STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	41682 /41377.3	1	

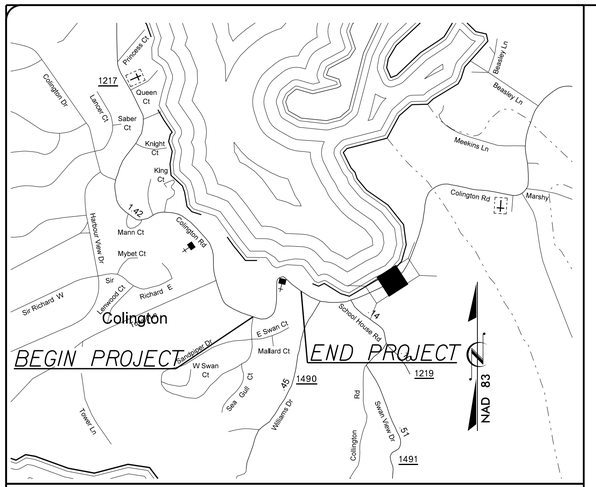
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
WBS# 41682		PE, CONST
WBS# 41377.3		CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

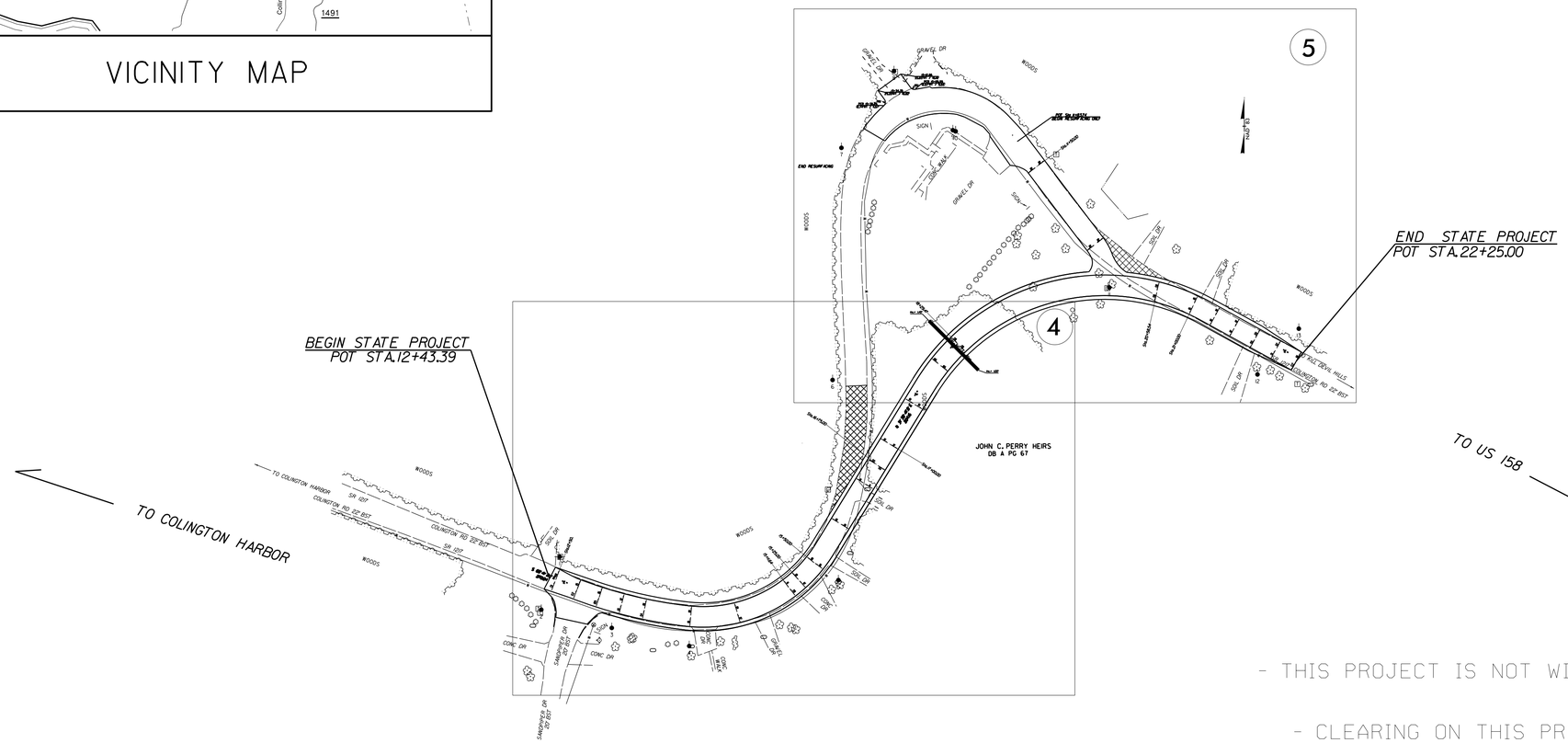
DARE COUNTY

LOCATION: SR 1217 (COLINGTON RD.)
JUST WEST OF SR 1490 (WILLIAMS DR.)

TYPE OF WORK: DRAINAGE, GRADING, BASE, PAVING & RESURFACING



VICINITY MAP



- THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

- CLEARING ON THIS PROJECT SHALL BE TO THE LIMITS ESTABLISHED BY METHOD II (MODIFIED)

WBS #: 41682 & 41377.3

CONTRACT #: DA00132

GRAPHIC SCALES

10 5 0 10 20
PLANS (FULL SIZE)

10 5 0 10 20
PROFILE (HORIZONTAL)

2.5 1.75 0 2.5 5
PROFILE (VERTICAL)

DESIGN DATA

V = 40 MPH

PROJECT LENGTH

LENGTH OF STATE PROJECT 41682 -L- LINE = 0J850MILES

TOTAL LENGTH OF STATE PROJECT 41682 = 0J850MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
113 Airport Dr., Edenton NC, 27932

2006 STANDARD SPECIFICATIONS

LETTING DATE:
SEPTEMBER 19, 2012

W. B. HOBBS, PE
DIVISION PROJECT MANAGER

GRETCHEN BYRUM, PE
DISTRICT ENGINEER

S. P. FENWICK, PLS
PROJECT DESIGN ENGINEER

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

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INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL SHEET
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
3-A	EARTHWORK SUMMARY & ASPHALT PAVEMENT REMOVAL SUMMARY
4 THRU 6	PLAN SHEETS & PROFILE SHEET
EC-1 THRU EC-5	EROSION CONTROL PLANS
U-1 THRU U-2	UTILITY CONSTRUCTION PLANS
X-1A	CROSS-SECTION SUMMARY
X-1 THRU X-13	CROSS-SECTIONS

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

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 (Modified).

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. 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 STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

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 AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE: DOMINION POWER

Embarq Telephone.

Charter Cable Co..

Dare County Water Dept.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS. EXCEPT AS SHOWN ON PLANS

RIGHT-OF-WAY MARKERS:

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

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(Modified)
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
876.02	Guide for Rip Rap at Pipe Outlets
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout

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04/16/11

PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	1-B

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 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 — S
- Well — W
- 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 — FLOW
- False Sump

RAILROADS:

- Standard Gauge — 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 R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- 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 Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- 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 — 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
- 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
- Underground Storage Tank, Approx. Loc. — UST
- 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.

PROJECT REFERENCE NO.	SHEET NO.
41682	1-C
LOCATION AND SURVEYS	

SURVEY CONTROL SHEET

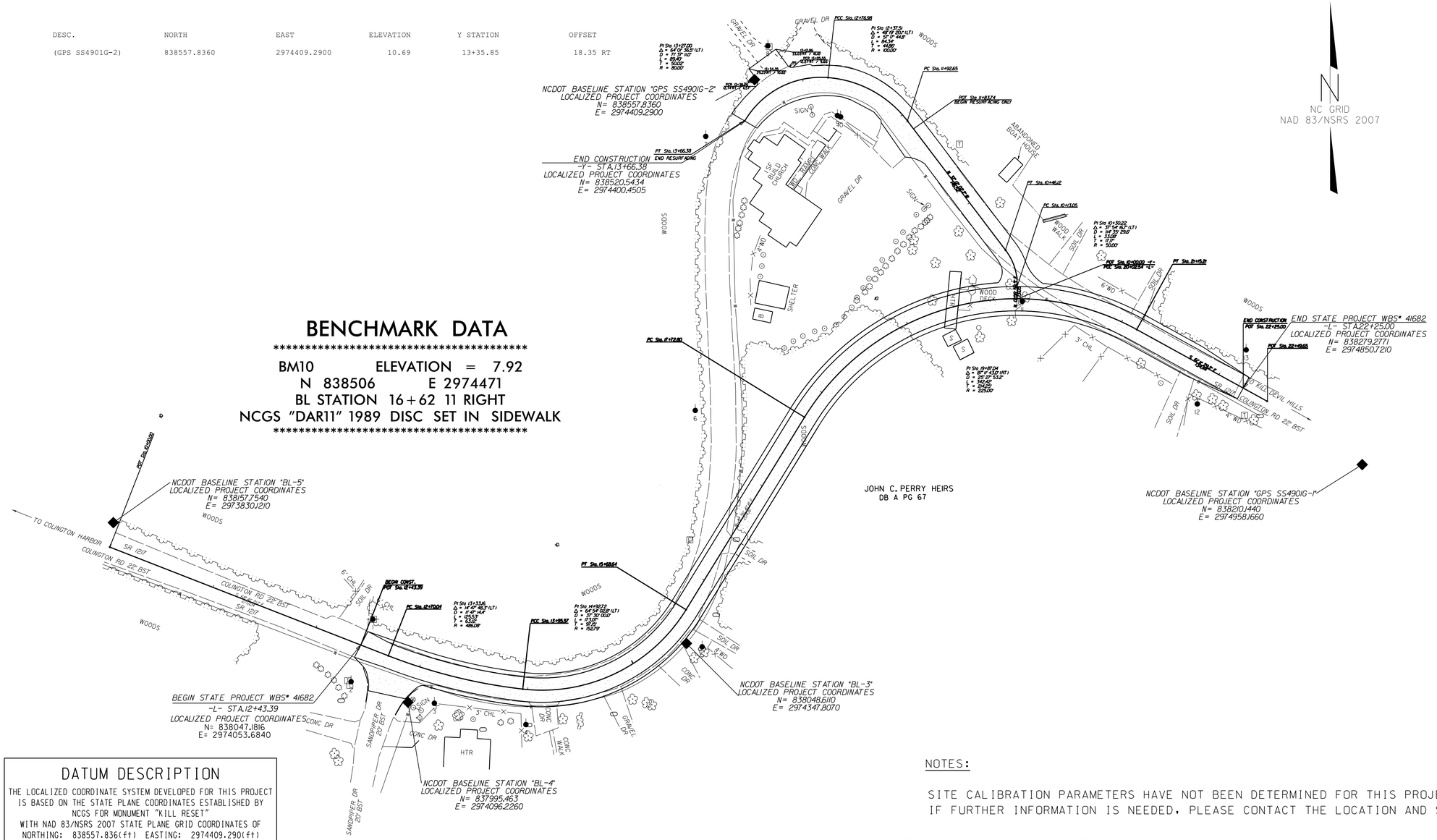
CONTROL DATA

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
3	(BL-3)	838048.6110	2974347.8070	7.68	15+45.51	18.23 RT
4	(BL-4)	837995.4630	2974096.2260	8.25	12+99.78	33.69 RT
5	(BL-5)	838157.7450	2973830.1210	7.43	OUTSIDE PROJECT LIMITS	
1	(GPS SS4901G-1)	838210.1440	2974958.1660	8.97	OUTSIDE PROJECT LIMITS	

BY

POINT	DESC.	NORTH	EAST	ELEVATION	Y STATION	OFFSET
2	(GPS SS4901G-2)	838557.8360	2974409.2900	10.69	13+35.85	18.35 RT



BENCHMARK DATA

****

BM10 ELEVATION = 7.92

N 838506 E 2974471

BL STATION 16+62 11 RIGHT

NCGS "DAR11" 1989 DISC SET IN SIDEWALK

****

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "KILL RESET"
WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
NORTHING: 838557.836(ft) EASTING: 2974409.290(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999965548
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-5" TO -L- STATION 12+43.39 IS S 63°-41'-00"E 249.41'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

SCALE:
1" = 50'
(FULL SIZE)

NOTES:

SITE CALIBRATION PARAMETERS HAVE NOT BEEN DETERMINED 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 UTILIZING GLOBAL POSITIONING SYSTEM.

NETWORK ESTABLISHED FROM EXISTING NGS MONUMENTATION.

REVISIONS

8/17/99

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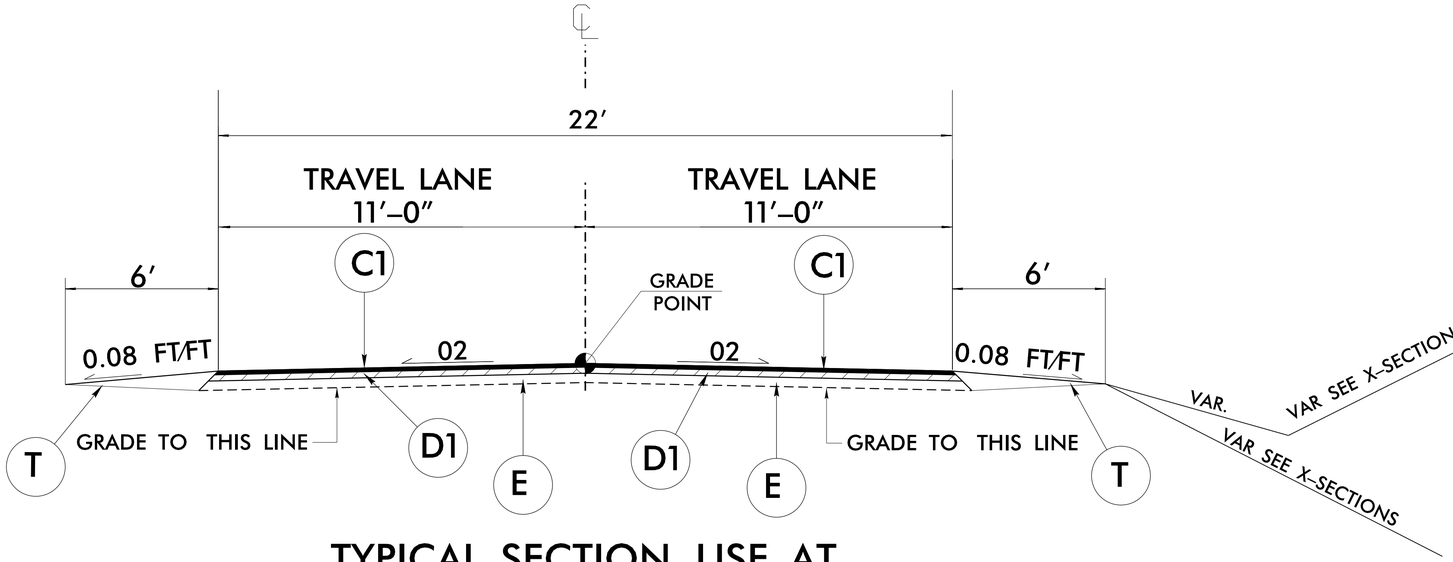
PROJECT REFERENCE NO.	SHEET NO.
41682	2

