09/08/99

PROJECT NO: 43650

CONTRACT: DN00225

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	43650	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

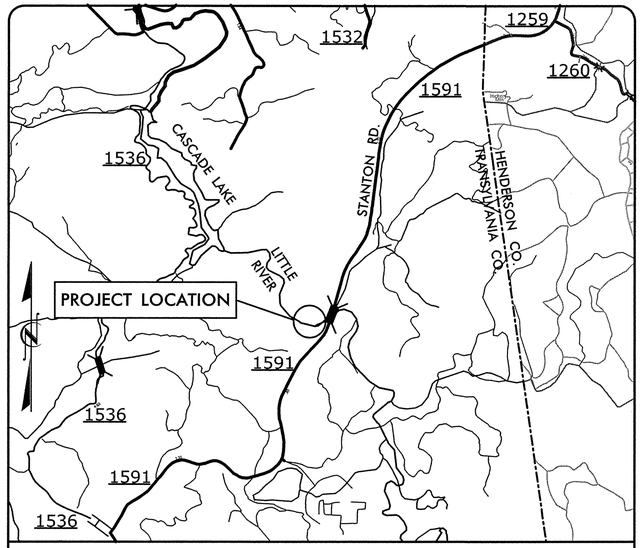
SCO# 12-09576-01A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSYLVANIA COUNTY

LOCATION: PEDESTRIAN BRIDGE OVER LITTLE RIVER ON TRIPLE FALLS TRAIL

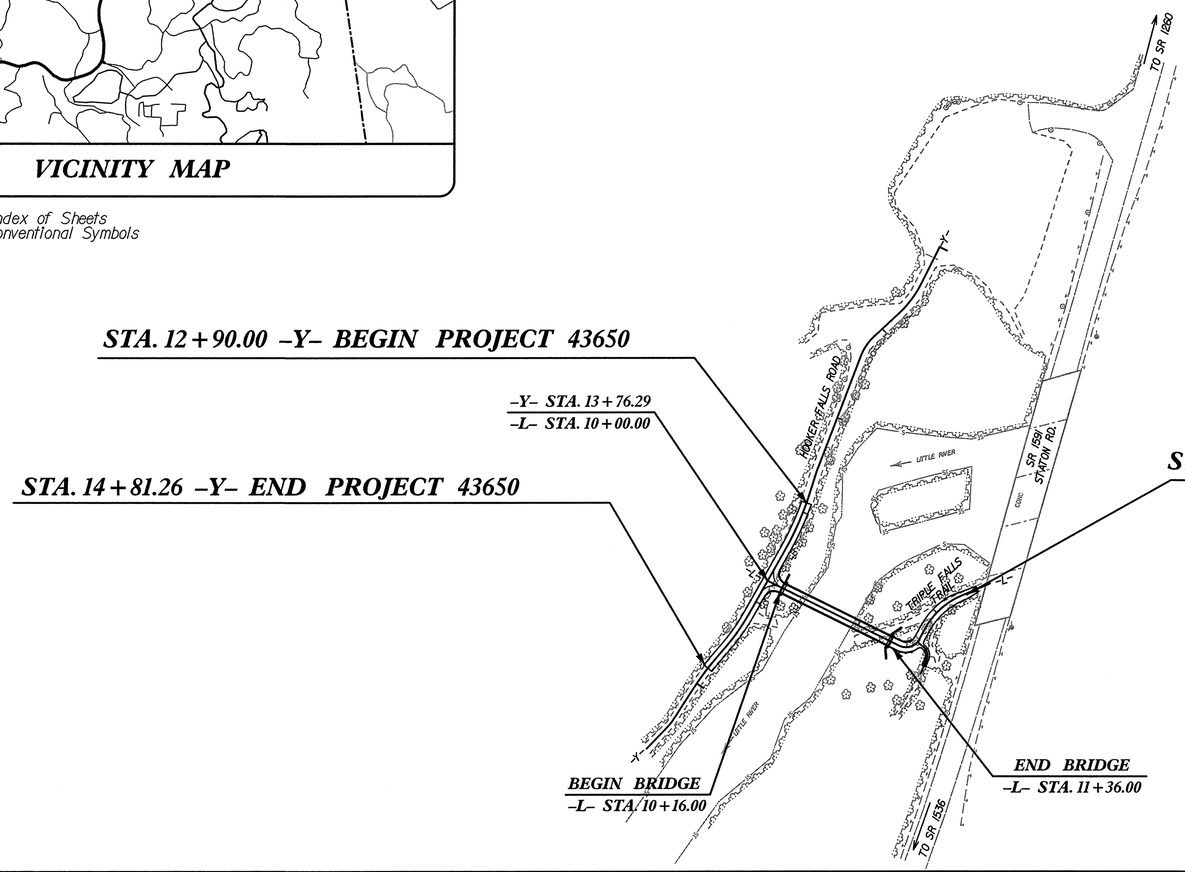
TYPE OF WORK: GRADING, TRAIL CONSTRUCTION, DRAINAGE & STRUCTURE



VICINITY MAP

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

NAD 83/
NSRS 2007



STA. 12 + 90.00 -Y- BEGIN PROJECT 43650

-Y- STA. 13 + 76.29
-L- STA. 10 + 00.00

STA. 14 + 81.26 -Y- END PROJECT 43650

STA. 12 + 46.76 -L- END PROJECT 43650

BEGIN BRIDGE
-L- STA. 10 + 16.00

END BRIDGE
-L- STA. 11 + 36.00

RFC

RELEASED FOR CONSTRUCTION

GRAPHIC SCALES

40 20 0 40 80
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

PROJECT LENGTH

LENGTH ROADWAY PROJECT 43650	=	*0.061 MI*
LENGTH STRUCTURE PROJECT 43650	=	*0.022 MI*
TOTAL LENGTH PROJECT 43650	=	*0.083 MI*

NCDOT CONTACT: JOSHUA DEYTON, P.E.
PROJECT ENGINEER

Prepared In the Office of:
Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
FY 2013

JAMES B. VOSO, P.E.
PROJECT ENGINEER

RANDY DODSON
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 28945 ENGINEER DANA J. BOLDEN

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022599 ENGINEER JAMES B. VOSO

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

P.E.
STATE HIGHWAY DESIGN ENGINEER

10:52:25 AM
R:\3318 DuPont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_tsh.dgn
Dgnoss

PROJECT REFERENCE NO.	SHEET NO.
43650	1-A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022597 ENGINEER JAMES B. VOSO

PLANS PREPARED BY:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

SCO# 12-09576-01A

INDEX OF SHEETS – GENERAL NOTES – LIST OF STANDARDS

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	Title Sheet
1-A	Index of Sheets, General Notes, and List of Standards
1-B	Conventional Symbols
2	Typical Sections, and Pavement Schedule
3	Summary of Quantities
3-A	Summary of Drainage Quantities, and Earthwork Summary
4	Plan Sheet
5	Profile Sheet
EC-1 THRU EC-5	Erosion Control Plans
RF-1	Reforestation Detail
X-1A	Cross-Section Summary Sheet
X-1 THRU X-8	Cross-Sections
TS-01	Structure Plans Title Sheet
S-01 THRU S-6	Structure Plans

2012 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 January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 – EARTHWORK	
200.02	Method of Clearing – Method II
225.02	Guide for Grading Subgrade – Secondary and Local
DIVISION 3 – PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 8 – INCIDENTALS	
876.01	Rip Rap in Channels
DIVISION 16 – EROSION CONTROL AND ROADSIDE DEVELOPMENT	
1607.01	Gravel Construction Entrance

GENERAL NOTES: 2012 SPECIFICATIONS

EFFECTIVE: 01-17-12
REVISED: 07/30/12

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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 II.

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.

TRAIL CONSTRUCTION:

CONSTRUCT THE TRAIL USING HAND TOOLS AND SMALL SCALE MECHANIZED EQUIPMENT. IT IS NOT PRACTICAL TO INLCUDE ALL DETAILS OF PROPER TRAIL CONSTRUCTION IN THIS DOCUMENT. CONSULT THE USFS "TRAIL CONSTRUCTION AND MAINTENANCE NOTEBOOK" FOUND AT http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications07232806/ FOR A MORE DETAILED EXPLANATION OF TRAIL GUIDELINES AND STRUCTURES.

TRAFFIC CONTROL:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL NECESSARY FOR THE DELIVERY OF BRIDGE, CONSTRUCTION OF FOUNDATION/ABUTMENTS, TRAIL IMPROVEMENTS, AND PLACEMENT OF THE BRIDGE. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2012, AND THE NCDOT ROADWAY STANDARD DRAWINGS, DATED JANUARY 2012.

PEDESTRIAN PROTECTION:

CONTRACTOR SHALL BE MADE AWARE THAT CONSTRUCTION ACTIVITIES WILL BE OCCURRING IN A RECREATIONAL AREA WITH HIGH PEDESTRIAN USAGE. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION AROUND CONSTRUCTION SITE, CONSTRUCTION ACTIVITIES AND CONSTRUCTION EQUIPMENT. CONTRACTOR TO COORDINATE NECESSARY TRAIL CLOSURES WITH NC FOREST SERVICE PERSONNEL AT 828-877-6527. ALL WORK RELATED TO PEDESTRIAN PROTECTION SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL LUMP SUM PAY ITEM.

BRIDGE SIGNAGE:

NC FOREST SERVICE SHALL PROVIDE CONSPICUOUS SIGNAGE AT BRIDGE APPROACHES INSTRUCTING RIDERS TO DISMOUNT PRIOR TO CROSSING BRIDGE.

6/2/99
9:09:07 AM
R:\3316 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_typ.dgn

PROJECT REFERENCE NO.	SHEET NO.
43650	1-B

SCO# 12-09576-01A

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 — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing High Quality Wetland Boundary — HQ WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- River Basin Buffer — RBB
- Flow Arrow
- Disappearing Stream
- Spring
- Swamp Marsh
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Guage — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — 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 — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Utility Easement — PUE

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- Curb Cut for Future Wheel Chair Ramp — CCFR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equaility Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole — HH
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
43650	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022699 ENGINEER JAMES B. CRAIG

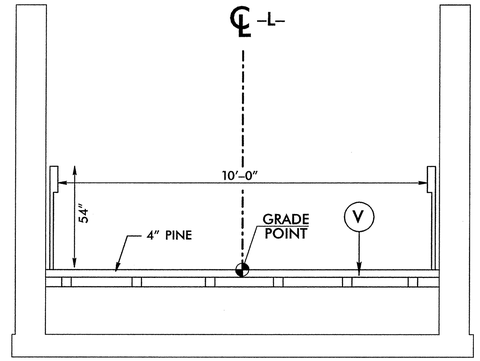
PLANS PREPARED BY:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

