

office estimate 2 @ 103" x 71" es

Trout

Rec: Min Brg = 50'

No FEMA - No MMA

How

State Stormwater Permit Req'd

Print Record

Form PDR Action PDR P/P 412

#### GENERAL INFO

Date 5/18/2011 Div WBS TIP #  
13 Proj #  
Let Date

County BURKE Bridge # 203  
Road # SR 1405 Road Name: BROWN MOUNTAIN BEACH RD

Stream CARROLL CR

Req Type Name Assigned To Checked By  
Prior Survey Survey Date Recommendation  
Study by Scour Section

#### DRAINAGE INFO

Flood Zone NO Panel # 1788 Study Type NO STUDY Study Date 9/5/2007

IS THERE A HEC RAS TYPE MODEL ☐

BM info  
Quad COLLETSVILLE  
Drainage Area 2.42 Sq. Mi. DA Source QUAD  
Q25 750 cfs Q 50 900 cfs Q100 1100 cfs  
METHOD USGS REGRESSION EQUATION BASIN TYPE REGION 2

#### EXISTING INFO

Location 0.7 MI E JCT SR 1424  
GPS CO-ORD(Dec) 35.8893 81.7382  
OAL 21 B-C 9 Depth 1  
ADT 580 Skew 90 Stream Slope  
STRUCTURE TYPE TIMBER DECK / I BEAMS  
Spans 1@ 20'-5

#### UP STREAM INFO

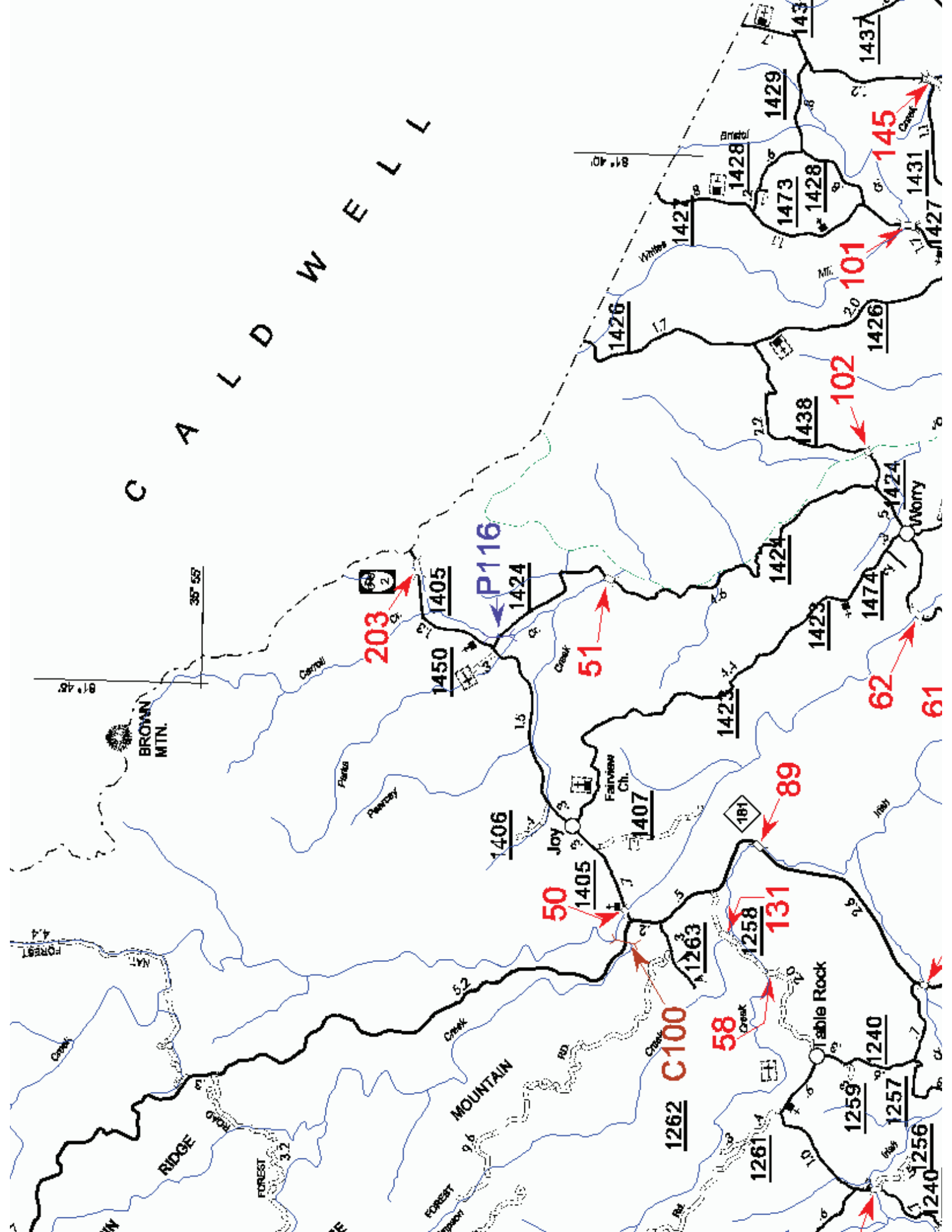
US Structure US Road # US Str OAL  
US Location  
US B-C US Prior survey

