

PREDESIGN/PRESURVEY REPORT

County: Guilford

Project No.:

TIP No.:

Let Date:

WBS No.:

Bridge No.: 400271

Road No.: SR3343 (Coble Church Rd)

Stream: North Prong Stinking Quarter
Creek

Type of Request:

Date: 5/28/2013

Name:

Assigned to: CJL

Checked by:

Prior Survey Date (attach copy of prior survey):

Study by Scour Section:

Flood Zone: AE

Detail Study: LDS

Date: 1/02/08

Panel No.: 8728

BM Info:

Quad Map: KIMEVL (Kimesville)

Drainage Area: 6.5 sq. mi.

From: StreamStats

Q25: 1700cfs

Q50: 2000cfs

Q100: 2400cfs

Method: USGS Rural, Region 1

EXISTING BRIDGE INFORMATION

Location: 0.25 MI. E. JCT. SR3360 (Bowman Dairy Rd)

Average Daily Traffic: 2007 - 440

Length: 53 ft

Bed-to-Crown: 8 ft

Water Depth: 2 ft

Type of Structure: TIMBER DECK ON TIMBER JOISTS. END BENTS & INT. BENTS: TIMBER CAPS & PILES,
TIMBER BULKHEADS

Type of Span(s): 1@17'10", 1@17'5", 1@17'7"

Upstream Structure: 400260 - 2@25'3 REINFORCED CONCRETE DECK ON I-BEAMS & DOUBLE CHANNELS.
ABUTS: MASS CONCRETE, INTBTS: RCP & B WIDENED W/ RC CAP & TIM. PILES

Location: 0.7 MI. N. JCT. SR3351 (Bowman Dairy Rd)

Bed-to-Crown: 12 ft

Prior Survey: NONE

Downstream Structure: 400269 - 1@35'1, 1@35'2.5 TIMBER DECK ON I-BEAMS. END & INTERIOR BENTS:
STEEL CAPS & PILES

Location: 0.3 MI. E. JCT. NC62

Bed-to-Crown: 13 ft

Prior Survey: NONE

SCS Watershed:

ENVIRONMENTAL

Trout Stream: No

Anadromous Fish: No

Primary Nursery Area: No

High Quality Waters: No

Nutrient Sensitive Waters: Yes

Near Water Supply Intake:

CAMA County: No

Notes: None

MAINTENANCE COORDINATION	
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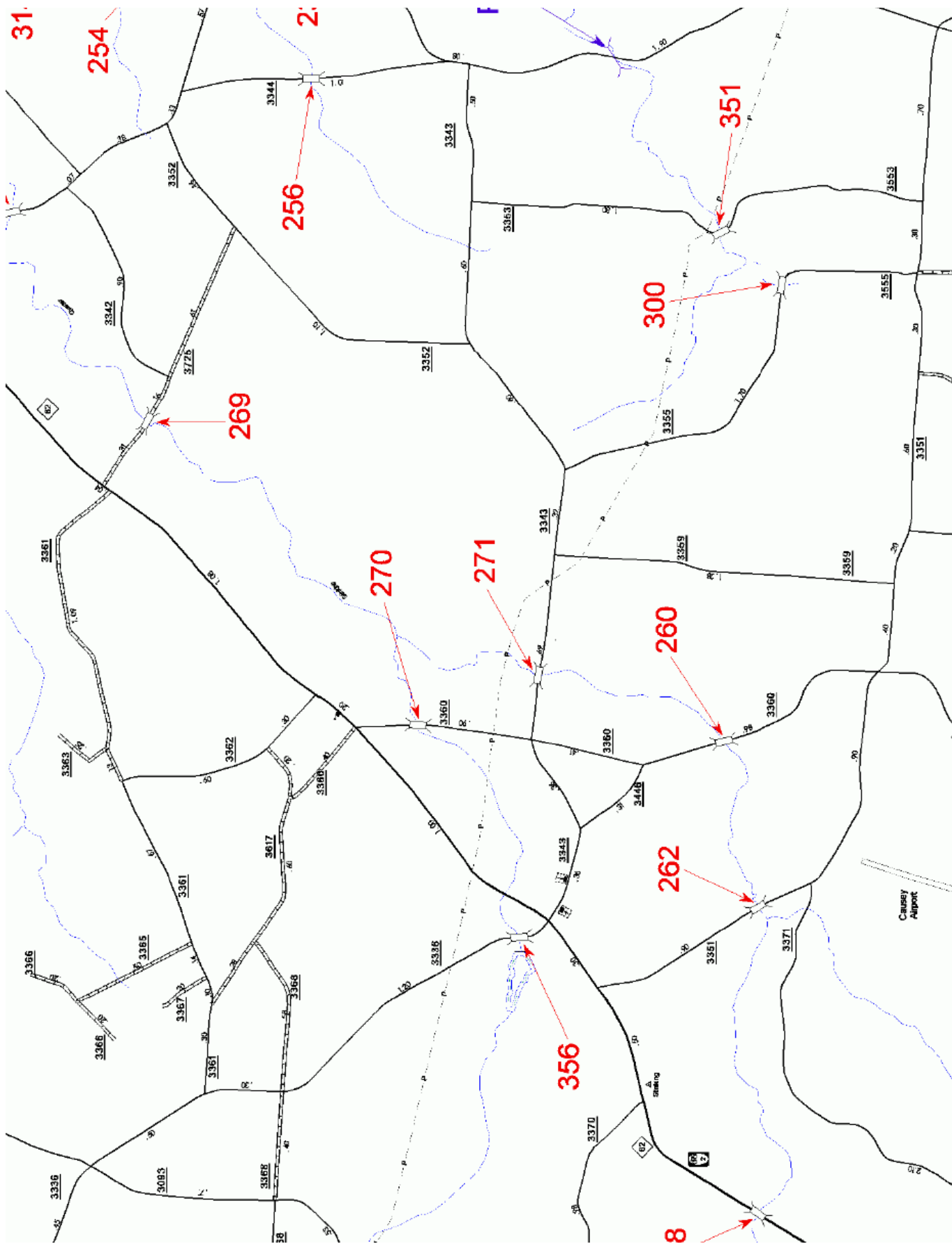
Bridge Maintenance – Contact Superintendent and Supervisor.

BM Information:

BM Information:

Date Completed:**Pay Period**

Comments:





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

PRIORITY MAINTENANCE, TEMPORARY REPAIR

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GUILFORD BRIDGE NUMBER 400271 INSPECTION CYCLE 2 YRS
ROUTE SR3343 ACROSS STINKING QUARTER CREEK M.P. 0

LOCATION 0.25 M.I.E.JCT.SR3360

SUPERSTRUCTURE TIMBER DECK ON TIMBER JOISTS

SUBSTRUCTURE END BENTS & INT.BENTS:TIMBER CAPS & PILES,TIMBER BULKHEADS

SPANS 1@17'10 ,1@17'5 ,1@17'7

LONGITUDE 79° 36' 20.0"

LATITUDE 35° 55' 2.2"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 02/10/2011

OPERATING RATING

PRESENT POSTING SV 16 TTST 24 SV 16 TTST 24

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



LOOKING EAST

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
<u>No</u> WEIGHT LIMIT	<u></u>
<u>No</u> DELINEATORS	<u></u>
<u>No</u> NARROW BRIDGE	<u></u>
<u>No</u> ONE LANE BRIDGE	<u></u>
<u>No</u> LOW CLEARANCE	<u></u>