SCO# 12-09576-01A

PAVEMENT SCHEDULE

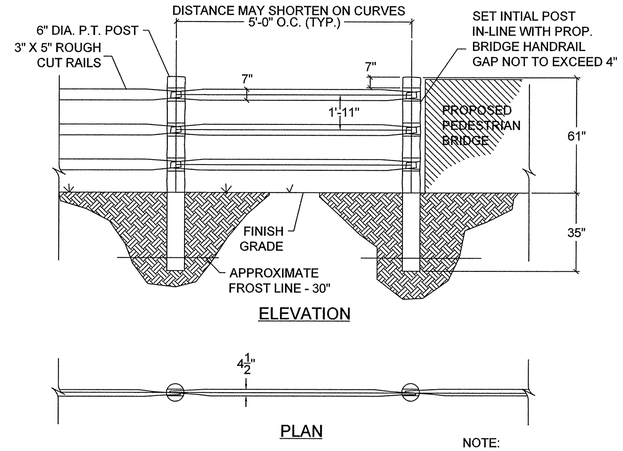
ITEM	DESCRIPTION
J	PROP. APPROX. 3" AGGREGATE BASE COURSE (ABC) COMPACTED. THE TRAIL SURFACE SHALL BE SMOOTH, UNIFORM, AND FREE OF PROTRUDING ROOTS AND STUMPS.
T	EARTH MATERIAL.
V	4" TREATED PINE



TYPICAL SECTION NO. 2

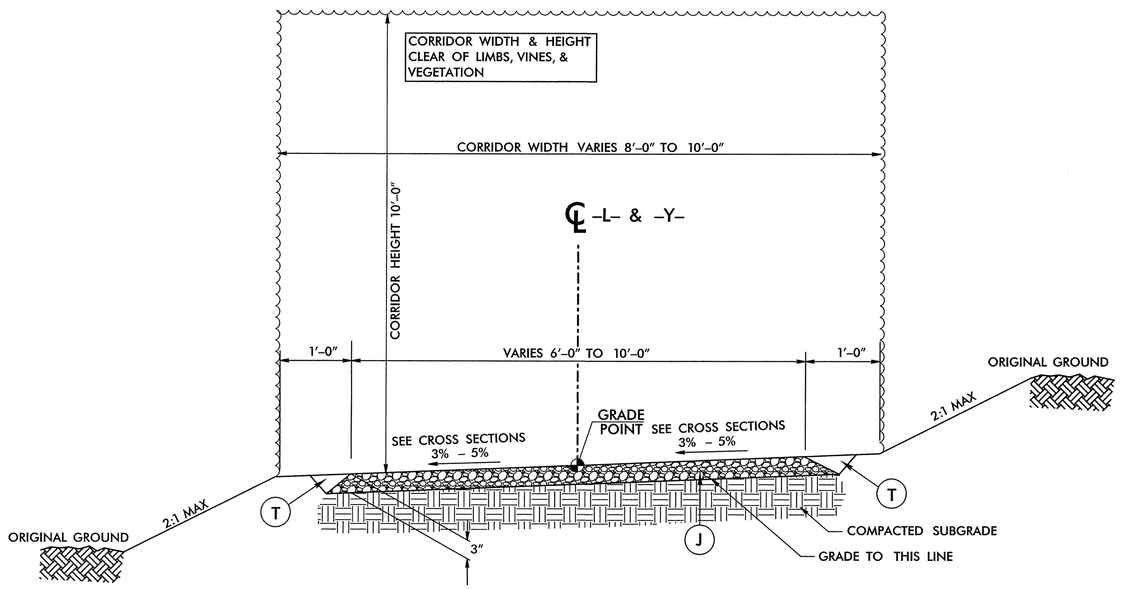
USE TYPICAL SECTION No. 2

-L- STA. 10+16.00 (Begin Bridge) TO STA. 11+36.00 (End Bridge)



NOTE:
ALL POSTS TO BE SET IN GROUND 3'-0".
RAILS TO BE NAILED AT ENDS TO POST OR OTHER RAIL.

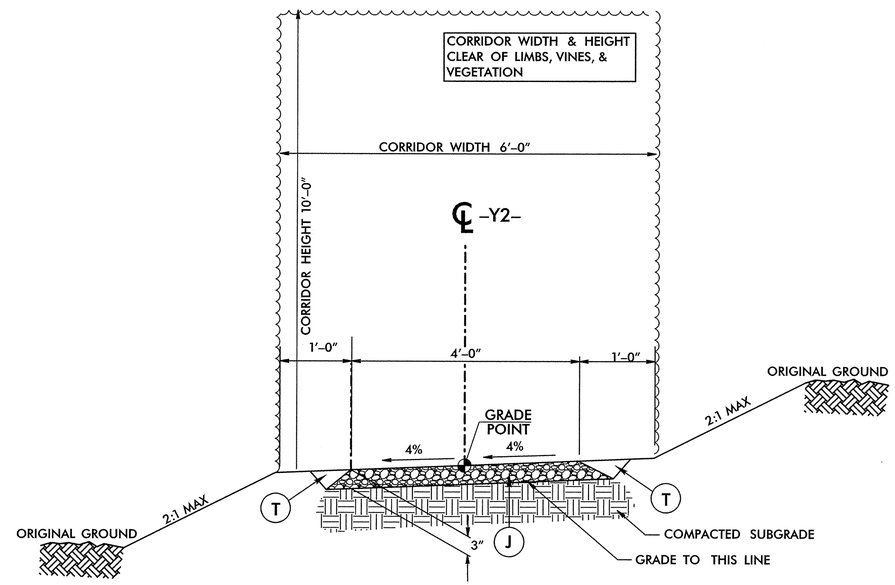
SPLIT RAIL FENCE DETAIL



TYPICAL SECTION NO. 1

USE TYPICAL SECTION No. 1

-L- STA. 10+00.00 TO STA. 10+16.00 (Begin Bridge)
-L- STA. 11+36.00 (End Bridge) TO STA. 12+46.76
-Y- STA. 12+90.00 TO STA. 14+81.26



TYPICAL SECTION NO. 3

USE TYPICAL SECTION No. 3

-Y2- STA. 10+00.00 TO STA. 10+28.00

TRAIL TO BE CONSTRUCTED IN ACCORDANCE WITH GUIDELINES OF THE USFS "TRAIL CONSTRUCTION AND MAINTENANCE NOTEBOOK" FOUND AT http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/07232806/ AND SHALL MEET THE MINUM DESIGN REQUIREMENTS OF A CLASS 4 TRAIL DESIGNATED FOR HIKER/PEDESTRIAN, PACK AND SADDLE, AND ALL TERRAIN VEHICLE USE.

WHEN CLEARING CORRIDOR WIDTH AND HEIGHT, CUT LIMBS FLUSH WITH MAIN STEM SO STUBS DO NOT PROTRUDE TOWARD TRAIL CORRIDOR.

6/2/99
9:53:26 AM
R:\3318 Lugoff Falls Redevelop\Bridge\43650 Project Files\Roadway\Proj\43650_rdy_typ.dgn
Format 2.397/DGN/8.11.7.1155_10_2_17.dgn

PROJECT REFERENCE NO.	SHEET NO.
43650	3

ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022599 ENGINEER JAMES B. VOSO

PLANS PREPARED BY:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

SCO# 12-09576-01A

SUMMARY OF QUANTITIES

ITEM	SECT	QUANTITY	UNIT	DESCRIPTION	ADDITIONAL DESCRIPTION
0000100000-N	800	1	LS	MOBILIZATION	
0000400000-N	801	1	LS	CONSTRUCTION SURVEYING	
0030000000-N	SP	1	LS	BRG APP SUB REG TIER**	-L- STA 10+16 & -L- STA 11+36
0043000000-N	226	1	LS	GRADING	LUMP SUM GRADING
		50.00	CY	UNCLASSIFIED EXCAVATION	
		650.00	CY	BORROW EXCAVATION	
		0.30	ACR	CLEARING & GRUBBING	
		1,100.00	SY	FINE GRADING	
0050000000-E	226	1	ACR	SUPP CLEARING & GRUBBING	
0057000000-E	226	100	CY	UNDERCUT EXCAVATION	
0134000000-E	240	12	CY	DRAINAGE DITCH EXCAVATION	
0195000000-E	265	100	CY	SELECT GRANULAR MATERIAL	
0196000000-E	270	200	SY	GEOTEXTILE SOIL STABILIZATION	
0318000000-E	300	5	TON	FND CONDIT MATL MINOR STRS	
0320000000-E	300	10	SY	FND CONDIT GEOTEXTILE	
0343000000-E	310	10	LF	15" SIDE DRAIN PIPE	
1121000000-E	520	64.34	TON	AGGREGATE BASE COURSE	
1220000000-E	545	20	TON	INCIDENTAL STONE BASE	
3575000000-E	866	60	LF	GENERIC FENCING ITEM (LF)	SPLIT RAIL FENCE
3656000000-E	876	90	SY	GEOTEXTILE FOR DRAINGE	
4589000000-N	SP	1	LS	GENERIC TRAFFIC CONTROL ITEM (LS)	LUMP SUM TRAFFIC CONTROL
6000000000-E	1605	430	LF	TEMPORARY SILT FENCE	
6006000000-E	1610	35	TON	EROS CONTRL STONE CL A	
6009000000-E	1610	55	TON	EROS CONTRL STONE CL B	
6012000000-E	1610	30	TON	SEDIMENT CONTROL STONE	
6015000000-E	1615	0.5	ACR	TEMPORARY MULCHING	
6018000000-E	1620	50	LB	SEED FOR TEMP SEEDING	
6021000000-E	1620	0.25	TON	FERT FOR TEMP SEEDING	
6024000000-E	1622	200	LF	TEMPORARY SLOPE DRAINS	
6029000000-E	SP	100	LF	SAFETY FENCE	
6030000000-E	1630	60	CY	SILT EXCAVATION	
6036000000-E	1631	5000	SY	MATTING FOR EROS CONTROL	
6042000000-E	1632	90	LF	1/4" HARDWARE CLOTH	
6071020000-E	SP	5	LB	POLYACRYLAMIDE (PAM)	
6084000000-E	1660	0.5	ACR	SEEDING AND MULCHING	
6087000000-E	1660	0.5	ACR	MOWING	
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING	
6093000000-E	1661	0.25	TON	FERT FOR REPAIR SEEDING	
6096000000-E	1662	50	LB	SEED FOR SUPP SEEDING	
6108000000-E	1665	0.25	TON	FERTILIZER TOPDRESSING	
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING	
6117000000-N	SP	7	EA	RESPONSE FOR EROS CONTROL	
6123000000-E	SP	0.1	ACR	REFORESTATION	
8070000000-E	410	167	CY	FOUNDATION EXCAVATION	
8182000000-E	420	87	CY	CLASS A CONCRETE (BRIDGE)	
8217000000-E	425	6922	LB	REINF STEEL (BRIDGE)	
8608000000-E	876	67	TON	RIP RAP II (2'-0")	
8622000000-E	876	99	SY	GEOTEXTILE FOR DRAINAGE	
8860000000-N	SP	1	LS	GENERIC STRUCTURE ITEM (LS)	CONST MAINTENCE & REMOVAL OF TEMP ACCESS
8860000000-N	SP	1	LS	GENERIC STRUCTURE ITEM (LS)	BRIDGE ERECTION

6/2/99
5:01:16 PM
R:\Hydraulics\Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_typ.dgn
Bentley

COMPUTED BY:	DATE:
CHECKED BY:	DATE:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
43650	3-A

SCO# 12-09576-01A

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	C.S. PIPE (UNLESS NOTED OTHRWISE) 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	CLASS III R.C. PIPE (UNLESS OTHERWISE NOTED) 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0')	LIN. *FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.22	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32								CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
-L- 11+64.00	RT																															10																																				

SIZE / THICKNESS OR GAUGE

ABBREVIATIONS

- C.B. CATCH BASIN
- N.D.I. NARROW DROP INLET
- D.I. DROP INLET
- G.D.I. GRATED DROP INLET
- G.D.I. (N.S.) GRATED DROP INLET (NARROW SLOT)
- J.B. JUNCTION BOX
- M.H. MANHOLE
- T.B.D.I. TRAFFIC BEARING DROP INLET
- T.B.J.B. TRAFFIC BEARING JUNCTION BOX

Note: Invert elevations are for bid purposes only. Contractor to field verify all existing and proposed elevations

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- 11+36 TO 11+50	1		89	88	0
-L- 11+50 TO 11+75	1		126	126	0
-L- 11+75 TO 12+00	0		69	69	0
-L- 12+00 TO 12+25	3		22	19	0
-L- 12+25 TO 12+46.76	1		1	0	0
-Y- 12+90 TO 13+00	0		1	1	0
-Y- 13+00 TO 13+25	0		7	7	0
-Y- 13+25 TO 13+50	0		26	26	0
-Y- 13+50 TO 13+75	0		48	48	0
-Y- 13+75 TO 14+00	0		70	70	0
-Y- 14+00 TO 14+25	0		78	78	0
-Y- 14+25 TO 14+50	0		52	52	0
-Y- 14+50 TO 14+75	0		15	15	0
-Y- 14+75 TO 14+81.26	0		1	1	0
TOTALS	6		605	599	0
EARTH WASTE TO REPLACE BORROW					
GRAND TOTAL	6			599	
SAY	50			650	
ESTIMATED:					
UNDERCUT EXCAVATION = 100					
SELECT GRANULAR MATIERIAL = 100					

Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the lump sum price for "Grading". Embankment quantities do not include backfill for undercut.

