# PREDESIGN/PRESURVEY REPORT

**Project No.:**
**TIP No.:**
**Let Date:**
**WBS No.:**

**Bridge No.:** 400189
**Road No.:** SR2719 High Rock Rd.
**Stream:** Prong Reedy Fork (Reedy Fork Trib 2)

**County:** Guilford

**Type of Request:** TIP

**Date:** 8/20/2014 **Name**: SMQ **Assigned to:**

**Checked by:**

**Prior Survey Date (attach copy of prior survey):** No

**Study by Scour Section:** Attached

**Flood Zone:** Yes **Detail Study:** LDS **Date:** 06/18/07 **Panel No.:** 8828

**BM Info:**

**Quad Map:** Ossipee (NW) **Drainage Area:** 4.2 Sq Mi **From:** Strm Stat Region 1

**Q25:** 1281cfs **Q50:** 1564cfs **Q100:** 1820cfs **Method:** USGS SI Report 2009-5158

## EXISTING BRIDGE INFORMATION

**Location:** 0.8 MI. S. JCT. NC61

**Average Daily Traffic:** 840 Year 2011

**Length:** 36 Feet **Bed-to-Crown:** 13 Feet **Water Depth:** 1 Feet

**Type of Structure:** Reinforced concrete deck on I-beams; Abutments: Reinforced concrete full height

**Type of Span(s):** 1@36'0"

**Upstream Structure:** N/A

**Location:**

**Bed-to-Crown:** **Prior Survey:**

**Downstream Structure:** Reedy Fork Creek

**Location:**

**Bed-to-Crown:** **Prior Survey:**

**SCS Watershed:**

## ENVIRONMENTAL

**Trout Stream:** No **Anadromous Fish:** **Primary Nursery Area:** No

**High Quality Waters:** No **Nutrient Sensitive Waters:** No

**Near Water Supply Intake:** No **CAMA County:** No

**Stream Classification:** C: Aquatic Life, Secondary Recreation, Fresh Water Notes: None

**DENR River Basin Info:** Cape Fear

# MAINTENANCE COORDINATION

**Bridge Maintenance – Contact Superintendent and Supervisor.**

**High Water:**

**Relocation:** **New Alignment Staked:** **BM Information:**

**Road Maintenance – Contact District Engineer and County Maintenance Engineer.**

**High Water:**

**Road to be Paved:** **Relocation of Vicinity of Bridge:**

**New Alignment Staked:** **BM Information:**

**Initiated as:** **Date Initiated:**

**Man-days Estimated:**

**Date Surveyed:** **Date Completed:**

| Personnel | Hours | Pay Period |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**Comments:**

STATE OF NORTH CAROLINA
# DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

May 27, 2010

**MEMORANDUM TO:** Mr. Don Idol
Assistant Bridge Inspection Engineer

**FROM:** Jerry Beard, P.E.
Scour Engineer
Hydraulic Design Unit

**SUBJECT:** **Transmittal of Bridge Scour Assessments**

The scour committee recommends, based on the Geotechnical Units low risk screening using NCHRP 24-25 "Guidelines for Risk-Based Management of Bridges with Unknown Foundations", that the code for Item 113 be changed to Z for the following bridges:

| County Name | Bridge # | Item 113 Code |
|---|---|---|
| GUILFORD | 400009 | Z |
| GUILFORD | 400016 | Z |
| GUILFORD | 400032 | Z |
| GUILFORD | 400079 | Z |
| GUILFORD | 400086 | Z |
| GUILFORD | 400104 | Z |
| GUILFORD | 400108 | Z |
| GUILFORD | 400114 | Z |
| GUILFORD | 400145 | Z |
| GUILFORD | 400159 | Z |
| GUILFORD | 400175 | Z |
| GUILFORD | 400183 | Z |
| GUILFORD | 400189 | Z |
| GUILFORD | 400193 | Z |
| GUILFORD | 400204 | Z |
| GUILFORD | 400205 | Z |
| GUILFORD | 400206 | Z |
| GUILFORD | 400207 | Z |
| GUILFORD | 400210 | Z |
| GUILFORD | 400214 | Z |
| GUILFORD | 400219 | Z |
| GUILFORD | 400222 | Z |
| GUILFORD | 400229 | Z |

**MAILING ADDRESS:**
NC DEPARTMENT OF TRANSPORTATION
HYDRAULICS UNIT
1590 MAIL SERVICE CENTER
RALEIGH NC 27699-1590

TELEPHONE 919-250-4100
FAX 919-250-4108

*WEBSITE:*
*HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/HYDRO/*

**LOCATION:**
CENTURY CENTER COMPLEX
BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC

STATE OF NORTH CAROLINA
# DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

| County Name | Bridge # | Item 113 Code |
|---|---|---|
| GUILFORD | 400241 | Z |
| GUILFORD | 400244 | Z |
| GUILFORD | 400245 | Z |
| GUILFORD | 400248 | Z |
| GUILFORD | 400251 | Z |
| GUILFORD | 400254 | Z |
| GUILFORD | 400256 | Z |
| GUILFORD | 400258 | Z |
| GUILFORD | 400260 | Z |
| GUILFORD | 400262 | Z |
| GUILFORD | 400267 | Z |
| GUILFORD | 400269 | Z |
| GUILFORD | 400270 | Z |
| GUILFORD | 400271 | Z |
| GUILFORD | 400272 | Z |
| GUILFORD | 400280 | Z |
| GUILFORD | 400296 | Z |
| GUILFORD | 400314 | Z |
| GUILFORD | 400338 | Z |
| GUILFORD | 400351 | Z |
| GUILFORD | 400356 | Z |
| GUILFORD | 400376 | Z |
| GUILFORD | 400382 | Z |
| GUILFORD | 400401 | Z |
| GUILFORD | 400402 | Z |
| GUILFORD | 400427 | Z |
| GUILFORD | 400431 | Z |
| GUILFORD | 400439 | Z |
| GUILFORD | 400505 | Z |
| GUILFORD | 400584 | Z |

**MAILING ADDRESS:**
NC DEPARTMENT OF TRANSPORTATION
HYDRAULICS UNIT
1590 MAIL SERVICE CENTER
RALEIGH NC 27699-1590

TELEPHONE 919-250-4100
FAX 919-250-4108

*WEBSITE:*
*HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/HYDRO/*

**LOCATION:**
CENTURY CENTER COMPLEX
BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

**Code Z:**

Bridge with "Unknown Foundation" that has not been evaluated for scour. Average Daily Traffic (ADT) is less than 1500. Bridge is considered low risk using NCHRP 24-25 "Guidelines for Risk-Based Management of Bridges with Unknown Foundations". A Plan of Action (POA) has been implemented.

