SOUTHERN CONNECTICUT

REGIONAL FRAMEWORK *for* COASTAL RESILIENCE

Community Resilience Building Design Portfolio
Edges and Slopes

JUNE 2017

METROCOG
Connecticut Metropolitan Council of Governments

SCRCOG
SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

The Nature Conservancy

ACKNOWLEDGEMENTS:

The Core Team – South Central Regional Council of Governments, The Nature Conservancy, and the Connecticut Metropolitan Council of Governments - sincerely thanks those individuals and organizations that contributed to the success of the Southern Connecticut Regional Framework for Coastal Resilience. Central to the completion of this Community Resilience Building Design Portfolio was the leadership and staff from the ten municipalities (Fairfield, Bridgeport, Stratford, Milford, West Haven, New Haven, East Haven, Branford, Guilford, and Madison). In addition, we would like to recognize the design prowess on display herein of Milone & MacBroom, GEI Consultants, and Yale University's School of Architecture and Urban Ecology and Design Lab.

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TABLE OF CONTENTS

INTRODUCTION - i

ICON GUIDE - 1

DUNE RESTORATION – ENHANCEMENT • [Natural] - 2

DUNE RESTORATION – ENHANCEMENT • [Urban – Flexible] - 3

DUNE RESTORATION – ENHANCEMENT • [Urban – Fixed] - 4

DUNE RESTORATION – ENHANCEMENT • [Urban – Fixed] - 5

URBAN STREAM RESTORATION • [Daylighting] - 6

URBAN STREAM RESTORATION • [Floodplain Expansion] - 7

RESILIENT LIVING EDGE • [Natural] - 8

RESILIENT LIVING EDGE • [Urban – Flexible] - 9

RESILIENT LIVING EDGE • [Natural – Hybrid] - 10

RESILIENT LIVING EDGE • [Suburban – Hybrid] - 11

SLOPE ENHANCEMENT • [Natural] - 12

SLOPE ENHANCEMENT • [Urban – Fixed] - 13

UNIMPROVED SPACE • [Urban – Flexible] - 14

PHOTO CREDIT: Susan Rubinsky

INTRODUCTION:

The Southern Connecticut Regional Framework for Coastal Resilience, encompassing ten municipalities, was conceived and launched to stimulate community engagement, proactive risk assessment, and conceptual designs in hopes of minimizing the consequences of extreme weather and climate change while strengthening existing and future ecosystems. The principal guiding question used to foster this Regional Resilience Framework for the ten municipalities served - Fairfield, Bridgeport, Stratford, Milford, West Haven, New Haven, East Haven, Branford, Guilford, and Madison – was: “how do we create collaborative actions across and between municipalities to ensure a regional integration of resilience via strong and growing partnerships”. This guiding question was advanced through a carefully devised fluid, yet functional, project team structure that integrated representation from all ten municipalities alongside a diverse array of community and regional-based stakeholders. This Regional Resilience Framework comprehensively catalogued resilience-related projects, facilitated community workshops and site visits, developed geospatial databases and applications, and created conceptual designs for high priority projects. Many of those projects are presented herein. This collective endeavor represents the first time a Regional Resilience Framework process and approach has been conceived and advanced in the state of Connecticut.

Across the conceptual designs presented herein are a few common “gradients of concern” as informed by the challenges of extreme weather and climate change and the promise of resilient solutions in vulnerable locations. The first “resilient gradient” common to most stretches of coastline around the world is urban, suburban, and rural development. The designs selected reflect development challenges in urban centers like Bridgeport and New Haven as well as less developed coastlines from suburban (West Haven, East Haven, Fairfield, Stratford, Milford) to more rural (Branford, Guilford, Madison). A second resilient gradient reflected in these designs is the transition from coastal areas to inland locations up into the watersheds – salt to fresh water flooding challenges. A third resilient gradient presented is one of socio-economic advantages and disadvantages or the immediate context amongst the neighborhood and community being served by the design. This recognition of these very real gradients - urban to rural, coastal to inland, wealth disparity - is fundamental to designing projects that truly enhance resilience in a diversity of forms. Visible throughout this portfolio is an additional adherence to a “resilient triple bottom line” where each project strives to reduce risk from hazards, enhance the amenity or quality of life for the residents, and increase the ecological viability and function.

Presented here are a sequential array of designs that highlight alternative conceptuals to help achieve resilience across coastal dunes, urban streams, lower energy coastlines, and urban embankments – categorized simply as Edges and Slopes. The hope is that this material will inspire “net positive” projects that truly foster collaborative and creative approaches to community resilience building.

Additional Resources

Additional resources about this project can be found at:

- http://www.ctmetro.org/coastal-resilience
- http://scrcog.org/regional-planning/coastal-resilience

ICON GUIDE

DUNE RESTORATION – ENHANCEMENT

Naturally or maintained dune systems with unrestricted to limited space for expansion horizontally, laterally, and vertically.

URBAN STREAM RESTORATION

Excavate and/or restore tidal and freshwater wetlands as well as install green infrastructure to capture adjoining stormwater runoff.

RESILIENT LIVING EDGE

Installation of break water and sill to reduce wave energy, enhance accretion, and stimulate expansion of tidal wetlands.

SLOPE ENHANCEMENT

Contouring and installation of sill, vegetation, and green infrastructure features to stabilize slope and protect adjoining resources.

UNIMPROVED SPACE

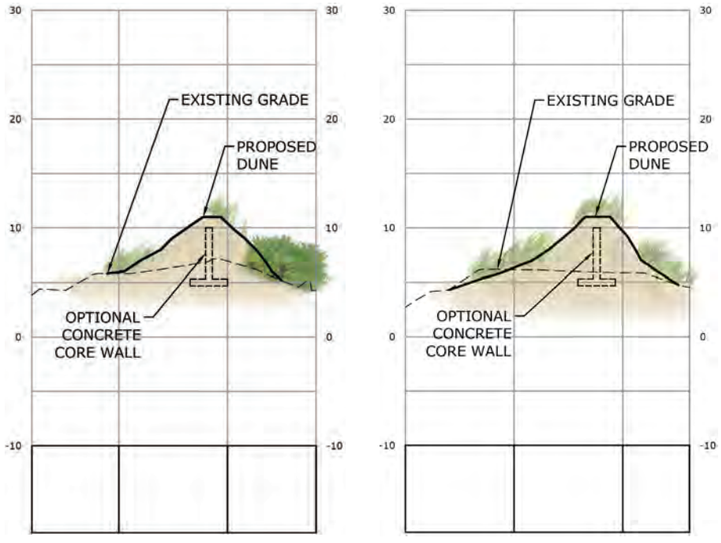
Multi-function revitalization as public amenity and flood protection for adjoining critical facilities.

DUNE RESTORATION – ENHANCEMENT • [Natural]

Naturally occurring dune system
with unrestricted space for expansion horizontally, laterally, and vertically.