#### DOWN STREAM INFO

DS Structure DS Road # DS Str OAL  
DS Location  
DS B-C DS Prior survey SCS Watershed

#### ENVIRONMENTAL INFO

Trout Stream YES Anadromous Fish NO Primary Nursery Area NO  
High Quality Waters YES NUTRIENT SENSITIVE WATERS NO  
NEAR WATER SUPPLY INTAKE NO CAMA COUNTY NO  
STREAM CLASSIFICATION C; Tr  
DENR RIVER BASIN CATAWBA





NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRIDGE MANAGEMENT UNIT

ATTENTION

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY BURKE BRIDGE NUMBER 110203 INSPECTION CYCLE 2 YRS  
ROUTE SR1405 ACROSS CARROLL CREEK M.P. 0

LOCATION .7 MI.E.JCT.SR1424

SUPERSTRUCTURE TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:TIMBER CAPS/TIM.POST&CONC.SILLS@ 8'-6 CENTERS

SPANS 1 @ 20'-5

LONGITUDE 81° 44' 17.6"

LATITUDE 35° 53' 21.4"

PRESENT CONDITION GOOD

INVENTORY RATING

INSPECTION DATE 11/02/2009

OPERATING RATING

PRESENT POSTING SV 18 TTST 23

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT



WEST APPROACH

| SIGN NOTICE<br>ISSUED FOR |                 | NUMBERED<br>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>              |

