

A LIVING SHORELINE APPROACH TO
PROTECTING HISTORIC STRUCTURES ON

Ocracoke Island

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Johnny Martin, P.E.
MOFFATT & NICHOL

Former US Coast Guard Ocracoke Life Saving Station

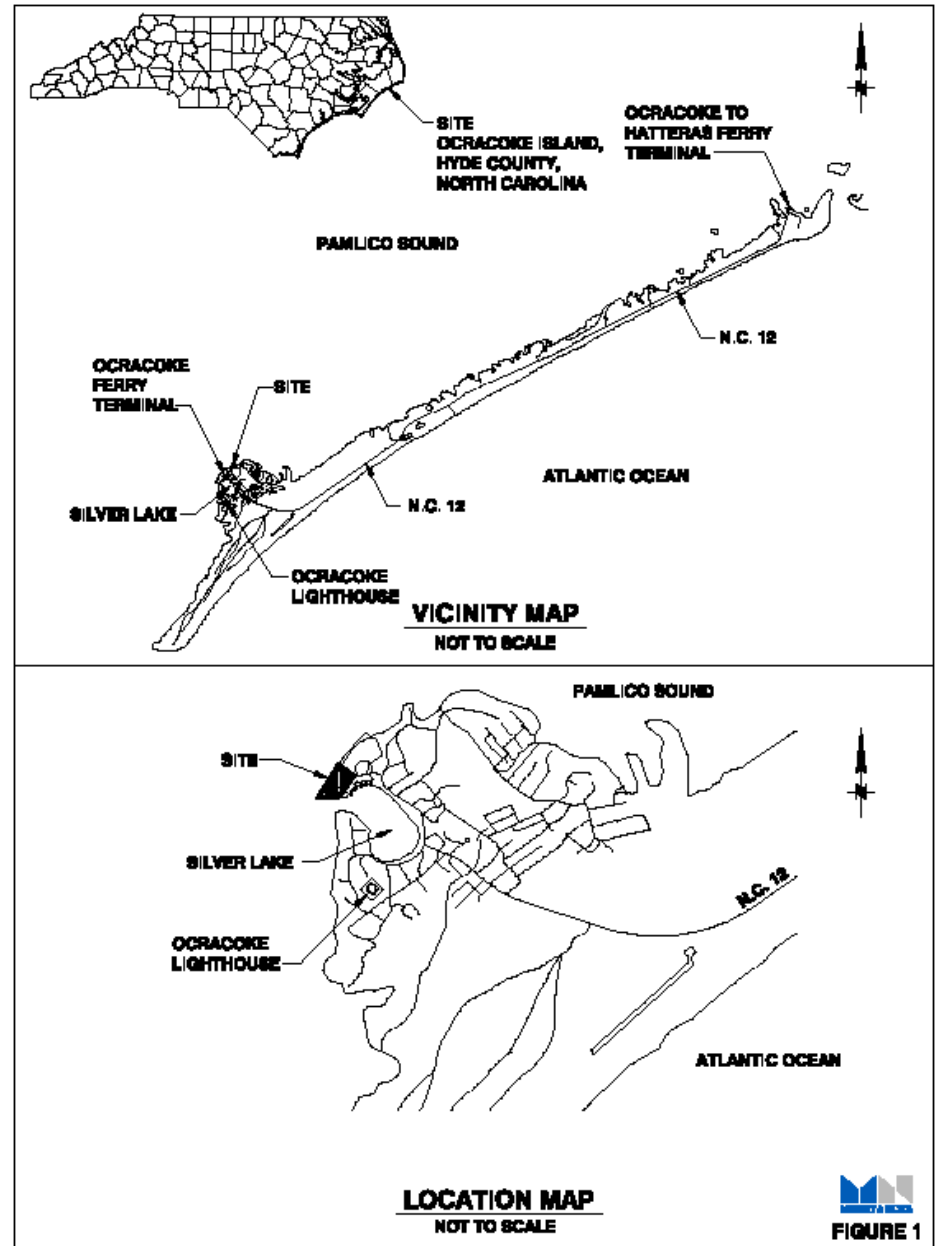


FIGURE 1

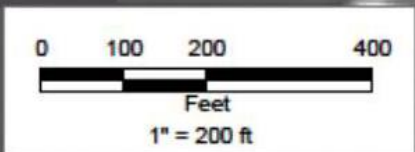
NC Center for the Advancement of Teaching (NCCAT)



