



# **ADVANCES IN NATURE BASED STABILIZATION FOR COASTAL SAND DUNES EXPOSED TO OPEN OCEAN CONDITIONS**

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# **PROJECT 1: WILKINSON REINFORCED DUNE**

**CONSTRUCTED IN 2024**

**OPEN OCEAN CONDITIONS  
250+ MILE FETCH NORTHEAST TO NOVA  
SCOTIA, 3,000+ MILE FETCH EAST TO  
AFRICA**

**FEMA VELOCITY ZONE ELEVATION 15**

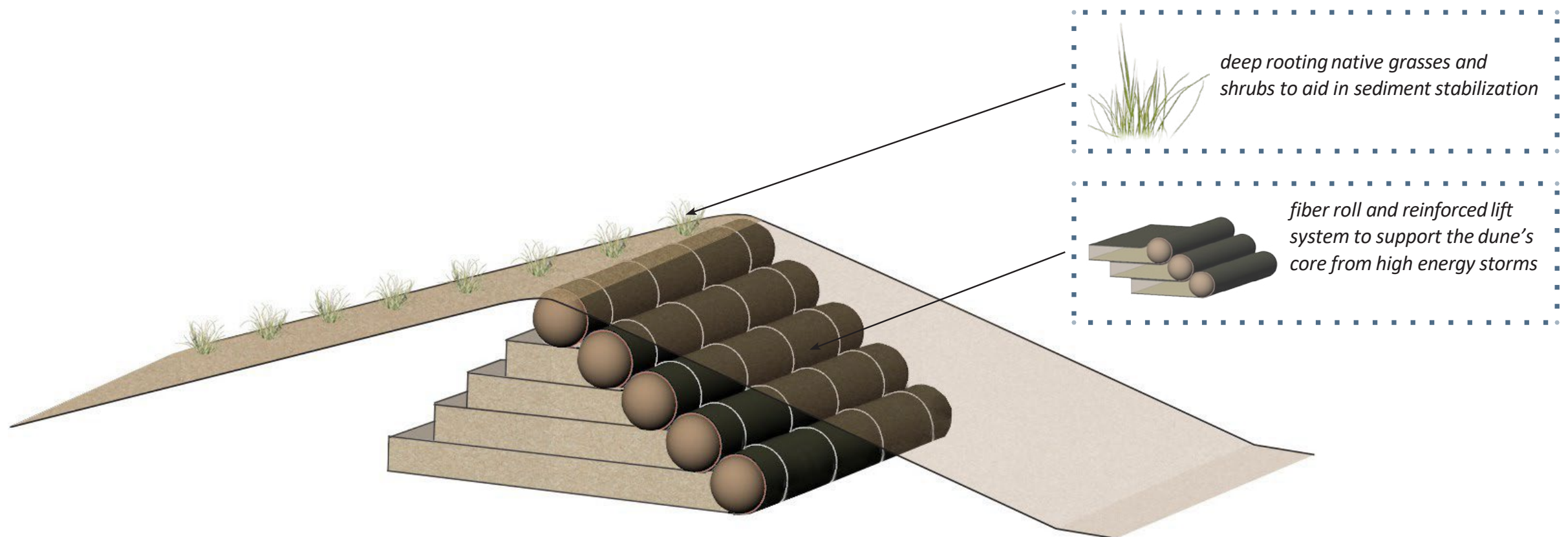
PLEASE NOTE: THIS PROJECT CONTAINS PATENTED TECHNOLOGY.  
INSTALLATION REQUIRES A LICENSE FROM WILKINSON ECOLOGICAL DESIGN.



# DUNE RESTORATION

*in progress*

THIS AREA OF SHORELINE IS BEING RESTORED USING NATURE-BASED SOLUTIONS TO COMBAT STORM SURGE AND SEA LEVEL RISE IMPACTING MAINE'S COASTLINE