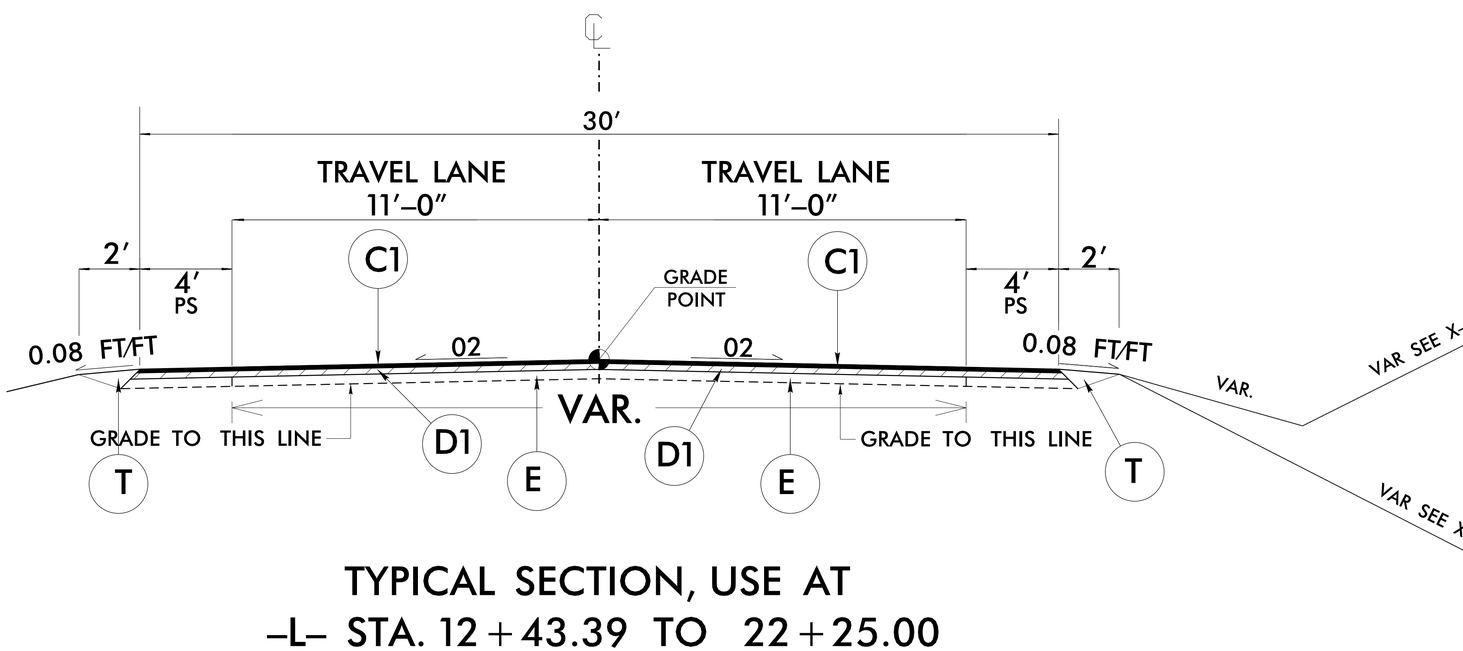


TYPICAL SECTION, USE AT
–Y– STA. 10+00.00 TO 11+83.74

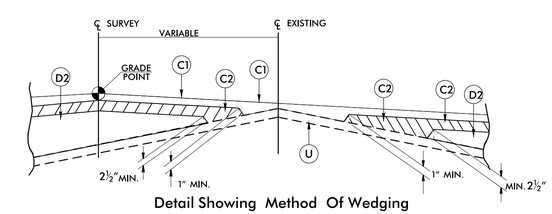
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½″ IN DEPTH OR GREATER THAN 3″ IN DEPTH.
D1	PROP. APPROX. 2½″ 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 2½″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.
E	PROP. APPROX. 4″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
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.



TYPICAL SECTION, USE AT
–L– STA. 12+43.39 TO 22+25.00



Detail Showing Method Of Wedging

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PROJECT	SHEET
41682 / 41377.3	3

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	0000100000-N MOBILIZATION LS	0001000000-E CLEARING AND GRUBBING LS	0022000000-E UNCLASSIFIED EXCAVATION CY	0036000000-E UNDERCUT EXCAVATION CY	0106000000-E BORROW EXCAVATION CY	0156000000-E REMOVAL OF EXISTING ASPHALT PVT SY	0195000000-E SELECT GRANULAR MATERIAL CY	0196000000-E FABRIC FOR SOIL STABILIZATION SY	0318000000-E FOUNDATION CONDITIONING MATERIAL, MINOR STRS TON	0320000000-E FOUNDATION CONDITIONING FABRIC SY	0540000000-E 36" CAA PIPE CULV,0.109" THICK LF	1011000000-N FINE GRADING LS	1220000000-E INCIDENTAL STONE BASE TONS	1243000000-E SHOULDER CONSTRUCTION SMI	1489000000-E BASE COURSE, B25.0B TONS	1498000000-E INTERMEDIATE COURSE, I19.0B TONS	1519000000-E SURFACE COURSE, S9.5B TONS	1575000000-E ASPHALT BINDER FOR PLANT MIX TONS	2612000000-E 6" CONCRETE DRIVEWAY SY
41682	DARE	1	SR1217	RELOCATION	1	YES	0.24	22	1	1	611	1,200	3,635	425	1,200	1,100	20	100	75	1.00	50	0.83	525	300	450	64	90
TOTAL FOR MAP NO. 1							**0.24**		**1**	**1**	**611**	**1,200**	**3,635**	**425**	**1,200**	**1,100**	**20**	**100**	**75**	**1.00**	**50**	**0.83**	**525**	**300**	**450**	**64**	**90**
TOTAL FOR PROJ NO.							**0.24**		**1**	**1**	**611**	**1,200**	**3,635**	**425**	**1,200**	**1,100**	**20**	**100**	**75**	**1.00**	**50**	**0.83**	**525**	**300**	**450**	**64**	**90**
GRAND TOTAL							**0.24**		**1**	**1**	**611**	**1,200**	**3,635**	**425**	**1,200**	**1,100**	**20**	**100**	**75**	**1**	**50**	**0.83**	**525**	**300**	**450**	**64**	**90.00**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	5325200000-E 2" WATER LINE LF	5325800000-E 8" WATER LINE LF	5536000000-E 2" VALVE EA	5546000000-E 8" VALVE EA	5606000000-E 2" BLOW OFF EA	5801000000-E ABANDON 8" UTILITY PIPE LF	6000000000-E TEMPORARY SILT FENCE LF	6009000000-E STONE FOR EROSION CONTROL, CLASS B TON	6012000000-E SEDIMENT CONTROL STONE TON	6015000000-E TEMPORARY MULCHING ACR	6029000000-E SAFETY FENCE LF	6030000000-E SILT EXCAVATION CYD	6042000000-E 1/4" HARDWARE CLOTH LF	6071010000-E WATTLE LF	6071020000-E POLYACRYLAMIDE LB	6084000000-E SEEDING & MULCHING AC	6090000000-E SEED FOR REPAIR SEEDING LBS	6093000000-E FERTILIZER FOR REPAIR SEEDING TON	6170000000-N RESPONSE FOR EROSION CONTROL EA
41682	DARE	1	SR1217	RELOCATION	1	YES	0.24	22	600	680	1	3	1	1,000	800	20	20	1	220	20	40	27	3	1	50	1	5
TOTAL FOR MAP NO. 1							**0.24**		**600**	**680**	**1**	**3**	**1**	**1,000**	**800**	**20**	**20**	**1**	**220**	**20**	**40**	**27**	**3**	**1**	**50**	**1**	**5**
TOTAL FOR PROJ NO.							**0.24**		**600**	**680**	**1**	**3**	**1**	**1,000**	**800**	**20**	**20**	**1**	**220**	**20**	**40**	**27**	**3**	**1**	**50**	**1**	**5**
GRAND TOTAL							**0.24**		**600**	**680**	**1**	**3**	**1**	**1,000**	**800**	**20**	**20**	**1**	**220**	**20**	**40**	**27**	**3**	**1**	**50**	**1**	**5**

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	4399000000-N TEMPORARY TRAFFIC CONTROL LS	4685000000-E THERMO PAVEMENT MARKING LINES, (4", 90MILS) LF	4686000000-E THERMO PAVEMENT MARKING LINES, (4", 120MILS) LF	4810000000-E PAINT PAVEMENT MARKING LINES, 4" LF
41682	DARE	1	SR1217	RELOCATION	1	YES	0.24	22	1	2,200	2,200	2,200
TOTAL FOR MAP NO. 1							**0.24**		**1**	**2,200**	**2,200**	**2,200**
TOTAL FOR PROJ NO.							**0.24**		**1**	**2,200**	**2,200**	**2,200**
GRAND TOTAL							**0.24**		**1**	**2,200**	**2,200**	**2,200**

PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	3-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT +	BORROW	WASTE
-L- 13+00 TO 22+25	597	1200	3651	4254	1200
SUBTOTAL	597	1200	3651	4254	1200
-Y- 10+17 TO 11+50	14		495	481	
EST. for replace topsoil on borrow pits				100	
PROJECT TOTAL	611	1200	4146	4835	1200

NOTE:

QUANTITIES ARE APPROXIMATE ONLY
FOR ESTIMATING PURPOSES

SUMMARY OF PAVEMENT REMOVAL

LINE	STATION TO STATION	LOCATION	SQ. YDS.
-L-	Sta 15+68 thru Sta 17+45	Left	305
-L-	Sta 19+90 thru Sta 20+90	Left	120
PROJECT TOTAL			425

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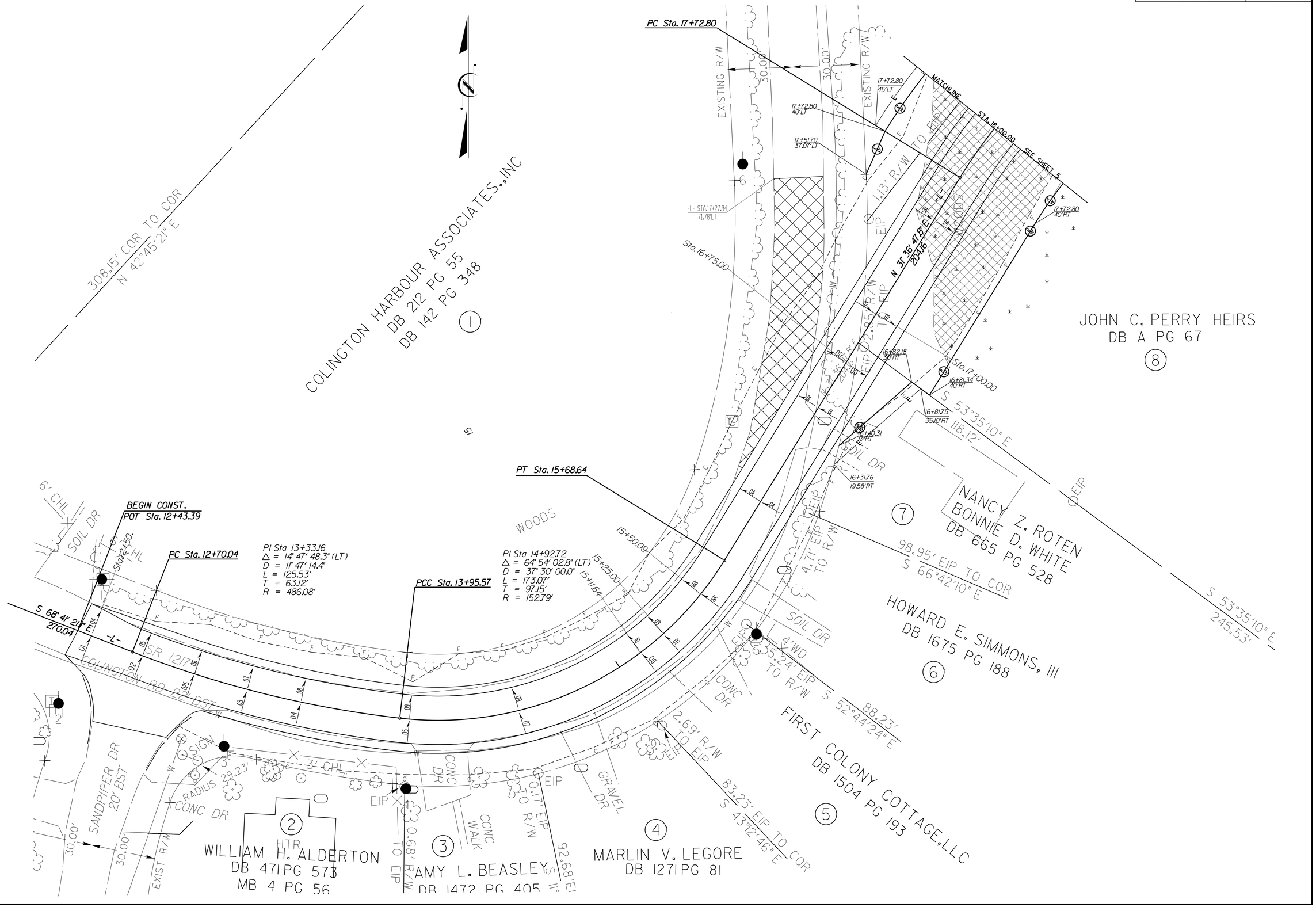
PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	4



REVISIONS

8/17/99

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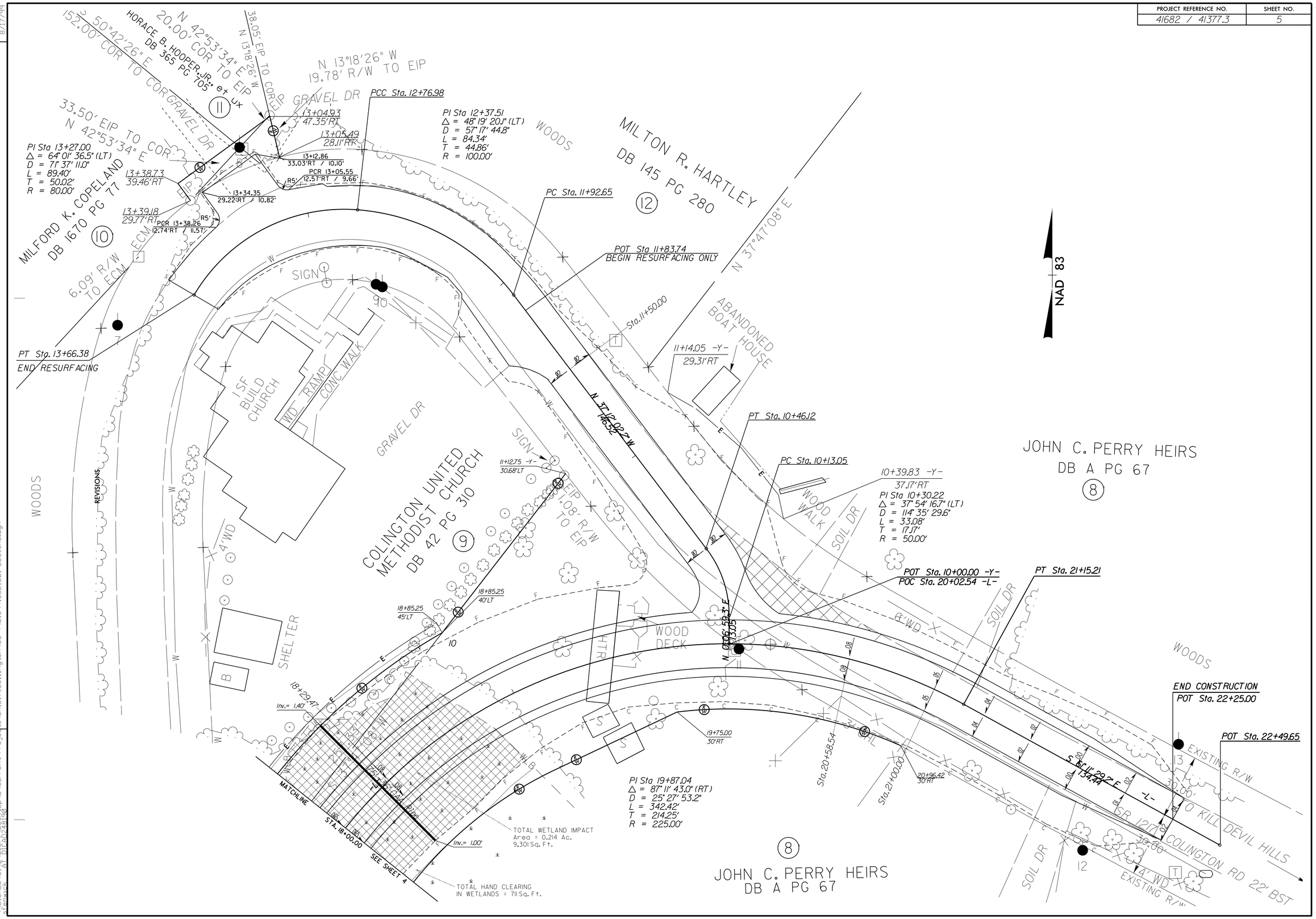
PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	5



