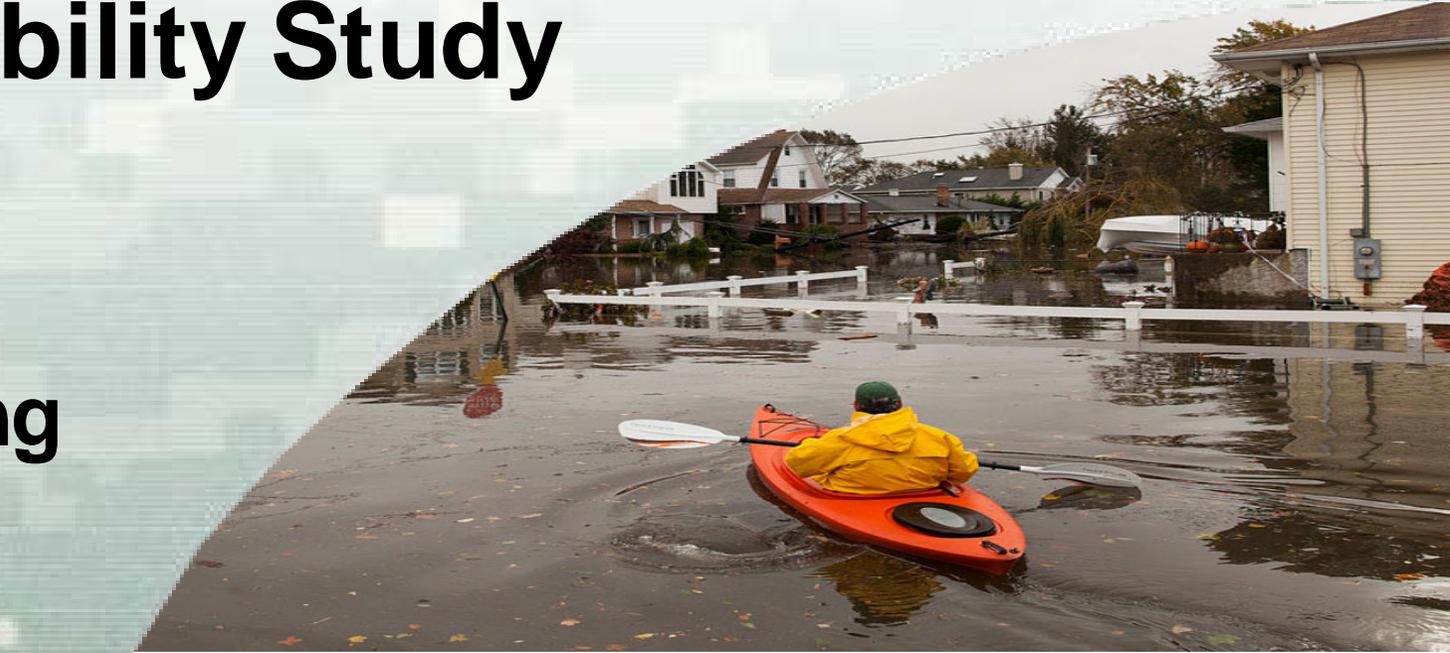




North Shore of Long Island, Bayville, New York Feasibility Study

Bayville, NY Public Meeting

January 14, 2015



New York District





Agenda

- Overview of Corps process
- Project history before/after Sandy
- Current status of study
- Upcoming tasks for completion of study
- Local Responsibilities
- Schedule





USACE Coastal Storm Risk Management Basics

- “Corps Projects” are really joint “Corps, State, Municipal Projects”; Projects are planned and implemented with Local Sponsors. Each partner must support the plan & has a role.
- For Federal participation, must show benefits exceed costs.
- Select plan which maximizes benefits relative to costs.