**POA**

Monitor bridge foundation during biennial inspection cycle for case 1 or 2.

1) If mud line at any end bent or interior bent scours more than 4 feet from the established baseline contact the Hydraulics Unit. Establish a baseline using the 2008-2009 inspection soundings.
2) If footings have greater than 10% of the bearing undermined, contact the Hydraulics Unit.

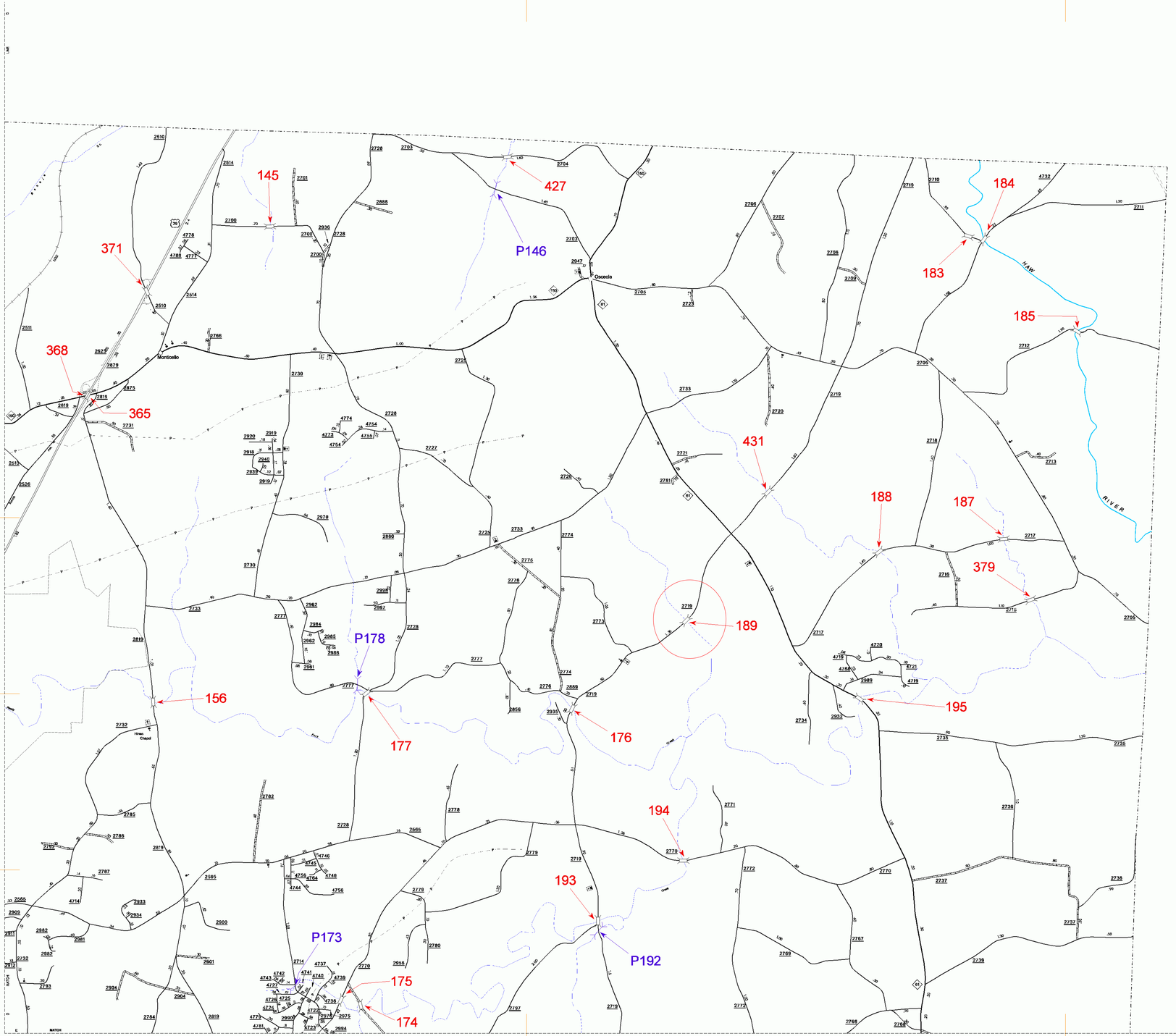
If you have any questions or comments concerning the above please feel free to contact me at 250-4100.

**MAILING ADDRESS:**
NC DEPARTMENT OF TRANSPORTATION
HYDRAULICS UNIT
1590 MAIL SERVICE CENTER
RALEIGH NC 27699-1590

TELEPHONE: 919-250-4100
FAX. 919-250-4108

WEBSITE:
HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/HYDRO/

**LOCATION:**
CENTURY CENTER COMPLEX
BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC




Customized GIS Product Created for Bridge Maintenance
GIS NCDOT
Produced by Geographic Information Systems Unit Aug 2006

- NORMAL BRIDGE
- "C" CULVERT
- "D" PEDESTRIAN BRIDGE
- "F" FERRY RAMP
- "G" FEDERAL AGENCY STRUCTURE
- "H" NON-SYSTEM STRUCTURE MAINTAINED BY NCDOT
- "L" CANTILEVER SIGN STRUCTURE
- "M" PRIVATELY OWNED STRUCTURE
- "N" NCDOT OVERPASS STRUCTURES
- "P" PIPE CULVERT
- "R" RAILROAD COMPANY STRUCTURE
- "S" OVERHEAD SIGN
- "T" TUNNEL
- "U" PEDESTRIAN, CATTLE UNDERPASS
- "V" VEHICLE UNDERPASS LESS THAN 20'
- "W" NCDOT AND PRIVATE PEDESTRIAN BRIDGES
- "Y" SINGLE POLE SIGN STRUCTURE

N
W E
S

ENLARGED MUNICIPAL AND SURBURBAN AREAS

# GUILFORD COUNTY

## NORTH CAROLINA

# BRIDGE LOCATION MAP

PREPARED BY THE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
INFORMATION TECHNOLOGY - GIS UNIT

IN COOPERATION WITH THE

U.S.DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SCALE

1 0 1 MILE

10,000 FOOT GRID BASED ON NORTH CAROLINA PLANE COORDINATE SYSTEM

POLYCONIC PROJECTION

SHEET 4 OF 10

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

Customized GIS map checked by Technology

PD&D

Data Comp.

