Project#
TIP# B-5886
Let Date
WBS#

PREDESIGN-PRESURVEY REPORT

Bridge# 800058
County Rutherford (Division: 13)
Road# SR1178 (Maple Creek Rd) ✓
Stream Mountain Creek

Type Of Request: POC Force Account TIP NCMA
Date 12/14/15 Name SNM Assigned To PFF / MTS
Checked By 1-5-16 WSH
Prior Survey Date None (attach copy of prior survey) BRN. BK.: 1/91 CO. FILE 1/91
Study By Scour Section None
Flood Zone AE ✓ Detail Study Limited ✓ Date 7/2/08 Panel# 1600
B.M. Info N/A
Quad Map N/A Drainage Area 29.3 SQ.mi From StreamStats
Q25 4200 cfs Q50 5000 cfs Q100 5800 cfs Method USGS Rural Reg. Eqn.

COORD: Lat.: 35.36264, Long.: -82.01681

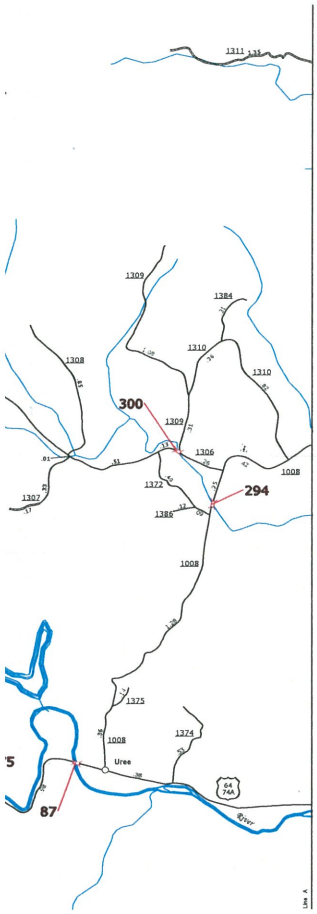
EXISTING BRIDGE INFORMATION BUILT: 1950

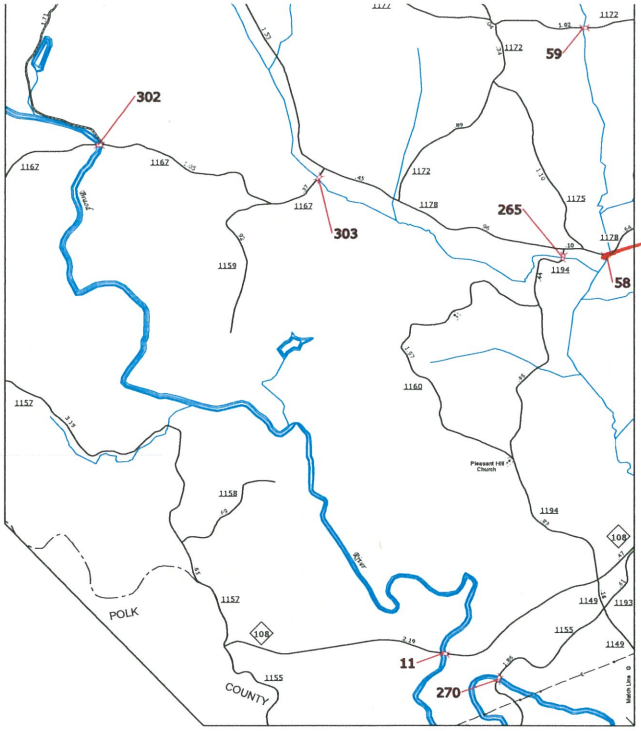
Location 0.1 mi E JCT. SR 1157
Average Daily Traffic 680 (2011) 6% Trk
Length 106' Bed-To Crown 20' Water Depth 2' ✓
Type Structure Timber floor on Salvaged I-beams
Type Spans 1@35'-6"; 1@34'-6"; 1@35'-6"
Upstream Structure 800059 - L=121' Timber floor on I-beams
Location 0.45 mi E. JCT. SR 1172 on SR 1172
Bed-To Crown 20' H2O: 1' Prior Survey N/A
Downstream Structure 800038 - L=142 PPC Cored Slab
Location 0.1 mi E. JCT. SR 1193 on NC 108
Bed-To Crown 21' H2O: 2' Prior Survey Yes (9/23/13)
SCS Watershed N/A

ENVIRONMENTAL TVA: No

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 WS-IV ✓
DENR River Basin Info. Broad ✓ (# 9-25-(3.5)) ✓