## BRIDGE MANAGEMENT UNIT

## DATA ON EXISTING STRUCTURE

Run Date: 03/24/2010

|                      |                 |                                                     |                     |                  |                 |               |
|----------------------|-----------------|-----------------------------------------------------|---------------------|------------------|-----------------|---------------|
| COUNTY :             | DIV :           | DIST :                                              | STRUCTURE NUMBER :  | LENGTH :         |                 |               |
| BURKE                | 13              | 1                                                   | 110203              | 20               | FEET            |               |
| ROUTE CARRIED :      |                 | FEATURE INTERSECTED :                               |                     |                  |                 |               |
| SR1405               |                 | CARROLL CREEK                                       |                     |                  |                 |               |
| LOCATED :            |                 | BRIDGE NAME :                                       |                     |                  |                 |               |
| .7 MI.E.JCT.SR1424   |                 |                                                     |                     |                  |                 |               |
| FUNC. CLASS :        | SYST.ON :       | SYST.UNDER :                                        | ADT & YR :          | RAIL TYPE :      |                 |               |
| 08                   | NFA             | NFA                                                 | 580 2008            | LT 227 RT 227    |                 |               |
| BUILT :              | BY :            | PROJ :                                              | FED.AID PROJ :      | DESIGN LOAD :    |                 |               |
| 1953                 | BMU             |                                                     |                     | Other or Unknown |                 |               |
| REHAB :              | BY :            | PROJ :                                              | ALIGNMENT :         | SKEW :           | LANES :         |               |
|                      | BMU             | 5.8551                                              | TAN                 | 90               | ON 2 UNDER      |               |
| NAVIGATION :         |                 | HT. CRN. TO BED :                                   |                     | WATER DEPTH :    |                 |               |
| VC                   | 0.0 FT          | HC                                                  | 0.0 FT              | 9 FT             | 1 FT            |               |