Corps Process

1. Congressional Authorization/
Appropriation
2. Reconnaissance Study
3. Feasibility Study (*current phase*)
4. Design Phase
5. Construction
6. Operation and Maintenance





Project History

- ▶ Reconnaissance Report Completed in September 1995
- ▶ Feasibility Study 2001-2012
 - DEC and Corps executed original agreement on March 21, 2001
 - Alternatives Analysis and Screening
 - Data Collection (environmental, engineering, utilities, economics, real estate etc.)
 - Bayville passed a Resolution to complete the Feasibility Study in July 2013
 - Original Agreement amended in Sep. 2013 – study to be completed using 100% Federal funds (DRAA 2013)





Role of Project Sponsors

- Sponsors:
 - ▶ Non-federal Sponsor (NY State DEC)
 - ▶ Local Sponsor (Village of Bayville)
- Roles:
 - ▶ Cost Sharing
 - ▶ Indemnification
 - ▶ Real Estate/Public Access
 - ▶ Operation and Maintenance





Local Sponsor Responsibilities

- Local Sponsor = Village of Bayville
 - ▶ Must cost share construction
 - ▶ Must commit to doing O&M
 - ▶ Must indemnify State and Federal Governments
 - ▶ Must obtain all necessary real estate





Public Access (NYDOS)

1. Existing public access must be maintained.
2. Ownership of public lands does not change as a result of projects built on them. Public access is preserved.
3. Public access is not required on or through structural measures where it would be unsafe.
4. In general, public spending for erosion protection should yield public benefits equal to or greater than the costs.





Feasibility Study Costs

- Pursuant to 2001 Agreement:
 - ▶ 50% Federal and 50% non-Federal
 - ▶ Non-Federal cost is shared 70% State and 30% Village
- After January 29, 2013:
 - ▶ Remaining Study costs are 100% Federal
- Village owes the DEC approximately \$300,000 for its share of the project costs expended to date.





Construction Costs

- Initial construction costs are split 65% Federal and 35% non-Federal
- Non-Federal cost is shared 70% State and 30% Village
 - ▶ Village's 30% is equal to ~10% of total costs for initial construction



Study Area



LEGEND

 Photo Location

LOCATION MAP



NOTES & SOURCES

TITLE

Bayville, NY
 North Shore of Long Island
 Coastal Storm Risk Management
 Feasibility Study Area
 Photo Location Map
 Site Visit - October 2013



US Army Corps
 of Engineers
 New England District

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 October 11, 2013 DWN: MTW, WSG: CHK: BRB

