

09/08/09

See Sheet 1-A For Index of Sheets

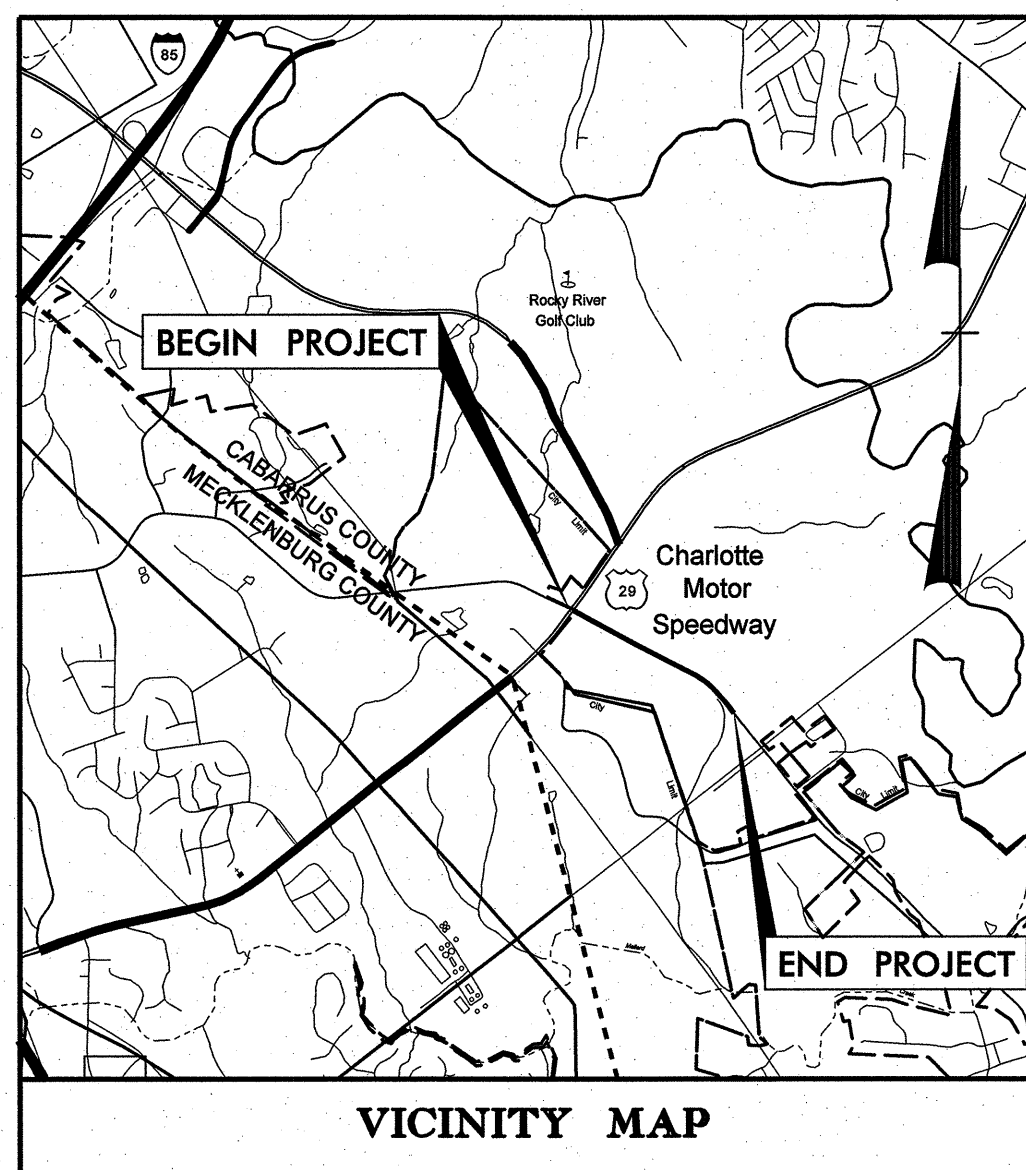
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS CABARRUS COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5145	EC-1	9
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
WBS 42729.1.1		P.E.	
WBS 42729.3.1		CONST.	

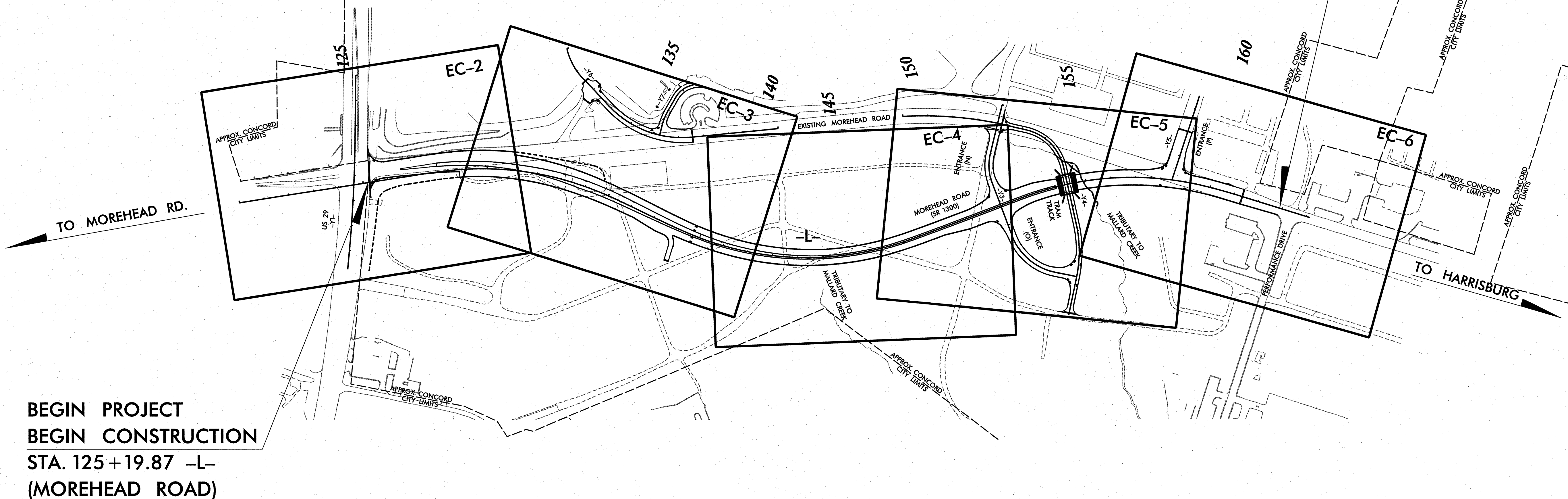


**LOCATION: MOREHEAD ROAD (SR 1300) FROM EAST OF US 29
TO WEST OF PERFORMANCE DRIVE**
TYPE OF WORK: EROSION AND SEDIMENT CONTROL

TIP PROJECT: U-5145



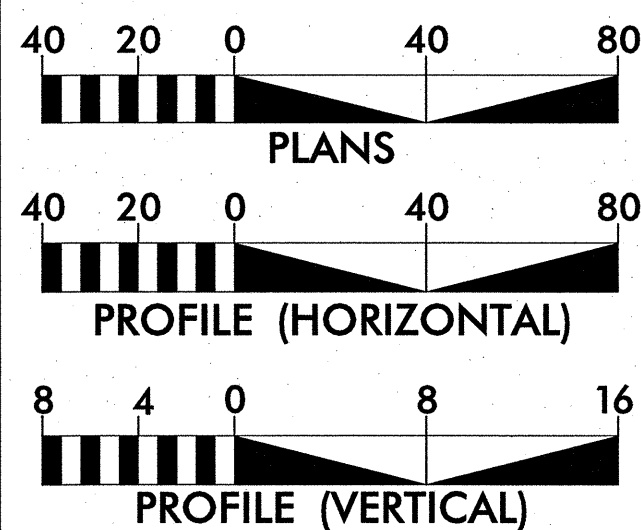
**END PROJECT
END CONSTRUCTION
STA. 162 + 89.94 -L-
(MOREHEAD ROAD)**



**BEGIN PROJECT
BEGIN CONSTRUCTION
STA. 125 + 19.87 -L-
(MOREHEAD ROAD)**

CONTRACT 202388

GRAPHIC SCALES

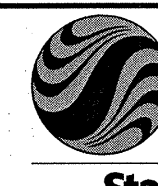


DESIGN DATA

ADT 2008 = 13,900
 ADT 2017 = 18,000
 DHV = 10 %
 T = 5 % *
 V = 50 MPH
 * (2% TTST & 3% DUAL)

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT = 0.706 MILES
 LENGTH OF STRUCTURE PROJECT = 0.008 MILES
 TOTAL LENGTH OF PROJECT = 0.714 MILES



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2006 STANDARD SPECIFICATIONS

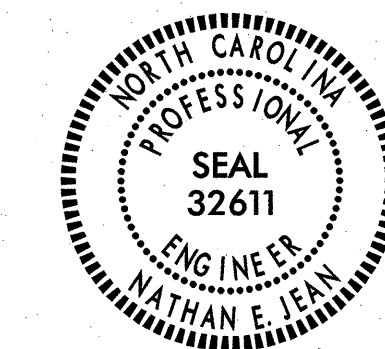
RIGHT OF WAY DATE:

LETTING DATE:
MARCH 16, 2010

NCDOT CONTACT:

MARC MORGAN, PE
DISTRICT ENGINEER - DIV 10 - DIST 1

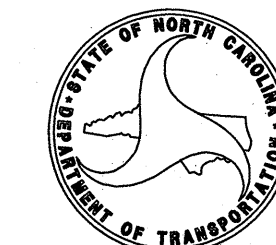
EROSION CONTROL ENGINEER



SIGNATURE: *Nathan E. Lean* P.E.



DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



STATE HIGHWAY DESIGN ENGINEER

12/17/2009 U:\Hydro\003_Morehead\Erosion_Control\morehead_hyd_ec.tsh.dgn

STANDARD DRAWINGS

EFF. 07-18-06
REV. 01-02-07

2006 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in 'Roadway Standard Drawings' Highway Design Branch - N.C. Department of Transportation - Raleigh, N.C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
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DIVISION 16 - EROSION CONTROL AND ROADSIDE DEVELOPMENT

1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1630.05	Temporary Diversion
1632.02	Rock Inlet Sediment Trap Type 'B'
1632.03	Rock Inlet Sediment Trap Type 'C'
1633.02	Temporary Rock Silt Check Type 'B'
1634.02	Temporary Rock Sediment Dam Type 'B'
1635.01	Rock Pipe Inlet Sediment Trap Type 'A'
1635.02	Rock Pipe Inlet Sediment Trap Type 'B'

GENERAL NOTES

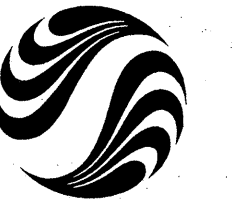
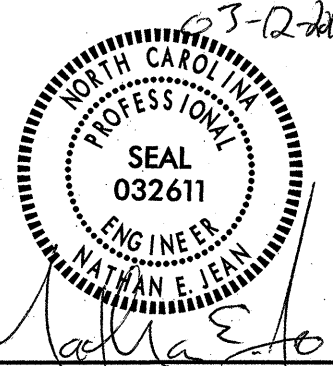
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND LOCAL ORDINANCES IN OBSERVING EROSION AND SEDIMENT CONTROL MEASURES BOTH ON AND OFF SITE.
2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES.
3. IF CURRENT MEASURE ARE DEEMED INADEQUATE, ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED.
4. CIVIL PENALTIES ASSESSED BY THE STATE OR LOCAL AUTHORITIES CARRY A MAXIMUM FINE OF \$5000 PER DAY PER VIOLATION FOR EACH DAY THE SITE IS IN VIOLATION.
5. SLOPES ARE NOT TO BE GRADED STEEPER THAN 2:1 AND MUST BE VEGETATED OR OTHERWISE STABILIZED WITHIN 21 CALENDAR DAYS OF COMPLETION OF A PHASE OF GRADING.
6. PERMANENT GROUND COVER FOR ALL DISTURBED AREAS MUST BE PROVIDED WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS (WHICHEVER IS SHORTER) FOLLOWING COMPLETION OF CONSTRUCTION.
7. TEMPORARY AND PERMANENT SEEDING OF DENUDED AREAS WILL BE DONE ACCORDING TO THE VEGETATION PLAN. AREAS WILL BE RESEEDED AS NECESSARY TO MAINTAIN GOOD VEGETATIVE COVER.
8. CONSULT COUNTY EXTENSION OFFICE OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. ANY ALTERNATIVES FOR VEGETATIVE STABILIZATION SHALL REQUIRE APPROVAL BEFORE INSTALLATION.
9. TEMPORARY DRIVEWAY PERMIT FOR CONSTRUCTION ENTRANCES IN NC DOT RIGHT OF WAY MUST BE PRESENTED AT PRE-CONSTRUCTION CONFERENCE.
10. ANY DEVIATION FROM OPTIONS GIVEN IN THIS PLAN WILL REQUIRE PRIOR APPROVAL.
11. IF THE SAME PERSON IS CONDUCTING THE LAND-DISTURBING ACTIVITY & ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT.
12. IF THIS LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THRU THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.

MAINTENANCE PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES.

1. ALL MEASURES SHALL BE INSPECTED FOR STABILITY AND OPERATION WEEKLY OR WITHIN 24 HOURS AFTER ANY RAINFALL EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.
2. RECORDS OF INSPECTIONS, INCLUDING BUT NOT LIMITED TO WEATHER CONDITIONS AND ANY REPAIRS OR MAINTENANCE NEEDED, MAY BE REQUIRED AND KEPT BY THE CONTRACTOR FOR A TIME SPECIFIED BY THE EROSION CONTROL INSPECTOR.
3. CLEAN OUT ALL SEDIMENT TRAPS AND SEDIMENT BASINS WHEN ACCUMULATION OF SEDIMENT REACHES A DEPTH THAT IS HALF OF THE DESIGN DEPTH. SEDIMENT SHALL BE DISPOSED OF ON THE PROJECT ONLY IN PROTECTION AREAS OR HAULED AWAY IF NOT SUITABLE FOR FILL MATERIAL.
4. CLEAN OR REPLACE GRAVEL WHEN BASINS NO LONGER DRAIN PROPERLY.
5. REMOVE SEDIMENT FROM BEHIND SILT FENCE WHEN DEPTH REACHES HALF THE FENCE HEIGHT. REPAIR OR REPLACE FABRIC AS NECESSARY TO MAINTAIN SEDIMENT BARRIER.
6. IF ANY EROSION AND SEDIMENT CONTROL MEASURE IS FOUND TO BE UNSTABLE OR NOT FUNCTIONING PROPERLY, REPAIRS SHOULD BE DONE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. IF DESIGN HAS TO BE REVISED TO IMPROVE PERFORMANCE, COORDINATE REVISIONS WITH EROSION CONTROL INSPECTOR AND LAND QUALITY.
7. ALL PERMANENTLY VEGETATED AREAS SHALL BE SPREAD WITH TOPSOIL, SEEDED, FERTILIZED, MULCHED, AND RESEEDED ACCORDING TO THE SPECIFICATIONS IN THE VEGETATION PLAN AS TO MAINTAIN A VIGOROUS AND DENSE VEGETATIVE COVER.

EROSION CONTROL
ENGINEER

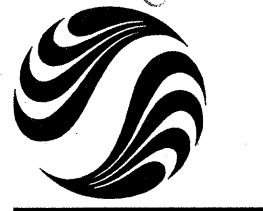
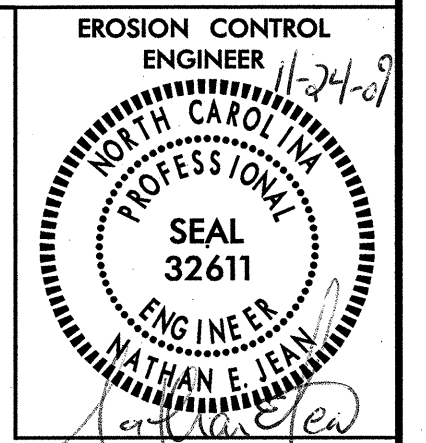


