

National Shoreline Erosion Control Demonstration and Development Program



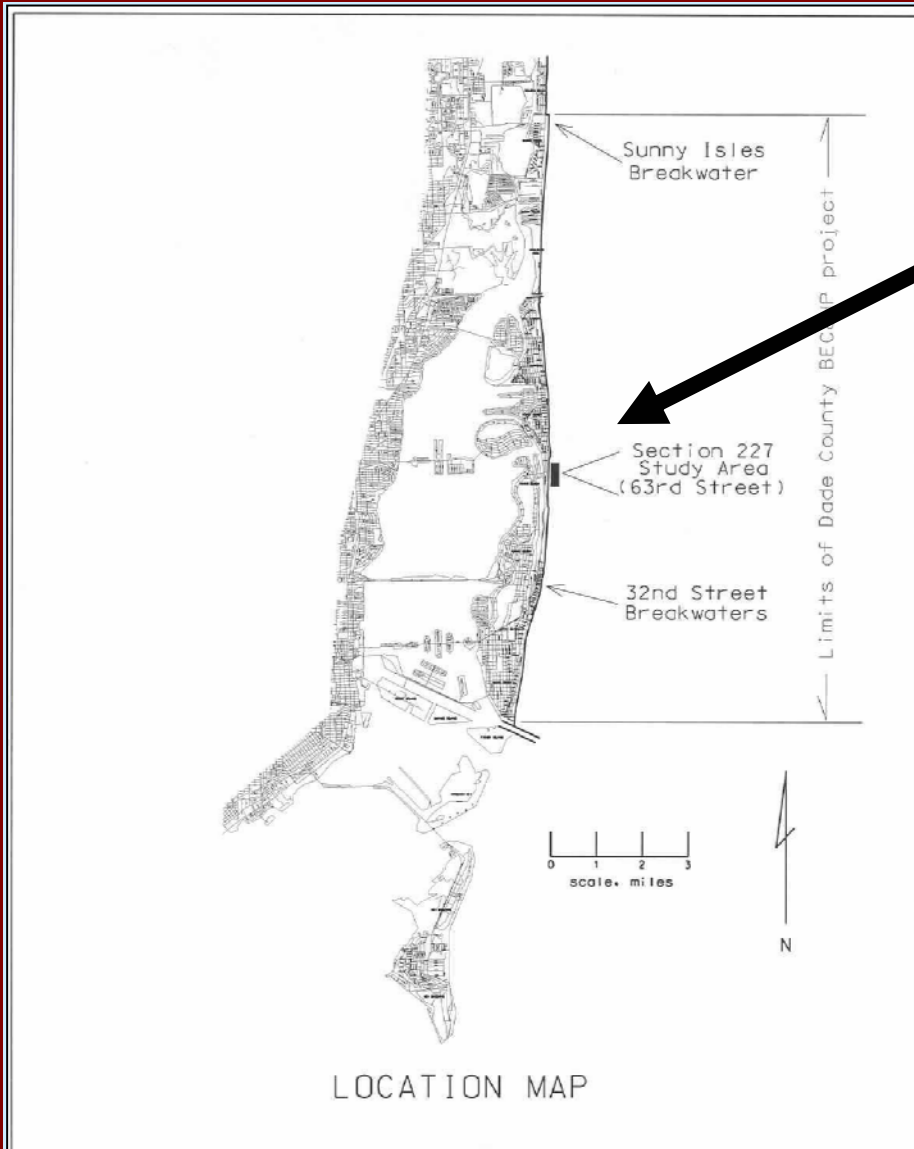
US Army Corps
of Engineers®

... demonstrating innovative coastal shoreline protection methods with an emphasis on evaluation of nontraditional approaches to prevent coastal erosion and improve shoreline sediment retention.

