Next Stop: Resilient Baldwin
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Prepared for
New York State Governor’s Office of Storm Recovery (NYSGOSR)
Nassau County Department of Public Works (NCDPW)

Next Stop: Resilient Baldwin is the culmination of the Baldwin Downtown and Commercial Corridor Resiliency (DCCR) study, which was funded by a grant from the Governor’s Office of Storm Recovery (NYSGOSR). The NY Rising Community Reconstruction (NYRCR) Program is a participatory recovery and resiliency initiative established to provide assistance to 124 communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee.

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Traffic Databank

Next Stop: Resilient Baldwin is available electronically at:
http://www.baldwindccrstudy.com and nassaucountyny.gov
Next Stop: Resilient Baldwin

Table of Contents

Acknowledgments .................................................................................................................. 7
Acronyms .................................................................................................................................. 9
Definitions .................................................................................................................................. 10
Executive Summary ................................................................................................................... 13
Introduction ............................................................................................................................... 41
Project Purpose And Need ......................................................................................................... 45
Public Participation ..................................................................................................................... 49
Community Economic Indicators ............................................................................................... 57
Community-Based Recommendations ......................................................................................... 61
  LIRR/TOD District .................................................................................................................... 66
  Complete Streets ...................................................................................................................... 79
  Green Infrastructure ............................................................................................................... 84
  Storm And Economic Resiliency ............................................................................................ 100
Implementation/Action Items Roadmap ..................................................................................... 109
Community-Based Recommendations Summary Matrix ......................................................... 123
References .................................................................................................................................. 146
Appendices ................................................................................................................................. 149
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Baldwin Council of PTAs
Baldwin Oaks Civic Association
Baldwin Fire Department
Baldwin High School/School District
Baldwin Historical Society
Baldwin Public Library
Town of Hempstead Sanitary District #2
MTA Long Island Rail Road
Residents and Local Businesses of the Baldwin community

Thank you to the Baldwin School District and the Baldwin Public Library for the use of their facilities and assistance from their technical and maintenance staff for the Baldwin DCCR Study small group meetings and open house workshops.

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Acronyms

ADA  Americans with Disabilities Act
BID  Business Improvement District
CAC  Community Advisory Committee
CDBG-DR  Community Development Block Grant-Disaster Recovery
CHHA  Coastal High Hazard Area
DCCR  Downtown and Commercial Corridor Resiliency
ECA  Existing Conditions Analysis
ESC  Executive Steering Committee
FEMA  Federal Emergency Management Agency
FHWA  Federal Highway Administration
HSIP  Highway Safety Improvement Program
HUD  United States Department of Housing and Urban Development
LIRR  Long Island Rail Road
MTA  Metropolitan Transportation Authority
NCDPW  Nassau County Department of Public Works
NWS  National Weather Service
NICE  Nassau Inter-County Express
NYSDEC  New York State Department of Environmental Conservation
NYSDOT  New York State Department of Transportation
NYSEFC-GIGP  New York State Environmental Facilities Corporation Green Infrastructure Grant Program
NYRCC  New York Rising Community Reconstruction
NYSGOSR  New York State Governor’s Office of Storm Recovery
P3  Public-private partnership
PIP  Public Involvement Plan
ROW  Right-of-way
TAP-Set Aside  Transportation Alternative Program Set-Aside
TIGER  Transportation Investment Generating Economic Recovery
TOD  Transit-Oriented Development
SFHA  Special Flood Hazard Area
USDA  United States Department of Agriculture
USDOT  United States Department of Transportation
USPS  United States Postal Service
Placemaking
Establishing the identity, or, creating a strong sense of “place” for a community or site. Placemaking often involves a collaborative public process for the design of public spaces that allow for greater interaction between people and foster healthier, more social, and economically viable communities.

Primary Study Area
The area comprising the commercial corridors within Baldwin, primarily along the following roads: Grand Avenue, between the Southern State Parkway and Atlantic Avenue; Milburn Avenue, between Grand Avenue and Atlantic Avenue; Sunrise Highway (NY 27), between Charing Cross Road and the eastern extent of the hamlet of Baldwin (proximate to Pep Boys Auto); Merrick Road, between Charing Cross Road and the eastern extent of the hamlet of Baldwin (proximate to Milburn Pond Park); and Atlantic Avenue, between Parsonage Creek and Milburn Creek.

Secondary Study Area
The full expanse of both the hamlets of Baldwin and Baldwin Harbor. Since the hamlets are collectively referred to as “Baldwin” by most residents, the Baldwin DCCR Study and Final Plan refer to the entire Secondary Study Area as “Baldwin” or the “hamlet of Baldwin.”

Sustainability
Creation and maintenance of the conditions under which humans and nature can exist in productive harmony to support present and future generations.

Definitions
Adaptation
Strategies, including changes to infrastructure and behavior, designed to reduce harm from damages in the face of future environmental conditions and weather events induced by climate change. Adaptation can include, but may not be limited to, retreat of infrastructure from coastal areas subject to future sea level rise, storm-hardening of utilities, and raising homes above flood elevations.

Adsorption
To gather (a gas, liquid, or dissolved substance) on a surface in a condensed layer.

Climate Change
Changing climatic norms, due to higher concentrations of greenhouse gases in the atmosphere, that can result in increased frequency of extreme storm events, increased number of hot/cold days, and sea level rise.

Compact Growth
Compact growth promotes higher residential density with mixed land uses. It is based on an efficient public transport system and encourages walking and cycling, low energy consumption and reduced pollution.

Mitigation
Efforts to reduce or prevent greenhouse gas emissions into the atmosphere, or prevention of climate change-related impacts. Mitigation can include reducing energy use and decreasing gasoline or diesel-powered vehicle use. Flood mitigation can include installation of more effective drainage systems to prevent inundation, however flood mitigation measures can also be considered a climate change adaptation strategy.

Resiliency
Capacity for adaptation and the ability to rebound in the face of climate-related or other storm and weather events.

Overlay Zoning District
A zoning district which is applied over one or more previously established zoning districts, establishing additional or stricter standards and criteria for covered properties in addition to those of the underlying zoning district. Communities often use overlay zones to protect special features such as historic buildings, wetlands, steep slopes, and waterfronts. Overlay zones can also be used to promote specific development projects, such as mixed-used developments, waterfront developments, housing along transit corridors, or affordable housing.
1.0 Executive Summary

What Is The Baldwin Downtown Commercial Corridor Resiliency Study?

The Baldwin community totals a combined area of approximately 4.7 miles and has a population of more than 32,000. This Community, which is located on the south shore of Long Island within the Town of Hempstead, Nassau County, New York, is close-knit and ethnically-diverse.
The downtown and commercial corridor in Baldwin consists of a variety of uses, including retail, commercial, institutional, and public recreation, which are generally clustered in the vicinity of the Long Island Rail Road Station (LIRR) and along Grand Avenue, the hamlet’s major thoroughfare. The Community consists of a mix of residential neighborhoods with different architectural styles and a waterfront that contains a rich history of original and renovated cottages. Although the resources to encourage a viable and healthy downtown and commercial corridor are available, the economic health and resiliency of coastal communities such as Baldwin have been affected by unprecedented severe weather events. Furthermore, a long discontinuous downtown and commercial corridor has impacted economic vitality. The Baldwin community has long recognized its assets and envisions Baldwin as a collection of vibrant, pedestrian-friendly, commercial and downtown nodes, with an active, compact, multi-modal LIRR station area at the center of the hamlet. This vision also incorporates a productive mix of land uses and innovative green infrastructure components to create a place where residents, commuters and visitors want to shop, dine, and recreate.

In March 2014, through funding provided by the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Recovery, the NY Rising Community Reconstruction (NYRCR) Program released the Baldwin NY Rising Community Reconstruction Plan (Baldwin NYRCR Plan). The NYRCR Program was established by New York State to provide communities with assistance and guidance for rebuilding and revitalizing communities that suffered destruction incurred by Hurricane Irene, Tropical Storm Lee, and Superstorm Sandy. It is a participatory program that helps communities identify resilient and innovative reconstruction projects that considers damage from past storms, opportunities for redevelopment, and future threats.

The Baldwin Downtown and Commercial Corridor Resiliency (DCCR) Study was a recommendation of the NYRCR Plan and was funded by a grant from the New York State Governor’s Office of Storm Recovery (NYSGOSR). Next Stop: Resilient Baldwin (Final Plan

**Baldwin DCCR Study Area and Existing Commercial Nodes**
or Resilient Baldwin), is the culmination of 12 months of outreach efforts and community interaction, which will provide the Baldwin community with a resilient, sustainable, and economically viable plan for their future.

The Baldwin DCCR Study’s Primary Study Area boundaries consisted of the commercial mixed-use corridors of Grand Avenue, Milburn Avenue, Sunrise Highway, Merrick Road, and Atlantic Avenue, as depicted on, within the Town of Hempstead (Town), County of Nassau (County). The Secondary Study Area encompasses the entire expanse of both the hamlets of Baldwin and Baldwin Harbor. Since the hamlets are collectively referred to as “Baldwin” by most residents, the Baldwin DCCR Study refers to the entire Secondary Study Area as “Baldwin” or the “hamlet of Baldwin.” The DCCR Study evaluated the potential for downtown revitalization designed to promote new residential options and increase demand for local businesses outside of high and extreme flood areas. Study goals focused on economic and mixed-use development opportunities; economic and market conditions and implications; as well as green infrastructure and Complete Streets improvements within the Primary Study Area.

What did the Study do?

In 2016, the Nassau County Department of Public Works (NCDPW) began implementation of the NYCR Plan recommendation to study opportunities for economic and physical resiliency in Baldwin’s downtown and commercial corridors. This included a comprehensive review of existing economic and physical infrastructure conditions [See Appendix A: Existing Conditions Analysis] in the Primary Study Area, which includes the Baldwin Long Island Rail Road (LIRR) station area, and businesses and residences along Grand Avenue, Milburn Avenue, Sunrise Highway, Merrick Road, and Atlantic Avenue. The Baldwin DCCR Study evaluated strategies that would help address storm resiliency, foster economic investment, expand housing options, increase mobility throughout the community, and enhance public spaces. The Baldwin DCCR Study incorporated innovative public outreach tools and techniques, land use and economic planning, and principles of smart growth, including transit-oriented development (TOD), placemaking, Complete Streets, and green infrastructure. These opportunities were further refined during the Study process, through technical data reviews and public feedback, and specific recommendations were developed. Next Stop: Resilient Baldwin presents the final recommendations that resulted from the Baldwin DCCR Study.

What Was The Study Process?

The Baldwin DCCR Study actively engaged community stakeholders, local organizations and municipal agencies throughout the process. Feedback was gained through small group meetings and two large, interactive open house workshops. The Baldwin community was and is active and engaged in furthering the vision for a more resilient Baldwin, and the public participation component of the Study helped to shape the recommendations presented in this Final Plan. Drawing from past successful outreach efforts, the Public Involvement Plan (PIP) defined outreach goals, identified all appropriate stakeholder and community groups; set forth a set of engagement techniques; proposed an outreach schedule that provided for pro-active, timely, and relevant feedback and review; and provided an evaluation process that assessed the success of outreach efforts on a continuous basis, allowing for mid-term changes. The PIP was also published and posted to the project website.

In close coordination with NCDPW, the Baldwin DCCR Study website was created. The website provided the study information, including goals and objectives, timeline, history of the NYCR program, and scope of work; announcements about upcoming public meetings; presentation materials from, and summaries of, public meetings; all public documents, including the PIP; schedule information and updates; and contact information and the ability to leave comments. The website was updated on a regular basis to stay fresh and provide the public with the latest reports, summaries, and announcements in a timely manner. Options for viewing materials in Spanish were provided, as well as the ability for those with limited vision capabilities to view a simplified version of the Baldwin DCCR Study webpage that stressed text and downplayed colorful graphics.

The Existing Conditions Survey and Analysis [Appendix A] evaluated the information contained in available resources and documents, such as relevant planning and economic development documents, demographic and socioeconomic data, available traffic volume data and traffic studies, and legislative actions. Subsequently, an analysis was conducted of the existing land-use and infrastructure conditions within the Primary Study Area, and of areas and parcels that exhibit redevelopment opportunity (e.g., vacant, underutilized, etc.) were identified as part of this analysis. All the resources were reviewed and highlighted summarizing available data, relevance to the project, and relevant conclusions or inferences that can be drawn that might affect the viability of the Baldwin DCCR Study.

Further, a Market Opportunities Analysis [See Appendix C: Market Opportunities Analysis] assessed the local and regional demand for various land uses, including housing, commercial office space, industry, and retail. The economic and market conditions in Baldwin were evaluated through quantitative and qualitative data and information from...
### Baldwin DCCR Study Public Participation Schedule

<table>
<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Executive Steering Committee Meetings</td>
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<tr>
<td>Meeting 1</td>
<td>April 21, 2016</td>
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<tr>
<td>Meeting 2</td>
<td>July 19, 2016</td>
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<td>Meeting 3</td>
<td>August 23, 2016</td>
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<td>Meeting 4</td>
<td>October 11, 2016</td>
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<td>Community Advisory Committee Meeting</td>
<td>January 18, 2017</td>
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<td>Stakeholder Meetings</td>
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<td>Chamber of Commerce</td>
<td>June 6, 2016</td>
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<td>Baldwin Oaks Civic Association</td>
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<tr>
<td>Town of Hempstead Sanitary District #2</td>
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<tr>
<td>Baldwin PTA Council</td>
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<td>Fire Department</td>
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<td>Baldwin Civic Association</td>
<td>June 23, 2016</td>
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<tr>
<td>Local Realtors and Lenders</td>
<td>July 13, 2016</td>
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<tr>
<td>Local Developers</td>
<td>November 4, 8, and 18, 2016</td>
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<td>Public Outreach Events</td>
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<td>Baldwin Day Picnic</td>
<td>August 6, 2016</td>
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<tr>
<td>Fall 2016 Open House Workshop</td>
<td>November 16, 2016</td>
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<tr>
<td>Spring 2017 Open House Workshop</td>
<td>April 5, 2017</td>
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Baldwin residents and business owners and local real estate brokers and developers. Potential economic drivers identified included the LIRR station; access to Sunrise Highway, a major transportation corridor; proximity to ocean beaches; and the Baldwin school system. It was concluded that these assets must be promoted to make up for a lack of corporate headquarters and major educational or civic institutions. The Baldwin residential real estate market is recovering from the recession and retail vacancy rates are falling. This Final Plan contains strategies to foster development of a critical mass of housing, retail and services in the Baldwin downtown nodes to help attract well-known retailers and further investment and development.

Information generated in the Existing Conditions Analysis and Market Opportunities Analysis reports described above (along with the Project Team’s understanding of the Baldwin community and of resiliency “best practices”), along with input from community focus group meetings held during June and July, 2016, were also used in developing overall concept plans for each of the identified nodes within the study corridor. These plans reflected:

- Existing conditions within each node, including land uses, infrastructure capacities, accessibility, susceptibility to flooding and other relevant factors;
- Community goals and objectives as expressed in the stakeholder and public engagement process;
- Recommendations and policies as outlined in Nassau County’s previous Post-Sandy planning efforts (i.e., the Nassau County Multi-Jurisdictional Natural Hazard Mitigation Plan - 2014 Plan Update and Cultivating Opportunities for Sustainable Development - Nassau County Infill Redevelopment Feasibility Study) including sustainable stormwater design and green infrastructure and Complete Streets; and
- Market realities as to what is economically achievable in each area.

The redevelopment of vacant and underutilized parcels will also have significant impacts on Baldwin’s economic performance and fiscal conditions. However, the precise fiscal implications of downtown redevelopment will depend on the chosen implementation path, including the tax incentives that may offered, cost-sharing programs for infrastructure upgrades, and the contents of any developer agreements or public-private partnerships. While the full spectrum of fiscal impacts cannot be known until a development is formalized, a preliminary Fiscal Impact Analysis [Appendix C] was prepared to help Baldwin critically evaluate various redevelopment scenarios for their downtown and commercial corridors.

Technical analysis was performed and public feedback obtained for the entire Primary Study Area during the Baldwin DCCR Study. Based on the Existing Conditions Analysis and results of the public participation process, strategic development nodes were identified as opportunity areas for the focus of the Final Plan recommendations. Recommendations are presented in the Final Plan for the following nodes:

- Northern Gateway/Fairview Shopping Center
- Baldwin High School/Baldwin Shopping Center
- LIRR Station area
The Final Plan seeks to connect its recommendations with existing and prior initiatives in Baldwin, including:

- The Complete Streets Phase II recommendations presented in this Final Plan are a continuation of the previous NCDPW Complete Streets Phase I recommendations in the southern portion of the Primary Study Area.
- The LIRR Station area extends southward to the Town of Hempstead’s Urban Renewal Area (URA) at the northwest corner of Grand Avenue and Merrick Road.
- Economic vitality in the greater LIRR Station/URA node will complement planned Silver Lake Park (NCDPW) improvements further south.

**Next Stop: Resilient Baldwin** is based on extensive public outreach and technical analyses and provides recommendations for policy and planning-related changes and economic incentives for business and residential reinvestment, infrastructure improvements, and design controls/standards along Grand Avenue. Recommendations focus on the ability of the Community, through both physical and policy means, to address and withstand changes in market conditions and demographic patterns as well as impacts due to natural disasters.
Community-Based Recommendations

Plan Themes: Four Dimensions of Economic and Physical Resilience In Baldwin

1. LIRR/TOD

Create an economically vibrant LIRR station area, which is located outside of high and extreme flood risk areas, by creating a TOD overlay district that allows for a walkable, compact, mix of residential, retail and sit-down dining options that will complement new accommodations for pedestrian and bicyclists, landscaping and beautification efforts, and planned LIRR station enhancements.

- Develop a TOD overlay zoning district that allows for mixed-uses, and increased densities in downtown locations, with incentives for community benefits, such as pedestrian amenities and green infrastructure.
- Attract developers and recommend residential and mixed-use development concepts:
  - Low density townhomes
  - Medium density residential and retail
  - Deck parking and retail; deck parking, retail and residential
  - Higher density residential and retail, where contextually appropriate.
- Enhance transit and pedestrian accommodations with bus shelters and bicycle storage lockers
- Install landscaping, pocket parks and other greenery (including green infrastructure).

2. Complete Streets

Design and operate public streets that welcome and provide safe access for pedestrians, bicyclists, motorists and transit riders. Strengthen opportunities for streets to serve non-motorized users and enable them to cross the street, take transit, bicycle to work, or walk to shops. Complete Streets recommended installations include:

- Traffic calming measures, such as driver feedback signs that display speeds, curb extensions, and medians
- High-visibility crosswalks and “pedestrian crossing” signs
- Enhanced and widened sidewalks and/or curbs
- Well-designed and convenient bus shelters

3. Green Infrastructure

Diversify stormwater infrastructure by installing innovative green infrastructure systems that will afford greater storm and ecological resilience. Improve the quality of stormwater runoff that enters ground and surface waters and enhance system drainage capacity through attractive vegetative stormwater planters, street trees, and permeable pavers, in recognition of Baldwin’s coastal location and past experiences with flooding. Green infrastructure technologies recommended for the downtown commercial corridor include:

- Install permeable pavers or low-maintenance turf grass within select Complete Streets curb extension and median
- Replace trees in declining health and/or those that have wire-conflicts with wire-friendly trees adapted to sidewalk conditions
- Install stormwater planters and reuse technology at new development sites
- Street tree, tree box, and permeable paver pilot programs at strategic locations in all development nodes

4. Storm and Economic Resiliency

Leverage the economic potential of existing assets in Baldwin’s downtown and commercial corridors and reimagine commercial nodes as vibrant downtown centers of arts, culture, shopping, and transit to attract investment. Adapt to a changing climate by preparing the community for future flooding and weather events. Strategies for storm and economic resiliency include:

- Prepare an emergency transportation plan
- Storm Survival/Disaster Guide
- Wi-Fi/technology charging stations
- Baldwin community management and branding teams/strategies and explore the formation of a Business Improvement District(s) (BID)
- Pedestrian amenities along streets and art displays in vacant streetfronts

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1 According to the American Planning Association website (https://www.planning.org/divisions/planningandlaw/propertytopics.htm), “an overlay zone is a zoning district which is applied over one or more previously established zoning districts, establishing additional or stricter standards and criteria for covered properties in addition to those of the underlying zoning district. Communities often use overlay zones to protect special features such as historic buildings, wetlands, steep slopes, and waterfronts. Overlay zones can also be used to promote specific development projects, such as mixed-used developments, waterfront developments, housing along transit corridors, or affordable housing.”
• Solar/LED streetlamps
• Placemaking, or creating a strong sense of “place” at the Baldwin High School and reinforcing the school’s identity along Grand Avenue

Overall, the DCCR Study built on existing local initiatives in order to develop an implementable plan for the Grand Avenue downtown and commercial corridor in Baldwin and to address the need for greater resiliency in the face of changing economic markets, changing demographics and potential future severe weather events and natural disasters. Ultimately, Next Stop: Resilient Baldwin will serve as a roadmap for the Baldwin community toward implementation of the recommendations, which, once set in motion, will guide a plan for building economic and physical resiliency in the community, and will help re-envision the downtown and commercial corridors in Baldwin as interactive places that promote well-being and pride for the people who live, work and play there.

