



ENGLEWOOD

SENIOR WALKABILITY WORKSHOP

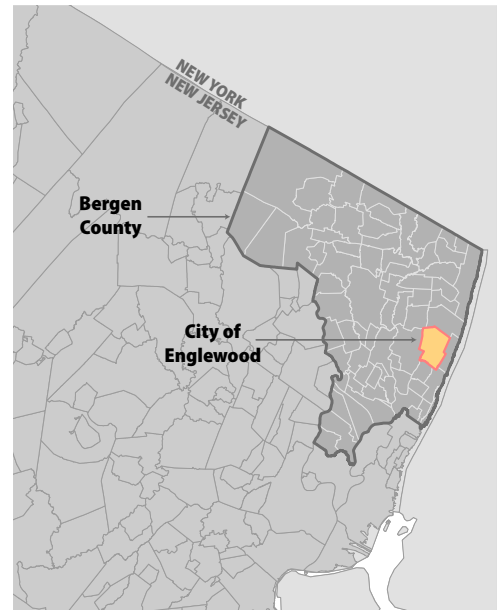
MAY 2018





INTRODUCTION

As part of its safety initiatives, the New Jersey Department of Transportation’s (NJDOT) Office of Bicycle and Pedestrian Programs sponsors senior mobility workshops throughout the state in an effort to raise awareness and help decision makers and professionals better understand the unique mobility needs of senior citizens. These workshops provide an interactive educational program that allow seniors, community decision makers, transportation professionals, health professionals and others to work collaboratively to make our communities safer and more walkable for all residents. The workshops discuss why walking is important, particularly for older adults; allow all attendees to see and experience barriers to pedestrian mobility through the eyes of seniors; and investigate how to diagnose, design, and implement strategies and activities to improve walking conditions in the community. In conjunction with NJDOT, a project team of professionals from WSP and Civic Eye Collaborative (CEC) conducted a workshop for the City of Englewood in Bergen County, NJ, on May 24, 2018.



ENGLEWOOD CONTEXT

In Englewood, seniors comprise approximately 14.2 percent of the population (2010 census). In New Jersey, the senior percentage of population is projected to grow by more than 50 percent between 2000 and 2030, slightly above the current statewide average of 13.5 percent. This aging trend for the State, County, and Englewood City is illustrated in Table 1.

Englewood is densely developed with a walkable downtown and access to Upper Manhattan across the Hudson River. Some critical things affecting pedestrian safety and mobility in Englewood include:

- Dean Street and Engle Street/ Grand Avenue are Englewood’s primary north south arterials, bisecting the City.
- These two busy streets run parallel to the CSX railroad right-of-way. The railroad is a barrier for pedestrians and divides the city into two halves.
- The dense downtown core in Englewood creates a walkable environment. However, sidewalk

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

Year	U.S.	New Jersey	Bergen County	Englewood
2000	34,991,753	1,113,136	134,820	3,491
	12.4% of pop	13.2% of pop	15.2% of pop	13.3% of pop
2010	40,267,984	1,185,993	137,103	3,857
	13.0% of pop	13.5% of pop	15.1% of pop	14.2% 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



maintenance, high traffic speeds, driver behavior, and lack of appropriate crosswalk infrastructure (e.g., visible crosswalk striping, pedestrian signal heads with countdown timers, and ADA compliant curb ramps) are common issues cited by workshop participants that hamper walking in the City.

- North Dean Street's crossings within the downtown area are particularly difficult for pedestrians due to high traffic volumes and speeds, long crossing distances, and failure of drivers to yield to pedestrians.

SENIOR MOBILITY CONTEXT

Walking is a fundamental component of senior mobility that has numerous benefits:

- Walking is a mode that is available to everyone – all ages, incomes, and abilities
- Walking helps maintain independence for those who do not drive
- Walking is an easy form of physical activity that can improve health, including reducing the risk of heart disease, obesity, diabetes, and many other conditions, while also improving strength, balance, and flexibility
- Walking is also an important social activity, providing opportunities to meet others and be engaged in the community

As the population ages, there are a variety of impacts on the transportation system and how it needs to adapt to maintain access and mobility for shifting demographics. 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 is essential to maintaining a high quality of life for older adults. It ensures that seniors have safe access to their daily needs and activities, and enables seniors to 'age in place' by maintaining independence and staying in their homes and communities.

However, there are numerous barriers that can discourage walking for seniors and all pedestrians, including high traffic speeds and congestion, long walking routes between destinations, and intersections and crossings that lack adequate pedestrian infrastructure. The effects of aging amplify the impacts of physical barriers that may otherwise appear minor to younger, more able-bodied pedestrians. As we age, walking speed and reaction time decreases and physical mobility, vision, hearing, and cognition can deteriorate, causing various physical barriers to become insurmountable obstacles.

The effects of aging can also leave seniors more vulnerable to severe injuries from pedestrian crashes. So 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 than the overall statewide average.

Improving senior pedestrian mobility requires a comprehensive approach of engineering, education, encouragement, and enforcement strategies. This workshop is one element of that approach, an educational program designed to raise awareness of senior mobility, share information on engineering best practices, and identify local mobility issues. The product of the workshop includes recommendations for engineering, policy, and programmatic approaches to improve mobility for the entire community.

WORKSHOP SUMMARY

The Englewood Senior Mobility Workshop was held at the St. Paul's Episcopal Church on Thursday, May 24th, 2018, from 9:30am – 12:00pm. Englewood was selected for NJDOT's Senior Workshop series due to its active senior population and strong local interest and support for the workshop. Approximately 16 people participated, including representatives from NJDOT, NJ Transit, Englewood City, Bergen County, and about 6 seniors.

The workshop had three main components: a presentation on senior mobility, a field walk to observe and experience local mobility issues firsthand, and a brainstorming session to discuss what was observed in the field and more general senior mobility issues throughout the borough. All of the workshop materials, including the agenda, participant worksheets, and sign-in sheet, can be found in the attached Appendix.

Presentation

A representative from NJDOT 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. Staff from the WSP team 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. The final segment focused on how to diagnose, design, and implement pedestrian infrastructure to address 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 around New Jersey highlighted local success stories. The presentation educated all attendees on how to evaluate walking conditions in their local community, provided local officials and decisions makers with design tools that they can utilize going forward, and encouraged walking and 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 field walk through downtown Englewood. The walk accomplished several objectives: it provided the opportunity for the project team to discuss and demonstrate barriers to mobility with the workshop participants; the walk enabled participants to take a close critical look at the pedestrian environment; and the field walk allowed the project team to gather extensive local input on issues, barriers, and potential improvement options for the local area.

In the field, the workshop participants and the project team mixed together and shared information about personal experiences walking in the area, significant obstacles and concerns, typical traffic patterns, and ideas to improve walking conditions. Attendees were asked to record their observations while they were in the field. The project team also used a wheelchair for a hands-on demonstration during the field walk. This enabled the workshop participants to try to navigate the local area in a wheelchair and better understand the needs of the mobility-impaired. This approach helped highlight the impacts of common deficiencies in the existing pedestrian infrastructure, such as an absence of safe crossings, obstructions along the sidewalk, and cracked sidewalks.

The field walk brought participants to two key locations: North Dean Street at Demarest Avenue, and across the CSX railway tracks between





Palisades Avenue and Demarest Avenue. The group discussed issues along the route, and highlighted strengths and deficiencies of the pedestrian network. The project team selected these sites for the field visit because preliminary surveying indicated that deficiencies at these sites represented typical senior mobility barriers.

