TEANECK

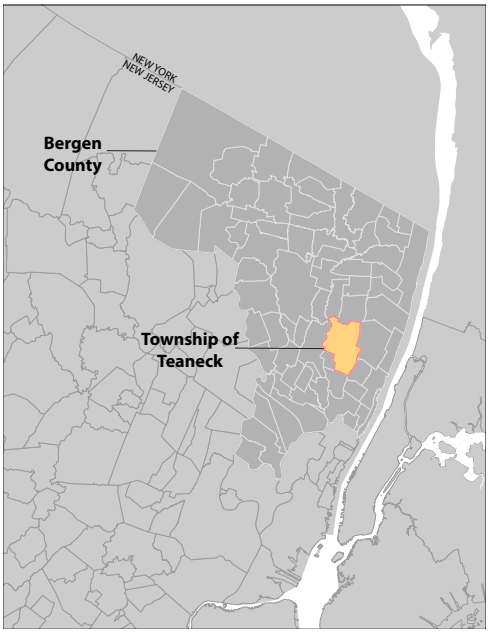
SENIOR WALKABILITY WORKSHOP

JANUARY 2019

Civic Eye Collaborative

INTRODUCTION

As part of the New Jersey Department of Transportation's (NJDOT) Office of Bicycle and Pedestrian Programs safety initiative, senior mobility workshops are offered throughout the state to raise awareness and help decision makers and professionals better understand senior citizens' unique mobility needs. These workshops provide an interactive educational program encouraging seniors, community decision makers, transportation professionals, health professionals and others collaborate in making communities safer and more walkable for all residents. Workshop participants discussed why walking is important, particularly for older adults; allowing all attendees to see and experience pedestrian mobility barriers through the eyes of seniors and investigate how to diagnose, design, and implement strategies and activities to improve walking conditions. In conjunction with NJDOT, a project team of professionals from WSP and Civic Eye Collaborative (CEC) conducted a workshop for the Township of Teaneck in Bergen County on October 9, 2018.



TEANECK CONTEXT

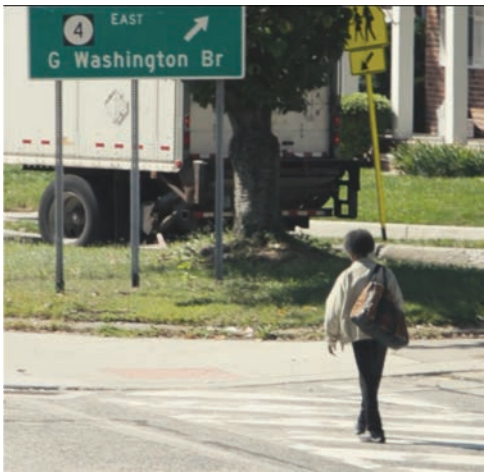
Teaneck is a densely-settled suburb with walkable main streets. Lacking train stations, Teaneck has frequent bus service and two New Jersey Transit stations one-half mile to the west providing easy access to New York City, Newark and Trenton. Some critical factors affecting pedestrian safety and mobility in Teaneck include:

- NJ 4, a limited-access highway bisecting the township north and south
- A CSX freight train line separating west and east Teaneck
- While providing automobile access to the surrounding region, Interstate 80 and the New Jersey Turnpike divide Teaneck from points south/ southeast
- Only Cedar Lane and NJ 4 cross the Hackensack River to the west, exacerbating congestion
- Teaneck's primary east-west local street, Cedar Lane has a 25 mph speed limit, but operates with two lanes in each direction, encouraging speeding and aggressive driving
- Numerous primary corridors in Teaneck (River Rd, Teaneck Rd, Degraw Av) provide limited pedestrian crossings

Table 1: Changes in the Senior Population from 2000 to 2030

Year	U.S.	New Jersey	Bergen County	Teaneck
2000	34,991,753	1,113,136	134,820	5,584
	12.4% of pop	**13.2% of pop**	**15.2% of pop**	**14.2% of pop**
2010	40,267,984	1,185,993	137,103	5,906
	13.0% of pop	**13.5% of pop**	**15.1% of pop**	**14.8% of pop**
2020*	55,969,000	1,508,400	166,900	
	16.8% of pop	**16.3% of pop**	**17.6% of pop**	
2030*	72,774,000	1,916,700	207,100	
	20.3% of pop	**19.9% of pop**	**20.9% of pop**	
	108% change in Seniors from 2000	**72% change in Seniors from 2000**	**54% change in Seniors from 2000**	

Source: U.S. Census, NJ Department of Labor
***Projected figures**



In Teaneck, seniors comprise approximately 14.8 percent of the population (2010 census). Bergen County is projected to add 70,000 seniors between 2010 and 2030, a 50% increase; below the statewide and national projections of 72% and 108% respectively. These aging trends are illustrated in Table 1. Though a slower growth in seniors is projected in Teaneck, the community and stakeholders should still prepare for this demographic shift.

SENIOR MOBILITY CONTEXT

Walking is a fundamental component of senior mobility with numerous benefits:

- Walking is a mode available to everyone-all ages, incomes, and abilities
- Walking helps maintain independence and control regardless of car ownership
- Walking is an easy form of physical activity capable of improving health, including reducing the risk of heart disease, diabetes, and many other conditions, while also enhancing strength, balance and flexibility
- Walking is an important social activity, providing opportunities to meet others and engage with the community

An aging population and shifting demographics require adapations in the transportation system for citizens to maintain access and mobility. Seniors are less likely to drive and often live in communities with few transportation alternatives. Combined with physical limitations, these factors can cause seniors to effectively feel trapped in their own homes and communities. Improving senior mobility helps maintain a high quality of life for older adults; allowing them to 'age in place' and access their daily needs and activities while staying in their homes and communities.

However, numerous barriers can discourage walking for seniors and all pedestrians, including high traffic speeds and congestion, long walking routes between destinations, and a lack of adequate pedestrian infrastructure at intersections and crossings. Otherwise minor barriers can be insurmountable to older people whose walking speed and reaction time decrease and physical mobility, vision, hearing and cognition deteriorate.

The effects of aging can also leave seniors more vulnerable to severe injuries from pedestrian crashes. Although seniors are involved in fewer total pedestrian crashes per capita than other age groups in New Jersey, the fatality rate among seniors is significantly higher.

Improving senior pedestrian mobility requires a comprehensive approach of engineering, education, encouragement, and enforcement strategies.

This workshop incorporates several elements of this approach, raising awareness of senior mobility, educating the public and stakeholders, sharing engineering best practices, and identifying local mobility needs. The product of the workshop includes recommendations for engineering, policy, and programmatic approaches to improve mobility throughout the community.

WORKSHOP SUMMARY

The Teaneck Senior Mobility Workshop was held at the Teaneck Municipal Building on Tuesday October 9, 2018, from 9:30am – 12:00pm. Teaneck was selected for NJDOT's Senior Workshop series due to its active senior population and strong local interest and support for the workshop. Approximately 34 people participated including many seniors and social service professionals and representatives from the Township of Teaneck, Teaneck Police Department, Teaneck Fire Department, New Jersey Transit and NJDOT.

The workshop had three main components:

- an overview presentation of senior mobility issues including a video highlighting senior walkability strengths and weaknesses within Teaneck
- a short field walk to observe and experience local mobility issues firsthand
- a brainstorming /breakout session to discuss field observations and more general senior mobility issues throughout the Township

All the workshop materials, including the agenda and sign-in sheet can be found in the attached appendix.

Presentation

Representatives from NJDOT and WSP kicked off the workshop by explaining its purpose, highlighting the importance of pedestrian and senior mobility and safety to the Department, and introducing the project team. WSP staff then presented an overview of senior mobility, defining the issues, demographic shifts, impacts of aging on mobility, and the benefits of and barriers to walking. A video highlighting senior-specific walkability issues in Teaneck was presented. The video was prepared due to Teaneck's large geographic area, making visiting each issue by walking in one trip untenable. Though only six square miles, Teaneck is the largest geographic municipality in the densely populated southern portion of Bergen County. The final segment focused on how to diagnose, design, and implement pedestrian infrastructure addressing senior mobility needs. Through extensive photo examples, including many from the local area, the team illustrated how poor design can create serious barriers to senior mobility. Examples of alternative engineering

treatments were also presented to demonstrate how design can be used to improve mobility, including best practices in sidewalk design and connectivity; driveway design, crossing and curb ramp design, signage, lighting, and signal timing. Before and after photos of improvement projects from throughout New Jersey highlighted local success stories. The presentation educated attendees on how to evaluate walking conditions in their community, provided local officials and decision makers with design tools to utilize going forward, and encouraged safe walking habits among seniors.

Field Observation

To reinforce and illustrate the information discussed in the presentation, the project team led attendees on a short walk. Due to the number of attendees, two separate groups walked similar routes around the intersection of Teaneck Rd and Cedar Ln, extending west along Cedar Ln to Chadwick Rd. The walk accomplished several objectives:

- Enabled participants to take a close critical look at the pedestrian environment
- Provided opportunity for all participants to discuss and demonstrate barriers to mobility
- Allowed the project team to gather extensive local input on issues, barriers, and potential improvement options for the local area.

During the field observation, the project team and workshop participants shared information about personal experiences in the area, significant network strengths, weaknesses, obstacles and concerns, typical traffic patterns, and ideas to improve walking conditions. Attendees documented observations for later discussion. One of the workshop participants was accompanied by a baby in a stroller. The stroller presented the

opportunity to view the difficulties for pedestrians in wheelchairs and with strollers. This approach helped highlight the impacts of common deficiencies in the existing pedestrian infrastructure, such as an absence of safe crossings, physical obstructions, and cracked and deteriorating sidewalks.

The project team selected these sites for the field visit because preliminary surveying indicated deficiencies at these sites generally represented typical senior mobility barriers.

Brainstorming Session

Upon returning to the council chambers, the project team facilitated a brainstorming session to discuss field observations in addition to more general walkability issues throughout Teaneck. The public officials, project team, and other attendees used large aerial maps to identify key destinations for seniors in the community; locations and corridors with senior pedestrian barriers; key pedestrian routes; and potential pedestrian route enhancements to improve circulation.

The following pages document some of the findings of the workshop, including field observations, brainstorming exercises, aerial map notations, written comments, group discussions, and recommendations for possible next steps.

FIELD OBSERVATION | STRENGTHS AND DEFICIENCIES

Strengths and deficiencies were identified by the group during the walk. Strengths included a mostly complete sidewalk network, numerous pedestrian destinations and an active downtown core. Deficiencies discussed among the group included sidewalk maintenance and lack of comfortable crossings.

The vibrant downtown along Cedar Lane has a pedestrian plaza with seating

Crossing busy, congested highways and train tracks require the use of non-compliant pedestrian stairs

Frequently used bus stops with shelters pervade Teaneck

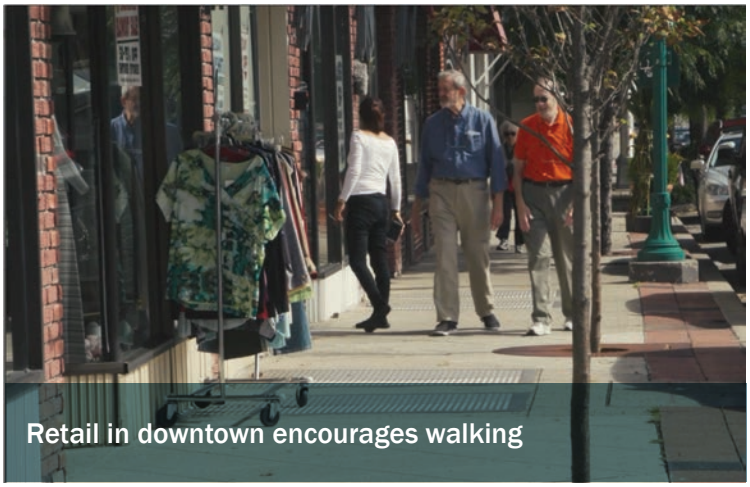
Some cracks in pavement prevent access to pedestrian ramps

Adequate signals and signage promote proper and safe traffic flow

Busy corridors with high pedestrian demand lack visible and accessible crossings

A rectangular rapid flashing beacon alerts motorists to crossing pedestrians outside the Community/Senior Center

Sidewalk heaving creates walking difficulties



Retail in downtown encourages walking

Trodden paths show desire line for new paths

Although a complete sidewalk network can be found in most parts of the township, some segments are cracked or uneven. A number of pedestrian crossings are difficult due to high traffic volumes and lack of high visibility crosswalks. Many positive examples of crossing infrastructure were observed and these should be replicated throughout Teaneck.

SUMMARY OF DISCUSSION

During the brainstorming session, the group was asked a series of questions related to their preferred destinations, observed issues, and pedestrian mobility challenges faced. This feedback is summarized in the following sections and illustrated on the map on pages 12 and 13.

What are the most popular destinations for seniors in Teaneck?

- Senior Center
- Library
- Commercial Districts
  - Teaneck Rd
  - Cedar Ln
  - Degraw Ave at Queen Anne Rd
  - Queen Anne Rd/Palisade Ave (West Englewood)
- Senior Housing on E Cedar Ln
- Holy Name Medical Center
- Teaneck Public Library
- Parks
- Houses of Worship
- Bus Stops

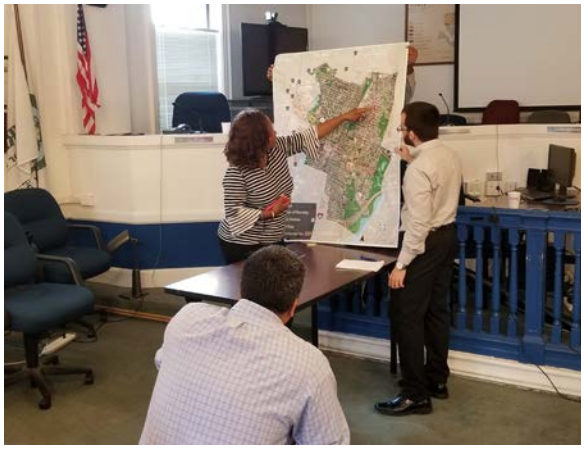
What common barriers to senior mobility have you noticed in Teaneck?