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Implementation/Action Items Roadmap

LIRR/TOD District Dimension of Resilient Baldwin
Create resilient LIRR station area

Strategy 1
New mixed-use development surrounding the LIRR station area

Implementation
Establish a TOD Overlay Zone located outside of high and extreme flood risk areas to allow for mixed-uses and higher densities in the LIRR station area. Design for a walkable, compact, attractive area with accommodations for transit riders, pedestrian and bicyclists.

Actions to Implementation
- Seek Public Input
  - Introduce public review & approval of TOD Overlay Zoning District by the Town Board
- Attract developers & recommend mixed-use development concepts
- Site Survey
- Real Estate Market Survey
- Buildout Analysis

LIRR/TOD District Dimension of Resilient Baldwin
Create resilient LIRR station area

Strategy 2
Enhanced Baldwin LIRR Station

Implementation
Upgrades of LIRR Station facilities to promote convenience and safety for LIRR riders and visitors to the station, and to encourage mass transit use.

Actions to Implementation
- MTA/LIRR identify improvements for Baldwin LIRR Station
  - Coordination with County and Town
  - Consider P3s for fund public improvements
- Final Engineering & Design
  - MTA/LIRR coordinate with Town of Hempstead
- Construction
  - Bicycle storage lockers
  - LED lighting
  - Landscaping & greenery
  - Station Plaza renovations
**Complete Streets Dimension of Resilient Baldwin**

**Improved Pedestrian Safety, Sidewalk/Streetscape, Traffic Calming, and Transit**

### Strategy 1

**Improve pedestrian safety and circulation and traffic calming in the vicinity of the Southern State Parkway overpass and ramps**

<table>
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<th>Timeline</th>
<th>Implementation Strategies</th>
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<td>5-10</td>
<td>• County-State partners</td>
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**Actions to Implementation**

- Prepare Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Construction

**Funding and Design**

- NYSDOT HSIP and TAP Set-Aside funds
- FHWA Grant
- Site Planning
- Transportation
- County-State partners

**Strategy 2**

**Traffic calming along Grand Ave. Corridor. Improve safety for pedestrian use & encourage non-motorized transportation along the corridor.**

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<td>• County-State partners</td>
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**Actions to Implementation**

- Prepare Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Construction

**Funding and Design**

- NYSDOT HSIP and TAP Set-Aside funds
- FHWA Grant
- Site Planning
- Transportation
- County-State partners

- Enhanced crosswalk markings
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
- Enhanced sidewalks
- Medians
- Curb extensions/pedestrian space

- Enhanced high visibility crosswalks
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
Next Stop: Resilient Baldwin

### Complete Streets Dimension of Resilient Baldwin

**Improved Pedestrian Safety, Sidewalk/Streetscape, Traffic Calming, and Transit**

#### Strategy 3

**Pedestrian streetscape enhancements and pedestrian amenities plus further traffic calming along Grand Avenue**

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
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#### Actions to Implementation

- NCDPW to secure funding
- Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Construction

- Enhanced crosswalk markings
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
- Enhanced sidewalks
- Medians
- Curb extensions/pedestrian space
- High-visibility crosswalks at curb extensions

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#### Strategy 4

**Encourage use of mass transit with more accessible and convenient bus facilities**

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<tr>
<th>Jurisdiction/Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
<th>Funding</th>
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#### Actions to Implementation

- NCDPW to secure funding
- Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Install bus shelters
### Green Infrastructure Dimension of Resilient Baldwin

Make Baldwin’s stormwater infrastructure adaptive to future conditions and enhance aesthetics along the Grand Avenue corridor with innovative green technologies.

#### Strategy 1

**Green infrastructure pilots at Baldwin High School / educate students about resiliency**

- **Jurisdiction/Responsible Party**
  - Baldwin School District
  - NCDPW
  - NYSGOSR

- **Estimated Costs**
  - $10–$25/Sq. Ft.
  - $15,000

- **Timeline**
  - 0–1
  - 1–5
  - 5–10

- **Implementation Strategies**
  - Final Engineering & Design
  - Install Stormwater tree box on High School campus

- **Actions to Implementation**
  - NCDPW/ NYSGOSR coordinate with Baldwin School District for CDBG DR funds
  - Baldwin management team partner with Baldwin School District
  - Secure funding
  - Install pervious pavement within High School campus

#### Strategy 2

**Tree planting and green infrastructure installations in the downtown and commercial corridor**

- **Jurisdiction/Responsible Party**
  - NCDPW
  - Town of Hempstead
  - Baldwin management team

- **Estimated Costs**
  - $800/tree
  - $800/tree plus $15–$25/Sq. Ft.

- **Timeline**
  - 0–1
  - 1–5
  - 5–10

- **Implementation Strategies**
  - Final Engineering & Design
  - Secure funding
  - Conduct tree canopy assessment
  - Permitting & Approvals
  - Final engineering and design

- **Actions to Implementation**
  - NCDPW/ NYSGOSR cooperate with Baldwin School District for CDBG DR funds
  - Baldwin management team partner with Baldwin School District
  - Secure funding
  - Install Stormwater tree box on High School campus
  - Install pervious pavement at pilot locations
  - Install/replacement trees and stormwater tree boxes at pilot locations
  - Baldwin management team
  - County Town partners

---

### Green Infrastructure Dimension of Resilient Baldwin

Make Baldwin’s stormwater infrastructure adaptive to future conditions and enhance aesthetics along the Grand Avenue corridor with innovative green technologies.
Green Infrastructure Dimension of Resilient Baldwin

Make Baldwin’s stormwater infrastructure adaptive to future conditions and enhance aesthetics along the Grand Avenue corridor with innovative green technologies.

### Strategy 3
Green infrastructure in Complete Streets curb extensions and medians along the Grand Avenue corridor

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCDPW &amp; Baldwin</td>
<td>$1.50/Sq. Ft.</td>
<td>0–1</td>
<td>• NYS EFC-GIGP Program</td>
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<td>• Site Planning</td>
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<td>1–5</td>
<td>• Vegetation</td>
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<td>• Drainage</td>
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<td></td>
<td>5–10</td>
<td>• Transportation</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Baldwin management team-County-State partners</td>
</tr>
<tr>
<td>NCDPW &amp; Baldwin management team</td>
<td>$10-$25/Sq. Ft.</td>
<td>0–1</td>
<td>• NYS EFC-GIGP Program</td>
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<td></td>
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<td>• Site Planning</td>
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<td>• Transportation</td>
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<td>5–10</td>
<td>• Baldwin management team-County-State partners</td>
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<td>• NYSDEC WQIP Program</td>
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<td>• Site Planning</td>
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<td>5–10</td>
<td>• Transportation</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Baldwin management team-County-State partners</td>
</tr>
<tr>
<td>NCDPW &amp; Baldwin management team</td>
<td>$15,000 per curb extension</td>
<td>0–1</td>
<td>• NYS DOT TIGER grants</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• NYS EFC-GIGP Program</td>
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<td>1–5</td>
<td>• Site Planning</td>
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<td>• Transportation</td>
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<td></td>
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<td></td>
<td>• Baldwin management team-County-State partners</td>
</tr>
</tbody>
</table>

### Implementation

- Low-maintenance turf in medians
- Pervious surfaces in medians
- Pervious surface curb extensions with storm drains

### Actions to Implementation

1. NCDPW to Secure funding
2. Complete Streets permitting, design and construction
3. Public Input
4. Secure funding
5. Green Infrastructure Permitting & Approvals
6. Final Engineering and Design
7. Plant low-maintenance turf/grass/install pervious surfaces in medians
8. Pervious surface curb extensions and storm drains

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### Strategy 1
Immediate-term storm resiliency pilots in the LIRR station area

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town of Hempstead</td>
<td>$3,000/solar lamp</td>
<td>0–1</td>
<td>Install Solar-powered emergency-ready street lamps in Town commuter parking lots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1–5</td>
<td>Install Wi-Fi hot spot/device charging station(s)/electronic kiosk(s) at LIRR station</td>
</tr>
</tbody>
</table>

### Implementation
- Install Solar-powered emergency-ready street lamps in Town commuter parking lots
- Install Wi-Fi hot spot/device charging station(s)/electronic kiosk(s) at LIRR station

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA/LIRR</td>
<td>TBD - outdoor kiosks $600 - indoor kiosks</td>
<td>0–1</td>
<td>Install solar-powered street lamp pilots</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1–5</td>
<td>Install Wi-Fi/technology charging station(s)/electronic kiosk(s)</td>
</tr>
</tbody>
</table>

### Actions to Implementation
- NCDPW/NYSGSor coordinate with Town of Hempstead for CDBG-DR funds
- NCDPW/NYSGSor coordinate with Town of Hempstead for CDBG-DR funds

### Final Engineering & Design

### Strategy 2
Activate, market, and brand Baldwin’s downtown and commercial corridors and other assets

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baldwin School District</td>
<td>$85,000</td>
<td>0–1</td>
<td>Install LED sign at the Baldwin High School</td>
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<td>1–5</td>
<td>Install LED sign at the Baldwin High School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5–10</td>
<td>Install LED sign at the Baldwin High School</td>
</tr>
</tbody>
</table>

### Implementation
- Art displays in vacant storefronts and public areas
- Install LED sign at the Baldwin High School
- Street lamp/path lighting, benches, trash receptacles, and wayfinding signage, further deployment of green infrastructure and street trees (pilot in LIRR/TOD district—other nodes to follow)

### Actions to Implementation
- Display art of local artists in vacant storefronts
- Pedestrian amenities
- Green infrastructure technologies, and tree planting

### Storm and Economic Resiliency Dimension of Resilient Baldwin
Re-imagine commercial nodes as vibrant downtown centers and adapt to a changing climate.

- MTA/LIRR
- Town of Hempstead

- NCDPW
- Baldwin mgmt team
- Developer cost, per TOD zoning requirements
Storm and Economic Resiliency Dimension of Resilient Baldwin
Re-imagine commercial nodes as vibrant downtown centers and adapt to a changing climate.

Strategy 3
Medium-term storm preparedness actions for Baldwin community/commercial districts

Implementation
- Emergency transportation plan to designate routes and demand response shuttles for access to job sites at times of primary road/transit service closure
- Storm Survival/Disaster Recovery Guide for Local Businesses

Jurisdiction/Responsible Party
- Town of Hempstead
  - NCDPW
  - NYSDOT
- NCDPW
  - Chamber of Commerce/Baldwin management team

Estimated Costs
- $75,000 (for engineering study)
- $35,000

Timeline

<table>
<thead>
<tr>
<th>Implementation Strategies</th>
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</thead>
<tbody>
<tr>
<td>Funding</td>
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<tr>
<td>FEMA Emergency Preparedness Grant</td>
</tr>
<tr>
<td>NYSSGDR CDBG-DR</td>
</tr>
<tr>
<td>NYSDOT</td>
</tr>
</tbody>
</table>

Actions to Implementation
- Establish Baldwin management team
- Management team to partner with Town/County to secure funding
- Planning/Engineering Study(s)
- Final Engineering and Design
- Prepare an emergency transportation plan
- Prepare a Storm Survival/Disaster Recovery Guide
- Public Input/outreach
In March 2014, through funding provided by the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR), the NY Rising Community Reconstruction (NYRCR) Program released the Baldwin NY Rising Community Reconstruction Plan (Baldwin NYRCR Plan). The Baldwin NYRCR Plan, which was the culmination of over seven months of community and stakeholder coordination and input, considered the goals and objectives for the future of the NYRCR Baldwin Community during the planning process. The result was a series of strategies and projects that would ultimately respond to the Community’s critical issues and contribute to a more resilient, safe, and sustainable future for the Baldwin community.
The Baldwin Downtown and Commercial Corridor Resiliency (DCCR) Study was a recommendation of the NYRCR Plan and was funded by a grant from the New York State Governor’s Office of Storm Recovery (NYSGOSR). The NYRCR Program is a participatory recovery and resiliency initiative established to provide assistance to 124 communities severely damaged by Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee. Next Stop: Resilient Baldwin (Final Plan or Resilient Baldwin), is the culmination of 12 months of outreach efforts and community interaction, which will provide the Baldwin community with a resilient, sustainable, and economically viable plan for their future.

The Nassau County Department of Public Works (NCDPW) began implementation of the NYRCR Plan recommendation in Spring 2016 to study opportunities for economic and physical resiliency in Baldwin’s downtown and commercial corridors. This effort included a comprehensive review of existing economic and physical infrastructure conditions [See Appendix A: Existing Conditions Analysis] within the Primary Study Area, which includes the Baldwin Long Island Rail Road (LIRR) station area, and businesses and residences along Grand Avenue, Milburn Avenue, Sunrise Highway, Merrick Road, and Atlantic Avenue, as depicted on the Study Area map, within the Town of Hempstead (Town), County of Nassau (County). The Secondary Study Area encompasses the full expanse of both the hamlets of Baldwin and Baldwin Harbor. Since the hamlets are collectively referred to as “Baldwin” by most residents, the Baldwin DCCR Study refers to the entire Secondary Study Area as “Baldwin” or the “Hamlet of Baldwin.”

The Baldwin DCCR Study incorporated innovative public outreach tools and techniques (described in the Public Outreach section of this Final Plan), land use and economic planning, and principles of smart growth, including transit-oriented development (TOD), placemaking, Complete Streets, and green infrastructure. The DCCR Study evaluated the potential for downtown revitalization in the Primary Study Area that would be designed to promote new mixed-use and commercial development opportunities and more diverse residential options, as well as to increase demand for local businesses outside of high and extreme flood areas. These opportunities were further refined during the DCCR Study process, through technical data reviews and public feedback, and specific recommendations were developed.
3.0 Project Purpose And Need

In the wake of Hurricane Irene, Tropical Storm Lee and Superstorm Sandy, NYSGOSR developed the NYRCR Program, which included CDBG-DR funding2 to assist storm-affected communities. The Baldwin community suffered heavy damages from these storms, and was identified by NYSGOSR in the Baldwin NYRCR Plan as an area that would benefit from enhanced storm and economic resiliency. The Baldwin DCCR Study focused on recommendations and actions that will help make Baldwin an innovative community with measures for mitigation of, and adaptation to, extreme storm events and sea level rise associated with climate change. Therefore, recommendations in Next Stop: Resilient Baldwin range from strategies to reduce vehicle emissions that can mitigate climate change impacts to adaptation of future impacts, including preparedness plans in anticipation of increased extreme storms.

2 New York State’s CDBG-DR program is funded through the U.S. Department of Housing and Urban Development (HUD)'s CDBG-DR program.
Baldwin Economic And Physical Resiliency

The Baldwin DCCR Study was conducted to help answer the question, “What planning and coordination needs to be done now to accelerate the transformation of Baldwin into a safer, more economically prosperous and resilient community?”

Resilience has been defined as the ability to become strong, healthy, or successful again after something bad happens. In the Baldwin community, resilience has been defined as being able to adapt to changing economic markets and demographics by promoting prosperous and sustainable commercial and mixed use development supported by more efficient and safer transportation options. In addition, resiliency means adapting to a changing climate by locating housing and businesses outside of high flood risk areas, thereby lessening the impacts of sea-level rise, severe weather events and other natural disasters.

What Were The Goals Of The Baldwin DCCR Study?

<table>
<thead>
<tr>
<th>Goals</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protect the Baldwin Community from sea level rise and significant storm surge events</td>
<td>Recommend stormwater and green infrastructure improvements&lt;br&gt;Explore creation of community space to use as a safe zone during storm surge events and as a social gathering space for Baldwin residents</td>
</tr>
<tr>
<td>Promote economically competitive and physically resilient commercial and mixed-use districts along the corridor</td>
<td>Assess local and regional economic and market trends to prepare an analysis for potential redevelopment in vicinity of Baldwin’s LIRR station&lt;br&gt;Create an inventory of potential redevelopment opportunities in the corridor&lt;br&gt;Develop recommendations for redevelopment opportunities&lt;br&gt;Recommend policies to support economic development initiatives for attracting and retaining neighborhood businesses&lt;br&gt;Prepare a fiscal impact analysis for potential redevelopment in vicinity of Baldwin’s LIRR Station</td>
</tr>
<tr>
<td>Improve efficient and safe transportation options</td>
<td>Identify potential parking, pedestrian, and bicycle improvements and potential redevelopment opportunities around Baldwin’s LIRR station&lt;br&gt;Prepare traffic safety improvement plans for Grand Avenue, north of Stanton Avenue</td>
</tr>
</tbody>
</table>

Climate Change/Extreme Storm Findings

Past severe storms, such as Hurricane Irene and Superstorm Sandy, tested existing infrastructure capacities in Baldwin and proved there was a need for resiliency and upgrades. Baldwin’s commercial corridors north of Merrick Road and the LIRR Station are located outside of Federal Emergency Management Agency (FEMA) 100-year and 500-year flood hazard zones, and, therefore, the Baldwin DCCR Study and Final Plan Recommendations focused future development potential within these areas. The intersections of Merrick Road and Grand Avenue, and Merrick Road and Milburn Avenue are located within FEMA 100-year flood hazard areas. However, in light of future risks due to climate change and associated sea level rise, NYSGOSR identified portions of the Primary Study Area/Grand Avenue corridor north of Sunrise Highway, and nearly all the Primary Study Area south of Sunrise Highway, as areas at moderate risk from inundation by infrequent storms and future rises in sea levels. According to the Baldwin NYRCR Plan, Moderate Risk Areas are areas that are outside the Extreme and High Risk Areas, but currently at moderate risk of inundation from infrequent events or at risk in the future from sea level rise. This includes areas within FEMA-designated 0.2% annual risk (500-year) flood zones.3

Future climate change is expected to result in more extreme storms and other weather events (e.g., record hot and cold days). Therefore, efforts to help mitigate climate change through reduced greenhouse gas emissions (e.g., decreased personal vehicle use), as well as adaptation to climate change impacts that cannot be mitigated, are necessary for this community’s future resilience.

Baldwin Community’s Experience With Extreme Storm Events

Next Stop: Resilient Baldwin offers a number of recommendations to help address impacts that were felt in the wake of Hurricane Irene and Superstorm Sandy. Implementation of these recommendations will increase the Baldwin community’s capacity for storm resiliency. During the Baldwin DCCR Study, the Baldwin community shared their experiences during these storm events.

There was a lack of communication between aid organizations, government agencies, and residents in affected areas.

