

MDA OK.
GOOD CANDIDATE.

PREDESIGN-PRESURVEY REPORT

County Alexander

Project# _____
TIP# _____
Let Date _____
WBS# 17BP.12.R.18

Bridge# 010093
Road# SR 1317
Name _____
Stream Lambert Creek

Type Of Request: POC Force Account TIP NCMA

Date 8/1/2011 Name Sungate Design Assigned To _____

Checked By WHW

Prior Survey Date Oct. 1969 (attach copy of prior survey)

Study By Scour Section No

Flood Zone Yes Detail Study Limited Date 12/18/07 Panel# 3820

B.M. Info 48 ATA (190)

Quad Map Ellendale Drainage Area 10.3 Sq Miles From USGS Quad Map
Q25 2150 cfs Q50 2550 cfs Q100 3030 cfs Method Rural Regression Eqs

EXISTING BRIDGE INFORMATION

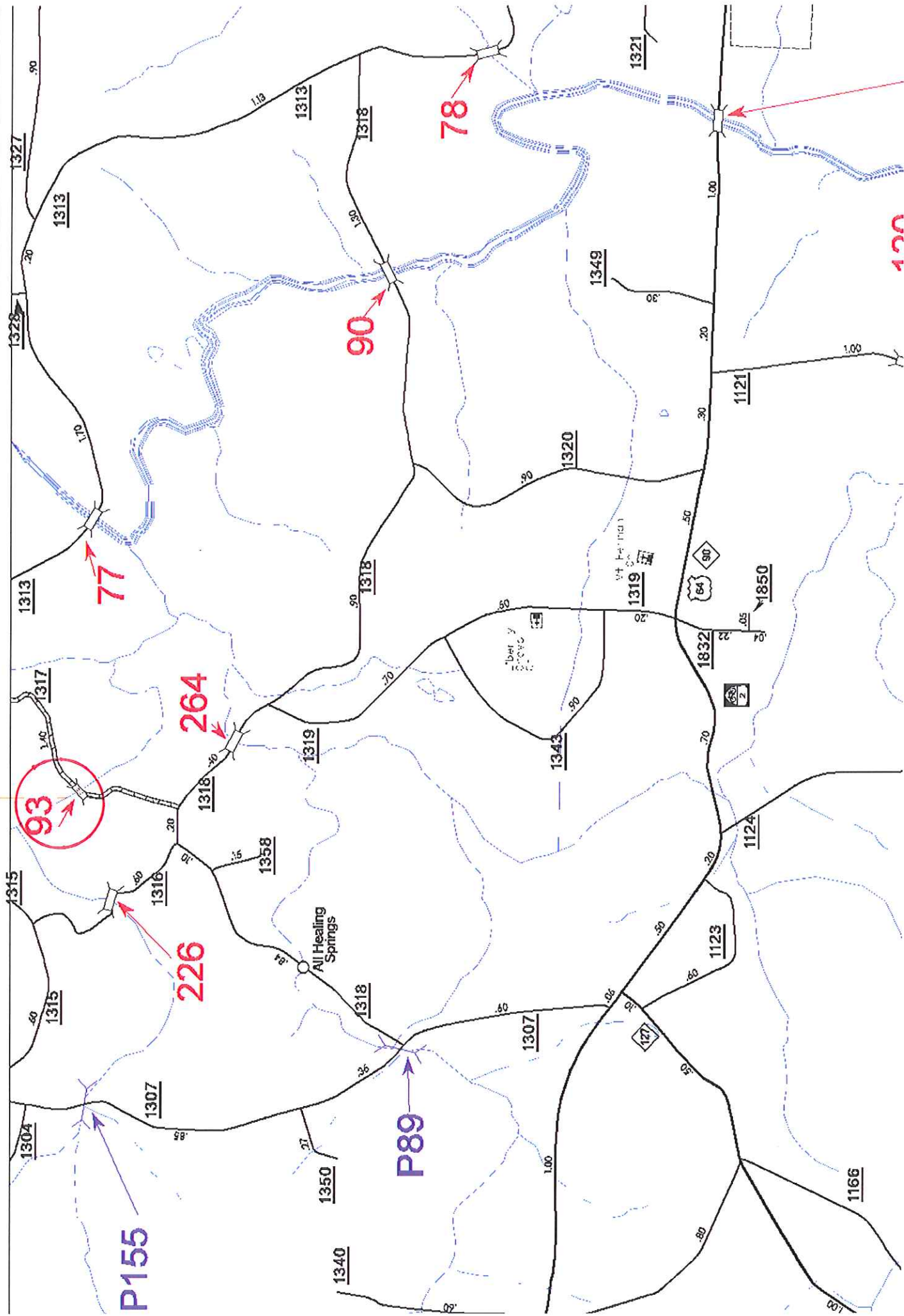
Location 0.3 miles north of junction with SR 1318
Average Daily Traffic 270
Length 50'-1" Bed- To Crown 18' Water Depth 1'
Type Structure Timber deck on I-beams on timber caps and piles
Type Spans 1 @ 25'-7", 1 @ 24'-6"
Upstream Structure 1 @ 35'-6", 1 @ 35'-4"
Location SR 1315
Bed- To Crown 11' Prior Survey _____
Downstream Structure Not Comparable
Location _____
Bed- To Crown _____ Prior Survey _____
SCS Watershed _____