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL Run Date: 02/28/2011

IDENTIFICATION							
(1) STATE NAME -NORTH CAROLINA	BRIDGE	400271		SUFFICIENCY RATING =		54.4	
(8) STRUCTURE NUMBER(FEDERAL)		000000000810271		STATUS =	Not Deficient		
INVENTORY ROUTE (ON/UNDER) - ON		131033430					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		7					
(3) COUNTY CODE	81	(4) PLACE CODE	00000		CLASSIFICATION	CODE	
(6) FEATURE INTERSECTED - STINKING QUARTER CREEK				(112)NBIS BRIDGE SYSTEM -		YES	
(7) FACILITY CARRIED SR3343				(104)HIGHWAY SYSTEM	NON NHS Route		0
(9) LOCATION 0.25 MI. E. JCT. SR3360				(26) FUNCTIONAL CLASS -	Local		09
(11)MILEPOINT		0		(100)STRAHNET HIGHWAY -	Not a STRAHNET Route		0
(16)LAT 35° 55' 2.2"	(17)LONG	79° 36' 20.0"		(101)PARALLEL STRUCTURE -	No Parallel Structure		N
(98)BORDER BRIDGE STATE CODE	PCT SHARE			(102)DIRECTION OF TRAFFIC -	2-way Traffic		2
(99)BORDER BRIDGE STRUCTURE NO				(103)TEMPORARY STRUCTURE -	Not Temporary		
				(110)DESIGNATED NATIONAL NETWORK -	Not Part of		0
				(20) TOLL	On Free Road		3
				(31) MAINTAIN -	State Highway Agency		01
				(22) OWNER -	State Highway Agency		01
				(37) HISTORICAL SIGNIFICANCE -	Not Eligible		5
STRUCTURE TYPE AND MATERIAL							
(43) STRUCTURE TYPE MAIN: Wood or Timber							
TYPE - Stringer Multibeam or Girder	CODE	702					
(44) STRUCTURE TYPE APPR :							
TYPE -	CODE	0			CONDITION	CODE	
(45) NUMBER OF SPANS IN MAIN UNIT		3		(58) DECK			5
(46) NUMBER OF APPROACH SPANS		0		(59) SUPERSTRUCTURE			7
(107)DECK STRUCTURE TYPE - Timber	CODE	8		(60) SUBSTRUCTURE			5
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(61) CHANNEL & CHANNEL PROTECTION			5
(A) TYPE OF WEARING SURFACE - Bituminous	CODE	6		(62) CULVERTS			N
(B) TYPE OF MEMBRANE - None	CODE	0					
(C) TYPE OF DECK PROTECTION - None	CODE	0			LOAD RATING AND POSTING	CODE	
				(31) DESIGN LOAD	Other or Unknown		0
				(64) OPERATING RATING -	HS-15		227
				(66) INVENTORY RATING -	HS-11		219
				(70) BRIDGE POSTING -	Posting Required		0
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED			P
				DESCRIPTION -	Posted for Load		
AGE AND SERVICE							
(27) YEAR BUILT		1953					
(106)YEAR RECONSTRUCTED		1989					
(42) TYPE OF SERVICE : ON - Highway							
UNDER - Waterway	CODE	15					
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE					APPRAISAL	CODE	
(29) AVERAGE DAILY TRAFFIC		440		(67) STRUCTURAL EVALUATION			5
(30) YEAR OF ADT 2007	(109) TRUCK ADT PCT	6 %		(68) DECK GEOMETRY			4
(19) BYPASS OR DETOUR LENGTH		2 MI		(69) UNDERCLEARANCES,VERTI & HORIZ			N
GEOMETRIC DATA				(71) WATERWAY ADEQUACY			7
(48) LENGTH OF MAXIMUM SPAN		18 FT		(72) APPROACH ROADWAY ALIGNMENT			8
(49) STRUCTURE LENGTH		53 FT		(36) TRAFFIC SAFETY FEATURES			0000
(50)CURB OR SIDEWALK: LEFT 0.2 FT RIGHT 0.2 FT				(113)SCOUR CRITICAL BRIDGES			U
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		24.2 FT		SCOUR PLAN OF ACTION	Z		
(52) DECK WIDTH OUT TO OUT		25.5 FT					
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		18.0 FT			PROPOSED IMPROVEMENTS		
(33) BRIDGE MEDIAN - No Median	CODE	0		(75) TYPE OF WORK -			
(34) SKEW 0° (35) STRUCTURE FLARED		NO		(76) LENGTH OF STRUCTURE IMPROVEMENT	CODE		0 FT
(10) INVENTORY ROUTE MIN VERT CLEAR		99 FT 99 IN		(94) BRIDGE IMPROVEMENT COST			
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		24.2 FT		(95) ROADWAY IMPROVEMENT COST			
(53) MIN VERT CLEAR OVER BRIDGE RDWY		99 FT 99 IN		(96) TOTAL PROJECT COST			
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad				(97) YEAR OF IMPROVEMENT COST ESTIMATE			20
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad		99.9 FT		(114)FUTURE ADT 880	(115) YEAR FUTURE ADT		2025
(56) MIN LAT UNDERCLEAR LT REF -		0.0 FT					
NAVIGATION DATA				INSPECTIONS			
(38) NAVIGATION CONTROL - No Navigational Control	CODE	0		(90) INSPECTION DATE			02/10/2011
(111)PIER PROTECTION - Not Applicable	CODE			(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(39) NAVIGATION VERTICAL CLEARANCE		0		A) FRACTURE CRIT DETAIL -	NO	A)	
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR				B) UNDERWATER INSP -	NO	B)	
(40) NAVIGATION HORIZONTAL CLEARANCE		0		C) OTHER SPECIAL INSP	NO	C)	
				SCOUR			

BRIDGE MANAGEMENT UNIT
DATA ON EXISTING STRUCTURE

Run Date: 02/28/2011

COUNTY : GUILFORD	DIV : 7	DIST : 2	STRUCTURE NUMBER : 400271	LENGTH : 53 FEET
ROUTE CARRIED : SR3343		FEATURE INTERSECTED : STINKING QUARTER CREEK		
LOCATED : 0.25 MI. E. JCT. SR3360		BRIDGE NAME :		CITY :
FUNC. CLASS : 09	SYST.ON : NFA	SYST.UNDER : NFA	ADT & YR : 440 2007	RAIL TYPE : LT 227 RT 227
BUILT : 1953	BY : BMU	PROJ :	FED.AID PROJ :	DESIGN LOAD : Other or Unknown
REHAB : 1989	BY : BMU	PROJ :	ALIGNMENT : TAN	SKEW : 90
				LANES : ON 2 UNDER
NAVIGATION : VC 0.0 FT HC 0.0 FT		HT. CRN. TO BED : 8 FT		WATER DEPTH : 2 FT
SUPERSTRUCTURE : TIMBER DECK ON TIMBER JOISTS				
SUBSTRUCTURE : END BENTS & INT.BENTS:TIMBER CAPS & PILES,TIMBER BULKHEADS				
SPANS : 1@17'10", 1@17'5", 1@17'7"				
BEAMS OR GIRDERS : SP1&3:17LN 6X12"TIM.JST@1'6"CTS,SP2:18LN 6X12"TIM.JST@VAR.CT				
FLOOR : 4X12"TIM,2.5 "WS	ENCROACHMENT :		DECK (OUT TO OUT) : 25.5 FT	
CLEAR ROADWAY : 24.2 FT	BETWEEN RAILS : 24.6 FT		SIDEWALK OR CURB : LT 0.2 FT RT 0.2 FT	
VERT.CL.OVER : 99 FT 99 IN	VERT.CL.UNDER : 00 FT 00 IN		HOR.CL.UNDER : 0.0 FT	
INV.RTG. : HS-11	OPE.RTG. : HS-15	CONTR.MEMBER : JOIST INT.	POSTED : SV 16 TTST 24 DATE 09/19/2008	
SYSTEM : Secondary S.R. Route			GREEN LINE ROUTE : N	
2ND OPENING :		3RD OPENING :	4TH OPENING : 5TH OPENING :	
REMARKS :				

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 400271 County: GUILFORD Date: 02/10/2011 By: RLA

