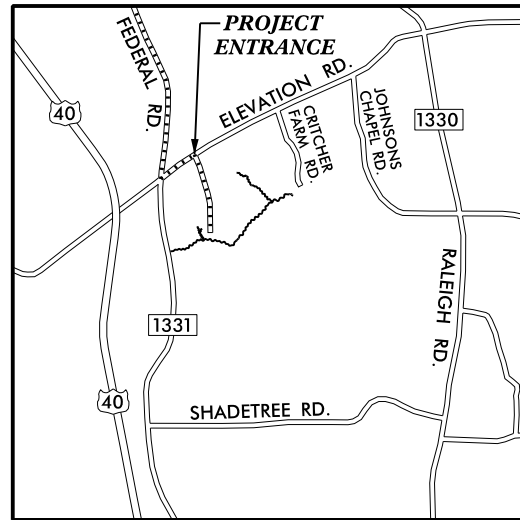


KCI JOB# : 161600959

NCDEQ DIVISION OF MITIGATION SERVICES

STATE	DMS PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
N.C.	97085	1	8



VICINITY MAP
NOT TO SCALE

STONY FORK STREAM RESTORATION SITE

JOHNSTON COUNTY, NORTH CAROLINA

INDEX OF SHEETS

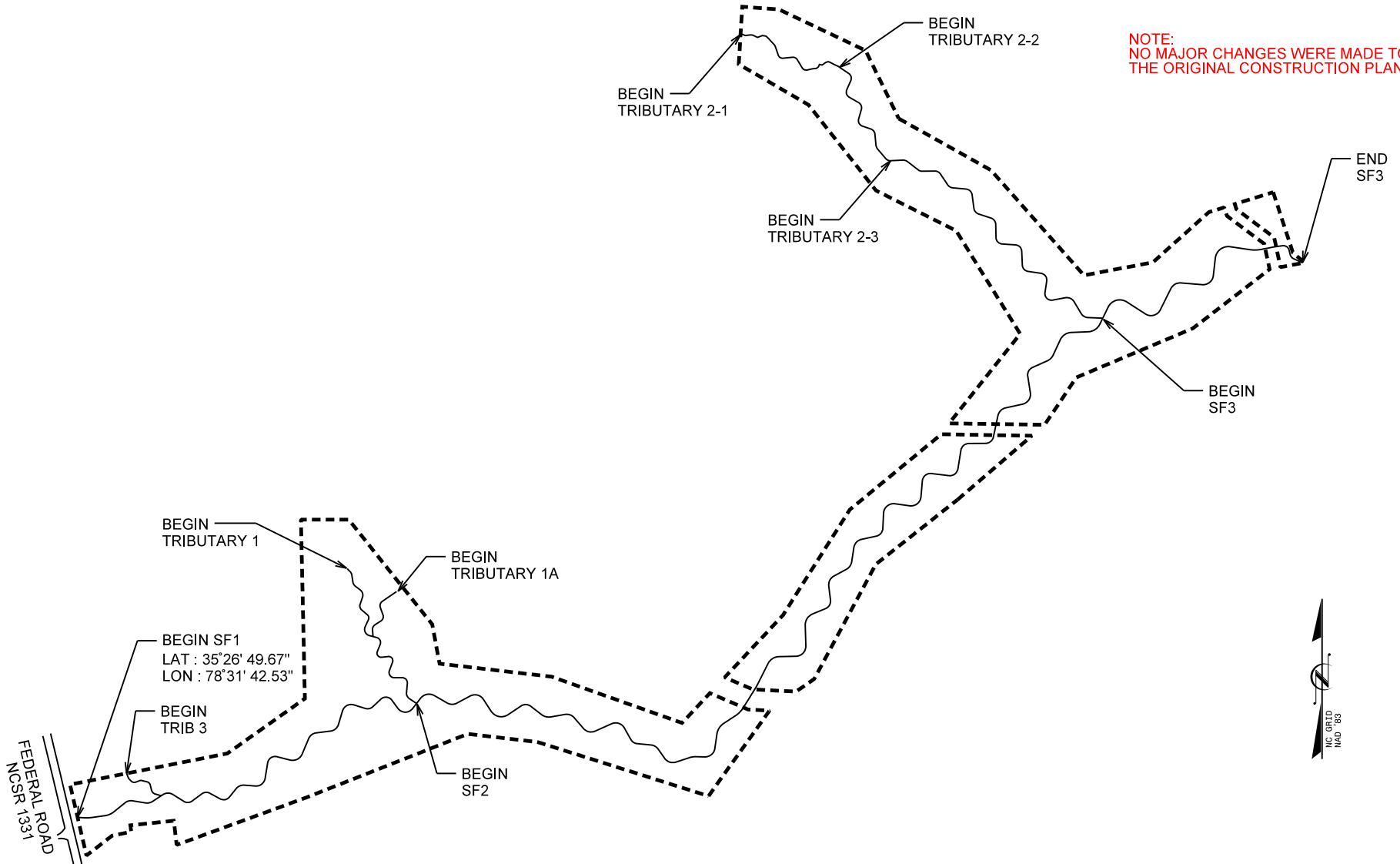
- 1 TITLE SHEET
- 2 GENERAL NOTES & PROJECT LEGEND
- 3-7 SITE PLAN
- 8 PLANTING PLAN

AS-BUILT PLANS

NOTE:
NO MAJOR CHANGES WERE MADE TO
THE ORIGINAL CONSTRUCTION PLANS.

