Construction of Proposed Composite Bulkhead at Deal Lake

New Jersey Dept. of Environmental Protection
Office of Engineering & Construction
Bureau of Coastal Engineering
Benjamin Keiser, Manager

Village of Loch Arbour
Monmouth County, New Jersey
Betty McBain, President, Board of Trustees

Leon S. Avakian, Inc.
Consulting Engineers
768 Wayside Road
Neptune, New Jersey 07753
Office: (732) 922-9229
Fax: (732) 922-0044
New Jersey’s
Shore Protection Program

State of New Jersey
Chris Christie, Governor
Kim Guadagno, Lt. Governor

Dept. of Environmental Protection
Bob Martin, Commissioner

Natural & Historic Resources
Amy Cradic, Assistant Commissioner

Office of Engineering & Construction
David Rosenblatt, Administrator
To administer beach nourishment, shore protection and navigational dredging projects throughout the State to:

- Provide for the protection of life and property along the coast
- Preserve our State’s vital coastal resources
- Maintain safe and navigable waterways
Shore Protection Fund –
Dedicated for...

“To protect existing development and infrastructure from storm surges, sea-level rise and shoreline migration through dune creation and maintenance, beach nourishment projects, and construction and repair of shore protection structures.”

$25 million dedicated annually
Realty Transfer Tax (N.J.S.A. C.13:19-16.1)
## Shore Protection Funding — How It’s Divided

### Federal Projects - NJDEP - local sponsor in these projects
- Studies
- Storm Damage Reduction/Shore Protection
- Environmental Restoration

### State Projects - Municipalities - local sponsor in these projects
- Storm Damage Reduction/Shore Protection

### Professional and Technical Services -
- Stevens Institute of Technology
- Richard Stockton College of New Jersey
- Division of Fish and Wildlife
- New Jersey Geological Survey
Shore Protection Construction – Cost Share Structure

Shore Protection Project

FEDERAL
- 65% Federal
- 35% State/Local
  - 75% State
  - 25% Local

STATE
- 75% State
- 25% Local
Deal Lake Bulkhead – East Section
Village of Loch Arbour, NJ

Bureau of Coastal Engineering
New Jersey Dept. of Environmental Protection
Office of Engineering & Construction
Deal Lake Bulkhead –– West Section

Village of Loch Arbour, NJ

Bureau of Coastal Engineering
New Jersey Dept. of Environmental Protection
Office of Engineering & Construction

1,056 L.F. Proposed Composite Bulkhead

Existing Conc. Bulkhead

Existing Comp. Bulkhead
Problem Areas – East Section
Problem Area – West Section
Existing Conditions
East Section
Existing Conditions
West Section
Required Permits

- **State**
  - CAFRA
  - Waterfront Development
  - Water Quality Certificate

- **Federal**
  - Individual Permit

- **Timing Restriction**
  - March 1st - June 30th
  - No In-water Work Permitted
Green Construction, Inc.
- Headquarters in South River, NJ
- Since 1980
- Owner - Joe Abreu
Financial

- **Total Project Cost:** $1,342,738.88

- **75/25 Cost Share**
  - 75% State = $1,007,054.16
  - 25% Municipality = $335,684.72
Project Specifics

• **Composite Sheet Pile Bulkhead**
  - 2,090 L.F.
  - EverComp 26.1 Sheet Pile - 20’ Long

• **Existing Concrete Wall Removal**

• **Site Restoration** - Topsoil & Hydroseed

• **Concrete Curb Replacement**

• **Street Light & Conduit Replacement**
Project Specifics Con’t.

• **Contract Timeframe - 120 days**
  - September 15th - Received Bids
  - November 15th - Tentative Notice to Proceed
  - March 15th - Tentative Construction Completion

• **Must maintain a clean and safe work site**

• **Must abide by all Federal, State, and Local regulations**
What To Expect

• Minimal Traffic Flow
  – Detoured Route Along Work Area
• Reduced Lighting Along Roadway
• Onsite State Inspection
What To Expect Con’t.

• Sheet Driving and Excavation Equipment