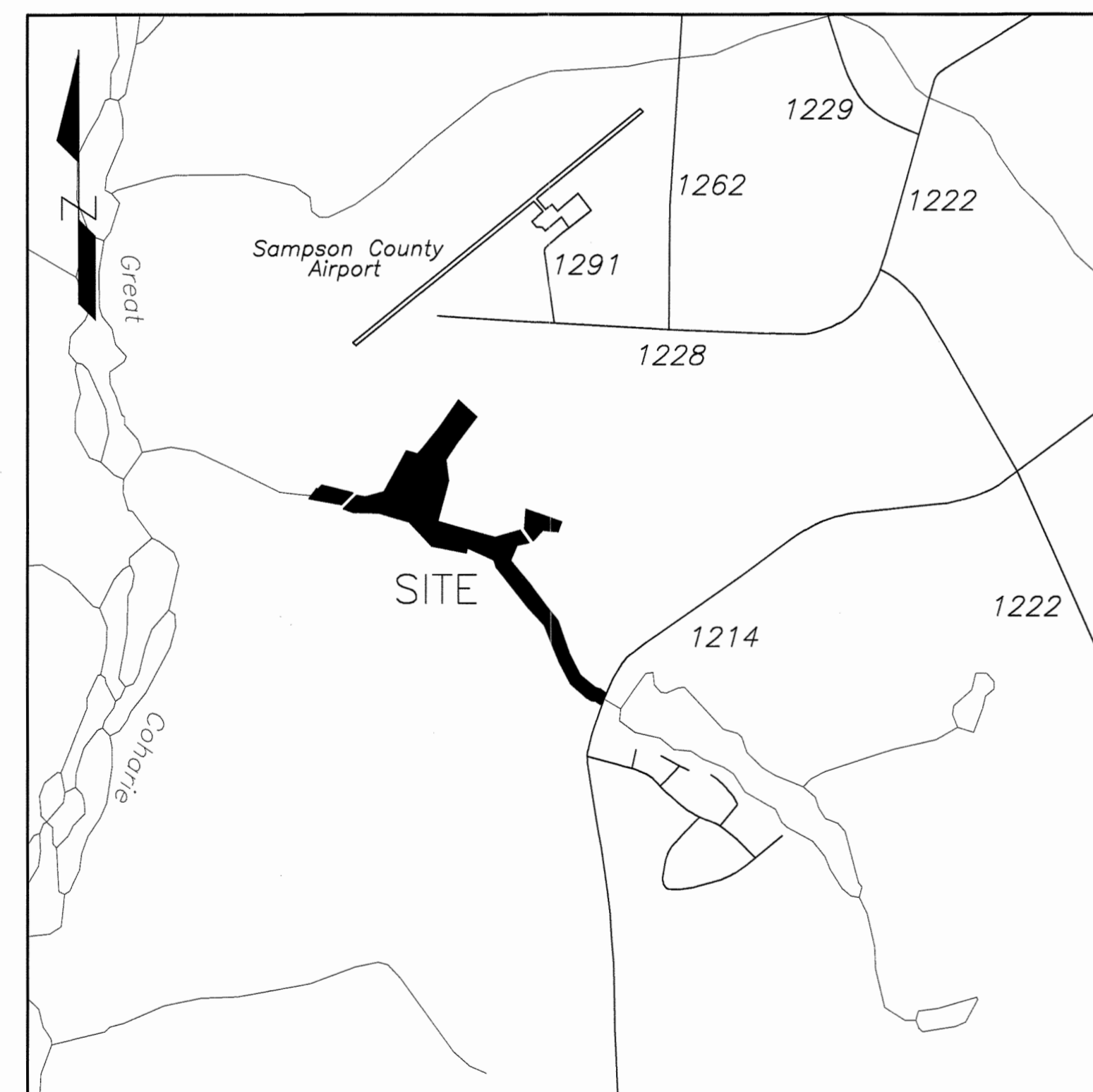


CEDAR CREEK STREAM AND WETLAND RESTORATION PROJECT SAMPSON COUNTY, NORTH CAROLINA

CAPE FEAR RIVER BASIN
HUC: 3030006090060

NORTH CAROLINA DIVISION OF MITIGATION SERVICES
PROJECT # 95718
CONTRACT # 005011

AS-BUILT SURVEY



VICINITY MAP
NOT TO SCALE

PROJECT COORDINATES:

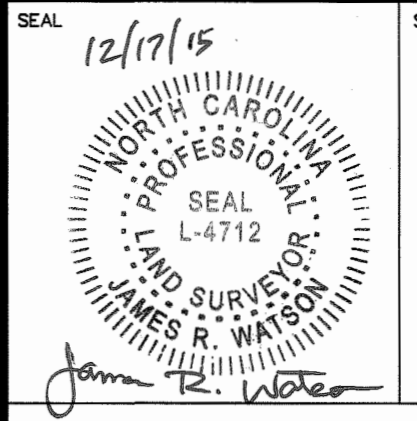
LATITUDE: 34.966827778° N
LONGITUDE: 78.36760556° W

PROJECT DIRECTORY

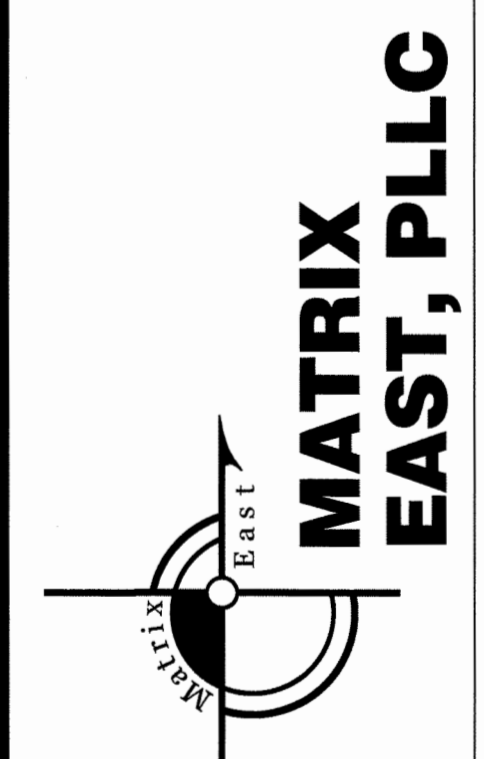
<p><u>DESIGNER:</u> W. K. DICKSON 720 CORPORATE CENTER DR. RALEIGH, NC 27607 (919) 782-0495</p> <p><u>CONSTRUCTION CONTRACTOR:</u> WRIGHT CONTRACTING PO BOX 545 SILER CITY, NC 27344 (919) 663-0810</p> <p><u>FULL DELIVERY PROVIDER:</u> RESOURCE ENVIRONMENTAL SOLUTIONS, LLC 302 JEFFERSON ST., SUITE 110 RALEIGH, NC 27605 (919) 209-1061</p>	<p><u>MONITORING PERFORMERS:</u> RESOURCE ENVIRONMENTAL SOLUTIONS, LLC 302 JEFFERSON ST., SUITE 110 RALEIGH, NC 27605 (919)209-1061</p> <p><u>SURVEYING:</u> MATRIX EAST, PLLC 906 N. QUEEN ST., SUITE A KINSTON, NC 28501 (252)522-2500</p>
--	--

SHEET INDEX

COVER SHEET	S1
LEGEND, NOTES, & CROSS SECTION CONTROL	S2
STREAM BASELINE OVERVIEW	S3
STREAM MONITORING OVERVIEW	S4
STREAM BASELINE AS-BUILTS	S5 THROUGH S10
WETLAND DETAIL	S11
CROSS SECTION CHARTS	S12



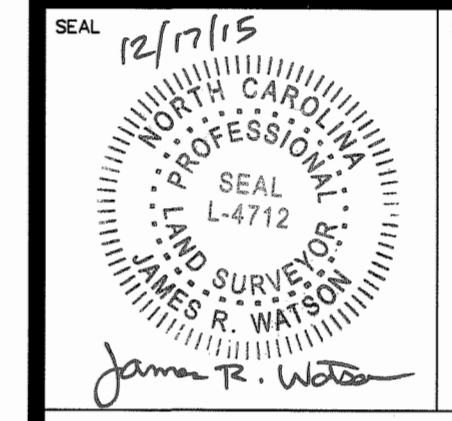
COVER SHEET CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC



906 N. QUEEN ST., SUITE A
KINSTON, NC 28501
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FIRM LIC. # P-0221
EMAIL: surveyor@matrixeast.net

RESOURCE ENVIRONMENTAL SOLUTIONS, LLC
302 JEFFERSON ST., SUITE 110
RALEIGH, N.C. 27605

SCALE		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 1 OF 12
APPROVED JRW		DRAWING NO.
DRAWING NAME 20130080 ASB		S1
PROJECT NO. 2013080		



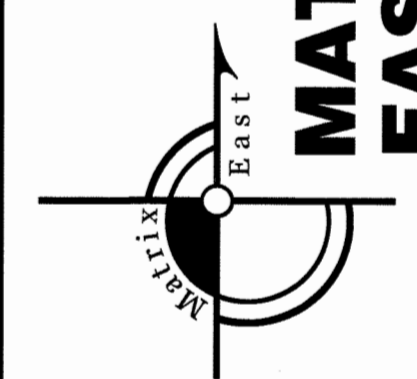
LEGEND, NOTES, & CROSS SECTION CONTROL

CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC

Cedar Creek Baseline Monitoring Cross Section Control							
Description	Northing	Easting	Elevation	Description	Northing	Easting	Elevation
XS1-LEFT PIN	442909.73	2190246.16	91.00	XS15-LEFT PIN	443774.12	2189077.12	88.92
XS1-RIGHT PIN	442940.33	2190285.57	91.80	XS15-RIGHT PIN	443822.99	2189065.98	89.29
XS2-LEFT PIN	443219.45	2189973.62	90.92	XS16-LEFT PIN	443784.49	2189080.22	88.99
XS2-RIGHT PIN	443269.31	2189981.01	89.57	XS16-RIGHT PIN	443795.46	2189031.36	89.10
XS3-LEFT PIN	443226.78	2189431.41	89.16	XS17-LEFT PIN	443676.19	2188992.79	87.18
XS3-RIGHT PIN	443275.85	2189421.61	88.43	XS17-RIGHT PIN	443717.62	2188964.88	87.58
XS4-LEFT PIN	443585.84	2188910.65	87.67	XS18-LEFT PIN	443668.81	2188990.37	87.29
XS4-RIGHT PIN	443631.93	2188930.04	86.90	XS18-RIGHT PIN	443695.99	2188948.57	86.94
XS5-LEFT PIN	444773.29	2189675.02	106.00	XS19-LEFT PIN	443417.25	2190821.06	108.44
XS5-RIGHT PIN	444804.99	2189665.46	106.52	XS19-RIGHT PIN	443466.82	2190825.15	108.97
XS6-LEFT PIN	444764.44	2189661.76	105.58	XS20-LEFT PIN	443422.52	2190741.23	105.87
XS6-RIGHT PIN	444767.87	2189611.85	105.09	XS20-RIGHT PIN	443471.94	2190734.31	105.95
XS7-LEFT PIN	444610.33	2189566.84	104.07	XS21-LEFT PIN	443336.80	2190628.28	101.85
XS7-RIGHT PIN	444618.61	2189517.37	103.80	XS21-RIGHT PIN	443378.65	2190601.27	101.85
XS8-LEFT PIN	444598.28	2189563.58	104.23	XS22-LEFT PIN	443337.84	2190614.80	101.79
XS8-RIGHT PIN	444608.19	2189514.63	103.80	XS22-RIGHT PIN	443359.99	2190570.06	101.15
XS9-LEFT PIN	444347.64	2189462.74	97.90	XS23-LEFT PIN	443264.39	2190400.45	94.46
XS9-RIGHT PIN	444378.78	2189423.44	98.03	XS23-RIGHT PIN	443308.72	2190423.22	96.44
XS10-LEFT PIN	444336.48	2189451.40	97.00	XS24-LEFT PIN	443264.69	2190406.53	94.35
XS10-RIGHT PIN	444367.99	2189418.79	97.93	XS24-RIGHT PIN	443314.00	2190398.54	96.02
XS11-LEFT PIN	444076.87	2189246.76	93.01	XS25-LEFT PIN	443179.48	2190325.55	91.68
XS11-RIGHT PIN	444116.06	2189215.39	93.54	XS25-RIGHT PIN	443206.89	2190283.81	91.01
XS12-LEFT PIN	444067.66	2189228.24	93.12	XS26-LEFT PIN	443167.33	2190305.38	91.16
XS13-LEFT PIN	443962.58	2189171.86	91.13	XS26-RIGHT PIN	443214.82	2190290.16	91.17
XS13-RIGHT PIN	443991.46	2189130.82	91.33	XS27-LEFT PIN	443464.26	2190664.31	105.64
XS14-LEFT PIN	443932.56	2189147.47	90.54	XS27-RIGHT PIN	443449.88	2190616.48	104.46
XS14-RIGHT PIN	443971.75	2189116.11	91.34				

