023. If the Town wishes to apply, it should begin formulating its project and identifying resources to pay for it as the Town will need to have a 20 percent match and have the necessary financial resources available to first instance the funds. For more information on the TAP program, visit the [NYSDOT TAP and CMAQ page](#).

Besides TAP, the Town can seek federal aid from various formula and discretionary federal fund sources. The Federal Highway Administration put together a comprehensive listing of federal aid programs for improving pedestrian and bicycle facilities, included in Appendix D. The listing identifies criteria, timing, and eligibility that project sponsors must consider when applying for funding. They have also put together an upcoming schedule with [Key Notices of Funding Opportunities](#) and their deadlines. Lastly, they have organized a [checklist](#) to help local communities prepare themselves for soliciting funds through the federal process, which North Castle should use when developing their project.

## APPENDICES

### Appendix A: Poll Results

Figure A. Poll #1: Barriers to Mobility

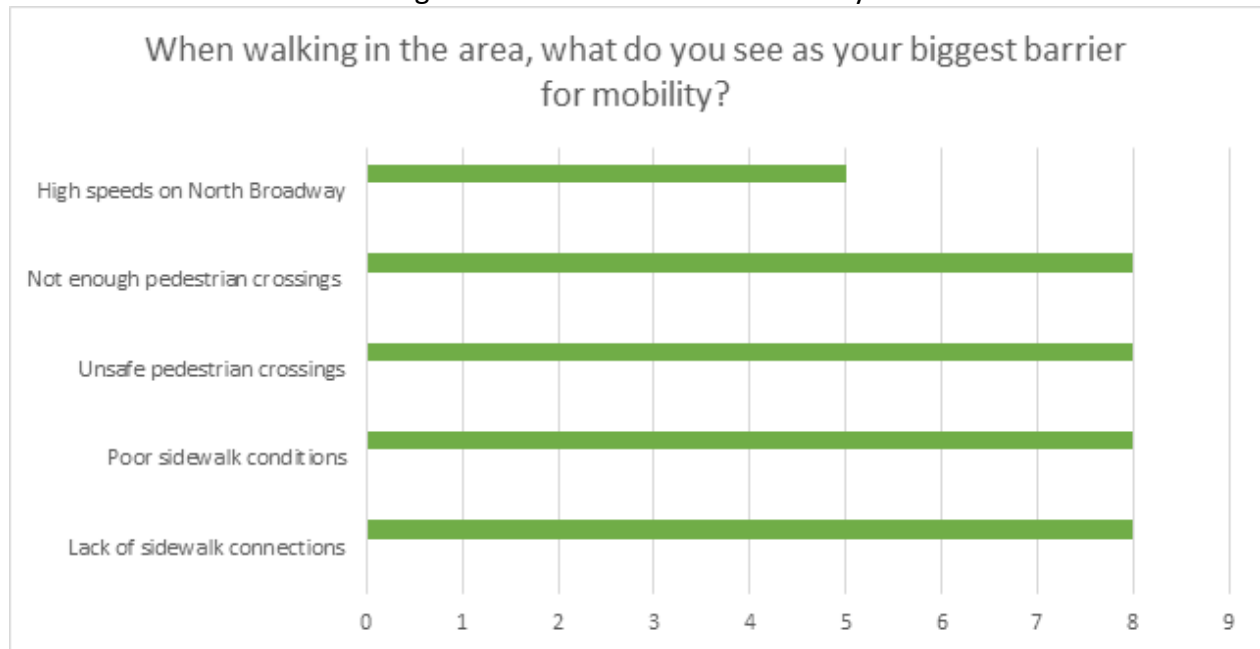
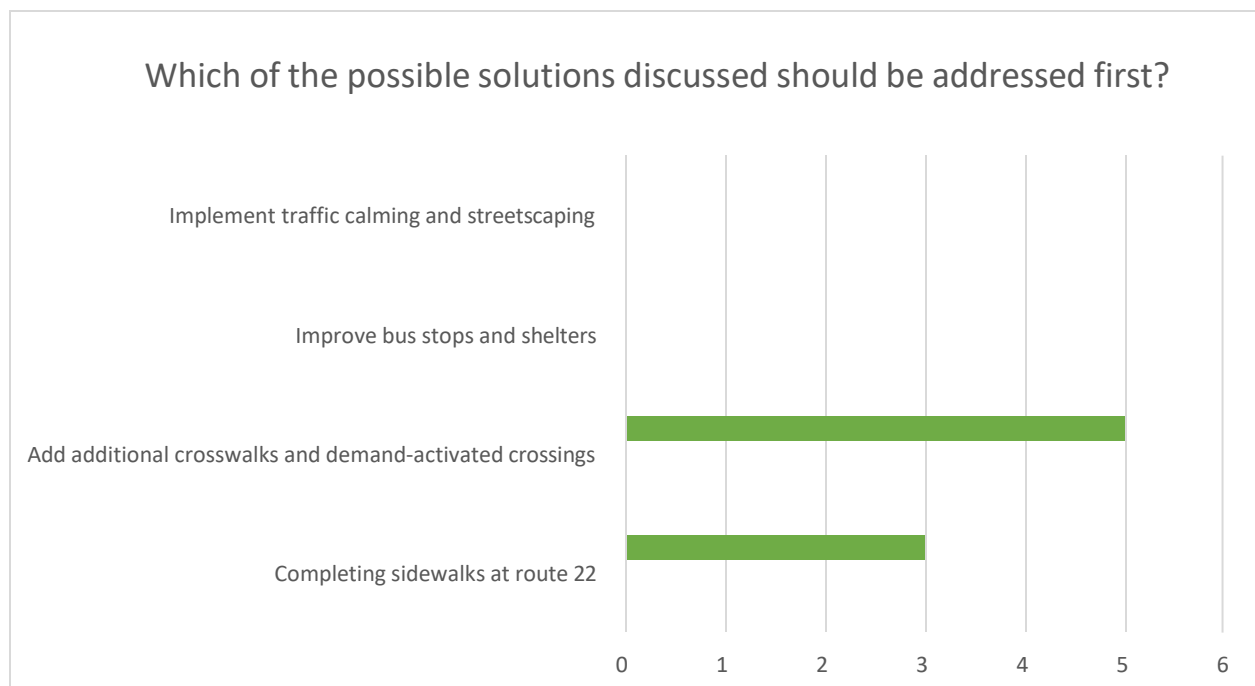