REVISIONS:

REV. SLOPE STAKES RT. SIDE -Y- STA. 10+46.12 THRU STA. 11+00.00 (07/15/10) SPF

08-JUN-2012 09:43
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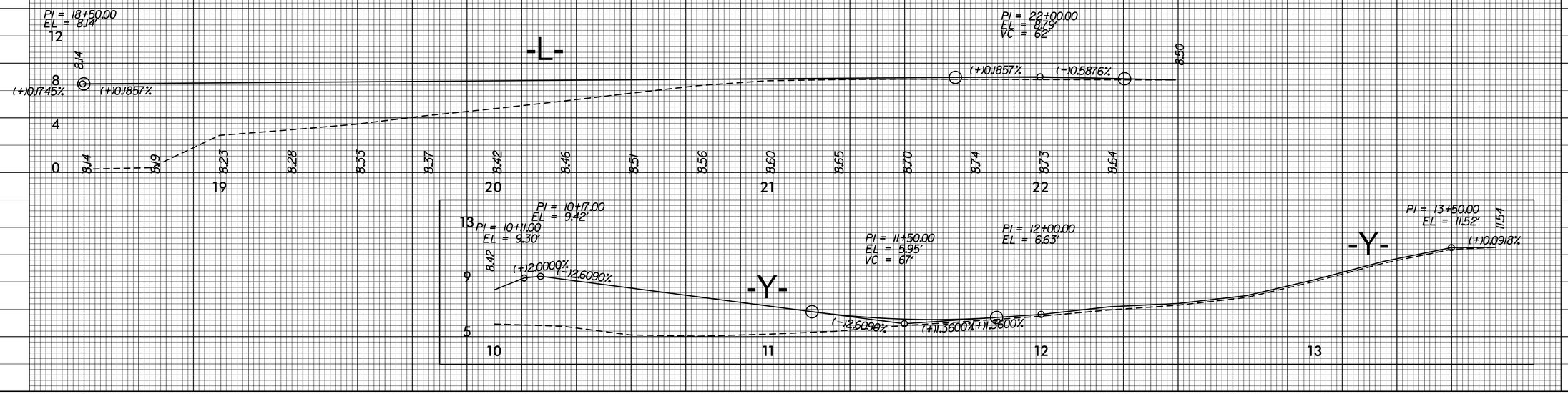
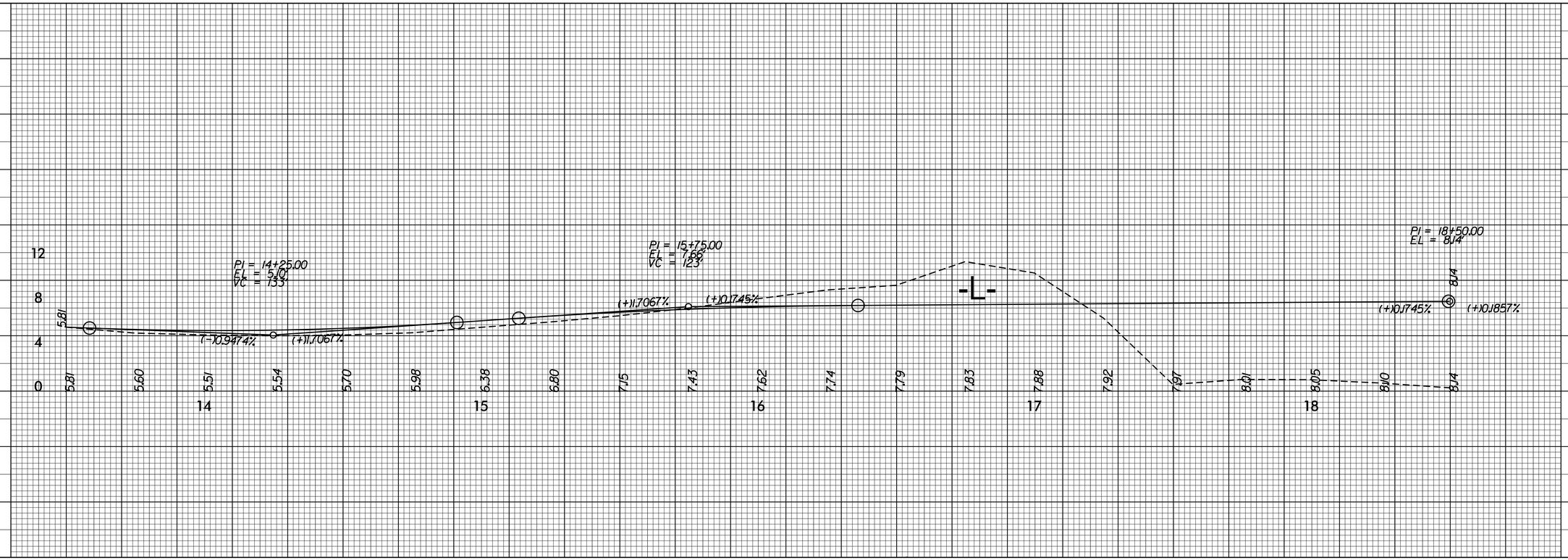
PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	6

CENTERLINE PROFILE

-L- & -Y-





5/28/99

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Vlewick

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	41682 /41377.3	EC-1
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
WBS# 41682	SS-4901G	PE, CONST
WBS# 41377.3		CONST.

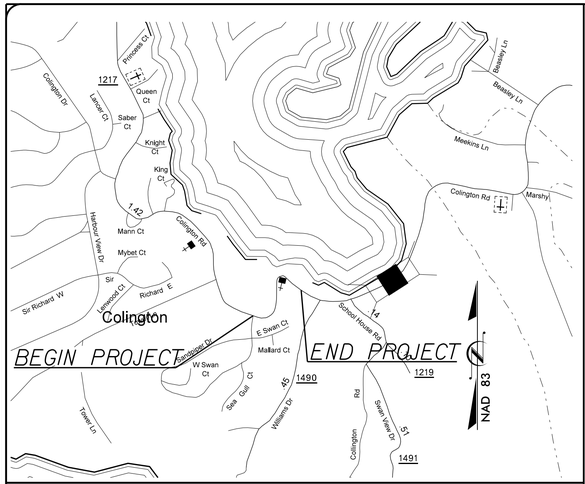
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DARE COUNTY

LOCATION: SR 1217 (COLINGTON RD.)
JUST WEST OF SR 1490 (WILLIAMS DR.)

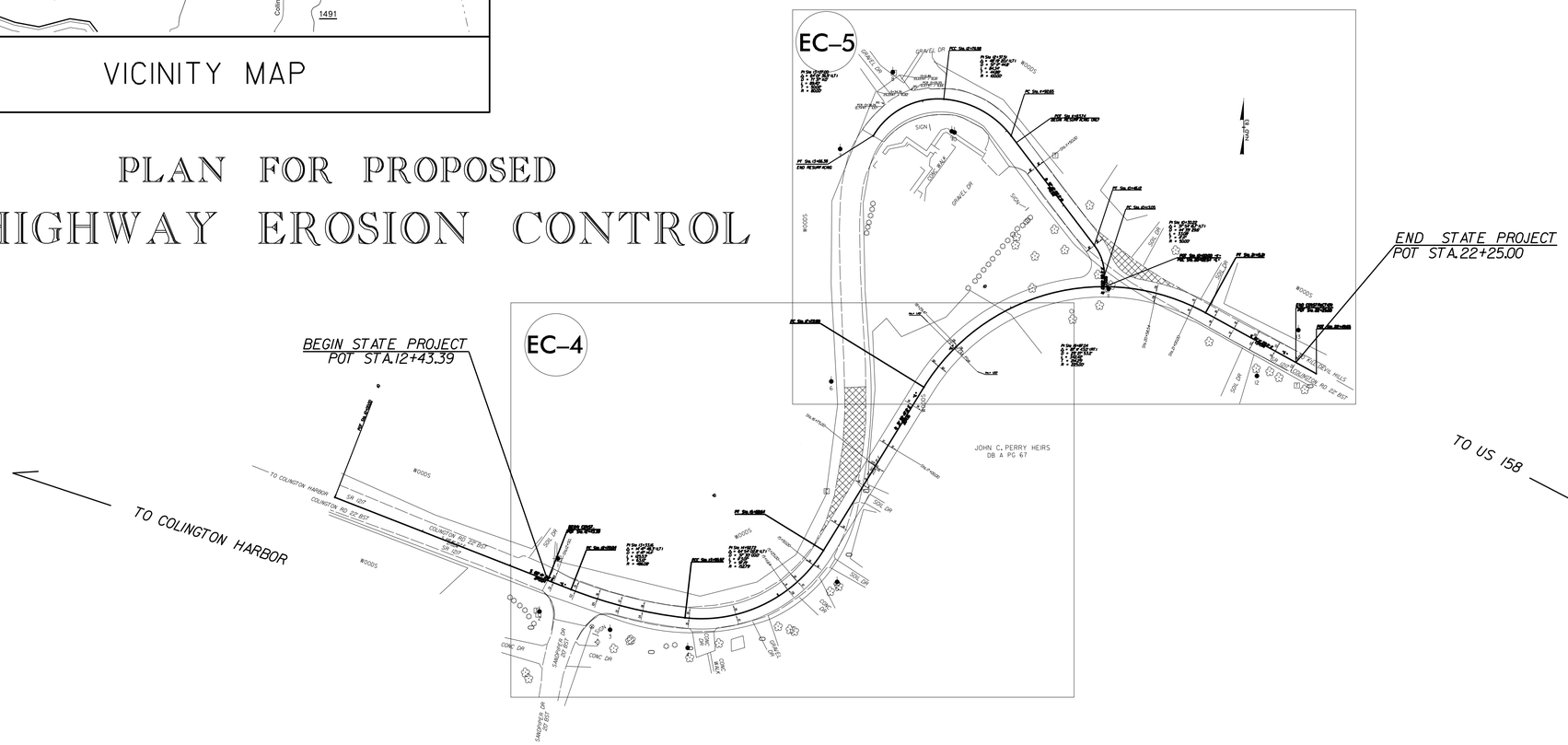
TYPE OF WORK: DRAINAGE, GRADING, BASE, PAVING & RESURFACING

NAD 83



VICINITY MAP

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL



Erosion Control Schedule

1) Install erosion control measures according to plans at all outlets and at other discharge points after clearing but before grubbing.

2) Begin grading of roadway ditches. Place erosion control measures along roadway ditches as grading progresses and conditions allow.

3) Seed and mulch all disturbed areas as soon as any phase of grading is completed. Exposed areas can not lay idle for more than 21 calendar days without being provided adequate groundcover..

4) Clean out and/or rework all temporary erosion control measures after any significant rainfall event (or as otherwise needed). These measures should be maintained until a permanent vegetative cover is established.

Pipe Installation Schedule

1) Install erosion control devices per plans.

2) Remove material and existing pipe while limiting, as much as possible, material and sediment from entering the stream and/or escaping from the project.

3) Prepare pipe foundation while taking care to limit material and sediment from entering the stream and/or escaping from the project. Bury the pipe in accordance with the permit. If needed, bedding material will be clean stone (especially in Trout and HQW waters).

4) Place new pipe and compact fill.

5) Install slope protection on outlet ends of pipe according to permit drawing. Also complete installation of erosion control measures and perform maintenance as needed on existing measures.

6) Establish permanent vegetaion as soon as possible.

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

GRAPHIC SCALES

10 5 0 10 20
PLANS

10 5 0 10 20
PROFILE (HORIZONTAL)

2.5 1.75 0 2.5 5
PROFILE (VERTICAL)

LEVEL III-A: DESIGNER OF EROSION AND SEDIMENT CONTROL PLANS

SCOTT FENWICK

CERTIFICATION NUMBER: 267

S. P. FENWICK, PLS

PROJECT DESIGN ENGINEER

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		

Prepared in the Office of:

DIVISION OF HIGHWAYS

113 Airport Dr., Edenton NC, 27932

2006 STANDARD SPECIFICATIONS

W. B. HOBBS, PE
DIVISION PROJECT MANAGER

CHRIS SLACHTA
DIVISION PROPOSALS ENGINEER

LETTING DATE:
SEPTEMBER 19, 2012

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.

CONTRACT #: DA00132

WBS #: 41682 & 41377.3

09/08/99

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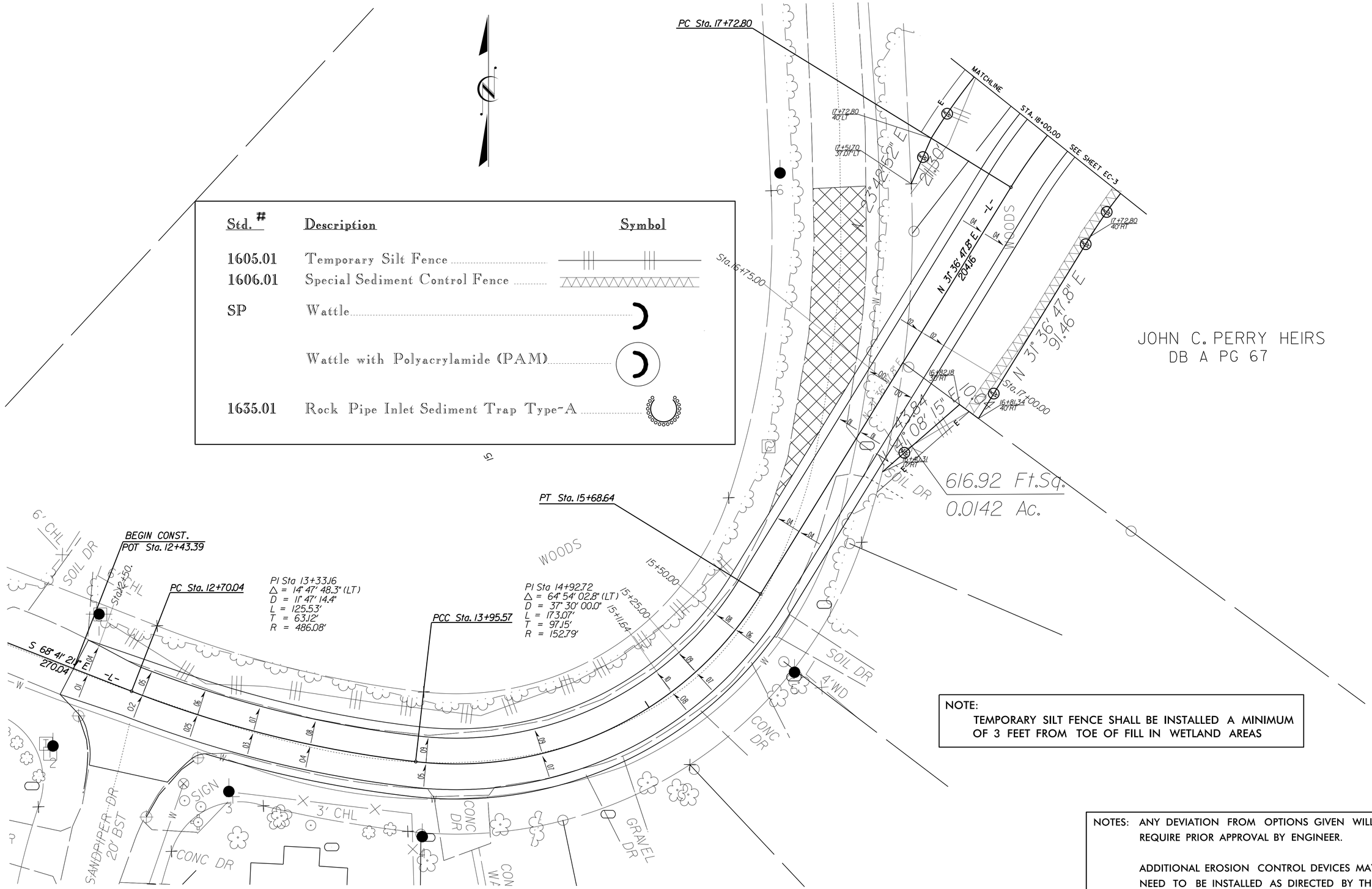
sfenwick AT DICAD265783

PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	EC-2

EROSION CONTROL PLAN

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
SP	Wattle	
	Wattle with Polyacrylamide (PAM)	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	



NOTE:
TEMPORARY SILT FENCE SHALL BE INSTALLED A MINIMUM OF 3 FEET FROM TOE OF FILL IN WETLAND AREAS

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.

