



North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS



(Version 2.07; Released October 2016)

WBS Element: SF-530023 TIP No.: 17BP.2.R.74 County(ies): Lenoir Page 1 of 1

General Project Information

WBS Element:	SF-530023	TIP Number:	17BP.2.R.74	Project Type:	Bridge Replacement	Date:	5/15/2017
NCDOT Contact:	Hon Yeung			Contractor / Designer:	Richard A. Moore, PE, McKim & Creed		
Address:	PO Box 1587 105 Pictolus Highway Grenville, NC 27835			Address:	243 North Front Street Wilmington, NC 28401		
	Phone:	252-439-2800			Phone:	910-343-1048	
	Email:	hfyung@ncdot.gov			Email:	ramoore@mckimcreed.com	
City/Town:	Kinston, NC			County(ies):	Lenoir		
River Basin(s):	Neuse			CAMA County?	No		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	600 feet	Surrounding Land Use:	Residential, Agricultural, Undeveloped				
	Proposed Project			Existing Site			
Project Built-Upon Area (ac.)	0.4	ac.	0.4	ac.			
Typical Cross Section Description:	The bridge replacement is proposed to be a two (2) span 21" cored slab bridge: 1 @ 45' and 1 @ 55'. The replacement will be along the current existing roadway alignment in the same location. 33'-0" bridge width with 30'-10" clear roadway. 2-11' lanes 2% slope with 4.5' shoulder.			The existing bridge has a concrete wearing surface on three (3) spans: 1 @ 15'-7", 1 @ 15'-3", and 1 @ 15'-6". The bridge deck is reinforced concrete on timber joists on timber caps and timber piles. The existing clear roadway width is approximately 30 feet with a deck width of 31.5 feet. 2-10.5' lanes with 5.5' shoulder.			
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	N/A		Year:			
Existing:	530		Year:	2012			
General Project Narrative: (Description of Minimization of Water Quality Impacts)	This bridge replacement project is located to the southeast of Kinston, NC and is in the Neuse River Basin. The total project length is 600 feet along the existing SR1905 roadway alignment. The project is located within a 4.7 square mile Strawberry Branch drainage area which has a classification of C;Sw,NSW. The project's drainage system consists of two (2) proposed catch basins that direct runoff to the wetlands through a pipe network to an outfall. A rip rap pad is proposed at the pipe outlet to provide diffuse flow before runoff enters Buffer Zone 2. The outfall and rip rap pad are located on the down slope side of the bridge and outside of the wetlands limits.						

Waterbody Information

Surface Water Body (1):	Strawberry Branch		NCDWR Stream Index No.:	27-80-7			
NCDWR Surface Water Classification for Water Body	Primary Classification:		Class C				
	Supplemental Classification:		Swamp Waters (Sw) (NSW)				
Other Stream Classification:	None						
Impairments:	None						
Aquatic T&E Species?	No	Comments:					
NRTR Stream ID:	N/A			Buffer Rules in Effect:	Neuse		
Project Includes Bridge Spanning Water Body?	Yes	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	No		
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
(If yes, provide justification in the General Project Narrative)							

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	12+74 TO 16+80	21" CORED SLAB BRIDGE				0.14		< 0.01	< 0.01	35.5	64.8	
TOTALS*:						0.14		< 0.01	< 0.01	36	65	0

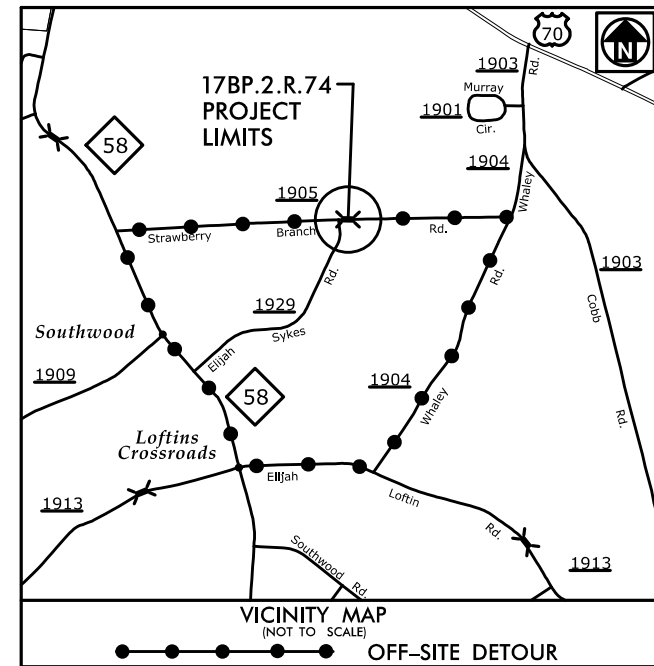
*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 7/31/17
 LENOIR COUNTY
 17BP.2.R.74
 SF-530023
 SHEET 1 OF 1

CONTRACT: TIP PROJECT: 17BP.2.R.74

CONTRACT:



STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
LENOIR COUNTY

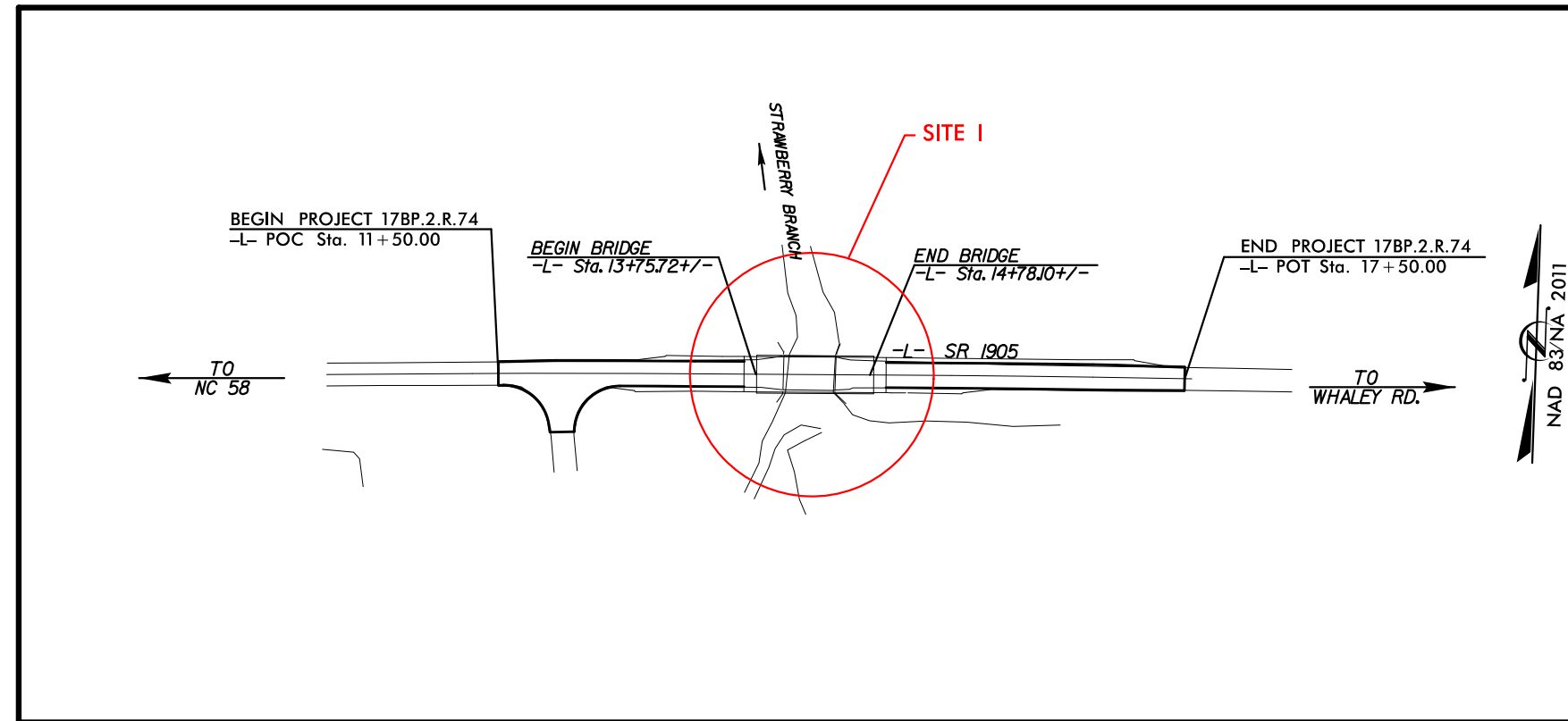
LOCATION: BRIDGE NO. 23 OVER STRAWBERRY BRANCH ON SR 1905 (STRAWBERRY BRANCH ROAD)

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

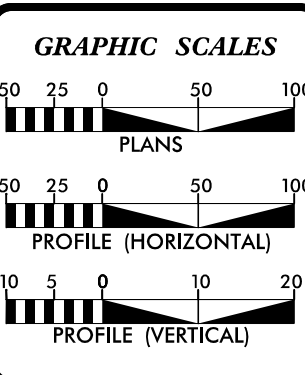
WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.74	1	
STATE PROJECT NO.	P.A. PROJ. NO.	DESCRIPTION	
17BP.2.R.74		P.E.	

**PERMIT DRAWING
 SHEET 1 OF 8**



DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2012 = 530

ADT 2025 = ?

V = 55 MPH

FUNCTIONAL CLASS. = LOCAL SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT = 0.095 MILES

LENGTH STRUCTURE TIP PROJECT = 0.019 MILES

TOTAL LENGTH TIP PROJECT = 0.114 MILES

Prepared In the Office of Mott MacDonald for
DIVISION 2
 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 NOVEMBER 23, 2016

LETTING DATE:
 MAY 24, 2017

DAVID C. WALLER, PE
 PROJECT ENGINEER

RICHARD MOORE, PE
 HYDRAULIC ENGINEER

HON YEUNG, PE
 NCDOT BRIDGE PROGRAM MANAGER

ROADWAY DESIGN ENGINEER

 P.E.

HYDRAULICS ENGINEER

 P.E.