PROJECT COMPONENTS – 6,588 STREAM CREDITS AND 480,338 BUFFER CREDITS						
Reach ID	Proposed Stationing	Existing Footage or Square Feet	Approach	Mitigation Ratio	Restoration Footage or Area	Mitigation Credits
SF1	10+00 to 21+55	1,235	Restoration	1 to 1	1,155	1,155
	21+55 to 32+62	1,143			1,105	1,105
SF2*	33+19 to 44+53	1,027	Restoration	1 to 1	1,134	1,134
	44+84 to 49+54	283			470	470
SF3*	49+54 to 55+52	592	Restoration	1 to 1	598	598
	55+82 to 56+08	26			26	26
Tributary 1	100+00 to 105+10	365	Restoration	1 to 1	510	510
Tributary 1A	150+00 to 151+59	47	Restoration	1 to 1	159	159
Tributary 2-1	200+00 to 203+34	326	Enhancement II	2.5 to 1	334	134
Tributary 2-2	203+34 to 206+71	318	Restoration	1 to 1	337	337
Tributary 2-3	206+71 to 215+26	820	Restoration	1 to 1	855	855
Tributary 3	300+00 to 300+71	72	Enhancement I	1.5 to 1	71	47
Tributary 3	300+71 to 301+29	82	Restoration	1 to 1	58	58
					TOTAL STREAM CREDITS	6,586
Buffer Restoration TOB to 100'	N/A	413,194	Buffer Restoration TOB to 100'	1.00	413,194	413,194
Buffer Restoration 101-200'	N/A	37,091	Buffer Restoration 101-200'	0.33	37,091	12,240
Buffer Enhancement TOB to 100'	N/A	74,802	Buffer Enhancement TOB to 100'	0.50	74,802	37,401
Buffer Preservation TOB to 100'	N/A	175,029	Buffer Preservation TOB to 100'	0.10	175,029	17,503
					TOTAL BUFFER CREDITS	480,338

* Crossings have been removed from creditable linear footage for all project streams.



DIRECTIONS TO SITE

From Raleigh, follow I-40 East. Take exit 319 and turn left onto US-210 E. After a mile, take a right onto Raleigh Road and follow for 2.2 miles. Take a right onto Federal Road and follow for 2.3 miles. Sharp left onto Elevation Road and follow for about 0.2 mile. Take a right into the driveway for 4045 Elevation Road and follow down to the project stream.

Prepared in the Office of:

KCI
ASSOCIATES OF NC
ENGINEERS • PLANNERS • SCIENTISTS
4505 FALLS OF NEUSE ROAD, SUITE 400
RALEIGH, NORTH CAROLINA 27609

GARY M. MRYNCZA, PE
PROJECT ENGINEER

ALEX FRENCH
PROJECT DESIGNER

Prepared For:

NC
NCDEQ - DIVISION OF
MITIGATION SERVICES

LINDSAY CROCKER
DMS PROJECT MANAGER

LIN XU
DMS REVIEW COORDINATOR

PROJECT SURVEYOR

SIGNATURE:

P.E.

PROJECT ENGINEER



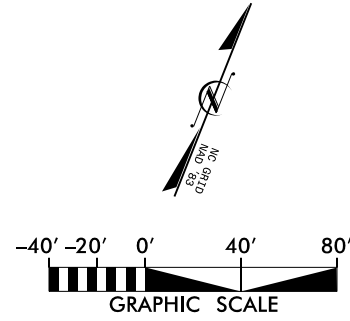
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P.E.