REVISIONS

8/17/99

08-JUN-2018 10:12
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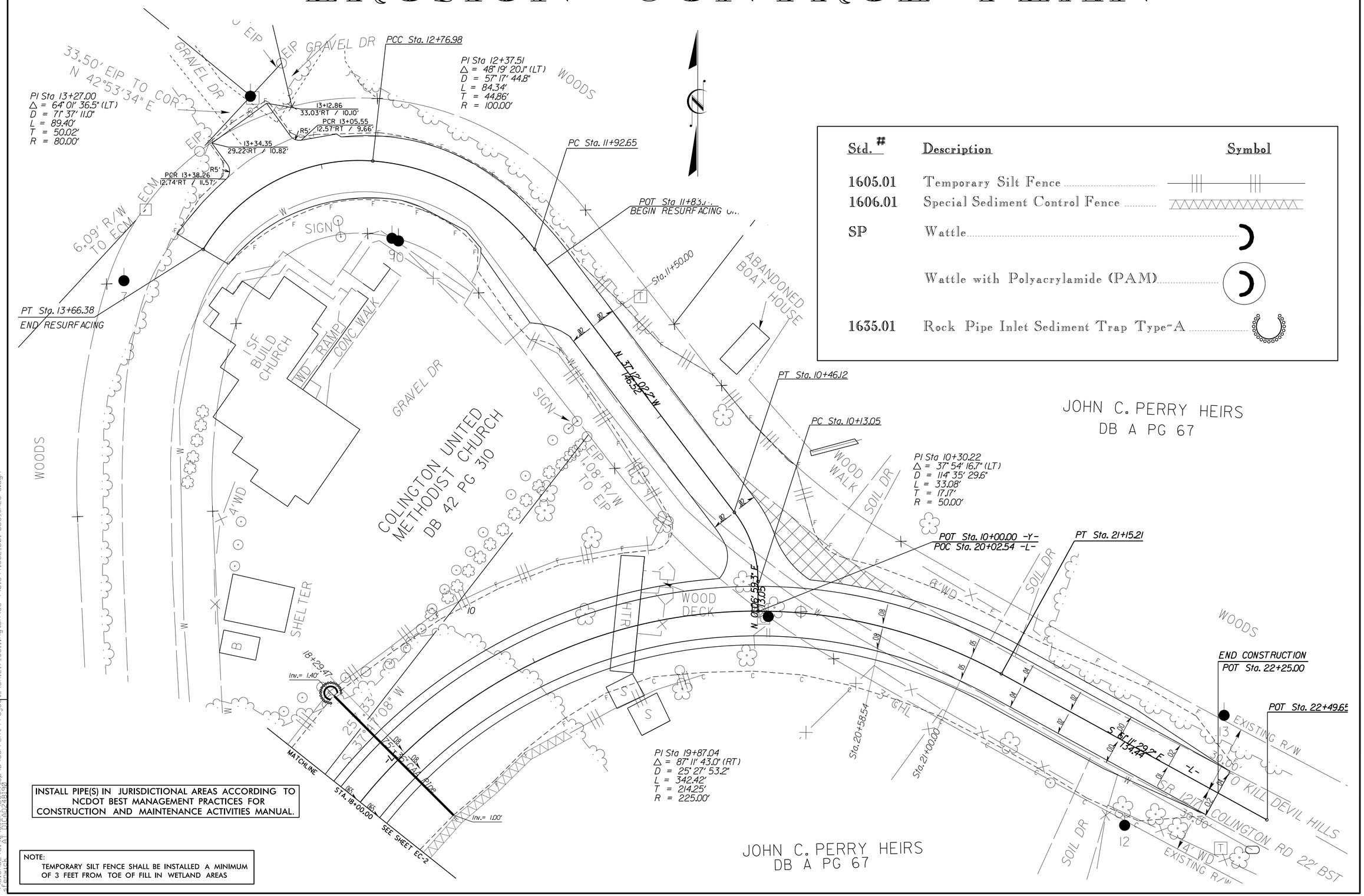
PROJECT REFERENCE NO.	SHEET NO.
41682 / 41377.3	EC-3

EROSION CONTROL PLAN



Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
SP	Wattle	
	Wattle with Polyacrylamide (PAM)	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

INSTALL PIPE(S) IN JURISDICTIONAL AREAS ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

NOTE:
TEMPORARY SILT FENCE SHALL BE INSTALLED A MINIMUM OF 3 FEET FROM TOE OF FILL IN WETLAND AREAS

REVISIONS

8/17/99

08-JUN-2018 10:17
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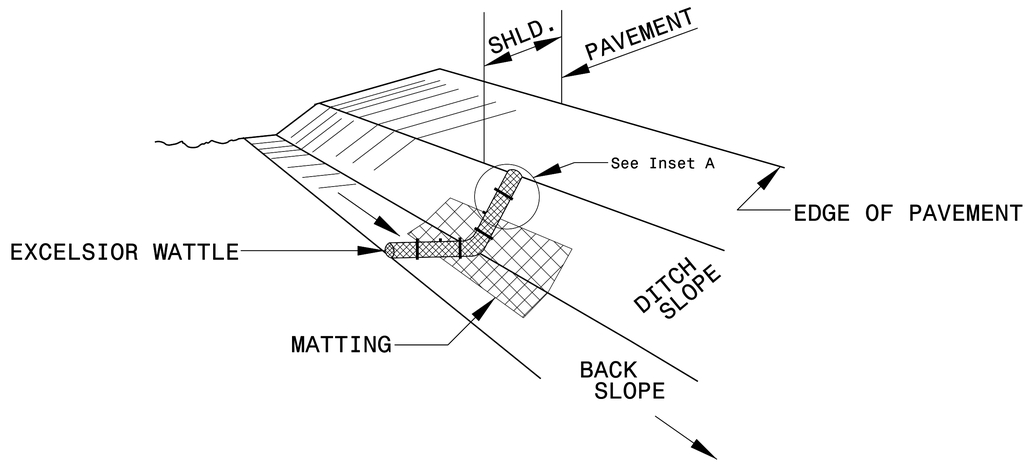
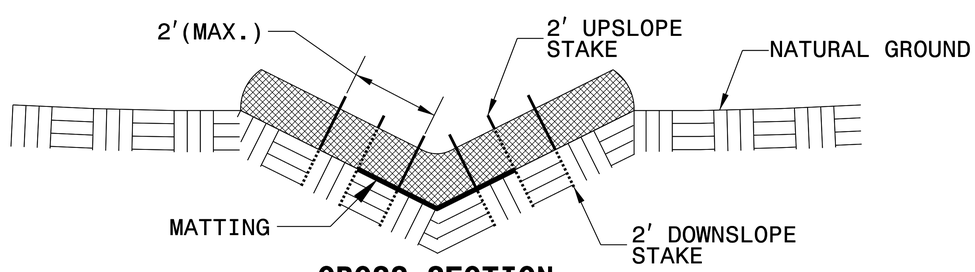
s.powell@ncdot.gov

PROJECT REFERENCE NO.	SHEET NO.
41682 & 41377.31	EC-4

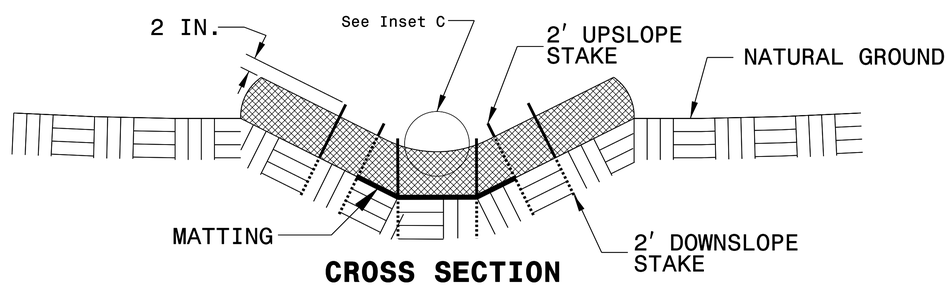
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

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.

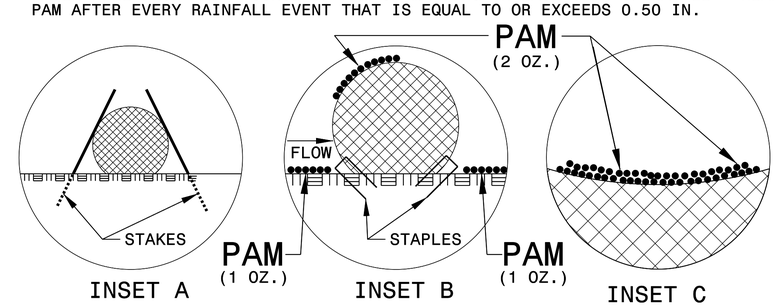
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

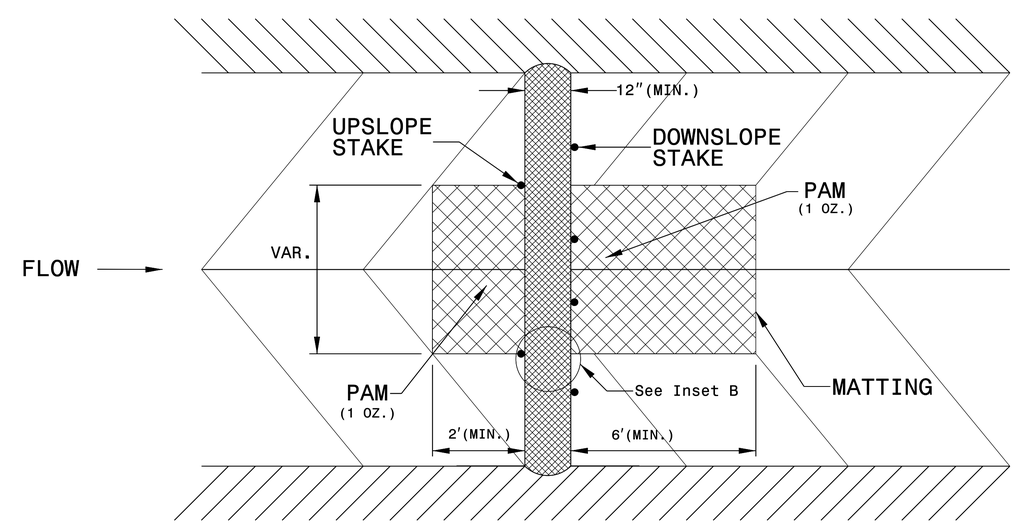
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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 MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
41682 & 41377.3.1	EC-5

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.

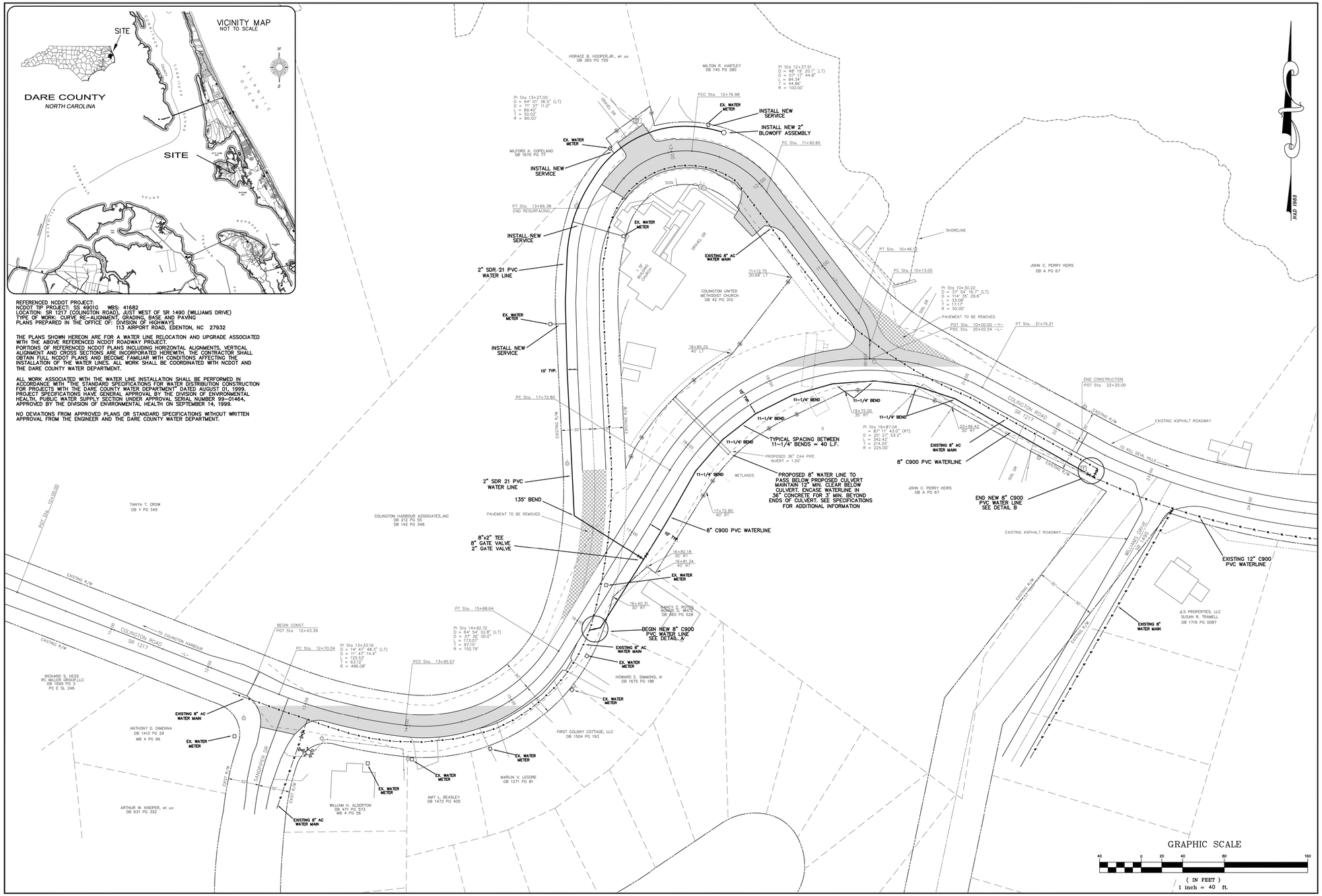
PROJECT REFERENCE NO.	SHEET NO.
41682 & 41377.3	U-1

REFERENCED NCDOT PROJECT:
NCDOT TIP PROJECT: SS 4901G WBS: 41682
LOCATION: SR 1217 (COLINGTON ROAD), JUST WEST OF SR 1490 (WILLIAMS DRIVE)
TYPE OF WORK: CURVE RE-ALIGNMENT, GRADING, BASE AND PAVING
PLANS PREPARED IN THE OFFICE OF: DIVISION OF HIGHWAYS
113 AIRPORT ROAD, EDENTON, NC 27932

THE PLANS SHOWN HEREON ARE FOR A WATER LINE RELOCATION AND UPGRADE ASSOCIATED WITH THE ABOVE REFERENCED NCDOT ROADWAY PROJECT.
PORTIONS OF REFERENCED NCDOT PLANS INCLUDING HORIZONTAL ALIGNMENTS, VERTICAL ALIGNMENT AND CROSS SECTIONS ARE INCORPORATED HEREWITH. THE CONTRACTOR SHALL OBTAIN FULL NCDOT PLANS AND BECOME FAMILIAR WITH CONDITIONS AFFECTING THE INSTALLATION OF THE WATER LINES. ALL WORK SHALL BE COORDINATED WITH NCDOT AND THE DARE COUNTY WATER DEPARTMENT.