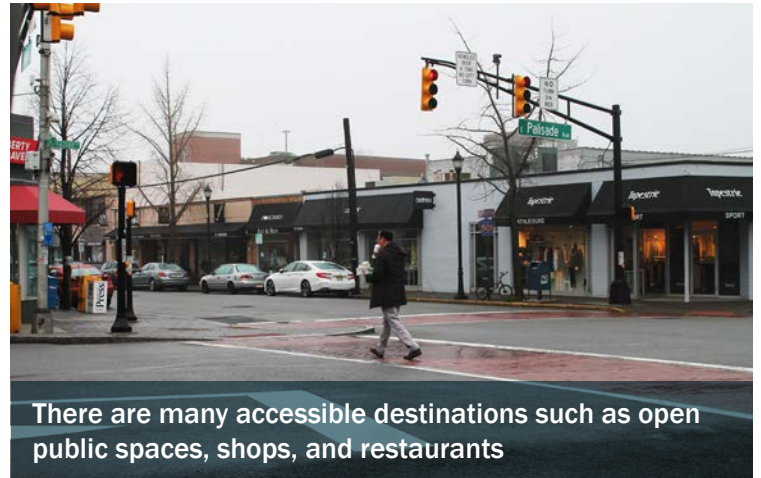
Brainstorming Session

Upon returning to the Church, the project team facilitated a brainstorming session to discuss observations from the field as well as more general walkability issues throughout Englewood. The public officials, project team, and other attendees used a large aerial map to identify key destinations for seniors in the city; locations and corridors with senior pedestrian barriers; key pedestrian routes; and potential pedestrian route enhancements to improve circulation. In addition to recording information on the aerials as groups, each attendee was also asked to record their input on a worksheet related to major senior destinations, and the typical types of pedestrian issues they experience around Englewood.

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

FIELD OBSERVATION | AREA STRENGTHS AND DEFICIENCIES

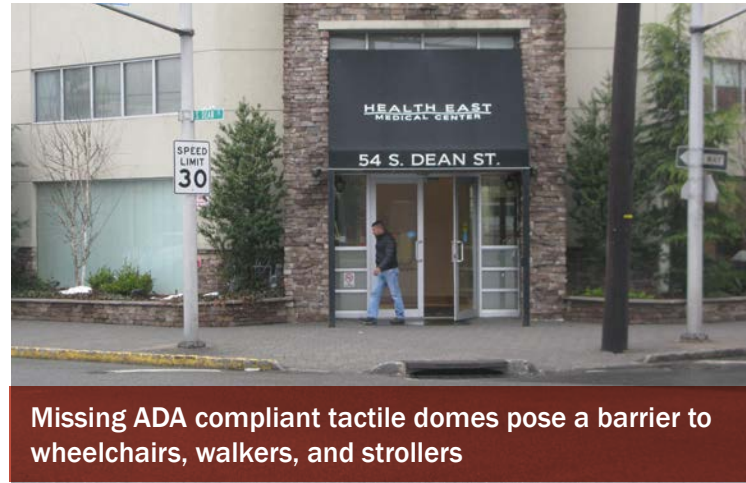
Strengths and deficiencies were identified by the group during the course of the walk. Strengths included a mostly complete sidewalk network, numerous pedestrian destinations and an active downtown core. Deficiencies discussed among the group included sidewalk maintenance and lack of comfortable crossings.



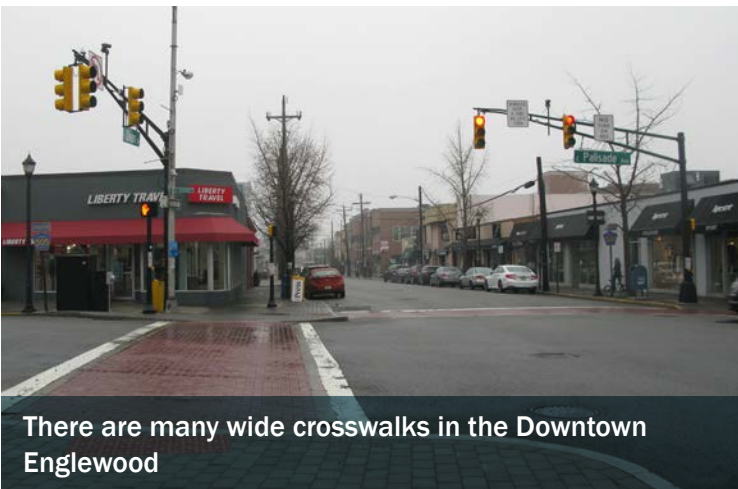
STRENGTHS AND DEFICIENCIES | FIELD OBSERVATION



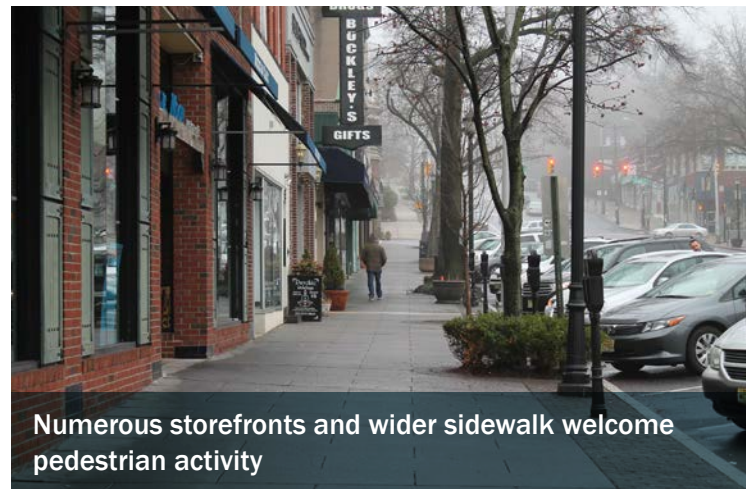
Obstructions along the sidewalk restrict access for wheelchairs, walkers, and strollers



Missing ADA compliant tactile domes pose a barrier to wheelchairs, walkers, and strollers



There are many wide crosswalks in the Downtown Englewood



Numerous storefronts and wider sidewalk welcome pedestrian activity



Areas with heaved sidewalks create an uneven walking surface

Although a complete sidewalk network can be found in most parts of the City, 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 the City.



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 page 12 and 13.



What are the most popular destinations for seniors in Englewood?

- Shops, restaurants (downtown Englewood, ShopRite of Englewood)
- Bergen Performing Arts Center (PAC)
- Senior Center (Bergen Family Center)
- Senior Housing (Housing Authority, Southeast Senior Center)
- Medical Facilities (Englewood Hospital and Medical Center)
- Post Office (Unites States Postal Service)
- Public Buildings (Englewood Public Library)
- Parks (Crystal Lake Park, Mackay Park)
- Religious Institutions (St. Paul's Episcopal Church, Congregation Ahavath Torah, Community Baptist Church, First United Methodist Church, and Congregation Shomrei Emunah)
- Bus Stops (NJT bus stop - Rt. 4 & Dana Pl)

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

- 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

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
- 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
- Walking within the parking lot of the Shopping Center (e.g.: Shop Rite of Englewood's parking lots)