- LEGEND
- C/L = CENTERLINE
 - R/W = RIGHT OF WAY
 - N/F = NOW OR FORMERLY
 - HDPE = HIGH DENSITY POLYETHYLENE PIPE
 - XS = CROSS SECTION
 - VP = VEGETATION PLOT
 - ⊙ = WELL
 - RG/A = RAIN GAUGE/AMBIENT GAUGE
 - ⊙ = GAUGE
 - CG = CREST GAUGE
 - ACG = AUTO-CREST GAUGE
 - AW = AUTO-WELL
 - LOG STRUCTURE
 - ⊞ = ROCK STRUCTURE
 - ⊞ = ROCK AREA
 - LCE — = CONSERVATION EASEMENT LINE
 - = BOUNDARY LINE
 - - - - - = WETLAND BOUNDARY LINE
 - ~~~~~ = WOODLINE

NOTES:
 1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
 2. THE HORIZONTAL DATUM IS NAD 83(2011) AND THE VERTICAL DATUM IS NAVD 88.
 3. THIS MAP IS NOT FOR REDISTRIBUTION, SALES, OR CONVEYANCES.
 4. THE PURPOSE OF THIS MAP IS TO SHOW POST CONSTRUCTION AS-BUILT CONDITIONS OF THE STREAM RESTORATION AND MAY NOT SHOW ALL UTILITIES, STRUCTURES, AND BOUNDARIES.
 5. NO PROPERTY LINES WERE SURVEYED DURING THIS SURVEY. ALL CONSERVATION EASEMENTS, PROPERTY LINES, AND ADJOINING PROPERTY OWNERS ARE SHOWN BY PREVIOUS SURVEYS BY MATRIX EAST, PLLC AS RECORDED IN THE SAMPSON COUNTY REGISTER OF DEEDS OFFICE.

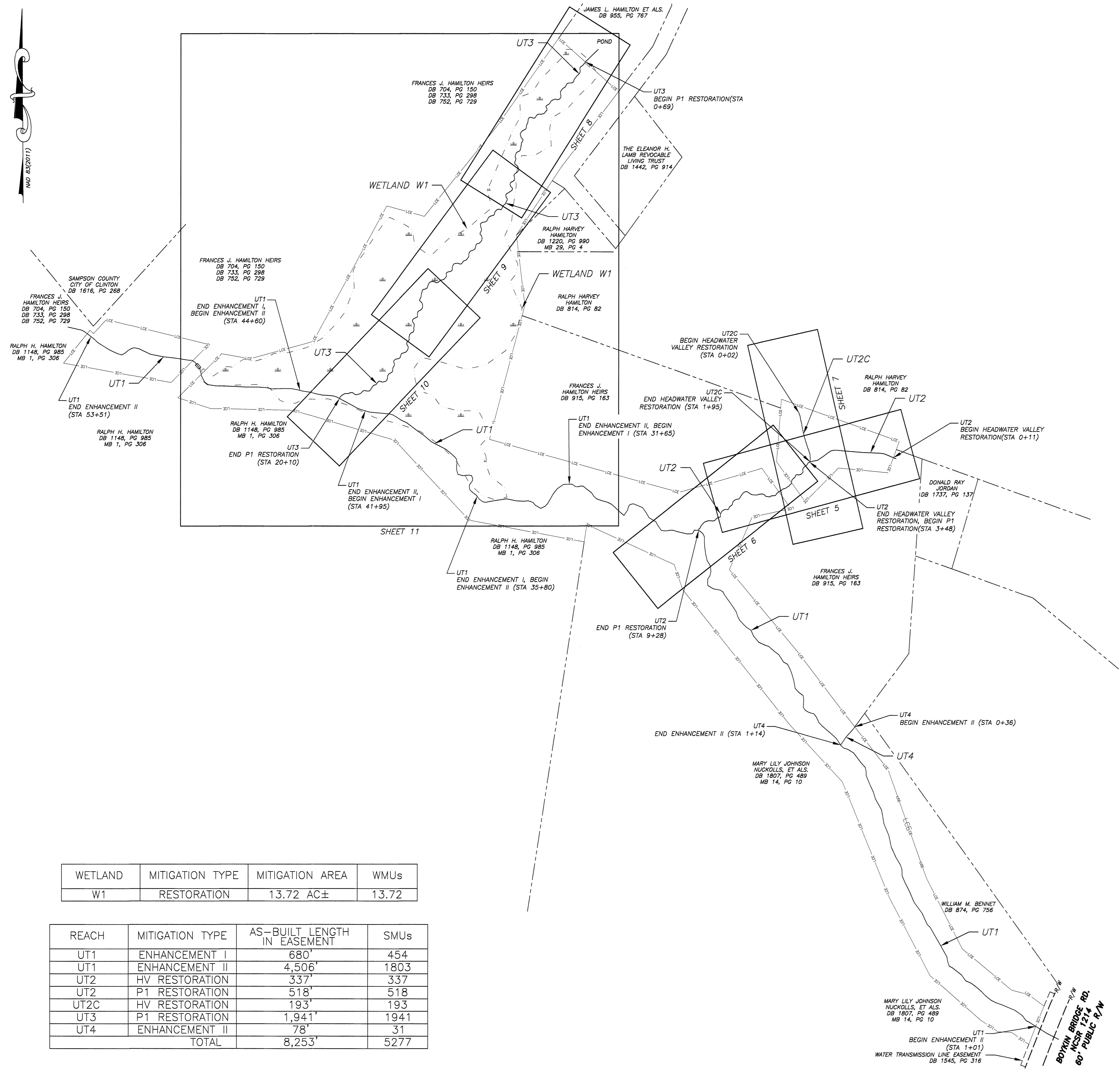


**MATRIX
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 EMAIL: surveyor@matrixeast.net

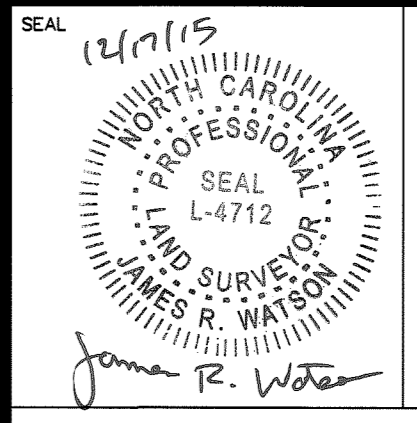
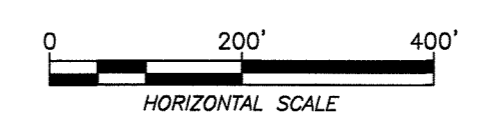
**RESOURCE
ENVIRONMENTAL
SOLUTIONS, LLC**
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE		DEPARTMENT	