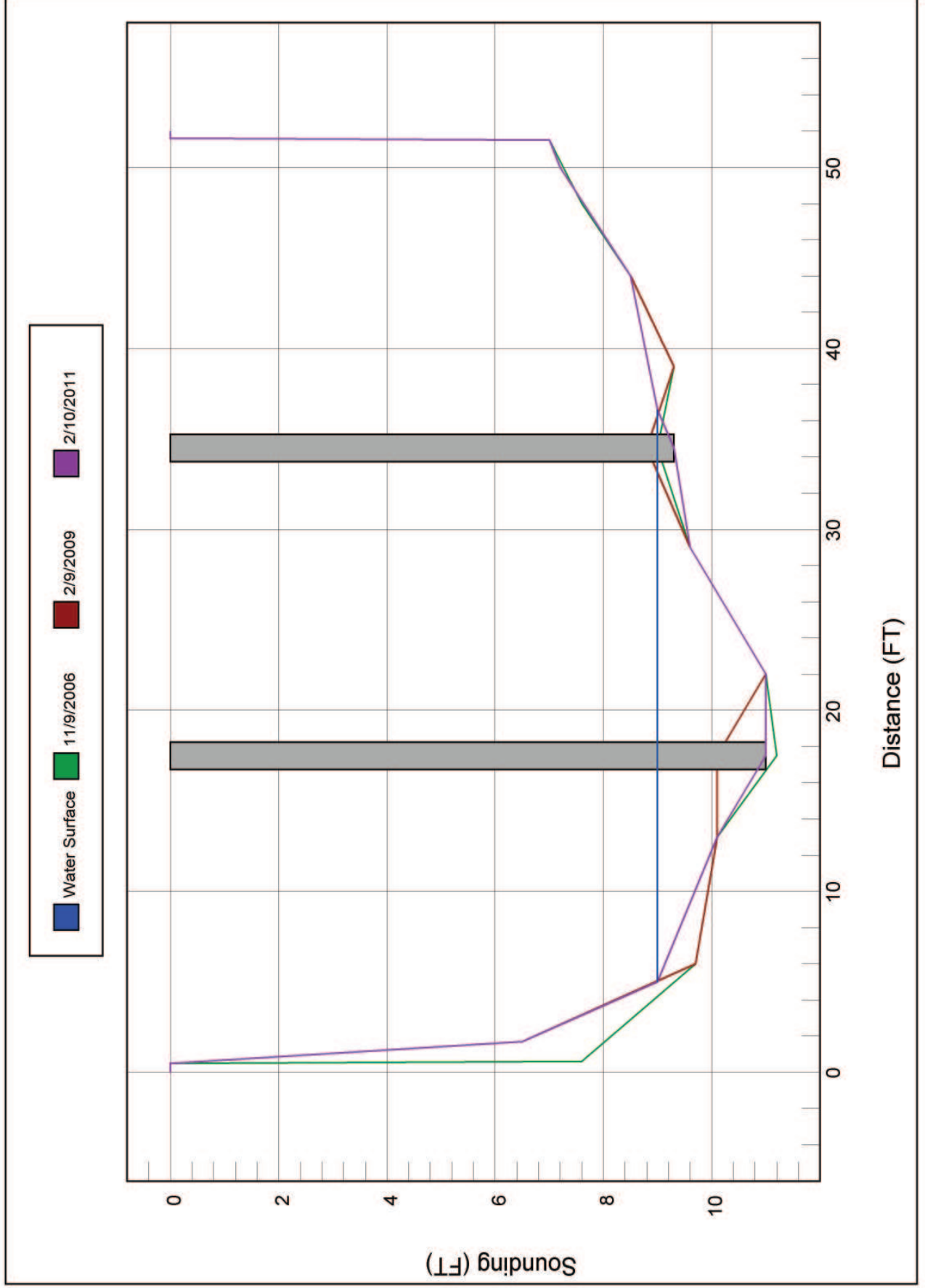
Record sounding from top of rail. Other location if needed: TOP OF RAIL

Distance from Highwater Mark to top of rail: 4.5 Location of Highwater Mark: BEAMS

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	0				
0.5	0		0.5	8.0	END BENT 1
1.7	6.5				
5	9	Water Surface/Water Edge (WSWE)			
13	10.1				
17.5	11	PIER 1, WATER UP TO 2'6" ALONG PIER	17.5	10	PIER 1
22	11				
29	9.6				
34.5	9.3	PIER 2, WATER IS UP TO 1' ALONG PIER	34.5	10	PIER 2
36.6	9	Water Surface/Water Edge (WSWE)			
44	8.5				
50	7.2				
51.5	7		51.5	7.5	END BENT 2
51.6	0				
52	0				

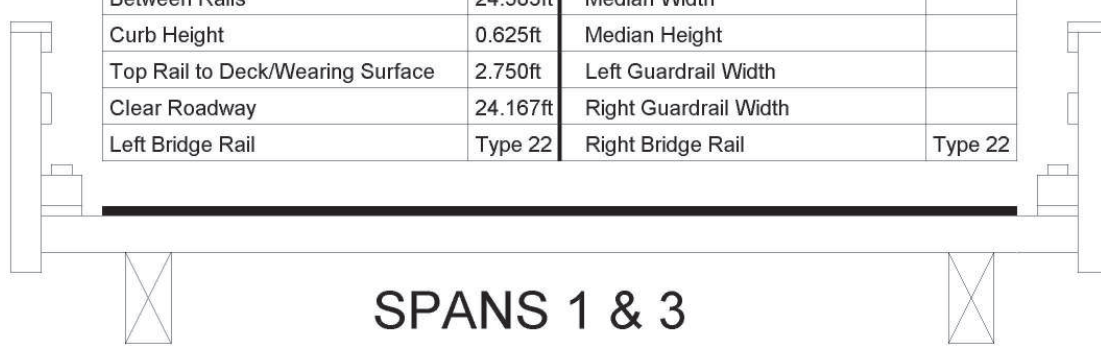
STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

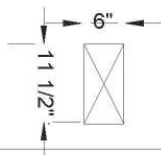
Deck Width/Out to Out	25.5ft	Wearing Surface	0.209ft
Between Rails	24.583ft	Median Width	
Curb Height	0.625ft	Median Height	
Top Rail to Deck/Wearing Surface	2.750ft	Left Guardrail Width	
Clear Roadway	24.167ft	Right Guardrail Width	
Left Bridge Rail	Type 22	Right Bridge Rail	Type 22



SPANS 1 & 3

Measurements for Span #	1		
Deck Thickness	0.312	Left Overhang	0.75
Top of Rail to Bottom of Beam	4.167	Right Overhang	0.75

Beam No	Beam Type	Spacing	Comments
1	Timber (Rectangular)	1.5 ft.	
2	Timber (Rectangular)	1.5 ft.	
3	Timber (Rectangular)	1.5 ft.	
4	Timber (Rectangular)	1.5 ft.	
5	Timber (Rectangular)	1.5 ft.	
6	Timber (Rectangular)	1.5 ft.	
7	Timber (Rectangular)	1.5 ft.	
8	Timber (Rectangular)	1.5 ft.	
9	Timber (Rectangular)	1.5 ft.	
10	Timber (Rectangular)	1.5 ft.	
11	Timber (Rectangular)	1.5 ft.	
12	Timber (Rectangular)	1.5 ft.	
13	Timber (Rectangular)	1.5 ft.	
14	Timber (Rectangular)	1.5 ft.	
15	Timber (Rectangular)	1.5 ft.	
16	Timber (Rectangular)	1.5 ft.	
17	Timber (Rectangular)		