- Cracked, uneven, or discontinuous sidewalks
- Missing or inadequately marked crosswalks
- Lack of or antiquated pedestrian signals or push buttons
- Vehicles traveling at high speeds
- Steep grades along walking routes
- Missing ADA-compliant curb ramps

What are your biggest challenges in walking to where you want to go?

- Vehicles do not yield to pedestrians
- Insufficient crossing times
- Pedestrian conflicts with vehicles turning right on red; particularly in slip lanes with "Yield" signs
- Parked vehicles impede visibility between oncoming vehicles and crossing pedestrians
- High traffic volumes and speeds
- Sidewalks in state of disrepair
- Aggressive driving behavior
- Double parked vehicles on busy streets in the downtown area

SUMMARY OF SENIOR MOBILITY ISSUES



One reason for conducting the brainstorming session is to better understand which issues present the greatest real or perceived obstacles to senior mobility in Teaneck. Based on input from the field walk and brainstorming session, these general issues were identified and should be prioritized for future improvements:

- Vehicles speeding exiting NJ 4
- Sidewalks have obstacles making pedestrian circulation more difficult, such as the presence of utility poles
- The northwest portion of the township is home to many Orthodox Jewish families. Residents in this area walk to services at synagogues along River Rd; pedestrian safety is key in this area
- Crosswalks throughout the township should be upgraded to high-visibility crosswalk striping
- Observation of unsafe practices among both pedestrians and motorists such as motorists failing to yield to pedestrians within

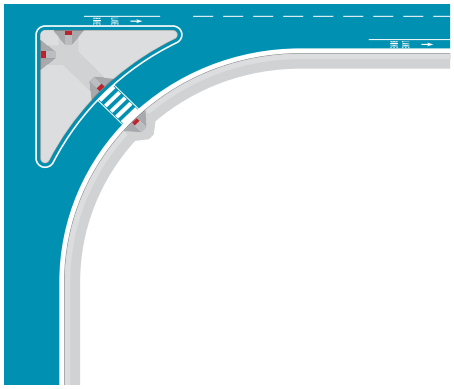
Channelized Right Turn

Channelized right-turn lanes, also referred to as slip lanes, facilitate right-turn movements for motorists. Channelized right turn lanes create a less inviting environment for pedestrians as they enable higher turning speeds.

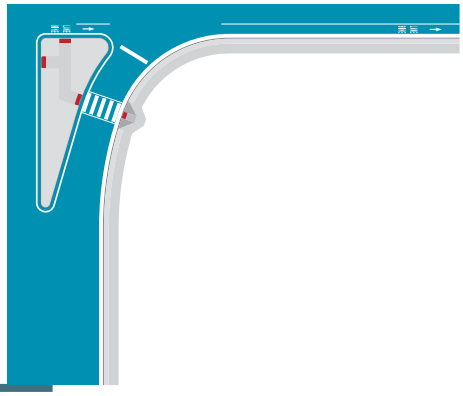
Where channelized right turns are necessary, they should be designed to slow driver turning speed and improve visibility of pedestrians, bicyclists, and oncoming motor vehicle traffic for the turning driver.

If removing the slip lanes from Teaneck Rd at Cedar Ln is infeasible, the lanes should be reoriented to current best practices to slow vehicles and improve pedestrian comfort as shown in the figure below.

Before



After



crosswalks, speeding, and pedestrians not using crosswalks to cross a street

- Pedestrian accessibility between the senior housing, Cedar Ln downtown, bus stops and Senior Center is challenging due to gaps in the sidewalk network and stressful intersections to cross

The workshop field walk focused on the area surrounding the Municipal Center. The characteristics and deficiencies identified along the walking route are typical of many locations in Teaneck. In addition to this area, workshop participants identified other problem areas during the brainstorming session. These are summarized in the following narrative, map, and improvement matrix.

Intersection Improvements

Cedar Lane (Bergen County 60) at Teaneck Road (Bergen County 39)

Existing Conditions

Workshop participants cited the difficulty of maneuvering across the intersection of Cedar Ln and Teaneck Rd. Both streets facilitate through traffic within Teaneck and beyond. Teaneck's primary business district, along Cedar Ln, begins one-half mile west of this intersection. Though operating as a "Main Street," Cedar Ln carries high volumes of traffic with two lanes in each direction traversing the Hackensack River into Hackensack. Teaneck Rd is Teaneck's primary north-south connector, continuing south to Ridgefield Park and north into Bergenfield. Teaneck Rd is a major route connecting to arterials and limited access highways such as NJ 4, I-95 (New Jersey Turnpike) and I-80. Three legs of the intersection contain slip lanes, encouraging higher speeds and forcing pedestrians to walk longer distances to cross the intersection. Workshop participants cited a concern with high speeds on East Cedar Ln where the street terminates one-half mile to the east at Overpeck Golf Course. West of Teaneck Rd, where the road operates with two lanes in a commercial district, Cedar Ln's speed limit is 25 mph; whereas east of Teaneck Rd, with one lane of traffic in each direction in a strictly residential area, the speed limit is 35 mph. On E Cedar Ln adjacent to the golf course is a senior living community. Community members also expressed concern about a lack of pedestrian amenities on E Cedar Ln and the absence of a public bus route from the senior community to Teaneck Rd and Downtown.

Recommendations

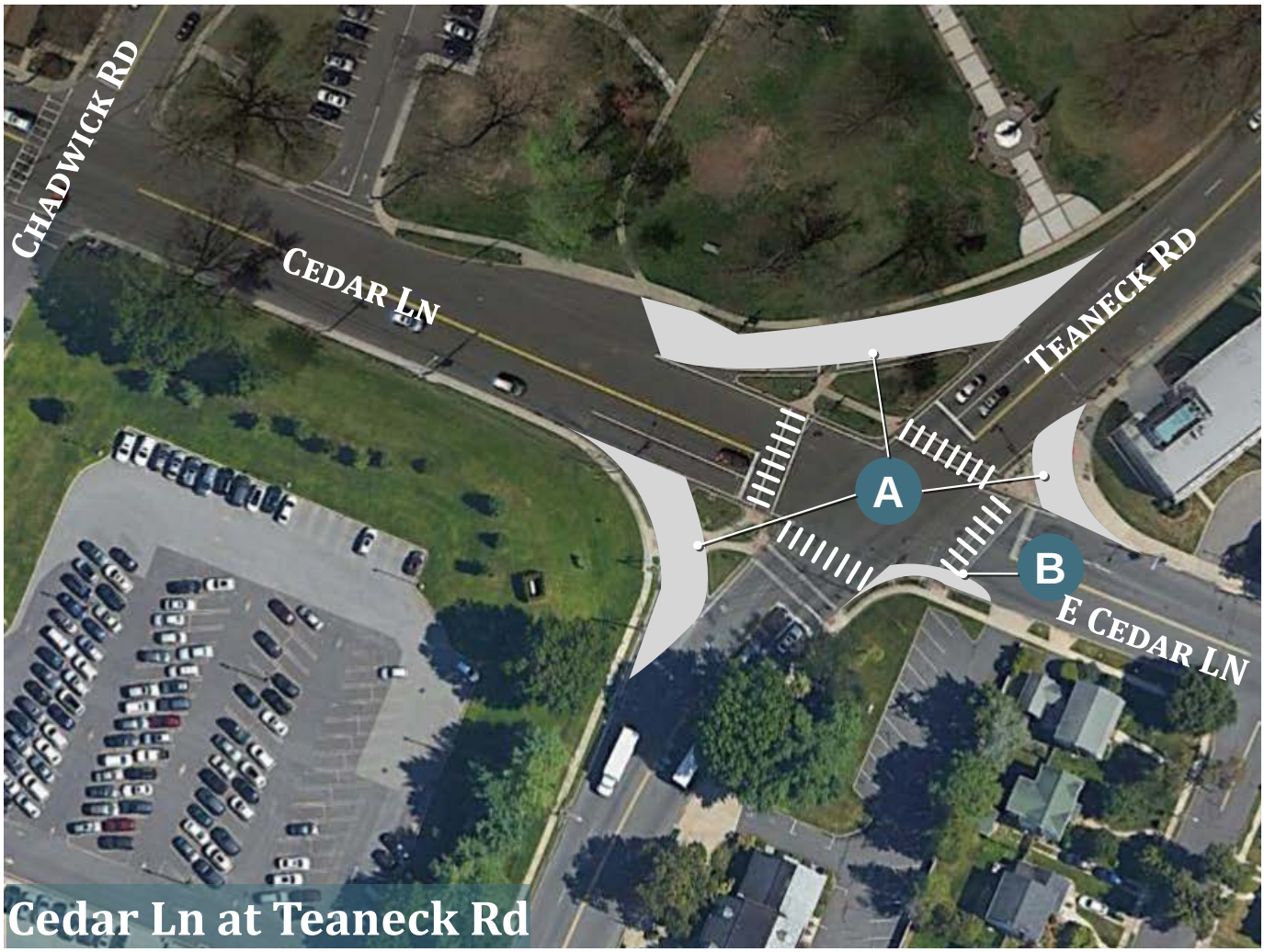
A Fill the three slip lanes with concrete to expand the sidewalk and shorten pedestrian crossings, requiring partial removal of some existing concrete to facilitate right turns; if this isn't feasible due to traffic volumes, the slip lanes should be reoriented as detailed in the left pane

B Install standard curb extension on the southeast corner

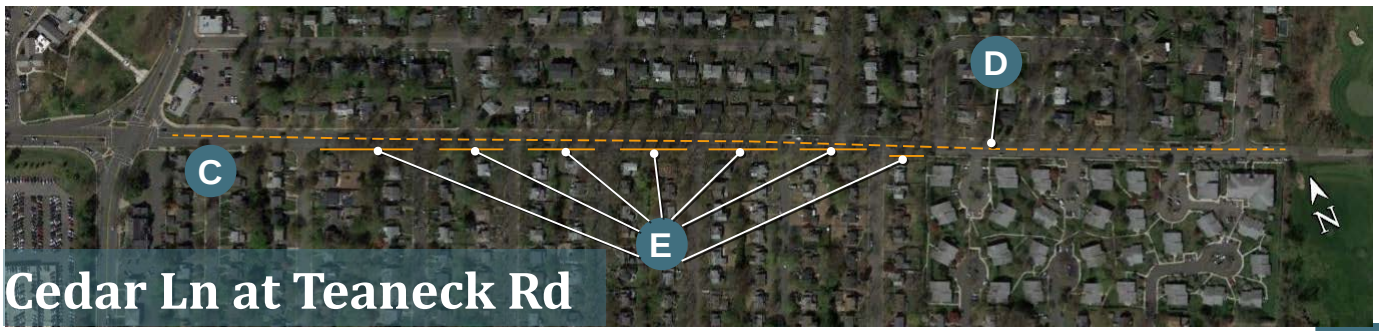
C Reduce speed limit of E Cedar Ln from 35 mph to 25 mph

D Install traffic calming measures such as speed humps, Rectangular Rapid Flashing Beacons (RRFB) and enhanced crossings on E Cedar Ln and similar locations

E Construct sidewalk on south side of E Cedar Ln to connect senior community with Teaneck Rd connected by high visibility crosswalk



