

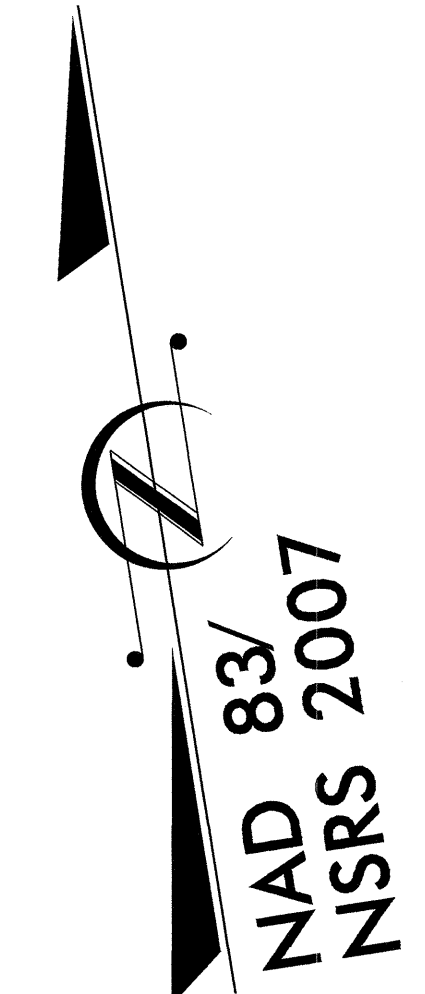
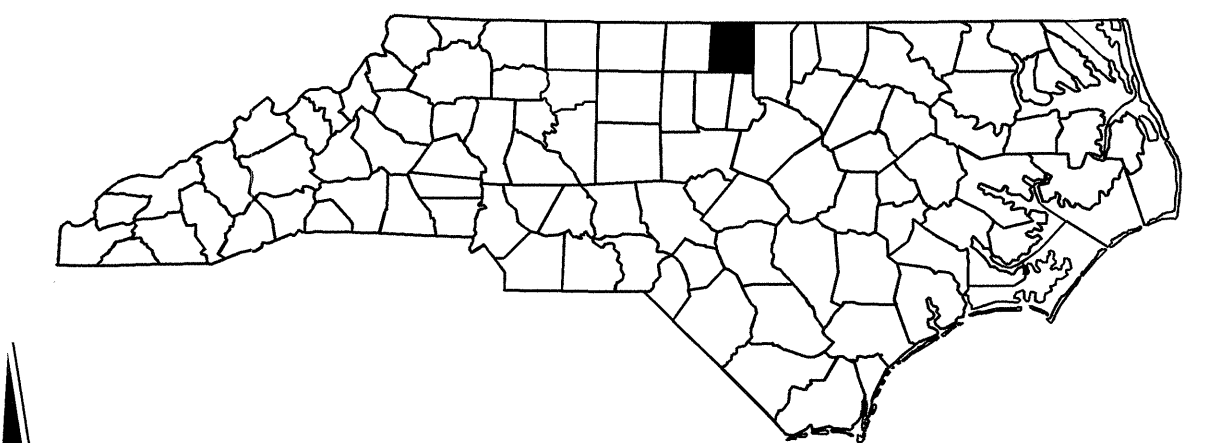
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4784	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38555.1.1	BRZ-1134(3)	PE	
38555.2.1	BRZ-1134(3)	R/W, UTL	
38555.3.FD1	BRZ-1134(3)	CONST	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

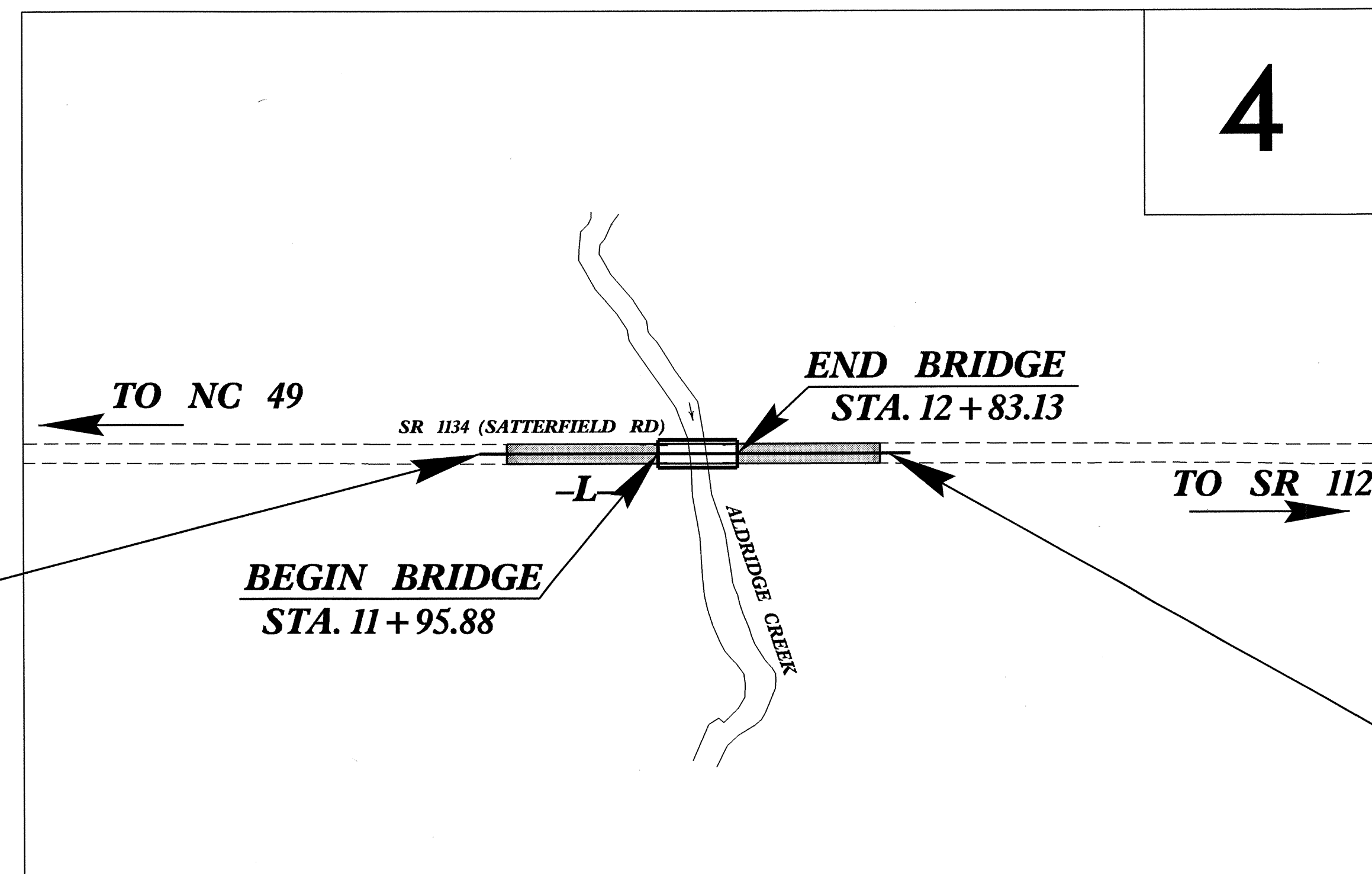
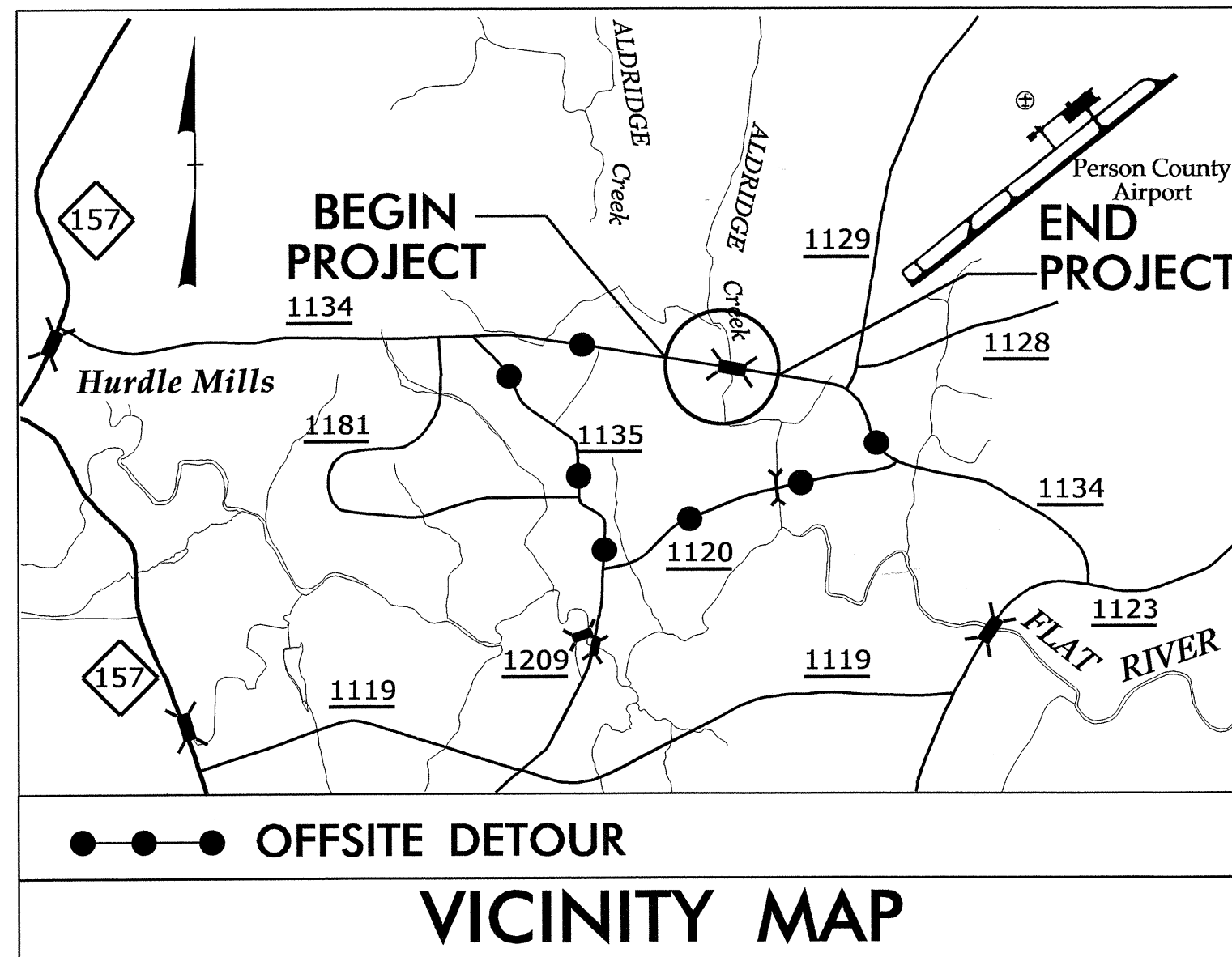
**PERSON COUNTY**

LOCATION: BRIDGE 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTEFIELD RD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

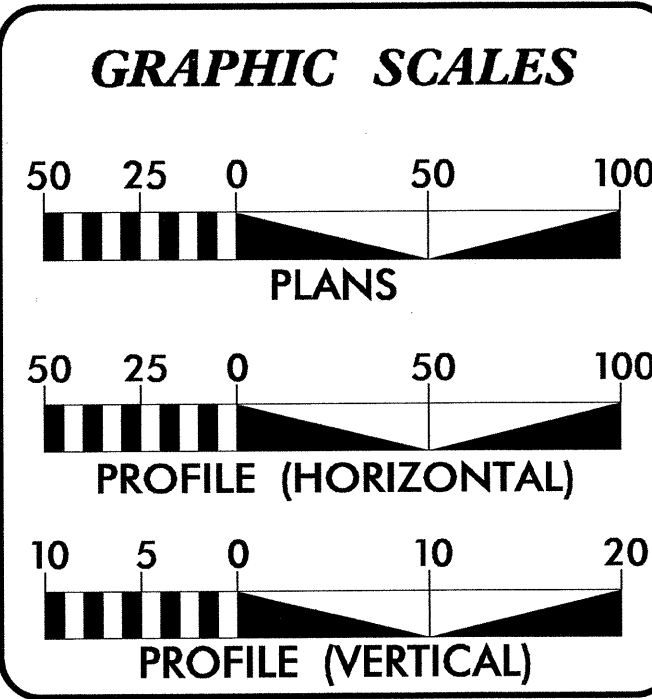


See Sheet 1-A For Index of Sheets



TIP PROJECT: B-4784

CONTRACT: C203260



**DESIGN DATA**

ADT 2013 =	877
ADT 2035 =	1,300
DHV =	10 %
D =	60 %
T =	9 % *
V =	55 MPH
* (TTST 1% + DUAL 8%)	
FUNC CLASS =	RURAL LOCAL
SUBREGIONAL TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-4784	=	0.068
LENGTH STRUCTURE TIP PROJECT B-4784	=	0.017
TOTAL LENGTH TIP PROJECT B-4784	=	0.085

Prepared In the Office of:  
**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
NOVEMBER 20, 2012

LETTING DATE:  
NOVEMBER 19, 2013

TONY HOUSER, PE  
PROJECT ENGINEER

BRUCE PAYNE, PE  
PROJECT DESIGN ENGINEER

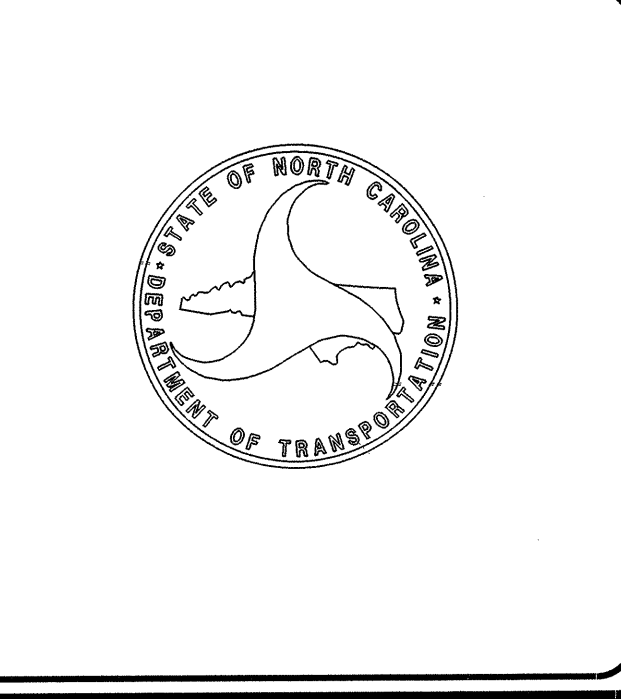
HYDRAULICS ENGINEER

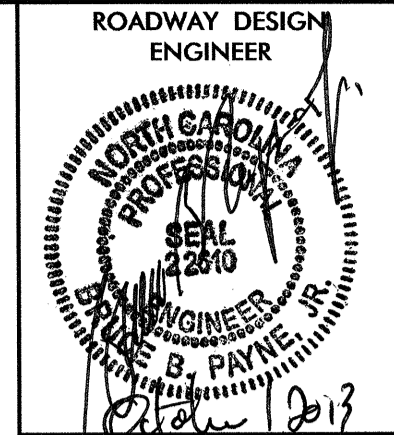
ROADWAY DESIGN ENGINEER

Signature: [Signature]

Signature: [Signature]

August 29, 2013





CONTRACT: C203260  
 TIP PROJECT: B-4784  
 COUNTY: PERSON

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	"INDEX OF SHEETS, GENERAL NOTES," AND LIST OF STANDARDS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL SHEET
2	PAVEMENT SCHEDULE AND TYPICAL SECTION
2-A	"DETAIL - GUARDRAIL ANCHOR UNITS, TYPE III"
3	SUMMARY OF QUANTITIES
3-A	SUMMARY OF DRAINAGE QUANTITIES
3-B	"SUMMARY OF GUARDRAIL, PAVEMENT REMOVAL," AND SUMMARY OF EARTHWORK
4	PLAN/PROFILE SHEET
TCP-1 THRU TCP-3	TRAFFIC CONTROL PLANS
PM-1	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
RF-1	REFORESTRATION PLANS
SIGN-1 THRU SIGN-2	SIGNING PLANS
UO-1 THRU UO-2	UTILITY BY OTHERS
X-1A	CROSS SECTION SUMMARY
X-1 THRU X-4	CROSS SECTIONS
S-1 THRU S-18	STRUCTURE PLANS

GENERAL NOTES: 2012 SPECIFICATIONS  
 EFFECTIVE: 01-17-2012  
 REVISED: 07-30-2012

2012 ROADWAY ENGLISH STANDARD DRAWINGS  
 EFF. 01-17-2012  
 REV. 10-30-2012

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE

Century Link

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.11	Reinforced Bridge Approach Fills - Sub Regional Tier
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
840.00	Concrete Base Pad for Drainage Structures
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.02	Driveway Turnout - Radius Type
862.01	Guardrail Placement
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

12/05/11

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○
Property Corner	⊗
Property Monument	□
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	---WLB---
Proposed Wetland Boundary	---WLB---
Existing Endangered Animal Boundary	---EAB---
Existing Endangered Plant Boundary	---EPB---
Known Soil Contamination: Area or Site	☠
Potential Soil Contamination: Area or Site	☠?

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	⊙
Small Mine	⊗
Foundation	▭
Area Outline	▭
Cemetery	⊕
Building	▭
School	▭
Church	▭
Dam	▭

## HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	▭
Jurisdictional Stream	---JS---
Buffer Zone 1	---BZ 1---
Buffer Zone 2	---BZ 2---
Flow Arrow	→
Disappearing Stream	→
Spring	○
Wetland	▭
Proposed Lateral, Tail, Head Ditch	▭
False Sump	▭

## RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○
Switch	⊗
RR Abandoned	-----
RR Dismantled	-----

## RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite RW Marker	○
Proposed Control of Access Line with Concrete C/A Marker	○
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	▭

## VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----

Orchard	-----
Vineyard	-----

## EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

## UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	⊕
H-Frame Pole	●
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

## TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	⊕
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

## WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

## TV:

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊕
U/G TV Cable Hand Hole	⊕
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

## GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

## SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	⊕
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	▭
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	▭
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

01/25/12

31-MAY-2013 07:35  
 R:\Locations\Surveys\B4784\_1s\_1c.dgn  
 \$\$\$USERNAME\$\$\$

# SURVEY CONTROL SHEET B-4784 PERSON COUNTY

PROJECT REFERENCE NO.	SHEET NO.
B-4784	I-C
Location and Surveys	

**LOCATION: BRIDGE NO. 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTEFIELD RD)**

NCDOT GPS STATION B4784-1  
 LOCALIZED PROJECT COORDINATES  
 N = 919,907.084  
 E = 2,001,301.056

ROW MARKER PERMANENT EASEMENT-E

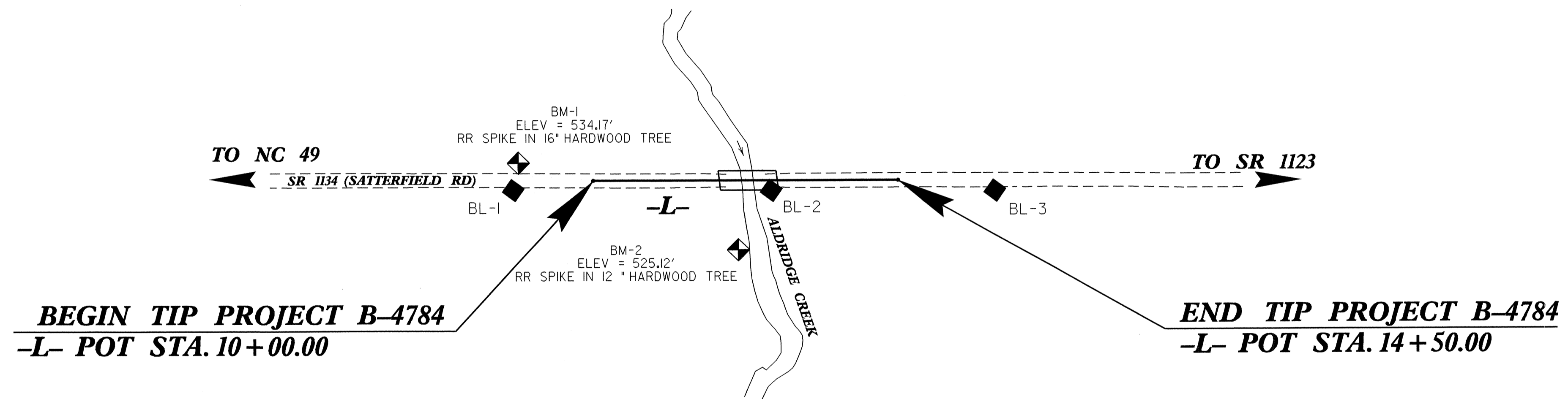
ALIGN	STATION	OFFSET	NORTH	EAST
L	11+63.00	50.00	919146.3587	1998869.6455
L	11+63.00	40.00	919156.2383	1998871.1928
L	13+01.00	50.00	919125.0055	1999005.9834
L	13+01.00	40.00	919134.8850	1999007.5308
L	13+01.00	-50.00	919223.8011	1999021.4568
L	13+01.00	-40.00	919213.9215	1999019.9095
L	11+65.00	-50.00	919244.8449	1998887.0948
L	11+65.00	-40.00	919234.9653	1998885.5474

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	10+00.00	-30.00	919250.6168	1998720.9873
L	10+00.00	-40.00	919260.4964	1998722.5346
L	14+50.00	-40.00	919190.8662	1999167.1149
L	14+50.00	-30.00	919180.9866	1999165.5676
L	14+50.00	30.00	919121.7093	1999156.2836
L	14+50.00	40.00	919111.8297	1999154.7362
L	10+00.00	30.00	919191.3395	1998711.7033
L	10+00.00	40.00	919181.4599	1998710.1559

