



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

January 22, 2008

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

ATTN: Mr. David Baker
NCDOT Coordinator

Subject: **Clean Water Act Section 404 Nationwide Permit 23 and Nationwide 33** application for replacement of Bridge No. 56 on SR 1763 (Gilbert Byrd Road) over North Muddy Creek, Federal Aid No. BRZ-1763(1), State Project No. 8.2873101, McDowell County, Division 13, TIP No. B-3492. WBS Element No. 33108.1.1.

Dear Sir:

Please see the enclosed pre-construction notification, permit drawings, design plans and Rapanos jurisdictional determination form for the subject project. A Categorical Exclusion was completed for this project in August 2006 and distributed shortly thereafter. Additional copies are available upon request. The North Carolina Department of Transportation (NCDOT) proposes to replace the 40-foot, single span Bridge No. 56 with a three span replacement bridge of approximately 150-feet in length. The new structure will be placed on a new alignment and will require the approach roadways to shift approximately 250 feet to the south and 475 feet to the north of the structure. During construction, traffic will be detoured offsite. There will be a total of 0.08 acre of temporary impact to North Muddy Creek due to the use of construction causeways and a temporary 15-inch pipe.

IMPACTS TO WATERS OF THE UNITED STATES

General Description: There are two jurisdictional streams on the project site: North Muddy Creek and an unnamed tributary (UT) to North Muddy Creek. These water

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-715-1500
FAX: 919-715-1501

WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
2728 CAPITOL BOULEVARD
PARKER LINCOLN BUILDING, SUITE 168
RALEIGH NC 27699

resources are located in the Catawba River Basin (subbasin 03-08-30, Hydrological Cataloguing Unit 03050101). The North Carolina Division of Water Quality (NCDWQ) index number for the North Muddy Creek and its UT are 11-32-1. North Muddy Creek is classified by the NCDWQ as a C water body. There are no High Quality Waters (HQW), Water Supplies (WS-I or WS-II), Outstanding Resource Waters (ORW) nor waters appearing on the 303(d) list occur in the project area or within 1.0 mile downstream of waters in the project area. The average baseflow width of the North Muddy Creek is approximately 30 feet and the average depth is approximately 2-3 feet. The average baseflow of the UT to North Muddy Creek is approximately 1-2 feet, with an average depth of 2-4 inches.

Permanent Impacts: There will be <0.01 acre of permanent fill in surface water due to bridge piers for the new structure.

Temporary Impacts: The use of causeways for the removal of the existing bridge and construction of the replacement bridge will result in 0.07 acre of temporary stream impacts to North Muddy Creek. The placement of a temporary 15-inch pipe in the UT to North Muddy Creek will result in an additional 0.01 acre of temporary stream impacts. The temporary pipe is needed to maintain flow in the UT during use of Phase 1 of the causeway (See attached permit drawings).

Bridge Demolition: The entire bridge is constructed of timber and steel. Therefore, Bridge No. 56 will be removed without dropping any components into Waters of the United States.

Utility Impacts: There are no utilities attached to the existing structure, and there will be no impacts to jurisdictional waters due to utilities.

FEDERALLY PROTECTED SPECIES

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of December 20, 2007 the United States Fish and Wildlife Service (USFWS) list 5 species under federal protection for McDowell County: bald eagle, bog turtle, Carolina northern flying squirrel, mountain golden heather and small-whorled pogonia. Surveys have determined that there is no suitable habitat for the listed species. The NC Natural Heritage database of rare species and unique habitats was reviewed in October 2007. There is no documentation of rare species or unique habitats occurring within 1 mile of the project area.

Table 1. Species Under Federal Protection in McDowell County

Common Name	Scientific Name	Federal Status	Habitat	Biological Conclusion
Bald eagle	<i>Haliaeetus leucocephalus</i>	Delisted	No	Not required
Bog turtle	<i>Clemmys muhlenbergii</i>	T (S/A)	No	Not required
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	E	No	No Effect
Mountain golden heather	<i>Hudsonia montana</i>	T	No	No Effect
Small-whorled pogonia	<i>Isotria medeoloides</i>	T	No	No Effect

MITIGATION

Avoidance and Minimization:

Avoidance examines all appropriate and practicable possibilities of averting impacts to “Waters of the United States”. The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional stages; minimization measures were incorporated as part of the project design.

- Best Management Practices will be followed for this project as outlined in “NCDOT’s Best Management Practices for Construction and Maintenance Activities”.
- There will be no deck drains directly discharging into North Muddy Creek.
- Traffic will be maintained on an offsite detour.
- Stormwater will be controlled from the bridge and adjacent road.

Compensatory Mitigation:

There will be <0.01 acre of permanent fill to surface waters due to bridge piers for the new structure. Mitigation is not proposed for the minimal <0.01 acre of permit impact to surface waters.

PROJECT SCHEDULE

The project schedule calls for a July 15, 2008 Let date with a date of availability on August 26, 2008. The review date for the project is May 27, 2008.

REGULATORY APPROVALS

Section 404 Permit: NCDOT requests that the construction of causeways be authorized under Section 404 Nationwide Permit No. 33 (Temporary Construction Access and Dewatering) for the temporary dewatering of the North Muddy Creek. NCDOT requests that the placement of bridge piers for the new bridge be authorized under Section 404 Nationwide Permit No. 23. All other aspects of this project are being processed by the Federal Highway Administration as a “Categorical Exclusion”.

Section 401 Permit: We anticipate 401 General Certification Nos. 3688 and 3701 will apply to this project. All General Conditions of the General Certification will be adhered to, therefore we are not requesting concurrence from the DWQ. We are submitting 2 copies of this permit application for their records.

This project is located in a trout county, therefore comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the Corps of Engineers. By copy of this letter and attachment, NCDOT hereby requests NCWRC 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.

Thank you for your assistance with this project. If you have any questions or need additional information please contact Jason Dilday at jldilday@dot.state.nc.us or (919) 715-5535. The application will be posted at <http://207.4.62.65/PDEA/PermApps/>.

Sincerely,



for Gregory J. Thorpe, Ph.D

Environmental Management Director, PDEA

cc:

W/attachment

Mr. Brian Wrenn, NCDWQ (2 Copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics
Mr. Victor Barbour, P.E., Project Services Unit
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. J.J. Swain, P.E. (Div. 13), Division Engineer
Mr. Roger Bryan (Div. 13), DEO
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Scott McLendon, USACE, Wilmington
Ms. Natalie Lockhart, PDEA Project Planning Engineer

Office Use Only:

Form Version March 05

USACE Action ID No. _____ **DWQ No.** _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Section 404 Permit | <input type="checkbox"/> Riparian or Watershed Buffer Rules |
| <input type="checkbox"/> Section 10 Permit | <input type="checkbox"/> Isolated Wetland Permit from DWQ |
| <input checked="" type="checkbox"/> 401 Water Quality Certification | <input type="checkbox"/> Express 401 Water Quality Certification |

2. Nationwide, Regional or General Permit Number(s) Requested: Nationwide 33

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

II. Applicant Information

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director
Mailing Address: 1598 Mail Service Center

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794

E-mail Address: jldilday@dot.state.nc.us

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: _____

Company Affiliation: _____

Mailing Address: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Bridge No. 56 over North Muddy Creek

2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3492

3. Property Identification Number (Tax PIN): N/A

4. Location
County: McDowell Nearest Town: Nebo
Subdivision name (include phase/lot number): N/A
Directions to site (include road numbers/names, landmarks, etc.): SR1763 (Gilbert Byrd Road)

5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
Decimal Degrees (6 digits minimum): 35'41'44' °N -81'52'27' °W

6. Property size (acres): N/A

7. Name of nearest receiving body of water: North Muddy Creek

8. River Basin: Catawba Basin
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at [http://h2o.enr.state.nc.us/admin/maps/.](http://h2o.enr.state.nc.us/admin/maps/))

9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: Agricultural and residential communities

10. Describe the overall project in detail, including the type of equipment to be used: Bridge No. 56 replaced with a three span bridge on a new alignment requiring improvements to the approach roadways for a distance of approximately 250 feet to the south and 475 feet to the north of the new structure using standard bridge demolition and construction equipment.

11. Explain the purpose of the proposed work: Improve the safety of travelers along SR 3452 by replacing a structurally obsolete structure and improve road alignment.

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules. N/A

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.
N/A

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: 0.07 acres of temporary stream impacts to North Muddy Creek due to the use of causeways for removal of the existing bridge and construction of the new structure. 0.01 acres of temporary stream impacts to UT to North Muddy Creek due to placement of a 15-inch temporary pipe. <0.01 acres of permanent stream impacts to North Muddy Creek due to bridge piers.

2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
No wetlands					
Total Wetland Impact (acres)					0

3. List the total acreage (estimated) of all existing wetlands on the property: 0

4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
-L- STA 12+85 to 13+62	North Muddy Creek	Temporary	Perennial	30	93	0.06
-L- STA 13+36 to 13+46	UT to North Muddy Creek	Temporary	Perennial	1	9	0.01
-L-STA 13+28 to 14+11	North Muddy Creek	Temporary	Perennial	30	101	0.03
-L-STA 13+28 to 13+62	North Muddy Creek	Permanent	Perennial	30	19	0.01
Total Permanent Stream Impact (by length and acreage)					19	0.01

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
No Impacts				
Total Open Water Impact (acres)				0

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	0.08 (temporary) <0.01 (permanent)
Wetland Impact (acres):	0
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	0.08 (temporary) 0.01 (permanent)
Total Stream Impact (linear feet):	144 (temporary) 19 (permanent)

7. Isolated Waters

Do any isolated waters exist on the property? Yes No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

8. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): uplands stream wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): _____

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): _____

Current land use in the vicinity of the pond: _____

Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. Traffic will be maintained on an offsite detour during construction. The only permanent impacts will occur from the placement of bridge piers for the new structure.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

The only permanent impacts associated with this project is from the placement of bridge piers with the new structure. No mitigation is proposed.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

Amount of stream mitigation requested (linear feet): 0
Amount of buffer mitigation requested (square feet): 0
Amount of Riparian wetland mitigation requested (acres): 0
Amount of Non-riparian wetland mitigation requested (acres): 0
Amount of Coastal wetland mitigation requested (acres): 0

IX. Environmental Documentation (required by DWQ)

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes No
2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?
Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.
Yes No
3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes No

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC

2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)? Yes No

2. If “yes”, identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260. N/A
-
-

XI. Stormwater (required by DWQ)

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. Impervious surfaces will increase only slightly due to the new alignment of the road.

XII. Sewage Disposal (required by DWQ)

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. N/A

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?
 Yes No

Is this an after-the-fact permit application? Yes No

XIV. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes No

If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/ncwetlands>. If no, please provide a short narrative description: _____

XV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

N/A



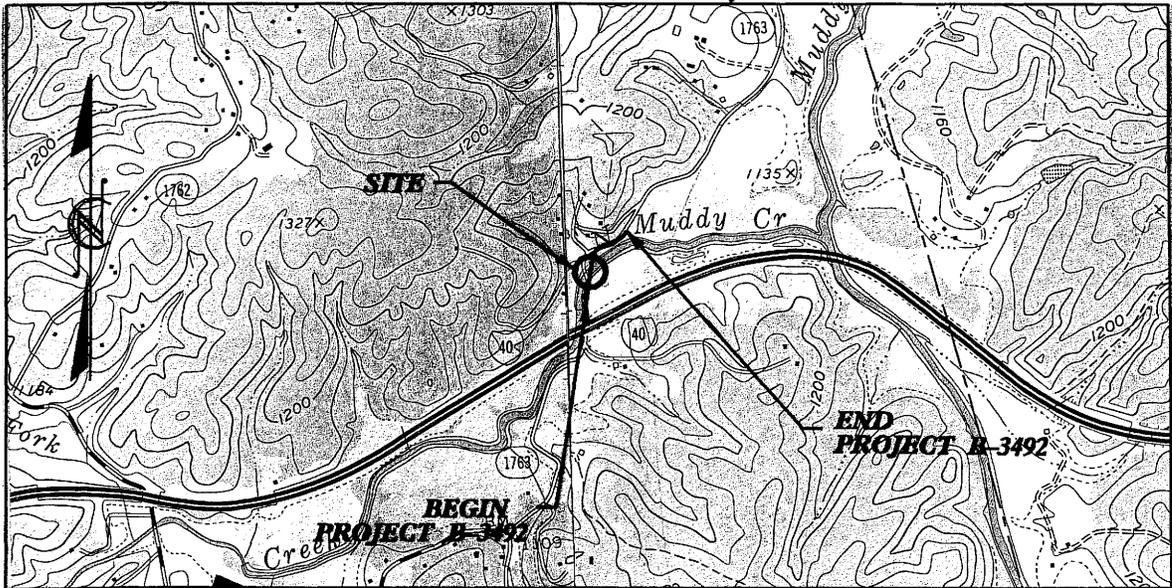
1.21.08

Applicant/Agent's Signature

Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)

NORTH CAROLINA



GLENALPINE, NC USGS QUAD MAP
MARION EAST, NC USGS QUAD MAP.