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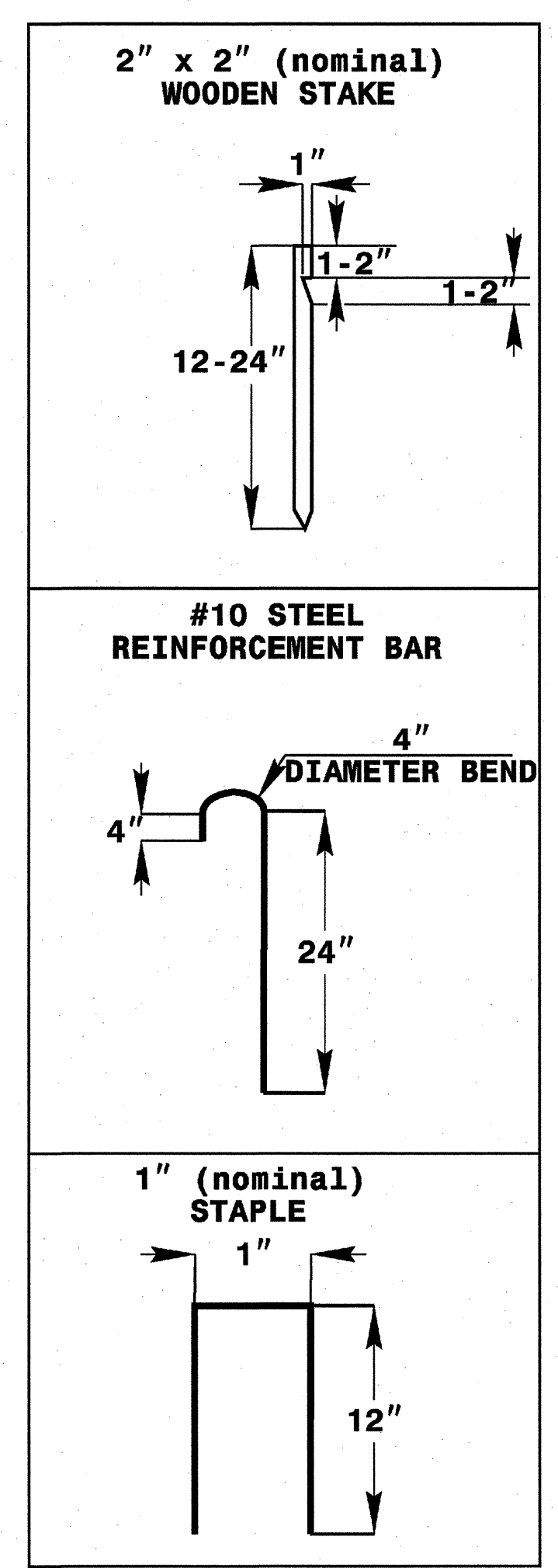
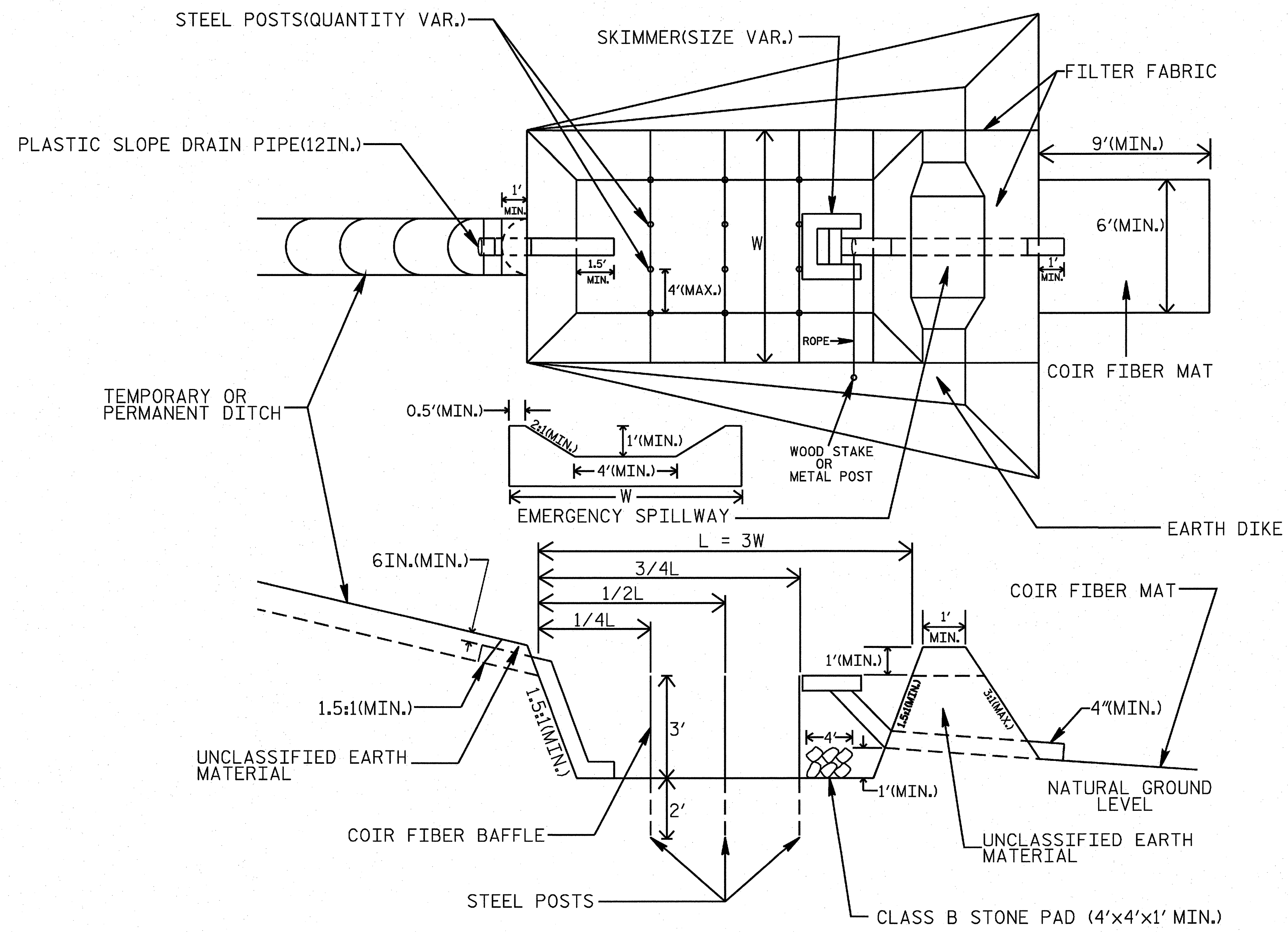
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-5145	EC-1C
EROSION CONTROL DETAILS	



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SKIMMER BASIN WITH BAFFLES DETAIL



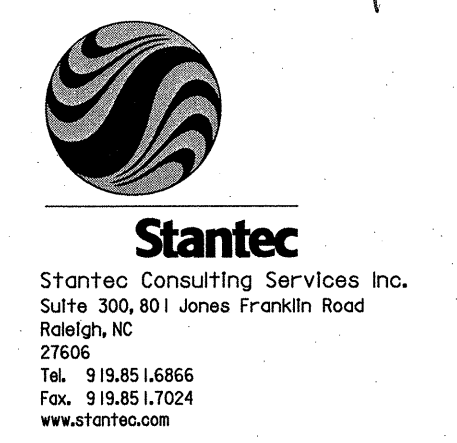
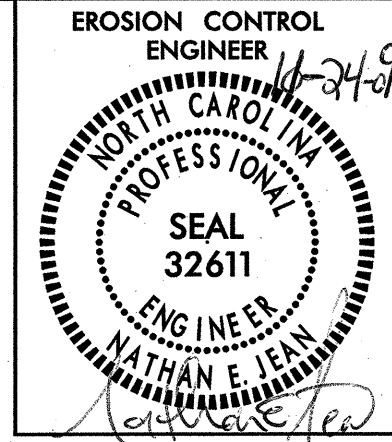
COIR FIBER MAT ANCHOR OPTIONS