COPIES OF THIS MAP ARE AVAILABLE TO THE PUBLIC AT A NOMINAL COST ADDRESS:
N.C. DEPARTMENT OF TRANSPORTATION
GEOGRAPHIC INFORMATION SYSTEMS
3401 CARL SANDBURG CT.
RALEIGH, N.C. 27610

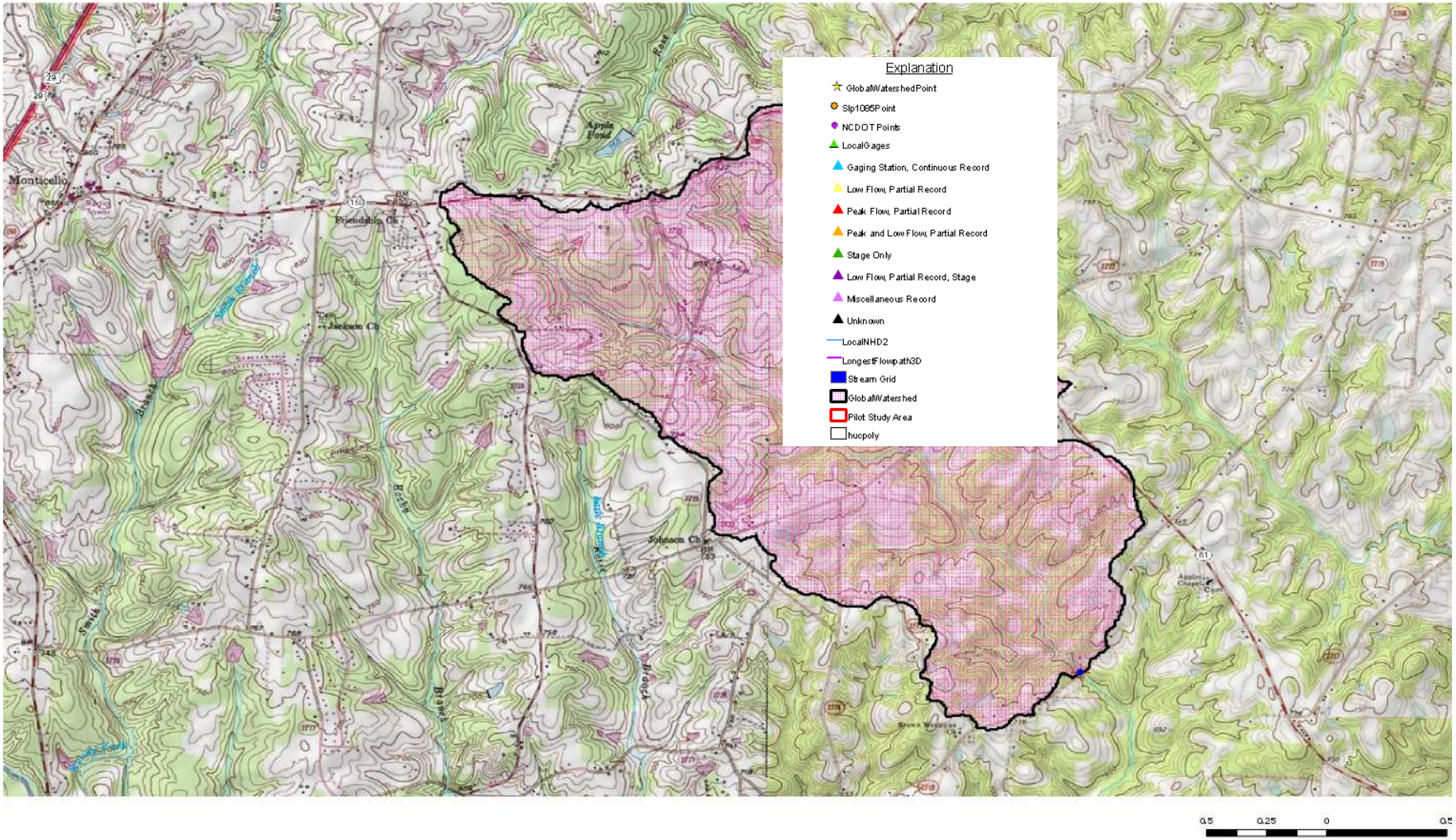
| REVISED |
|---|
| 1/7/03 RLN |
| 2/6/03 RLN |
| 3/31/03 RLN |
| 8/26/03 RLN |
| 11/17/03 RLN |
| 2/17/04 RLN |
| 4/14/04 RLN |
| 4/28/04 RLN |
| 8/13/04 RLN |
| 1/3/105 RLN |
| 12/12/05 RLN |
| 1/13/06 TRP |
| 7/12/06 TRP |