SUMMARY OF SENIOR MOBILITY ISSUES

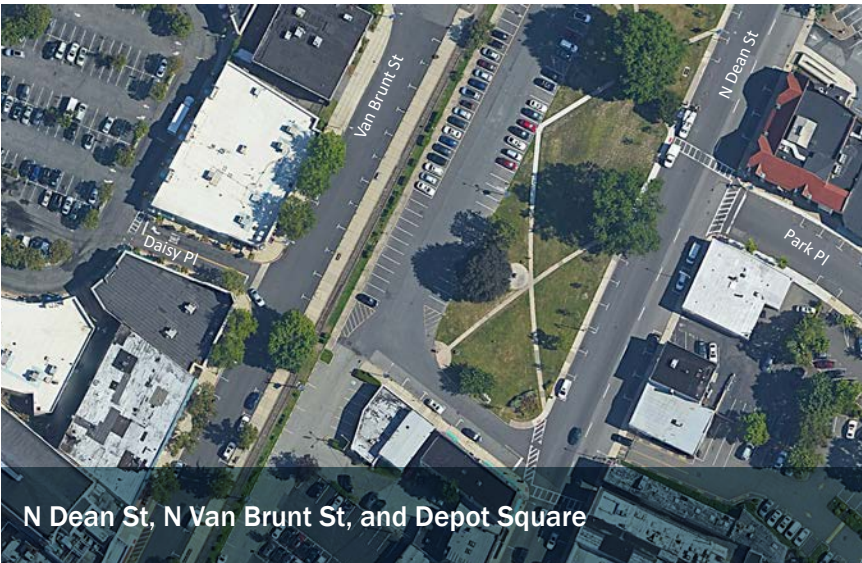
One reason for conducting the brainstorming session is to better understand which issues present the greatest real or perceived obstacles to senior mobility in Englewood. Based on input from the field walk and brainstorming session, these general issues were identified and should be prioritized for future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

- Areas in downtown Englewood need more enhanced pedestrian crossings and improved maintenance.
- Several intersections are missing proper pedestrian signal heads or push buttons as well as ADA compliant curb ramps and visible crosswalks.
- Signal timing should be adjusted to allow adequate time for pedestrians crossings.
- Many sidewalks have obstacles that make pedestrian circulation more difficult, such as the presence of utility poles and open cellar doors in front of shops in the downtown.
- Wide curb radii create longer pedestrian crossings and enable fast



travel speeds, making crossings more dangerous for pedestrians.

- The East Hill area in Englewood is home to many Orthodox Jewish families. Residents in this area walk to services at synagogues on the East Hill, pedestrian safety is key in this area.
- Some sections of the sidewalk network are cracked, missing, uneven, or in need of repair.
- Crosswalks throughout the city should be updated to high-visibility crosswalk striping.



- Unsignalized intersections in the downtown could benefit from traffic calming strategies.
- Observation of unsafe practices among both pedestrians and motorists such as motorists failing to yield to pedestrians within crosswalks, speeding, and pedestrians not using crosswalks to cross a street.

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

Individual Locations:

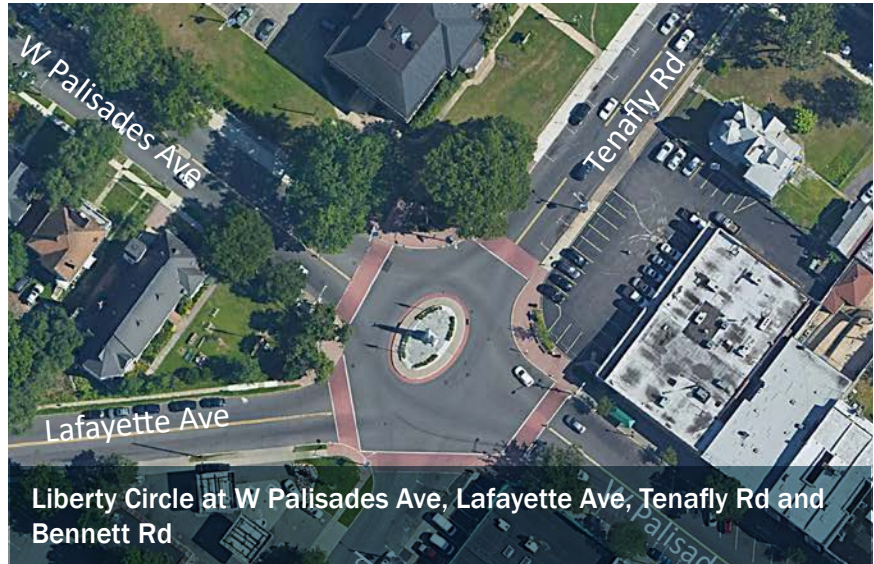
- **Downtown Englewood and ShopRite** - Workshop participants identified the area around the ShopRite and the Bergen Performing Arts Center as a critical pedestrian destination. With numerous attractions, such as shops, restaurants, and the open spaces being within one block of the main downtown cross streets of Palisades Avenue and N Dean Street, this area attracts heavy pedestrian and vehicular traffic. It is difficult for pedestrians to navigate for several reasons. N Dean Street is a wide arterial corridor used by commuters and the CSX railroad tracks running parallel along N Van Brunt Street and parallel to N Dean Street create a double barrier for pedestrian traffic in this area. During the walking tour, participants cited a need for additional crosswalks and pedestrian signals. Older traffic signal equipment, such as at the intersection of Engle Street and Park Place, lack pedestrian countdown timers. There are multiple

pedestrian crossings along N Dean Street to accommodate the



pedestrian demand; however, the wide nature of the road along with fast moving traffic and no traffic signal for four blocks from Demarest Avenue to Palisades Avenue makes crossing the street a daunting task for pedestrians. There is also need for better lighting and specialized signals at these pedestrian crossings for both visibility and safety reasons. Additionally, better maintenance could create a more comfortable and welcoming environment for pedestrians. Improvements such as the enhanced mid-block crossing on N Dean Street with High-intensity Activated crossWalk (HAWK) beacon or a Rectangular Rapid Flashing Beacon (RRFB) and upgraded traffic signal equipment at N Dean Street and Demarest Avenue would improve the pedestrian experience exponentially. Workshop participants also brought to notice pedestrian safety incidents and issues inside the ShopRite parking lot which lack proper stop signs and visible crosswalks both at the periphery and inside the parking lots.