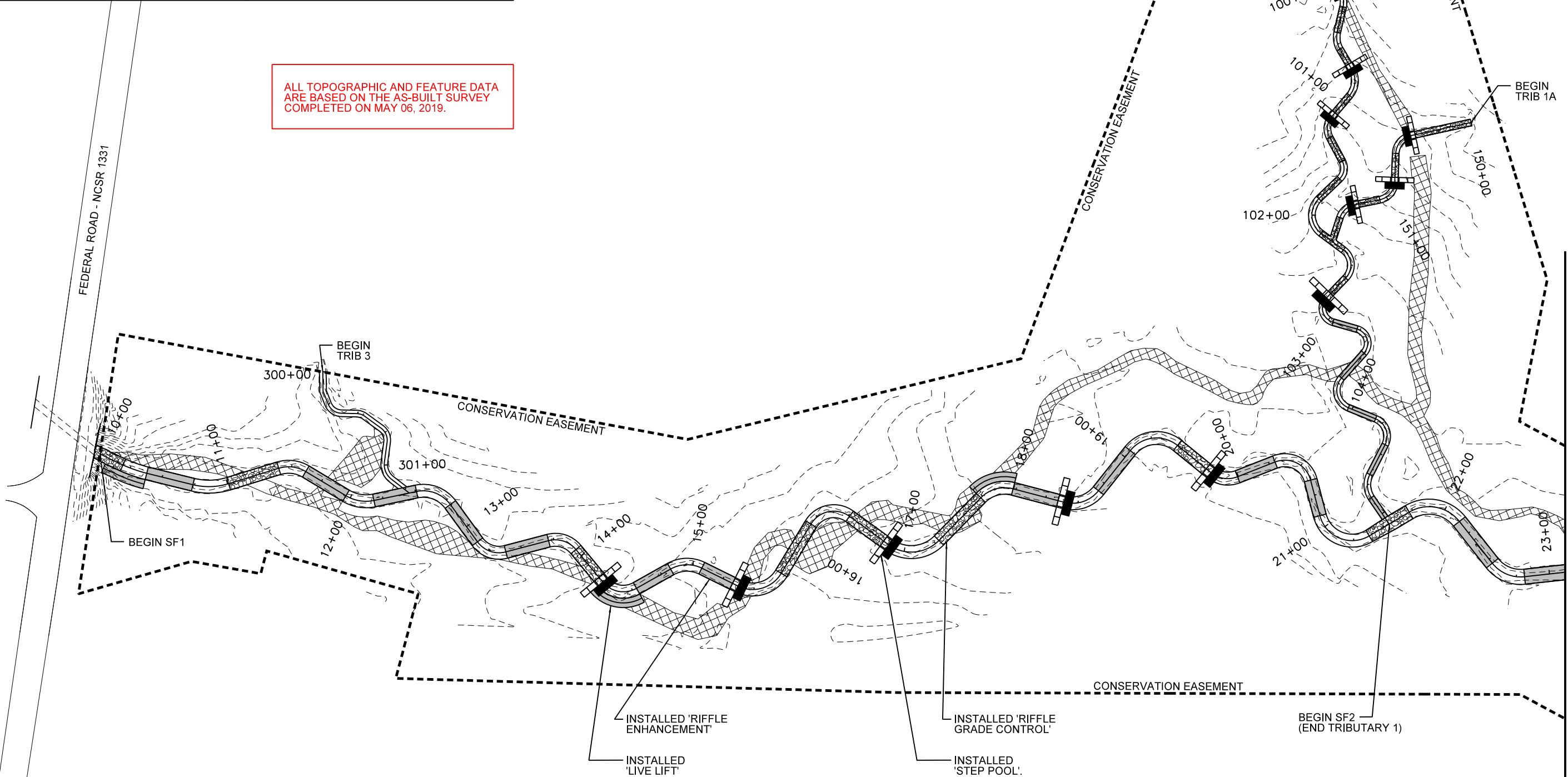


PROJECT ENGINEER

PROJECT SURVEYOR



ALL TOPOGRAPHIC AND FEATURE DATA ARE BASED ON THE AS-BUILT SURVEY COMPLETED ON MAY 06, 2019.



MATCHLINE - SEE SHEET 4

NO.	DATE	REVISIONS



STONY FORK
STREAM RESTORATION SITE
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA

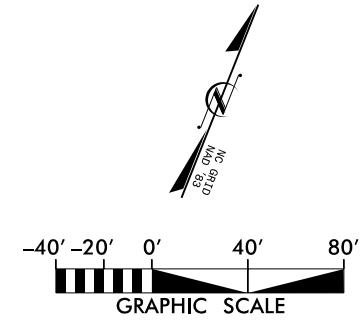
DATE: MAY 2019
SCALE: GRAPHIC
SITE PLAN
REACH: SF1, SF2 & T1, T1A, T3
SHEET 3 OF 8

ALL TOPOGRAPHIC AND FEATURE DATA
ARE BASED ON THE AS-BUILT SURVEY
COMPLETED ON MAY 06, 2019.



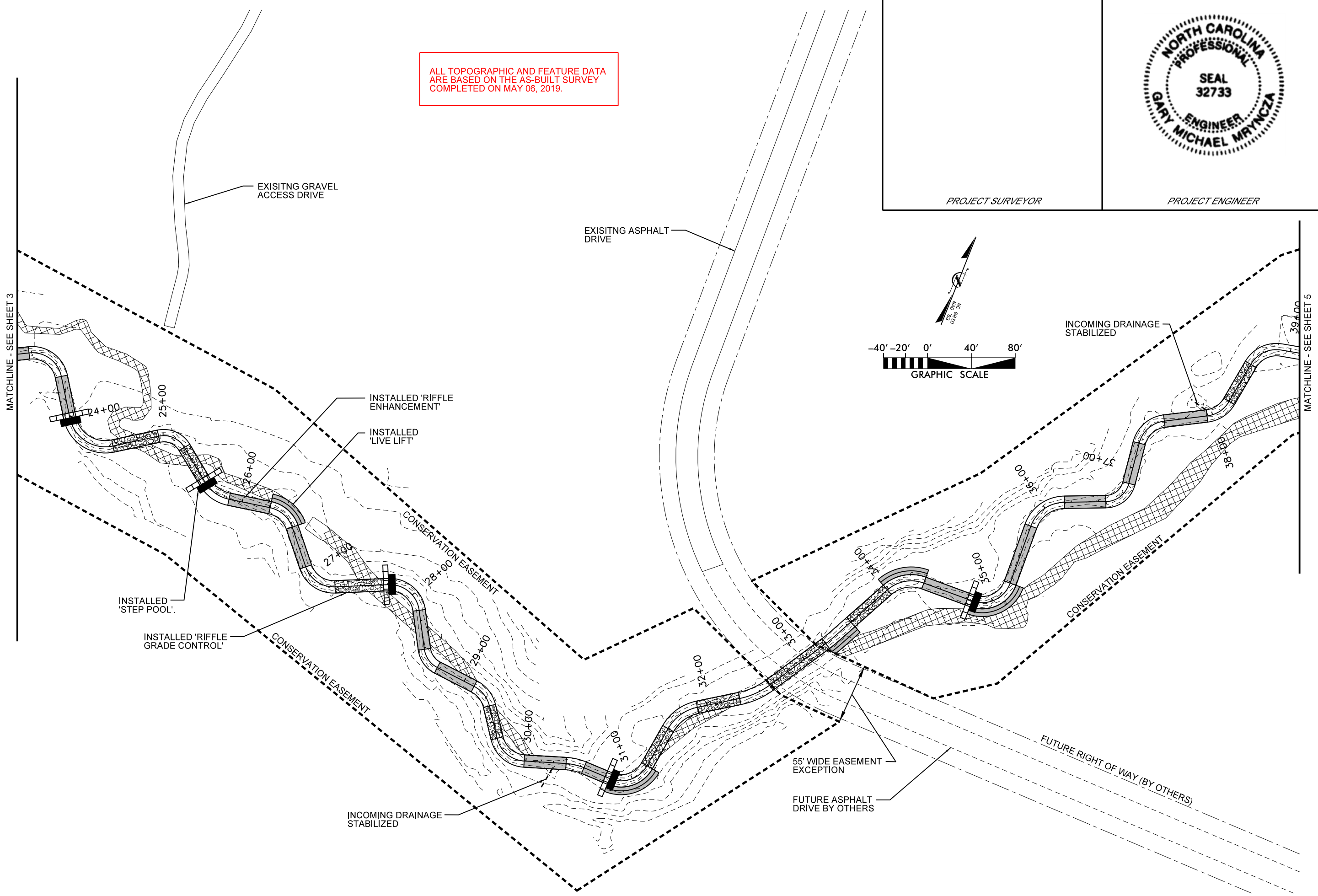
PROJECT SURVEYOR

PROJECT ENGINEER



MATCHLINE - SEE SHEET 3

MATCHLINE - SEE SHEET 5



NO.	DATE	REVISIONS



STONY FORK
STREAM RESTORATION SITE
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA