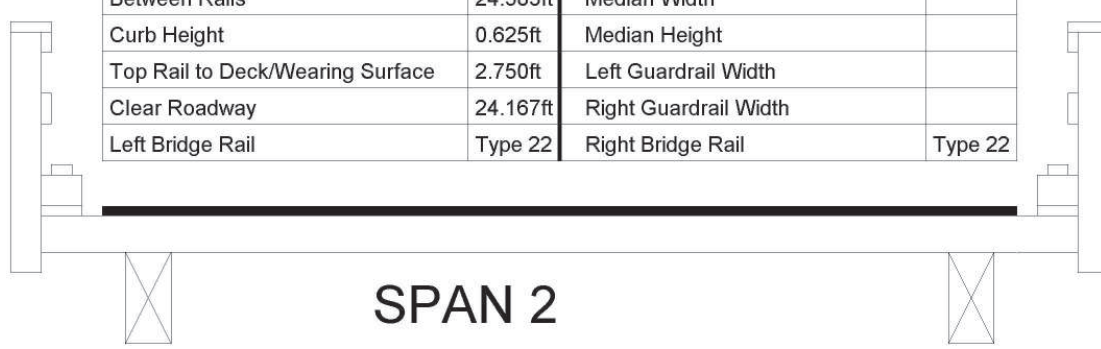
SPANS 1 AND 3
ALL JOIST

MEAS. VERIFIED 2/10/11...MYW

Title SPAN 1 AND 3 DATA		Description TOP SIDE	
Bridge No: 400271	Drawn By: MYW	Date: 2/9/2009	File Name: S0274002388

Bridge Inspection Field Sketch

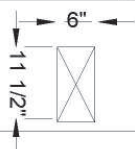
Deck Width/Out to Out	25.5ft	Wearing Surface	0.209ft
Between Rails	24.583ft	Median Width	
Curb Height	0.625ft	Median Height	
Top Rail to Deck/Wearing Surface	2.750ft	Left Guardrail Width	
Clear Roadway	24.167ft	Right Guardrail Width	
Left Bridge Rail	Type 22	Right Bridge Rail	Type 22



SPAN 2

Measurements for Span #	2		
Deck Thickness	0.312	Left Overhang	0.75
Top of Rail to Bottom of Beam	4.167	Right Overhang	0.75

Beam No	Beam Type	Spacing	Comments
1	Timber (Rectangular)	1.0 ft.	
2	Timber (Rectangular)	1.0 ft.	
3	Timber (Rectangular)	1.5 ft.	
4	Timber (Rectangular)	1.5 ft.	
5	Timber (Rectangular)	1.5 ft.	
6	Timber (Rectangular)	1.5 ft.	
7	Timber (Rectangular)	1.5 ft.	
8	Timber (Rectangular)	1.5 ft.	
9	Timber (Rectangular)	1.5 ft.	
10	Timber (Rectangular)	1.5 ft.	
11	Timber (Rectangular)	1.5 ft.	
12	Timber (Rectangular)	1.5 ft.	
13	Timber (Rectangular)	1.5 ft.	
14	Timber (Rectangular)	1.5 ft.	
15	Timber (Rectangular)	1.5 ft.	
16	Timber (Rectangular)	1.5 ft.	
17	Timber (Rectangular)	1.0 ft.	
18	Timber (Rectangular)		



ALL JOIST

MEAS. VERIFIED 2/10/11...MYW

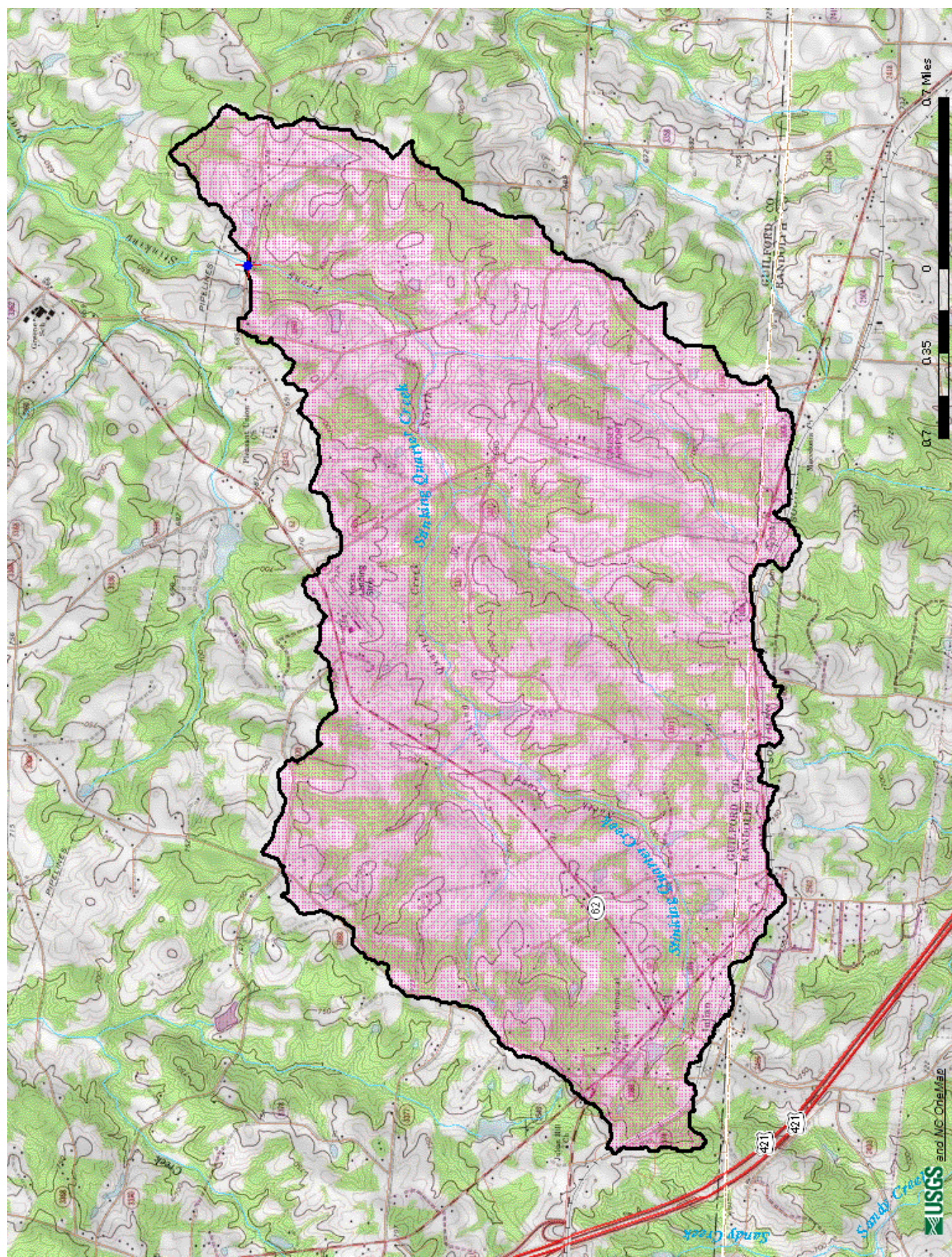
Title		Description	
SPAN 2 DATA		SPAN 2	
Bridge No: 400271	Drawn By: MYW	Date: 2/9/2009	File Name: S0274002389



LOOKING NORTH DOWNSTREAM



LOOKING SOUTH UPSTREAM





Basin Characteristics Report

Date: Tue May 28 2013 11:12:05 Mountain Daylight Time

NAD27 Latitude: 35.9335 (35 56 01)

NAD27 Longitude: -79.6035 (-79 36 13)

NAD83 Latitude: 35.9337 (35 56 01)

NAD83 Longitude: -79.6032 (-79 36 12)

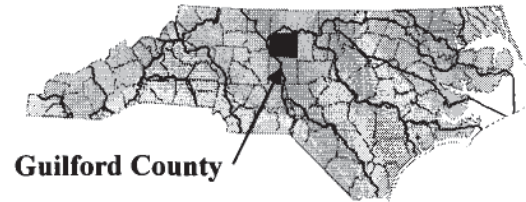
Parameter	Value
Area in square miles	6.56
Minimum basin elevation, in feet	637
Maximum basin elevation, in feet	820
Average basin elevation, in feet	713
Elevation at outlet, in feet	639
Perimeter in miles	17.7
Mean basin slope, based on slope percent grid	4.99