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 2 OF 12	
APPROVED JRW		DRAWING NO.	
DRAWING NAME 20130080 ASB		S2	
PROJECT NO. 2013080			



WETLAND	MITIGATION TYPE	MITIGATION AREA	WMUs
W1	RESTORATION	13.72 AC±	13.72

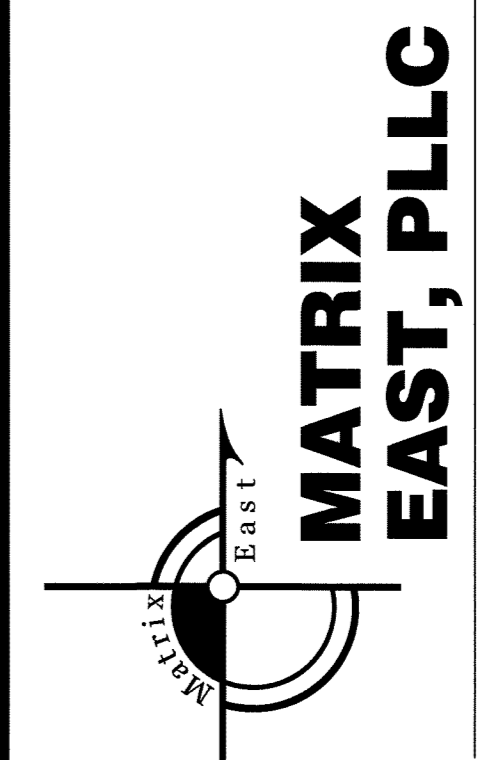
REACH	MITIGATION TYPE	AS-BUILT LENGTH IN EASEMENT	SMUs
UT1	ENHANCEMENT I	680'	454
UT1	ENHANCEMENT II	4,506'	1803
UT2	HV RESTORATION	337'	337
UT2	P1 RESTORATION	518'	518
UT2C	HV RESTORATION	193'	193
UT3	P1 RESTORATION	1,941'	1941
UT4	ENHANCEMENT II	78'	31
TOTAL		8,253'	5277



STREAM BASELINE OVERVIEW

CEDAR CREEK RESTORATION PROJECT

SAMPSON COUNTY, NC

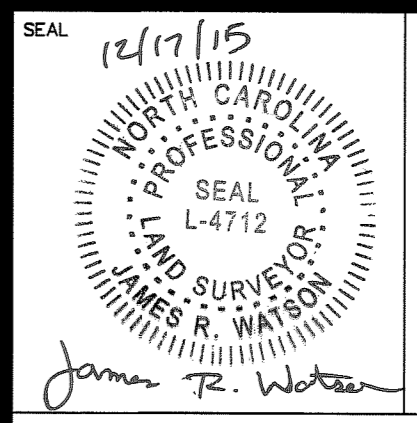
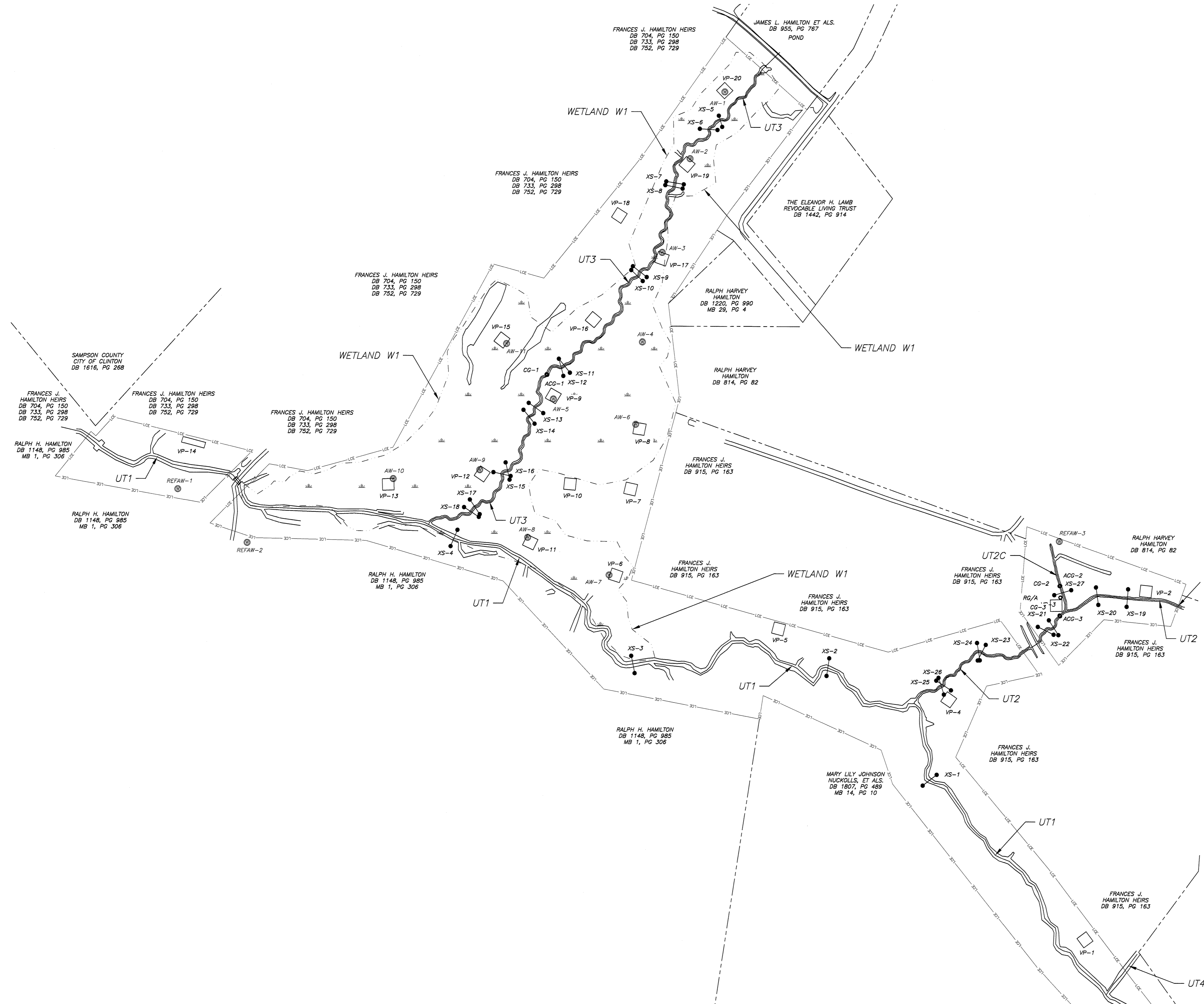


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RESOURCE ENVIRONMENTAL SOLUTIONS, LLC
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

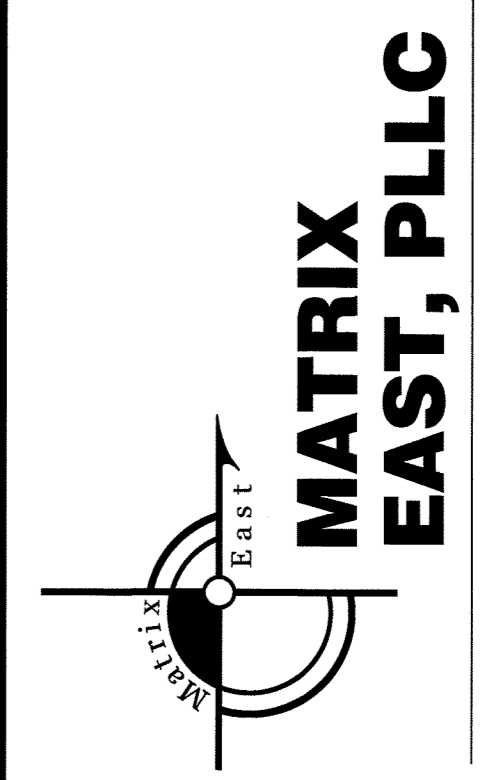
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DRAWN BY	JRW	DATE STARTED	9-30-15
APPROVED	JRW	SHEET No.	3 OF 12
DRAWING NAME	20130080 ASB	DRAWING No.	
PROJECT No.	2013080		

S3



STREAM MONITORING OVERVIEW

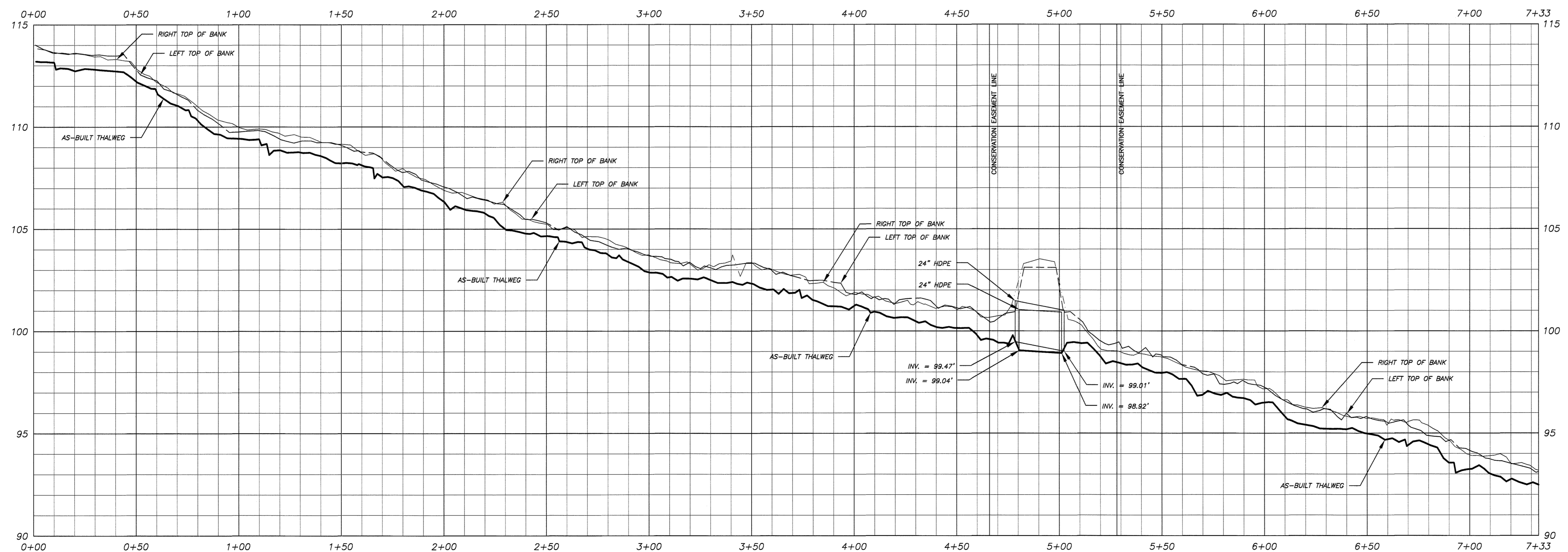
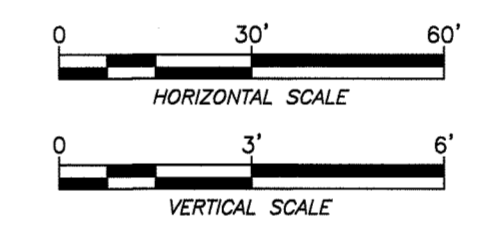
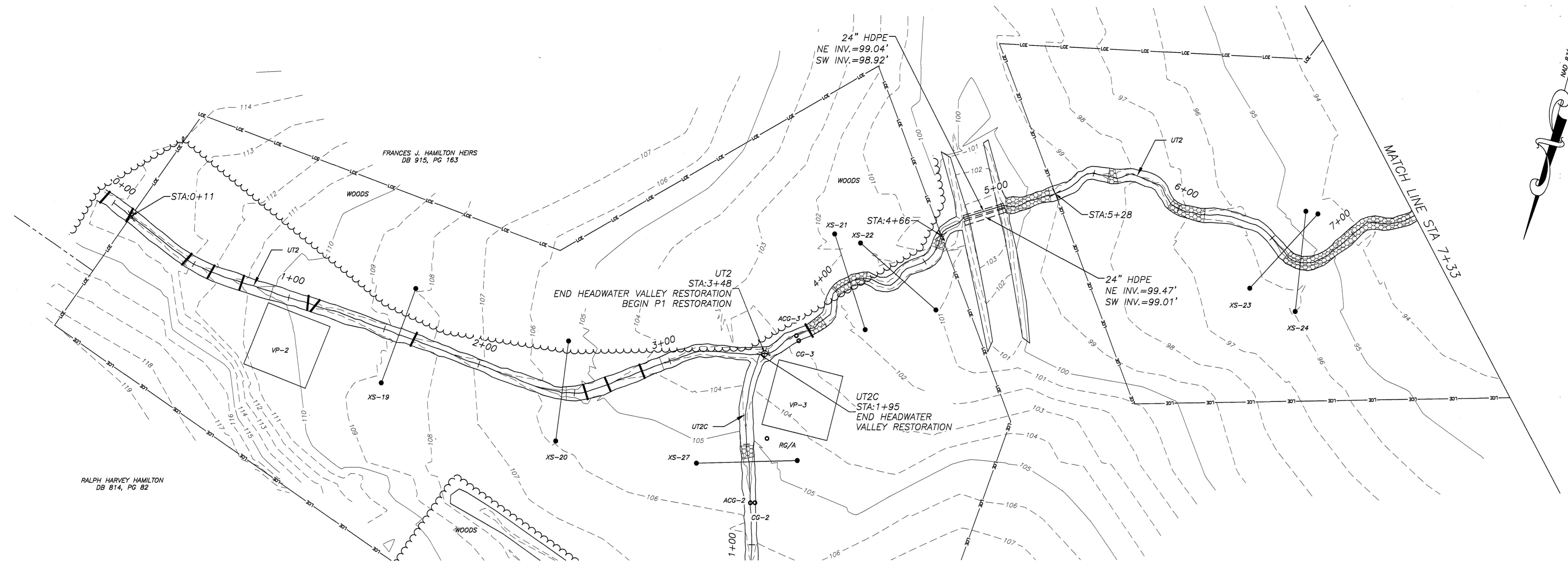
CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC



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FIRM LIC. # P-0221