PLATE

1



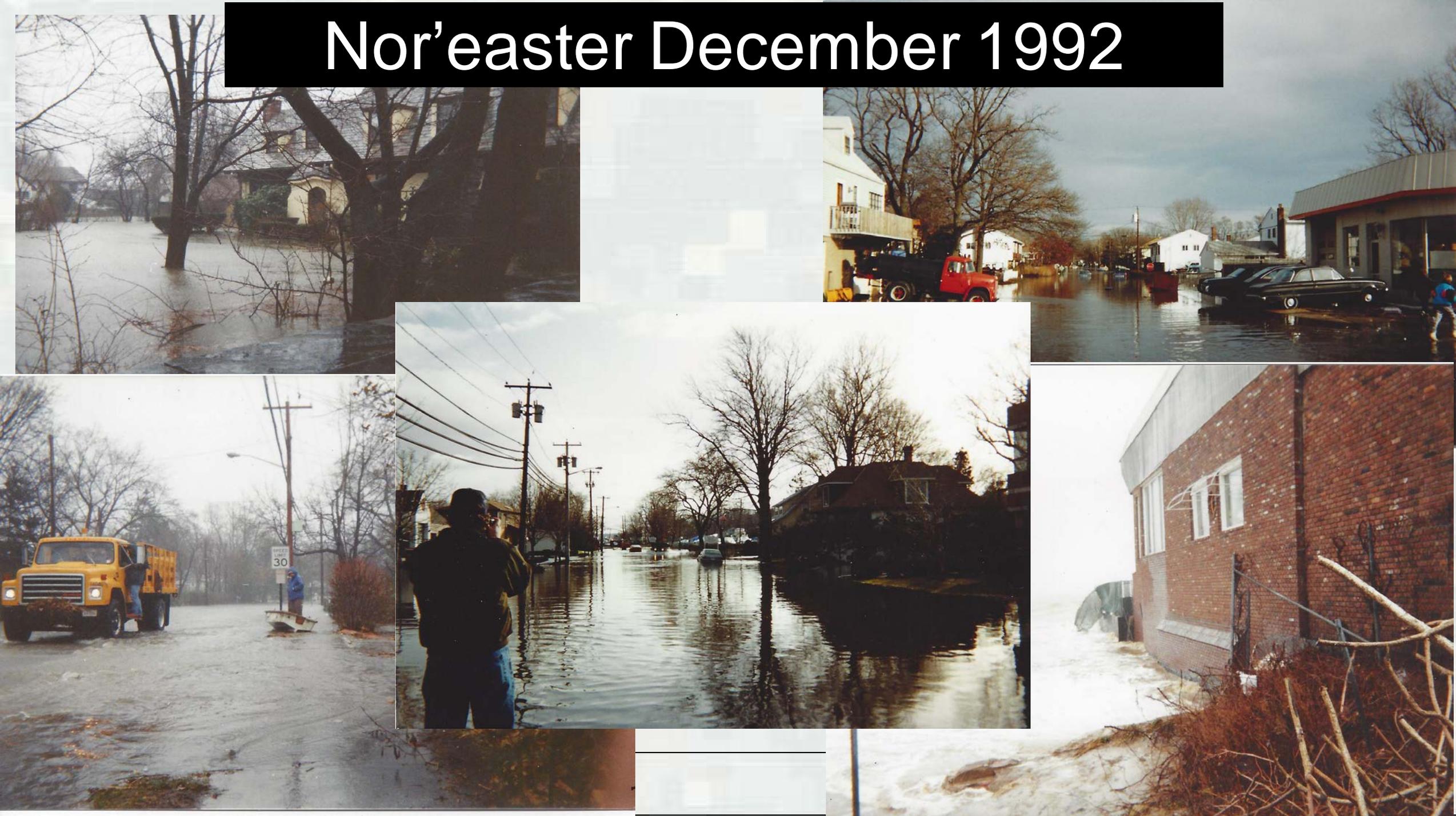
Problems

The problems in the study area are:

- Flooding of the Village (from both the LI Sound and Mill Neck Creek) due to storm events and high tides causing repetitive damages for many residential and commercial structures
- Damage to structures caused by storm-induced wave attack and erosion
- Inadequate Village storm water drainage system prolongs the effects of coastal flooding and poses a threat to the safety of residents



Nor'easter December 1992



Hurricane Sandy, October 2012





Future Without Project Condition

- The Long Island Sound shoreline is relatively stable, but it is projected that the region, including Bayville, will experience increased risk of coastal storm damage (flooding, wave attack, erosion) due to sea level rise.





Opportunities/Objectives

There are opportunities in the study area to:

- Reduce the risk of damages to existing structures caused by storm-induced flooding, wave attack and erosion (from storms and high tides.)
- Reduce the risk to life-safety related to coastal storm events.
- Reduce the risk of street flooding, improving access for both Bayville and Center Island residents
- Reduce risk to critical infrastructure (fire dept., roads, bridge etc,)





Planning Considerations

- Avoid and or minimize adverse impacts to the Oyster Bay National Wildlife Refuge (part of the Long Island National Wildlife Refuge Complex).
 - ▶ This 3,209-acre refuge includes subtidal (bay bottom to mean high tide line) habitats, saltmarsh and a freshwater pond
 - ▶ The State of New York also designated Oyster Bay as a significant coastal fish and wildlife habitat
- The vast majority of the Real Estate within the Village (including roads) is privately owned.