VICINITY MAPS

Permit Drawing
Sheet 1 of 12

NCDOT
DIVISION OF HIGHWAYS
MCDOWELL COUNTY
WBS NO.: 33108.1.1 (B-3492)
BRIDGE NO. 56 ON SR 1763
OVER NORTH MUDDY CREEK

SHEET

OF

09 / 10 / 07

Parcel No.	Property Owner Name	Property Owner Address
1	James Freddie Powell & Brenda G. Powell	613 Gilbert Boyd Road, Nebo, NC 28761
2	J. David Connelly & Betty Jean Connelly	257 Camelot Drive, Morganton, NC 28655
3	Annis Higgins	1073 Gilbert Boyd Road, Nebo, NC 28761
4	James Vernon Powell & Christine Powell	68 Powell Loop, Nebo, NC 28761
5	Vernon Andrew Powell	68 Powell Loop, Nebo, NC 28761

List of Property Owners

NC Dept. of Transportation
 Division of Highways
 McDowell County
 WBS No.: 33108.1.1 (B-3492)
 Bridge No. 56 On SR 1763 Over North Muddy Creek

Sheet of 09/07/07

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3492	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33108.1.1	BRZ-1763(1)	PE	
33108.3.1	BRZ-1763(1)	R/W & UTILITIES	

Permit Drawing
Sheet 4 of 12

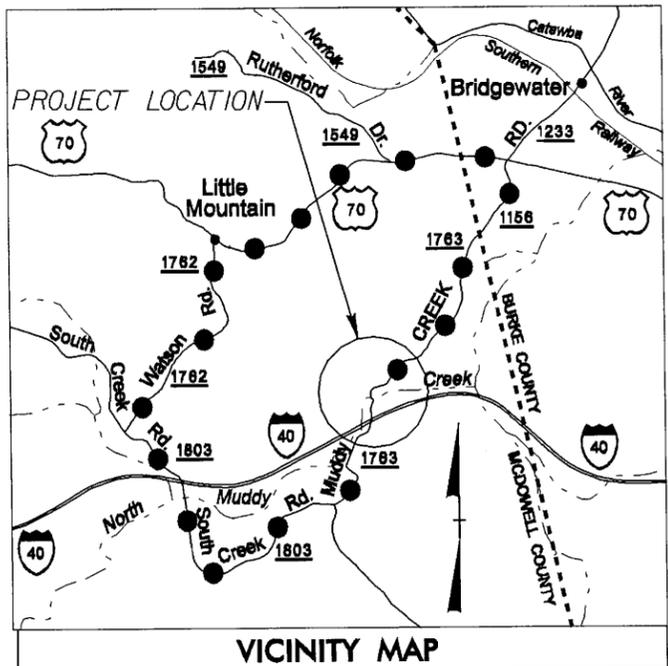
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MCDOWELL COUNTY

LOCATION: BRIDGE NO. 56 ON SR 1763 OVER NORTH
MUDDY CREEK

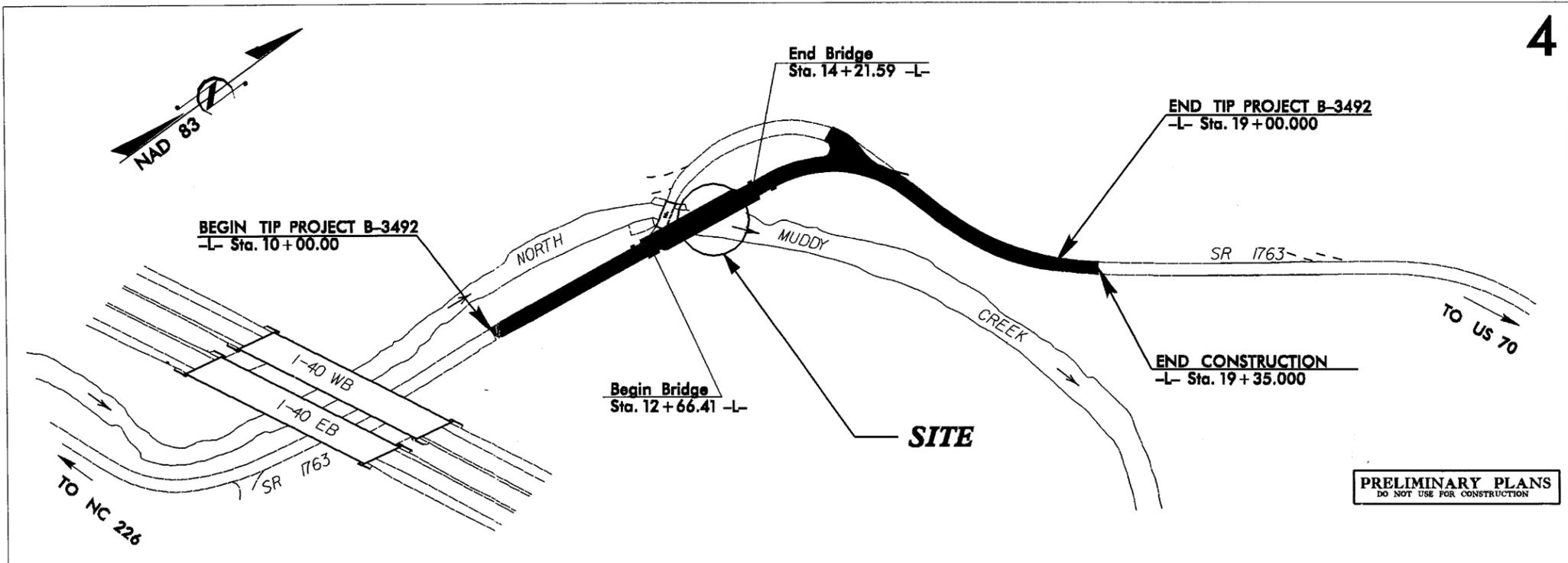
WETLAND/SURFACE WATER PERMIT DRAWINGS

See Sheet 1-A For Index of Sheets



VICINITY MAP

●●●●● OFF SITE DETOUR

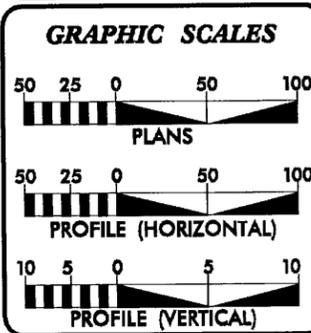


PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

METHOD OF CLEARING 11

** DESIGN EXCEPTION NEEDED FOR DESIGN SPEED

THIS PROJECT IS NOT WITHIN THE LIMITS OF ANY MUNICIPALITY



DESIGN DATA

ADT 2006 =	650 VPD
ADT 2030 =	1200 VPD
DHV =	10 %
D =	60 %
T =	10 % *
**V =	25 MPH
*TTST	5%
*DUAL	5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3492 =	0.141 mi.
LENGTH STRUCTURE TIP PROJECT B-3492 =	0.029 mi.
TOTAL LENGTH TIP PROJECT B-3492 =	0.170 mi

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 5, 2007

LETTING DATE:
JULY 15, 2008

JAMES SPEER, PE
PROJECT ENGINEER

JOHN LANSFORD, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

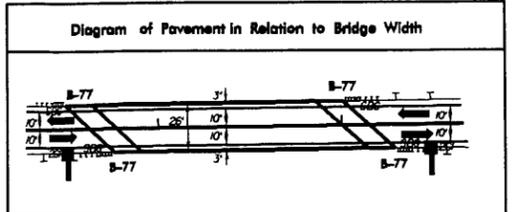
TIP PROJECT: B-3492

CONTRACT: C201867

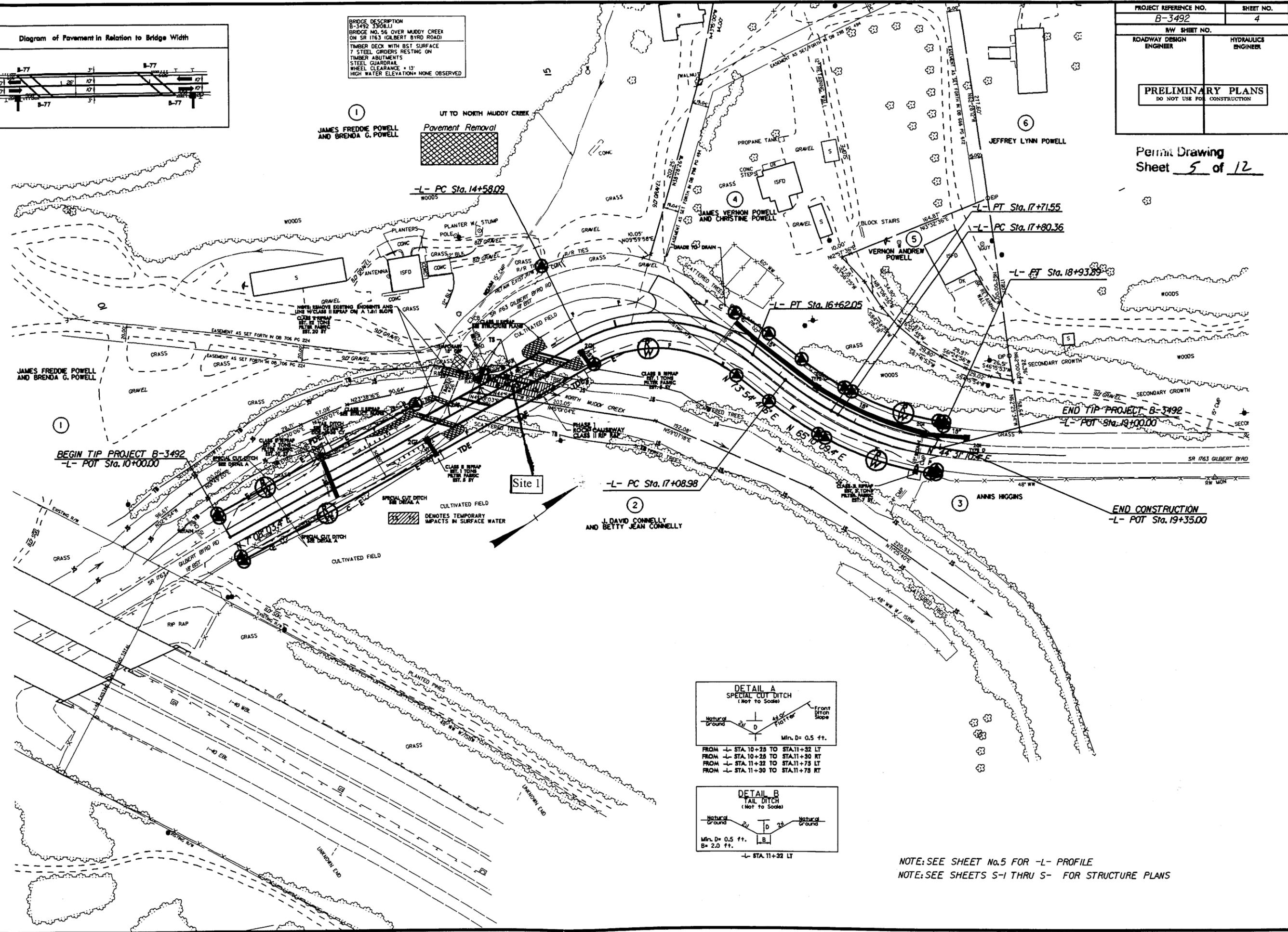
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PROJECT REFERENCE NO. B-3492	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawing
Sheet 5 of 12



BRIDGE DESCRIPTION
B-3492 1308.LJ
BRIDGE NO. 56 OVER MUDDY CREEK
ON SR 1763 (GILBERT BYRD ROAD)
TIMBER DECK WITH BST SURFACE
7 STEEL GIRDERS RESTING ON
TIMBER ABUTMENTS
STEEL GUARDRAIL
WHEEL CLEARANCE: +13'
HIGH WATER ELEVATION: NONE OBSERVED



BEGIN TIP PROJECT B-3492
-L- POT Sta. 10+00.00

-L- PC Sta. 14+58.09

-L- PT Sta. 17+71.55

-L- PC Sta. 17+80.36

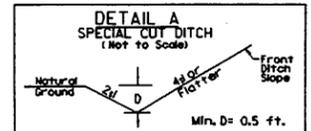
-L- PT Sta. 18+93.89

-L- PT Sta. 16+62.05

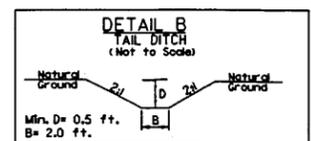
-L- PC Sta. 17+08.98

END TIP PROJECT B-3492
-L- POT Sta. 19+00.00

END CONSTRUCTION
-L- POT Sta. 19+35.00



FROM -L- STA. 10+25 TO STA. 11+32 LT
FROM -L- STA. 10+25 TO STA. 11+30 RT
FROM -L- STA. 11+32 TO STA. 11+73 LT
FROM -L- STA. 11+30 TO STA. 11+73 RT



-L- STA. 11+32 LT

NOTE: SEE SHEET No. 5 FOR -L- PROFILE
NOTE: SEE SHEETS S-1 THRU S-5 FOR STRUCTURE PLANS

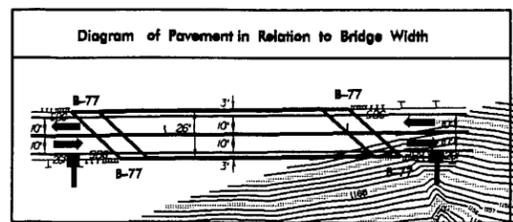
REVISIONS

B/17/99

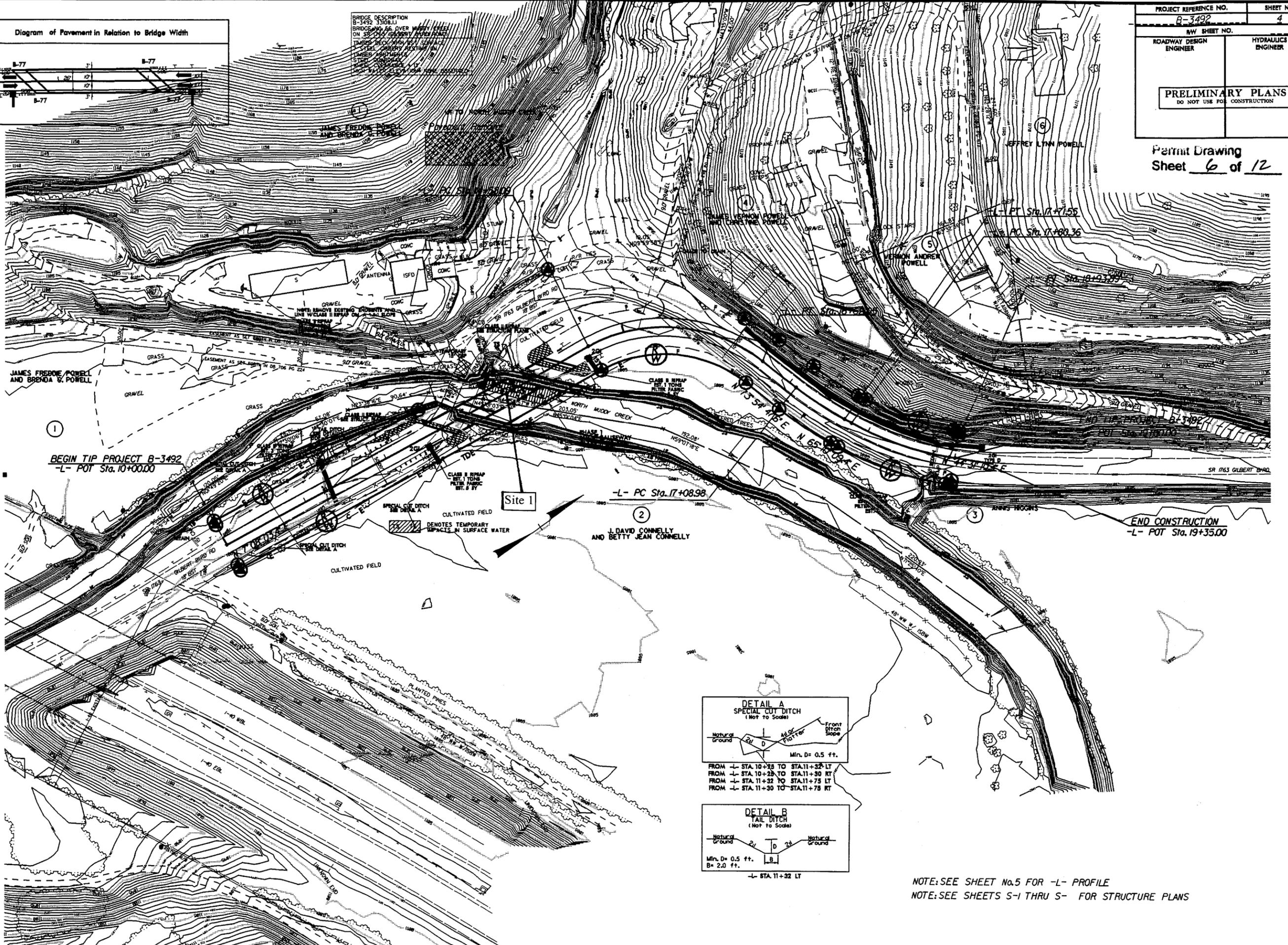
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11/22/05