NOT TO SCALE

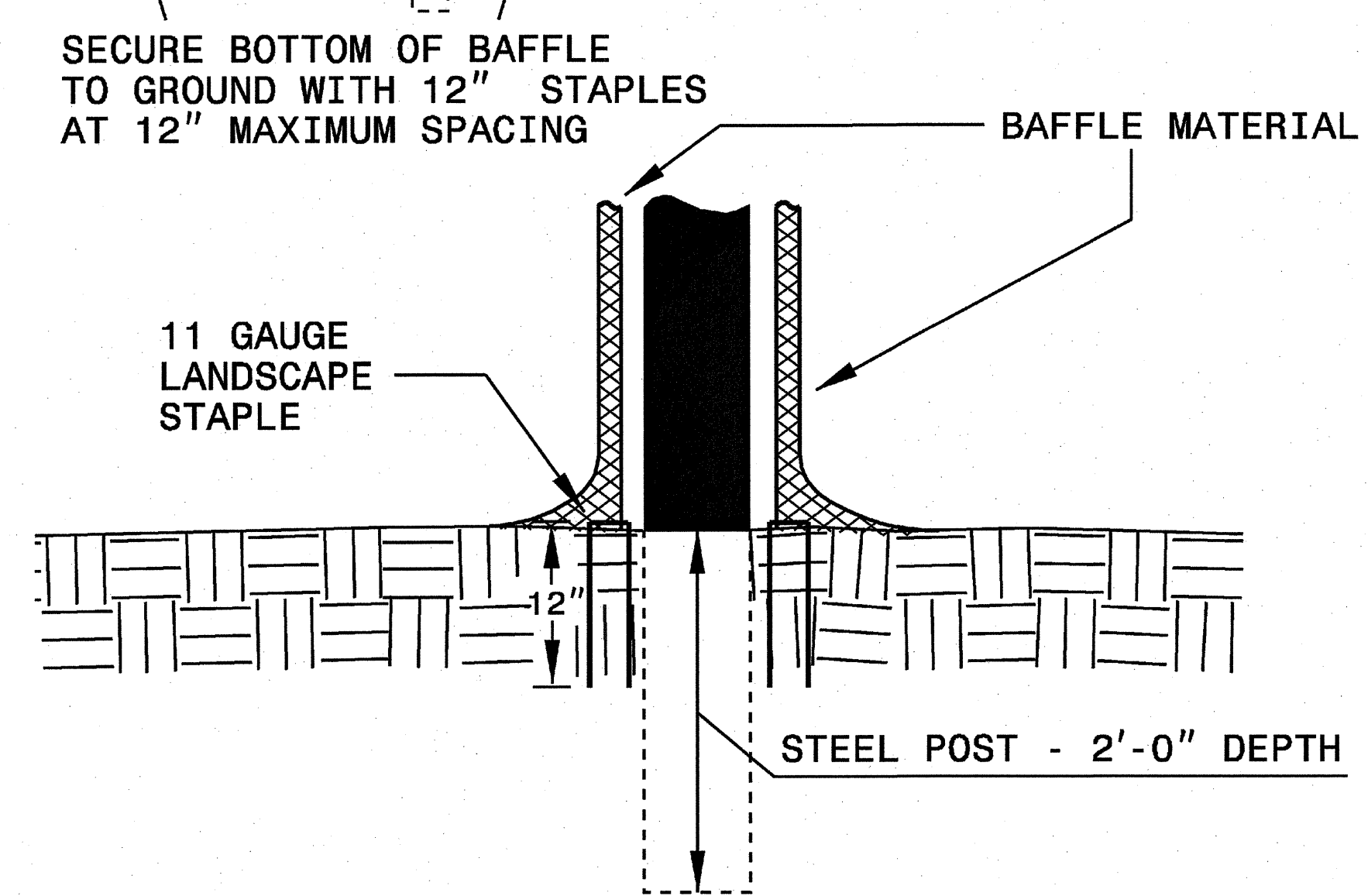
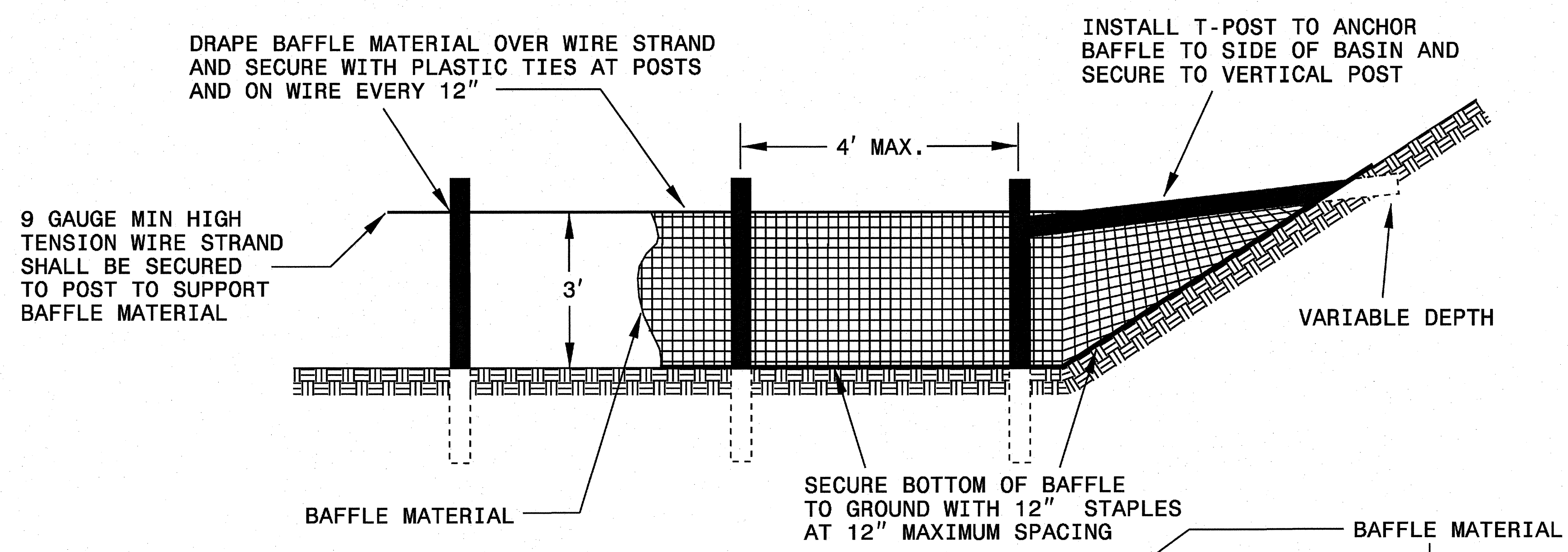
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING $Q/0.8$. WHERE Q IS FLOW RATE (CFS) INTO BASIN.

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COIR FIBER BAFFLE DETAIL

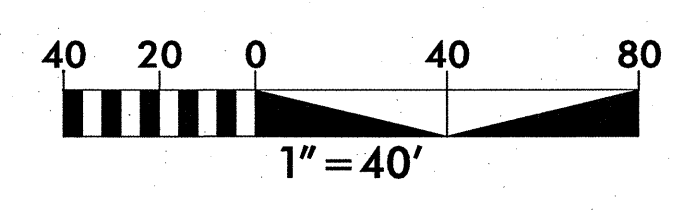


NOTES:

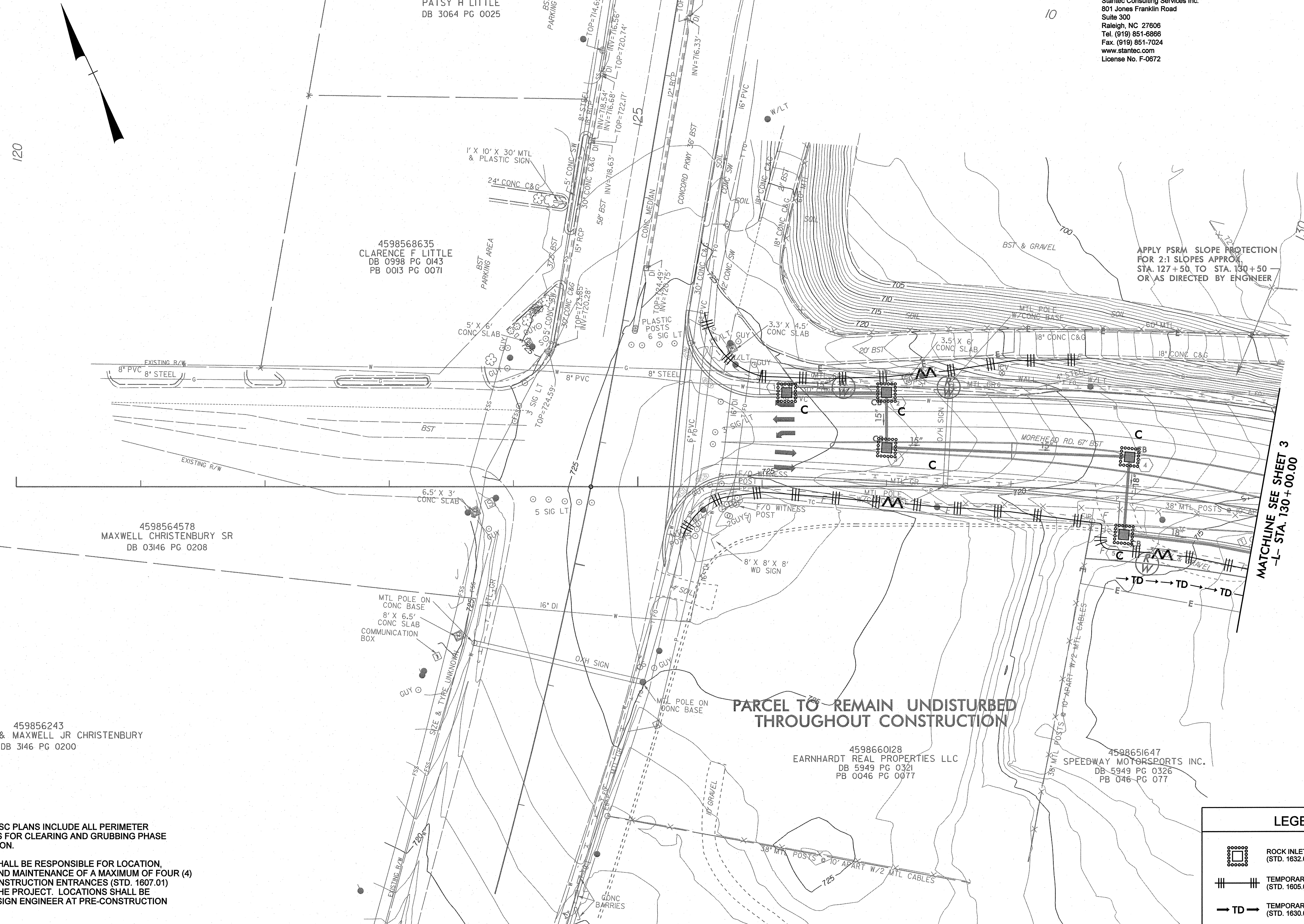
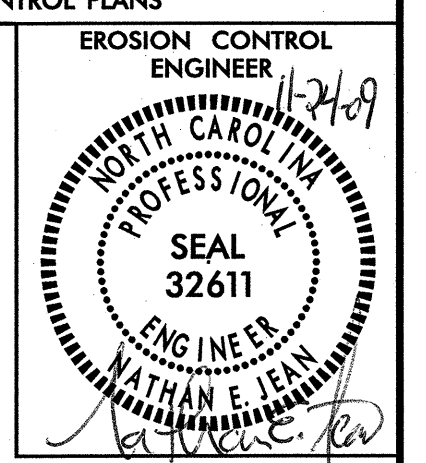
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH.
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

8/17/99
11/23/2009
u:\hydraulics\003-morehead\erosion_control\Morehead_hyd_ec_1D.dgn
colligan



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APPLY PSRM SLOPE PROTECTION FOR 2:1 SLOPES APPROX. STA. 127+50 TO STA. 130+50 OR AS DIRECTED BY ENGINEER