PLANS PREPARED BY:

M M
 MOTT MACDONALD

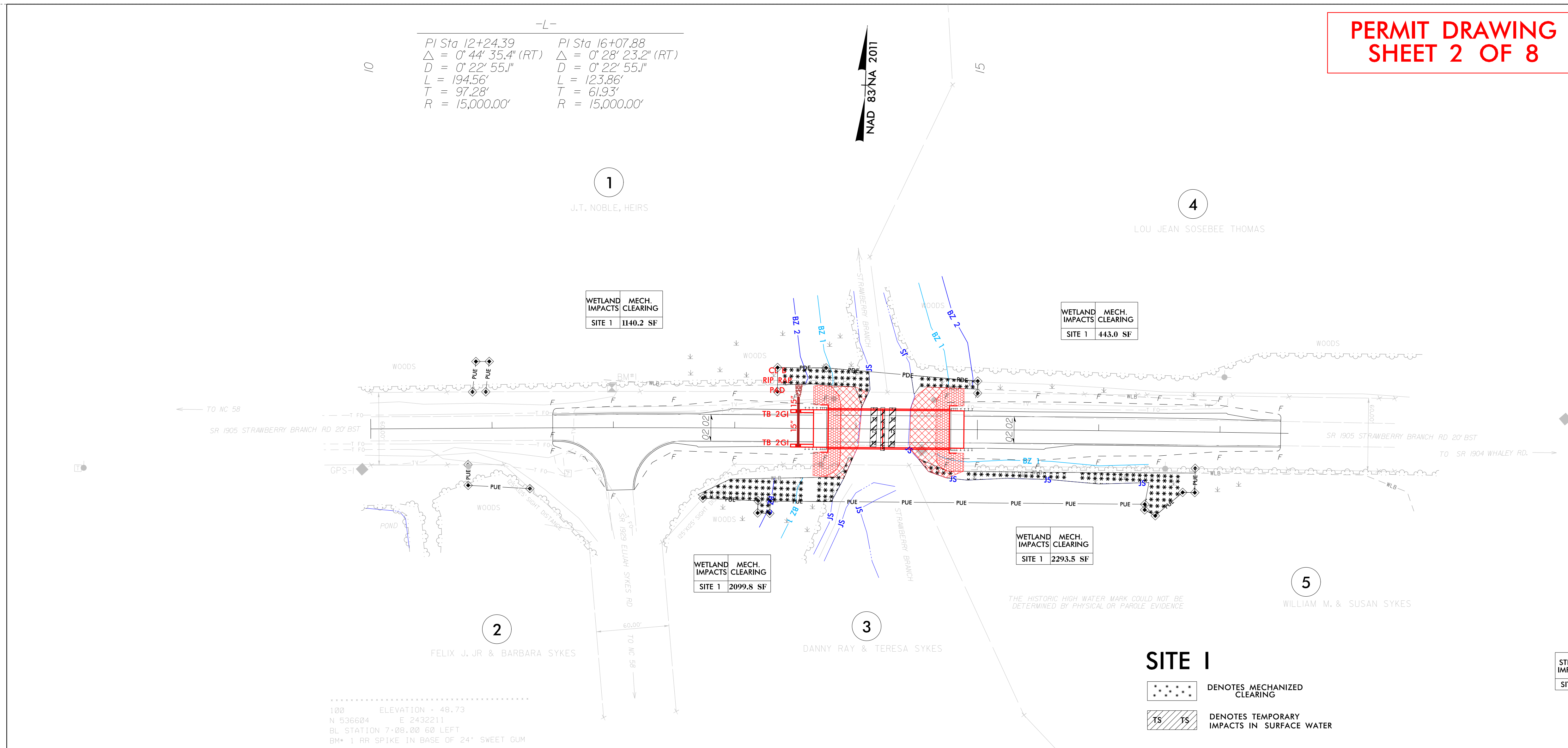
PO Box 700
 Fuquay-Varina, NC 27526
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 (919) 552-2254 (Fax)
 www.mottmac.com/americas

LICENSE NO. F-0669

MCKIM & CREED
 NC LICENSE #F-1222
 243 NORTH FRONT STREET
 WILMINGTON, NORTH CAROLINA 28401
 TEL. (910) 343-1048 FAX. (910) 790-6282

**PERMIT DRAWING
SHEET 2 OF 8**

PROJECT REFERENCE 17BP.2.R.74 - LENOIR 23	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Prepared in the Office of: M MOTT MACDONALD	
PO Box 700 Fuquay-Varina, NC 27526 www.mottmac.com/americas	
MCKIM & CREED 243 NORTH FRONT STREET WILMINGTON, NORTH CAROLINA 28401 TEL: (910) 343-1048 FAX: (910) 706-8282	
VERTICAL SCALE 5' 0 5 10'	HORIZONTAL SCALE 25' 0 25' 50'