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**RESOURCE
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SOLUTIONS, LLC**
302 JEFFERSON ST., SUITE 110
RALEIGH, N.C. 27605

SCALE	1" = 150'	DEPARTMENT	
DRAWN BY	JRW	DATE STARTED	9-30-15
APPROVED	JRW	SHEET No.	4 OF 12
DRAWING NAME	20130080 ASB	PROJECT NO.	2013080
			S4



SEAL 12/1/15
 NORTH CAROLINA
 PROFESSIONAL
 SEAL L-4712
 LAND SURVEYOR
 JAMES R. WATSON
 James R. Watson

**STREAM BASELINE AS-BUILT
 UT2 PLAN & PROFILE (0+00 - 7+33)**

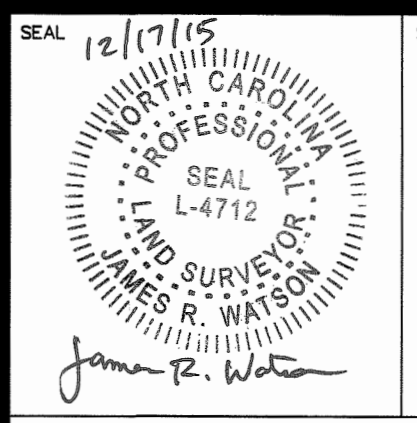
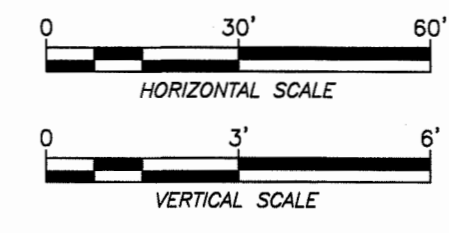
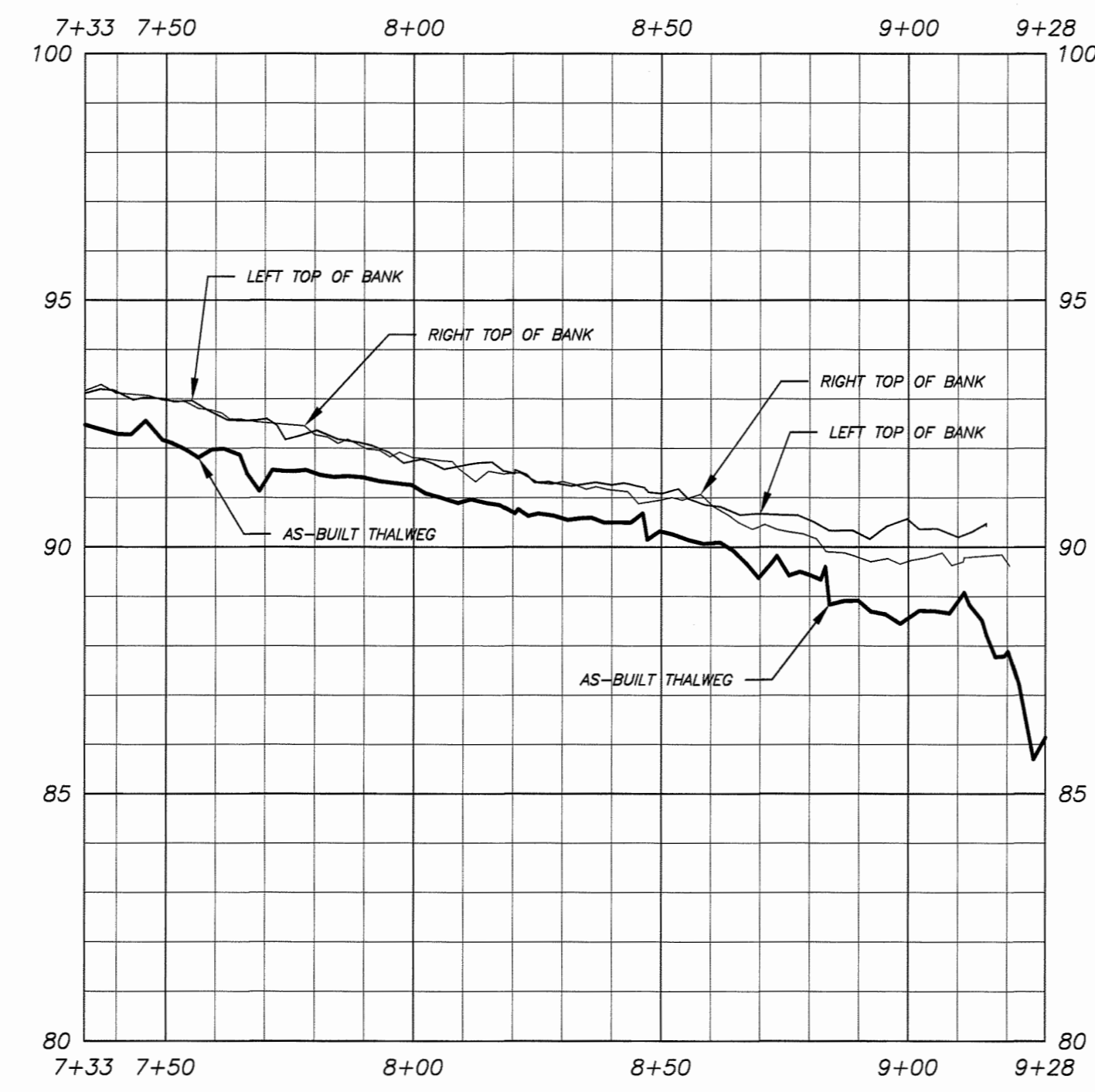
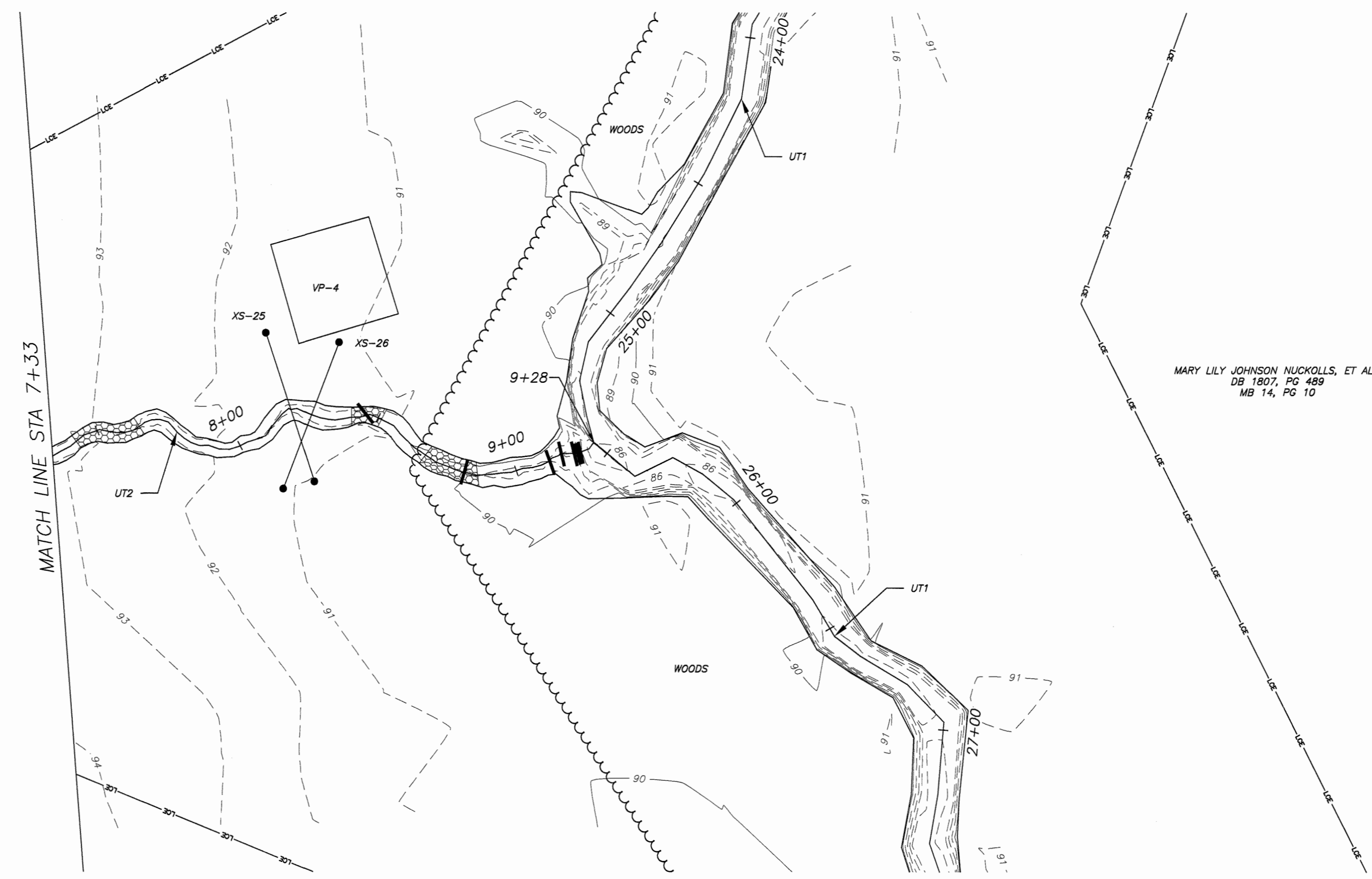
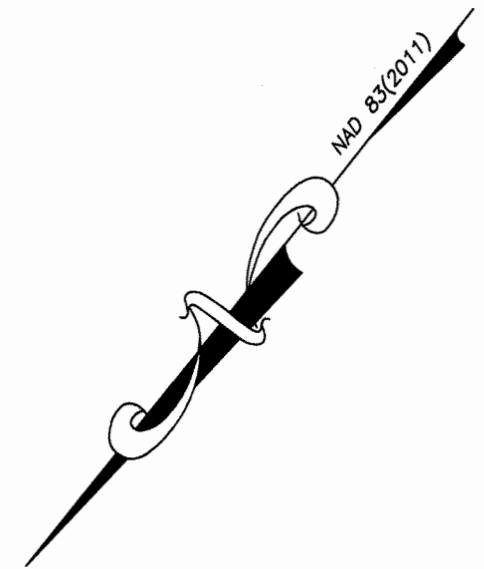
CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC



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 KINSTON, NC 28501
 TEL: 252-522-2500 FAX: 252-522-4747
 FIRM LIC. # P-0221
 EMAIL: surveyor@matrixeast.net

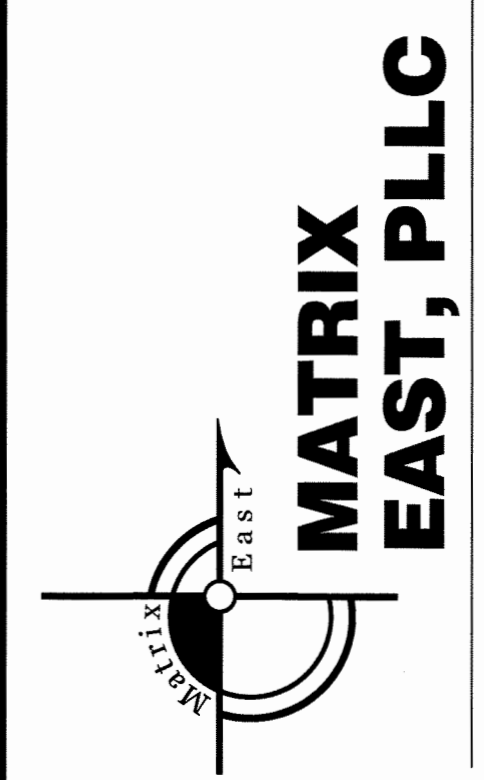
**RESOURCE
 ENVIRONMENTAL
 SOLUTIONS, LLC**
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 5 OF 12
APPROVED JRW		DRAWING NO.
DRAWING NAME 20130080 ASB		S5
PROJECT NO. 2013080		



**STREAM BASELINE AS-BUILT
UT2 PLAN & PROFILE (7+33 - 9+28)**

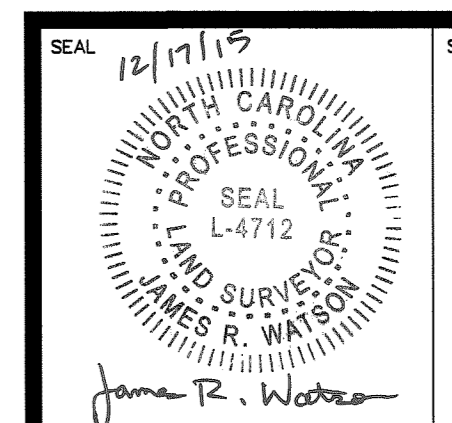
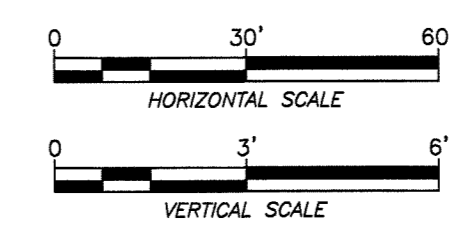
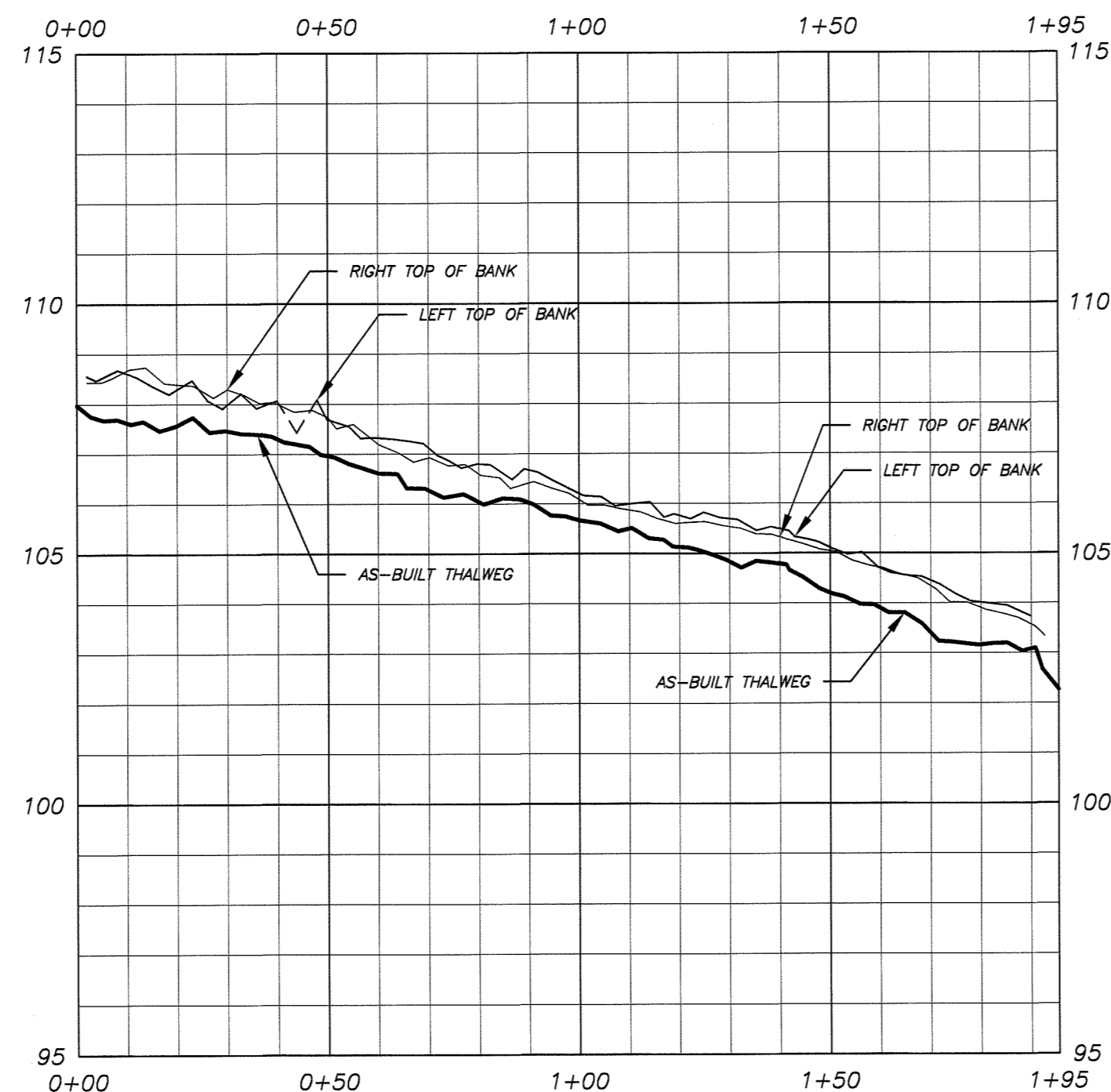
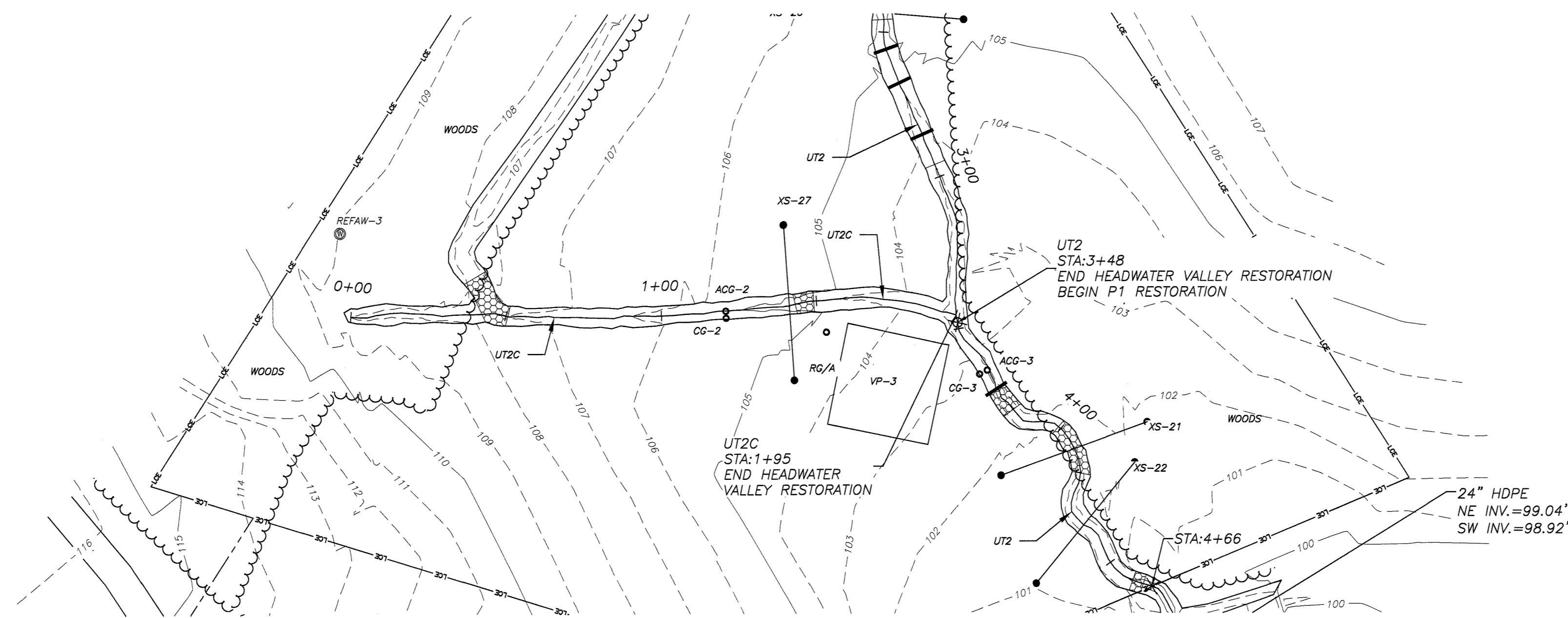
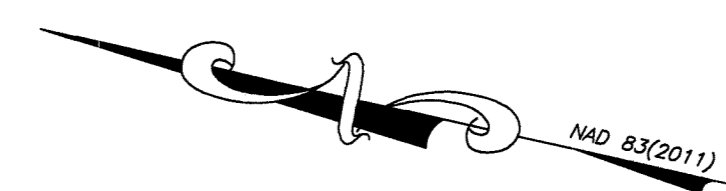
CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC



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 TEL: 252-522-2500 FAX: 252-522-4747
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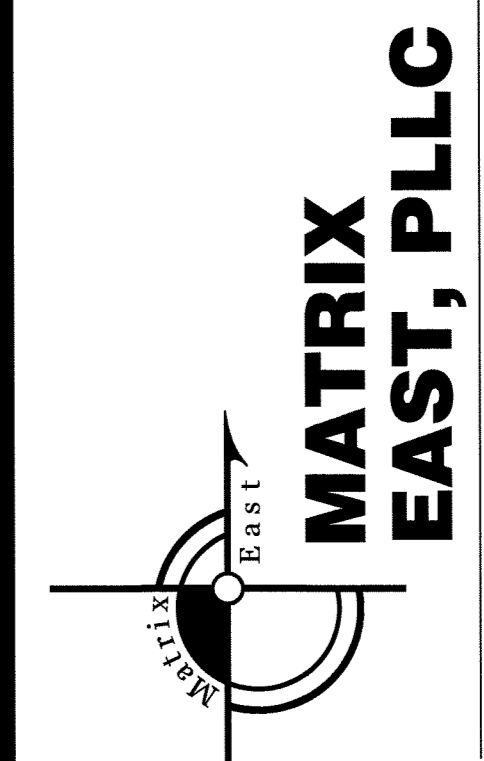
RESOURCE ENVIRONMENTAL SOLUTIONS, LLC
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 6 OF 12
APPROVED JRW		DRAWING No.
DRAWING NAME 20130080 ASB		S6
PROJECT NO. 2013080		



**STREAM BASELINE AS-BUILT
UT2C PLAN & PROFILE (0+00 - 1+95)**

CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC

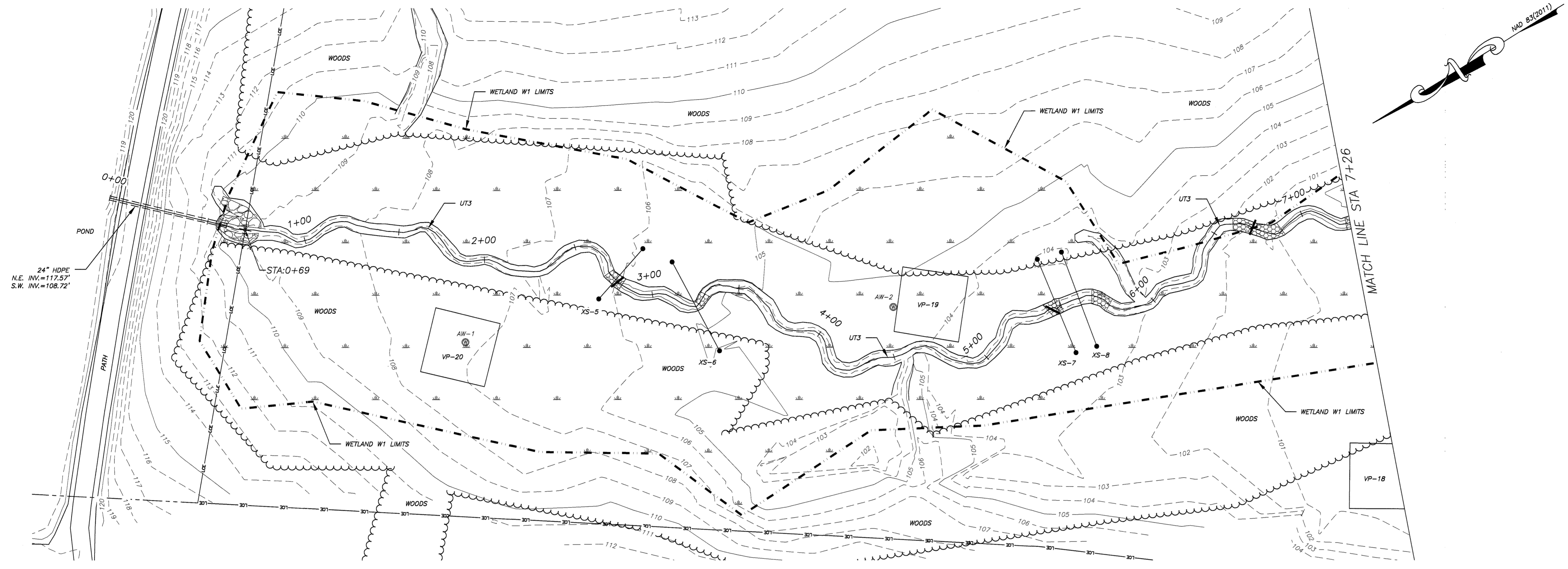


**MATRIX
EAST, PLLC**

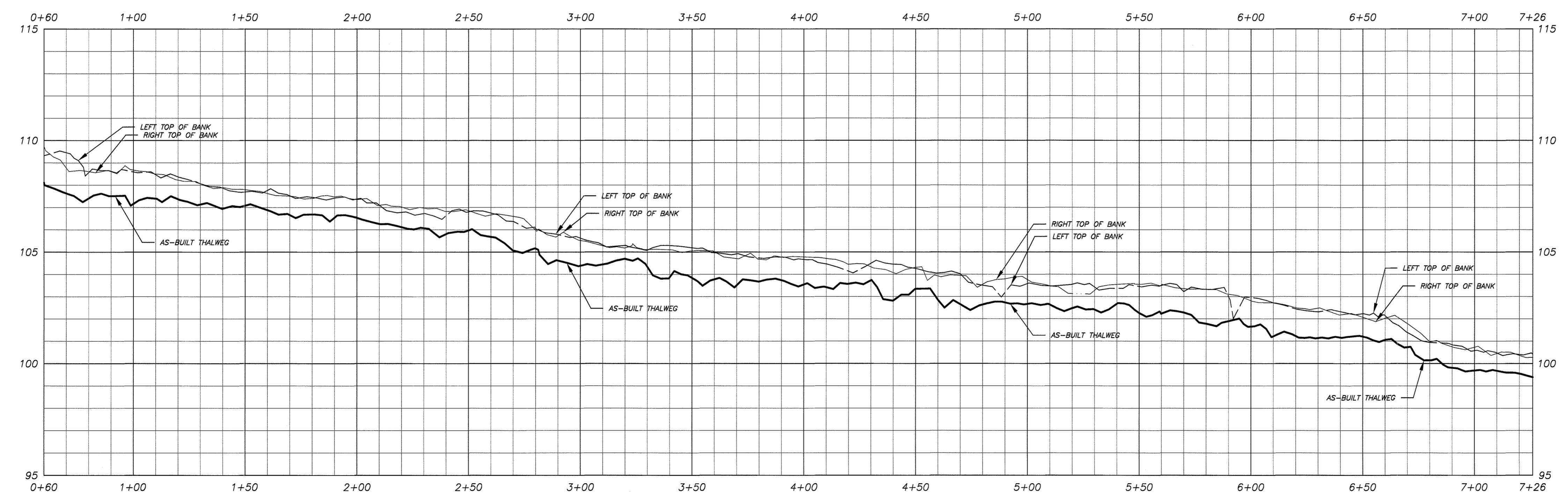
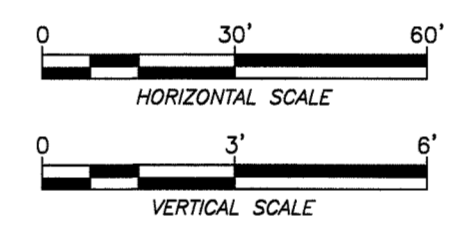
906 N. QUEEN ST., SUITE A
KINSTON, NC 28501
TEL: 252-522-2500 FAX: 252-522-4747
FIRM LIC. # P-0221
EMAIL: surveyor@matrixeast.net

**RESOURCE
ENVIRONMENTAL
SOLUTIONS, LLC**
302 JEFFERSON ST., SUITE 110
RALEIGH, N.C. 27605

SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 7 OF 12
APPROVED JRW	DRAWING NO.	
DRAWING NAME 20130080 ASB	S7	
PROJECT NO. 2013080		



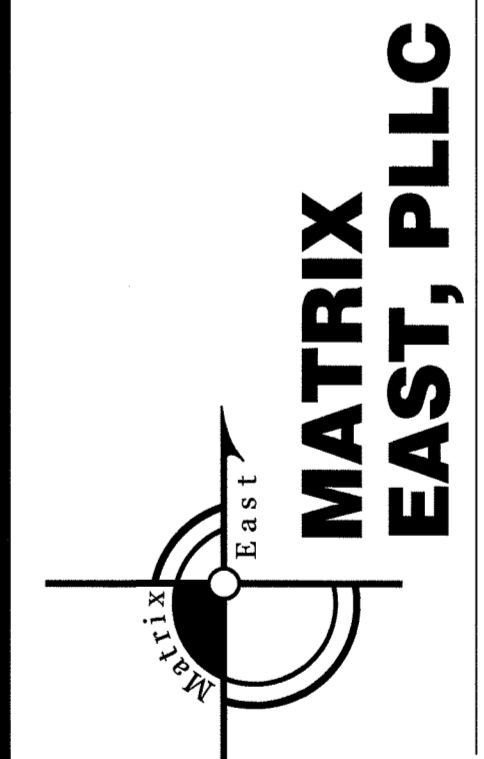
24" HDPE
N.E. INV.=117.57'
S.W. INV.=108.72'



SEAL 12/17/15
NORTH CAROLINA
PROFESSIONAL
SURVEYOR
L-4712
JAMES R. WATSON
James R. Watson

**STREAM BASELINE AS-BUILT
UT3 PLAN & PROFILE (0+60 - 7+26)**

**CEDAR CREEK
RESTORATION PROJECT
SAMPSON COUNTY, NC**

