PROJECT REFERENCE NO.	SHEET NO.
17BP.5.R.77	EC-05/CONST.04
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T 919.380.8799
www.stewartinc.com

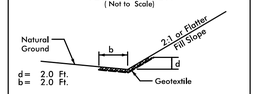
NC FIRM LICENSE No F-1148
1151 SE Cary Parkway, Suite 101
Cary, NC 27518
(919) 767-0929
ECOLOGICAL ENGINEERING

8/17/99

REVISIONS

-L-		
PI Sta 10+76.20	PI Sta 16+00.26	PI Sta 17+93.62
Δ = 0° 58' 48.0" (LT)	Δ = 0° 12' 26.9" (RT)	Δ = 0° 05' 25.6" (LT)
D = 0° 38' 35.2"	D = 1° 00' 00.0"	D = 0° 01' 29.0"
L = 152.39'	L = 20.75'	L = 365.97'
T = 76.20'	T = 10.37'	T = 182.98'
R = 8,909.33'	R = 5,729.58'	R = 231,856.26'
	Se = Exist.	Se = Exist.

DETAIL 1
TOE PROTECTION
(Not to Scale)

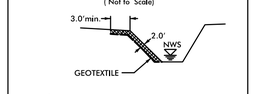


d= 2.0 Ft.
b= 2.0 Ft.

Type of Liner= CLASS B RIP RAP

FROM STA. 12+00 TO STA. 12+50 -L- RT.
FROM STA. 15+99 TO STA. 17+50 -L- RT.

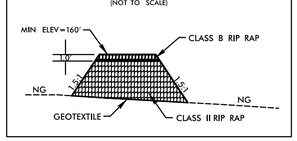
DETAIL 2
BANK STABILIZATION
(Not to Scale)



Type of Liner= CLASS II RIPRAP

STA 14+27 TO 14+80 -L-
STA 15+30 TO 15+60 -L-

DETAIL 3
TEMPORARY CAUSEWAY
(NOT TO SCALE)



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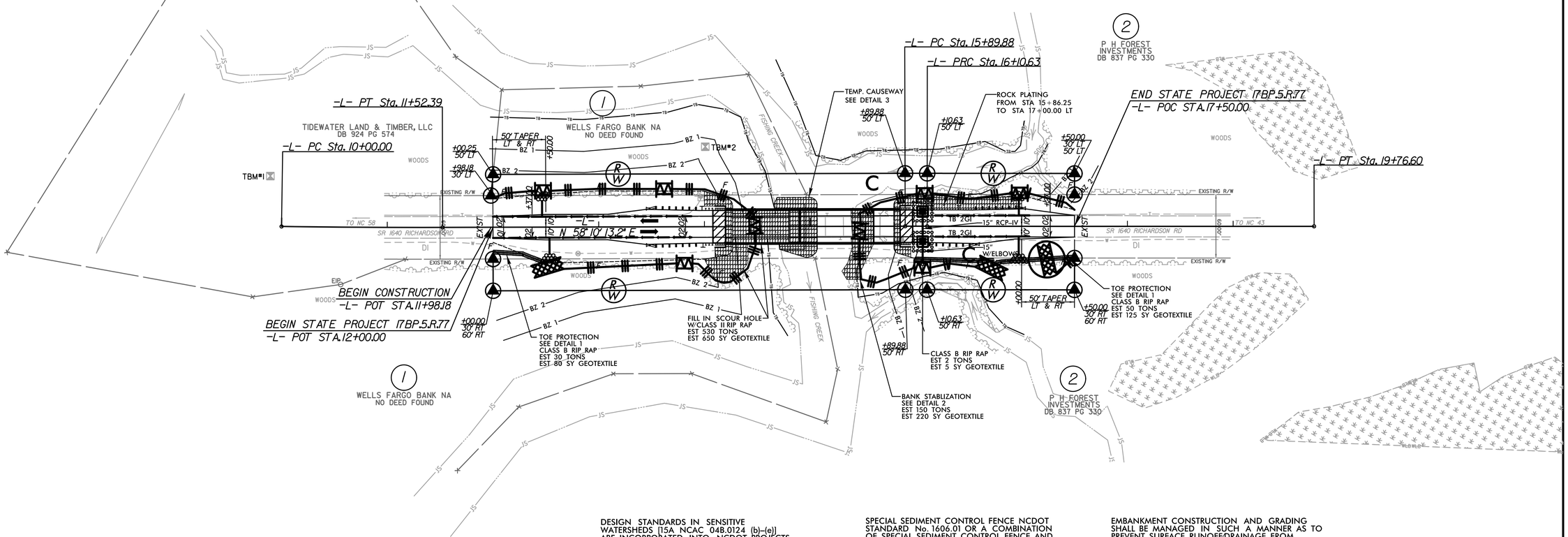
NAD 83/NA 2011



