

P1

Stormwater Drainage Repair

Clear debris and repair the stormwater system

Cost Estimate: \$4,310,000



Key Facts

- Project Type: Protective Measures
- Recovery Function: Infrastructure
- Project Location/Municipality: Bellmore and Merrick
- Primary Target Area Affected: Drainage systems south of Merrick Road
- Consistency with NYRCR: Address short, medium, and long-term risks
- Potential Beneficiaries: Bellmore and Merrick residents and businesses south of Merrick Road

Project Information

Many areas in Merrick and Bellmore experienced flooding during Superstorm Sandy, particularly south of Merrick Road. Flood waters not only rose over bulkheads and into neighborhoods, but also traveled up through stormwater drains, bringing in sediment and debris from the bay. During Hurricane Irene and Lee the source of flooding was rainfall, which overwhelmed the system's capacity.

This project would inspect the drainage system, specifically in areas that flooded during Sandy or Irene, or that are subject to routine tidal flooding. Following inspection, the drainage infrastructure will be cleaned out, repaired, or replaced. These improvements will allow the drainage to function more optimally and will help to minimize street flooding due to rain and high tides. Following a storm event, roads may drain more quickly, allowing first responders, local residents and business owners quicker access to their destinations.



Extra debris collected in drainage system after Superstorm Sandy



P2

Outfall Assessment and Tidal Check Valve Installation

Inspect outfalls along the coastline of Bellmore and Merrick and install tidal check valves where appropriate

Cost Estimate: \$750,000



Key Facts

- Project Type: Water Control Facilities
- Recovery Function: Infrastructure
- Project Location/Municipality: Bellmore-Merrick shoreline within 1,200 feet of estuary
- Primary Target Area Affected: South Bellmore and Merrick
- Consistency with NYRCR: Address short, medium, and long-term risks
- Potential Beneficiaries: Bellmore and Merrick residents and businesses

Project Information

There are about 230 outfalls along the coast of Bellmore and Merrick that discharge collected in storm drains from roofs and streets. Open or damaged outfalls allow a path for floodwaters to back up into the drainage system and flood roadways upstream of the outfall. While the cause of tidal flooding in Bellmore and Merrick is due to a number of factors, tidal check valves can be effective when flooding is caused by water entering the system through outfalls along the shoreline.

This project includes the inspection of outfalls along the coastline of Bellmore and Merrick to determine the condition and appropriateness of installation of tidal check valves.

After inspection, 25 tidal check valves will be installed, of either the inline pipe tight or slip-on duckbill type, on outfalls where they would be most effective in addressing flooding. Records of assessment and installation will be provided in Geographic Information Systems software for ongoing asset management.



High tides can cause flooding in low-lying streets when seawater backs up into storm sewers



A check valve allows stormwater to flow out, but prevents tide water from flowing into storm sewers

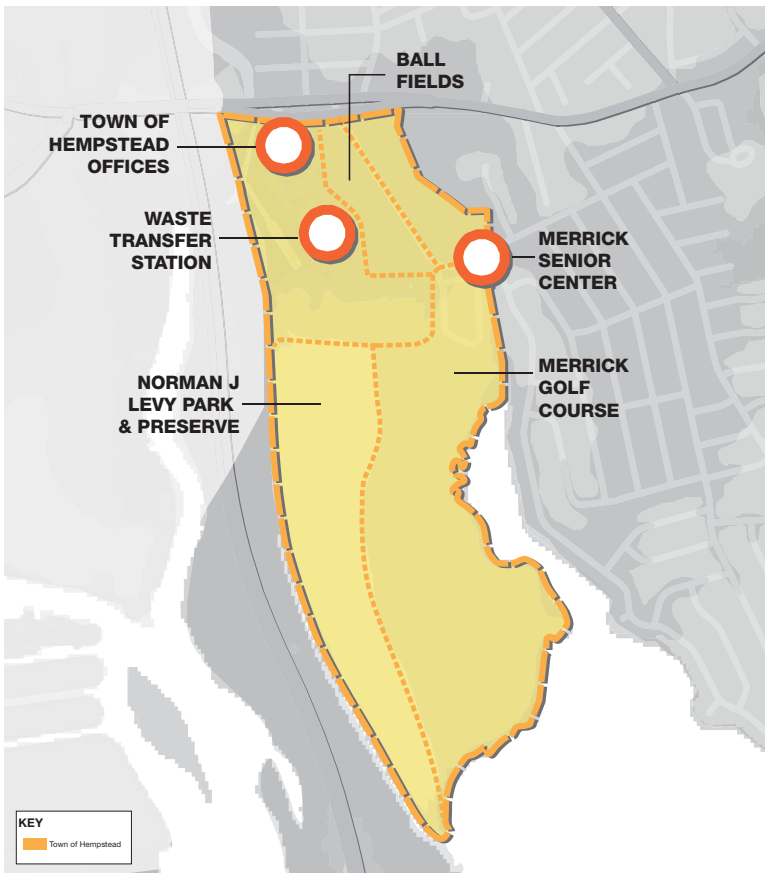


P3

Southwest Merrick Masterplan

Create a Masterplan to re-envision Town-owned parcels as resilient community facilities and open space that also prevent flooding

