PROJECT REFERENCE NO.	SHEET NO.
R-2610A	2-1
R /W SHEET NO.	

CONST.REV.

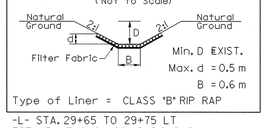
R /W REV.

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 17691 ENGINEER RICHARD A. SHILLINGLAW — 7-09-04

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 12786 ENGINEER STEVEN M. BONDUR — 8-16-04

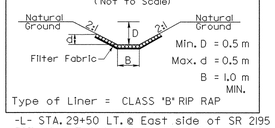
DITCH DETAILS

DETAIL 10F
STANDARD BASE DITCH
(Not to Scale)



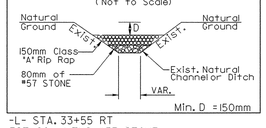
-L- STA. 29+65 TO 29+75 LT
EST. 43 MTNS CLASS 'B' RIP RAP
W/ 108 SM FILTER FABRIC
DDE = 22 CM

DETAIL 10G
STANDARD BASE DITCH
(Not to Scale)



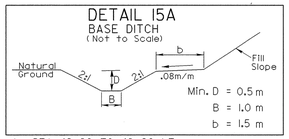
-L- STA. 29+50 LT. @ East side of SR 2195
EST. 48 MTNS CLASS 'B' RIP RAP
W/ 118 SM FILTER FABRIC
DDE = 25 CM

DETAIL 11A
DITCH LINING
(Not to Scale)



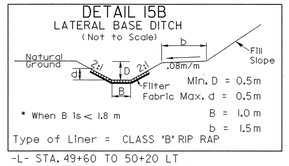
-L- STA. 33+55 RT
EST. 20 MTNS #57 STONE
EST. 57 MTNS CLASS A RIP RAP
(BASED ON ASSUMED 1.0 m BASE)

DETAIL 15A
BASE DITCH
(Not to Scale)



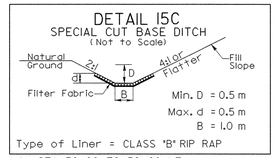
-L- STA. 48+90 TO 49+60 LT
DDE = 170 CM

DETAIL 15B
LATERAL BASE DITCH
(Not to Scale)



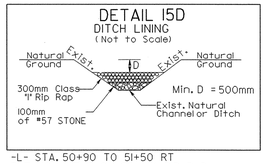
-L- STA. 49+60 TO 50+20 LT
EST. 115 MTNS CLASS 'B' RIP RAP
W/ 283 SM FILTER FABRIC
DDE = 132 CM

DETAIL 15C
SPECIAL CUT BASE DITCH
(Not to Scale)



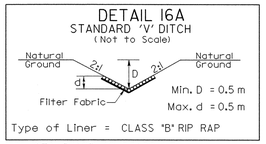
-L- STA. 50+20 TO 50+60 LT
EST. 77 MTNS CLASS 'B' RIP RAP
W/ 189 SM FILTER FABRIC

DETAIL 15D
DITCH LINING
(Not to Scale)



-L- STA. 50+90 TO 51+50 RT
EST. 40 MTNS CLASS 'I' RIP RAP
EST. 8 MTNS #57 STONE
(BASED ON ASSUMED 1.0 m BASE)

DETAIL 16A
STANDARD 'V' DITCH
(Not to Scale)

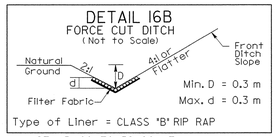


-L- STA. 53+67 TO 53+80 LT
EST. 33 MTNS CLASS 'B' RIP RAP
W/ 86 SM FILTER FABRIC
DDE = 15 CM

-RPD- STA. 11+21 LT
EST. 8 MTNS CLASS 'B' RIP RAP
W/ 19 SM FILTER FABRIC
DDE = 5 CM

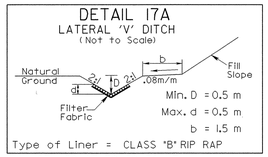
-L- STA. 62+80 LT
EST. 5 MTNS CLASS 'B' RIP RAP
W/ 12 SM FILTER FABRIC
DDE = 2 CM

DETAIL 16B
FORCE CUT DITCH
(Not to Scale)



-L- STA. 51+80 TO 52+00 LT
EST. 100 MTNS CLASS 'B' RIP RAP
W/ 200 SM FILTER FABRIC
(PER HYDRO CALC'S)

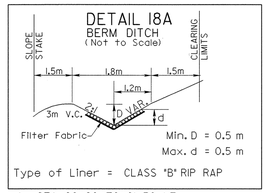
DETAIL 17A
LATERAL 'V' DITCH
(Not to Scale)