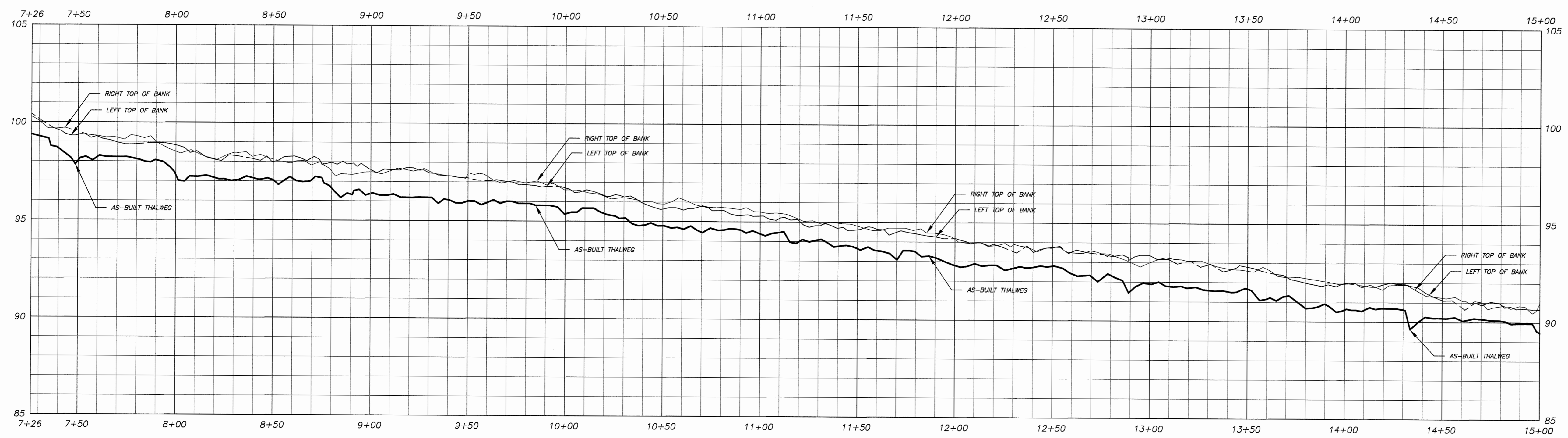
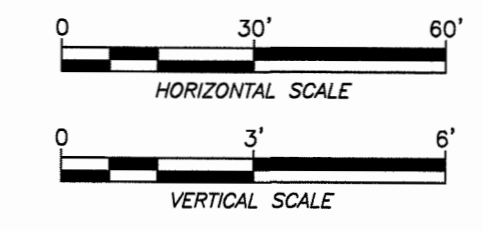


**MATRIX
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**RESOURCE
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SOLUTIONS, LLC**
302 JEFFERSON ST., SUITE 110
RALEIGH, N.C. 27605

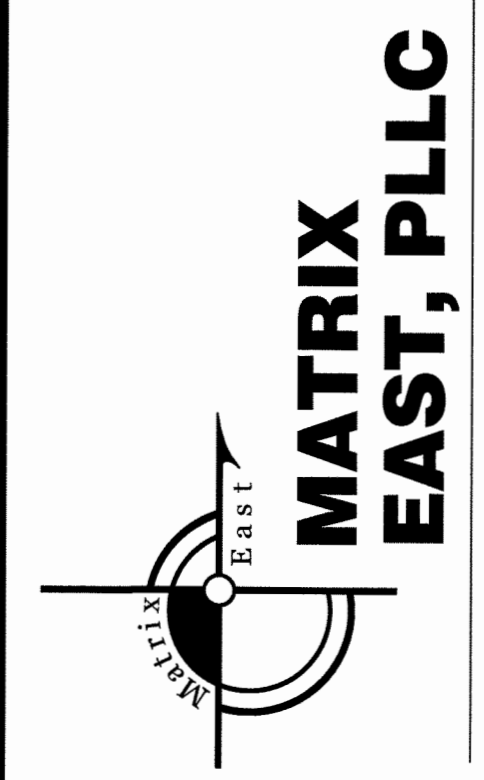
SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 8 OF 12
APPROVED JRW	DRAWING No.	
DRAWING NAME 20130080 ASB		S8
PROJECT No. 2013080		



SEAL 12/17/15
 NORTH CAROLINA
 PROFESSIONAL
 SURVEYOR
 SEAL
 L-4712
 JAMES R. WATSON
 James R. Watson

**STREAM BASELINE AS-BUILT
 UT3 PLAN & PROFILE (7+26 - 15+00)**

**CEDAR CREEK
 RESTORATION PROJECT
 SAMPSON COUNTY, NC**



**MATRIX
 EAST, PLLC**

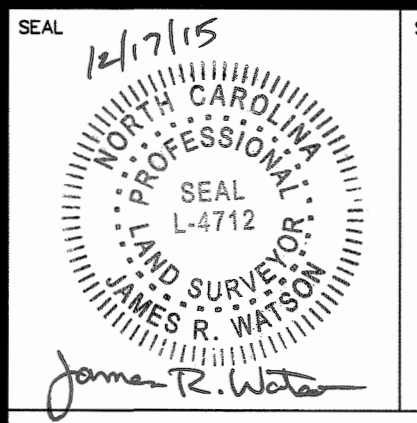
906 N. QUEEN ST., SUITE A
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 FIRM LIC. # P-0221
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**RESOURCE
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 SOLUTIONS, LLC**
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 9 OF 12
APPROVED JRW		DRAWING NO.
DRAWING NAME 20130080 ASB		S9
PROJECT NO. 2013080		

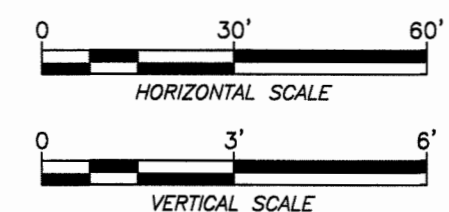
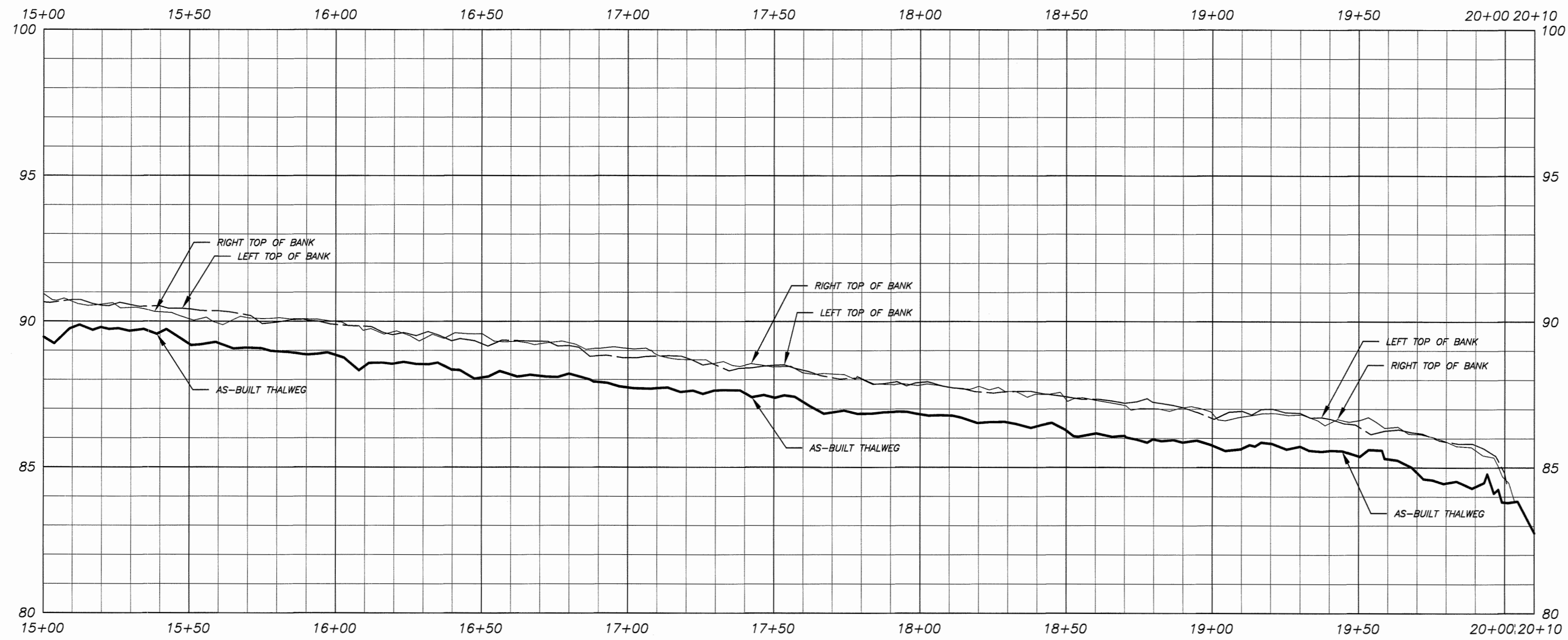
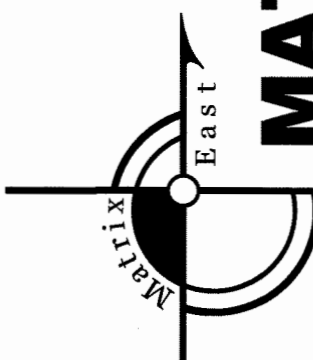


RALPH H. HAMILTON
DB 1148, PG 385
MG 1, PG 306



**STREAM BASELINE AS-BUILT
UT3 PLAN & PROFILE (15+00 - 20+10)**