GUILFORD

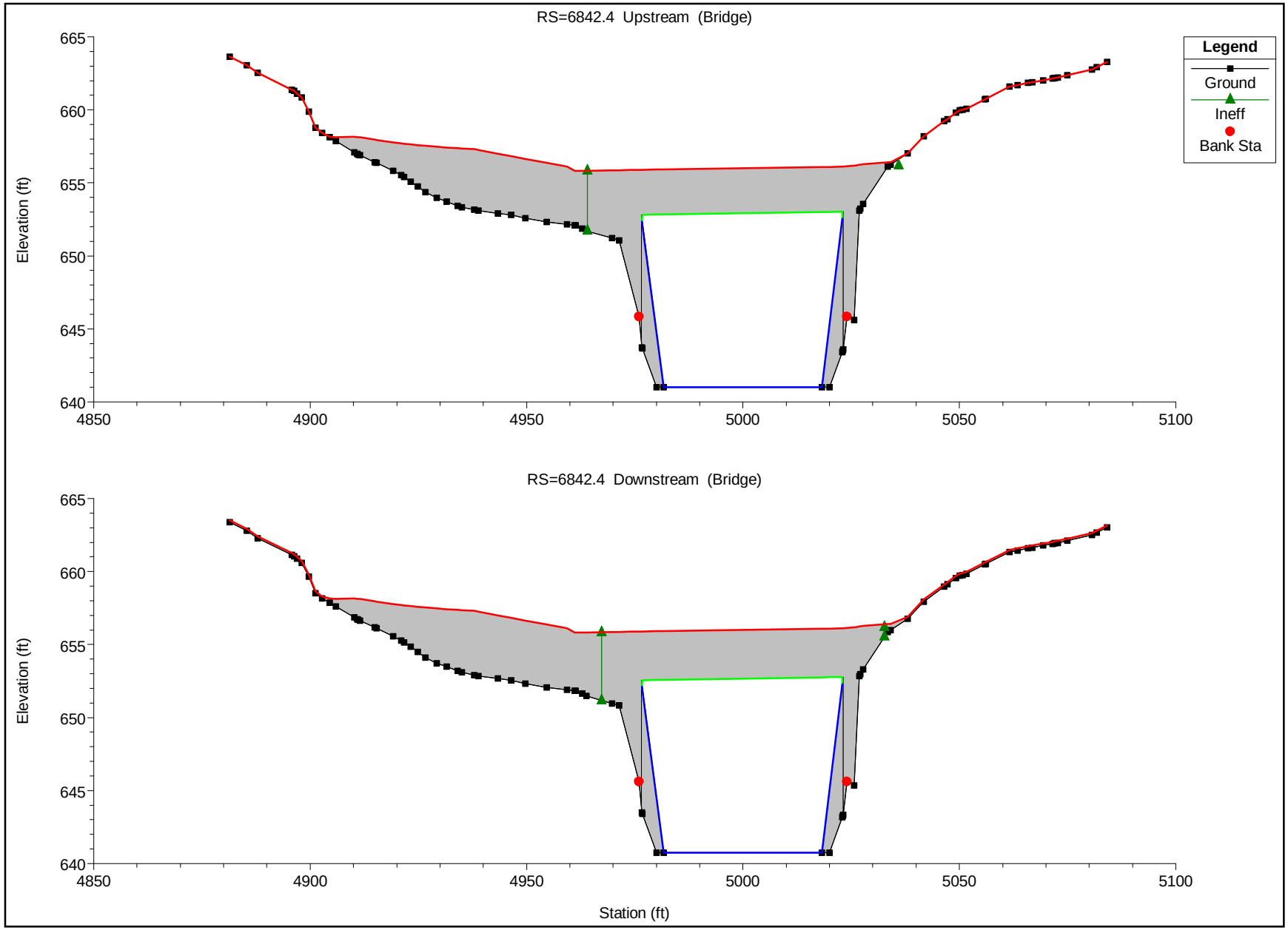
DIVISION 7 DISTRICT 18 GUILFORD COUNTY NORTH CAROLINA 081

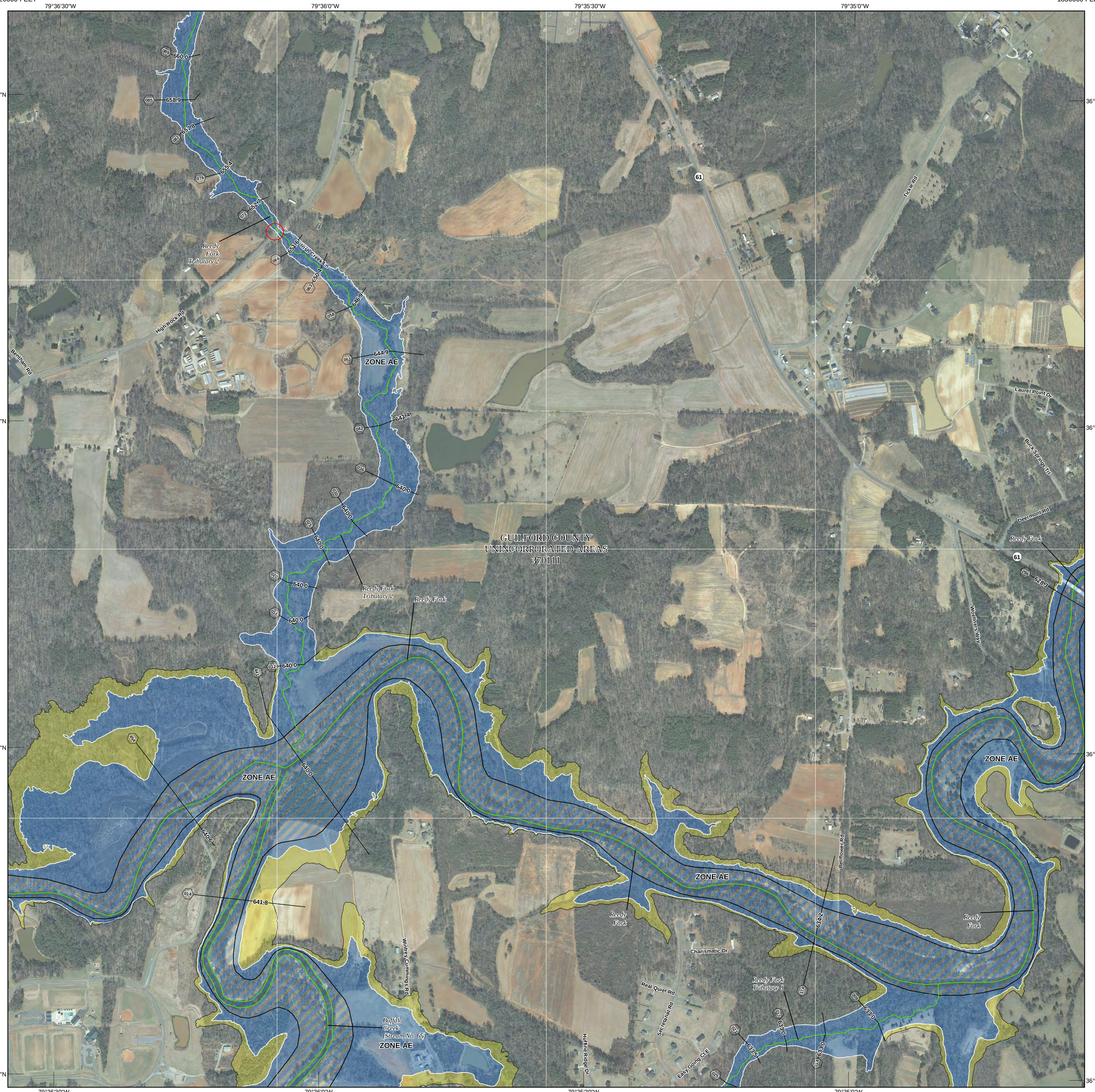
USGS
North Carolina StreamStats

**400189 Guilford Drainage USGS**




8/28/2014 9:16:55 AM


RS=6842.4 Upstream (Bridge)
Legend
Ground
Ineff
Bank Sta
Elevation (ft)
665
660
655
650
645
640
4850
4900
4950
5000
5050
5100
RS=6842.4 Downstream (Bridge)
Elevation (ft)
665
660
655
650
645
640
4850
4900
4950
5000
5050
5100
Station (ft)




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 to floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map flood hazard 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.

## FLOOD HAZARD INFORMATION

**SEE FIS 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**

| | |
|---|---|
| SPECIAL FLOOD HAZARD AREAS | Without Base Flood Elevation (BFE) *Zone A, V, A99* |
| | With BFE or Depth *Zone AE, AO, AH, VE, AR* |
| | Regulatory Floodway |
| OTHER AREAS OF FLOOD HAZARD | 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* |
| | Area with Reduced Flood Risk due to Levee See Notes *Zone X* |
| OTHER AREAS | Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X* |
| GENERAL STRUCTURES | Channel, Culvert, or Storm Sewer |
| | Accredited or Provisionally Accredited Levee, Dike, or Floodwall |
| | Non-accredited Levee, Dike, or Floodwall |
| | BM5510 North Carolina Geodetic Survey bench mark |
| | BM5510 National Geodetic Survey bench mark |
| | BM5510 Contractor Est. NCFMP Survey bench mark |
| | 012 18.2 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE) |
| | 8 Coastal Transect |
| | Coastal Transect Baseline |
| | Profile Baseline |
| OTHER FEATURES | Hydrographic Feature |
| | Limit of Study |
| | Jurisdiction Boundary |

## NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at http://msc.fema.gov. An accompanying Flood Insurance Study report, Letter of Map Revision (LOMR) or Letter of Map Amendment (LOMA) revising portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at http://www.ncfloodmaps.com, or contact the FEMA Map Service Center.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

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-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

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-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection. To maintain accreditation, the levee owner or community is required to submit the data and documentation necessary to comply with Section 65.10 of the NFIP regulations. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 65.10 requirements, FEMA will revise the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/nfip/index.shtm.

LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone category has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LiMWA)

### 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 structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fws.gov/habitatconservation/coastal_barrier.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

CBRS Area

Otherwise Protected Area

## SCALE

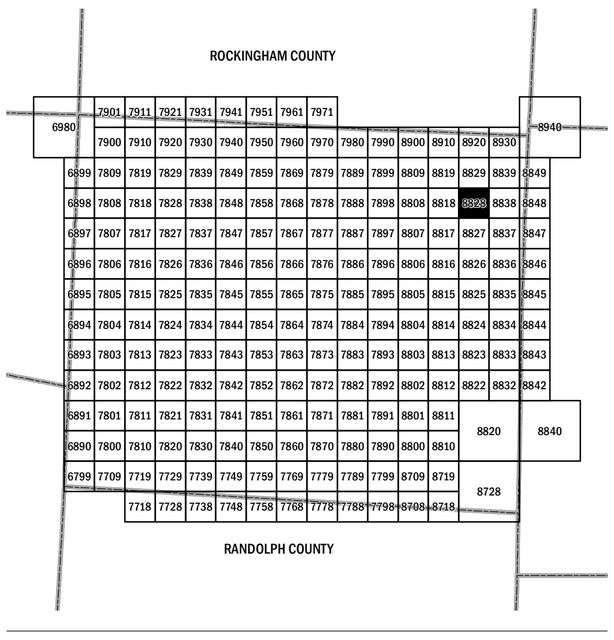
Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)

1 inch = 500 feet 1:6,000

0 250 500 1,000 Feet

0 75 150 300 Meters

## PANEL LOCATOR




FEMA

National Flood Insurance Program

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

# NORTH CAROLINA

PANEL **8828**

Panel Contains:

| COMMUNITY | CID | PANEL | SUFFIX |
|---|---|---|---|
| GUILFORD COUNTY | 370111 | 8828 | J |

MAP NUMBER
**3710882800J**

MAP REVISED
**06/18/07**

USGS
North Carolina StreamStats

# Streamstats Ungaged Site Report

**Date: Thu Aug 28 2014 09:11:02 Mountain Daylight Time**
**Site Location: North_Carolina**
**NAD27 Latitude: 36.1880 (36 11 17)**
**NAD27 Longitude: -79.6017 (-79 36 06)**
**NAD83 Latitude: 36.1882 (36 11 17)**
**NAD83 Longitude: -79.6015 (-79 36 05)**
**Drainage Area: 4.2 mi2**
**Percent Urban: 5.1 %**
**Percent Impervious: 0.8 %**

| Peak Flows Region Grid Basin Characteristics | | | |
|---|---|---|---|
| 100% Peak Southeast US 2009 5158 (4.2 mi2) | | | |
| Parameter | Value | Regression Equation Valid Range | |
| | | Min | Max |
| Drainage Area (square miles) | 4.2 | 1 | 9000 |
| Percent Area in Region 1 (percent) | 100.000 | 0 | 100 |
| Percent Area in Region 2 (percent) | 0.000 | 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 (4.2 mi2) | | | |
| Parameter | Value | Regression Equation Valid Range | |
| | | Min | Max |
| Drainage Area (square miles) | 4.2 | 0.04 | 41 |
| Area of Impervious Surfaces (percent) | 0.81 (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 | 402 | 35 | | 231 | 699 |
| PK5 | 726 | 34 | | 421 | 1250 |
| PK10 | 965 | 35 | | 550 | 1690 |
| PK25 | 1280 | 38 | | 705 | 2330 |
| PK50 | 1560 | 40 | | 833 | 2930 |
| PK100 | 1820 | 42 | | 938 | 3530 |
| PK200 | 2080 | 44 | | 1030 | 4170 |
| PK500 | 2470 | 48 | | 1170 | 5220 |

| 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 | 83.2 | | | | |
| PK5U | 186 | | | | |
| PK10U | 280 | | | | |
| PK25U | 500 | | | | |
| PK50U | 646 | | | | |
| PK100U | 812 | | | | |