ALL WORK ASSOCIATED WITH THE WATER LINE INSTALLATION SHALL BE PERFORMED IN ACCORDANCE WITH "THE STANDARD SPECIFICATIONS FOR WATER DISTRIBUTION CONSTRUCTION FOR PROJECTS WITH THE DARE COUNTY WATER DEPARTMENT" DATED AUGUST 01, 1999. PROJECT SPECIFICATIONS HAVE GENERAL APPROVAL BY THE DIVISION OF ENVIRONMENTAL HEALTH, PUBLIC WATER SUPPLY SECTION UNDER APPROVAL SERIAL NUMBER 99-01464, APPROVED BY THE DIVISION OF ENVIRONMENTAL HEALTH ON SEPTEMBER 14, 1999.

NO DEVIATIONS FROM APPROVED PLANS OR STANDARD SPECIFICATIONS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER AND THE DARE COUNTY WATER DEPARTMENT.



MICHAEL W. ROBINSON, P.E., P.L.S.
ENGINEERING AND SURVEYING
P.O. BOX 2852
KILL DEVIL HILLS, NC 27948
PHONE: 252-255-1026
EMAIL: mrobinson@boxengineering.com

NORTH CAROLINA PROFESSIONAL SEAL 15994 ENGINEER MICHAEL W. ROBINSON

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJECT:
DARE COUNTY WATER DEPARTMENT
COLINGTON ISLAND DARE COUNTY NORTH CAROLINA
COLINGTON ROAD WATER LINE RELOCATION

DATE: 06-27-12	SCALE: 1"=40'
DESIGNED: MWR	DRAWN: MWR
SHEET: 1 OF 2	
CAD FILE: dare county - colington road.dwg	
PROJECT NO: 061110-1	

REVISIONS

8/17/99

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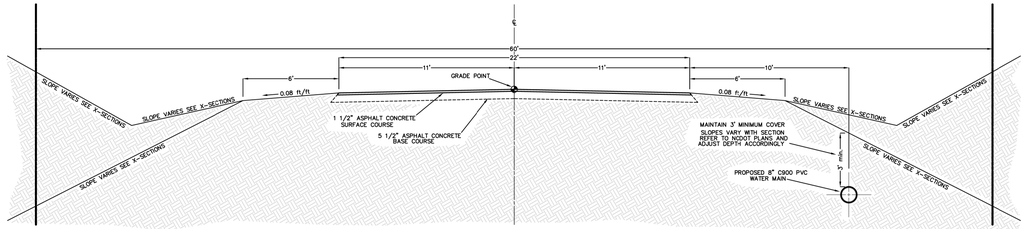
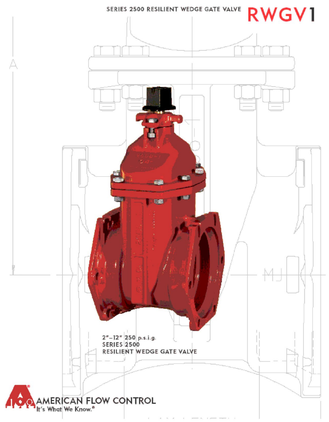
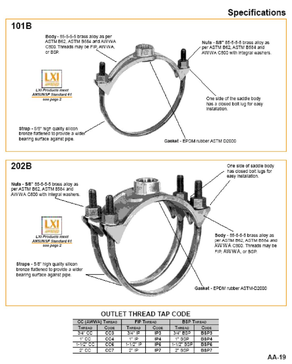
PROJECT REFERENCE NO.	SHEET NO.
41682 & 41377.3	U-2



TYPICAL ROADWAY SECTION A - NORMAL CROWN
NOT TO SCALE

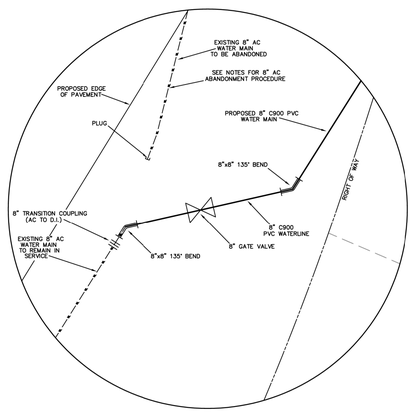


AMERICAN FLOW CONTROL SERIES 2500
RESILIENT WEDGE GATE VALVE
OR APPROVED EQUAL NOT TO SCALE

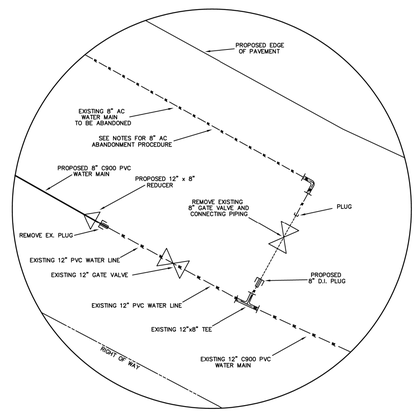


CC (CAMLOK) Tamper		FIP Tamper		BSP Tamper	
Tamper	Code	Tamper	Code	Tamper	Code
3/4" CC	CC3	3/4" F	#3	3/4" BSP	BSP3
1" CC	CC4	1" F	#4	1" BSP	BSP4
1-1/2" CC	CC6	1-1/2" F	#6	1-1/2" BSP	BSP6
2" CC	CC7	2" F	#7	2" BSP	BSP7

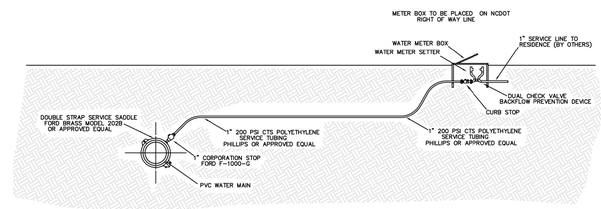
FORD 202-B DOUBLE STRAP SERVICE SADDLE - 1 INCH
OR APPROVED EQUAL NOT TO SCALE



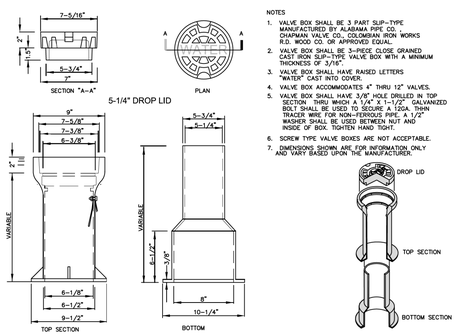
WATERLINE CONNECTION DETAIL - A
NOT TO SCALE



WATERLINE CONNECTION DETAIL - B
NOT TO SCALE

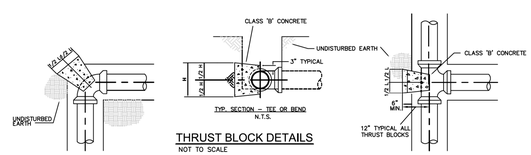


TYPICAL SERVICE CONNECTION
NOT TO SCALE



NOTES
1. VALVE BOX SHALL BE 3 PART SLIP-TYPE MANUFACTURED BY ALABAMA PIPE CO., CHAPMAN VALVE CO., COLOMBIAN IRON WORKS R.D. WOOD CO. OR APPROVED EQUAL.
2. VALVE BOX SHALL BE 3-PIECE CLOSE GRAINED CAST IRON SLIP-TYPE VALVE BOX WITH A MINIMUM THICKNESS OF 3/16".
3. VALVE BOX SHALL HAVE RAISED LETTERS "WATER" CAST INTO COVER.
4. VALVE BOX ACCOMMODATES 4" THRU 12" VALVES.
5. VALVE BOX SHALL HAVE 3/8" HOLE DRILLED IN TOP SECTION THRU WHICH A 1/4" X 1-1/2" GALVANIZED BOLT SHALL BE USED TO SECURE A 12GA. THHN TRACER WIRE FOR NON-FERROUS PIPE. A 1/2" WASHER SHALL BE USED BETWEEN NUT AND INSIDE OF BOX. TIGHTEN HAND TIGHT.
6. SCREW TYPE VALVE BOXES ARE NOT ACCEPTABLE.
7. DIMENSIONS SHOWN ARE FOR INFORMATION ONLY AND VARY BASED UPON THE MANUFACTURER.

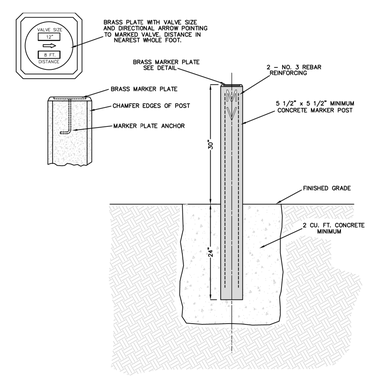
VALVE BOX DETAIL - WATER
NOT TO SCALE



THRUST BLOCK DETAILS
NOT TO SCALE

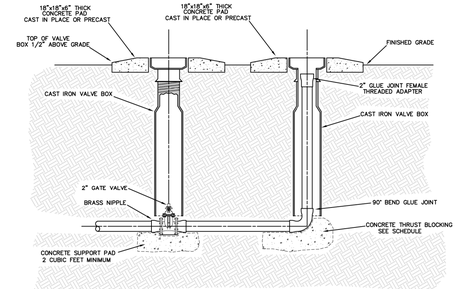
NOTE:
WRAP ALL FITTINGS IN 6 MIL. PLASTIC BEFORE POURING REACTION BACKING . ALL CONCRETE TO BE 3000 PSI

CONCRETE THRUST BLOCK SCHEDULE																	
PIPE SIZE	TEE AND DEAD END			BEND													DESIGN PRESSURE PSI
				90°			45°				22 1/2°			11 1/4°			
INCHES	H	L	C.Y.	H	L	C.Y.	H	L	C.Y.	H	L	C.Y.	H	L	C.Y.		
4" & 2"	1.5'	2.0'	0.11	1.5'	2.0'	0.11	1.5'	2.0'	0.11	1.5	2.0	0.11	1.5	2.0	0.11		150
6"	2.5'	2.5'	0.23	2.5'	2.5'	0.23	1.5'	2.0'	0.11	1.5	2.0	0.11	1.5	2.0	0.11		150
8"	2.5'	2.5'	0.23	3.0	3.0	0.33	2.5'	2.5'	0.23	1.5	2.0	0.11	1.5	2.0	0.11		150



VALVE MARKER POST DETAIL
NOT TO SCALE

NOTES:
1. INSTALL MARKER POST ON OR NEAR HIGHWAY RIGHT OF WAY
2. PROVIDE MARKER POSTS ON ALL VALVES EXCEPT HYDRANT VALVES



TYPICAL 2" BLOWOFF ASSEMBLY
AT END OF WATER MAIN
NOT TO SCALE

MICHAEL W. ROBINSON, P.E., P.L.S.
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KILL DEVIL HILLS, NC 27948
PHONE: (252) 255-0009
EMAIL: mrobinson@obxengineering.com

NORTH CAROLINA PROFESSIONAL SEAL 18994 ENGINEER MICHAEL W. ROBINSON

REVISIONS

NO.	DATE	DESCRIPTION	BY

PROJECT: DARE COUNTY WATER DEPARTMENT
COLINGTON ISLAND DARE COUNTY NORTH CAROLINA
COLINGTON ROAD WATER LINE RELOCATION

DATE: 06-27-12	SCALE: 1"=40'
DESIGNED: MWR	DRAWN: MWR
SHEET: 2 OF 2	
CAD FILE: dare county - colington road.dwg	
PROJECT NO: 061110-1	

REVISIONS

8/17/99

28-JUN-2012 11:29
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PROJ. REFERENCE NO.	SHEET NO.
41682 / 41377.3	X-1A

Quantities are approximate only. The Resident Engineer will recross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

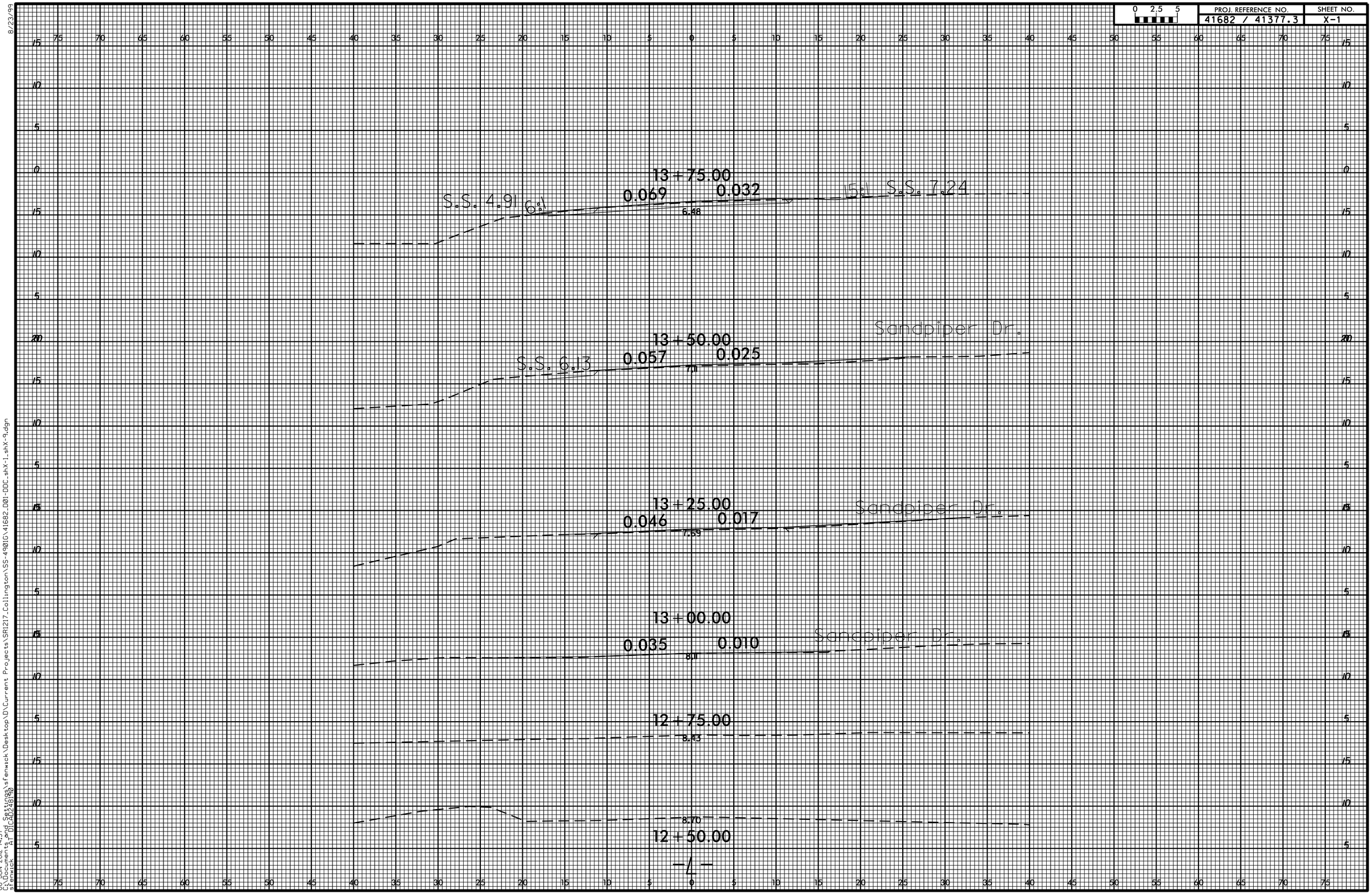
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