FLOOD INSURANCE STUDY

A Report of Flood Hazards in

GUILFORD COUNTY, NORTH CAROLINA

AND INCORPORATED AREAS



Community Name	Community Number	River Basin
Greensboro, City of	375351	Cape Fear
Guilford County (Unincorporated Areas)	370111	Cape Fear/ Roanoke/Yadkin
High Point, City of	370113	Cape Fear/Yadkin
Jamestown, Town of	370114	Cape Fear
Oak Ridge, Town of	370596	Cape Fear
Pleasant Garden, Town of	370618	Cape Fear
Sedalia, Town of	370614	Cape Fear
Stokesdale, Town of	370489	Cape Fear/Roanoke
Summerfield, Town of	370622	Cape Fear



VOLUME 1 OF 5

Revised: March 16, 2009

**Federal Emergency Management Agency
State of North Carolina**

**Flood Insurance Study Number
37081CV001B**

www.fema.gov and www.ncfloodmaps.com



Section 4.0 – Area Studied

**Table 8—Flooding Sources Studied by
Detailed Methods: Limited Detailed**

Source	Riverine Sources		Affected Communities
	From	To	
North Buffalo Creek Tributary 4	The confluence with North Buffalo Creek (Stream No. 66)	Approximately 150 feet upstream of South Aycock Street	City of Greensboro
North Buffalo Creek Tributary 5	The confluence with North Buffalo Tributary A	Approximately 75 feet upstream of Forest Hill Drive	City of Greensboro, Guilford County (Unincorporated Areas)
North Buffalo Creek Tributary 6	The confluence with Lake Hamilton	Approximately 100 feet upstream of Waycross Drive	City of Greensboro
North Little Alamance Creek Tributary 6	The confluence with North Little Alamance Creek Tributary 5 (Stream No. 79)	Approximately 1,900 feet upstream of US Highway 70	Guilford County (Unincorporated Areas)
North Prong Stinking Quarter Creek (Stream No. 88)	The Guilford/Alamance County boundary	Approximately 750 feet upstream of Liberty Road	Guilford County (Unincorporated Areas)
North Prong Stinking Quarter Creek Tributary 1	The confluence with North Prong Stinking Quarter Creek (Stream No. 88)	Approximately 250 feet upstream of Coble Church Road	Guilford County (Unincorporated Areas)
Parks Creek	Approximately 1,850 feet upstream of Shepherd Road	Approximately 800 feet upstream of the Guilford/Alamance County boundary	Guilford County (Unincorporated Areas)
Payne Creek	The confluence of Payne Creek Tributary 2	Approximately 130 feet upstream of Council Street	City of High Point
Payne Creek Tributary 1 (Stream No. 99)	Westchester Drive	Approximately 170 feet upstream of West Rotary Drive	City of High Point
Payne Creek Tributary 1A (Stream No. 97)	Approximately 120 feet upstream of Westchester Drive	Approximately 800 feet upstream of Kennedy Avenue	City of High Point
Payne Creek Tributary 1B	The confluence with Payne Creek Tributary 1 (Stream No. 99)	Approximately 1,130 feet upstream of the confluence with Payne Creek Tributary 1 (Stream No. 99)	City of High Point
Payne Creek Tributary 1C	The confluence with Payne Creek Tributary 1 (Stream No. 99)	Approximately 1,550 feet upstream of the confluence with Payne Creek Tributary 1 (Stream No. 99)	City of High Point
Payne Creek Tributary 2	The confluence with Payne Creek	Approximately 460 feet upstream of North Rotary Drive	City of High Point
Philadelphia Lake	The confluence with North Buffalo Creek (Stream No. 66)	Approximately 1,000 feet upstream of West Cone Boulevard	City of Greensboro

Section 5.0 – Engineering Methods

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area (square miles)	Discharges (cfs)				
			10% Annual Chance	2% Annual Chance	1% Annual Chance	1% Future Annual Chance	0.2% Annual Chance
North Little Alamance Creek	At mouth	3.5	950	1,900	2,500	*	4,600
Tributary 2 (Stream No. 75)	At Alamance Church Road	3.2	900	1,800	2,380	*	4,350
North Little Alamance Creek Tributary 3 (Stream No. 76)	At mouth	1.4	560	1,140	1,500	*	2,750
North Little Alamance Creek Tributary 4 (Stream No. 78)	At mouth	2.9	850	1,700	2,250	*	4,100
	At Millstream Road	2.3	750	1,500	1,960	*	3,630
	At Interstate 85/40	1.6	590	1,200	1,580	*	2,900
North Little Alamance Creek Tributary 5 (Stream No. 79)	At mouth	7.1	1,450	2,900	3,800	*	6,900
	At Knox Road	6.3	1,350	2,700	3,550	*	6,450
	At Birch Creek Road	2.1	700	1,420	1,870	*	3,430
North Little Alamance Creek Tributary 6	At mouth	3.3	*	*	1,820	*	*
	Approximately 0.4 mile downstream of Burlington Road/US Hwy 70	3.1	*	*	1,720	*	*
	Approximately 560 feet upstream of Burlington Road/US Hwy 70	2.3	*	*	1,450	*	*
North Prong Stinking Quarter Creek (Stream No. 88)	At Guilford/Alamance County boundary	19.0	*	*	5,390	*	*
	Approximately 0.5 mile downstream of Ferguson Road	18.0	*	*	5,210	*	*
	Approximately 300 feet upstream of Ferguson Road	17.0	*	*	5,040	*	*
	Approximately 25 feet upstream of confluence of Chocolate Creek	12.3	*	*	4,100	*	*
	Approximately 420 feet downstream of Alamance Church Road	12.0	*	*	4,050	*	*
	Approximately 1,100 feet downstream of Phillippi Road	11.0	*	*	3,840	*	*
	Approximately 0.6 feet upstream of Phillippi Road	10.3	*	*	3,670	*	*
	Approximately 25 feet upstream of confluence with North Prong Stinking Quarter Creek Tributary 1	6.2	*	*	2,680	*	*

Section 5.0 – Engineering Methods

Table 11—Summary of Discharges

Flooding Source	Location	Drainage Area (square miles)	Discharges (cfs)				
			10% Annual Chance	2% Annual Chance	1% Annual Chance	1% Future Annual Chance	0.2% Annual Chance
North Prong Stinking Quarter Creek (Stream No. 88)	Approximately 1,100 feet downstream of Bowman Dairy Road (SR 3360)	5.2	*	*	2,410	*	*
	Approximately 0.7 mile upstream of Bowman Dairy Road	4.2	*	*	2,110	*	*
	Approximately 600 feet upstream of Smithwood Road	3.0	*	*	1,690	*	*
	Approximately 0.9 mile downstream of Bulb	1.0	*	*	868	*	*
North Prong Stinking Quarter Creek Tributary 1	At mouth	3.0	*	*	1,720	*	*
	Approximately 100 feet upstream of Bowman Dairy Road	2.9	*	*	1,650	*	*
	Approximately 2,000 feet downstream of NC 62	1.8	*	*	1,220	*	*
	Approximately 70 feet upstream of NC 62	1.6	*	*	1,130	*	*
	Approximately 30 feet upstream of Coble Church Road	1.2	*	*	983	*	*
Payne Creek	Downstream of the confluence of Payne Creek Tributary	3.35	1,270	2,070	2,450	*	3,500
	At the Davidson/ Guilford County boundary	1.7	1,040	1,670	1,950	*	3,120
	Approximately 50 feet upstream of confluence of Payne Creek Tributary 2	0.7	*	*	989	*	*
	Approximately 800 feet upstream of North Rotary Drive	0.5	*	*	889	*	*
	Approximately 160 feet downstream of Council Street	0.4	*	*	785	*	*
Payne Creek Tributary	At the confluence with Payne Creek	1.34	720	1,231	1,471	*	2,176
	Approximately 1.1 miles upstream of Canterbury Road	0.7	607	1,025	1,225	*	1,744
Payne Creek Tributary 1 (Stream No. 99)	At Westchester Drive	0.37	430	745	900	*	1,310
	Approximately 100 feet upstream of Westchester Drive	0.4	*	*	733	*	*
	Approximately 620 feet upstream of Westchester Drive	0.3	*	*	617	*	*
	Approximately 1,600 feet upstream of Westchester Drive	0.2	*	*	443	*	*
	Approximately 460 feet downstream of Rotary Drive	0.1	*	*	397	*	*