ENVIRONMENTAL

Trout Stream No 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 Class C
DENR River Basin Info. Catawba
State Stormwater Permit Not Required

Estimated Min. Bridge Length = 115'

$$50' + 20' + 3(14') = 112' \sim 115'$$





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

Shored

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY ALEXANDER

BRIDGE NUMBER 010093

INSPECTION CYCLE 2 YRS

ROUTE SR1317

ACROSS LAMBERT CREEK

M.P. 0

LOCATION 0.3 MI. N. JCT. SR1318

SUPERSTRUCTURE TIMBER DECK ON I-BEAMS

SUBSTRUCTURE ABUT.1 MASS CONC.EBT.2&INT.BNT:TIM.CAP,POST&SILL,INT.BNT.

SPANS 1@25'7, 1@24'6

LONGITUDE 81° 15' 5.5"

LATITUDE 35° 56' 44.6"

PRESENT CONDITION FAIR

INVENTORY RATING *HS 9-2 01*

INSPECTION DATE 09/30/2010

OPERATING RATING *HS 15-3 01*

PRESENT POSTING SV 15 TTST 21

PROPOSED POSTING *SV 15, TTST 21*

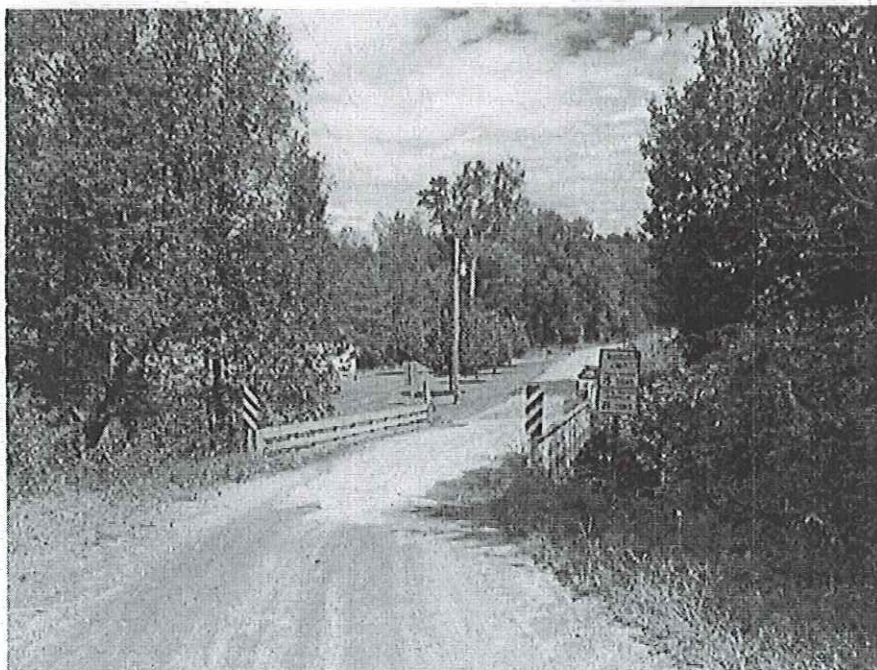
COMPUTER UPDATE *11-3-10*

ANALYSIS DATE *10-25-10*

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS, 2 NARROW BRIDGE



SOUTH TO NORTH

SIGN NOTICE
ISSUED FOR

NUMBERED
REQUIRED

No

WEIGHT LIMIT

No

DELINEATORS

No

NARROW BRIDGE

No

ONE LANE BRIDGE

No

LOW CLEARANCE

BRIDGE MANAGEMENT UNIT
DATA ON EXISTING STRUCTURE

Run Date: 11/03/2010

COUNTY : ALEXANDER		DIV : 12		DIST : 2		STRUCTURE NUMBER : 010093		LENGTH : 50 FEET	
ROUTE CARRIED : SR1317				FEATURE INTERSECTED : LAMBERT CREEK					
LOCATED : 0.3 MI. N. JCT. SR1318				BRIDGE NAME :			CITY :		
FUNC. CLASS : 09		SYST.ON : NFA		SYST.UNDER : NFA		ADT & YR : 270 2005		RAIL TYPE : LT 227 RT 227	
BUILT : 1961		BY : BMU		PROJ :		FED.AID PROJ :		DESIGN LOAD : Other or Unknown	
REHAB :		BY :		PROJ :		ALIGNMENT : TAN		SKEW : 105	
								LANES : ON 2 UNDER	
NAVIGATION : VC 0.0 FT HC 0.0 FT				HT. CRN. TO BED : 18 FT				WATER DEPTH : 1 FT	
SUPERSTRUCTURE : TIMBER DECK ON I-BEAMS									
SUBSTRUCTURE : ABUT.1 MASS CONC.EBT.2&INT.BNT:TIM.CAP,POST&SILL,INT.BNT.									
SPANS : 1@25'7, 1@24'6									
BEAMS OR GIRDERS : 8 LNS. OF W12X27 I-BMS. @ 2'7 CTRS.									
FLOOR : 700		ENCROACHMENT :				DECK (OUT TO OUT) : 20.1 FT			
CLEAR ROADWAY : 19.2 FT		BETWEEN RAILS : 19.8 FT				SIDEWALK OR CURB : LT 0.3 FT RT 0.3 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.bms		POSTED : SV 15		TTST 21 DATE 03/06/2009	
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: 010093 County: ALEXANDER Date: 09/30/2010 By: MF

