

(SCOPE WEEK OF 5-5-14 BY MTS
AS IT WAS SO CLOSE TO BRG #403..)

NO STATE S. H2O Permit
NO FEMA NO MOA
OFFICE EST. 2095'x67'
CSP

OFFICE EST. BRG = 55'
APX EXISTING BRG OPENING = 95 FT²
LOW BED TO CROWN

PREDESIGN-PRESURVEY REPORT

Project# 17BP.11.R.
TIP#
Let Date
WBS#

D-2

County WILKES (Div. 11)

Bridge# 960700
Road# SR 1302 (CASEY'S BRANCH RD.)
Stream HARLEY CRK.
(ESM - LITTLE CRK)

Type Of Request: POC Force Account TIP NCMA

Date 5/12/14 Name Wsh Assigned To RCH

Checked By 5-17-11 CAF (ORIGINAL - FOUND LATER) BRN: BK: NONE CO FILE NONE

Prior Survey Date NONE (attach copy of prior survey)

Study By Scour Section NONE

Flood Zone X Detail Study NONE Date 3-2-09 Panel# 2888

B.M. Info N/A 1.5 Sq. Mi. (CAF HAD 1.8 Sq. Mi. DA - QUAD)

Quad Map MAPLE SPRINGS Drainage Area 934 AC From STREAM STATS

Q25 = 550 cfs Q50 = 650 cfs Q100 = 750 cfs Method 100% REGION 2
= 398(1.5)^{.724} = 479(1.5)^{.718} = 575(1.5)^{.713} RURAL / REG. EQU.
533.8 = 640.9 = 767.8

EXISTING BRIDGE INFORMATION

Location 0.5 Mi. N. Jct. US 421

Average Daily Traffic 70 (2000) 6% TRK.

Length 19' Bed- To Crown 6' Water Depth 1'

Type Structure TIMBER FLR, JOISTS, E. BTS, CAPS, POSTS, & SILLS

Type Spans 1 @ 18' 10"

Upstream Structure NO NUMBERED STR. U/S

Location N/A

Bed- To Crown Prior Survey

Downstream Structure 960403

Location (HARLEY CRK, SR 1302) 0.4 Mi. N. Jct US 421

Bed- To Crown 6" (H2O 1' DEEP) Prior Survey

SCS Watershed N/A

ENVIRONMENTAL

TVA: NO

Trout Stream YES Anadromous Fish NO Primary Nursery Area NO

High Quality Waters NO Nutrient Sensitive Waters NO

Near Water Supply Intake NO CAMA County NO

Stream Classification C - Tr #03-07-01 (FROM SOURCE

DENR River Basin Info. YADKIN / PEE DEE TO SO. PRONG LEWIS FORK)

LONG: -81.396335
LAT: 36.88863 (ESM = DA = 881.3 AC)

1, 10, 13, 20

COUNTY: ~~Wilkes~~ ^{WILKES}

BRIDGE #: 700

DATE: 5/5/14

OAL: 18.8'

___ I ___ OPENING:

CLEAR ROADWAY: 16.1'

14.5

CLEAR ROADWAY ALONG SKEW: 19.8'

12.5

TOP OF RAIL TO BED: 8.6

TOP OF RAIL TO SEAT: 4.4

HEIGHT OF RAIL: 2.8'

6' crown To BED

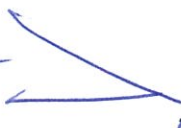
NORMAL WATER DEPTH: 0.5'

STREAM WIDTH (NWSEL): 8'

WATERWAY OPENING: 60 FT²

DETOUR:

20'11" x 7'9"