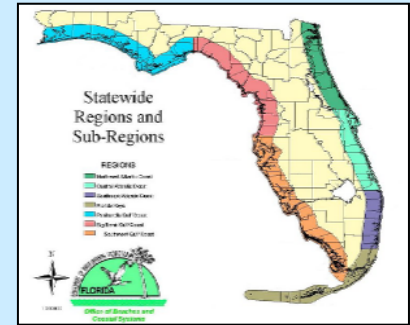


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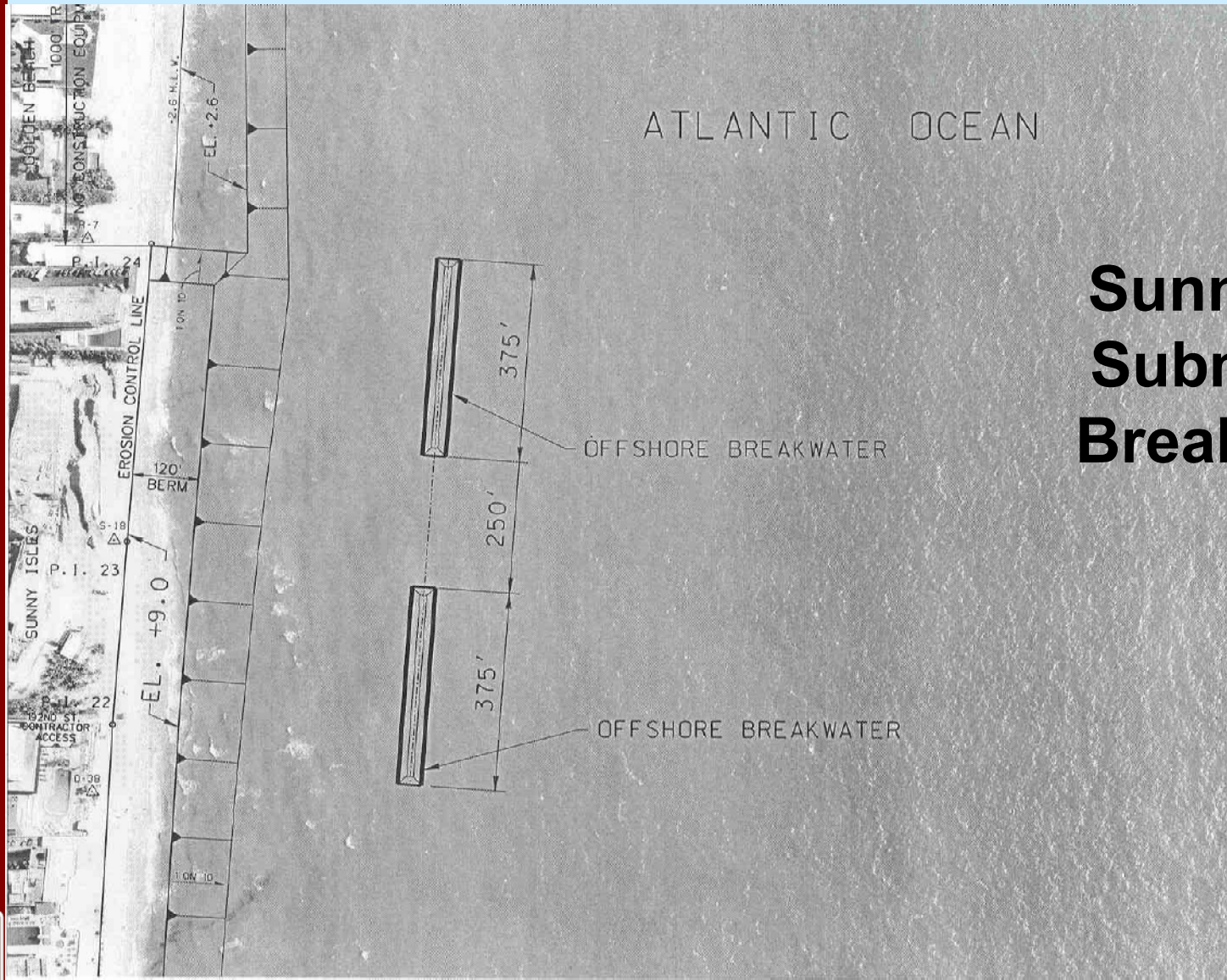