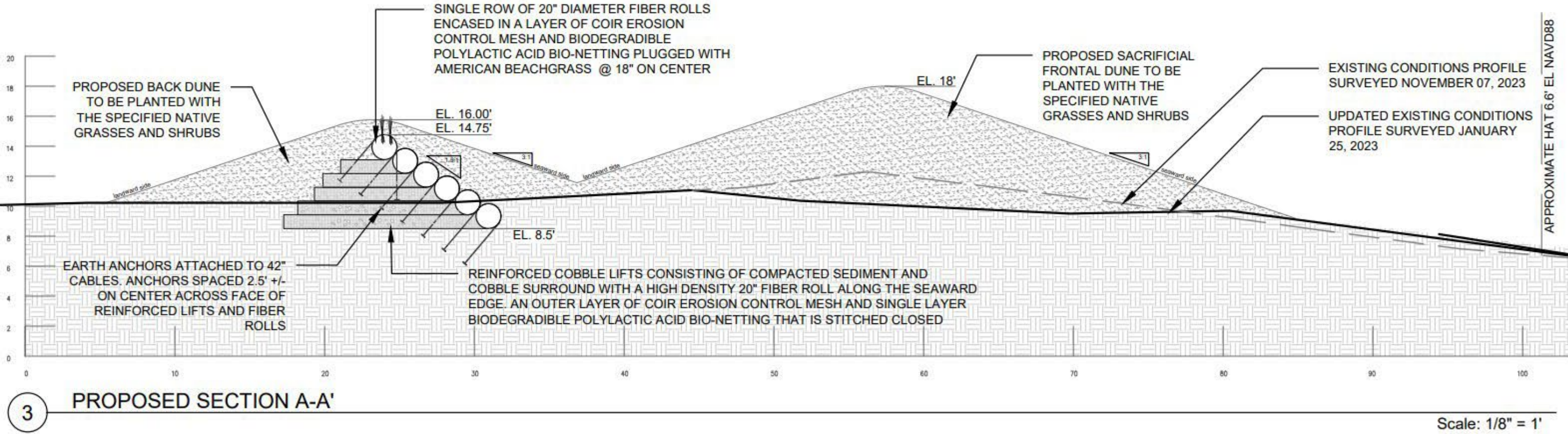
The dune's core contains a reinforced lift and fiber roll system that will help combat wave energy reducing the impacts of erosion during high energy storms. The system is anchored in place, covered by compatible sediment, and planted with a variety of native deep rooting grasses and shrubs to help stabilize the sediment.

*a collaboration by*





1 DETAILS - WILKINSON REINFORCED DUNE  
- Cross Section



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# ① EXISTING CONDITIONS - WILKINSON REINFORCED DUNE





# ① EXISTING CONDITIONS - WILKINSON REINFORCED DUNE – Winter





# ① CONSTRUCTION - WILKINSON REINFORCED DUNE





# ① CONSTRUCTION - WILKINSON REINFORCED DUNE – Earth Work





# ① CONSTRUCTION - WILKINSON REINFORCED DUNE





# ① COMPLETED - WILKINSON REINFORCED DUNE





# ① COMPLETED - WILKINSON REINFORCED DUNE – Vegetation Plantings







# **PROJECT 2: WILKINSON REINFORCED DUNE**

**CONSTRUCTED IN 2025**

**3,000+ MILE FETCH**

**FEMA VELOCITY ZONE ELEVATION 12**

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# ① CONSTRUCTION - WILKINSON REINFORCED DUNE – Fencing



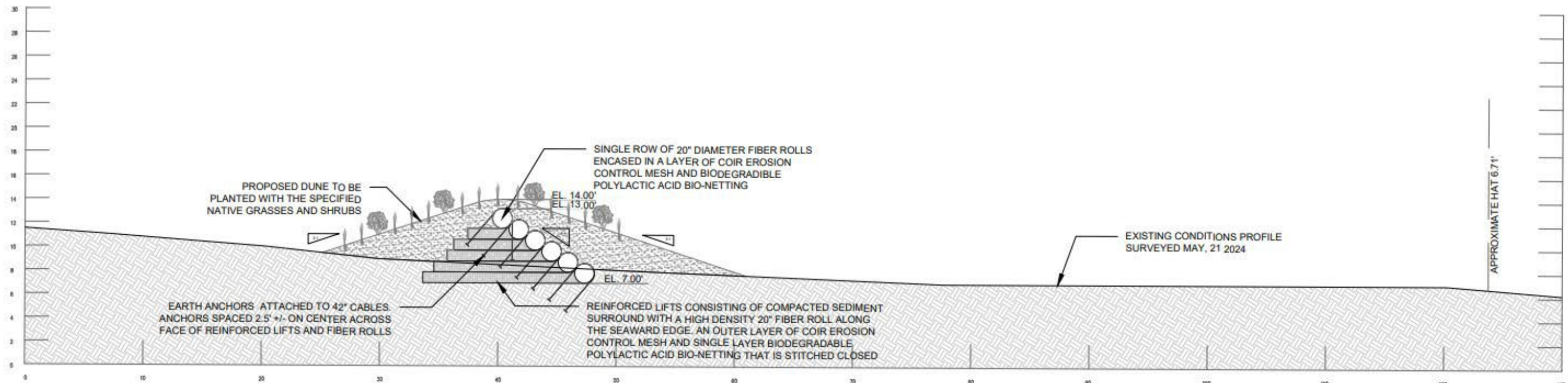


# ① EXISTING CONDITIONS - WILKINSON REINFORCED DUNE – Excavator in Action





① EXISTING CONDITIONS - WILKINSON REINFORCED DUNE – Theory to Practice



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