800058



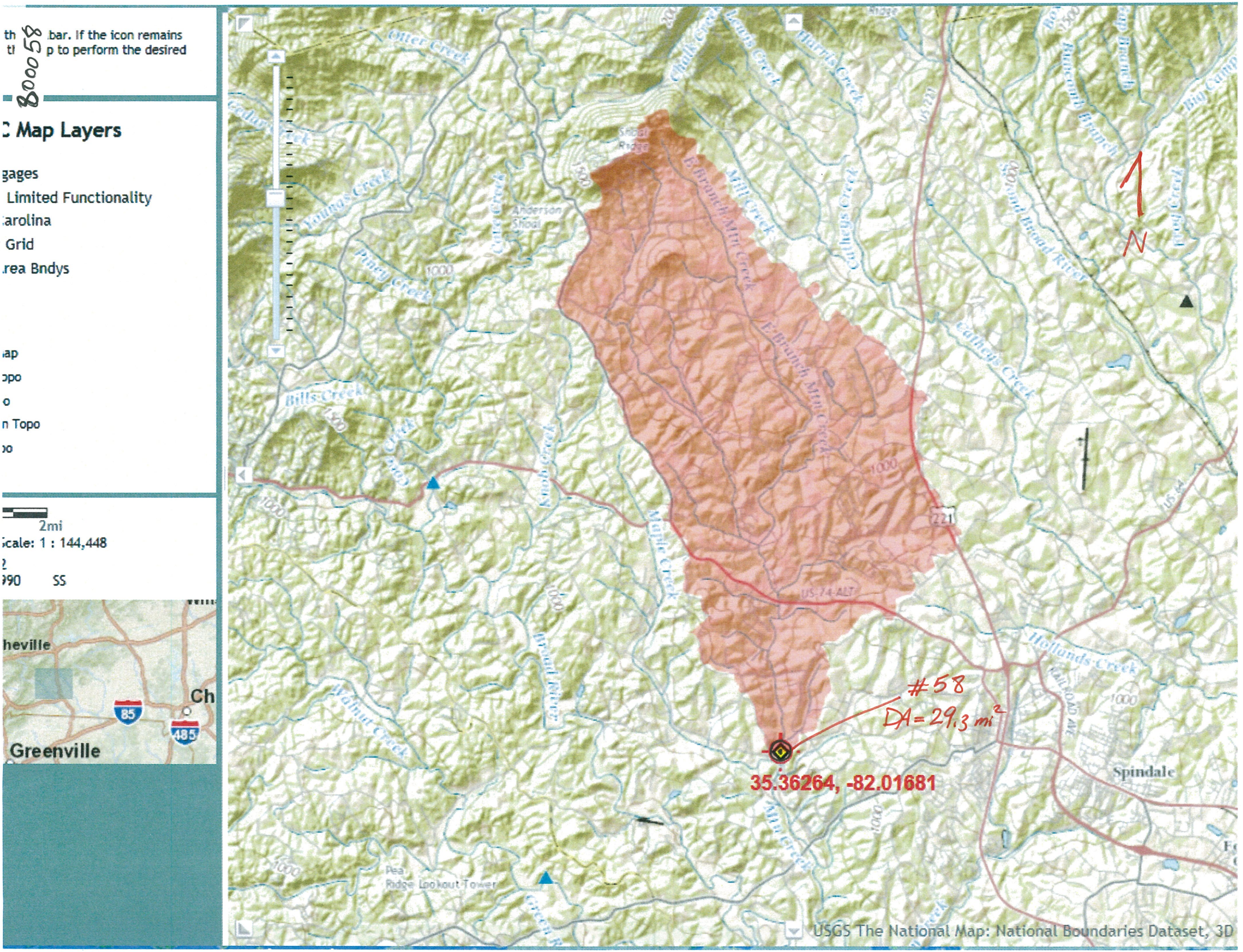


Pleasant Hill Church and Vicinity

N

ENLARGED MUNICIPAL AND SUBURBAN AREAS

RUTHERFORD COUNTY


Map Layers
gages
Limited Functionality
arolina
Grid
rea Bndys
ap
opo
o
n Topo
o
2mi
cale: 1 : 144,448
990 SS
heville
Ch
Greenville
85
485
#58
DA=29.3 mi²
35.36264, -82.01681
N
Spindale
Otter Creek
Young's Creek
Bills Creek
Pincy Creek
Anderson Shoal
Maple Creek
Mill Creek
E. Branch Mill Creek
Walnut Creek
Hollands Creek
Pea Ridge Lookout Tower
US-74-ALT
221
USGS The National Map: National Boundaries Dataset, 3D

800058

StreamStats Version 3.0

Basin Characteristics Ungaged Site Report

Date: Mon Dec 14, 2015 11:26:58 AM GMT-5
Study Area: North Carolina
NAD 1983 Latitude: 35.3626 (35 21 45)
NAD 1983 Longitude: -82.0167 (-82 01 00)

Label	Value	Units	Definition
DRNAREA	29.3	square miles	Area that drains to a point on a stream