Figure B. Poll #2. Solution Prioritization



## Appendix B: Jamboard Documentation and Results

Figure C. Jamboard 1- 845 North Broadway



Figure D. Jamboard 2- Palmer Ave and Mc Dougal Drive

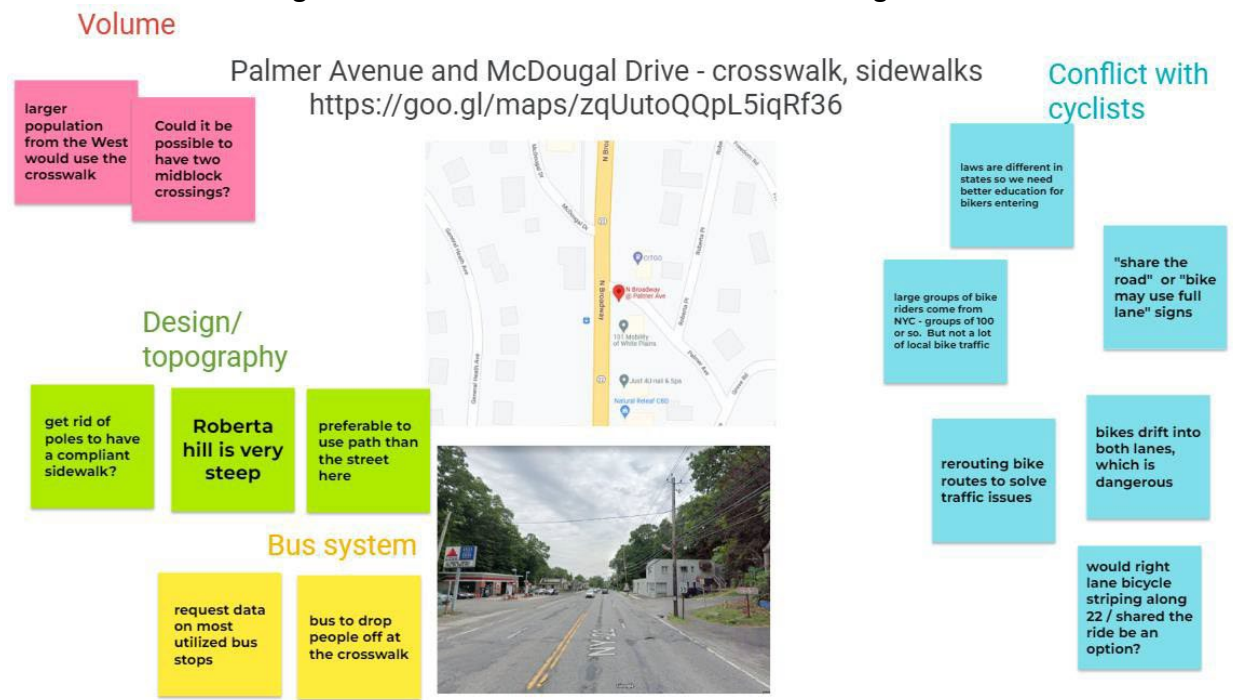


Figure E. Jamboard 3- Virginia Road

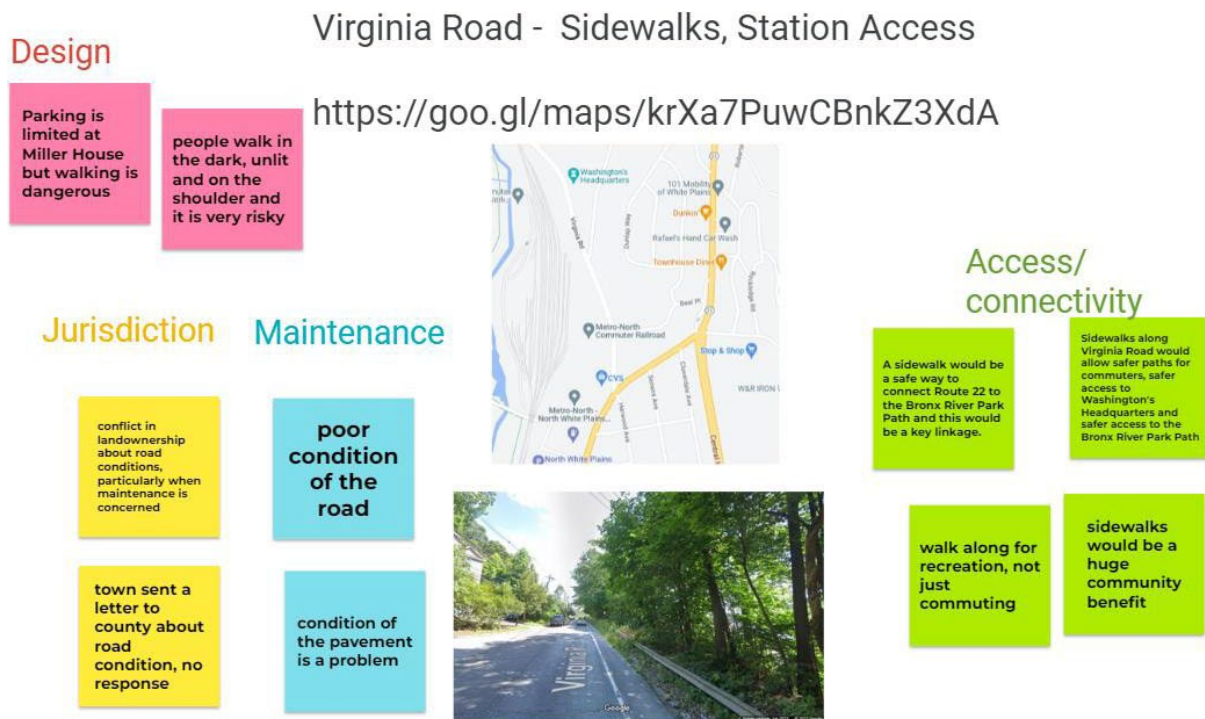


Figure F. Jamboard 4- General Streetscaping and amenities



## *Appendix C: Primary Data on Participant Feedback*

Figure G: Jamboard commentary

### **845 North Broadway**

- The pedestrian walkway is not well maintained
- Need a crosswalk
- Need regular maintenance on the walkway
- If it was maintained would use it regularly
- Would use walkway if it were cleared
- Parks was short-staffed and couldn't do it on a regular basis. But even before it was done periodically only
- Pedestrian walkway is overgrown
- Path is also convenient to the bus stops
- Might be room within the right of way to expand the bus stop and create more amenities
- The walkway is steep but follows topography, not ADA compliant
- Unlit path unsafe
- Traffic calming/ refuge Island midway across Route 22
- Is there consideration for extending the sidewalk from Hot Wings to Hillandale?
- No lighting on the walkway coming down the hill
- Need buffer between pedestrians and roadway
- Restrict left-hand turns on the left side of North Broadway
- I like the Idea of pedestrian crosswalks but not additional traffic lights unless they have pedestrian call buttons
- By Ralphs, there are No Parking signs stuck in the sidewalk area. It would be great if we had a real sidewalk with a guardrail instead
- Convenient place to access small businesses
- Maybe the Ice cream place can sponsor benches
- Sidewalk between Citgo station and the bottom of the path
- People leave bikes and chairs
- Concern, big pieces of fencing material returning
- High pedestrian volume In the summer, dangerous crossing behavior
- Lots of residents west of Broadway use that path, crossing through St. John's Plaza ... Consider a crossing path in grass island
- Crosswalk is desperately needed, people run across the road to get ice cream

### **Palmer Avenue and McDougal Drive**

- Larger population from the West would use the crosswalk
- Could it be possible to have two midblock crossings?
- Preferable to use the path than the street here
- Should we get rid of poles to have a compliant sidewalk?
- Roberta hill is very steep
- Request data on the most utilized bus stops
- Bus to drop people off at the crosswalk
- Laws are different in other states, so we need better education for bikers entering

- "Share the road" or "Bikes may use full lane" signs
- Large groups of bike riders come from NYC- groups of 100 or so. But not a lot of local bike traffic.