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	919220.9782	1998716.3453
POT	14+73.83	919147.6601	1999184.4721



NCDOT GPS STATION B4784-2  
 LOCALIZED PROJECT COORDINATES  
 N = 918,884.753  
 E = 2,001,010.610

**HORIZONTAL CONTROL DATA**

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	REBAR & CAP	919225.9680	1998591.0120	534.48	OUTSIDE PROJECT LIMITS	
2	REBAR & CAP	919163.2170	1998987.0230	530.76	12+76.36	15.18 RT
3	REBAR & CAP	919108.5280	1999330.3950	538.59	OUTSIDE PROJECT LIMITS	

**VERTICAL CONTROL DATA**

..... BM-1 ELEVATION = 534.17 N 919267 E 1998606 L STATION 10+00.00 N 67°37'56.73" W DIST 119.78 RR SPIKE IN 16" HARDWOOD .....	..... BM-2 ELEVATION = 525.12 N 919080 E 1998922 L STATION 12+25.00 107 RIGHT RR SPIKE IN 12" HARDWOOD .....
---	---

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4784-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 919907.084(FT) EASTING: 2001301.056(FT) ELEVATION: 586.81(FT) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00000970 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4784-1" TO -L- STATION 10+00.00 IS S 75 08' 01.7"W 2674.22' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

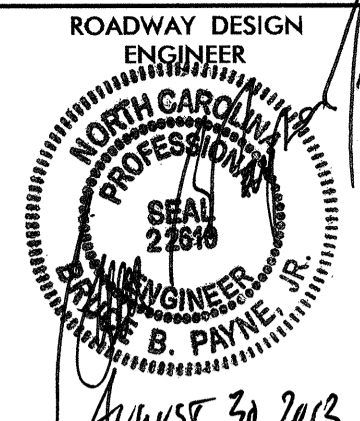

**NOTES:**

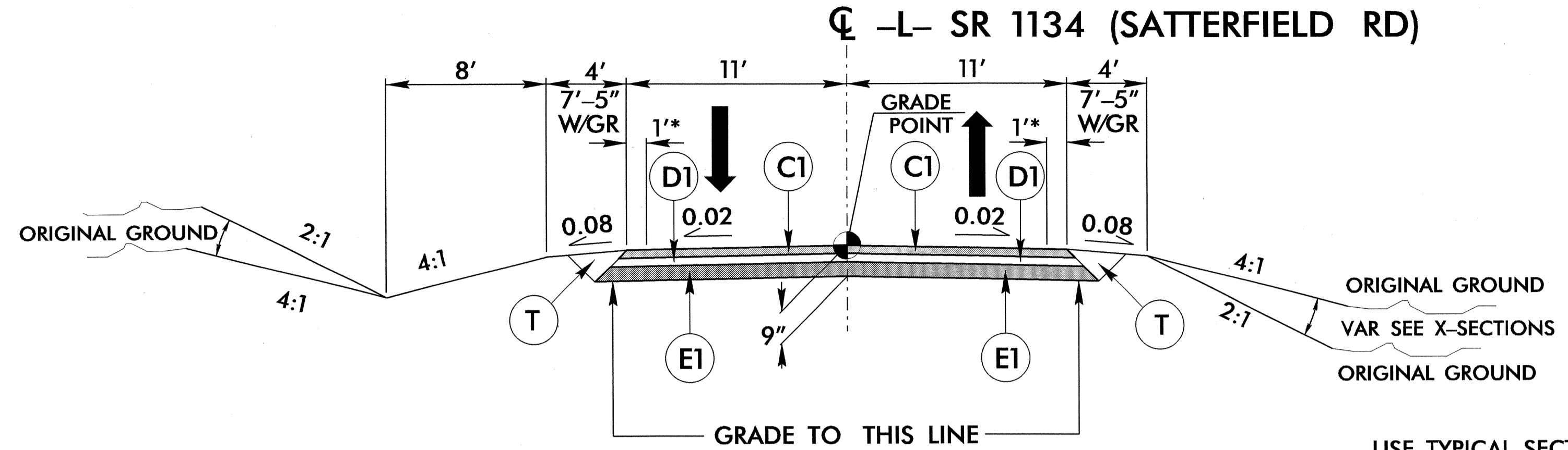
1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/RECONSTRUCT/HIGHWAYLOCATION/PROJECT/](http://www.ncdot.org/DOH/RECONSTRUCT/HIGHWAYLOCATION/PROJECT/)  
 THE FILES TO BE FOUND ARE AS FOLLOWS:  
 B4784\_LS\_CONTROL.TXT  
 SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- ⊕ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.  
 PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.  
 NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)  
 SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

**NOTE: DRAWING NOT TO SCALE**

8/17/09

26-AUG-2013 09:46  
 R:\Roadway\Projects\B4784\_Rdy\_tup.dgn  
 \$\$\$\$SURRENDER\$\$\$\$

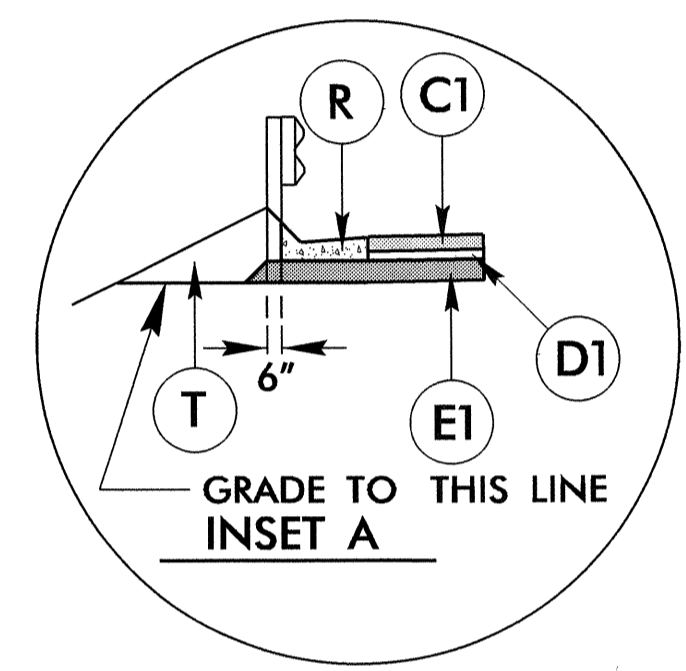
PROJECT REFERENCE NO. B-4784	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER  CLARK S. MORRICE	PAVEMENT ENGINEER  CLARK S. MORRICE



TYPICAL SECTION NO. 1

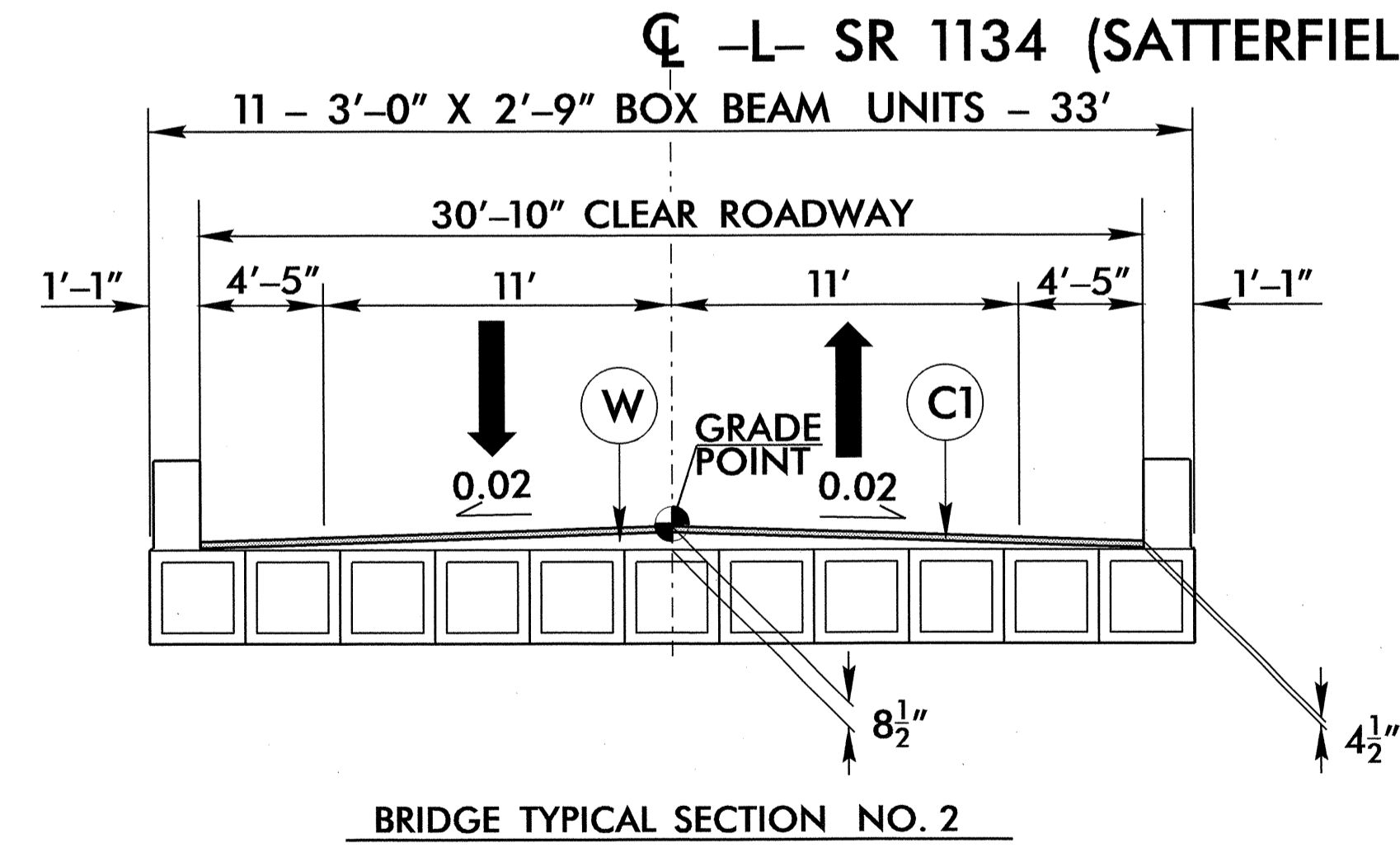
USE TYPICAL SECTION NO. 1  
 -L- STA. 10+30.00 TO -L- STA. 11+95.88 (BEGIN BRIDGE)  
 -L- STA. 12+83.13 (END BRIDGE) TO -L- STA. 14+40.00

\* DENOTES LOCATION OF PAINT STRIPE AS REQUESTED BY DIVISION 5.



USE INSET A

-L- STA. 11+68.88 TO -L- STA. 11+95.88 (RT & LT)

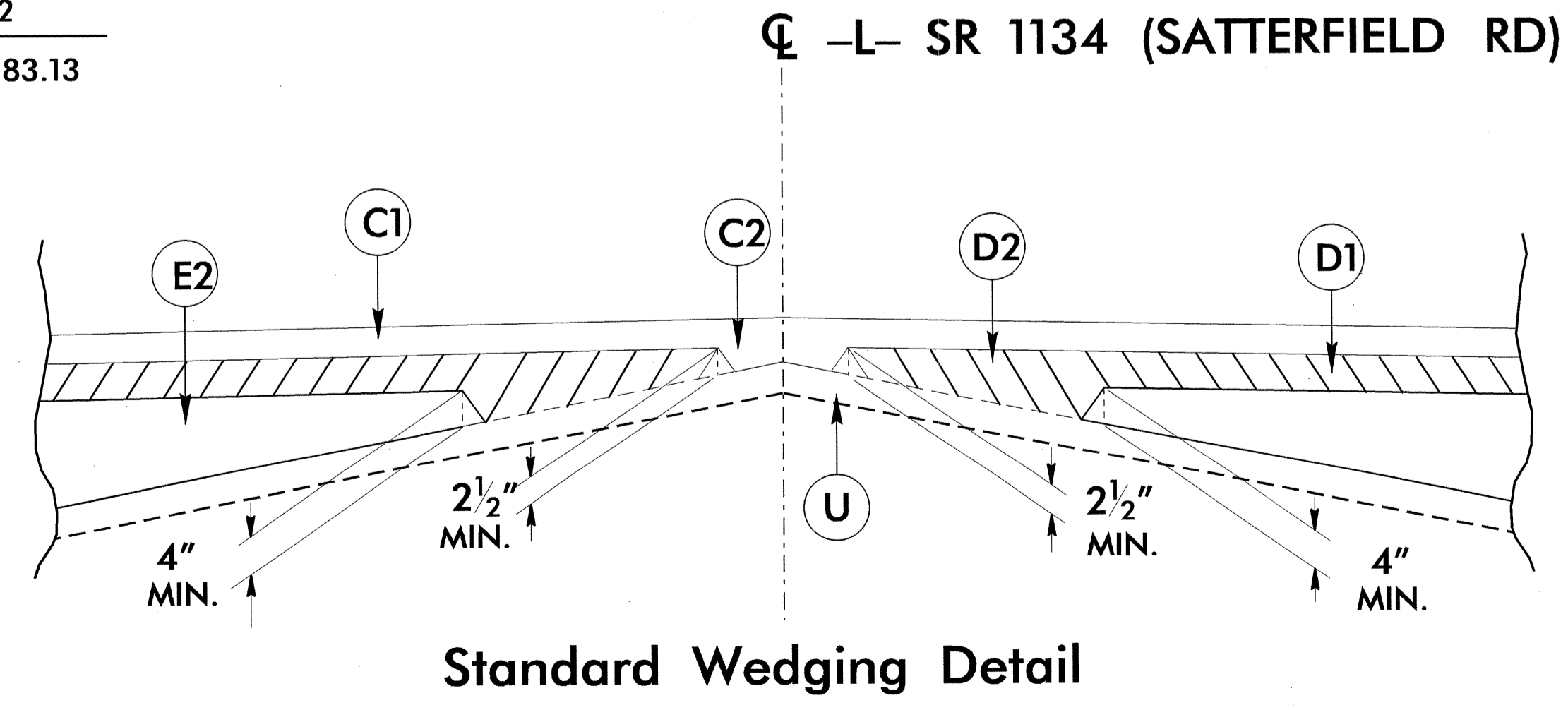


BRIDGE TYPICAL SECTION NO. 2

USE BRIDGE TYPICAL SECTION NO. 2  
 -L- STA. 11+95.88 TO -L- STA. 12+83.13

PAVEMENT SCHEDULE	
(FINAL PAVEMENT DESIGN DATED JUNE 27, 2011)	
C1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1 1/2" IN DEPTH.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 4" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



Standard Wedging Detail



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203260

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0004000000-N	801	Lump Sum		CONSTRUCTION SURVEYING
0030000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (12+31.51-L-)
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0057000000-E	226	200	CY	UNDERCUT EXCAVATION
0134000000-E	240	120	CY	DRAINAGE DITCH EXCAVATION
0195000000-E	265	200	CY	SELECT GRANULAR MATERIAL
0196000000-E	270	200	SY	GEOTEXTILE FOR SOIL STABILIZATION
0318000000-E	300	5	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
0320000000-E	300	16	SY	FOUNDATION CONDITIONING GEOTEXTILE
0335200000-E	305	68	LF	15" DRAINAGE PIPE
0448200000-E	310	28	LF	15" RC PIPE CULVERTS, CLASS IV
0582000000-E	310	16	LF	15" CS PIPE CULVERTS, 0.064" THICK
0636000000-E	310	2	EA	*** CS PIPE ELBOWS, ***** THICK (15", 0.064")
1220000000-E	545	50	TON	INCIDENTAL STONE BASE
1489000000-E	610	255	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1498000000-E	610	225	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
1525000000-E	610	190	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
1575000000-E	620	35	TON	ASPHALT BINDER FOR PLANT MIX
2000000000-N	806	8	EA	RIGHT OF WAY MARKERS
2286000000-N	840	2	EA	MASONRY DRAINAGE STRUCTURES
2367000000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29
2556000000-E	846	54	LF	SHOULDER BERM GUTTER

SUMMARY OF QUANTITIES - B-4784

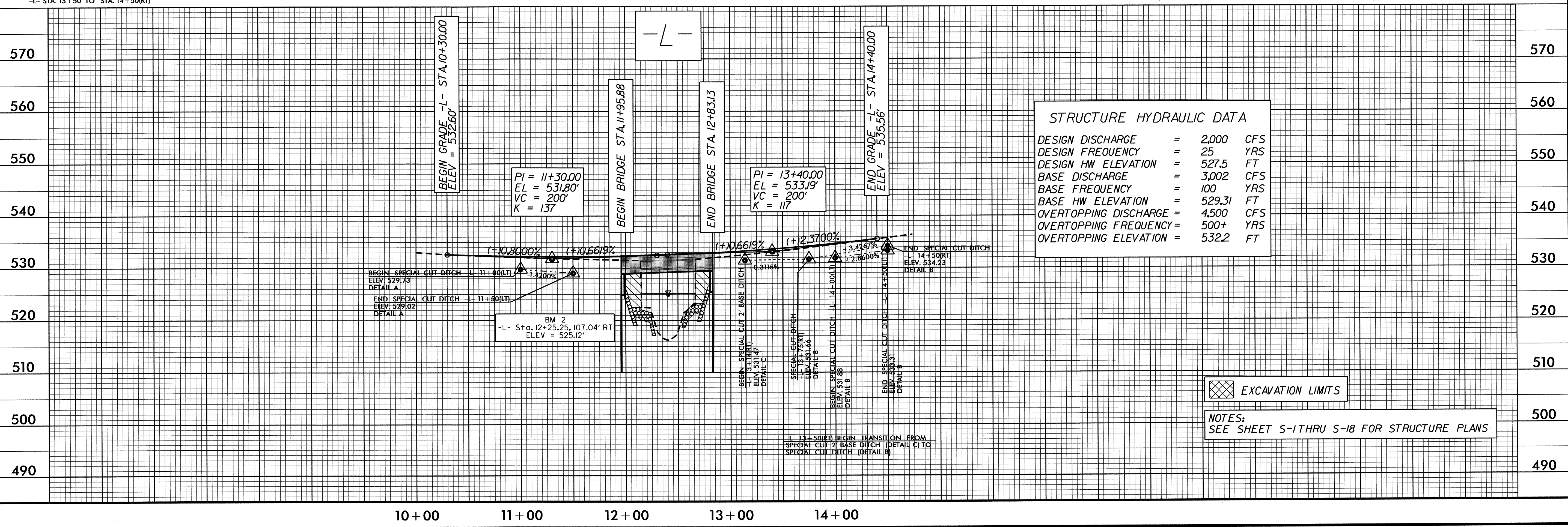
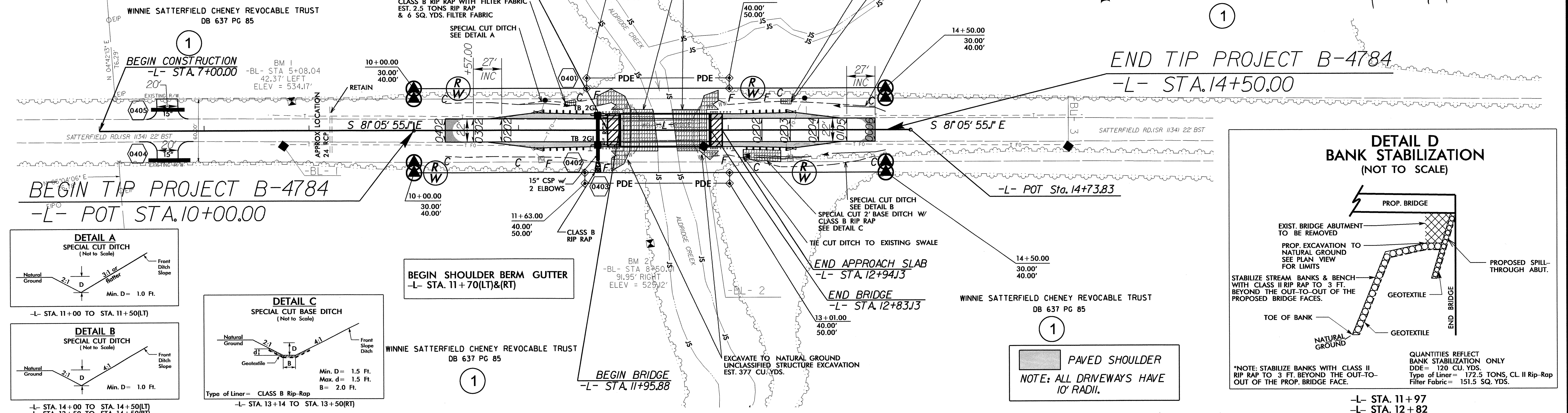
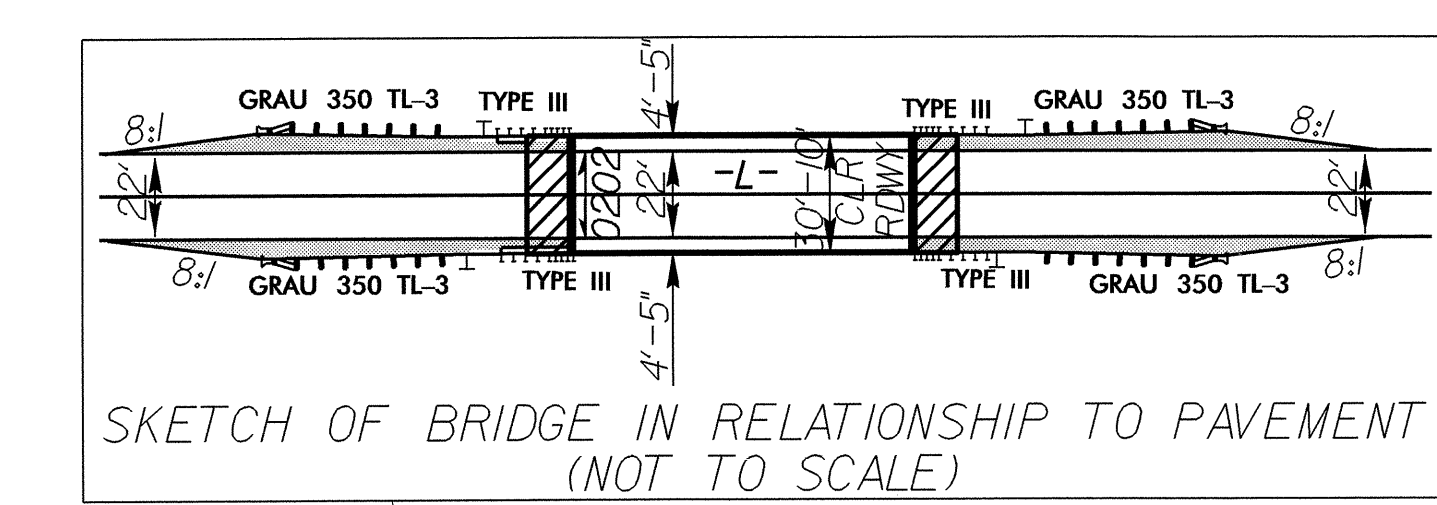
ItemNumber	Sec #	Quantity	Unit	Description
3030000000-E	862	50	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III
3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3635000000-E	876	181	TON	RIP RAP, CLASS II
3649000000-E	876	28	TON	RIP RAP, CLASS B
3656000000-E	876	819	SY	GEOTEXTILE FOR DRAINAGE
4072000000-E	903	61	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
4096000000-N	904	2	EA	SIGN ERECTION, TYPE D
4155000000-N	907	6	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
4400000000-E	1110	461	SF	WORK ZONE SIGNS (STATIONARY)
4410000000-E	1110	169	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4422000000-N	1120	28	DAY	PORTABLE CHANGEABLE MESSAGE SIGN (SHORT TERM)
4430000000-N	1130	6	EA	DRUMS
4445000000-E	1145	112	LF	BARRICADES (TYPE III)
4810000000-E	1205	6,800	LF	PAINT PAVEMENT MARKING LINES (4")
6000000000-E	1605	685	LF	TEMPORARY SILT FENCE
6006000000-E	1610	150	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	80	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	100	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	1	ACR	TEMPORARY MULCHING
6018000000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	200	LF	TEMPORARY SLOPE DRAINS
6029000000-E	SP	300	LF	SAFETY FENCE