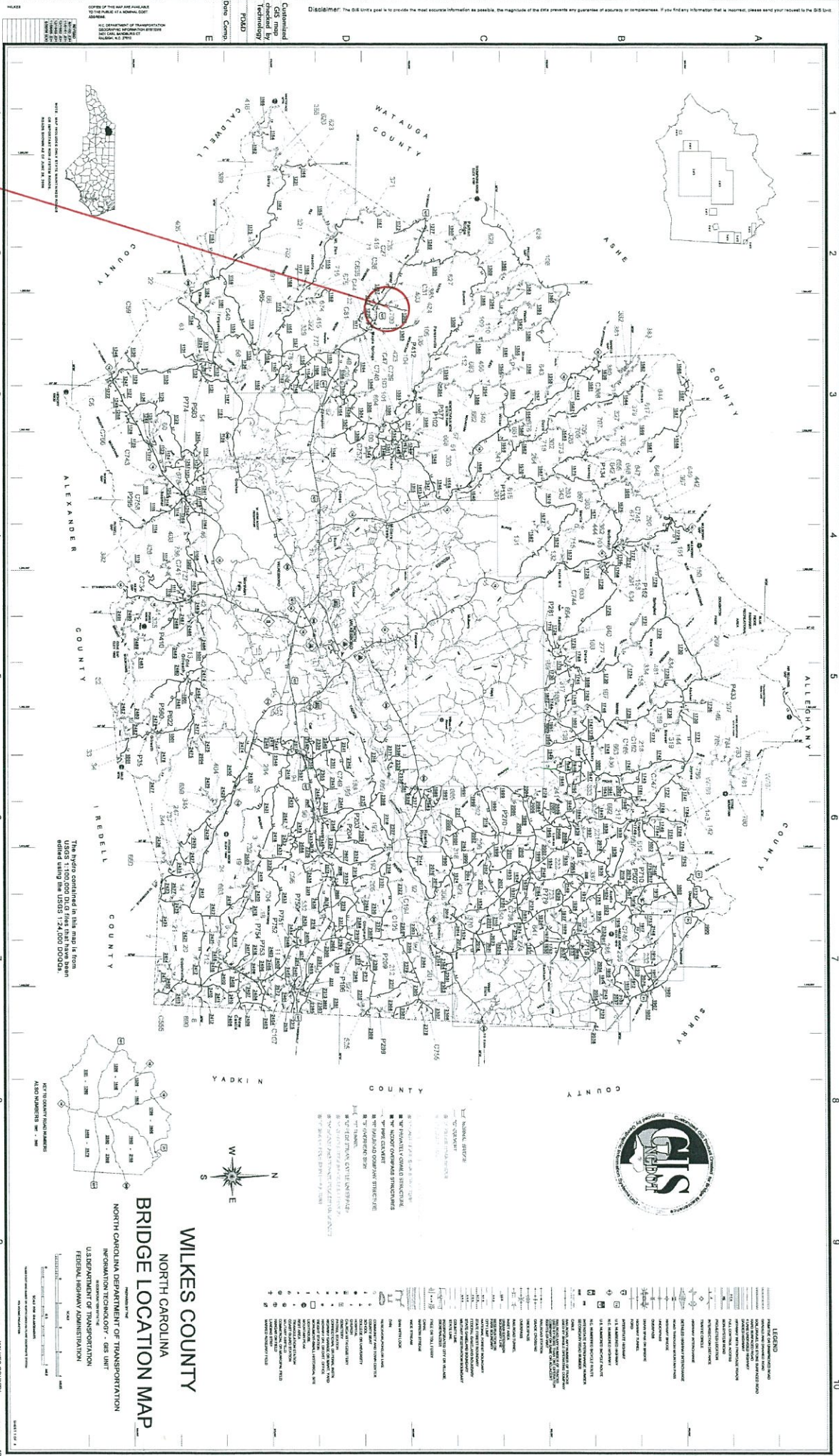
TOB UPSTN LT  NEED TO RELOCATE
TOB DOWNSTN Rt

17B

$$\begin{array}{r} 20'7" \times 5'3" = 89 \text{ FT}^2 \\ \underline{60} \\ 62 \text{ FT}^2 \end{array}$$

700

700



COPIES OF THIS MAP ARE AVAILABLE
FROM THE STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
1000 NORTH CAROLINA AVENUE
RALEIGH, NORTH CAROLINA 27601
1-800-368-6848
WWW.DOT.ORG

Customized
by
Technology
ROAD
Data Comp.

Disclaimer: The GIS Unit's goal is to provide the most accurate information as possible; the magnitude of the data presents any guarantee of accuracy or completeness. If you find any information that is incorrect, please send your request to the GIS Unit.