PARCEL TO REMAIN UNDISTURBED THROUGHOUT CONSTRUCTION

MATCHLINE SEE SHEET 3
 -L- STA. 130+00.00

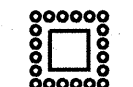
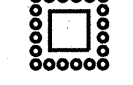

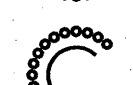
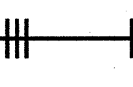



NOTE:
 FINAL PHASE E&S PLANS INCLUDE ALL PERIMETER E&S CONTROLS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

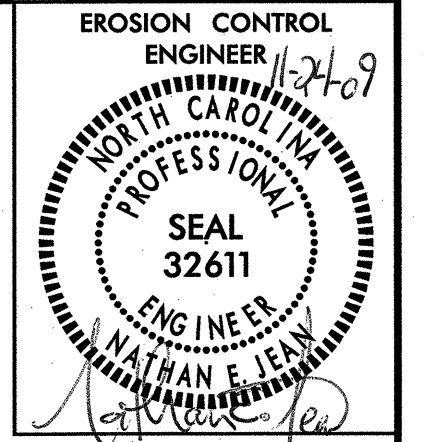
CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, INSTALLATION AND MAINTENANCE OF A MAXIMUM OF FOUR (4) TEMPORARY CONSTRUCTION ENTRANCES (STD. 1607.01) THROUGHOUT THE PROJECT. LOCATIONS SHALL BE VERIFIED BY DESIGN ENGINEER AT PRE-CONSTRUCTION MEETING.

LEGEND	
	ROCK INLET SEDIMENT TRAP- TYPE C (STD. 1632.03)
	TEMPORARY SILT FENCE (STD. 1605.01)
	TEMPORARY DIVERSION (STD. 1630.05)
	SPECIAL SEDIMENT CONTROL FENCE (1606.01)

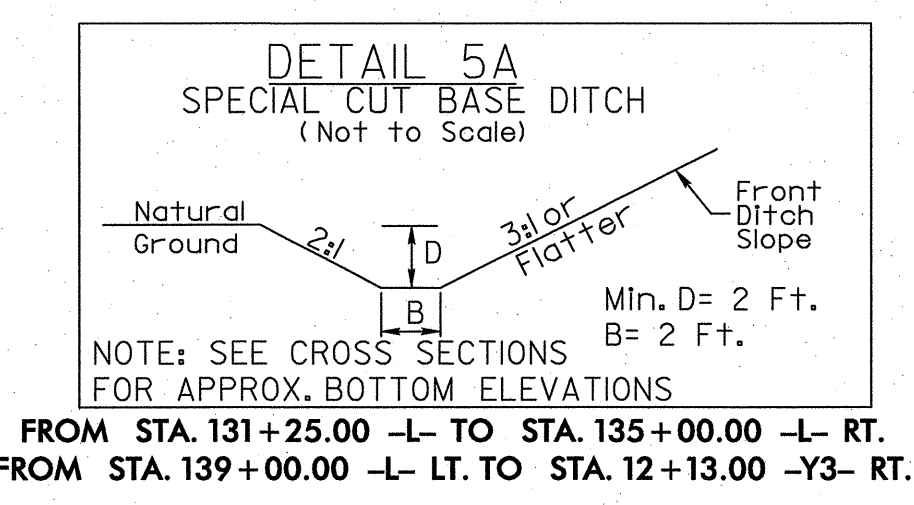
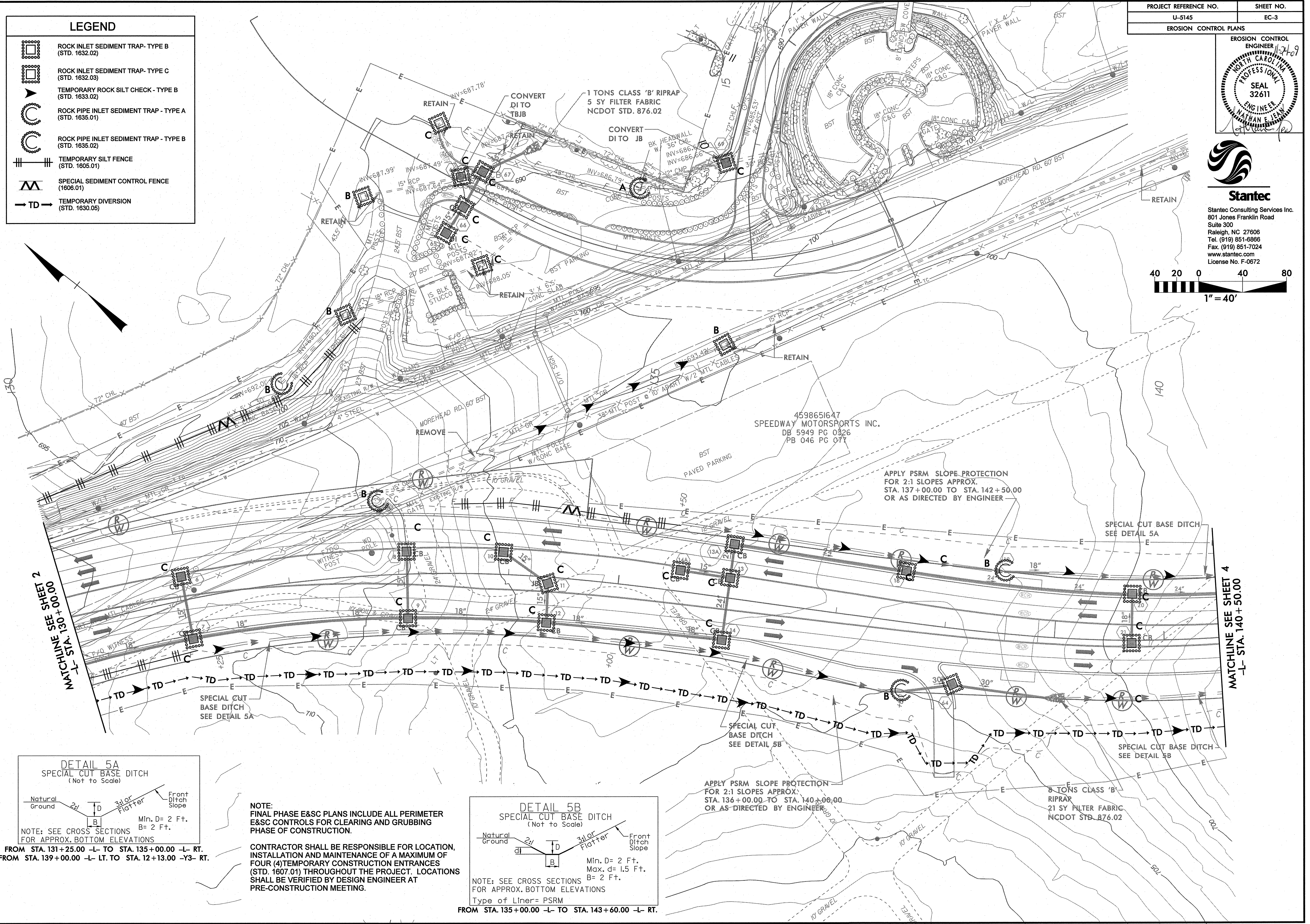
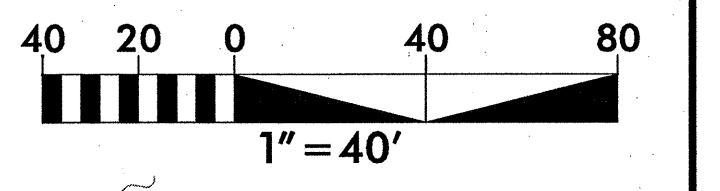
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LEGEND

-  ROCK INLET SEDIMENT TRAP - TYPE B (STD. 1632.02)
-  ROCK INLET SEDIMENT TRAP - TYPE C (STD. 1632.03)
-  TEMPORARY ROCK SILT CHECK - TYPE B (STD. 1633.02)
-  ROCK PIPE INLET SEDIMENT TRAP - TYPE A (STD. 1635.01)
-  ROCK PIPE INLET SEDIMENT TRAP - TYPE B (STD. 1635.02)
-  TEMPORARY SILT FENCE (STD. 1605.01)
-  SPECIAL SEDIMENT CONTROL FENCE (1606.01)
-  TEMPORARY DIVERSION (STD. 1630.05)