-L- STA. 58+07 TO 58+30 LT
EST. 33 MTNS CLASS 'B' RIP RAP
W/ 86 SM FILTER FABRIC
DDE = 23 CM

-L- STA. 81+94 TO 82+76 LT
EST. 118 MTNS CLASS 'B' RIP RAP
W/ 305 SM FILTER FABRIC
DDE = 47 CM

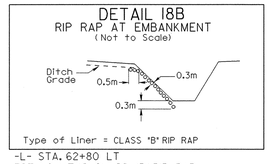
DETAIL 18A
BERM DITCH
(Not to Scale)



-L- STA. 60+20 TO 61+30 LT
EST. 158 MTNS CLASS 'B' RIP RAP
W/ 410 SM FILTER FABRIC

-L- STA. 61+70 TO 62+20 LT
EST. 71 MTNS CLASS 'B' RIP RAP
W/ 186 SM FILTER FABRIC

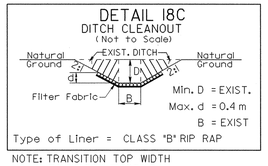
DETAIL 18B
RIP RAP AT EMBANKMENT
(Not to Scale)



-L- STA. 62+80 LT
EST. 1.2 MTNS CLASS 'B' RIP RAP

-L- STA. 65+65 LT
EST. 1.2 MTNS CLASS 'B' RIP RAP

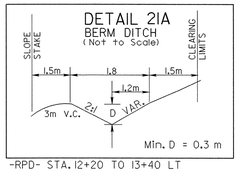
DETAIL 18C
DITCH CLEANOUT
(Not to Scale)



NOTE: TRANSITION TOP WIDTH TO MATCH EXISTING
-L- STA. 59+27 TO 59+40 RT
EST. 29 MTNS CLASS 'B' RIP RAP
W/ 43 SM FILTER FABRIC
EST DDE = 40 CM

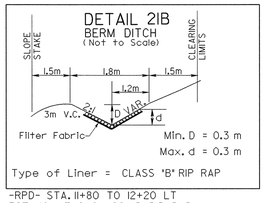
-L- STA. 65+63 TO 65+64 LT
EST. 7 MTNS CLASS 'B' RIP RAP
W/ 13 SM FILTER FABRIC
EST DDE = 5 CM

DETAIL 21A
BERM DITCH
(Not to Scale)



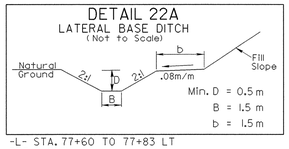
-RPD- STA. 12+20 TO 13+40 LT

DETAIL 21B
BERM DITCH
(Not to Scale)



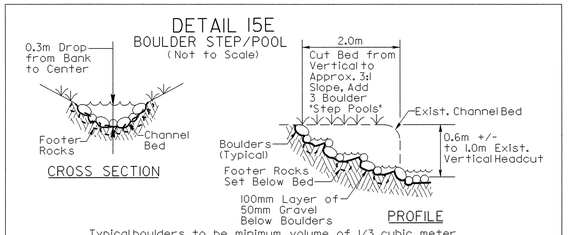
-RPD- STA. 11+80 TO 12+20 LT
EST. 40 MTNS CLASS 'B' RIP RAP
W/ 113 SM FILTER FABRIC

DETAIL 22A
LATERAL BASE DITCH
(Not to Scale)



-L- STA. 77+60 TO 77+83 LT
DDE = 61 CM

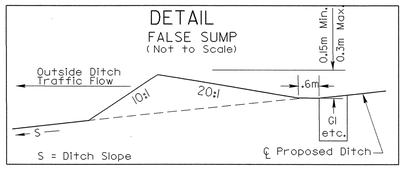
DETAIL 15E
BOULDER STEP/POOL
(Not to Scale)



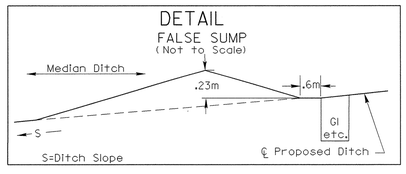
Typical boulders to be minimum volume of 1/3 cubic meter and shall be angular, flat, with the largest axis 3 times the length of the smallest axis to resist rolling. Boulders shall be clean and free of sediment.

-L- STA. 51+20 RT (3 LOCATIONS)
TOTAL EST DDE= 6.6 CM FOR ALL 3 LOCATIONS
TOTAL #57 STONE EST = 13.2 MTN FOR ALL 3 LOCATIONS
TOTAL BOULDER EST = 7.5 MTN FOR ALL 3 LOCATIONS

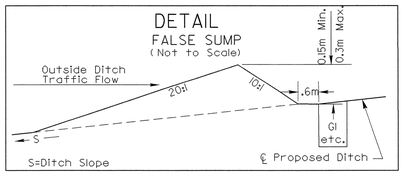
DETAIL
FALSE SUMP
(Not to Scale)



DETAIL
FALSE SUMP
(Not to Scale)



DETAIL
FALSE SUMP
(Not to Scale)



6/10/99
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RShillinglaw
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AT ROBERT