Non-Structural Alternatives Considered:

- **Elevating Structures**
- **Floodproofing (Dry and Wet)**
- **Buy-out Opportunities**





Structural Alternatives Considered:

- **Beach Nourishment**
- **Groins / Offshore Break waters**
- **Bulkheads/ Bulkhead Stabilization**
- **Reinforced Dunes**
- **Floodwalls and Levees**





Draft Plan

GENERAL SITE PLAN

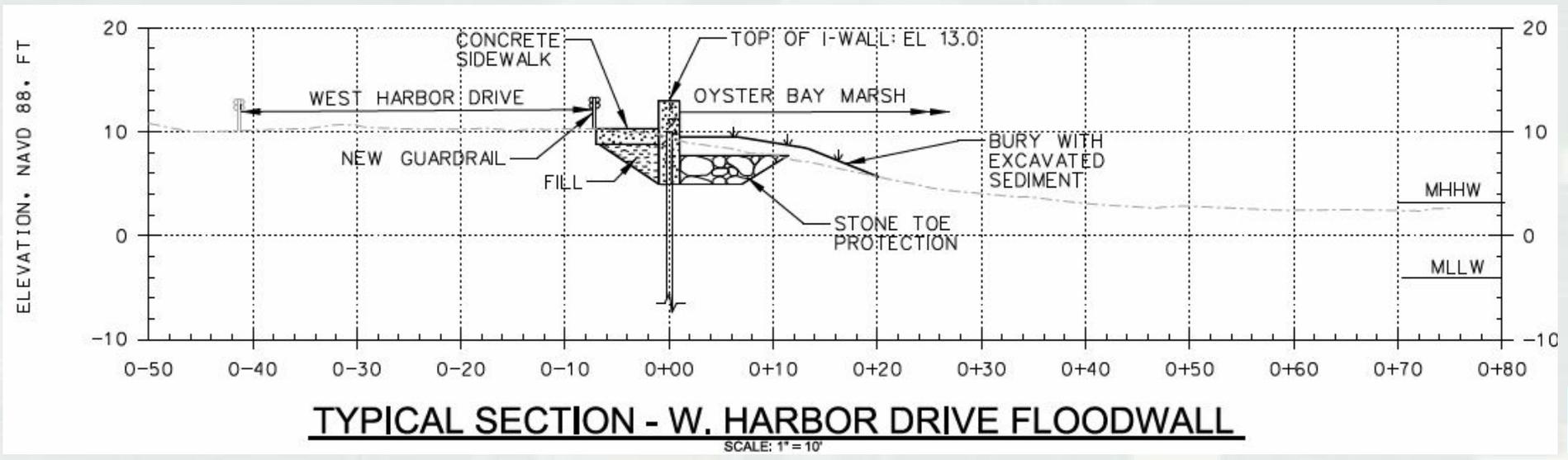
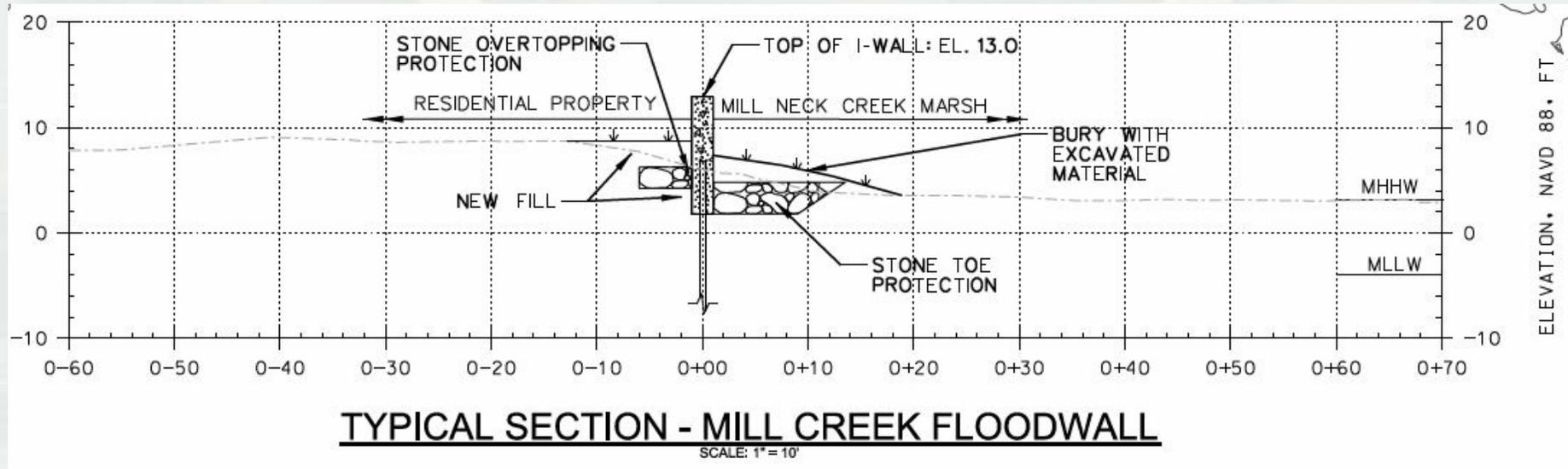
SCALE 1" = 300'