6/21/00
9:19:05 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_typ.dgn

PROJECT REFERENCE NO.	SHEET NO.
43650	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022699 ENGINEER JAMES B. VOSO 12/21/12

NORTH CAROLINA PROFESSIONAL SEAL 28945 ENGINEER DANA J. BOLDEN 12/21/12

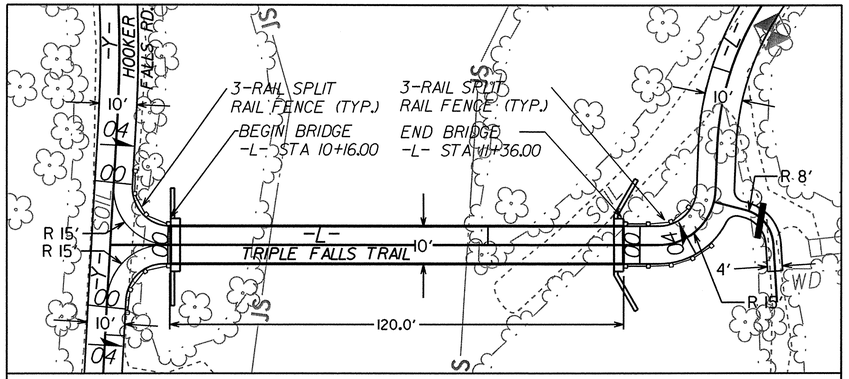
Prepared in the Office of:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

40 20 0 40 80
SCALE

SCO# 12-09576-01A

NAD 83/ NSRS 2007



SKETCH SHOWING THE RELATIONSHIP OF THE BRIDGE TO THE TRAIL

20 0 20 40

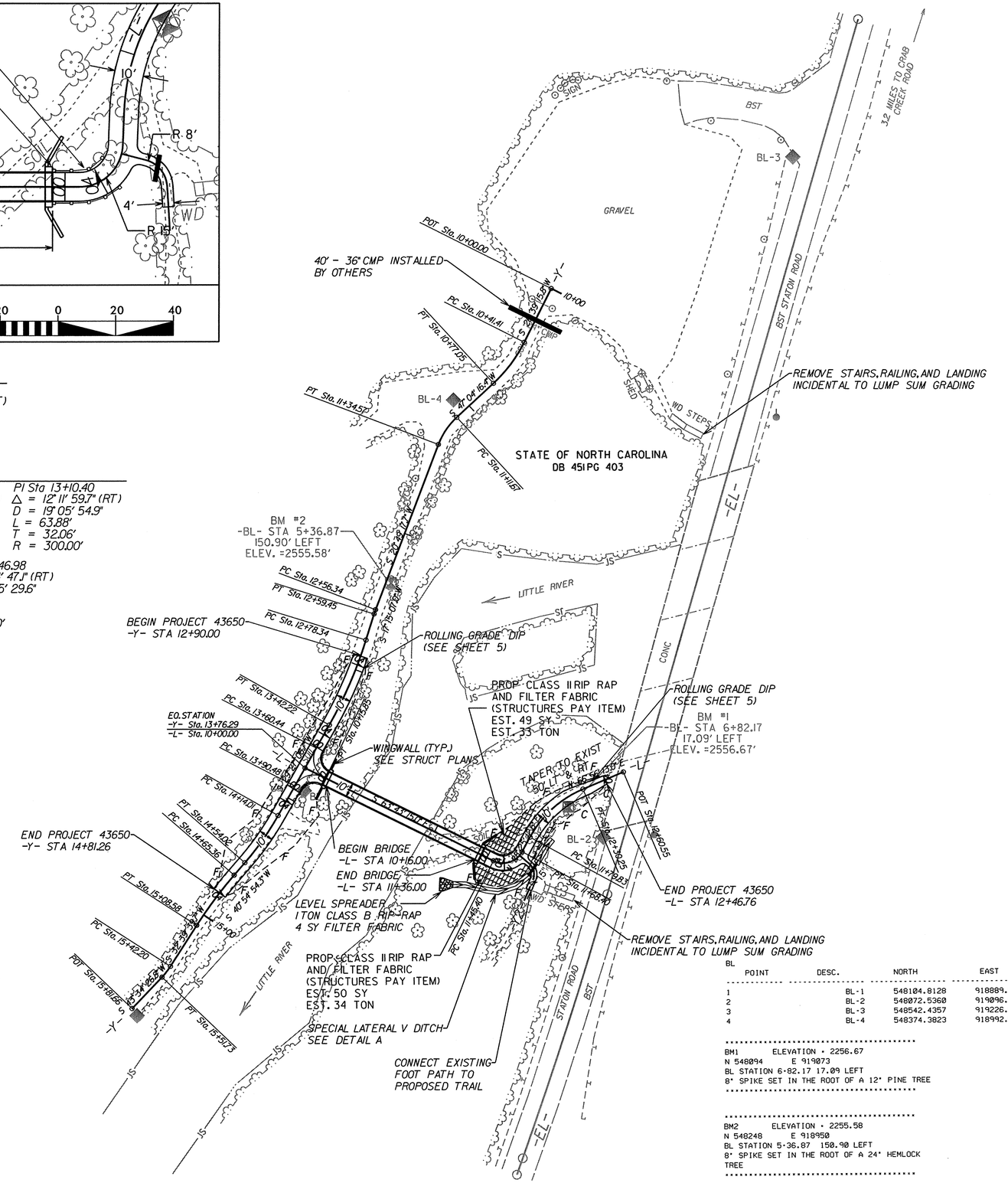
-L-

PI Sta 11+59.85	PI Sta 12+06.03
Δ = 87° 51' 32.3" (LT)	Δ = 38° 31' 00.4" (RT)
D = 38° 58' 18.7"	D = 76° 23' 39.7"
L = 23.00'	L = 50.42'
T = 14.45'	T = 26.20'
R = 15.00'	R = 75.00'

-Y-

PI Sta 10+59.42	PI Sta 11+23.33	PI Sta 12+57.89	PI Sta 13+10.40
Δ = 20° 25' 00.6" (RT)	Δ = 26° 14' 58.8" (LT)	Δ = 3° 34' 10.7" (LT)	Δ = 12° 11' 59.7" (RT)
D = 57° 17' 44.8"	D = 114° 35' 29.6"	D = 114° 35' 29.6"	D = 19° 05' 54.9"
L = 35.63'	L = 22.91'	L = 3.12'	L = 63.88'
T = 18.01'	T = 11.66'	T = 1.56'	T = 32.06'
R = 100.00'	R = 50.00'	R = 50.00'	R = 300.00'

PI Sta 14+34.08	PI Sta 14+87.00	PI Sta 15+46.98
Δ = 11° 27' 47.6" (RT)	Δ = 8° 15' 14.6" (LT)	Δ = 10° 54' 47.1" (RT)
D = 28° 38' 52.4"	D = 19° 05' 54.9"	D = 114° 35' 29.6"
L = 40.01'	L = 43.22'	L = 9.52'
T = 20.07'	T = 21.65'	T = 4.78'
R = 200.00'	R = 300.00'	R = 50.00'



BL

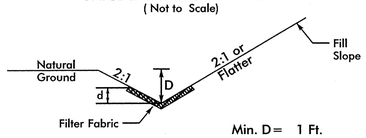
POINT	DESC.	NORTH	EAST	ELEVATION	EL STATION	OFFSET
1	BL-1	548104.8128	918889.9208	2255.70	12+14.74	221.29 LT
2	BL-2	548072.5360	919096.6920	2269.76	12+40.34	13.59 LT
3	BL-3	548542.4357	919226.8593	2263.94	17+27.92	17.12 LT
4	BL-4	548374.3823	918992.5952	2259.93	15+02.13	196.39 LT

BM1 ELEVATION - 2256.67
N 548094 E 919073
BL STATION 6+82.17 17.09 LEFT
8" SPIKE SET IN THE ROOT OF A 12" PINE TREE

BM2 ELEVATION - 2255.58
N 548248 E 918950
BL STATION 5+36.87 150.90 LEFT
8" SPIKE SET IN THE ROOT OF A 24" HEMLOCK TREE

DETAIL A

SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= Class II Rip-Rap
Min. D= 1 Ft.
Max. d= 1 Ft.

FROM STA. -L- 11+30 TO -L- 11+90 STA.