- Rerouting bike routes to solve traffic issues
- Bikes drift into both lanes, which is dangerous
- would right lane bicycle striping along 22 / shared the ride be an option?

### **Virginia Road**

- Parking is limited at Miller House, but walking is dangerous
- People walk in the dark, unlit, and on the shoulder and it is very risky
- Town sent a letter to the county about road condition, no response
- Poor condition of the road
- Conflict in landownership about road conditions, particularly when maintenance is concerned
- Condition of the pavement is a problem
- A sidewalk would be a safe way to connect Route 22 to the Bronx River Park Path and this would be a key linkage
- Sidewalks along Virginia Road would allow safer access to Washington's
- Headquarters and safer access to the Bronx River Park Path
- Walk along for recreation, not just commuting
- Sidewalks would be a huge community benefit Streetscaping, lighting, and other amenities
- Traffic calming and amenities are more inviting for pedestrians
- Would like a more "downtown" feel
- Streetscaping would make the space more inviting for businesses and shoppers/visitors
- Design improvements of unsightly properties, make storefronts/buildings more attractive
- Solar lights-path
- Would lighting on that path be disturbing to the back of the homes on Nethermont Ave?
- Need room for benches/ infrastructure
- People don't use crosswalk at Church St, they use Cloverdale
- It would be very helpful if we can slow traffic heading North from Route 22 and heading South to Hillandale
- Cars regularly take shortcuts through Saveway Dry Cleaners
- Dangerous maneuvering at truck parking lot
- Some changes don't need zoning amendments
- Incremental changes
- Have one on one conversations with business owners about improvements
- Don't be too idealistic
- Mid-block crossing at Seneca
- It is unsafe along Reservoir Road/Route 22 Crossing
- The Route 22/ Route 287 Extension/ Reservoir Road- Would refuge be possible?

- Have more shops open at St. John's
- Lots of congestion during church services
- Not in favor of housing on N. Broadway-- Detrimental to businesses

*Appendix D: Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Fund*

(See following page)

## **Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds**

September 9, 2022

This table indicates potential eligibility for pedestrian and bicycle activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects need to meet program eligibility requirements. See notes and basic program requirements below, with links to program information. Project sponsors should integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects.