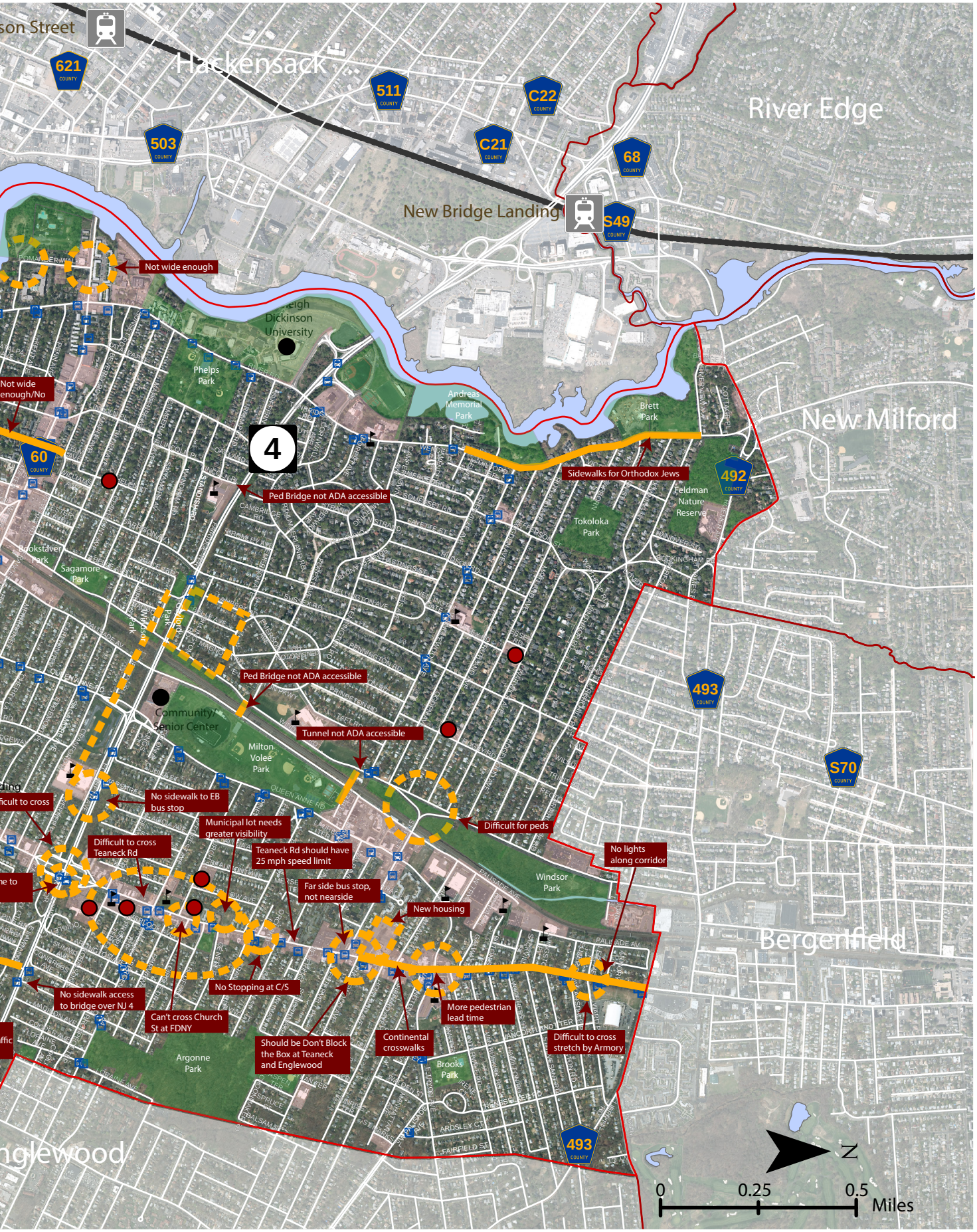
Cedar Ln at Teaneck Rd



Cedar Ln at Teaneck Rd

COMMUNITY-IDENTIFIED AREAS OF CONCERN

Comments from workshop participants during brainstorming exercise


Hackensack
River Edge
New Bridge Landing
New Milford
Bergenfield
Englewood
Fairleigh Dickinson University
Phelps Park
Andreas Memorial Park
Brett Park
Feldman Nature Reserve
Tokoloka Park
Brookstaver Park
Sagamore Park
Community Senior Center
Milton Volee Park
Windsor Park
Argonne Park
Brooks Park
Not wide enough
Not wide enough/No
Ped Bridge not ADA accessible
Ped Bridge not ADA accessible
Tunnel not ADA accessible
Sidewalks for Orthodox Jews
No sidewalk to EB bus stop
Municipal lot needs greater visibility
Difficult to cross Teaneck Rd
Teaneck Rd should have 25 mph speed limit
Far side bus stop, not nearside
New housing
Difficult for peds
No lights along corridor
No Stopping at C/S
No sidewalk access to bridge over NJ 4
Can't cross Church St at FDNY
Should be Don't Block the Box at Teaneck and Englewood
Continental crosswalks
More pedestrian lead time
Difficult to cross stretch by Armory
621
503
511
C22
C21
68
S49
60
4
492
493
S70
N
0
0.25
0.5
Miles

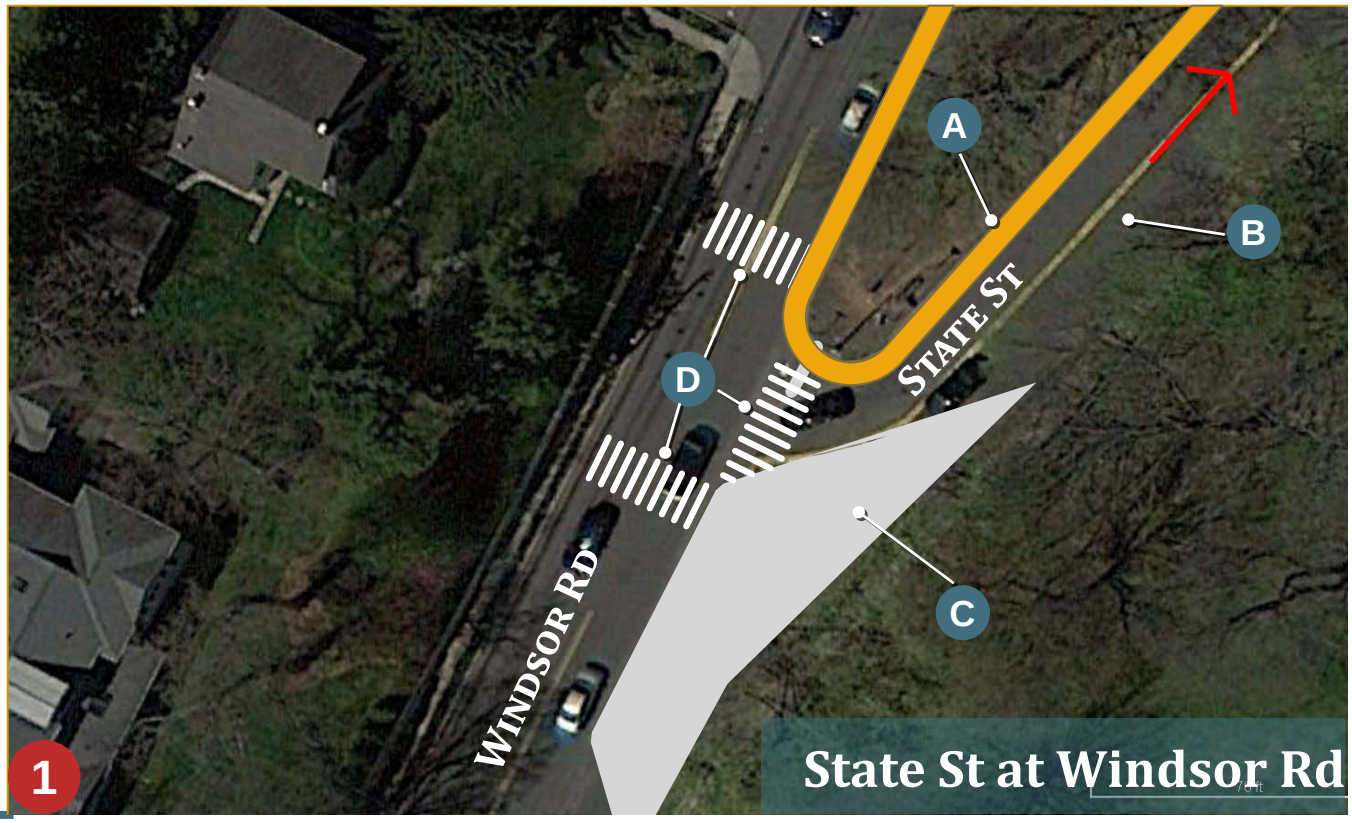
State Street at Windsor Road

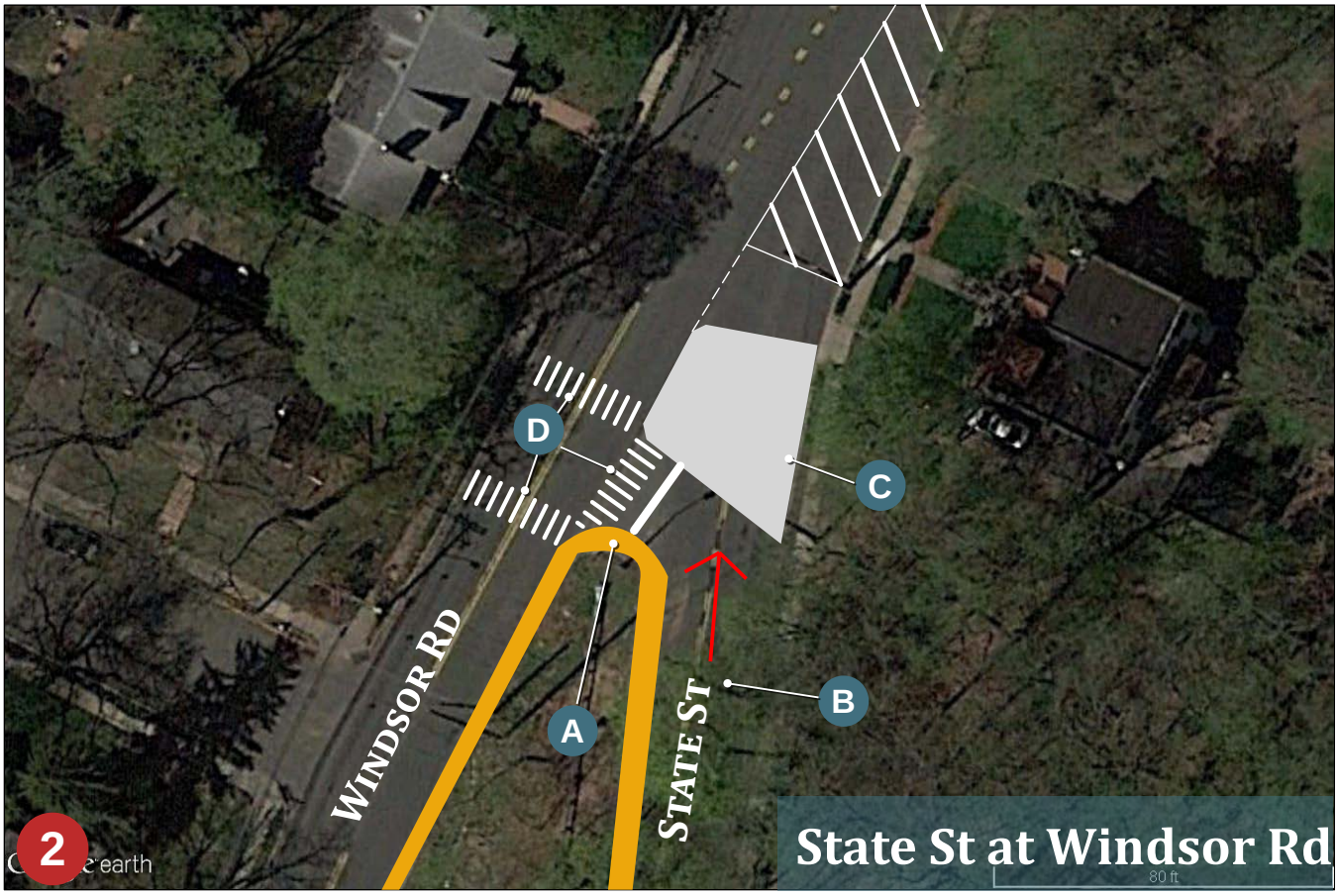
Existing Conditions

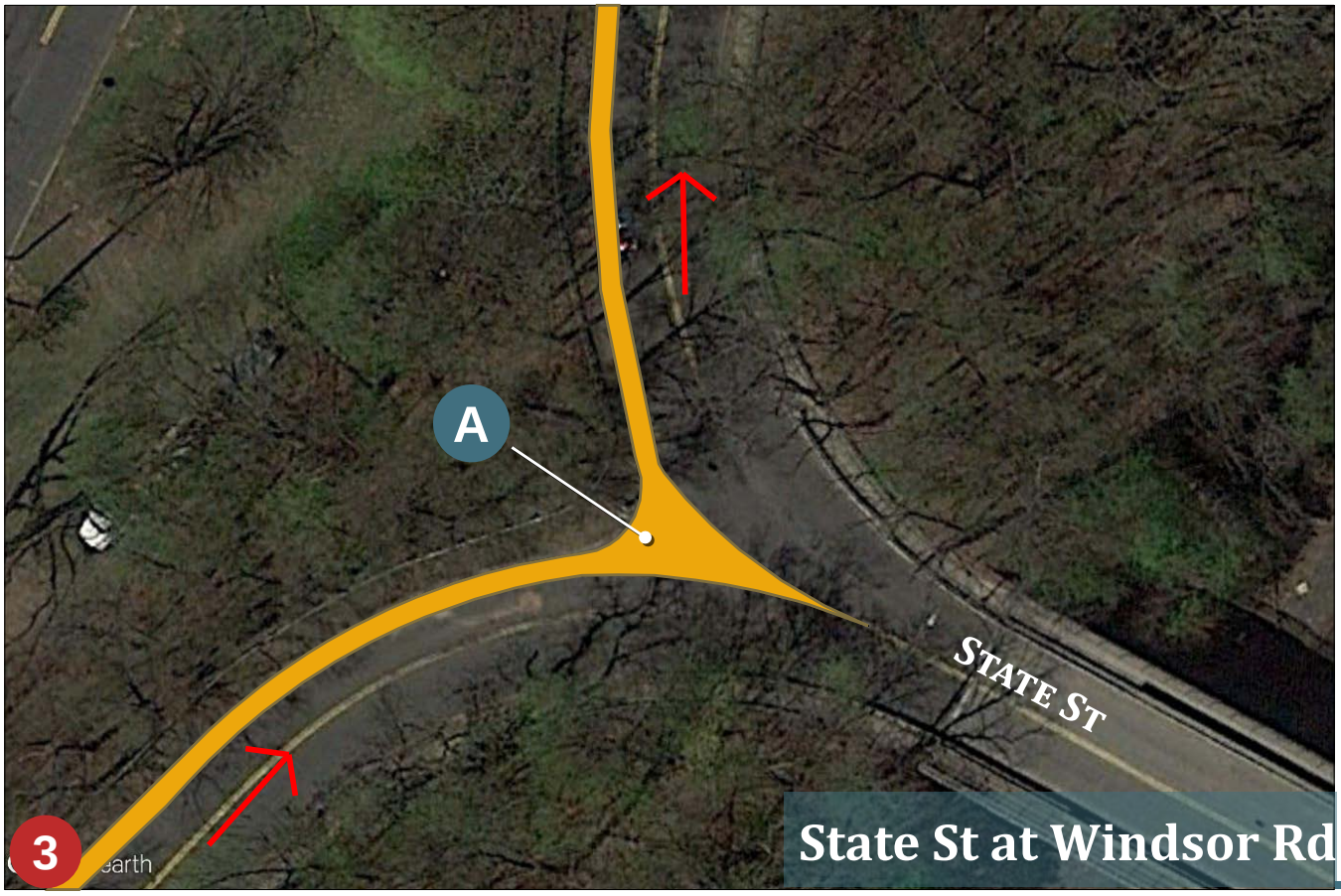
Intersecting with Windsor Rd which parallels the CSX tracks is State St. After crossing over the train tracks State St splits into two segments, one traveling north and the other south, both operating with two-way traffic and intersecting Windsor Rd soon after. The southern segment of State St has a stop sign at Windsor Rd and the north segment has a yield sign. Both intersections have very large curb radii, encouraging excessive travel speeds. Northbound Windsor Rd approaching State St has a right turning lane allowing for turning movements onto State St without slowing down.