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 (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	3	TOP OF FILLFACE			
0.49	3	TOP OF FILLFACE			
0.5	4.6	Top of Cap			
1.49	4.6	Top of Cap			
1.5	15.4	TOP OF FTG	1.5	15.1	FACE OF ABUT
1.99	15.4	TOP OF FTG			
2	18.3	FACE OF FOOTING			
12	20	WSWE			
17	21.4	BED FLOW EAST			
25.6	20	Pier	25.6	23.7	Pier
28	20.5	BED			
30	20	WSWE			
49.8	10.5	FACE OF ABUT	49.8	11	FACE OF ABUT
49.81	4.6	Top of Cap			
49.82	3	TOP OF FILLFACE			
50.1	3	TOP OF FILLFACE			

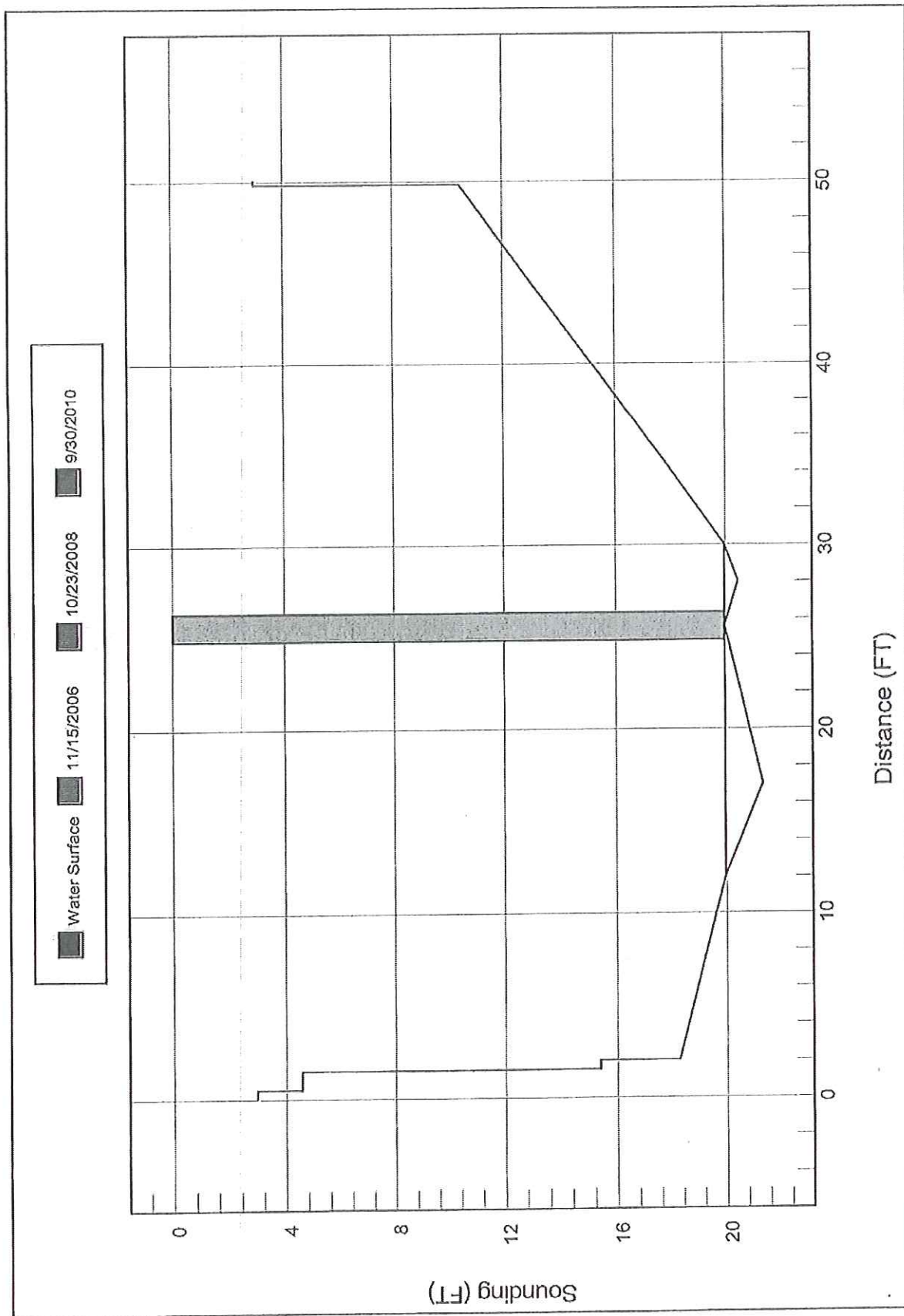
Bridge: 010093

County ALEXANDER

Date: 09/30/2010

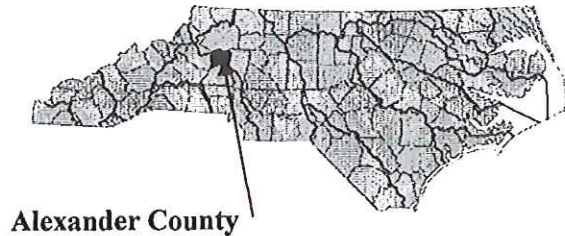
STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



FLOOD INSURANCE STUDY

A Report of Flood Hazards in
**ALEXANDER COUNTY,
NORTH CAROLINA**
AND INCORPORATED AREAS



Community Name	Community Number	River Basin
Alexander County (Unincorporated Areas)	370398	Catawba/Yadkin
Taylorsville, Town of	370479	Catawba/Yadkin



December 18, 2007

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

**Flood Insurance Study Number
37003CV000A**

www.fema.gov and www.ncfloodmaps.com



Section 4.0 – Area Studied

Table 5—Flooding Sources Studied by Detailed Methods: Limited Detailed

Source	Riverine Sources		Affected Communities
	From	To	
Greasy Creek	The confluence with Wallace Creek	Approximately 0.4 mile upstream of Carson Chapel Road (SR 1418)	Alexander County (Unincorporated Areas)
Greasy Creek Tributary 1	The confluence with Greasy Creek	Approximately 0.4 mile upstream of Hammer Road	Alexander County (Unincorporated Areas) Taylorsville, Town of