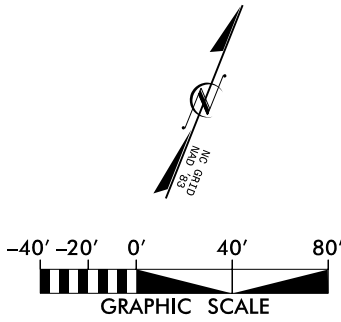
DATE: MAY 2019
SCALE: GRAPHIC
SITE PLAN
REACH:
SF2
SHEET 4 OF 8



PROJECT ENGINEER

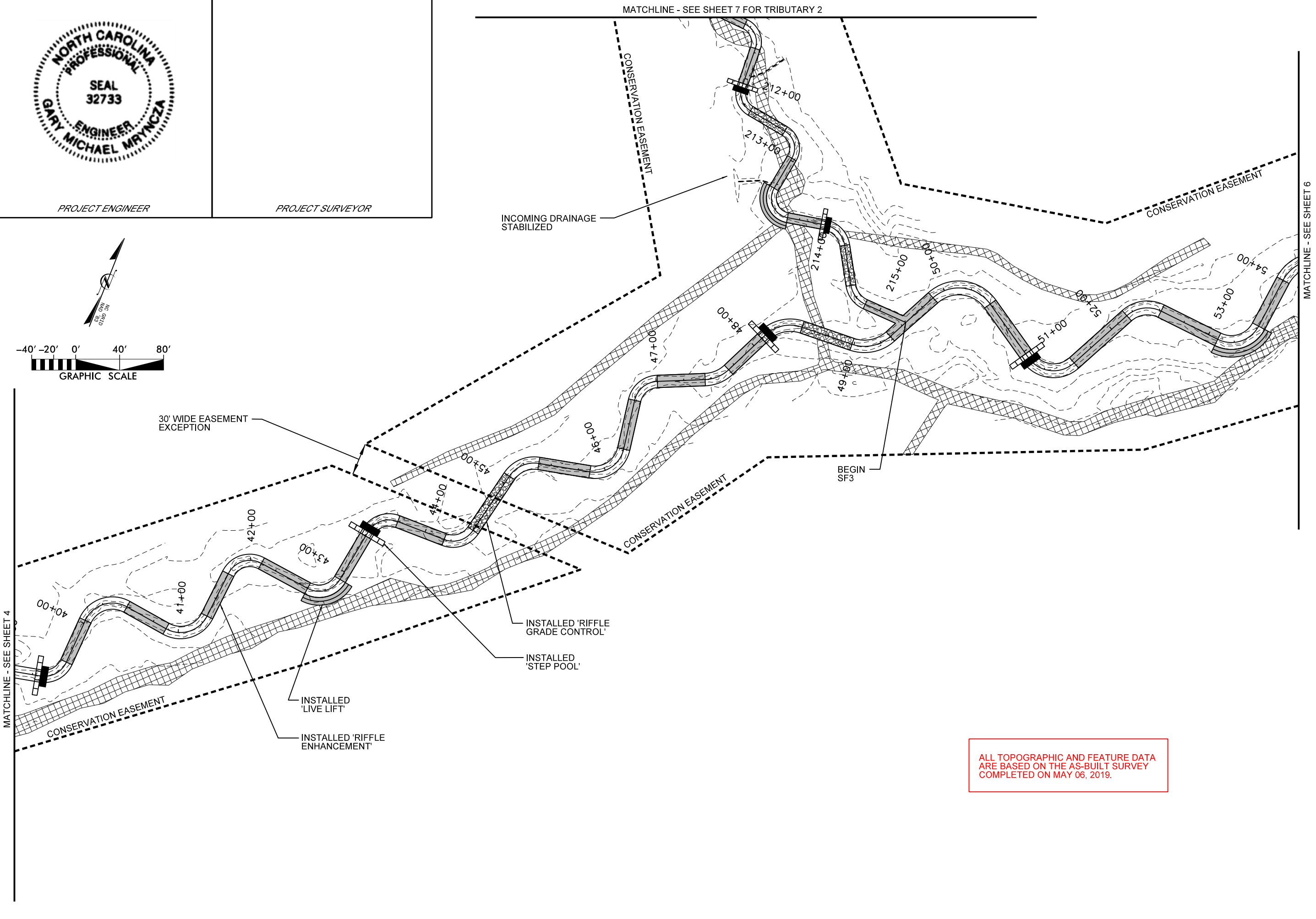
PROJECT SURVEYOR

MATCHLINE - SEE SHEET 7 FOR TRIBUTARY 2



MATCHLINE - SEE SHEET 4

MATCHLINE - SEE SHEET 6



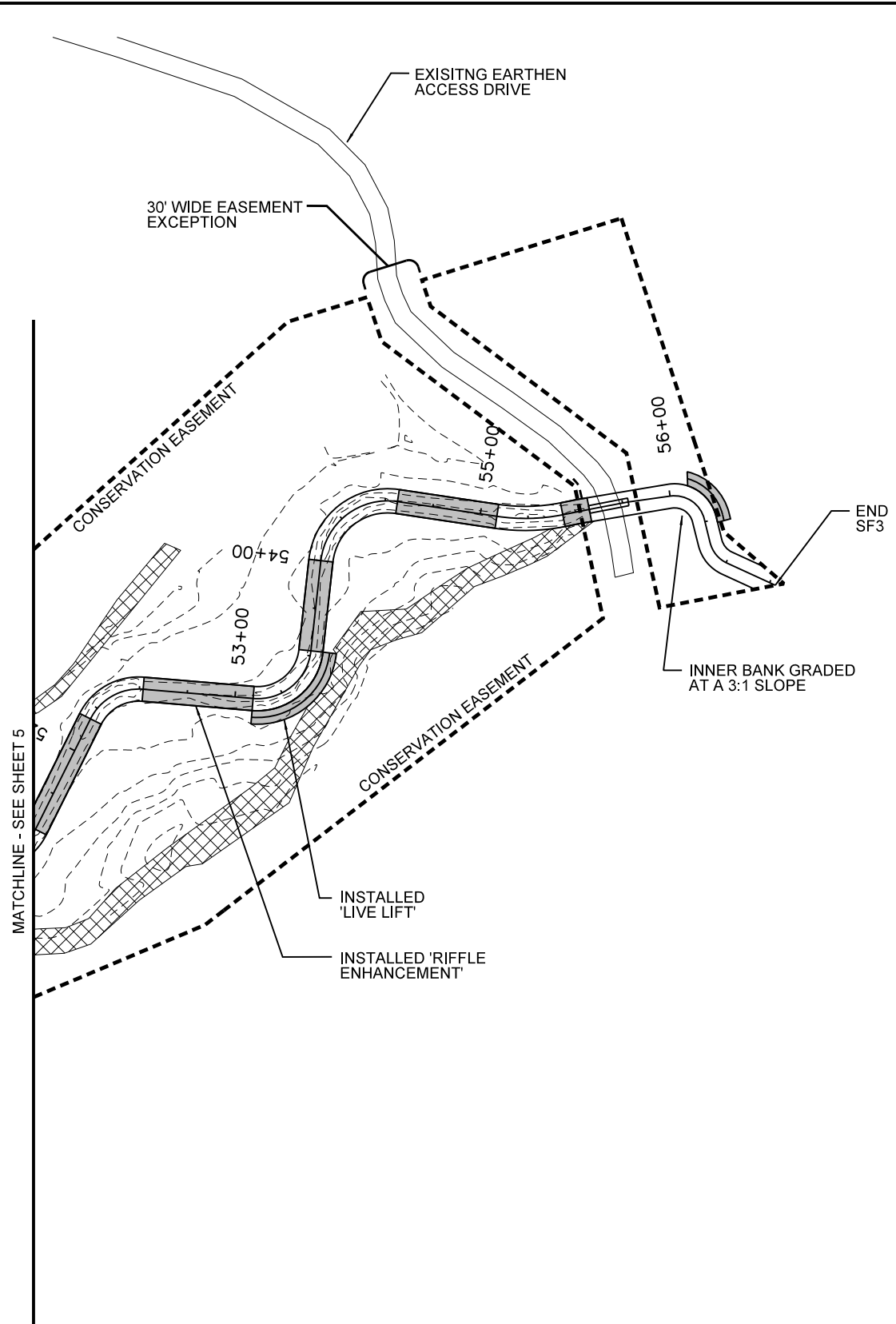
ALL TOPOGRAPHIC AND FEATURE DATA ARE BASED ON THE AS-BUILT SURVEY COMPLETED ON MAY 06, 2019.

NO.	SYMBOL	DESCRIPTION	DATE