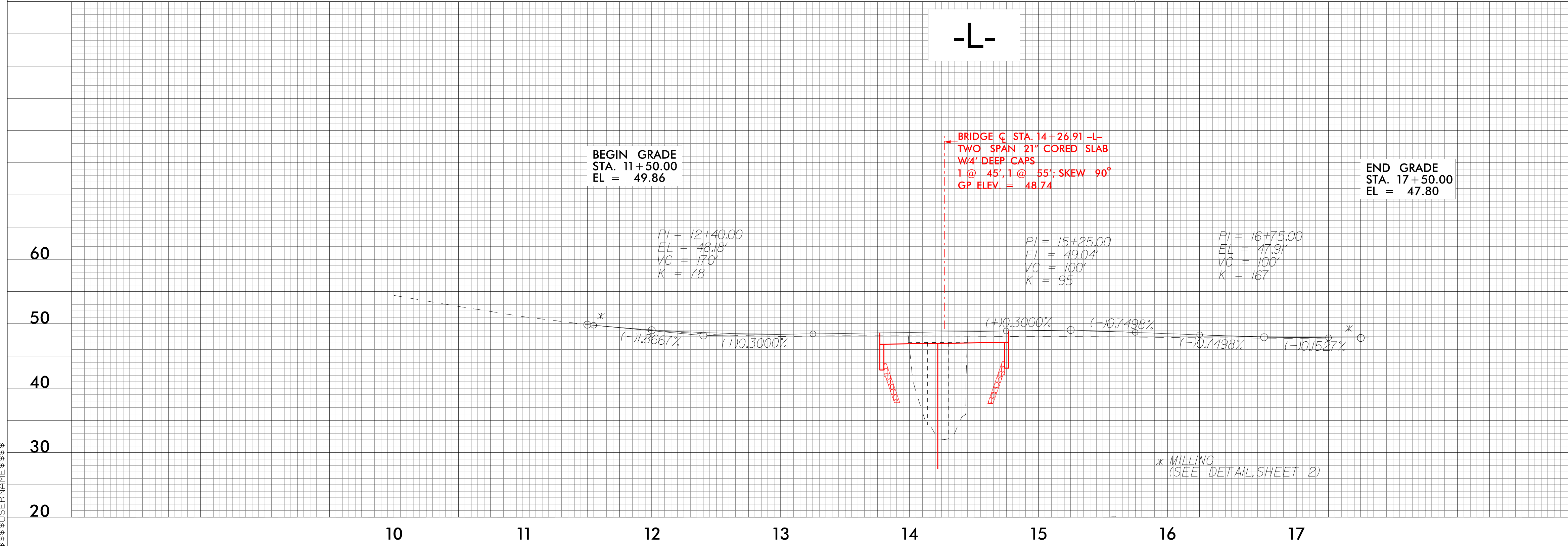


TOTAL STREAM IMPACTS				
STREAM IMPACTS	TEMP. SURFACE WATER	TEMP. SURFACE WATER	PERM. SURFACE WATER	PERM. SURFACE WATER
SITE 1	64.8 LF	334.6 SF	35.5 LF	115.4 SF

SITE 1

••••• DENOTES MECHANIZED CLEARING

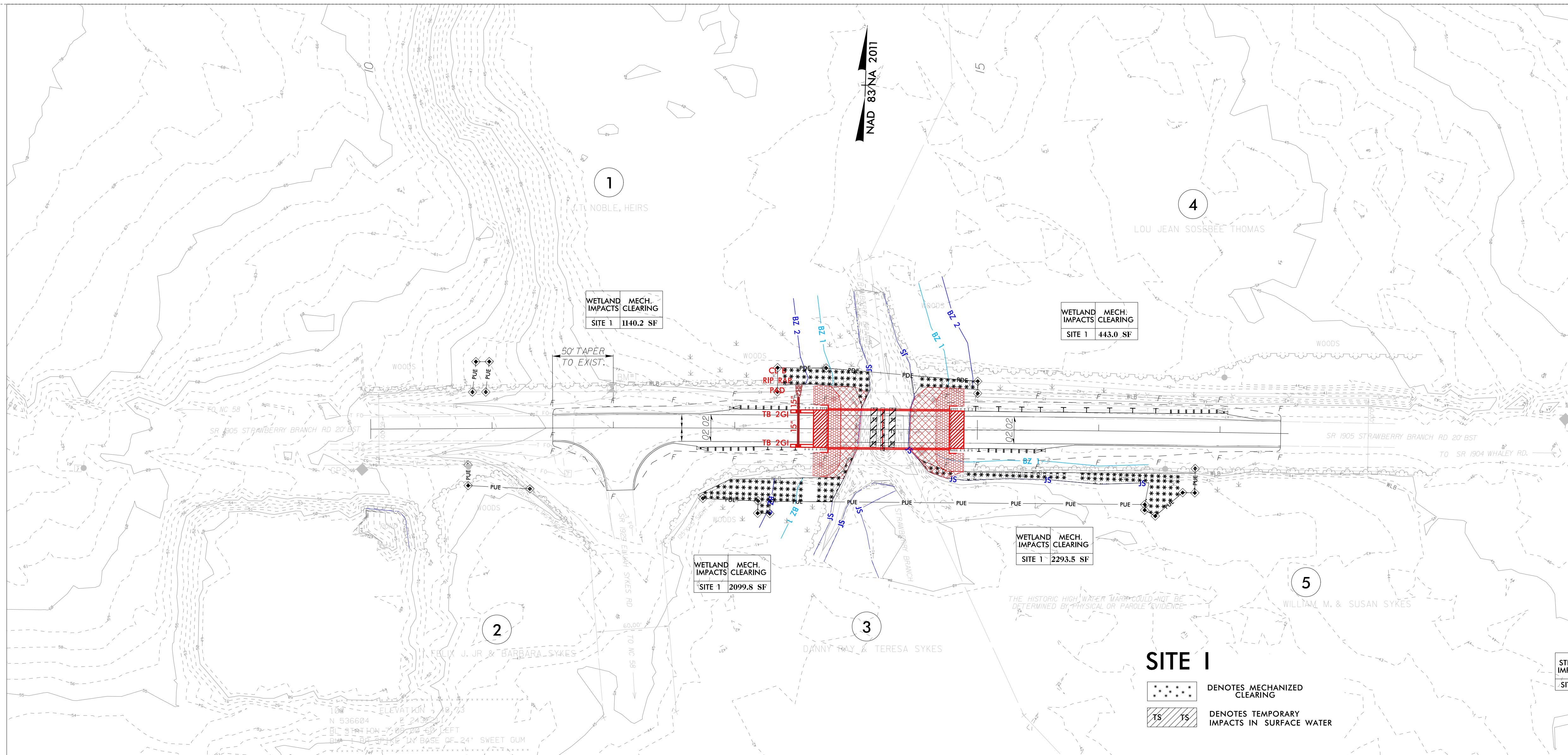
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER



BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 702	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 43.9	FT
BASE DISCHARGE	= 1120	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 43.8	FT
OVERTOPPING DISCHARGE	= 3200	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 48.1	FT
DATE OF SURVEY	= 8-17-2016	
W.S. ELEVATION AT DATE OF SURVEY	= 39.8	FT

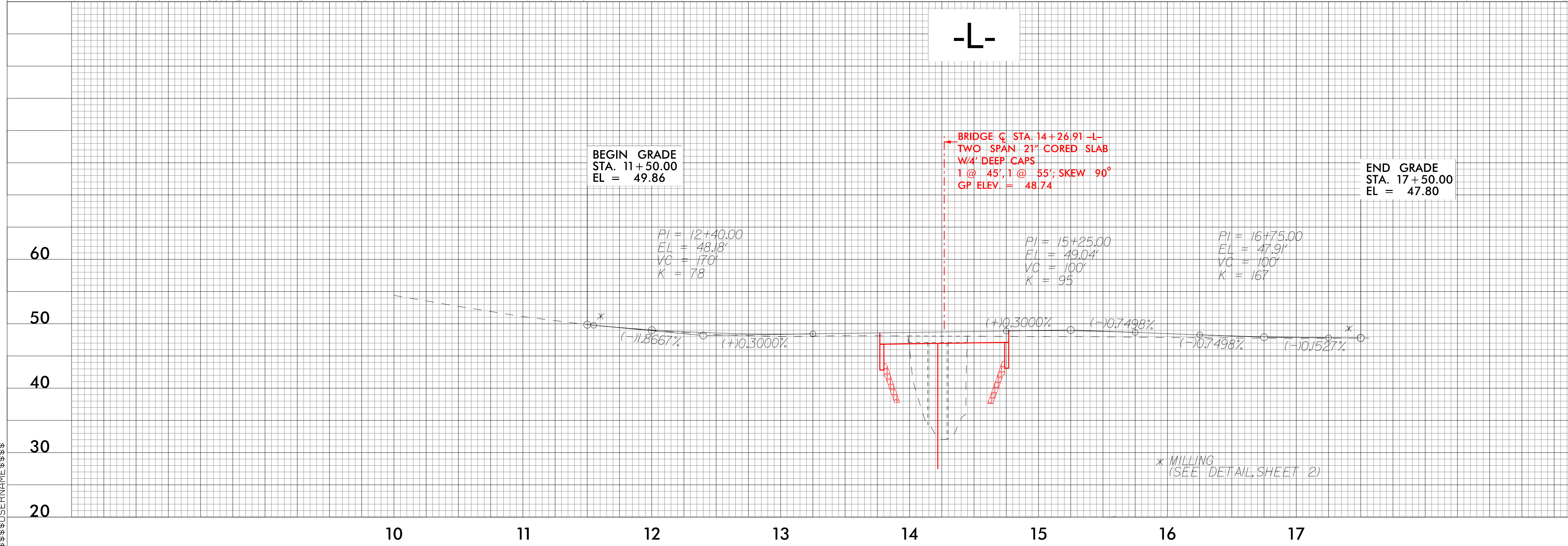
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**PERMIT DRAWING
SHEET 3 OF 8**



SITE 1

DENOTES MECHANIZED CLEARING
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



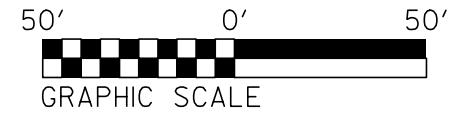
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**PERMIT DRAWING
SHEET 4 OF 8**