PROJECT REFERENCE NO. B-3492	SHEET NO. 4
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawing
Sheet 6 of 12



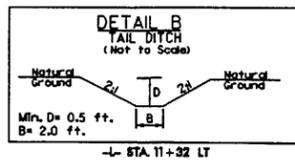
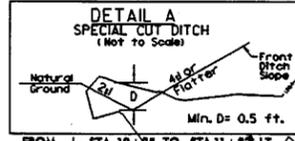
BRIDGE DESCRIPTION
B-3492 3108LJ
BRIDGE NO. 66 OVER MUDDY CREEK
ON SR 1763 GILBERT ROAD
IMPOSED DECK WITH 15.7' SURFACE
LARGE SPAN (20' x 20')
STEEL ARCH
CONCRETE PIER
CONCRETE ABUTMENTS
ASPH/FLY ASPHALT
PAVEMENT



BEGIN TIP PROJECT B-3492
-L- POT Sta. 10+00.00

-L- PC Sta. 17+08.98

END CONSTRUCTION
-L- POT Sta. 19+35.00

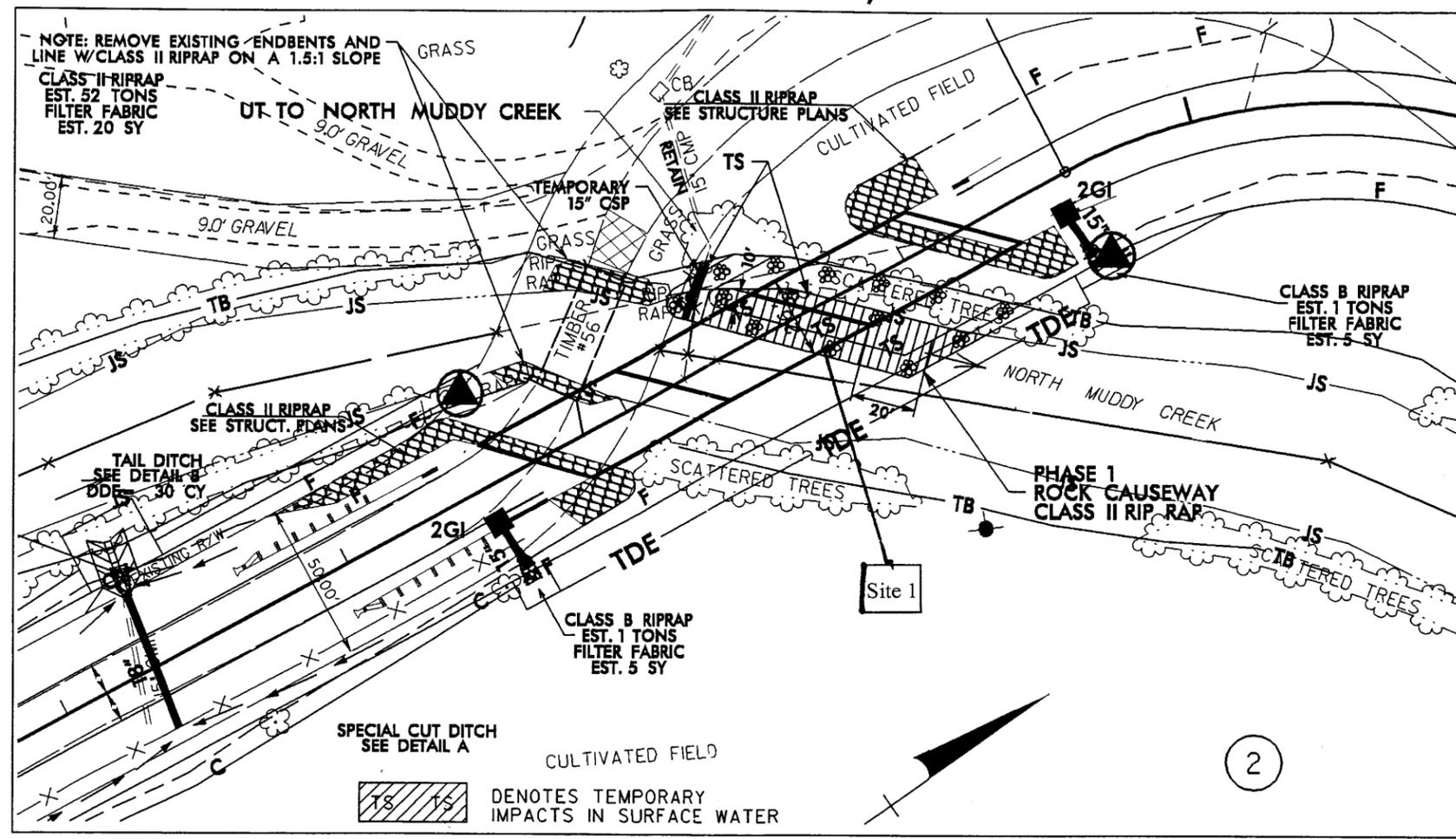


NOTE: SEE SHEET No. 5 FOR -L- PROFILE
NOTE: SEE SHEETS S-1 THRU S- FOR STRUCTURE PLANS

REVISIONS

26-OCT-2007 03:2
C:\pwworking\Bentley\Projects\2007\1111111111\1111111111.dgn

ENLARGEMENT PHASE 1 – ROCK CAUSEWAY, CLASS II RIP RAP



INSTALL ROCK CAUSEWAY AT BENT #2 AND CONSTRUCT BENT. REMOVE ROCK CAUSEWAY.



Q STA -L- 13+44
GRADE PT EL = 1090.63'
BRIDGE - 36" CONC. GIRDER
SPANS = 3@ 50.0' OAL = 150.0'
SKEW = 42°

1,090

1,080

1,070

NG

1.5:1 NORMAL
CLASS II RIPRAP

1.5:1 NORMAL
CLASS II RIPRAP

LOW STEEL
(SUPERELEVATION DROP)

ABUTMENT EXCAVATION
(140 CY)

ABUTMENT EXCAVATION
(95 CY)

10'

NWSEL - 1073.5'

1.5:1

PHASE 1
ROCK CAUSEWAY
CLASS II RIP RAP

11+00

12+00

13+00

14+00

15+00

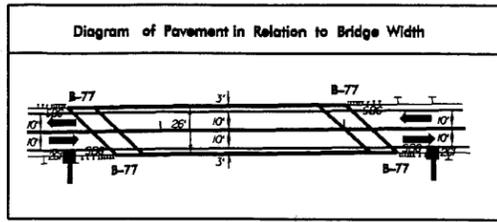


PHASE 1 - ROCK CAUSEWAY CROSS SECTION

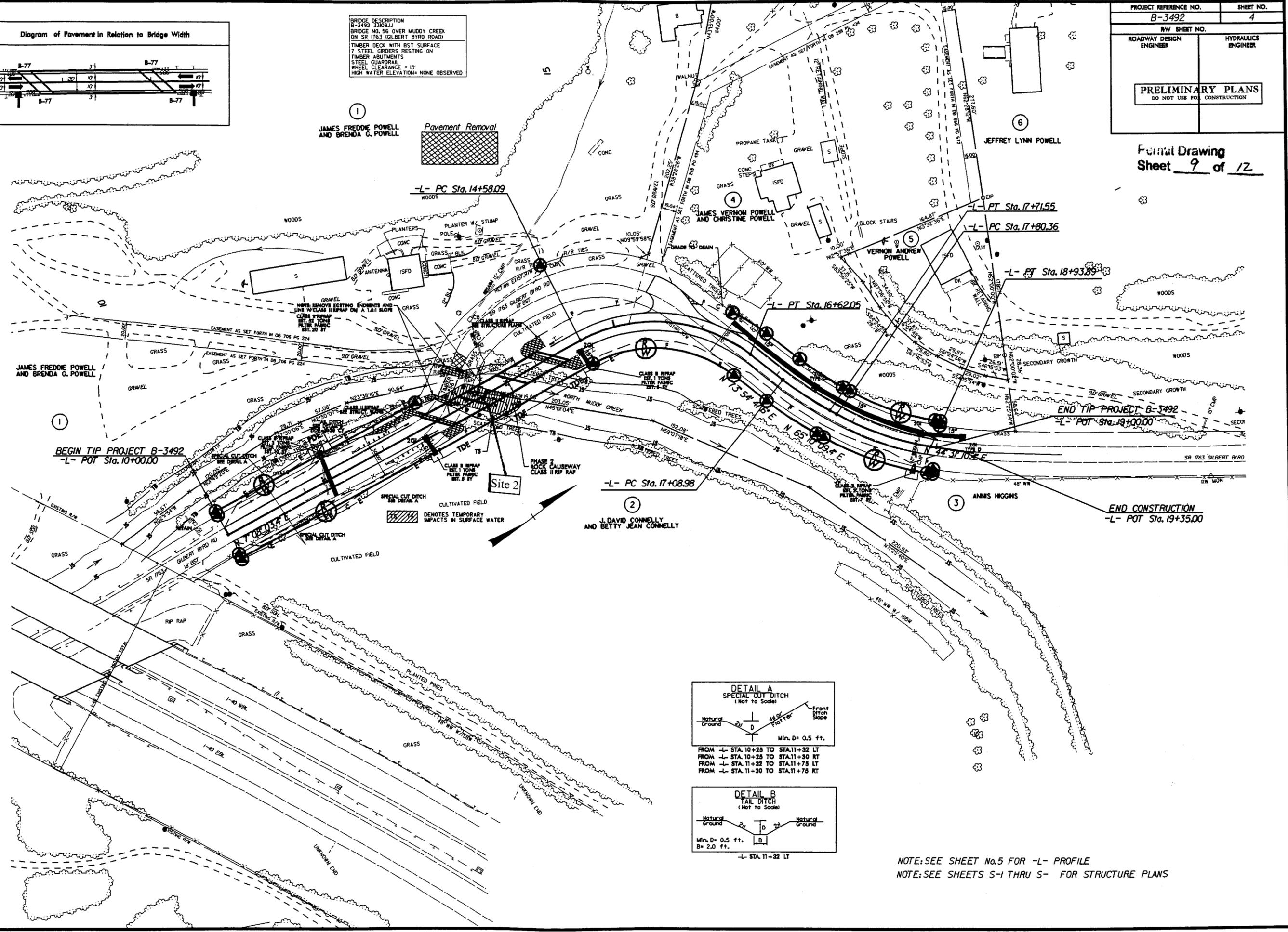
8/17/99

PROJECT REFERENCE NO. B-3492	SHEET NO. 4
Roadway Design Engineer	Hydraulics Engineer
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

Format Drawing Sheet 9 of 12



BRIDGE DESCRIPTION
B-3492, 3308.LJ
BRIDGE NO. 56 OVER MUDDY CREEK
ON SR 1763 (GILBERT BYRD ROAD)
TIMBER DECK WITH BST SURFACE
7 STEEL GIRDERS RESTING ON
TIMBER ABUTMENTS
STEEL GUARDRAIL
WHEEL CLEARANCE = 13'
HIGH WATER ELEVATION+ NONE OBSERVED



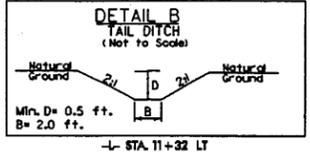
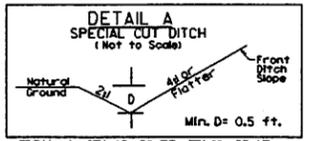
BEGIN TIP PROJECT B-3492
-L- POT Sta. 10+00.00