CEDAR CREEK RESTORATION PROJECT SAMPSON COUNTY, NC

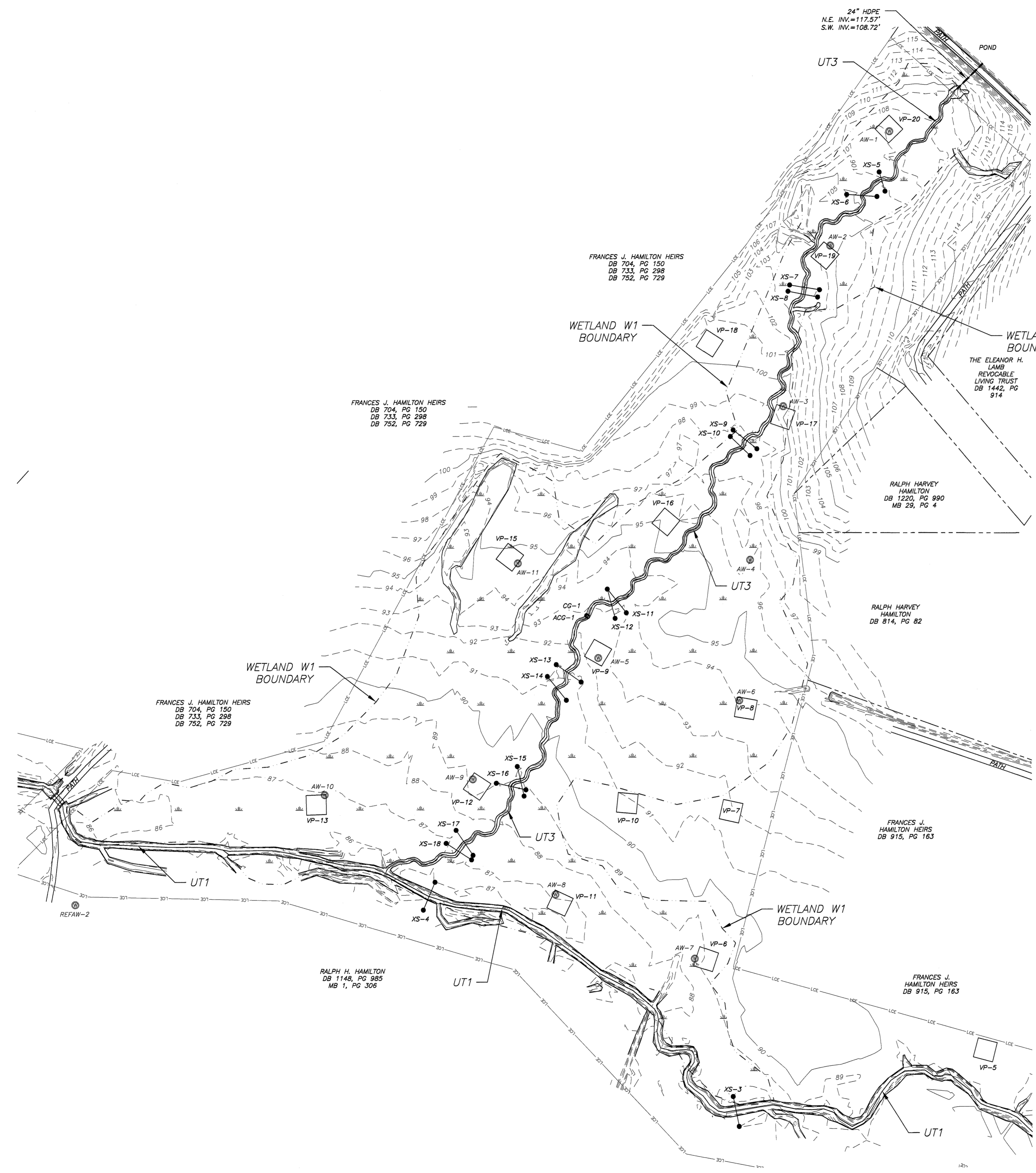



**MATRIX
EAST, PLLC**

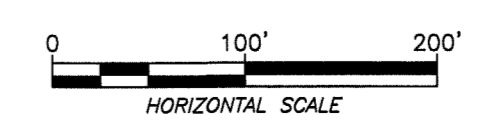
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SOLUTIONS, LLC**
302 JEFFERSON ST., SUITE 110
RALEIGH, N.C. 27605

SCALE 1" = 30'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 10 OF 12
APPROVED JRW	DRAWING NO.	
DRAWING NAME 20130080 ASB		S10
PROJECT NO. 2013080		

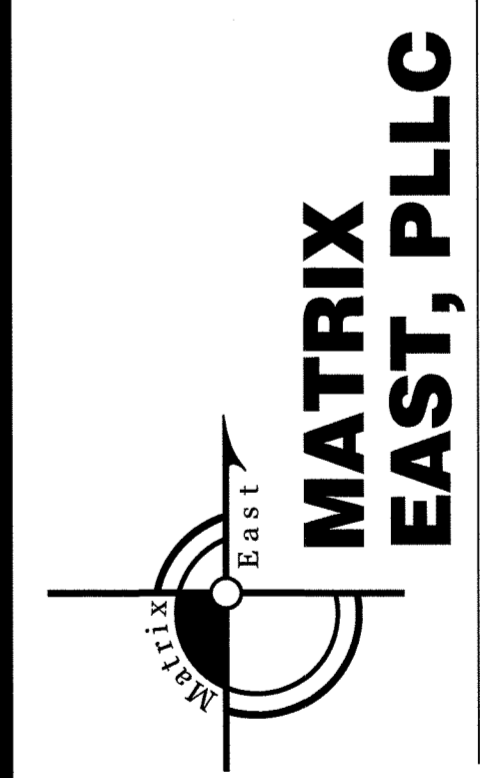


AREA IN WETLAND W1=13.72 AC.±



SEAL
 12/17/15
 NORTH CAROLINA
 PROFESSIONAL
 LAND SURVEYOR
 SEAL
 L-4712
 JAMES R. WATSON
 James R. Watson

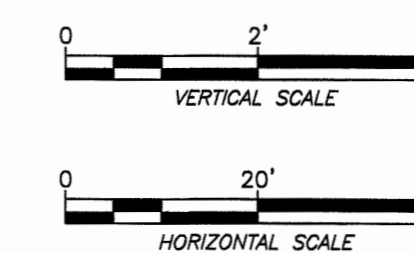
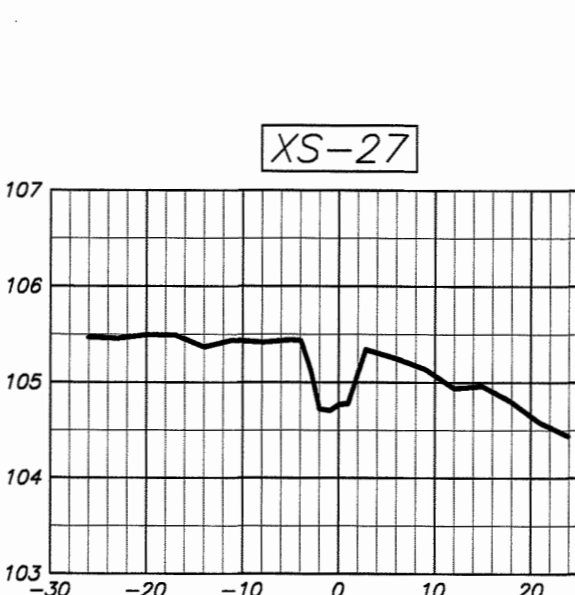
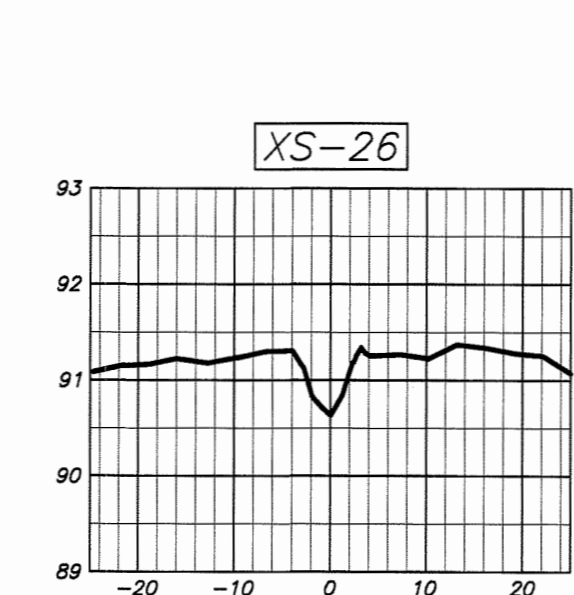
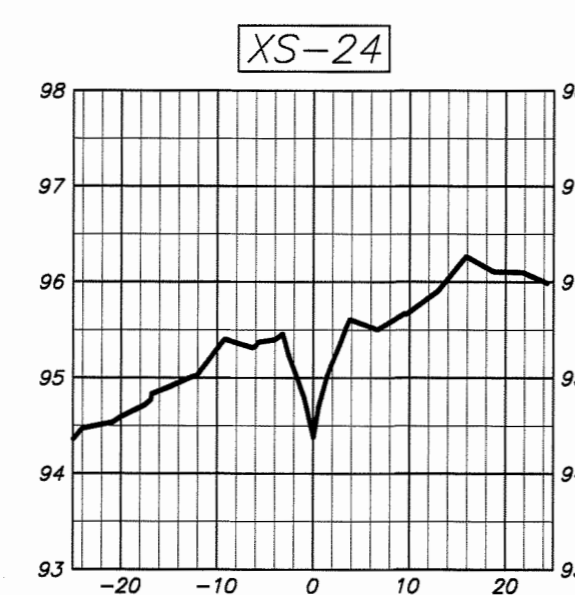
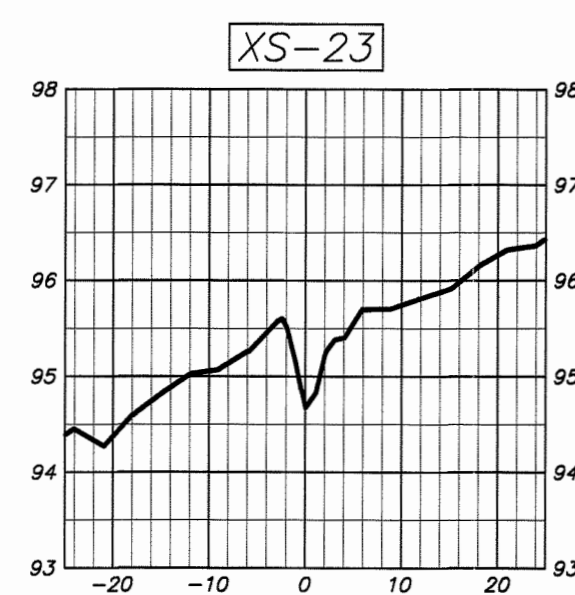
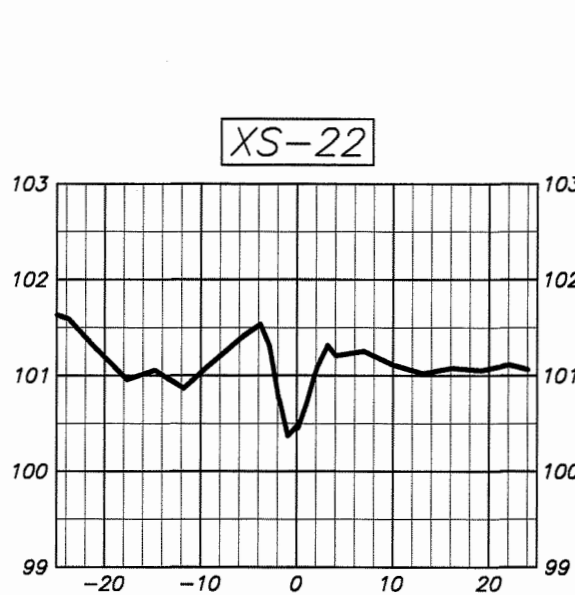
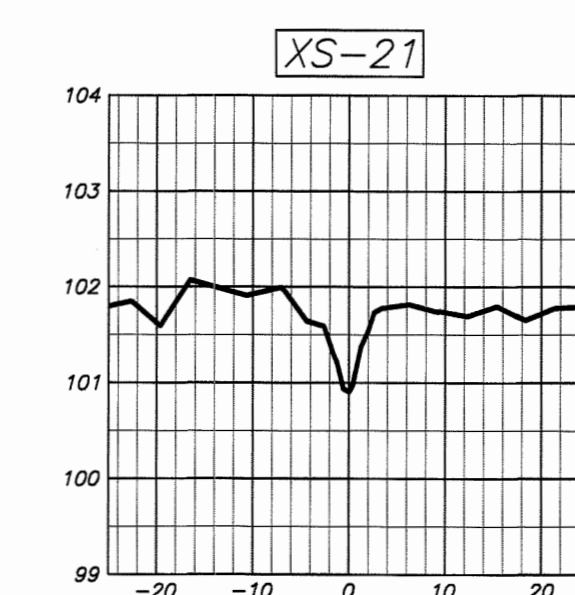
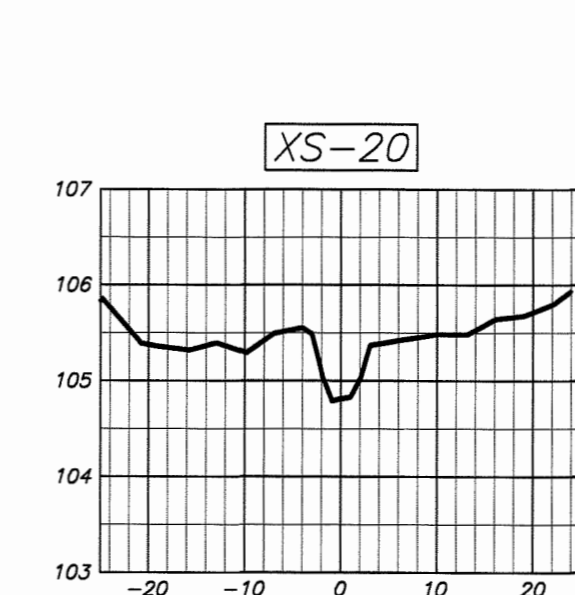
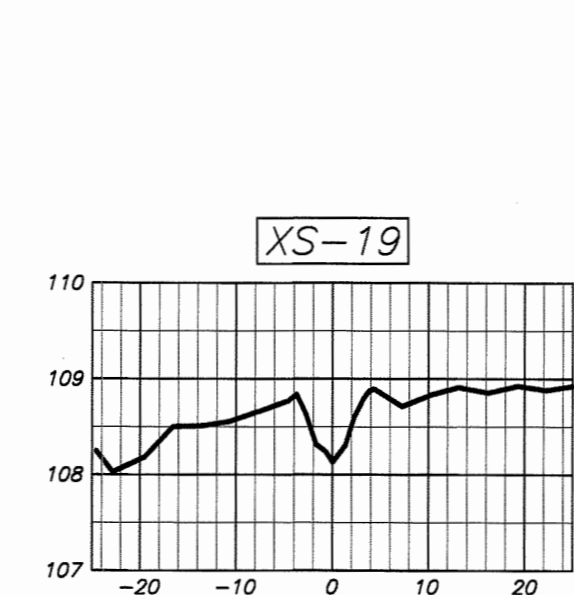
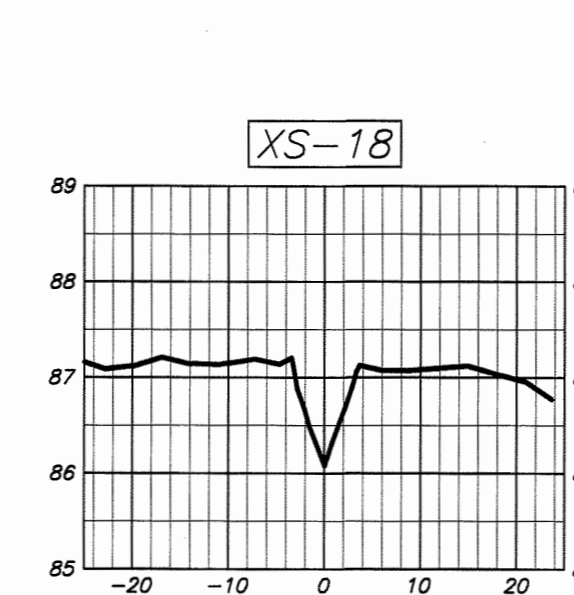
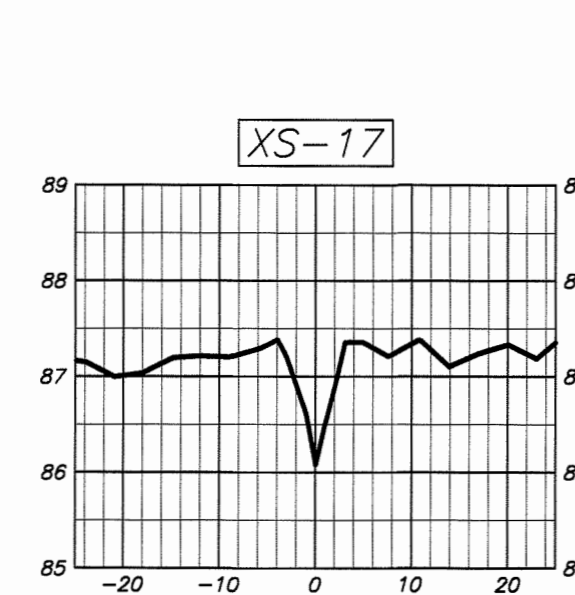
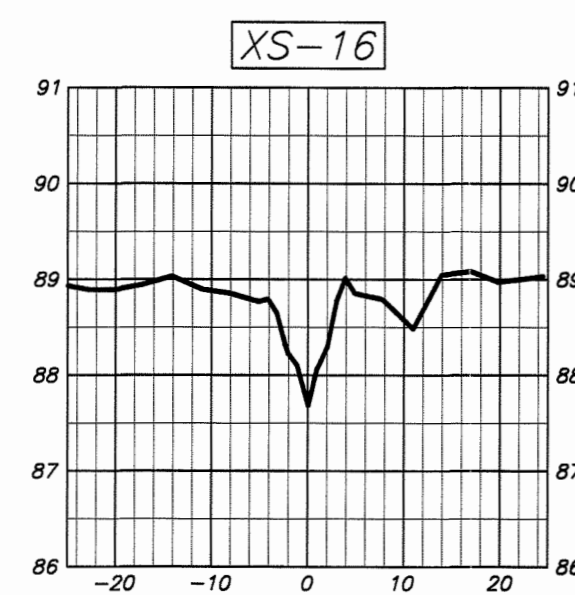
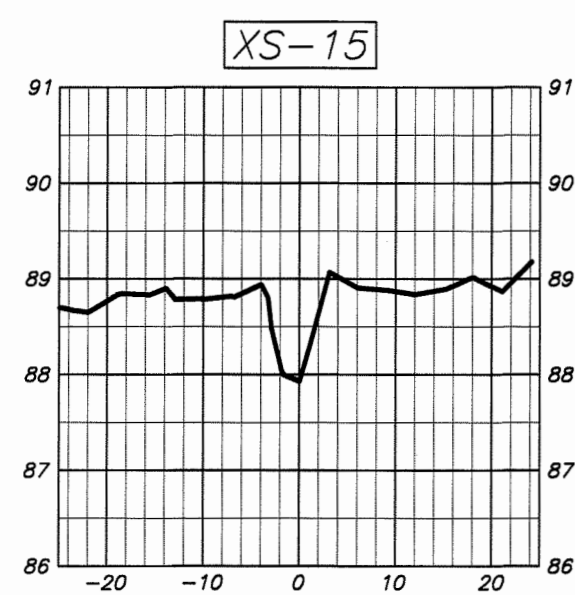
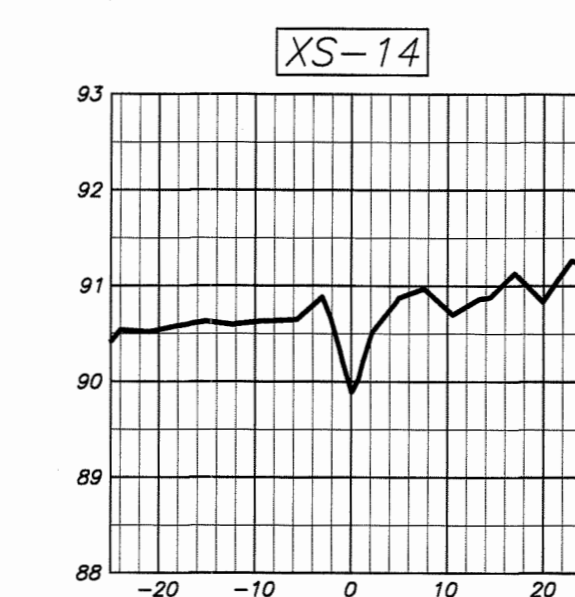
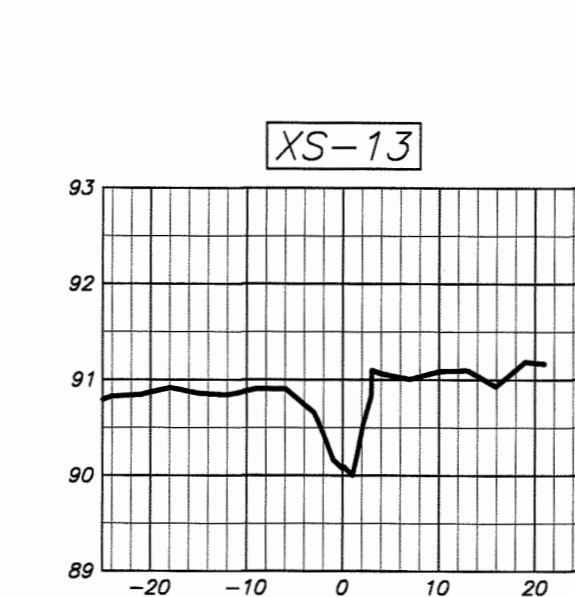
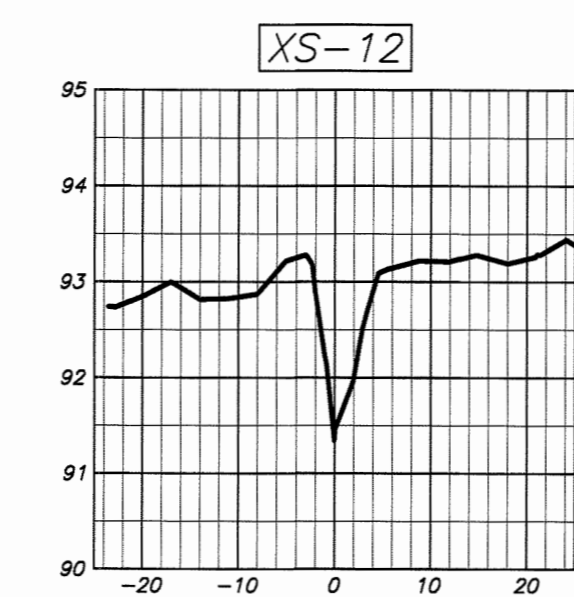
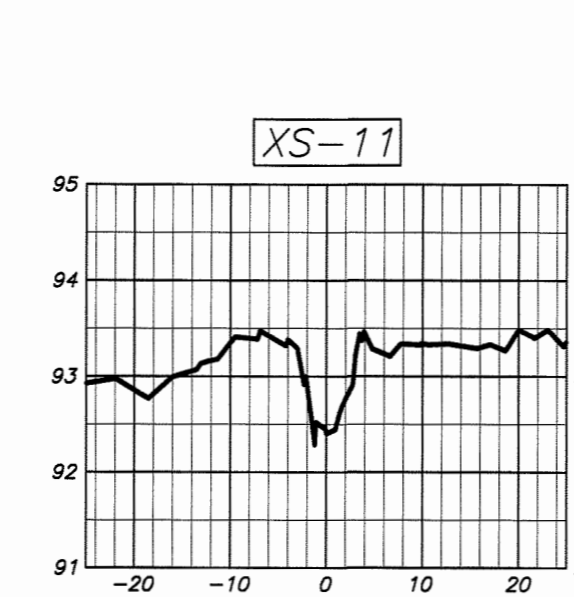
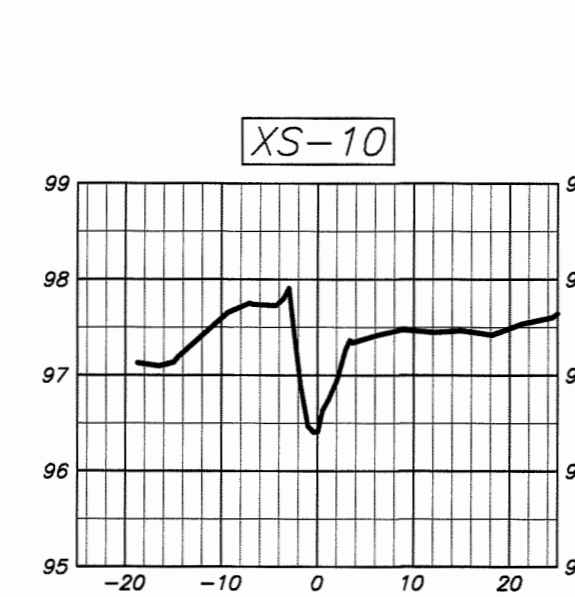
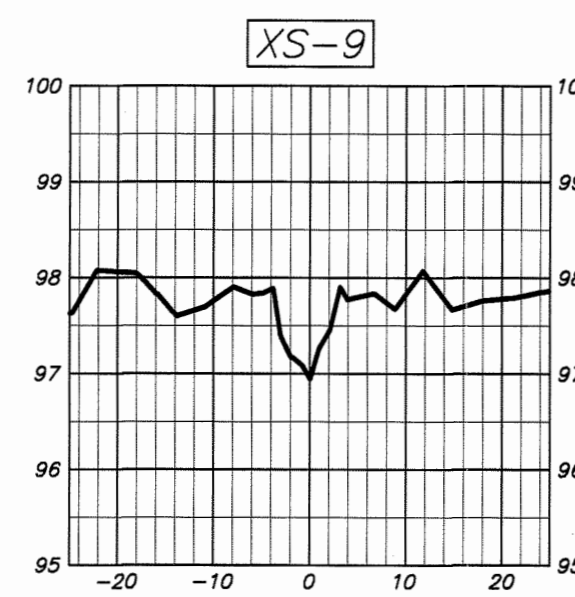