ItemNumber	Sec #	Quantity	Unit	Description
6030000000-E	1630	170	CY	SILT EXCAVATION
6036000000-E	1631	2,100	SY	MATTING FOR EROSION CONTROL
6037000000-E	SP	200	SY	COIR FIBER MAT
6038000000-E	SP	50	SY	PERMANENT SOIL REINFORCEMENT MAT
6042000000-E	1632	150	LF	1/4" HARDWARE CLOTH
6048000000-E	SP	150	SY	FLOATING TURBIDITY CURTAIN
6070000000-N	1639	2	EA	SPECIAL STILLING BASINS
6071010000-E	SP	60	LF	WATTLE
6071020000-E	SP	20	LB	POLYACRYLAMIDE (PAM)
6084000000-E	1660	1	ACR	SEEDING & MULCHING
6087000000-E	1660	0.5	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	0.5	TON	FERTILIZER TOPDRESSING
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING
6117000000-N	SP	18	EA	RESPONSE FOR EROSION CONTROL
6123000000-E	1670	0.1	ACR	REFORESTATION







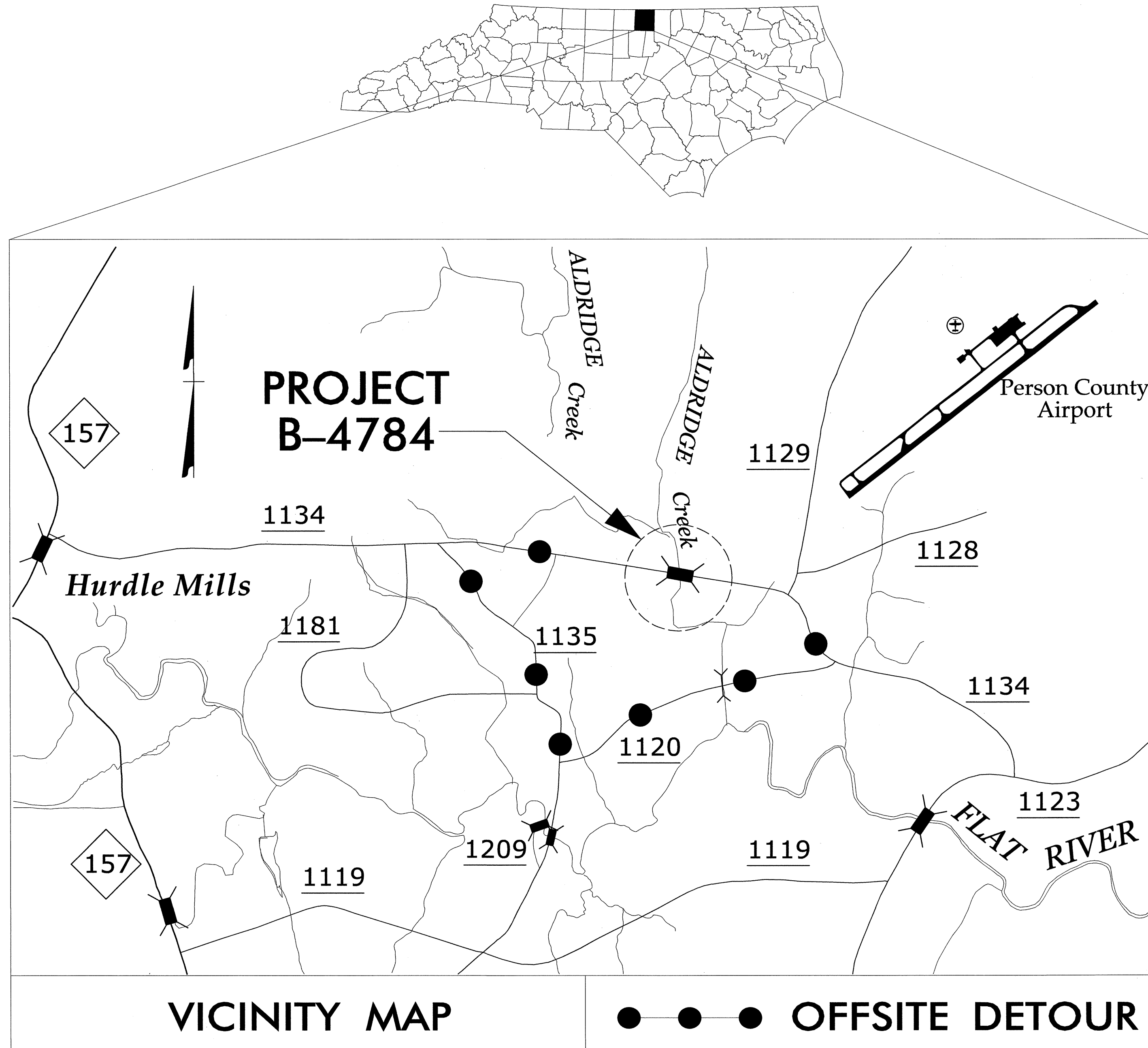


8/17/09  
01-OCT-2013 14:31 N:\B4784-L.rdw\_psh\_04.dgn

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**

**PERSON COUNTY**



VICINITY MAP

● ● ● OFFSITE DETOUR

**INDEX OF SHEETS**

SHEET NO.	TITLE
TMP-1	TITLE SHEET, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES AND PHASING)
TMP-2	OFF-SITE DETOUR AND BARRICADE PLACEMENT
TMP-3	SPECIAL SIGN DESIGN

SHEET NO.  
TMP-1

**B-4784**

**TIP PROJECT:**

6/26/2013 R:\TIP\Projects-B\B4784\Traffic\TrafficControl\TCP\B-4784\_TC\_TMP\_01.dgn User:drkennedy



**N.C.D.O.T. WORK ZONE TRAFFIC CONTROL**  
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561  
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)  
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER  
JOSEPH ISHAK, P.E. TRAFFIC CONTROL PROJECT ENGINEER  
MICHAEL STEELMAN TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
DURWOOD KENNEDY, P.E. TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: \_\_\_\_\_  
DATE: June 26, 2013

SEAL



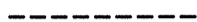




## ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:







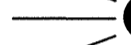

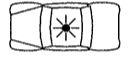


<u>STD. NO.</u>	<u>TITLE</u>
1101.03	TEMPORARY ROAD CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1130.01	DRUM
1145.01	BARRICADES

## LEGEND




### GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  WORK AREA
-  REMOVAL

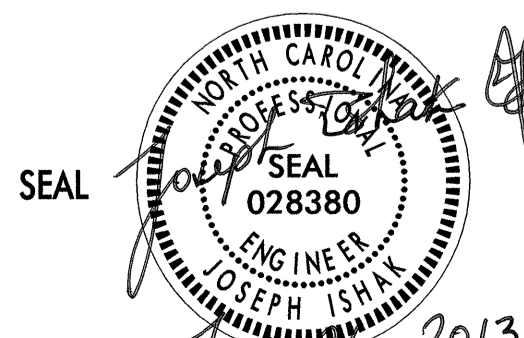
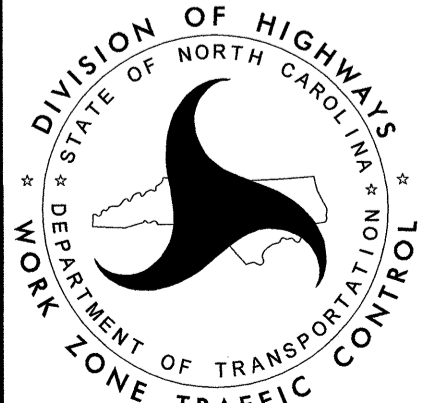
### TRAFFIC CONTROL DEVICES

-  BARRICADE (TYPE III)
-  CONE
-  DRUM     SKINNY DRUM     TUBULAR MARKER
-  TEMPORARY CRASH CUSHION
-  FLASHING ARROW BOARD (TYPE C)
-  FLAGGER
-  LAW ENFORCEMENT
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  CHANGEABLE MESSAGE SIGN

### TEMPORARY SIGNING

-  PORTABLE SIGN
-  STATIONARY SIGN
-  STATIONARY OR PORTABLE SIGN

6/26/2013  
R:\TIP\Projects-B\B4784\TrafficControl\TCP\B-4784\_TC\_TMP\_01.dgn  
User: dfrkennedy

APPROVED: _____ DATE: _____ 		<b>ROADWAY STANDARD DRAWINGS &amp; LEGEND</b>
--	---	---

## MANAGEMENT STRATEGIES

DURING REPLACEMENT OF THE EXISTING BRIDGE No.31 OVER ALDRIDGE CREEK, SR-1134 (SATTEFIELD RD.) WILL BE CLOSED TO THROUGH TRAFFIC. THE SATTEFIELD RD. TRAFFIC WILL BE DETOURED OFF-SITE.

## PHASING

**STEP 1:**

PROVIDE AND MAINTAIN CHANGEABLE MESSAGE SIGNS AT EACH END OF SR-1134 (SATTEFIELD RD.) OR AS DIRECTED BY THE ENGINEER FOR FOURTEEN (14) CALENDAR DAYS PRIOR TO ROAD CLOSURE, AS SHOWN ON SHEET TMP-2.

USING RSD 1101.03, SHEET 1 OF 9, SHEETS TMP-2 AND TMP-3, MAY BEGIN INSTALLATION OF ROAD CLOSURE AND DETOUR SIGNS. COVER SIGNS UNTIL READY TO CLOSE THE ROAD.

**STEP 2:**

USING RSD 1101.03, SHEET 1 OF 9, SHEETS TMP-2 AND TMP-3, INSTALL / UNCOVER ROAD CLOSURE AND DETOUR SIGNS. PLACE TYPE III BARRICADES TO CLOSE SR-1134 TO THROUGH TRAFFIC, AND DETOUR TRAFFIC OFF-SITE. CHANGEABLE MESSAGE SIGNS MAY BE REMOVED.

ACCESS TO ALL DRIVEWAYS MUST BE PROVIDED AT ALL TIMES WITHIN THE PROJECT LIMITS.

**STEP 3:**

AWAY FROM TRAFFIC, COMPLETE THE FOLLOWING:

SEE ROADWAY AND STRUCTURE PLANS.

- REMOVE EXISTING STRUCTURE NO.31, AND CONSTRUCT THE PROPOSED STRUCTURE.
- CONSTRUCT PROPOSED ROADWAY UP THROUGH THE FINAL LAYER OF SURFACE COURSE FROM -L- STA.10+00 +/- TO -L- STA.14+50 +/-.
- USING FINAL PAVEMENT MARKING PLAN, PLACE FINAL PAVEMENT MARKINGS AND MARKERS FROM -L- STA.10+00 +/- TO -L- STA.14+50 +/-, AND TIE INTO EXISTING PAVEMENT MARKINGS.

**STEP 4:**

REMOVE ALL ROAD CLOSURE SIGNING / DEVICES AND DETOUR SIGNING. OPEN SR-1134 (SATTEFIELD RD.) TO PROPOSED TRAFFIC PATTERN.

## GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

TRAFFIC PATTERN ALTERATIONS

- A) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

THE NCDOT RESIDENT ENGINEER WILL NOTIFY THE DIRECTOR OF THE PERSON COUNTY EMA AT (336) 597-4262 AND THE PERSON COUNTY SCHOOLS TRANSPORTATION DIRECTOR AT (336) 599-2191 OF THE ROAD CLOSURE THIRTY (30) CALENDAR DAYS PRIOR TO THE CLOSURE.

SIGNING

- B) PROVIDE PERMANENT SIGNING.
- C) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRANSPORTATION MANAGEMENT PLAN.
- PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRANSPORTATION MANAGEMENT PLAN.
- D) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.
- COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- E) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

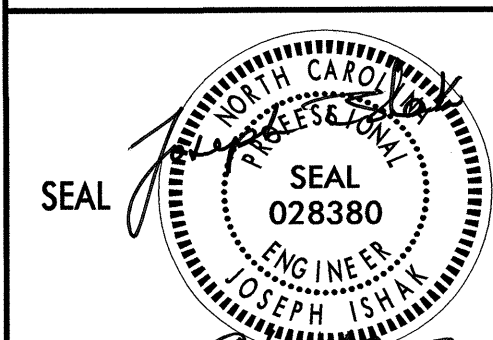
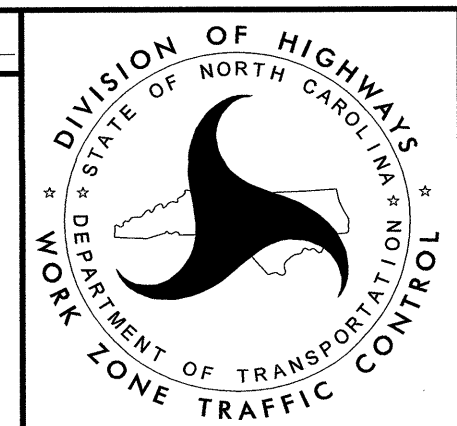
TRAFFIC CONTROL DEVICES

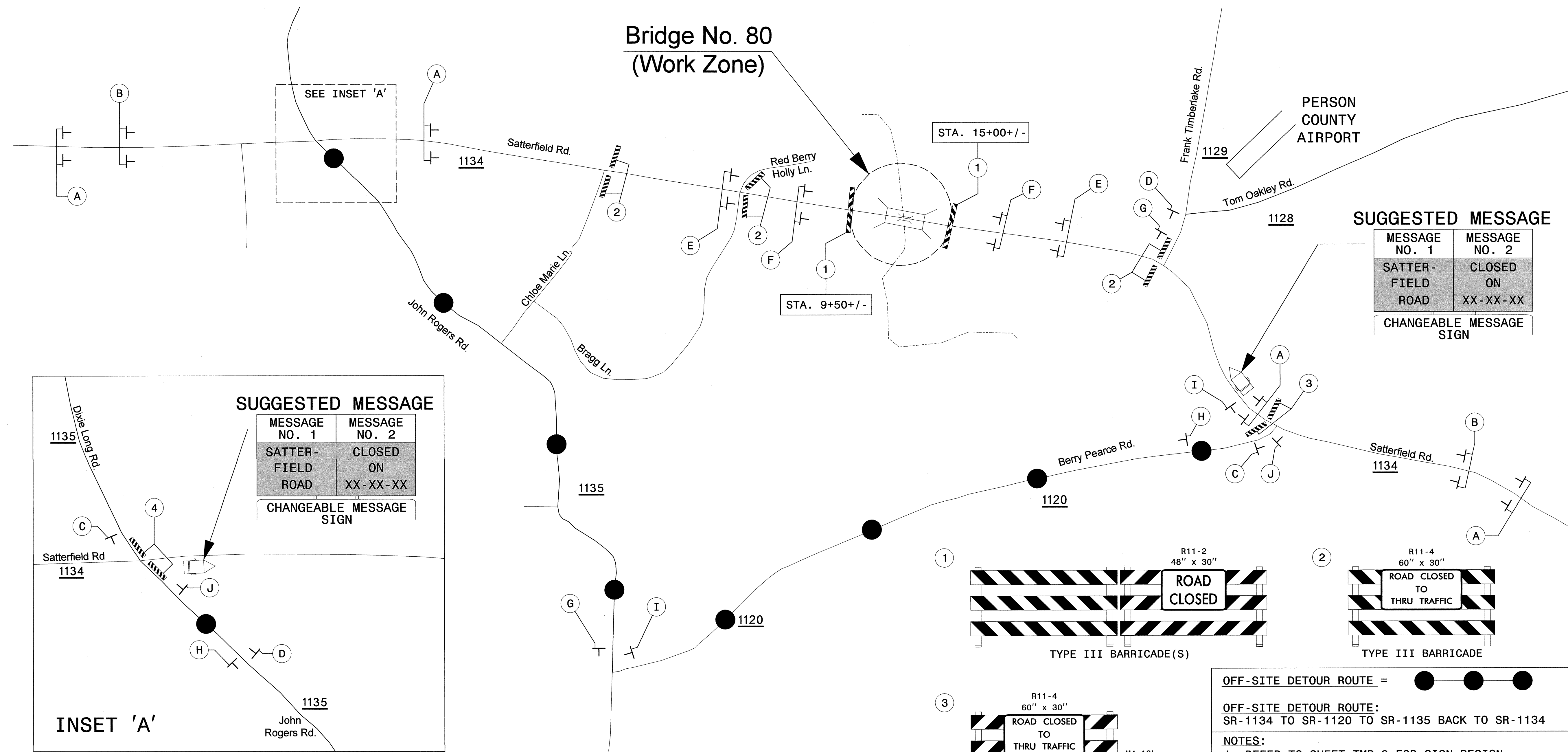
- F) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

- G) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS SHOWN IN THE PAVEMENT MARKING PLAN.
- H) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

9/18/2013 R:\TIP\Projects-B\B4784\TrafficControl\TCP\B-4784.TC.TMP\_01.dgn User:drKennedy