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION PRIORITY MAINTENANCE
TEMPORARY REPAIRS

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GUILFORD BRIDGE NUMBER 400189 INSPECTION CYCLE 2 YRS

ROUTE SR2719 ACROSS PRONG REEDY FORK M.P. 0

0.8 MI. S. JCT. NC61

LOCATION 0.8 MI. SW. JCT. NC61

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE ABUTMENTS:REINFORCED CONCRETE FULL HEIGHT

SPANS 1@36'0

LONGITUDE 79° 36' 5.10" LATITUDE 36° 11' 17.50"

INSPECTION DATE 06/04/2014 PRESENT CONDITION POOR

PRESENT POSTING Y SV20 TTS27 PROPOSED POSTING

OTHER SIGNS PRESENT 4 DELINEATORS

LOOKING NORTH

| | |
|---|---|
| Fracture Critical | No |
| Temporary Shoring | No |
| Scour Critical | No |
| Scour POA | Yes |

| SIGN NOTICE ISSUED FOR | | NUMBERED REQUIRED |
|---|---|---|
| No | WEIGHT LIMIT | |
| No | DELINEATORS | |
| No | NARROW BRIDGE | |
| No | ONE LANE BRIDGE | |
| No | LOW CLEARANCE | |

NATIONAL BRIDGE INVENTORY-------- STRUCTURE INVENTORY AND APPRAISAL Run Date: 07/23/2014

## IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 400189
(8) STRUCTURE NUMBER(FEDERAL) 000000000810189
(5) INVENTORY ROUTE (ON/UNDER) - ON 31027190
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 81 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - PRONG REEDY FORK
(7) FACILITY CARRIED SR2719
(9) LOCATION 0.8 MI. S. JCT. NC61
(11)MILEPOINT 0
(16)LAT 36° 11' 17.50" (17)LONG 79° 36' 5.10"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

## STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
TYPE - Stringer Mutlibeam or Girder CODE 302
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 1
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

## AGE AND SERVICE

(27) YEAR BUILT 1963
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Highway
UNDER - Waterway CODE 15
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 0
(29) AVERAGE DAILY TRAFFIC 840
(30) YEAR OF ADT 2011 (109) TRUCK ADT PCT 6%
(19) BYPASS OR DETOUR LENGTH 3 MI

## GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 34 FT
(49) STRUCTURE LENGTH 36 FT
(50)CURB OR SIDEWALK: LEFT .9 FT RIGHT .9 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 24 FT
(52) DECK WIDTH OUT TO OUT 25.5 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 18 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 0° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 24 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad 0 FT
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad 000 FT
(56) MIN LAT UNDERCLEAR LT REF - 000 FT

## NAVIGATION DATA

(38) NAVIGATION CONTROL - No Navigational Control CODE 0
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 20.99
STATUS = Structurally Deficient

## CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Local 09
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 2-way Traffic 2
(103)TEMPORARY STRUCTURE - Temporary Structure/Conditions T
(110)DESIGNATED NATIONAL NETWORK - Not on the National Network 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

## CONDITION — CODE

(58) DECK 5
(59) SUPERSTRUCTURE 3
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION 5
(62) CULVERTS N

## LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD Unknown 0
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-1 1
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-1 1
(70) BRIDGE POSTING - Posting Required 2
(41) STRUCTURE OPEN, POSTED ,OR CLOSED P
DESCRIPTION - Posted for Load

## APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 3
(68) DECK GEOMETRY 4
(69) UNDERCLEARANCES,VERTI & HORIZ N
(71) WATERWAY ADEQUACY 7
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0000
(113)SCOUR CRITICAL BRIDGES U

## PROPOSED IMPROVEMENTS

(75) TYPE OF WORK - CODE
(76) LENGTH OF STRUCTURE IMPROVEMENT
(94) BRIDGE IMPROVEMENT COST
(95) ROADWAY IMPROVEMENT COST
(96) TOTAL PROJECT COST
(97) YEAR OF IMPROVEMENT COST ESTIMATE
(114)FUTURE ADT 1680 (115) YEAR FUTURE ADT 2025

## INSPECTIONS

(90) INSPECTION DATE 06/04/2014
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - NO B)
C) OTHER SPECIAL INSP NO C)
SCOUR

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 07/23/2014

| COUNTY : | DIVISION : | DISTRICT: | STRUCTURE NUMBER : | LENGTH : |
|---|---|---|---|---|
| GUILFORD | 7 | 2 | 400189 | 36 FEET |

| ROUTE CARRIED : | FEATURE INTERSECTED : |
|---|---|
| SR2719 | PRONG REEDY FORK |

| LOCATED : | BRIDGE NAME : | CITY : |
|---|---|---|
| 0.8 MI. S. JCT. NC61 | | |

| FUNC. CLASS : | SYST.ON : | SYST.UNDER : | ADT & YR : | RAIL TYPE : |
|---|---|---|---|---|
| 09 | NFA | NFA | 840 2011 | LT 141 RT 141 |

| BUILT : | BY : | PROJ : | FED.AID PROJ : | DESIGN LOAD : |
|---|---|---|---|---|
| 1963 | BMU | | | Unknown |

| REHAB : | BY : | PROJ : | ALIGNMENT : | SKEW : | LANES : |
|---|---|---|---|---|---|
| | | | TAN | 90 | ON 2 UNDER 0 |

| NAVIGATION : | HT. CRN. TO BED : | WATER DEPTH : |
|---|---|---|
| VC 0 FT HC 0 FT | 13 FT | 1 FT |

SUPERSTRUCTURE : REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE : ABUTMENTS:REINFORCED CONCRETE FULL HEIGHT

SPANS : 1@36'0"