Guys Branch	The confluence with Elk Shoals Creek	Approximately 0.5 mile upstream of the confluence with Elk Shoals Creek	Alexander County (Unincorporated Areas)
Isaac Creek	The confluence with Upper Little River	Approximately 0.7 mile upstream of SR 1143	Alexander County (Unincorporated Areas)
Island Creek	The confluence with Catawba River	Approximately 0.4 mile upstream of SR 1621	Alexander County (Unincorporated Areas)
Jumping Run	The confluence with Rock Creek	Approximately 500 feet upstream of NC 127	Alexander County (Unincorporated Areas)
Lambert Creek	The confluence with Lower Little River	Approximately 0.8 mile upstream of SR 1307	Alexander County (Unincorporated Areas)
Lambert Creek Tributary 1	The confluence with Lambert Creek	Approximately 800 feet upstream of SR 1307	Alexander County (Unincorporated Areas)
Lower Little River	The confluence with Catawba River	Approximately 0.9 mile upstream of SR 1332	Alexander County (Unincorporated Areas)
Lower Little River Tributary 1	The confluence with Lower Little River	Approximately 1.9 miles upstream of the confluence with Lower Little River	Alexander County (Unincorporated Areas)
Lower Little River Tributary 2	The confluence with Lower Little River	Approximately 1,600 feet upstream of SR 1124	Alexander County (Unincorporated Areas)
Lower Little River Tributary 2A	The confluence with Lower Little River Tributary 2	Approximately 1,600 feet upstream of confluence with Lower Little River Tributary 2	Alexander County (Unincorporated Areas)
Lower Little River Tributary 3	The confluence with Lower Little River	Approximately 1.4 miles upstream of SR 1110	Alexander County (Unincorporated Areas)