JAMES FREDDIE POWELL
AND BRENDA G. POWELL

JAMES FREDDIE POWELL
AND BRENDA G. POWELL

J. DAVID CONNELLY
AND BETTY JEAN CONNELLY

JEFFREY LYNN POWELL

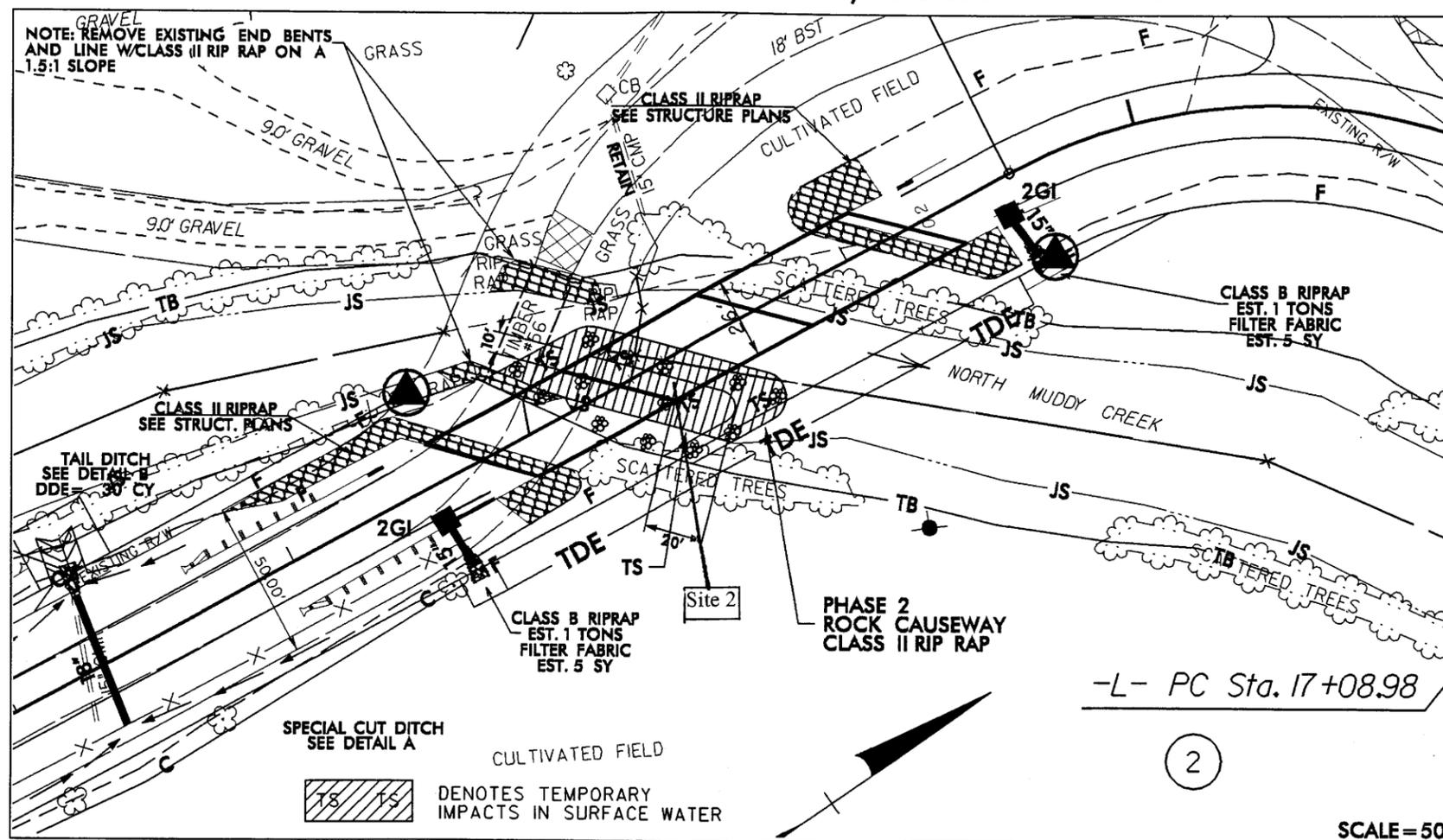


NOTE: SEE SHEET No. 5 FOR -L- PROFILE
NOTE: SEE SHEETS S-1 THRU S- FOR STRUCTURE PLANS

REVISIONS

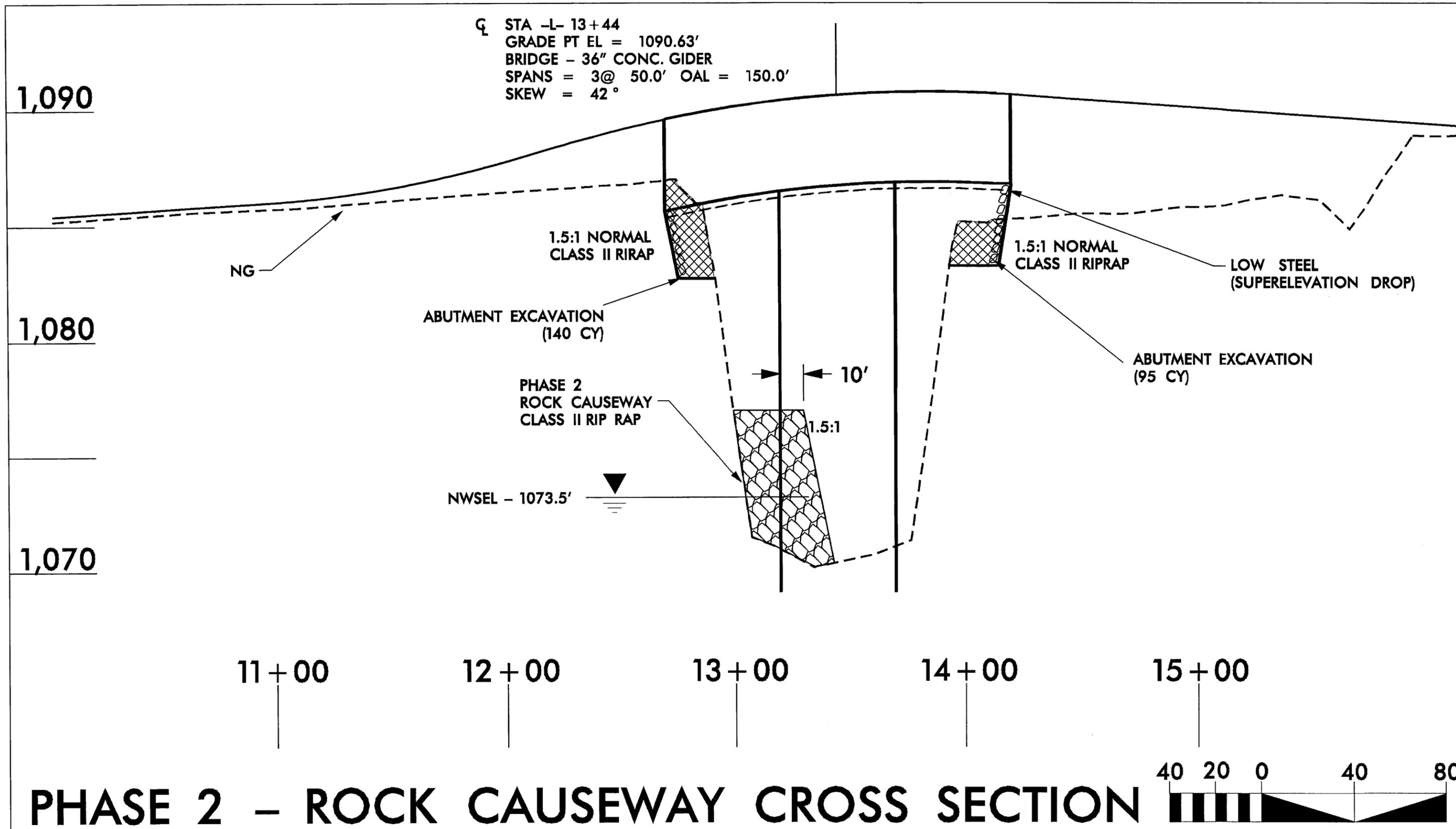
20-SEP-2007 11:05
C:\projects\B-3492\hyd-prm.dgn

ENLARGEMENT PHASE 2 – ROCK CAUSEWAY, CLASS II RIP RAP



INSTALL ROCK CAUSEWAY AT BENT #1 AND CONSTRUCT BENT. USE ROCK CAUSEWAY TO SET GIRDERS. REMOVE ROCK CAUSEWAY.





STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3492	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33108.1.1	BRZ-1763(1)	PE	
33108.3.1	BRZ-1763(1)	RW & UTILITIES	

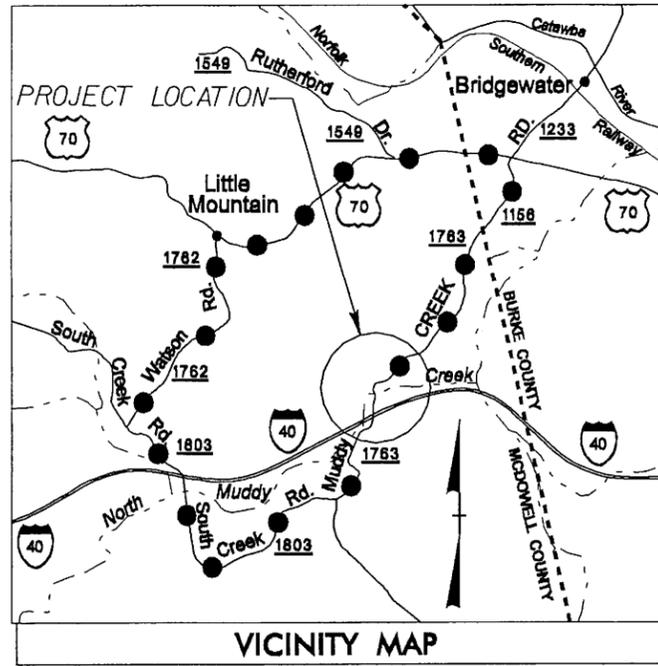
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MCDOWELL COUNTY

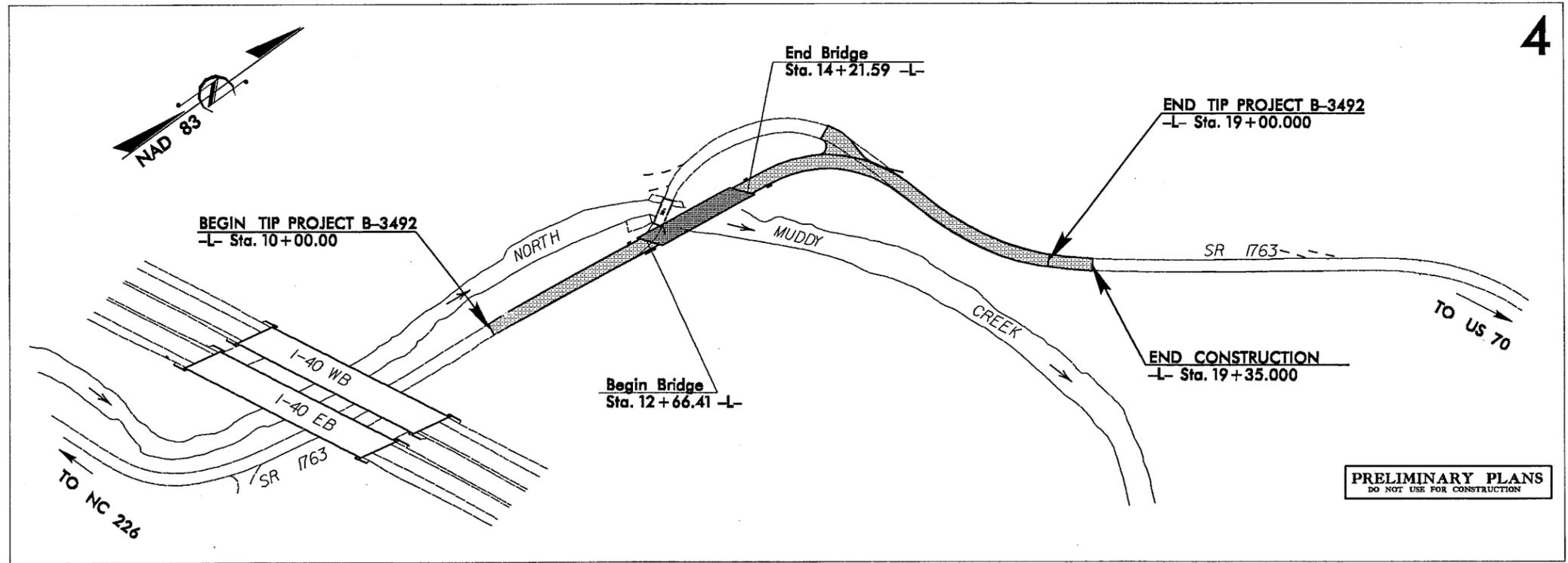
LOCATION: BRIDGE NO. 56 ON SR 1763 OVER NORTH MUDDY CREEK

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

See Sheet 1-A For Index of Sheets



●●●●● OFF SITE DETOUR



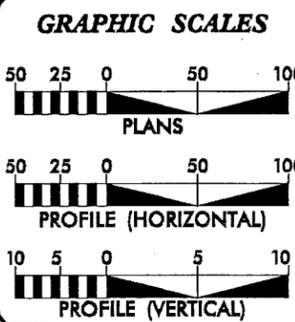
4

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

METHOD OF CLEARING 11

•• DESIGN EXCEPTION NEEDED FOR DESIGN SPEED

THIS PROJECT IS NOT WITHIN THE LIMITS OF ANY MUNICIPALITY



DESIGN DATA

ADT 2006 = 650 VPD
ADT 2030 = 1200 VPD
DHV = 10 %
D = 60 %
T = 10 % *
* * V = 25 MPH
* TTST 5%
* DUAL 5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3492 = 0.141 mi.
LENGTH STRUCTURE TIP PROJECT B-3492 = 0.029 mi.
TOTAL LENGTH TIP PROJECT B-3492 = 0.170 mi

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

2006 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: FEBRUARY 5, 2007	JAMES SPEER, PE PROJECT ENGINEER
LETTING DATE: JULY 15, 2008	JOHN LANSFORD, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

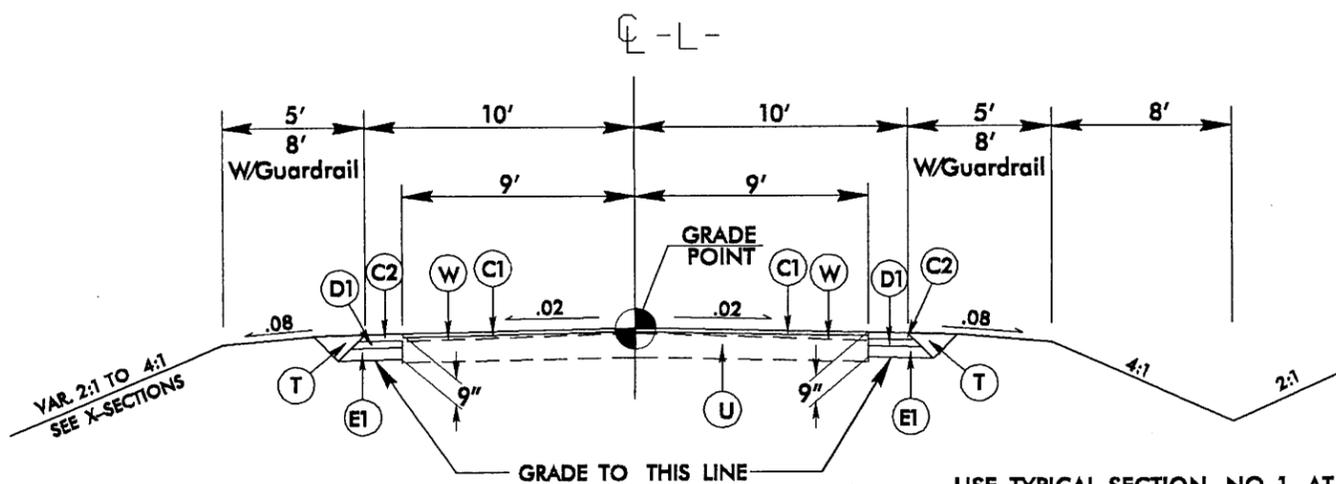
STATE HIGHWAY DESIGN ENGINEER P.E.