DESIGN STANDARDS IN SENSITIVE WATERSHEDS [15A NCAC 04B.0124 (b)-(e)] ARE INCORPORATED INTO NCDOT PROJECTS THAT OCCUR WITHIN OR UPSTREAM OF WATER BODIES THAT CONTAIN FEDERALLY PROTECTED AQUATIC SPECIES. WITHIN THE ENVIRONMENTALLY SENSITIVE AREAS, THE FOLLOWING SHAT APPLY:

- THE CONTRACTOR MAY PERFORM CLEARING OPERATIONS BUT NOT GRUBBING OPERATIONS UNTIL IMMEDIATELY PRIOR TO BEGINNING GRADING OPERATIONS.
- ONCE GRADING OPERATIONS BEGIN, WORK SHALL PROGRESS IN A CONTINUOUS MANNER UNTIL COMPLETE.
- EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE CLEARING OPERATION.
- SEEDING MULCHING SHALL BE PERFORMED ON THE AREAS DISTURBED BY CONSTRUCTION IMMEDIATELY FOLLOWING FINAL GRADE ESTABLISHMENT.
- SEEDING MULCHING SHALL BE DONE IN STAGES ON CUT AND FILL SLOPES THAT ARE GREATER THAN 20 FEET IN HEIGHT MEASURE ALONG THE SLOPE OR GREATER THAN TWO ACRES IN AREA, WHICHEVER IS LESS

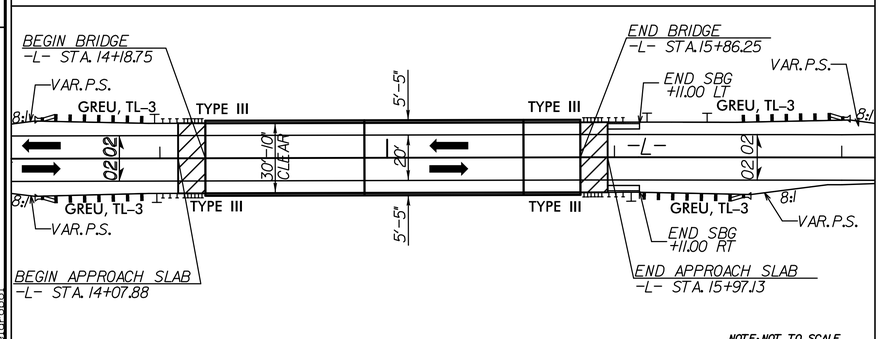
SPECIAL SEDIMENT CONTROL FENCE NCDOT STANDARD No. 1606.01 OR A COMBINATION OF SPECIAL SEDIMENT CONTROL FENCE AND STANDARD SILT FENCE WILL BE INSTALLED BETWEEN THE TOP OF THE STREAM BANK AND BRIDGE EMBANKMENT. ONCE THE DISTURBED AREAS OF THE PROJECT DRAINING TO THESE AREAS HAVE BEEN STABILIZED, THE SPECIAL SEDIMENT CONTROL FENCE AND/OR STANDARD SILT FENCE AND ALL BUILT UP SEDIMENT ADJACENT TO THESE DEVICES WILL BE REMOVED TO NATURAL GROUND AND STABILIZED WITH APPROPRIATE SEED MIX. NATIVE GRASS MIX WILL BE USED ON THE FLOODPLAIN.

ALL APPROPRIATE SEDIMENTATION AND EROSION CONTROL MEASURES, THROUGHOUT THE PROJECT LIMITS, WILL BE CLEANED OUT WHEN HALF FULL WITH SEDIMENT, TO ENSURE PROPER FUNCTION OF THE MEASURES.

COIR FIBER MATTING WILL BE INSTALLED ON THE FOOTPRINT OF UNCLASSIFIED STRUCTURE EXCAVATION NEAR THE STREAMBANKS.

EMBANKMENT CONSTRUCTION AND GRADING SHALL BE MANAGED IN SUCH A MANNER AS TO PREVENT SURFACE RUNOFF/DRAINAGE FROM DISCHARGING UNTREATED INTO THE RIPARIAN BUFFER. INSTEAD ALL INTERIM SURFACES WILL BE GRADED TO DRAIN TO TEMPORARY EROSION CONTROL DEVICES. TEMPORARY BERMS, DITCHES, ETC. WILL BE INCORPORATED, AS NECESSARY, TO TREAT TEMPORARY RUNOFF BEFORE DISCHARGING INTO THE RIPARIAN BUFFER (AS SPECIFIED IN THE NCDOT BMP MANUAL).

PAVEMENT-BRIDGE RELATIONSHIP SKETCH



NOTE: NOT TO SCALE

FOR -L- PROFILE, SEE SHEET 5

FOR STRUCTURE PLANS, SEE SHEETS S-1 THRU S-23

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