Section 5.0 – Engineering Methods

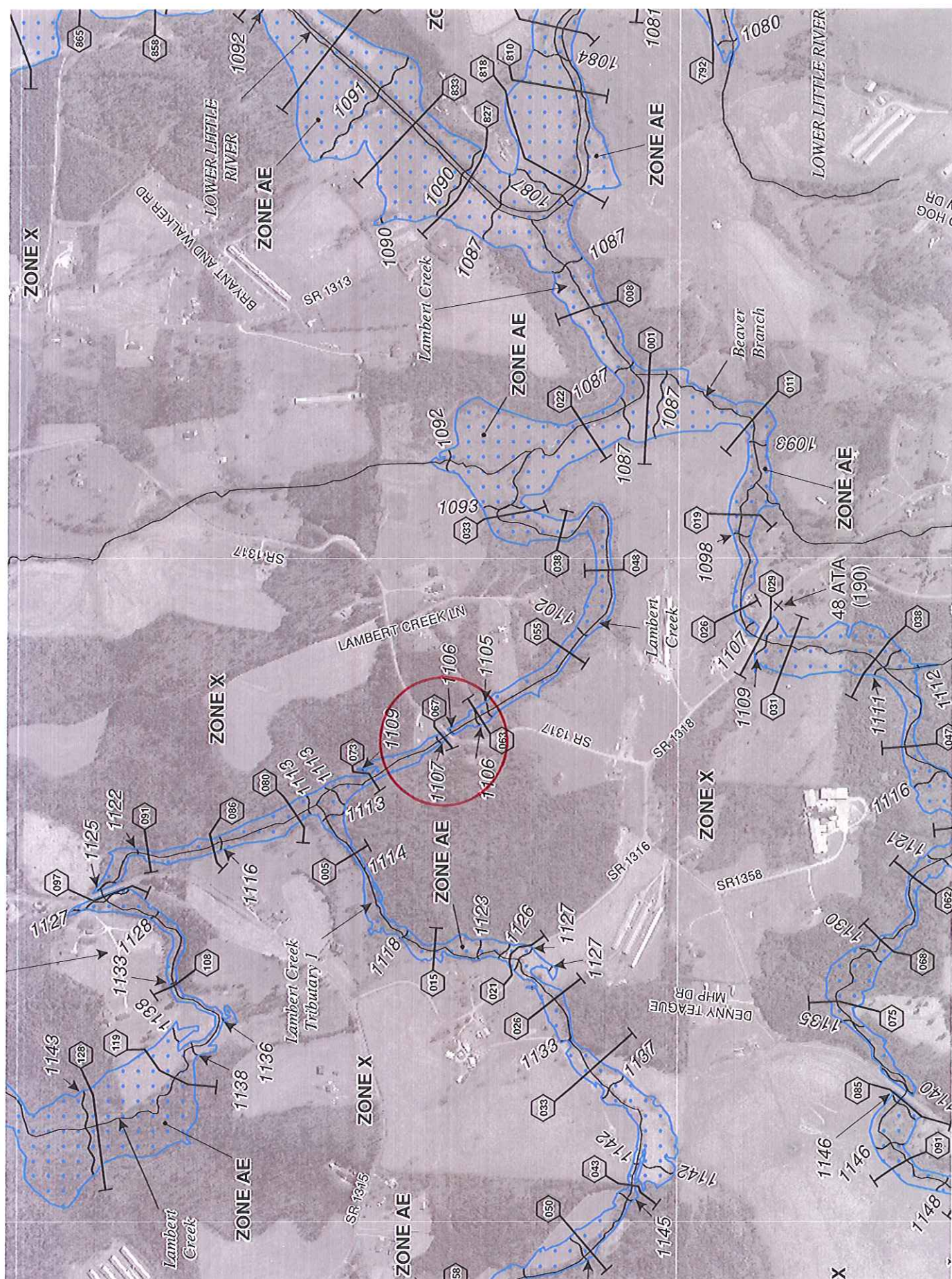
Table 7—Summary of Discharges

Flooding Source	Location	Drainage Area (square miles)	Discharges (cfs)			
			10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
Jumping Run (continued)	Approximately 0.3 mile downstream of NC-127	0.6	*	*	818	*
	Approximately 530 feet downstream of NC-127	0.4	*	*	708	*
Lambert Creek	Approximately 850 feet upstream of confluence with Lower Little River	14.5	*	*	4,800	*
	Approximately 650 feet upstream of SR 1317	14.5	*	*	4,150	*
	Approximately 500 feet downstream of SR 1307	10.5	*	*	3,510	*
	Approximately 1,160 feet downstream of Natures Walk Lane	7.7	*	*	3,040	*
Lambert Creek Tributary 1	Approximately at 1,950 feet upstream of SR 1316	1.6	*	*	1,220	*
	Approximately 1,050 feet downstream of SR 1307	1.4	*	*	1,100	*
	Approximately 830 feet upstream of SR 1307	1.2	*	*	1,000	*
Lower Little River	Just upstream of confluence of Glade Creek	96.8	*	*	15,700	*
	Just upstream of confluence of Stirewalt Creek	79.4	*	*	13,900	*
	Just upstream of confluence of Muddy Fork Creek	66.0	*	*	12,400	*
	Just upstream of confluence of Lambert Creek	45.2	*	*	9,750	*
	Just upstream of confluence of Grassy Creek	27.9	*	*	7,870	*
	Approximately 400 feet upstream of SR 1331	15.9	*	*	5,140	*
	Approximately 1,100 feet downstream of SR 1310	13.8	*	*	4,640	*

