



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

May 22, 2013

ANTHONY J. TATA
SECRETARY

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Lori Beckwith
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 13, and 33** for the proposed replacement of Bridge No. 72 over Jonathan Creek on SR 1407 in Haywood County, Federal Aid Project No. BRZ-1407(5); Division 14; WBS Element 38534.1.1, TIP No. B-4762.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace the existing 2-span, 68 foot long Bridge No. 72 over Jonathan Creek on SR 1407 with a 70 foot long, single span bridge. There will be 22 linear feet of permanent stream impact to Jonathan Creek by way of bank stabilization and 0.01 acre of temporary stream fill for temporary work pads necessary to remove and install the new bents adjacent to the stream bank. Traffic will maintained on the existing bridge during construction as SR 1407 has no outlet.

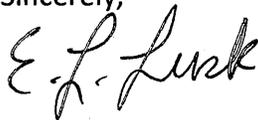
Please see enclosed copies of the Pre-Construction Notification (PCN), Stormwater management plan, permit drawings, and design plans for the above-referenced project. A Categorical Exclusion (CE) was completed and distributed in February 2012. Additional copies are available upon request.

Comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the United States Army Corps of Engineers (USACE). By copy of this letter and attachments, NCDOT hereby requests NCWRC's review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers and the NCDOT within 30 calendar days of receipt of this application.

This project calls for a letting date of March 18, 2014 and a review date of January 28, 2014. However, the date could be advanced if funding becomes available.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please e-mail Michael Turchy at maturchy@ncdot.gov.

Sincerely,



for

Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Unit

cc:

NCDOT Permit Application Standard Distribution List.



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 13 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of Bridge 72 over Jonathan Creek on SR 1407.
2b. County:	Haywood
2c. Nearest municipality / town:	Clyde, NC
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4762

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6157
3g. Fax no.:	(919) 212-5785
3h. Email address:	maturchy@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.607049 (DD.DDDDDD) Longitude: - 83.11100 (-DD.DDDDDD)
1c. Property size:	0.5 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Jonathan Creek
2b. Water Quality Classification of nearest receiving water:	C-Tr
2c. River basin:	French Broad
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Residential and mixed deciduous-coniferous forest land	
3b. List the total estimated acreage of all existing wetlands on the property: zero.	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 120	
3d. Explain the purpose of the proposed project: To replace a fracture-critical, structurally deficient and functionally obsolete bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a two-span 68-foot bridge with a single span 70-foot bridge on new location to the south of the current structure. Traffic will be maintained on the current structure during construction as SR 1407 has no outlet. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known):	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
2g. Total wetland impacts						
2h. Comments:						
3. Stream Impacts						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	Jonathan Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	45	22
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Work Pad for Bent Removal	Jonathan Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	45	17 lf (<0.01 ac)
Site 1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Work Pad for Bent Construction	Jonathan Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	45	42 lf (0.01)
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						22' Perm 0.01 ac Temp
3i. Comments:						

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				X Permanent X Temporary

4g. Comments:

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
6h. Total buffer impacts					
6i. Comments:					

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. This bridge will be replaced as close to the existing bridge as possible. An offsite detour is not feasible as no alternate detour is available. A single- span structure will be used resulting in no bents in Jonathan Creek.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Design Standards for Sensitive Waters will be used for this project. Deck drains will not discharge into open water. The Department will observe an in-stream moratorium for trout from October 15-April 15.		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: The NCDOT does not propose mitigation for stream bank stabilization activities. Stabilizing the bank of a stream does not require fill in the stream bed and, therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation. Furthermore, the proposed bank stabilization activities are necessary to prevent erosion and sedimentation, i.e. preventing bank destabilization and minimizing impacts to the environment.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input checked="" type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ

6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?

Yes No

6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.

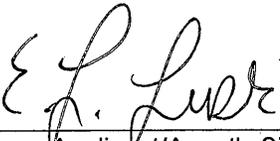
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				

6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).

6h. Comments:

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input checked="" type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments: CE Approved & Distributed February 2012.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
4. Sewage Disposal (DWQ Requirement)	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility. not applicable	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NHP Element Occurance Search, USFWS Website, and NCDOT onsite surveys. All species were "No Effect", due to lack of habitat.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat?		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature <small>(Agent's signature is valid only if an authorization letter from the applicant is provided.)</small>	5-22-13 Date



North Carolina Department of Transportation
Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR LINEAR ROADWAY PROJECTS



(Version 1.2; Released July 2012)

Project/TIP No.: B-4762 **County(ies):** Haywood **Page** 1 **of** 1

General Project Information

Project No.:	B-4762	Project Type:	Bridge Replacement	Date:	4/10/2013
NCDOT Contact:	Charles Smith, PE	Contractor / Designer:	Trent Cormier, PE; Florence & Hutcheson		
Address:	NCDOT Hydraulics Unit 1590 Mail Service Center Raleigh, NC 27699-1590	Address:	5121 Kingdom Way, Suite 100 Raleigh, NC 27607		
	Phone: 919-707-6716		Phone:	919-900-1608	
	Email: crsmith5@ncdot.gov		Email:	tcormier@flohut.com	
City/Town:		County(ies):	Haywood		
River Basin(s):	French Broad	CAMA County?	No		
Primary Receiving Water:	Jonathan Creek	NCDWQ Stream Index No.:	5-26-(7)		
NCDWQ Surface Water Classification for Primary Receiving Water		Primary:	Class C	None	
		Supplemental:	Trout Waters (Tr)	None	
Other Stream Classification:					
303(d) Impairments:	None				
Buffer Rules in Effect	N/A				

Project Description

Project Length (lin. Miles or feet):	0.02	Surrounding Land Use:	Mountainous Rural Area		
	Proposed Project		Existing Site		
Project Built-Upon Area (ac.)	0.14	ac.	0.12	ac.	
Typical Cross Section Description:	70' long PCCS 27' out to out bridge width		77'-7" long existing bridge 14' out to out width		
Average Daily Traffic (veh/hr/day):	Design/Future:	100	Existing:	100	

General Project Narrative:

Replacement of Haywood County Bridge No.72 over Jonathan Creek on SR 1407 (Medley Drive)
 Existing Haywood County Bridge No. 72 is a two span, 1@51'-7", 1@16'-0"; OAL length = 77'-7". Timber floor on low steel truss & timber floor on timber joists. Abut. 1 and Int. Bent are RC Concrete; Abut 2 is Timber cap & Timber P&S
 Proposed Haywood County Bridge No. 72 is a Single Span 1@70'; 24" Prestressed Concrete Cored Slab with vertical end bents.
 There are no jurisdictional wetlands in the project vicinity, thus no impacts wetlands.
 Cove Creek, ties into Jonathan Creek just downstream of the project and there are no jurisdictional impacts to Cove Creek as a result of this project.
 There are deck drains on this project and no direct discharge into open water.

