



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

August 10, 2004

U. S. Army Corps of Engineers  
Regulatory Field Office  
Post Office Box 1000  
Washington, NC 27889-1000

ATTENTION: Mr. Mike Bell  
NCDOT Coordinator

Dear Sir:

Subject: **Nationwide 23 and 33 Permit Application** for the Replacement of Bridge No. 145 over Hawtree Creek on SR 1333, Halifax County, Federal Aid Project No. BRZ-1333(4), State Project No. 8.2301001, TIP B-3182, Division 4.

Please find enclosed three copies of the project planning report for the above referenced project. NCDOT plans to replace Bridge No. 145 over Hawtree Creek (Class C NSW) at the same location with a new bridge. The new structure will be approximately 70 feet in length with a 38-foot clear roadway width. The bridge will have two 12.0-foot travel lanes. The new approach roadway will include two 12-foot travel lanes, and 8-foot grass shoulders on each side.

Construction of the bridge will result in permanent jurisdictional wetland impacts totaling 0.246 acres. There are also minimal temporary impacts due to fill associated with the temporary causeway. There will be less than 0.01 acres of permanent impacts to surface waters due to a bridge bent.

During construction, traffic will be maintained by an offsite detour.

### **Bridge Demolition**

Bridge No. 145 is composed of a concrete deck with an asphalt-wearing surface on timber joists. The bridge has reinforced concrete cap and timber pile bents and end bents. The existing structure is 47 feet long and 25 feet wide consisting of three spans. Due to the structural components of the bridge, the potential temporary fill that may be dropped into the "Waters of the United States" is 24 cubic yards. Any temporary fill that enters the stream will be removed when construction ends.

## **Temporary Causeway**

There will be 0.004 ac. temporary stream impacts from the construction of temporary rock causeway in Hawtree Creek for the construction of Bridge No. 145. The temporary rock causeway will be required for the construction of the interior bent in order to provide for construction access. The causeway will consist of Class II riprap and is detailed on sheet 5 of 5.

Restoration Plan: No permanent fill will result from the subject activity. The materials used as temporary fill in the construction of the causeway will be removed and graded back to the original contours.

Schedule for Construction of Causeway: It is assumed that the contractor will begin construction of the proposed causeway shortly after the date of availability for the project. The Let date is March 15, 2005 with a date of availability of April 18, 2005.

Removal and Disposal: The causeway will be removed within 90 days of the completion of the deck slab for the bridge. The temporary rock causeway will be removed by the contractor using excavating equipment. All materials placed in the stream by the contractor will be removed. The Class II riprap that is removed may be used on end slopes where Class II riprap is required at the discretion of the engineer. All other materials removed by the contractor will be disposed of at an off-site location.

## **Compensatory Mitigation**

The necessary compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the federal Clean Water Act will be provided by the Ecosystem Enhancement Program (EEP). The NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent possible. The remaining, unavoidable impacts to 0.246 acres of jurisdictional wetlands will be offset by compensatory mitigation provided by the EEP program.

## **Federally Protected Species**

Some populations of fauna and flora have been in, or are in, the process of decline either due to natural forces or their inability to co-exist with human activities. Federal law (under the provisions of the Endangered Species Act (ESA) of 1973, as amended) requires that any action likely to adversely affect a species classified as federally protected be subject to review by the United States Fish and Wildlife Service (USFWS). Other species may receive additional protection under separate state laws. Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE) and Proposed Threatened (PT) are protected under provisions of ESA §§7 and 9, as amended.

As of January 29, 2003, the USFWS lists 4 federally protected species for Halifax County. Table 1 depicts these species. The biological conclusion for the protected species is: “No Effect”.

**Table 1. Federally protected species for Halifax County\*\***

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>	<b>Biological Conclusion</b>
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	No Effect
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	No Effect
Dwarf wedge mussel	<i>Alasmidonta heterdon</i>	E	No Effect
Tar spiny mussel	<i>Elliptio steinstansana</i>	E	No Effect

\*\* Obtained from the US Department of the Interior, Fish and Wildlife Service, Threatened and Endangered Species of North Carolina, Halifax County, (January 29, 2003).