Prior to Shoreline Restoration



NCCAT Shoreline Erosion



NC Center for the
Advancement of Teaching
Shoreline Restoration



**2002 and 2005 Shorelines,
Shown With 2002 Aerial Images**

Images from NC Floodmapping Program

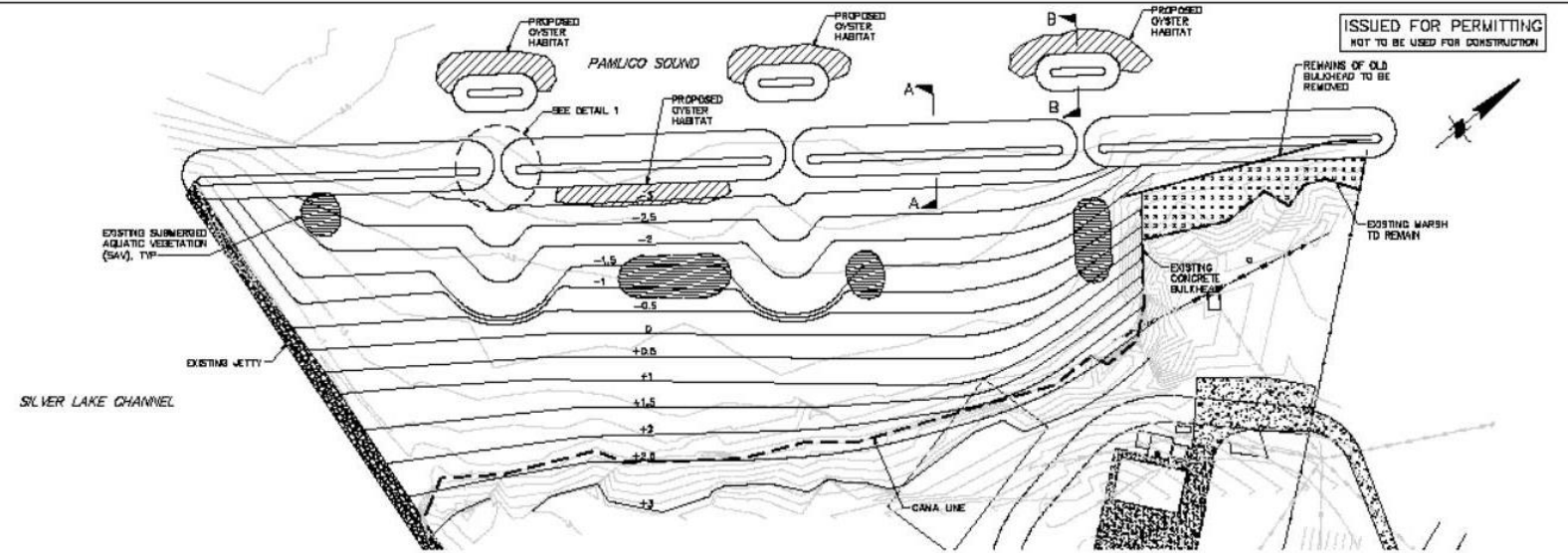
NCCAT Site



NCCAT Site

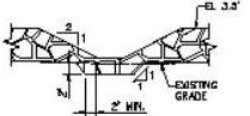


Breakwater Sills & Grading

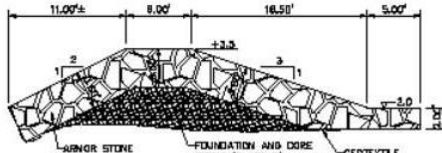


NOTE:
CONTOURS SHOWN ARE IN FEET AND REFER TO NAVD.