Section 5.0 – Engineering Methods

Table 13—Roughness Coefficients

Stream	Channel "n"	Overbank "n" ¹
Long Branch (Stream No. 25)	0.047-0.060	0.130-0.150
Long Branch (Stream No. 58)	0.060	0.150
Mears Fork Creek (Stream No. 47)	0.050-0.060	0.120-0.150
Mile Branch	0.045-0.060	0.080-0.160
Mile Branch Tributary 1	0.045	0.130
Mile Branch Tributary 2	0.050	0.150
Mile Run Creek	0.030 - 0.060	0.035 - 0.230
Moore's Creek (Stream No. 53)	0.060	0.120
Muddy Creek	0.040 - 0.045	0.043 - 0.230
Muddy Creek East Tributary	0.040-0.045	0.110-0.200
Muddy Creek East Tributary 2	0.050	0.150
Muddy Creek East Tributary 4	0.040-0.045	0.100-0.140
Muddy Creek East Tributary 5	0.040-0.045	0.120-0.140
Muddy Creek East Tributary 6	0.040-0.045	0.120-0.200
North Buffalo Creek (Stream No. 66)	0.035-0.065	0.016-0.230
North Buffalo Creek Tributary 1	0.040 - 0.050	0.120 - 0.230
North Buffalo Creek Tributary 2	0.035 - 0.045	0.045 - 0.230
North Buffalo Creek Tributary 3	0.035 - 0.045	0.060 - 0.120
North Buffalo Creek Tributary 4	0.040 - 0.055	0.043 - 0.230
North Buffalo Creek Tributary 5	0.030 - 0.050	0.040 - 0.230
North Buffalo Creek Tributary 6	0.030 - 0.060	0.035 - 0.230
North Buffalo Creek Tributary A	0.030 - 0.050	0.040 - 0.080
North Little Alamance Creek (Stream No. 72)	0.060	0.120
North Little Alamance Creek Tributary 1 (Stream No. 73)	0.060	0.120
North Little Alamance Creek Tributary 2 (Stream No. 75)	0.060	0.120
North Little Alamance Creek Tributary 3 (Stream No. 76)	0.060	0.120
North Little Alamance Creek Tributary 4 (Stream No. 78)	0.060	0.120
North Little Alamance Creek Tributary 5 (Stream No. 79)	0.060	0.120
North Little Alamance Creek Tributary 6	0.040	0.155
North Prong Stinking Quarter Creek (Stream No. 88)	0.050	0.100-0.150
North Prong Stinking Quarter Creek Tributary 1	0.040	0.100-0.150
Parks Creek	0.040	0.100-0.150
Payne Creek	0.045-0.060	0.080-0.160
Payne Creek Tributary	0.045-0.060	0.080-0.160
Payne Creek Tributary 1 (Stream No. 99)	0.045-0.060	0.080-0.160
Payne Creek Tributary 1A (Stream No. 97)	0.045-0.060	0.080-0.160
Payne Creek Tributary 1B	0.050	0.150
Payne Creek Tributary 1C	0.055	0.100-0.150
Payne Creek Tributary 2	0.045-0.050	0.008-0.120
Philadelphia Lake	0.010-0.060	0.030-0.230
Polecat Creek (Stream No. 42)	0.060	0.120
Polecat Creek Tributary 1 (Stream No. 43)	0.060	0.120
Polecat Creek Tributary 2	0.046	0.120-0.140
Polecat Creek Tributary 3	0.046	0.130-0.140
Polecat Creek Tributary 4	0.040-0.045	0.100-0.140
Reedy Fork (Stream No. 51)	0.030-0.060	0.080-0.120
Reedy Fork Tributary 1	0.047	0.100-0.150
Reedy Fork Tributary 2	0.045	0.100-0.150
Reedy Fork Tributary 3	0.050	0.100-0.150
Reedy Fork Tributary 4	0.060	0.120
Reedy Fork Tributary 7	0.060	0.120
Reedy Fork Tributary 8	0.048	0.110-0.150

Table 14—Limited Detailed Flood Hazard Data

Cross Section¹	Stream Station²	Flood Discharge (cfs)	1% Annual Chance Water- Surface Elevation (feet NAVD 88)	Non- Encroachment Width³ (feet)
NORTH BUFFALO TRIBUTARY 6				
007	666	1,214	799.7	51 / 9
008	761	1,214	801.2	86 / 39
008	808	1,214	802.7	48 / 52
008	827	1,214	802.9	21 / 70
010	960	1,214	803.0	9 / 73
010	987	1,214	803.0	28 / 79
010	1,036	1,214	803.4	15 / 58
011	1,058	1,214	804.0	11 / 51
013	1,328	1,214	804.5	87 / 18
014	1,401	1,214	805.4	113 / 11
015	1,464	1,214	806.3	30 / 30
015	1,493	1,214	806.7	58 / 12
020	2,005	1,214	807.7	39 / 10
024	2,358	1,214	809.8	20 / 20
024	2,412	1,214	812.0	42 / 108
025	2,476	1,214	812.8	19 / 31
025	2,505	1,214	812.8	27 / 9
028	2,766	1,214	814.4	40 / 50
028	2,824	1,214	814.7	21 / 29
030	2,989	1,214	823.4	48 / 49
NORTH LITTLE ALAMANCE CREEK TRIBUTARY 6				
001	119	1,820	627.0 ⁴	73 / 78
006	613	1,820	627.0 ⁴	47 / 30
010	1,000	1,820	627.0 ⁴	64 / 33
015	1,499	1,820	627.7	134 / 99
020	1,955	1,820	628.9	198 / 32
025	2,500	1,720	630.9	157 / 43
030	2,950	1,720	632.2	18 / 246
035	3,500	1,720	632.9	20 / 70
041	4,075	1,720	636.8	108 / 47
046	4,552	1,720	637.9	72 / 60
048	4,825	1,720	638.5	45 / 94
051	5,134	1,720	639.1	19 / 19
052	5,208	1,720	641.5	19 / 19
056	5,575	1,720	641.7	84 / 9
060	6,030	1,450	643.2	31 / 10
064	6,421	1,450	645.5	27 / 25
068	6,774	1,450	648.9	82 / 22
071	7,072	1,450	649.3	107 / 38
NORTH PRONG STINKING QUARTER CREEK (STREAM NO. 88)				
410	40,978	5,390	589.1	92 / 139
416	41,646	5,390	590.2	63 / 93
417	41,686	5,390	591.1	63 / 93
425	42,461	5,390	592.8	16 / 64
431	43,114	5,390	594.8	98 / 16
435	43,461	5,390	595.8	75 / 31
440	43,961	5,390	596.9	24 / 52
446	44,558	5,390	598.5	66 / 37