APPROVED: _____ DATE: _____ 		<b>TRANSPORTATION OPERATIONS PLAN</b>
--	---	---

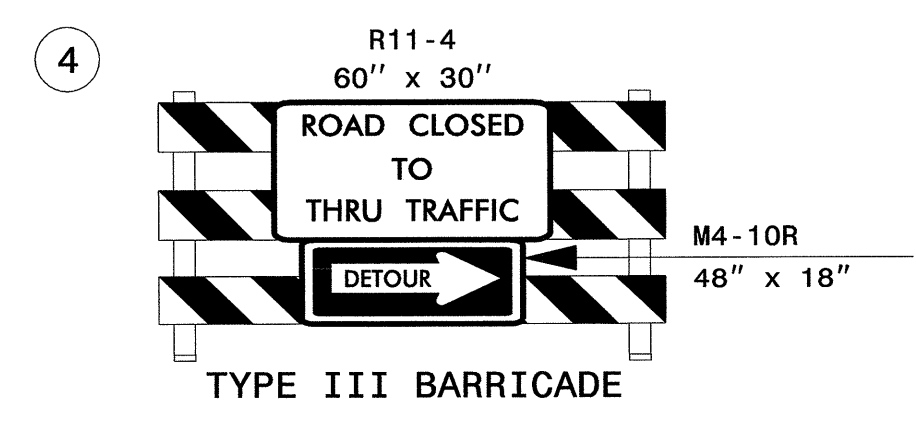
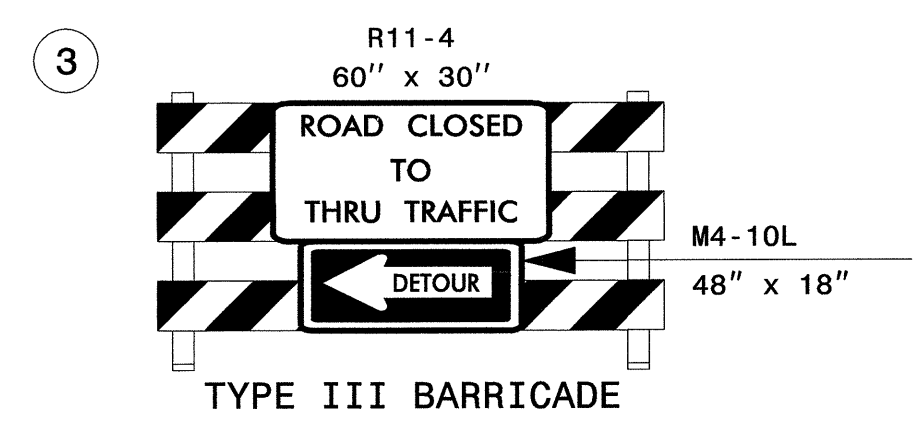
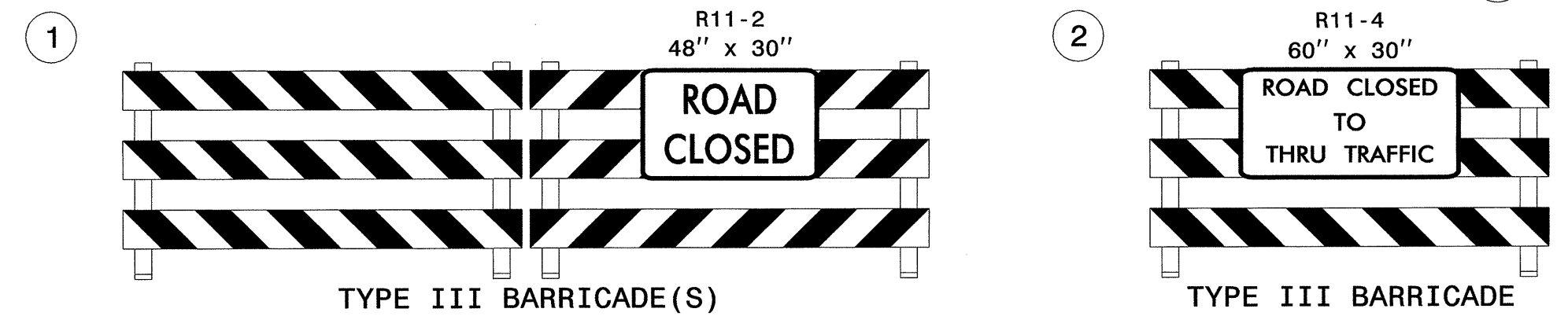
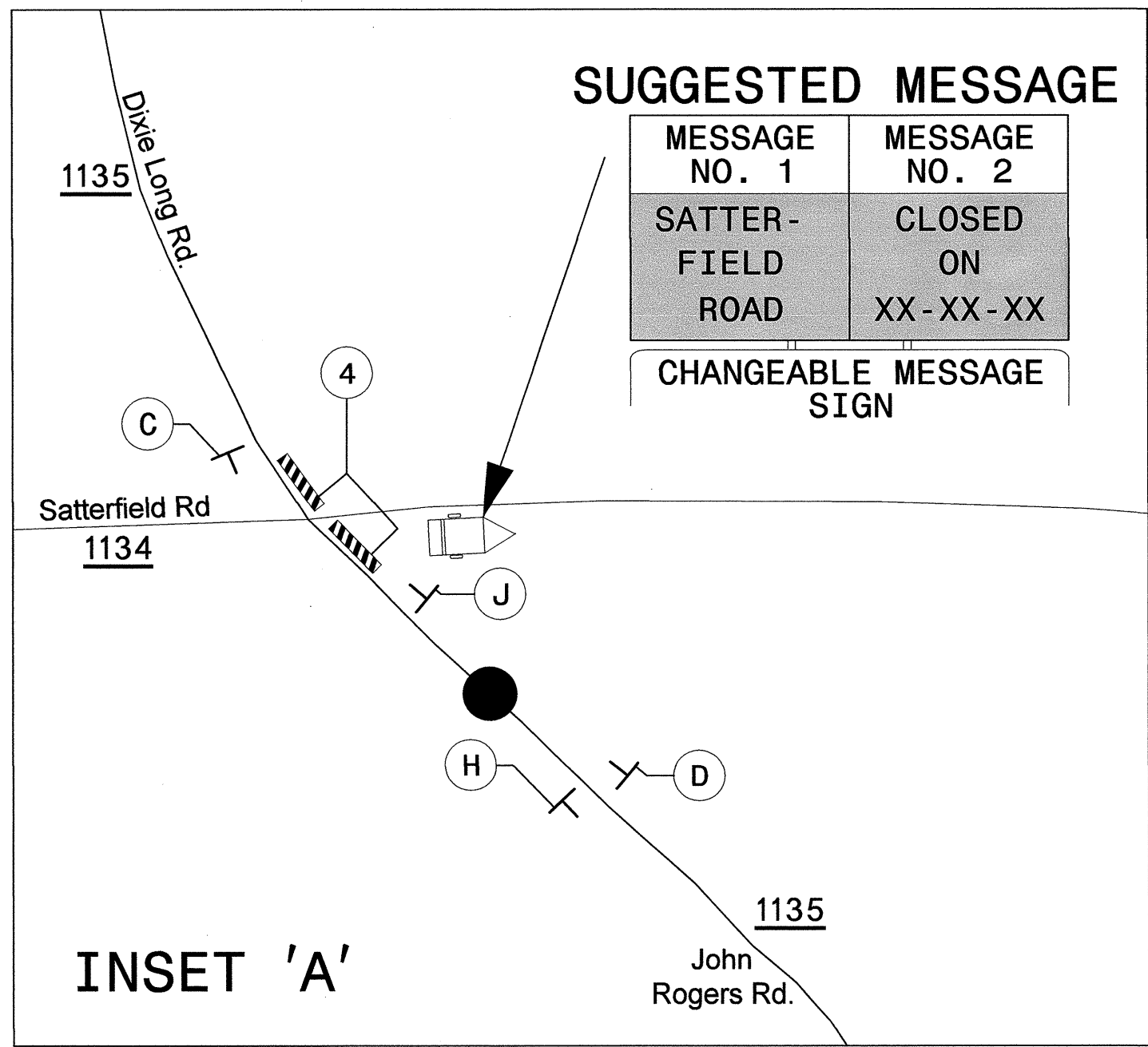


**SUGGESTED MESSAGE**

MESSAGE NO. 1	MESSAGE NO. 2
SATTER-FIELD ROAD	CLOSED ON XX-XX-XX
CHANGEABLE MESSAGE SIGN	

**SUGGESTED MESSAGE**

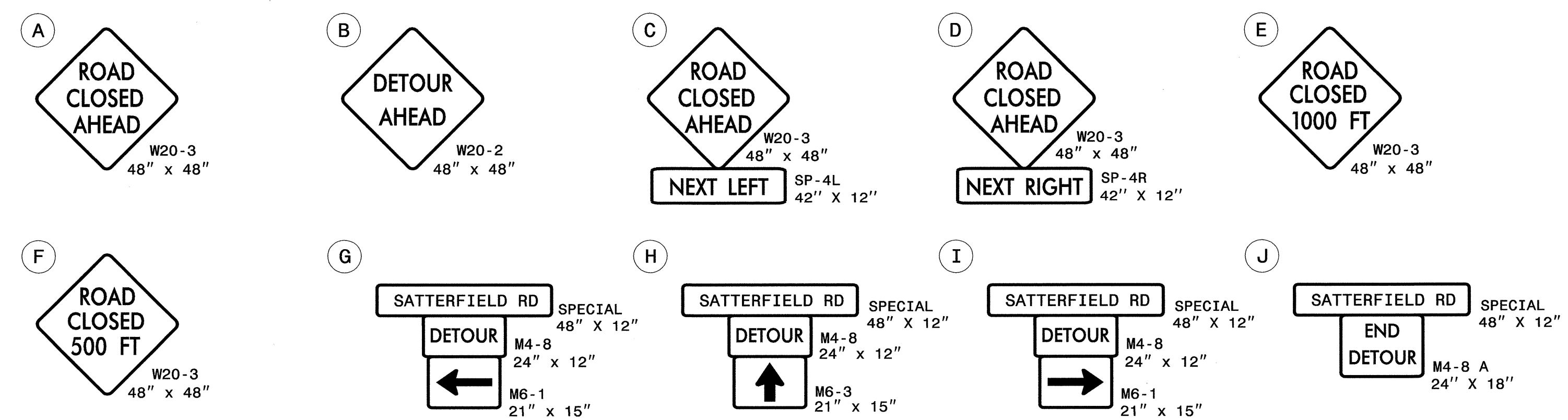
MESSAGE NO. 1	MESSAGE NO. 2
SATTER-FIELD ROAD	CLOSED ON XX-XX-XX
CHANGEABLE MESSAGE SIGN	



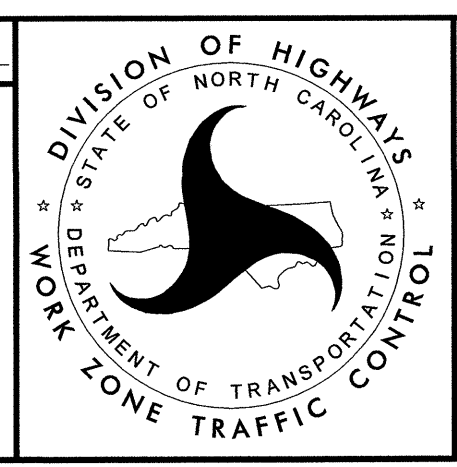
OFF-SITE DETOUR ROUTE = ●—●—●

OFF-SITE DETOUR ROUTE:  
SR-1134 TO SR-1120 TO SR-1135 BACK TO SR-1134

- NOTES:**
- REFER TO SHEET TMP-3 FOR SIGN DESIGN.
  - REFER TO RSD 1101.03, SHEET 1 OF 9, FOR ROAD CLOSURE SIGN DISTANCES AND APPLICABLE NOTES.
  - INSTALL DETOUR SIGNS AS DIRECTED BY THE ENGINEER.
  - LOCATE AND INSTALL CMS TO BE LEVEL AS DIRECTED BY THE ENGINEER.
  - CMS(S) SHALL BE USED TO PROVIDE 14 DAYS ADVANCE WARNING OF ROAD CLOSURE. CMS(S) SHOULD BE REMOVED AFTER ROAD IS CLOSED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
SEAL: [Professional Engineer Seal for Joseph Isham, No. 028380, State of North Carolina]



**OFF-SITE DETOUR ROUTE AND BARRICADE PLACEMENT**

**SIGN NUMBER:** TC-1      **BACKG COLOR:** Fluorescent Orange  
**TYPE:** STATIONARY      **COPY COLOR:** Black  
**QUANTITY:** SEE PLANS

**SIGN WIDTH:** 4'-0"  
**HEIGHT:** 1'-0"  
**TOTAL AREA:** 4.0 Sq.Ft.

**BORDER TYPE:** INSET  
**RECESS:** 0.5"  
**WIDTH:** 0.5"  
**RADII:** 1.5"

**NO. Z BARS:**  
**LENGTH:**

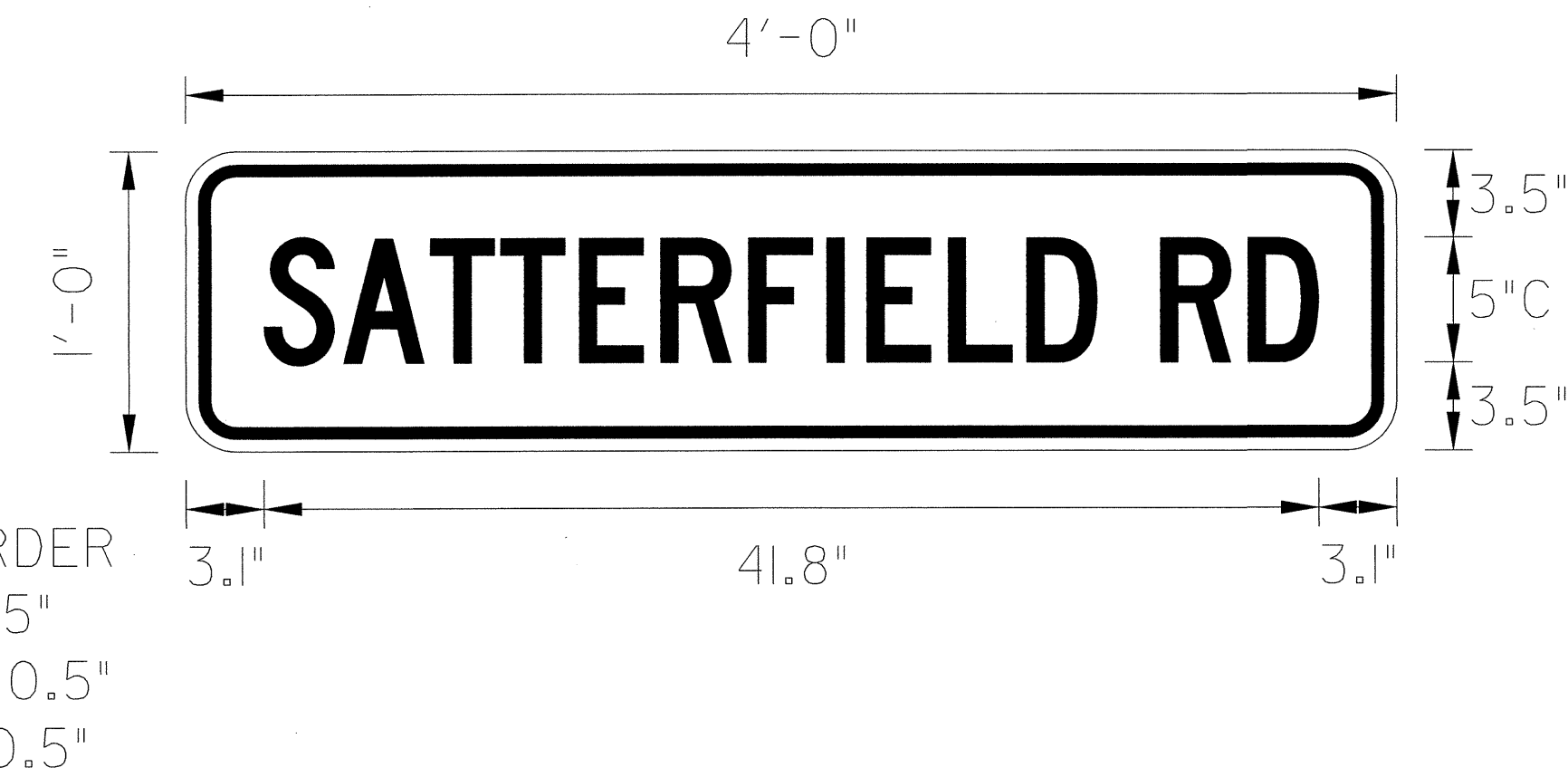
SYMBOL	X	Y	WID	HT

**MAT'L:** 0.080" (2.0 mm) ALUMINUM

**DESIGN BY:** A. GRADY  
**PROJECT ID:** B-4784

**CHECKED BY:** S. KUNZ  
**DIV:** 5

**DATE:** Apr 25, 2013



**USE NOTES: 1,2**

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

Spacing Factor is .8 unless specified otherwise

**LETTER POSITIONS**


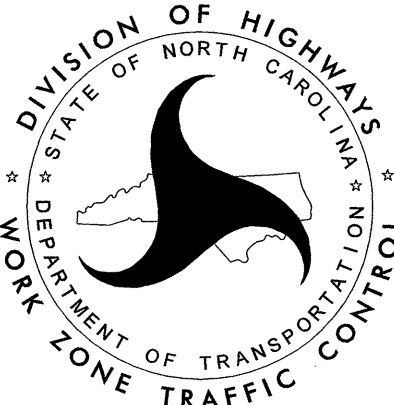
**Letter spacings are to start of next letter**

Letter spacings are to start of next letter																Series/Size	Text Length	
S	A	T	T	E	R	F	I	E	L	D			R	D			C 2000	41.8
3.1	3.2	3.4	2.8	3.1	3.2	3.5	3.1	1.6	3.2	3.1	2.8	2.5	3.5	2.8	3.1			

FILENAME: B-4784\_Sgn\_SGN\_TC

NORTH CAROLINA D.O.T. SIGN DETAIL

6/20/2013  
 R:\TIP\Projects-B\B4784\TrafficControl\TCP\B-4784\_TC\_TMP\_03.dgn  
 User: rdkennedy

APPROVED: <i>[Signature]</i> DATE: 6/20/13 		<p style="text-align: center;"><b>SPECIAL SIGN DESIGN</b></p>
---	---	---

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

TIP NO. B-4784	SHEET NO. PMP-1
APPROVED: <i>[Signature]</i>	
DATE: 7/24/13	
SEAL	

PAVEMENT MARKING PLAN

PERSON COUNTY  
LOCATION: BRIDGE 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTERFIELD RD)

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
PAINT (4")	
PA	WHITE EDGELINE
PI	YELLOW DOUBLE CENTER

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
SR 1134	PAINT	NONE

B) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.

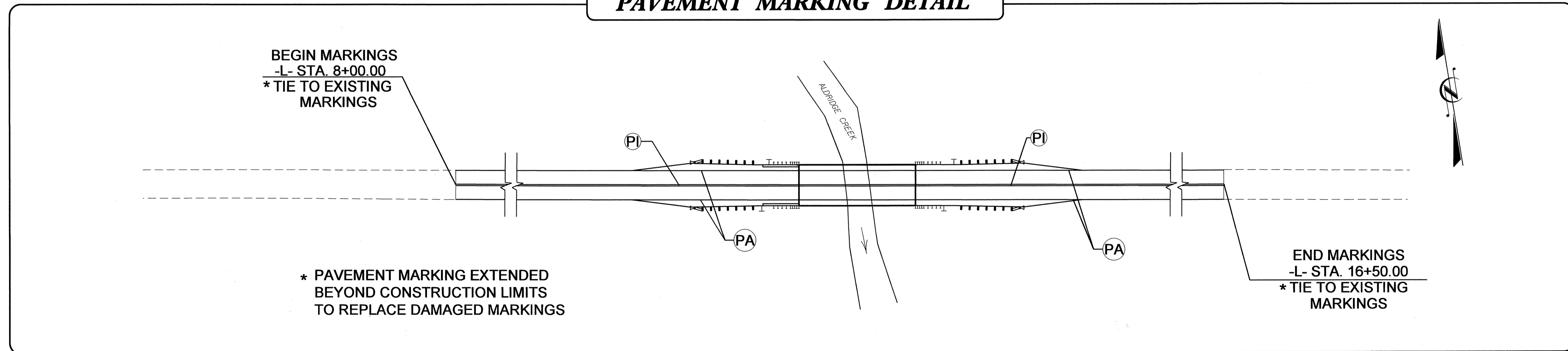
C) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

D) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

E) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

F) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING PAINT PAVEMENT MARKINGS.

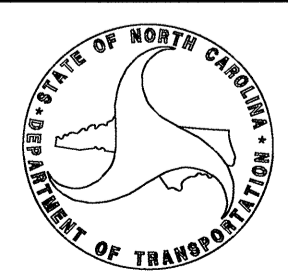
PAVEMENT MARKING DETAIL



PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

SUSAN B. KUNZ SIGNING & DELINEATION REGIONAL ENGINEER

ADAM GRADY SIGNING & DELINEATION PROJECT DESIGN ENGINEER



T.I.P.: B-4784

CONTRACT: C203260



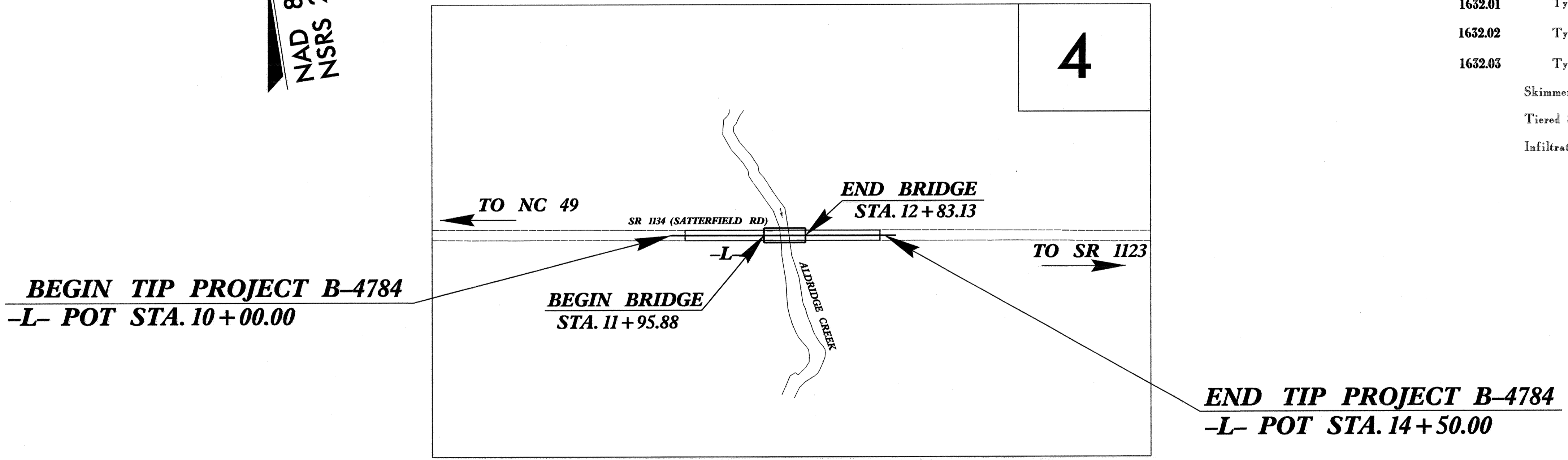
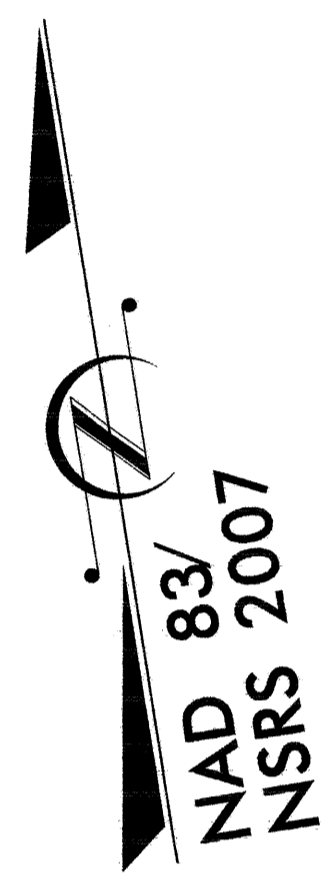
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4784	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**TIP PROJECT: B-4784**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL  
PERSON COUNTY**

**LOCATION: BRIDGE 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTERFIELD RD)**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE**