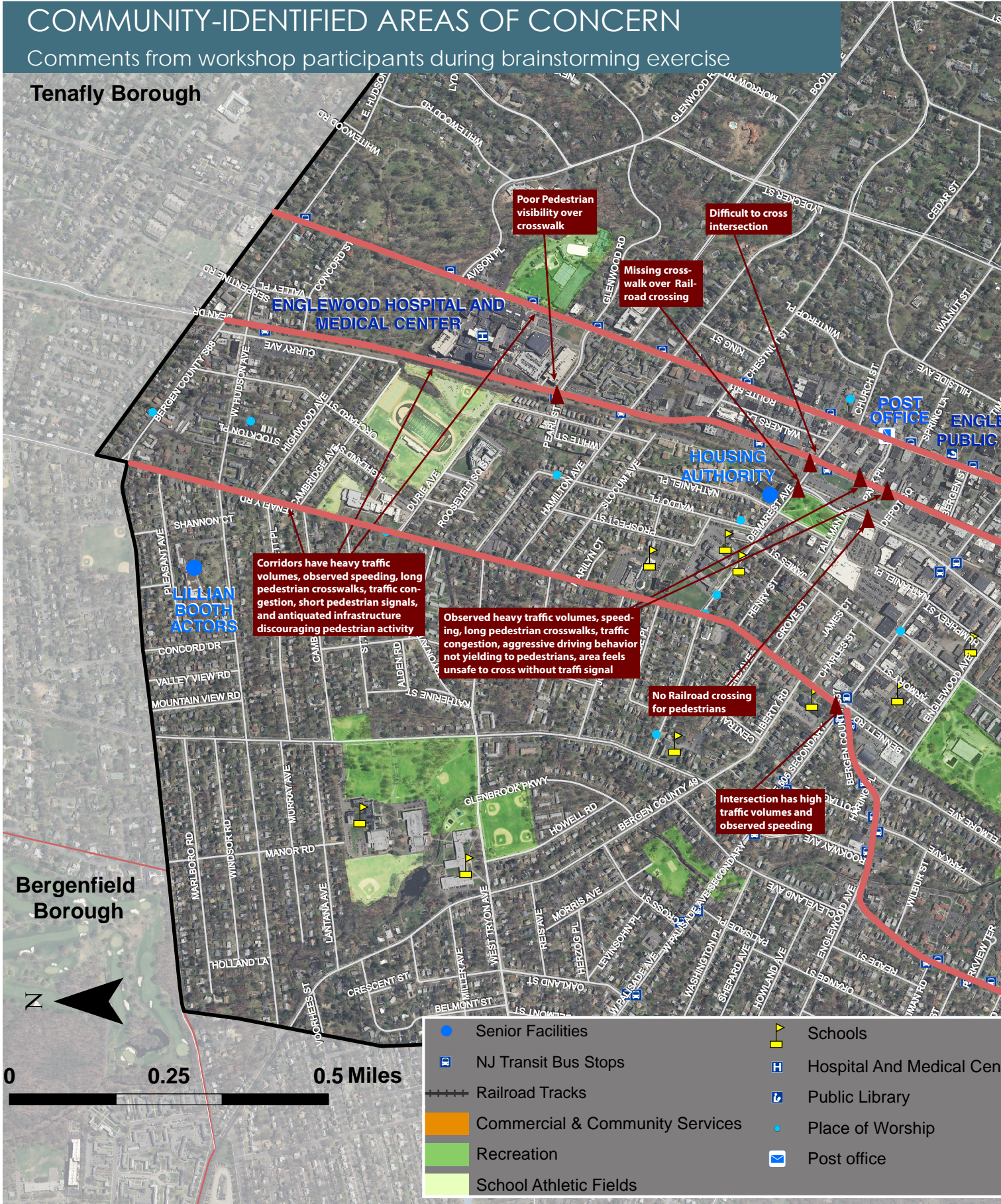
- **Liberty Circle at the intersection of Tenafly Road, Palisades Avenue, Lafayette Avenue, and Bennett Road:** - This traffic circle is difficult for pedestrians for several reasons. The major east-west thoroughfare of the city Palisades Avenue crosses through Tenafly Road and Lafayette Avenue both of which together serves as the alternative to the main north-south arterial pair of N Dean Street and Grand Avenue. The traffic circle is further complicated by the wide approaches of all the five streets and their angles of approach. The heavy traffic volumes along with crosstown commuter traffic and speeding creates a major challenge at this intersection to the high pedestrian demands from schools and residential population in the neighborhood. Multiple participants at the workshop identified the Tenafly Road and Lafayette Avenue pair having a speeding issue through residential neighborhoods.
- **Dean Street and Engle Street/ Grand Avenue between municipal boundaries** - The pair of Dean Street and Engle Street-Grand Avenue serve the north-south arterial thoroughfare for the residents of the city and its neighbors. Moreover, the one-way nature of both the roads with multiple lanes cutting across busy downtown commercial areas as well as residential neighborhoods with high speed limits, heavy traffic volumes, and deficient pedestrian infrastructures creates



COMMUNITY-IDENTIFIED AREAS OF CONCERN

Comments from workshop participants during brainstorming exercise

Tenafly Borough

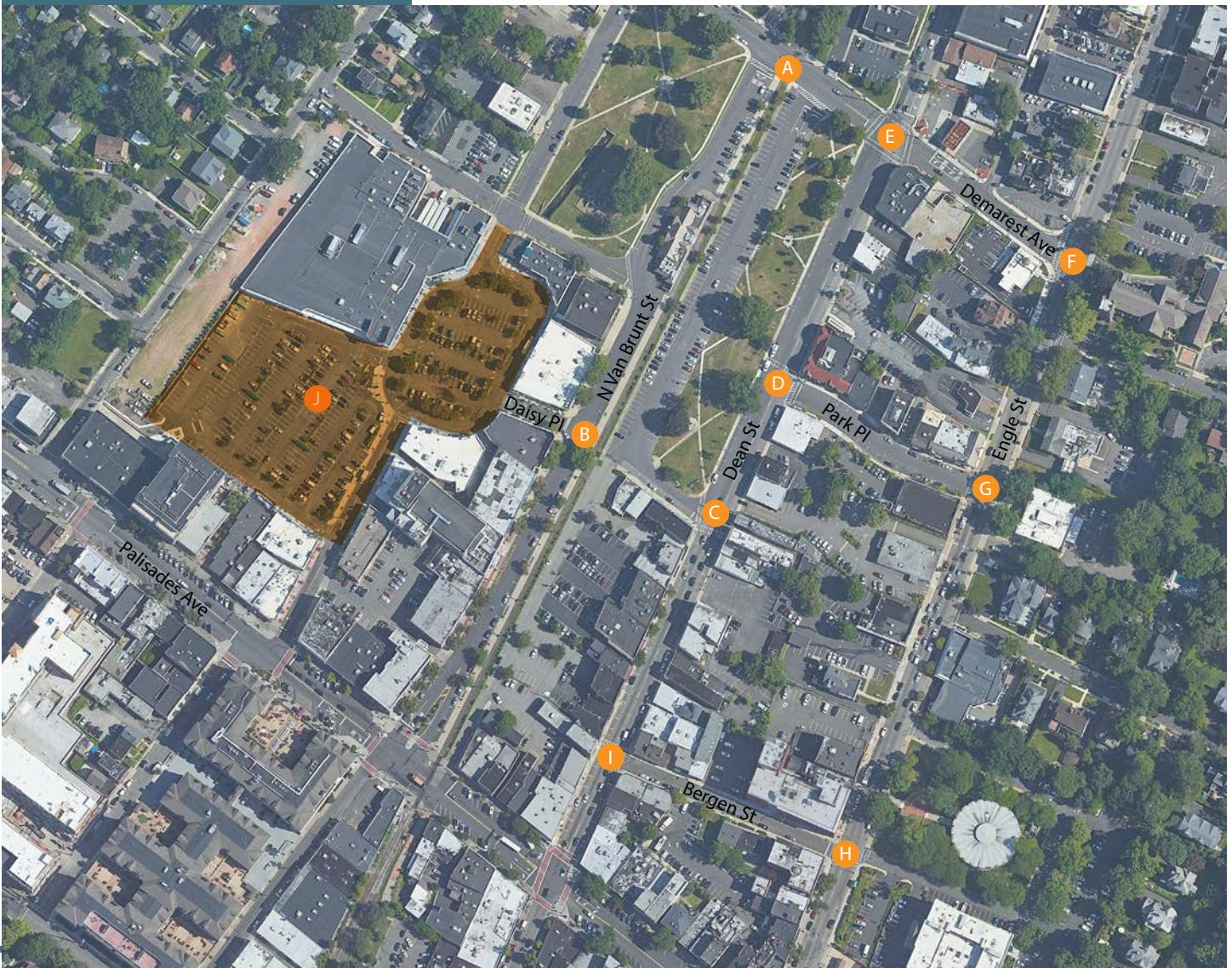




a barrier for pedestrians dividing the city into almost two halves. Throughout the corridor, there are various intersection deficiencies such as lack of ADA-compliant curb ramps, antiquated pedestrian push buttons and signal heads, pedestrian countdown timers, and/or high visibility crosswalks.

- **Broad Avenue and Walton Street** : This unsignalized intersection lacks existing pedestrian accommodations. NJ Transit bus stop along Route 4 that can be accessed from this intersection, as well as nearby residential uses and parks create significant pedestrian demand and activity. Broad Avenue is a commuter road that provides access to and from I-95 which generates heavy traffic volumes at high speeds and the multiple lanes on either direction of travel makes it extremely difficult for pedestrians to cross at this intersection safely. Further, the lack of adequate ADA-compliant curb ramps and properly maintained sidewalk facilities also increases the challenges for pedestrian access. The bus stop also lacks any shelter for commuters.