- Need for post-storm procedures to improve organization and clean-up.
- Suggestion for a volunteer task force that would designate resources and amenities during and after future storm events.
- Desire for an evacuation/emergency resource center.

3 Extreme Risk Areas are those areas currently at risk of frequent inundation, areas vulnerable to erosion in the next 40 years, or likely to be inundated in the future due to sea level rise. This includes FEMA designated Zone V Coastal High Hazard Areas (CHHA), areas subject to Shallow Coastal Flooding per the National Weather Service’s (NWS) advisory threshold, areas prone to erosion or natural features susceptible to erosion, and areas subject to future sea level rise. High Risk Areas are outside the Extreme Risk Area that are currently at infrequent risk of inundation or at future risk from sea level rise. High Risk areas include geography within FEMA Zone V and Zone A Special Flood Hazard Areas (SFHA), also known as 1% annual risk (100-year) flood zones, and areas subject to future sea level rise.
Public Participation

A collaborative outreach process employed throughout the Baldwin DCCR Study has allowed for effective community input from key stakeholder agencies and organizations, the local business community, property owners, and neighborhood groups. Outreach efforts included preparation of the Baldwin DCCR Study Public Involvement Plan (PIP) [See Appendix B], small group meetings, creation of a project website, participation in the Baldwin Day Picnic, and two well-attended public open house workshops. The following summarizes the community engagement activities that occurred throughout the Baldwin DCCR Study.
Executive Steering Committee Meetings

The Executive Steering Committee (ESC) Meetings consisted of representatives from the Town of Hempstead, Nassau County, and the MTA/LIRR with key expertise and local knowledge about the future of the hamlet of Baldwin. The ESC met with the Project Team at periodic intervals throughout the project to provide guidance, and review and comment on draft plans and recommendations, with meetings were held on the following dates:

Meeting 1: April 21, 2016
Meeting 2: July 19, 2016
Meeting 3: August 23, 2016
Meeting 4: October 11, 2016
Meeting 5: March 1, 2017
Meeting 6: March 15, 2017

Refer to Appendix B: Public Participation for ESC Meeting summaries and agendas.

Community Advisory Committee Meeting

The Community Advisory Committee (CAC) Meeting took place January 18, 2017. Civic, business, and environmental community representatives, as well as representatives of elected officials and public agencies, were in attendance. The CAC provided guidance and feedback to the Baldwin DCCR Study process as it moved forward, and ensured and improved outreach to the community. The CAC provided an open forum for discussion and encouraged interaction among key stakeholders, who represent a cross-section of community organizations with diverse missions and interests. Refer to Appendix B: Public Participation for the CAC meeting summary and agenda.

Website

An interactive project website, http://www.baldwindccrrstudy.com, was published to provide constant communication about the study and document progress. Here, community members could learn about the project, view meeting announcements and presentations, review published materials and draft documents, and submit comments.

Stakeholder Meetings

Members of the Baldwin DCCR Project Team met with various stakeholder groups at the beginning of the study to introduce the stakeholders to the purpose and need for the Baldwin DCCR Study and to receive feedback from the stakeholders on their experiences during Hurricane Irene and Superstorm Sandy and the implications that followed these storm events:

   Chamber of Commerce: June 6, 2016
   Baldwin Oaks Civic Association: June 15, 2016
   Town of Hempstead Sanitary District #2: June 15, 2016
   Baldwin PTA Council: June 20, 2016
   Baldwin Fire Department: June 21, 2016
   Baldwin Civic Association: June 23, 2016
   Local Realtors and Lenders: July 13, 2016
   Local Developers: November 4, 8, and 18, 2016

During these meetings, each group was introduced to the Baldwin DCCR Study, and facilitated conversations were used to create a dialogue for input gathering on opportunities and challenges, as they relate to the hamlet of Baldwin. Throughout these meetings, groups expressed the need for connecting the northern and southern sections of Baldwin, creating design guidelines for businesses, community participation, storm resiliency, and downtown redevelopment. Refer to Appendix B: Public Participation for complete meeting agendas and summaries.

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With respect to the closed vacant Pathmark site, slightly less than one third of respondents expressed a need for recreation centers. Regarding uses and improvements proximate to the LIRR station, respondents were also evenly divided between cycling amenities, such as bike shelters, bike lockers, and bike parking to promote healthy lifestyles, and a multi-level parking garage, which was seen as important not only for the LIRR Station commuters, but also for those respondents indicating they desired to visit the downtown.

Housing in Baldwin is largely characterized by single family homes. During the Baldwin Day Picnic, almost half of the survey participants supported continuing the kind of single family developments in Baldwin.

A major component of the Baldwin DCCR Study is to create a more vibrant and resilient Baldwin that reacts proactively to the possibility of hazardous environmental conditions. During the Baldwin Day Picnic, survey participants were also asked to provide their answers on sticky notes to the statement “The most important thing to Baldwin Resiliency is…” The suggestions that received support from about one quarter of respondents were improving power lines and creating an evacuation/emergency center.

Visual Preference Survey
A series of images and questions were shown to participants (of all age ranges) via large presentation boards. Images focused on highlighting different visual build forms and development alternatives to gauge interest on specific amenities. Participants were asked to view the varied images and to place a colored dot marker on the alternative images that they believed should be prioritized in the DCCR Study and more broadly in Baldwin. Each board included a caveat that the concept images displayed were not part of any existing development plan and instead were presented to gauge potential community interest. Stickie notes were used to place additional ideas on the boards.

Findings
Grand Avenue is characterized by a long commercial corridor lined with vacant storefronts, aging businesses, and outdated infrastructure. The existing commercial businesses along this corridor serve a variety of basic needs with regards to food access and automotive uses. During the Baldwin Day Picnic, participants were asked what types of businesses they would like to see along Grand Avenue; slightly more than one third of respondents felt the existing retail uses available were lacking in diversity, as well as a need for family friendly sit-down restaurants.

Methods of engagement included welcome area informational boards, drawing activities, one-on-one sessions, and interactive visual preference surveys. The Project Team and County staff were positioned in front of the Baldwin DCCR booth and by the activities to invite passersby to participate. Contact information was also requested to keep interested participants up to date on the Baldwin DCCR Study. The Baldwin Day Picnic boards and summary can be viewed in Appendix B: Public Participation:

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Open House Workshops
Two large-scale public participation workshop events were held at Baldwin High School during the Baldwin DCCR Study. At these events, information was displayed in an Open House format with various stations designed to provide participants with project information, and solicit feedback about the recommendations. Project Team members were located at each station throughout the room for one-on-one discussions and to answer questions regarding the information and recommendations located at each station. Each event ran from 7pm - 9pm, had a Welcome and Project Overview Station that provided a basic introduction to the Baldwin DCCR Study and engaged the community in a “Where do you live” dot activity. The November 2016 Open House boards and summary, and the April 2017 Open House boards and presentation can be viewed in Appendix B: Public Participation.

The events were marketed through the project website, the project email list, local Baldwin organization announcements, Facebook and monthly mailer. Information about the events
was also posted in local businesses and other locations throughout Baldwin. The flyers, email blasts, and mailers can be viewed in Appendix B: Public Participation.

First Open House

On Tuesday, November 16, 2016, the first Baldwin DCCR Study Open House was held. This Open House provided the Baldwin community an opportunity to preview preliminary recommendations and development opportunities for addressing economic resiliency and revitalization through various interactive activities. One-hundred seventy-seven (177) community members attended the event, providing valuable feedback that was used to develop implementable recommendations consistent with the goals, visions, and aspirations of the Baldwin Community. The November Open House stations and findings were as follows:

Development Node Stations: Preliminary draft recommendations and concepts developed through consultation with stakeholder focus groups and the ESC were identified geographically by using three development node stations. These development node stations allowed participants to see the existing conditions and assets, land use and infrastructure opportunities and recommendations specific to that location. To gather public feedback, visual examples of the preliminary recommendations that included site and scale-appropriate images from Long Island (where possible) were used on boards. Participants were asked to place green dots on recommendations of the highest priority and red dots on recommendations that were not a priority. Graphs of these preferences are available in the Open House Summary (See Appendix B: Public Participation).

Northern Gateway/ Fairview Shopping Center: Participants at the Baldwin DCCR November 2016 Open House prioritized streetscape improvements along Grand Avenue (64 green dot votes), including pedestrian lighting, and site furnishings, such as benches and trash receptacles. Participants also prioritized specialty retail (61 green dot votes) along Grand Avenue. The gateway area recommendations received the lowest priority with 31 red dot votes.

Baldwin Shopping Center/High School: Participants at the Baldwin DCCR November 2016 Open House prioritized specialty merchandise retail (68 green dot votes) and complete streets improvements (61 green dot votes) along the northern portion of Grand Avenue. In addition, bus stop enhancements, high-visibility crosswalks, signal timing optimization, and the additional study of the former Pathmark Driveway/Grand Avenue intersection were prioritized. Recommendations receiving lowest priority from participants was the high school gateway (21 red dot votes) improvements.

LIRR Train Station Area: Participants at the Baldwin DCCR November 2016 Open House gave highest priority to local retail and sit-down restaurants (86 green dot votes) that appeal to commuters and new and existing residents; a community center (80 green dot votes); and station plaza improvements (59 green dot votes), including a paved plaza under/around the LIRR station that could accommodate public functions and activities; bus shelter improvements; bio-retention facilities; street trees; pedestrian lighting; site furnishings; installation of Microgrid for alternative energy; and free power/technology stations for WiFi hot spots and charging stations. The recommendation receiving the lowest priority was the Tech start-up space (25 red dot votes).

Second Open House

On Wednesday, April 5, 2017 the second Baldwin DCCR Study Open House was held and approximately 121 community members attended the event. This Open House provided the Baldwin community an opportunity to learn about the recommendations for addressing storm resiliency and economic revitalization in Baldwin’s commercial corridors, and show how previously garnered public feedback and ideas had been incorporated into the recommendations. A presentation was given by the County and the Project Team to introduce participants to the meeting format, and provide an update and next steps related to the Baldwin DCCR Study. The Open House boards and presentation can be viewed in Appendix B: Public Participation. The April 2017 Open House stations were as follows:

Community Economic Indicators: Participants were provided key findings related to economic and commercial opportunities in Baldwin.
Community Economic Indicators

This section offers a synthesis of the findings from a comprehensive market analysis conducted for Baldwin as well the surrounding area. The full version of this analysis is available in the Economic Technical Reports in Appendix C: Market Opportunities Analysis. The purpose of the analysis was to ensure that any development concepts for Baldwin were appropriately anchored in market reality. In order to gauge the potential for redevelopment and development, a broad range of census and real estate market data was collected. The findings below are based upon the analysis of this data as well as the insights gained from interviews with local real estate brokers and developers.
Drivers, Demographics And Market Fundamentals

Baldwin is well positioned to absorb new real estate development. There are many drivers that make Baldwin a desirable place to live including its schools, train station, demographic diversity, and proximity to the beach. The hamlet’s positive population growth, above national average incomes, and high levels of education are meaningful market demand indicators for prospective developers.

Mixed-Use Transit-Oriented Development Demand

There is a demand for walkable mixed-use communities in Long Island. In other communities in Long Island, Transit-Oriented Development (TOD) is very successful, resulting in higher rental rates for housing and a stronger and more diversified tax base. Example TODs include Farmingdale, Rockville Centre and Valley Stream.

Office Demand

Small firms and start-ups might want to locate at Baldwin’s train station. The number of workers employed in “office jobs” in five industry sectors stagnated between 2003 and 2013 and fell drastically between 2013 and 2014. Baldwin sees nearly 5,000 workers commute in for employment, but 16,000 workers commute out for employment as well. By comparison, in Garden City, more than 17,000 workers commute in for employment, while less than 9,000 workers commute out. Although attracting traditional corporate tenants may be difficult, Baldwin has the potential to attract niche high tech or incubator space near its LIRR station (e.g. LaunchPad in Mineola and Huntington).

Housing Demand

There is a demand for multi-family housing around Baldwin’s LIRR Station. Relative to other Nassau County communities, Baldwin has a very small proportion of multi-family homes, especially those with studio and one bedroom units. Short housing absorption times, under two months, suggest there is high demand for living in Baldwin. This high demand and shortage of supply of small (studio and 1 bedroom) multi-family housing units in Baldwin is consistent with local housing trends as many younger and older adults in particular are considering living in walkable and transit-served downtowns.

Retail Demand

There is a shortage of specialty stores, restaurants, and department stores. Majority of retail sectors (except for motor vehicles and parts) are facing retail leakage--residents are making purchases outside of the Baldwin area, especially dining and specialty goods. Brokers and businesses believe that minimal foot traffic and a lack of large parcels have led to low interest from national retailers.

Retail vacancy rates are falling in Baldwin’s commercial corridors. Retail vacancy in Baldwin has fallen since 2006, even through the years of the recession. This trend potentially indicates a rising demand for retail space in Baldwin.

There are obstacles to attracting larger well-known retailers. Brokers report limited success in attracting national retailers. Obstacles to robust retail development include perceptions about consumer buying power, limited sites, and competition with surrounding areas.
Residents want more diverse retail and restaurants. Residents at Baldwin Day submitted feedback on what types of developments they would like to see, and their preferences, in order of interest were: sit-down restaurants, retail stores, supermarkets and mixed-use development.

Retail Vacancy Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Retail Vacancy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>9.2%</td>
</tr>
<tr>
<td>2007</td>
<td>8.3%</td>
</tr>
<tr>
<td>2008</td>
<td>6.5%</td>
</tr>
<tr>
<td>2009</td>
<td>7.8%</td>
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<tr>
<td>2010</td>
<td>7.3%</td>
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<tr>
<td>2011</td>
<td>7.8%</td>
</tr>
<tr>
<td>2012</td>
<td>6.4%</td>
</tr>
<tr>
<td>2013</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

Source: Colliers International Market Reports 2006-2013 for Baldwin and Baldwin Harbor CDPs

There are many drivers that make Baldwin a desirable place to live including its schools, train station, demographic diversity, and proximity to the beach.

Community-Based Recommendations

The preparation of *Next Stop: Resilient Baldwin* is based on extensive public outreach and technical analyses. It provides recommendations for policy and planning-related changes and economic incentives for business and residential reinvestment, infrastructure improvements, and design controls/standards along Grand Avenue. Recommendations focus on the ability of the Community, through both physical and policy means, to address and withstand changes in market conditions and demographic patterns, as well as impacts due to natural disasters. Future climate change is expected to result in more extreme storms and extreme weather events (e.g. record hot and cold days). Therefore, climate change mitigation efforts to reduce or prevent greenhouse gas emissions (e.g., decreased
Development Nodes/Opportunity Areas

Based on the technical analysis performed and public feedback obtained for the entire Primary Study Area during the Baldwin DCCR Study, strategic development nodes were identified as opportunity areas for the focus of the Next Stop: Resilient Baldwin recommendations. This section of the Final Plan presents recommendations for the following nodes:

- Northern Gateway/Fairview Shopping Center
- Baldwin High School/Baldwin Shopping Center
- LIRR Station area
- Complete Streets Phase II (the Grand Avenue corridor between Southern State Parkway and Stanton Avenue)

The Final Plan recommendations presented in the following subsections are also connected to existing and prior initiatives in Baldwin:

- The Complete Streets Phase II recommendations presented in this Final Plan are a continuation of the previous NCDPW Complete Streets Phase I recommendations in the southern portion of the Primary Study Area.
- The LIRR Station area extends southward to the Town of Hempstead’s Urban Renewal Area (URA) at the northwest corner of Grand Avenue and Merrick Road.
- Economic vitality in the greater LIRR Station/URA node will complement planned Silver Lake Park (NCDPW) improvements further south.

This section of Next Stop: Resilient Baldwin describes the Plan Themes and recommendations in detail. The Final Plan also provides a summary matrix of the recommendations, including estimates of preliminary costs and resources required for implementation, necessary public actions (including rezoning where required) and identification of the party or parties responsible for moving each proposal forward [see Community-Based Recommendations Matrix]. Finally, a generalized timeline for implementation of the recommendations is also provided, indicating which actions need to take place initially and the interdependence of the various items.
Adapt to a changing climate by preparing the community for potential future flooding and weather-related events by installing emergency-ready solar street lamps and providing a storm survival/disaster guide and an emergency transportation plan.

Next Step: Resilient Baldwin recommendations focus on strengthening Baldwin’s ability to address and withstand changes in market conditions and demographic patterns, as well as impacts due to natural disasters.

**Plan Themes: Four Dimensions of Economic and Physical Resilience In Baldwin**

1. **LIRR/TOD**
   - Strengthening economic resiliency around the LIRR station area, which is located outside of high and extreme flood risk areas, by creating a TOD overlay district that allows for a walkable, compact, mix of residential, retail and sit-down dining options that will complement new accommodations for pedestrian and bicyclists, landscaping and beautification efforts, and planned MTA/LIRR station enhancements.

2. **Complete Streets**
   - Design and operate public streets that welcome and provide safe access for pedestrians, bicyclists, motorists and transit riders. Strengthen opportunities for streets to serve non-motorized users and enable them to more safely cross the street, take transit, bicycle to work, or walk to shops with the installation of traffic calming measures, high-visibility crosswalks, improved sidewalks, and well-designed and convenient bus shelters.

3. **Green Infrastructure**
   - Diversify existing stormwater infrastructure by installing innovative green systems that will afford greater storm and ecological resiliency; improve the quality of stormwater runoff that enters ground and surface waters; and improve system drainage capacity through attractive vegetative stormwater planters, street trees, and permeable pavers.

4. **Storm and Economic Resiliency**
   - Leverage the economic potential of existing assets in Baldwin’s downtown and commercial corridors and reimagine commercial nodes as vibrant downtown centers of arts, culture, shopping, and transit to attract investment. Pedestrian amenities, art displays along storefronts, and Wi-Fi/technology charging stations will activate the streetscape, and community management and branding teams can market the improved downtown.

**LIRR/TOD District**

**Complete Streets**

**Green Infrastructure**

**Storm And Economic Resiliency**
LIRR/TOD District

Mixed-Use Transit-Oriented Development Concepts

One of Baldwin’s most important assets is the presence of the Long Island Rail Road (LIRR) station, which provides a 40-minute commute to New York City’s Pennsylvania Station and Grand Central Station (pending completion of East Side Access) as well as numerous locations on Long Island. A Market Opportunities Analysis conducted as part of the Baldwin DCCR Study indicates that there is a strong demand for walkable mixed-use development around the Baldwin LIRR station. Compared to other communities in Nassau County, Baldwin has a relatively small proportion of multi-family homes, especially those with studio and one-bedroom units.

Based on input and feedback received during the Baldwin DCCR Study process, Baldwin residents appear receptive to the idea of providing more multi-family housing options and denser development around the train station, while preserving surrounding single-family neighborhoods. Mixed-use development around the station will meet the increasing demand for housing alternatives, drive foot traffic and increase demand for retail uses including sit-down restaurants.

There are a number of vacant and/or underutilized parcels around the Baldwin train station that could be redeveloped in the future. Based on the results of the market analysis, development concepts were prepared that tested a range of land uses and densities on potential sites, including:

- Low density townhomes
- Medium density residential and retail
- Deck parking and retail, deck parking, retail and residential
- Higher density residential and retail, where contextually appropriate

Mixed-use development around the station will meet the increasing demand for housing alternatives, drive foot traffic and increase demand for retail uses including sit-down restaurants.
Community-Based Recommendations

Next Stop: Resilient Baldwin

Transit-Oriented Development Zoning Overlay District

Next Stop: Resilient Baldwin seeks to focus future development around the Baldwin train station, making it a center of activity. It seeks to create a compact and higher intensity mix of residential, office, retail and civic uses in an area located generally within a one-half (1/2) mile walking distance of the Baldwin train station. Pedestrian circulation and access to transit (bus and rail) are important. Retail and services catering to pedestrians should be encouraged at street-level to create an active streetscape. Street amenities, such as continuous sidewalks, bus shelters, well designed crosswalks, lower-scale lighting, seating areas, waste receptacles, planters, and trees should be encouraged to make the sidewalk environment more comfortable for users. New development should be designed to require compact growth, 6 opportunities for increased choice of transportation modes, and a safe and pleasant pedestrian environment by ensuring an attractive streetscape, a functional mix of uses, green infrastructure and the provision of facilities that support transit use, bicycling and walking.