Accessibility **FOIA** **Privacy** **Policies and Notices**
U.S. Department of the Interior | U.S. Geological Survey
URL: http://streamstatsags.cr.usgs.gov/v3_beta/BCreport.htm
Page Contact Information: StreamStats Help
Page Last Modified: 11/13/2015 12:55:34 (Web1)
Streamstats Status News
USA.gov

800058

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION TEMPORARY REPAIR

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection - Contract

COUNTY RUTHERFORD BRIDGE NUMBER 800058 INSPECTION CYCLE 0 YRS

ROUTE SR1178 ACROSS MOUNTAIN CREEK M.P. 0

LOCATION .1 MI.E.JCT.SR1157

SUPERSTRUCTURE TIMBER FLOOR ON SALVAGED I-BEAMS

SUBSTRUCTURE E.BTS&BT2:TIM.CAPS/PILES;BT1:TIM.CAP/TIM P&S/CONC.FTG.

SPANS 1 @ 35'-6; 1 @ 34'-6; 1 @ 35'-6

LONGITUDE 82° 1' 3.63" LATITUDE 35° 21' 45.49"

INSPECTION DATE 06/19/2013 PRESENT CONDITION FAIR

PRESENT POSTING Y SV 21 TTST 27 PROPOSED POSTING

OTHER SIGNS PRESENT (4) DELINEATORS, (2) NARROW BRIDGE



WEST APPROACH LOOKING EAST

Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	No

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

800058

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 07/15/2013