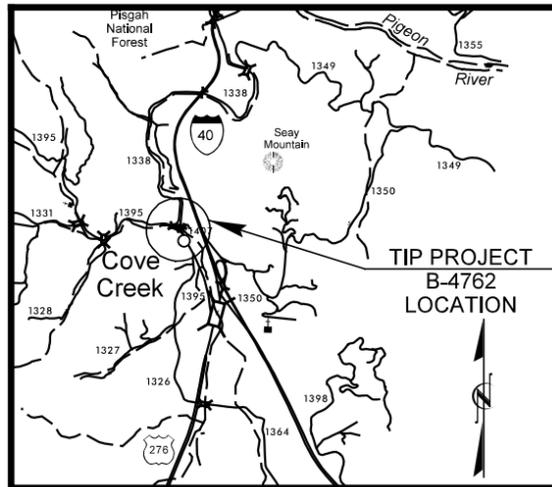
References

09/05/99

4/17/2013 FLORENCE & HUTCHESON, INC R:\Hydraulics\PERMITS Environmental Drawings\B4762_hyd_prm_tsh.dgn

CONTRACT: 38534.2.1 TIP PROJECT: B-4762

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

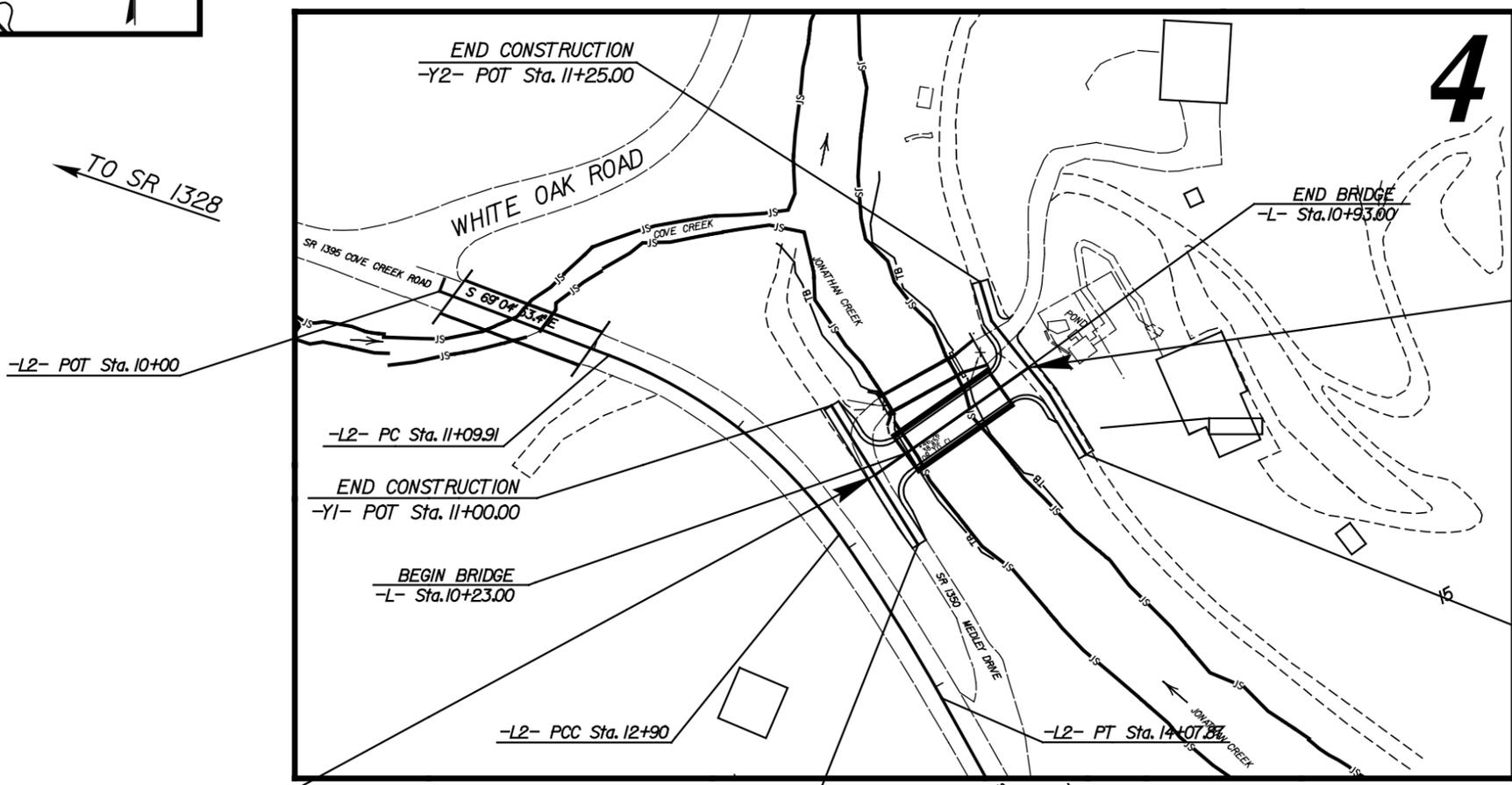
HAYWOOD COUNTY

LOCATION: REPLACE BRIDGE 72 OVER JONATHAN CREEK
ON SR 1407 (MEDLEY DRIVE)