DESIGN ELEMENTS

- THIS SEGMENT OF COASTLINE A PUBLIC BEACH
- DUNES AND PATCHES OF VEGETATION ARE STILL PRESENT, BUT NOT CONTINUOUS
- THE MUNICIPALITY CONSIDERS THIS IS A PRIORITY AREA FOR FLOOD PROTECTION
- THE FEMA BASE FLOOD ELEVATION IS 14 (VE ZONE)
- THE CALCULATED STORM LEVELS ARE 9.4 TO 10.5 FEET IN THE 50 TO 100-YEAR RI RANGE
- RESTORATION OF A DUNE RIDGE AT ELEVATION 11 FEET WOULD PROVIDE INCREASED PROTECTION AND ALLOW FOR INCREASED DENSITY AND TYPES OF VEGETATION
- THE BEACH WIDTH LIKELY DOES NOT NEED TO BE INCREASED TO ACCOMMODATE THE RESTORATION
- MINIMAL BUILT STRUCTURES PROXIMITE TO DESIGN SITE



MILONE & MACBROOM

GEI Consultants

EXISTING

PROPOSED

MADISON, CONNECTICUT

DUNE RESTORATION – ENHANCEMENT • [Urban – Flexible]

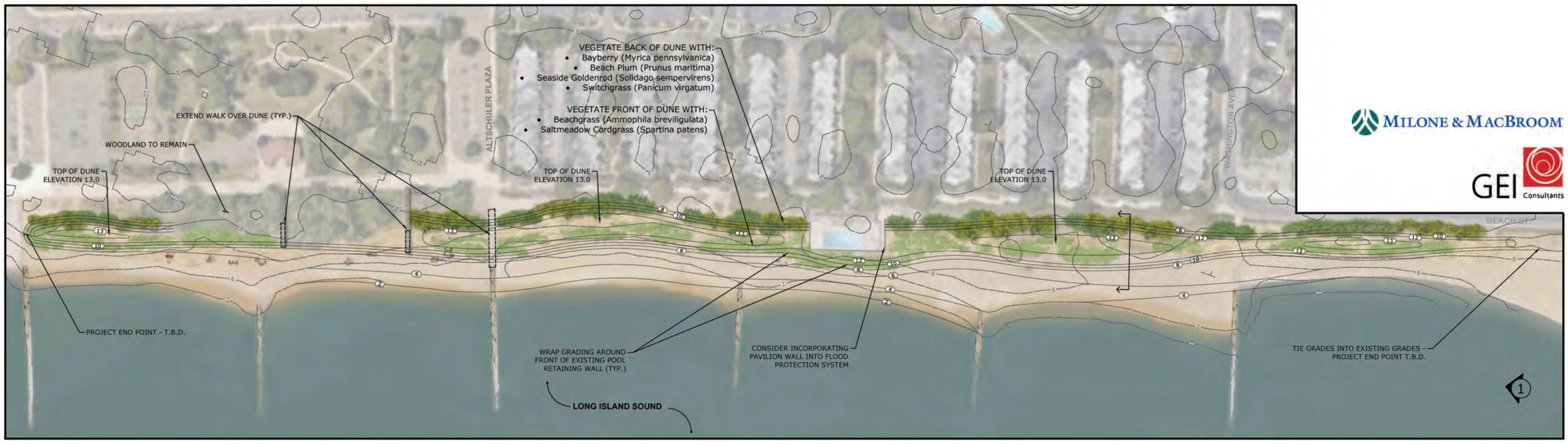
Managed dune system with relatively restricted ability to expand laterally and horizontally.
Opportunities for vertical movement and adjoining beach nourishment.

EXISTING

PROPOSED

DESIGN ELEMENTS

- THIS SEGMENT OF COASTLINE IS AN EXEMPLERY EXAMPLE OF COASTAL PUBLIC ACCESS
- LOW PROFILE DUNES AND PATCHES OF VEGETATION ARE FOUND AMONG WIDE SANDY EXPANSES
- THE MUNICIPALITY CONSIDERS THIS IS A PRIORITY AREA FOR FLOOD PROTECTION
- THE FEMA BASE FLOOD ELEVATION IS 12 (VE ZONE)
- THE CALCULATED STORM LEVELS ARE 10.3 TO 11.4 FEET IN THE 50 TO 100-YEAR RI RANGE
- CREATION OF A DUNE RIDGE AT ELEVATION 13 FEET WOULD PROVIDE INCREASED PROTECTION
- A DUNE RIDGE WOULD INCREASE THE DENSITY AND TYPES OF VEGETATION AT THIS BEACH
- THE BEACH WIDTH MUST BE INCREASED IN SOME PLACES TO ACCOMMODATE THE DUNE RIDGE
- WITH SEA LEVEL RISE OF ONE FOOT, THE DUNE RIDGE SHOULD STILL PROVIDE SIGNIFICANT PROTECTION
- RESIDENTIAL DEVELOPMENT AND PAVED PUBLIC PROMINADE IMMEDIATELY ADJACENT



MILONE & MACBROOM

GEI Consultants

WEST HAVEN, CONNECTICUT

DUNE RESTORATION – ENHANCEMENT • [Urban – Fixed]

Managed dune system with restricted ability to expand horizontally due to built environment.
Opportunities for lateral and vertical movement.

DESIGN ELEMENTS

- COASTLINE SEGMENT COMBINATION OF RESIDENTAL, ROADS, AND PUBLIC BEACH
- LOW PROFILE DUNES AND PATCHES OF VEGETATION ARE FOUND AMONG WIDE SANDY EXPANSES
- HEAVILY USED THROUGHOUT THREE SEASONS AS PRINCIPAL PUBLIC AMMENITY IN MUNICIPALITY
- FOCUS ON AUGMENTING BEACH PROFILE AND CREATING DUNE RIDGE TO INCREASE PROTECTION OF ADJOINING ROAD AND RESIDENTIAL
- RAISING OF ROAD AND SUPPORTING WALL TO MINIMIZE EXTREME WEATHER FLOODING AND INUNDATION FROM SEA LEVEL RISE
- ROAD AND SUPPORTING WALL DESIGNED TO WORK IN ALIGNMENT WITH DUNE RESTORATION AS INTEGRATED RISK MANAGEMENT FOR THE MUNICIPALITY

PROPOSED

EXISTING

Yale LEDLAB

EAST HAVEN, CONNECTICUT

DUNE RESTORATION – ENHANCEMENT • [Urban – Fixed]

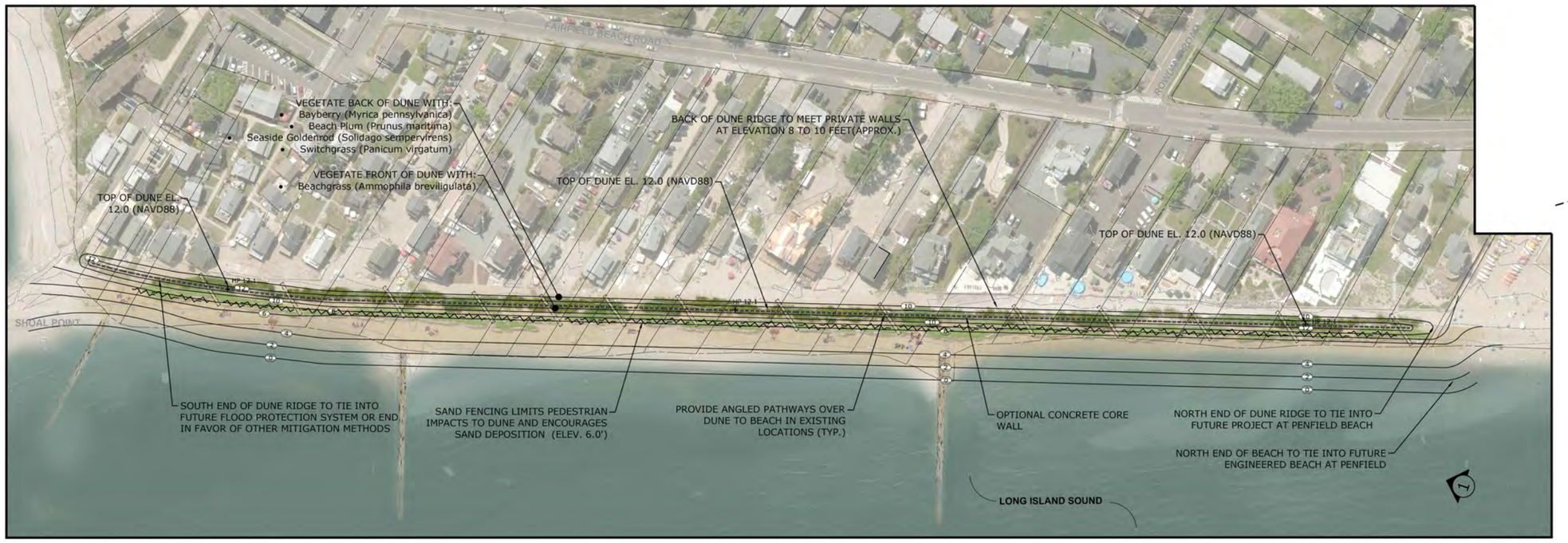
Managed dune system with restricted ability to expand horizontally, laterally, and vertically.