Note for Status:

- Threatened (T) denotes a taxon “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”
- Endangered (E) denotes a taxon “in danger of extinction throughout all or a significant portion of its range.”

**Tar-Pamlico River Basin Buffer Rules**

As previously noted, this project is located in the Tar-Pamlico River Basin (HUC 03020102); therefore, the regulations pertaining to the buffer rules apply. Buffer impacts associated with this project total 5798.0 sq. ft. for Zone 1 and 2707.0 sq. ft. for Zone 2. All practicable measures to minimize impacts within buffer zones were followed. According to the buffer rules, bridges are allowable. Uses designated as allowable may proceed within the riparian buffer provided that there are no practicable alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the delegated local authority.

NCDOT requests written authorization for the proposed buffer impacts from the Division of Water Quality.

**Regulatory Approvals**

Section 404 Permit: This project is being processed by the Federal Highway Administration as a “Categorical Exclusion” in accordance with 23 CFR 771.115(b). Therefore, we do not anticipate requesting an individual permit but propose to proceed under a Nationwide 23 and 33 as authorized by a Nationwide Permit 23 and 33 (67 FR 2020; January 15, 2002).

NCDOT hereby requests a Nationwide 23 and a Nationwide 33 from the U. S. Army Corps of Engineers.

Section 401 Permit: We anticipate 401 General Certification numbers 3403 and 3366 will apply to this project. In accordance with 15A NCAC 2H, Section .0500(a) and 15A NCAC 2B .0200 we are providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their review.

Riparian Buffer Authorizaton: NCDOT requests written authorization for riparian buffer impacts from the Division of Water Quality.

A copy of this permit application will be posted on the DOT website at:  
<http://www.ncdot.org/planning/pe/naturalunit/Permit.html>.

If you have any questions or need additional information, please contact Mr. Chris Underwood at (919) 715-1451.

Sincerely,

  
G Gregory J. Thorpe, Ph.D., Environmental Management Director  
Project Development and Environmental Analysis Branch

W/attachment

Mr. John Hennessy, Division of Water Quality (7 copies)  
Mr. Travis Wilson, NCWRC  
Mr. David Chang, P.E., Hydraulics  
Mr. Greg Perfetti, P.E., Structure Design  
Jim Trogdon, P.E., Division Engineer  
Mr. Jamie Shern, DEO

W/o attachment

Mr. Jay Bennett, P.E., Roadway Design  
Mr. Omar Sultan, Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. Mark Staley, Roadside Environmental  
Mr. David Franklin, USACE, Wilmington  
Ms. Beth Harmon, EEP  
Mr. Joel Johnson, Project Engineer

### 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: Replacement of Bridge No. 145 on SR 1333 over Hawtree Creek
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3182
3. Property Identification Number (Tax PIN): \_\_\_\_\_
4. Location  
County: Halifax Nearest Town: Rocky Mount  
Subdivision name (include phase/lot number): \_\_\_\_\_  
Directions to site (include road numbers, landmarks, etc.): From Rocky Mount take NC 43 north to Essex and take a right onto SR 1333 to the first bridge (No. 145).
5. Site coordinates, if available (UTM or Lat/Long): 36° 14.14'N/77° 56.84'W  
(Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
6. Property size (acres): approximately 1.0 acres
7. Nearest body of water (stream/river/sound/ocean/lake): Hawtree Creek
8. River Basin: Tar-Pamlico River Basin, Hydrologic Unit 03020102  
(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/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: The project vicinity is composed of a palustrine forest.
10. Describe the overall project in detail, including the type of equipment to be used: The bridge removal involves the removal of the asphalt wearing surface prior to demolition without dropping components into the water. The guardrails, concrete deck, and all steel

components will also be removed without dropping any of the components into the water. A maximum of 24 cubic yards of temporary fill from the concrete components into the waters may be expected. The replacement structure will consist of a 70-foot long bridge widened to 38 feet. The existing roadway before and after the bridge will be widened to 24 feet, and 8-foot wide turf shoulders will be provided on each side. The equipment needed is standard paving equipment including pavers and rollers, and grading equipment including backhoes and motor graders.