Station -L-	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station -Y-	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
13+00.00	0	0	13+01.17	2	0
13+25.00	8	0	13+25.00	23	5
13+50.00	14	0	13+36.17	3	2
13+75.00	9	0			
14+00.00	3	0			
14+25.00	2	0			
14+50.00	2	0			
14+75.00	1	0			
15+00.00	1	0			
15+25.00	1	0			
15+50.00	5	0			
15+75.00	14	0			
16+00.00	32	0			
16+25.00	57	0			
16+50.00	77	0			
16+75.00	98	3			
17+00.00	106	15			
17+25.00	78	39			
17+50.00	27	149			
17+75.00	0	274			
18+00.00	0	310			
18+25.00	0	339			
18+50.00	0	359			
18+75.00	0	295			
19+50.00	0	571			
19+75.00	0	129			
20+00.00	0	98			
20+25.00	0	68			
20+50.00	0	44			
20+75.00	2	28			
21+00.00	6	12			
21+25.00	10	6			
21+50.00	12	8			
21+75.00	10	18			
22+00.00	8	17			
22+25.00	9	8			

Station -Y-	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
10+17.00	0	0
10+46.12	0	174
10+50.00	0	21
10+75.00	0	120
11+00.00	0	81
11+25.00	0	36
11+50.00	6	8
11+75.00	11	0
12+00.00	10	0
12+25.00	12	0
12+50.00	17	0
12+75.00	23	0
13+00.00	31	0

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	41682 / 41377.3	X-1



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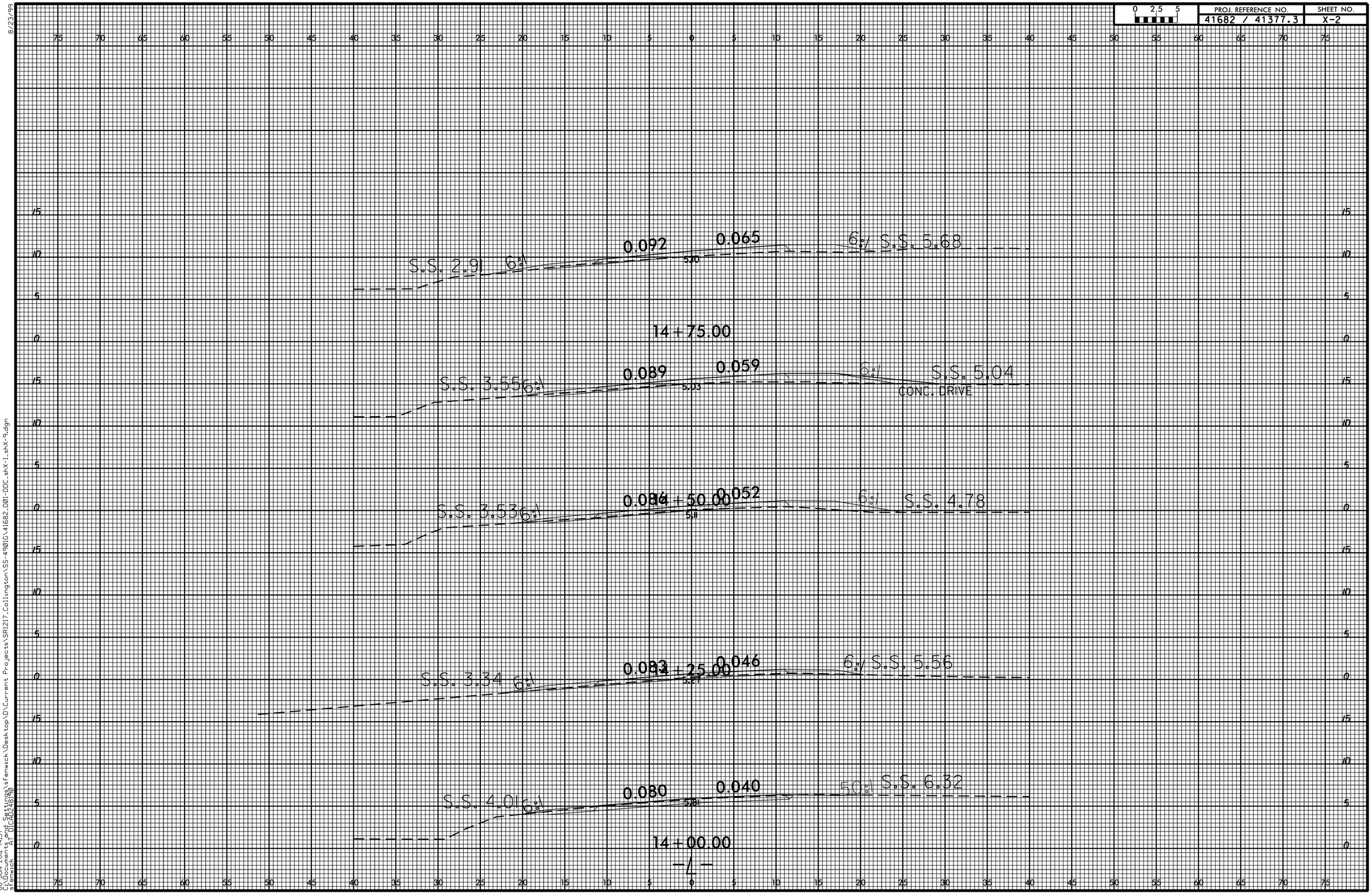

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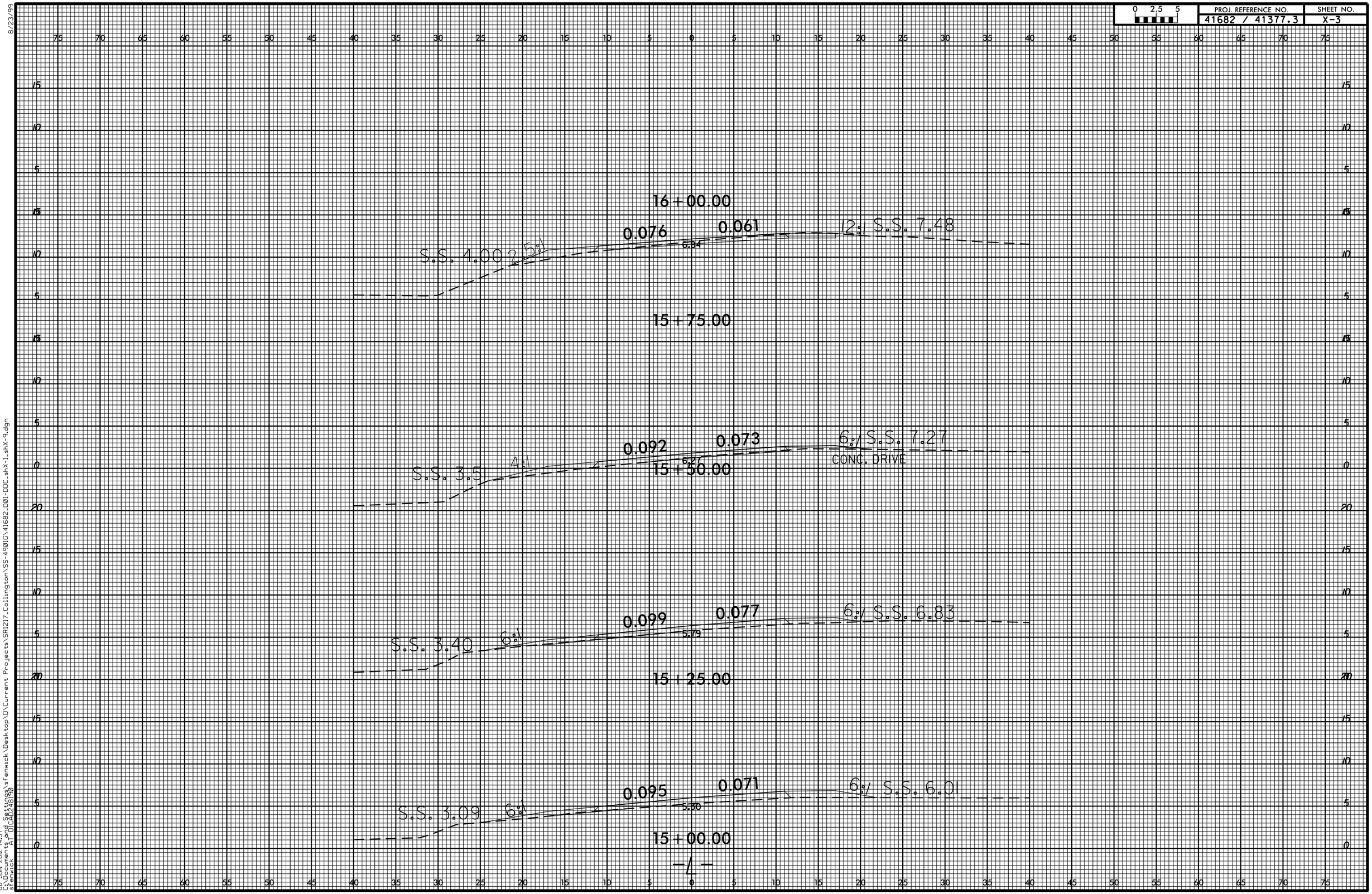

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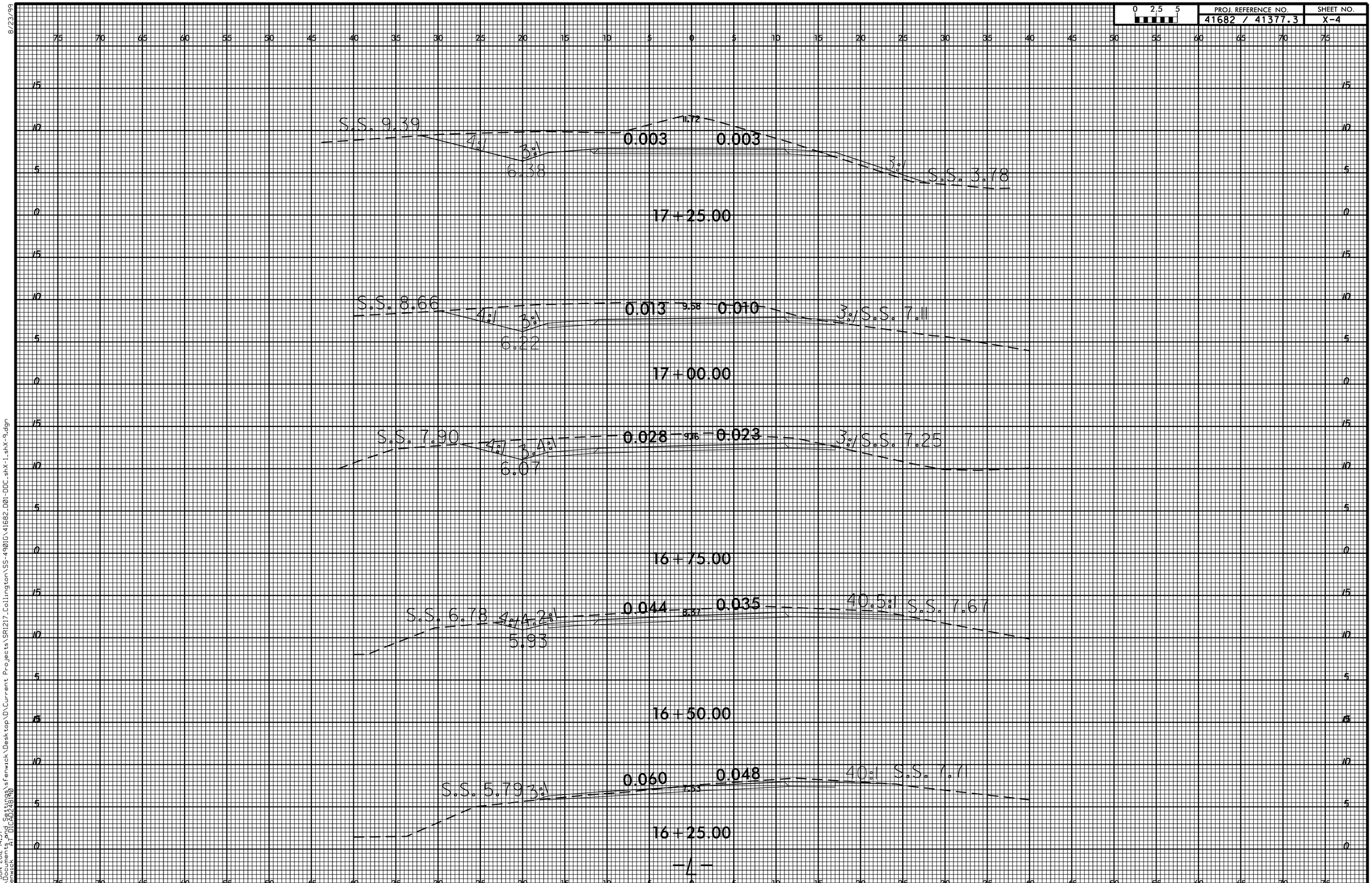

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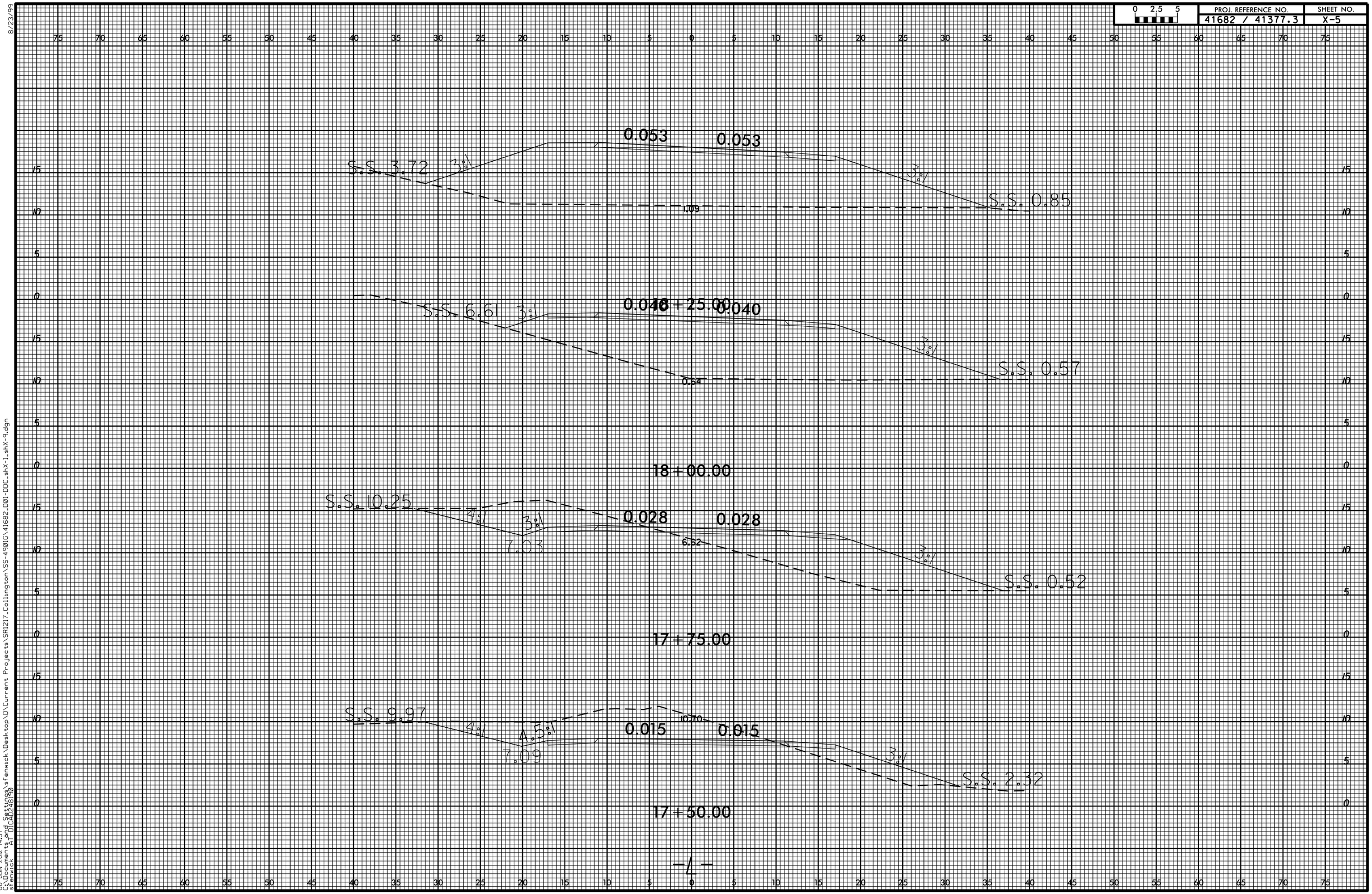