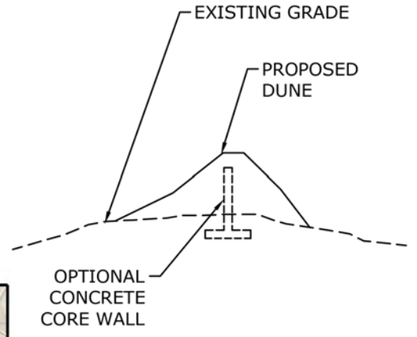
EXISTING

PROPOSED

DESIGN ELEMENTS

- THIS SEGMENT OF COASTLINE IS A PATHWAY FOR STORM SURGES TO REACH THE COASTAL FLOODPLAIN
- THE LOCAL FLOOD AND EROSION CONTROL BOARD CONSIDERS THIS IS A PRIORITY AREA FOR MITIGATION
- PRIVATE SEAWALLS ARE AT ELEVATION 8 TO 10 FEET
- THE FEMA BASE FLOOD ELEVATION IS 13 (VE ZONE)
- THE CALCULATED STORM LEVELS ARE 10.5 TO 11.5 FEET IN THE 50 TO 100-YEAR RI RANGE
- CREATION OF A DUNE RIDGE AT ELEVATION 12 FEET WOULD PROVIDE INCREASED PROTECTION
- THE ELEVATION 12 FEET IS SUFFICIENTLY LOW TO AVOID OBSTRUCTING VIEWS FOR ADJOINING RESIDENTAL PROPERTIES
- A DUNE RIDGE WOULD INTRODUCE VEGETATION TO THIS BEACH
- DIAGONAL PUBLIC ACCCESS PATHS WOULD INCREASE VEGETATIVE COVER OVER TIME
- THE BEACH WIDTH MUST BE INCREASED TO ACCOMMODATE THE DUNE RIDGE
- WITH SEA LEVEL RISE OF ONE FOOT, THE DUNE RIDGE SHOULD STILL PROVIDE SIGNIFICANT PROTECTION
- OPTIONAL CONCRETE CORE WALL WOULD HELP STABLIZE DUNE PROFILE
- RESIDENTIAL DEVELOPMENT IMMEDIATELY ADJACENT WITH ONGOING NEED FOR PUBLIC ACCESS





MILONE & MACBROOM

GEI Consultants

FAIRFIELD, CONNECTICUT

URBAN STREAM RESTORATION • [Daylighting]

Excavate and restore tidal and freshwater wetlands
as well as install green infrastructure to capture adjoining stormwater runoff.

DESIGN ELEMENTS

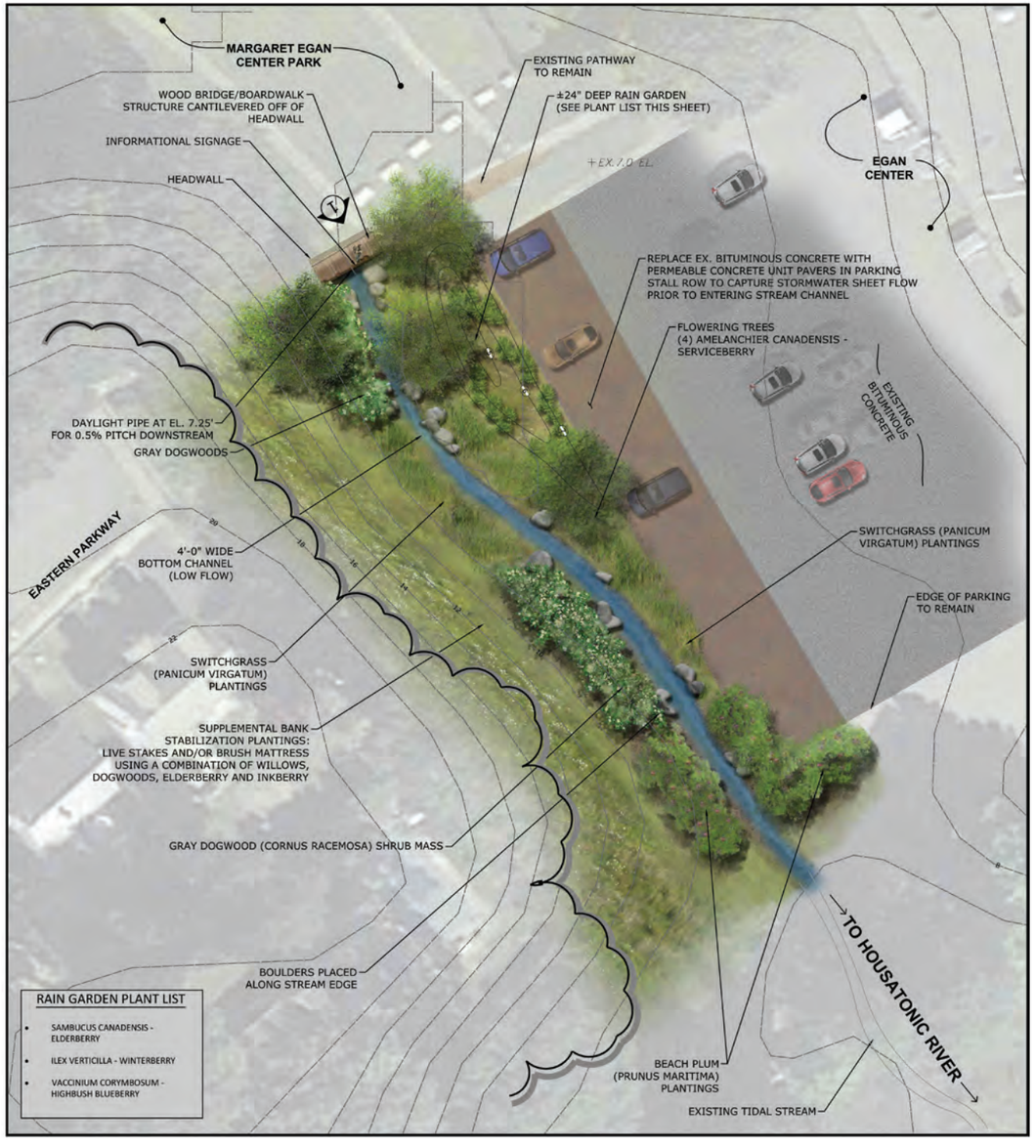
- THE PROXIMATE FACILITY IS AN IMPORTANT COMMUNITY ASSET
- A SMALL TIDAL CREEK WAS LONG AGO PLACED IN A CULVERT BENEATH THE SITE
- DAYLIGHTING THE STREAM WOULD PROVIDE OPPORTUNITIES TO RESTORE TIDAL AND NON-TIDAL WETLAND VEGETATION
- A RAIN GARDEN MAY BE INCORPORATED INTO THE PROJECT TO FILTER STORMWATER FROM THE COMMUNITY CENTER PARKING AREA
- AS SEA LEVELS RISE, TIDAL CONDITIONS WILL MIGRATE UPSTREAM FROM THE ADJACENT MARSH INTO THE DAYLIGHTED PART OF THE STREAM
- TIDAL WETLANDS COULD ADVANCE INTO THE STREAMBANK AREAS -THIS IS NOT POSSIBLE UNDER CURRENT CONDITIONS
- PARKING LOT IMMEDIATELY ADJACENT WITH MUNICIPAL BRIDGE IMMEDIATELY DOWNSTREAM

EXISTING

PROPOSED

MILONE & MACBROOM

GEI Consultants



MILFORD, CONNECTICUT

URBAN STREAM RESTORATION • [Floodplain Expansion]

Reconfigure built environment for expanded floodplain with increased storage and public access.