Recommendations

- **A** Install sidewalks on west side of State St and east side of Windsor Rd surrounding the island
- **B** Convert each leg of State St to one-way
- **C** Install curb extensions at both intersections to normalize intersection, decrease speeding and improve pedestrian accessibility; adequate left turning vehicle radii must be considered
- **D** Install crosswalks at the two intersections




D
C
WINDSOR RD
A
STATE ST
B
2
State St at Windsor Rd


A
STATE ST
3
State St at Windsor Rd

Phelps Road at Sheffield Road

Existing Conditions

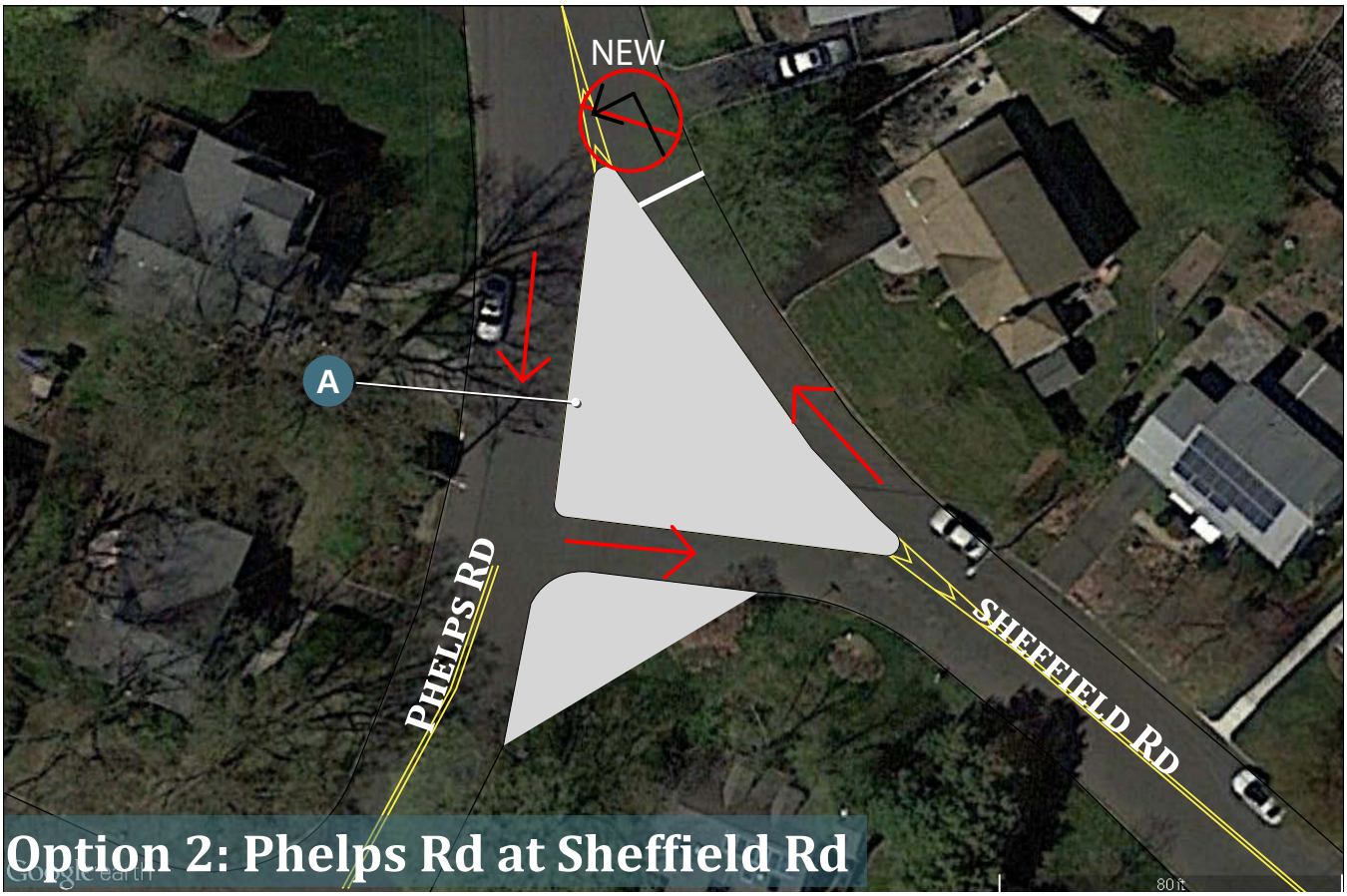
The intersection of Phelps Rd at Sheffield Rd is within a residential neighborhood in the east of Teaneck, just south of NJ 4. Less than one-tenth of a mile to the north is an exit for NJ 4 catering to traffic exiting and entering eastbound. Workshop participants cited a speeding concern with vehicles traveling to and from NJ 4 here. This is particularly an issue due to a lack of traffic controls for this corridor and an excessively wide curb radii which facilitates movements on southbound Phelps Rd to Sheffield Rd as de facto "straight" movements requiring no turning.

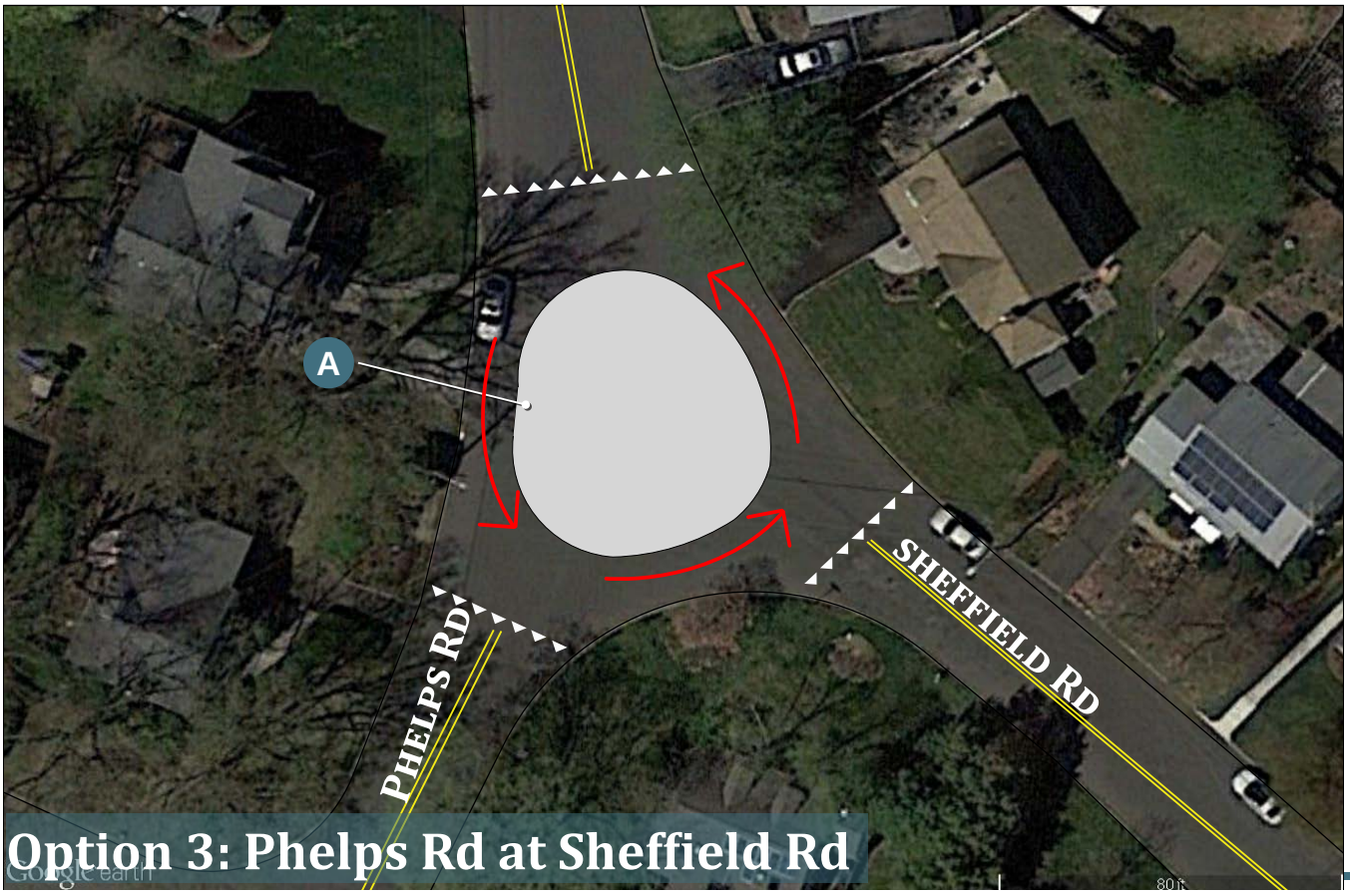
Recommendations

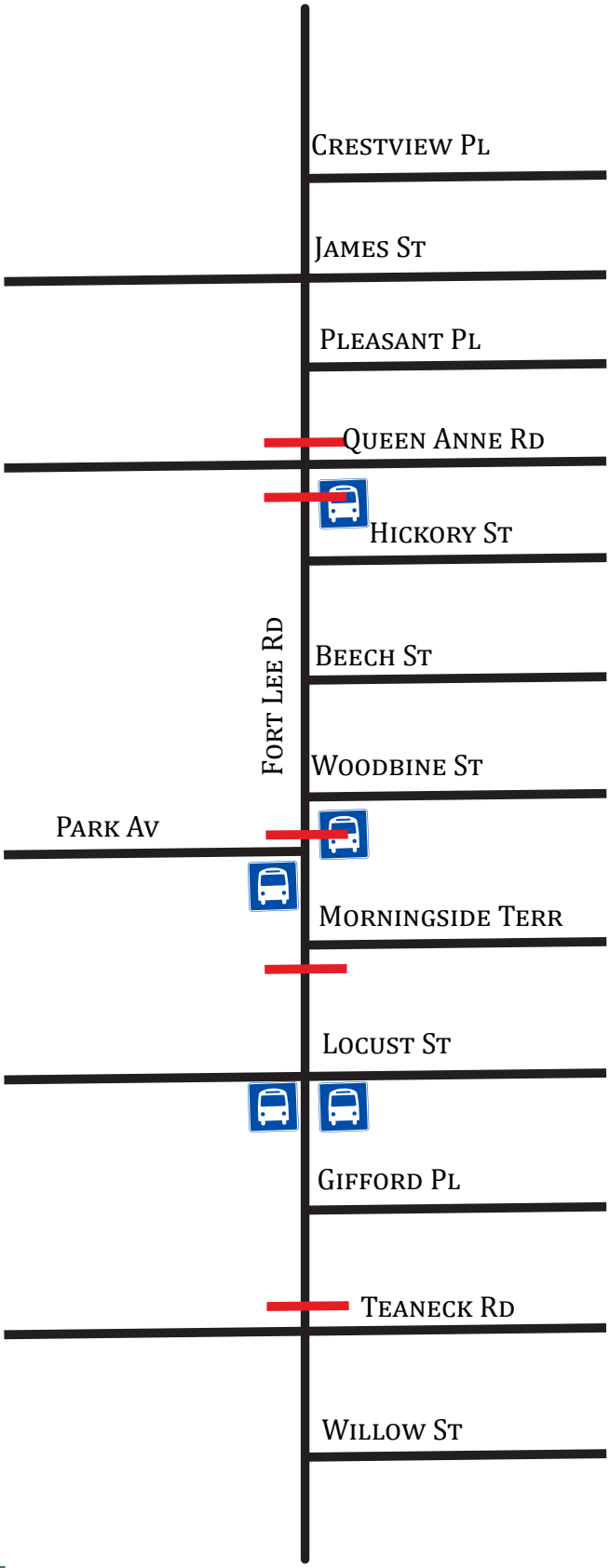
Three options are presented to slow down vehicles. Option 1 would create a perpindicular angle. Option 2 would slow vehicles exiting the highway from Phelps Rd to Sheffield Rd. Option 3 would create a mini roundabout, but may still allow higher speeds for southbound Phelps Rd or northbound Sheffield Rd traffic

A

Option 1: Phelps Rd at Sheffield Rd


NEW
A
PHELPS RD
SHEEFIELD RD
Option 2: Phelps Rd at Sheffield Rd


A
PHELPS RD
SHEFFIELD RD
Option 3: Phelps Rd at Sheffield Rd



Corridor Improvements

The existing conditions' of the following corridors were analyzed to determine where pedestrian improvements can be made. Each includes a graphic of the corridor and the presence of intersecting streets, crosswalks (red lines) and bus stops.

Fort Lee Road

Existing Conditions

Fort Lee Rd begins in Overpeck County Park and continues west into Bogota and over the Hackensack River to Hackensack. The street connects multiple business districts and lacks traffic calming between Teaneck Rd and Queen Anne Rd, prompting speeding and making pedestrian crossing difficult. Walk participants cited this as a concern. Crosswalks traversing Fort Lee Rd exist at Woodbine St and Morningside Terrace. Signage alerts motorists to the crossings, but no engineering mechanisms are currently used to slow vehicles here.