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
RUTHERFORD	13	1	800058	106 FEET

ROUTE CARRIED : SR1178

FEATURE INTERSECTED : MOUNTAIN CREEK

LOCATED : .1 MI.E.JCT.SR1157

BRIDGE NAME :

CITY :

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :		RAIL TYPE :	
09	NFA	NFA	680	2011	LT 253	RT 253

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1950	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :	
	BMU	5.8951	TAN	90	ON 2	UNDER 0

NAVIGATION :					HT. CRN. TO BED :		WATER DEPTH :	
VC	0	FT	HC	0 FT	20	FT	2	FT

SUPERSTRUCTURE : TIMBER FLOOR ON SALVAGED I-BEAMS

SUBSTRUCTURE : E.BTS&BT2:TIM.CAPS/PILES;BT1:TIM.CAP/TIM P&S/CONC.FTG.

SPANS : 1 @ 35'-6; 1 @ 34'-6; 1 @ 35'-6

BEAMS OR GIRDERS : 10 LINES 16 I-BEAMS @ 2' CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/3 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :			
19.167 FT	19.167 FT	LT	0 FT	RT	0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :				
HS-1	HS-1	Int.Beam 5	SV 21	TTST 27	DATE 07/15/2009		

SYSTEM : Secondary S.R. Route

GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

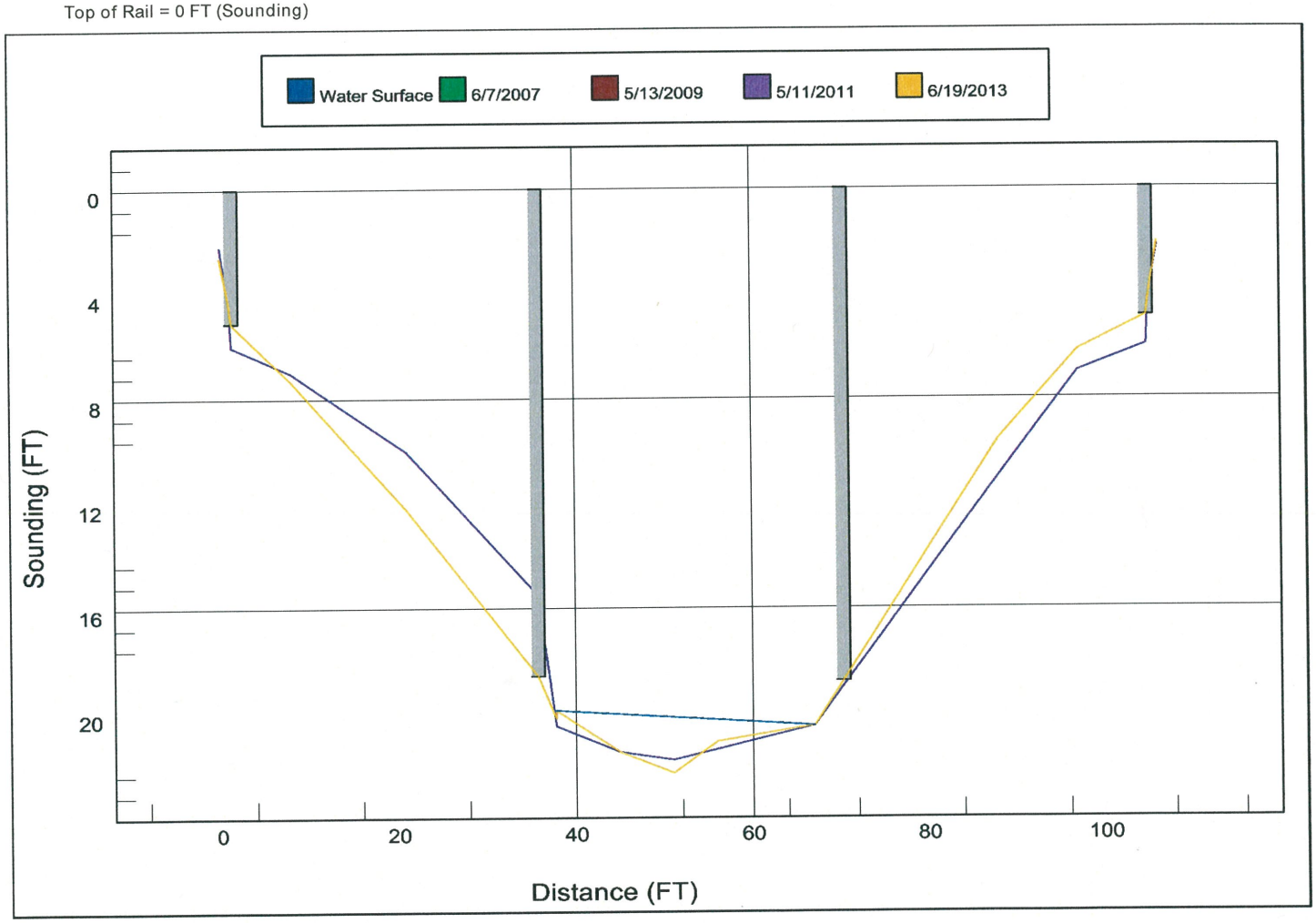
REMARKS :