The hydro contained in this map is from
USGS 1:100,000 DTD files that have been
edited using the USGS 1:250,000 DTD files.

NOT TO SCALE
ALSO SHOWN ON MAP
1:100,000
1:250,000
1:500,000

WILKES COUNTY
NORTH CAROLINA
BRIDGE LOCATION MAP
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



- 1. ALL BRIDGES ARE SHOWN ON THIS MAP.
- 2. BRIDGES ARE CLASSIFIED BY TYPE AND CONDITION.
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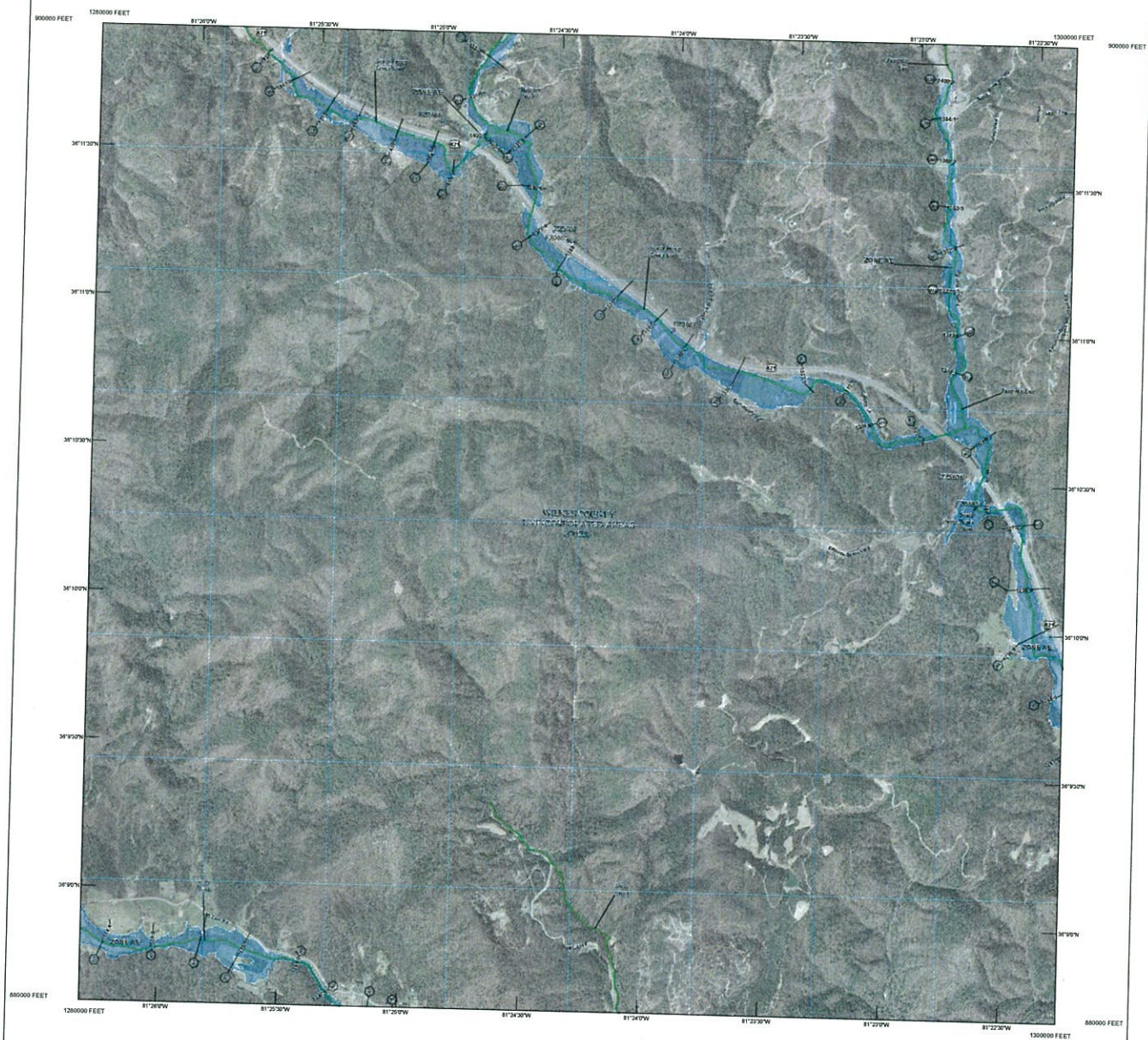
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LEGEND

