STEEL SHEET PILE DUNE RESTORATION PROJECT
Township of Brick & Borough of Mantoloking

New Jersey Dept. of Environmental Protection
Office of Engineering & Construction
Bureau of Coastal Engineering
Erick Doyle, Principal Environmental Engineer

Boroughs of Brick and Mantoloking
Ocean County, New Jersey

Hatch Mott MacDonald
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
Richard Boornazian, 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
Rt. 35 Sheet Pile Dune Restoration
Federal Highway Administration

Steward: Nation’s Highways, Bridges, & Tunnels

Liaison - NJDOT Bureau of Local Aid

80% Reimbursable Cost-Share
Eligible Items

20% State Cost-Share

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Shore Protection Program
Rt. 35 Sheet Pile Dune Restoration
New Jersey Department of Transportation

NJDOT: > $120 Million

Breach Closure
Roadway Reconstruction
Rt. 35 Sheet Pile Dune Restoration
Superstorm Sandy – Mantoloking
Rt. 35 Sheet Pile Dune Restoration
Existing Conditions: Mantoloking

Hebert Street (Viewing South)
Pedestrian Access Point (View Towards Lyman Street)
Rt. 35 Sheet Pile Dune Restoration
Borough of Mantoloking
**Steel Sheets**

- ≈18,450 Linear Feet (LF) of Steel Sheet Pile Driving to Elevation -30 NAVD88’
- ASTM A 690 Marine Grade Steel
- 25’ Steel Sheet Pile Return Wall (400’ Intervals)

**Cap, Anti-Scour Apron & Ladders**

- ≈18,450 LF of Bent Plate Cap (Epoxy Coated)
- ≈18,450 LF of Woven Polypropylene Geotextile
- ≈110 Steel Ladders (200’ Intervals)
• BCE – Initial CAFRA Application: 1/25/14
  – Published in DEP Bulletin: 2/19/14
  – Public Notice – APP: 1/24/14, 2/12/14, & 3/27/14
  – Revised Compliance Statement: 4/7/14
  – Permit Issued by Land Use: 4/17/14

• BCE - Biological Opinion w/ U.S. Fish & Wildlife: 3/26/14

• Gannett Fleming: Environmental Assessment & Notice for Construction w/in 100-year Floodplain: 4/3/14
  – Document Deemed Acceptable: 6/2/14
Rt. 35 Sheet Pile Dune Restoration
Project Facts

- **Bid Opening:** March 6, 2014
  - Awarded Contractor: EIC Associates, Inc.
  - Amount: $23,837,000.00

- **Material Delivery:** June 23, 2014

- **Estimated Sheet Driving Operations Start:** July 7, 2014

- **Projected Construction Completion:** Fall 2014
EIC Associates, Inc.

Owners – Andre Ameer & Joseph Branco
Project Manager – Derek Serpe
140 Mountain Ave. Suite 303
Springfield, NJ 07081
Phone: 973-315-0200
Fax: 973-315-0218
Email: dserpe@eicassociates.com
Rt. 35 Sheet Pile Dune Restoration
What to Expect

- **Work Hours**: 6:30 a.m. to 3:30 p.m. Monday-Friday

- **Staging of Sheet Piles on Dune**
  - 15’ wide corridor fenced off on dune top
  - Limited Access to Beach outside of Work Zone

- **Public Beach Access Points Accessible**
Rt. 35 Sheet Pile Dune Restoration
What to Expect

• Construction
  – Multiple crews working at a time
  – 500’ work zone in construction areas
  – Work zone will be adjusted as work is completed
  ≈ 150’ of sheeting to be installed daily

• Vibrations
  – Monitored by Protec Documentation Services

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Shore Protection Program
Rt. 35 Sheet Pile Dune Restoration
Construction Equipment to Expect

New Jersey Dept. Environmental Protection
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Shore Protection Program
Rt. 35 Sheet Pile Dune Restoration Construction Process Overview

Start of Delivery 6/23/14

Construction Begins 7/9/14

500’ Work Zone
Rt. 35 Sheet Pile Dune Restoration
Construction Process Overview

Typical Work Zone

- Excavation/Mechanical Transfer
- Steel Sheet Pile Installation
- Cap, Anti-Scour Apron & Ladder
Rt. 35 Sheet Pile Dune Restoration
Construction Process Overview

Completed Section

Typical Work Zone

Excavation/Mechanical Transfer
Steel Sheet Pile Installation
Cap, Anti-Scour Apron & Ladder
Rt. 35 Sheet Pile Dune Restoration
Beach Access During Construction

Seek Nearest Beach Access Outside of Construction Zone

500’ Work Zone

EMERGENCY ACCESS ONLY

PUBLIC ACCESS