Currently, the existing zoning does not permit this type of mixed-use, higher density development. The presence of multi-zones, 5 excessive area, bulk and parking requirements; and prohibitive use regulations - combined with other issues such as flooding and the pedestrian streetscape - substantially hinders improvements and revitalization in the area. Left unchecked, these barriers will continue to deter station area investment.

The Town should seize this opportunity to remove these barriers to the greatest extent practicable through the following strategies, representing a targeted approach with no changes to any presently-allowed uses, height or density:

- Create a TOD overlay zone 6 to promote development along Grand Avenue to capitalize on proximity to the LIRR train station in order to allow for:
  - Application of one, consistent zoning district, overlaying the existing underlying zoning boundaries and multi-districts, and to reduce nonconformities with respect to land use.
  - Overlay district area and bulk regulations that better reflect current conditions, and lessen the number and degree of nonconforming properties (based on underlying zoning requirements) and allow for appropriately scaled development and redevelopment.

The creation of a TOD Overlay Zone is recommended to more fully leverage the proximity to the train station by strategically relaxing density limits that would otherwise not be

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Mariner’s Walk, Oyster Bay, Nassau County

Mariner’s Walk, in Oyster Bay, Nassau County, New York, is a luxury 28-townhome community located on South Street north of Lexington Avenue that was developed by Island Properties in 2007.

Northridge, Huntington Station, Suffolk County

In Huntington Station, Suffolk County, New York, Renaissance Downtowns is developing Northridge, a three-story mixed-use building with 16 one-bedroom rental units and 6,500 square feet of retail, and surface parking at the corner of Northridge Avenue and New York Avenue. The Town of Huntington transferred a one-half acre parcel to the developer in December 2016 to encourage development of the property.

Copiague Oak Place Plaza, Copiague, Suffolk County

The Copiague Oak Place Plaza is a mixed-use TOD, located walking distance to the LIRR in Copiague, Suffolk County, New York. The TOD contains three stories, 22 residential apartments, and 12,000 square feet of commercial space, with surface parking at the building rear.

McGovern Transportation Center, Essex County, Massachusetts

The McGovern Transportation Center in the City of Lawrence, Essex County, Massachusetts serves as a station on the Massachusetts Bay Transportation Authority commuter rail line. The five-story building contains mixed uses, including a municipal 400-space parking structure and ground floor retail, opened in 2015 in the city’s Gateway District. Lawrence, Massachusetts is a city in the northern part of the state that was formerly a center of industry until the mid-twentieth century. Lawrence is currently seeking economic revitalization and renewed investment.

25 Spring Street, Princeton Borough, Mercer County, New Jersey

In Princeton Borough, Mercer County, New Jersey, the 25 Spring Street mixed-use five-story structure includes a 500-space public structure parking garage, 77 luxury rental apartments, 15,000 square feet of retail on the ground floor, and a public plaza.

Peconic Crossing, Riverhead, Suffolk County

Peconic Crossing on West Main Street in Riverhead, Suffolk County, New York, is part of ongoing revitalization efforts in Riverhead that is a joint effort of the Community Development Corporation of Long Island and Conifer Realty. It has enjoyed support from the Town of Riverhead. It is a five-story, development with 45 one- and two-bedroom residential units and 34 surface parking spaces in the rear. The development will provide affordable housing, with preference given to artists and people who were displaced by Superstorm Sandy.

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4 Compact growth promotes higher residential density with mixed land uses. It is based on an efficient public transport system and encourages walking and cycling, low energy consumption and reduced pollution.

5 Seven different Town of Hempstead Zoning Districts are located within a one-half (1/2) mile radius of the train station, including Business, Gasoline Service Station (GSS), Industrial, Residence B, Residence C, Residence C-A, and Golden Age-Residence.

6 According to the American Planning Association website (https://www.planning.org/divisions/planningandlaw/propertytopics.htm), “adjacent overlay zone is a zoning district which is applied over one or more previously established zoning districts, establishing additional or stricter standards and criteria for covered properties in addition to those of the underlying zoning district. Authorities often use overlay zones to protect special features such as historic buildings, wetlands, steep slopes, and waterfronts. ‘Overlay zones can also be used to promote specific development projects, such as mixed-used developments, waterfront developments, housing along transit corridors, or affordable housing.”
possible in the current zoning districts in the immediate vicinity of the station (i.e., the Business, Residence B and Residence C Zoning Districts), as well as mixed-residential and commercial uses, which are not permitted as-of-right in those existing zoning districts. An overlay zone is a suitable and effective approach for achieving desired mixed-use development without changing the underlying zoning of the area. An overlay zone is also valuable because it can create zoning bonuses to incentivize the type and scale of development, while giving the Town Board discretion to ensure that development applications adequately address the goals of the district and desire of the community.

Overlay zoning has been used as a strategy to achieve desired types of development in communities elsewhere on Long Island and in the greater New York metropolitan region. Implementation of an overlay zoning district provides the municipality with the option of leaving the underlying zoning in place, while allowing potential developers to apply for application of the overlay zone that permits higher densities and mixed-uses, along with the provision of public amenities and other community benefits. Other communities have chosen to rezone the areas targeted for TODs with a TOD zoning district, or have otherwise encouraged or incentivized construction of TODs in their downtown areas in close proximity to transit.

A TOD Overlay Zone is recommended to fully leverage the proximity to the train station by strategically relaxing density limits that would otherwise not be possible in the current zoning districts.

Village of Mineola, Nassau County

Incentive zoning in the Village of Mineola, Nassau County, New York to allow for higher density near the Mineola Intermodal Center when a proposed project includes substantial public benefits/amenities. TODs, including the 266-unit One Third Avenue apartment building and the mixed-use 266-unit residential (including an affordability component) and commercial Village Green building have recently been approved and are currently in construction or recently constructed.

Village of Farmingdale, Nassau County

The Village of Farmingdale, Nassau County, New York implemented a Downtown Mixed-Use Zoning District in 2011 (and amended in 2014) in order to revitalize the downtown, encourage TODs near the LIRR station, and foster a pedestrian-friendly Main Street with a strong connection to the transit options at the LIRR station. The Downtown Mixed-Use district allows for mixed uses and moderate and high residential densities in designated areas within walking distance of the train station. Since enactment of the code and development of a Downtown Master Plan, the Village of Farmingdale has seen substantial development of higher density residences that include affordable housing components near the LIRR station and overall reinvestment in the downtown, including development of TOD apartment buildings containing a range of 8 to 52 units; 231 Main Street, a mixed-use TOD with 26 apartments and 3,000 square feet of retail; the Cornerstone, a 42-unit apartment TOD; and Jefferson Plaza, a TOD with 154 apartments above 20,000 square feet of first floor retail below the apartments, both of which are located less than one-quarter (1/4) mile from the train station; and several small businesses and sit-down restaurants along Main Street.

The Town of Islip, Suffolk County

The Town of Islip created a Downtown Development District in 2008 that can be applied to certain areas in portions of downtown Bay Shore, in Suffolk County, New York. Mixed-uses and higher residential densities are permitted in the Downtown Development District, provided that the project includes an affordable housing component and includes certain public amenities for the area. In 2013, a blighted property within walking distance of the train station in Bay Shore was redeveloped with three affordable housing units after being accepted into the Downtown Development District. Bay Shore has seen construction of other TODs, including the 26-unit mixed-use Chelsea Place, and the 24-unit Second Avenue Condos.
Next Stop: Resilient Baldwin

Town of Brookhaven, Suffolk County

The Town of Brookhaven enacted the Ronkonkoma HUB TOD District in 2014 and applied the district to the LIRR station area in Ronkonkoma, Town of Brookhaven, Suffolk County New York. The Town created this district to attract redevelopment of existing vacant parcels by allowing mixed-use and higher densities. Siting these uses near existing transit and infrastructure is expected to encourage a pedestrian-friendly environment and encourage efficient use of land. The Town selected a master developer, and the project is currently in the design phase.

City of New Rochelle, Westchester County

The City of New Rochelle, Westchester County, New York approved a Downtown Overlay Zone and Community Benefits Policy to encourage TODs and a cluster of uses in its downtown. The policy and the master developer for the downtown have sited the proposed projects near the New Rochelle Intermodal Transit Center, which is a hub for the Metro-North and Amtrak trains and various bus lines. The overlay zone paves the way for new development, including up to 990,000 square feet of new retail space, 1,805,000 square feet of new non-medical office space, 420,000 square feet of medical office space, and 5,500 apartments, hundreds of which will be affordable housing. The Downtown Overlay Zone allows increased density by giving developers an option to pay into a fund or directly invest in public benefits, such as historic preservation, arts and cultural space, community facilities, transit and parking facilities and open space.

Stratford, Connecticut

A TOD Overlay District was adopted in 2011 and applied to the Stratford Town Center area of Stratford, Connecticut, which is near the Metro-North rail station. The district allows for increased development and mixed-uses, and also includes streetscape design and pedestrian access guidelines, as well as required community benefit contributions/investments. The plan was initially prepared in conjunction with the approval of a 128-unit TOD, located approximately one half (1/2) mile from the train station. A TOD Plan was prepared in 2015 to evaluate ways to attract further development of mixed-uses and TODs in the downtown area.

Fiscal Impact Analysis

To approximate potential tax revenue benefits associated with the range of development concepts that were prepared for the area around the LIRR Station, an analysis of the estimated financial impacts of the concept TOD uses to the Town of Hempstead and the Baldwin School District was conducted [see the Economic Technical Reports in Appendix C: Fiscal Impact Analysis]. The analysis is based upon conceptual land use plans and limited fiscal data that were provided by Nassau County, the Town of Hempstead, and the Baldwin School District (online). A more detailed fiscal impact analysis will be performed once a development proposal for a specific site emerges. The table shown below summarizes the expected tax benefits for the various redevelopment Concepts.

Based upon the Fiscal Impact Analysis, there is wide variation across the concepts with regard to the financial impact on the Town of Hempstead. As shown in the table below, the annual property tax revenue impact ranges from $8,000 for the Townhomes Development Concept (1) to $391,000 for the Parking Deck with mixed residential and retail Concept (3b). Projected Town of Hempstead expenditures that could result from development of the concept TOD uses include costs to the Town for provision of community services, and culture and recreation, transportation, and public safety services.

Part of the variation is attributable to the scale of the development. Concepts 1, 2, and 3a propose a lower intensity of build out compared with those for Concepts 3b and 4. However, the variation is also attributable to the land use mix for each TOD concept. A substantially greater amount of retail is proposed for Concepts 3b and 4 than for concepts 1, 2, and 3a.

Summary of the Projected Financial Impacts of TOD Concepts to Town of Hempstead

<table>
<thead>
<tr>
<th>Development Concept</th>
<th>Concept TOD Uses</th>
<th>Projected Annual Tax Revenues To Town of Hempstead</th>
<th>Projected Annual Costs to Town of Hempstead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Townhomes</td>
<td>$8,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>2</td>
<td>Residential and Retail</td>
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<td>$79,000</td>
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<td>3a</td>
<td>Parking Deck; Plaza; Retail (3,600 sf)</td>
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<td>$12,000</td>
</tr>
<tr>
<td>3b</td>
<td>Parking Deck; Residential Apartments; Retail (35,500 sf)</td>
<td>$391,000</td>
<td>$275,000</td>
</tr>
<tr>
<td>4</td>
<td>Residential and Retail</td>
<td>$326,000</td>
<td>$237,000</td>
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</tbody>
</table>

7 It is important to note that this summary of expenditures and revenue is not representative of the total impacts and/or benefits to the municipal tax base, as a thorough analysis identifying all taxing districts and marginal cost projections for each respective district is necessary.

8 Town of Hempstead expenditures for the development concepts were estimated based on existing relative Town expenditures per dollar of assessed value in the Town, which is provided in the Town of Hempstead’s 2017 Adopted Budget.

72 Community Based Recommendations

Next Stop: Resilient Baldwin

73 Community Based Recommendations
The table above also suggests that annual costs to the Town of Hempstead are greater than revenues collected for Concepts 1, 2, and 3a. However, a finer-grain analysis of revenues and costs is required to make an accurate estimation of net benefit. Moreover, it should be noted that the conceptual plan entails the revitalization of the entire station area that would likely generate additional positive economic impacts throughout the station area and beyond.

Based on the analysis of school property tax revenues and current Baldwin School District per pupil expenditures,9 the various development scenarios would have a wide range of impacts on the Baldwin School District. As shown in the table below, the annual school tax revenue impact ranges from $77,000 for Development Concept 1 to $1,095,000 for Development Concept 3b. The number of school-aged children generated by each of the TOD concept uses would depend on the number and type of residential units included,10 and therefore, projected school district cost impacts would also vary according to the mix of uses, as shown in the table below.

<table>
<thead>
<tr>
<th>Development Concept</th>
<th>TOD Concept Uses</th>
<th>Projected Annual Tax Revenues to the Baldwin School District</th>
<th>Projected Annual Costs to the Baldwin School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Townhomes</td>
<td>$77,000</td>
<td>$31,000</td>
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<tr>
<td>2</td>
<td>Residential and Retail</td>
<td>$313,000</td>
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<td>3a</td>
<td>Parking Deck; Plaza; Retail (3,600 SF)</td>
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<td>3b</td>
<td>Parking Deck; Residential Apartments; Retail (35,500 sf)</td>
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<td>4</td>
<td>Residential and Retail</td>
<td>$944,000</td>
<td>$169,000</td>
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</table>

Much of the variation is similarly attributable to the scale of the development with Concepts 1, 2, and 3a yielding lower intensities of land use and tax revenues in comparison with Concepts 3b and 4.

The table above also suggests that annual revenues are greater than annual costs to the Baldwin School District for all development scenarios. It should still be noted that these development scenarios are conceptual and that a more in-depth analysis should be completed for any development that is ultimately proposed.

9 Baldwin School District per student expenditure for the 2014-2015 school year was $23,508 per student, according to data from the Nassau BOCES Annual Study of School Costs, as indicated in the Baldwin Union Free School District 2014-2017 school budget presentation.

10 School-aged children generation factors based on comparable multi-family developments constructed in Garden City. Data from the Nassau County Downtown Comparative Revitalization Fiscal Impact Analysis.

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Non-Motorized Transportation

The concept for a compact, mixed-use, TOD district centered around the Baldwin LIRR station will allow residents and visitors to access retail and services in the area without the need for personal vehicles. Therefore, the Final Plan includes recommendations to accommodate increased pedestrian activity, including bicyclists, in the district. Such recommendations include bicycle storage lockers at the new station plaza and at two other locations below the train platform, along the LIRR right-of-way (ROW). The bicycle lockers would provide a secured location for commuters to park bikes for the day, which would encourage the use of non-motorized modes of transportation. The lockers will help prevent theft and damage to bikes and will influence more commuters to bike to the station.

The increased use of cycling to the station will also reduce parking demand within the adjacent commuter lots.

Observations of bicycle usage in proximity to the Baldwin LIRR station was conducted as part of the Existing Conditions Analysis. Five bicycle racks were observed in various locations adjacent to the station, providing bicycle storage for approximately 36 bicycles. To estimate the number of patrons using the bicycle racks, bicycle parking observations in 30 minute intervals were conducted. Based on these observations, there were never more than 15 bicycles parked in the existing bicycle racks. Therefore, there was additional storage space available for approximately 23 more bicycles. To accommodate those existing 15 commuters, and the expected increase in users that would be anticipated as a result of Final Plan initiatives, 16 bicycle lockers are recommended in proximity to the train station. The lockers will be in 4-locker sets, with two sets being located adjacent to the existing bike racks at the western-most staircase at the Station Plaza, one set located adjacent to the bike racks at the middle staircase, and one set located adjacent to the bike racks at the eastern-most staircase. These proposed lockers would be expected to be maintained and operated by the Town of Hempstead (see page 78 for an aerial showing the location(s) of this recommendation).

The Resilient Baldwin concept for TOD uses, including increased residential density in close proximity to the train station, would encourage residents to minimize their use of automobiles for short trips. This will also significantly help to reduce the amount of additional parking needed at the train station. Based on the 2008 Transit Research Board’s (TRB) Transit Cooperative Research Program (TCRP) Report, entitled *Effects of TOD on Housing, Parking, and Travel*, as many as 35 percent of residents of TODs will choose to use non-motorized modes of transportation to go to and from the station, due to close proximity to retail and dining opportunities and other commercial services.
Implementation of the Complete Streets improvements for the LIRR/TOD area (Phase I) that were developed prior to DCCR Study will also encourage the use of non-motorized modes of transportation, both along the Grand Avenue corridor and to the train station. Under a repurposed Federal earmark secured in early 2017, the County will be implementing Complete Streets Phase I recommendations for the LIRR/TOD area include provisions to reduce lanes in select portions of Grand Avenue to slow traffic and reduce conflict distances. The narrowed crossing locations will also be upgraded to include new high-visibility crosswalks. The lighting in proximity to the train station will also be enhanced as part of planned MTA/LIRR station upgrades, which will promote safety for LIRR riders and visitors to the station area. Next Stop: Resilient Baldwin recommends that lighting installed proximate to the LIRR station consist of attractive fixtures and light posts and utilize LED and/or solar technologies for improved resilience (see page 78 for an aerial showing the location(s) of this recommendation). The above improvements will provide a safer, more attractive environment that encourages the use of non-motorized modes of transportation to the train station, the schools, businesses and dining opportunities located along the Grand Avenue corridor.

Other LIRR/TOD Nodal Improvements

Next Stop: Resilient Baldwin envisions the Baldwin LIRR station as a vibrant, multi-modal center that encourages pedestrian transportation (walking, biking, etc.) and mass transit use, including the LIRR and Nassau Inter-County Express (NICE) bus service, which will all reduce the dependence on cars within the Grand Avenue corridor. Currently, there are bus stops at Grand Avenue and Brooklyn Avenue, under the shelter of the LIRR bridge, with seating on east side, and also a waiting room at the LIRR station. However, there are not currently formal bus shelters available at these stops. Therefore, the Final Plan builds upon the Complete Streets Phase I proposal for improved bus shelters two blocks north of the LIRR station, at Grand Avenue and Miller Place and at Baldwin Avenue, and includes a recommendation to add enhanced bus shelter accommodations at the existing bus stops at Grand Avenue and Brooklyn Avenue (see page 78 for an aerial showing the location(s) of this recommendation). It is expected that the recommendation for a bus shelter(s) will complement the MTA/LIRR planned Baldwin station upgrades, announced by Governor Andrew Cuomo during his January 10, 2017 State of the State proposal. The upgrades may include new facilities, WiFi charging stations, public art, new platform waiting areas, general station renovations and improved signage (see page 78 for an aerial showing the location(s) of this recommendation). A shelter will increase convenience and comfort for bus riders and potentially encourage increased bus ridership. The exact location and shelter type will need to be determined by the County and NICE Bus.

Next Stop: Resilient Baldwin identifies and encourages specific multimodal transportation recommendations related to the MTA/LIRR planned station upgrades, as well as enhanced bus shelter(s) in the LIRR/TOD node; these physical improvements to transit infrastructure will make the LIRR station, itself, and the surrounding area, more resilient. The Final Plan also includes development concepts with deck parking that would increase parking supply and, along with the aforementioned adopted Phase I Complete Streets measures, the recommended pedestrian/bicycle amenities, such as lighting for safety and bicycle storage, would potentially encourage pedestrian and bicycle use, which could reduce vehicle use and parking demand.