Englewood downtown area locator map



Englewood Downtown Area Recommendations

High travel speeds, low visibility due to on-street parking near intersections, long crossings, and an CSX railroad track splitting the city in two halves characterize the area surrounding the downtown. This creates a very challenging environment for both pedestrians and motor vehicles. While Englewood has taken measures to address the matter, such as upgrading crosswalks, installing curb extensions and pedestrian signage, workshop participants commented that there is still a regular occurrence of traffic incidents. Below are several strategies that can be implemented to improve the environment not just for pedestrians and seniors, but for all users (locations shown in the map on page 14 and detailed illustrations of recommendations are shown on pages 18 - 20):

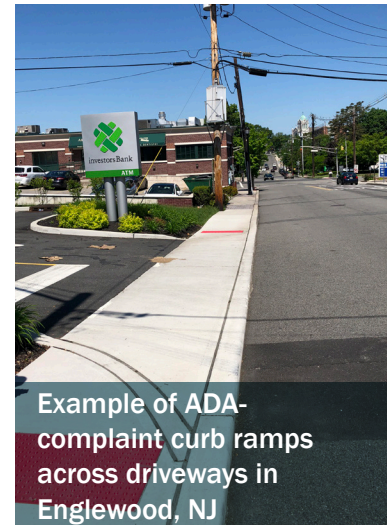
A Install sidewalk and railroad gates for pedestrian crossing over CSX railroad tracks along Demarest Avenue east of the intersection with N Van Brunt Street. This would create a safer crossing for pedestrians over the railroad tracks instead of going on the pavement along with vehicles. The next accessible crossing for pedestrians over the railroad tracks is approximately 1400' (feet) south at the intersection of N Van Brunt Street and Palisades Avenue.

B Collaborate with NJT to install a pedestrian crossing at the intersection of N Van Brunt Street and Daisy Place and continue it across the existing railroad tracks along N Van Brunt Street (approximately 750' south of Demarest Ave) to create a safe pedestrian connection between the shopping complex on the west and the residents on the east railroad tracks. Crossing should include curb extensions on both sides of the street with ADA-compliant curb ramps, high-visibility continental crosswalk striping, advanced warning signage, railroad gates, and a Rectangular Rapid Flashing Beacon (RRFB). This would discourage at-risk mid-block crossings, and provide a suitable alternative.

C Upgrade the existing mid-block pedestrian crossing by installing curb extensions, high visibility continental crosswalk striping, and a Rectangular Rapid Flashing Beacon (RRFB) on N Dean Street approximately 434' north of Bergen Street. This would discourage at-risk mid-block crossings, improve yielding behavior by drivers, and provide a suitable alternative.

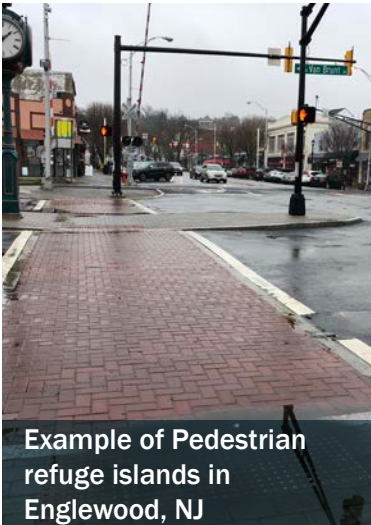
D Upgrade the existing pedestrian crossing at the unsignalized intersection of N Dean Street with Park Place by installing curb extensions, high visibility continental crosswalk striping, and a Rectangular Rapid Flashing Beacon (RRFB). This would discourage at-risk mid-block crossings, improve yielding behavior by drivers, and provide a suitable crossing alternative. Also, reposition the Stop signs higher at a height of 7' or higher on either sidewalk at the intersection on Park Place to avoid people getting hit on the head.

E Install pedestrian signal heads with push buttons and countdown timers at the intersection of Demarest Avenue and N Dean Street to provide a safer crossing opportunity. Install curb extensions at south-east and south-west corner of the intersection to reduce pedestrian crossing distance and time. This





Example of curb extensions in Englewood, NJ



Example of Pedestrian refuge islands in Englewood, NJ

would also provide sufficient space to install ADA-compliant curb ramps to increase accessibility at this intersection. Current curve radius at the southeast corner is unnecessary considering N Dean Street is one-way and could easily accommodate the curb extension. Upgrade the existing pedestrian crosswalks with high-visibility continental striping and install ADA-compliant curb ramps.

F Install curb extensions and restripe the existing crosswalk with high-visibility continental striping at the intersection of Engle Street with Demarest Avenue. Reposition pedestrian signal heads in the correct orientation so that they are visible along the crosswalks and upgrade the pedestrian signal heads along with the push buttons to improve accessibility.

G Install curb extensions with ADA-compliant curb ramps, and restripe the existing crosswalk with high-visibility continental striping at the intersection of Engle Street with Park Place. Upgrade the pedestrian signal heads along with the push buttons to improve accessibility.

H Install curb extensions with ADA-compliant curb ramps, and restripe the existing crosswalk with high-visibility continental striping at the intersection of Engle Street with Bergen Street. Replace the pedestrian signal heads along with the push buttons with up-to-date ones that improves accessibility.

I Restripe faded crosswalk with high-visibility continental striping across N Dean Street by the Bergen Street intersection, install curb extensions with ADA-compliant curb ramps.

J Install speed humps with striped pedestrian crosswalks on top and post advance warning signs around the peripheral circulation roads of the parking lots of the shopping complex of ShopRite providing mid-block type crossing opportunities, safer vehicular travel speeds, and improved visibility.

Liberty Circle Recommendations

1 Construct median channelizing islands and pull back existing crosswalks away from the roundabout on each of the five approaches to the Liberty Circle. Provide median breaks for pedestrian crossing and install high visibility continental crosswalks aligning them with the median breaks on each of the approaches. Install Yield signs on both approaches of West Palisades Avenue.

Broad Avenue at Walton Street Recommendations

2 Install mid-block pedestrian crossing with median refuge island, high visibility continental crosswalks, ADA-compliant curb ramps 350' south of Van Nostrand Avenue on Broad Avenue to improve accessibility to the NJ Transit bus stop on Route 4. Install ADA-compliant curb ramps on each side of Walton Street. Coordinate with NJ Transit to install a bus shelter.