EXISTING

PROPOSED

DESIGN ELEMENTS

- THE PROXIMATE FACILITY IS AN IMPORTANT COMMUNITY ASSET
- A SMALL TIDAL CREEK WAS LONG AGO PLACED IN A CULVERT BENEATH THE SITE
- DAYLIGHTING THE STREAM WOULD PROVIDE OPPORTUNITIES TO RESTORE TIDAL AND NON-TIDAL WETLAND VEGETATION
- A RAIN GARDEN MAY BE INCORPORATED INTO THE PROJECT TO FILTER STORMWATER FROM THE COMMUNITY CENTER PARKING AREA
- AS SEA LEVELS RISE, TIDAL CONDITIONS WILL MIGRATE UPSTREAM FROM THE ADJACENT MARSH INTO THE DAYLIGHTED PART OF THE STREAM
- TIDAL WETLANDS COULD ADVANCE INTO THE STREAMBANK AREAS -THIS IS NOT POSSIBLE UNDER CURRENT CONDITIONS
- PARKING LOT IMMEDIATELY ADJACENT WITH MUNICIPAL BRIDGE IMMEDIATELY DOWNSTREAM

Yale URBAN DESIGN LAB

WEST HAVEN, CONNECTICUT

RESILIENT LIVING EDGE • [Natural]

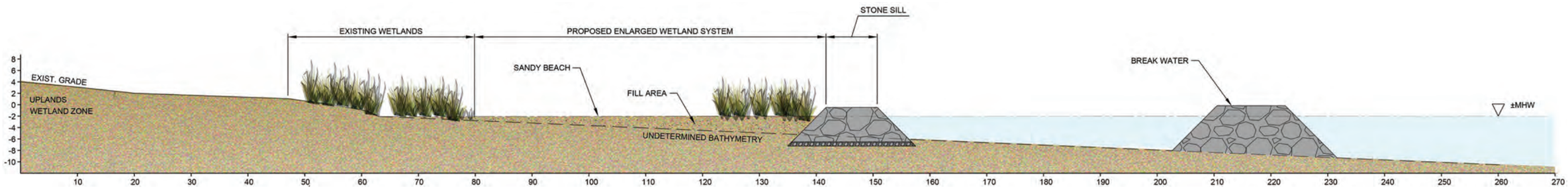
Installation of break water and sill to reduce wave energy, enhance accretion, and stimulate expansion of tidal wetlands.

LEGEND:

- PROVIDE INITIAL SAND FILL
- WETLAND VE SHRUBS

DESIGN ELEMENTS

- NATURAL COASTLINE WITH ONGOING EROSION WITH MOVEMENT OF MATERIALS INLAND
- FOCUS ON INSTALLING SERIES OF NEARSHORE BREAKWATERS AND ONSHORE SILLS TO STIMULATE ESTABLISHMENT OF TIDAL WETLANDS AND STRENGTHEN COASTLINE
- DESIGN PROVIDES INCREASED STABILITY AND DECREASED EROSION TO COASTLINE SEGMENT, INCREASES ECOLOGICAL FUNCTION OF IMPORTANT ESTUARY, SECURES PUBLIC ACCESS, AND PROTECTION OF ADJOINING RECREATIONAL FIELDS



MILONE & MACBROOM

GEI Consultants

GUILFORD, CONNECTICUT

RESILIENT LIVING EDGE • [Urban – Flexible]

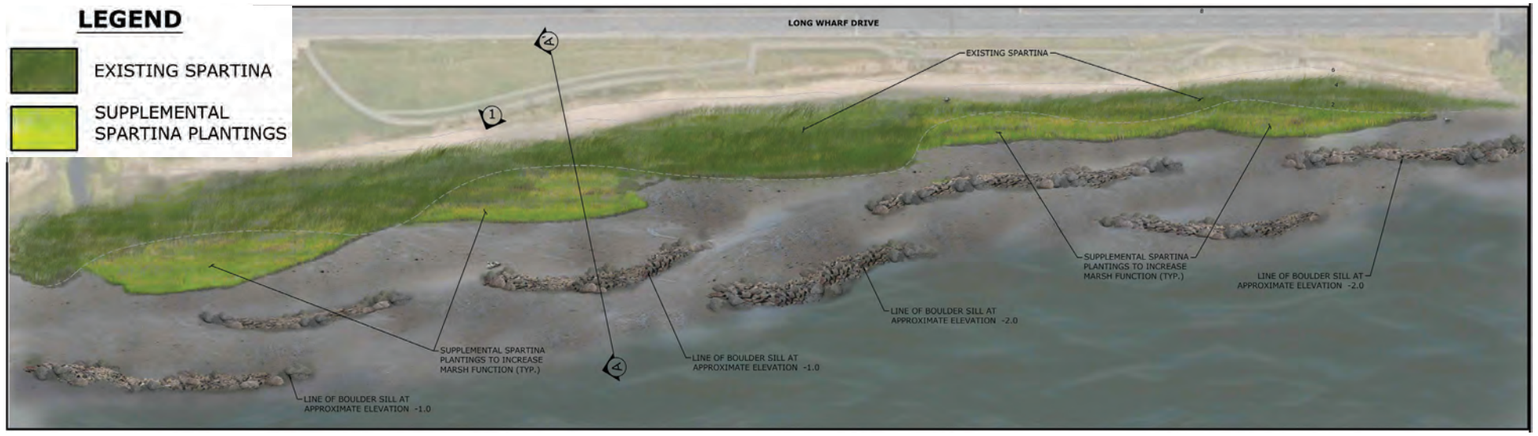
Installation of sill and artificial structures to stabilize shoreline, reduce erosion, enhance public access, and protect built environment.