The Town of Hempstead has undertaken extensive landscaping and beautification projects in the commuter parking lots that serve the LIRR station area. Building upon the Town’s efforts with additional landscaping at the LIRR station, and in the surrounding vicinity, will further enhance this area (see page 78 for an aerial showing the location(s) of this recommendation). Attractive streetscapes and greenery in commercial areas have been shown to encourage patronage of area businesses. The Final Plan recommends continued installation of landscaping and street trees, in addition to other pedestrian amenities, such as trash receptacles, decorative street lamps, and wayfinding signage, to “green” the streetscape and create an atmosphere that attracts visitors and patrons (see page 78 for an aerial showing the location(s) of this recommendation). As discussed in the Green Infrastructure section, Resilient Baldwin also identifies locations for green infrastructure in the LIRR/TOD area that will improve drainage conditions for future storm adaptation and add additional greenery to the streetscape. Beautification of commercial areas is further discussed in the Storm and Economic Resiliency section of this Final Plan as a way to encourage economic investment in the area downtown districts. The above-described LIRR/TOD nodal improvements are expected to attract development to the area. The mixed-use residential and retail development concepts described above in this section, have been strategically identified for location in the LIRR/TOD node, because it is located outside of high and extreme flood risk areas and centrally located near public transportation. It is expected that implementation of the Resilient Baldwin recommendations will attract new residents and create new commercial spaces in the Baldwin LIRR station area that will contribute to the economic vitality of the downtown in a low-lying flood-prone area.
Complete Streets

Complete streets and traffic calming measures enhance access and circulation for road users, and also serve as a catalyst for economic development and resilience. The mix of land uses within the Grand Avenue corridor, along with existing commercial developments and proximity to the LIRR Baldwin Station provide the fabric for a successful downtown commercial corridor. However, enhancing safety and accessibility for all users is essential to promote and sustain economic vitality in a downtown or commercial area.

Complete Streets is more multimodal in focus (pedestrians, bikes, buses), and less auto-centric.

Traffic calming entails implementation of mainly physical measures that reduce auto speed and create safer environment for pedestrians, bicyclists, transit riders, and other road users. The success of a commercial corridor fundamentally depends upon safe and efficient access for pedestrians, and traffic calming is an important element to consider in planning for a revitalized and walkable downtown and commercial corridor.

The Complete Streets part of the Baldwin DCCR Study involved extensive traffic data collection and analysis, detailed field inventories and observations, as well as a robust public information and outreach program and meetings with key stakeholders. Previously conducted pertinent studies were also reviewed to capitalize on their findings. This database provided a platform to identify needs and opportunities and to develop Complete Streets and traffic calming recommendations along the corridor.

The public feedback and comments obtained during the Baldwin DCCR Study process were given due consideration and were evaluated in developing the Resilient Baldwin recommendations. Vehicular circulation and safety, particularly speeding along the corridor, pedestrian circulation and safety, as well as provision of enhanced facilities for bus riders, road-diet, bike lanes, turn lanes, green infrastructure and beautification were the related subjects of public comments and concerns.

Although not unusual for a roadway like Grand Avenue, the data collected and analyzed indicated that the operating speeds were higher than the posted speed limits along the study corridor. Field data and observations indicated that while vehicular traffic is predominant, varying levels of pedestrian, bicyclist and transit rider activity also exists along
A review of the traffic volumes and capacity analysis results indicated that road diet or reduction of lanes would not be feasible at the intersections of Sunrise Highway and Merrick Road or on Grand Avenue, except for the two segments identified previously for a road diet. Traffic calming and Complete Streets measures, including sidewalk and crosswalk enhancements, pavement striping and signage, pedestrian signals, signal retiming, curb extensions or bump-outs, bus stop improvements, green space and medians, streetscape, turn lanes, additional signals and pedestrian crossings, were considered and recommended, where feasible, to address the needs and objectives of this study. Schematic plans were developed to depict the Next Stop: Resilient Baldwin Complete Streets recommendations along the corridor. [See Appendix D for the Complete Streets Schematic Plans].

Although sidewalks exist on both sides of Grand Avenue, their widths are narrow or restricted by elements such as trees or utility poles at certain locations. Considering the ROW constraints, feasible measures such as bulb-out and curb extensions were recommended, particularly at the key intersections, to increase the sidewalk areas for enhanced pedestrian operation. Curb extensions also provide opportunities to enhance bus stops with shelter/seating, streetscape and green infrastructure.

In the Grand Avenue Complete Streets Traffic Study Phase I, a road diet was recommended in two shorter segments along Grand Avenue, north and south of Sunrise Highway, considering its benefits and feasibility. A road diet is generally described as removing a travel lane(s) from a roadway and utilizing the space for other uses and travel modes. For Grand Avenue (north of Merrick Road and south of Milburn Avenue), it would convert the existing four lane roadway segments to three lane segments, consisting of two through lanes and a center two-way left turn lane. The space gained with the road diet would provide an opportunity to install bicycle lanes or wider shared bicycle and parking lanes in the recommended segments.

Due to the built-up nature of the study corridor, property taking or expanding the roadway section to provide new or enhanced Complete Streets elements such as bike lanes, wider sidewalks, parking lanes or bus stops was not feasible. Therefore, options that maximize the use of the existing ROW by reallocating the space and balancing it among the users were considered in the Final Plan.

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The public outreach indicated an overall strong public support for the Complete Streets initiatives recommended in the Final Plan. Concerns about increased congestion on Grand Avenue from the proposed road diet were noted. It should also be noted that the small segments of Grand Avenue proposed for a road diet were carefully recommended after reviewing the data and analysis in accordance with standard guidelines, and further study and analysis is recommended to evaluate and finalize the limits of a potential road diet during the design phase of this recommendation.

The recommended Complete Streets and traffic calming measures are expected to curb speeds, particularly of the vehicles operating above the posted limit along the study corridor, which is an identified concern. Overall, the recommended measures will enhance safety and accessibility for all users, including pedestrians, bicyclists, transit riders and automobiles. As noted above, pedestrian safety and accessibility is essential for a walkable environment. It promotes sustainable growth and vitality in a downtown commercial corridor and serves as a catalyst for economic development, resilience, and revitalization.

There are opportunities to improve the existing bus service along Grand Avenue, and to enhance transit facilities for the current users as well as to attract new users and increase ridership, which would be consistent with the goals of Complete Streets. Realizing the ROW constraints, feasible measures such as curb extensions that prevent parking at bus stops and increase sidewalk area to provide shelters, seating, wayfinding maps, and streetscape were considered to enhance the facilities.

Provision of enhanced facilities for all modes and users, including pedestrians, bicyclists and transit riders will help pave the way for sustainable TODs along Grand Avenue. There are some vacant and/or underutilized properties along the corridor that offer opportunity for revitalization. It will be prudent to consider TODs along and proximate to Grand Avenue that would result in minimizing vehicular trip generation. This will help to alleviate the already saturated conditions along the corridor, particularly at the key intersections of Sunrise Highway and Merrick Road, which operate at or near capacity. Provision of enhanced facilities for pedestrians, bicyclists, and bus riders will support these goals.

NICE bus operates the N35 route along the Grand Avenue commercial corridor. It connects to the N4 bus route along Merrick Road to Freeport, Rockville Centre and the Valley Stream area. These routes connect to the LIRR Stations at Baldwin, Rockville Centre and Freeport. It was observed that the LIRR Baldwin Station and bus ridership along Grand Avenue, indicate demand exists for public transit.

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Green Infrastructure

The extent of damage to the Baldwin community from past severe storms indicates that there are opportunities to retrofit and/or improve existing stormwater infrastructure. **Next Stop: Resilient Baldwin** recommends supplementing the existing drainage facilities with green infrastructure to lessen the burden on the existing stormwater management system and position Baldwin as a community at the forefront of innovative and ecologically sensitive technologies.

The entire Primary Study Area is located within the watersheds of Parsonage and Milburn Creeks. Therefore, strategically locating green infrastructure that will promote an increase in stormwater infiltration, increased permeability, and decreased impervious surfaces in the Primary Study Area, will collectively benefit the adjacent creek land uses, minimize flood potential, and improve stormwater quality, and ultimately, surface water quality, as well.

As with any infrastructure, the effectiveness, service-life, and performance of green infrastructure depends on system maintenance, use of the appropriate maintenance equipment, and the proper training of maintenance personnel. Therefore, implementation of the green infrastructure systems recommended in this Final Plan should anticipate the level of maintenance required to ensure optimal performance, and a maintenance plan should be in-place prior to installation of green infrastructure. Green infrastructure recommendations presented in **Next Stop: Resilient Baldwin** were developed in accordance with the 2015 New York State Department of Environmental Conservation's New York State Stormwater Management Design Manual, as well as other best practices.

**Next Step: Resilient Baldwin** recommends that future development in the Baldwin commercial nodes be designed so as not to increase impervious surface areas, but rather, to decrease impervious surface areas, and to provide additional opportunities for infiltration of runoff. This Final Plan further recommends that all new development incorporate green infrastructure, in the form or vegetative controls or permeable pavements, to the extent possible. As a result of the Baldwin DCCR Study findings, Resilient Baldwin includes specific recommendations for green infrastructure and other drainage improvements in the Primary Study Area, which are discussed below.

**Implementing a Stormwater Tree Box Pilot** (see page 94-96 for an aerial showing the location(s))

This pilot will evaluate the applicability of a green infrastructure alternative to conventional storm drainage structures. The advantages of stormwater tree boxes over conventional drainage structures are:

- pretreatment of the stormwater runoff first flush;
- interchangeability with conventional drainage structures;
- pollutant removal via filtration and adsorption, excess nutrient uptake by tree (e.g. nitrogen, phosphorus, etc.); and
- rapid infiltration with capacity for large runoff volumes, and bypass (to daylight or storm sewer) for high-intensity storms.

The only disadvantage is cost, which, according to information from the 2013 Rutgers University Green Infrastructure Practices: Tree Boxes factsheet, can be approximately double the cost of conventional storm drainage structures. However, increased up-front costs should be weighed against the overall benefits. Maintenance is comparable to conventional drainage structures, with the addition of infrequent tree maintenance and mulch replenishment. The primary reason for this Plan recommendation would be to increase infiltration and improve stormwater quality, especially to those drainage structures discharging to the Parsonage and Milburn Creeks. Stormwater tree boxes can also be a space saving alternative to large green infrastructure practices (e.g. bio-retention facilities, etc.). The following are potential pilot sites that could be considered:

- School Drive and Grand Avenue intersection within the Town or NCDPW ROW
- On the Baldwin High School campus
- Miller Place and Grand Avenue intersection within the Town or NCDPW ROW

The two Grand Avenue intersection sites were chosen because of the space that would be created by the Complete Streets curb extensions (See Appendix D for Complete Streets, Schematic Plans) and the Baldwin High School campus has existing sidewalk space available for a stormwater tree box installation.

**Tree Canopy Assessment/Tree Planting Program** (see page 94-96 for an aerial showing the location(s))

This recommendation requires an evaluation of the existing street trees to identify and mitigate overhead utility wire tree conflicts; and identify opportunities for tree planting areas with urban tolerant street trees and wire-friendly street trees within the Primary Study Area. The size of the proposed trees should be compatible with the area of the planting site and proportional to available planting soil volumes to ensure the long-term success of the trees. Where funding is available, structural soils are recommended under paved surfaces to give tree roots access to additional soil volumes, while also providing engineered structural support for paved surfaces, thus allowing a larger growing tree to be planted. Benefits of street trees include reduced stormwater volumes and velocities, reduced soil erosion, improved stormwater quality, improved infiltration, increased wildlife habitats, improved air quality, wind and noise buffers, and increased aesthetic and property values. Installation of wire-friendly street trees would also result in reduced maintenance requirements, as there would not be a need to remove tree branches from wires.

A tree planting program would also assist in mitigation of climate change impacts through carbon sequestration and reduction of carbon dioxide gas in the atmosphere. In addition, this type of program provides adaptation to climate change-induced increases in extreme weather – the addition of trees can result in a reduced urban heat island index, and can provide shading, passive cooling in summer, and passive heating in winter. Although implementation of the Tree Canopy Assessment/ Tree Planting Program could benefit the
Wire-friendly trees are street trees with mature heights less than 30 feet, and trees that can thrive in small spaces and with limited soil volumes (i.e., adaptable to conditions along sidewalks in downtowns), such as:

- **American Hornbeam**
  - Carpinus caroliniana

- **Crusader Cockspur Hawthorn**
  - Crataegus crus-galli

- **Winter King Hawthorn**
  - Crataegus x vindell

- **Goldenrain Tree**
  - Koelreuteria paniculata

In locations without overhead utility wires, the following trees that reach a height above 30 feet at maturity, are also adaptable to conditions along sidewalks in downtowns:

- **Galaxy Magnolia**
  - Magnolia x 'Galaxy'

- **Autumn Blaze Maple**
  - Acer x freemanii

- **Red Maple**
  - Acer rubrum

- **European Hornbeam**
  - Carpinus betulus

- **Hackberry**
  - Celtis occidentalis

- **Yellowwood**
  - Cladrastis kentuckea

- **Turkish Filbert**
  - Corylus colurna

- **Hardy Rubber Trees**
  - Eucommia ulmoides

- **Ginkgo**
  - Ginkgo biloba

- **London Planetree**
  - Platanus x acerifolia

- **American Hornbeam**
  - Carpinus caroliniana

- **Crusader Cockspur Hawthorn**
  - Crataegus crus-galli

- **Winter King Hawthorn**
  - Crataegus x vindell

- **Goldenrain Tree**
  - Koelreuteria paniculata

- **Chokecherry**
  - Prunus virginiana

- **Crape Myrtle**
  - Lagerstroemia sp.

- **Eastern Redbud**
  - Cercis canadensis

- **Royal Raintropis Crabapple**
  - Malus x 'Royal Raintropis'

- **Japanese Ivory Silk Tree**
  - Syringa reticulata

- **European Hornbeam**
  - Carpinus betulus

- **Hackberry**
  - Celtis occidentalis

- **Yellowwood**
  - Cladrastis kentuckea

- **Sargent Cherry**
  - Prunus sargentii ‘Columnar’ or ‘Accolade’

- **Swamp White Oak**
  - Quercus bicolor

- **Crape Myrtle**
  - Lagerstroemia sp.

- **Eastern Redbud**
  - Cercis canadensis

- **Ginkgo**
  - Ginkgo biloba

- **Swamp White Oak**
  - Quercus bicolor
recharge to groundwater or discharge to surface waters. Disadvantages (as compared to conventional drainage systems) are susceptibility to clogging from sediment and debris, increased installation cost, increased maintenance costs, and maintenance requiring the proper equipment (i.e. regenerative air vacuum sweeper). Additionally, winter deicing operations, including the application of abrasives (sand, grit, etc.) will decrease the effectiveness of infiltration. The following are potential pilot sites recommended by this Plan:

- Town of Hempstead commuter parking lots along Sunrise Highway and
- Sidewalks along Grand Avenue between the LIRR overpass and Sunrise Highway
- East side of Grand Avenue at Baldwin Shopping Center within the NCDPW ROW.

The Town commuter parking lots have long parking islands with impervious pavers that currently do not have any trees. There is also potential on the sidewalks between the LIRR overpass and Sunrise Highway in NCDPW or NYSDOT ROWs. Along the sidewalks adjacent to the Baldwin Shopping Center, there are some available spaces between existing mature Callery Pear trees. The Callery Pear is a species of tree that has many health issues, and is overall a short-lived species, therefore, this Plan recommends that both existing healthy and diseased Callery Pear trees in the parking lot be replaced with tree species from one of the recommended tree species that are adaptable to conditions along sidewalks in downtowns.

Implement a Permeable Pavement and Street Trees Pilot (see page 94-96 for an aerial showing the location(s) of this recommendation)

This pilot will primarily evaluate the effectiveness of permeable pavements between street tree pits, while observing the installation’s effect on tree performance, surface drainage, and maintenance. Permeable pavements can be either a flexible pavement or permeable paver pavement, both meeting American with Disabilities Act (ADA) guidelines. Compared to impervious pavements, the key benefits of located street trees between strips of permeable pavement are a reduction in overall impervious surface area, promotion of stormwater infiltration and groundwater recharge, reduction of runoff volumes to existing conventional stormwater infrastructure systems, increased water availability for tree roots (compared to impervious pavements), and enhanced pollutant removal/treatment before
Implement a Stormwater Planter Pilot (see page 94-96 for an aerial showing the location(s) of this recommendation)

This pilot program will assess the performance of runoff reduction, filtration of first flush stormwater, maintenance, and impact on aesthetic value of this green infrastructure practice. Like the benefits of a stormwater tree box, this practice has the additional benefit of an open permeable surface, larger space for plantings, while also fitting into small and narrow spaces (i.e. between curb and sidewalk adjacent to an urban road). This pilot would be designed to either have a bypass and/or an underdrainage connection to the existing drainage infrastructure during the heavy storm events. For the Baldwin downtown and commercial corridors, this green infrastructure practice would have the advantage of either fitting into tight spaces compared to other recommendations, and conversely, also be designed to fill a large space. Consequently, the following are potential pilot sites:

- Grand Avenue at the North Baldwin USPS;
- Town of Hempstead commuter parking lots; and
- At the sites of any future TODs in the LIRR station area.

Permeable Pavement or Turf in Medians and on Baldwin High School Campus (see page 97 for an aerial showing the location(s) of this recommendation)

Permeable pavements in select Complete Streets medians within NCDPW or Town ROWs and on the grounds of Baldwin High School will have the same benefits and disadvantages as noted above. As compared to permeable pavement medians, a turf median would have a similar or higher infiltration rate (depending on soil properties), 100 percent permeable surface, no clogging issues, long-term effectiveness, less long-term maintenance, and costs significantly less to install. Turf species and variety selection would be essential to the outcome of this green infrastructure practice and would need to have the following characteristics:

- drought tolerance;
- a deep root system;
- low maintenance;
- no irrigation requirements, and
- a short mature height requiring little or no mowing.

A species with these characteristics would be Hard Fescue. Permeable pavements on the Baldwin High School campus will aid in drainage, as the existing slopes are subtle and drains are approximately 550 feet apart.

Green Infrastructure in Complete Streets Curb Extensions (see page 98 for an aerial showing the location(s) of this recommendation)

This green infrastructure practice will be integrated with the Complete Streets Phase I and II designs. Green infrastructure within the proposed designs can take advantage of designated available space created by the curb extensions. Specifically, select curb extensions can be designed to

- Allow the pedestrian access as designed.
- Allow for additional permeable surfaces to promote runoff reduction.

Like the advantages of the green infrastructure practices above, with respect to the purposes of the Baldwin DCCR Study and Next Stop: Resilient Baldwin, the main advantage would be the opportunity to infiltrate road runoff and reduce runoff volumes ultimately discharging to the adjacent creeks from nearby drains.

Permeable Pavers in a median in San Francisco, CA

Little bluestem turf grass in a median in East Hartford, CT

Planted curb extension with gutter in Huntington, NY

Rendering of curb extension designed for Complete Streets designs along Grand Avenue
Conventional or Green Drainage Improvements (see page 94-96 for an aerial showing the location(s) of this recommendation)

Within the Primary Study Area, this recommendation would resolve drainage problems in locations that are known to have localized flooding after a typical rain storm event. Based on community resident accounts and field observations, two areas were noted: the Fairview Shopping Center south entrance and Grand Avenue between Sunrise Highway and Merrick Road. Flooding occurs at an isolated low point on Grand Avenue adjacent to the low point of the Fairview Shopping Center, which can be resolved by either adding a drain(s) or a combination of a permeable pavement crosswalk(s) and drains. The flooding on Grand Avenue between Sunrise Highway and Merrick Road can be mitigated by either conventional or green infrastructure, and specific flooding sites along this stretch of Grand Avenue should be further evaluated. Whether conventional or green stormwater infrastructure is implemented, either system would be most effective if it is tied into the existing drainage infrastructure as an overflow.