|                                                                                                                                                     | Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds                                               |                       |                     |                      |                        |                      |                       |                     |                     |                     |                      |                     |                     |                                     |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      |                      |                       |                     |                       |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|----------------------|------------------------|----------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|-------------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|------------------------------|----------------------|--------------------|---------------------|----------------------|----------------------|----------------------|-----------------------|---------------------|-----------------------|----|
|                                                                                                                                                     | Key: \$ = Activity may be eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project. |                       |                     |                      |                        |                      |                       |                     |                     |                     |                      |                     |                     |                                     |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      |                      |                       |                     |                       |    |
|                                                                                                                                                     | OST Programs                                                                                                                                                     |                       |                     |                      |                        |                      |                       | Federal Transit     |                     |                     |                      | NHTSA               |                     | Federal Highway Administration      |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      |                      |                       |                     |                       |    |
| Activity or Project Type                                                                                                                            | <a href="#">RAISE</a>                                                                                                                                            | <a href="#">INFRA</a> | <a href="#">RCP</a> | <a href="#">SS4A</a> | <a href="#">Thrive</a> | <a href="#">RRIF</a> | <a href="#">TIFIA</a> | <a href="#">FTA</a> | <a href="#">ATI</a> | <a href="#">TOD</a> | <a href="#">AoPP</a> | <a href="#">402</a> | <a href="#">405</a> | <a href="#">BFP<br/>BIP<br/>BRR</a> | <a href="#">CRP</a> | <a href="#">CMAQ</a> | <a href="#">HSIP</a> | <a href="#">RHCP</a> | <a href="#">NHPP</a> | <a href="#">PRO<br/>TECT</a> | <a href="#">STBG</a> | <a href="#">TA</a> | <a href="#">RTP</a> | <a href="#">SRTS</a> | <a href="#">PLAN</a> | <a href="#">NSBF</a> | <a href="#">FLTTP</a> | <a href="#">TTP</a> | <a href="#">TTPSP</a> |    |
| Access enhancements to public transportation (benches, bus pads)                                                                                    | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   |                      |                      |                      | \$                           | \$                   | \$                 | \$                  |                      |                      |                      | \$                    | \$                  | \$                    |    |
| Americans with Disabilities Act (ADA)/504 Self Evaluation / Transition Plan                                                                         |                                                                                                                                                                  |                       |                     | \$                   | TA                     |                      |                       |                     |                     | \$                  | \$                   |                     |                     |                                     | \$                  |                      |                      |                      |                      |                              |                      | \$                 | \$                  | \$                   |                      | \$                   |                       | \$                  | \$                    |    |
| Barrier removal for ADA compliance                                                                                                                  | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  | ~\$                 | ~\$                  |                     |                     | \$                                  | \$                  |                      |                      |                      |                      | \$                           | \$                   | \$                 | \$                  | \$                   | \$                   |                      | \$                    | \$                  | \$                    |    |
| Bicycle plans                                                                                                                                       |                                                                                                                                                                  |                       | ~\$                 | \$                   |                        |                      |                       | \$                  |                     | \$                  | \$                   |                     |                     |                                     | \$                  |                      |                      |                      |                      |                              | \$                   | \$                 | \$                  |                      | \$                   | \$                   |                       | \$                  | \$                    | \$ |
| Bicycle helmets (project or training related)                                                                                                       |                                                                                                                                                                  |                       |                     |                      |                        |                      |                       |                     |                     |                     |                      |                     | \$                  |                                     |                     |                      |                      |                      |                      |                              | \$                   | \$SRTS             |                     |                      | \$                   |                      |                       |                     | \$                    |    |
| Bicycle helmets (safety promotion)                                                                                                                  |                                                                                                                                                                  |                       |                     |                      |                        |                      |                       |                     |                     |                     |                      |                     |                     |                                     |                     |                      |                      |                      |                      |                              | \$                   | \$SRTS             |                     |                      | \$                   |                      |                       |                     | \$                    |    |
| Bicycle lanes on road                                                                                                                               | ~\$                                                                                                                                                              | ~\$                   | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      |                      | \$                    | \$                  | \$                    |    |
| Bicycle parking (see <a href="#">Bicycle Parking Solutions</a> )                                                                                    | ~\$                                                                                                                                                              | ~\$                   | \$                  | \$                   |                        | ~\$                  | \$                    | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   |                      |                      | \$                   |                              | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |    |
| Bike racks on transit                                                                                                                               | ~\$                                                                                                                                                              |                       | \$                  | ~\$                  |                        |                      | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   |                      |                      |                      |                              | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  |                       |    |
| Bicycle repair station (air pump, simple tools)                                                                                                     | ~\$                                                                                                                                                              |                       | \$                  | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  |                      |                      |                      |                      |                              | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  |                       |    |
| Bicycle share (capital and equipment; not operations)                                                                                               | ~\$                                                                                                                                                              | ~\$                   | \$                  | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  | \$                   |                      |                      | \$                   |                              | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  |                       |    |
| Bicycle storage or service centers (example: at transit hubs)                                                                                       | ~\$                                                                                                                                                              |                       | \$                  | ~\$                  |                        | ~\$                  | \$                    | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  | \$                   |                      |                      |                      |                              | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  |                       |    |
| Bridges / overcrossings for pedestrians and/or bicyclists                                                                                           | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     | \$                                  | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |    |
| Bus shelters and benches                                                                                                                            | \$                                                                                                                                                               | \$                    | \$                  | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  | \$                   |                      |                      | \$                   | \$                           | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  | \$                    |    |