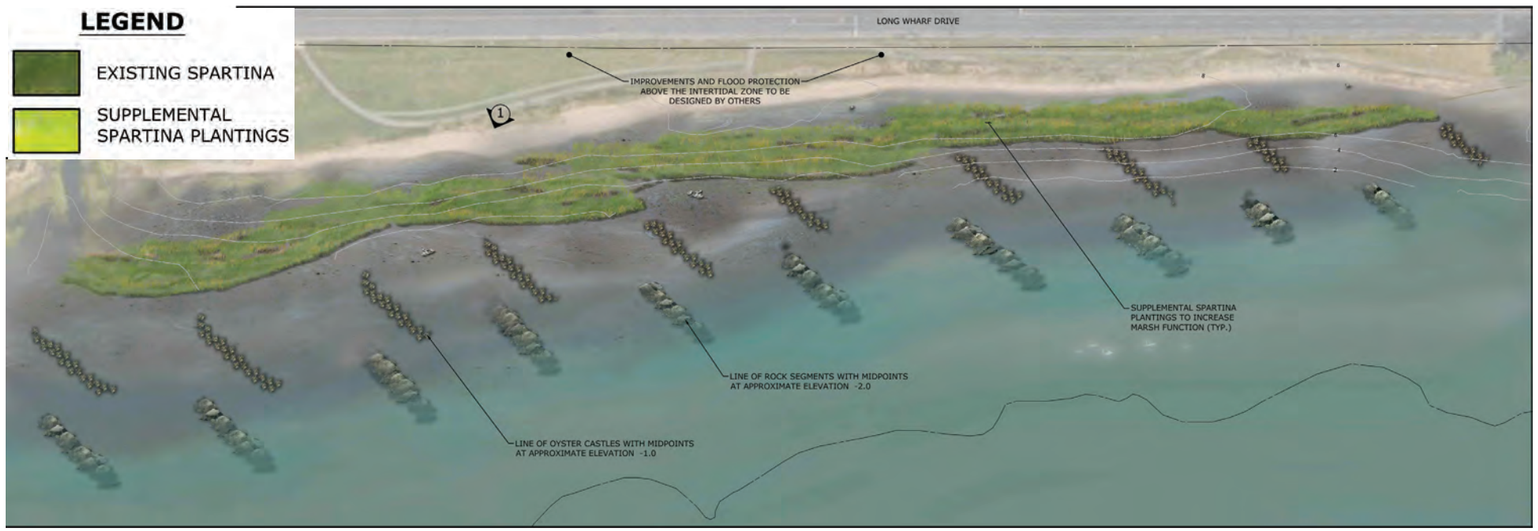
DESIGN ELEMENTS

- SIGNIFICANT EROSION OF THE PARK EDGE HAS OCCURRED IN THE LAST FEW YEARS
- OPPORTUNITY FOR PROJECT IN THE INTERTIDAL ZONE TO RETAIN SEDIMENT AND INCREASE THE AREA OF VEGETATION VIA USE OF ROCK/BOULDER SILLS AND ARTICIFAL HABITAT STRUCTURES – OYSTER CASTLES
- OYSTER CASTLES SET WITH BASES ABOVE THE MLW (-3.3 FEET) AT ELEVATIONS -1.0 FEET
- ROCK SEGMENTS SET WITH BASES ABOVE THE MLW (-3.3 FEET) AT ELEVATIONS -2.0 FEET
- WITH SEA LEVEL RISE OF 1-2 FEET, THE BOULDER SILLS SHOULD REMAIN EFFECTIVE
- LINEAR PUBLIC PARK WITH HIGH LEVEL OF PUBLIC ACCESS ADJOINING A CRITICAL TRANSPORTATION CORRIDOR

MILONE & MACBROOM

GEI Consultants





EXISTING

PROPOSED

PROPOSED

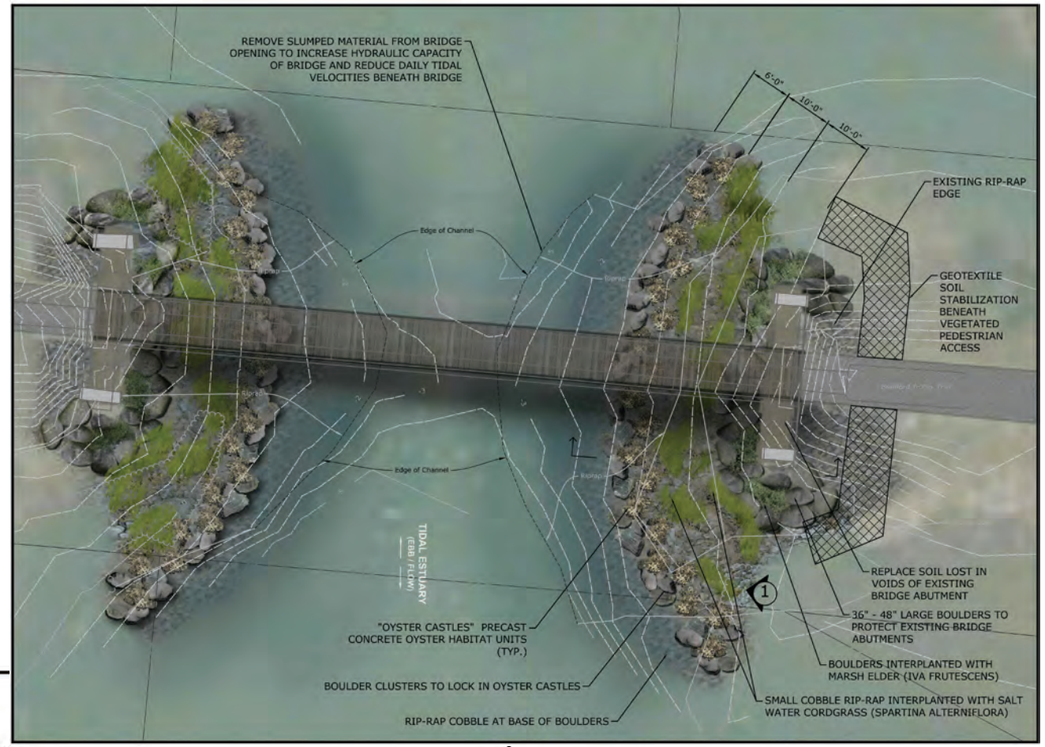
NEW HAVEN, CONNECTICUT

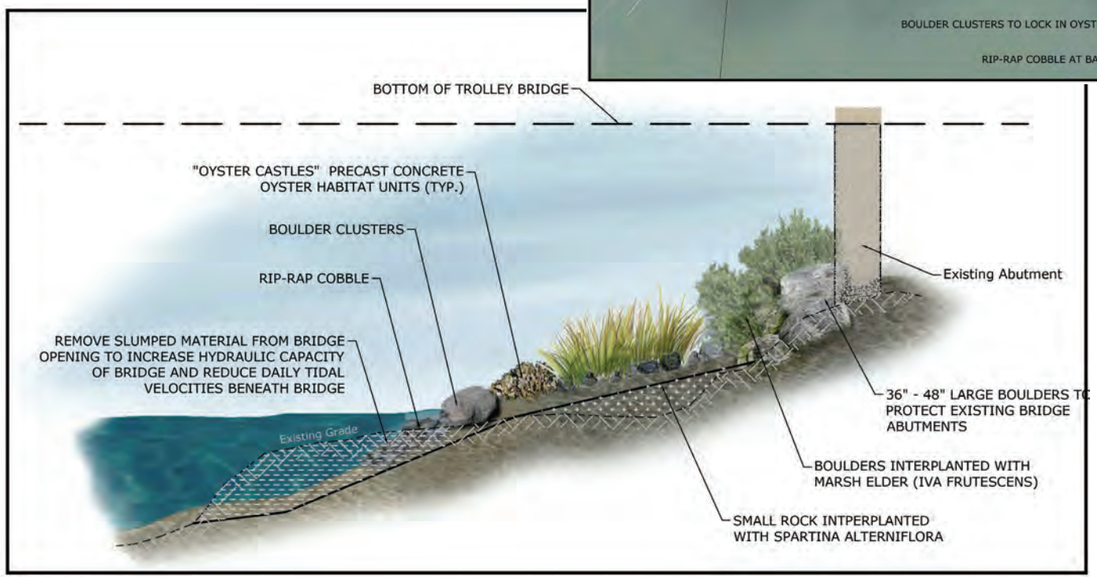
RESILIENT LIVING EDGE • [Natural - Hybrid]

Reconfigure and stabilize with natural and artificial materials interplanted with native plants and shrubs.

DESIGN ELEMENTS

- OLD TROLLEY LINE TURNED PEDESTRIAN BRIDGE AND IMPORTANT COMMUNITY ASSET
- SCOUR HAS EXPOSED THE BRIDGE ABUTMENTS
- PROTECTION OF THE BRIDGE MAY BE POSSIBLE USING LIVING EDGE TECHNIQUES COMBINED WITH HARD STRUCTURES
- THE DESIGN ENVISIONS A WIDENING OF THE CHANNEL COUPLED WITH THE USES OF OYSTER CASTLES, ROCKY MATERIAL, AND GRASSES IN THE INTERTIDAL ZONE TO STABILIZE THE BANKS
- BOULDERS WOULD BE PLACED AGAINST THE ABUTMENTS
- WITH SEA LEVEL RISE OF 1-2 FEET, THE ZONATION OF THE INTERTIDAL ZONE BENEATH THE BRIDGE MAY SHIFT UPLAND
- LINEAR, HIGH USE, PUBLIC TRAIL SPANNING CRITICAL ESTUARY AND TIDAL MARSH COMPLEX





EXISTING

PROPOSED

MILONE & MACBROOM

GEI Consultants

BRANFORD, CONNECTICUT

RESILIENT LIVING EDGE • [Suburban – Hybrid]

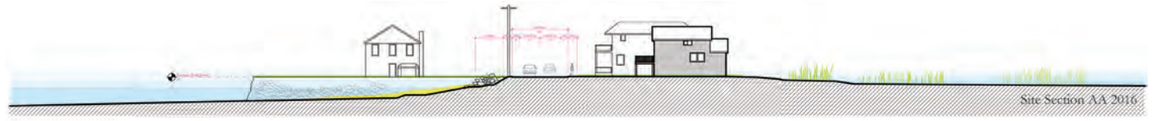
Installation of sill and vegetation with structures elevated to reduce erosion and protect built environment.