TOTAL STREAM IMPACTS

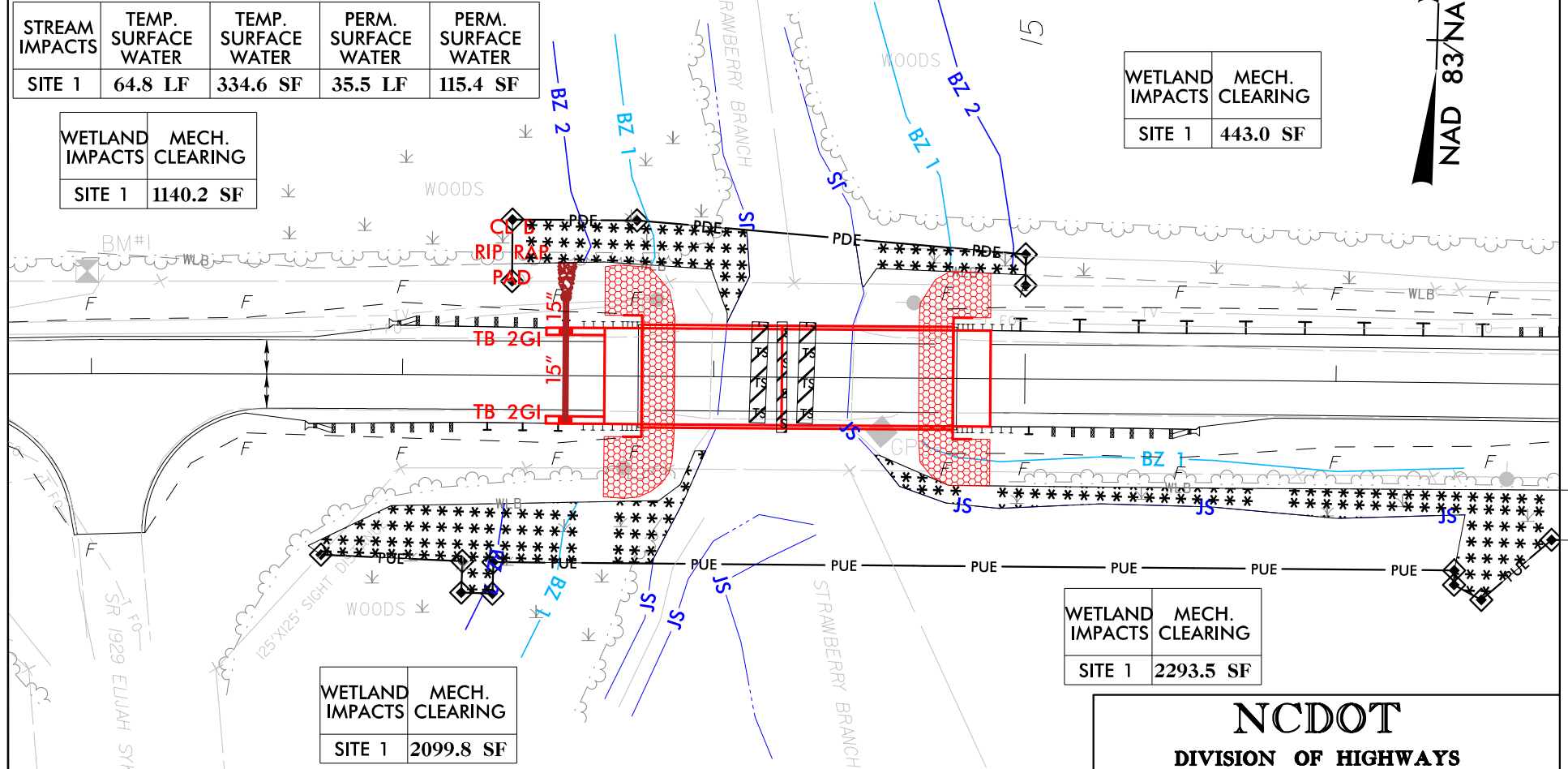
STREAM IMPACTS	TEMP. SURFACE WATER	TEMP. SURFACE WATER	PERM. SURFACE WATER	PERM. SURFACE WATER
SITE 1	64.8 LF	334.6 SF	35.5 LF	115.4 SF

WETLAND IMPACTS	MECH. CLEARING
SITE 1	1140.2 SF



WETLAND IMPACTS	MECH. CLEARING
SITE 1	443.0 SF

NAD 83/NA 2011



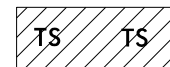
WETLAND IMPACTS	MECH. CLEARING
SITE 1	2099.8 SF

WETLAND IMPACTS	MECH. CLEARING
SITE 1	2293.5 SF

PLAN VIEW SITE I



DENOTES MECHANIZED CLEARING



DENOTES TEMPORARY IMPACTS IN SURFACE WATER

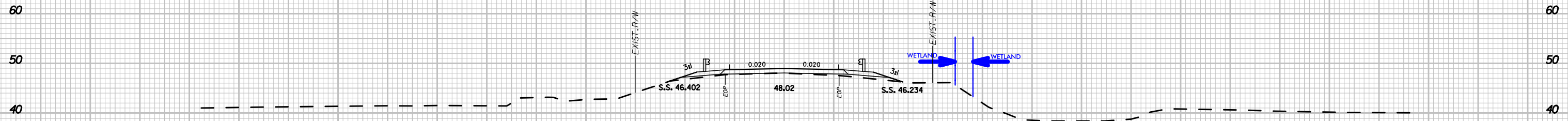
NCDOT
DIVISION OF HIGHWAYS
LENOIR COUNTY
PROJECT: 17BP.2.R.74 (SF-530023)
REPLACE BRIDGE #023
ON SR 1905 OVER
STRAWBERRY BRANCH

