



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

JAMES B. HUNT, JR.
GOVERNOR

DIVISION OF HIGHWAYS
P.O. BOX 25201, RALEIGH, N.C. 27611-5201

R. SAMUEL HUNT III
SECRETARY

May 4, 1994

MEMORANDUM TO: G.R. Shirley, Jr., P.E.
Division 2 Engineer

FROM: Cynthia Bell *Cindy Bell*
Planning & Environmental Branch

SUBJECT: Carteret County - Tidal Saltmarsh Mitigation
Site for the Widening of SR 1161 near
Beaufort; State Project No. 6.162228

Per our discussion today, attached are the wetland mitigation plan and site drawings for the saltmarsh restoration site on SR 1161 near Beaufort. We are required by the Division of Coastal Management to construct this site to compensate for the impacts associated with the widening and paving of SR 1161. Larger scale plan drawings for use in construction will be forwarded to you from the Roadside Environmental Unit.

Thank you for your attention to this matter. I will be happy to provide any assistance I can in this work. If you have any questions, please contact me at (919) 733-3141.

cc: Aaron Everett, P.E.



WETLANDS MITIGATION SITE

FOR PROJECT NO. 6.162228
CARTERET COUNTY

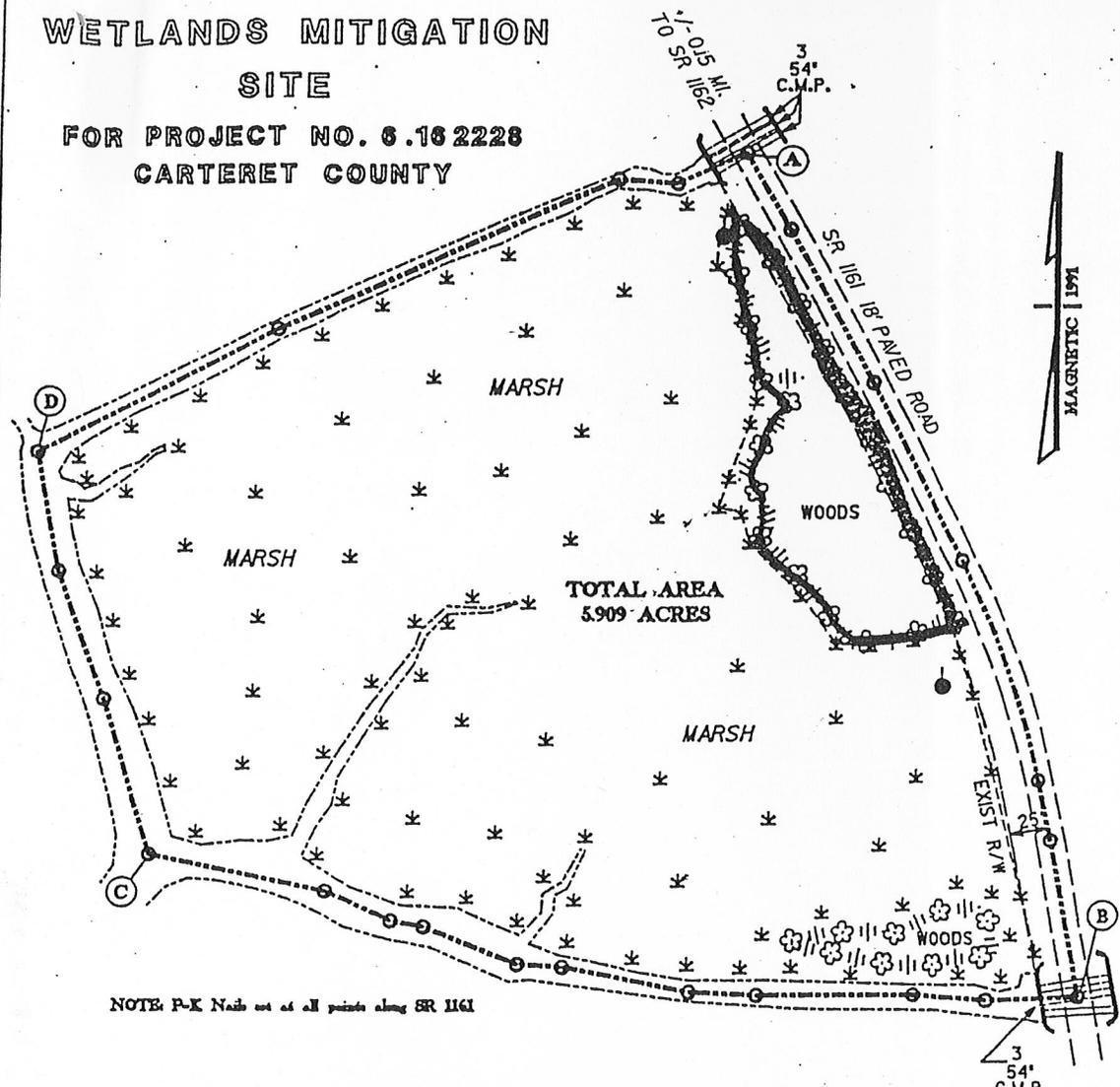


TABLE OF METES AND BOUNDS

COURSE	BEARING	DISTANCE	ARC	RADIUS
A	S 29° 27' 20" E	58.29'		
	S 28° 44' 54" E	115.05'		
	S 27° 13' 41" E	133.06'		
	S 19° 39' 38" E	153.47'	153.92'	582.6689'
B	S 12° 05' 35" E	40.90'		
	S 10° 19' 49" E	105.01'		
B	S 87° 44' 20" W	60.76'		
	N 85° 31' 43" W	49.43'		
	S 89° 49' 33" W	102.24'		
	N 87° 12' 10" W	44.10'		
	N 78° 45' 05" W	83.78'		
	N 86° 28' 35" W	28.67'		
	N 68° 10' 37" W	66.47'		
	N 79° 40' 54" W	21.87'		
	N 64° 42' 02" W	46.43'		
	N 77° 59' 07" W	117.84'		
C	N 16° 44' 49" W	107.27'		
	N 20° 27' 06" W	89.38'		
D	N 10° 32' 34" W	79.76'		
D	N 62° 33' 00" E	178.42'		
	N 65° 46' 45" E	239.67'		
	S 86° 16' 59" E	38.46'		
	N 65° 38' 31" E	49.47'		

SCALE 1" = 100'



SURVEYED SEPTEMBER 23, 1991
NCDOT LOCATION & SURVEYS UNIT
NEW BERN, N.C.

copy 1071 1071-2210

WETLAND MITIGATION PLAN SUMMARY

SUBJECT: Carteret County, Widening of SR 1161 near Beaufort (State Project No. 6.162228); General Permit No. CESAW-CO89-N-000-0291; CAMA Permit No. 220-89; File No. CESAW-CO89-N-016-0435

1. Wetlands Impacted: 0.24 acres Tidal Saltmarsh.
2. Mitigation Type: Creating on-site, 0.38 acres of Brackish Marsh (Juncus roemerianus).
3. Location of Site: 0.15 mile south of intersection of SR 1162, on west side of SR 1161.
4. Mitigation Plan: See Mitigation Plan Sheet (M-1).
5. Monitoring Plan:

Proper Elevation and Grade	PP, 1 MO, 1 YR, 2 YR
Soil Test	PP
Acceptable Plant Species/ Plant Quality	AP
Proper Planting Methods/ Spacing	AP
Survival Rate (Estimated %)	1 MO, 1 YR
Approximate Height of Plants	1 MO, 1 YR, 2 YR
Site Photographs from Selected Views	1 MO, 1 YR, 2 YR
Areal Coverage (Estimated %) Planted Species	1 YR, 2 YR
Planted Species + Natural Succession	