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4762	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38534.1.1	BRZ-1407(5)	P.E.	
38534.2.1	BRZ-1407(5)	RW, UTILITIES CONSTRUCTION	

PERMIT DRAWING
SHEET 1 OF 6



END TIP PROJECT B-4762
-L- POT Sta. 11+14.10 =
-Y2- POT Sta. 10+63.57

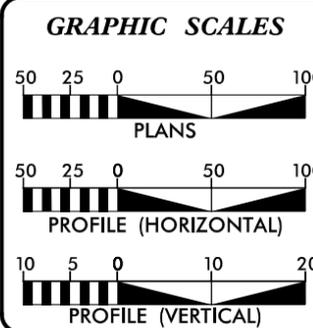
N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
HAYWOOD COUNTY
PROJECT: 38534.1.1 (B-4762)
REPLACE BRIDGE 72 OVER
JONATHAN CREEK
ON SR 1407 (MEDLEY DRIVE)
SHEET OF



BEGIN CONSTRUCTION
-Y2- POT Sta. 10+00.00

**WETLAND AND
STREAM IMPACTS**

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2014 =	100
ADT 2034 =	100
DHV =	11 %
D =	85 %
T =	8 % *
V =	15 MPH
* TTST =	1% DUAL 7%
FUNC CLASS =	LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT No. B-4762 =	0.009 Miles.
LENGTH STRUCTURE TIP PROJECT No. B-4762 =	0.013 Miles.
TOTAL LENGTH TIP PROJECT No. B-4762 =	0.022 Miles.

THIS PROJECT DESIGNED USING SUB-REGIONAL TIER GUIDELINES.

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **FEBRUARY 14, 2013**

LETTING DATE: **MARCH 18, 2014**

JIMMY GOODNIGHT, PE
PROJECT ENGINEER

STEVE KENDALL, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



LETTER DATED FEBRUARY 26, 2013

8/17/99

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 HAYWOOD COUNTY

PROJECT: 38534.1.1 (B-4762)
 REPLACE BRIDGE 72 OVER
 JONATHAN CREEK
 ON SR 1407 (MEDLEY DRIVE)

SHEET OF

PROJECT REFERENCE NO. B-4762 SHEET NO. 4

R/W SHEET NO. ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

SEE SHEET No.5 FOR PROFILE
 SEE SHEET No.5 DRAINAGE DETAILS
 SEE SHEET No.2A FOR BRIDGE TO PAVEMENT RELATIONSHIP AND BRIDGE STATIONING
 SEE SHEET No. S-1 to S- FOR STRUCTURE PLANS

NOTE: EXIST. BRIDGE DESCRIPTION
 STEEL TRUSS BRIDGE W/ WD BRIDGE ADDITION
 CONC AND WD END BENTS
 CONC WW
 WD DECK W/ BST COVER
 STEEL AND WD RAILS
 3 STEEL BEAMS

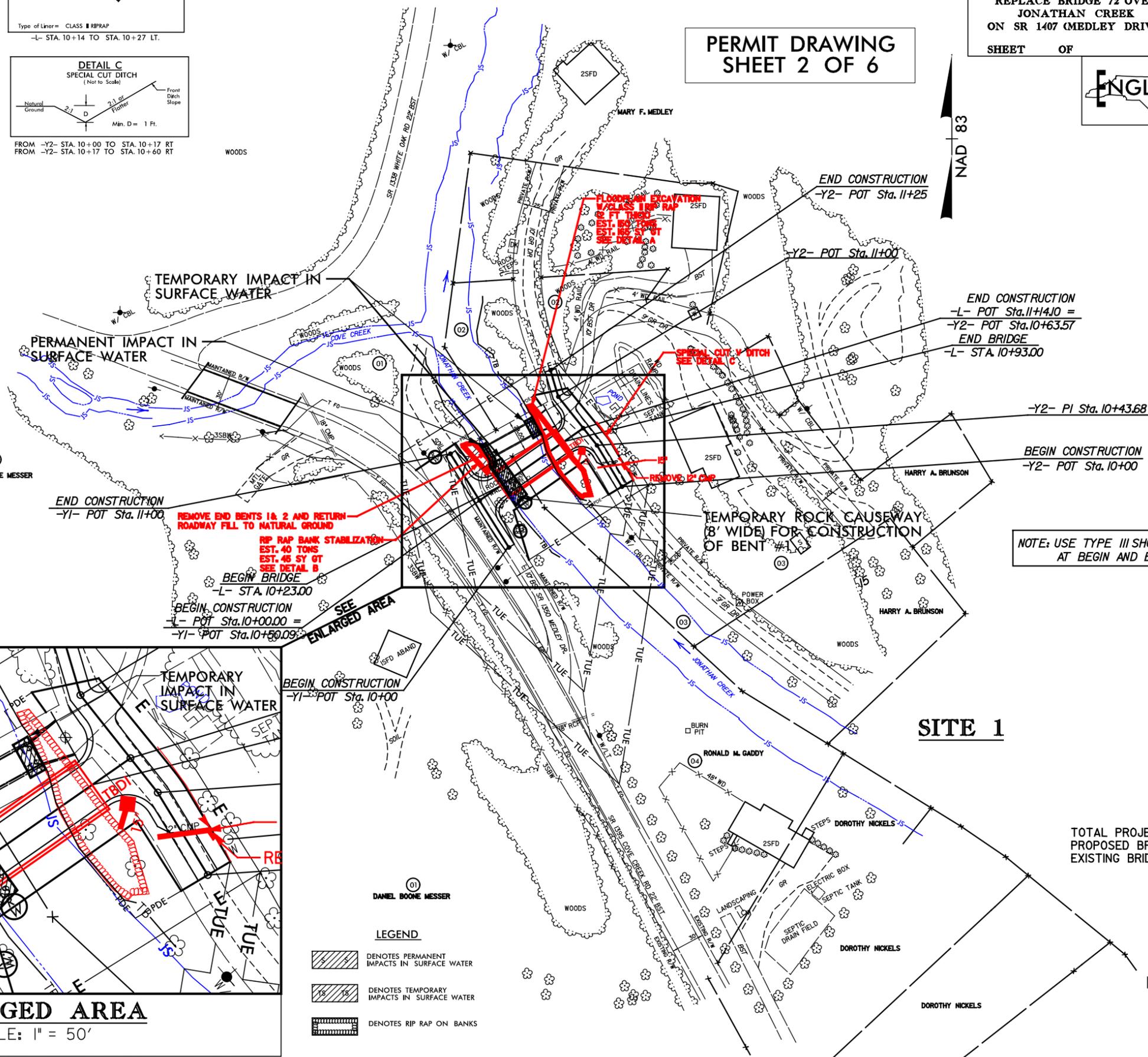
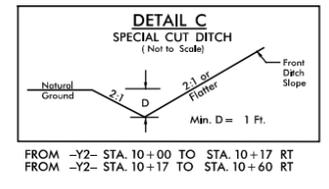
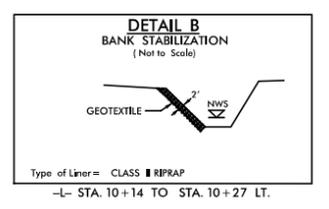
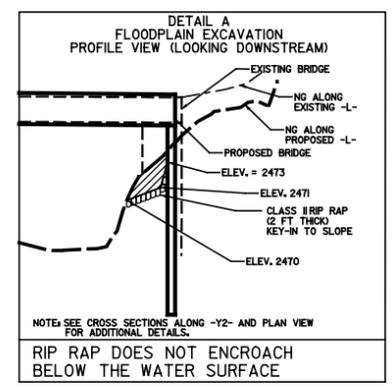
PROPERTY OWNERS	
01	DANIEL BOONE MESSER D.B. 376 PG. 222 D.B. 136 PG. 51 D.B. 387 PG. 159
02	MARVIN J. SUTTON D.B. 376 PG. 796 PC. B SLOT 387E
03	HARRY A. BRUNSON D.B. 733 PG. 488 PC. B SLOT 387E