5/15/01

8/23/08

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

**PERMIT DRAWING
SHEET 5 OF 8**

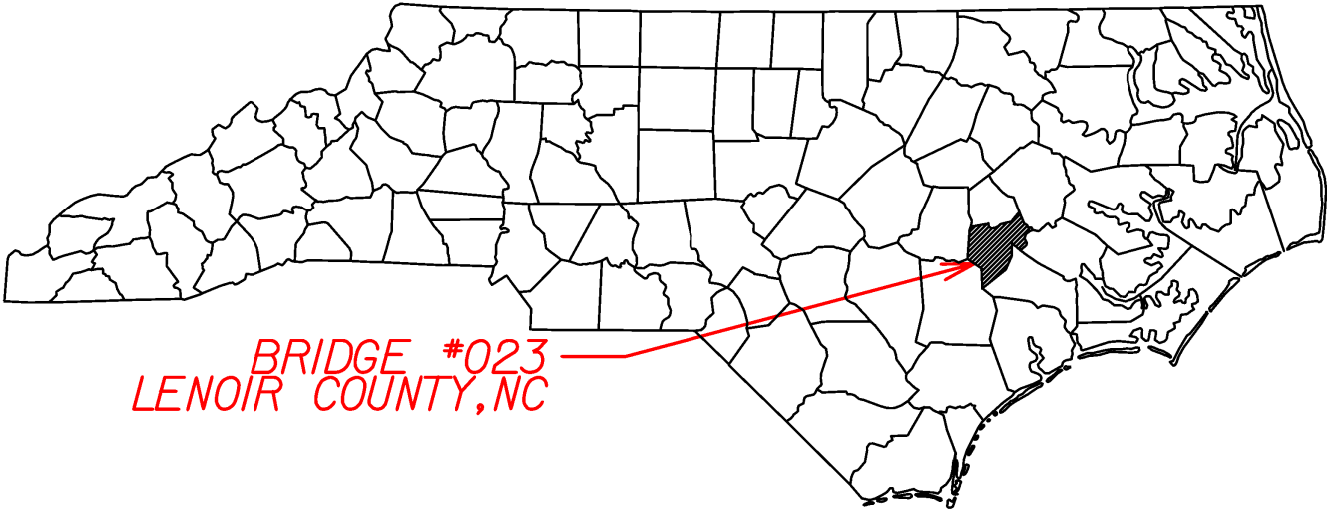


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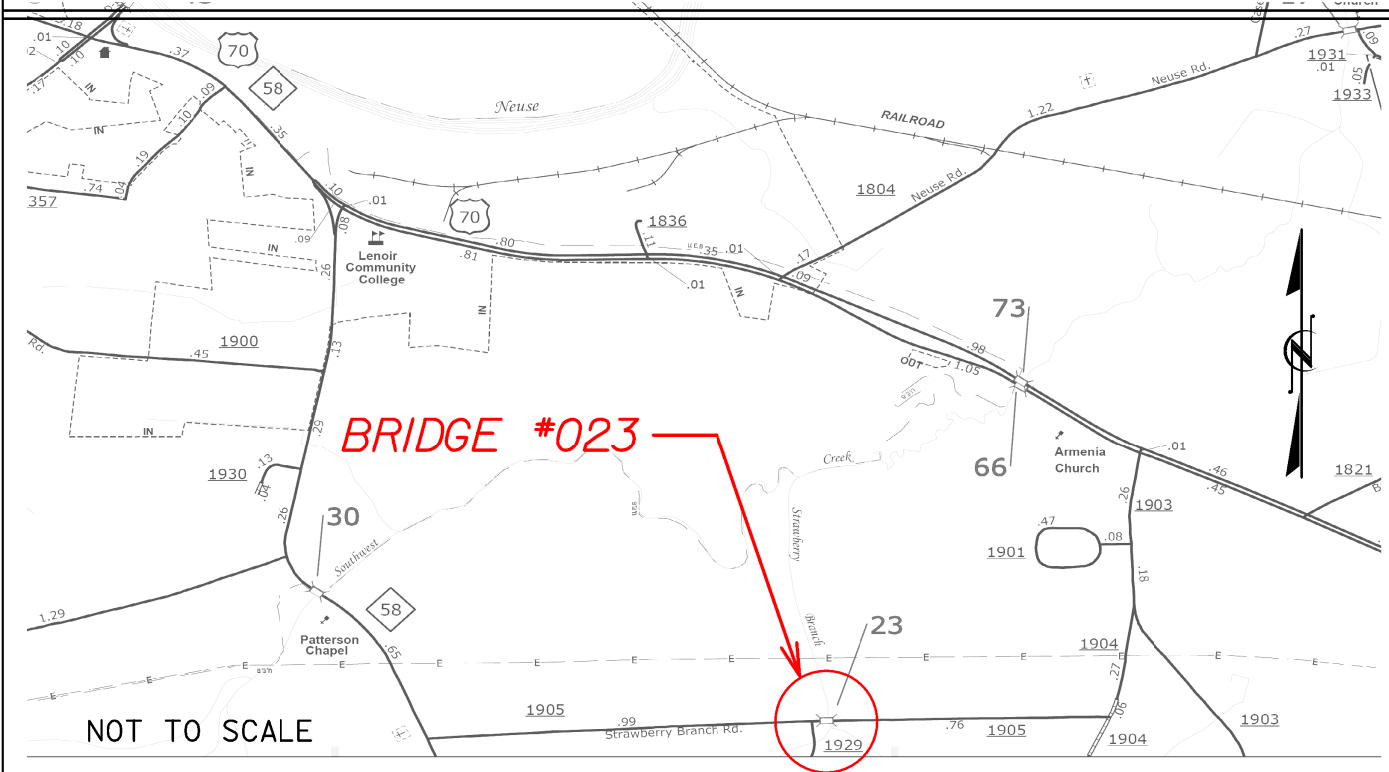
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NORTH CAROLINA