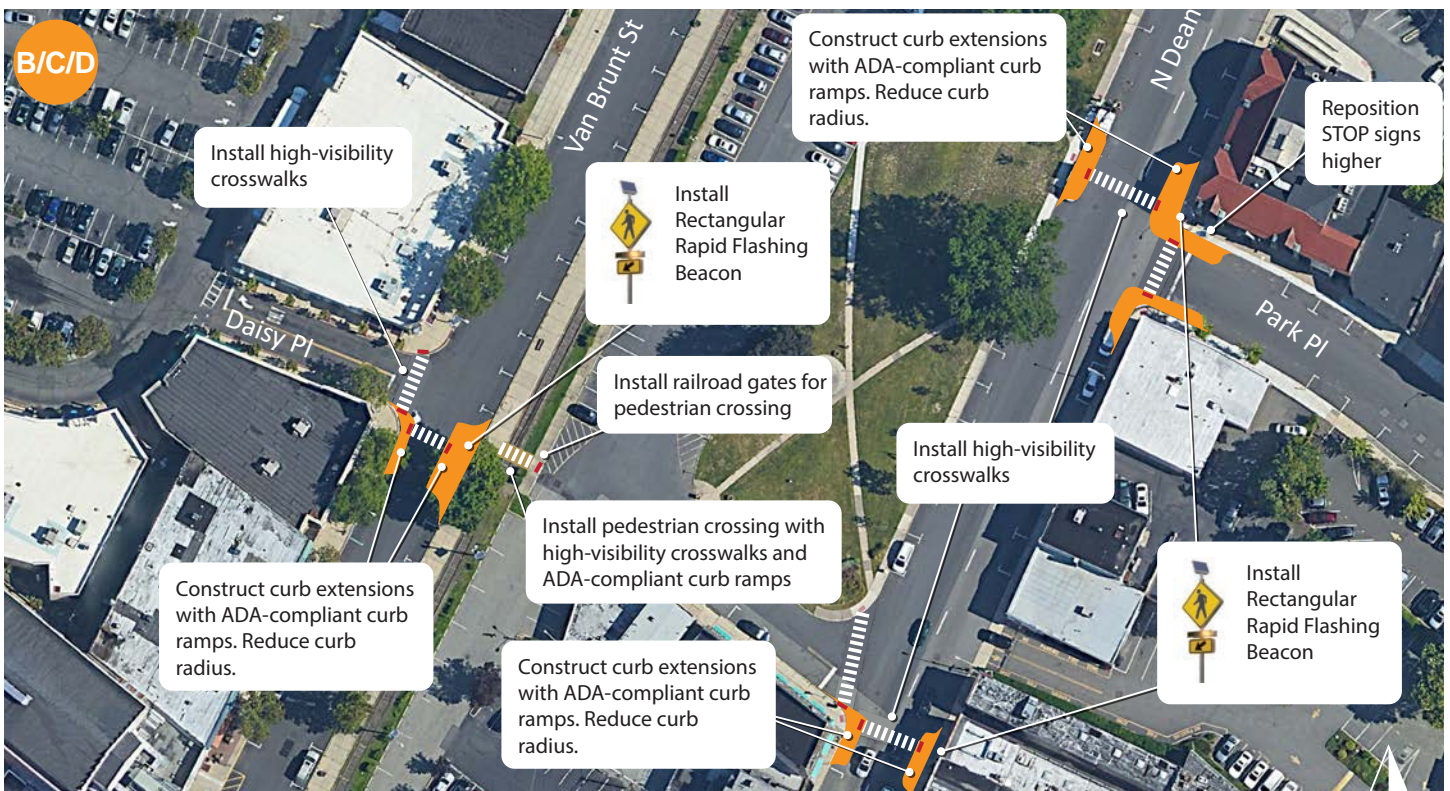
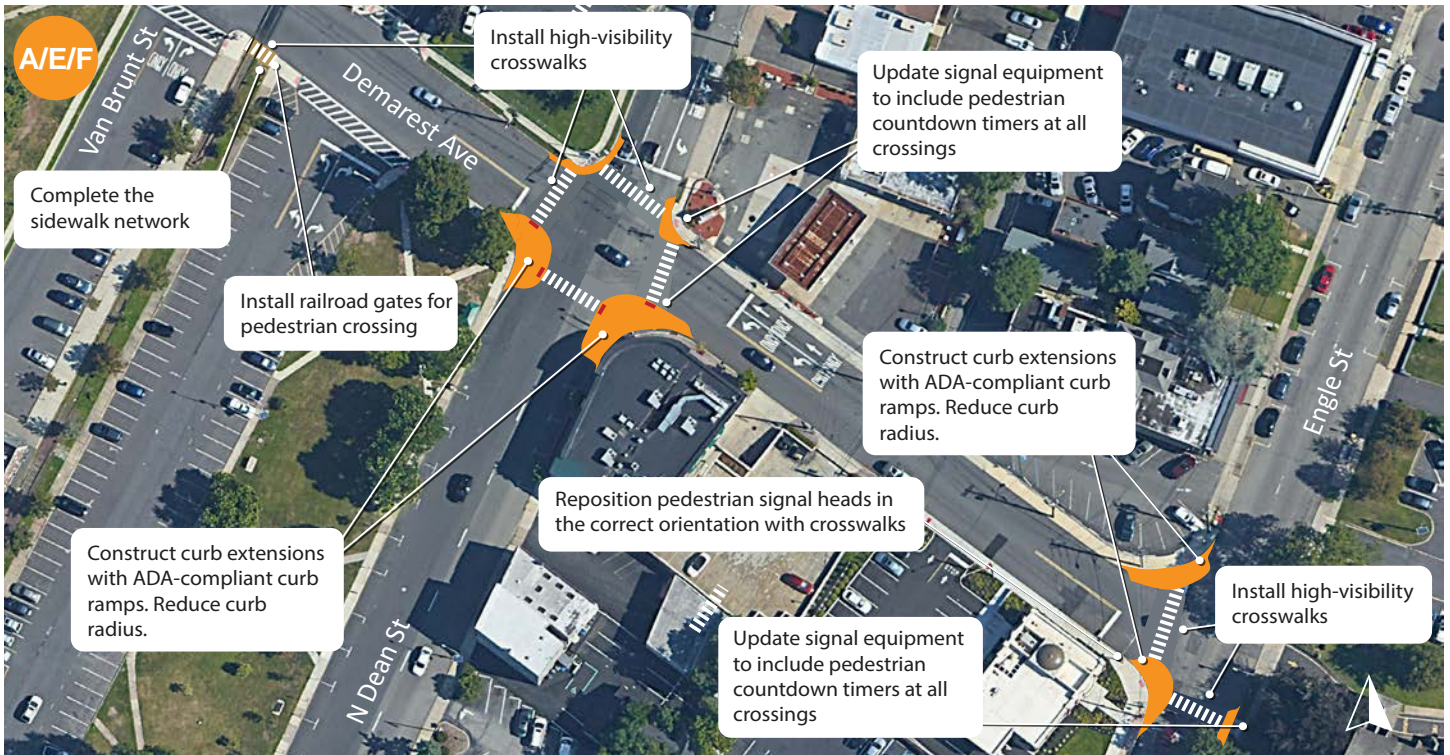


Englewood Corridor locator map

Corridor-wide Recommendations

Study corridor-wide traffic calming opportunities to understand economic feasibilities and traffic impacts. Install missing pedestrian facilities like continental crosswalks and coordinate with lead public agencies to install new traffic calming and pedestrian facilities.