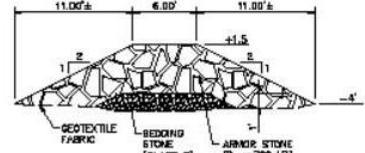
SITE PLAN
SCALE: 1"=40'



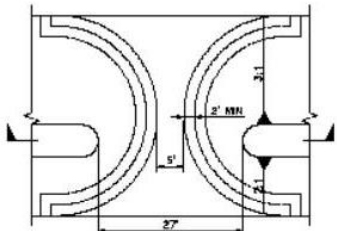
DETAIL 1-SECTION
SCALE: 1"=10'



TYPICAL SILL SECTION A-A
SCALE: 1"=5'

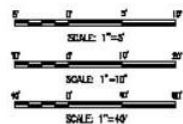


TYPICAL OUTER SILL SECTION B-B
SCALE: 1"=5'



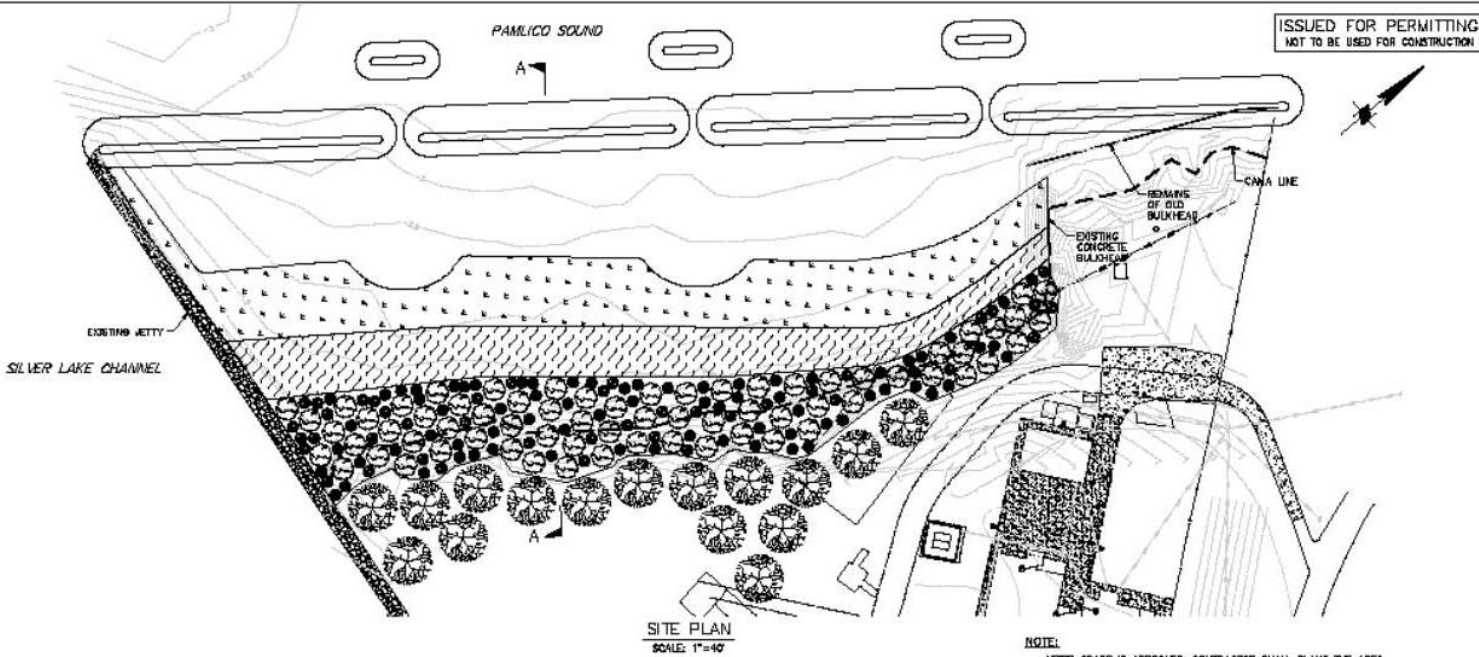
DETAIL 1-PLAN
SCALE: 1"=10'

SAV DISTURBED AREA	5,574 SF=0.13 AC
BREAKWATER DISTURBED AREA	37,328 SF=0.85 AC
BREAKWATER RIP RAP VOLUME	4,316 CY
BREAKWATER CORE VOLUME	1,714 CY
GRADING DISTURBED AREA	133,177 SF=3.06 AC
GRADING CUT VOLUME	15 CY
GRADING FILL VOLUME	7,100 CY