CONTRACT: C201867
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10/26/98

PROJECT REFERENCE NO. B-3492	SHEET NO. 2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

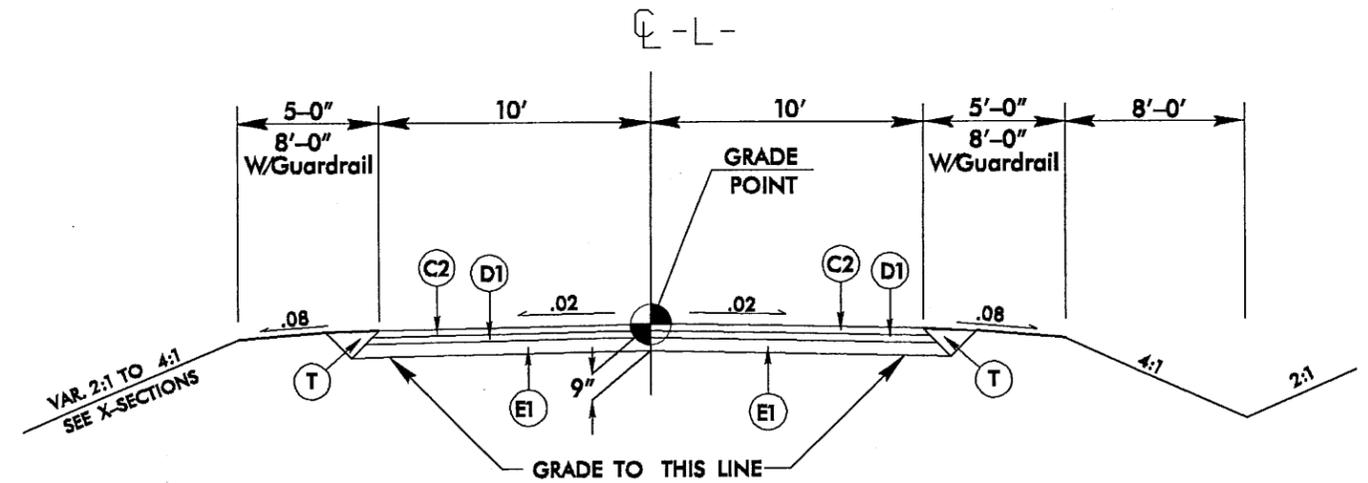
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 3.0" IN DEPTH
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 3.0" IN DEPTH
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 468 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3.0" IN DEPTH
R	PROP. CONC. EXPRESSWAY GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 AT THE FOLLOWING LOCATIONS:

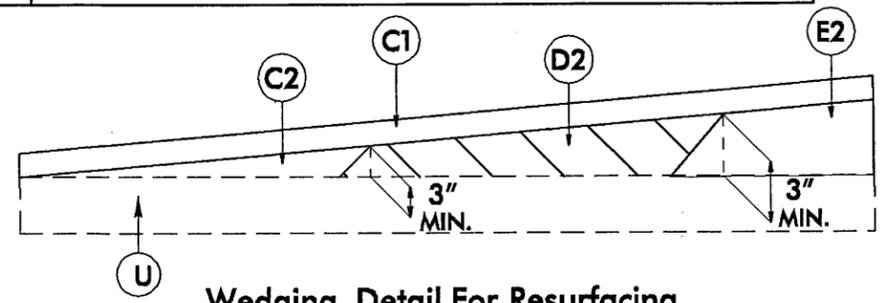
-L- Sta. 10+00.00 TO 11+00.00



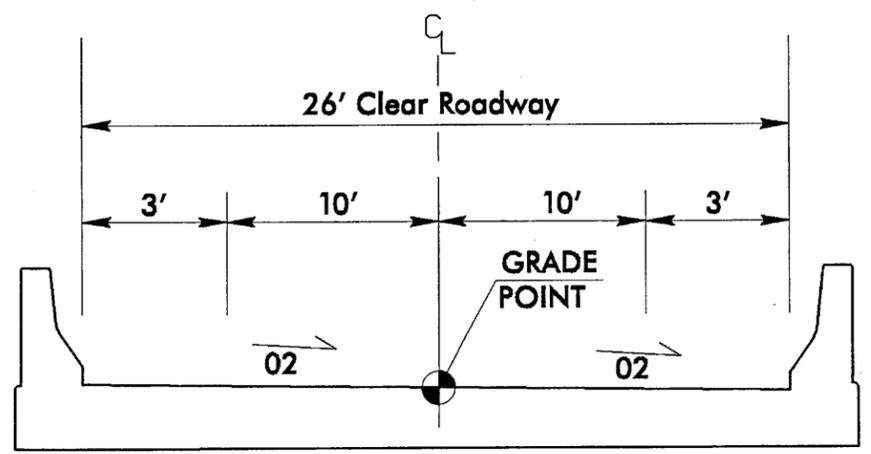
TYPICAL SECTION NO. 2

-L- Sta. 11+00.00 TO 12+66.41

-L- Sta. 14+21.59 TO 19+00.00

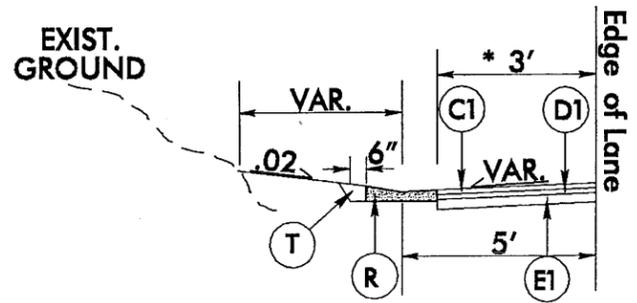


Wedging Detail For Resurfacing



TYPICAL SECTION ON STRUCTURE

-L- Sta. 12+66.41 to 14+21.59

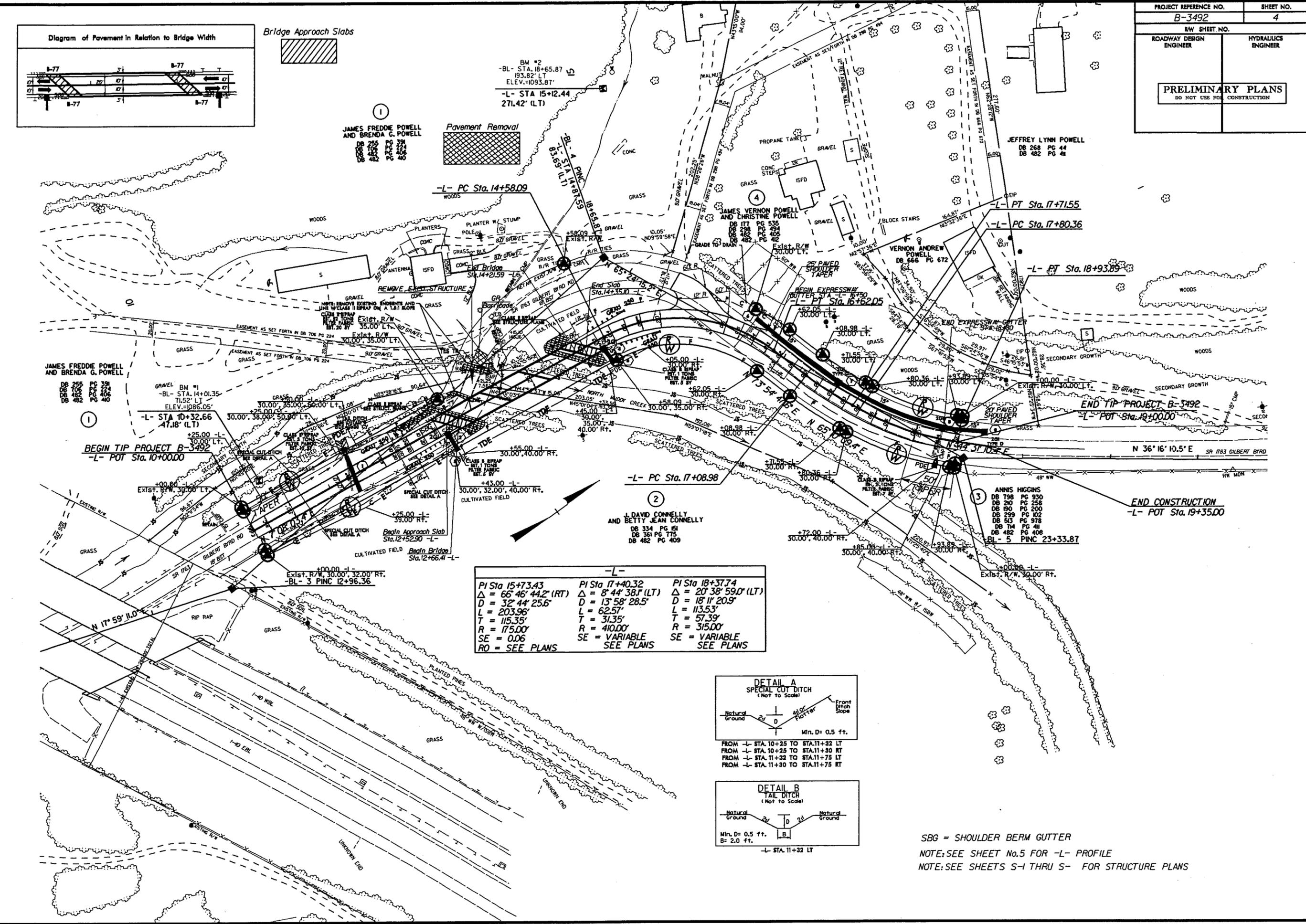
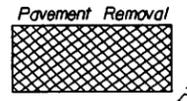
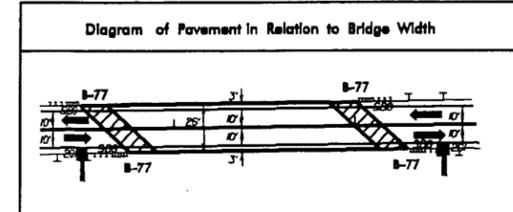


*** DENOTES 3' PAVED SHOULDER
TYPICAL SECTION FOR EXPRESSWAY GUTTER**

-L- STA 16+50.00 TO 18+80.00

(USE IN CONJUNCTION WITH TYPICAL NO. 2)

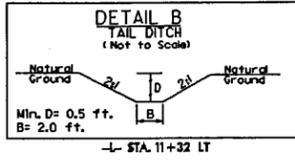
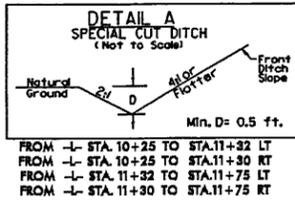
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REVISIONS

20-SEP-2007 08:00
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 \$\$\$\$11/11/07\$\$\$\$

-L-		
PI Sta 15+73.43	PI Sta 17+40.32	PI Sta 18+37.74
$\Delta = 66' 46" 44.2" (RT)$	$\Delta = 8' 44" 38.1" (LT)$	$\Delta = 20' 38" 59.0" (LT)$
$D = 32' 44" 25.6"$	$D = 13' 58" 28.5"$	$D = 18' 11" 20.9"$
$L = 203.96'$	$L = 62.57'$	$L = 113.53'$
$T = 115.35'$	$T = 31.35'$	$T = 57.39'$
$R = 175.00'$	$R = 410.00'$	$R = 315.00'$
$SE = 0.06$	$SE = VARIABLE$	$SE = VARIABLE$
$RO = SEE PLANS$	$SEE PLANS$	$SEE PLANS$



SBG = SHOULDER BERM GUTTER
 NOTE: SEE SHEET No. 5 FOR -L- PROFILE
 NOTE: SEE SHEETS S-1 THRU S- FOR STRUCTURE PLANS

North Muddy Ck
UT

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: B-3492 (Replacement of Bridge No. 56 on SR 1763)

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: NC County/parish/borough: McDowell City: Nebo
Center coordinates of site (lat/long in degree decimal format): Lat. 35°41'44" N, Long. 81°52'27" W.
Universal Transverse Mercator:

Name of nearest waterbody: North Muddy Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Catawba River

Name of watershed or Hydrologic Unit Code (HUC): 03050101

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Appear to be no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 500 linear feet: 2-30 width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known):

2. Non-regulated waters/wetlands (check if applicable):³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**

Identify TNW:

Summarize rationale supporting determination:

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) **General Area Conditions:**

Watershed size: **square miles**
Drainage area: **square miles**
Average annual rainfall: inches
Average annual snowfall: inches

(ii) **Physical Characteristics:**

(a) **Relationship with TNW:**

- Tributary flows directly into TNW.
 Tributary flows through **10 (or more)** tributaries before entering TNW.

Project waters are **30 (or more)** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **30 (or more)** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵:

Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain:

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Intermittent but not seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime:

Other information on duration and volume:

Surface flow is: **Discrete and confined.** Characteristics:

Subsurface flow: **Unknown.** Explain findings:

Dye (or other) test performed:

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: _____ acres

Wetland type. Explain:

Wetland quality. Explain:

Project wetlands cross or serve as state boundaries. Explain:

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain:

Surface flow is: **Pick List**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

TNWs: linear feet width (ft), Or, acres.

Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: North Muddy Creek and its UT have NCDWQ stream rating scores greater than 30.

Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: 500 linear feet 2 - 30 width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain:
 Other factors. Explain:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

McDowell County
Bridge No. 56 on SR 1763 (Gilbert Byrd Rd)
over North Muddy Creek
Federal Aid Project No. BRZ-1763(1)
W.B.S. No. 33108.1.1
State Project No. 8.2873101
T.I.P. No. B-3492

CATEGORICAL EXCLUSION

UNITED STATES DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

8/25/06
DATE

for William T. Gooding
Gregory J. Thorpe, PhD,
Environmental Management Director, PDEA

8/31/06
DATE

for John F. Sullivan, III
John F. Sullivan, III, Division Administrator
Federal Highway Administration

McDowell County
Bridge No. 56 on SR 1763 (Gilbert Byrd Rd)
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CATEGORICAL EXCLUSION

Documentation Prepared in
Project Development and Environmental Analysis Branch By:

8/25/06

DATE

Natalie Lockhart

Natalie Lockhart
Project Planning Engineer
Bridge Project Development Unit

8/25/06

DATE

John L. Williams

John L. Williams, PE
Project Engineer
Bridge Project Development Unit

PROJECT COMMITMENTS:

**McDowell County
Bridge No. 56 on SR 1763
Over North Muddy Creek
Federal Aid Project No. BRZ-1763(1)
State Project No. 8.2873101
W.B.S. No. 33108.1.1
T.I.P. No. B-3492**

Division 13 Construction, Resident Engineer's Office- Offsite Detour

In order to have time to adequately reroute school busses, McDowell County Resident Engineer will notify McDowell County School Transportation Office prior to road closure.