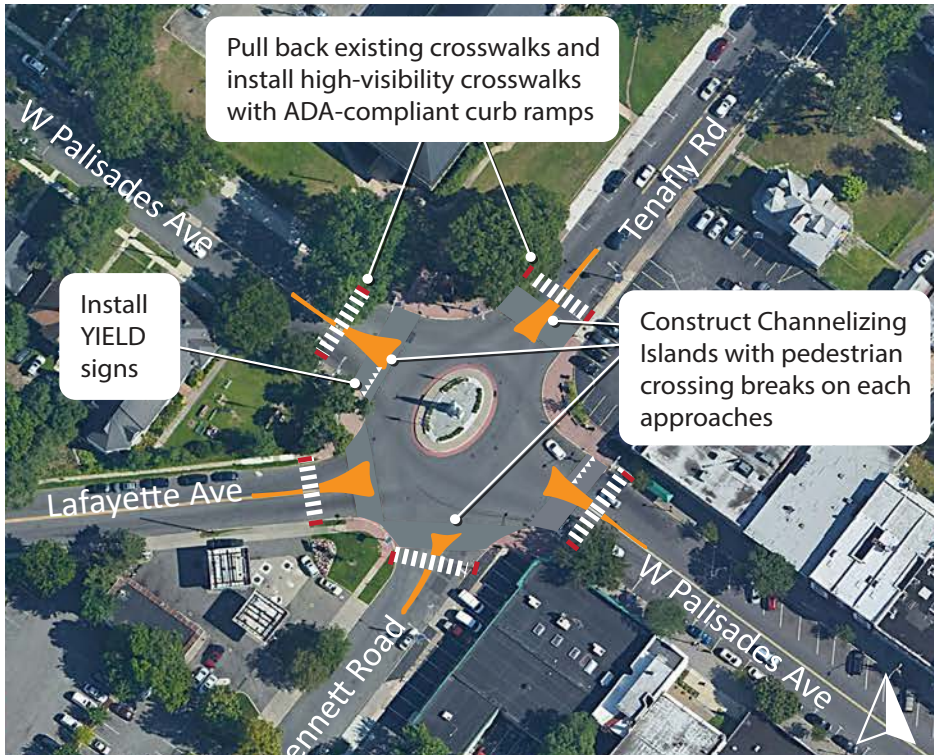
Englewood Downtown Improvement Concepts





Liberty Circle Concept

1



Broad Avenue at Walton Street Concept

2



GENERAL TRAFFIC CALMING RECOMMENDATIONS

Speed Management

Speed management treatments aim to reduce motor vehicle speeds, bringing them closer to those of bicyclists. Reducing vehicle speeds is a critical feature of the bicycle boulevard. Lower speeds improve the bicycling environment by reducing instances of vehicles overtaking bicyclists, enhancing the drivers' ability to see and react to bicyclists, and reducing the severity of crashes, if they occur. 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 likelihood
- Decreased chance of injury resulting from crash
- Improved bicyclist comfort
- Benefits pedestrians and residents by reducing vehicle speeds
- Establishes and reinforces bicycle priority on bicycle boulevard
- Provides opportunity for landscaping and other community features such as benches, communal space, and artistic painted intersections, benefiting all roadway users and residents



Horizontal Deflection

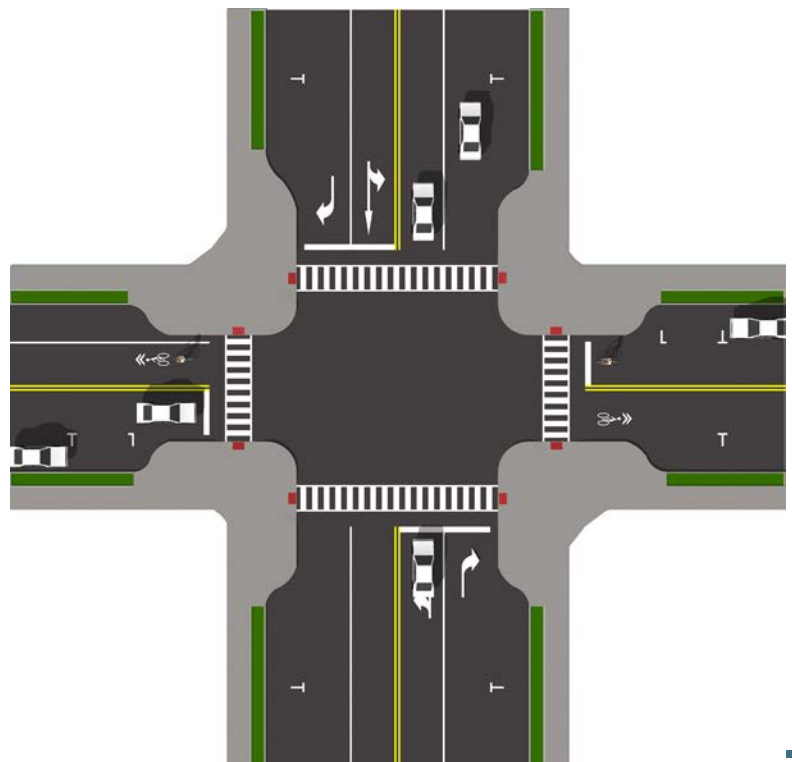
Horizontal speed control devices are used to slow motorists by either visually narrowing the roadway or deflecting motorists through an artificial curve. Where possible, sufficient space should be provided for bicyclists to pass around the outside of the elements.

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, that are 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 the travel lanes, and, if planted, obscuring the visual corridor along the roadway.



Vertical Deflection

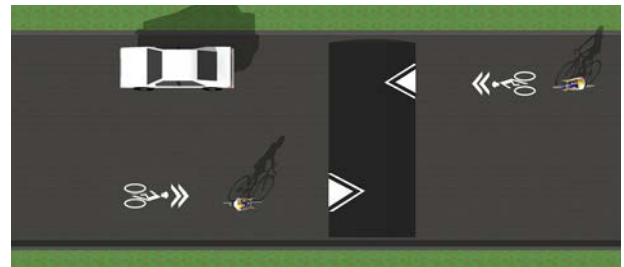
Vertical speed control measures are composed of wide, slight pavement elevations that self-enforce a slower speed for motorists. Narrow and abrupt speed bumps that are often used in private driveways and parking lots are not recommended for public streets and are hazardous to bicyclists.

The following are examples of vertical deflection:

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

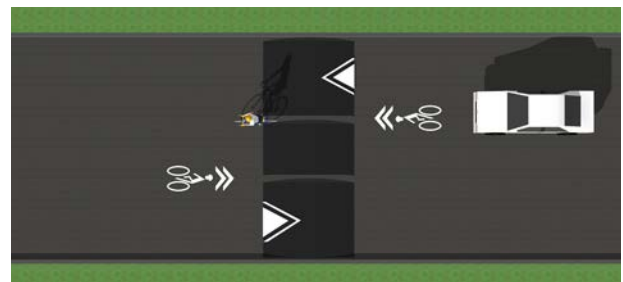
Speed Humps

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 that allow 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.



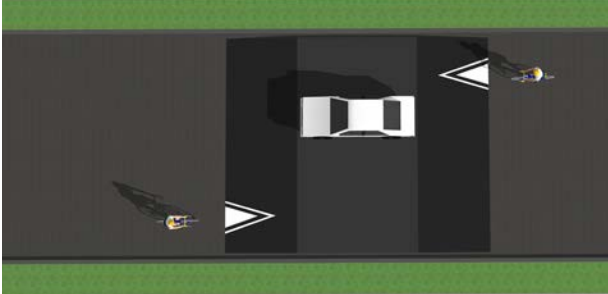
Speed Tables

Speed tables are longer than speed humps and have a flat

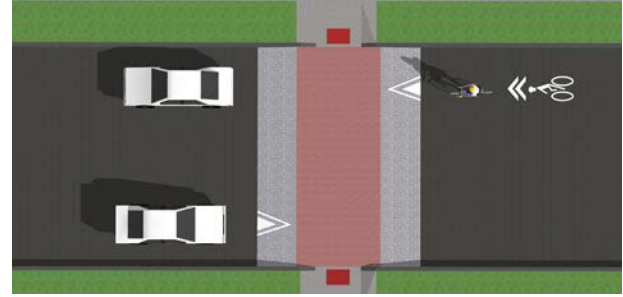
top, with a height of 3 to 3.5 inches and a length of 22 feet. Intended vehicle operating speeds range from 25 to 35 mph, depending on the spacing. Speed tables may be used on collector streets, transit, and/or emergency responder routes.

Raised Crosswalk

A raised crosswalk is a speed table that is signed



and marked as a pedestrian crossing. It extends the full width of the street and is typically 3 inches high. At minor intersections the entire intersection can be raised to reduce motor vehicle speeds in all directions.



Volume Management

Volume management techniques reduce or discourage through traffic on designated bicycle boulevards by physically reconfiguring select intersections. Bicycle boulevards should be designed for motor vehicle volumes under 1,500 vehicles per day.

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.