| SUPERSTRUCTURE :     |                 | TIMBER FLOOR ON I-BEAMS                             |                     |                  |                 |               |
| SUBSTRUCTURE :       |                 | E.BTS:TIMBER CAPS/TIM.POST&CONC.SILLS@ 8'-6 CENTERS |                     |                  |                 |               |
| SPANS :              |                 | 1 @ 20'-5                                           |                     |                  |                 |               |
| BEAMS OR GIRDERS :   |                 | 10 LINES 12 I-BEAMS @ 2' CENTERS                    |                     |                  |                 |               |
| FLOOR :              | ENCROACHMENT :  |                                                     | DECK (OUT TO OUT) : |                  |                 |               |
| 3X4TIM/5.5 AWS       |                 |                                                     | 20.3 FT             |                  |                 |               |
| CLEAR ROADWAY :      | BETWEEN RAILS : |                                                     | SIDEWALK OR CURB :  |                  |                 |               |
| 19.3 FT              | 20.0 FT         |                                                     | LT 0.3 FT RT 0.3 FT |                  |                 |               |
| VERT.CL.OVER :       | VERT.CL.UNDER : |                                                     | HOR.CL.UNDER :      |                  |                 |               |
| 99 FT 99 IN          | 00 FT 00 IN     |                                                     | 0.0 FT              |                  |                 |               |
| INV.RTG. :           | OPE.RTG. :      | CONTR.MEMBER :                                      | POSTED :            |                  |                 |               |
| HS-1                 | HS-1            | Cap-Abt#1                                           | SV 18               | TTST 23          | DATE 02/08/2006 |               |
| SYSTEM :             |                 |                                                     | GREEN LINE ROUTE :  |                  |                 |               |
| Secondary S.R. Route |                 |                                                     | N                   |                  |                 |               |
| 2ND OPENING :        |                 | 3RD OPENING :                                       |                     | 4TH OPENING :    |                 | 5TH OPENING : |
| REMARKS :            |                 |                                                     |                     |                  |                 |               |

# Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 110203 County: BURKE Date: 11/02/2009 By: DCR

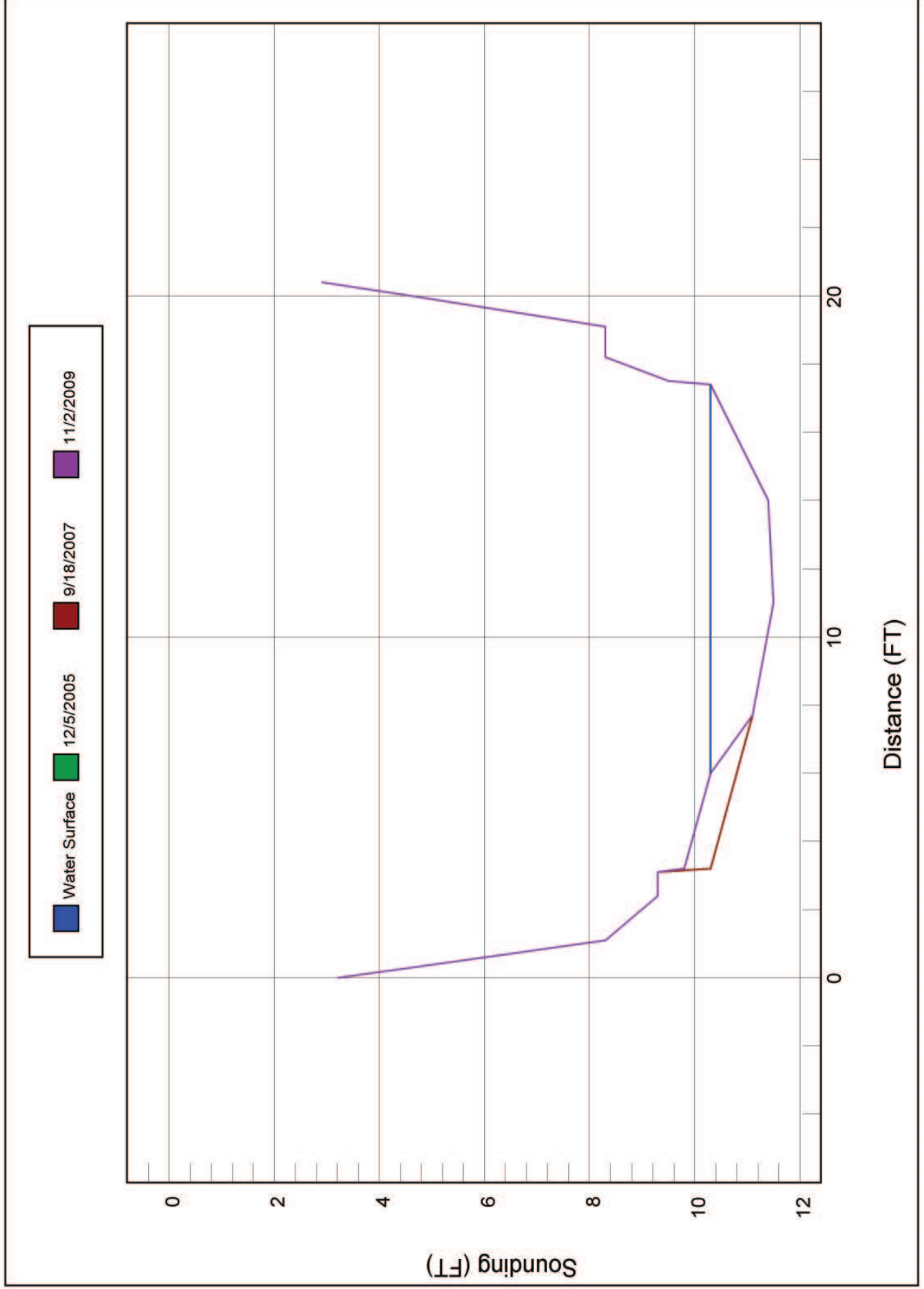
Record sounding from top of rail. Other location if needed: \_\_\_\_\_