BEAMS OR GIRDERS : 4 LINES OF W21X59 I-BEAMS, 6 LINES OF W20X55 I-BEAMS, ALL @ VARIOUS CENTERS

| FLOOR : | ENCROACHMENT : | DECK (OUT TO OUT) : |
|---|---|---|
| 6.5" RC, 4" AWS | | 25.5 FT |

| CLEAR ROADWAY : | BETWEEN RAILS : | SIDEWALK OR CURB : |
|---|---|---|
| 24 FT | 25.8 FT | LT .9 FT RT .9 FT |

VERT.CL.OVER :
999.9 FT

| INV.RTG. : | OPE.RTG. : | CONTR.MEMBER : | POSTED : |
|---|---|---|---|
| HS-1 | HS-1 | I-Bm | SV 20 TTST 27 DATE 09/19/2008 |

| SYSTEM : | GREEN LINE ROUTE : |
|---|---|
| Secondary S.R. Route | N |

UNDER ROUTES AND CLEARANCES

REMARKS :

ALL BEAM ENDS HAVE BEEN PAINTED

# Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 400189 County: GUILFORD Date: 06/04/2014 By: MYW

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

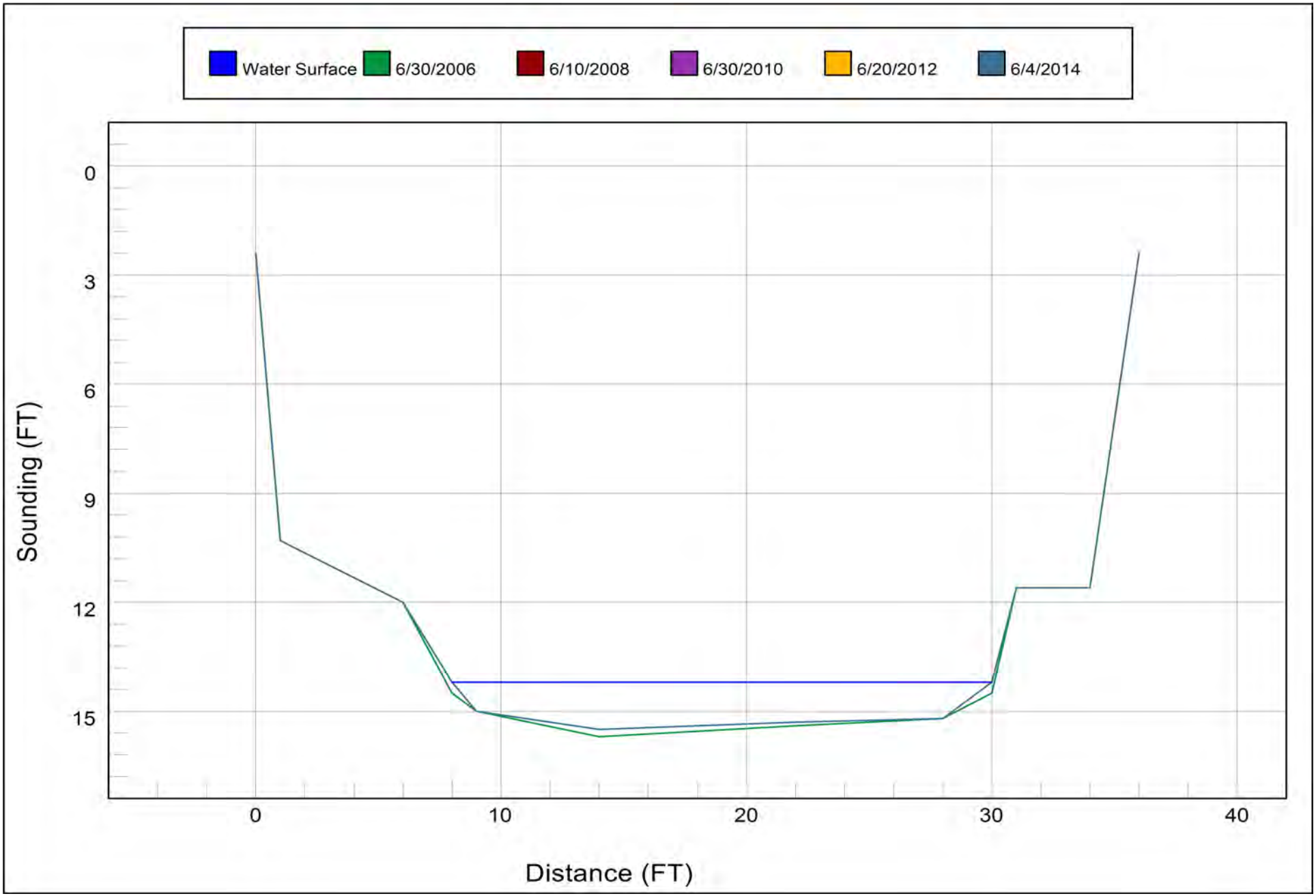
Distance from Highwater Mark to top of rail: 7 Location of Highwater Mark: abutments

| DOWNSTREAM | | | UPSTREAM | | |
|---|---|---|---|---|---|
| Distance (Station) (ft) | Sounding (ft) | Description | Distance (Station) (ft) | Sounding (ft) | Description |
| 0 | 2.4 | ff tp WINGWALL | | | |
| 1 | 10.3 | | 1 | 10 | abutment 1 |
| 6 | 12 | | | | |
| 8 | 14.2 | WSWE | | | |
| 9 | 15 | | | | |
| 14 | 15.5 | | | | |
| 22 | 15.3 | | | | |
| 28 | 15.2 | | | | |
| 30 | 14.2 | WSWE | | | |
| 31 | 11.6 | | | | |
| 34 | 11.6 | | 34 | 12.2 | abutment 2 |
| 36 | 2.4 | ff tp WINGWALL | | | |