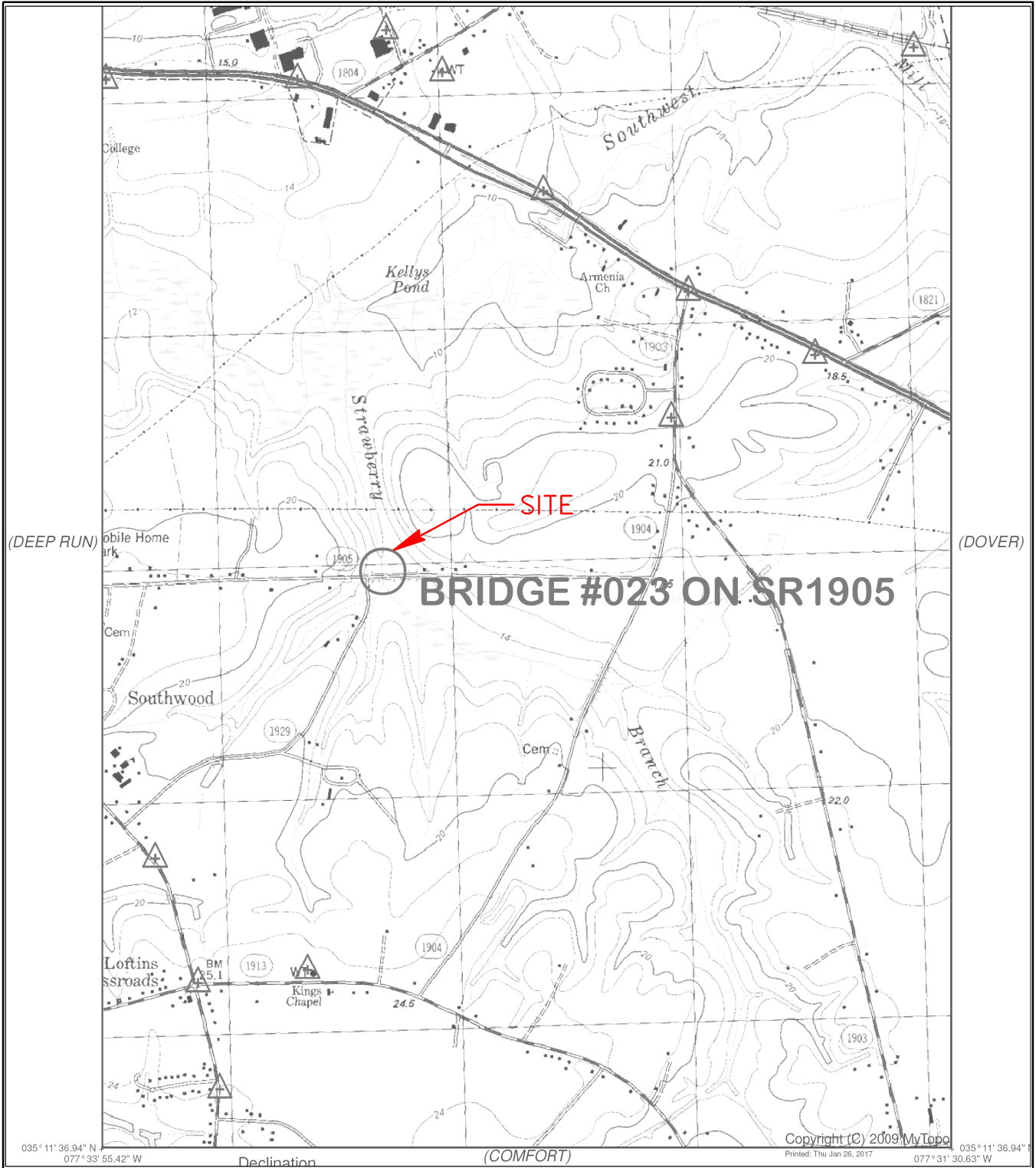
BRIDGE #023
LENOIR COUNTY, NC



VICINITY
MAP
NOT TO SCALE

NCDOT
DIVISION OF HIGHWAYS
LENOIR COUNTY
PROJECT: 17BP.2.R.74 (SF-530023)
REPLACE BRIDGE #023
ON SR 1905 OVER
STRAWBERRY BRANCH

5/15/17



**PERMIT DRAWING
SHEET 7 OF 8**

**USGS
MAP**

NOT TO SCALE

**N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
LENOIR COUNTY**

PROJECT: 17BP.2.R.74 (SF-530023)

**REPLACE BRIDGE #023
ON SR 1905 OVER
STRAWBERRY BRANCH**

**PROPERTY OWNERS
NAMES AND ADDRESSES**

PARCEL NO.	NAMES	ADDRESSES
1	J.T. NOBLE, HEIRS	4037 JOHN S. RABOTEAU WYND, RALEIGH, NC 27612
2	FELIX J. JR & BARBARA SYKES	1549 STRAWBERRY BRANCH RD., KINSTON, NC 28501
3	DANNY RAY & TERESA SYKES	878 ELIJAH SYKES ROAD, KINSTON, NC 28504
4	LOU JEAN SOSEBEE THOMAS	7582 US HWY 76, YOUNG HARRIS, GA 30582
5	WILLIAM M. & SUSAN SYKES	705 ELIJAH SYKES ROAD, KINSON, NC 28501

**PERMIT DRAWING
SHEET 8 OF 8**

**NCDOT
DIVISION OF HIGHWAYS
LENOIR COUNTY
PROJECT: 17BP.2.R.74 (SF-530023)
REPLACE BRIDGE #023
ON SR 1905 OVER
STRAWBERRY BRANCH**

5/15/17