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11. Explain the purpose of the proposed work: The purpose of the proposed work is to replace Bridge No. 145 over Hawtree Creek which is considered to be structurally deficient and functionally obsolete. The replacement of the bridge will result in safer traffic operations.

#### **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.

No permits or certifications have been issued for Bridge No. 145 over Hawtree Creek in Halifax County.

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#### **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.

No future permits are anticipated for the replacement of Bridge No. 145.

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#### **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. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must 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: A maximum of approximately 24 cubic yards of temporary fill from the components into the waters may be anticipated from bridge demolition and removal. In order to protect the water NCDOT will follow the Best Management Practices for Bridge Demolition and Removal. Best Management Practices (BMP's) followed for bridge demolition and removal are in addition to those implemented in accord with NCDOT Best Management Practices for Protection of Surface Waters. There will be 0.246 ac. permanent wetland impacts from the construction of Bridge No. 145. There will be temporary impacts totaling 0.004 acres of fill in wetlands, 0.03 acres of fill in surface waters, and 70 feet of existing channel in order to construct temporary causeways. The causeway will be required for the construction of the interior bents in order to provide for construction access.

2. Individually list wetland impacts below:

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***
At bridge	excavation	0.246	yes	~5'	Forested wetland

\* List each impact separately and identify temporary impacts. 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.

\*\* 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at <http://www.fema.gov>.

\*\*\* List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: ~5 acres

Total area of wetland impact proposed: 0.246 acres

3. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1	Temporary fill (work pads for equipment access for bridge construction)	70 feet	Hawtree Creek	~40 feet	Perennial

\* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, 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.

\*\* Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at [www.usgs.gov](http://www.usgs.gov). Several internet sites also allow direct download and printing of USGS maps (e.g., [www.topozone.com](http://www.topozone.com), [www.mapquest.com](http://www.mapquest.com), etc.).

Cumulative impacts (linear distance in feet) to all streams on site: 70 feet

4. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below:

Open Water Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Name of Waterbody (if applicable)	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)
1	Temporary construction for causeway	0.03	Hawtree Creek	stream

\* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: fill, excavation, dredging, flooding, drainage, bulkheads, etc.

5. 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.): \_\_\_\_\_

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 detoured off-site using existing local roads.. All excavated materials will be removed from the site.

**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 March 9, 2000, 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 NCWRP 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.

EEP

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2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

Amount of stream mitigation requested (linear feet): \_\_\_\_\_

Amount of buffer mitigation requested (square feet): 8505.0

Amount of Riparian wetland mitigation requested (acres): 0.246

Amount of Non-riparian wetland mitigation requested (acres): \_\_\_\_\_

Amount of Coastal wetland mitigation requested (acres): \_\_\_\_\_

#### **IX. Environmental Documentation (required by DWQ)**

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes  No

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

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.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify \_\_\_\_\_)?

Yes  No  If you answered "yes", provide the following information:

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	5798	3	17394.0
2	2707	1.5	4060.5
Total	8505		21454.5

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

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

**XI. Stormwater (required by DWQ)**

Describe impervious acreage (both 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.

Existing impervious area for the project (800 feet of roadway) is approximately 0.46 acres, proposed impervious area is approximately 0.64 acres, and the total area on site is approximately 1.0 acre. There will two drop inlets, one on each side of the road on the south side of the river, that will empty onto the grass on the west side of the road before entering the stream. On the north side of the river runoff will enter a grass swale before entering the stream

**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.  
No wastewater will be generated from the implementation of the proposed project.