Recommendations

- Install crosswalks, RRFBs and signage to alert motorists to pedestrians and the 25 mph speed limit; crosswalk is particularly needed at Locust St where there are bus stops
- Construct neckdowns at crosswalks to narrow roadway, providing visual cue for motorists to slow down

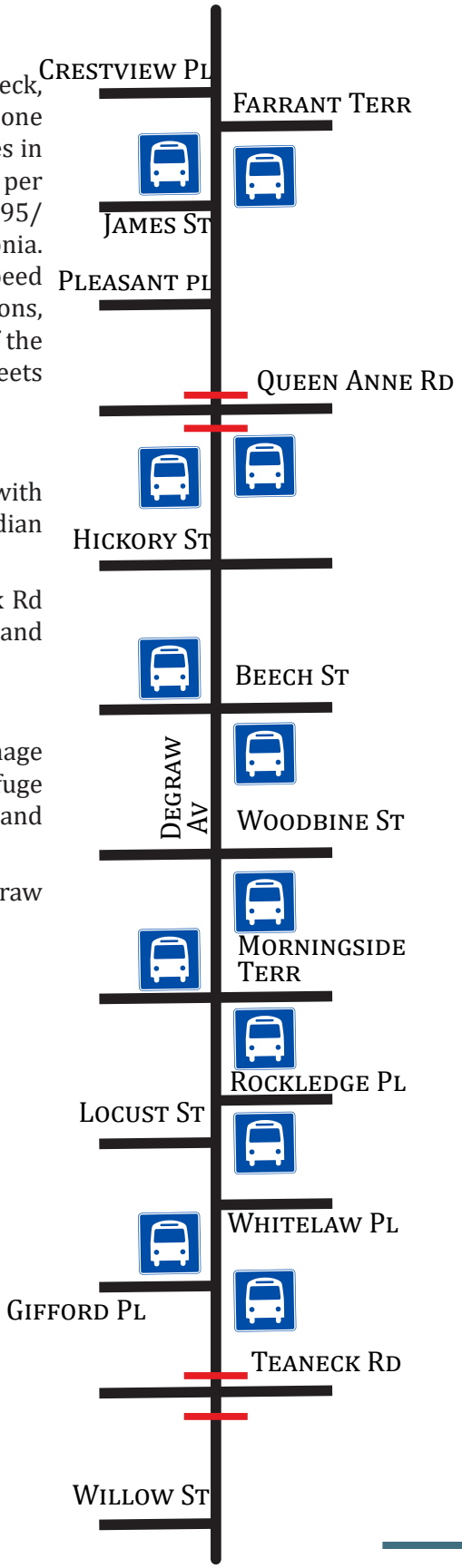
Degraw Av (Bergen County 56)

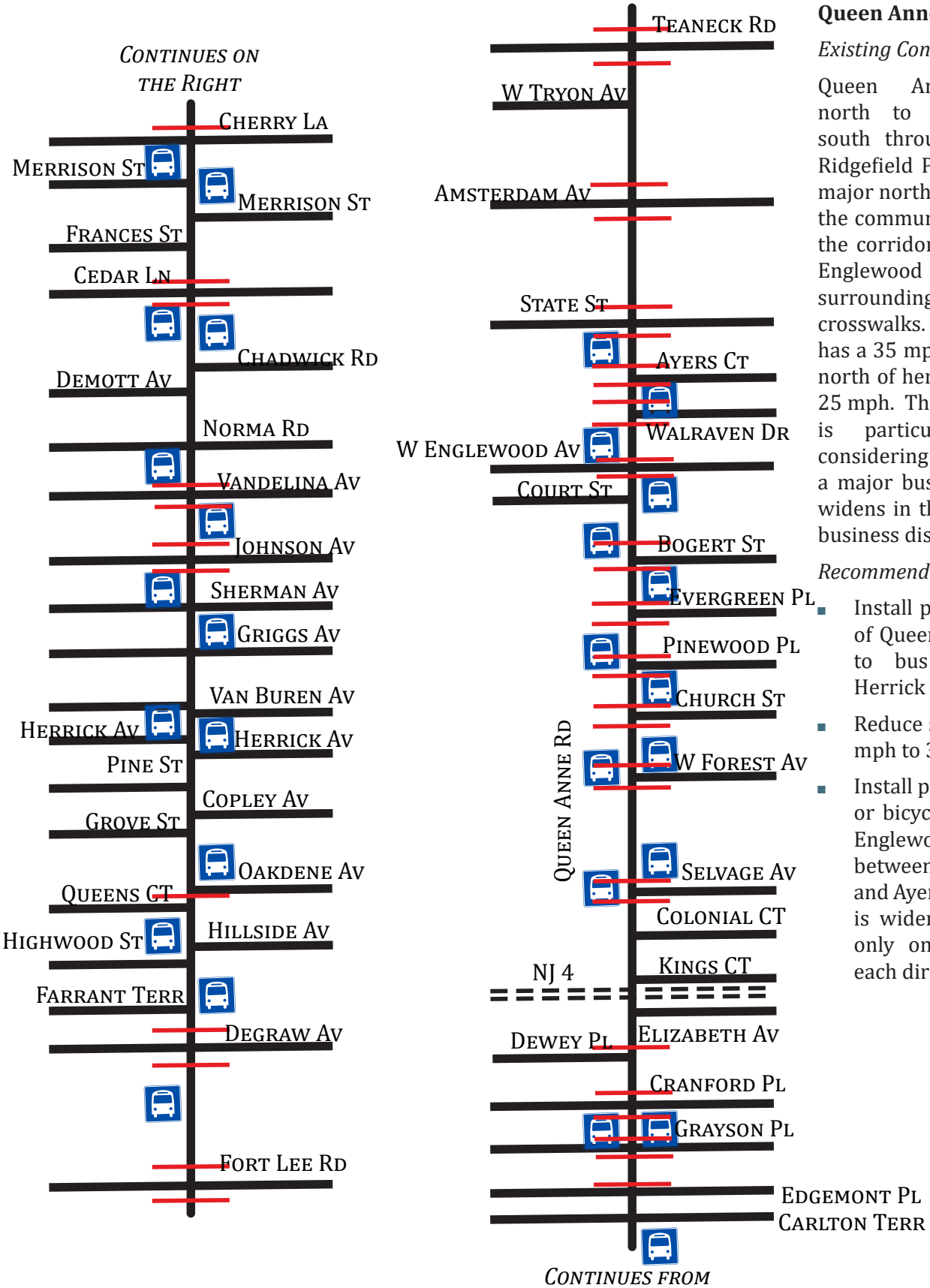
Existing Conditions

Degraw Av travels across Bergen County through Fort Lee, Leonia, Teaneck, Bogota and Hackensack. In Bogota, west of Queen Anne Rd, Degraw Av has one lane in each direction and between Queen Anne Rd and Teaneck Rd two lanes in each direction. East of Teaneck Rd, Degraw Av expands to two to three lanes per direction where it connects to the Glenpointe development in Teaneck and I-95/ NJ Turnpike, before eventually reducing to one lane in each direction in Leonia. Residential uses pervade on both sides of the streets. Degraw has a 35 mph speed limit. Three bus routes operate along Degraw Av with stops at most intersections, each lacking crosswalks to reach them. There are no pedestrian crossings of the corridor between Queen Anne Rd and Teaneck Rd. Some intersecting local streets have crosswalks while others do not.

Recommendations

- Investigate implementing road diet between Teaneck Rd and border with Bogota at Crestview Pl to remove one lane in each direction or convert median to a center turn lane
- Alternatively, construct planted median along corridor between Teaneck Rd and border with Bogota at Crestview Pl; explore opportunity with Bogota and Bergen County of continuing treatment beyond township boundary
- Reduce speed limit from 35 mph to 30 mph
- Install high visibility crosswalks crossing Degraw Av with appropriate signage at intersections with bus stops utilizing planted median as a median refuge island; including Gifford Pl, Locust St, Morningside Terr, Woodbine St and Beech St
- Install high visibility crosswalks on all side streets intersecting with Degraw Av
- Remove slip lane from westbound Degraw Av to northbound Teaneck Rd





Queen Anne Rd

Existing Conditions

Queen Anne Rd travels north to Teaneck Rd and south throughout Teaneck to Ridgefield Park. It serves as a major north-south connector in the community. The portion of the corridor south of the West Englewood business district surrounding Ayers Ct lacks most crosswalks. This segment also has a 35 mph speed limit while north of here the speed limit is 25 mph. The lack of crosswalks is particularly noteworthy considering Queen Anne Rd is a major bus route. The street widens in the West Englewood business district.

Recommendations

- Install pedestrian crossings of Queen Anne Rd adjacent to bus stops; including Herrick Av and Merrison St
- Reduce speed limit from 35 mph to 30 mph
- Install planted median and/or bicycle facilities in West Englewood business district between W Englewood Av and Ayers Ct where roadbed is wider while still having only one marked lane in each direction

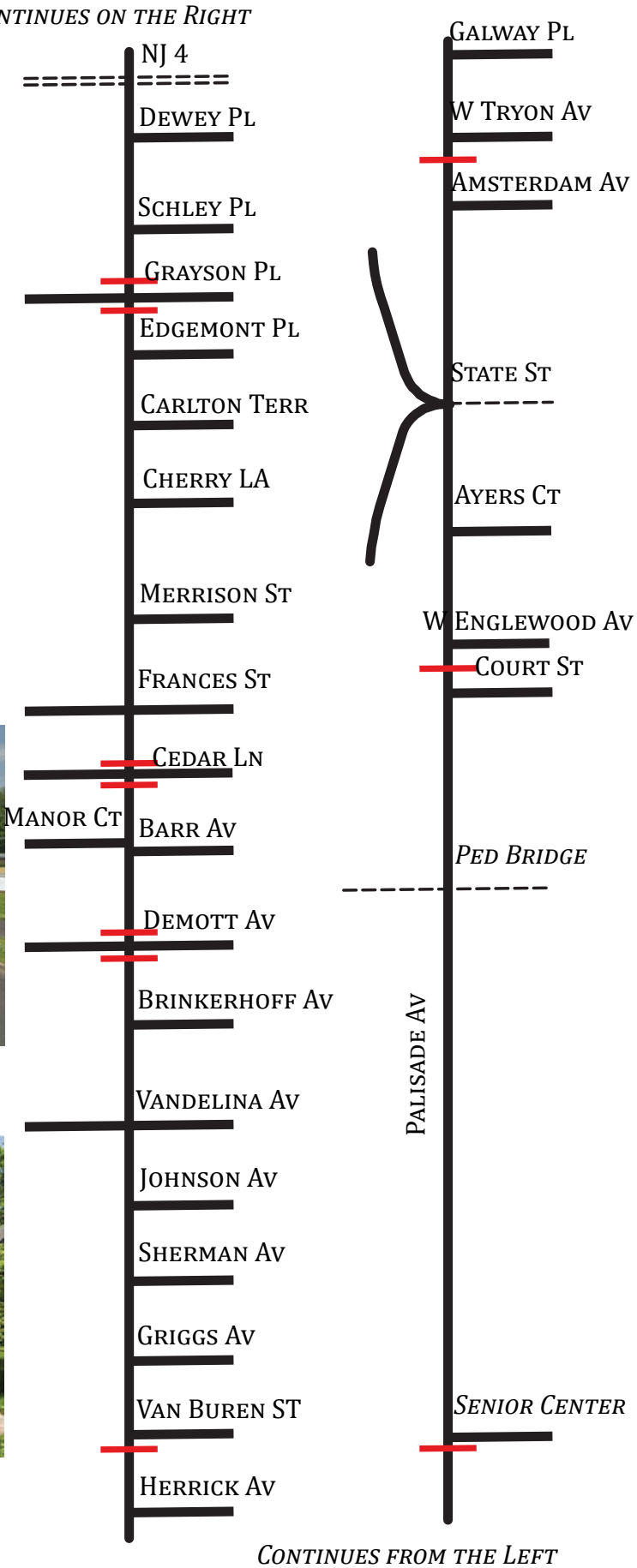
Palisade Av

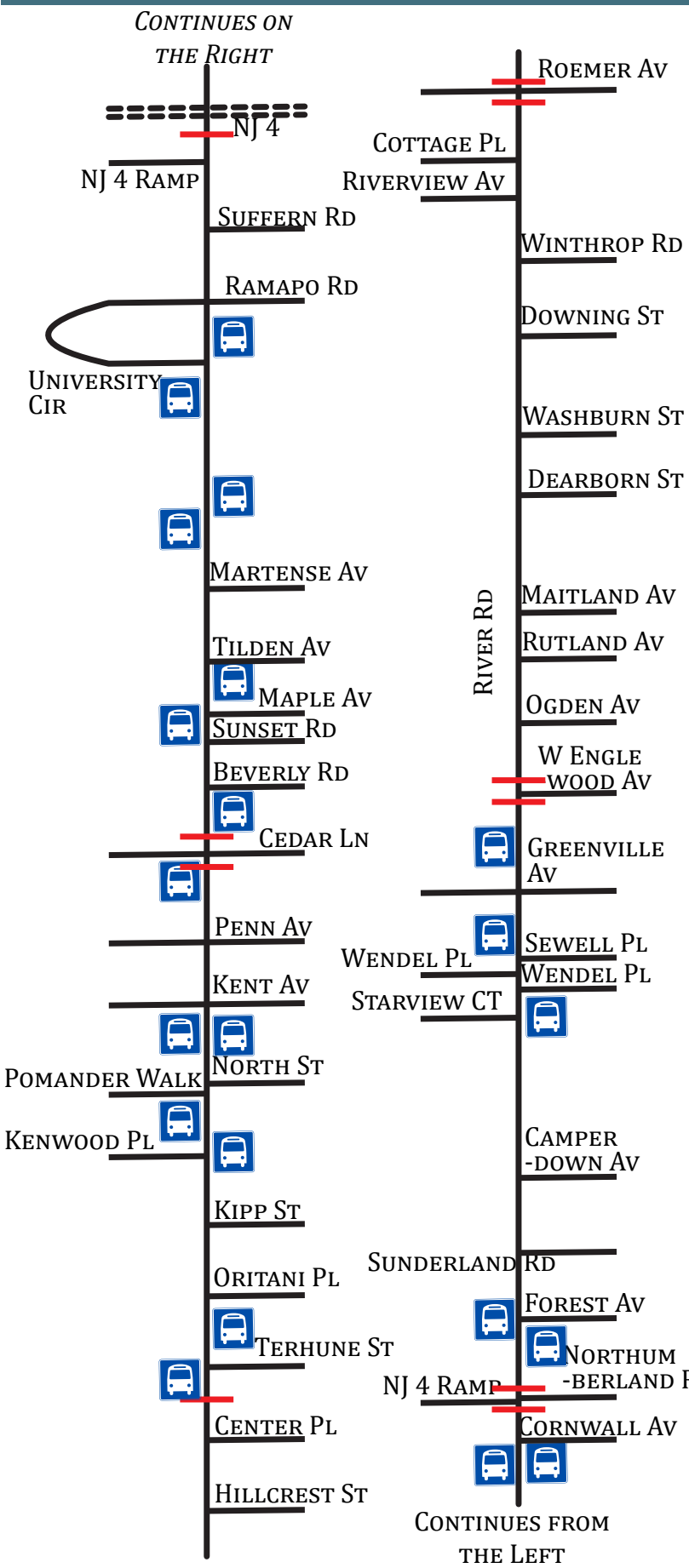
Existing Conditions

Palisade Av parallels Queen Anne Rd and travels roughly the same distance, terminating at a dead-end at Ma'ayanot Yeshiva High School for Girls. The corridor runs immediately adjacent and parallel to the CSX freight rail line. Similar to Queen Anne Rd, Palisade Av lacks most crosswalks, particularly in residential areas and runs along the the Teaneck Sportsplex and CSX rail lines. For most of the corridor, the speed limit is 30 mph.