McDowell County Emergency Services needs to be contacted at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

Natural Environment Unit – Bridge Demolition

The entire bridge is constructed of timber and steel. Therefore, Bridge No. 56 will be removed without dropping any components into Waters of the United States.

McDowell County
Bridge No. 56 on SR 1763 (Gilbert Byrd Rd)
over North Muddy Creek
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T.I.P. No. B-3492

INTRODUCTION: Bridge No. 56 is included in the latest approved North Carolina Department of Transportation (NCDOT) Transportation Improvement Program and is eligible for the Federal-Aid Bridge Replacement Program. The location is shown in Figure 1. No substantial environmental impacts are anticipated. The project is classified as a Federal "Categorical Exclusion".

I. PURPOSE AND NEED STATEMENT

NCDOT Bridge Maintenance Unit records indicate Bridge No. 56 has a sufficiency rating of 48.5 out of a possible 100 for a new structure. The bridge is considered functionally obsolete due to deck geometry appraisal of 2 out of 9 according to Federal Highway Administration (FHWA) standards and therefore eligible for FHWA's Bridge Replacement Program.

In addition Bridge No. 56 carries 650 vehicles per day with 1,200 vehicles per day projected for the future. The substandard deck width is becoming increasingly unacceptable and replacement of the bridge will result in safer traffic operations.

Although Bridge No. 56 is not considered as structurally deficient, it has a forty-four year old timber substructure with a typical life expectancy between 40 to 50 years due to the natural deterioration rate of wood. Rehabilitation of a timber structure is generally practical only when a few members are damaged or prematurely deteriorated. However, past a certain degree of deterioration, timber structures become impractical to maintain and upon eligibility are programmed for replacement. Bridge No. 56 is approaching the end of its useful life.

II. EXISTING CONDITIONS

The project is located on SR 1763 (Gilbert Byrd Road). (see Figure 1). Development in the area is agricultural and residential in nature.

SR 1763 is classified as a rural local route in the Statewide Functional Classification System and it is not a National Highway System Route. This route is not a designated bicycle route and there is no indication that an unusual number of bicyclists use this roadway.

In the vicinity of the bridge, SR 1763 has an 18-foot pavement width with 3-foot grass shoulders (see Figures 3A and 3B). The roadway grade is in a sag vertical curve through the project area. The existing bridge is on a curve. The roadway is situated approximately 16.0 feet above the creek bed.

Bridge No. 56 is a one-span structure that consists of a wooden deck with an asphalt-wearing surface. The existing bridge (see Figure 3A and 3B) was constructed in 1962. The overall length of the structure is 40 feet. The clear roadway width is 14 feet. The posted weight limit on this bridge is 24 tons for single vehicles and 29 tons for TTST's.

There are no utilities attached to the superstructure, but there is a conduit attached to the abutment on the SE corner of the bridge (see Figure 3C). Three phase aerial power and phone cross the stream approximately 150 feet east of the bridge. Utility impacts are anticipated to be high.

The current traffic volume of 650 vehicles per day (VPD) is expected to increase to 1,200 VPD by the year 2030. The projected volume includes five percent truck-tractor semi-trailer (TTST) and five percent dual-tired vehicles (DT). There is no posted speed limit in the project area. Six school buses cross the bridge daily on their morning and afternoon routes.

There were no accidents reported in the vicinity of Bridge No. 56 during a recent three-year period.

III. ALTERNATIVES

A. Project Description

The replacement structure will consist of a bridge. The bridge length is based on preliminary design information and is set by hydraulic requirements. The bridge will be of sufficient width to provide for two 10-foot lanes with 3-foot offsets on each side. The roadway grade of the new structure will be approximately the same as the existing grade.

The existing roadway will be widened to a 20-foot pavement width to provide two 10-foot lanes. Five-foot shoulders will be provided on each side; none of which will be paved in accordance with the current NCDOT Design Policy. This roadway will be designed as a rural local route.

B. Reasonable and Feasible Alternatives

Two alternatives for replacing Bridge No. 56 that were studied in detail are described below.

NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include SR 1803 and SR 1762. The majority of traffic on the road is through traffic. The detour for the average road user would result in 3.5 minutes additional travel time (2.3 miles additional travel). Up to a 6-month duration of construction is expected on this project.

Based on the Guidelines, the criteria above indicate that on the basis of delay along the detour is acceptable. McDowell County Emergency Services along with McDowell County Schools Transportation have also indicated that the detour is acceptable. NCDOT Division 13 has indicated the condition of all roads; bridges and intersections on the offsite detour are acceptable without improvement and concurs with the use of the detour.

Alternate 1

Alternate 1 involves replacement of the structure with 190 foot bridge. Improvements will be on the horizontal alignment to the east. Alternate 1 was not preferred from a hydraulic point of view because the bridge would have been built on a severe thirty degree skew. There was a design speed exception associated with Alternate 1. Traffic would be detoured offsite during the construction period (see Figure 2A).

Alternate 2 (Preferred)

Alternate 2 involves replacement of the structure along new alignment. The replacement structure will be a minimum of 150 feet in length. Improvements to the approach roadways will be required for a distance of approximately 250 feet to the south and 475 feet to the north of the new structure. A design exception will be needed for the design speed. Traffic will be detoured offsite during the construction period (see Figure 2B).

C. Alternatives Eliminated From Further Consideration

The “do-nothing” alternative will eventually necessitate closure of the bridge. This is not acceptable due to the traffic service provided by SR 1763.

“Rehabilitation” of the old bridge is not practical due to its age and deteriorated condition.

Staged Construction is not feasible for this bridge because the 26-foot deck width and timber configuration will not support removal of a portion and maintenance of traffic on the remaining portion.

D. Preferred Alternative

Bridge No. 56 will be replaced at a new location as shown by Alternative 2 in Figure 2B. Alternate 2 can be built using spill through abutments. The length of the proposed bridge would be a minimum of 150 feet and would require three interior bents compared to Alternate 1, which is 150 feet long with only two interior bents.

Although there will be design exceptions for Alternate 2, it is the preferred alternative because of lower cost and acceptable hydraulic design. NCDOT Division 13 concurs with the selection of Alternative 2.

IV. ESTIMATED COSTS

The estimated costs for the two alternatives are as follows:

	Alternative 1	Alternative 2 Preferred
Structure	\$ 559,000	\$ 438,000
Roadway Approaches	\$ 23,000	\$ 266,000
Structure Removal	\$ 8,000	\$ 8,000
Misc. & Mob.	\$ 195,000	\$ 138,000
Eng. & Contingencies	\$ 208,000	\$ 125,000
Total Construction Cost	\$ 1,450,000	\$ 975,000
Right-of-way Costs	\$ 14,000	\$ 45,000
Total Project Cost	\$ 1,464,000	\$ 1,020,000

V. NATURAL ENVIRONMENT

Physical Characteristics

Water Resources

Water resources within the study area are under the federal system for cataloging drainage basins. The drainage basin containing the project area is designated as USGS Hydrologic Unit 03050101 (the Upper Catawba drainage basin). Under the North Carolina Division of Water Quality (DWQ) system for cataloging drainage basins, the drainage basin containing the project area is designated as Subbasin 03-08-30.

Streams and rivers have been assigned a "best usage classification" by the North Carolina DWQ. The assigned best usage classification reflects water quality conditions and potential resource usage. The classification of North Muddy Creek [Index no. 11-32-1] is Class C. Waters designated Class C are protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and surface, agriculture, and other uses suitable for Class C. Secondary recreation includes those activities performed in an infrequent, unorganized, or incidental manner. North Muddy Creek is not listed as a 303(d) stream or a National Scenic River.

No waters classified as High Quality Waters (HQW), Water Supplies (WS-I or WS-II) or Outstanding Resource Waters (ORW) occur within 1.0 mi of the project study area.

Biotic Resources

Four terrestrial plant communities were identified in the project study area: Mixed Mesic Hardwood Forest (Piedmont Subtype), Piedmont/Mountain Bottomland, Successional Scrub/Shrub Community, and Cropland/Pastureland in addition to land deemed Maintained/Disturbed. Table 1 shows the impacts of the project on these communities.

Table 1. Anticipated Impacts to Biotic Communities

Community	Impacts(acres)
Dry Oak-Hickory Forest (Piedmont Upland Variant)	5.9
Piedmont/Mountain Bottomland Forest	2.9
Successional Scrub/Shrub Community	2.7
Cropland/Pastureland	8.9
Maintained/Disturbed Land	18.2
Total	38.5

Jurisdictional Topics

Surface Waters and Wetlands

The North Muddy Creek is considered jurisdictional surface water under Section 404 of the Clean Water Act (CWA). The field investigation revealed no wetlands within the project study area.

Permits

Based on past experience with similar actions, if non-tidal wetland impacts at each bridge crossing are less than 0.5 acre and none of the activities jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, the action would be considered a Class II Action as defined under FHWA regulation 23 CFR 771.115(b). As a Class II Action, bridge rehabilitation, reconstruction, or replacement would qualify as a Categorical Exclusion as defined under FHWA regulation 23 CFR 771.117.

If minor impacts occur to North Muddy Creek, a Section 404 permit from the U.S. Army Corps of Engineers (USACE) and Section 401 certification will be required from the state prior to construction. It is anticipated that a Nationwide Permit (NWP) No.23 [33 CFR 330.5(a)(23)] will be required. Nationwide Permit No.33 may be required if temporary construction including cofferdams, access, and dewatering are required for this project. The USACE will determine final permit requirements.

Federally Protected Species

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE), and Proposed Threatened Species Act of 1973, as amended. As of April 27, 2006, the USFWS lists four federally protected species for McDowell County (Table 2). Brief descriptions of the characteristics and habitat requirements for these species are provided below. A review of the North Carolina Natural Heritage Program (NHP) database of rare species and unique habitats indicates

Mountain golden heather is reported to occur at elevations ranging from 2,800 to 4,000 feet. The maximum elevation of 1,200 feet within the project area is considered too low to serve as suitable habitat. No individual organism, populations, or suitable habitat were observed within the project area.

Biological Conclusion: **No Effect**

Small Whorled Pogonia(*Isotria medeoloides*) **Threatened**

Investigation:

The North Carolina Natural Heritage Program's database of rare species and unique habitats was reviewed in December of 2003. No populations of the species have been recorded in the project vicinity. The project area was investigated on January 6, 2004. No individual organisms or populations were observed within the project area; consequently, the biological conclusion for *Isotria medeoloides* is "Unresolved" pending further investigation. USFWS later stated that if no plants were found that a biological conclusion of "No Effect" could be determined.

Biological Conclusion: **No Effect**

Carolina Northern Flying Squirrel(*Glaucomys sabrinus coloratus*) **Endangered**

Investigation:

As of March 8, 2006 the US Fish and Wildlife Service(USFWS) has listed Carolina northern flying squirrel as an endangered species. Suitable habitat for the Carolina northern flying squirrel does not occur in the project area. A search of the NHP files on May 22, 2006 indicated no occurrences of known Carolina northern flying squirrel records within three miles of the project site.

Biological Conclusion: **No Effect**

VI. HUMAN ENVIRONMENT

Section 106 Compliance Guidelines

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at Title 36 CFR Part 800. Section 106 requires Federal agencies to take into account the effect of their undertakings (federally funded, licensed, or permitted) on properties included in or eligible for inclusion in the National Register of Historic Places and afford the Advisory Council a reasonable opportunity to comment on such undertakings.

Historic Architecture

The Historic Preservation Office (HPO) reviewed the subject project and determined that the area of potential effect for historical architectural will not be affected by this project. On May 31, 2005 NCDOT Historic Architecture staff meet with (HPO) and agreed that there are no historic properties affected by this project and no further compliance for Section 106 for historic architecture is required (see attached concurrence form).

Archaeology

The Historic Preservation Office (HPO) reviewed the subject project. There are no known archaeological sites within the proposed project area, and no archaeological investigation needed to be conducted (see letter dated August 12, 2004).

Community Impacts

No adverse impact on families or communities is anticipated. right-of-way acquisition will be limited. No relocatees are expected with implementation of the proposed alternative.

No adverse effect on public facilities or services is expected. The project is not expected to adversely affect social, economic, or religious opportunities in the area.

The project is not in conflict with any plan, existing land use, or zoning regulation. No change in land use is expected to result from the construction of the project.

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impact to prime farmland of all land acquisition and construction projects. There are no soils classified as prime, unique, or having state or local importance in the vicinity of the project. Therefore, the project will not involve the direct conversion of farmland acreage within these classifications.

The project will not have a disproportionately high and adverse human health and environmental effect on any minority or low-income population.

Noise & Air Quality

This project is an air quality "neutral" project, so it is not required to be included in the regional emissions analysis and a project level CO analysis is not required. If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina State Implementation Plan (SIP) for air quality in compliance with 15 NCAC 2D.0520. Noise levels could increase during construction but will be temporary. This evaluation completes the assessment requirements for highway traffic

noise of Title 23, Code of Federal Regulation (CFR), Part 772 and for air quality (1990 Clean Air Act Amendments and the National Environmental Policy Act) and no additional reports are required.

VII. GENERAL ENVIRONMENTAL EFFECTS

The project is expected to have an overall positive impact. Replacement of an inadequate bridge will result in safer traffic operations.

The bridge replacement will not have an adverse effect on the quality of the human or natural environment with the use of the current North Carolina Department of Transportation standards and specifications.

The proposed project will not require right-of-way acquisition or easement from any land protected under Section 4(f) of the Department of Transportation Act of 1966.

An examination of records at the North Carolina Department of Environment and Natural Resources, Division of Environmental Management, Groundwater Section and the North Carolina Department of Human Resources, Solid Waste Management Section revealed no underground storage tanks or hazardous waste sites in the project area.

McDowell County is a participant in the National Flood Insurance Program. There are no practical alternatives to crossing the floodplain area. Any shift in alignment will result in an impact area of about the same magnitude. The proposed project is not anticipated to increase the level or extent of upstream flood potential.