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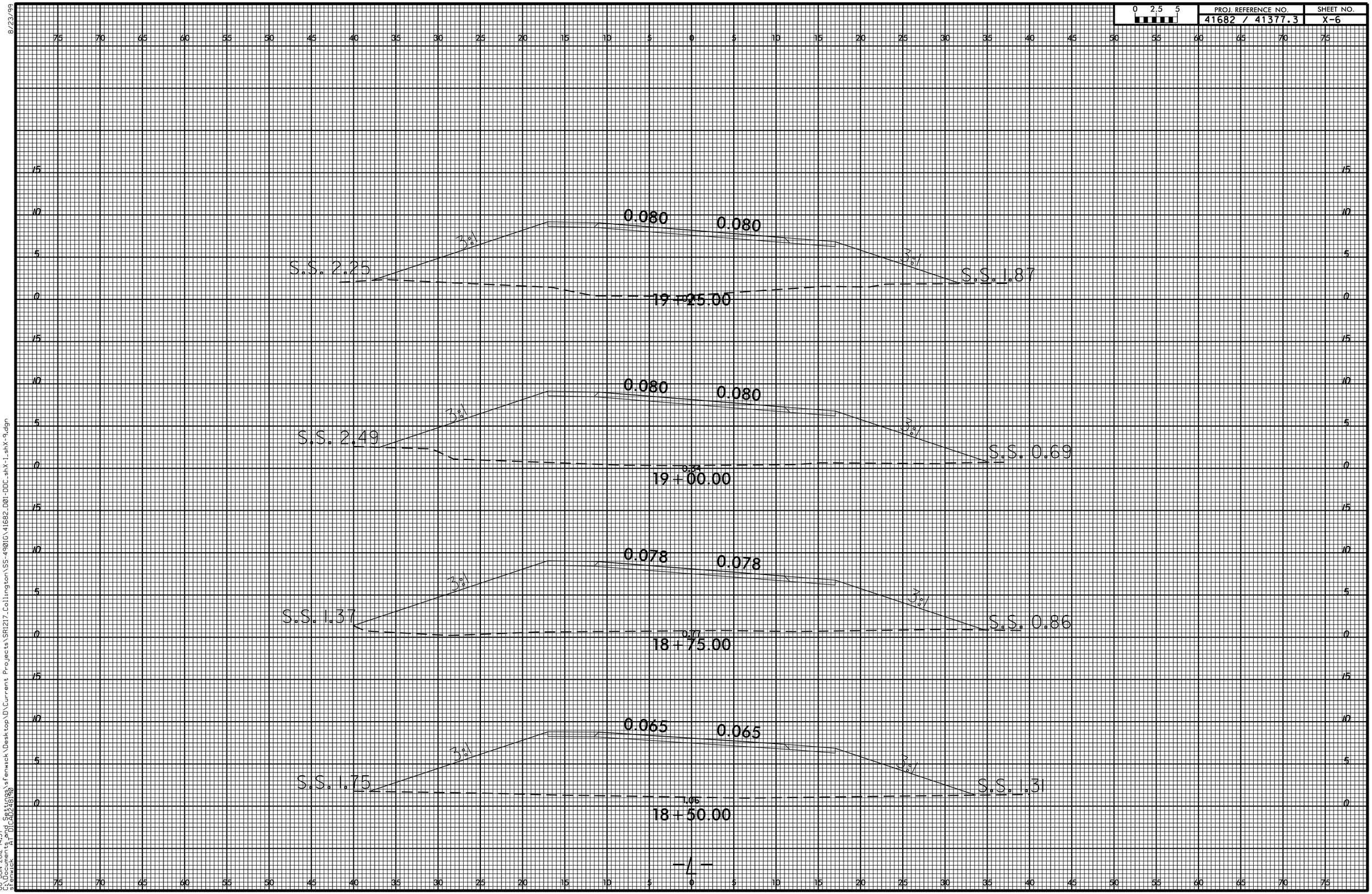

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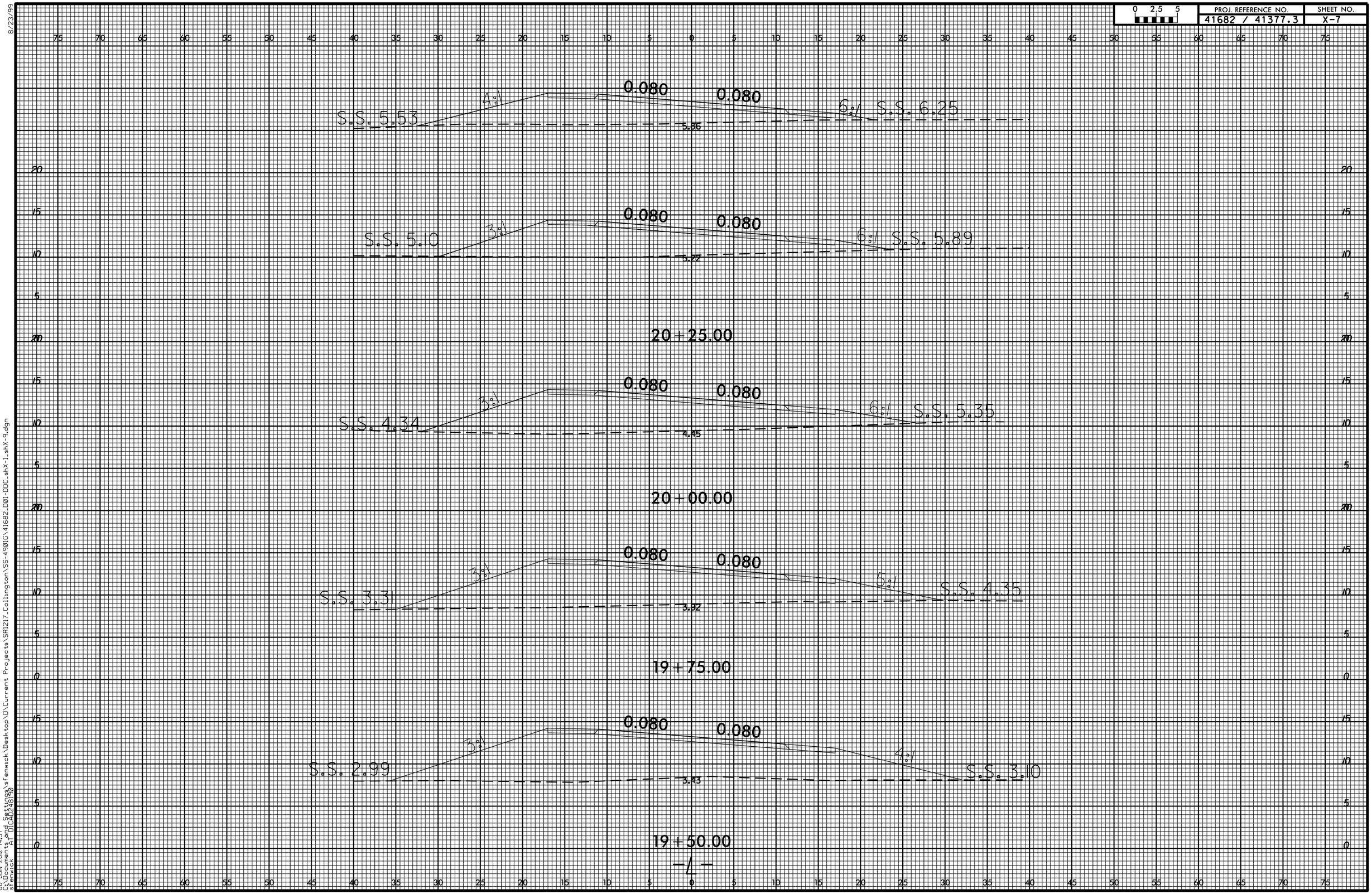

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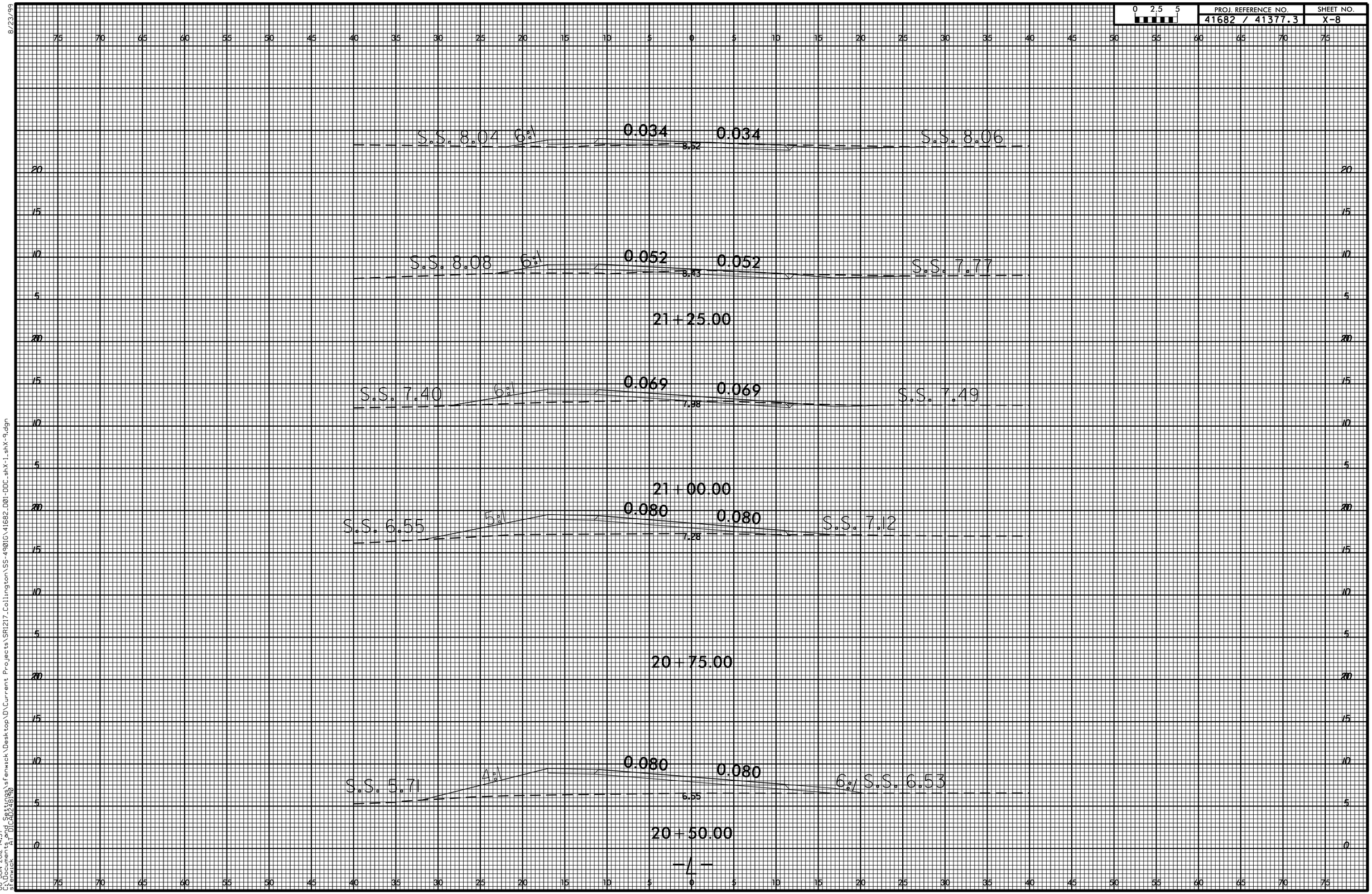

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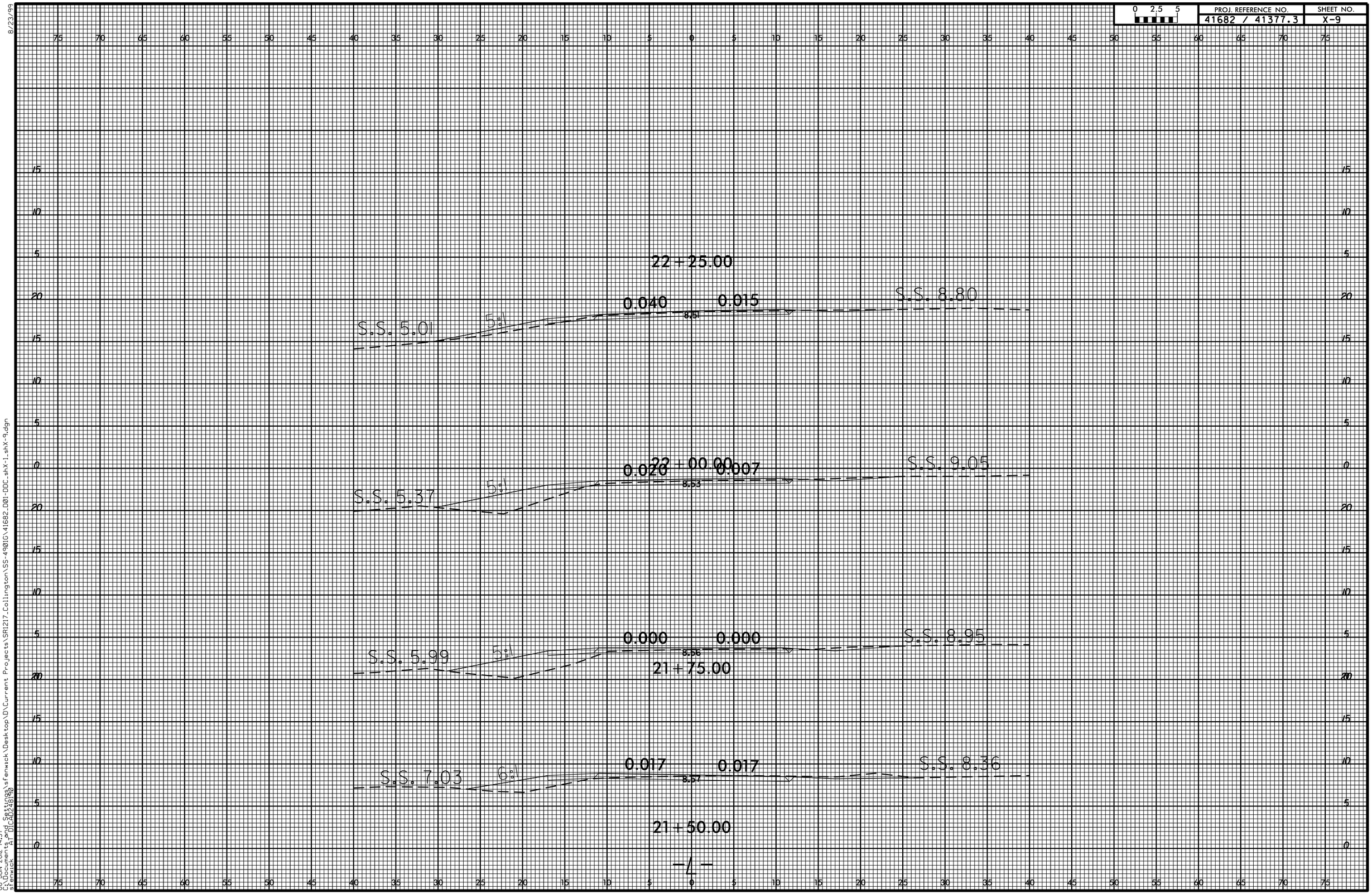