**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. Other Circumstances (Optional):**

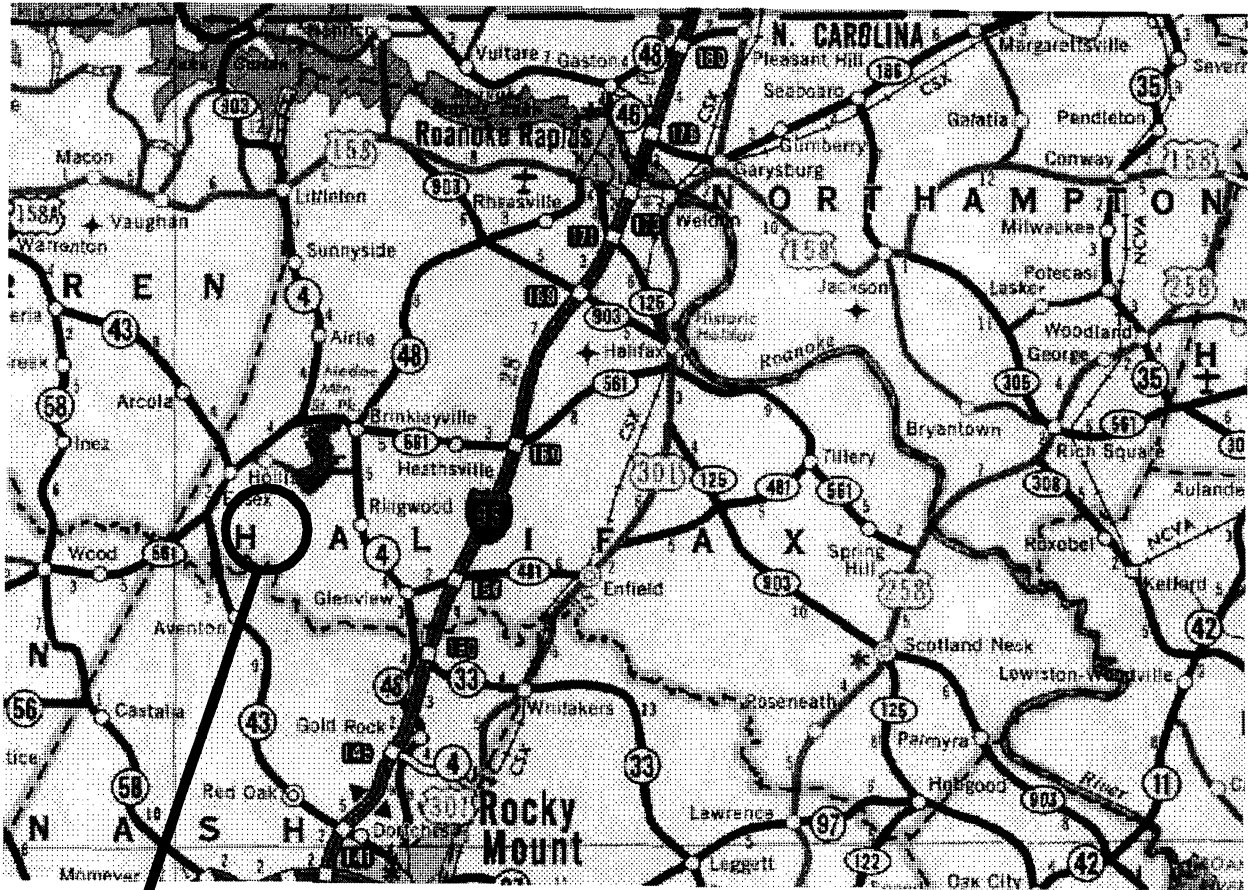
It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g.,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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