| Coordinator positions (State or local) (limits on CMAQ and STBG)                                                                                    |                                                                                                                                                                  |                       |                     | \$                   |                        |                      |                       |                     |                     |                     | \$                   |                     |                     |                                     |                     | \$                   |                      |                      |                      |                              | \$                   | \$SRTS             |                     |                      | \$                   |                      |                       |                     | \$                    |    |
| Community Capacity Building (develop organizational skills/processes)                                                                               |                                                                                                                                                                  |                       |                     | \$                   | TA                     |                      |                       |                     |                     | \$                  | \$                   |                     |                     |                                     |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      | \$                   |                       |                     | \$                    |    |
| Crosswalks for pedestrians, pedestrian refuge islands (new or retrofit)                                                                             | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  | ~\$                  | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    | \$ |
| Curb ramps                                                                                                                                          | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     | \$                                  | \$                  | ~\$                  | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    | \$ |
| Counting equipment                                                                                                                                  |                                                                                                                                                                  | \$                    | \$                  | \$                   |                        |                      | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     |                     |                      |                      | \$                   |                      | \$                           |                      | \$                 | \$                  | \$                   | \$                   | \$                   |                       | \$                  | \$                    | \$ |
| Data collection and monitoring for pedestrians and/or bicyclists                                                                                    | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        |                      | ~\$                   | \$                  | \$                  | \$                  | \$                   |                     |                     |                                     | \$                  |                      | \$                   |                      | \$                   |                              | \$                   | \$                 | \$                  | \$                   | \$                   |                      |                       | \$                  | \$                    | \$ |
| Emergency and evacuation routes for pedestrians and/or bicyclists                                                                                   | \$                                                                                                                                                               | \$                    | \$                  | ~\$                  |                        |                      | \$                    | \$                  | \$                  | ~\$                 | ~\$                  |                     |                     |                                     | \$                  |                      |                      |                      | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  |                       |    |
| Historic preservation (pedestrian and bicycle and transit facilities)                                                                               | ~\$                                                                                                                                                              |                       | ~\$                 | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  |                      |                      |                      |                      |                              | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  | \$                    |    |
| Landscaping, streetscaping (pedestrian/bicycle route; transit access); related amenities (benches, water fountains); usually part of larger project | ~\$                                                                                                                                                              | ~\$                   | ~\$                 | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  | ~\$                 | ~\$                  |                     |                     |                                     | \$                  |                      |                      |                      | ~\$                  | \$                           | \$                   | \$                 |                     |                      |                      |                      | \$                    | \$                  |                       |    |
| Lighting (pedestrian and bicyclist scale associated with pedestrian/bicyclist project)                                                              | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | ~\$                  | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    | \$ |
| Maps (for pedestrians and/or bicyclists)                                                                                                            |                                                                                                                                                                  |                       |                     | \$                   |                        |                      |                       | \$                  | \$                  | \$                  | ~\$                  |                     |                     |                                     | \$                  | \$                   |                      |                      |                      |                              | \$                   | \$                 |                     | \$                   | \$                   |                      | \$                    |                     | \$                    |    |
| Micromobility projects (including scooter share)                                                                                                    | \$                                                                                                                                                               |                       | \$                  | ~\$                  |                        | ~\$                  | ~\$                   |                     |                     |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   |                      |                      |                      |                              | \$                   | \$                 |                     |                      |                      |                      |                       | \$                  | \$                    |    |
| Paved shoulders for pedestrian and/or bicyclist use                                                                                                 | \$                                                                                                                                                               | ~\$                   | \$                  | \$                   |                        | ~\$                  | ~\$                   |                     |                     |                     |                      |                     |                     | \$                                  | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      |                      | \$                    | \$                  | \$                    | \$ |
| Pedestrian plans                                                                                                                                    | \$                                                                                                                                                               | ~\$                   | ~\$                 | \$                   |                        |                      |                       | \$                  |                     | \$                  | \$                   |                     |                     |                                     | \$                  |                      |                      |                      |                      | \$                           | \$                   | \$                 |                     | \$                   | \$                   |                      | \$                    | \$                  | \$                    | \$ |
| Rail at-grade crossings                                                                                                                             | \$                                                                                                                                                               | \$                    | \$                  | ~\$                  |                        | \$                   | \$                    | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  |                      |                      | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      |                       | \$                  | \$                    | \$ |
| Recreational trails                                                                                                                                 | \$                                                                                                                                                               |                       | \$                  | ~\$                  |                        |                      | ~\$                   |                     |                     |                     |                      |                     |                     |                                     |                     |                      |                      |                      |                      | \$                           | \$                   | \$                 | \$                  |                      |                      |                      | \$                    | \$                  | \$                    |    |
| Resilience Improvements for pedestrians and bicyclists                                                                                              | \$                                                                                                                                                               | \$                    | \$                  | ~\$                  |                        | ~\$                  | ~\$                   |                     |                     | \$                  | ~\$                  |                     |                     | ~\$                                 | ~\$                 | ~\$                  |                      |                      | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |    |
| Road Diets (pedestrian and bicycle portions)                                                                                                        | \$                                                                                                                                                               | \$                    | \$                  | \$                   |                        | ~\$                  | \$                    |                     |                     |                     |                      |                     |                     |                                     | \$                  | \$                   | \$                   |                      | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      |                      | \$                    | \$                  | \$                    | \$ |