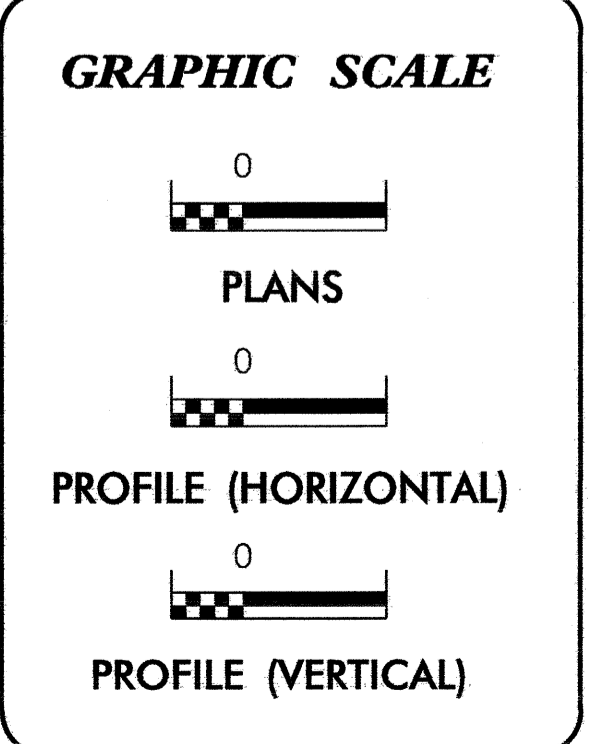
**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	▲▲▲▲
1622.01	Temporary Berms and Slope Drains	TD
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	▨
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	▨
1633.02	Temporary Rock Silt Check Type-B	▨
	Wattle / Coir Fiber Wattle	W
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	W
1634.01	Temporary Rock Sediment Dam Type-A	▨
1634.02	Temporary Rock Sediment Dam Type-B	▨
1635.01	Rock Pipe Inlet Sediment Trap Type-A	U
1635.02	Rock Pipe Inlet Sediment Trap Type-B	U
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT  
*Refer To E. C. Special Provisions for Special Considerations.*



ROADSIDE ENVIRONMENTAL UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
1 South Wilmington St.  
Raleigh, NC 27611  
**2012 STANDARD SPECIFICATIONS**

**Roadway Standard Drawings**

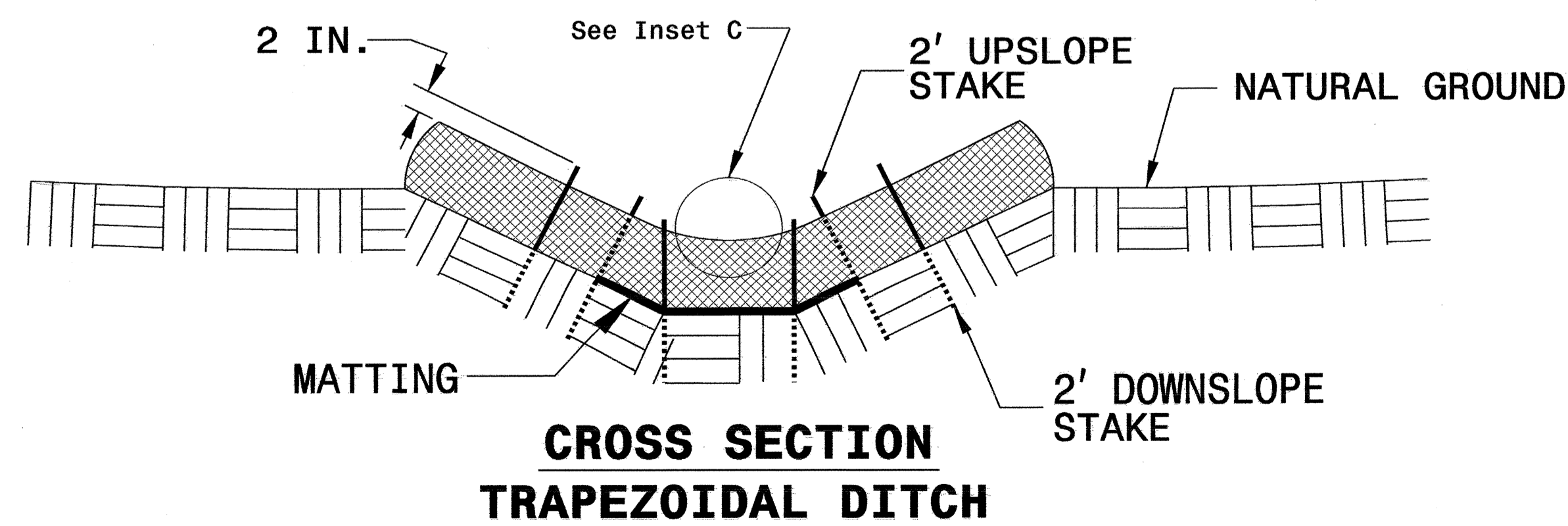
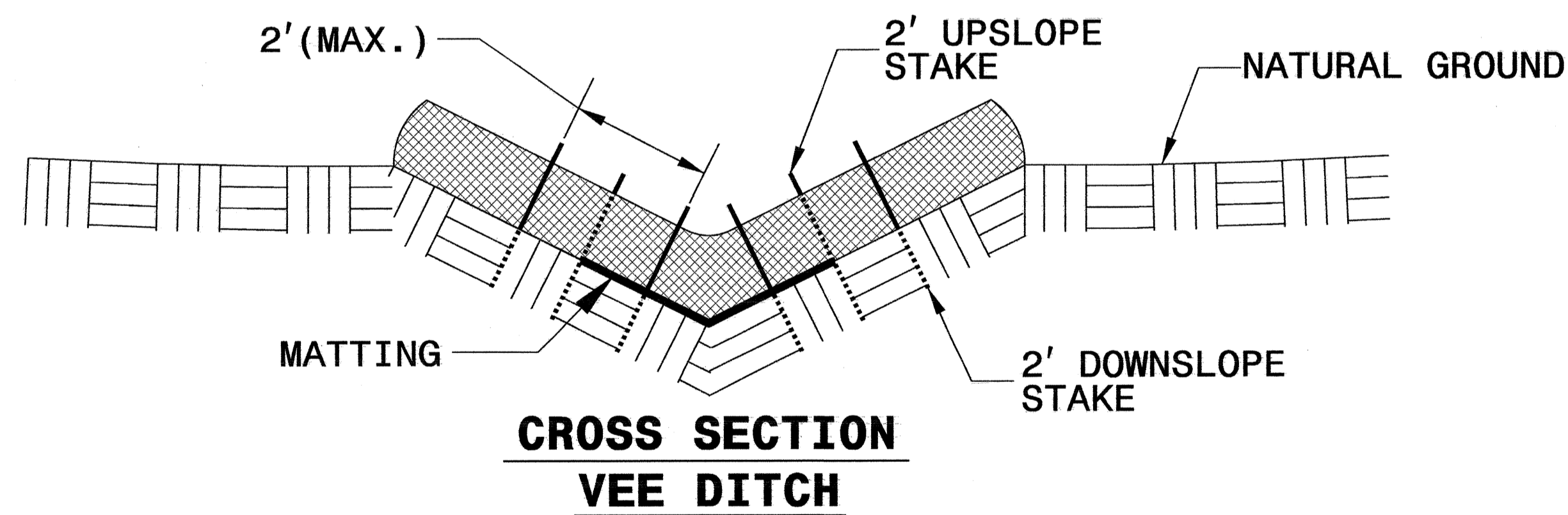
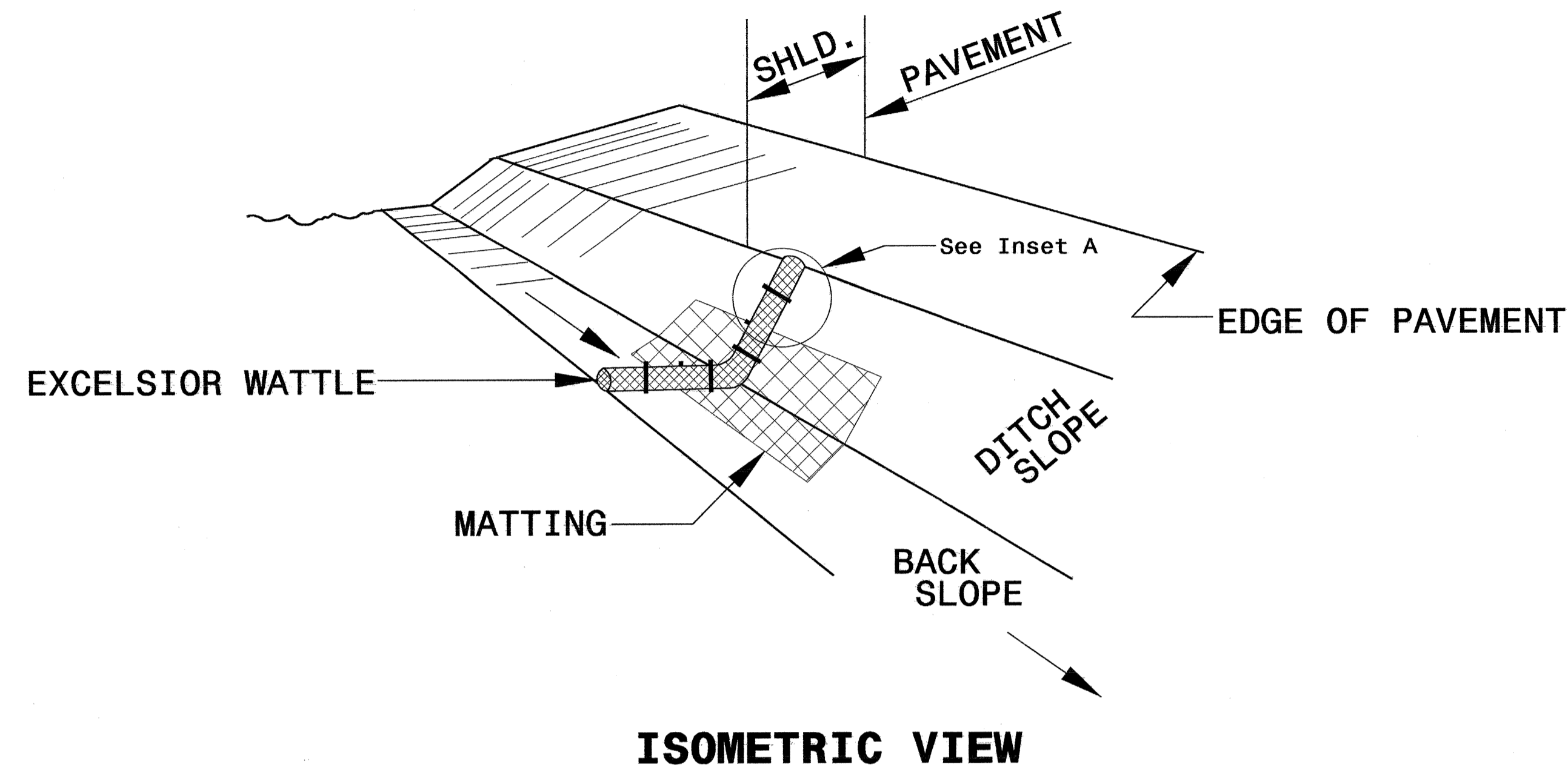
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

18-JUL-2013 07:43  
F:\PROJECTS\2013\B-4784-EC.ksh.dgn

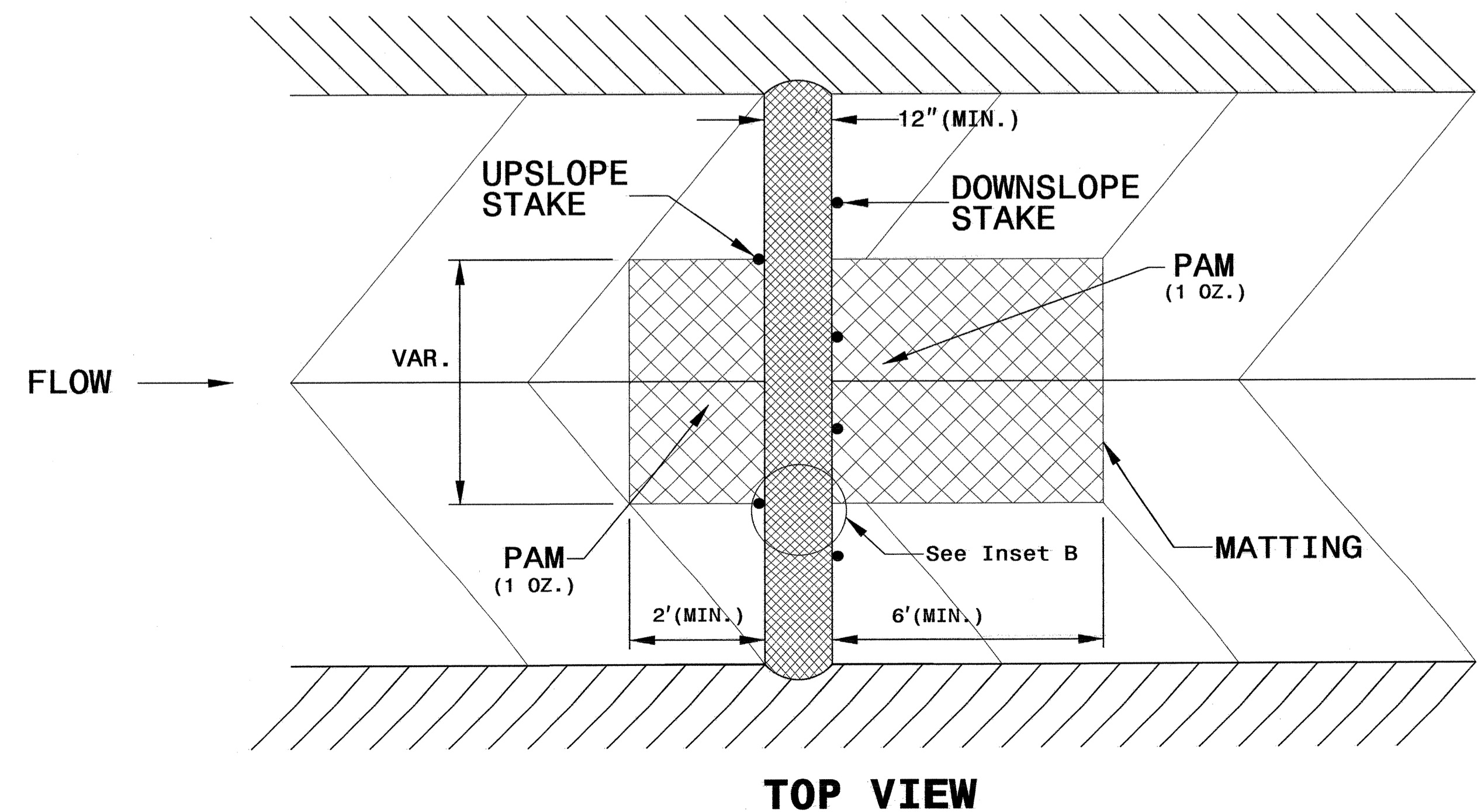
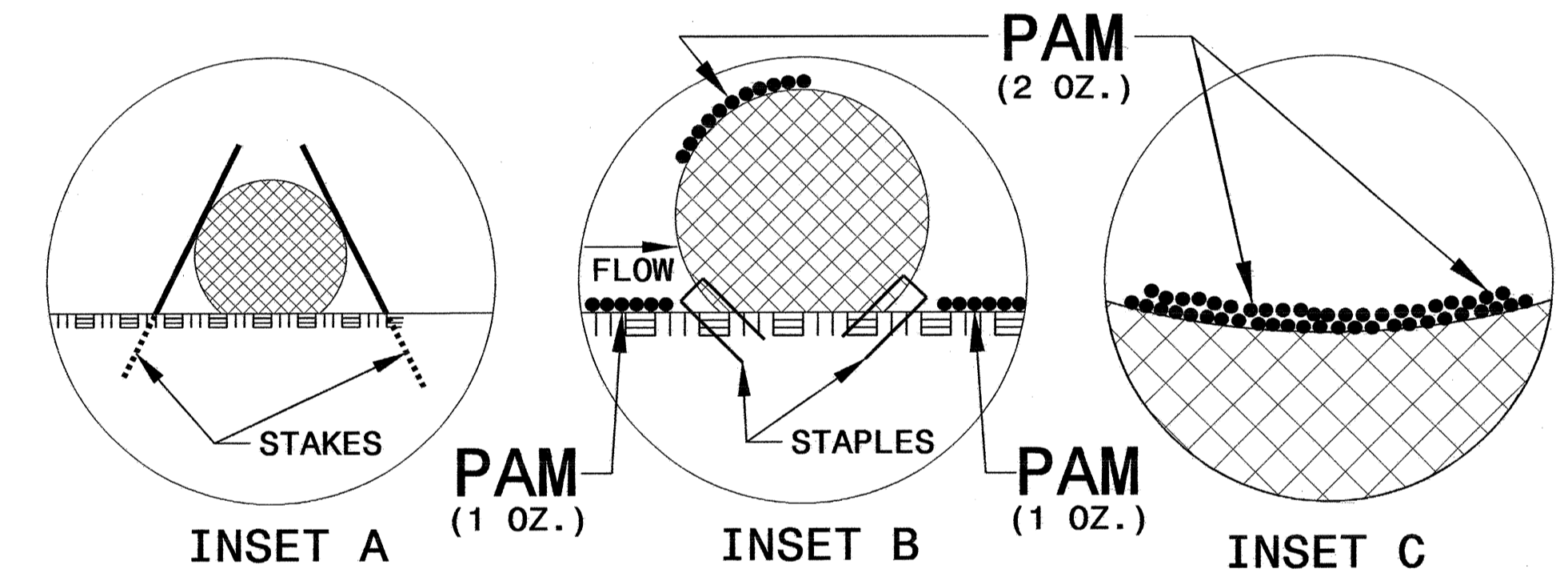
PROJECT REFERENCE NO. B-4784	SHEET NO. EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



**NOTES:**

- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

---



---

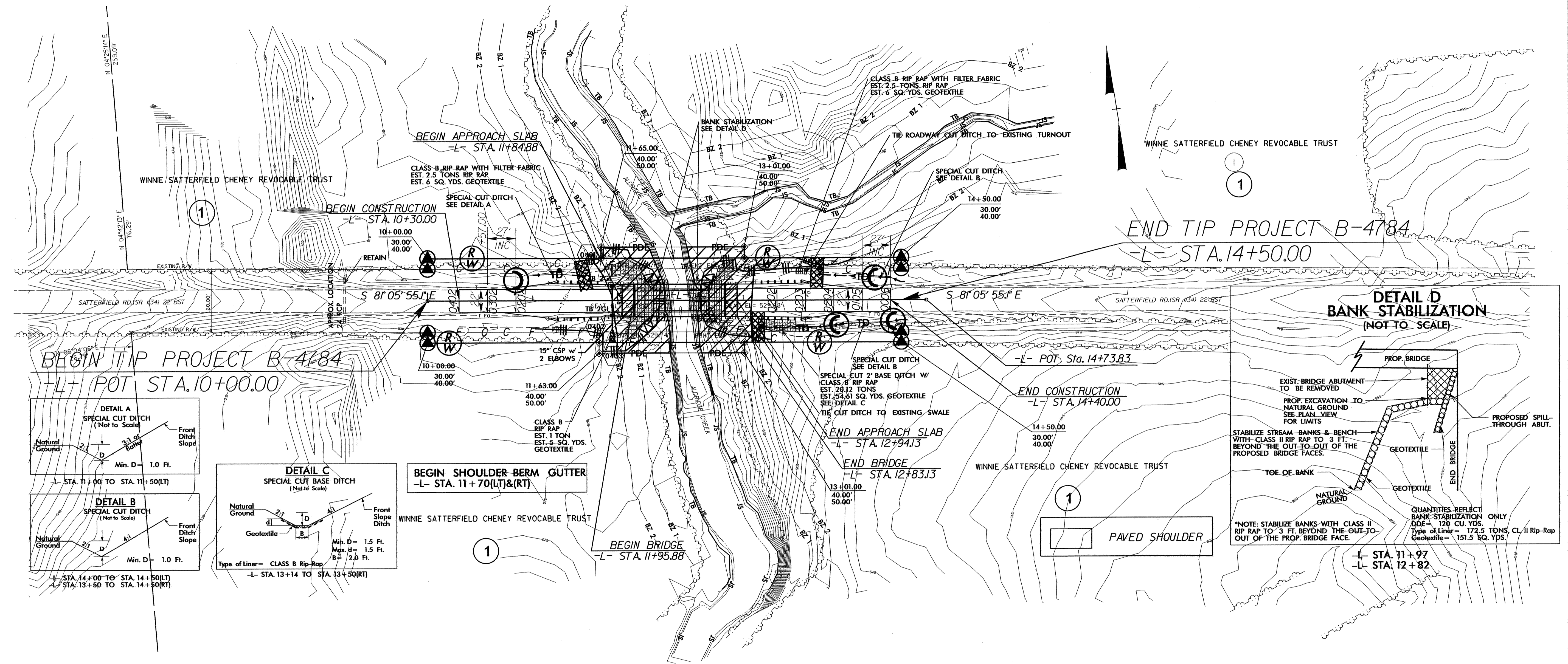
PROJECT REFERENCE NO. <i>B-4784</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# ***SOIL STABILIZATION TIMEFRAMES***