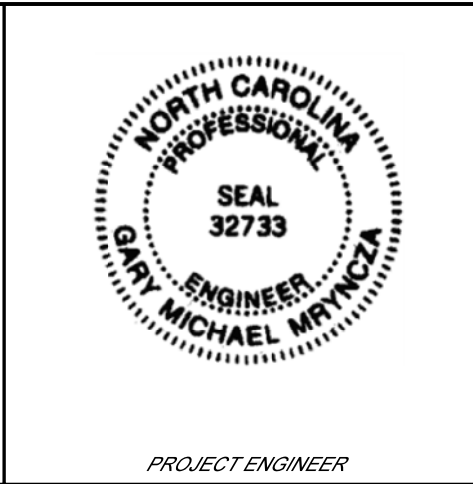


STONY FORK
STREAM RESTORATION SITE
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA

DATE: MAY 2019
SCALE: GRAPHIC
SITE PLAN
REACH:
SF2 & SF3
SHEET 5 OF 8

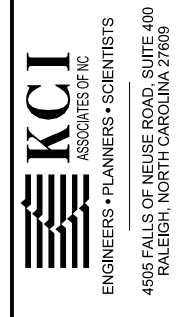
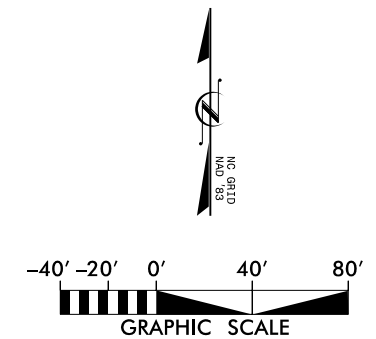


PROJECT SURVEYOR



NO.	SYMBOL	DESCRIPTION	DATE

ALL TOPOGRAPHIC AND FEATURE DATA ARE BASED ON THE AS-BUILT SURVEY COMPLETED ON MAY 06, 2019.