Distance from Highwater Mark to top of rail: \_\_\_\_\_ Location of Highwater Mark: \_\_\_\_\_

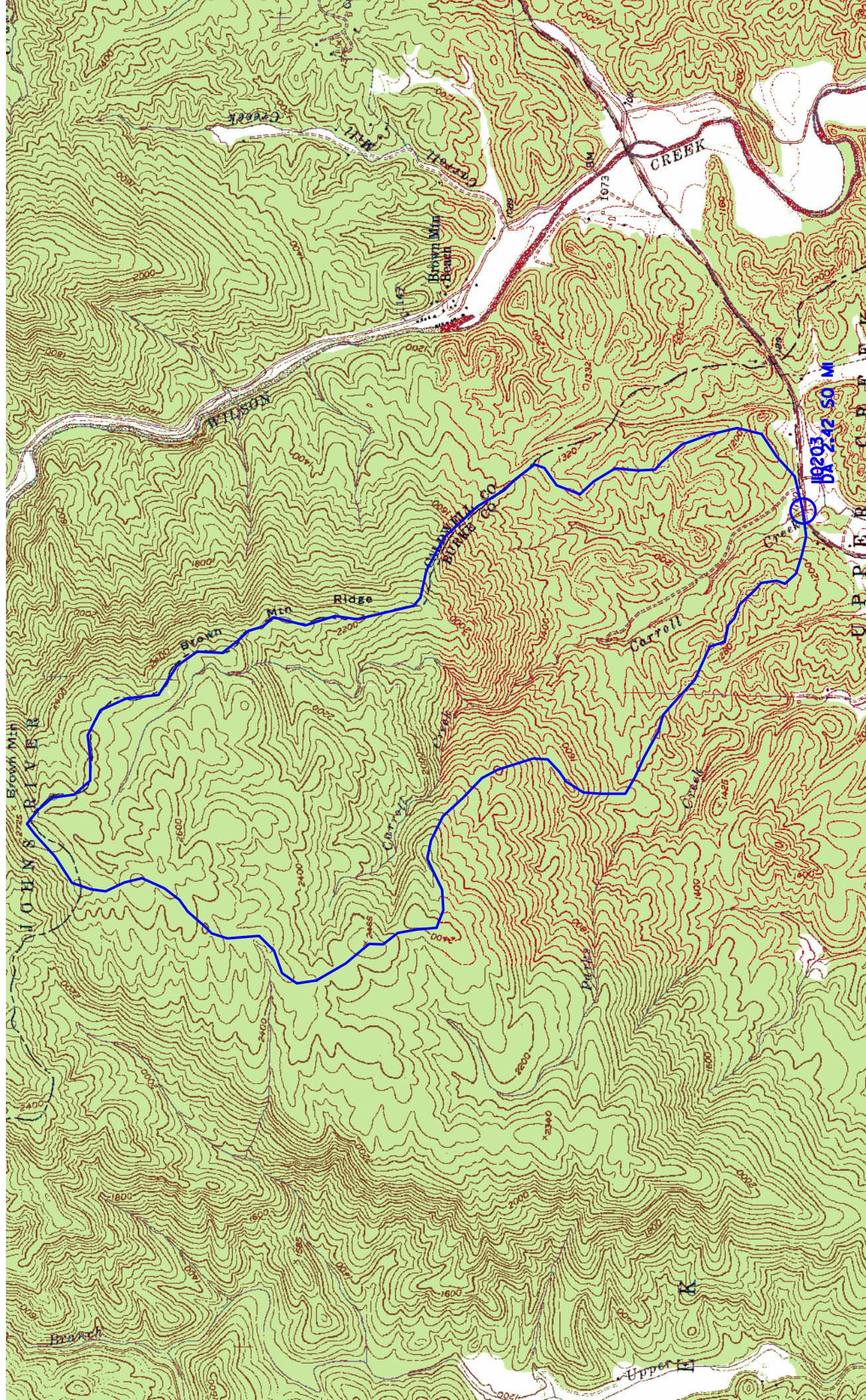
| DOWNSTREAM                 |                  |                                          | UPSTREAM                   |                  |                        |
|----------------------------|------------------|------------------------------------------|----------------------------|------------------|------------------------|
| Distance<br>(Station) (ft) | Sounding<br>(ft) | Description                              | Distance<br>(Station) (ft) | Sounding<br>(ft) | Description            |
| 0                          | 3.2              | WEST FF.                                 |                            |                  |                        |
| 0.3                        | 4.6              | TOP OF ABUT.1 CAP                        |                            |                  |                        |
| 1.1                        | 8.3              | STR.FACE OF ABUT.1 CAP                   | 1.1                        | 8.3              | STR.FACE OF ABUT.1 CAP |
| 2.4                        | 9.3              | TOP OF FOOTING                           |                            |                  |                        |
| 3.1                        | 9.3              | TOP OF FOOTING                           |                            |                  |                        |
| 3.2                        | 9.8              | SF OF FTG                                |                            |                  |                        |
| 6                          | 10.3             | WS WE                                    |                            |                  |                        |
| 7.7                        | 11.1             | BED                                      |                            |                  |                        |
| 11                         | 11.5             | DEEPEST POINT IN STREAMFACE.             |                            |                  |                        |
| 14                         | 11.4             | BED                                      |                            |                  |                        |
| 17.4                       | 10.3             | WS WE                                    |                            |                  |                        |
| 17.5                       | 9.5              | TOP OF FOOTING                           |                            |                  |                        |
| 18.2                       | 8.3              | TOP OF FOOTING                           |                            |                  |                        |
| 19.1                       | 8.3              | STR.FACE OF ABUT.2 CAP TOP<br>OF FOOTING | 19.1                       | 7.8              | STR.FACE OF ABUT.2 CAP |
| 20                         | 4.6              | TOP OF ABUT.2CAP                         |                            |                  |                        |
| 20.4                       | 2.9              | EAST FF.                                 |                            |                  |                        |

**STREAMBED PROFILE (Downstream)**

Top of Rail = 0 FT (Sounding)







This spreadsheet computes the 50-, 20-, 10-, 4-, 2-, 1-, 0.5-, and 0.2-percent chance exceedance flows for an ungaged site in Georgia, South Carolina, and North Carolina. The spreadsheet also includes the 95-percent prediction intervals, the minus and plus standard error of prediction intervals, and the average standard error of prediction. To use the spreadsheet, enter requested information in the yellow cells below.