NEXT STEPS

For additional improvement locations throughout Englewood, 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

Site-Specific Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Liberty Circle at Tenaflly Rd, W Palisades Ave (CR 505), Lafayette Ave (CR 37), and Bennett Rd			
Stripe Yield Signs on W Palisades Ave (CR 505)	County	City	Short
Relocate crosswalk further back from intersection	County	City	Short
Construct median channelizing islands with pedestrian refuge islands on each approach	County	City	Medium
Broad Avenue at Walton Street			
Install mid-block pedestrian crossing with median refuge island, high-visibility crosswalk along Broad Ave south of Walton St	City		Short
Install advance pedestrian crossing and Yield signs	City		Short
Install ADA-compliant curb ramps on either side of Walton St sidewalks along Broad Ave	City		Short
Coordinate with NJ Transit to install bus shelter at the Rt. 4 bus stop	NJ Transit	NJDOT	Medium
E Palisades Ave (CR 505) at Dan Pl and Lydecker St			
Replace existing crosswalks with high-visibility crosswalk striping at all legs of both the intersections	County	City	Short
Install Yield to pedestrian signage	County	City	Short
Upgrade existing pedestrian signal heads and push buttons	County	City	Medium
Coordinate with NJ Transit to install a bus shelter at the westbound bus stop on E Palisades Ave	NJ Transit	City	Medium
Grand Ave (NJ 93) and Rockwood Pl			
Replace existing crosswalks with high-visibility crosswalk striping at all legs of both the intersections	NJDOT	City	Short
Install Yield to pedestrian signage	City		Short
Install mid-block pedestrian crossing with high visibility crosswalk striping, median refuge island and advance signs on Grand Ave (NJ 93) at Phelps Ave	NJDOT	City	Medium
Install sidewalk and high-visibility crosswalk striping along northbound Grand Ave (NJ 93)	NJDOT	City	Medium

Downtown Area Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Location A – Demarest Ave and N Van Brunt St			
Complete sidewalk network, install railroad gates, and stripe high-visibility crosswalk across the CSX railroad tracks along westbound Demarest Ave	City	Property Owners/ NJ Transit	Long
Location B – N Van Brunt St and Daisy Pl			
Install high visibility crosswalks across Daisy Pl and south leg of N Van Brunt St	City		Short
Install curb extension at southeast and southwest corners with ADA-compliant curb ramps	City		Long
Install pedestrian crossing with railroad gates, high visibility crosswalk, and ADA-compliant curb ramps across the CSX railroad tracks	NJ Transit	City/ Property Owners	Long
Install Rectangular Rapid Flashing Beacon across N Van Brunt St	City		Medium
Location C – Midblock crossing, to cross N Dean St			
Install high-visibility crosswalk striping	City		Short
Install Rectangular Rapid Flashing Beacon	City		Medium
Install curb extensions on both sides of roadway	City		Long
Location D – N Dean St and Park Pl			
Install high-visibility crosswalk striping	City		Short
Install Rectangular Rapid Flashing Beacon	City		Medium
Install curb extensions for crosswalks across N Dean St and Park Pl	City		Long
Location E – N Dean St and Demarest Ave			
Install high-visibility crosswalk striping	City		Short
Install curb extensions on all four corners of the intersection. Reduce curb radius	City		Long
Update signal equipment at all crossings to include pedestrian countdown timers and push buttons	City		Long
Location F – Engle St and Demarest Ave			
Install high-visibility crosswalk striping	City		Short
Install curb extensions for crosswalks across Engle St and Demarest Ave	City		Long
Reposition pedestrian signal heads in the correct orientation at all legs of the intersection	City		Medium

Downtown Area Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Update signal equipment at all crossings to include pedestrian countdown timers and push buttons	City		Long
Location G – Engle St and Park Pl			
Install high-visibility crosswalk striping	City		Short
Install curb extensions for crosswalks across Engle St and Park Pl	City		Long
Update signal equipment at all crossings to include pedestrian countdown timers and push buttons	City		Long
Location H – Engle St and Bergen St			
Install high-visibility crosswalk striping on both crosswalks	City		Short
Install curb extensions on Engle St	City		Long
Update signal equipment at all crossings to include pedestrian countdown timers and push buttons	City		Long
Install ADA-compliant curb ramps on Bergen St	City		Medium
Location I – N Dean St and Bergen St			
Restripe faded crosswalks with high visibility crosswalk striping and install ADA-compliant curb ramps on both crosswalks	City		Medium
Install curb extensions on N Dean St	City		Long
Location J – ShopRite shopping complex parking lots			
Install STOP signs at the exit of each parking bay and approach roads	Business Owners	City	Short
Install speed humps at the entry/exit approaches and mid-block locations along the peripheral roads inside the parking lots	Business Owners	City	Long
Install high visibility crosswalk striping on top of the speed humps with ADA-compliant curb ramps	Business Owners	City	Long

Corridor Recommendations

Recommendation	Lead Agency	Partners	Time Frame
Dean St from W Sheffield Ave to E Hudson Ave			
Study corridor-wide traffic calming opportunities to understand economic feasibilities and traffic impacts	NJDOT/County	City/ County	Medium
Install continental crosswalk at all crossings	City	NJDOT	Medium
Install ADA-compliant curb ramps at all crossings	City	NJDOT	Medium
Install pedestrian crossing with high visibility crosswalk and ADA-compliant curb ramps across the CSX railroad tracks	NJ Transit	City/ Property Owners	Long
Engle St/ Grand Ave from Municipal Limits to E Hudson Ave			
Study corridor-wide traffic calming opportunities to understand economic feasibilities and traffic impacts	NJDOT/County	City/ County	Short
Repave upheaved and broken sidewalks	City	NJDOT	Medium
Install ADA-compliant curb ramps at all crossings	City	NJDOT	Long
Location D – N Dean St and Park Pl			
Install high-visibility crosswalk striping	City		Short
Install Rectangular Rapid Flashing Beacon	City		Medium
Install curb extensions for crosswalks across N Dean St and Park Pl	City		Long
Broad Ave/ Dana Pl from E Palisades Ave to Municipal Limits			
Install continental crosswalk at all crossings	City	NJDOT	Short
Install ADA-compliant curb ramps at all crossings	City	NJDOT	Long
Study corridor-wide traffic calming opportunities to understand economic feasibilities and traffic impacts	NJDOT/County	City/ County	Long
Tenafly Rd/ Lafayette Ave (CR37) within Municipal Limits			
Study corridor-wide traffic calming opportunities to understand economic feasibilities and traffic impacts	NJDOT/County	City/ County	Short
Coordinate with Bergen County to install curb extensions, Speed Humps with pedestrian crossings mid-block and at intersections with major cross streets	City	NJDOT	Long
Reposition pedestrian signal heads in the correct orientation at all legs of the intersection	City		Medium

General Recommendations

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





APPENDIX

WORKSHOP MATERIALS



Senior Walkability Workshop

May 24, 2018

9:30 AM – 12:30 PM

Saint Paul's Episcopal Church
113 Engle St, Englewood, NJ 07631

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

- 10:30–11:40** III. Taking an Observational Walk
- Walkability audit
 - Field observations

BREAK

- 11:55–12:30** IV. Brainstorming Session for Improvements
- Discuss field observations
 - Next Steps



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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:

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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 Englewood want to go?

2 What senior mobility issues have you noticed in Englewood?

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

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

4 Any additional observations?

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SENIOR WALKABILITY WORKSHOP



Sign-In Sheet (05.24.2018)

Name	Organization	Senior?	Email (for follow up information)
SHIRLEY EDMONDS	-	Yes	lonniec62@verizon.net
Eugene Murphy	B.C. Eng.		emurphy@co.bergen.nj.us
Laura Vogel	working senior	✓	laura@bartal.com
Janeet Sharma	BB Alliance	✓	
JoEllen Knie	Age Friendly Englewood		
GREGORY HAUSTON	Age Friendly Englewood ENGLEWOOD PD		agefriendlyenglewood2@gmail.com
Joyce Strom	Age Friendly Bergen Co Div	YES	Leroystrom@aol.com
TESS TOMASI	of Senior Services	NO	Tomasi@co.bergen.nj.us
Ava Rattigan	Favor Senior Home Care	NO	ava.rattigan@gmail.com
William Riviere	NJDOT		
Luis Rosado	NJ Transit		LRosado@NJTransit.com
Scott Reddin	Senior Center		