WETLAND AND STREAM IMPACTS

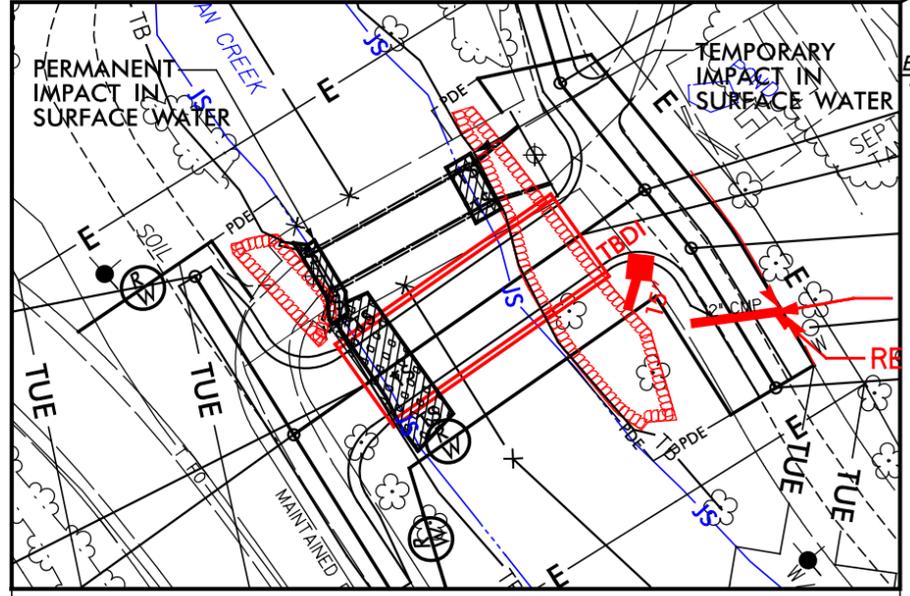
PERMIT DRAWING SHEET 2 OF 6

ENGLISH

NAD 83

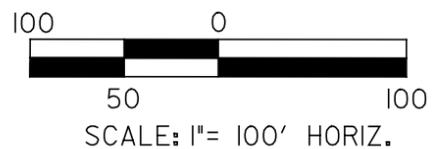


NOTE: USE TYPE III SHOP CURVE ANCHORS AT BEGIN AND END OF BRIDGE.



ENLARGED AREA
 SCALE: 1" = 50'

- LEGEND**
- [Hatched Box] DENOTES PERMANENT IMPACTS IN SURFACE WATER
 - [Dashed Box] DENOTES TEMPORARY IMPACTS IN SURFACE WATER
 - [Stippled Box] DENOTES RIP RAP ON BANKS



4/17/2013 FLORENCE & HUTCHESON, INC. R:\Hydraulics PERMITS Environmental\Drawings\B4762_hyd_wet_prm_psh04.dgn

LETTER DATED FEBRUARY 26, 2013

8/17/99

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 HAYWOOD COUNTY

PROJECT: 38534.1.1 (B-4762)
 REPLACE BRIDGE 72 OVER
 JONATHAN CREEK
 ON SR 1407 (MEDLEY DRIVE)

SHEET OF

PROJECT REFERENCE NO. B-4762	SHEET NO. 4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

SEE SHEET No.5 FOR PROFILE
 SEE SHEET No.5 DRAINAGE DETAILS
 SEE SHEET No.2A FOR BRIDGE TO PAVEMENT RELATIONSHIP AND BRIDGE STATIONING
 SEE SHEET No. S-1 to S- FOR STRUCTURE PLANS

NOTE: EXIST. BRIDGE DESCRIPTION
 STEEL TRUSS BRIDGE W/ WD BRIDGE ADDITION
 CONC AND WD END BENTS
 CONC WW
 WD DECK W/ BST COVER
 STEEL AND WD RAILS
 3 STEEL BEAMS