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This digital Flood Insurance Rate Map (FIRM) was produced through a unique partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has entered into a long-term agreement with FEMA to produce and maintain this FIRM. This map is a product of the State of North Carolina's Flood Insurance Mapping Program. It is a part of the State of North Carolina's Flood Insurance Mapping Program. It is a part of the State of North Carolina's Flood Insurance Mapping Program. It is a part of the State of North Carolina's Flood Insurance Mapping Program.

FLOOD HAZARD INFORMATION

SEE THIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://FRIS.NC.GOV/FRIS](http://FRIS.NC.GOV/FRIS)

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
Zone AE, AO, AH, VE, AR
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard, Areas of 1% Annual Chance Flood with Average Depth Less Than One Foot or With Drainage Areas of Less Than One Square Mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Areas with Reduced Flood Risk due to Levees
- See Notes Zone X
- Areas Determined to be Outside the 0.2% Annual Chance Floodplain Zone X
- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall
- North Carolina Geodetic Survey bench mark
- National Geodetic Survey bench mark
- Contractor Est. NCEMP Survey bench mark
- Cross Sections with 1% Annual Chance Water Surface Elevation (RFE)
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Limit of Study
- Jurisdiction Boundary

OTHER AREAS OF FLOOD HAZARD

OTHER AREAS

GENERAL STRUCTURES

OTHER FEATURES

NOTES TO USERS

For information and questions about this map, available products associated with the FIRM including...
Community, including land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM data. These may be ordered directly from the Map Service Center at the number listed above.
For community and countywide map data refer to the Flood Insurance Study report for the jurisdiction.
To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-455-6520.
Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of this information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Notebook (TSDN).
ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1% annual chance level) and Emergency Action Plan. This, on the community's levee system, is shown as providing protection. To maintain protection, the levee must be properly maintained and the community must provide the necessary data and documentation on the levee system. If the community or levee system does not comply with Section 55.10 of the NFIP regulations, FEMA will revise the flood hazard and risk information for this area to reflect the accreditation of the levee system. To update flood risk in other protection measures. For more information on flood insurance, interested parties should call the FEMA. Website at <http://www.fema.gov/levees> or FEMA.
PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1% annual chance level) and Emergency Action Plan. This, on the community's levee system, is shown as providing protection. To maintain protection, the levee must be properly maintained and the community must provide the necessary data and documentation on the levee system. If the community or levee system does not comply with Section 55.10 of the NFIP regulations, FEMA will revise the flood hazard and risk information for this area to reflect the accreditation of the levee system. To update flood risk in other protection measures. For more information on flood insurance, interested parties should call the FEMA. Website at <http://www.fema.gov/levees> or FEMA.
LIMIT OF MODERATE WAVE ACTION (LIMWA) NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Line of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1-foot flooding zone. The effects of wave heights between the VE Zone and the LMWA are shown in the LMWA for areas where VE Zones are not identified; they are similar to, but less severe than those in the VE Zone.
COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for properties that are not built or substantially improved on or after the date(s) FIC Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-544-6963.
CBRS Area **Otherwise Protected Area**

SCALE

Map Projection:
North Carolina State Plane Projection East (Zone 2205)
Datum: NAD 1983 (Horizontal), NAD 1983 (Vertical)