Potential Future Recommendations and Considerations (see page 99 for an aerial showing the location(s) of this recommendation)

Stormwater and green infrastructure recommendations in this Plan were focused within the three main study development nodes, which are located within the classified Impaired Waterbodies (Refer to Section 4.2.2 of Appendix A: Existing Conditions Analysis) Parsonage and Milburn Creek watersheds. The stormwater and green infrastructure opportunities recommended by this Plan will generally improve stormwater quality and reduce runoff volumes further downstream, thereby indirectly improving conditions in southern Baldwin. Additional stormwater and green infrastructure systems in the development nodes are also recommended to enhance the resiliency of these areas in the face of anticipated inundation further upland in Baldwin, due to more frequent extreme weather events and sea level rise. Nonetheless, locations in Baldwin within both the Primary and Secondary Study Areas that suffered from past storm-related flood damage, especially along the Parsonage and Milburn Creek corridors, could benefit from further evaluation into feasibility of additional stormwater and green infrastructure installations. The function and capacity of the existing stormwater infrastructure in the upstream and tributary areas, both within and outside the Secondary Study Area, may also warrant evaluation to understand how future severe storm events will affect the Baldwin community.

- The following are long-term recommendations and considerations for opportunities to improve stormwater quality, reduce runoff volumes, and increase stormwater detention capacities that could be further reviewed.
- Evaluating existing drainage structures for infiltration opportunities. For example, structures with solid concrete bottoms could be retrofitted to an open bottom allowing for infiltration.
- Improve stormwater quality by adding new, or supplementing existing, buffers along the Parsonage and Milburn Creek corridors.
- An updated in-depth drainage and hydrologic study for both creeks (including Silver Lake Park to Lofts Pond, and Milburn Pond), could be considered in coordination with, and as a complement to, Nassau County’s Silver Lake Park Drainage Improvements project, which is funded by NYSGOSR, to evaluate opportunities to implement practices that would reduce peak run-off volumes and determine if existing open space can be used for detention practices. For example, open space is currently available in existing easements; the green space at St. Luke Place and Lake Drive; between Seaman Avenue and Laurel Court, just north of the Baldwin Historical Museum; land between Baldwin Avenue and Brook Court west of Baldwin Fire Department substation; and existing surface parking lots over the existing creek culvert from Sunrise Highway to Merrick Avenue. In comparison to Parsonage Creek, the Milburn Creek corridor has less creek culverting and more open channeling, with larger creek buffer areas providing space for detention, especially at Brookside Preserve. The last known drainage and creek study was done in 1974.

- Creek/Stream daylighting is the practice of uncovering a creek that had been enclosed as an underground concrete structure (i.e., a culvert) or other manmade enclosure. Daylighting may be implemented for the entire length of a creek or portions thereof. During the Baldwin DCCR Study data collection efforts, box culverts were identified in Baldwin. Creek daylighting will improve water quality and reduce flooding by increasing storage, increasing infiltration, and reducing peak flows. Additionally, daylighting increases habitat, wildlife value, aesthetic value, and results in increases to adjacent property values. Currently, Parsonage Creek is culverted from Emerson Avenue (adjacent to former Pathmark site) and south to Merrick Avenue.

- As reported in the NYRCP Plan, tidal check valves along Parsonage Cove and Baldwin Bay were either malfunctioning/missing or none were installed. Future considerations should include inspection and/or replacement of these devices to reduce storm-surge flood potential in flood-prone areas of Baldwin’s shoreline neighborhoods.
Locations of Green Infrastructure Recommendations 1-4 and 7
Northern Gateway/Fairview Shopping Center

Locations of Green Infrastructure Recommendations 1-4 and 7
Baldwin High School/Baldwin Shopping Center
Locations of Green Infrastructure Recommendations 1-4 and 7
LIRR Station Area

Locations of Complete Streets Medians for Green Infrastructure Recommendation 5
Storm and Economic Resiliency

As a coastal community, Baldwin should prepare for potential future flooding conditions that many inland areas may not need to worry about. In addition, future development should be able to withstand fluctuations in the economy and be able to bounce back after economic downturns. After Superstorm Sandy, many low-lying areas in Baldwin were flooded and broader areas lost power for an extended time. In addition, many parts of the commercial corridors in Baldwin have not performed as well economically as they could have and need revitalization. During public outreach sessions, many residents expressed a desire for a more vital downtown center as well as ways that businesses and residents can get back on their feet quickly after future storms.

Existing conditions were analyzed within Baldwin to better understand the challenges and opportunities for the Community when weathering both storms and economic downturns. Recent storm events have tested existing power and stormwater infrastructure capacity and showed a need for upgrades. In addition, many parts of Baldwin are within the FEMA 100-year flood hazard areas including the intersection of Merrick Road and Grand Avenue and Merrick and Milburn Avenue. However, most of the commercial corridors north of Merrick Road and north of the train station are outside of the FEMA 100 year and 500-year flood hazard zones. NYSGOSR has identified portions of the Primary Study Area/Grand Avenue corridor north of Sunrise Highway, and nearly all the Primary Study Area south of Sunrise Highway, as areas at moderate risk from inundation by infrequent storms and future sea level rise. Understanding these risks, future development should be concentrated outside of flood zones.

The commercial corridors in Baldwin are long and discontinuous. Clusters of older buildings designed to thrive in places with large numbers of pedestrians are along large heavily trafficked roads, scattered between large areas of newer development that is designed around the automobile allowing neither to succeed as well as they could. Much of the newer development along the corridor consists of fast food and other “convenience” uses and many of the uses in locations outside of shopping centers are not desirable to many residents in the area.

During the focus group meetings and the larger public workshops, residents shared their stories from impacts of Superstorm Sandy and Hurricane Irene. They also shared the need for better communications and organization among residents, agencies, and relief efforts regarding storm resiliency. A need for a volunteer task force that would operate an evacuation center, and provide resources, utilities and basic amenities to address concerns with respect to post-storm procedures was also expressed.

There is a strong sense of community in Baldwin and residents desire a commercial corridor that better reflects their community. They expressed a desire to create a seamless connection between North and South Baldwin through pedestrian improvements and new businesses along Grand Avenue. They also want a more economically diverse downtown with retail and sit-down dining. Residents want to be able to capitalize on Baldwin’s Arts community to better brand and market the hamlet and improve the appearance of the High School entrance along Grand Avenue. There were concerns however, about the ability to maintain any improvements and beautification projects that are implemented.

Recommendations to foster storm and economic resilience in Baldwin are described below and locations of the recommendations are shown on page 107.

Emergency Transportation Plan

A critical part of a community’s resiliency toward natural disasters is their access to transportation before, during, and after an event. Pre-event, residents and businesses must be able to travel to prepare their properties in advance of an expected disaster with the potential for roadway congestion due to increased travel as well as proactive road closures. During an event, proper access to the community is imperative to ensure that emergency personnel can adequately and safely respond as needs arise. Proactive post-planning will ensure that regardless of infrastructure damage and inaccessibility, relief and recovery operations can commence as quickly as possible. Interoperability between a localized Emergency Transportation Plan and New York State’s Emergency Transportation Option’s Strategic Plan is crucial in order to facilitate resiliency for the community.

The public impact due to these incidents varies based on the scale of the event. Small-scale (routine) incidents occur frequently and are a major contributor to congestion and safety concerns for motorists. Planned events are typically short duration, but must be managed to reduce impacts to private and public transportation systems, provide for security, and encourage positive economic activity. Non-routine/major events have widespread impacts and have serious implications for the public and society as a whole. A major disaster, such as a hurricane, will potentially carry a heavy cost and cause long-term disruptions in the supply chain supporting coastal areas such as Baldwin. The availability of transportation assets (highways, local roadways, bridges, rail, etc.) is crucial to ensure that basic supplies (food, water, fuel, medical supplies, etc.) and response resources can continue to flow into and out of these areas immediately following a disaster. While large-scale events are infrequent, the impacts can be severe and long lasting. At the same time, although not quantifiable, the risks to Baldwin due to climate change and global terrorism are rising. These circumstances demand that the community is prepared to quickly respond to and is able to self-sustain protecting life and property during and after major events.
Next Stop: Resilient Baldwin

Preparation of an Emergency Transportation Plan (including designated routes and demand response shuttles) to continue access to hospitals, shelters, pharmacies, nutrition centers, treatment clinics and workplaces in the event that primary roads are closed, or if fixed route transit service is impeded by an event, is crucial to the community’s resilience. In the event of disaster, a localized plan, coordinated by the Town and in collaboration with the community (preferably an established Community Organization Active in Disaster) outlining emergency evacuation routes, locations outside of the flood zone suitable for residents to park their vehicles, pre-planned evacuation and transportation for elderly, disabled and other vulnerable populations can help to minimize damage and disruption caused by flooding, power outages, and other collateral damage.

Storm Survival/Disaster Guide

Develop a storm survival / disaster recovery guide for local businesses that instructs them on how to continue operations, communicate with customers, and maintain an energy supply in the event of a natural disaster.

This plan should be constructed in a way that is flexible to fit the individual needs of the community in the event of any type of disaster, with practice of implementation before a disaster occurs in conjunction with local and regional preparedness partners. Guidelines and checklists for preparation, protection, mitigation, response, and recovery should be included in this guide. Information such as how to assess risk of disaster, properly protect physical structures, storage and protection of vital documentation, reopening procedures, and recovery resources should be included in this guide.

Management Team/Branding Strategy

Organize a management team for ongoing maintenance of the downtown area experience and a marketing team for promotion of and creation of a branding strategy for Baldwin. Downtowns have significant competition from both shopping malls, big box stores and online retailers. While big box stores and online retailers can perform better at price and convenience, they cannot compete for uses that succeed based on experience. Downtowns can have an advantage in that market if managed and marketed properly.

Shopping malls are highly managed to both promote and ensure an experience for shoppers. Successful mall managers know how to arrange everything to encourage shoppers to spend as much money per square foot as possible. Downtowns can apply some of these methods to attract and improve the experience for those shopping there.

The management team could consist of members of the Chamber of Commerce, local civics, Town of Hempstead agencies and others that would meet regularly to ensure Town services are provided effectively and coordinated with local events including permitting and other accommodations. They can also help to communicate with the Town and County to make sure that broken street lights, benches or damaged sidewalks get repaired or replaced in a timely manner so as not to negatively impact local business and detract from the pedestrian environment.

In addition to a management team, Baldwin could consider a marketing team tasked with attracting potential businesses as well as developing a branding strategy to attract those who may not be familiar with what Baldwin has to offer. The team could include the Chamber, civics, and local realtors.

The Huntington Chamber of Commerce has branded Huntington as “Where the City meets the Suburbs.” A similar brand may not be appropriate in Baldwin, but consider what makes Baldwin unique and focusing on its strengths, such as its arts community and diversity, can help to give it an easily identifiable image that can attract both visitors and potential businesses.

This team could also include or coordinate with local realtors to proactively attract new businesses. An inventory of available spaces that can be shown to a desired business looking for a location can make it easier to attract potential retailer or restaurants. In addition, a guide to help new businesses establish themselves in Baldwin including permitting and possible grants or financing, could be developed in coordination with the Town, County and other relevant agencies and potential lending institutions.

(Left) The Disaster Recovery and Continuity Guide, tailored to businesses within the state of Colorado, describes ways that business can prepare, respond and recover in the event of a disaster. Worksheets and checklists are included to help guide a business through the phases of a disaster, and gather necessary information, make assessments, answer questions in order to make the best business decisions for their business. Examples of important records and documentation are noted to ensure that recovery from disaster would be as smooth as possible.

(Left) The Disaster Recovery and Continuity Guide, tailored to businesses within the state of Colorado, describes ways that business can prepare, respond and recover in the event of a disaster. Worksheets and checklists are included to help guide a business through the phases of a disaster, and gather necessary information, make assessments, answer questions in order to make the best business decisions for their business. Examples of important records and documentation are noted to ensure that recovery from disaster would be as smooth as possible.

The Huntington Business Improvement District (BID) and the Town of Huntington coordinate garbage pick-up, parking, concerts, events, etc. to minimize potential issues that may arise and keep things running smoothly; the Huntington Chamber of Commerce developed the slogan, “Where the City Meets the Suburbs” to reinforce the cosmopolitan nature of the downtown and make it more attractive to those seeking a more urban-type experience without going into NYC. (Left) The Oyster Bay, NY Main Street District hired a firm to design logos to and create a “brand” for the hamlet.
Business Improvement District (BID) (see page 107 for an aerial showing the location(s) of the this recommendation)

Since Baldwin is an unincorporated hamlet, it does not have as much local control as many incorporated villages do. A BID can create an entity that has the power to generate income through a self-imposed tax that can be spent on benefits to the district as determined by its members. BIDs in other hamlets and villages fund items such as beautification through flower baskets and upgrades to street furniture to events in the downtown. Development of a BID empowers local stakeholders to oversee and fund the maintenance, improvement, and promotion of their commercial district.

Vacant Property Beautification (see page 107 for an aerial showing the location(s) of the this recommendation)

Vacant storefronts can diminish the experience of shopping within a downtown and discourage foot traffic that helps support neighboring businesses. Shopping malls decorate storefronts during renovations to minimize any gaps in an engaging shopping experience. Art displays in vacant storefronts and public areas can promote artists while decorating storefronts during renovations to minimize any gaps in an engaging shopping experience. A well-designed public realm can help to support nearby establishments. LED pedestrian scale lighting can also reduce energy consumption and street trees can provide shade during warmer months while also helping absorb storm water runoff reducing localized flooding. A Downtown Revitalization Overlay District can help focus the improvements and incentives for developers can help cover some of the costs.

Pedestrian Amenities (see page 107 for an aerial showing the location(s) of the this recommendation)

Pedestrian Amenities, such as street lamps/path lighting, benches, street trees, trash receptacles, and wayfinding signage can encourage walkability and patronage of the downtown. They can also enhance the identity of a place and support the aforementioned branding. Thoughtful placement can increase pedestrian comfort within the downtown without impeding pedestrian traffic flow. In order to increase “foot traffic” within a business district to support the local businesses, the environment needs to be not only safe, but comfortable and interesting. A well-designed public realm can help to support nearby establishments. LED pedestrian scale lighting can also reduce energy consumption and street trees can provide shade during warmer months while also helping absorb storm water runoff reducing localized flooding. A Downtown Revitalization Overlay District can help focus the improvements and incentives for developers can help cover some of the costs.

Technology Stations (see page 107 for an aerial showing the location(s) of the this recommendation)

Install a free technology station (Wi-Fi hot spot/charging stations/electronic kiosks) in an easily accessible area in Baldwin, such as the Baldwin LIRR Station. These can help provide communication in the event of a natural disaster if provided with minimal power through a generator or solar panel. They can also be used as a tool to promote tourism and businesses in the local area through a home page that can highlight local businesses and attractions they may otherwise not be aware of. It will also provide internet to those without easy access, expanding opportunities for members of the community.

NYC has created Link NYC that provides free public Wi-Fi hotspots and phone calls, device charging, and a tablet for access to city services, maps and directions in over 7500 former pay-phone locations.

Kings Park, NY’s Main Street District has installed wayfinding signage (right). Oyster Bay, NY’s Main Street District has installed wayfinding signage (right). Huntington, NY installed brick sidewalks with planted curb extensions and pedestrian scale lighting to make the downtown more attractive. Recently, signs to indicate locations of public parking were added to make it easier for visitors to find a spot. The Town also has a truck to water hanging flower baskets provided by the BID to keep them healthy and attractive (left). Oyster Bay, NY’s Main Street District has installed wayfinding signage (right).
Locations of Storm and Economic Resiliency Recommendations

LED/Solar Street Lamps

Replace street lamps with LED/Solar Street Lamps to reduce energy use, which can help lessen effects of climate change, such as extreme storms. LED street lamps also have better color rendition than high and low pressure sodium bulbs that are commonly used which allows better visibility. Lighting should minimize bright and dark spots as well as provide adequate lighting for pedestrians at crosswalks. In key locations or throughout if feasible, lighting can also have solar power back up to allow for continued operation in the event of a power outage.

This can be accomplished by way of land use or regulatory recommendations such as, a Downtown Revitalization Overlay District or incentives, including design standards and building codes that incorporate renewable energy and green building requirements/incentives.

Baldwin HS Placemaking

Encourage school district pride and placemaking with Baldwin High School Gateway LED signage. Placemaking strategies involve creating a strong sense of “place” and reinforcing a sense of identity. Since Baldwin High School is tucked behind a shopping center and does not have a physical presence along Grand Avenue, it is not as able to present a positive image to the broader community. Enhanced landscaping and signage at Grand Avenue can allow a more attractive approach to the school as well as showing community pride. Having a physical presence along Grand Avenue can also alert drivers that they are in an area likely to have pedestrians present.

The Village of Freeport, NY is currently installing solar streetlights on the “President Streets” in south Freeport as part of its Solar Street Light Project to provide energy cost savings and reduce its environmental impact (left).

Many Long Island schools have LED signage and landscaped entrances, including Deer Park Elementary School, Division Avenue High School in Levittown, Hempstead High School, Great Neck South High School, and South Huntington School District (left).
### LIRR/TOD District Dimension of Resilient Baldwin

Create resilient LIRR station area

#### Strategy 1
New mixed-use development surrounding the LIRR station area

**Implementation**
Establish a TOD Overlay Zone located outside of high and extreme flood risk areas to allow for mixed-uses and higher densities in the LIRR station area. Design for a walkable, compact, attractive area with accommodations for transit riders, pedestrian and bicyclists.

**Actions to Implementation**
- Seek Public Input
- Develop RFP for mixed-use TODs (only applicable to publicly-owned properties; Consider public-private partnerships [P3s] for publicly-owned improvements)
- Attract developers & recommend mixed-use development concepts
- Site Survey
- Real Estate Market Survey
- Buildout Analysis
- Introduction, public review & approval of TOD Overlay Zoning District by the Town Board

---

<table>
<thead>
<tr>
<th>Jurisdiction/ Responsible Party</th>
<th>Estimated Costs</th>
<th>Timeline</th>
<th>Implementation Strategies</th>
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#### Actions to Implementation
- MTA/LIRR identify improvements for Baldwin LIRR station
- Coordination with County and Town; Consider P3s to fund public improvements
- Final Engineering & Design
- Construction
- • Bicycle storage lockers
  • LED lighting
  • Landscaping & greenery
  • Station Plaza renovations

---

### LIRR/TOD District Dimension of Resilient Baldwin

Create resilient LIRR station area

#### Strategy 2
Enhanced Baldwin LIRR Station

**Implementation**
Upgrades of LIRR Station facilities to promote convenience and safety for LIRR riders and visitors to the station, and to encourage mass transit use.

**Actions to Implementation**
- Upgrades of LIRR Station facilities to promote convenience and safety for LIRR riders and visitors to the station, and to encourage mass transit use.
Complete Streets Dimension of Resilient Baldwin
Improved Pedestrian Safety, Sidewalk/Streetscape, Traffic Calming, and Transit

### Strategy 1
Improve pedestrian safety and circulation and traffic calming in the vicinity of the Southern State Parkway overpass and ramps

<table>
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<td>See Recommendations Matrix</td>
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</table>

**Actions to Implementation**

NCDPW to secure County/NYSDOT funding

1. Preliminary Engineering
2. Permits
3. Final Engineering and Design
4. Prepare Contract Documents & Request Bids
5. Construction

**Implementation**

- Enhanced crosswalk markings
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
- Enhanced sidewalks
- Medians
- Curb extensions/pedestrian space

### Strategy 2
Traffic calming along Grand Ave. Corridor. Improve safety for pedestrian use & encourage non-motorized transportation along the corridor.