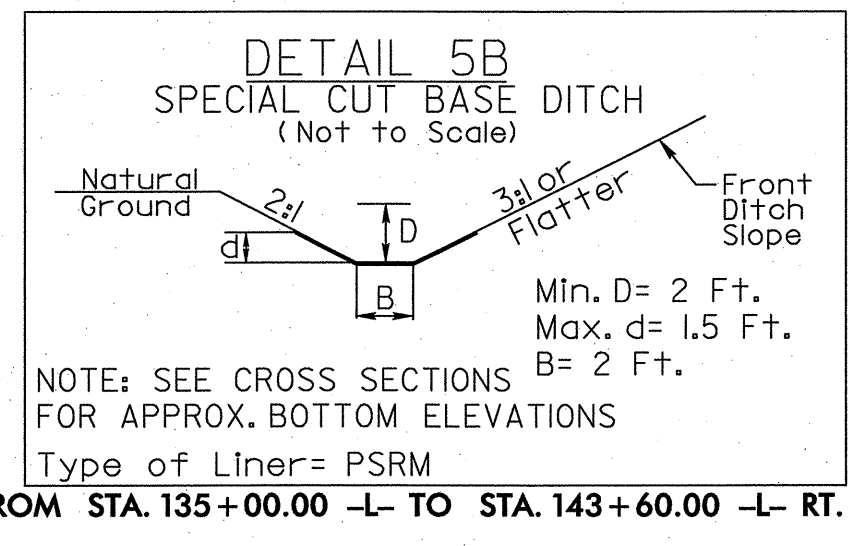


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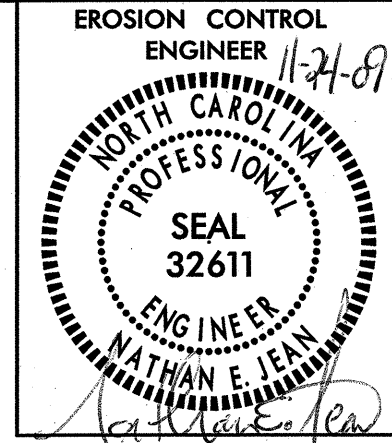
NOTE:
FINAL PHASE E&SC PLANS INCLUDE ALL PERIMETER E&SC CONTROLS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, INSTALLATION AND MAINTENANCE OF A MAXIMUM OF FOUR (4) TEMPORARY CONSTRUCTION ENTRANCES (STD. 1607.01) THROUGHOUT THE PROJECT. LOCATIONS SHALL BE VERIFIED BY DESIGN ENGINEER AT PRE-CONSTRUCTION MEETING.

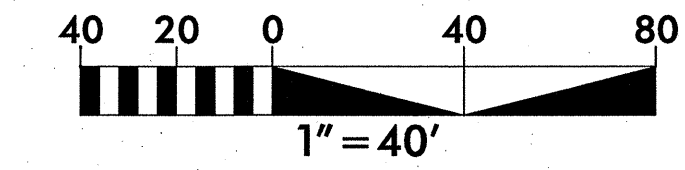


APPLY PSRM SLOPE PROTECTION FOR 2:1 SLOPES APPROX. STA. 136+00.00 TO STA. 140+00.00 OR AS DIRECTED BY ENGINEER

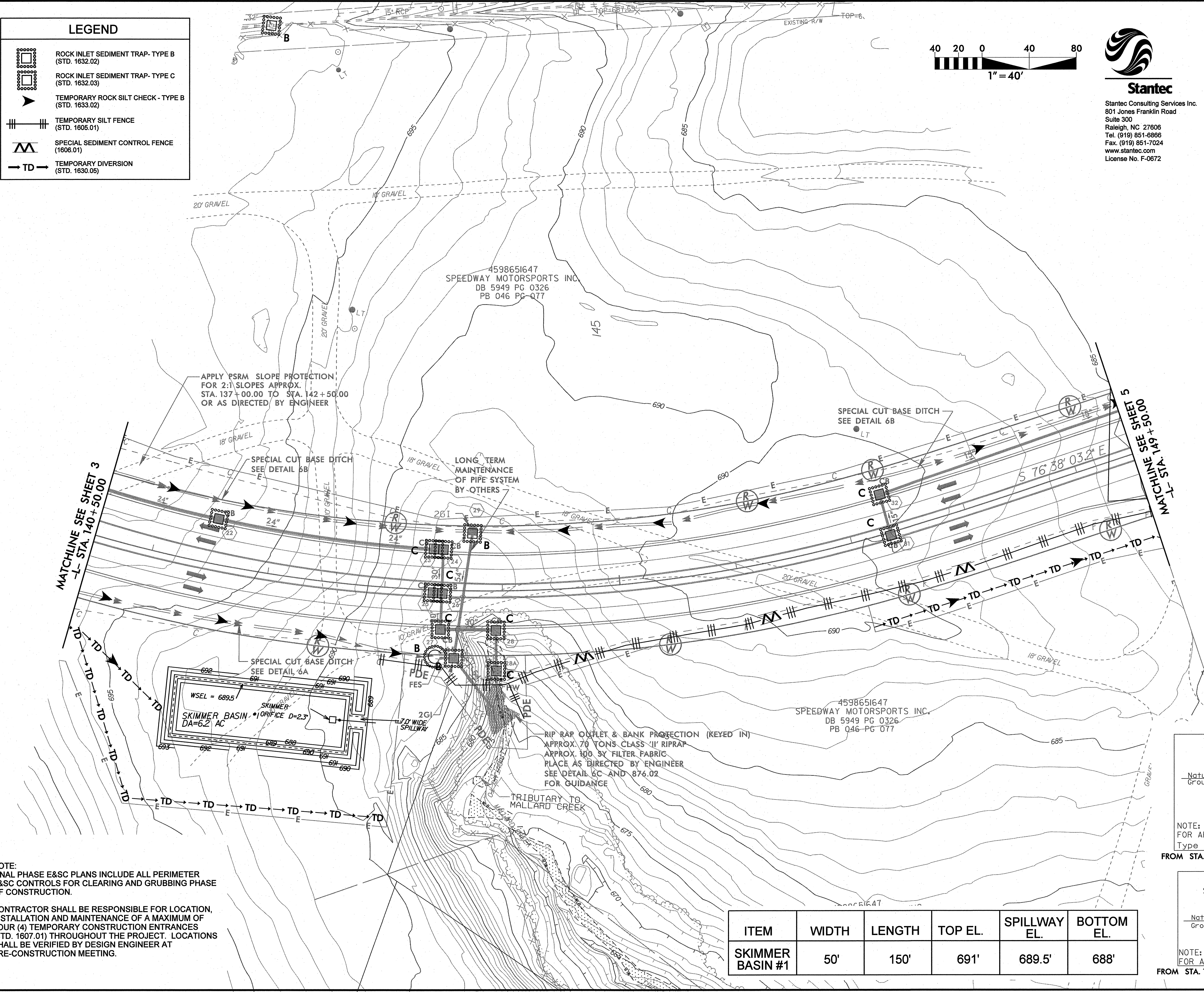
8 TONS CLASS 'B' RIPRAP
21 SY FILTER FABRIC
NCDOT STD. 876.02



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LEGEND	
	ROCK INLET SEDIMENT TRAP - TYPE B (STD. 1632.02)
	ROCK INLET SEDIMENT TRAP - TYPE C (STD. 1632.03)
	TEMPORARY ROCK SILT CHECK - TYPE B (STD. 1633.02)
	TEMPORARY SILT FENCE (STD. 1605.01)
	SPECIAL SEDIMENT CONTROL FENCE (1606.01)
	TEMPORARY DIVERSION (STD. 1630.05)



MATCHLINE SEE SHEET 3
-L- STA. 140+50.00

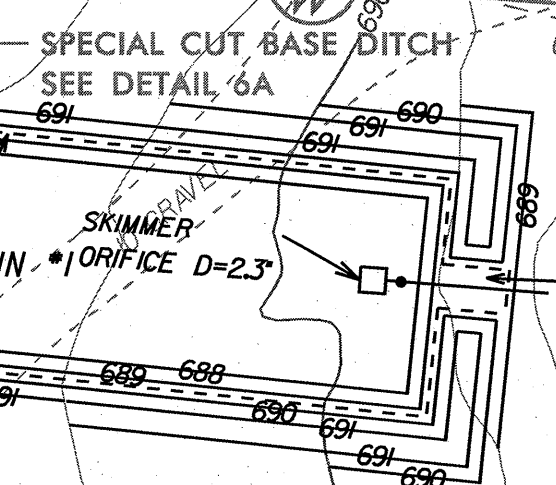
MATCHLINE SEE SHEET 5
0+00 TO STA. 141+19.00