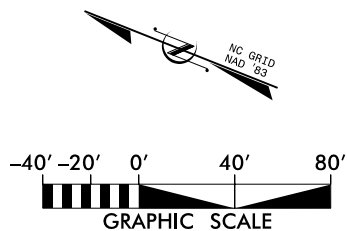
STONY FORK
STREAM RESTORATION SITE
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA

DATE: MAY 2019
SCALE: GRAPHIC
SITE PLAN
REACH:
SF3
SHEET 6 OF 8

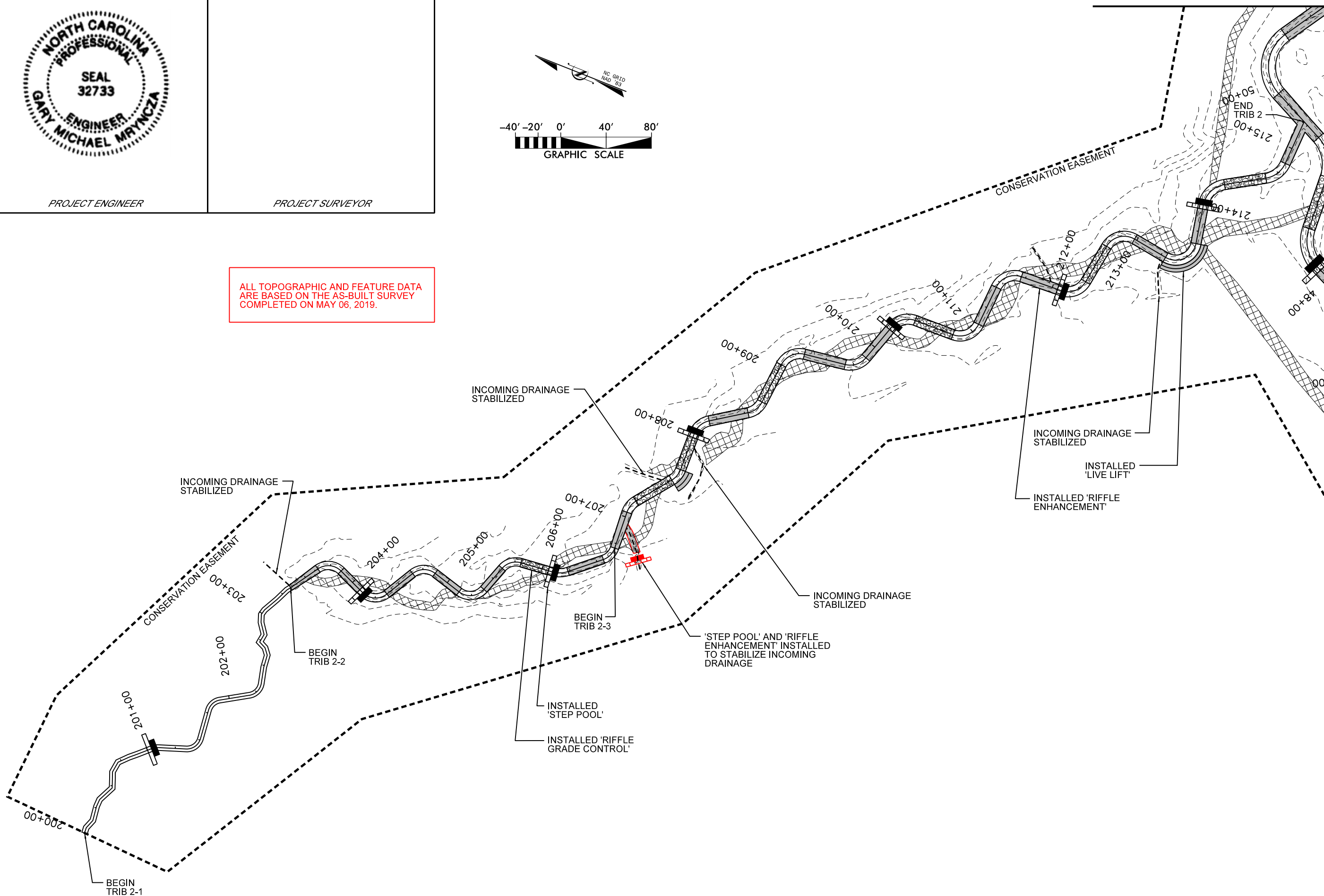


PROJECT ENGINEER

PROJECT SURVEYOR

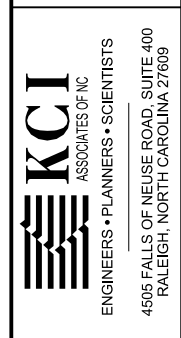


ALL TOPOGRAPHIC AND FEATURE DATA ARE BASED ON THE AS-BUILT SURVEY COMPLETED ON MAY 06, 2019.



MATCHLINE - SEE SHEETS 3 - 6 FOR MAINSTEM (SF1, SF2, SF3)

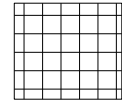
NO.	SYMBOL	DESCRIPTION	DATE



STONY FORK
STREAM RESTORATION SITE
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA

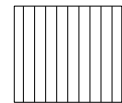
DATE: MAY 2019
SCALE: GRAPHIC
SITE PLAN
REACH:
TRIB 2-1, 2-2, 2-3
SHEET 7 OF 8

RIPARIAN FOREST PLANTING:



PLANTING ZONE 1 = 13.4 ACRES
12" - 18" BARE ROOT MATERIAL
968 STEMS/ACRE (9' X 5' SPACING), RANDOM SPECIES PLACEMENT

COMMON NAME	SCIENTIFIC NAME	STATUS	% OF TOTAL	# OF PLANTS
AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FACW	24	3,120
SWAMP CHESTNUT OAK	QUERCUS MICHAUXII	FACW	20	2,600
SILKY DOGWOOD	CORNUS AMMOMUM	FACW	3	400
BALD CYPRESS	TAXODIUM DISTICHUM	OBL	3	400
GREEN ASH	FRAXINUS PENNSYLVANICA	FACW	21	2,720
RIVER BIRCH	BETULA NIGRA	FACW	24	3,120
WILLOW OAK	QUERCUS PHELLOS	FAC	14	1,820
TULIP POPLAR	LIRIODENDRON TULIPIFERA	FACU	11	1,420
				13,000



PLANTING ZONE 2 = 9.5 ACRES
12" - 18" BARE ROOT MATERIAL
968 STEMS/ACRE (9' X 5' SPACING), RANDOM SPECIES PLACEMENT

COMMON NAME	SCIENTIFIC NAME	STATUS	% OF TOTAL	# OF PLANTS
TULIP POPLAR	LIRIODENDRON TULIPIFERA	FACU	20	1,900
SOUTHERN RED OAK	QUERCUS FALCATA	FACU	25	2,300
WILLOW OAK	QUERCUS PHELLOS	FAC	15	1,400
WHITE OAK	QUERCUS ALBA	FACU	20	1,900
AMERICAN PERSIMMON	DIOSPYROS VIRGINIANA	FAC	10	900
PIN OAK	QUERCUS PALUSTRIS	FACW	10	900
				9,300



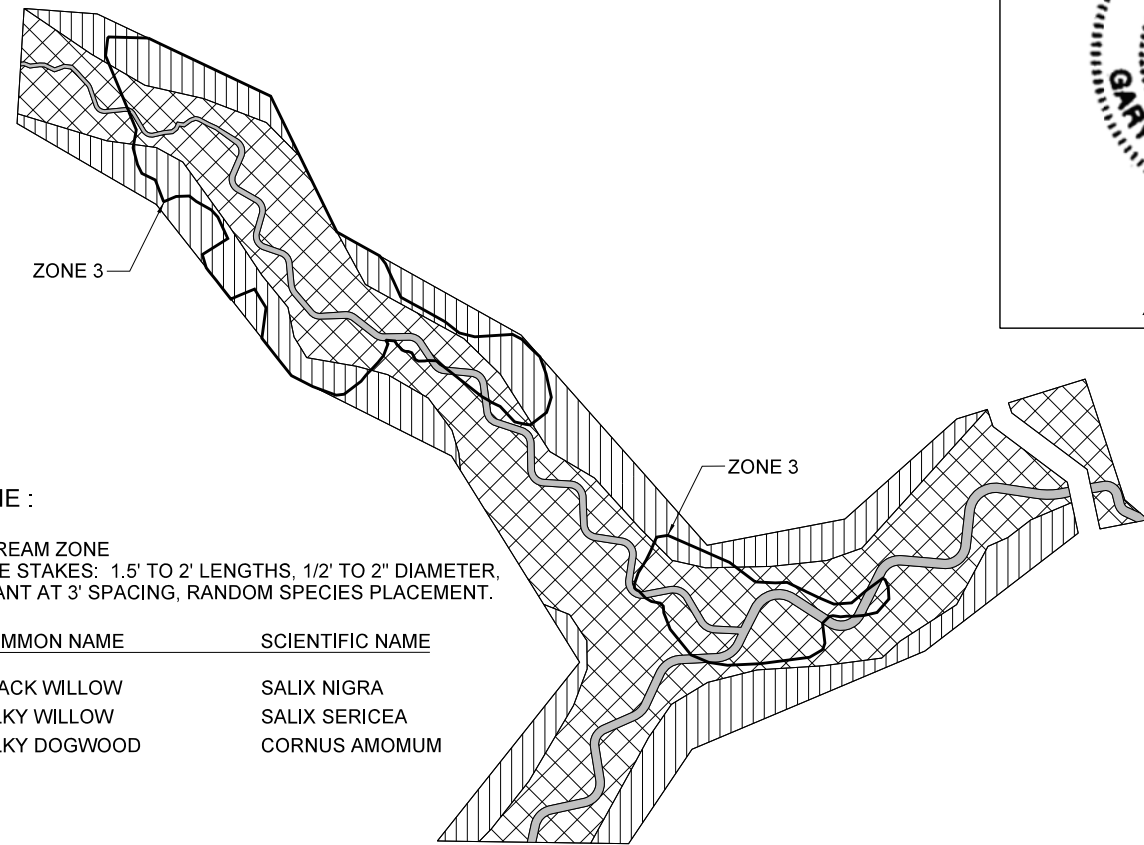
PLANTING ZONE 3 = 6.2 ACRES (APPROX)
SUPPLEMENTAL PLANTING ZONE AS NEEDED FOR AREAS CLEARED OF CHINESE PRIVET

ONE-GALLON CONTAINER TREES AT 20' X 20' SPACING, OR
BARE ROOT TREES IN TREE SHELTERS AT 10' ON CENTER SPACING

COMMON NAME	SCIENTIFIC NAME	STATUS	% OF TOTAL	# OF PLANTS
RIVER BIRCH	BETULA NIGRA	FACW	21	145
AMERICAN SYCAMORE	PLATANUS OCCIDENTALIS	FACW	21	145
WHITE OAK	QUERCUS ALBA	FACU	4	27
SOUTHERN RED OAK	QUERCUS FALCATA	FACU	4	26
SWAMP CHESTNUT OAK	QUERCUS MICHAUXII	FACW	20	142
PIN OAK	QUERCUS PALUSTRIS	FACW	10	70
WILLOW OAK	QUERCUS PHELLOS	FAC	21	145
				700