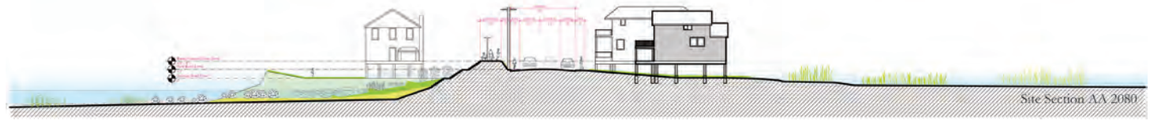
DESIGN ELEMENTS

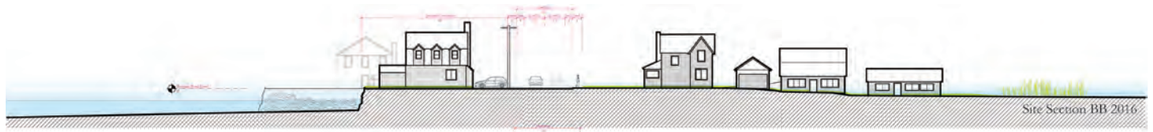
- COMPLEX COMBINATION OF RESIDENTAL, CRITICAL COASTAL ACCESS ROUTE, AND TIDAL CONNECTIONS TO UPSTREAM MARSH COMPLEX
- NATURAL COASTAL EDGE COMPROMISED OVER TIME DUE TO DEVELOPMENT, INCREASE WAVE ENERGY, AND SEA LEVEL RISE
- FOCUS ON ESTABLISHING STORM SURGE PROTECTION FOR RESIDENTIAL AND TRANSPORTATION ROUTE COUPLE WITH STABLIZED TIDAL CHANNEL UNDER ROAD
- INSTALLATION OF BREAKWATER/SILL AUGMENTED WITH TIDAL MARSH PLANTINGS
- STONE REVETMENT ADDED ALONG RAISED SECTION OF ROAD IN AREAS VULNERABLE TO SCOUR
- RAISING OF ROAD, PROTECTIVE WALL, AND RESIDENTIAL TO MINIMIZE IMPACT LONG TERM
- WATERSHED SCALE MANAGEMENT ZONES TO PROMOTE LAND USE PRACTICES FAVORABLE TO MARSH COMPLEX AND ESTUARY
- DESIGN PROVIDES RESILIENT ROADWAY CORRIDOR PROTOTYPE ALLOWING FOR PEDESTRIAN USE, HYDROLOGICAL CONNECTIVITY, AND ACCOMODATION OF FUTURE FLOODING

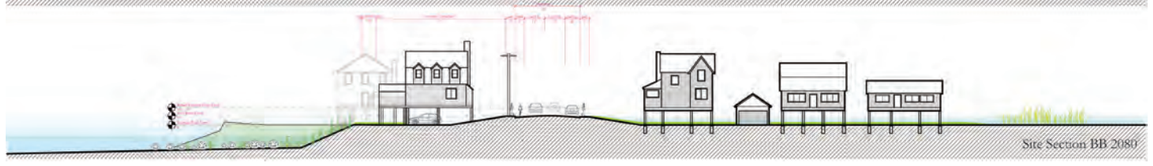
EXISTING

PROPOSED









EXISTING

PROPOSED

Yale LEDLAB

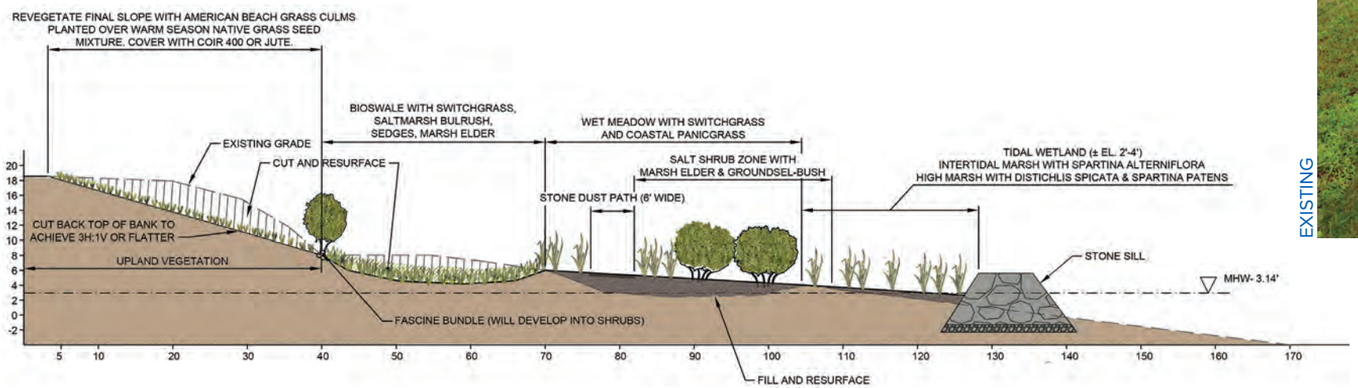
BRANFORD, CONNECTICUT

SLOPE ENHANCEMENT • [Natural]

Installation of sill, vegetation, and green infrastructure features
to stabilize slope and protect adjoining resources.

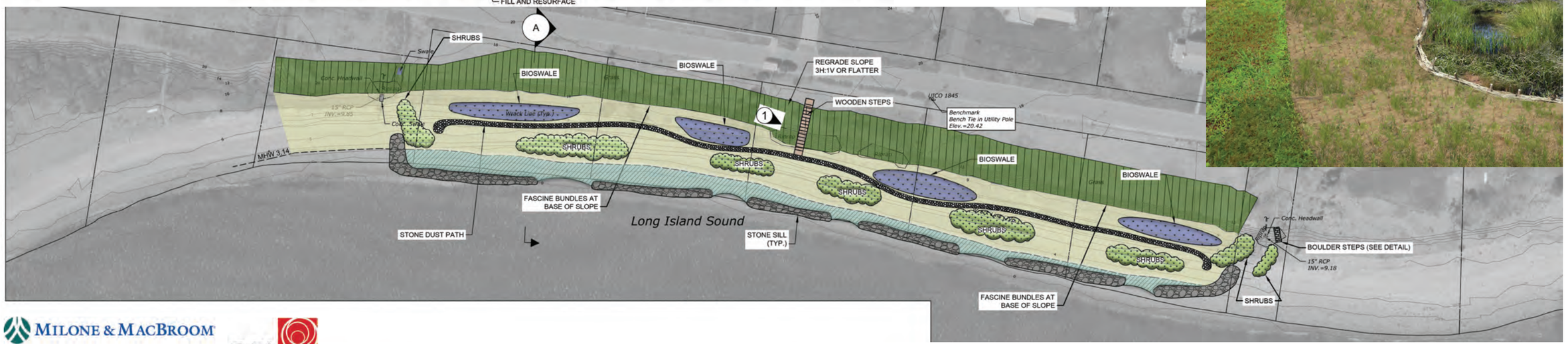
DESIGN ELEMENTS

- PREDOMINANTY NATURAL EMBANKMENT WITH ONGOING EROSION AND LIMITED ATTEMPTS TO STABLIZE
- LACK OF COASTAL NATIVE GRASSLAND OR SHRUB HABITAT – MANICURED LAWN CURRENTLY
- FOCUS ON REGRADING SLOPE, INSTALLATION OF BIOSWALES AT TOE, DEMARKATION OF PEDESTRIAN PATH WITH ACCESS STAIRS, AND TIDAL WETLAND CREATION BEHIND STONE SILL
- CUT, RESURFACE, AND VEGETATE SLOPE WITH BEACH GRASS PLANTED OVER WARM SEASON NATIVE GRASSES SECURED BY FASCINE BUNDLES AT SLOPE'S TOE
- INSTALL BIOSWALES FOR SURFACE RUNOFF FROM SLOPE WITH SALT TOLERANT HERBACEOUS
- PLANT SALT TOLERANT SHRUBS LANDWARD OF GAPS IN STONE SILL TO INCREASE WAVE ATTENUATION
- DESIGN PROVIDES INCREASED STABILITY AND DECREASED EROSION TO SLOPE THOUGH REGRADING, TOE ENHANCEMENT, SURFACE RUNOFF INFILTRATION, STORM SURGE ATTENUTATION, AND DIRECTED PUBLIC ACCESS