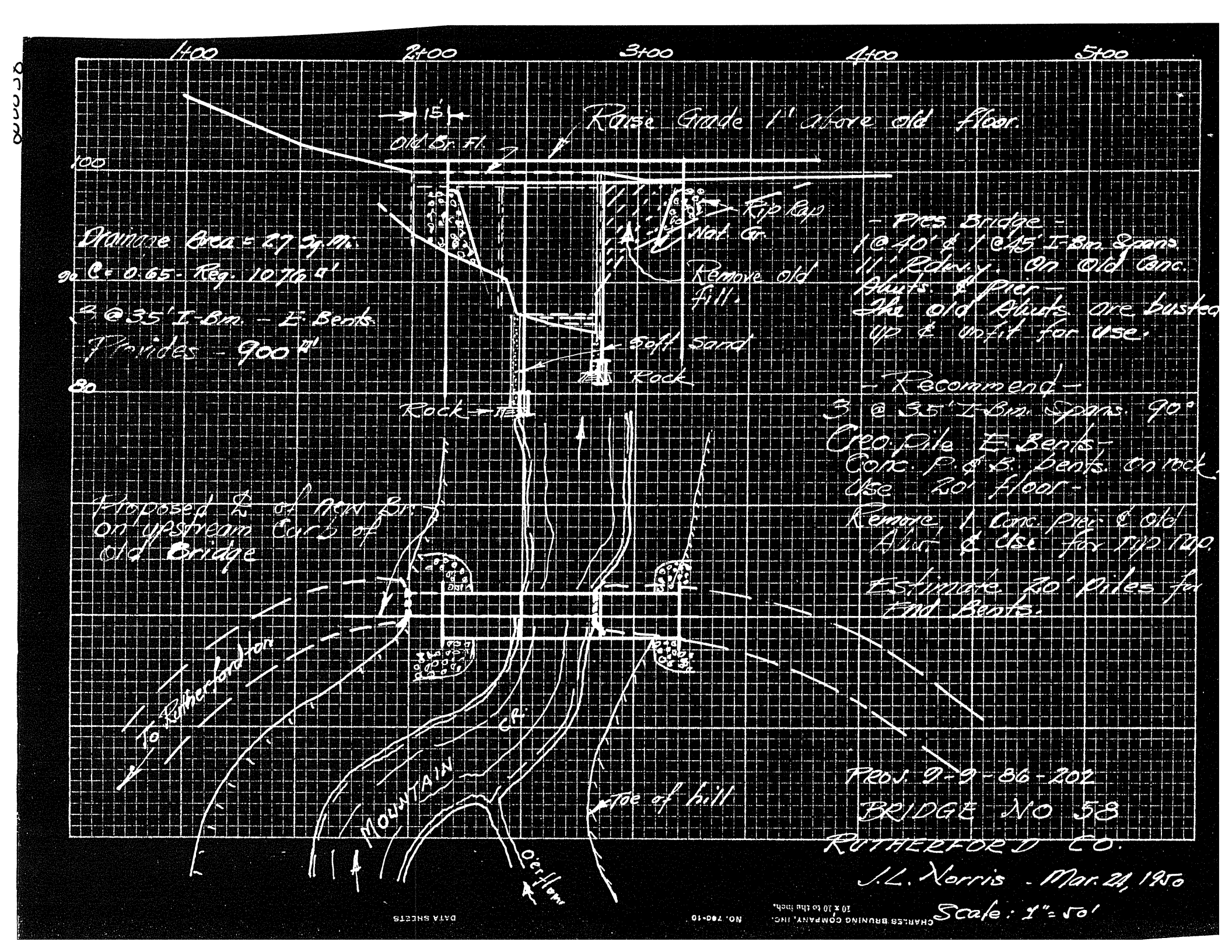
800058

Bridge: 800058 County RUTHERFORD Date: 06/19/2013

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)




1400
2400
3400
4400
5400
100
80
15'
Old Br. Fl.
Raise Grade 1' above old floor.
Rip Rap
Nat. Gr.
Remove old Fill.
Soft Sand
Rock
Rock
Drainage Area = 2.7 Sq. M.
90 C = 0.65 Req. 1076 cf
3 @ 35' I-Bm. - E. Bents.
Piles - 900 lf
- Pres. Bridge -
1 @ 40' & 1 @ 45' I-Bm. Spans
W. Rdwy. on Old Conc.
Abuts. & Pier -
The old Abuts. are busted
up & unfit for use.
- Recommend -
3 @ 35' I-Bm. Spans. 90°
Creo. Pile E. Bents -
Conc. P. & S. Bents. on rock.
Use 20' floor -
Remove 1 Conc. Pier & old
Abut. & use for rip rap.
Estimate 20 Piles for
End Bents.
Proposed ℄ of new Br.
on upstream side of
old Bridge
Rutherfordton
150
℄
Mountain
Toe of hill
Overflow
Proj. 9-9-86-202
BRIDGE NO 58
RUTHERFORD CO.
J.L. Norris - Mar. 24, 1950
Scale: 1" = 50'

800058

NOTE: THIS SITE IS LOCATED IN A FLOOD ZONE
- NO DETAILED STUDY

D.A. = 29.6 MI²

Q_{25} = 4300 CFS
Q_{100} = 6400 CFS
USGS

NOTE: NO PERMIT REQUIRED

H.W. INFO
MT. COLE
RETIMED BRIDGE MAIN
UP TO LOW STEEL OK
NEVER OVER.

OVERTOPPING FLOOD INFO:
EL.: 98.2
FREQ.: 500 YR+
DISCHARGE: N/A

SOME DEBRIS

2-20-91

DATABASE: HUTX03.DAT

NCDOT
DIVISION OF HIGHWAYS
RUTHERFORD CO.
BRS. E-58 ON SR. 1178
OVER MOUNTAIN CREEK
SCALE: 1"=50' HORZ.
1"=10' VERT.
SURVEY BY: JEL, PMR, & K.W.
DRAWN BY K.W. 1-91