APPLY PSRM SLOPE PROTECTION FOR 2:1 SLOPES APPROX. STA. 137+00.00 TO STA. 142+50.00 OR AS DIRECTED BY ENGINEER

4598651647
 SPEEDWAY MOTORSPORTS INC.
 DB 5949 PG 0326
 PB 046 PG 077

LONG TERM MAINTENANCE OF PIPE SYSTEM BY OTHERS

SPECIAL CUT BASE DITCH SEE DETAIL 6B

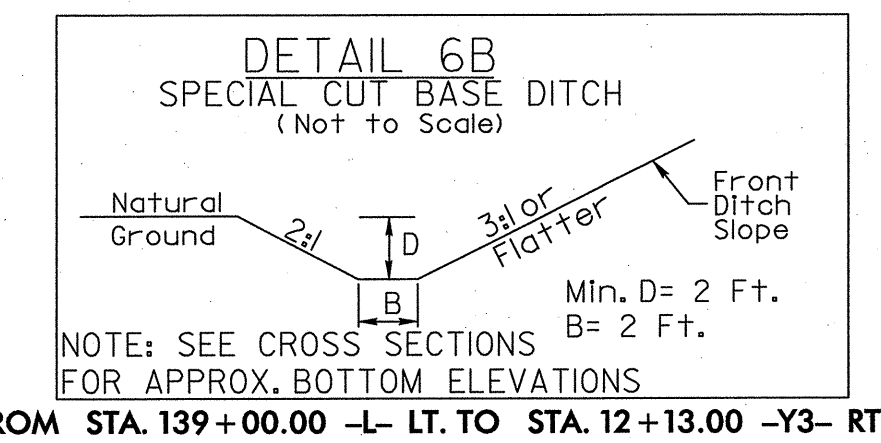
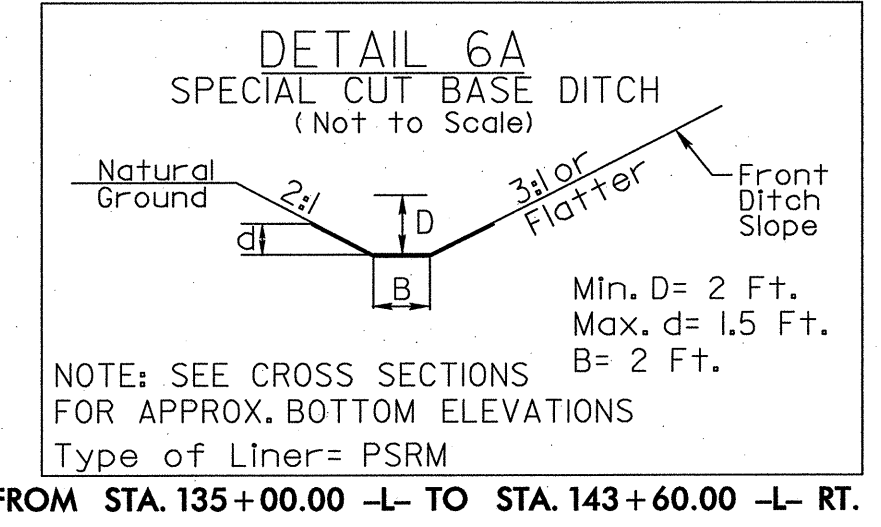


TRIBUTARY TO MALLARD CREEK
 RIP RAP OUTLET & BANK PROTECTION (KEYED IN)
 APPROX. 70 TONS CLASS #1 RIPRAP
 APPROX. 100 SY FILTER FABRIC
 PLACE AS DIRECTED BY ENGINEER
 SEE DETAIL 6C AND 876.02 FOR GUIDANCE

4598651647
 SPEEDWAY MOTORSPORTS INC.
 DB 5949 PG 0326
 PB 046 PG 077

NOTE:
 FINAL PHASE E&S PLANS INCLUDE ALL PERIMETER E&S CONTROLS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, INSTALLATION AND MAINTENANCE OF A MAXIMUM OF FOUR (4) TEMPORARY CONSTRUCTION ENTRANCES (STD. 1607.01) THROUGHOUT THE PROJECT. LOCATIONS SHALL BE VERIFIED BY DESIGN ENGINEER AT PRE-CONSTRUCTION MEETING.

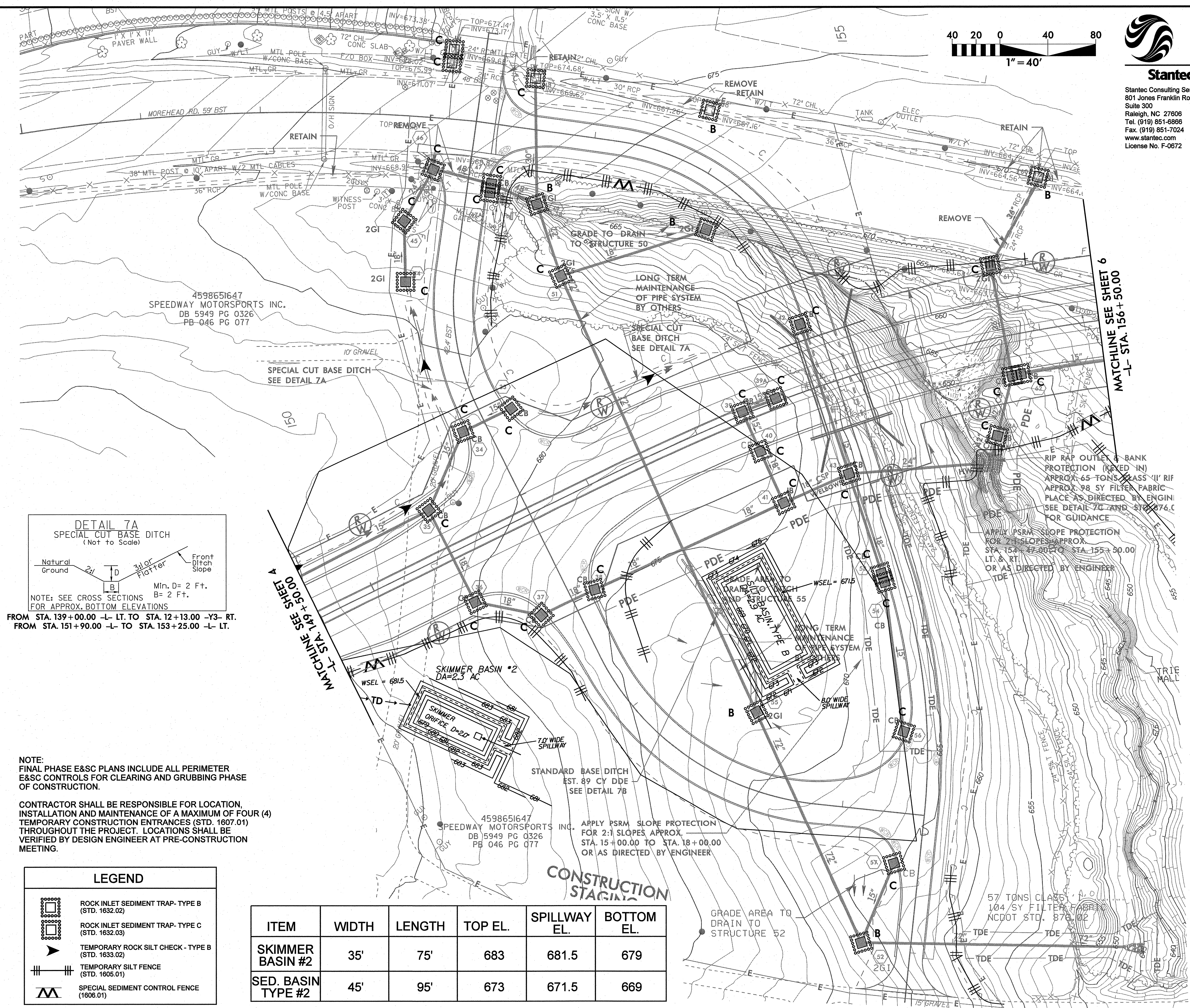


ITEM	WIDTH	LENGTH	TOP EL.	SPILLWAY EL.	BOTTOM EL.
SKIMMER BASIN #1	50'	150'	691'	689.5'	688'

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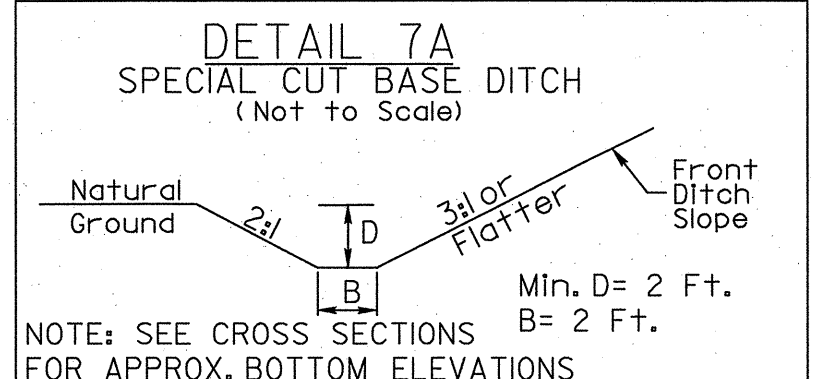
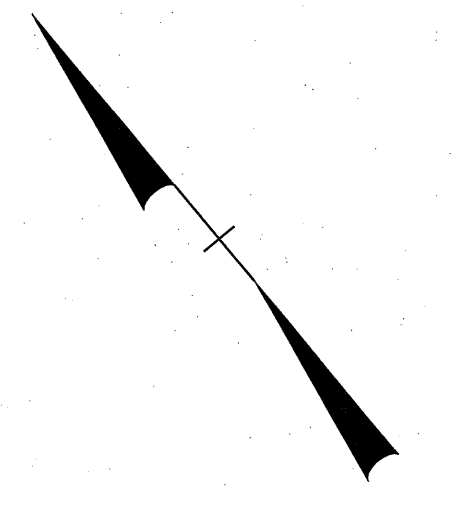
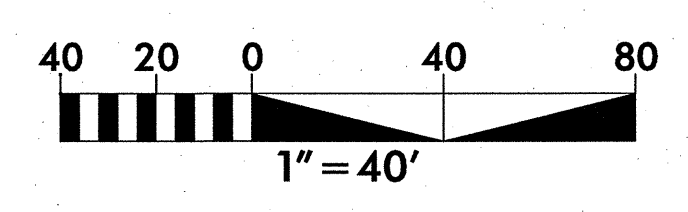
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11/23/2009
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PROJECT REFERENCE NO.	SHEET NO.
U-5145	EC-5
EROSION CONTROL PLANS	
EROSION CONTROL ENGINEER	

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FROM STA. 139+00.00 -L- LT. TO STA. 12+13.00 -Y3- RT.
 FROM STA. 151+90.00 -L- TO STA. 153+25.00 -L- LT.