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 Feet
0 150 300 600 Meters

PANEL LOCATOR

National Flood Insurance Program

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

NORTH CAROLINA

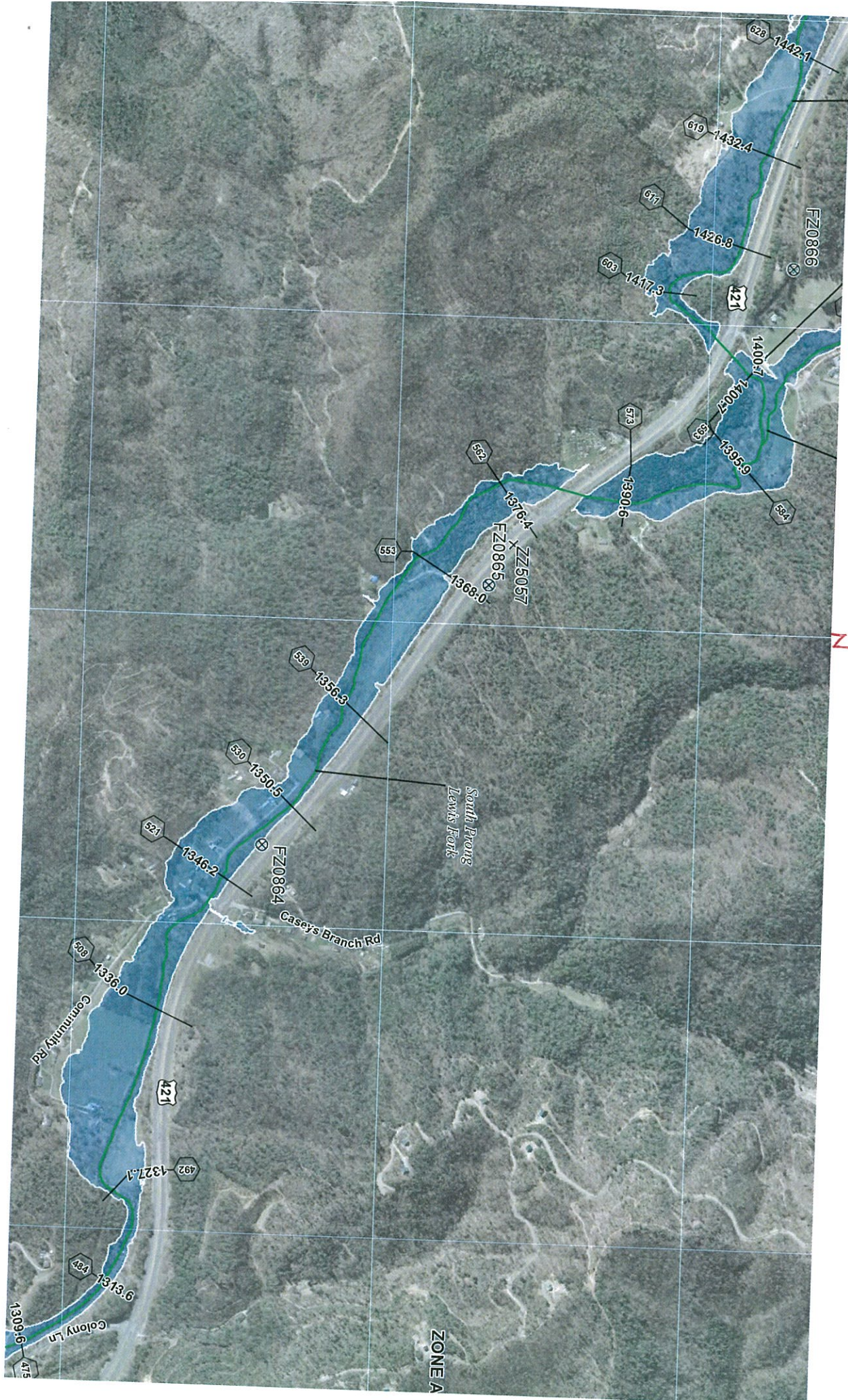
Panel 2888

Panel Contains:
COMMUNITY
WILKES COUNTY

CID PANEL SUFFIX
370256 2888 J

MAP NUMBER
3710288800J
MAP REVISED
3/2/2009

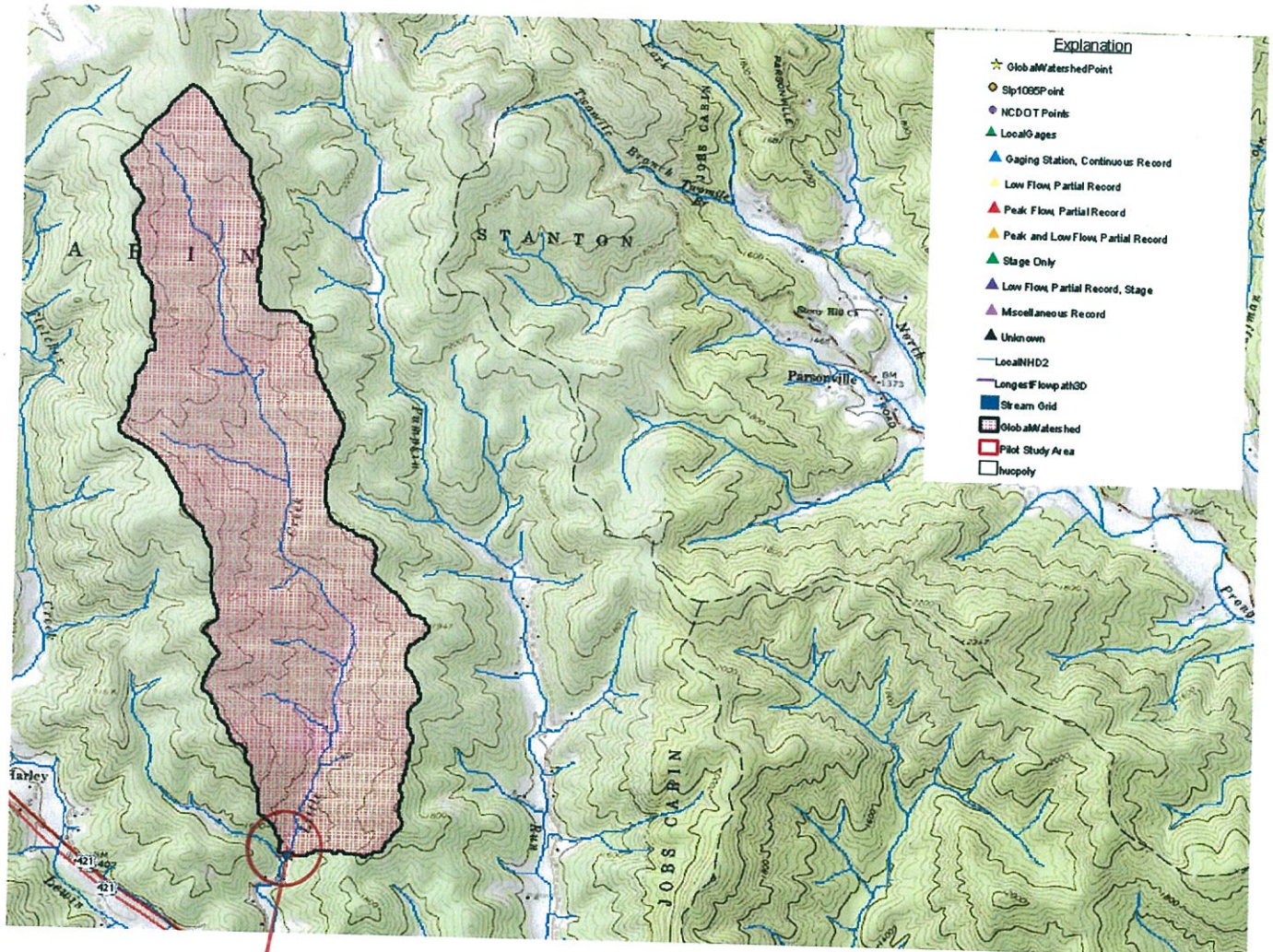
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WILKES COUNTY SR 1302

DA= 934 AC OR 1.5 SQ MILES



5/12/2014 8:03:21 AM

#1700



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Mon May 12 2014 07:53:56 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.1889 (36 11 20)

NAD27 Longitude: -81.3965 (-81 23 47)

NAD83 Latitude: 36.1890 (36 11 21)

NAD83 Longitude: -81.3963 (-81 23 47)

Drainage Area: 1.46 mi²

Percent Urban: 0.3 %

Percent Impervious: 0.0 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (1.46 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.46	1	9000
Percent Area in Region 1 (percent)	0.000	0	100
Percent Area in Region 2 (percent)	100.000	0	100
Percent Area in Region 3 (percent)	0.000	0	100
Percent Area in Region 4 (percent)	0.000	0	100
Percent Area in Region 5 (percent)	0.000	0	100