PROPERTY OWNERS

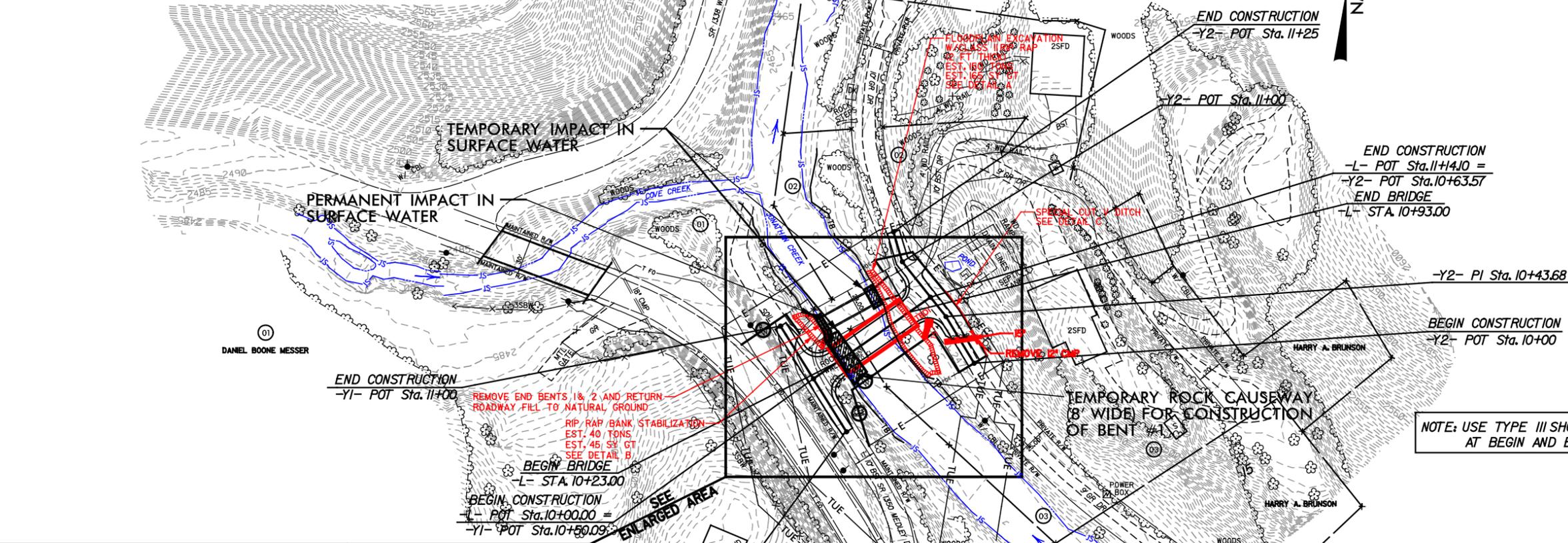
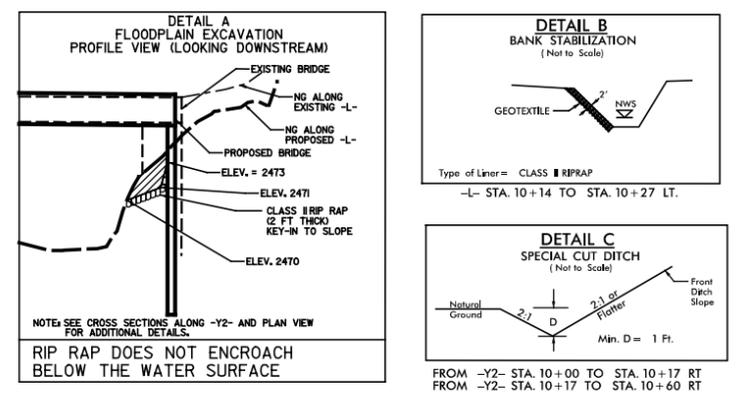
01	DANIEL BOONE MESSER D.B. 376 PG. 222 D.B. 136 PG. 51 D.B. 387 PG. 159
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WETLAND AND STREAM IMPACTS

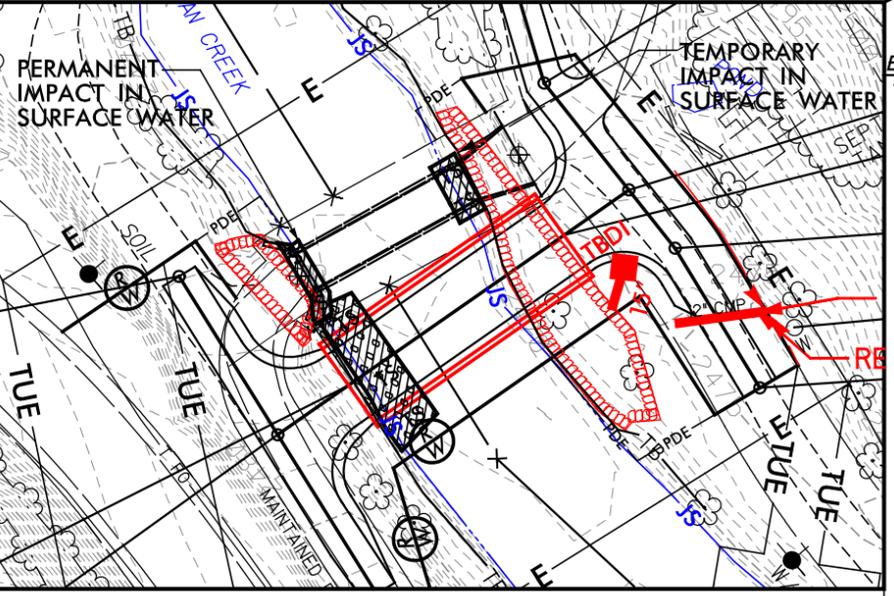
PERMIT DRAWING SHEET 3 OF 6

ENGLISH

NAD 83



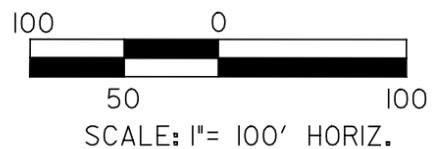
NOTE: USE TYPE III SHOP CURVE ANCHORS AT BEGIN AND END OF BRIDGE.