GENERAL NOTES:

1. NOAA 2012 USACE JALBTCX TOPOBATHY LIDAR, POST SUPERSTORM SANDY, NAD 83, NEW YORK LONG ISLAND STATE PLAN, FEET, NAVD 88, FEET.
2. NYS DIGITAL-ORTHO-IMAGERY PROGRAM (NDOPS) APRIL 2013.

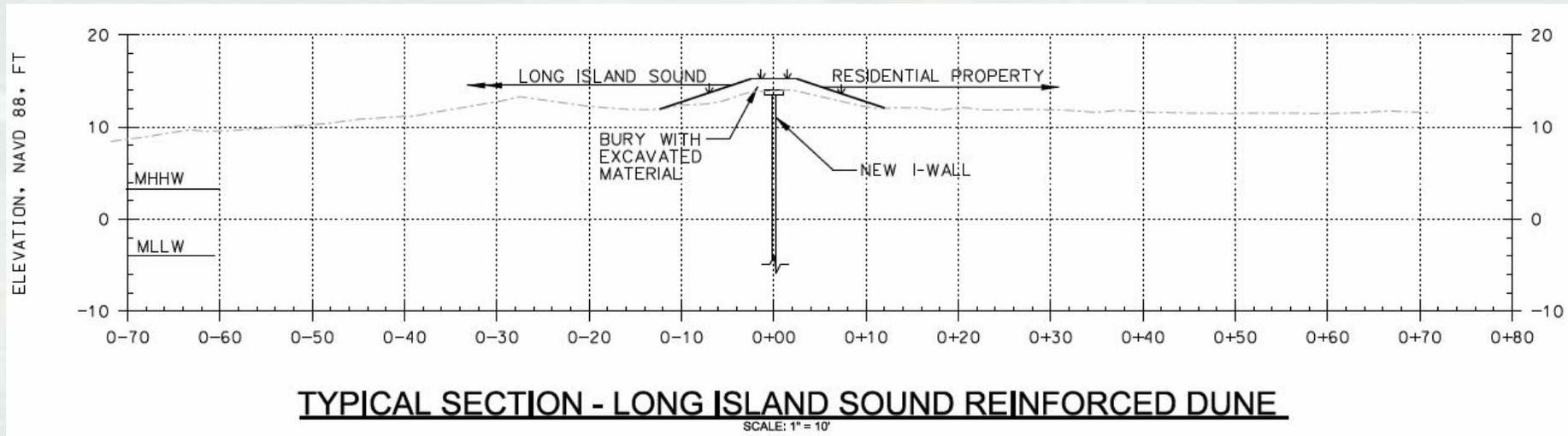
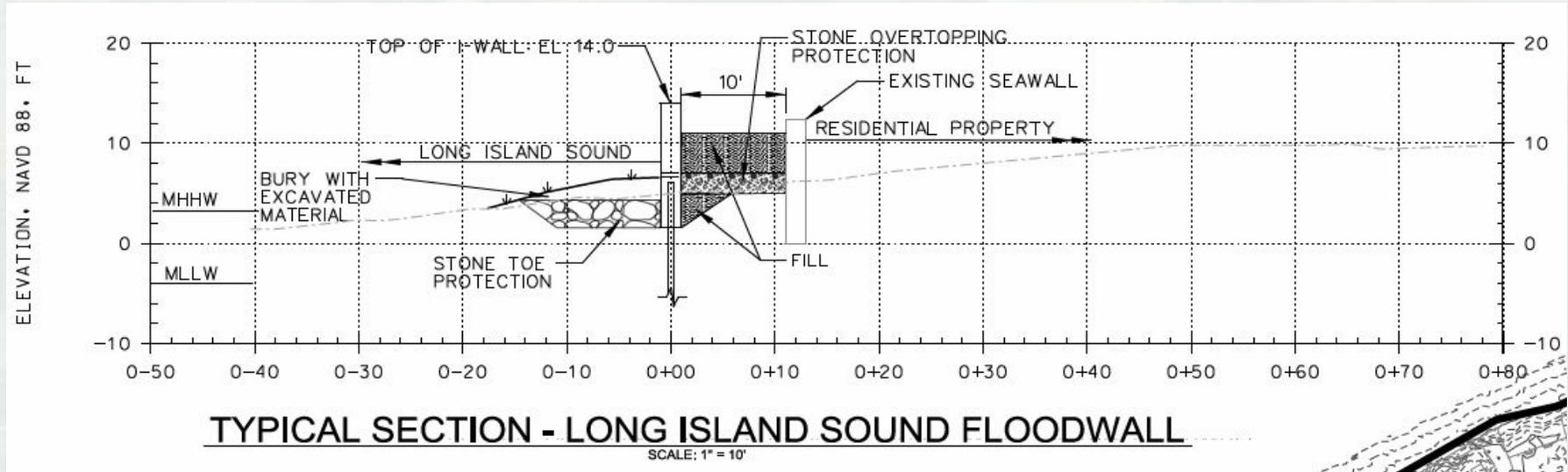