Urban Flows Region Grid Basin Characteristics			
100% Peak urban Blue Ridge-Piedmont FS007-00 (1.46 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.46	0.04	41
Area of Impervious Surfaces (percent)	0.01 (below min value 2)	2	54.6

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Peak Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	147	35		83.4	260
PK5	277	34		158	487
PK10	381	35		213	681
PK25	524	38		282	972
PK50	628	40		327	1210
PK100	754	42		379	1500
PK200	864	44		418	1780
PK500	1040	48		477	2250

Urban Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2U	1.87				
PK5U	7.33				
PK10U	14.6				
PK25U	38.6				
PK50U	60				
PK100U	90				

1700



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY WILKESBRIDGE NUMBER 960700INSPECTION CYCLE 2 YRSROUTE SR1302ACROSS HARLEY CREEKM.P. 0LOCATION .5 MI.N.JCT.US421SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTSSUBSTRUCTURE E.BTS:TIMBER CAPS/TIMBER POST & SILLS @ VAR.CENTERSSPANS 1 @ 18'-10LONGITUDE 81° 23' 43.0"LATITUDE 36° 11' 31.7"PRESENT CONDITION POORINVENTORY RATING INSPECTION DATE 11/08/2010OPERATING RATING PRESENT POSTING SV 11 TTST 18PROPOSED POSTING COMPUTER UPDATE ANALYSIS DATE 1-3-2011POSTING LETTER DATE 1-3-2011SUFFICIENCY RATING OTHER SIGNS PRESENT 

LOOKING NORTH

SIGN NOTICE
ISSUED FORNUMBERED
REQUIREDNo WEIGHT LIMIT No DELINEATORS No NARROW BRIDGE No ONE LANE BRIDGE No LOW CLEARANCE

700

BRIDGE MANAGEMENT UNIT
DATA ON EXISTING STRUCTURE

Run Date: 01/31/2011

COUNTY :	WILKES	DIV :	11	DIST :	3	STRUCTURE NUMBER :	960700	LENGTH :	19	FEET
ROUTE CARRIED :	SR1302	FEATURE INTERSECTED :	HARLEY CREEK							
LOCATED :	.5 MI.N.JCT.US421	BRIDGE NAME :	CITY :							
FUNC. CLASS :	09	SYST.ON :	NFA	SYST.UNDER :	NFA	ADT & YR :	70 2000	RAIL TYPE :	LT 227	RT 227
BUILT :	1960	BY :	BMU	PROJ :		FED.AID PROJ :		DESIGN LOAD :	Other or Unknown	
REHAB :		BY :		PROJ :		ALIGNMENT :		SKEW :		LANES :
						TAN	75	ON	1	UNDER
NAVIGATION :	VC	0.0	FT	HC	0.0	FT	HT. CRN. TO BED :	6	FT	WATER DEPTH :
								1	FT	
SUPERSTRUCTURE :	TIMBER FLOOR ON TIMBER JOISTS									
SUBSTRUCTURE :	E.BTS:TIMBER CAPS/TIMBER POST & SILLS @ VAR.CENTERS									
SPANS :	1 @ 18'-10									
BEAMS OR GIRDERS :	8 LINES 6X12 TIMBER JOISTS & 2 LNS.DBL 6X12 JSTS.									
FLOOR :	4X8 TIM/1.5 AWS	ENCROACHMENT :	DECK (OUT TO OUT) :							
		17.2 FT								
CLEAR ROADWAY :	15.8 FT	BETWEEN RAILS :	16.7 FT	SIDEWALK OR CURB :	LT	0.4 FT	RT	0.4 FT		
VERT.CL.OVER :	99 FT 99 IN	VERT.CL.UNDER :	00 FT 00 IN	HOR.CL.UNDER :	0.0 FT					
INV.RTG. :	HS-1	OPE.RTG. :	HS-1	CONTR.MEMBER :	int jost	POSTED :	SV 13	TTST 21	DATE	01/24/2011
SYSTEM :	Secondary S.R. Route					GREEN LINE ROUTE :	N			
2ND OPENING :	3RD OPENING :		4TH OPENING :		5TH OPENING :					
REMARKS :										