Recommendations

- Install pedestrian crossings of Palisade Av near pedestrian attractors including parking lots, parks and bus stops one block east on Queen Anne Rd; including Herrick Av, Vandelinda Av, Cherry La and Amsterdam Av





River Rd (Bergen County 411)

Existing Conditions

River Rd travels along the Hackensack River from Bogota north to New Milford. Fairleigh Dickinson University lies on River Rd in Teaneck. Residential neighborhoods east of River Rd are home to a large Orthodox Jewish community. The community relies heavily on pedestrian infrastructure due to the religious prohibition of driving on Friday night and Saturday. Consequently, community members are precluded from using a push-button actuated pedestrian signal during certain times. The needs of such communities should be considered when evaluating pedestrian needs. Sidewalks are present on the east side of the street, but not on the west side between Sewell Pl and Grace Lutheran Church and W Englewood Av to the New Milford border. Bus stops on the west side are inaccessible. The corridor's speed limit is 35 mph.

Recommendations

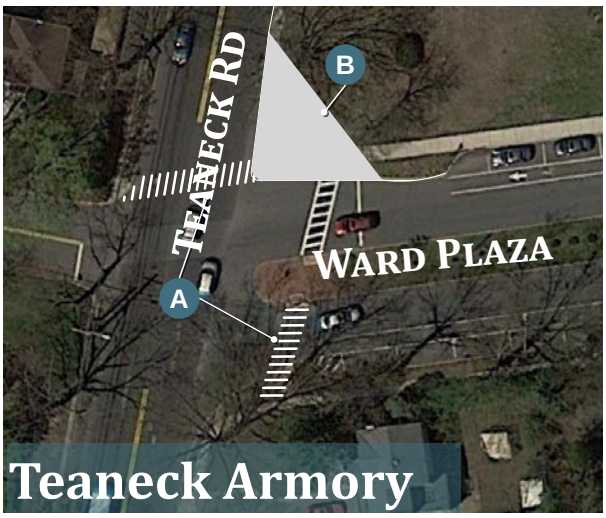
- Install crossings on River Rd to connect to parks, bus stops and houses of worship; including Terhune Park, Pomander Walk, Kenwood Pl, Maple Av, Fairleigh Dickinson University, Phelps Park, Sunderland Rd, Wendel Pl, Grenville Av, Andreas Memorial Park and Brett Park
- Areas with a large Orthodox Jewish population can install a "Shabbat Pedestrian Crossing" or "Hands-Free Pedestrian Crossing" which is push-activated during the week and operates automatically on the Jewish Sabbath.
- Paint channelized median along corridor similar to what exists at mid-block crossing at Library Circle/ Phelps Park to effectively narrow the travel lanes and slow speeds
- Investigate installing curb extensions to normalize intersections along northern part of corridor with large turning radii, including Rutland Av, Maitland Av, Dearborn St and Washburn St

Location Improvements

Teaneck National Guard Armory

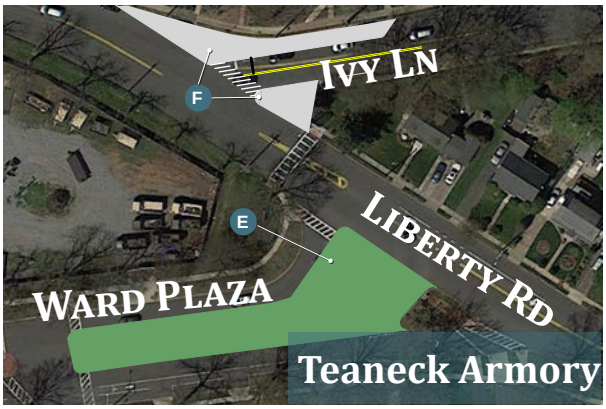
Existing Conditions

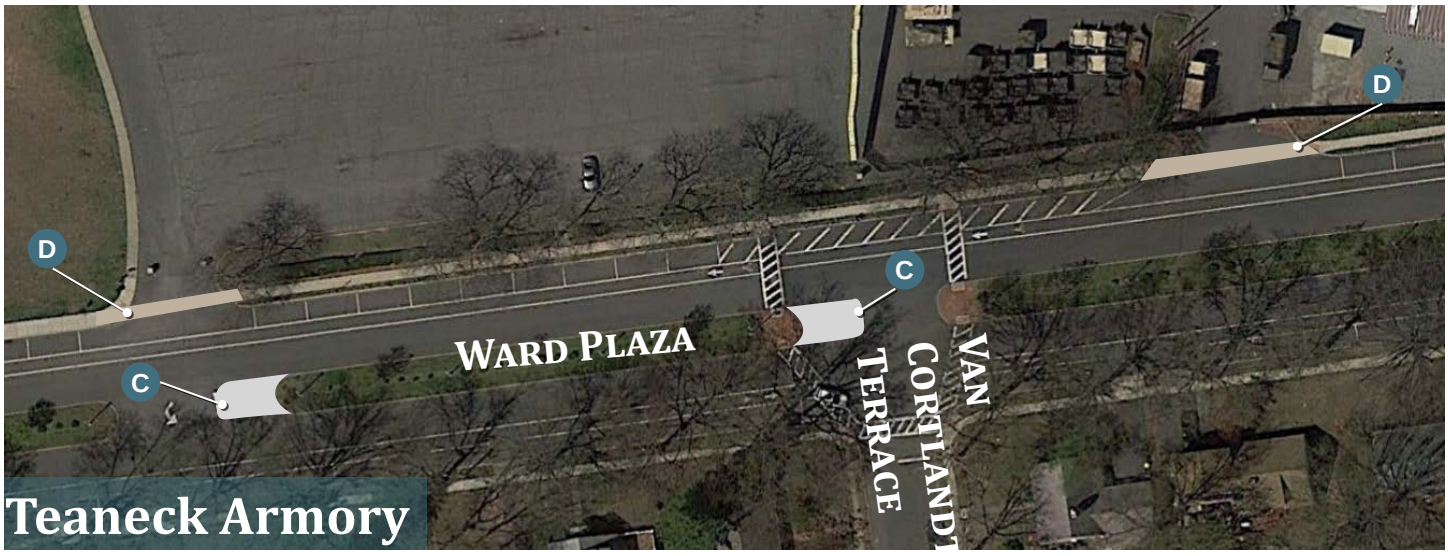
The Teaneck National Guard Armory lies at the northeast corner of Teaneck, surrounded by Liberty Rd (Bergen County 49), Teaneck Rd and Ward Plaza. This portion of Teaneck Rd lacks adequate crossings. Ward Plaza has a planted median. The westbound side of the median has a crosswalk, but the eastbound side does not. This wide intersection encourages speeding and quick turns. The speed limit is 35 mph. The Armory has two driveways on Ward Plaza. Ward Plaza is also permeated by very wide gaps in the median for turning vehicles. The pairing of intersections of Liberty Rd with Ward Plaza and Ivy Ln promote speeding due to large turning radii.



Recommendations

- **A** Install crosswalks at intersection of Teaneck Rd and Ward Plaza
- **B** Install curb extension on northeast corner of Teaneck Rd and Ward Plaza
- **C** Extend median curb extensions on Ward Plaza
- **D** Reconfigure the two driveways and sidewalks on the north side of Ward Plaza to connect sidewalks and prioritize pedestrians
- **E** Extend planted median at Liberty Rd and Ward Plaza west onto Ward Plaza to intersection with Rensselaer Rd
- **F** Install curb extensions at Liberty Rd, Ward Plaza and Ivy Ln to narrow entries to Ivy Ln and normalize intersections





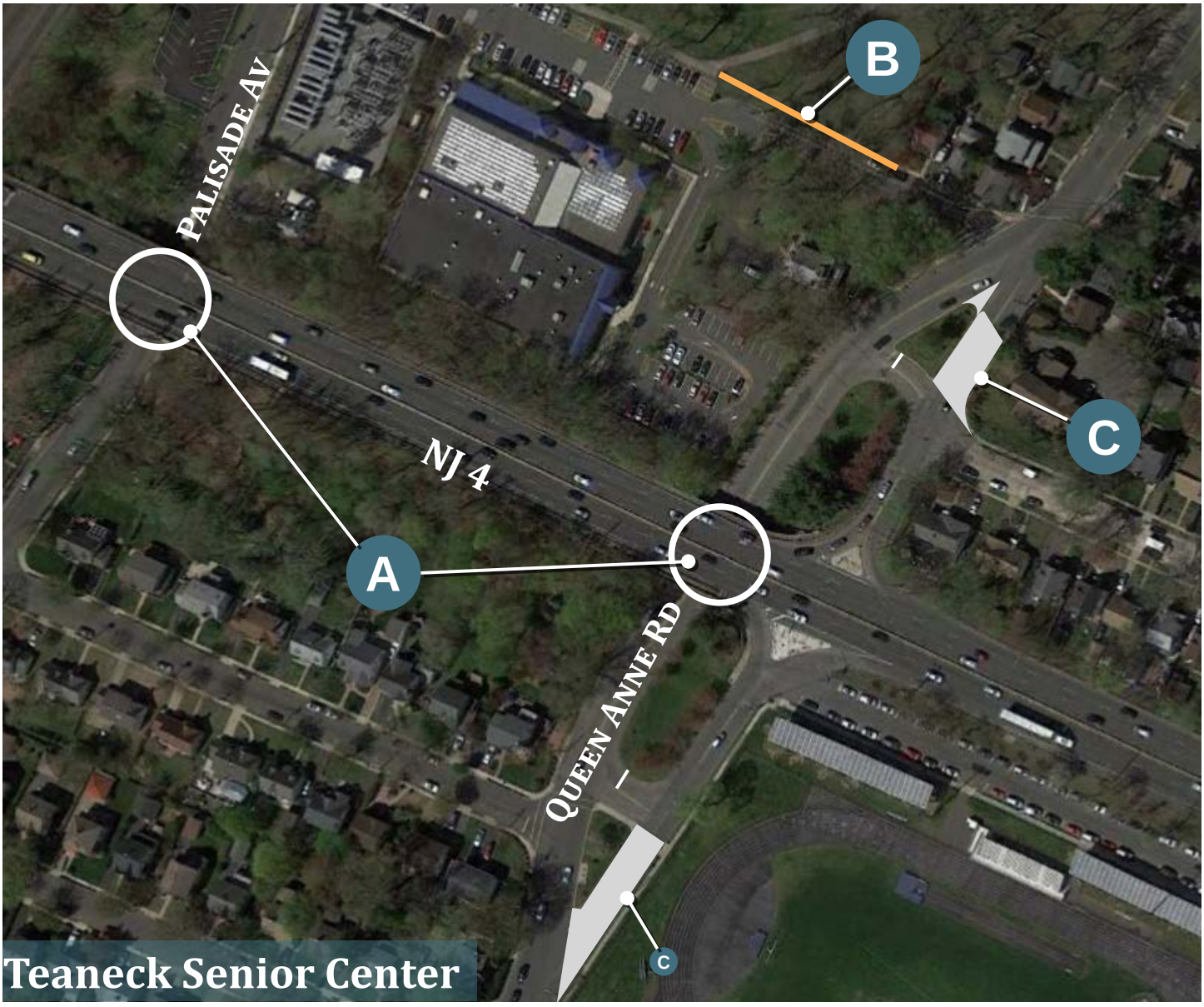
Teaneck Senior Center

Existing Conditions

The Teaneck Senior Center is located north of NJ 4 on Colonial Ct between Palisade Av and Queen Anne Rd. The building can be difficult to travel to by walking or transit. Traveling from the south, pedestrians must walk under the unlit NJ 4 overpass on either Palisade Av or Queen Anne Rd. South of NJ 4, the west side of Palisade Av does not have a sidewalk.

Recommendations

- **A** Install pedestrian scale lighting under NJ 4 overpass of Palisade Av and Queen Anne Rd
- **B** Install sidewalk on road connecting Senior Center with Queen Anne Rd
- **C** Reconfigure on/off ramps between Queen Anne Rd and NJ 4 to reduce excess road space and make intersections easier to navigate



Crossings to Houses of Worship, Schools and Bus Stops

Religious institutions, schools and bus stops are spread throughout Teaneck. These sites often cater to a highly local area, prompting congregants/students/commuters to walk to these destinations. Pedestrian improvements should be prioritized to facilitate improved accessibility to these pedestrian generators.