EXISTING

PROPOSED



MILONE & MACBROOM

GEI Consultants

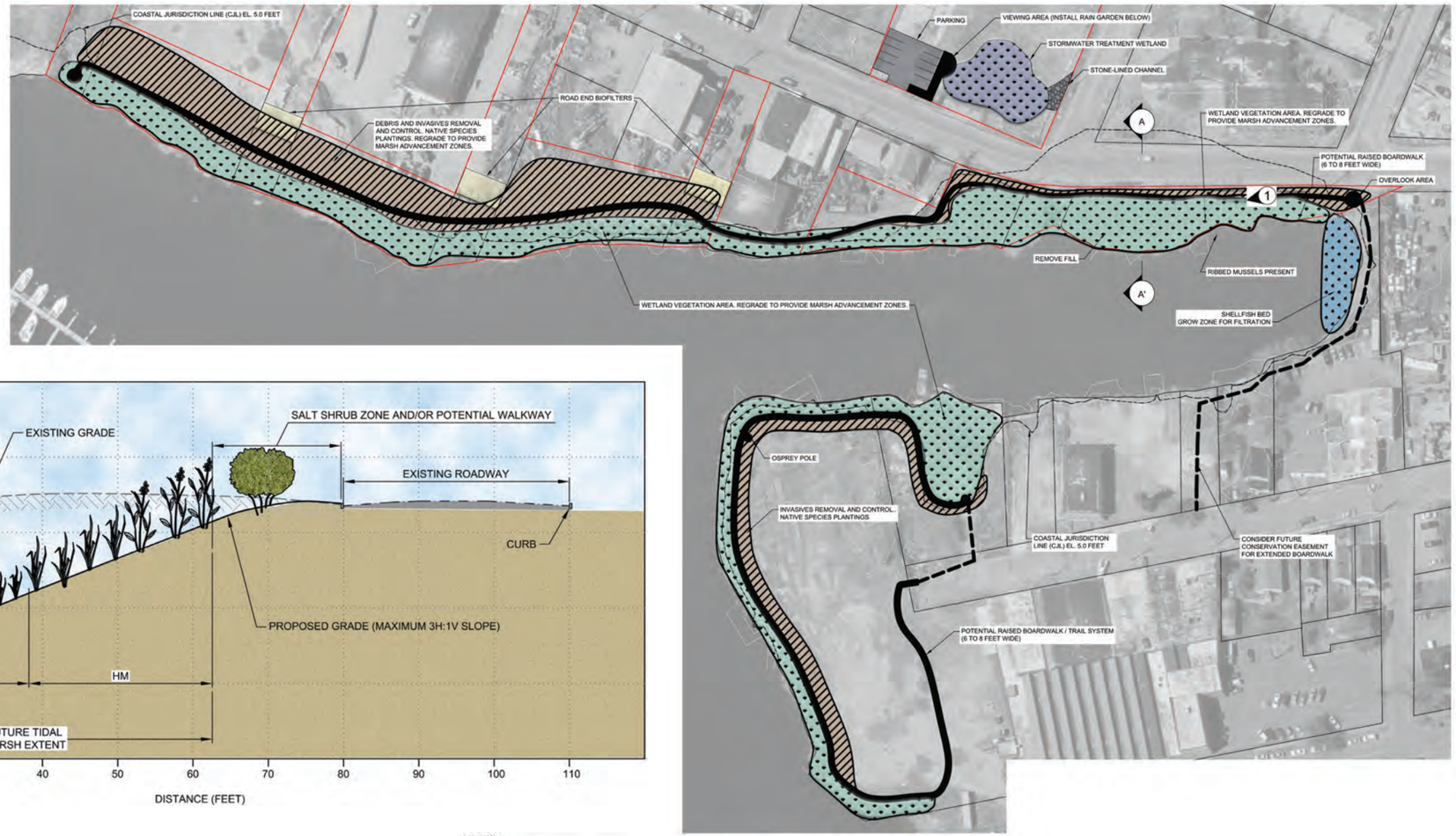
STRATFORD, CONNECTICUT

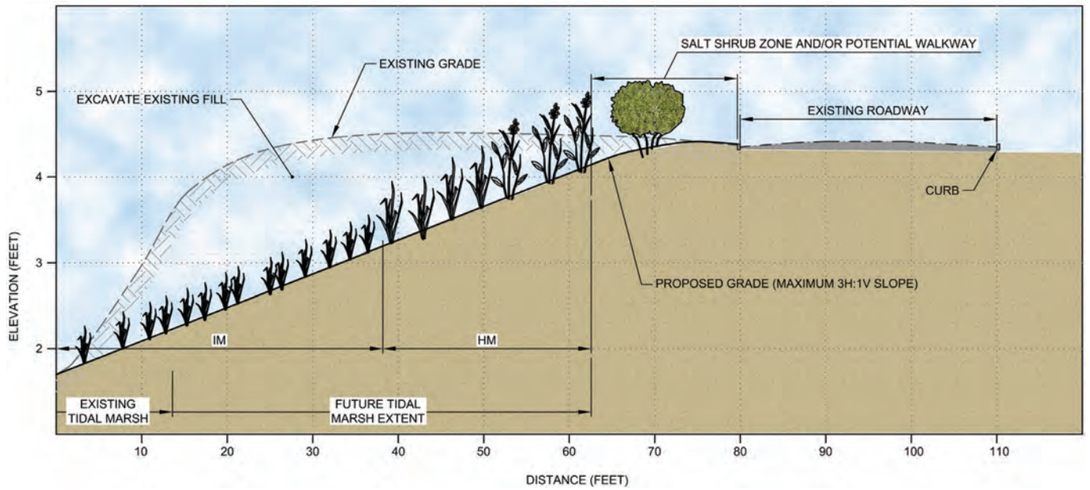
SLOPE ENHANCEMENT • [Urban - Fixed]

Fill removal, slope recontouring, and vegetation/green infrastructure installation to improve filtration, flood storage, and public access.