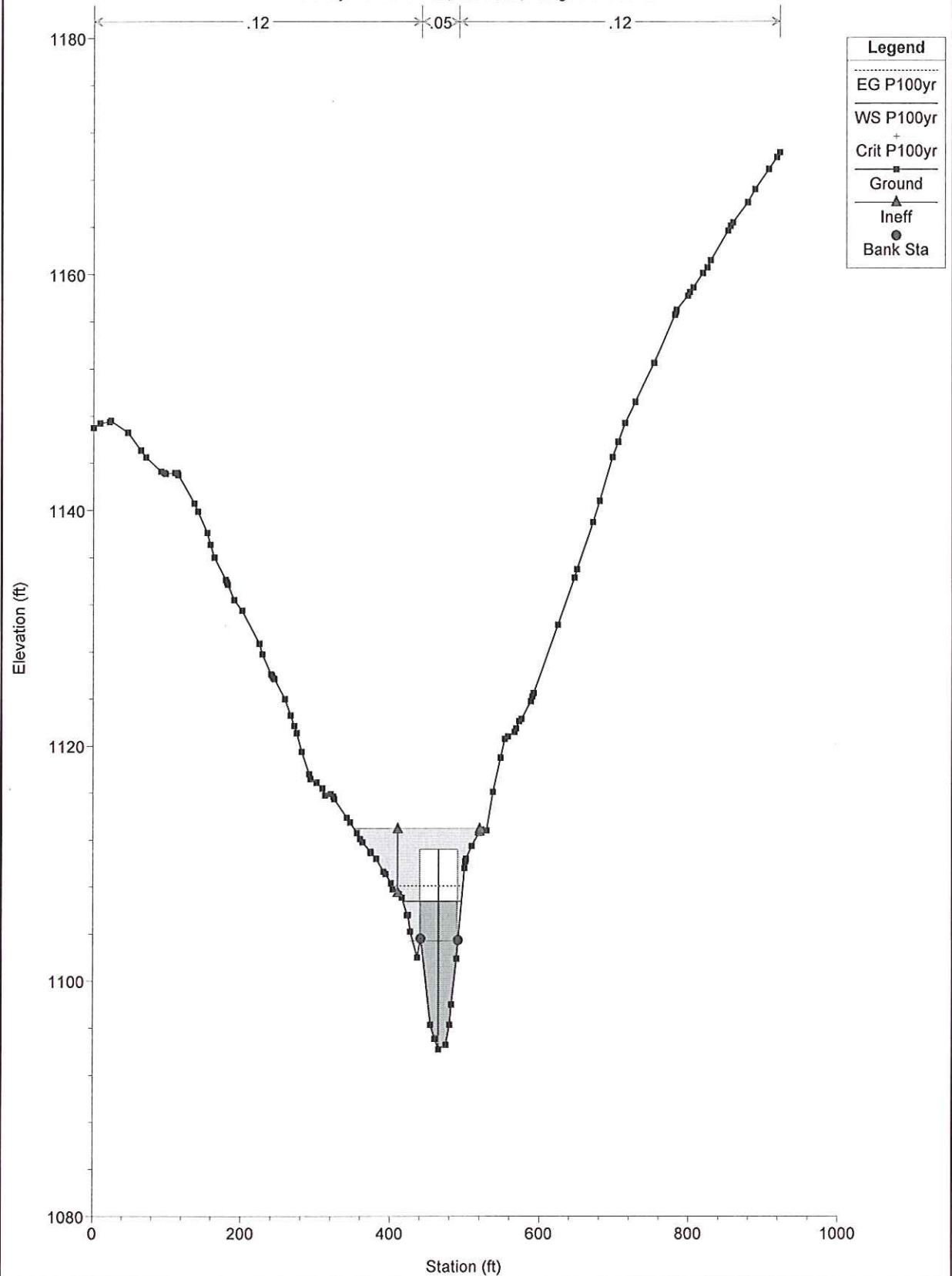
Section 5.0 – Engineering Methods

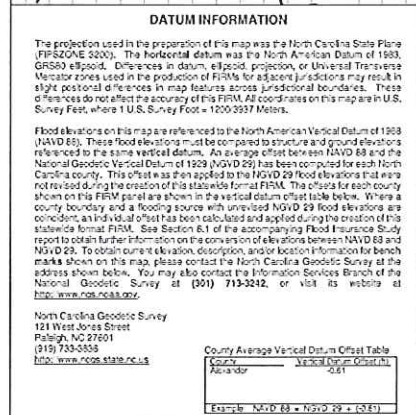
Table 9—Limited Detailed Flood Hazard Data