8/9/04  
Date

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



PROJECT

WETLANDS  
IMPACTS DRAWINGS

NOT TO SCALE

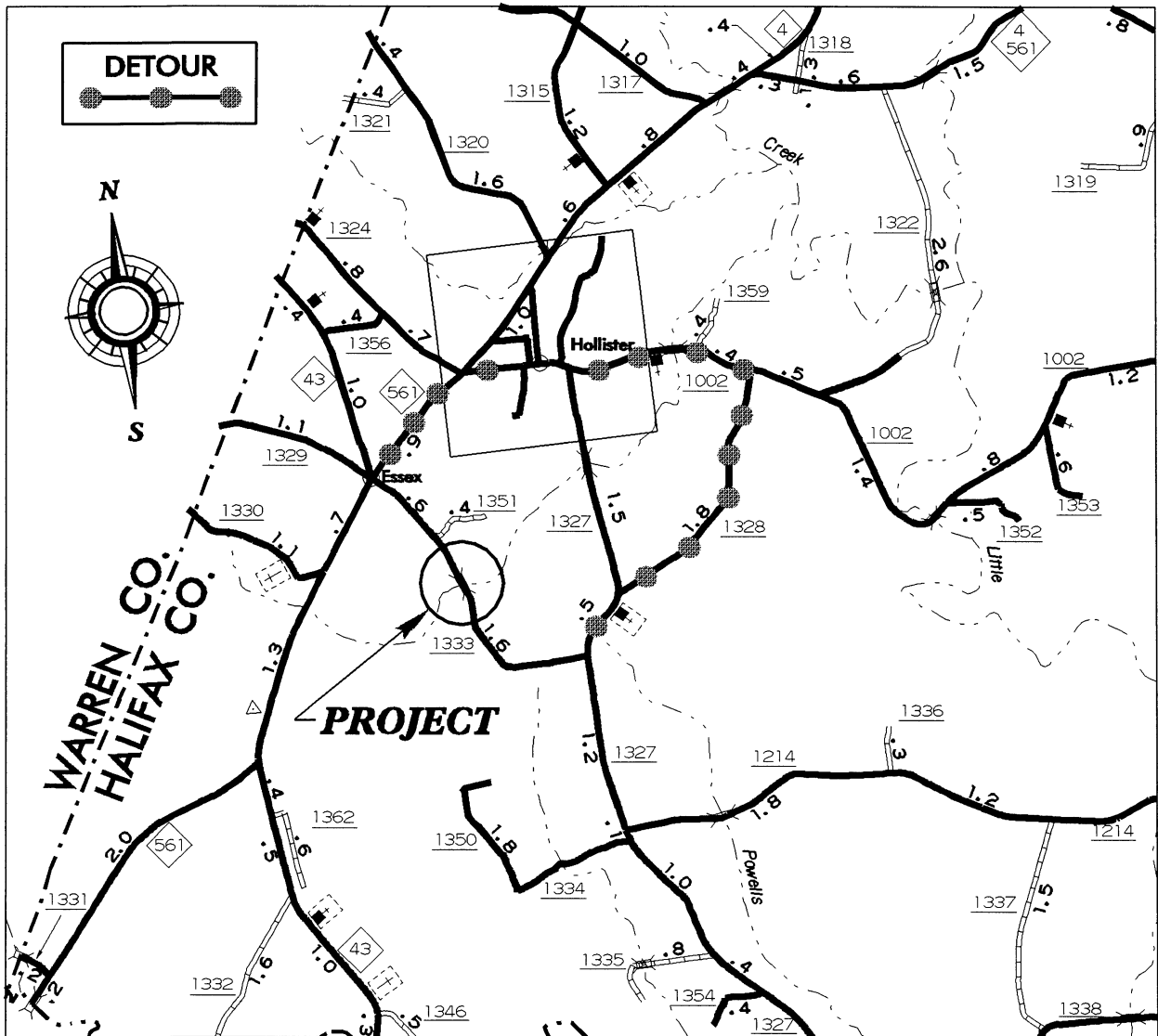


VICINITY  
MAP

**N.C.D.O.T.**  
**DIVISION OF HIGHWAYS**  
**HALIFAX COUNTY**

**PROPOSED REPLACEMENT OF**  
**BRIDGE NO. 145**  
**OVER HAWTREE CREEK**  
**ALONG SR 1333**

WBS NO. 32917.1.1 TIP NO. B-3182  
SHEET 1 OF 5 05-12-04



LOCATION  
MAP

**N.C.D.O.T.**  
**DIVISION OF HIGHWAYS**  
**HALIFAX COUNTY**

**PROPOSED REPLACEMENT OF**  
**BRIDGE NO. 145**  
**OVER HAWTREE CREEK**  
**ALONG SR 1333**

WBS NO. 32917.11 TIP NO. B-3182  