3+00 4+00

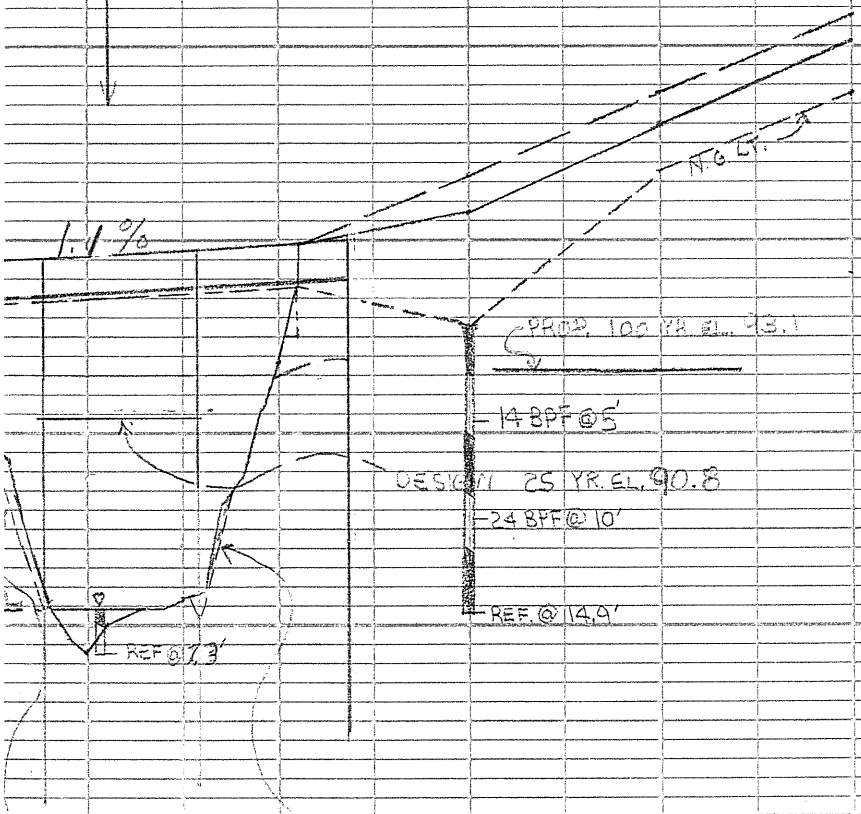
800058

℄ STA. 2+55

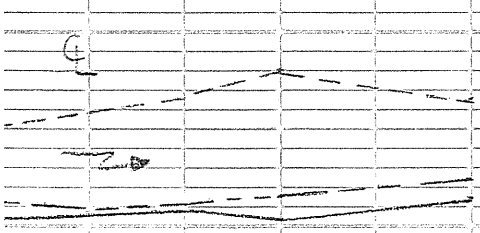
3 @ 40.0' = PRESTRESSED CORED SLAB

CR GR. EL. 99.4

90° SKEW



TYPICAL LOCAL SCOUR



110

100

90

80

90

80

BED EL.

ON % GRADE

BED MATERIAL: SAND, PEBBLES

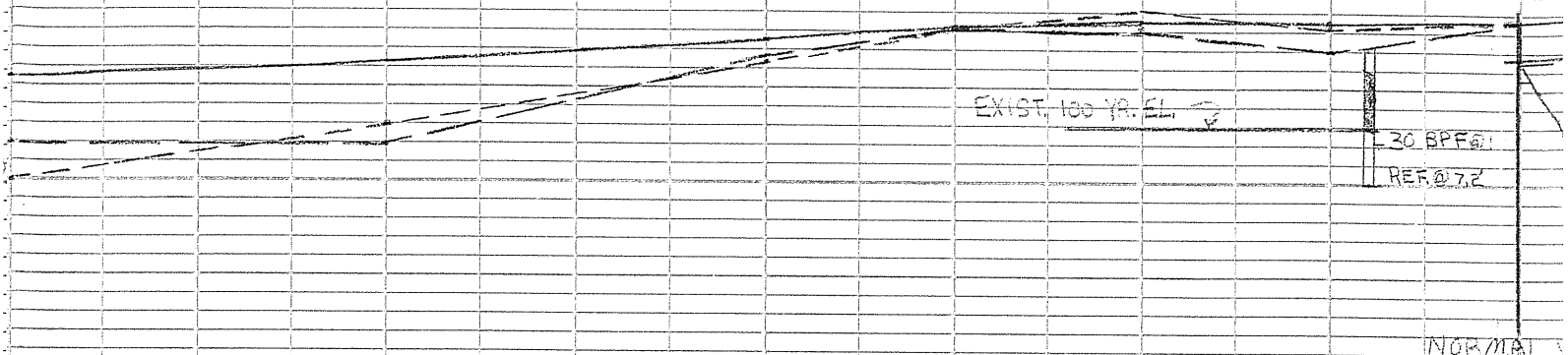
BANKS: SLIGHTLY UNDERCUT WITH

-1+00 0+00 1+00 2+00

800058

EXISTING WATERWAY: 1110 SQ. FT.

PROPOSED WATERWAY: 1225 SQ. FT.



: 3 SPANS
TIMBER FLOOR
RIDGE RAIL

THEORETICAL SCOUR

90

INCREMENTAL: NO CONTRACTION SCOUR

$Y_s = 18.5[2.0(1.1)(1.0)(2/7.5)^{0.6}(.005)^{0.3}] = 1.6'$

80

N.G.L.

W.S.

THEORETICAL SCOUR: 1.6'

3+00 3+00

800058

TBM. NAIL IN BASE OF POWER POLE
26' RT. OF STA. 1+15
EL. 100.00 (ASSUMED DATUM)

110

100

90

80

N.G. RT

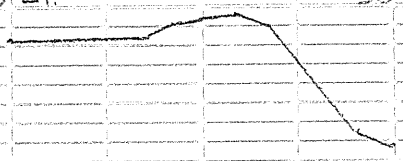
EXISTING BRG IN
STEEL I-BEAMS, I
GUARDRAIL FOR R

X-SECTIONS

STA. 1+60

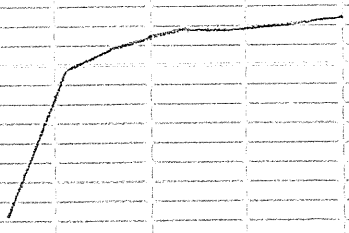
EL. 99.4

50' LT. 50' RT.