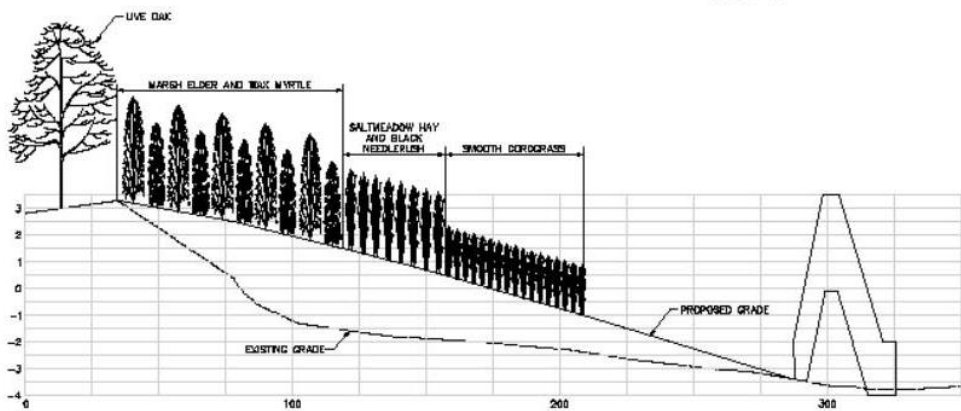
SHORELINE RESTORATION PROJECT OCEANOBE, NORTH CAROLINA PROPOSED SITE PLAN SECTIONS & DETAILS		DATE	BY
 MOFFATT & NICHOL THE EAST COAST ARCHITECTS RALEIGH, NORTH CAROLINA 27609 919-781-0828		DATE	BY
DATE	AUGUST 2008	SHEET	1 OF 2
 FIGURE 4A		REVISION	DESCRIPTION

Vegetation Plan



ISSUED FOR PERMITTING
NOT TO BE USED FOR CONSTRUCTION

SITE PLAN
SCALE: 1"=40'



SECTION A-A
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2'

NOTE:
AFTER GRADE IS APPROVED, CONTRACTOR SHALL PLANT THE AREA AS SPECIFIED BELOW.

FINISHED CONTOUR ELEV. (FT)	AREA (SQ FT ±)	PLANTS
< -1	N/A	NO PLANTING
-1 TO +0.5	30,502	SMOOTH SOPRAGRASS (SPARTINA ALTERNIFLORA) ON 1.5 FT CENTERS
+0.5 TO +1.5	21,246	SALTMEADOW HAY (SPARTINA PATENS) AND BLACK NEEDLERUSH (ILEX ROBINSONII) ON 1.5 FT CENTERS
+1.5 TO 3 AS SHOWN	33,800	MARSH ELDER AND BLACK MYRTLE ON 4 TO 5 FT CENTERS, MN, TO BE FIELD DETERMINED
AS SHOWN	VARIES	LIVE OAK ON 10 FT CENTERS, MN, TO BE FIELD DETERMINED