LOCATION MAP



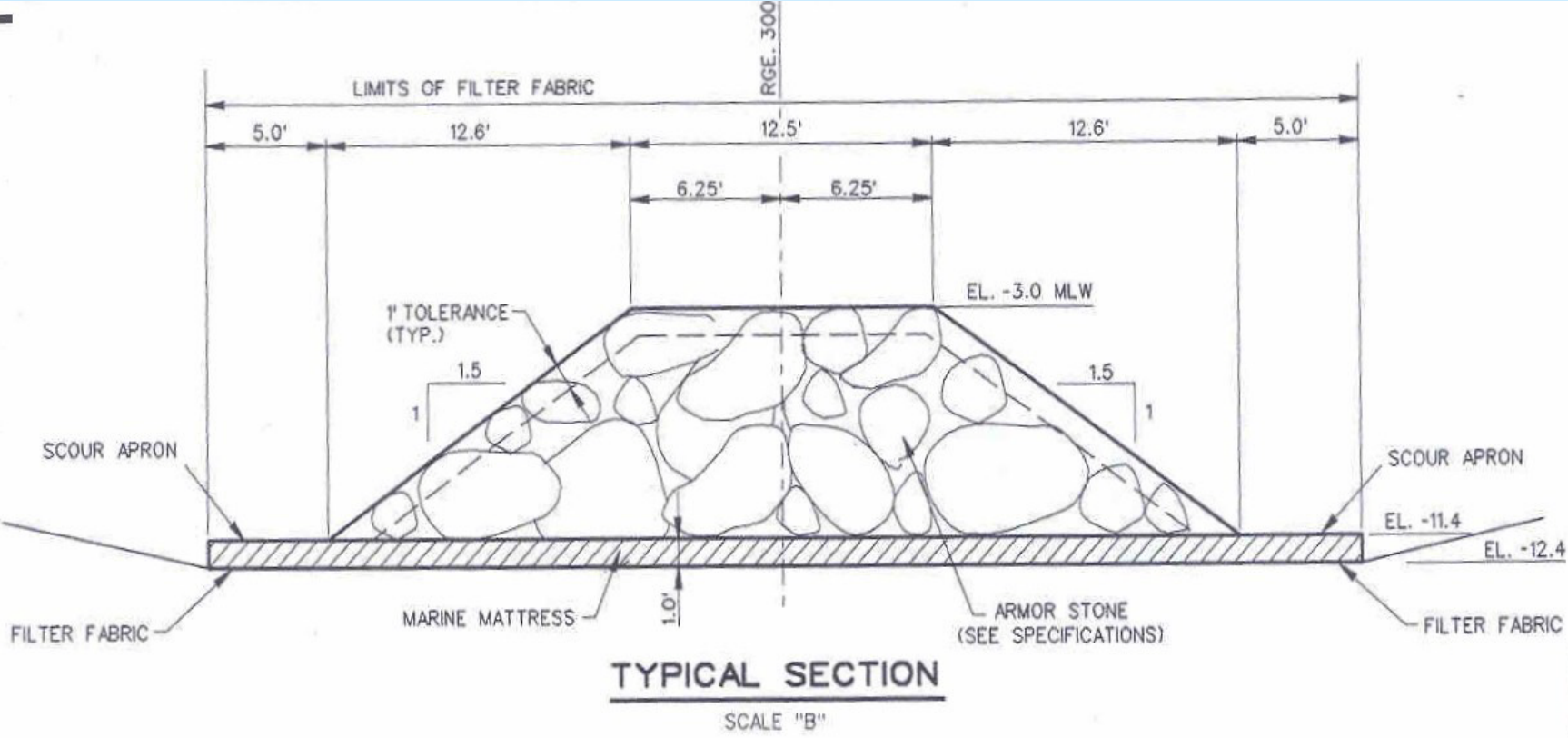
Dade County Beach Erosion Control Projects