5/14/99

9:20:37 AM
Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_psh.dgn

PROJECT REFERENCE NO.	SHEET NO.
43650	5

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022599 ENGINEER JAMES B. VOSO 04/24/13

HYDRAULICS ENGINEER

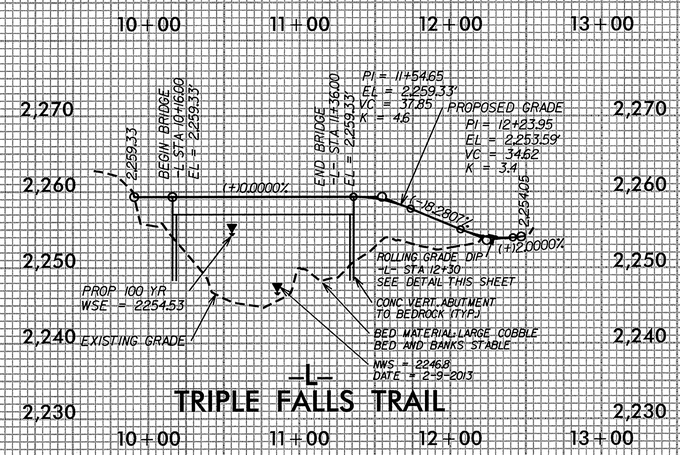
NORTH CAROLINA PROFESSIONAL SEAL 28945 ENGINEER DANIEL J. BOLDEN 4/24/13

Prepared in the Office of:

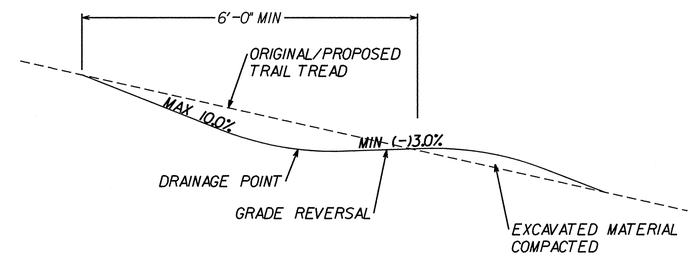
Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

50 25 0 50 100
PROFILE (HORIZONTAL)
10 5 0 10 20
PROFILE (VERTICAL)
SCALE

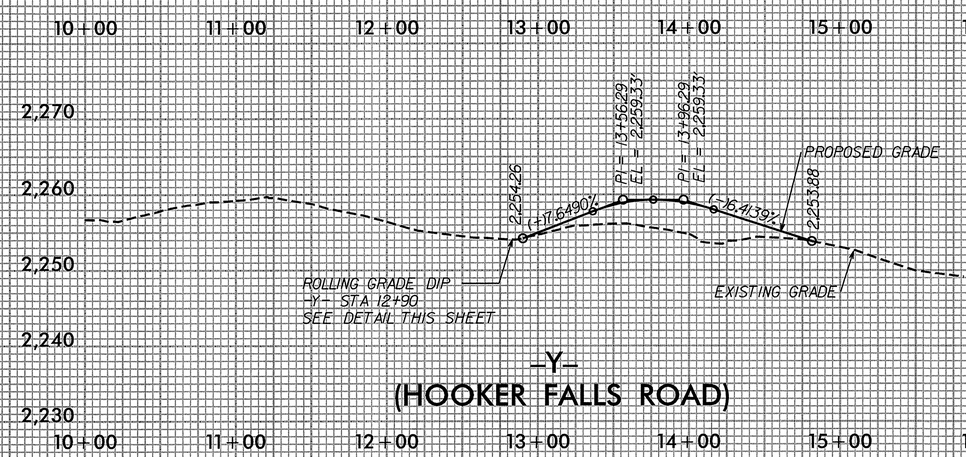
SCO# 12-09576-01A



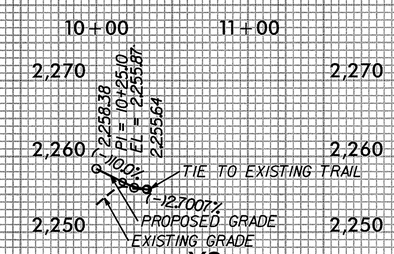
-L-
TRIPLE FALLS TRAIL



ROLLING GRADE DIP DETAIL



-Y-
(HOOKER FALLS ROAD)



-Y2-
(UNNAMED TRAIL)

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	5990	CFS
DESIGN FREQUENCY	=	100	YRS
DESIGN HW ELEVATION	=	2254.53	FT
BASE DISCHARGE	=	5990	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	2254.53	FT
OVERTOPPING DISCHARGE	=	7400	CFS
OVERTOPPING FREQUENCY	=	100 +	YRS
OVERTOPPING ELEVATION	=	2257.87	FT
DATE OF SURVEY	=	2-9-13	
W.S. ELEVATION AT DATE OF SURVEY	=	2246.8	FT

5/14/99
9:21:05 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_psh.dgn

PROJECT NO: 43650

CONTRACT: DN00225

SCO# 12-09576-01A

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	43650	EC-1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

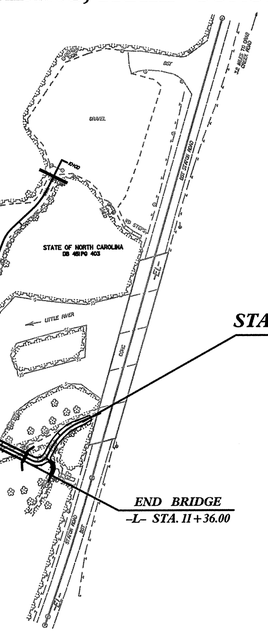
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

TRANSYLVANIA COUNTY

NAD 83/
NSRS 2007

LOCATION: PEDESTRIAN BRIDGE OVER LITTLE RIVER ON TRIPLE FALLS TRAIL

TYPE OF WORK: GRADING, TRAIL CONSTRUCTION, DRAINAGE & STRUCTURE



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
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	WW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
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	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
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.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

DANA BOLDEN
LEVEL IIIA NAME

3171
LEVEL IIIA CERTIFICATION NO.

RFC

RELEASED FOR CONSTRUCTION

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

GRAPHIC SCALE

0 40
PLANS

0 50
PROFILE (HORIZONTAL)

0 10
PROFILE (VERTICAL)

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:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

Reviewed 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 revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

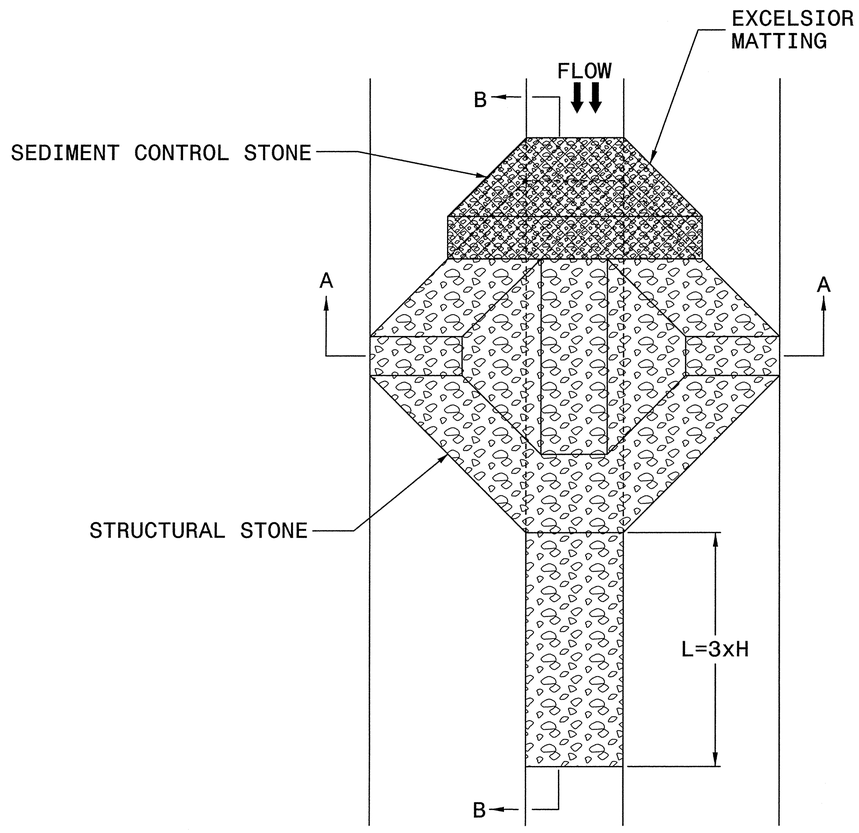
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type 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		

pedestrian Bridge 43650 Project Files\Environmental\Design\43650_ec_tsh.dgn
9/26/13 4:44
bgcross

PROJECT REFERENCE NO.	SHEET NO.
43650	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SCO# 12-09576-01A

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



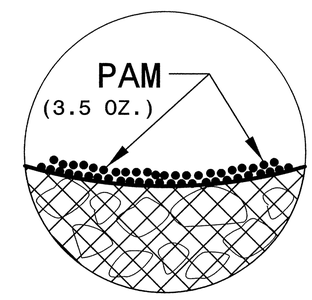
PLAN

NOTES

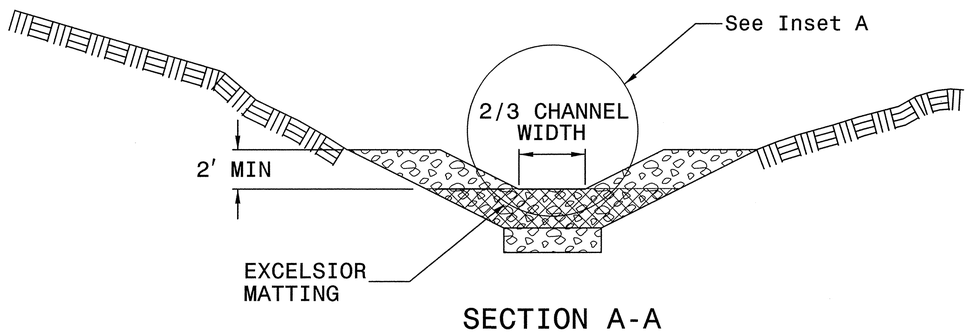
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

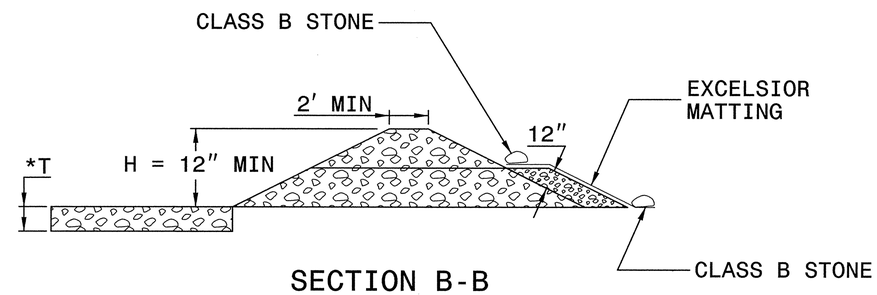
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

*T = 12" MIN., 18" MAX.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
43650	EC-3

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 022399 ENGINEER JAMES B. VOSO 4/29/13	NORTH CAROLINA PROFESSIONAL SEAL 28945 ENGINEER DANA J. BOLDEN 4/29/13