ENLARGED AREA
 SCALE: 1" = 50'

LEGEND

[Hatched Pattern]	DENOTES PERMANENT IMPACTS IN SURFACE WATER
[Dotted Pattern]	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
[Rip Rap Pattern]	DENOTES RIP RAP ON BANKS



4/17/2013 FLORENCE & HUTCHESON INC R:\Hydraulics PERMITS Environmental\Drawings\B4762_hyd_wet_prm_contours_psh04.dgn

R/W REVISIONS

B:17/99

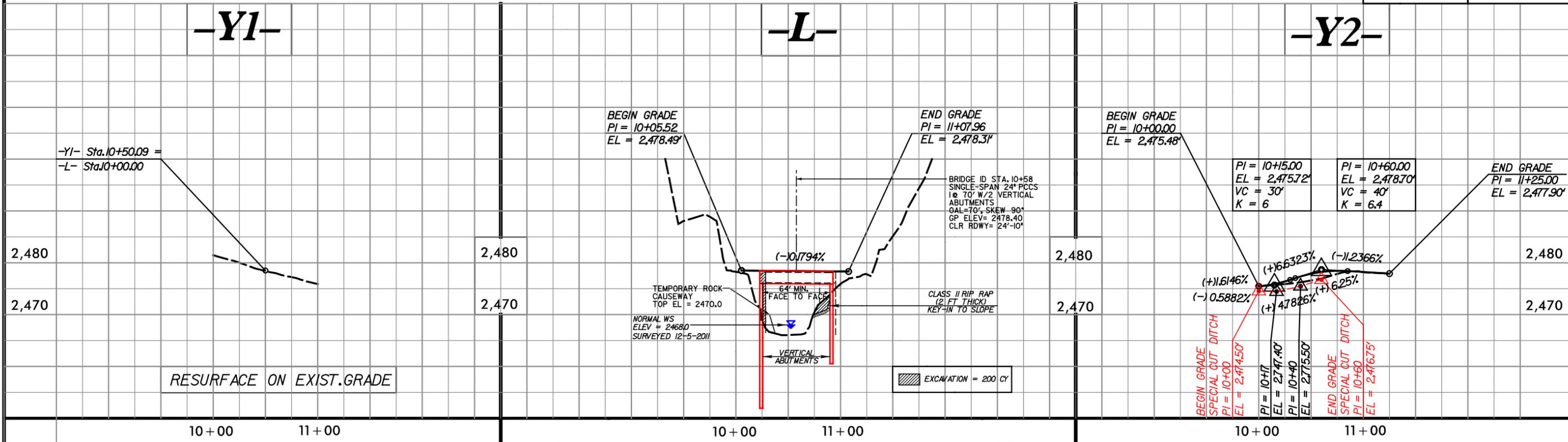
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROFILES

SEE SHEET No. 4 FOR DESIGN

PROJECT REFERENCE NO. B-4762	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 4 OF 6



WETLAND AND STREAM IMPACTS

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 4340	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2477.8	FT
BASE DISCHARGE	= 5770	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2478.8	FT
OVERTOPPING DISCHARGE	= 8350	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 2480.3	FT
DATE OF SURVEY	= 12-5-11	
W.S. ELEVATION AT DATE OF SURVEY	= 2468.0	FT



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
HAYWOOD COUNTY

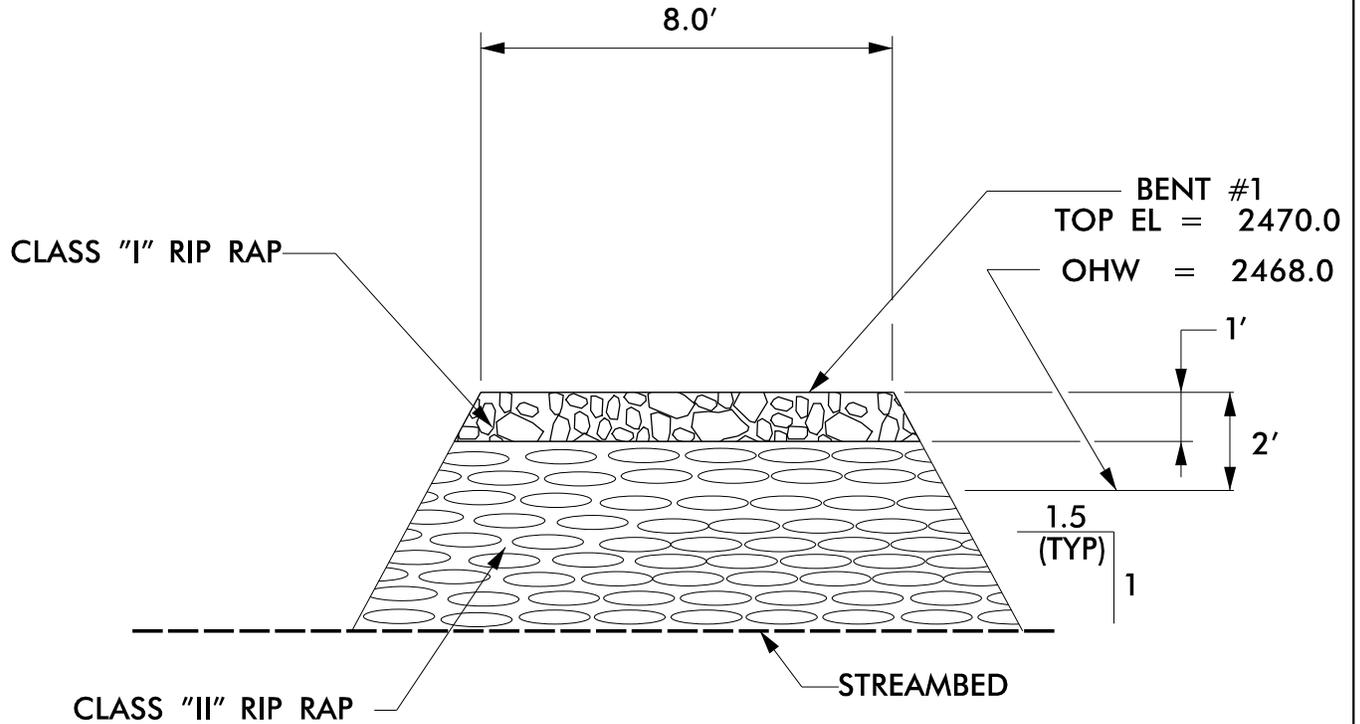
PROJECT: 38534.1.1 (B-4762)
REPLACE BRIDGE 72 OVER
JONATHAN CREEK
ON SR 1407 (MEDLEY DRIVE)