Sunny Isles Submerged Breakwaters

Sunny Isles Breakwaters





32nd Street Headland Breakwaters

32nd Street
Breakwaters



**32nd Street
Headland
Breakwaters**

Miami Beach, FL



2002 6 20





Historic
Change in
Hot Spot
Centroid
over Time

1935-36 USCGSmhw

1942-47 USCGSmhw

1919 USCGSmhw

63rd St.
Hot Spot

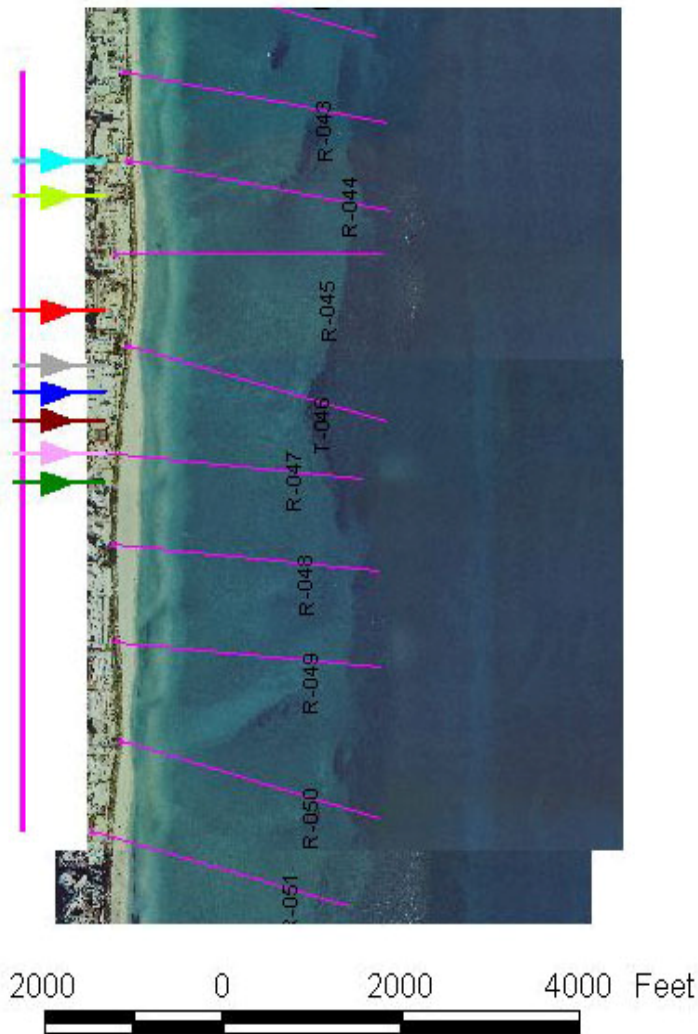
1867 USCGSmhw

1969 USGSmhw

1961-62 USGSmhw

1927-28 USCGSmhw

1971-75 NOSmhw



Miami
Beach,
FL

Typical Reef Balls

S
E
C
T
I
O
N

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Maiden Island,
Antigua



Concrete Articulated Mat

S
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C
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N