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
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<td></td>
<td>See Recommendations Matrix</td>
<td></td>
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</table>

**Actions to Implementation**

NCDPW to secure funding

1. Preliminary Engineering
2. Permits
3. Final Engineering and Design
4. Prepare Contract Documents & Request Bids
5. Construction

**Implementation**

- Enhanced high visibility crosswalks
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
## Complete Streets Dimension of Resilient Baldwin

**Improved Pedestrian Safety, Sidewalk/ Streetscape, Traffic Calming, and Transit**

### Strategy 3

**Pedestrian streetscape enhancements and pedestrian amenities plus further traffic calming along Grand Avenue**

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<th>Implementation Strategies</th>
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</table>

**Actions to Implementation**

- NCDPW to secure funding
- Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Construction

- Enhanced crosswalk markings
- Pedestrian crossing signs
- Driver feedback signs displaying speeds
- Enhanced sidewalks
- Medians
- Curb extensions/pedestrian space
- High-visibility crosswalks at curb extensions

### Strategy 4

**Encourage use of mass transit with more accessible and convenient bus facilities**

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<th>Jurisdiction/ Responsible Party</th>
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**Actions to Implementation**

- NCDPW to secure funding
- Preliminary Engineering
- Permitting
- Final Engineering and Design
- Prepare Contract Documents & Request Bids
- Install bus shelters

---

**Next Stop: Resilient Baldwin**
### Green Infrastructure Dimension of Resilient Baldwin

**Make Baldwin's stormwater infrastructure adaptive to future conditions and enhance aesthetics along the Grand Avenue corridor with innovative green technologies.**

#### Strategy 1

**Green infrastructure pilots at Baldwin High School / educate students about resiliency**

<table>
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<tr>
<th>Jurisdiction/Responsible Party</th>
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<td>Baldwin management team</td>
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<td>✔️</td>
<td>Install street trees and permeable pavement strips in Town commuter lots and on Grand Avenue near Baldwin Shopping Center</td>
</tr>
</tbody>
</table>

#### Implementation

- Pervious pavement on the Baldwin High School campus
- Stormwater tree box and other bio-filtration features to be considered on the Baldwin High School campus

#### Actions to Implementation

- NCDPW/NYSGOSR coordinate with Baldwin School District for CDBG-DR funds
- Baldwin management team partner with Baldwin School District
- Secure funding
- Install pervious pavement within High School campus
- Install Stormwater tree box on High School campus

---

### Green Infrastructure Dimension of Resilient Baldwin

**Next Stop: Resilient Baldwin**

#### Strategy 2

**Tree planting and green infrastructure installations in the downtown and commercial corridor**

<table>
<thead>
<tr>
<th>Jurisdiction/Responsible Party</th>
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<td>✔️</td>
<td>Final Engineering &amp; Design</td>
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#### Implementation

- Tree canopy assessment/tree planting program along Grand Avenue corridor
- Install street trees and permeable pavement strips in Town commuter lots and on Grand Avenue near Baldwin Shopping Center

#### Actions to Implementation

- Final Engineering & Design
- Establish Baldwin management team
- Secure funding
- Conduct tree canopy assessment
- Permitting & Approvals
- Final Engineering & Design
- Install/replace trees and stormwater tree boxes at pilot locations

---

**Public Input**
Green Infrastructure Dimension of Resilient Baldwin

Make Baldwin’s stormwater infrastructure adaptive to future conditions and enhance aesthetics along the Grand Avenue corridor with innovative green technologies.

<table>
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<tr>
<th>Strategy 3</th>
<th>Green infrastructure in Complete Streets curb extensions and medians along the Grand Avenue corridor</th>
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Actions to Implementation

NCDPW/ Baldwin

Establish Baldwin management team

Public Input

Final Engineering & Design

Complete Streets permitting, design and construction

Secure funding

Green Infrastructure Permitting & Approvals

Plant low-maintenance turf/grass; install permeable surfaces in medians

Pervious surface curb extensions and storm drains

Actions to Implementation

NCDPW/ Baldwin to Secure funding

Storm and Economic Resiliency Dimension of Resilient Baldwin

Re-imagine commercial nodes as vibrant downtown centers and adapt to a changing climate.

<table>
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<tr>
<th>Strategy 1</th>
<th>Immediate-term storm resiliency pilots in the LIRR station area</th>
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<tbody>
<tr>
<td>• Town of Hempstead</td>
<td>$3,000/solar lamp</td>
<td>0-1</td>
<td>Site Planning</td>
<td>NYS GOSR CDBG DR</td>
<td>Site Planning</td>
<td>NYS EFC-GIGP</td>
</tr>
<tr>
<td>• Baldwin</td>
<td>TBD - outdoor kiosks $600 - indoor kiosks</td>
<td>0-1</td>
<td>Site Planning</td>
<td>NYS EFC-GIGP</td>
<td>Site Planning</td>
<td>NYS EFC-GIGP</td>
</tr>
</tbody>
</table>

Actions to Implementation

NCDPW/ Baldwin to Secure funding

Final Engineering & Design

Secure funding

Green Infrastructure Permitting & Approvals

Plant low-maintenance turf/grass; install permeable surfaces in medians

Pervious surface curb extensions and storm drains

Actions to Implementation

NCDPW/ Baldwin to Secure funding

Final Engineering & Design

Install solar-powered emergency-ready street lamps in Town commuter parking lots

Install Wi-Fi hot spot/device charging station(s)/electronic kiosk(s) at LIRR station

NCDPW/ Baldwin to Secure funding

Final Engineering & Design

Install solar-powered emergency-ready street lamps pilots

Install Wi-Fi hot spot/device charging station(s)/electronic kiosk(s)
Storm and Economic Resilience Dimension of Resilient Baldwin
Re-imagine commercial nodes as vibrant downtown centers and adapt to a changing climate.
Develop a vibrant area around Baldwin’s LIRR Station (view of Sunrise Highway and Grand Avenue from the LIRR platform).

Implement green infrastructure pilots like the Lindenhurst Memorial Library permeable paver parking lot with bioswales and solar LED lighting in Lindenhurst, NY.

Make streets safe and convenient for all users and build on Baldwin’s existing transit and sidewalk network (photograph of a bus shelter on Grand Avenue near High School Drive).

Develop storm resilient facilities like nearby Freeport Village is doing with installation of solar-powered street lights.
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
<th>Potential Funding</th>
<th>Zoning Strategy</th>
<th>Timeframe for Implementation</th>
<th>Examples</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIRR/TOD District</strong></td>
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<tr>
<td><strong>Beautification at LIRR Station and Commuter Lots</strong> (building on Town’s extensive landscaping at commuter lots)</td>
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<tr>
<td>• Town of Hempstead Commuter Parking Lots</td>
<td>Town of Hempstead</td>
<td>Unknown - costs paid by Town for existing landscaping</td>
<td>TBD for planned MTA/LIRR upgrades</td>
<td>Continuation of Town of Hempstead’s previous extensive landscaping installations at commuter parking lots in the LIRR station area will encourage commuters and visitors to patronize the surrounding businesses.</td>
<td>MTA/LIRR to include as part of planned Baldwin Station upgrades and NYSGOSR CDBG Funding (Town and/or County).</td>
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<tr>
<td><strong>Bike Storage Lockers</strong> (for 1.6 bicycles)</td>
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<tr>
<td>• At LIRR Station Plaza and existing platform east of new Station Plaza</td>
<td>Town of Hempstead (Town owns land under LIRR tracks)</td>
<td>$35,000 (for a total of 48 lockers)</td>
<td>Encourage use of bicycles for commuting to station</td>
<td>• Encourage use of bicycles for commuting to station</td>
<td>• Encourage use of bicycles for commuting to station</td>
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<tr>
<td><strong>Bus shelters at LIRR Station</strong></td>
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<tr>
<td>• At existing NICE bus stops at Brooklyn and Grand Avenues and Grand Avenue beneath the LIRR overpass</td>
<td>NCDPW right-of-way</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• Improved transit facilities</td>
<td>• Improved transit facilities</td>
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<tr>
<td><strong>Low density/ Townhomes</strong></td>
<td>LIRR/TOD node</td>
<td>Private property and Town of Hempstead</td>
<td>TBD - costs to be incurred by private developer</td>
<td>Resident population around the LIRR station would support new downtown businesses. Estimated $8,000 in annual Town tax revenues.</td>
<td>Federal Highway Administration (FHWA) - U.S. Department of Transportation Transit, Highway, and Safety Funds</td>
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<tr>
<td><strong>Medium density/ mixed-use</strong></td>
<td>LIRR/TOD node</td>
<td>Private property and Town of Hempstead</td>
<td>TBD - costs to be incurred by private developer</td>
<td>Resident population and new ground-floor commercial space around the LIRR station would support new downtown businesses. Estimated $42,000 in annual Town tax revenues.</td>
<td>Private</td>
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<td>Recommendation</td>
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<td><strong>LIRR/TOD District</strong></td>
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<tr>
<td><strong>Structured Parking Option A</strong>&lt;br&gt;Municipal Parking, Retail, Plaza</td>
<td>LIRR/TOD node</td>
<td>• Private Property&lt;br&gt;• Town of Hempstead&lt;br&gt;• MTA/LIRR</td>
<td>$11.7 million (municipal parking structure)&lt;br&gt;Retail development costs TBD - to be incurred by private developer&lt;br&gt;Station Plaza costs TBD - being considered as part of MTA/LIRR improvements</td>
<td>New parking spaces for commuters and residents. Retail and plaza would enhance the LIRR area. Estimated $18,000 in annual Town tax revenues.</td>
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<tr>
<td><strong>Structured Parking Option B</strong>&lt;br&gt;Municipal Parking, Residential, Retail, Plaza</td>
<td>LIRR/TOD node</td>
<td>• Private Property&lt;br&gt;• Town of Hempstead&lt;br&gt;• MTA/LIRR</td>
<td>$14.9 million (municipal parking structure)&lt;br&gt;Retail and residential development costs TBD - to be incurred by private developer&lt;br&gt;Station Plaza TBD - being considered as part of MTA/LIRR improvements</td>
<td>New parking spaces for commuters and residents. Residential population, retail and plaza would support new downtown businesses and enhance the LIRR area. Estimated $391,000 in annual Town tax revenues.</td>
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<tr>
<td><strong>Higher density/mixed-use</strong></td>
<td>LIRR/TOD node</td>
<td>• Private property and Town of Hempstead</td>
<td>TBD - costs to be incurred by private developer</td>
<td>Resident population and new ground-floor commercial space around the LIRR station would support new downtown businesses. Estimated $326,000 in annual Town tax revenues.</td>
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</tbody>
</table>
## Enhance crosswalk markings and signs (CS-1)
- **Location**: Baldwin Road
- **Jurisdiction/Responsible Parties**: NCDPW, NYSDOT
- **Estimate**: $4,800
- **Fiscal/Other Benefits**: Improved pedestrian safety and circulation

## Enhance crosswalk markings and signs (CS-1)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW, NYSDOT
- **Estimate**: $4,800
- **Fiscal/Other Benefits**: Improved pedestrian safety and circulation

## Enhance crosswalk markings and signs (CS-2)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW, NYSDOT
- **Estimate**: $4,800
- **Fiscal/Other Benefits**: Improved pedestrian safety and circulation

## Enhance crosswalk markings and signs (CS-2)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW, NYSDOT
- **Estimate**: $4,800
- **Fiscal/Other Benefits**: Improved pedestrian safety and circulation

## Driver feedback sign displaying speeds (CS-2)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW
- **Estimate**: $10,000
- **Fiscal/Other Benefits**: Improved pedestrian and vehicular safety, traffic calming

## Driver feedback sign displaying speeds (CS-3)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW
- **Estimate**: $10,000
- **Fiscal/Other Benefits**: Improved pedestrian and vehicular safety, traffic calming

## High visibility crosswalks at all approaches (CS-8)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW
- **Estimate**: $42,200
- **Fiscal/Other Benefits**: Improved pedestrian safety

## Enhance sidewalks on the bridge (CS-1)
- **Location**: Southern State Parkway
- **Jurisdiction/Responsible Parties**: NYSDOT
- **Estimate**: N/A
- **Fiscal/Other Benefits**: Improved pedestrian safety and circulation

## Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-2)
- **Location**: Grand Avenue
- **Jurisdiction/Responsible Parties**: NCDPW
- **Estimate**: $37,200
- **Fiscal/Other Benefits**: Improved sidewalk/streetscape and green infrastructure, traffic calming

## Complete Streets: Phase II

<table>
<thead>
<tr>
<th>Recommendation (Complete Streets Board No.)</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
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</thead>
<tbody>
<tr>
<td>Enhance crosswalk markings and signs (CS-1)</td>
<td>Baldwin Road</td>
<td>NCDPW, NYSDOT</td>
<td>$4,800</td>
<td>Improved pedestrian safety and circulation</td>
</tr>
<tr>
<td>Enhance crosswalk markings and signs (CS-1)</td>
<td>Grand Avenue</td>
<td>NCDPW, NYSDOT</td>
<td>$4,800</td>
<td>Improved pedestrian safety and circulation</td>
</tr>
<tr>
<td>Enhance crosswalk markings and signs (CS-2)</td>
<td>Grand Avenue</td>
<td>NCDPW, NYSDOT</td>
<td>$4,800</td>
<td>Improved pedestrian safety and circulation</td>
</tr>
<tr>
<td>Enhance crosswalk markings and signs (CS-2)</td>
<td>Grand Avenue</td>
<td>NCDPW, NYSDOT</td>
<td>$4,800</td>
<td>Improved pedestrian safety and circulation</td>
</tr>
<tr>
<td>Driver feedback sign displaying speeds (CS-2)</td>
<td>Grand Avenue</td>
<td>NCDPW</td>
<td>$10,000</td>
<td>Improved pedestrian and vehicular safety, traffic calming</td>
</tr>
<tr>
<td>Driver feedback sign displaying speeds (CS-3)</td>
<td>Grand Avenue</td>
<td>NCDPW</td>
<td>$10,000</td>
<td>Improved pedestrian and vehicular safety, traffic calming</td>
</tr>
<tr>
<td>High visibility crosswalks at all approaches (CS-8)</td>
<td>Grand Avenue</td>
<td>NCDPW</td>
<td>$42,200</td>
<td>Improved pedestrian safety</td>
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<tr>
<td>Enhance sidewalks on the bridge (CS-1)</td>
<td>Southern State Parkway</td>
<td>NYSDOT</td>
<td>N/A</td>
<td>Improved pedestrian safety and circulation</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-2)</td>
<td>Grand Avenue</td>
<td>NCDPW</td>
<td>$37,200</td>
<td>Improved sidewalk/streetscape and green infrastructure, traffic calming</td>
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<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-2)</td>
<td>Grand Avenue</td>
<td>NCDPW, NYSDOT</td>
<td>$37,200</td>
<td>Improved sidewalk/streetscape and green infrastructure, traffic calming</td>
</tr>
</tbody>
</table>

### Potential Funding

- **NYSDOT HSIP and TAP Set-Aside funds**
- **FHWA Grant**

### Timeline for Implementation

- **0-1 year**

### Examples

- **Hempstead Turnpike, Nassau County**
- **NY27 (Sunrise Highway) between Queens/Nassau County Line (Town of Hempstead) and North Niagara Ave (Town of Babylon)**

### Contact Information

- **Eileen Peters, NYSDOT Region 10 Public Information Officer**
  - Phone: 631.952.6633
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
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<th>Potential Funding</th>
<th>Timeline for Implementation</th>
<th>Examples</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-2)</td>
<td>Grand Avenue southbound at Irene Street</td>
<td>NCDPW</td>
<td>$41,200</td>
<td>Improved sidewalk/streetscape and green infrastructure, traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • FHWA Grant • NYSGOER</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Green/curbed median/streetscape (CS-2)</td>
<td>Maude Street to Southern State Parkway ramps</td>
<td>NCDPW, NYS DOT</td>
<td>$48,000</td>
<td>Improved streetscape, traffic calming, beautification, and green infrastructure</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • FHWA Grant • NYSGOER</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating (CS-2)</td>
<td>Grand Avenue southbound at Irene Street</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating May require right of way easement/dedication (CS-2)</td>
<td>Grand Avenue northbound at Irene Street</td>
<td>NCDPW, Private Property Owners, NICE bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-3)</td>
<td>Grand Avenue southbound from Village Avenue to Christie Street</td>
<td>NCDPW</td>
<td>$42,000</td>
<td>Improved sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • NYSGOER • FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating (CS-3)</td>
<td>Grand Avenue southbound at Village Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>High Visibility crosswalk with shorter distance (CS-3)</td>
<td>Grand Avenue at Village Avenue</td>
<td>NCDPW</td>
<td>$38,400</td>
<td>Improved pedestrian safety</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • NYSGOER • FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Relocate bus stop and provide shelter/seating (CS-3)</td>
<td>Grand Avenue northbound at Village Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
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<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-3)</td>
<td>Grand Avenue southbound at May Street</td>
<td>NCDPW</td>
<td>$20,600</td>
<td>Improved sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • NYSGOER • FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating May require curb extension and/or right of way easement/dedication (CS-3)</td>
<td>Grand Avenue southbound at May Street</td>
<td>NCDPW, Private Property Owners, NICE bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
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<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-3)</td>
<td>Grand Avenue southbound at School Drive and Georgia Street</td>
<td>NCDPW</td>
<td>$59,200</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds • NYSGOER, FHWA Grant</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
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<tr>
<td>High Visibility crosswalk with shorter distance (CS-3)</td>
<td>Grand Avenue at School Drive</td>
<td>NCDPW</td>
<td>$38,000</td>
<td>Improved streetscape, traffic calming, beautification, and green infrastructure</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Enhanced median/streetscape (CS-3)</td>
<td>Grand Avenue at School Drive</td>
<td>NCDPW</td>
<td>$8,800</td>
<td>Improved streetscape, traffic calming, beautification, and green infrastructure</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating May require curb extension and/or right of way easement/dedication (two locations) (CS-4)</td>
<td>Grand Avenue northbound and southbound at Westminster Road</td>
<td>NCDPW, Private Property Owners, NICE bus</td>
<td>$35,000</td>
<td>Improved transit facilities</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>High visibility crosswalks at all approaches with signals (CS-4)</td>
<td>Grand Avenue at Stratford Road</td>
<td>NCDPW</td>
<td>$41,600</td>
<td>Improved pedestrian safety</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
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<tr>
<td>Improve bus stop shelter/seating (CS-4)</td>
<td>Grand Avenue northbound at Stratford Road</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
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<tr>
<td>Extend curb, improve pedestrian space/streetscape/ green infrastructure (CS-5)</td>
<td>Grand Avenue at Wesley Street</td>
<td>NCDPW</td>
<td>$70,800</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
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<td>Improve bus stop shelter/seating (CS-5)</td>
<td>Grand Avenue northbound at Wesley Street</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved pedestrian safety</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Potential new crosswalk with signal and signs - further study recommended (CS-5)</td>
<td>Grand Avenue at Wesley Street</td>
<td>NCDPW</td>
<td>$80,000</td>
<td>Improved pedestrian safety</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>NY27 (Sunrise Highway) between Queens/Nassau County Line (Town of Hempstead) and North Niagara Ave (Town of Babylon)</td>
<td>Eileen Peters, NYSDOT Region 10 Public Information Officer 631.952.6632</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape (CS-5)</td>
<td>Grand Avenue southbound at Joy Boulevard</td>
<td>NCDPW</td>
<td>$21,800</td>
<td>Improved sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating (CS-5)</td>
<td>Grand Avenue southbound at Joy Boulevard</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape (CS-5)</td>
<td>Grand Avenue at N Williams Street and Garfield Road</td>
<td>NCDPW</td>
<td>$48,000</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Recommendation (Complete Streets Board No.)</td>
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<td>Cost Estimate</td>
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<td>Potential Funding</td>
<td>Timeframe for Implementation</td>
<td>Examples</td>
<td>Contact Information</td>
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</tr>
<tr>
<td>Improve bus stop shelter/seating (CS-5)</td>
<td>Grand Avenue northbound at N Williams Street</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>High Visibility crosswalk with shorter distance (CS-5)</td>
<td>Grand Avenue at N Williams Street and Garfield Road</td>
<td>NCDPW</td>
<td>$37,200</td>
<td>Improved pedestrian safety</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-6)</td>
<td>Grand Avenue at E Carl Avenue</td>
<td>NCDPW</td>
<td>$20,400</td>
<td>Improved sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Enhanced median/streetscape - with due consideration to driveways (CS-6)</td>
<td>Grand Avenue at E Carl Avenue</td>
<td>NCDPW</td>
<td>$19,700</td>
<td>Improved streetscape, traffic calming, beautification, and green infrastructure</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-6)</td>
<td>Grand Avenue at DeMott Avenue to Everett Court</td>
<td>NCDPW</td>
<td>$52,800</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
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<tr>
<td>Improve bus stop shelter/seating (CS-6)</td>
<td>Grand Avenue southbound at DeMott Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>High visibility crosswalk with shorter distance (CS-6)</td>
<td>Grand Avenue southbound at DeMott Avenue</td>
<td>NCDPW</td>
<td>$35,600</td>
<td>Improved pedestrian safety</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Relocate bus stop and provide shelter/seating (CS-6)</td>
<td>Grand Avenue northbound at DeMott Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-6)</td>
<td>Grand Avenue southbound at Madison Avenue</td>
<td>NCDPW</td>
<td>$22,800</td>
<td>Improved sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
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</tr>
<tr>
<td>Improve bus stop shelter/seating (CS-6)</td>
<td>Grand Avenue southbound at Madison Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-7)</td>
<td>Grand Avenue southbound at Private Driveway</td>
<td>NCDPW</td>
<td>$39,200</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
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<tr>
<td>Improve bus stop shelter/seating (CS-7)</td>
<td>Grand Avenue southbound at Private Driveway</td>
<td>NCDPW, NICE Bus</td>
<td>$17,500</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
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<tr>
<td>High visibility crosswalk with shorter distance (CS-7)</td>
<td>Grand Avenue southbound at Private Driveway</td>
<td>NCDPW</td>
<td>$35,800</td>
<td>Improved pedestrian safety</td>
<td>• NYSDOT HSIP and TAP Set-Aside funds</td>
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</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-7)</td>
<td>Grand Avenue at Kings Parkway</td>
<td>NCDPW</td>
<td>$73,200</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-7)</td>
<td>Grand Avenue at Woodside Avenue</td>
<td>NCDPW</td>
<td>$76,800</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating (two locations) (CS-7)</td>
<td>Grand Avenue at Woodside Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$35,000</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>High visibility crosswalk with shorter distance and signals (CS-7)</td>
<td>Grand Avenue at Woodside Avenue</td>
<td>NCDPW</td>
<td>$39,200</td>
<td>Improved pedestrian safety</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Extend curb, improve pedestrian space/streetscape/green infrastructure (CS-8)</td>
<td>Grand Avenue at Stanton Avenue to Linden Avenue</td>
<td>NCDPW</td>
<td>$84,800</td>
<td>Improved pedestrian safety, sidewalk/streetscape, green infrastructure, and traffic calming</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td>Prospect Avenue, New Cassel, NY</td>
<td>Town of N. Hempstead DPW 516.739.6710</td>
</tr>
<tr>
<td>Improve bus stop shelter/seating (two locations) (CS-8)</td>
<td>Grand Avenue northbound and southbound at Stanton Avenue</td>
<td>NCDPW, NICE Bus</td>
<td>$35,000</td>
<td>Improved transit facilities</td>
<td>• FHWA Grant</td>
<td>1-5 years</td>
<td>Grand Avenue, Baldwin, NY</td>
<td>NCDPW 516.571.9600</td>
</tr>
<tr>
<td>Potential left turn lanes requested by the community would result in the loss of on-street parking on the east side of Grand Avenue between Stanton Avenue and Linden Avenue - further study required to address parking impact (CS-8)</td>
<td>Grand Avenue at Stanton Avenue</td>
<td>NCDPW</td>
<td>N/A</td>
<td>Improved traffic safety and circulation</td>
<td>• NYS DOT HSIP and TAP Set-Aside funds</td>
<td>1-5 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Green Infrastructure