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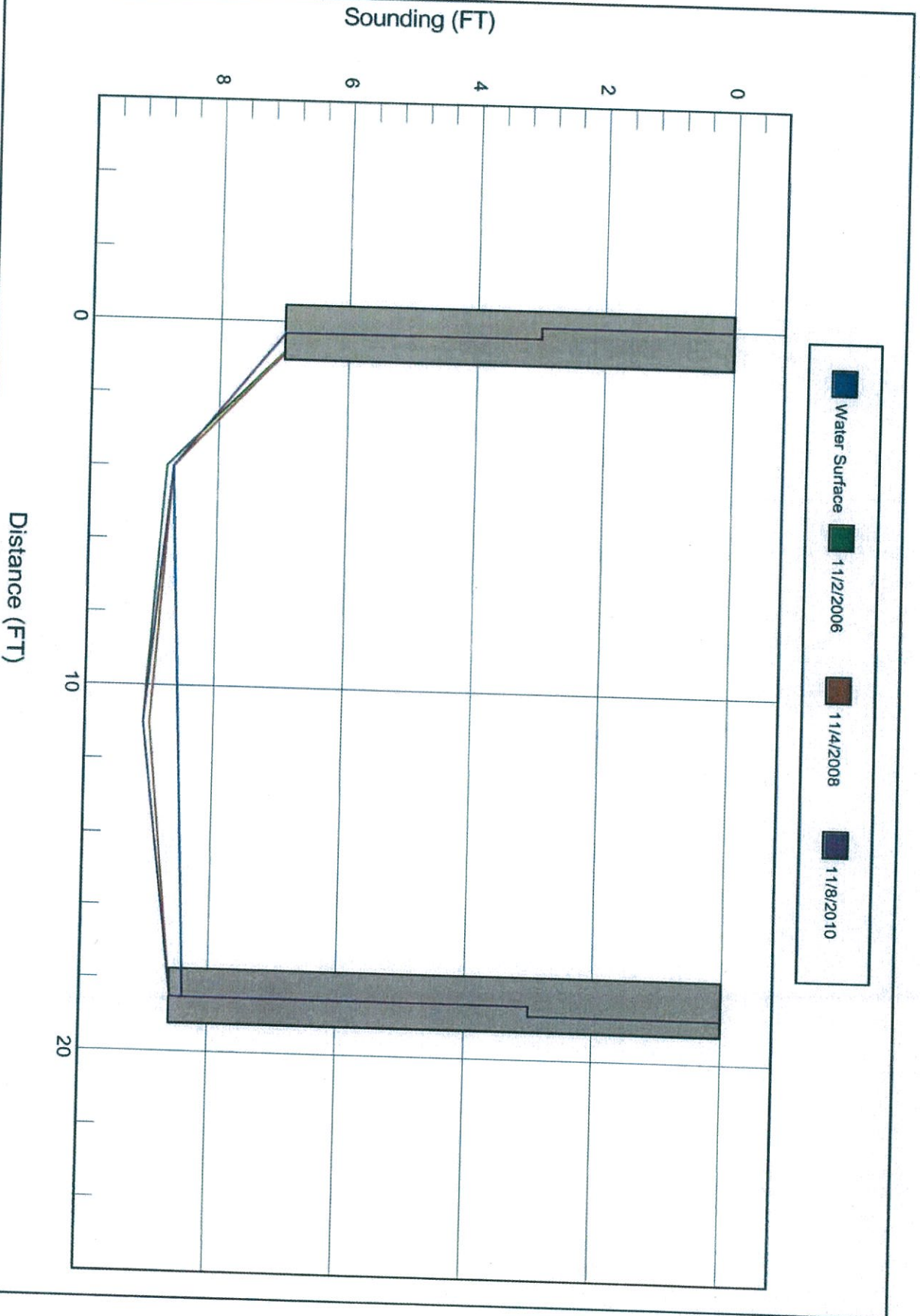
Bridge: 960700

County: WILKES

Date: 11/08/2010

Top of Rail = 0 FT (Sounding)

STREAMBED PROFILE (Downstream)



700

Structure 960700

County WILKES

Date: 11/08/2010

Structure Photos



LOOKING DOWNSTREAM



LOOKING UPSTREAM