Draft Cross Sections





Draft Cross Sections



Environmental Impacts (Draft)



LEGEND

- ENVIRONMENTAL TYPE**
- COASTAL
 - SALT MARSH
 - UPLAND
- WETLAND TYPE**
- Estuarine and Marine Wetland

LOCATION MAP



NOTES & SOURCES

TITLE

**Bayville, NY
Potential Environmental
Impact of Project Footprint**



FIGURE
1

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Oct 7, 2014 DWN: PDM CHKD: BRR





Real Estate Required

- Real estate is required from all parcels adjoining the perimeter project features (floodwall, elevated roads, etc)
 - ▶ Required width: 30 feet
- Fee title for structure footprint on private parcels may be required under NYS law
 - ▶ Required width varies
 - ▶ Fee title may be required for interior drainage features



Perimeter Real Estate Requirement (Draft)



LEGEND

- Project Footprint
- Bayville Parcels

LOCATION MAP



NOTES & SOURCES

TITLE

Bayville, NY
Project Footprint



FIGURE
1

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Oct 7, 2014 DWN: PDM CHKD: BRR



RONG®

Total Real Estate Requirement (Draft)



LEGEND	
REAL ESTATE CATEGORIES	
	DRAINAGE (447,294 sq ft)
	FLOODWALL (486,655 sq ft.)
	OUTFALL (84,823 sq ft)
	PUMPHOUSE (28,362 sq ft)
	ROAD (117,320 sq ft)
	STAGING (103,392 sq ft)
	PUBLICLY OWNED LAND



NOTES & SOURCES

TITLE
**Bayville, NY
 Easement Types and
 Town/Federal Parcels**



FIGURE
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 Oct 7, 2014 DWN: PDM CHKD: BRR



Project Cost Estimate:

Current draft estimate is ~\$48 – 53 million which includes:

- Design/Permitting costs
- Real Estate acquisition
- Environmental mitigation costs
- A large contingency to account for uncertainties at this point in the study





Operation and Maintenance

- Village must maintain project once built
 - ▶ Maintain current level of public access
 - ▶ Prohibit excavation and alterations
 - ▶ Specific O&M and inspection requirements will be dependent on the final alternative selected
 - ▶ Pump station operation, maintenance and repair