SCO# 12-09576-01A

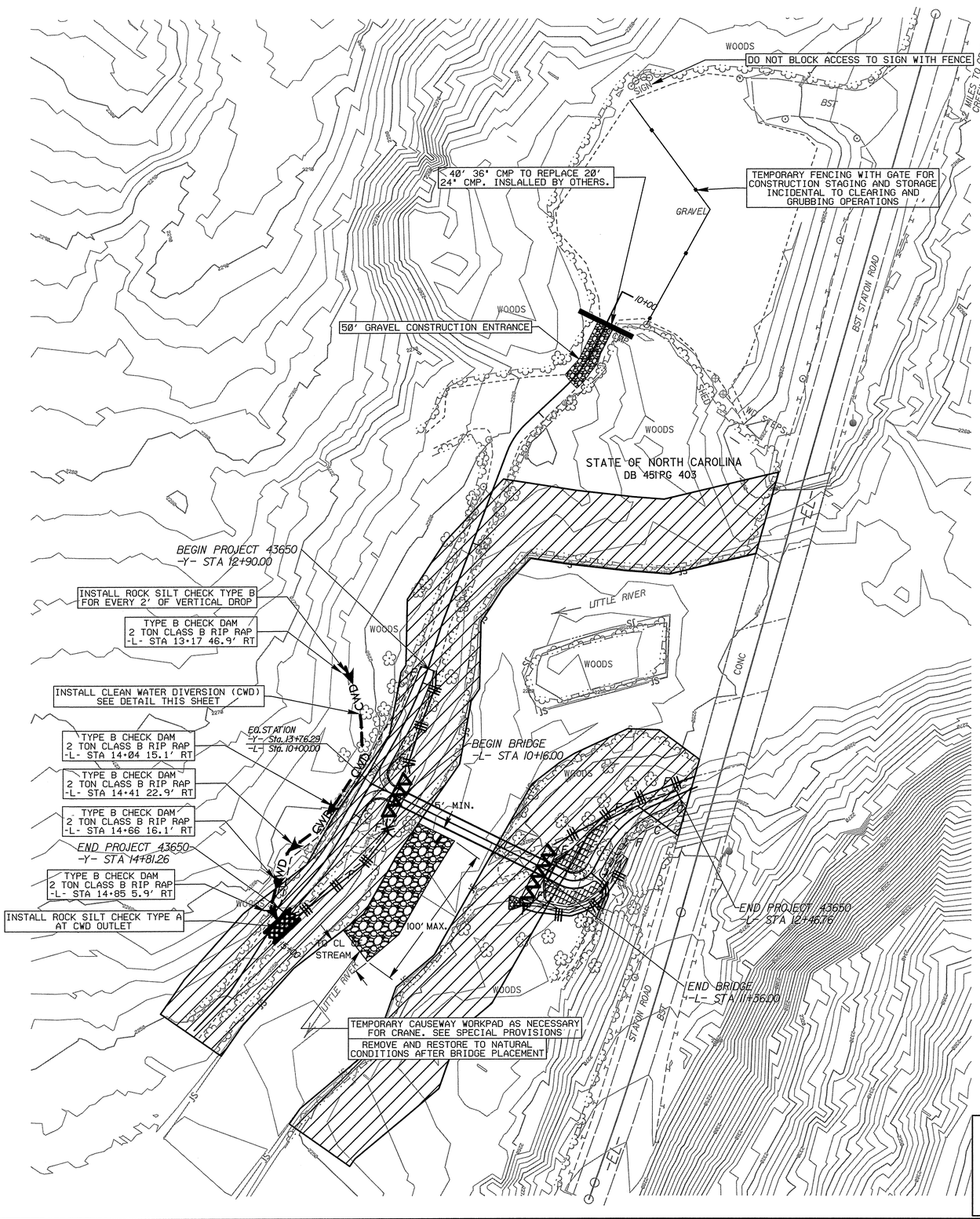
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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.

5/14/99

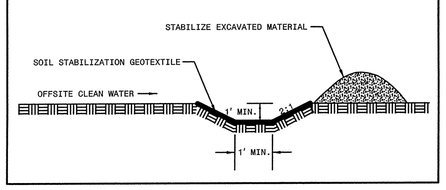
NAD 83/
NSRS 2007



CLEAN WATER DIVERSION

CWD — CWD — CWD — CWD

(Not to Scale)



PROJECT REFERENCE NO.	SHEET NO.
43650	EC-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022959 ENGINEER JAMES B. VOSS

NORTH CAROLINA PROFESSIONAL SEAL 28345 ENGINEER DANA J. BOLDEN

Prepared in the Office of:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

40 20 0 40 80
SCALE

SCO# 12-09576-01A

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

IF ANY PUMPED DEWATERING IS REQUIRED, A SPECIAL STILLING BASIN SHALL BE PROVIDED AS NEEDED

ANY ADDITIONAL CLEARING AND GRUBBING OR SELECT TREE REMOVAL OUTSIDE AREAS ESTABLISHED BY METHOD II THAT IS NECESSARY FOR MATERIAL OR EQUIPMENT ACCESS TO THE SITE SHALL BE INCIDENTAL TO THE CONSTRUCTION AND PLACEMENT OF THE BRIDGE. OBTAIN PRIOR APPROVAL FOR ANY CLEARING, GRUBBING, OR SELECT TREE REMOVAL OUTSIDE OF LIMITS OF CONSTRUCTION PRIOR TO CONDUCTING OPERATIONS.

ALL AREAS GRUBBED WITHIN ENVIRONMENTALLY SENSITIVE AREA (ESA) BOUNDARIES SHALL BE MULCHED WITH TEMPORARY MULCH IMMEDIATELY FOLLOWING GRUBBING OPERATIONS.

COORDINATE TRAIL CLOSURE WITH NC FOREST SERVICE PERSONNEL PRIOR TO BEGINNING CLEARING AND GRUBBING OPERATIONS. CONTACT MR. DAVID BROWN AT 828.877.6527 FOR SPECIFIC TRAIL CLOSURE INSTRUCTIONS.

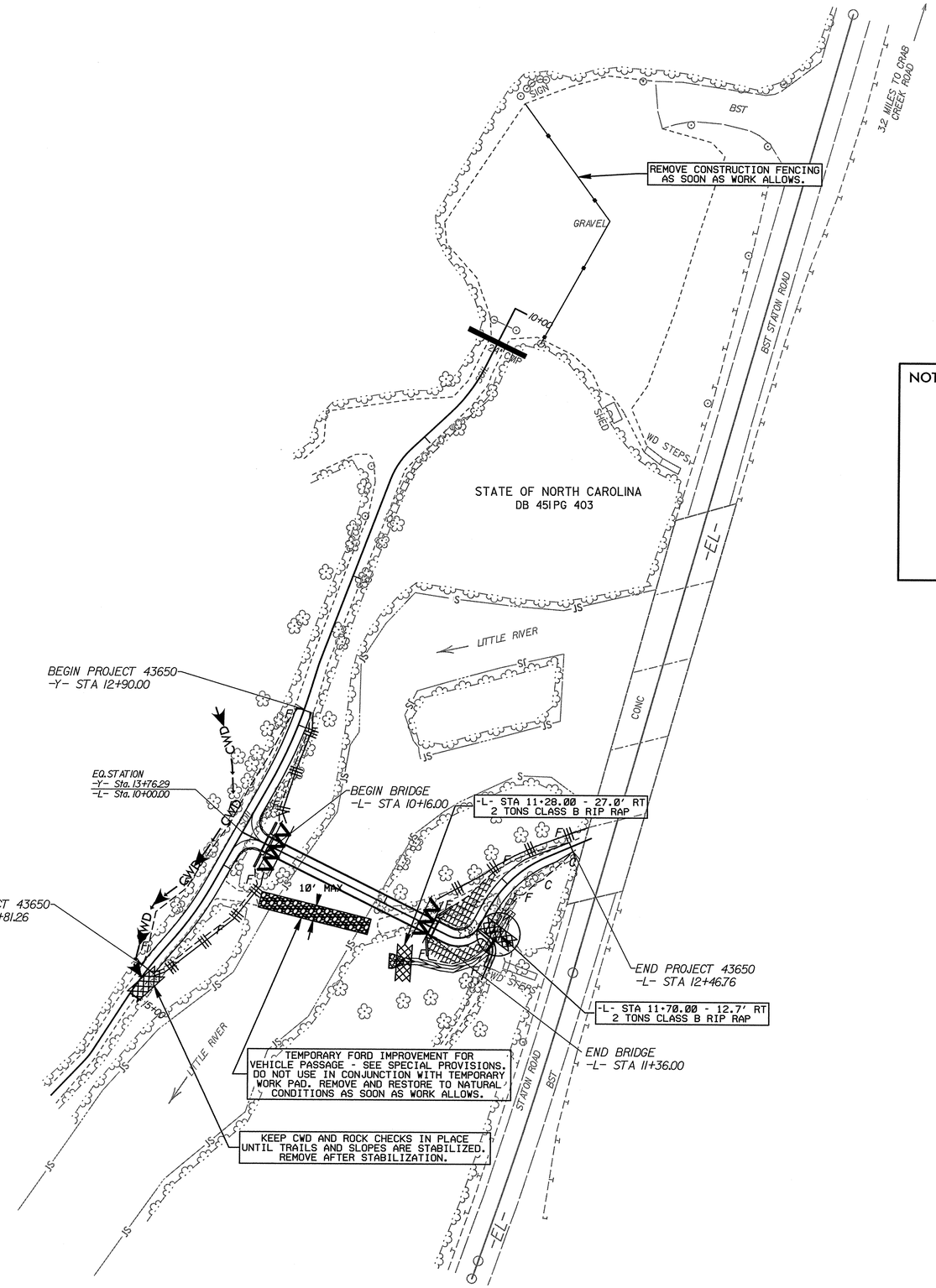
CONSTRUCT OPERATIONS SO AS TO MINIMIZE NECESSARY FORDING OF THE RIVER WITH EQUIPMENT AND/OR MACHINERY.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

9:51:45 AM
Bridge\43650 Project Files\Environmental\Design\43650_ec_ec4.dgn
bpcass

5/14/99

NAD 83/
NSRS 2007



PROJECT REFERENCE NO.	SHEET NO.
43650	EC-5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022599 ENGINEER JAMES B. VOSS 04/24/13

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 28945 ENGINEER DANA J. BOLDEN 04/24/13

Prepared in the Office of:

Mattern & Craig
CONSULTING ENGINEERS - SURVEYORS
12 BROAD STREET
ASHEVILLE, NORTH CAROLINA 28801
(828) 254-2201 - FAX (828) 254-4562

40 20 0 40 80
SCALE

SCO# 12-09576-01A

Place Matting for Erosion Control on Slope as Work Allows.

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

IF ANY PUMPED DEWATERING IS REQUIRED, A SPECIAL STILLING BASIN SHALL BE PROVIDED AS NEEDED.

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

NOTE:
UTILIZE TEMPORARY SILT CHECK TYPE - A AS STILLING BASIN WHERE APPLICABLE.

9:52:23 AM
Bridge\43650 Project Files\Environmental\Design\43650_ec_ec5.dgn
Pedestrian
Barnes

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	43650	RF-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

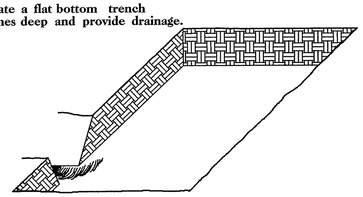
SCO# 12-09576-01A

PLANTING DETAILS

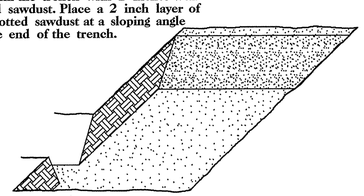
SEEDLING / LINER BAREROOT PLANTING DETAIL

HEALING IN

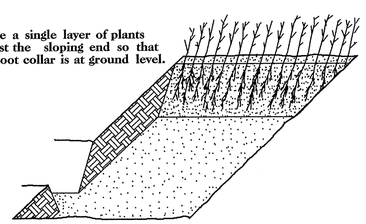
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



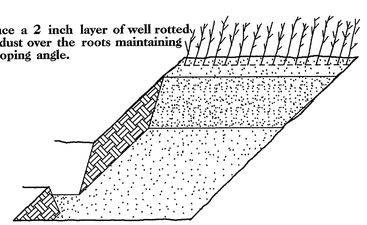
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



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

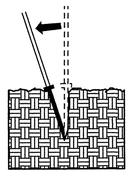


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.

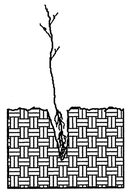


6. Repeat layers of plants and sawdust as necessary and water thoroughly.

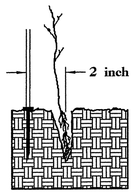
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



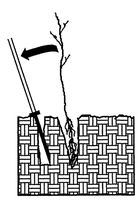
1. Insert planting bar as shown and pull handle toward planter.