Houses of Worship

Young Israel of Teaneck-868 Perry Lane

- Install signage in front of the synagogue alerting motorists to pedestrians
- Install high visibility crosswalk in front of synagogue
- Investigate the engineering feasibility of installing a curb extension on the east side of the street to encourage slower speeds

Congregation Arzei Darom-725 Queen Anne Rd (between Norma Rd and Demott Av)

- Install high visibility crosswalk with signage on Queen Anne Rd at Norma Rd

Ohr Saadya-554 Queen Anne Rd (between Van Buren Av and Griggs Av)

- Install high visibility crosswalk with signage on Queen Anne Rd at Van Buren Av

Congregation Netivot Shalom-811 Palisade Av (between Cedar Ln and Frances St)

- Install high visibility crosswalks with signage crossing Palisade Av at Frances St and across Frances St

Congregation Shaare Tefillah 510 Claremont Av (between Helen St and Garrison Av)

- Install high visibility crosswalks with signage at Helen St and Beatrice St

Congregation Beth Sholom-354 Maitland Av (between Rugby Rd and Sussex Rd)

- Install high visibility crosswalks at intersections of Rutland Av at Rugby Rd and Maitland Av and Rugby Rd

Sephardic Congregation of Teaneck-1425 Essex Rd (between Ogden Av and Rutland Av)

- Install high visibility crosswalks at Ogden Av and Essex Rd

Teaneck United Methodist Church-201 Degraw Av (between Queen Anne Rd and Hickory St)

- Install high visibility mid-block crosswalk with signage on Hickory St in front of the church

St. Peters Marthomas Church-631 John St (between Fycke Ln and Lindbergh Blvd)

- Install high visibility mid-block crosswalk with signage on John St in front of the church

Church of St. Anastasia-1095 Teaneck Rd (between NJ 4 and Robinson St)

- Install high visibility mid-block crosswalk with signage on Robinson St in front of the church

St. Paul's Lutheran Church-61 Church St (between Beaumont Av and Longfellow Av)

- Install high visibility crosswalks with signage at Church St and Longfellow Av

Seventh-Day Adventist Church-405 E Englewood Av (between Sylvan Terrace and Aspen Terrace)

- Install high visibility crosswalks with signage on E Englewood Av in front of church

Christ Episcopal Church-480 Warwick Av (between Essex Rd and Sussex Rd)

- Install high visibility crosswalks with signage at Maitland Av and Essex Rd and in front of the church on Warwick Av

Nida-Ul-Islam-250 Hargreaves Av (between St. Mark's Pl and Belmont St)

- Install high visibility crosswalks at Hargreaves Av and St. Mark's Pl

Schools

Hawthorne Elementary School-201 Fycke Ln (between Lucy Av and Hawthorne Av)

- Install high visibility crosswalks of Fycke Ln at Marion St

Whittier Elementary School-491 W Englewood Ave (between Hudson Rd and Essex Rd)

- Upgrade existing crosswalks on W Englewood Ave to high visibility
- Install high visibility crosswalks at Essex Rd and Ogden Ave

Bryant Elementary School-1 E Tryon Av (between Teaneck Rd and Van Cortlandt Terr)

- Upgrade crosswalks at E Tryon Ave and Teaneck Rd, and Intervale Rd at Teaneck Rd to high visibility
- Extend median on E Tryon Ave/Queen Anne Rd into crosswalks to provide pedestrian refuge
- Install high visibility mid-block crossing on E Tryon Ave in front of the school

Thomas Jefferson Middle School-655 Teaneck Rd (between Fycke Ln and Lindbergh Blvd)

- Upgrade crosswalks at Fycke Ln and school entrance, Fycke Ln and Teaneck Rd, Lindbergh Blvd and Hartwell St, and Lindbergh Blvd and Salem St to high visibility
- Install Rapid Rectangular Flashing Beacon (RRFB) at existing crosswalk at Teaneck Rd and Vandelinda Ave

Benjamin Franklin Middle School-1315 Taft Rd (between E Laurelton Pkwy and W Englewood Av)

- Install high visibility crosswalk on Emerson Av in front of the school

Teaneck High School-100 Elizabeth Av (between Teaneck Rd and Queen Anne Rd)

- Install high visibility crosswalk on Cranford Pl in front of the school

The Community School-11 W Forest Ave (between Teaneck Rd and Anna St)

- Upgrade existing crosswalks at Teaneck Rd and W Forest Ave to high visibility
- Install mid-block crossing with RRFB on W Forest Ave at Katherine St

Teaneck Community Charter School-563 Chestnut Ave (between Terhune St and Thomas St)

- Upgrade existing crosswalks at Chestnut Ave and Thomas St, and Chestnut St and Terhune St to high visibility

Academy of Greatness and Excellence-441 North St (between Elm Ave and Linden Ave)

- Upgrade crosswalks to high visibility at North St and Elm Ave and install crosswalks at North St and Linden Ave

The Community High School-1135 Teaneck Rd (between Robinson St and W Forest Ave)

- Upgrade existing crosswalks at Teaneck Rd and Robinson St, and Teaneck Rd and E Forest Ave to high visibility
- Install high visibility crosswalks on Overlook Ave between Robinson St and E Forest Ave

Torah Academy of Bergen County-1600 Queen Anne Rd (between Amsterdam Ave and W Tryon Ave)

- Upgrade existing crosswalks at Queen Anne Rd and Amsterdam Ave, and Palisade Ave at W Tryon Ave to high visibility
- Install high visibility crosswalks at Queen Anne Rd and W Tryon Ave

Bus Stops

Numerous bus stops in Teaneck do not have a corresponding sidewalk, creating unsafe conditions for pedestrians. High-use bus stops should have bus shelters to provide comfortable accommodations for waiting patrons. As detailed in previous sections, crosswalks should be provided near bus stops to allow for the greatest ease of movement to and from destinations.

Two bus stops of particular note are those on NJ 4 at Teaneck Rd. The project team witnessed pedestrians walk up the hill east of Teaneck Rd to reach the bus stop, despite sidewalks being available because doing so requires a much longer walking distance. A visibly trodden path (circled below) by the eastbound stop provides a desire line for pedestrians. The construction of stairs or a ramp should be investigated to cater to these pedestrians.

NJ 4 at Teaneck Rd

General Traffic Calming Recommendations

Speed Management

Speed management treatments aim to reduce motor vehicle speeds, improving pedestrian accessibility. Speed management treatments can be divided into two types: horizontal and vertical deflection. These treatments can be implemented individually or in combination to increase their effectiveness.

Benefits of speed management techniques include:

- Decreased motor vehicle speeds
- Decreased crash likelihoods
- Decreased chance of injury resulting from crashes
- Improved sense of comfort and safety for motorists, pedestrians and cyclists
- Provides opportunity for landscaping and other community features such as benches, communal space, and artistic painted intersections, benefitting all roadway users and residents

Horizontal Deflection

Horizontal speed control devices are used to slow motorists by either visually narrowing the roadway or deflecting motorists through an artificial curve.

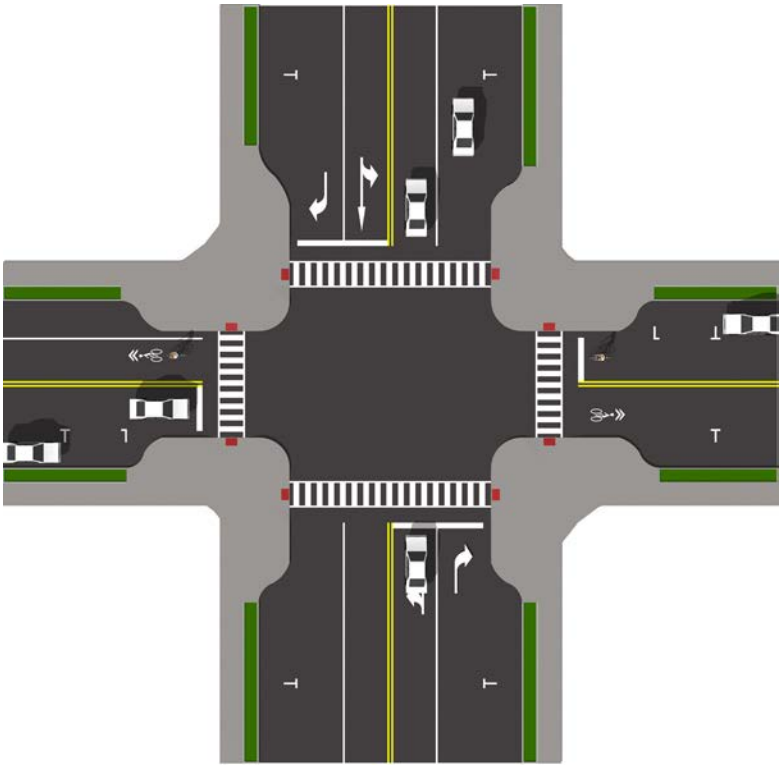
Bicycle boulevard sign in Berkeley, CA (photo courtesy of The City of Berkeley, CA)

The following are examples of horizontal deflection:

- Curb Extensions
- Chicanes
- Neighborhood Traffic Circles

Curb Extensions

Curb extensions, or bulb-outs, extend the sidewalk or curbface into the parking lane at an intersection. Curb extensions narrow the roadway at intersections, contributing to lower motor vehicle speeds, as well as reducing the crossing distance for pedestrians and increasing the amount of space available for street furniture and green stormwater management features.

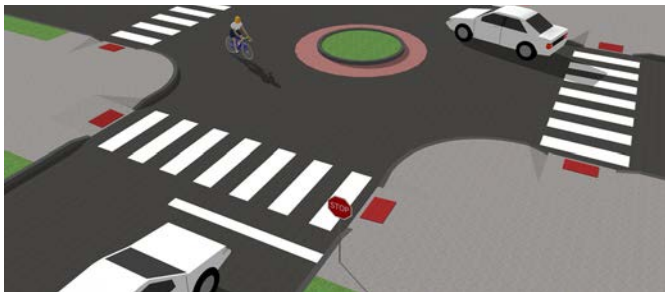


Chicanes

Chicanes are a series of raised or delineated curb extensions, edge islands, or parking bays placed on alternating sides of a street to form an S-shaped bend in the roadway. Chicanes reduce vehicle speeds by requiring drivers to shift laterally through narrow travel lanes.

Neighborhood Traffic Circles

Neighborhood traffic circles are raised or delineated islands used at minor street crossings to reduce vehicle travel speeds by reducing turning radii, narrowing travel lanes, and, if planted, obscuring the visual corridor along the roadway.



Vertical Deflection

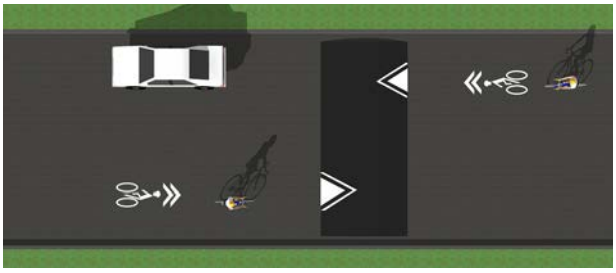
Vertical speed control measures are composed of wide, slight pavement elevations that self-enforce a slower speed for motorists. Narrow and abrupt speed bumps often used in private driveways and parking lots are not recommended for public streets and are hazardous to bicyclists.

The following are examples of vertical deflection:

- Speed Humps
- Speed Tables
- Speed Cushions
- Raised Crosswalk

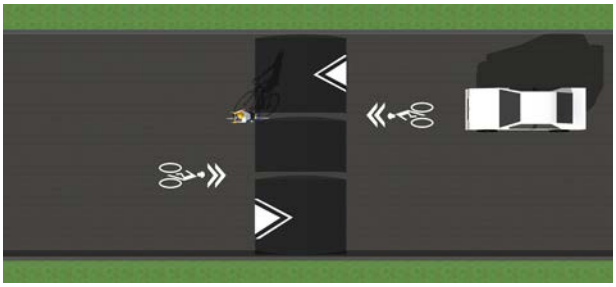
Speed Humps

Speed humps are 3 to 4 inches high and 12 to 14 feet long, with an intended vehicle speed of 15 to 20 mph. Humps are often referred to as "bumps" on signage and by the general public.



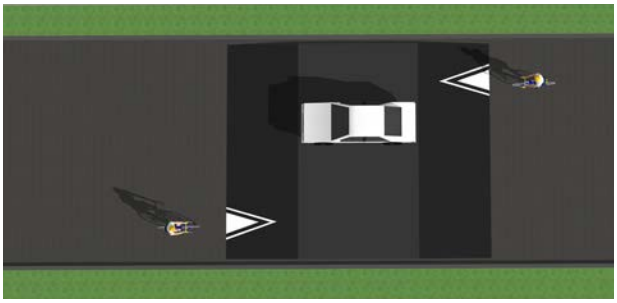
Speed Cushions

Speed cushions are speed humps or speed tables that include wheel cutouts allowing larger vehicles to pass unaffected, but reduce passenger vehicle speeds. They are often used on key emergency response routes to allow emergency vehicles to pass unimpeded. Speed cushions should be used with caution, however, as drivers will often seek out the space in between the humps to drive faster.



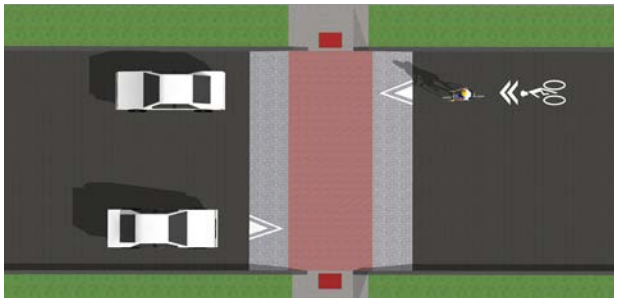
Speed Tables

Speed tables are longer than speed humps and have a flat top, with a height of 3 to 3.5 inches and a length of 22 feet. Intended vehicle operating speeds range from 25 to 35 mph, depending on the spacing. Speed tables may be used on collector streets, transit, and/or emergency responder routes.



Raised Crosswalk

A raised crosswalk is a speed table signed and marked as a pedestrian crossing. It extends the full width of the street and is typically three inches high. At minor intersections the entire intersection can be raised to reduce motor vehicle speeds in all directions.



Additional Guidance

The design guidance provided here includes a sample of the tools that planners and engineers have at their disposal to create a bicycle boulevard. Further guidance can be found in NACTO's Urban Bikeway Design Guide.

Crosswalks and detectable warning strips in New Brunswick, NJ

Roundabout in Highlands, NJ

NEXT STEPS

For additional improvement locations throughout Teaneck, the City should continue to work with various jurisdictions and interested stakeholders (e.g. Bergen County, NJ TRANSIT, NJTPA, local businesses, schools, developers, etc.) to prioritize pedestrian improvement projects and leverage available resources.