|                                                                                                                                         | Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Transit, Safety, and Highway Funds<br>Key: \$ = Activity may be eligible. Restrictions may apply, see program notes and guidance. ~\$ = Eligible, but not competitive unless part of a larger project. |                       |                     |                      |                        |                      |                       |                     |                     |                     |                      |                     |                     |                                     |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      |                      |                       |                     |                       |
|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|----------------------|------------------------|----------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|-------------------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|------------------------------|----------------------|--------------------|---------------------|----------------------|----------------------|----------------------|-----------------------|---------------------|-----------------------|
|                                                                                                                                         | OST Programs                                                                                                                                                                                                                                                                           |                       |                     |                      |                        |                      |                       | Federal Transit     |                     |                     |                      | NHTSA               |                     | Federal Highway Administration      |                     |                      |                      |                      |                      |                              |                      |                    |                     |                      |                      |                      |                       |                     |                       |
| Activity or Project Type                                                                                                                | <a href="#">RAISE</a>                                                                                                                                                                                                                                                                  | <a href="#">INFRA</a> | <a href="#">RCP</a> | <a href="#">SS4A</a> | <a href="#">Thrive</a> | <a href="#">RRIF</a> | <a href="#">TIFIA</a> | <a href="#">FTA</a> | <a href="#">ATI</a> | <a href="#">TOD</a> | <a href="#">AoPP</a> | <a href="#">402</a> | <a href="#">405</a> | <a href="#">BFP<br/>BIP<br/>BRR</a> | <a href="#">CRP</a> | <a href="#">CMAQ</a> | <a href="#">HSIP</a> | <a href="#">RHCP</a> | <a href="#">NHPP</a> | <a href="#">PRO<br/>TECT</a> | <a href="#">STBG</a> | <a href="#">TA</a> | <a href="#">RTP</a> | <a href="#">SRTS</a> | <a href="#">PLAN</a> | <a href="#">NSBP</a> | <a href="#">FLTTP</a> | <a href="#">TTP</a> | <a href="#">TTPSF</a> |
| Road Safety Assessment for pedestrians and bicyclists                                                                                   |                                                                                                                                                                                                                                                                                        |                       | \$                  | \$                   | TA                     |                      | ~\$                   |                     |                     |                     | ~\$                  |                     |                     |                                     |                     |                      | \$                   | \$                   |                      |                              | \$                   | \$                 |                     |                      | \$                   |                      | \$                    | \$                  | \$                    |
| Safety education and awareness activities and programs to inform pedestrians, bicyclists, and motorists on ped/bike traffic safety laws |                                                                                                                                                                                                                                                                                        |                       |                     | \$                   |                        |                      |                       |                     |                     |                     | ~\$                  | \$                  | \$                  |                                     |                     |                      | \$                   |                      |                      |                              | \$SRTS               | \$SRTS             |                     | \$                   | \$                   |                      |                       | \$                  |                       |
| Safety education positions                                                                                                              |                                                                                                                                                                                                                                                                                        |                       |                     | \$                   |                        |                      |                       |                     |                     |                     | ~\$                  | \$                  |                     |                                     |                     |                      |                      |                      |                      |                              | \$SRTS               | \$SRTS             |                     | \$                   |                      |                      |                       |                     | \$                    |
| Safety enforcement (including police patrols)                                                                                           |                                                                                                                                                                                                                                                                                        |                       |                     | \$                   |                        |                      |                       |                     |                     |                     |                      | \$                  | \$                  |                                     |                     |                      | \$                   |                      |                      |                              | \$SRTS               | \$SRTS             |                     | \$                   |                      |                      |                       |                     | \$                    |
| Safety program technical assessment (for peds/bicyclists)                                                                               |                                                                                                                                                                                                                                                                                        |                       | \$                  | ~\$                  | TA                     |                      |                       |                     |                     |                     | ~\$                  | \$                  |                     |                                     |                     |                      | \$                   |                      |                      |                              | \$SRTS               | \$SRTS             |                     | \$                   | \$                   |                      | \$                    | \$                  |                       |
| Separated bicycle lanes                                                                                                                 | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     | \$                                  | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      | \$                   | \$                    | \$                  | \$                    |
| Shared use paths / transportation trails                                                                                                | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  |                      | \$                   | \$                   | \$                    | \$                  |                       |
| Sidewalks (new or retrofit)                                                                                                             | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  | ~\$                 | ~\$                  |                     |                     | \$                                  | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  |                      | \$                   | \$                   | \$                    | \$                  |                       |
| Signs, signals, signal improvements (incl accessible pedestrian signals) see note                                                       | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  | ~\$                 | ~\$                  |                     |                     |                                     | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      | \$                   | \$                    | \$                  | \$                    |
| Signing for pedestrian or bicycle routes                                                                                                | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     | ~\$                  |                     |                     |                                     | \$                  | \$                   | \$                   |                      | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      | \$                   | \$                    | \$                  | \$                    |
| Spot improvement programs (for pedestrian and bicycle facilities)                                                                       | \$                                                                                                                                                                                                                                                                                     | \$                    |                     | \$                   |                        | ~\$                  | ~\$                   | \$                  |                     |                     | ~\$                  |                     |                     |                                     | \$                  |                      | \$                   | \$                   | \$                   |                              | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |
| Stormwater impacts related to pedestrian and bicycle project impacts                                                                    | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | ~\$                  |                        | ~\$                  | ~\$                   | \$                  | \$                  |                     |                      |                     |                     |                                     |                     |                      | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |
| Traffic calming                                                                                                                         | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   | \$                  |                     |                     |                      |                     |                     |                                     | \$                  |                      | \$                   |                      | \$                   | \$                           | \$                   | \$                 |                     | \$                   |                      |                      | \$                    | \$                  | \$                    |
| Trail bridges                                                                                                                           | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | ~\$                  |                        | ~\$                  | \$                    |                     |                     |                     |                      |                     |                     |                                     | \$                  | ~\$                  | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  | \$                   |                      |                      | \$                    | \$                  | \$                    |
| Trail construction and maintenance equipment                                                                                            |                                                                                                                                                                                                                                                                                        |                       |                     | ~\$                  |                        | ~\$                  | ~\$                   |                     |                     |                     |                      |                     |                     |                                     | \$                  |                      |                      |                      |                      |                              | \$                   | \$                 | \$                  |                      |                      |                      | ~\$                   | ~\$                 | ~\$                   |
| Trail/highway crossings and intersections                                                                                               | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | ~\$                  | ~\$                   |                     |                     |                     |                      |                     |                     | \$                                  | \$                  | ~\$                  | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  |                      | \$                   | \$                   | \$                    | \$                  |                       |
| Trailside/trailhead facilities (restrooms, water, not general park amenities)                                                           | ~\$                                                                                                                                                                                                                                                                                    |                       |                     |                      |                        | ~\$                  | ~\$                   |                     |                     |                     |                      |                     |                     |                                     | ~\$                 |                      |                      |                      |                      |                              | \$                   | \$                 | \$                  |                      |                      | \$                   | \$                    | \$                  |                       |
| Training                                                                                                                                |                                                                                                                                                                                                                                                                                        |                       |                     | \$                   | TA                     |                      |                       |                     |                     |                     | ~\$                  | \$                  |                     |                                     |                     | \$                   | \$                   |                      |                      |                              | \$                   | \$                 | \$                  | \$                   | \$                   |                      |                       | \$                  |                       |
| Training for law enforcement on ped/bicyclist safety laws                                                                               |                                                                                                                                                                                                                                                                                        |                       |                     | ~\$                  |                        |                      |                       |                     |                     |                     |                      | \$                  | \$                  |                                     |                     | ~\$                  | \$                   |                      |                      |                              | \$SRTS               | \$SRTS             |                     | \$                   |                      |                      |                       | \$                  |                       |
| Tunnels / underpasses for pedestrians and/or bicyclists                                                                                 | \$                                                                                                                                                                                                                                                                                     | \$                    | \$                  | \$                   |                        | \$                   | \$                    | \$                  | \$                  |                     |                      |                     |                     |                                     | \$                  | \$                   | \$                   | \$                   | \$                   | \$                           | \$                   | \$                 | \$                  |                      |                      |                      | \$                    | \$                  | \$                    |
| Vulnerable Road User Safety Assessment                                                                                                  |                                                                                                                                                                                                                                                                                        |                       | \$                  | \$                   | TA                     |                      |                       |                     |                     |                     |                      |                     |                     |                                     |                     |                      | \$                   |                      |                      |                              | \$                   | \$                 |                     | \$                   | \$                   |                      |                       | \$                  | \$                    |