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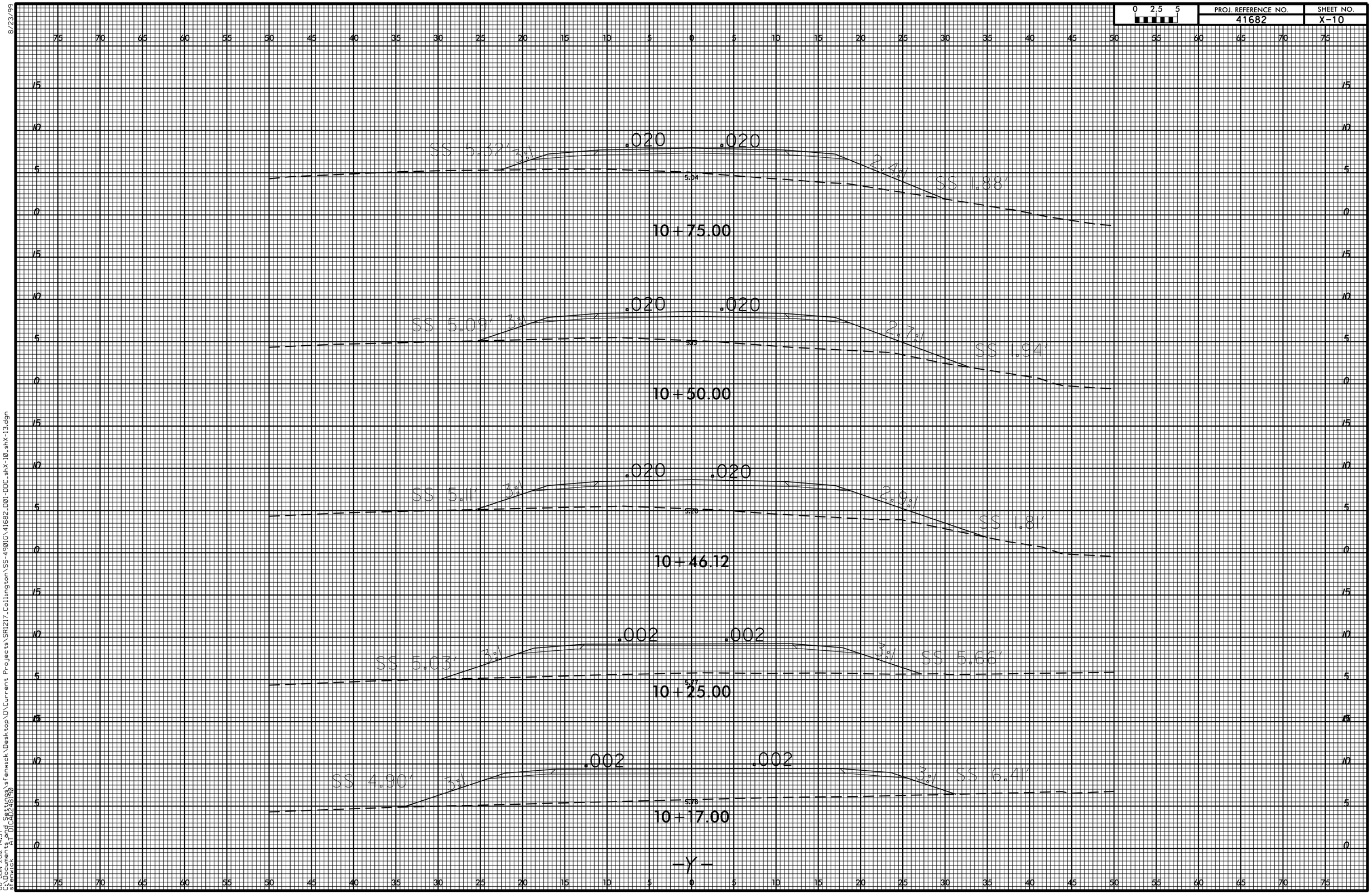

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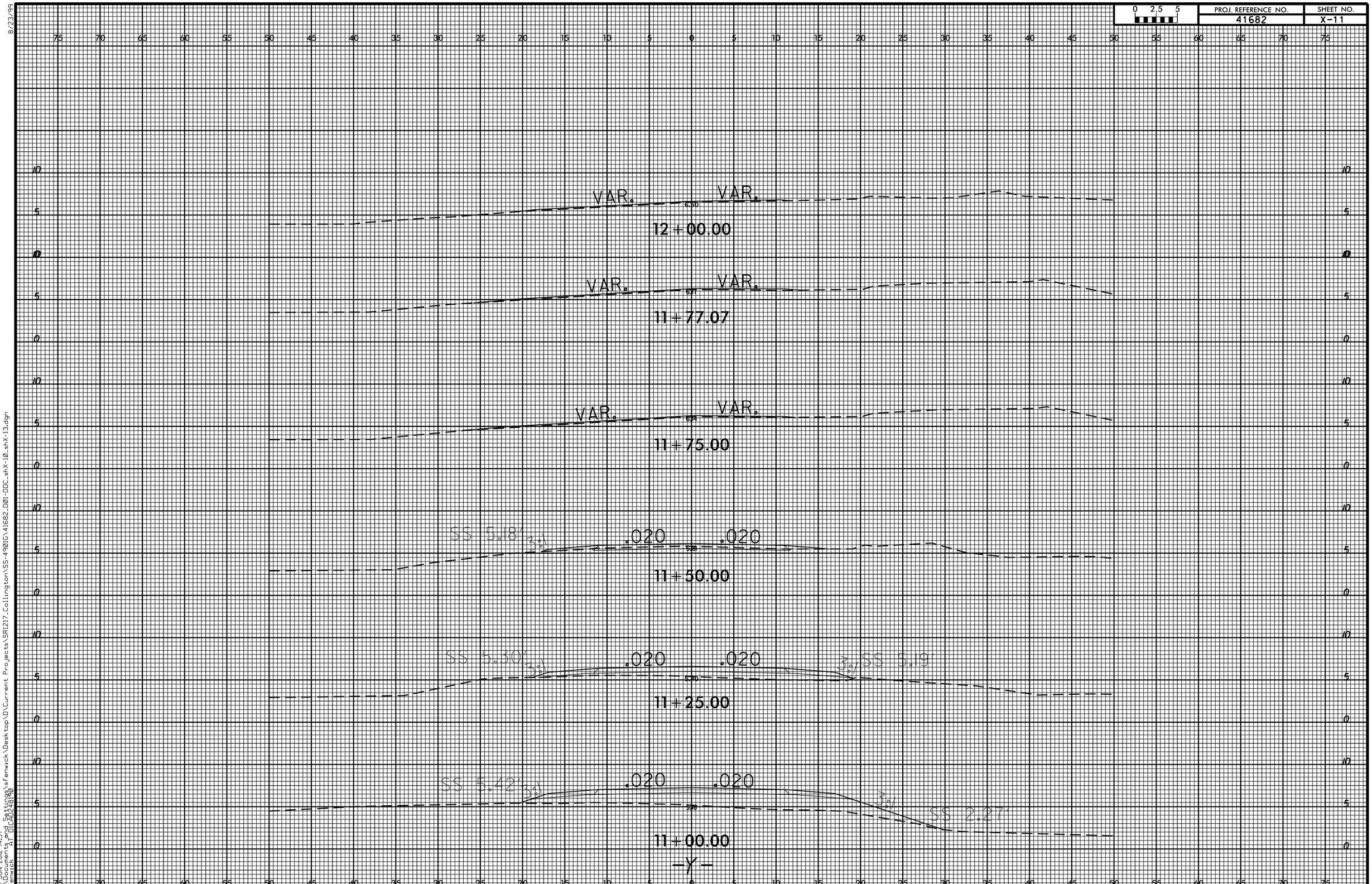

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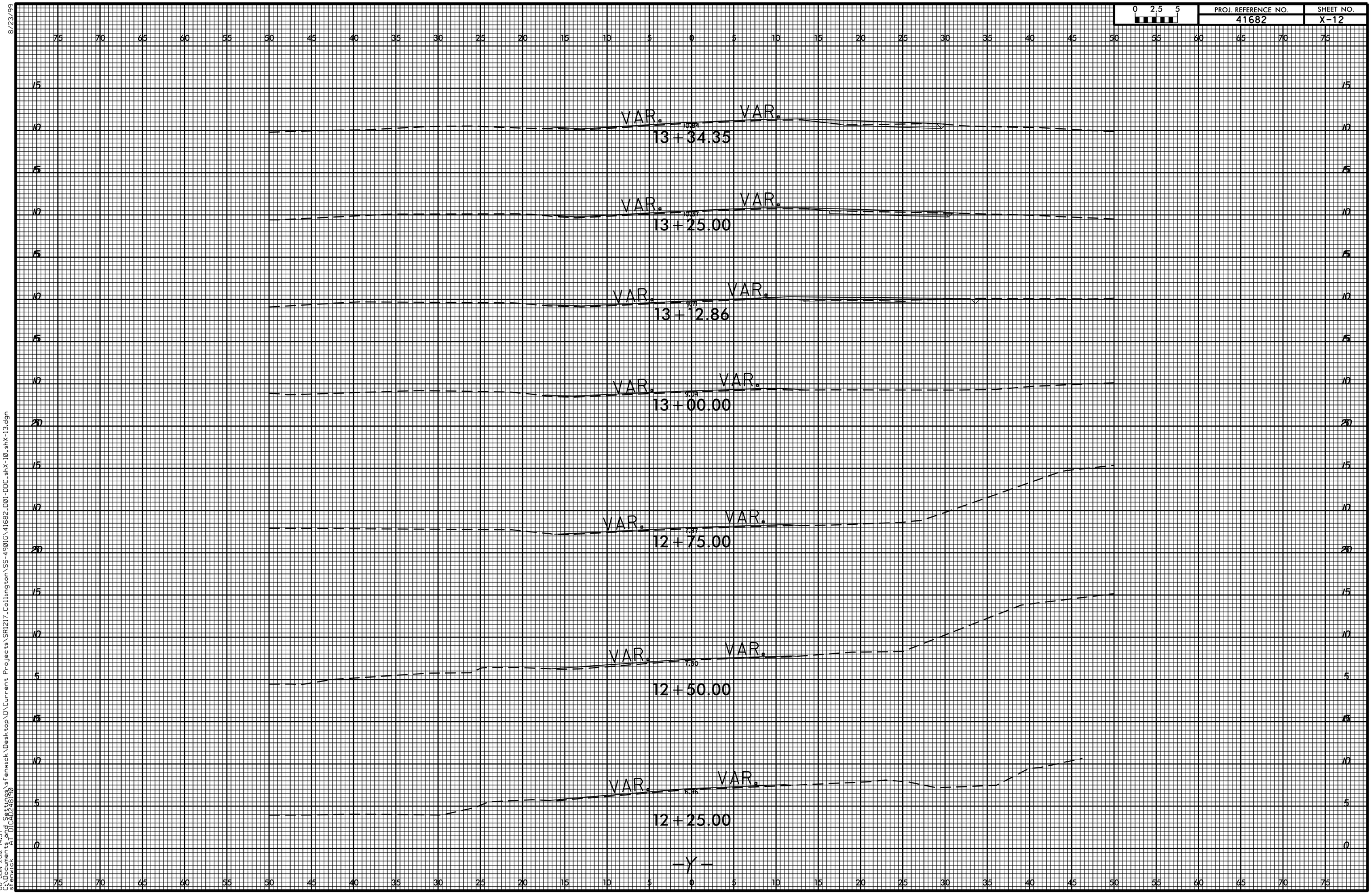

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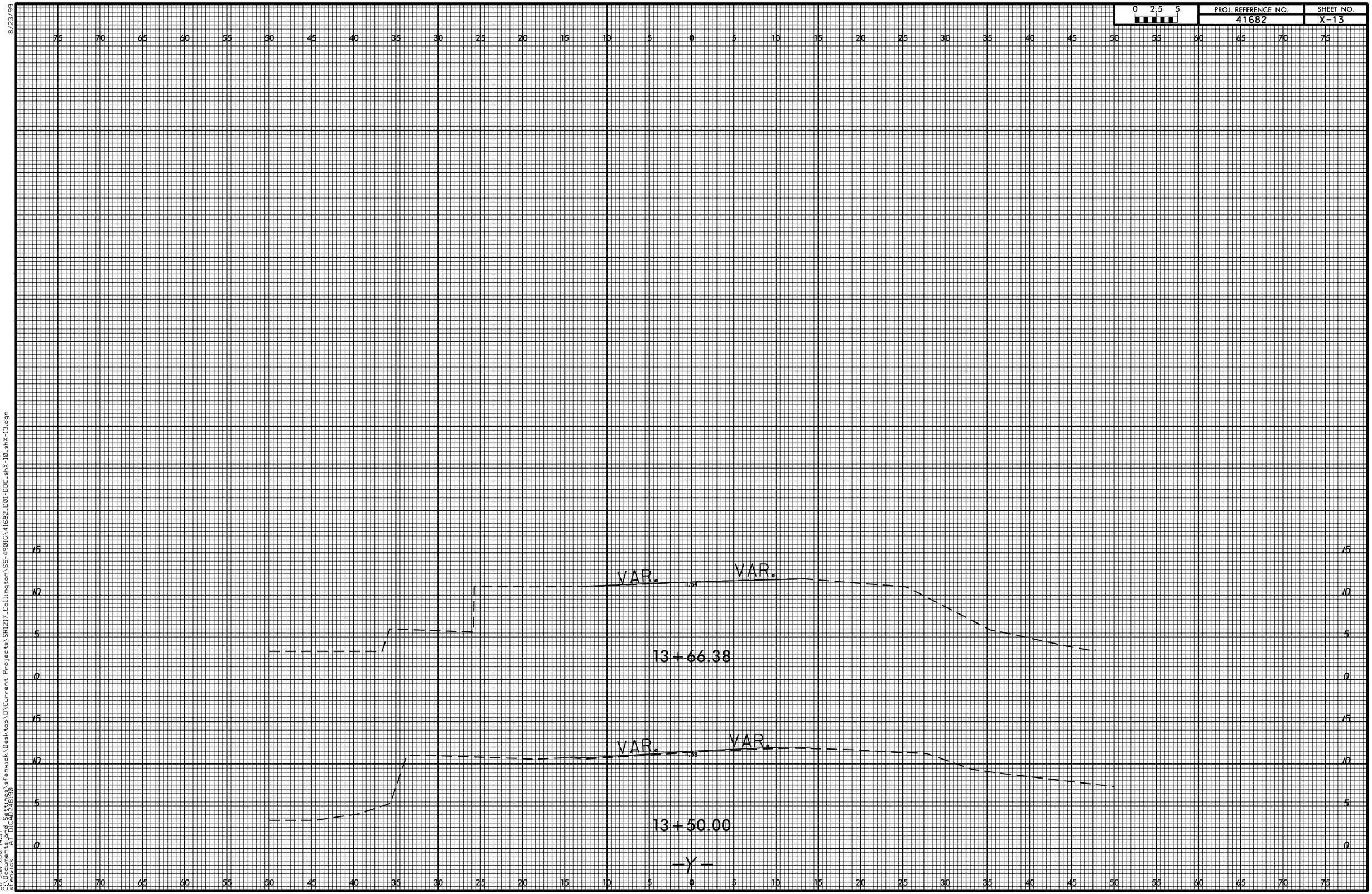

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