Cost Estimate: \$250,000



Key Facts

- Project Type: Planning and Additional Study
- Recovery Function: Natural and Cultural Resources
- Project Location/Municipality: Merrick Road, Clubhouse Road (includes current Waste Transfer Station, TOH offices, Merrick Senior Center, Ball fields, Golf Course, and Levy Preserve)
- Primary Target Area Affected: Southwest Merrick
- Consistency with NYRCR: Drive economic growth
- Potential Beneficiaries: Bellmore and Merrick Residents

Project Information

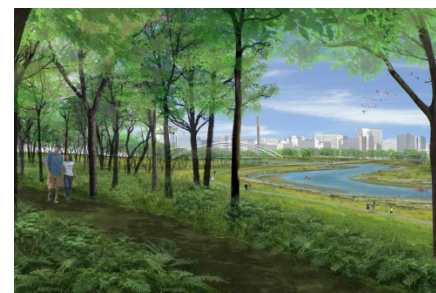
The collection of parcels owned by the Town of Hempstead near Merrick and Clubhouse Roads were significantly impacted by Superstorm Sandy. The Town of Hempstead Dept of Sanitation Waste Transfer Station was flooded, causing trash to enter the waterways. The Norman Levy Preserve wetlands provided protection from the storm surge but were damaged in the process. Merrick Road, an emergency evacuation route, was severely flooded.

This project includes the creation of a Masterplan to re-envision the combined parcels. Concepts may include:

- Ideas for new buildings and amenities to address community needs.
- Reconfigure site to make more resilient and to reduce flooding to Merrick Road during storm events.
- “Green infrastructure” measures, such as a catchment basin within the site to store water when needed.
- Enhancements to wetlands or other natural barriers within Norman Levy Preserve.
- Improved open space and recreational opportunities.
- Explore potential to create a microgrid using alternative energy like solar and wind.



Bridgeport Park is an example of a comprehensive masterplan



Green Infrastructure measures capture and naturally treat stormwater runoff



P4

Bellmore-Merrick Community Resource Centers

Create network of Community Resource Centers and complementary public education program

Cost Estimate: \$3,000,000



Key Facts

- Project Type: Public Buildings
- Recovery Function: Community Planning and Capacity Building
- Project Location/Municipality: Possible locations include the Merrick Library, Bellmore Library, Newbridge Park, Bellmore Senior Center and Merrick Senior Center
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents

Project Information

Following Superstorm Sandy, Bellmore and Merrick residents were without power for extended periods, making it difficult to access the internet, make phone calls, communicate about distributing aid and gather with their neighbors for support. Community Resource Centers (CRCs) are places for residents to obtain information about emergency preparedness under normal conditions. During and after a storm, these centers would become a place to gather, collect and distribute resources (emergency supplies – deployable showers, non-perishable food, potable water/iodine tablets, blankets and tarps, emergency evacuation instructions, bicycles, toiletries, winter clothing, OTC medications, first aid, hand tools), charge cell phones, access the internet. Possible CRCs include Bellmore Library, Merrick Library, Bellmore Senior Center, Merrick Senior Center, and Newbridge Park.

This project would include the employment of a Local Disaster Recovery Manager who would provide emergency preparedness education to residents and businesses and coordinate the addition of resiliency measures at CRCs. Natural gas generators would be installed at each of the CRCs to ensure power during a storm event.



Bellmore Library could be used as a Community Resource Center



Community Resource Centers can collect and distribute emergency supplies to displaced residents



P5

Priority Road Streetlight Retrofit

Install LED streetlights with solar PV and battery backup on existing utility poles

Cost Estimate: \$2,500,000



Key Facts

- Project Type: Roads and Bridges
- Recovery Function: Infrastructure
- Project Location/Municipality: Priority roads in Bellmore and Merrick
- Primary Target Area Affected: Bellmore and Merrick
- Consistency with NYRCR: Increase resiliency of key assets
- Potential Beneficiaries: Bellmore and Merrick residents, businesses and first responders

Project Information

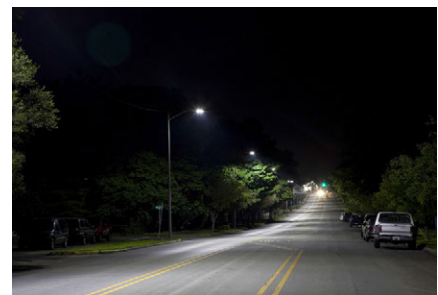
Lack of light on streets following Superstorm Sandy was reported to be a safety hazard by community members and negatively impacted first responders.

This project includes installation of LED street lights with photovoltaics and battery backup on existing utility poles. Installation would be prioritized based on emergency access needs and could include future “Lifeline Network” roads.

If future undergrounding of utility lines occurs and new separate street lights are installed, the LED/PV street lights could be used in other parts of the community.



Solar PV street lights incorporate batteries to store power generated during the day for use at night



LED street lights use less energy and require less maintenance than traditional lamps