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Pouring a Reefball

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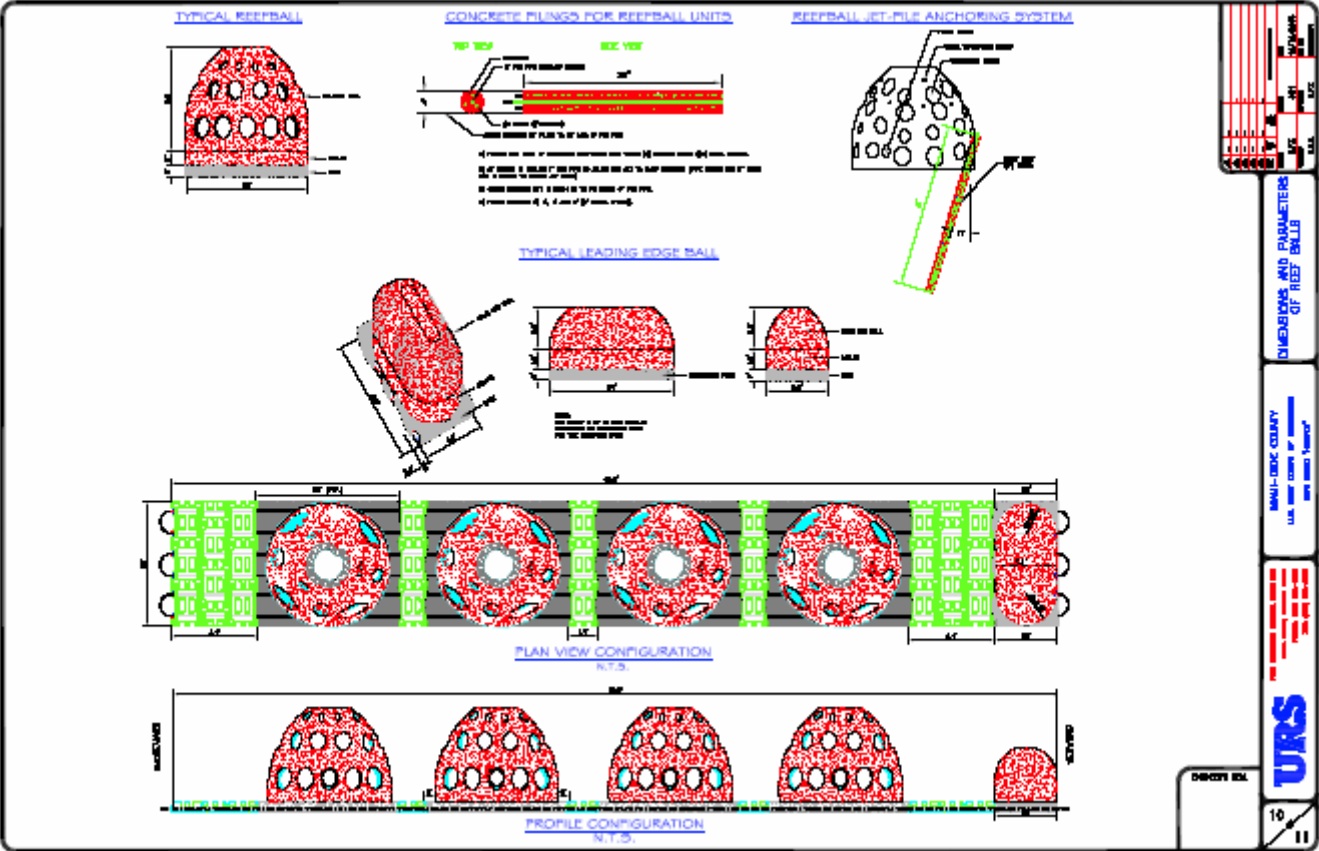
Wave Energy Dissipation Study