SHEET OF

4/17/2013 FLORENCE & HUTCHESON, INC R:\Hydraulics\PERMITS Environmental\Drawings\B4762_hyd_wet_perm_pf05.dgn

DETAIL OF CAUSEWAY FOR PROPOSED BRIDGE

-L- 10+32 FOR BENT #1



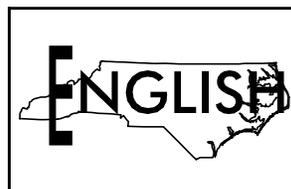
PERMIT DRAWING
SHEET 5 OF 6

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
HAYWOOD COUNTY

PROJECT: 38534.1.1 (B-4762)

REPLACE BRIDGE 72 OVER
JONATHAN CREEK
ON SR 1407 (MEDLEY DRIVE)

SHEET OF



WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	10+25 TO 10+34 (LT.)	BANK STABILIZATION								22		
1	10+72 TO 10_80 (LT.)	BENT REMOVAL							< 0.01		17	
		BENT CONSTRUCTION							0.01		42	
TOTALS*:									0.01	22	59	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 4/17/2013
 HAYWOOD COUNTY
 BRIDGE 72 ON SR 1407
 OVER JONATHAN CREEK
 SHEET 6 OF 6

09/08/99

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

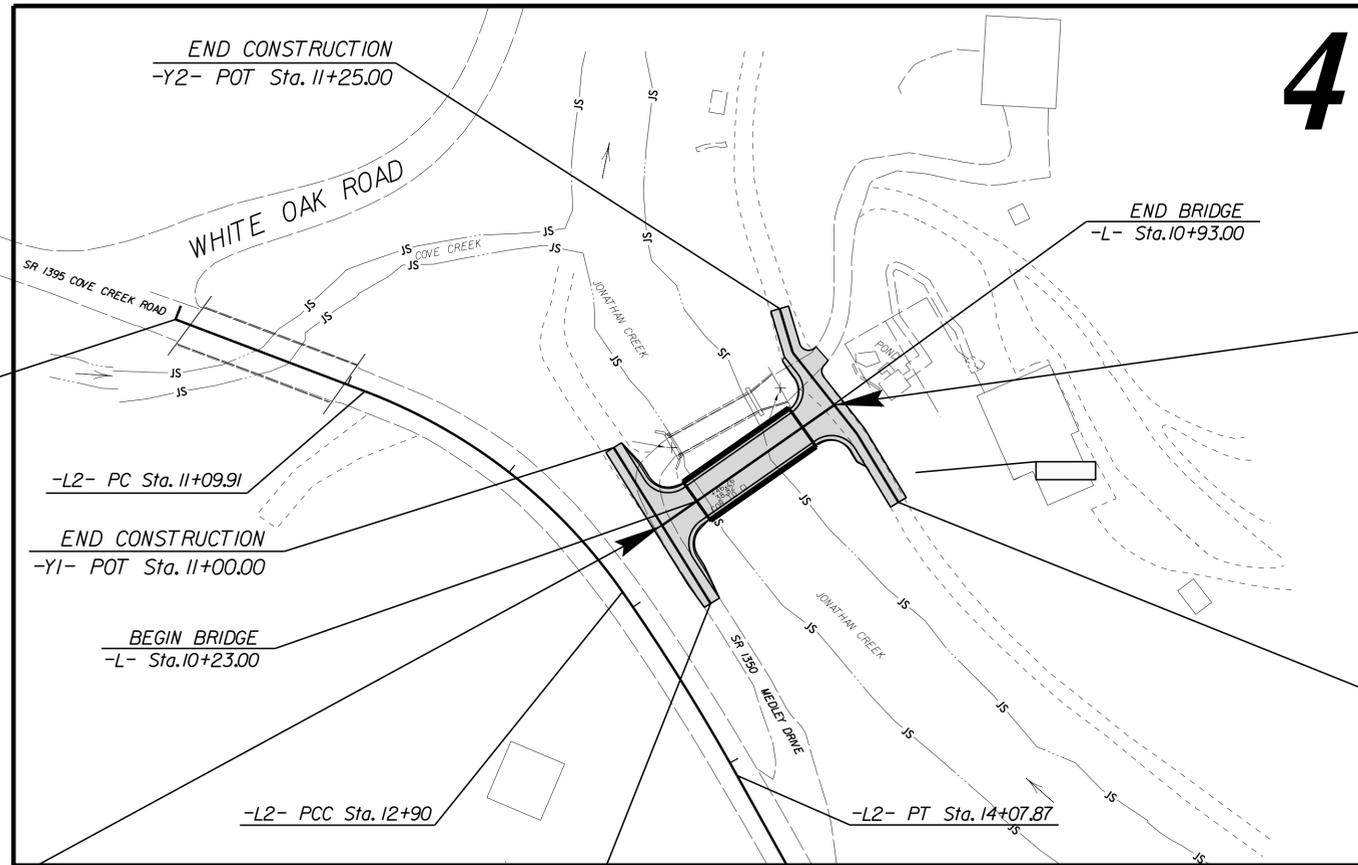
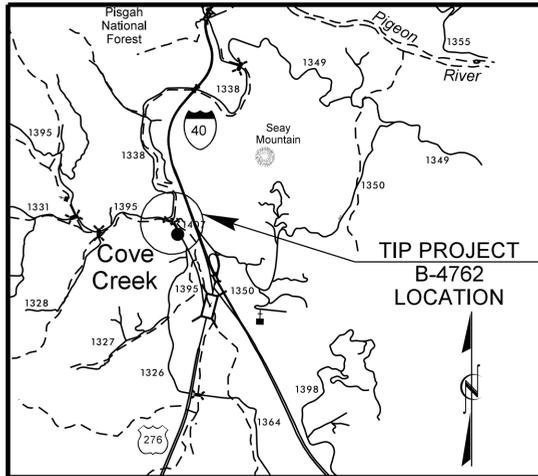
HAYWOOD COUNTY