PROJECT ENGINEER

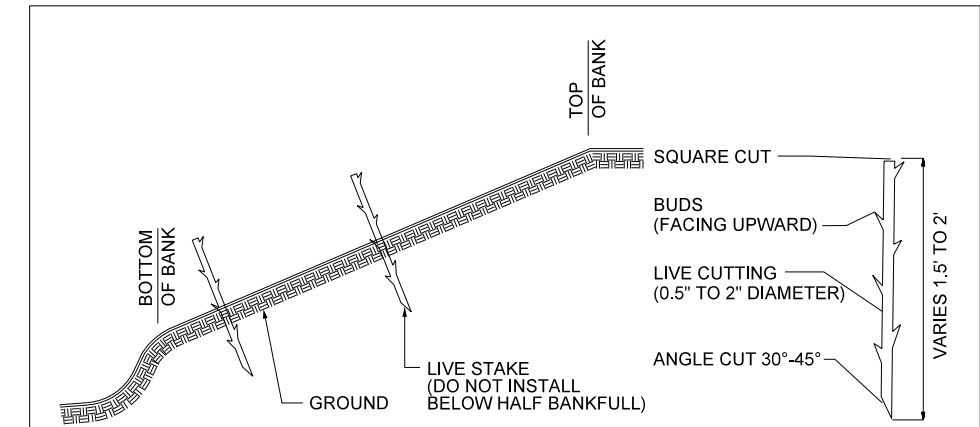
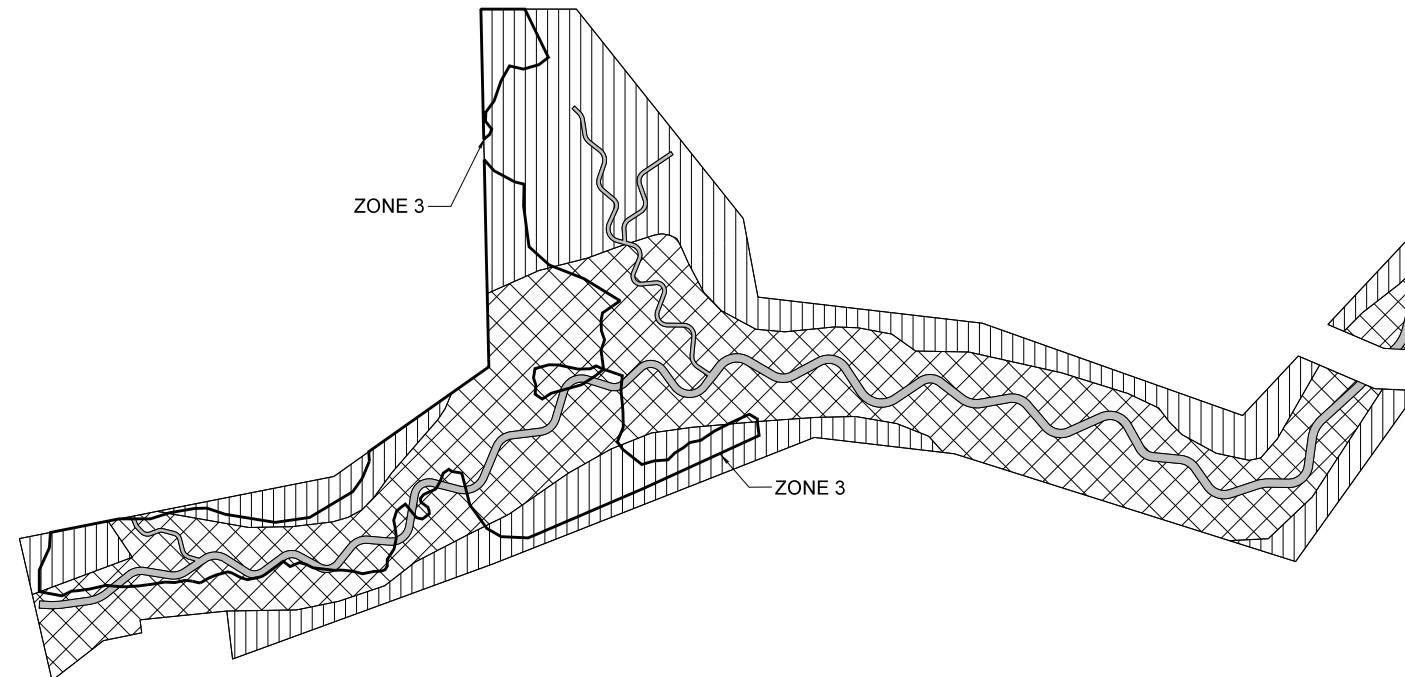


STREAM ZONE :



STREAM ZONE
LIVE STAKES: 1.5' TO 2' LENGTHS, 1/2" TO 2" DIAMETER,
PLANT AT 3' SPACING, RANDOM SPECIES PLACEMENT.

COMMON NAME	SCIENTIFIC NAME
BLACK WILLOW	SALIX NIGRA
SILKY WILLOW	SALIX SERICEA
SILKY DOGWOOD	CORNUS AMOMUM



PLANTING NOTES:

MAIN CHANNEL:
RIFFLS - 2 ROWS OF LIVE STAKES ON BOTH SIDES OF CHANNEL.
POOLS - NO LIVE STAKES ON INNER BENDS, 2 ROWS ON OUTER BENDS.
ALL OTHER TRIBUTARIES:
RIFFLS - 1 ROW OF LIVE STAKES ON BOTH SIDES OF CHANNEL.
POOLS - NO LIVE STAKES ON INNER BENDS, 1 ROWS ON OUTER BENDS.

LIVE STAKES
SCALE: NTS

NO.	DATE	DESCRIPTION	BY



**STONY FORK
STREAM RESTORATION SITE**
AS-BUILT PLANS
JOHNSTON COUNTY, NORTH CAROLINA