VIII. COORDINATION & AGENCY COMMENTS

NCDOT has sought input from the following agencies as a part of the project development: U.S. Fish & Wildlife Service, N.C Wildlife Resource Commission, North Carolina State Historic Preservation Office.

The **N.C. Wildlife Resource Commission** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure.

Response: Replacement structure will be a bridge.

The **N.C. Division of Water Quality** had no special concerns for this project.

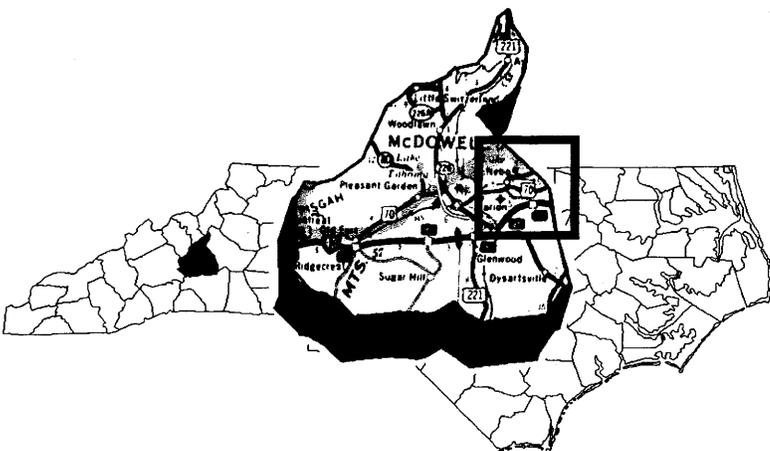
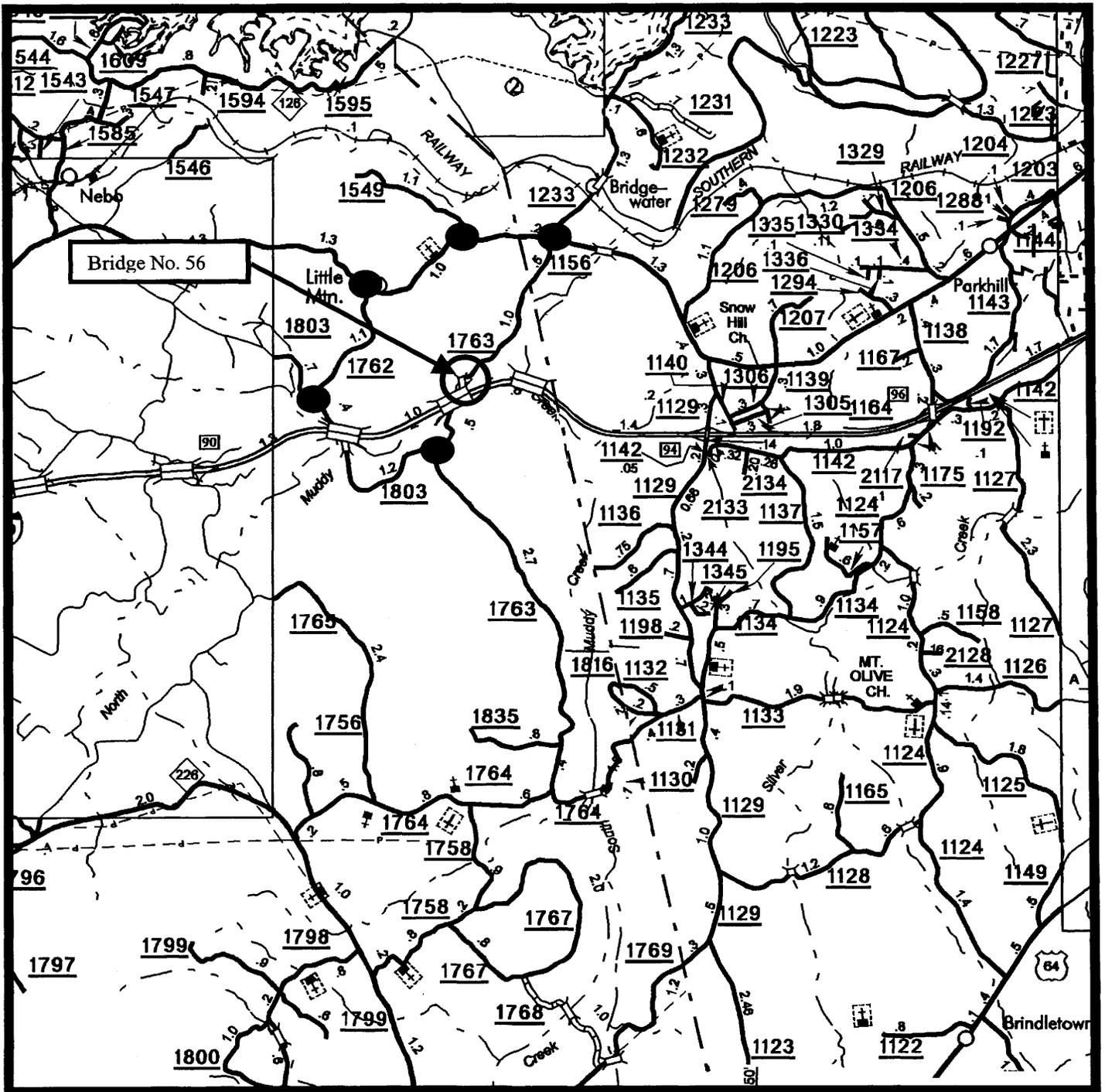
IX. PUBLIC INVOLVEMENT

A letter was sent by the Location & Surveys Unit to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

There is not substantial controversy on social, economic, or environmental grounds concerning the project.

X. CONCLUSION

On the basis of the above discussion, it is concluded that no substantial adverse environmental impacts will result from implementation of the project. The project is therefore considered to be a federal "Categorical Exclusion" due to its limited scope and lack of substantial environmental consequences.



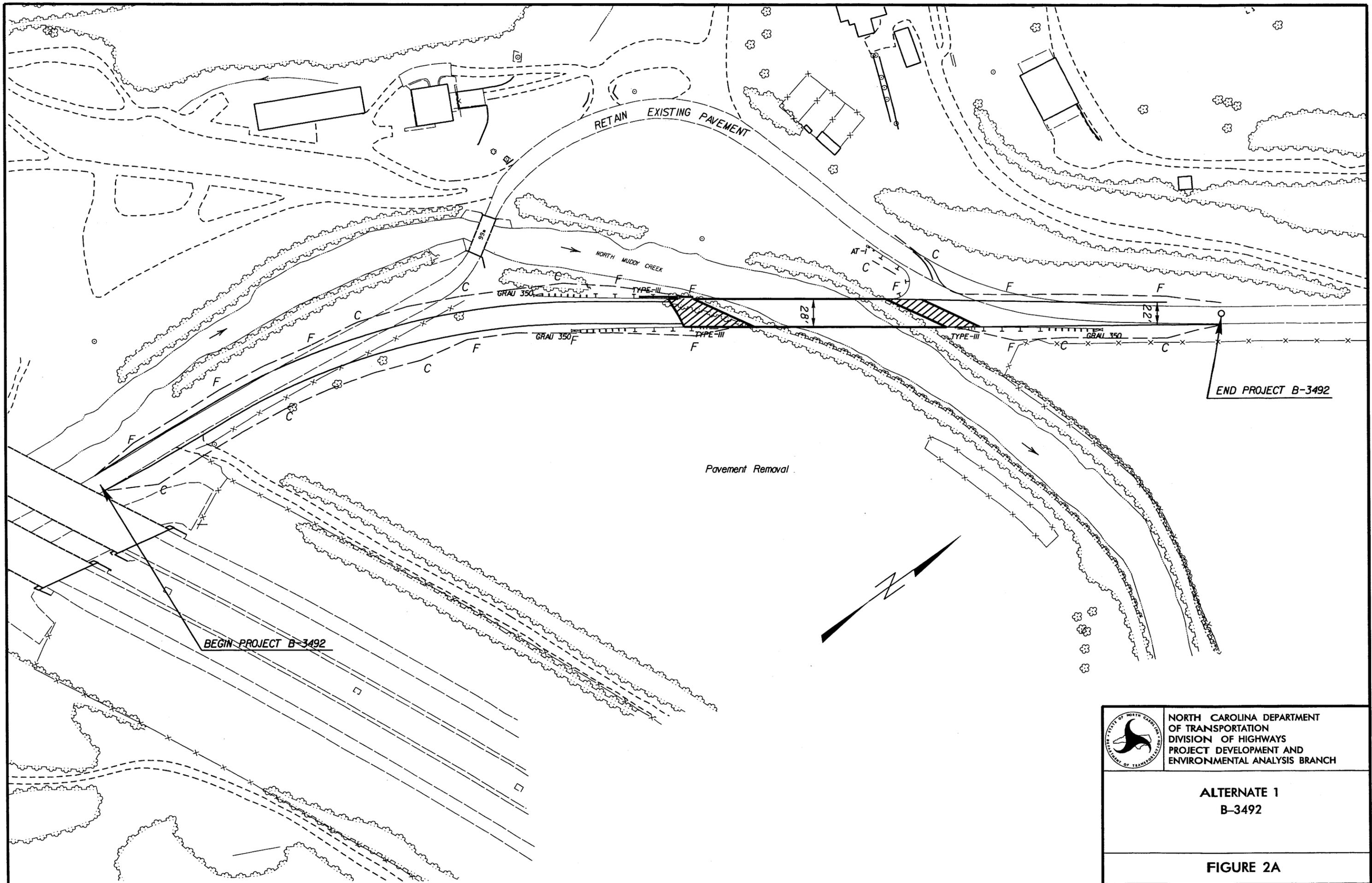
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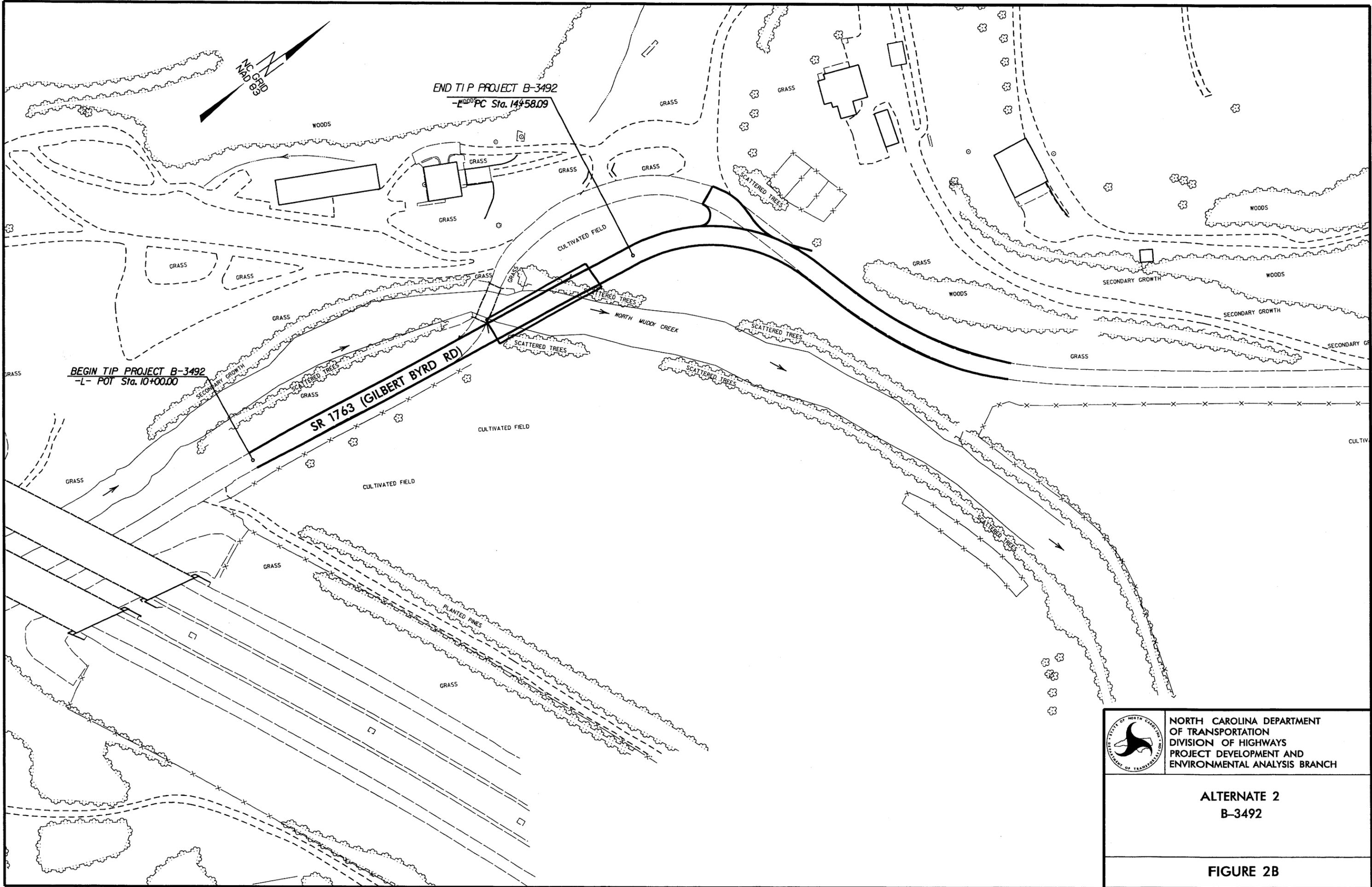
NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS BRANCH

**MCDOWELL COUNTY
REPLACE BRIDGE NO. 56 ON SR 1763
OVER NORTH MUDDY CREEK
B-3492**

Figure 1



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH</p>
<p>ALTERNATE 1 B-3492</p>	
<p>FIGURE 2A</p>	



NORTH CAROLINA DEPARTMENT
 OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT DEVELOPMENT AND
 ENVIRONMENTAL ANALYSIS BRANCH