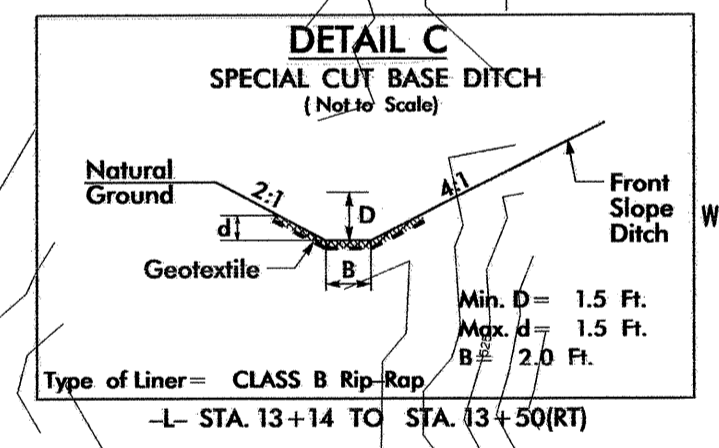
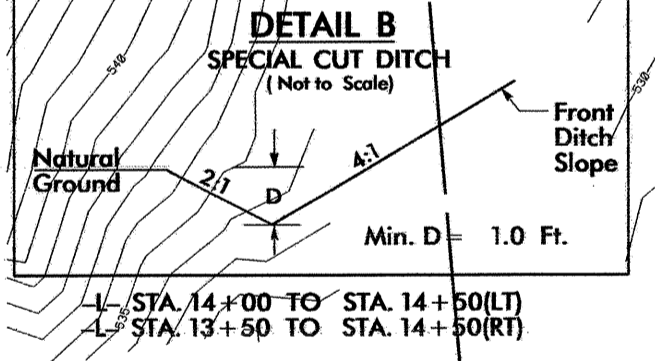
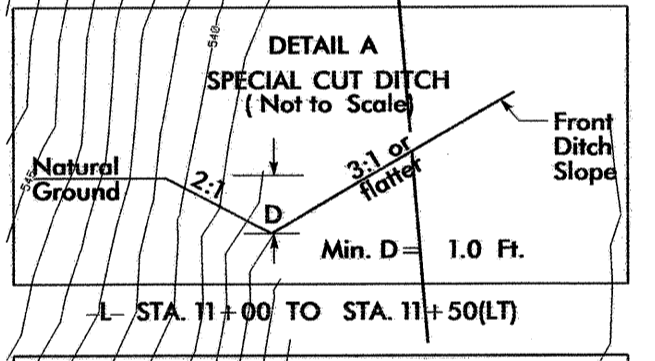
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
B-4784	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

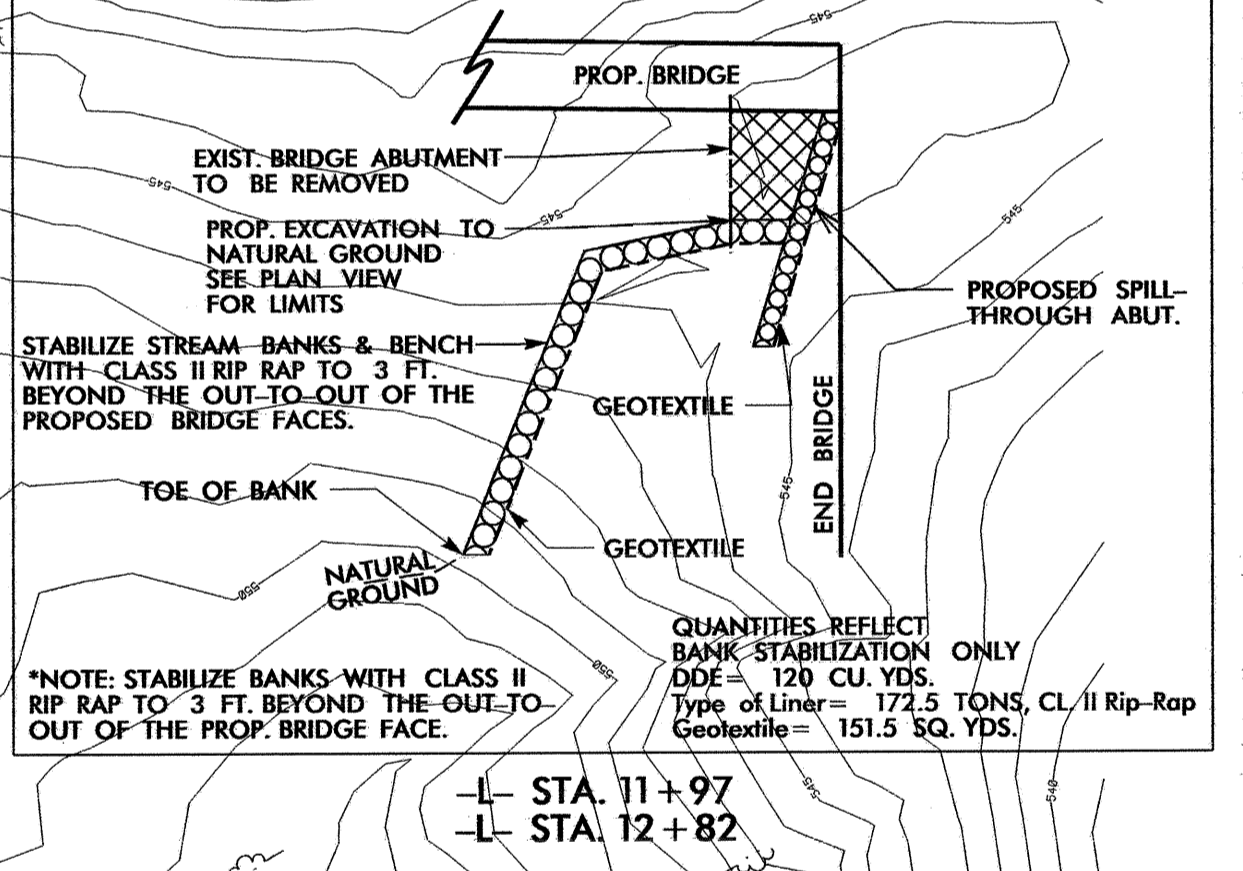


BEGIN TIP PROJECT B-4784  
-L- POT STA. 10+00.00



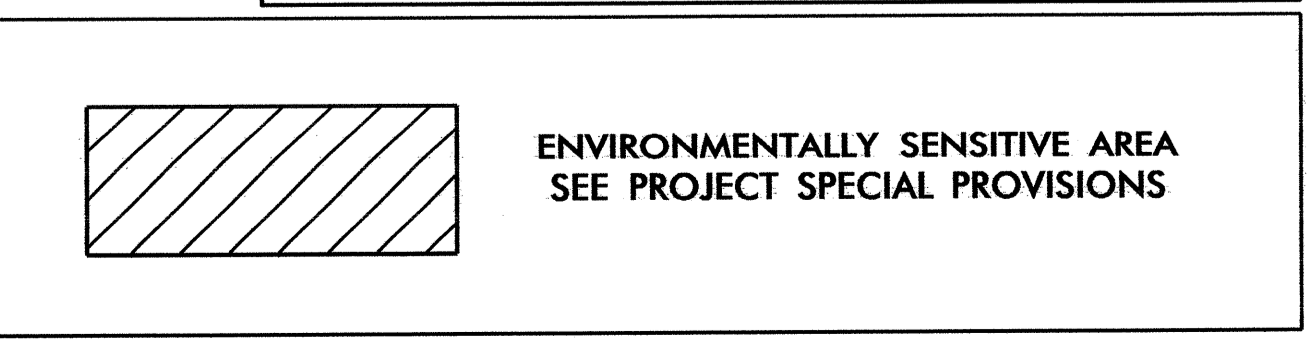
BEGIN SHOULDER BERM GUTTER  
-L- STA. 11+70(LT)&(RT)

DETAIL D  
BANK STABILIZATION  
(NOT TO SCALE)



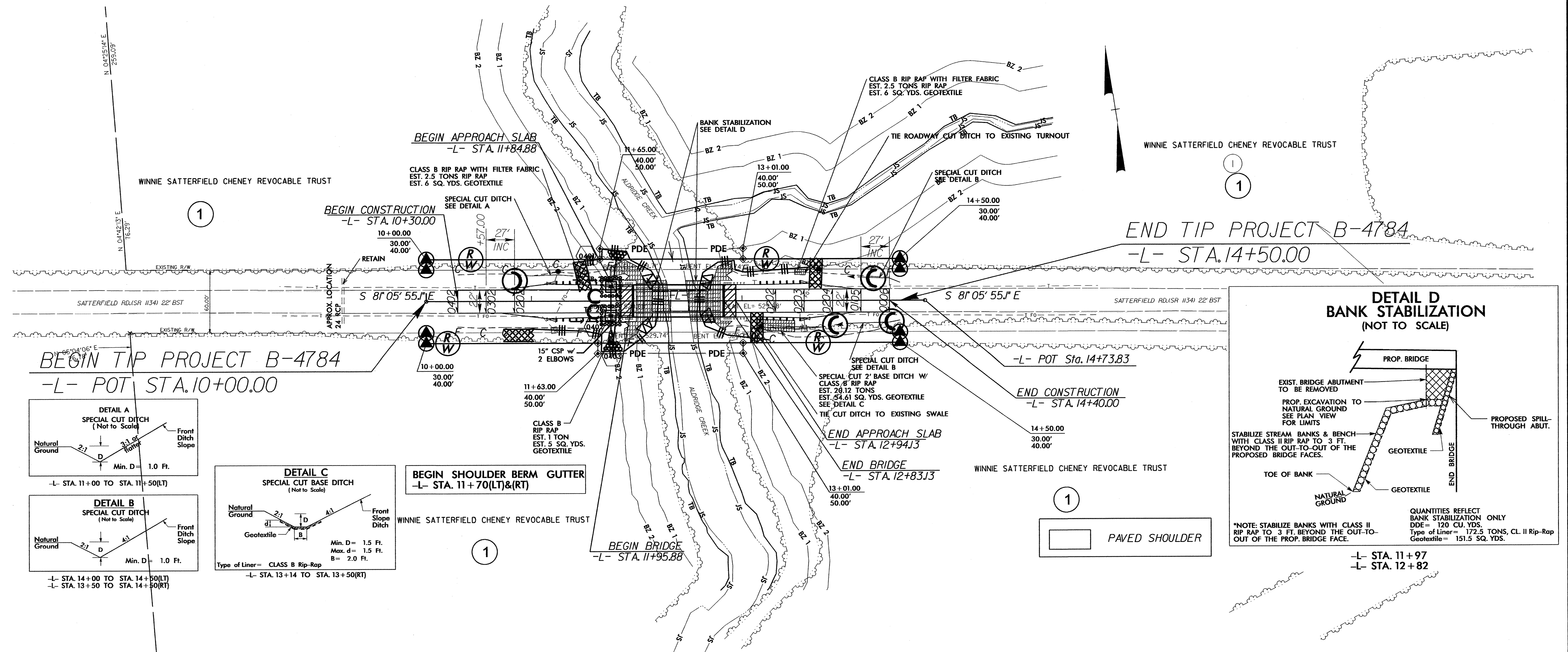
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

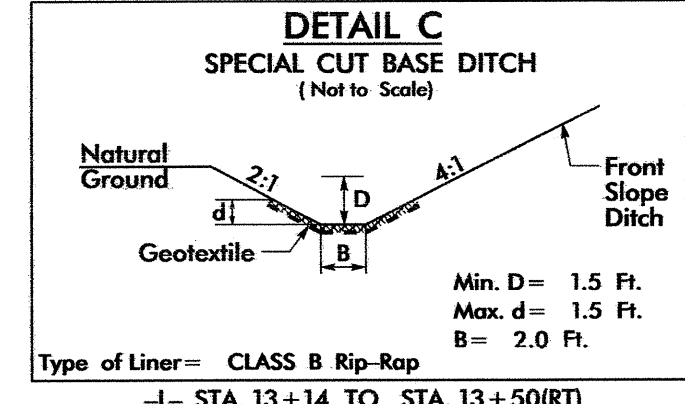
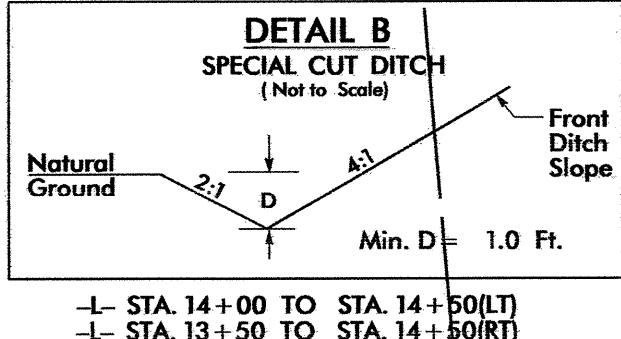
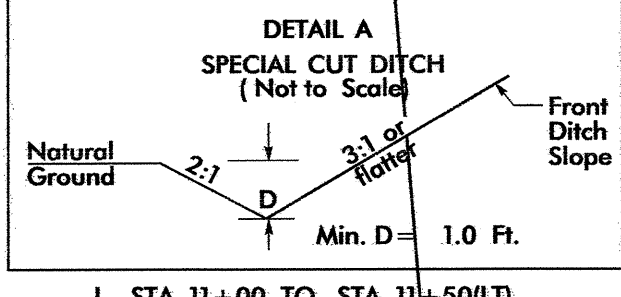


PROJECT REFERENCE NO. B-4784	SHEET NO. EC-5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

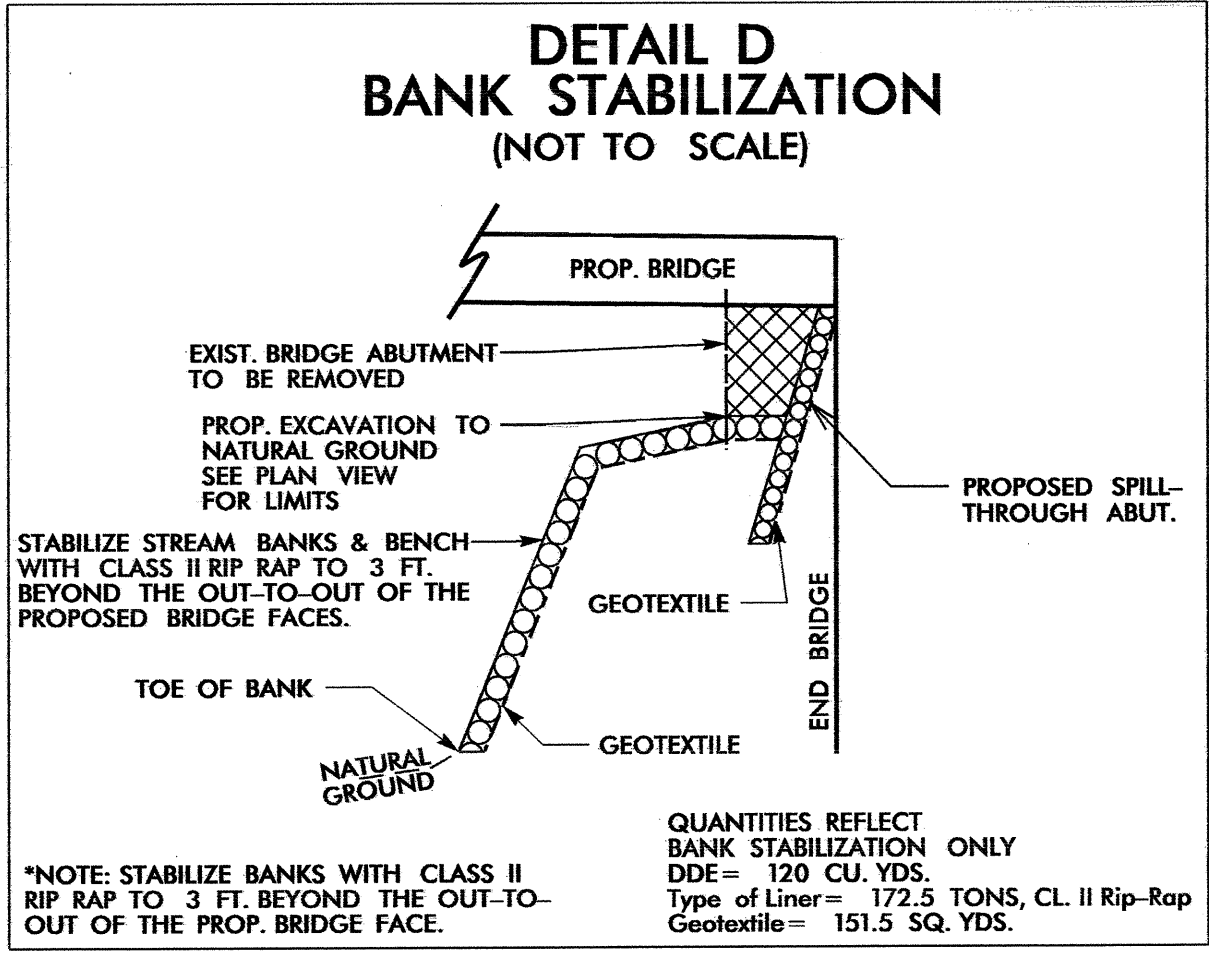
NOTE: UTILIZE TEMPORARY SEDIMENT BASIN OR SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.



BEGIN TIP PROJECT B-4784  
-L- POT STA. 10+00.00



BEGIN SHOULDER BERM GUTTER  
-L- STA. 11+70(LT)&(RT)



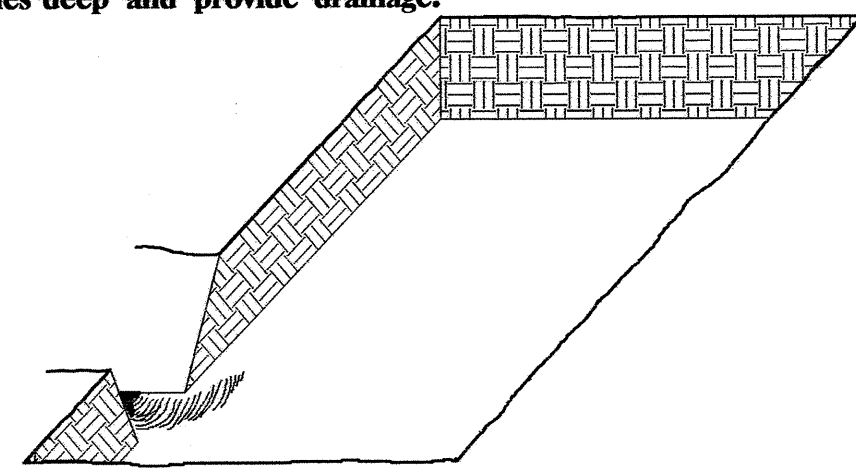
PAVED SHOULDER

## PLANTING DETAILS

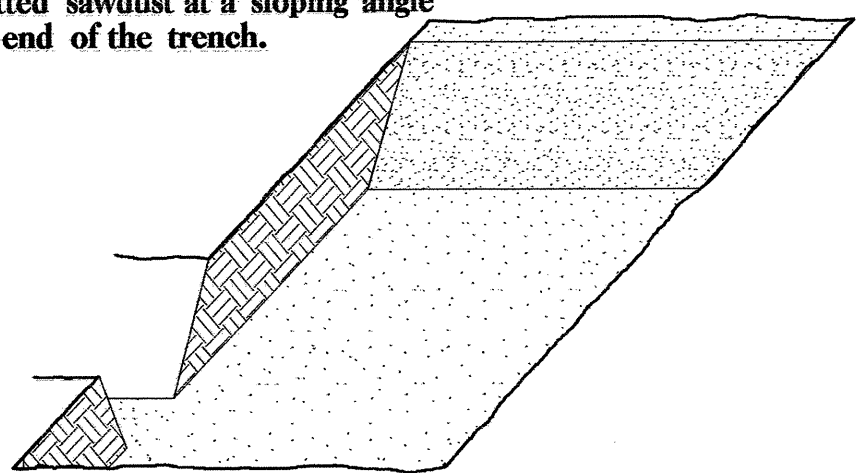
### SEEDLING / LINER BAREROOT PLANTING DETAIL

#### HEALING IN

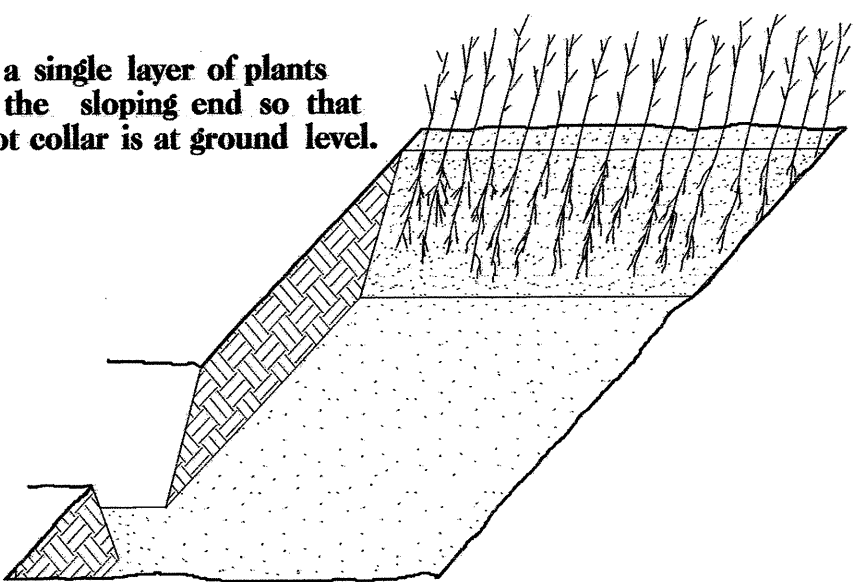
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



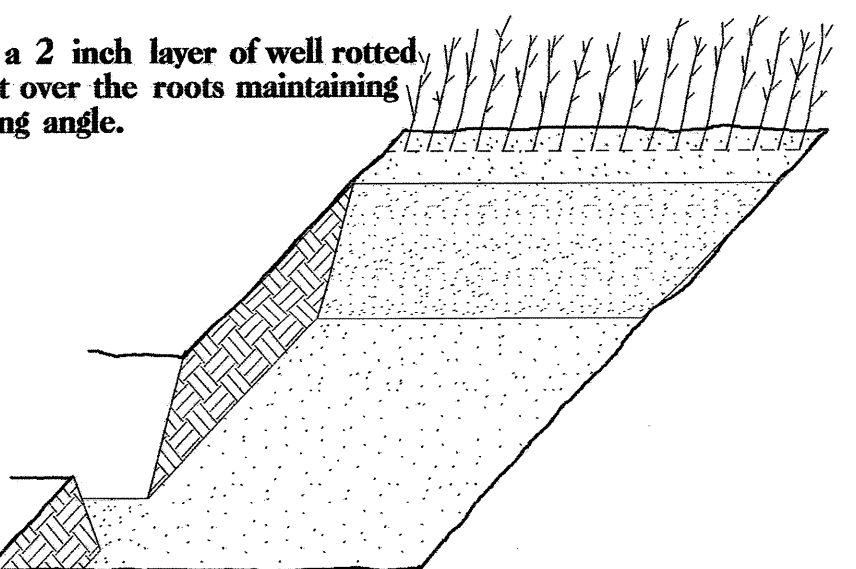
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