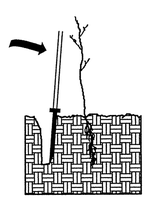
2. Remove planting bar and place seedling at correct depth.



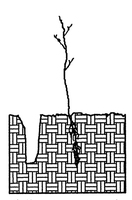
3. Insert planting bar 2 inches toward planter from seedling.



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:

25% LIRIODENDRON TULIPIFERA	TULIP POPLAR	12 in - 18 in BR
25% PLATANUS OCCIDENTALIS	SYCAMORE	12 in - 18 in BR
25% FRAXINUS PENNSYLVANICA	GREEN ASH	12 in - 18 in BR
25% BETULA NIGRA	RIVER BIRCH	12 in - 18 in BR

REFORESTATION DETAIL SHEET

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

PROJECT REFERENCE NO.	SHEET NO.
43650	X-1A

SCO# 12-09576-01A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

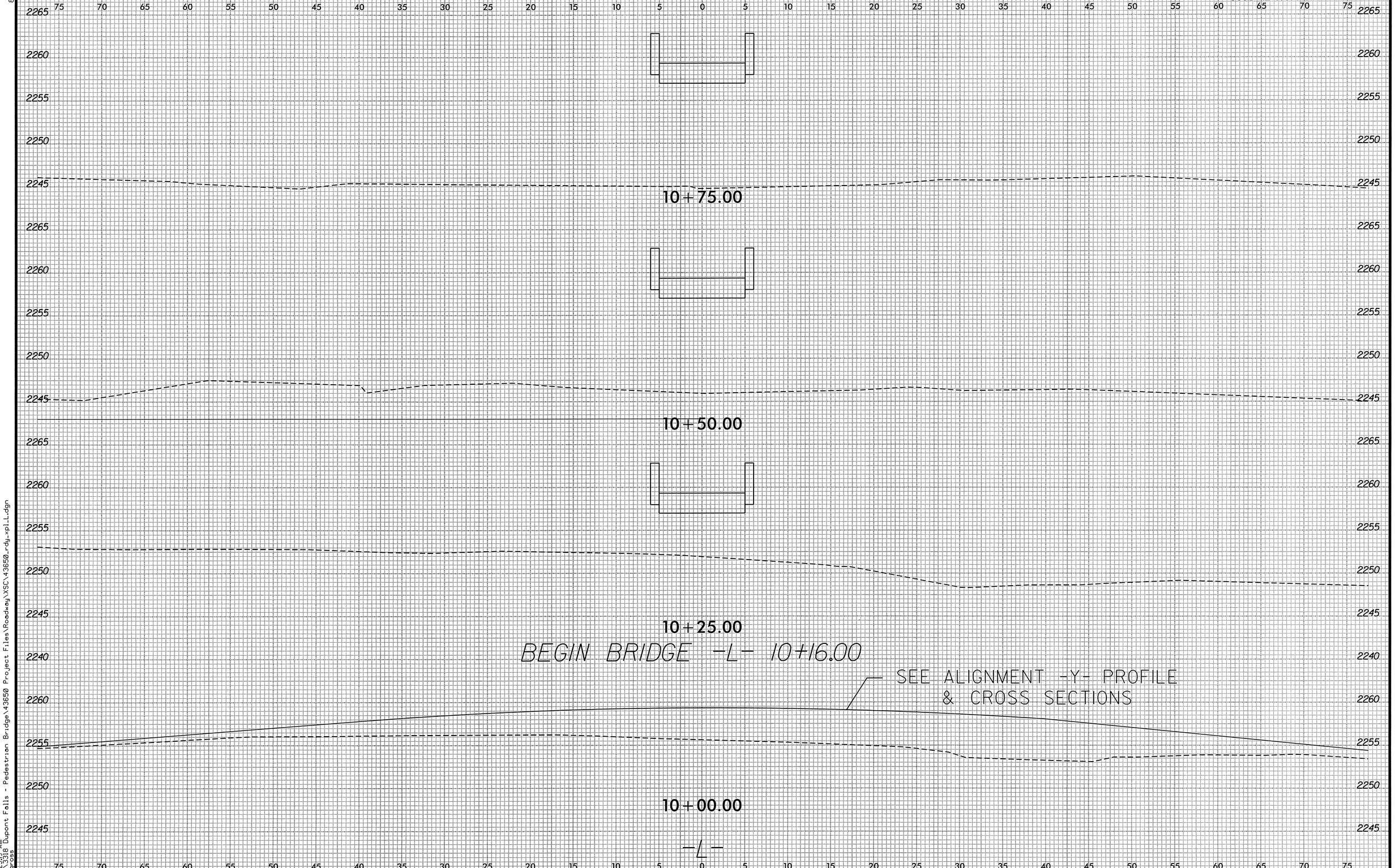
CROSS SECTION SUMMARY

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- 11+36 TO 11+50	1		89	88	0
-L- 11+50 TO 11+75	1		126	126	0
-L- 11+75 TO 12+00	0		69	69	0
-L- 12+00 TO 12+25	3		22	19	0
-L- 12+25 TO 12+46.76	1		1	0	0
-Y- 12+90 TO 13+00	0		1	1	0
-Y- 13+00 TO 13+25	0		7	7	0
-Y- 13+25 TO 13+50	0		26	26	0
-Y- 13+50 TO 13+75	0		48	48	0
-Y- 13+75 TO 14+00	0		70	70	0
-Y- 14+00 TO 14+25	0		78	78	0
-Y- 14+25 TO 14+50	0		52	52	0
-Y- 14+50 TO 14+75	0		15	15	0
-Y- 14+75 TO 14+81.26	0		1	1	0
TOTALS	6		605	599	0
EARTH WASTE TO REPLACE BORROW					
GRAND TOTAL	6			599	
SAY	50			650	
ESTIMATED:					
UNDERCUT EXCAVATION = 100					
SELECT GRANULAR MATIERIAL = 100					

Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the lump sum price for "Grading". Embankment quantities do not include backfill for undercut.

8:19:23 AM
Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\Proj\43650_rdy_typ.dgn

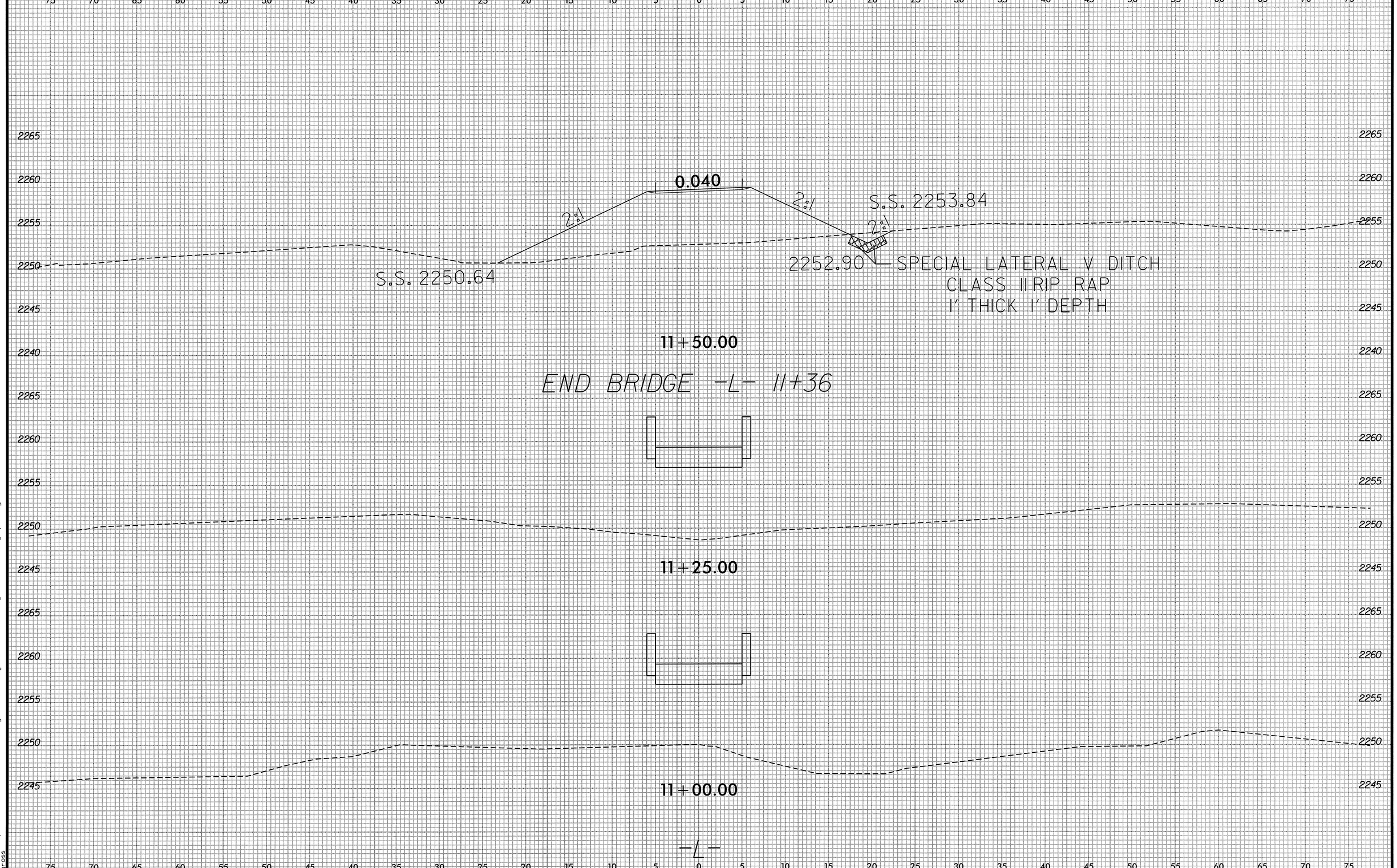
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-1
	SCO# 12-09576-01A	