ALTERNATE 2
 B-3492

FIGURE 2B

B-3492



Middle of Bridge – facing North

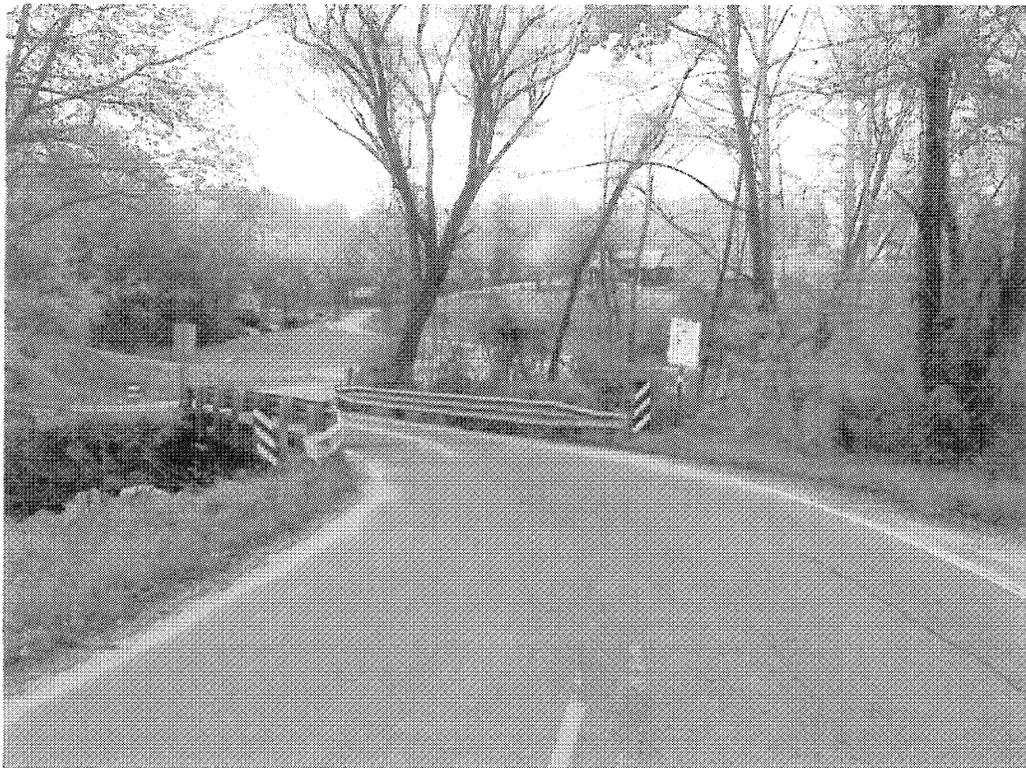


Middle of Bridge – facing South

Figure 3A

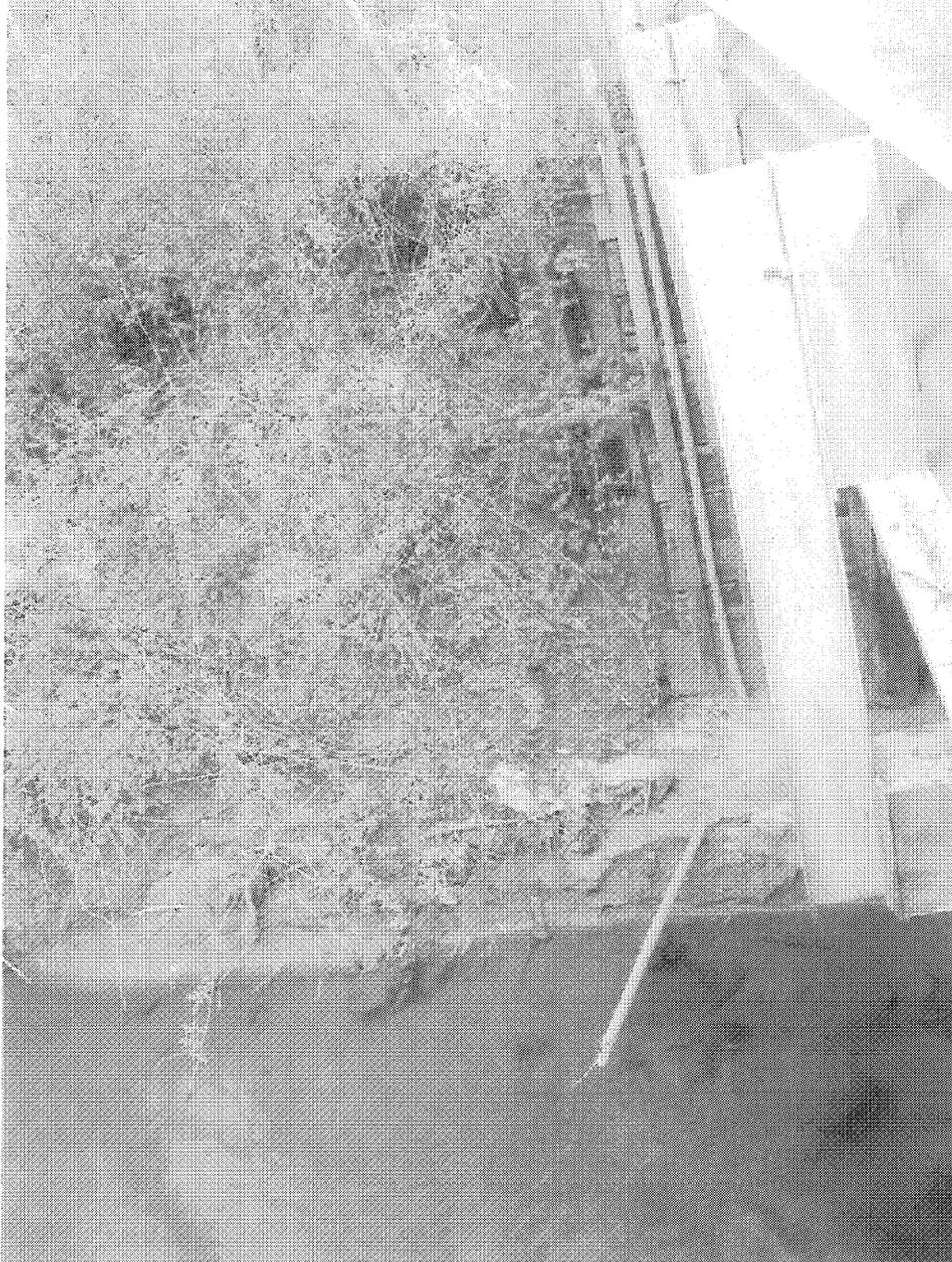


North Approach facing South

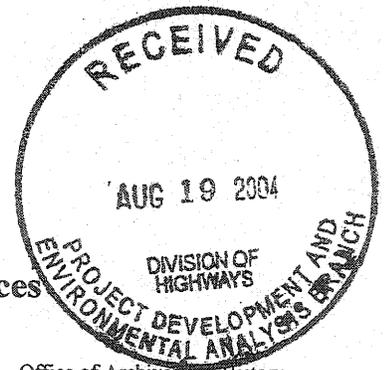


South Approach facing North

Figure 3B



Utility/Conduit/Stream Gage?



North Carolina Department of Cultural Resources
State Historic Preservation Office
 Peter B. Sandbeck, Administrator

Office of Archives and History
 Division of Historical Resources
 David Brook, Director

Michael F. Easley, Governor
 Lisbeth C. Evans, Secretary
 Jeffrey J. Crow, Deputy Secretary

August 12, 2004

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
 Project Development and Environmental Analysis Branch
 NCDOT Division of Highways

FROM: Peter B. Sandbeck *PBS for Peter Sandbeck*

SUBJECT: 2004 Bridge Projects, including B-3492, B-4408, B-4409, B-4410, B-4446, B-4466, B4469, B-4518, B-4545, B-4573, B-4631, B-4423, B-4424, B-4454, B-4520, B-4538, B-4540, B-4548, B-4549, B-4567, B-4578, B-4648, B-4664, B-4665, B-4504, B-4560, B-4587, B-4618, B-4644, B-4649, B-4651, B-4658, B-4671, B-3624, B-3819, B-3911, B-4404, B-4552, B-4613, B-4646, B-4675 B-3169, B-3606, B-3802, B-3803, B-3804, B-4523, B-4524, B-4525, B-4526, Multi-county, ER 04-1280-ER 04-1330

On July 28, 2004, Sarah McBride, our preservation specialist for transportation projects, met with the North Carolina Department of Transportation (NCDOT) staff for a meeting of the minds concerning the above projects. We reported on our available information on historic architectural and archaeological surveys and resources along with our recommendations. NCDOT provided project descriptions, area photographs, and aerial photographs at the meeting.

Based on our review of the photographs and the information discussed at the meeting, we have included our comments for each bridge project on a spreadsheet attached to this letter. These comments are provided for each project as proposed.

If an archaeological survey is requested on the spreadsheet, a separate memorandum from the Office of State Archaeology, explaining whether a general survey is required or if the survey is predicated upon an off-site detour or new location, is attached.

Having provided this information, we look forward to receipt of either a Categorical Exclusion or Environmental Assessment which indicates how NCDOT addressed our comments.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

Thank you for your cooperation and considerations. If you have any questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

PBS:w

Attachments

1 Spreadsheet

16 Memos

cc: Matt Wilkerson, NCDOT
Mary Pope Furr

	TIP	BRIDGE	COUNTY	DIVISION	BUILT	PDE	Architecture	Archaeology	
FR04	1314	B-3492	580056	McDOWELL	13	1962	Hancock	Yes	No
FR04	1285	B-4408	030265	ANSON	10	1961	Hancock	No	No
FR04	1286	B-4409	030308	ANSON	10	1922	Hancock	No	No
FR04	1287	B-4410	030307	ANSON	10	1931	Hancock	Yes	No
FR04	1301	B-4446	100227	BUNCOMBE	13	1956	Hancock	No	No
FR04	1290	B-4466	210004	CLAY	14	1952	Hancock	No	No
FR04	1291	B-4469	220219	CLEVELAND	12	1952	Hancock	No	No
FR04	1287	B-4518	350110	GASTON	12	1962	Hancock	No	No
FR04	1307	B-4545	440072	HENDERSON	14	1963	Hancock	No	No
FR04	1300	B-4573	540183	LINCOLN	12	1965	Hancock	No	No
FR04	1306	B-4631	800526	RUTHERFORD	13	1970	Hancock	No	No
FR04	1329	B-4423	060067	BEAUFORT	2	1965	Capps	No	No
FR04	1320	B-4424	060068	BEAUFORT	2	1966	Capps	No	No
FR04	1302	B-4454	150043	CARTERET	2	1963	Capps	No	No
FR04	1292	B-4520	360032	GATES	1	1952	Capps	Yes	No
FR04	1280	B-4538	410025	HALIFAX	4	1965	Capps	No	No
FR04	1287	B-4540	410142	HALIFAX	4	1962	Capps	Yes	Yes
FR04	1308	B-4548	450002	HERTFORD	1	1960	Capps	No	Yes
FR04	1309	B-4549	450042	HERTFORD	1	1960	Capps	Yes	Yes
FR04	1299	B-4567	530069	LENOIR	2	1971	Capps	Yes	Yes
FR04	1298	B-4578	570008	MARTIN	1	1974	Capps	No	No
FR04	1323	B-4648	880017	TYRRELL	1	1977	Capps	No	No
FR04	1317	B-4664	920025	WARREN	5	1957	Capps	Yes	Yes
FR04	1318	B-4665	920036	WARREN	5	1955	Capps	No	Yes
FR04	1325	B-4504	320052	EDGECOMBE	4	1964	Johnson	No	Yes
FR04	1312	B-4560	500102	JOHNSTON	4	1956	Johnson	Yes	Yes
FR04	1297	B-4587	630082	NASH	4	1961	Johnson	No	Yes
FR04	1325	B-4618	770445	ROBESON	6	1955	Johnson	Yes	No
FR04	1284	B-4644	830057	STANLY	10	1961	Johnson	No	No
FR04	1324	B-4649	890377	UNION	10	1962	Johnson	No	No
FR04	1323	B-4651	890251	UNION	10	1957	Johnson	No	No
FR04	1315	B-4658	910345	WAKE	5	1960	Johnson	No	No
FR04	1313	B-4671	950035	WAYNE	4	1961	Johnson	No	Yes
FR04	1327	B-3624	130190	CALDWELL	11	1981	Pipkin	No	No
FR04	1328	B-3819	130184	CALDWELL	11	1962	Pipkin	No	No
FR04	1327	B-3911	850038	SURRY	11	1923	Pipkin	Yes	No
FR04	1286	B-4404	000102	ALAMANCE	7	1968	Pipkin	Yes	No
FR04	1310	B-4552	480100	IREDELL	12	1963	Pipkin	Yes	No
FR04	1295	B-4613	750415	RANDOLPH	8	1959	Pipkin	No	Yes
FR04	1294	B-4646	850132	SURRY	11	1962	Pipkin	Yes	No
FR04	1311	B-4675	960034	WILKES	11	1960	Pipkin	No	No
FR04	1293	B-3169	310158	DURHAM	5	1960	Williams	Yes	No
FR04	1303	B-3606	040070	ASHE	11	1963	Williams	Yes	No
FR04	1282	B-3802	040229	ASHE	11	1960	Williams	No	No
FR04	1304	B-3803	040334	ASHE	11	1966	Williams	Yes	No
FR04	1283	B-3804	040296	ASHE	11	1964	Williams	Yes	No
FR04	1319	B-4523	380164	GRANVILLE	5	1955	Williams	No	Yes
FR04	1320	B-4524	380193	GRANVILLE	5	1956	Williams	No	Yes
FR04	1321	B-4525	380133	GRANVILLE	5	1960	Williams	No	Yes
FR04	1322	B-4526	380200	GRANVILLE	5	1957	Williams	No	Yes

CONCURRENCE FORM FOR PROPERTIES NOT ELIGIBLE FOR THE NATIONAL REGISTER OF HISTORIC PLACES

Project Description: Replace Bridge No. 56 on SR 1763 over North Muddy Creek in McDowell County

On May 31, 2005, representatives of the

- North Carolina Department of Transportation (NCDOT)
- Federal Highway Administration (FHWA)
- North Carolina State Historic Preservation Office (HPO)
- Other

Reviewed the subject project at

- Scoping meeting
- Historic architectural resources photograph review session/consultation
- Other

All parties present agreed

- There are no properties over fifty years old within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are properties over fifty years old within the project's Area of Potential Effects (APE), but based on the historical information available and the photographs of each property, the properties identified as (List below) are considered not eligible for the National Register and no further evaluation of them are necessary.

property # 1
- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- All properties greater than 50 years of age located in the APE have been considered at this consultation, and based upon the above concurrence, all compliance for historic architecture with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.
- There are no historic properties affected by this project. (*Attach any notes or documents as needed*)

Signed:

Jennife - Cather 5/31/05
 Representative, NCDOT Date

n/a
 FHWA, for the Division Administrator, or other Federal Agency Date

Sarah D. McNeal 5/31/05
 Representative, HPO Date

Peter B. Sandbrook 5/31/05
 State Historic Preservation Officer Date