Table 14—Limited Detailed Flood Hazard Data

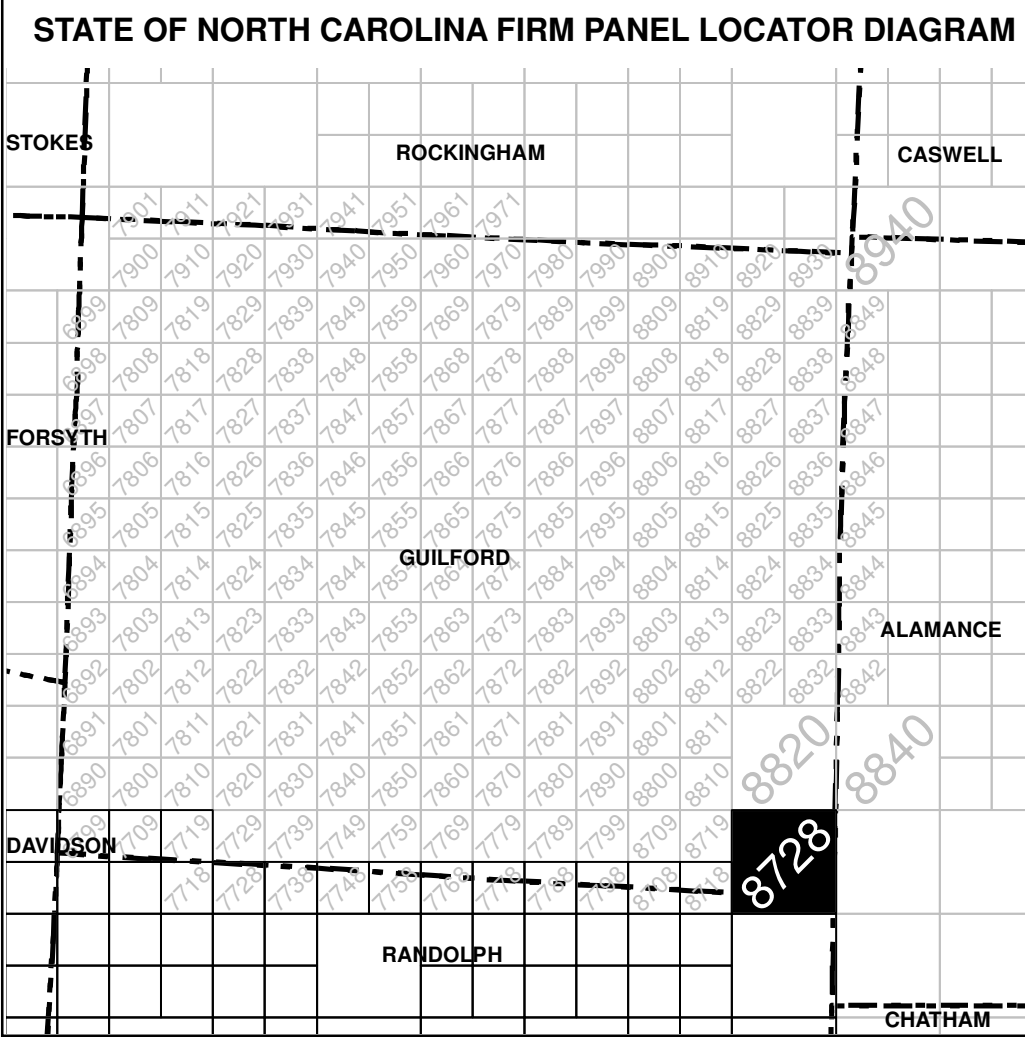
Cross Section¹	Stream Station²	Flood Discharge (cfs)	1% Annual Chance Water- Surface Elevation (feet NAVD 88)	Non- Encroachment Width³ (feet)
NORTH PRONG STINKING QUARTER CREEK (STREAM NO. 88)				
450	44,961	5,390	599.2	92 / 16
455	45,461	5,390	600.1	105 / 16
459	45,940	5,390	601.1	78 / 104
463	46,311	5,210	601.3	51 / 35
468	46,813	5,210	602.4	20 / 107
473	47,325	5,210	603.1	85 / 135
480	47,993	5,210	603.5	69 / 74
485	48,546	5,210	604.1	109 / 15
490	48,979	5,210	605.0	65 / 150
490	49,018	5,210	606.1	65 / 150
500	49,991	5,040	607.2	48 / 53
504	50,449	5,040	608.1	14 / 104
514	51,412	5,040	609.5	134 / 61
518	51,825	5,040	610.0	98 / 107
525	52,461	5,040	610.7	112 / 160
529	52,927	5,040	610.9	14 / 226
534	53,356	5,040	611.2	34 / 114
538	53,828	5,040	611.9	73 / 85
545	54,453	5,040	612.6	70 / 101
550	54,961	5,040	613.3	58 / 53
555	55,461	5,040	614.4	43 / 74
558	55,758	5,040	615.0	27 / 185
565	56,483	5,040	615.5	39 / 136
571	57,064	5,040	616.0	116 / 192
576	57,610	5,040	616.2	449 / 229
582	58,181	4,100	616.3	188 / 269
586	58,639	4,100	616.3	235 / 255
591	59,115	4,100	616.4	213 / 52
596	59,576	4,100	616.7	276 / 41
601	60,098	4,100	616.9	132 / 58
606	60,582	4,100	617.5	101 / 17
610	61,022	4,050	618.3	80 / 44
612	61,239	4,050	618.9	123 / 180
613	61,283	4,050	619.3	123 / 180
617	61,651	4,050	619.4	81 / 96
622	62,187	4,050	619.9	220 / 42
634	63,381	4,050	620.5	11 / 221
641	64,061	4,050	621.0	119 / 359
648	64,796	4,050	621.4	261 / 11
653	65,327	4,050	621.9	156 / 35
659	65,899	4,050	622.6	256 / 85
664	66,419	4,050	622.9	305 / 55
668	66,831	4,050	623.1	350 / 34
674	67,402	4,050	623.3	44 / 110

Table 14—Limited Detailed Flood Hazard Data

Cross Section¹	Stream Station²	Flood Discharge (cfs)	1% Annual Chance Water- Surface Elevation (feet NAVD 88)	Non- Encroachment Width³ (feet)
NORTH PRONG STINKING QUARTER CREEK (STREAM NO. 88)				
679	67,907	4,050	624.1	51 / 201
685	68,461	4,050	624.6	60 / 114
690	68,951	3,840	625.8	66 / 227
694	69,431	3,840	626.5	99 / 142
701	70,079	3,840	627.3	68 / 110
701	70,119	3,840	627.6	68 / 110
705	70,461	3,840	628.0	180 / 115
708	70,835	3,840	628.2	269 / 19
714	71,393	3,840	628.6	163 / 34
720	71,961	3,840	629.2	359 / 21
724	72,378	3,840	629.4	428 / 11
731	73,121	3,840	629.9	438 / 47
738	73,817	3,670	630.5	200 / 50
746	74,586	3,670	632.0	217 / 11
750	75,004	3,670	632.7	249 / 87
756	75,615	3,670	633.5	78 / 132
760	75,991	3,670	634.0	49 / 114
766	76,598	3,670	635.2	198 / 26
770	76,961	3,670	635.5	286 / 210
773	77,287	3,670	635.7	339 / 176
779	77,859	3,670	635.9	336 / 61
782	78,206	3,670	636.2	124 / 135
788	78,829	3,670	636.8	335 / 70
798	79,814	2,680	637.4	117 / 337
806	80,552	2,680	637.9	8 / 434
811	81,099	2,680	638.3	135 / 193
816	81,622	2,680	638.9	77 / 96
821	82,085	2,680	640.2	120 / 21
825	82,502	2,680	641.4	44 / 112
829	82,884	2,680	642.0	114 / 185
829	82,930	2,680	642.4	114 / 185
833	83,326	2,680	642.6	43 / 263
838	83,821	2,680	643.2	149 / 161
842	84,198	2,680	643.8	123 / 196
847	84,709	2,680	644.5	54 / 312
853	85,303	2,680	645.4	247 / 103
858	85,807	2,680	646.1	8 / 329
862	86,248	2,680	647.0	58 / 161
867	86,731	2,410	648.2	152 / 15
871	87,099	2,410	649.0	43 / 163
876	87,575	2,410	649.5	50 / 167
876	87,621	2,410	650.3	50 / 167
880	87,956	2,410	650.4	171 / 161
884	88,402	2,110	650.6	156 / 195