DESIGN ELEMENTS

- COMPLEX COMBINATION OF VULNERABLE ADJOINING USES INCLUDING CRITICAL MULTI-MODAL TRANSPORTATION HUB, POWER SUBSTATION, AND MUNICIPAL FACILITIES
- FOCUS ON CONSTRUCTING A FLOODABLE PUBLIC PARK WITH ELEVATED LANDFORMS ABUTTING FLOODWALL ALONG ELEVATED RAIL BRIDGE
- PROTECTION OF FRONT EDGE USING LIVING EDGE TECHNIQUES COMBINED WITH STONE REVETMENT IN VULNERABLE SECTIONS
- ESTABLISH AN URBAN MULTI-USE PATH WITH PARKING LOT TO CONNECT SERIES OF PUBLIC AREAS ALONG WATEFRONT
- TIE IN FLOOD STORAGE AND WAVE ATTENUTATION FEATURES ONSITE WITH COMPREHENSIVE INSTALLATION OF BIOSWALES AND LOW RETAINING WALLS BACK INTO ADJOINING STREETSCAPES AS WELL AS ROAD ELEVATION AND REMOVABLE FLOODGATES AT UNDERPASS
- DESIGN PROVIDES RESILIENT, MULTI-PURPOSE SPACE AS FIRST LINE OF DEFENSE FOR CRITICAL FACILITIES TIED TO A COMPREHENSIVE AND STRATGEIC FLOOD ACCOMDATION PLAN FOR THE ADJOINING URBAN LANDSCAPE





EXISTING

PROPOSED

PLANT LIST:	
ZONE	PLANT LIST
INTERTIDAL MARSH (IM)	SPARTINA ALTERNIFLORA
HIGH MARSH (HM)	SPARTINA PATENS
	DISTICHLIS SPICATA
STORMWATER TREATMENT WETLAND	VIRGINIA WILDRYE
	RIPARIAN WILDRYE
	FOX SEDGE
	FRINGED BROME
	FOWL BLUEGRASS
	AUTUMN BENTGRASS
	CAREX SCOPARIA
	MARSH MALLOW
SALT SHRUB ZONE	MARSH ELDER
	GROUNDSELBUSH
ROAD END BIOFILTERS	COASTAL PANICGRASS
	SWITCHGRASS
NATIVE SPECIES PLANTINGS IN INVASIVES CONTROL AREAS	SPARTINA PATENS
	DISTICHLIS SPICATA
	SWITCHGRASS
	COASTAL PANICGRASS
	SALT SHRUBS

LEGEND:

- WETLAND VEGETATION AREA
- STORMWATER TREATMENT WETLAND
- DEBRIS AND INVASIVES REMOVAL AND CONTROL & NATIVE SPECIES PLANTINGS
- ROAD END BIOFILTERS
- STONE-LINED CHANNEL
- CITY OF BRIDGEPORT PROPERTY BOUNDARY
- SHELLFISH BED GROW ZONE
- RAISED BOARDWALK

MILONE & MACBROOM

GEI Consultants

BRDIGEPORT, CONNECTICUT

UNIMPROVED SPACE • [Urban – Flexible]

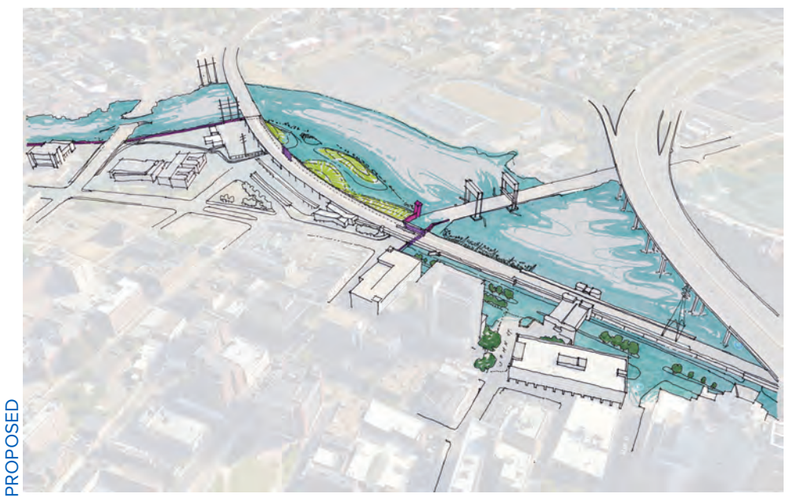
Multi-function revitalization as public amenity and
flood protection for adjoining critical facilities.

EXISTING

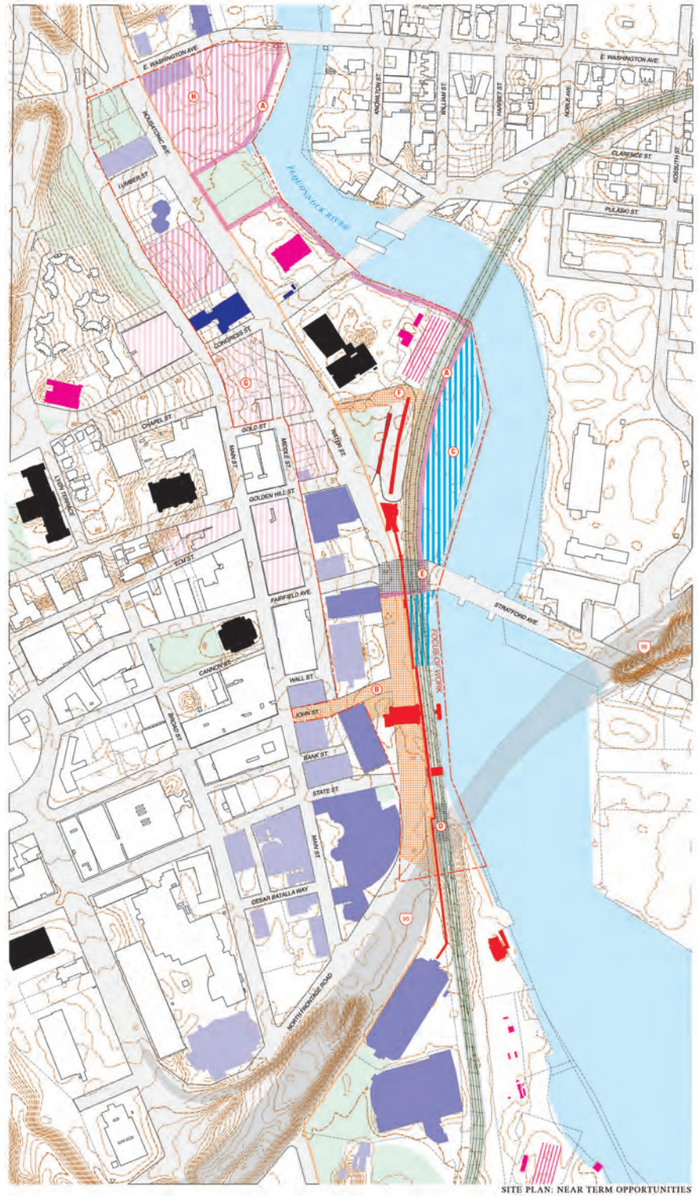
PROPOSED

DESIGN ELEMENTS

- COMPLEX COMBINATION OF VULNERABLE ADJOINING USES INCLUDING CRITICAL MULTI-MODAL TRANSPORTATION HUB, POWER SUBSTATION, AND MUNICIPAL FACILITIES
- FOCUS ON CONSTRUCTING A FLOODABLE PUBLIC PARK WITH ELEVATED LANDFORMS ABUTTING FLOODWALL ALONG ELEVATED RAIL BRIDGE
- PROTECTION OF FRONT EDGE USING LIVING EDGE TECHNIQUES COMBINED WITH STONE REVETMENT IN VULNERABLE SECTIONS
- ESTABLISH AN URBAN MULTI-USE PATH WITH PARKING LOT TO CONNECT SERIES OF PUBLIC AREAS ALONG WATEFRONT
- TIE IN FLOOD STORAGE AND WAVE ATTENUTATION FEATURES ONSITE WITH COMPREHENSIVE INSTALLATION OF BIOSWALES AND LOW RETAINING WALLS BACK INTO ADJOINING STREETSCAPES AS WELL AS ROAD ELEVATION AND REMOVABLE FLOODGATES AT UNDERPASS
- DESIGN PROVIDES RESILIENT, MULTI-PURPOSE SPACE AS FIRST LINE OF DEFENSE FOR CRITICAL FACILITIES TIED TO A COMPREHENSIVE AND STRATGEIC FLOOD ACCOMDATION PLAN FOR THE ADJOINING URBAN LANDSCAPE



PROPOSED



SITE PLAN: NEAR TERM OPPORTUNITIES

Yale URBAN DESIGN LAB

BRIDGEPORT, CONNECTICUT

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