Bridge: 400189 County GUILFORD Date: 06/04/2014

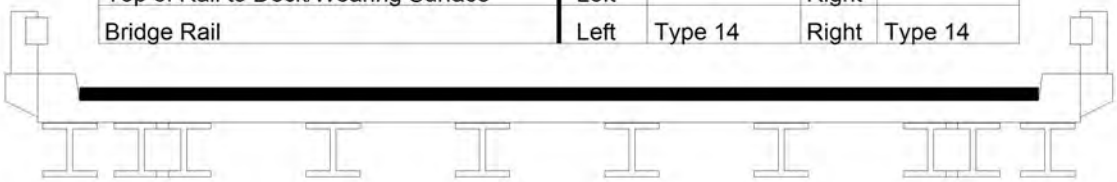
STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



# Bridge Inspection Field Sketch

| | | | | | |
|---|---|---|---|---|---|
| Deck Width/Out to Out | 25.5ft | Between Rails | | | 25.8ft |
| Clear Roadway | 24ft | Wearing Surface | | | 0.333ft |
| Median Width | | Median Height | | | |
| Curb Height | | Left | 0.667ft | Right | 0.667ft |
| Sidewalk Width | | Left | | Right | |
| Clear Roadway (Rail to Median) | | Left | | Right | |
| Guardrail Width | | Left | 0.791ft | Right | 0.791ft |
| Top of Rail to Deck/Wearing Surface | | Left | | Right | |
| Bridge Rail | | Left | Type 14 | Right | Type 14 |



| | | | |
|---|---|---|---|
| Measurements for Span # | 1 | | |
| Deck Thickness | 0.542 | Left Overhang | 0.792 |
| Top of Rail to Bottom of Beam | 4.833 | Right Overhang | 0.792 |

| Beam Number | Beam Type | Spacing | Comments |
|---|---|---|---|
| 1 | Steel I Beam | 1.750ft | |
| 2 | Steel I Beam | 1.042ft | |
| 3 | Steel I Beam | 3.667ft | |
| 4 | Steel I Beam | 3.667ft | |
| 5 | Steel I Beam | 3.667ft | |
| 6 | Steel I Beam | 3.667ft | |
| 7 | Steel I Beam | 3.667ft | |
| 8 | Steel I Beam | 1.042ft | |
| 9 | Steel I Beam | 1.833ft | |
| 10 | Steel I Beam | ft | |

SKETCH REDRAWN IN WIZARD

MEAS. REVISED 6/4/14...MYW

| Title | Description |
|---|---|
| data | data |

| Bridge No: 400189 | Drawn By: acr | Date: 06/10/08 | File Name: S0058001379 |
|---|---|---|---|

LOOKING NORTH

POSTING SV20/TTS27

LOOKING SOUTH FROM BRIDGE

LOOKING NORTH FROM BRIDGE

DOWNSTREAM LOOKING EAST FROM BRIDGE

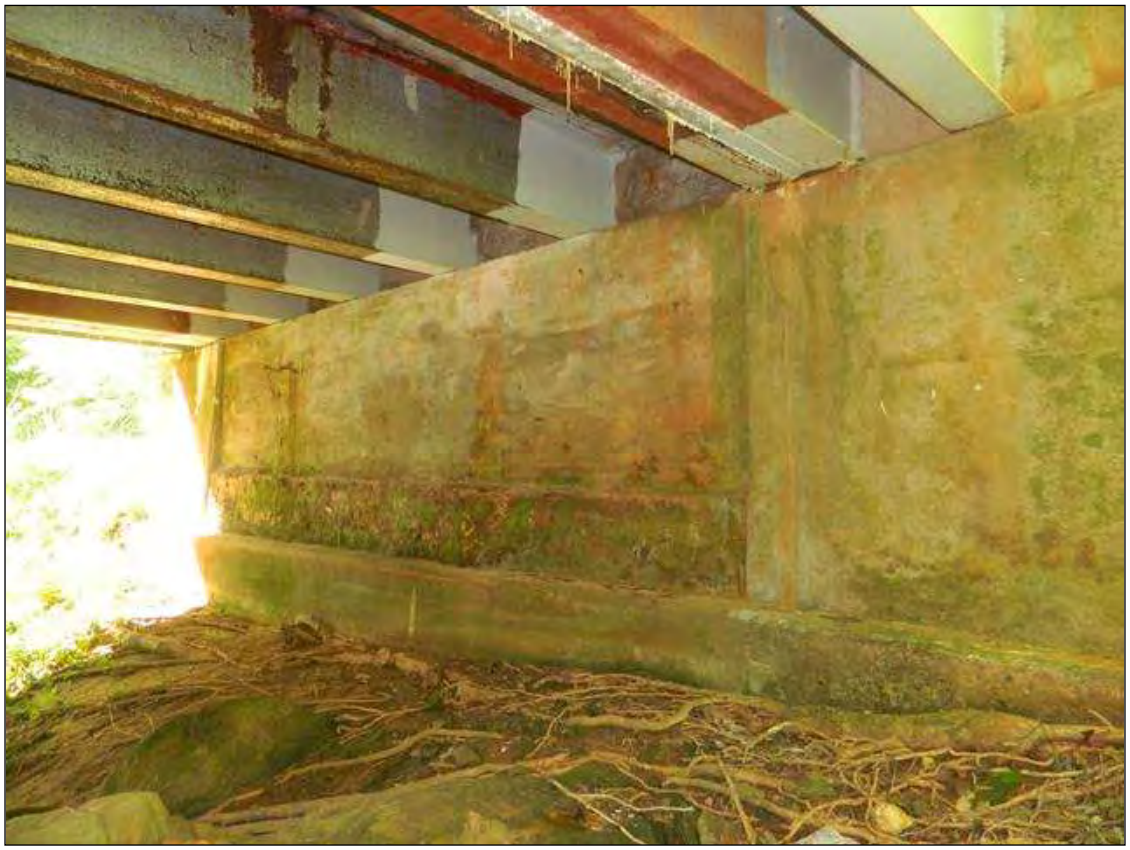
UPSTREAM LOOKING WEST FROM BRIDGE

Structure 400189 County GUILFORD Date: 06/04/2014 Structure Photos

LOOKING SOUTH

LOOKING EAST

LOOKING WEST



ABUTMENT 1, ABUTMENT 2 SIMILAR

SUPERSTRUCTURE

DOWNSTREAM LOOKING EAST

UPSTREAM LOOKING WEST