### Abbreviations

ADA/504: Americans with Disabilities Act of 1990 / Section 504 of the Rehabilitation Act of 1973

[RAISE](#): Rebuilding American Infrastructure with Sustainability and Equity

[INFRA](#): Infrastructure for Rebuilding America Discretionary Grant Program

[RCP](#): Reconnecting Communities Pilot Program

[SS4A](#): Safe Streets and Roads for All

[Thrive](#): Thriving Communities Initiative (TA: Technical Assistance)

[RRIF](#): Railroad Rehabilitation and Improvement Financing (loans)

[TIFIA](#): Transportation Infrastructure Finance and Innovation Act (loans)

[FTA](#): Federal Transit Administration Capital Funds

[ATI](#): Associated Transit Improvement (1% set-aside of FTA)

[TOD](#): Transit-Oriented Development

[AoPP](#): Areas of Persistent Poverty Program

NHTSA [402](#): National Highway Traffic Safety Administration State and Community Highway Safety Grant Program

NHTSA [405](#): National Highway Traffic Safety Administration National Priority Safety Programs (Nonmotorized safety)

[BFP](#): Bridge Formula Program; [BIP](#): Bridge Investment Program; [BRR](#): Bridge Replacement and Rehabilitation Program

[CRP](#): Carbon Reduction Program

[CMAQ](#): Congestion Mitigation and Air Quality Improvement Program

[HSIP](#): Highway Safety Improvement Program

[RHCP](#): Railway-Highway Crossings (Section 130) Program

[NHPP](#): National Highway Performance Program

[PROTECT](#): Promoting Resilient Operations for Transformative, Efficient, and Cost Saving Transportation

[STBG](#): Surface Transportation Block Grant Program

[TA](#): Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program, Transportation Enhancements)

[RTP](#): Recreational Trails Program

[SRTS](#): Safe Routes to School Program (and related activities)

[PLAN](#): Statewide Planning and Research (SPR) or Metropolitan Planning funds

[NSBP](#): National Scenic Byways Program

[FLTTP](#): Federal Lands and Tribal Transportation Programs: [Federal Lands Access Program](#), [Federal Lands Transportation Program](#), [Tribal Transportation Program](#), [Federal Lands Planning Program](#) and related programs for Federal and Tribal lands such as the [Nationally Significant Federal Lands and Tribal Projects](#) program.

[TTP](#): Tribal Transportation Program

[TTPSF](#): Tribal Transportation Program Safety Fund

Cross-cutting notes

This table indicates potential eligibility for pedestrian, bicycle, and micromobility activities and projects under U.S. Department of Transportation surface transportation funding programs. Activities and projects must meet program eligibility requirements. See notes and links to program information below. Although the primary focus of this table is stand-alone activities and projects, programs also fund pedestrian and bicycle facilities as part of larger projects. Project sponsors are encouraged to consider [Complete Streets](#) and Networks that routinely integrate the safety, accessibility, equity, and convenience of walking and bicycling into surface transportation projects. In these instances, the Federal-aid eligibility of the pedestrian and bicycle elements are considered under the eligibility criteria applicable to the larger highway project. Pedestrian and bicycle activities also may be characterized as environmental mitigation for larger highway projects, especially in response to impacts to a Section 4(f) property or work zone safety, mobility, and accessibility impacts on bicyclists and pedestrians.

- See [FHWA Bicycle and Pedestrian Planning, Program, and Project Development](#) (Guidance)
- Bicycle Project Purpose: 23 U.S.C. 217(i) requires that bicycle facilities “be principally for transportation, rather than recreation, purposes”. However, 23 U.S.C. 133(b)(7) and 133(h) authorize recreational trails under [STBG](#) and the [TA Set-Aside](#), therefore, 23 U.S.C. 217(i) does not apply to trail projects (including for bicycle use) using [STBG](#) or [TA Set-Aside](#) funds. Section 217(i) applies to bicycle facilities other than trail-related projects, and section 217(i) applies to bicycle facilities using other programs ([NHPP](#), [HSIP](#), [CMAQ](#)). The transportation requirement under section 217(i) only applies to bicycle projects, not to any other trail use or transportation mode.
- Signs, signals, signal improvements includes ensuring accessibility for persons with disabilities. See [Accessible Pedestrian Signals](#). See also [Proven Safety Countermeasures](#), such as [Crosswalk Visibility Enhancements](#), [Leading Pedestrian Interval](#) signals, [Pedestrian Hybrid Beacons](#), and [Rectangular Rapid Flashing Beacons](#).
- Occasional DOT or agency incentive grants may be available for specific research or technical assistance purposes.
- Aspects of DOT initiatives may be eligible as individual projects. Activities above may benefit safe, comfortable, multimodal networks; environmental justice; and equity.
- The [DOT Navigator](#) is a resource to help communities understand the best ways to apply for grants, and to plan for and deliver transformative infrastructure projects and services.
- FHWA’s [Policy on Using Bipartisan Infrastructure Law Resources to Build a Better America](#).
- FHWA Links to [Technical Assistance and Local Support](#).

Program-specific notes

Federal-aid and other DOT funding programs have specific requirements that projects must meet, and eligibility must be determined on a case-by-case basis. See links to program guidance for more information.