8/23/99

9:23:19 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_L.dgn
bgross

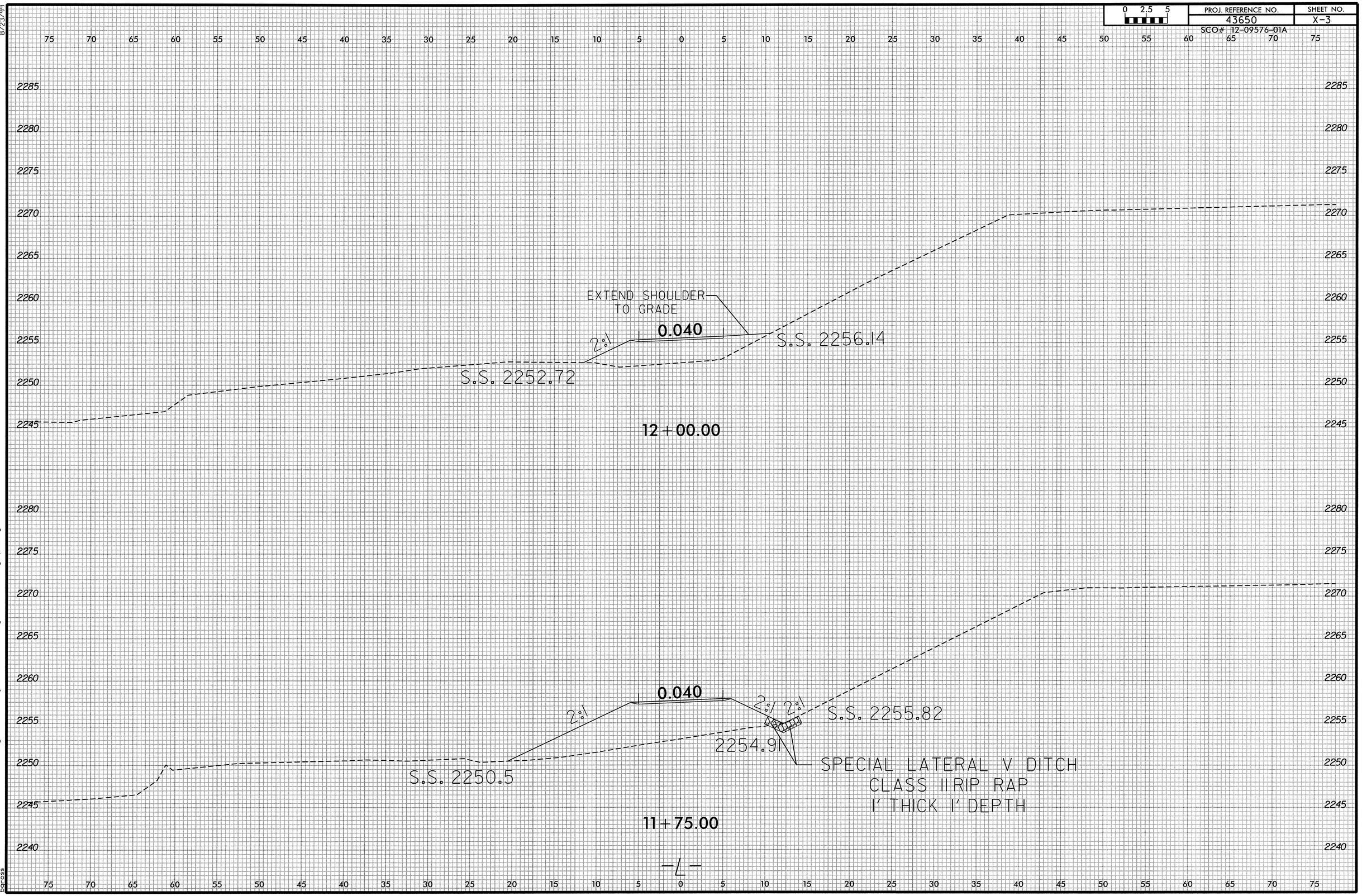
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-2
	SCO# 12-09576-01A	



8/23/99

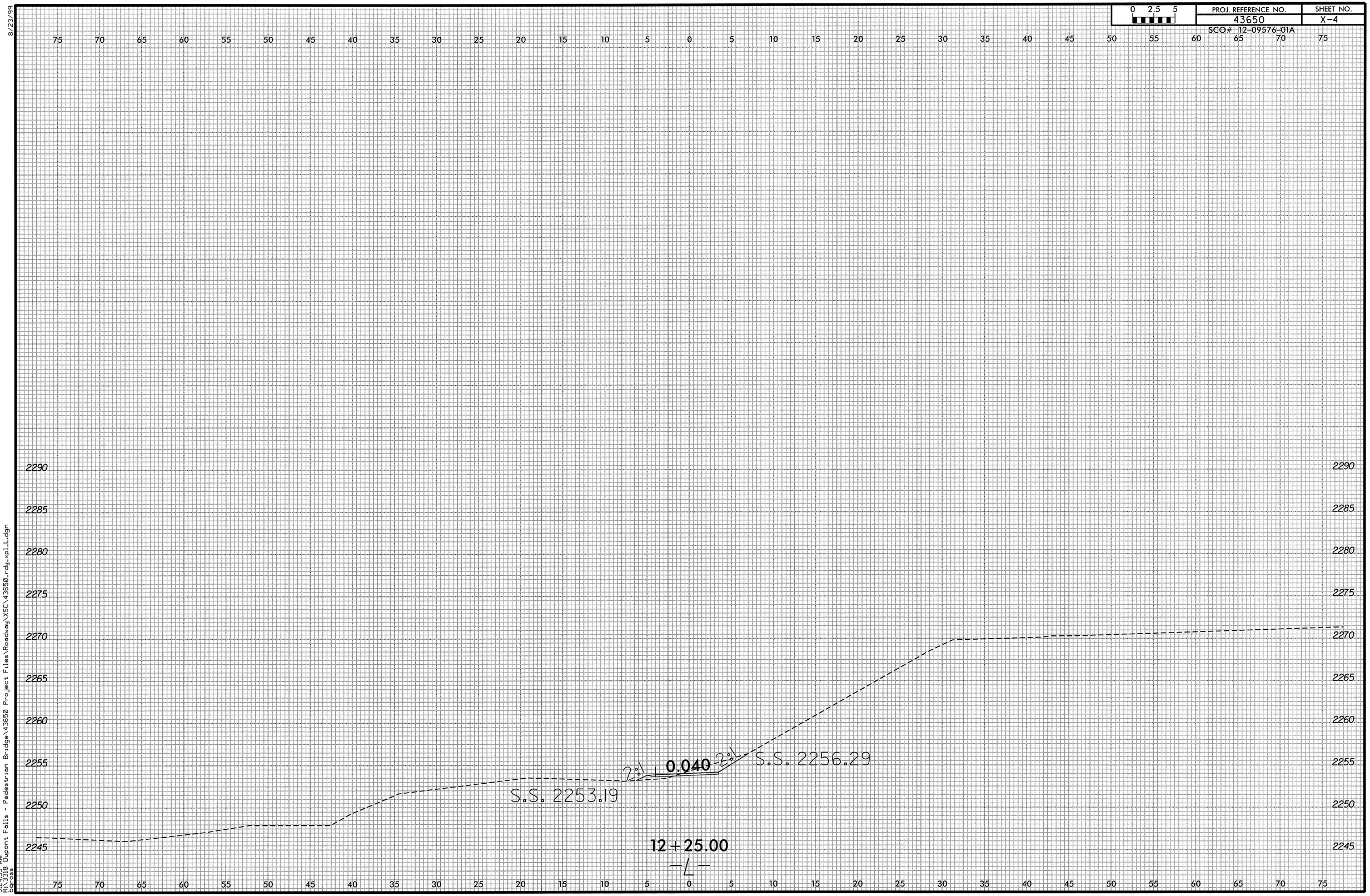
9:23:49 AM
R:\3316 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_L.dgn
Sgross

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-3
	SCO# 12-09576-01A	



8/23/99

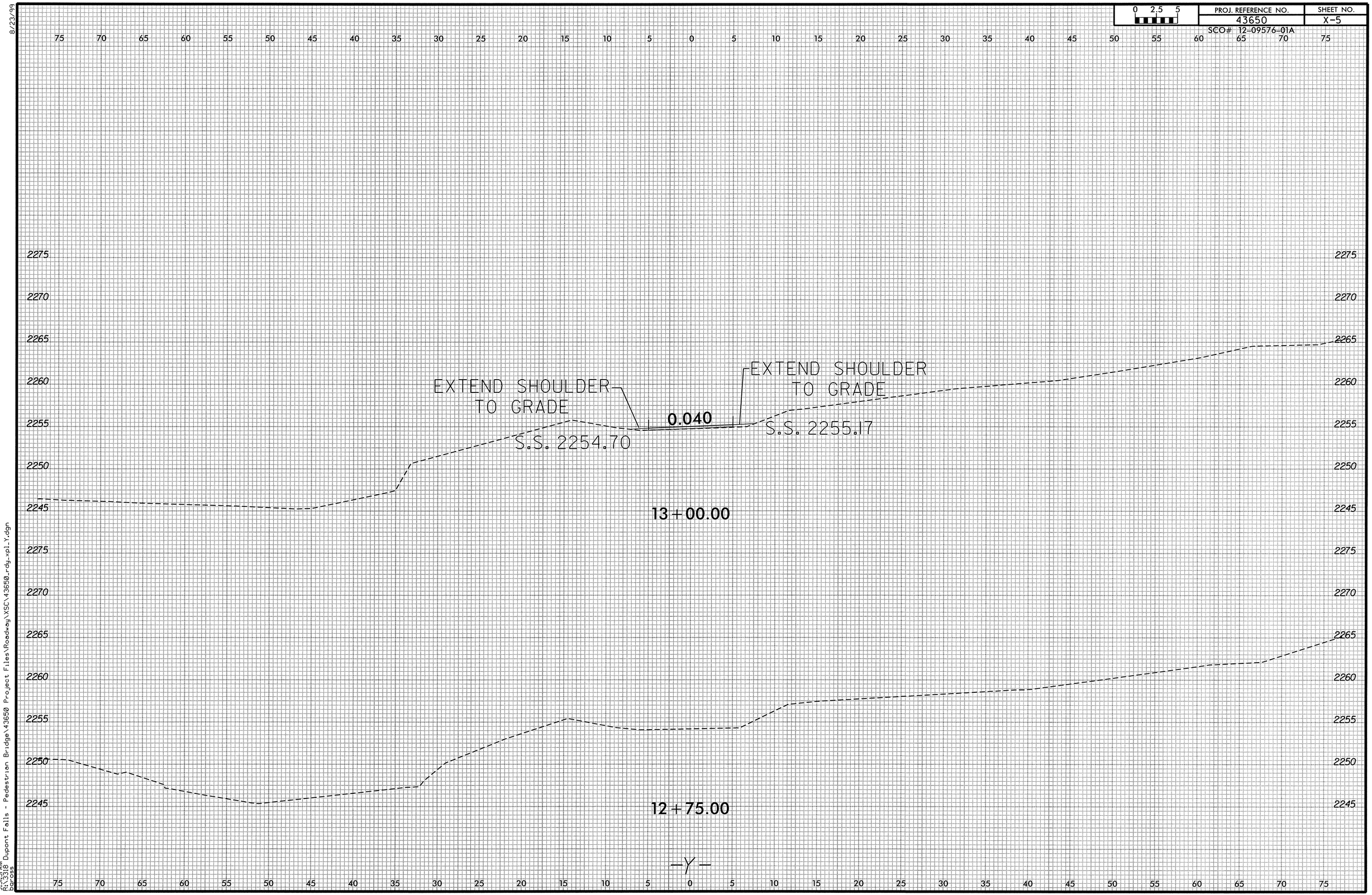
9:24:21 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_1.dgn
bgross