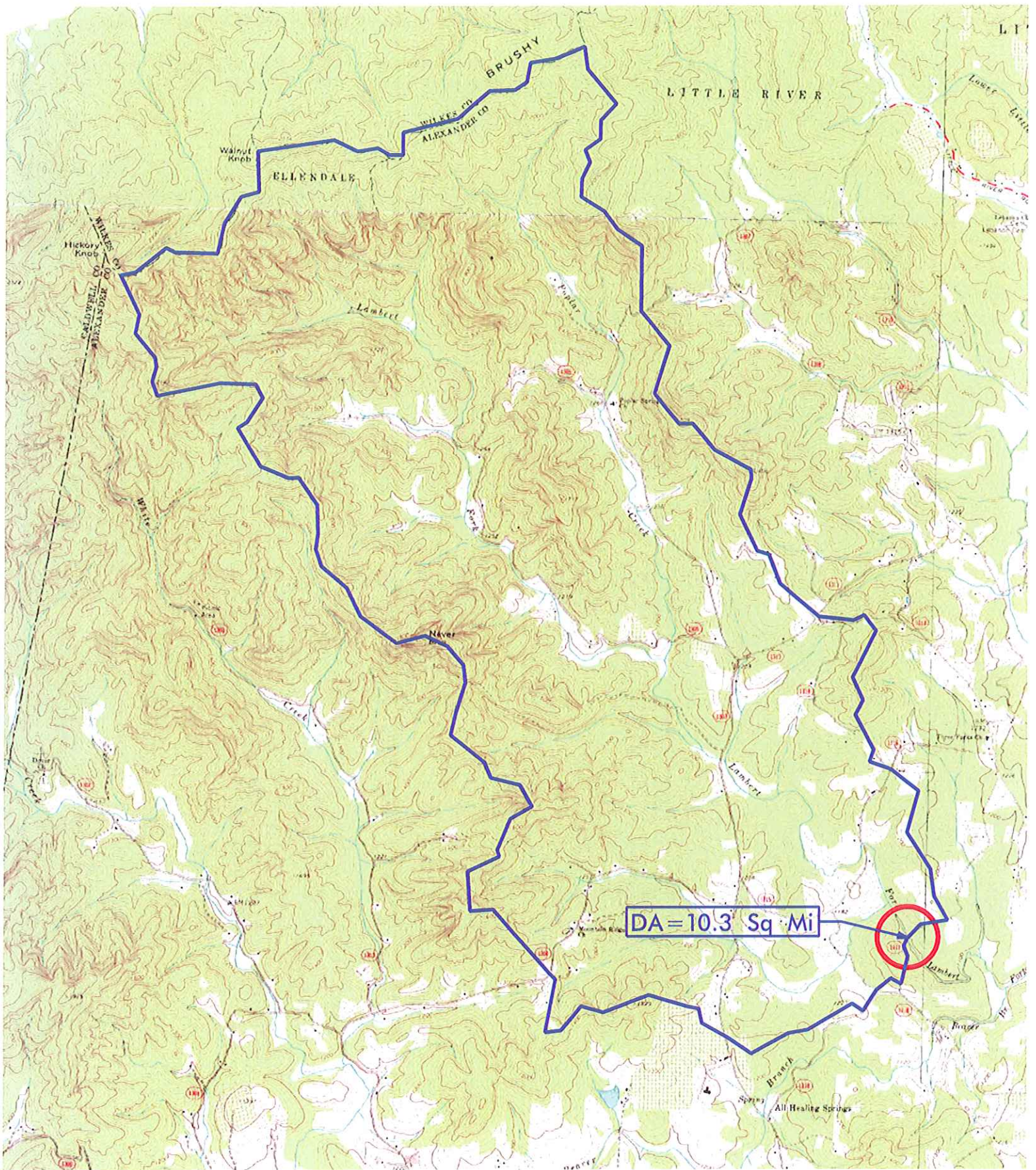
Cross Section ¹	Stream Station ²	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width (feet) ³
ISLAND CREEK				
056	5,595	1,560	867.6	30 / 30
061	6,145	1,560	875.3	22 / 15
JUMPING RUN				
000	39	1,780	983.4	28 / 26
003	349	1,610	986.7	11 / 59
007	691	1,180	991.6	28 / 36
011	1,116	1,180	997.6	18 / 70
015	1,509	1,180	1,006.8	17 / 27
021	2,050	1,180	1,014.5	35 / 20
026	2,611	1,180	1,028.3	40 / 8
028	2,773	1,180	1,030.6	21 / 24
030	3,010	1,070	1,031.7	27 / 24
031	3,112	1,070	1,038.5	24 / 27
032	3,166	1,070	1,038.6	48 / 42
032	3,249	1,070	1,038.6	61 / 34
033	3,289	1,070	1,038.6	62 / 28
037	3,747	900	1,039.0	68 / 52
041	4,139	900	1,040.2	40 / 16
045	4,543	900	1,046.5	29 / 61
049	4,939	900	1,051.1	13 / 50
053	5,324	900	1,057.4	27 / 23
058	5,764	818	1,063.1	24 / 53
062	6,159	818	1,075.1	30 / 17
065	6,539	708	1,082.6	24 / 21
069	6,863	708	1,087.1	25 / 20
071	7,132	708	1,092.0	25 / 32
073	7,252	708	1,098.5	29 / 31
074	7,412	708	1,098.6	35 / 35
077	7,739	708	1,098.8	24 / 46
LAMBERT CREEK				
008	849	4,800	1,086.7 ⁴	88 / 34
022	2,161	4,150	1,090.3	50 / 51
033	3,313	4,150	1,093.3	52 / 52
038	3,835	4,150	1,095.3	25 / 51
048	4,750	4,150	1,099.7	31 / 24
055	5,493	4,150	1,102.8	30 / 29
063	6,341	4,150	1,105.8	29 / 36
066	6,582	4,150	1,106.2	26 / 24
067	6,656	4,150	1,107.4	26 / 25
068	6,819	4,150	1,107.9	37 / 32
073	7,286	4,150	1,109.9	29 / 29