Enter a site-description name: 110203

Enter the explanatory variables:

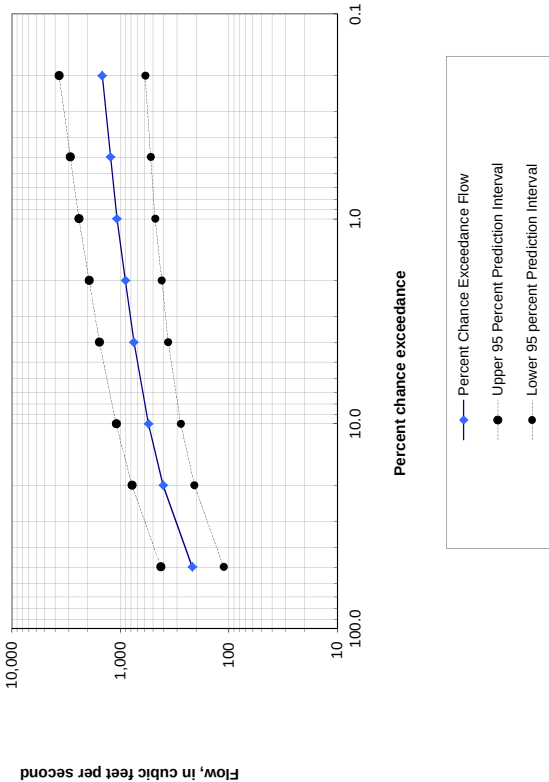
|                                         |      |
|-----------------------------------------|------|
| Drainage area, in square miles          | 2.42 |
| Percent of basin in Hydrologic Region 1 |      |
| Percent of basin in Hydrologic Region 2 | 100  |
| Percent of basin in Hydrologic Region 3 |      |
| Percent of basin in Hydrologic Region 4 |      |
| Percent of basin in Hydrologic Region 5 |      |

Applicable range of drainage area is 1 to 9,000 square miles.  
Hydrologic Region 1 corresponds to the USEPA Level III Ridge and Valley and Piedmont ecoregions  
Hydrologic Region 2 corresponds to the USEPA Level III Blue Ridge ecoregion  
Hydrologic Region 3 corresponds to the USEPA Level IV Sand Hills ecoregion  
Hydrologic Region 4 corresponds to the USEPA Level III Southeastern, Middle Atlantic Coastal, and Southern Coastal Plain ecoregions  
Hydrologic Region 5 corresponds to the lower portion of the USEPA Level IV Tifton Uplands ecoregion.

|                           |     |
|---------------------------|-----|
| Sum of region percentages | 100 |
|                           |     |

|                                         |
|-----------------------------------------|
| Drainage area check                     |
| DRAINAGE AREA WITHIN APPLICABLE LIMITS. |

110203



| Percent chance exceedance | Percent chance exceedance flow, in ft <sup>3</sup> /s | Lower 95 percent prediction interval flow, in ft <sup>3</sup> /s | Upper 95 percent prediction interval flow, in ft <sup>3</sup> /s | -S <sub>PI</sub> (percent) | +S <sub>PI</sub> (percent) | Average S <sub>PI</sub> (percent) |
|---------------------------|-------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|----------------------------|----------------------------|-----------------------------------|
| 50                        | 218                                                   | 112                                                              | 426                                                              | -29.0                      | 40.8                       | 35.2                              |
| 20                        | 405                                                   | 209                                                              | 786                                                              | -28.7                      | 40.3                       | 34.8                              |
| 10                        | 553                                                   | 279                                                              | 1,100                                                            | -29.5                      | 41.8                       | 36.1                              |
| 4                         | 755                                                   | 364                                                              | 1,570                                                            | -31.1                      | 45.1                       | 38.6                              |
| 2                         | 903                                                   | 418                                                              | 1,950                                                            | -32.5                      | 48.1                       | 40.8                              |
| 1                         | 1,080                                                 | 480                                                              | 2,430                                                            | -33.9                      | 51.3                       | 43.2                              |
| 0.5                       | 1,240                                                 | 527                                                              | 2,920                                                            | -35.4                      | 54.7                       | 45.8                              |
| 0.2                       | 1,480                                                 | 593                                                              | 3,700                                                            | -37.3                      | 59.5                       | 49.3                              |