8/23/99

9:24:55 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_L.dgn
bgross

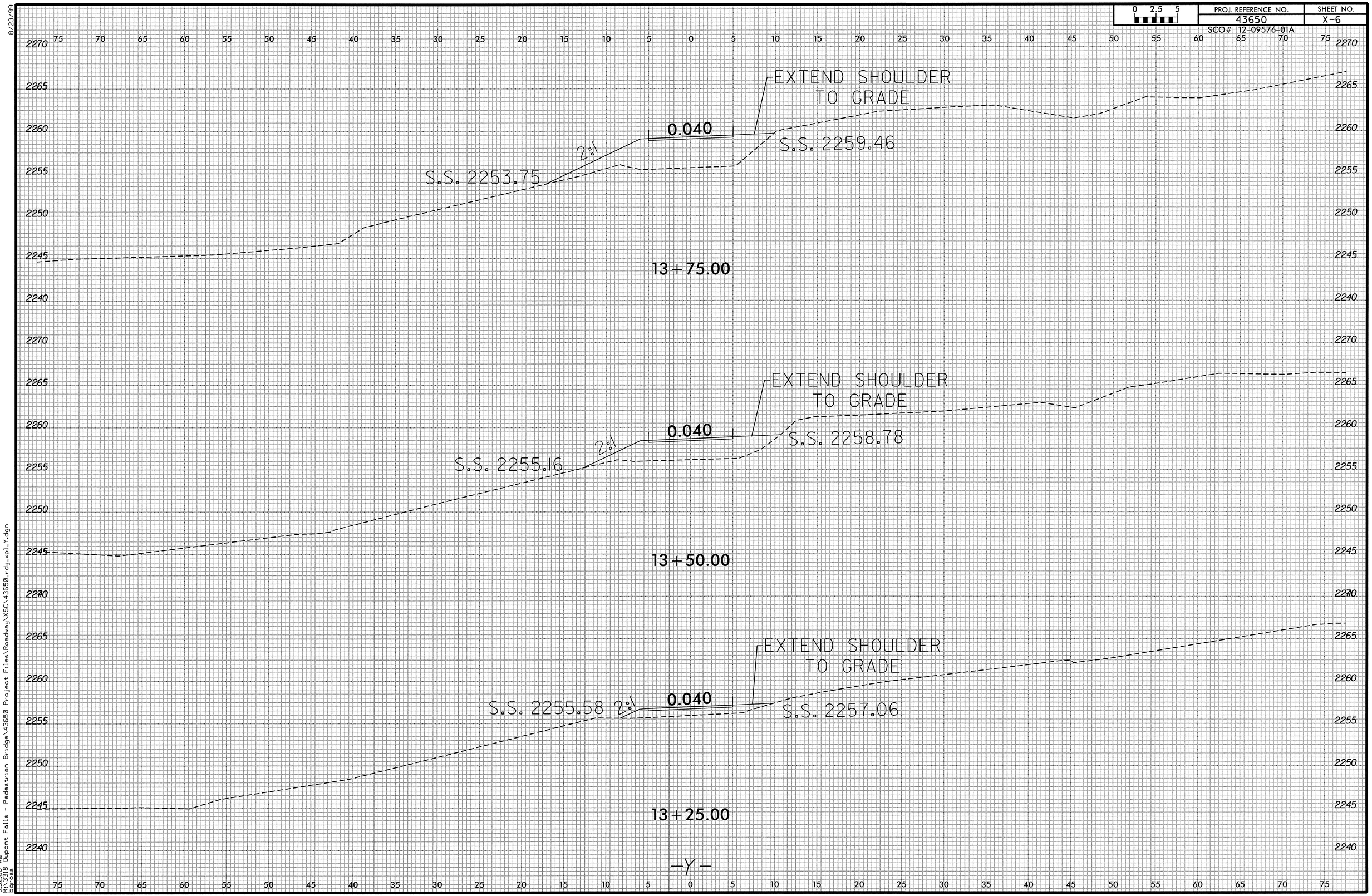
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-5
	SCO# 12-09576-01A	



8/23/99

9:36:31AM
8/23/99
Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_Y.dgn

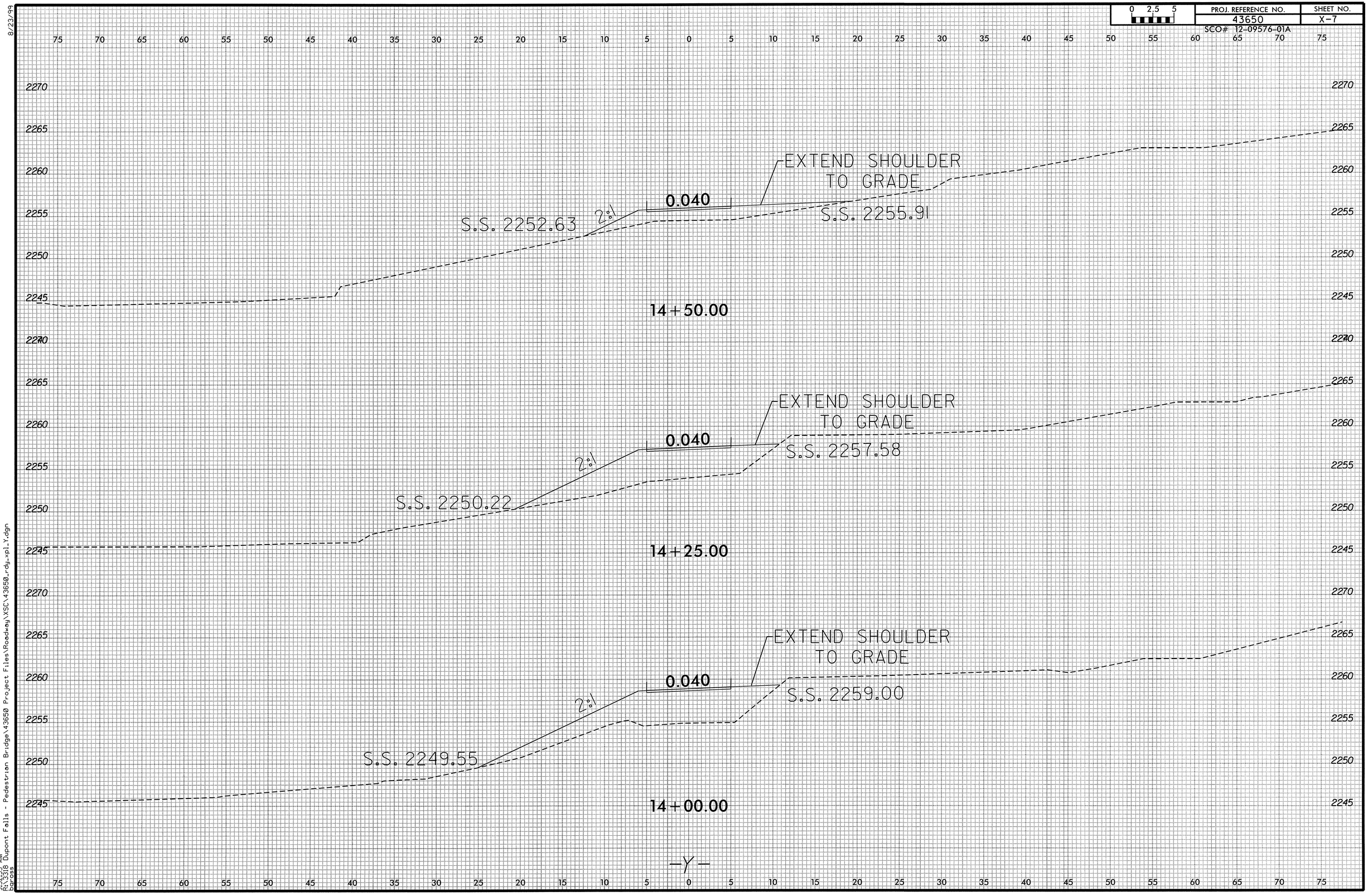
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-6
	SCO# 12-09576-01A	



8/23/99

9:32:00 AM
R:\3318 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_Y.dgn
Darcoss

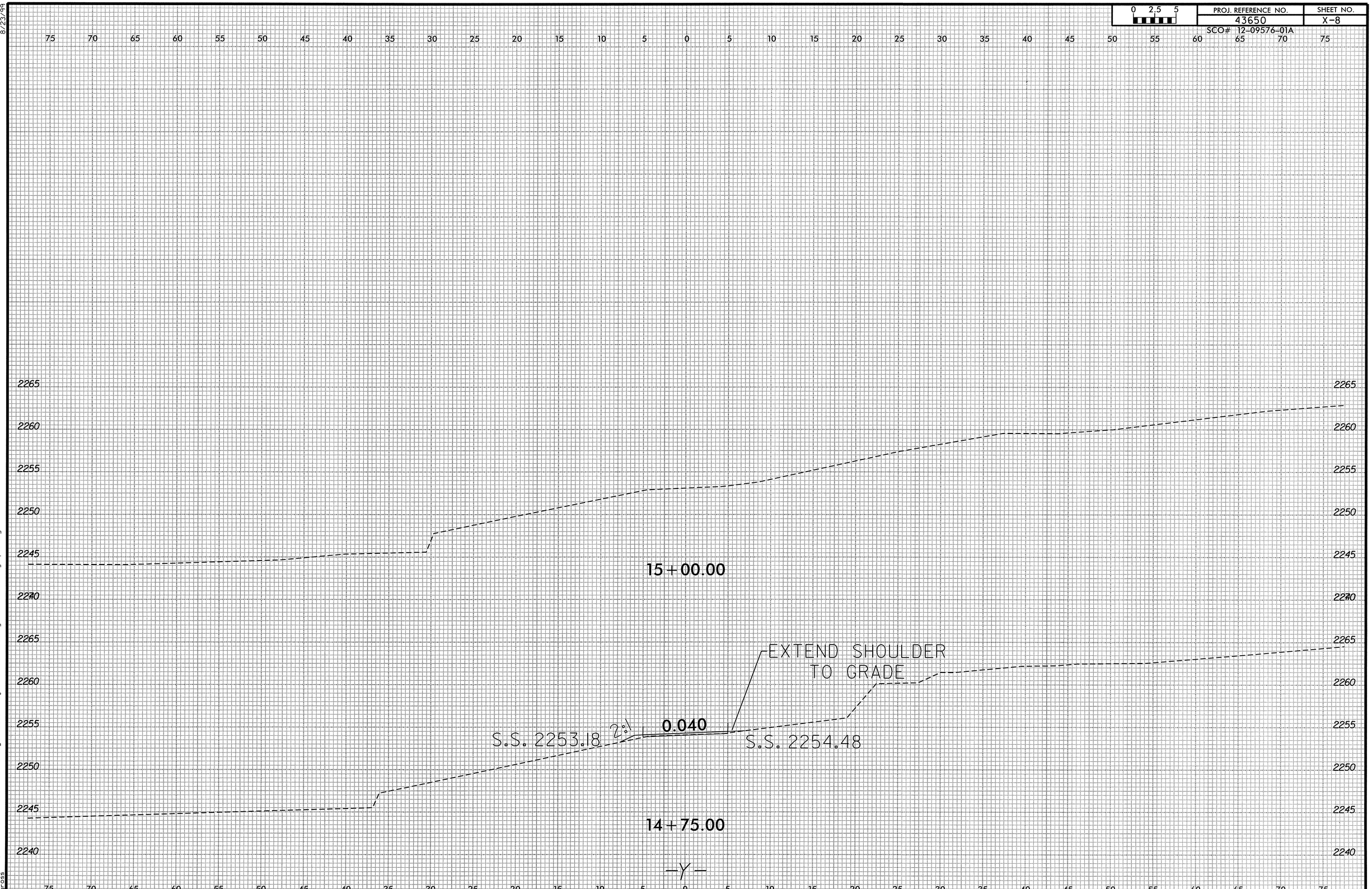
0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-7
	SCO# 12-09576-01A	



8/23/99

9:32:37 AM
Rev 23.18 Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdg_xpl_Y.dgn
by:0318

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	43650	X-8
	SCO# 12-09576-01A	



8/23/99

9:33:00 AM
R1:3318
bgross
Dupont Falls - Pedestrian Bridge\43650 Project Files\Roadway\XSC\43650_rdy_xpl_Y.dgn