NCDOT will consider the above plan acceptable if planted species survive at an estimated rate of 50% after two years and the planted stand provides at least 50% areal coverage of salt marsh type and aquatic bed speices. (Monitoring data will be available for all interested agencies' review.) In the event that these two conditions are not met and environmental restoration is not considered successful, consultation will be held between the staffs of NCDOT's Planning and Environmental Branch and Roadside Environmental Unit, the Division of Coastal Management, the Corps of Engineers, Wilmington District, and federal review agencies. Participation by other review agencies will be coordinated by the Division of Coastal Management. Monitoring criteria will be evaluated and necessary recourse actions will be considered.

WETLAND MITIGATION

Grading Wetland Areas:

The existing highland area shall be removed and graded to an approximate elevation of 2.0 ft or equivalent to the existing adjacent marshland. Grading of wetland area shall be performed to produce a graded area to drain to the canals or adjacent wetlands as not to create ponding or potholes.

Transplanting Wetland Species:

The work covered by this section consists of furnishing and transplanting black needlerush (Juncus roemerianus). Juncus shall be transplanted in areas designated on the plans as wetlands restoration, or by the engineer according to seasonal limitations.

The transplanting of Juncus will only be allowed between the dates of March 15 and June 15 unless otherwise approved by the engineer.

Fertilizer shall be the only soil amendment added to the areas to be transplanted and shall be applied as follows:

The Juncus roemerianus shall be fertilized with a slow release coated fertilizer (Osmocote 14-14-14). The rate shall be one ounce (1 oz.) of coated slow release (14-14-14) per plant and shall be placed in the transplant hole prior to placing the sprig.

Juncus roemerianus transplanting shall be done as a sequential operation to fertilizing. Juncus shall be uniformly transplanted after seedbed preparation at a maximum plant spacing of 2 feet. Hand planting may be done by using a dibble or shovel to open a hole four to six inches deep, inserting one ounce (1 oz.) of fertilizer, then inserting the plant, and packing the soil around it.

The contractor shall be responsible for a second application of fertilizer applied to the area transplanted six to eight weeks after initial transplanting. The amount of plant food shall be 100 lbs./acre nitrogen using 32-0-0 sulfur coated urea and 100 lbs./acre P205 using 0-46-0 superphosphate.

Application of fertilizers will be considered incidental to the work of "Transplanting Wetland Species" and no direct payment will be made for such.

The quantity of transplanting black needlerush to be paid for will be the actual number of square yards of transplants along the surface of the ground, which has been completed and accepted.

The quantity of transplanting black needlerush, measured as provided above will be paid for at the contract unit price per square yard for "Transplanting Wetland Species".

Payment will be made under:

Transplanting Wetland Species.....SY

Return to
Chairman
2000-2001
April 1992

File

Carters County SR 1161 (6.162228)

0.24 acres Tidal Saltmarsh impacted

0.51 acres created on-site Tidal Saltmarsh

Mitigation Plan and site map enclosed

Need to plant by June 15

Plans sent to Division 2 Fall 1992
for spring 1993 planting
but lost in transit