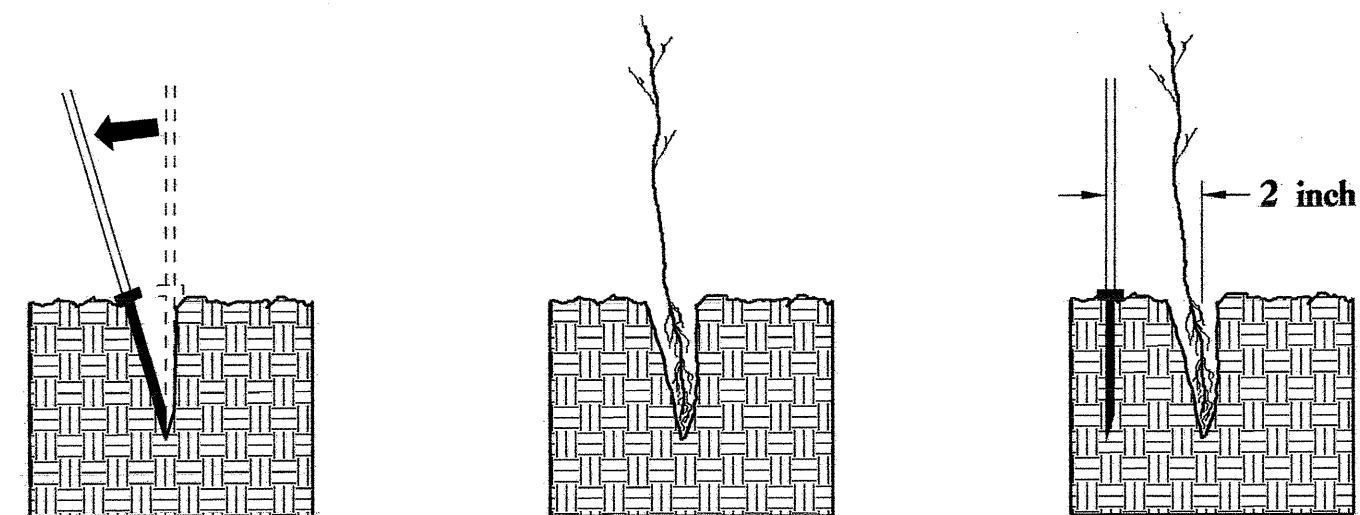


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

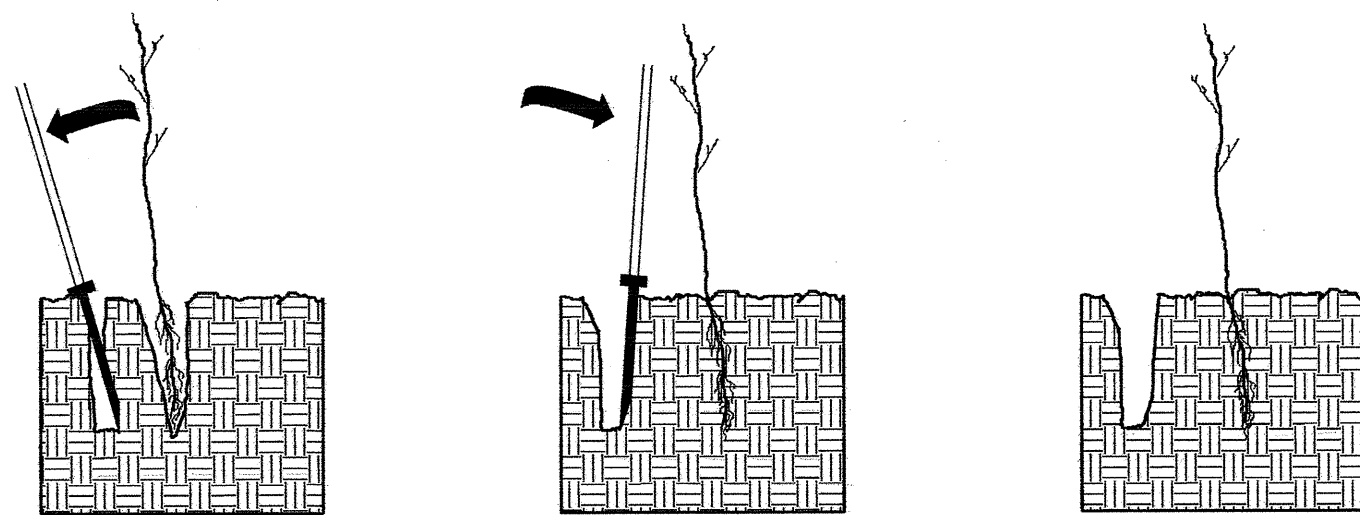


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

#### DIBBLE PLANTING METHOD USING THE KBC PLANTING BAR



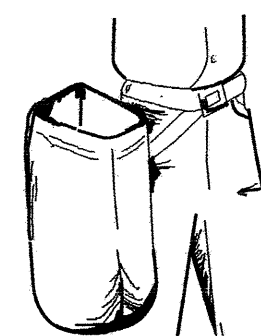
1. Insert planting bar as shown and pull handle toward planter.
2. Remove planting bar and place seedling at correct depth.
3. Insert planting bar 2 inches toward planter from seedling.



4. Pull handle of bar toward planter, firming soil at bottom.
5. Push handle forward firming soil at top.
6. Leave compaction hole open. Water thoroughly.

#### PLANTING NOTES:

**PLANTING BAG**  
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



**KBC PLANTING BAR**  
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



**ROOT PRUNING**  
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

## REFORESTATION

- TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

#### REFORESTATION

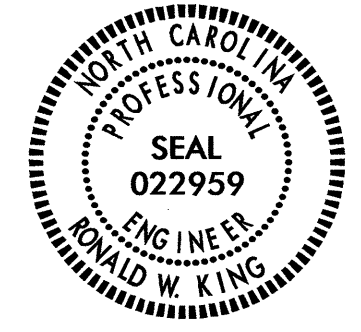
MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

30% PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	12 in - 18 in BR
30% FRAXINUS PENNSYLVANICA	GREEN ASH	12 in - 18 in BR
40% QUERCUS ALBA	WHITE OAK	12 in - 18 in BR

## REFORESTATION DETAIL SHEET

N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

TIP NO. B-4784	SHEET NO. SIGN-1
APPROVED: <i>[Signature]</i>	
DATE: 7/22/13	
SEAL	
	

SIGNING PLAN  
PERSON COUNTY

LOCATION: BRIDGE 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTERFIELD RD)

T.I.P.: B-4784

CONTRACT: C203260

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- SIGNING PLANS DO NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING OR PAVEMENT MARKINGS. SEE TRAFFIC CONTROL PLANS.
- ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

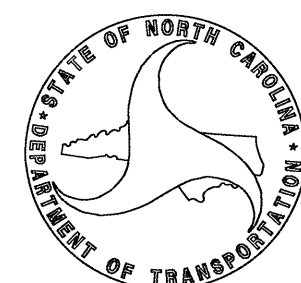
STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

SUMMARY OF QUANTITIES

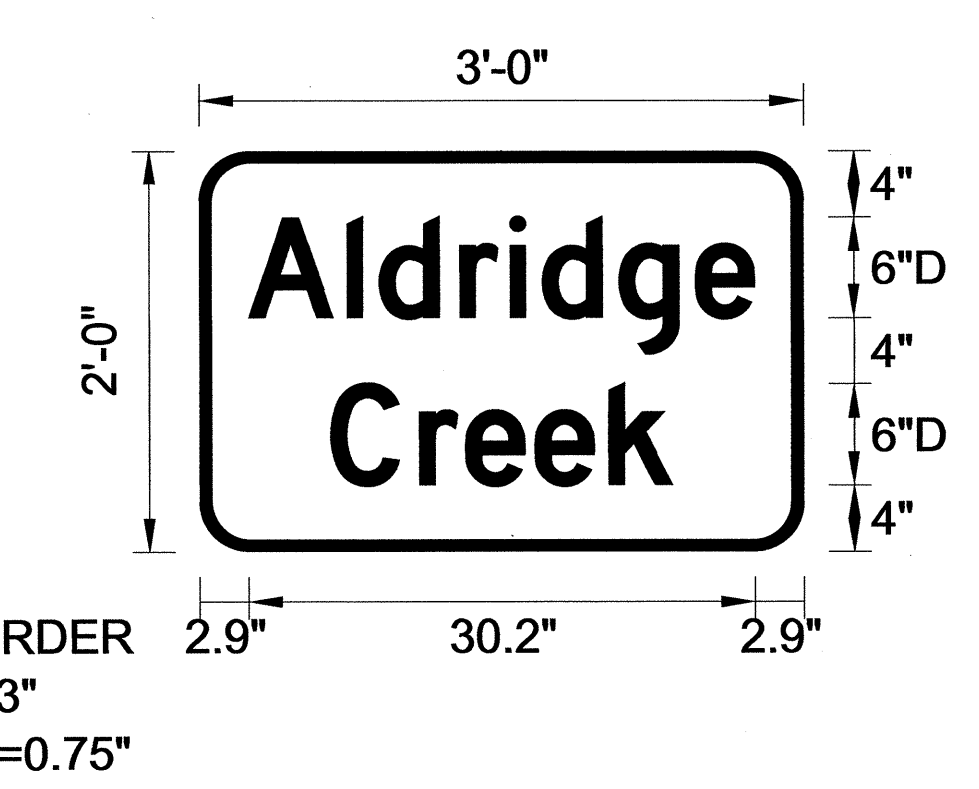
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4072000000	SUPPORTS, 3 LB STEEL U-CHANNEL	61	903
4096000000	SIGN ERECTION, TYPE D	2	904
4155000000	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6	907

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

SUSAN B. KUNZ SIGNING & DELINEATION REGIONAL ENGINEER  
ADAM GRADY SIGNING & DELINEATION PROJECT DESIGN ENGINEER



SIGN NUMBER: 301,302 TYPE: D QUANTITY: 2 SIGN WIDTH: 3'-0" HEIGHT: 2'-0" TOTAL AREA: 6.0 Sq.Ft. BORDER TYPE: FLUSH RECESS: 0" WIDTH: 0.75" RADIUS: 3" NO. Z BARS: LENGTH:	BACKG COLOR: Green COPY COLOR: White SYMBOL X Y WID HT MAT'L: 0.125" (3.2 mm) ALUMINUM	DESIGN BY: A. GRADY PROJECT ID: N/A	CHECKED BY: S. KUNZ DIV: 5	DATE: Mar 26, 2013
--	--	--	-------------------------------	--------------------



BORDER R=3" TH=0.75"

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

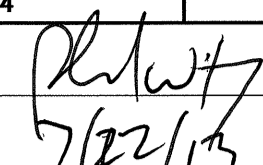
Letter spacings are to start of next letter											Series/Size Text Length
A	l	d	r	i	d	g	e				D 2000
2.9	5.9	1.9	4.8	3	1.9	4.6	4.6	3.5	2.9		30.2
C	r	e	e	k							D 2000
7.8	5.3	2.8	4.1	4.4	3.8	7.8					20.4

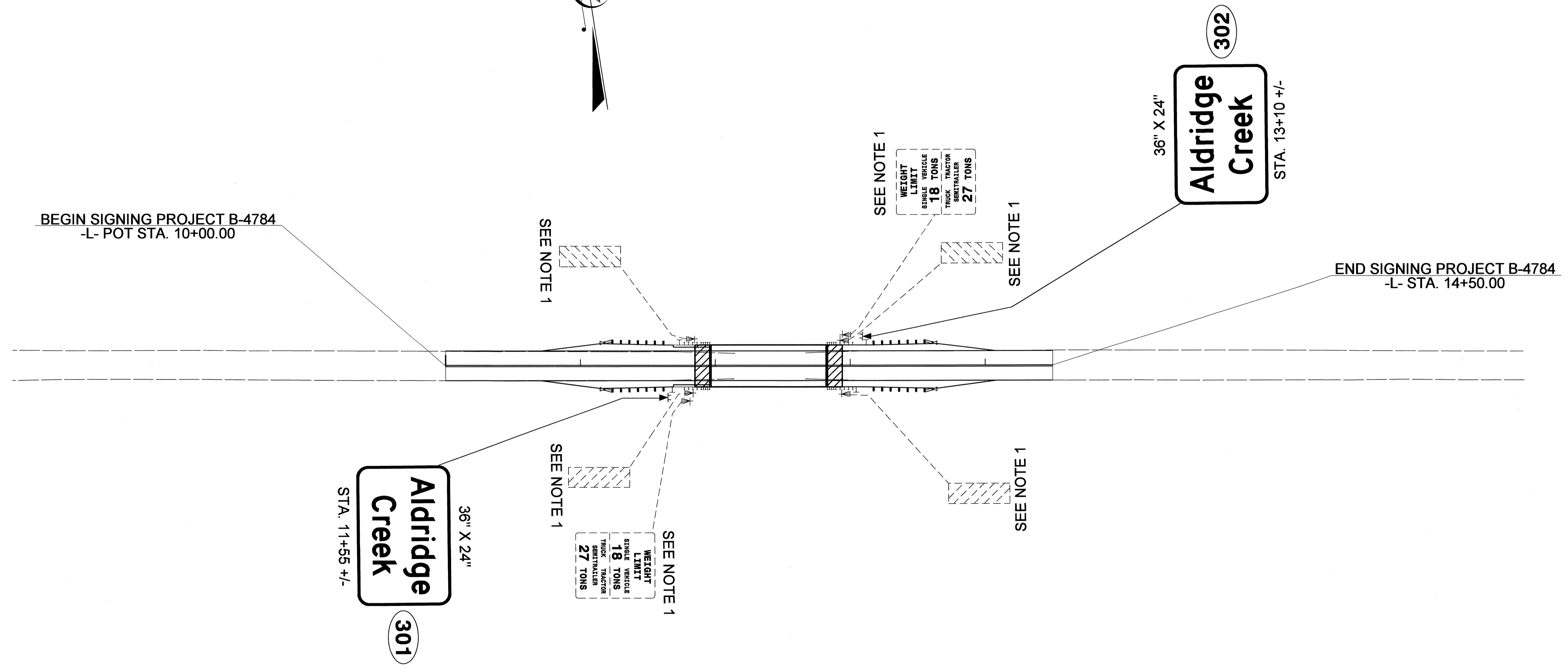
FILENAME: Guiddsign\_English NORTH CAROLINA D.O.T. SIGN DETAIL

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET, SIGN DESIGN, AND NOTES
SIGN-2	SIGN DETAIL SHEET



TIP NO. B-4784	SHEET NO. SIGN-2
APPROVED: 	
DATE: 7/22/13	
SEAL	



PROJECT NOTES	
1	DISPOSAL OF SIGN SYSTEM, U-CHANNEL

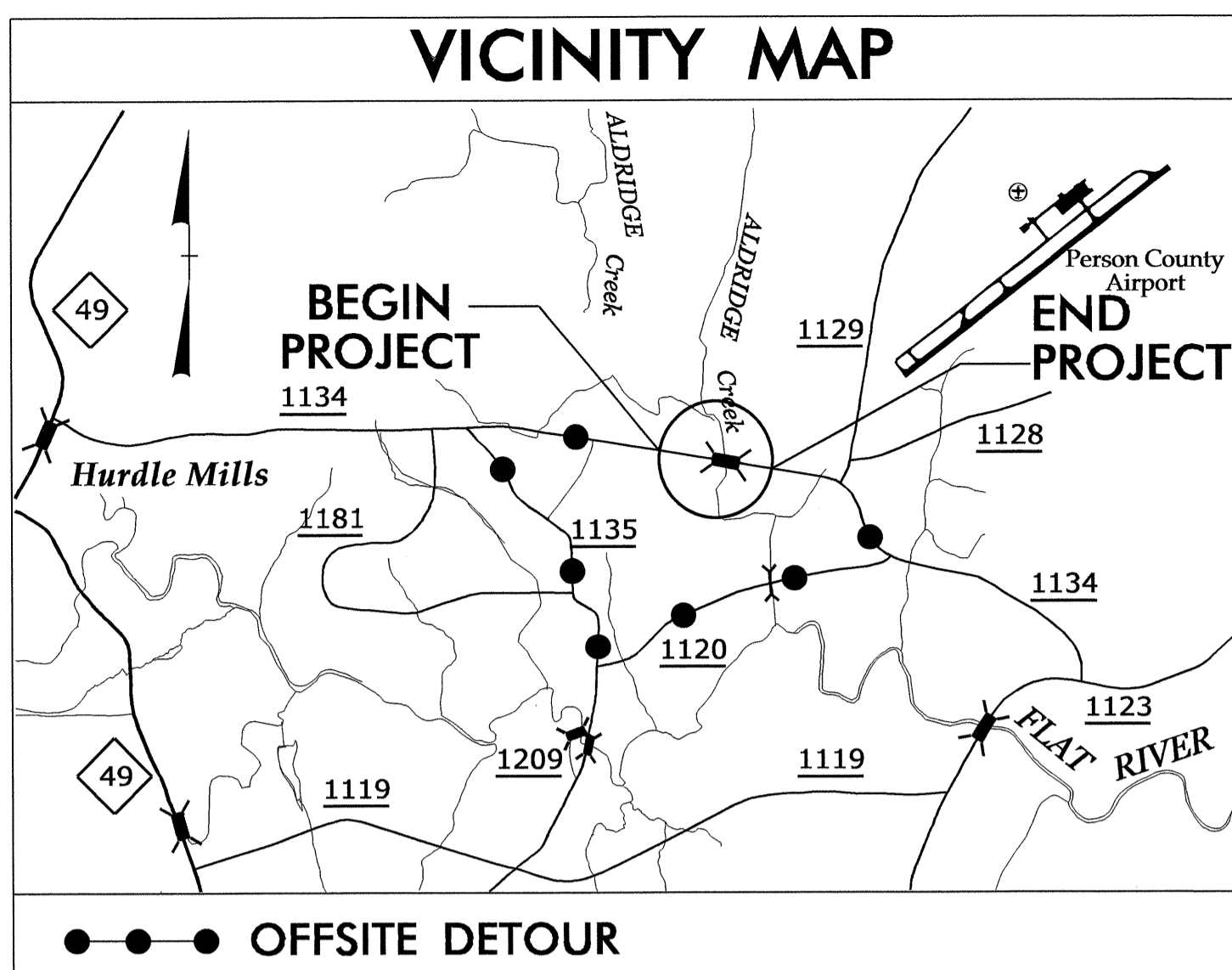
**EXISTING AND PROPOSED  
SIGNS**

22-Jul-2013 15:37  
 C:\IPF\Projects\T1227443\B-4784\Tref\Signing\CADD\Signing Layout Plans\B-4784 Br-dgseee6.dgn  
 signoff: W. 1227443