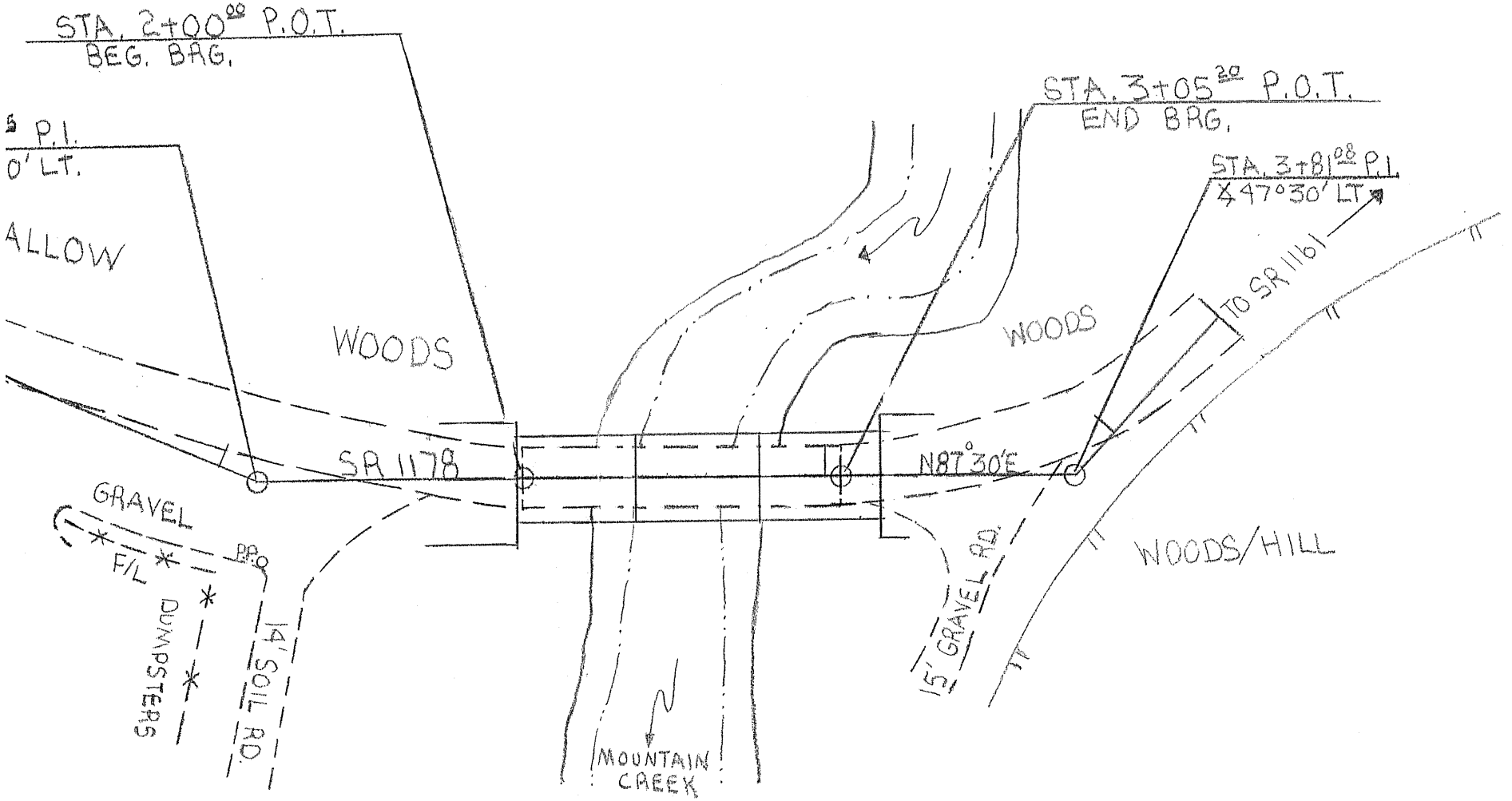
STA. 3+50

50' LT. EL. 101.4 50' RT.



800058

3@ 40' PRESTR. CORED SLAB



800058



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)
- B Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

OTHER FEATURES
- 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

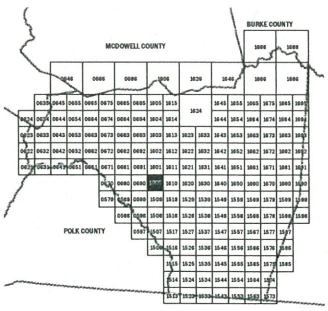
Map Projection:
North Carolina State Plane Projection Feet (Zone 3200)
Datum: NAD 1983 (Horizontal), NAVD 1988 (Vertical)

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 1600

Panel Contains:

COMMUNITY	CID	PANEL	SUFFIX
RUTHERFORD COUNTY	370217	1600	J

MAP NUMBER
3710160000J

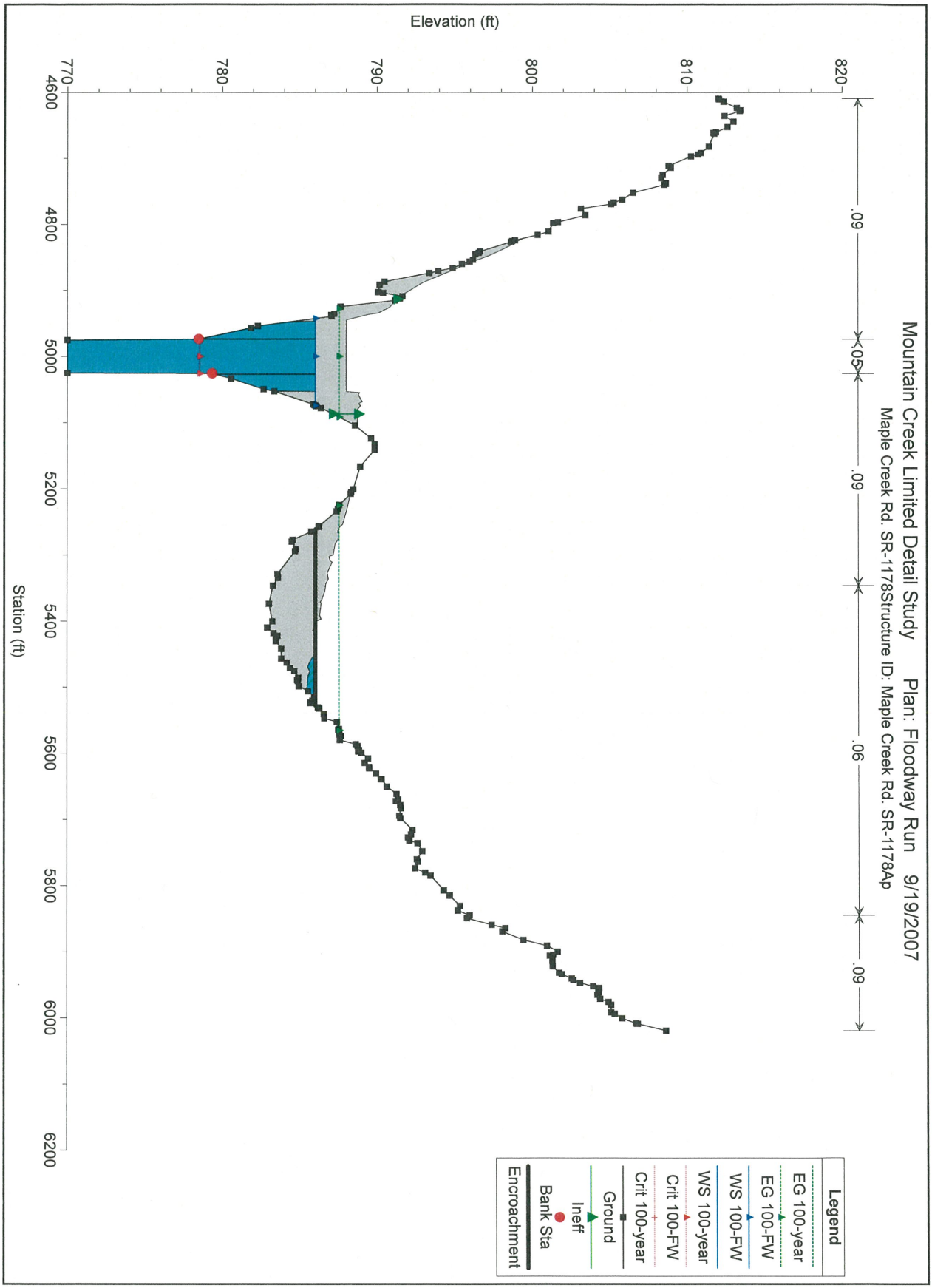
MAP REVISED
7/2/2008

800058


N
285
788.0
280
787.9
ZONE AE
Mountain Creek
Maple Creek
Cc Lovelace Rd
271
786.7
784.3
267

#58

800058


Mountain Creek Limited Detail Study Plan: Floodway Run 9/19/2007
Maple Creek Rd. SR-1178Structure ID: Maple Creek Rd. SR-1178Ap
Elevation (ft)
820
810
800
790
780
770
4600
4800
5000
5200
5400
5600
5800
6000
6200
Station (ft)
.09
.05
.09
.06
.09
Legend
EG 100-year
EG 100-FW
WS 100-FW
WS 100-year
Crit 100-FW
Crit 100-year
Ground
Ineff
Bank Sta
Encroachment