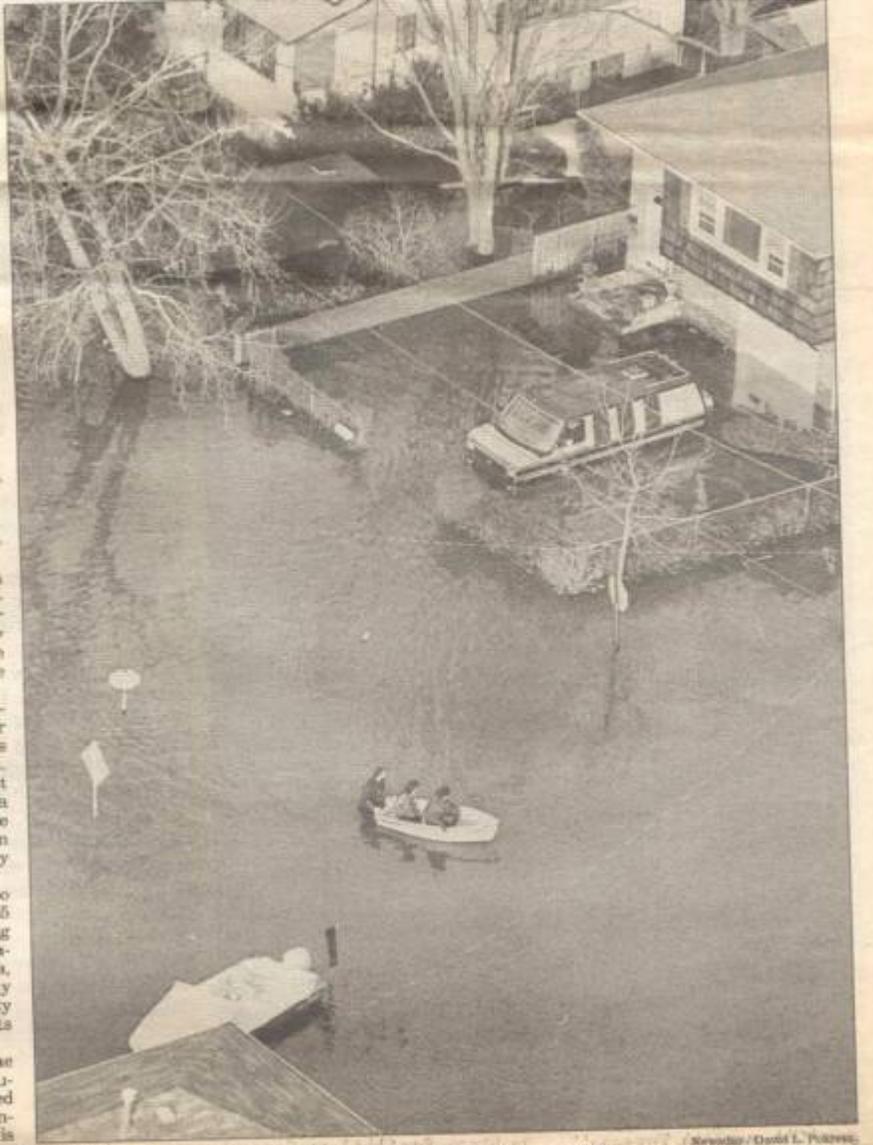


Schedule / Next Steps

- Local sponsor support of the plan – February/March 2015
- Draft Report for Public Comment – May/June 2015
- Complete Feasibility Study – 1st half of 2016
- Execute Project Partnership Agreement – Mid 2016
- Start Design – 2nd half of 2016
- Construction start – 2017/18
- Potential opportunities to collaborate with the NY Rising Program



Questions?



FLOODVILLE. A firefighter pushes a rowboat through the flooded streets of Bayville yesterday



ONE-WAY STREET. Using the only means practical, fireman Mike Perullo takes Mary Watts, 77, to safety from her home on Bayville's 6th Street yesterday.



THE BAYVILLE RIVER. National Guard truck traverses a flooded Bayville Avenue yesterday.



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