09/08/99

TIP PROJECT: B-4784

T.I.P. NO.	SHEET NO.
B-4784	UO-1

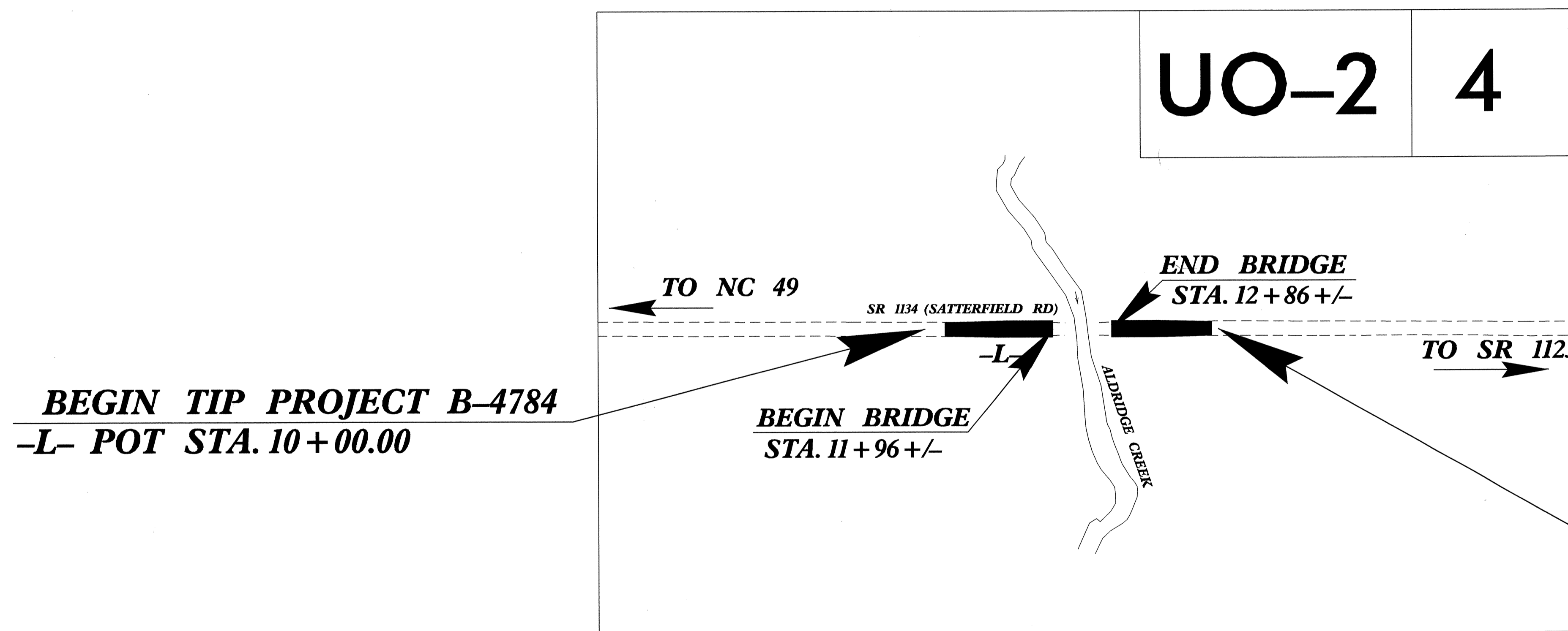
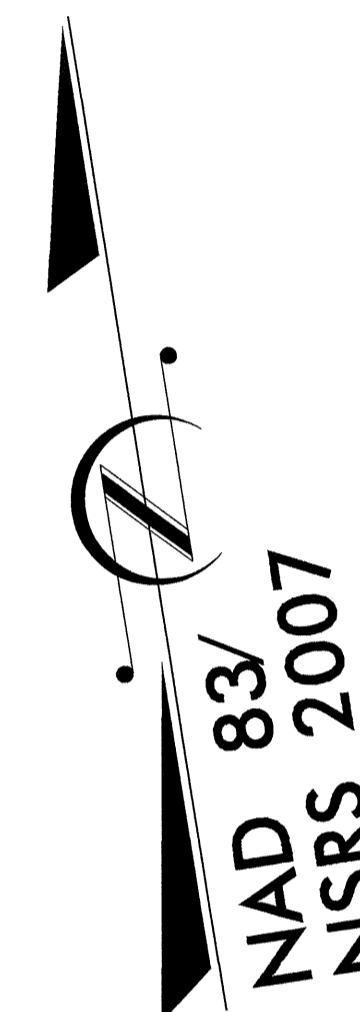
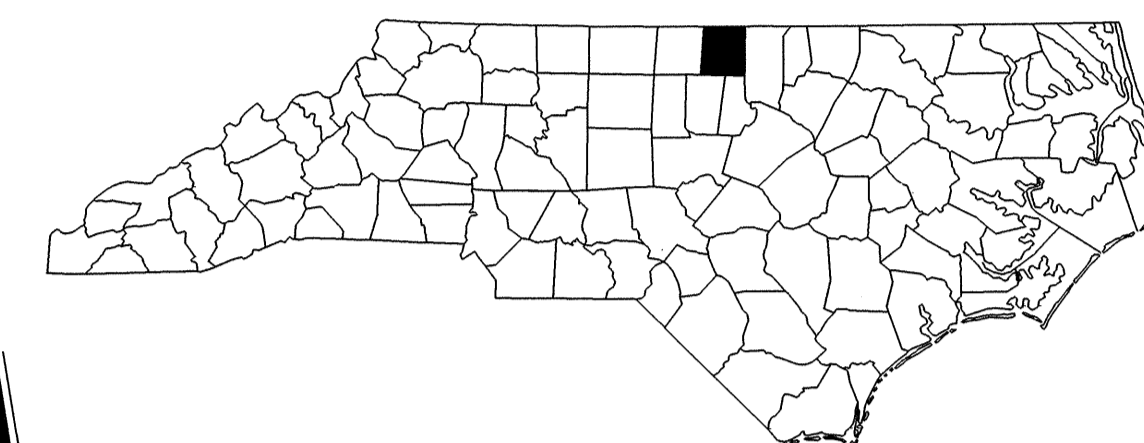


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

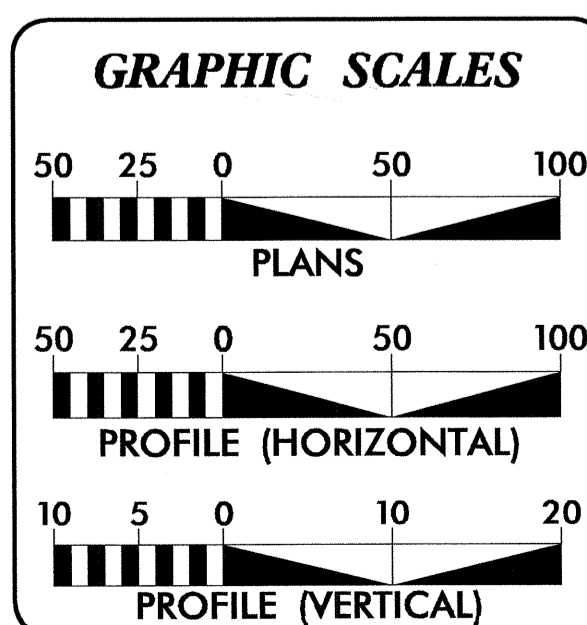
**UTILITIES BY OTHERS PLANS  
PERSON COUNTY**

LOCATION: BRIDGE NO. 31 OVER ALDRIDGE CREEK  
ON SR 1134 (SATTERFIELD RD)

TYPE OF WORK: UTILITIES BY OTHERS

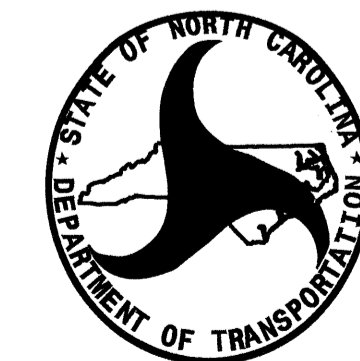


07-JUN-2013 12:42  
R:\Utilities\RCY\_Ut\Proj\B4784\_Ut\_Title\_UO1\_psh.dgn  
\$\$\$\$\$USERNAME\$\$\$\$\$



SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITY BY OTHERS PLAN SHEET

UTILITY OWNERS ON PROJECT
(A) CENTURYLINK - TELEPHONE



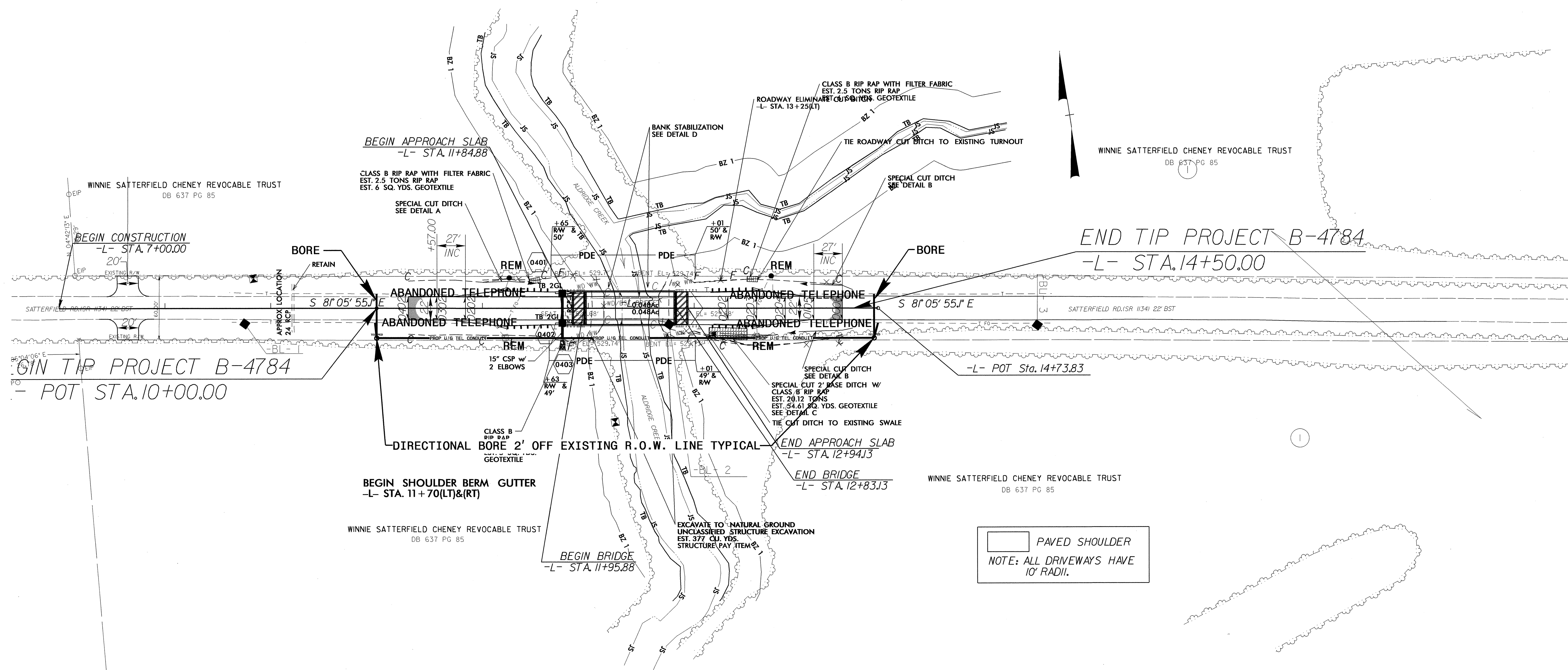
PREPARED IN THE OFFICE OF:  
DIVISION OF HIGHWAYS  
UTILITIES UNIT  
UTILITIES ENGINEERING SECTION

1591 MAIL SERVICES CENTER  
RALEIGH NC 27699-1591  
PHONE (919) 707-6690  
FAX (919) 250-4151

Roger Worthington, P.E. UTILITIES SECTION ENGINEER  
Steve McKee, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER  
John Nigro, P.E. UTILITIES PROJECT DESIGNER

### UTILITIES BY OTHERS

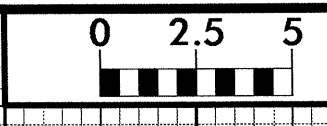
**NOTE:**  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS



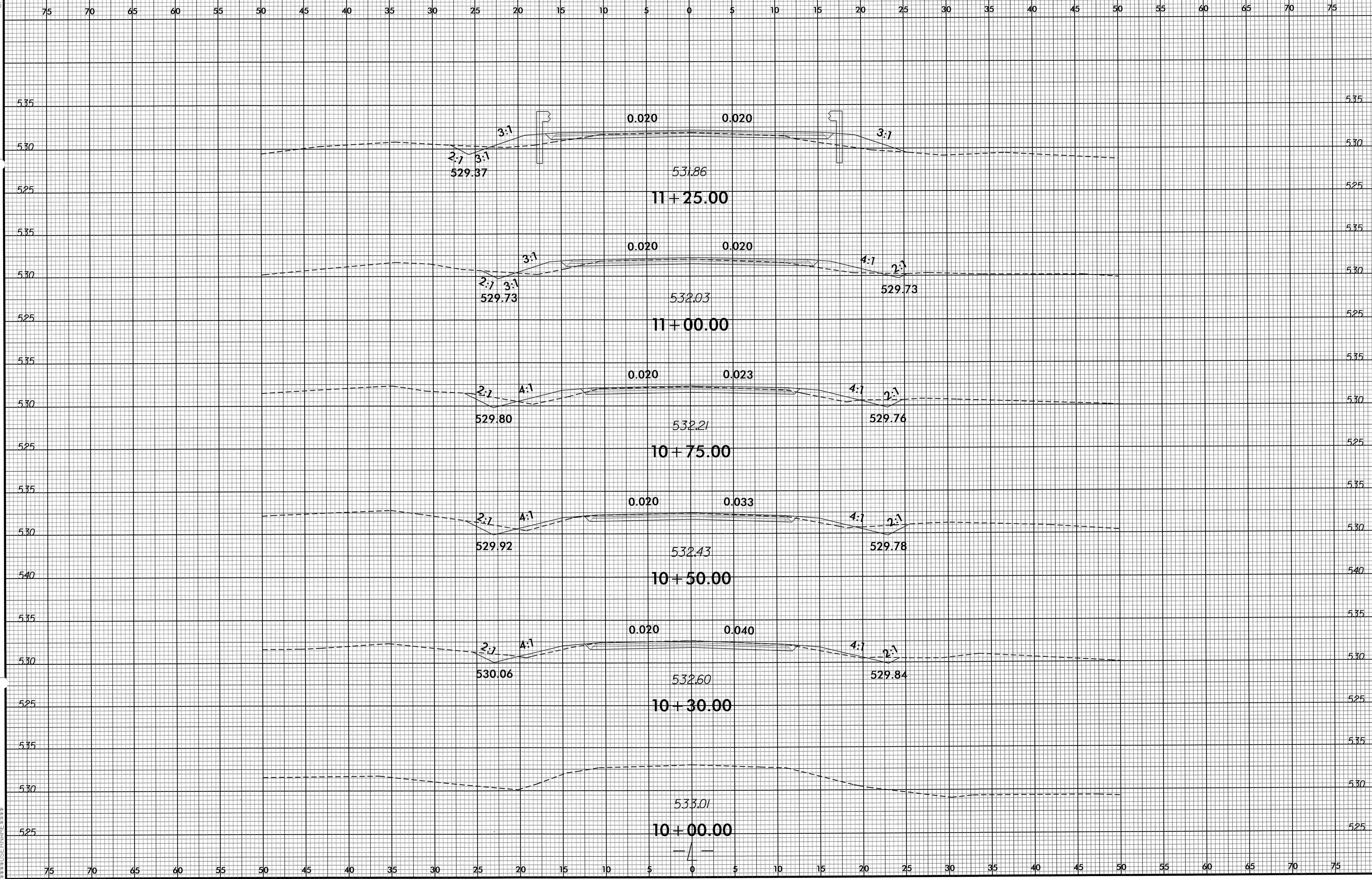
5/14/99  
 20-SEP-2013 05:27  
 J:\Projects\B4784-Ut\_4-U02.psh.dgn



8/23/99

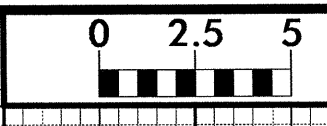


PROJ. REFERENCE NO.	SHEET NO.
B-4784	X-1

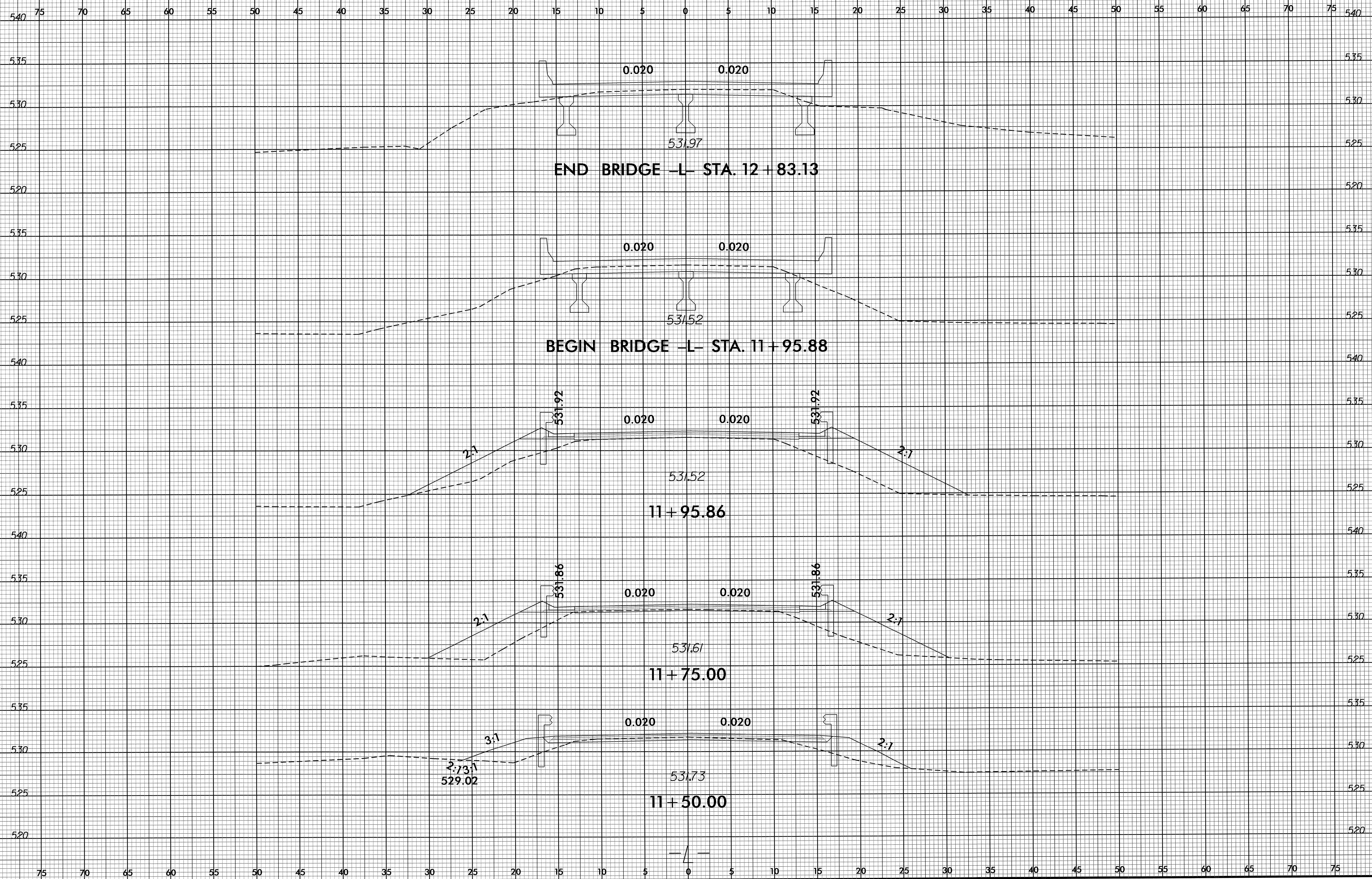


31-MAY-2013 07:34  
E:\PROJECTS\B4784-Rdy-xpl.dgn

8/23/99



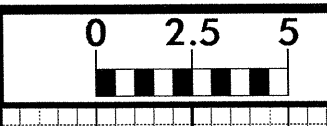
PROJ. REFERENCE NO.	SHEET NO.
B-4784	X-2



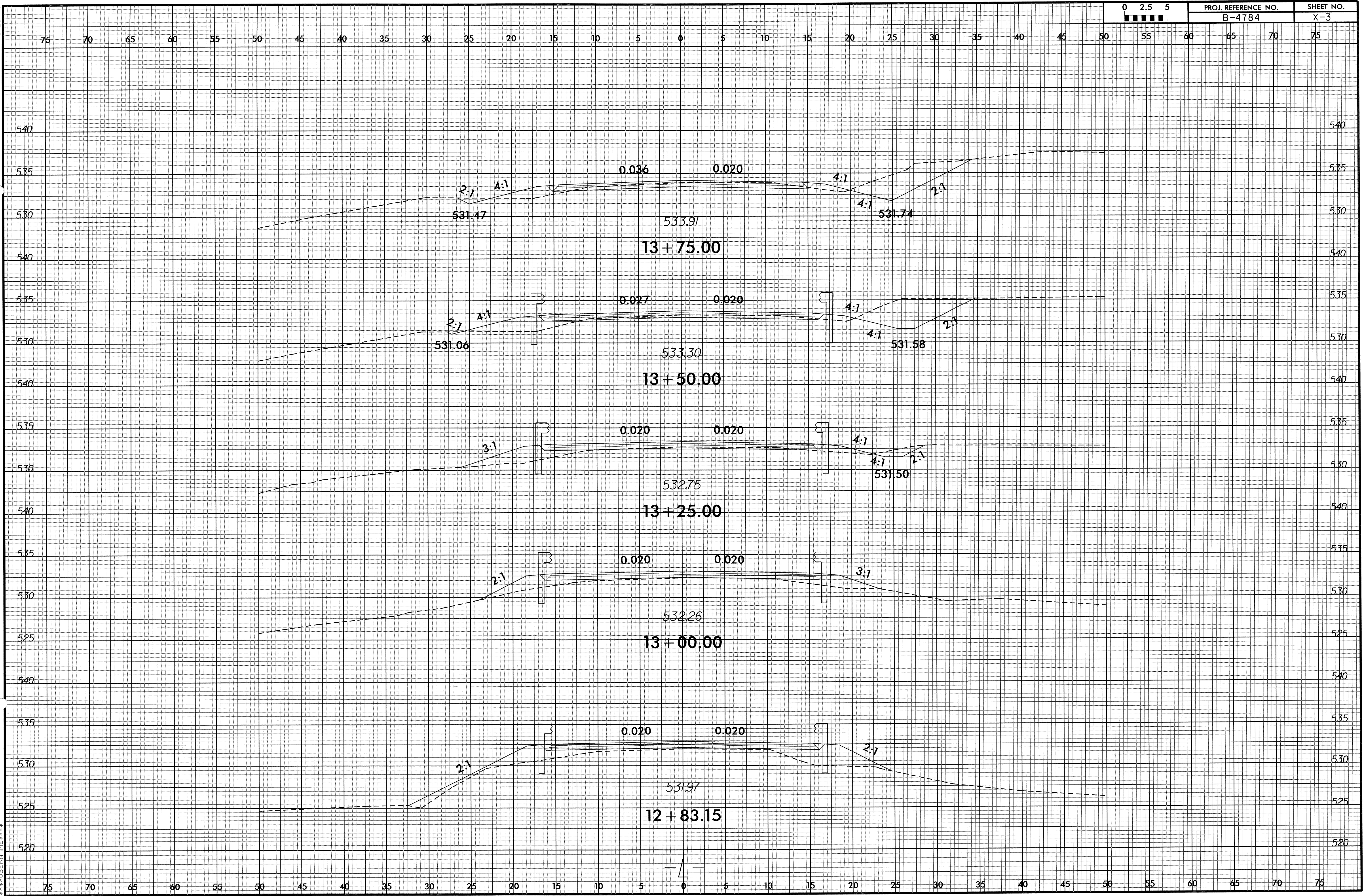
3-MAY-2013 07:34  
5:33:50 PM  
C:\Users\jg\Documents\B4784-Rdy-xpl.dgn

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

8/23/99



PROJ. REFERENCE NO.	SHEET NO.
B-4784	X-3



31-MAY-2013 07:34  
S:\PROJECTS\B4784-Rdy-xpl.dgn

8/23/99  
31-MAY-2003 07:34  
P:\PROJECTS\B4784\B4784\_Rdy\_xpl.dgn