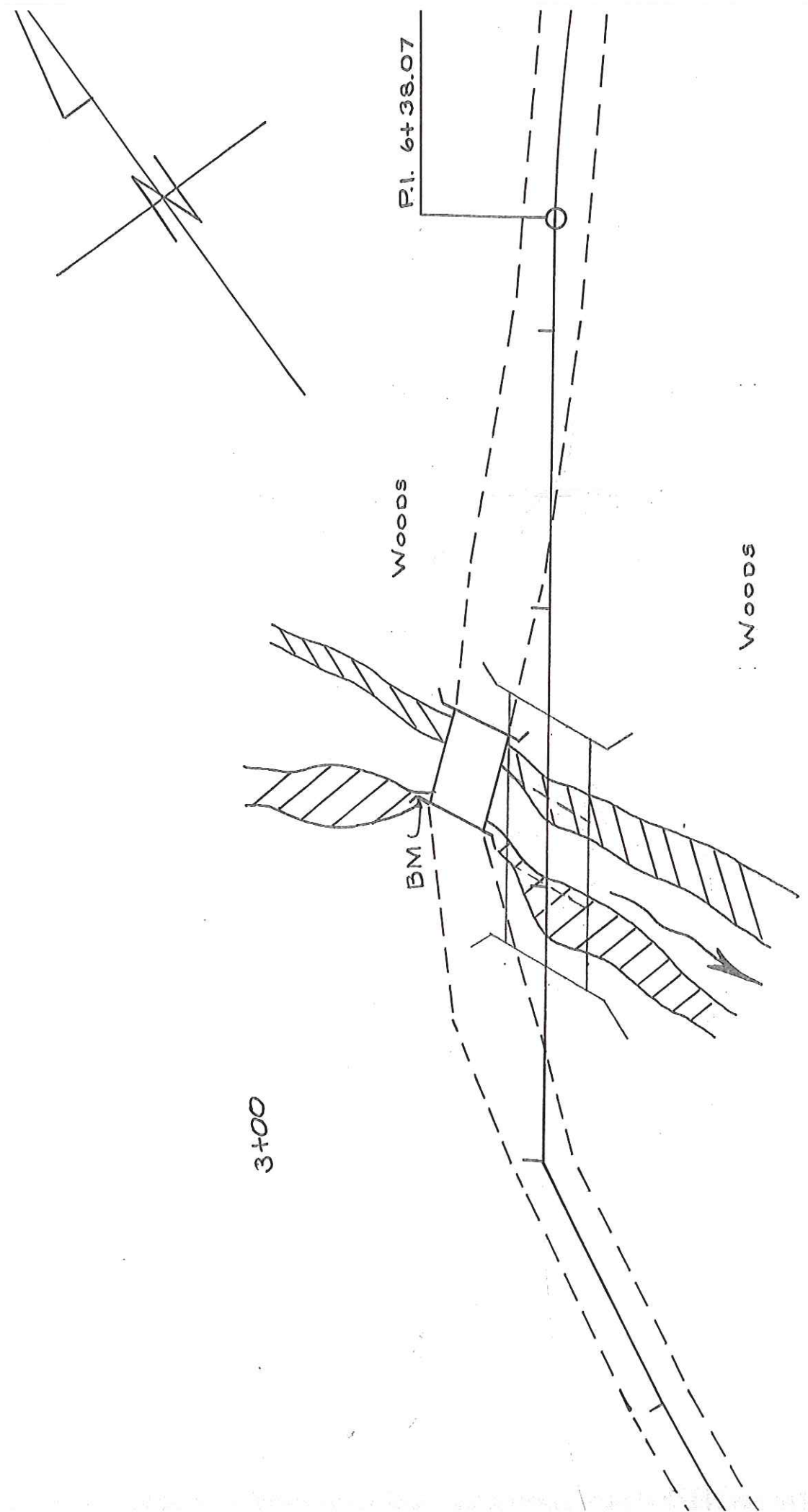


LambertCreek Plan: Approximate Study - 100 YR 1/28/2008
Lindsay Bebbler Road, SR 1317; Bridge : 37003-0015









ALB 093

N. C. STATE HIGHWAY COMMISSION
ALEXANDER COUNTY
BRIDGE No 93
LAMBERT CREEK
S.R. No. 1317

Scale: 1" = 50' Hor. 10' Ver.

Surveyed By JWC

Date OCT. 69

BM ELEV. 100.00 ASSUMED DATUM
"D" CUT IN TOP SW WING WALL

E 4H15
50' 30" SPANS
120° skew