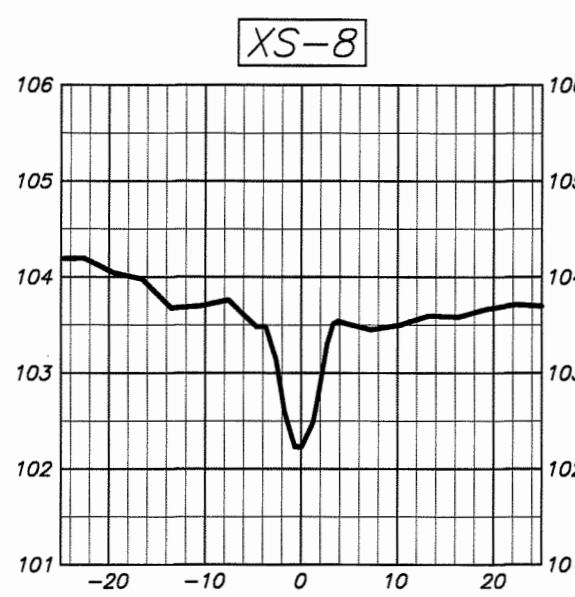
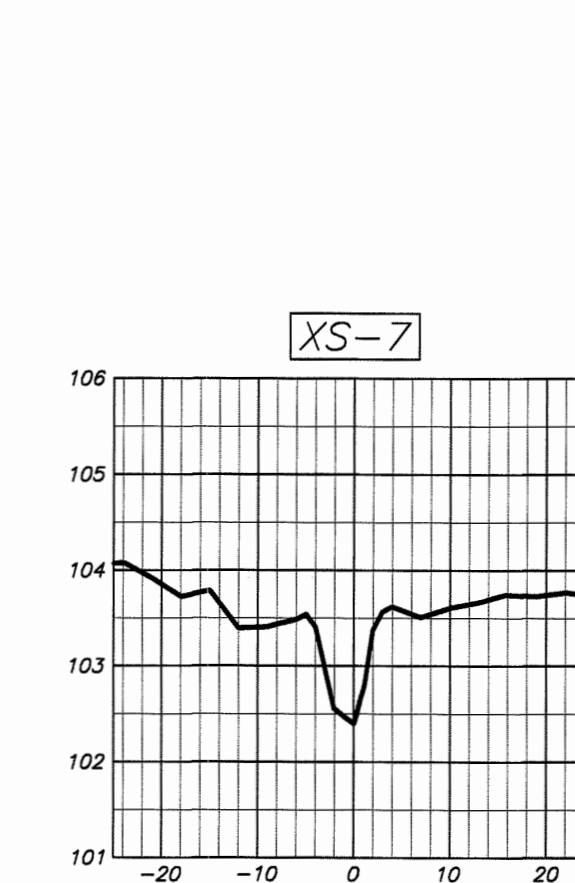
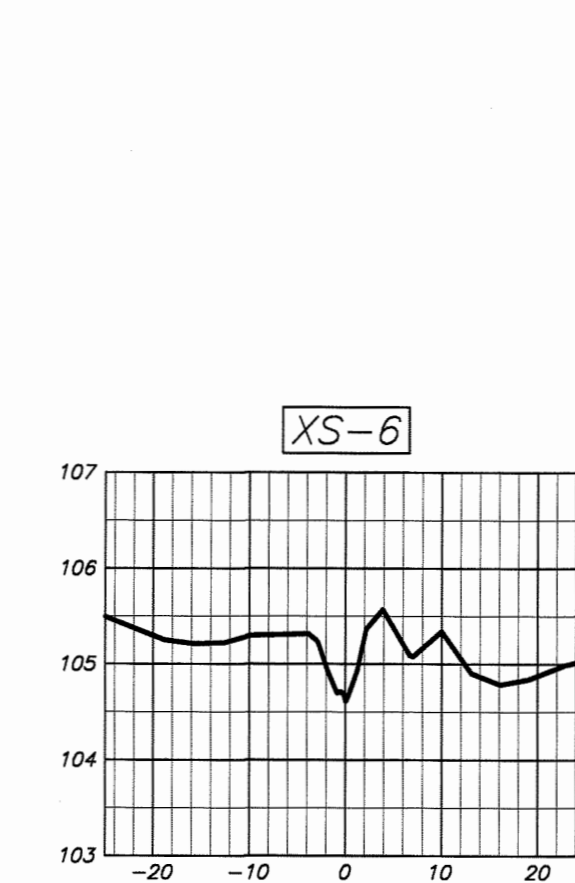
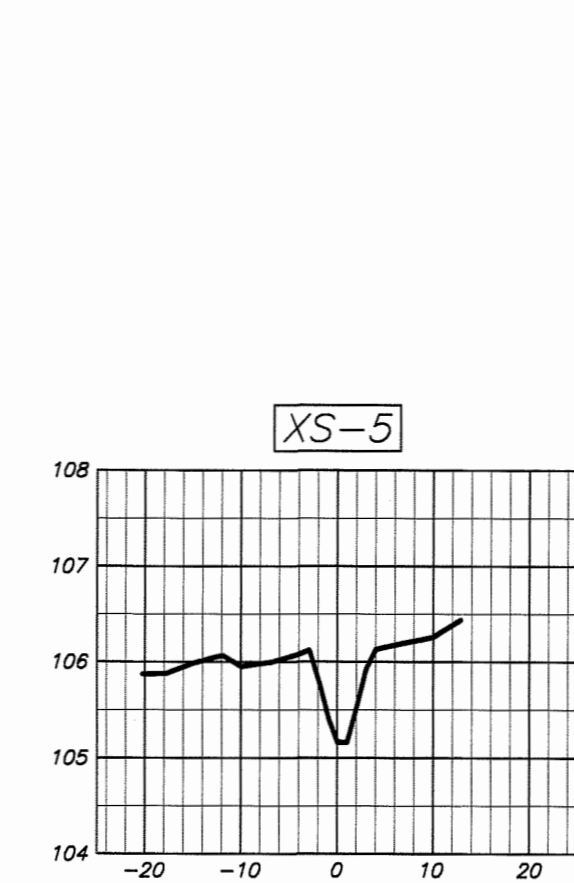
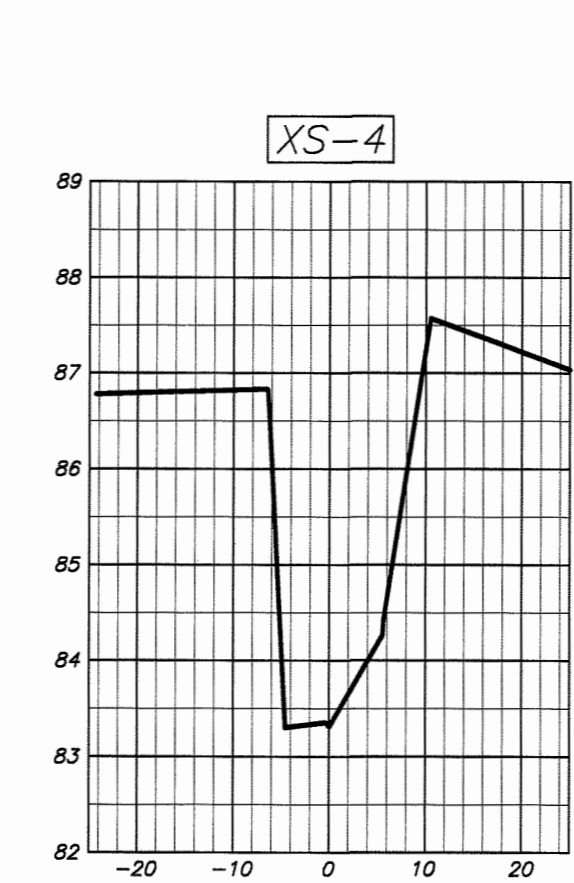
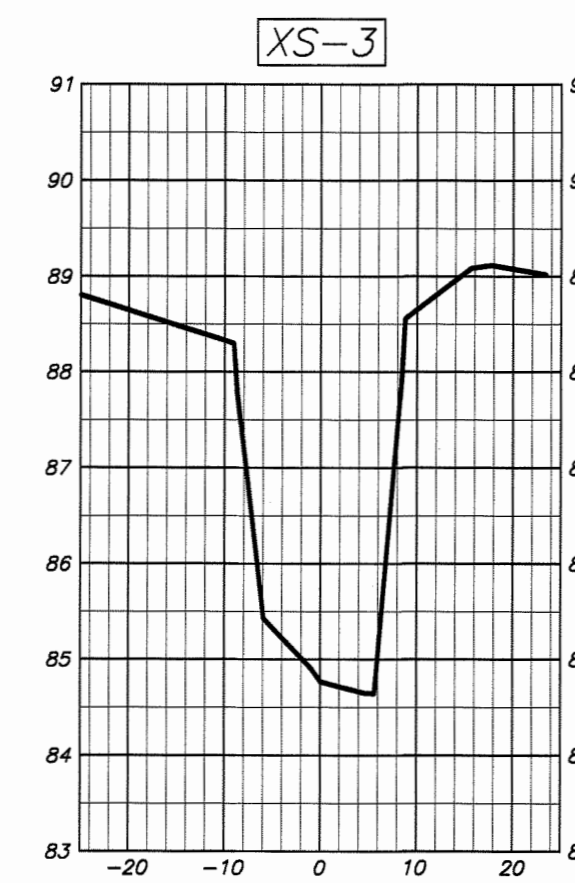
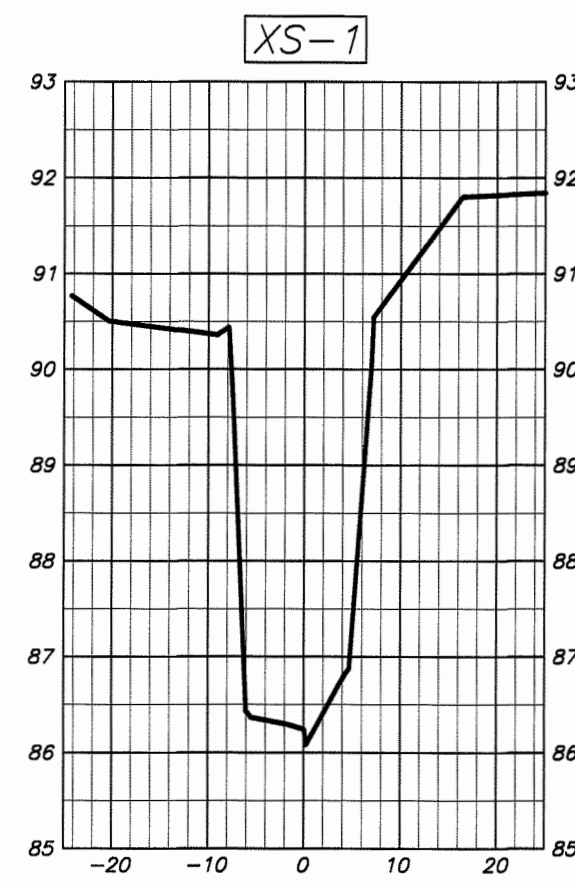
WETLAND W1 DETAIL
CEDAR CREEK
RESTORATION PROJECT
SAMPSON COUNTY, NC



MATRIX EAST, PLLC
 906 N. QUEEN ST., SUITE A
 KINSTON, NC 28501
 TEL: 252-522-2500 FAX: 252-522-4747
 FIRM LIC. # P-0221
 EMAIL: surveyor@matrixeast.net

RESOURCE ENVIRONMENTAL SOLUTIONS, LLC
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE 1" = 100'		DEPARTMENT
DRAWN BY JRW	DATE STARTED 9-30-15	SHEET No. 11 OF 12
APPROVED JRW		DRAWING NO.
DRAWING NAME 20130080 ASB		S11
PROJECT NO. 2013080		



SEAL 12/17/15
 NORTH CAROLINA
 PROFESSIONAL
 LAND SURVEYOR
 L-4712
 JAMES R. WATSON
 James R. Watson

STREAM CROSS-SECTIONS (XS-1 THROUGH XS-27)
**CEDAR CREEK
 RESTORATION PROJECT
 SAMPSON COUNTY, NC**



**MATRIX
 EAST, PLLC**
 906 N. QUEEN ST., SUITE A
 KINSTON, NC 28501
 TEL: 252-522-2500 FAX: 252-522-4747
 FIRM LIC. # P-0221
 EMAIL: surveyor@matrixeast.net

**RESOURCE
 ENVIRONMENTAL
 SOLUTIONS, LLC**
 302 JEFFERSON ST., SUITE 110
 RALEIGH, N.C. 27605

SCALE	1" = 20'	DEPARTMENT	
DRAWN BY	DATE STARTED	SHEET No.	
JRW	9-30-15	12 OF 12	
APPROVED		DRAWING NO.	
JRW			
DRAWING NAME			
20130080 ASB			
PROJECT NO.			
2013080			

S12