NOTE:
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CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, INSTALLATION AND MAINTENANCE OF A MAXIMUM OF FOUR (4) TEMPORARY CONSTRUCTION ENTRANCES (STD. 1607.01) THROUGHOUT THE PROJECT. LOCATIONS SHALL BE VERIFIED BY DESIGN ENGINEER AT PRE-CONSTRUCTION MEETING.

LEGEND	
	ROCK INLET SEDIMENT TRAP - TYPE B (STD. 1632.02)
	ROCK INLET SEDIMENT TRAP - TYPE C (STD. 1632.03)
	TEMPORARY ROCK SILT CHECK - TYPE B (STD. 1633.02)
	TEMPORARY SILT FENCE (STD. 1605.01)
	SPECIAL SEDIMENT CONTROL FENCE (1606.01)

ITEM	WIDTH	LENGTH	TOP EL.	SPILLWAY EL.	BOTTOM EL.
SKIMMER BASIN #2	35'	75'	683	681.5	679
SED. BASIN TYPE #2	45'	95'	673	671.5	669

RIP RAP OUTLET & BANK PROTECTION (KEYED IN) APPROX. 65 TONS CLASS #1 RIP APPROX. 98 SY FILTER FABRIC PLACE AS DIRECTED BY ENGINEER SEE DETAIL 7C AND 7D FOR GUIDANCE
 APPLY PSRM SLOPE PROTECTION FOR 2:1 SLOPES APPROX. STA. 154+00.00 TO STA. 155+50.00 LT. & RT. OR AS DIRECTED BY ENGINEER
 TDE

APPLY PSRM SLOPE PROTECTION FOR 2:1 SLOPES APPROX. STA. 15+00.00 TO STA. 18+00.00 OR AS DIRECTED BY ENGINEER

CONSTRUCTION STAGING

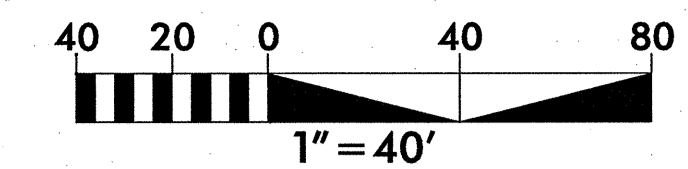
MATCHLINE SEE SHEET 6
 -L- STA. 156 + 50.00

MATCHLINE SEE SHEET 4
 -L- STA. 149 + 50.00

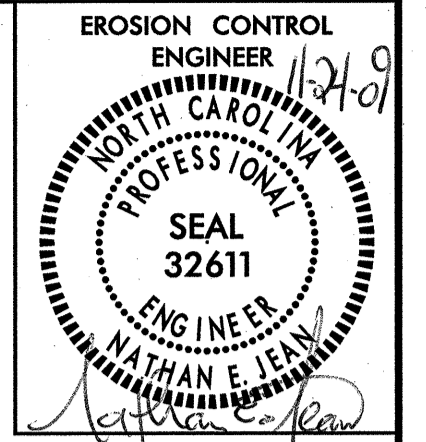
4598651647
 SPEEDWAY MOTORSPORTS INC.
 DB 5949 PG 0326
 PB 046 PG 077

GRADE AREA TO DRAIN TO STRUCTURE 52

57 TONS CLASS #1
 104 SY FILTER FABRIC
 NCDOT STD. 875.012



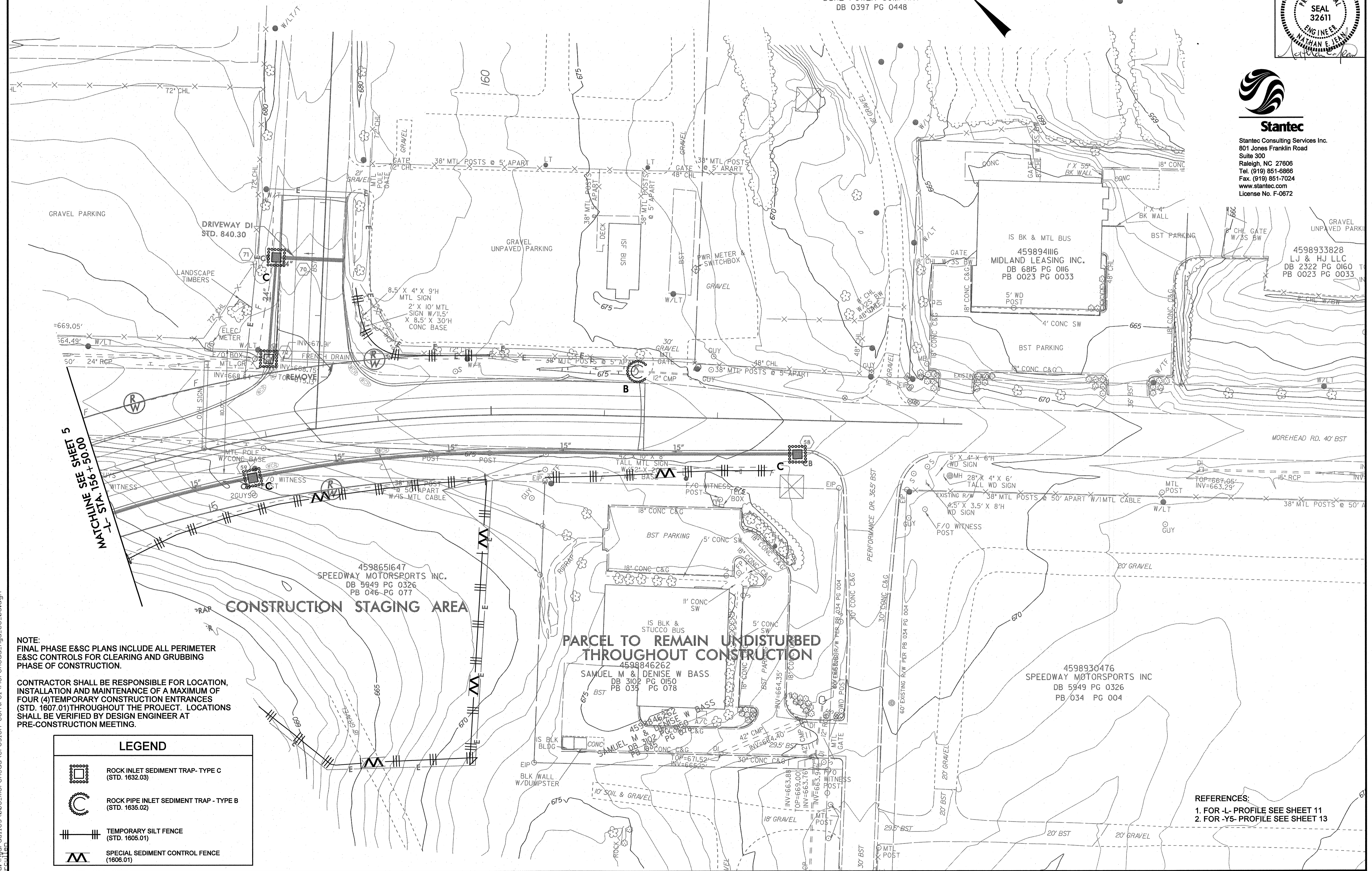
4598942399
DUKE POWER COMPANY
DB 0397 PG 0448



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License No. F-0672

4598933828
LJ & HJ LLC
DB 2322 PG 0160
PB 0023 PG 0033

4598930476
SPEEDWAY MOTORSPORTS INC
DB 5949 PG 0326
PB 034 PG 004



MATCHLINE SEE SHEET 5
T-SIA 156 + 50.00

NOTE:
FINAL PHASE E&S PLANS INCLUDE ALL PERIMETER E&S CONTROLS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, INSTALLATION AND MAINTENANCE OF A MAXIMUM OF FOUR (4) TEMPORARY CONSTRUCTION ENTRANCES (STD. 1607.01) THROUGHOUT THE PROJECT. LOCATIONS SHALL BE VERIFIED BY DESIGN ENGINEER AT PRE-CONSTRUCTION MEETING.

LEGEND	
	ROCK INLET SEDIMENT TRAP - TYPE C (STD. 1632.03)
	ROCK PIPE INLET SEDIMENT TRAP - TYPE B (STD. 1635.02)
	TEMPORARY SILT FENCE (STD. 1605.01)
	SPECIAL SEDIMENT CONTROL FENCE (1608.01)

REFERENCES:
1. FOR -L- PROFILE SEE SHEET 11
2. FOR -Y5- PROFILE SEE SHEET 13