SHORELINE RESTORATION PROJECT
OCRACOKE, NORTH CAROLINA
PROPOSED PLANTING PLAN
SECTIONS & DETAILS

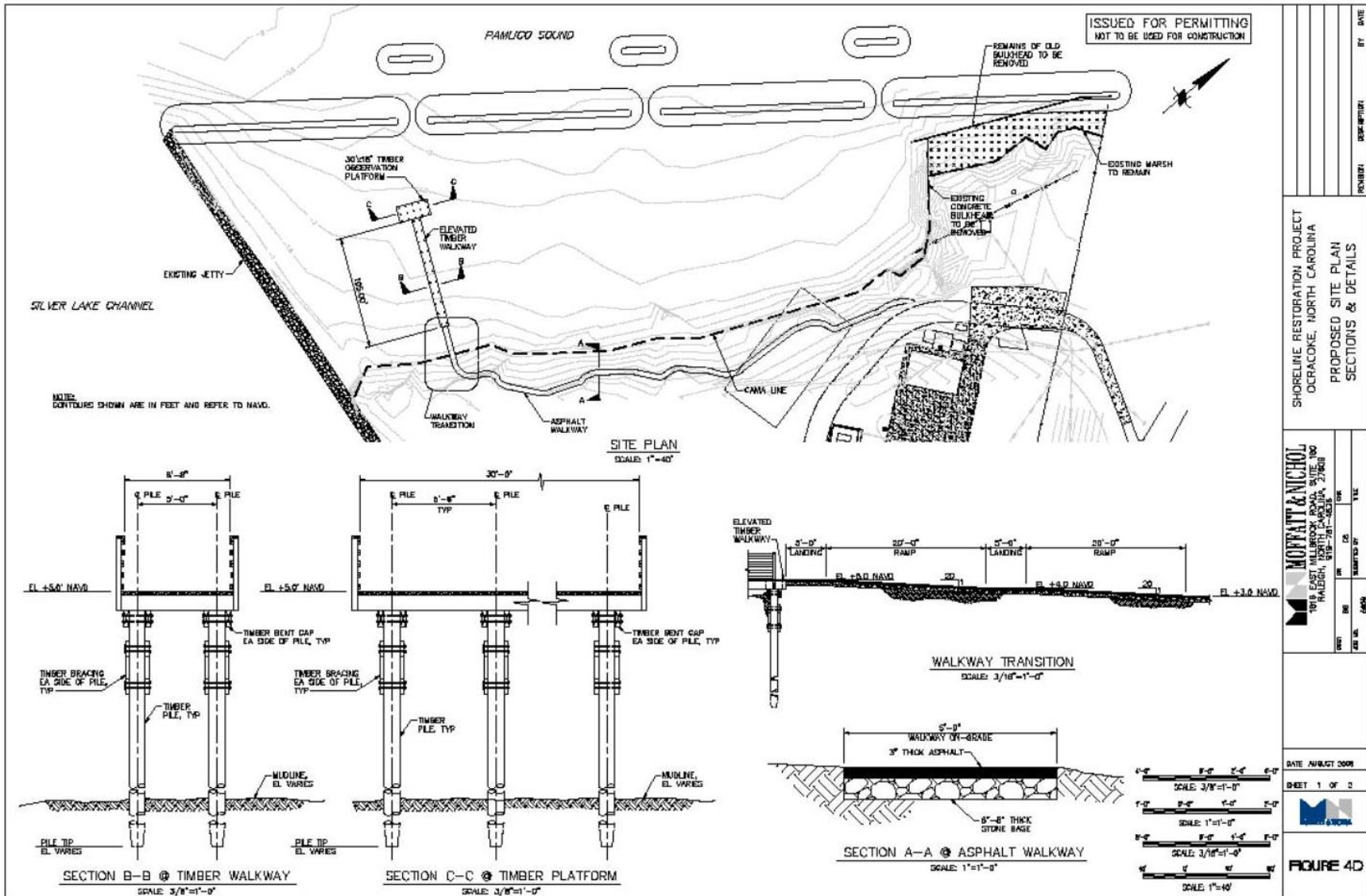
MOFFATT & NICHOL
1816 EAST MILLEROCK ROAD, SUITE 100
MILFORD, NORTH CAROLINA 27450