IMPLEMENTATION MATRIX

Intersection Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Cedar Lane (CR 60) at Teaneck Road (CR 39)			
Fill the three slip lanes to expand the sidewalk and shorten pedestrian crossing, requiring partial removal of some existing concrete to facilitate right turns	County	Township	Medium
Install standard curb extension on the southeast corner	County	Township	Short
Reduce speed limit of E Cedar Ln from 35 mph to 25 mph	County	Township	Short
Install traffic calming measures such as speed humps, RRFBs and enhanced crossings on E Cedar Ln	County	Township	Short
Construct sidewalk on south side of E Cedar Ln to connect senior community with Teaneck Rd	County	Township	Medium
State Street at Windsor Road			
Install sidewalk on east side of State St surrounding the island	Township		Medium
Convert each leg of State St to one-way	Township		Short
Install curb extensions at both intersections to normalize intersection, decrease speeding and improve pedestrian accessibility	Township		Medium
Install crosswalks at the two intersections	Township		Short
Phelps Rd at Sheffield Rd			
Install curb extensions on the east side of the intersection to make the intersection a right angle, consequently slowing down vehicles	Township	Property Owners	Medium

Corridor Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Fort Lee Rd			
Install crosswalks, RRFBs and signage to alert motorists to pedestrians and the 25 mph speed limit; crosswalk is particularly needed at Locust St where there are bus stops	Township	NJ Transit	Short
Implement neckdowns at crosswalks to narrow roadway; providing visual cue for motorists to slow down	Township		Short
Degraw Av (CR 36)			
Investigate implementing road diet to remove one lane in each direction or converting to a center turn lane	County	Township	Medium
Construct planted median along corridor between Teaneck Rd and border with Bogota at Crestview Pl; explore option with Bogota and Bergen County of continuing treatment beyond township boundary	County	Township/ Bogota	Medium
Reduce speed limit from 35 mph to 30 mph	County	Township	Short
Install high visibility crosswalks crossing Degraw Av with appropriate signage at intersections with bus stops utilizing planted median as a median refuge island	County	Township/NJ Transit	Short
Remove slip lane from westbound Degraw Av to northbound Teaneck Rd	County	Township	Short
Queen Anne Rd			
Install pedestrian crossings of Queen Anne Rd adjacent to bus stops including Herrick Av and Merrison St	Township	NJ Transit	Short
Reduce speed limit from 35 mph to 30 mph	Township		Short
Install planted median and/or bicycle facilities in West Englewood business district between W Englewood Av and Ayers Ct where roadbed is wider while still having only one marked lane in each direction	Township		Medium
Palisade Av			
Install pedestrian crossings of Palisade Av near pedestrian attractors including parking lots, parks and bus stops one block east on Queen Anne Rd; including Herrick Av, Vandelinda Av, Cherry La and Amsterdam Av	Township		
River Rd (CR 411)			
Install crossings on River Rd to connect to parks, bus stops and houses of worship; including Terhune Park, Pomander Walk, Kenwood Pl, Maple Av, Fairleigh Dickinson University, Phelps Park, Sunderland Rd, Wendel Pl, Grenville Av, Andreas Memorial Park and Brett Park	County	Township/NJ Transit	Short
Paint channelized median along corridor similar to what exists at mid-block crossing at Library Circle/Phelps Park to effectively narrow the travel lanes and slow speeds	County		Medium
Investigate installing curb extensions to normalize intersections along northern part of corridor with large turning radii, including Rutland Av, Maitland Av, Dearborn St and Washburn St	County		Short

Location Specific Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Teaneck National Guard Armory			
Install crosswalks at intersection of Teaneck Rd and Ward Plaza	County	Township	Short
Install curb extension on northeast corner of Teaneck Rd and Ward Plaza	County	Township	Short
Extend median curb extensions on Ward Plaza	Township		Short
Reconfigure the two driveways and sidewalks on the north side of Ward Plaza to connect sidewalks and prioritize pedestrians	Township		Medium
Extend planted median at Liberty Rd and Ward Plaza west onto Ward Plaza to intersection with Rensselaer Rd	Township		Medium
Install curb extensions at Liberty Rd, Ward Plaza and Ivy Ln to narrow entries to Ivy Ln and normalize intersections	Township		Short
Teaneck Senior Center			
Install pedestrian scale lighting under NJ 4 overpass of Palisade Av and Queen Anne Rd	State	County	Short
Install sidewalk on road connecting Senior Center with Queen Anne Rd	County		Medium
Reconfigure on/off ramps between Queen Anne Rd and NJ 4 to reduce excess road space and make intersections easier to navigate	County	Township	Medium
Houses of Worship, Schools and Bus Stops			
Install crossings and applicable signage outside of Houses of Worship	Township		Short
Install crossings outside of schools	Township		Short
Improve access to bus stops; particularly the bus stop at NJ 4 and Teaneck Rd	State	Township	Medium

General Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Continue to require new development and redevelopment projects to install sidewalks and pedestrian amenities	Township	County	On-going
Continue maintenance of existing sidewalk network to keep in state of good repair	Township	Property owners	On-going
Coordinate pedestrian improvement efforts between seniors and schools (e.g., Safe Routes to School initiatives)	Township	County, NJDOT	Medium
Implement traffic calming measures throughout the Township where data and public feedback indicate problems with speeding	Township	County	On-going
Implement education and enforcement programs regarding pedestrian safety and traffic laws for both pedestrians and drivers	Township	Police, County, NJTPA, TMAs, NJDOT	On-going
Continue to install ADA-compliant curb ramps at intersections Township-wide	Township	County	Medium
Continue to upgrade traffic signal equipment and access to current pedestrian standards, per MUTCD and ADA requirements, Township-wide; ensure adequate pedestrian crossing times are provided in the signal timing	Township	County	Medium
Improve lighting at pedestrian crossings, particularly on roadways with wide cross sections and corridors that provide access to transit	Township	County	Medium
Conduct Bicycle and Pedestrian Circulation Study through NJDOT's local assistance program	Township	NJDOT	Medium
Need for bus shelters Township-wide	Township	NJ Transit	Long

APPENDIX

WORKSHOP MATERIALS

The **NJ Department of Transportation,**
Age-Friendly Teaneck and **the Township of Teaneck**

invite you to attend a

SENIOR WALKABILITY WORKSHOP

This workshop is intended for seniors, community decision makers, and advocates who want to

help shape the transportation future of our communities!

Tuesday • October 9 • 2018

(Rain Date: October 16)

9:30 am - 12:00 pm

Teaneck Council Chambers

Teaneck Municipal Building

818 Teaneck Road • Teaneck • NJ

Please Join Us To:

- Better understand senior's walkability needs, benefits and barriers to walking and strategies to enhance walking
- Discuss general walkability issues in Teaneck

PLEASE RSVP!

For more information or to **register** please contact Charlie Romanow at **(609) 450-1680** or by email at **charles.romanow@wsp.com**. The event is free, but seating is limited and **registration is recommended**. Light refreshments will be served.

WSP | Civic Eye Collaborative | Township of Teaneck | Age-Friendly Teaneck

Senior Walkability Workshop

October 9, 2018
9:30AM – 12:00 PM
Teaneck Municipal Building
Council Chambers
818 Teaneck Road, Teaneck, NJ 07666

9:30–9:35 I. Welcome & Introductions

9:45–10:15 II. Context (presentation)

- Understanding senior mobility
- Benefits of walking
- Barriers to walking
- What are best practices of design for enhanced senior walkability?
- Instructions for walk

BREAK

10:30–11:10 III. Taking an Observational Walk

- Walkability audit
- Field observations

BREAK

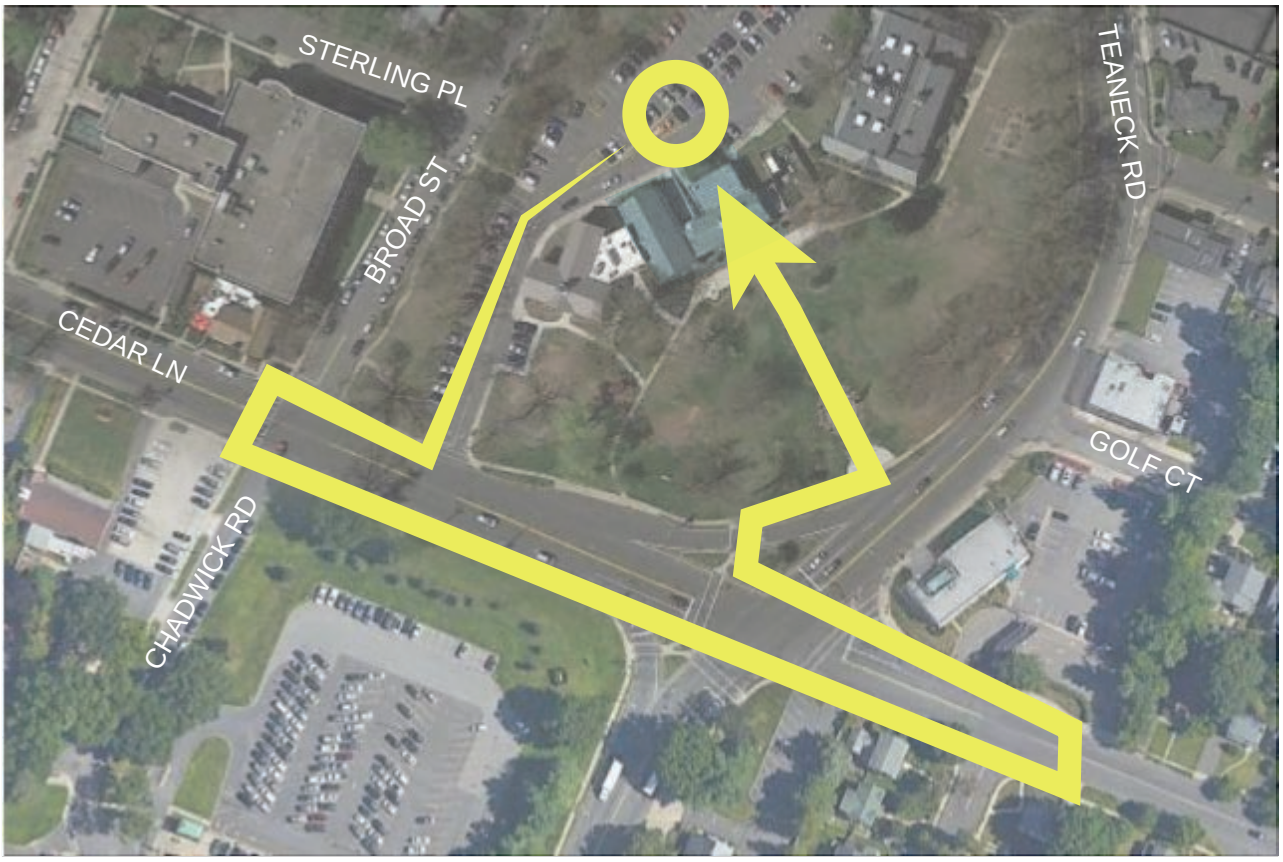
11:15–12:00 IV. Brainstorming Session for Improvements

- Discuss field observations
- Next Steps

TEANECK
SENIOR WALKABILITY WORKSHOP

Field Observation Worksheet

What are we doing? The purpose of this walk is to identify typical obstacles to senior mobility in the built environment.



Field Notes and Observations:

TEANECK
SENIOR WALKABILITY WORKSHOP

Brainstorming Session Worksheet

What are we doing?

The purpose of this session is to work together as a community to identify the areas which residents feel should be prioritized to improve senior mobility. **Please complete this worksheet and also help mark up a map.**

___ I am a senior

___ I am a public official

___ Other (please specify) _____

1 **Where do you believe most seniors in Teaneck want to go?**

_____ _____ _____

_____ _____ _____

2 **What senior mobility issues have you noticed in Teaneck?**

	Mobility Issue	**Location that issue is observed**
___	Cracked, uneven, or broken sidewalks	_____
___	Missing or insufficiently marked crosswalks	_____
___	Lack of pedestrian signals or push buttons	_____
___	Insufficient pedestrian crossing times	_____
___	Obstructions on walking routes	_____
___	Missing ADA compliant ramps	_____
___	Steep grades along walking routes	_____
___	Vehicles traveling at high speeds	_____
___	Other: (please describe)	_____

3 **What are your biggest challenges in walking where you want to go?**

_____

_____

_____

4 **Any additional observations?**

_____

_____

_____

TEANECK
SENIOR WALKABILITY WORKSHOP

Sign-In Sheet (10.09.2018)

Name	Organization	Senior?	Email (for follow up information)
Leanne Davidson	Senior Housing Services	No	LND33@scarletmail.rutgers.edu
Elizabeth Davis	Geriatric Services	Yes	elizabethdavis@brightside manor.org
William Riviere	NJDOT	N	william.riviere@dot.nj.gov
Stephann Antoine	NJ Transit	NO	SAntoine@NJTransit.com
Glenna Crockett	Twp of Teaneck	Yes	gcrockett@teaneckn.j.gov
TANYA BAUSER	TEANECK POLICE	NO	
Gervann Rice	Town Council	Yes	grice@teaneckn.j.gov
Sgt. Paul Finkler	TPD	NO	pfinkler@teaneckpolice.org
Lt. Christopher Kurschner	TPD	NO	ckurschner@teaneckpolice.org
Rachel Coakley	Senior Housing Services	No	
Lillian Lewis	Age Friendly–Transportation	yes	lillian lewis 740@gmail
Erica Haleva	Jewish Home Family	No	info@JewishHomeFamily.org

TEANECK
SENIOR WALKABILITY WORKSHOP

Sign-In Sheet (10.09.2018)

Name	Organization	Senior?	Email (for follow up information)
JACKIE KATES	AgeFriendly	✓	jackiekates18@icloud.com
EJ NICOLAS	Age-Friendly Teaneck		ejnicolas@brightsidemanor.org
Chris Doyle	NJ Transit		CDoyle@njtransit.com
Farah Gilani	Teaneck Engineering		Fgilani@Teaneck.NJ.gov
Sally Gellert	various DCLTRCTN		SJGUU@aol.com
Robert Tyndall Giddens	TRBCH, NETBPBA		bgidd28202@aol.com
Brendan Smith	Teaneck FD		
Richard Burchell	Teaneck FD		
Sean Rodriguez	Teaneck FD		

TEANECK
SENIOR WALKABILITY WORKSHOP

Sign-In Sheet (10.09.2018)

Name	Organization	Senior?	Email (for follow up information)
Michael Pagan	Bergen County	Not yet !!	Mpagan@co.bergen.nj.us
Geordie Reiman	Bergen County	N	greimer@co.bergen.nj.us
Lou Rosado	NJ Transit		LRosado@NJTransit.
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