- [RAISE](#) (Infrastructure Investment and Jobs Act (Pub. L. 117-58) (IIJA), also known as the Bipartisan Infrastructure Law (BIL), § 21202): Funds capital and planning grants.
- [INFRA](#) (IIJA § 11110): For projects that improve safety, generate economic benefits, reduce congestion, enhance resiliency, and hold the greatest promise to eliminate freight bottlenecks and improve critical freight movements.
- [RCP](#) (IIJA § 11509 and div. J, title VIII, Highway Infrastructure Programs, para. (7)): See [RCP Program Notice of Funding Opportunity](#) for full details. Planning grants and Capital Construction Grants must relate to a transportation facility that creates a barrier to community connectivity.
- [SS4A](#) (IIJA § 24112): Discretionary program funds regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries. Projects must be identified in a comprehensive safety action plan (§ 24112(a)(3)).
- [Thrive](#) (Department of Transportation Appropriations Act, 2022 (Pub. L. 117-103, div. L, title I): Technical assistance, planning, and capacity-building support in selected communities.
- [RRIF](#) (Chapter 224 of title 49 U.S.C.): Program offers direct loans and loan guarantees for capital projects related to rail facilities, stations, or crossings. Pedestrian and bicycle infrastructure components of “economic development” projects located within ½-mile of qualifying rail stations may be eligible. May be combined with other grant sources.
- [TIFIA](#) (Chapter 6 of title 23 U.S.C.): Program offers secured loans, loan guarantees, or standby lines of credit for capital projects. Minimum total project size is \$10 million; multiple surface transportation projects may be bundled to meet cost threshold, under the condition that all projects have a common repayment pledge. May be combined with other grant sources, subject to total Federal assistance limitations.
- [FTA](#) / [ATI](#) (49 U.S.C. 5307): Multimodal projects funded with FTA transit funds must provide access to transit. See [Bicycles and Transit](#), [Flex Funding for Transit Access](#), the FTA [Final Policy Statement on the Eligibility of Pedestrian and Bicycle Improvements Under Federal Transit Law](#), and [FTA Program & Bicycle Related Funding Opportunities](#).
  - Bicycle infrastructure plans and projects must be within a 3-mile radius of a transit stop or station. If more than 3 miles, within a distance that people could be expected to safely and conveniently bike to the particular stop or station.
  - Pedestrian infrastructure plans and projects must be within a ½ mile radius of a transit stop or station. If more than ½ mile, within a distance that people could be expected to safely and conveniently walk to the particular stop or station.
  - FTA funds cannot be used to purchase bicycles for bike share systems.
- [FTA TOD](#): Provides planning grants to support community efforts to improve safe access to public transportation for pedestrians and cyclists. The grants help organizations plan for transportation projects that connect communities and improve access to transit and affordable housing, not for capital purchases.
- [FTA AoPP](#) (Further Consolidated Appropriations Act, 2020 (Pub. L. 116-94); Consolidated Appropriations Act, 2021 (Pub. L. 116-260)): Promotes multimodal planning, engineering, and technical studies, or financial planning to improve transit services in areas experiencing long-term economic distress, not for capital purchases.
- NHTSA [402](#) (23 U.S.C. 402): Project activity must be included in the State’s Highway Safety Plan. Contact the [State Highway Safety Office](#) for details.
- NHTSA [405](#) (23 U.S.C. 405): Funds are subject to eligibility, application, and award. Project activity must be included in the State’s Highway Safety Plan. Contact the [State Highway Safety Office](#) for details. The [Bipartisan Infrastructure Law](#) expanded the eligible use of funds for a Section 405 Nonmotorized Safety grant beginning in FY 2024; however, for FY 2023 grants, FAST Act eligible uses remain in place.
- [BFP](#), (IIJA, Div. J, title VIII, para. (1)), [BIP](#) (23 U.S.C. 124), [BRR](#) (Department of Transportation Appropriations Act, 2022): For specific highway bridge projects and highway bridge projects that will replace or rehabilitate a bridge must consider pedestrian and bicycle access as part of the project and costs related to their inclusion are eligible under these programs.
- [CRP](#) (23 U.S.C. 175): Projects should support the reduction of carbon dioxide emissions from on-road highway sources.

- [CMAQ](#) (23 U.S.C. 149): Projects must demonstrate emissions reduction and benefit air quality. See the CMAQ guidance at [www.fhwa.dot.gov/environment/air\\_quality/cmaq/](http://www.fhwa.dot.gov/environment/air_quality/cmaq/) for a list of projects that may be eligible for CMAQ funds. CMAQ funds may be used for shared use paths, but not for trails that are primarily for recreational use.
- [HSIP](#) (23 U.S.C. 148): Projects must be consistent with a State's [Strategic Highway Safety Plan](#) and (1) correct or improve a hazardous road location or feature, or (2) address a highway safety problem. Certain non-infrastructure safety projects can also be funded using HSIP funds as specified safety projects.
- [RHCP](#) (23 U.S.C. 130): Projects at all public railroad crossings including roadways, bike trails, and pedestrian paths.
- [NHPP](#) (23 U.S.C. 119): Projects must benefit National Highway System (NHS) corridors and must be located on land adjacent to any highway on the National Highway System (23 U.S.C. 217(b)).
- [PROTECT](#) (23 U.S.C. 176): Funds can only be used for activities that are primarily for the purpose of resilience or inherently resilience related. With certain exceptions, the focus must be on supporting the incremental cost of making assets more resilient.
- [STBG](#) (23 U.S.C. 133) and [TA Set-Aside](#) (23 U.S.C. 133(h)): Activities marked "\$SRTS" means eligible only as an SRTS project benefiting schools for kindergarten through 12<sup>th</sup> grade. Bicycle transportation nonconstruction projects related to safe bicycle use are eligible under STBG, but not under TA (23 U.S.C. 217(a)). There is broad eligibility for projects under 23 U.S.C. 206, 208, and 217.
- [RTP](#) (23 U.S.C. 206): Projects for trails and trailside and trailhead facilities for any recreational trail use. RTP projects are eligible under TA Set-Aside and STBG.
- [SRTS](#) (23 U.S.C. 208): Projects for any SRTS activity. FY 2012 was the last year for dedicated - funds, but funds are available until expended. SRTS projects are eligible under TA Set-Aside and STBG.
- [PLAN](#) (23 U.S.C. 134 and 135): Funds must be used for planning purposes, for example: Maps: System maps and GIS; Safety education and awareness: for transportation safety planning; Safety program technical assessment: for transportation safety planning; Training: bicycle and pedestrian system planning training.
- [NSBP](#) (23 U.S.C. 162): Discretionary program subject to annual appropriations. Projects must directly benefit and be close to a designated scenic byway.
- [FLTTP](#) (23 U.S.C. 201-204): Projects must provide access to or within Federal or tribal lands. Programs include: Federal Lands and Tribal Transportation Programs ([Federal Lands Access Program](#), [Federal Lands Transportation Program](#), [Federal Lands Planning Program](#)) and related programs for Federal and Tribal lands such as the [Nationally Significant Federal Lands and Tribal Projects](#) (NSFLTP) program.
  - [Federal Lands Transportation Program](#) (23 U.S.C. 203): For Federal agencies for projects that provide access within Federal lands.
  - [Federal Lands Access Program](#) (FLAP) (23 U.S.C. 204): For State and local entities for projects that provide access to or within Federal or tribal lands.
- [TTP](#) (23 U.S.C. 202): For federally-recognized tribal governments for projects within tribal boundaries and public roads that access tribal lands.
- [TTPSF](#) (23 U.S.C. 202(e)(1) and 23 U.S.C. 148(a)(4)): Grants available to [federally recognized Indian tribes](#) through a competitive, discretionary program to plan and implement transportation safety projects.