Table 14—Limited Detailed Flood Hazard Data

Cross Section¹	Stream Station²	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width³ (feet)
NORTH PRONG STINKING QUARTER CREEK (STREAM NO. 88)				
889	88,855	2,110	650.9	31 / 249
894	89,364	2,110	651.7	33 / 270
898	89,841	2,110	652.7	6 / 223
906	90,563	2,110	655.0	114 / 57
911	91,080	2,110	656.0	231 / 28
915	91,499	2,110	656.6	71 / 210
919	91,868	2,110	657.1	60 / 60
919	91,915	2,110	658.5	60 / 60
924	92,374	1,690	659.1	156 / 108
931	93,054	1,690	659.6	132 / 41
935	93,529	1,690	661.5	7 / 205
939	93,898	1,690	662.6	65 / 189
944	94,403	1,690	664.1	19 / 67
949	94,897	1,690	666.4	24 / 175
957	95,736	1,690	667.8	105 / 41
966	96,615	1,690	670.7	96 / 19
971	97,064	1,690	671.7	145 / 26
976	97,551	1,690	672.5	122 / 20
983	98,344	1,690	675.6	152 / 4
989	98,950	1,690	678.0	15 / 197
995	99,539	1,690	680.4	81 / 55
1002	100,214	868	683.1	91 / 35
1004	100,388	868	683.6	37 / 51
1004	100,428	868	684.4	37 / 51
1008	100,808	868	686.7	6 / 105
1015	101,526	868	688.9	80 / 3
1022	102,210	868	692.3	48 / 28
1027	102,679	868	695.2	28 / 44
1032	103,225	868	698.4	13 / 101
1041	104,125	868	703.1	48 / 20
1047	104,698	868	707.3	49 / 20
1049	104,850	868	707.6	50 / 50
1049	104,912	868	707.9	50 / 50
1053	105,287	868	709.3	10 / 30
1060	105,956	868	718.1	21 / 28
1067	106,652	868	722.0	40 / 48
1072	107,241	868	725.5	45 / 20
1075	107,522	868	729.1	44 / 45
1076	107,587	868	731.0	44 / 45
1078	107,845	868	732.6	58 / 23
1083	108,303	868	734.6	4 / 67
NORTH PRONG STINKING QUARTER CREEK TRIBUTARY 1				
005	487	1720	636.6	128 / 129
010	979	1720	636.8	80 / 50
017	1,706	1720	639.3	100 / 59



DATUM INFORMATION

The **projection** used in the preparation of this map was the North Carolina State Plane (FIPSZONE 3200). The **horizontal datum** was the North American Datum of 1983 (NAD 83). Differences in datum, ellipsoid, projection, or Universal Transverse Mercator zones used in the production of FIRMS for adjacent jurisdictions may result in slight positional differences in map features across jurisdictional boundaries. These differences do not affect the accuracy of this FIRM. All coordinates on this map are in U.S. Survey Feet, where 1 U.S. Survey Foot = 1200/3937 Meters.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD 88). These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. An average offset between NAVD 88 and the National Geodetic Vertical Datum of 1929 (NGVD 29) has been computed for each North Carolina county. This offset was then applied to the NGVD 29 flood elevations that were not revised during the creation of this statewide format FIRM. The offsets for each county shown on this FIRM panel are shown in the vertical datum offset table below. Where a county boundary and a flooding source with unrevised NGVD 29 flood elevations are coincident, an individual offset has been calculated and applied during the creation of this statewide format FIRM. See Section 6.1 of the accompanying Flood Insurance Study report to obtain further information on the conversion of elevations between NAVD 88 and NGVD 29. To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the North Carolina Geodetic Survey at the address shown below. You may also contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

North Carolina Geodetic Survey
121 West Jones Street
Raleigh, NC 27601
(919) 733-3836
<http://www.ncgs.state.nc.us>

County	Average Vertical Datum Offset (ft)
ALAMANCE	-0.1
GUILFORD	-0.75
RANDOLPH	-0.76

Example: NAVD 88 = NGVD 29 + (-0.8)

All streams listed in the **Flood Hazard Data Table** below were studied by detailed methods using field survey. Other flood hazard data shown on this map may have been derived using either a coastal analysis or limited detailed Riverine analysis. More information on the flooding sources studied by these analyses is contained in the Flood Insurance Study report.

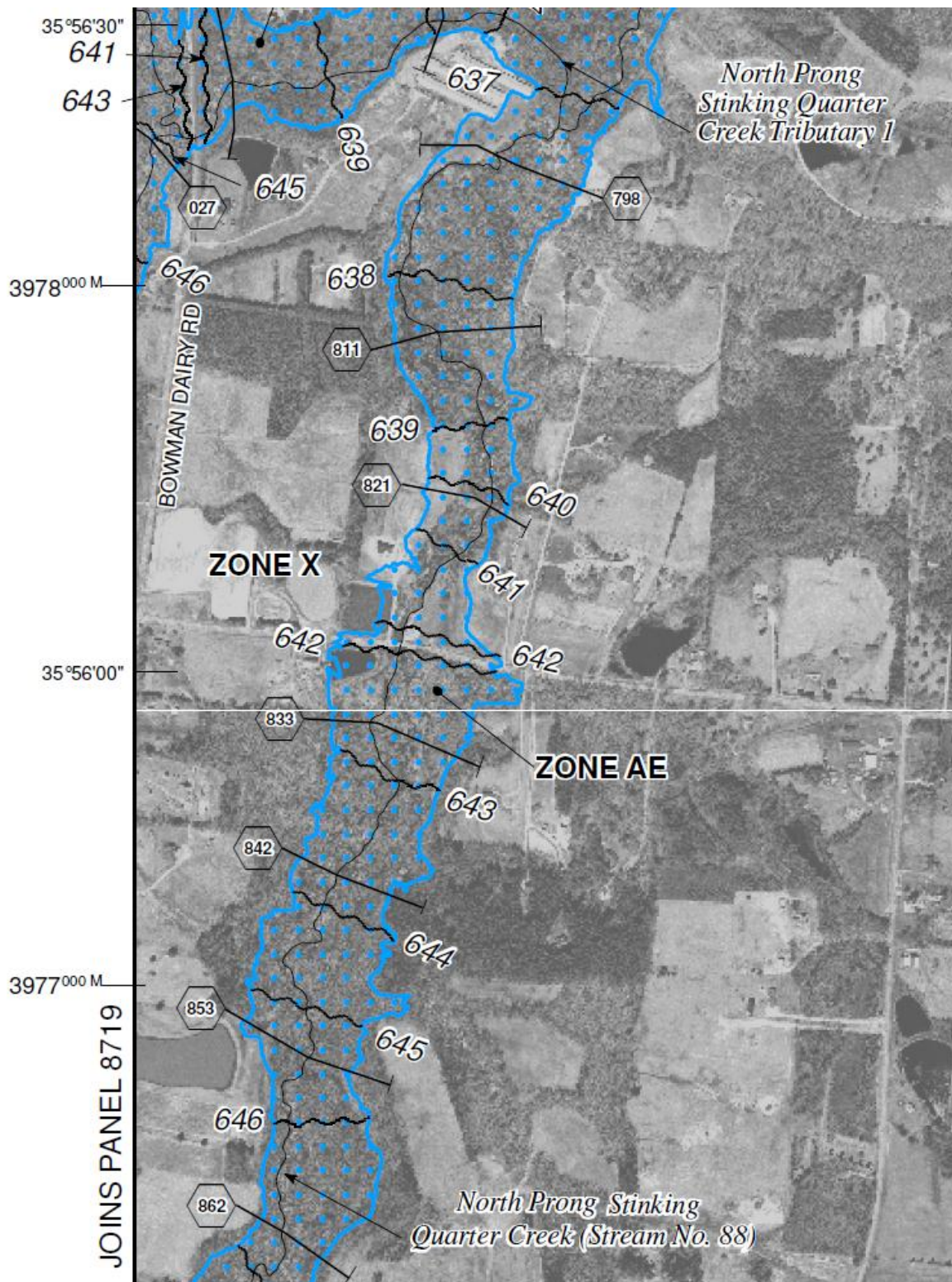


This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of North Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

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FLOODING EFFECTS FROM NORTH PRONG STINKING QUARTER CREEK (STREAM NO. 88)





North Prong Stinking Quarter Creek Plan: 100-Year-Single 8/13/2007
Coble Church Rd-TOR