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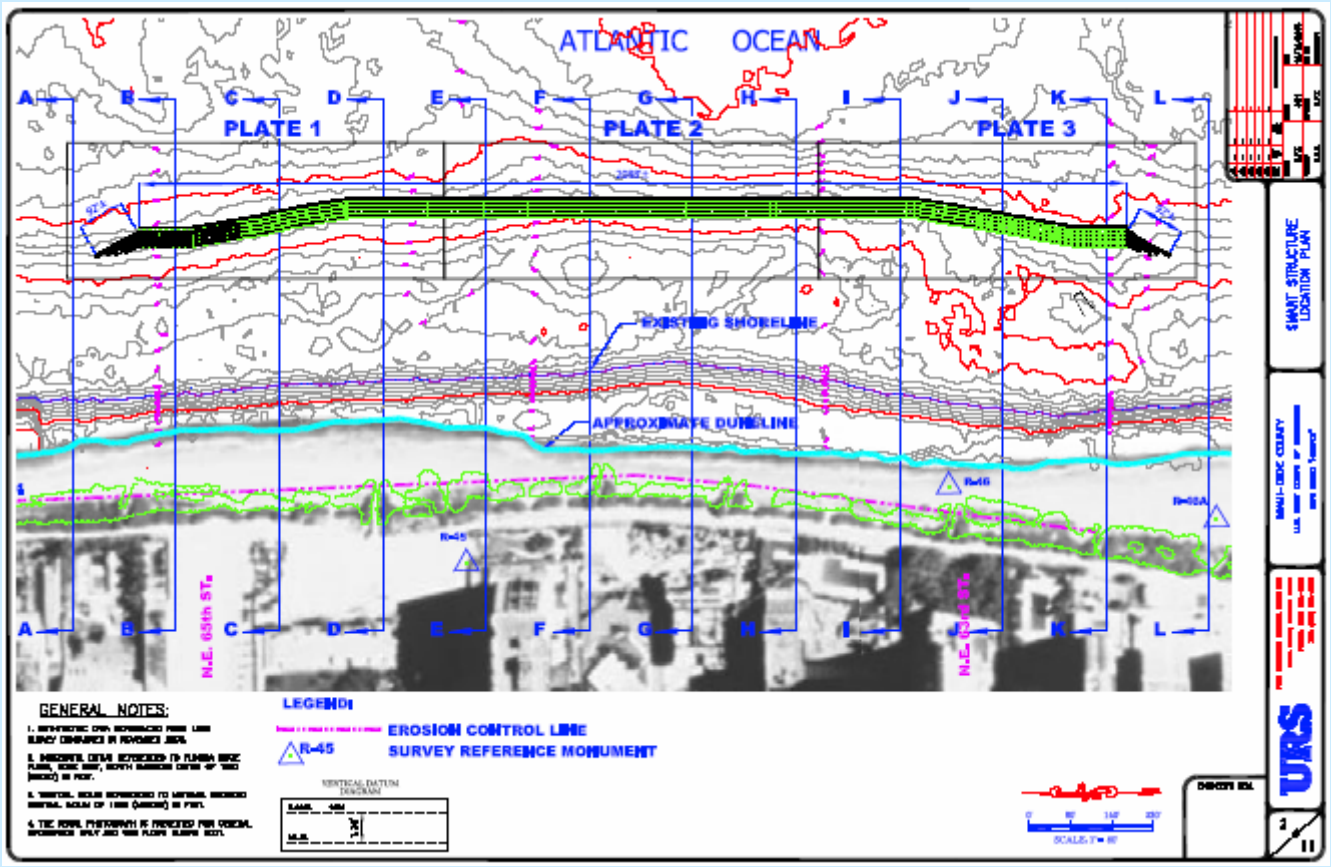


Physical Model Study



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Advantages of a ReefBall Reef

- Stabilize the Beach!
- Provide excellent aquatic habitat
- Provide a rich and scenic snorkeling area
- Develop design guidance for Reefballs



Areas of Applicability

- Almost any wave environment
- Fresh- or saltwater
- Areas with shallow nearshore shelf
- Areas not subject to icing and ice floes



STATUS

(Major Milestones)

- Contract Awarded: April 2003
- Design Completion: December 2003
- Environmental/NEPA Coordination: Aug 2004
- Technical Review: August/September 2004
- Construction Complete: August 2005