**LOCATION: REPLACE BRIDGE 72 OVER JONATHAN CREEK
ON SR 1407 (MEDLEY DRIVE)**

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4762	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38534.1.1	BRZ-1407(5)	P.E.	
38534.2.1	BRZ-1407(5)	RW, UTILITIES CONSTRUCTION	

CONTRACT: 38534.2.1 TIP PROJECT: B-4762



END TIP PROJECT B-4762
-L- POT Sta. 11+14.10 =
-Y2- POT Sta. 10+63.57

BEGIN CONSTRUCTION
-Y2- POT Sta. 10+00.00

BEGIN TIP PROJECT B-4762
-L- POT Sta. 10+00.00 =
-Y1- POT Sta. 10+50.09

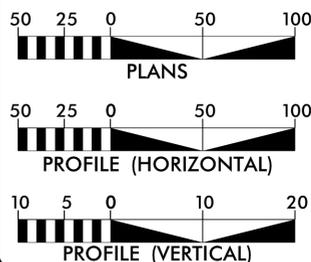
BEGIN CONSTRUCTION
-Y1- POT Sta. 10+00.00

METHOD OF CLEARING II

-L2- POT Sta. 15+70

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



DESIGN DATA

ADT 2014 = 100
 ADT 2034 = 100
 DHV = 11 %
 D = 85 %
 T = 8 % *
 V = 15 MPH
 * TTST = 1% DUAL 7%
 FUNC CLASS = LOCAL

PROJECT LENGTH

LENGT ROADWAY TIP PROJECT No. B-4762 = 0.009 Miles.
 LENGH STRUCTURE TIP PROJECT No. B-4762 = 0.013 Miles.
 TOTAL LENGH TIP PROJECT No. B-4762 = 0.022 Miles.

THIS PROJECT DESIGNED USING SUB-REGIONAL TIER GUIDELINES.

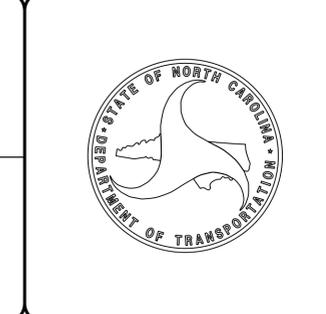
Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: FEBRUARY 14, 2013	JIMMY GOODNIGHT, PE PROJECT ENGINEER
LETTING DATE: MARCH 18, 2014	STEVE KENDALL, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.
ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



14-FEB-2013 10:52
R:\Roadway\Proj\B4762_Rdy.-t.sh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

04/16/11

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	→
Property Monument	□ ECM
Parcel/Sequence Number	①23
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- MLB
Proposed Wetland Boundary	--- MLB
Existing Endangered Animal Boundary	--- EAB
Existing Endangered Plant Boundary	--- EPB
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□ †
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	--- JS
Buffer Zone 1	--- BZ 1
Buffer Zone 2	--- BZ 2
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	✕
Proposed Lateral, Tail, Head Ditch	→ FLOW
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ CSX TRANSPORTATION MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○ R/W ▲
Proposed Right of Way Line with Concrete or Granite R/W Marker	○ R/W ▲
Proposed Control of Access Line with Concrete CA Marker	○ C/A
Existing Control of Access	○ C/A
Proposed Control of Access	○ C/A
Existing Easement Line	--- E
Proposed Temporary Construction Easement	--- E
Proposed Temporary Drainage Easement	--- TDE
Proposed Permanent Drainage Easement	--- PDE
Proposed Permanent Drainage / Utility Easement	--- DUE
Proposed Permanent Utility Easement	--- PUE
Proposed Temporary Utility Easement	--- TUE
Proposed Aerial Utility Easement	--- AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	--- C
Proposed Slope Stakes Fill	--- F
Proposed Curb Ramp	○ CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	□

VEGETATION:

Single Tree	☼
Single Shrub	☼
Hedge	-----
Woods Line	-----

Orchard	☼ ☼ ☼ ☼
Vineyard	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	□ CONC
Bridge Wing Wall, Head Wall and End Wall	} CONC WW {
MINOR:	
Head and End Wall	--- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○ S
Storm Sewer	----- S

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	□
H-Frame Pole	●
Recorded U/G Power Line	----- P
Designated U/G Power Line (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	□
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	□
Recorded U/G Telephone Cable	----- T
Designated U/G Telephone Cable (S.U.E.*)	----- T
Recorded U/G Telephone Conduit	----- TC
Designated U/G Telephone Conduit (S.U.E.*)	----- TC
Recorded U/G Fiber Optics Cable	----- T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
Recorded U/G Water Line	----- W
Designated U/G Water Line (S.U.E.*)	----- W
Above Ground Water Line	----- A/G Water

TV:

TV Satellite Dish	☼
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	----- TV
Designated U/G TV Cable (S.U.E.*)	----- TV
Recorded U/G Fiber Optic Cable	----- TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	----- G
Designated U/G Gas Line (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
Recorded SS Forced Main Line	----- FSS
Designated SS Forced Main Line (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	----- ?U/L
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