#### Low-Maintenance Turf in Complete Streets Medians and Permeable Pavement at Baldwin High School Campus

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-Maintenance Turf</td>
<td>Baldwin High School campus</td>
<td>Baldwin School District</td>
<td>$1.50 per Sq. Ft.</td>
<td>A green technology Pilot at the High School can educate students about resiliency</td>
</tr>
<tr>
<td>Permeable Concrete Pavers</td>
<td>Medians - Nassau County</td>
<td></td>
<td>Bulk Area Cost $10 per Sq. Ft. (10,000 SF Min.)</td>
<td></td>
</tr>
<tr>
<td>Porous Asphalt $12 per Sq.Ft.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Flexible Porous Pavement (i.e. Flexi-Pave) $15 per Sq. Ft.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permeable Concrete Pavers $25 per Sq.Ft.</td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Note 1: Costs per Sq. Ft. include installation costs, labor, and materials. Engineering costs are not included.

#### Stormwater Tree Box Pilot

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Drive and Grand Avenue</td>
<td>Nassau County</td>
<td></td>
<td>$15,000 per Single Tree Box Unit</td>
<td>Will improve stormwater quality and remove of pollutants before groundwater recharge or surface water discharge</td>
</tr>
<tr>
<td>Baldin High School campus</td>
<td>Town of Hempstead</td>
<td>Baldwin School District</td>
<td></td>
<td>Will include tree planting (e.g., removal of CO2, beautification) benefits</td>
</tr>
<tr>
<td>Miller Place and Grand Avenue</td>
<td>or developer of a significant development (by special approval)</td>
<td></td>
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</tbody>
</table>

#### Tree Planting Program/Tree Canopy Assessment

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Avenue Corridor</td>
<td>Nassau County</td>
<td></td>
<td>$800 per tree planting (excludes tree pit widening, opening, and structural soils)</td>
<td>Encouraging wire-friendly tree plantings can beautify commercial corridors and reduce storm-related tree/ electrical wire conflicts</td>
</tr>
<tr>
<td>Irene St. to May St. and Willis St. to DeMott Ave.</td>
<td>Town of Hempstead</td>
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</tbody>
</table>

#### Permeable Pavement and Street Trees Pilot

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town of Hempstead Commuter Lots along Sunrise Highway &amp; Grand Avenue in the area of Baldwin Shopping Center</td>
<td>Nassau County</td>
<td></td>
<td>$800 per tree planting (i.e. Flexi-pave) $15 per Sq. Ft.</td>
<td>Will improve surface drainage by promoting infiltration and groundwater recharge and stormwater uptake by trees</td>
</tr>
<tr>
<td>Town of Hempstead</td>
<td></td>
<td></td>
<td>Permeable Concrete Pavers $25 per Sq.Ft.</td>
<td></td>
</tr>
</tbody>
</table>

Note 1: Costs per Sq. Ft. include installation costs, labor, and materials. Engineering costs are not included.

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### Community-Based Recommendations Summary Matrix

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Financial</td>
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<tr>
<td>Regulatory</td>
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<tr>
<td>Timeframe</td>
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<tr>
<td>Examples</td>
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<td></td>
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</tr>
</tbody>
</table>

#### Potential Funding

- Baldwin School District or NYS EFC-GIGP
- SUNY Old Westbury Community Clark South Plaza, Old Westbury, NY
- Gateway Park in Copiague, NY
- Riverhead, NY: Aquarium-Hyatt Hotel
- Lindenhurst Library, Lindenhurst, NY

#### Regulatory Strategy

- 0-1 year (Baldwin High School campus)
- 1-5 years (medians)

#### Timeframe for Implementation

- 0-1 year (Baldwin High School campus)
- 1-5 years (Grand Avenue Intersections and School Drive and Miller Place)

#### Examples

- SUNY Old Westbury
  - Steve Griffin
  - Bob Retnauer RLA
  - Lindenhurst Library, Bob Retnauer RLA
  - SUNY Old Westbury, S631.979.5600

- Rutgers University
  - Patricia Rector, Environmental and Resource Management Agent, Somerset and Morris Counties
  - Christopher Obrepta, PhD., P.E., Associate Extension Specialist, Environmental Science, Rutgers University New Jersey Agricultural Experiment Station 848.932.5000

- Rutgers University NJ Environmental and Resource Management Project, New York City, NY
  - Steve Griffin
  - Bob Retnauer RLA
  - SUNY Old Westbury, S631.979.5600

- New York Tree Trust
  - 718-670.4009/Hudson Square Connection 212.463.9160
  - Jeanne Grace - City Forester, City of Islip, NY 607.212.1718
  - Michael Dietz, UCONN 860.345.5225

---

### Contact Information

- Steve Griffin, Michael Dietz, Rutgers University, New Jersey Agricultural Experiment Station 848.932.5000
- Michael Dietz, UCONN 860.345.5225
- Michael Dietz, UCONN 860.345.5225
### Green Infrastructure

#### Green Infrastructure in Complete Streets Curb Extensions
- **Select Complete Streets Curb Extensions**
  - **Nassau County**
  - **Town of Hempstead**
- Cost: $15,000 per curb extension
- Benefits: Green infrastructure (includes gravel gutter, concrete curbs with drain grates, and permeable pavement)
- Will promote stormwater infiltration, relieve burden and minimize maintenance needs on conventional drainage infrastructure, and will stormwater quality that recharges groundwater and/ or discharges to surface waters

#### Stormwater Planter Pilot
- **Grand Avenue at the North Baldwin USPS**
  - **Town of Hempstead**
  - **Private property**
  - **Nassau County**
  - **USPS**
- Cost: $350 per Sq. Ft. (includes plantings, concrete curbing, planting soil mix, drainage infrastructure)
- Benefits: Will improve stormwater quality and remove of pollutants before groundwater recharge or surface water discharge
- Will include tree planting (e.g., removal of CO2, beautification) benefits

#### Conventional or Green Drainage Improvements
- **Fairview Shopping Center South Entrance**
  - **Nassau County**
  - **Town of Hempstead**
  - **Property Owner if contributing to localized flooding**
- Cost: Conventional drainage infrastructure $3,000 per catch basin, $7,500 per leaching pool, $8,000 - $12,000 for Green Drainage Infrastructure
- Benefits: Reduces minor localized flooding due to rain events and lack of drainage infrastructure

Note 1: Costs per Sq. Ft. include installation costs, labor, and materials. Engineering costs are not included.

### Potential Funding

- **NYSDOT TIGER grants**
- **NYS EFC-GIGP**
- **NYSDEC WQIP Program**

### Regulatory Strategy
- **Adopt Nassau County standards or incentive that raise awareness about resiliency and risk**
- **Address the impact of climate change**
- **Prescribe best practices including green infrastructure in lieu of conventional drainage structures on private property, include provisions for maintenance and replacement of street trees, and require/incentivize street tree planting associated with site plan applications.**

### Timeline for Implementation
- 1-5 years

### Examples
- **NYC, NY**
- **Philadelphia, PA**
- **Boston, MA**
- **NYS EFC awardees**

### Contact Information
- **NYC Department of Parks & Recreation, Deputy Chief Design Nancy Prince RLA 718.760.6619**
- **SUNY Old Westbury, Steve Griffin 516.876.3173**

---

### Potential Funding

- **NYSDOT TIGER**
- **NYS EFC-GIGP**
- **NYSDEC WQIP Program**

### Regulatory Strategy
- **Adopt Nassau County standards or incentive that raise awareness about resiliency and risk**
- **Address the impact of climate change**
- **Prescribe best practices including green infrastructure in lieu of conventional drainage structures on private property, include provisions for maintenance and replacement of street trees, and require/incentivize street tree planting associated with site plan applications.**

### Timeline for Implementation
- 1-5 years

### Examples
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- **Philadelphia, PA**
- **Boston, MA**
- **NYS EFC awardees**

### Contact Information
- **NYC Department of Parks & Recreation, Deputy Chief Design Nancy Prince RLA 718.760.6619**
- **SUNY Old Westbury, Steve Griffin 516.876.3173**
### Storm and Economic Resiliency

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</table>
| **LED/Solar Street Lamps** | Town of Hempstead Commuter Parking lots | • Town of Hempstead  
• Or developer of a significant development (by special approval) | • $3,000/solar street lamp  
• $400 retrofit of existing street lights with LED bulbs | • Replacing street lamps with LED/solar lamps reduces energy use, which can help lessen effects of climate change, such as extreme storms | • NCDPW is exploring implementing Pilot program as part of NYSGOSSR grant | 0-1 year | • Village of Great Neck, NY  
• Village of Freeport, NY | Great Neck: Katlin Dugan, Deputy Clerk 516.482.0019 x 102  
Freeport: Asst. Superintendent of Electric Distribution 516.377.2280 |
| **Wi-Fi Hot spot/device charging stations/electronic kiosks** | Baldwin LIRR Station or other public area | • Town of Hempstead  
• MTA/LIRR | • Businesses could be encouraged to provide guest hotspots.  
• Device charging stations indoor $600 each.  
• Advertising can offset costs | • Promotion of downtown  
• Communication in event of natural disaster | • MTA/LIRR considering as part of proposed Baldwin Station upgrades | 0-1 year | • NYC, NY  
• Chicago, IL  
• Miami-Dade County, FL  
• Wi-Fi kiosks (as well as LED lighting and public art) planned for Valley Stream LIRR station as part of MTA/ LIRR upgrades | LinkNYC: hello@link.nyc |
| **Baldwin High School Placemaking** | High School Drive  
• Baldwin School District  
• Nassau County | Baldwin High School  
• Gateway LED signage and landscaping will encourage school district pride and placemaking | TBD | | • Nassau County and/or Baldwin School District to provide funding to erect LED sign | 0-1 year | • Deer Park Elementary School  
• Division Avenue High School, Levittown  
• Hempstead High School  
• Great Neck South High School |
| **Management Team/Branding Strategy** | Commercial nodes | • Chamber of Commerce  
• Town of Hempstead  
• Baldwin Civic Association  
• Any other local organizations | • Management team - minimal cost/volunteer and staff team  
• Branding strategy can range $15,000-$100,000 (depending on scope for professional design services) | • Town services are provided effectively and coordinated with local events and can help to market Baldwin to realtors/developers/businesses/potential residents  
• Coordinate to manage vacant properties | • Main Street and Cultural Districts may be funded through special taxing districts, BIDs, state funding, and federal programs | 0-1 year | • Branding examples:  
• Oyster Bay, NY Main Street District  
• Jackson Hl, NJ  
• Main Street Management  
• Huntington, NY  
• Bay Shore, NY  
• Riverhead, NY | Town of Huntington: Patricia Dei Col 631.351.3030  
Bay Shore: Steve Plotteron 631.224.5565  
Riverhead: Jill Lewis 631.727.3200 Ext 655 |
| **Vacant Property Beautification** | Private properties in commercial nodes | • Private owners  
• Baldwin Chamber of Commerce  
• Baldwin Civic Association | • Minimal - volunteer time  
• Promotion of artists and a feeling of excitement and revitalization in commercial corridors | | • Corporate/local business sponsorship | 0-1 year | • Kings Park, NY  
• Westbury, NY  
• Great Neck Plaza, NY  
• Riverhead, NY  
• New Haven, CT | Riverhead-East End Arts, Pat Snyder 631.727.0900 x304  
Kings Park, JoAnn Hahn 631.220.0862  
Westbury, Julie Lyon julie@westburyarts.org  
Great Neck Plaza, Patricia O’Byrne, Village of Great Neck Plaza Clerk-Treasurer, 516.482.4500 |
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Location(s)</th>
<th>Jurisdiction/ Responsible Parties</th>
<th>Cost Estimate</th>
<th>Fiscal/Other Benefits</th>
<th>Potential Funding</th>
<th>Timeframe for Implementation</th>
<th>Examples</th>
<th>Contact Information</th>
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<tr>
<td><strong>Storm and Economic Resiliency</strong></td>
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<tr>
<td><strong>Emergency Transportation Plan</strong></td>
<td>Study area</td>
<td>Town of Hempstead</td>
<td>$75,000</td>
<td>Designated routes and demand response shuttles allow continued access to job sites in the event that primary roads are closed or fixed route transit service is impeded</td>
<td>FEMA Emergency Preparedness Grant, NYSDOT</td>
<td>1-5 years</td>
<td>Hurricane Transportation Report by NYU Rudin Center for Transportation</td>
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<td>Nassau County</td>
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<td>NYSSGR-CDBG-DR, NYSDOT</td>
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<td>NYSDOT</td>
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<tr>
<td><strong>Storm Survival/Disaster Recovery Guide for Local Businesses</strong></td>
<td>Study area</td>
<td>Baldwin Chamber of Commerce</td>
<td>$35,000</td>
<td>Guide to help business owners continue operations, communicate with customers, and maintain an energy supply in the event of a disaster</td>
<td>FEMA Emergency Preparedness Grant, CDWG-DR Baldwin allotment</td>
<td>1-5 years</td>
<td>Town of Brookhaven Hurricane Survival Guide, National Hurricane Survival Guide - Business Checklist, South Florida Regional Planning Council Hurricane Survival Guide, Mastic-Shirley Emergency Planning Study</td>
<td>NYSSGR Senior Community Planner Valerie Scopaz: <a href="mailto:Valerie.Scopaz@stormrecovery.ny.gov">Valerie.Scopaz@stormrecovery.ny.gov</a>, Mastic-Shirley Study contact - David Berg <a href="mailto:dberg@optonline.net">dberg@optonline.net</a></td>
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<td><strong>Business Improvement District (BID)</strong></td>
<td>Commercial nodes</td>
<td>Baldwin Chamber of Commerce</td>
<td>$5,000</td>
<td>Local control of revenues for improvements</td>
<td>BIDs are typically funded by a special assessment billed to property owners within a district</td>
<td>1-5 years</td>
<td>Westbury BID, Glen Cove BID, Huntington Station BID, NYC Department of Small Business Services</td>
<td>Westbury 516.333.2235 Glen Cove 516.759.6970 or <a href="http://www.glencovedowntown.org">www.glencovedowntown.org</a></td>
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<td>Local Property Owners and Commercial Tenants</td>
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Next Stop: Resilient Baldwin

Next Stop: Resilient Baldwin
References


Appendix A   Existing Conditions Analysis

Existing Conditions Analysis (ECA)

ECA Appendix
A - Data Collection Activities Memo
B - Community Participation
C - Transportation
D - Stormwater
E - Land Use
F - Fiscal Economic

Appendix B  Public Participation

Public Involvement Plan

Community Advisory Committee Meeting

Baldwin Chamber of Commerce Meeting
Baldwin Civic Association Meeting
Baldwin Fire Department Meeting
Baldwin Oaks Civic Association Meeting
Baldwin PTA Meeting
Baldwin Realtors and Lenders Meeting
Baldwin Sanitary District 2 Meeting

Baldwin Day Picnic Materials
Boards
Factsheet

November 2016 Open House Materials
Factsheet
Boards
Open House Flyer (English/Spanish)
Summary

References


April 2017 Open House Materials

- Presentation
- Boards
  - Open House Flyer (English/Spanish/11 X17)
  - Open House Mailer (Full/Postcard)

Appendix C  Economic Technical Reports

- Market Opportunities Analysis
- Fiscal Impact Analysis

Appendix D  Complete Streets Schematic Plans

- Complete Streets Phase 1
- Complete Streets Phase 2
Downtown Baldwin, at the intersection of Grand Avenue and Sunrise Highway

One of Baldwin’s commercial centers near the intersection of Grand Avenue and Merrick Road