DATE: AUGUST 2008
SHEET 2 OF 2

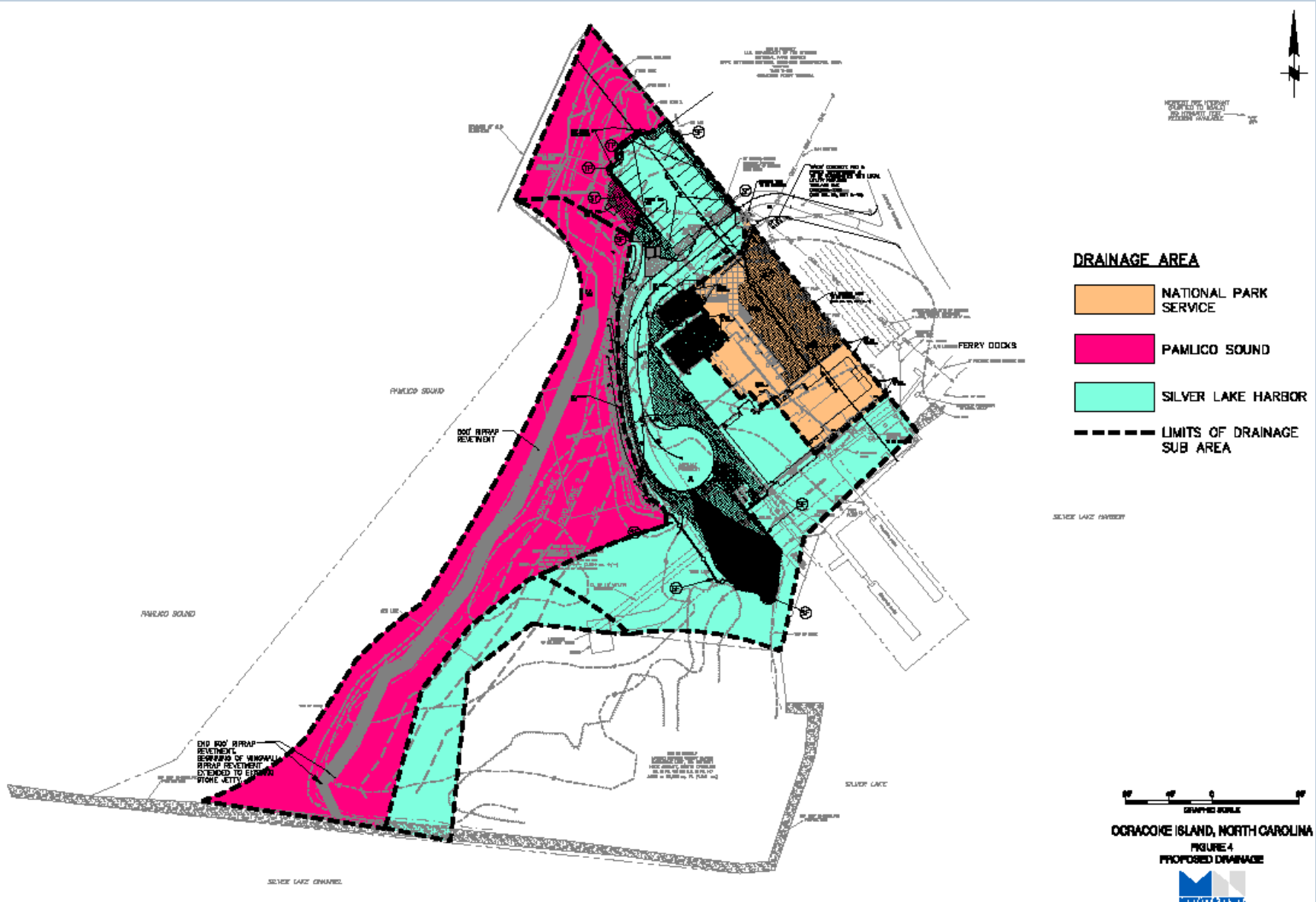
FIGURE 4B

NO.	DATE	BY	DESCRIPTION

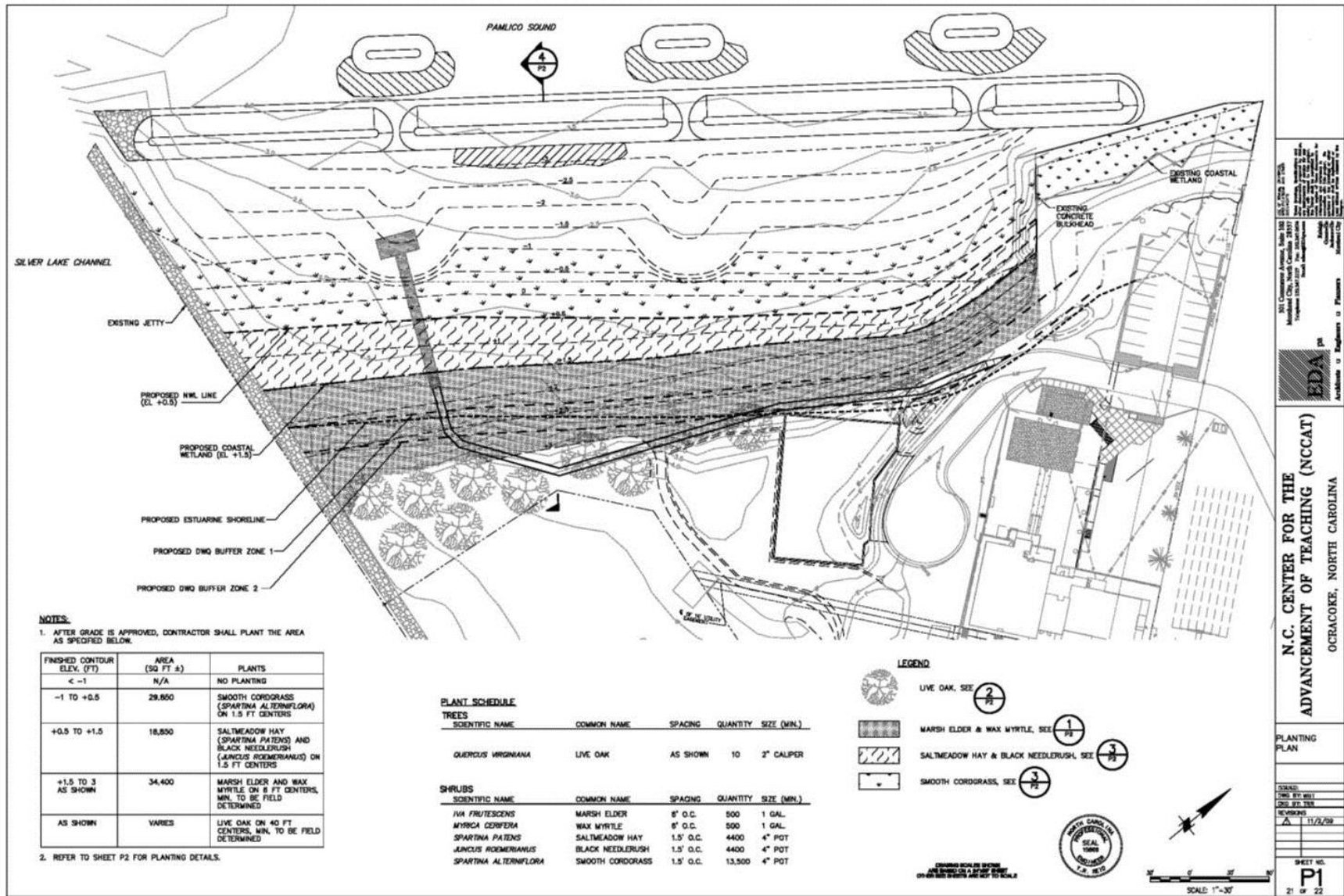
Educational Opportunities



NCCAT Upland Facilities Design



NCCAT Shoreline – Permit Approval / Construction



EDWARDS & KELCEY ENGINEERS, INC.
 10000 University Avenue, Suite 100
 Raleigh, NC 27617
 Telephone: (919) 877-7888
 Fax: (919) 877-7889
 www.edwards-kelcey.com
 EDA, Inc.
 Architects & Engineers & Planners

**N.C. CENTER FOR THE
 ADVANCEMENT OF TEACHING (NCCAT)**
 OCRACOKE, NORTH CAROLINA

PLANTING PLAN
 SHEET NO. P1
 21 22

NCCAT Site Construction



NCCAT Site Construction



NCCAT Site Construction



NCCAT Site Construction



NCCAT Site Construction



NCCAT Site Construction



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NCCAT Site Construction



NCCAT Site – Construction Complete



NCCAT Site – Construction Complete



NCCAT Site Construction



NCCAT Site – Before



NCCAT Site – After



Questions?

A sunset over a body of water. The sun is a large, bright orange circle on the horizon. Two people are standing in the shallow water, one on the left and one on the right. The foreground is filled with tall, thin reeds. The sky is a gradient of orange and red.

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