SHEET 2 OF 5 05-12-04



PROPERTY OWNERS  
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
	W. RUSSELL RICHARDSON	4209 CAMELOT DR. RALEIGH, NC 27609
	LILLIE B. LYNCH	40063 HWY. 561 HOLLISTER, NC 27844
	B. D. LYNCH, HEIRS	RT. 1, BOX 324 HOLLISTER, NC 27844
	DONALD RAY SATTERWHITE	P.O. BOX 63 HOLLISTER, NC 27844

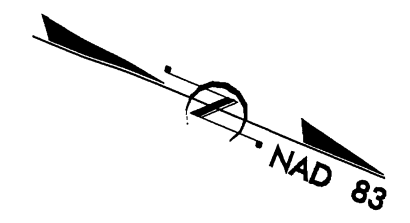
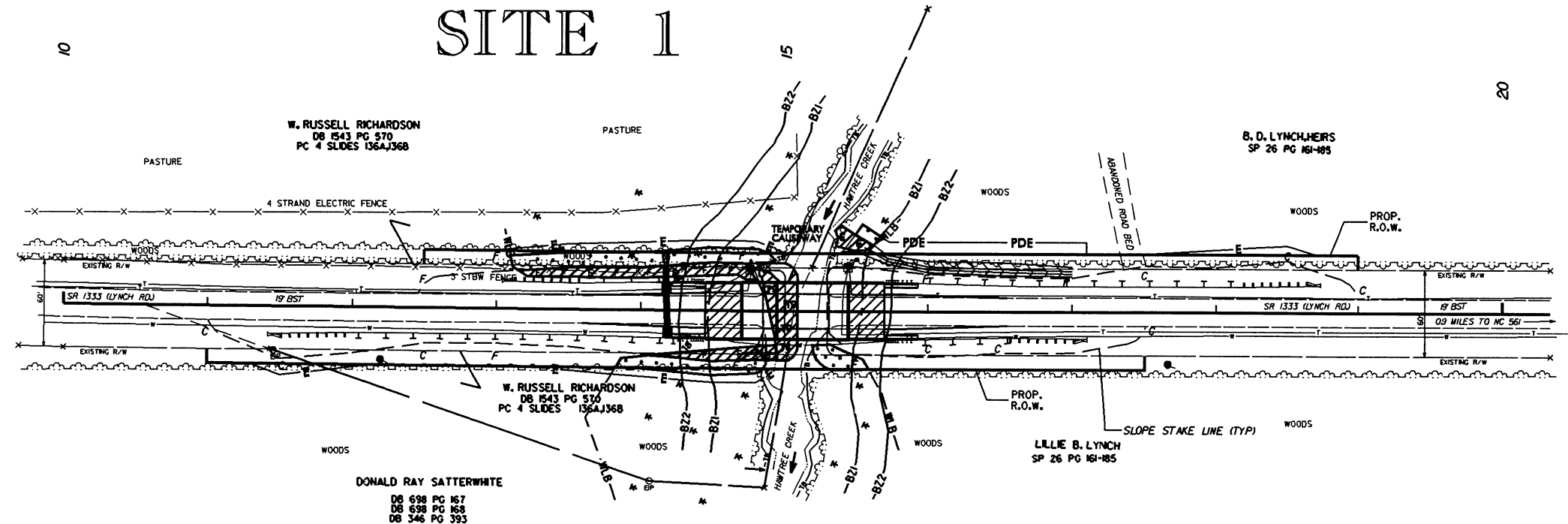
NCDOT  
DIVISION OF HIGHWAYS  
**PROPOSED REPLACEMENT OF  
BRIDGE NO. 145  
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WBS NO. 32917.1.1 TIP NO. B-3182

8/17/99

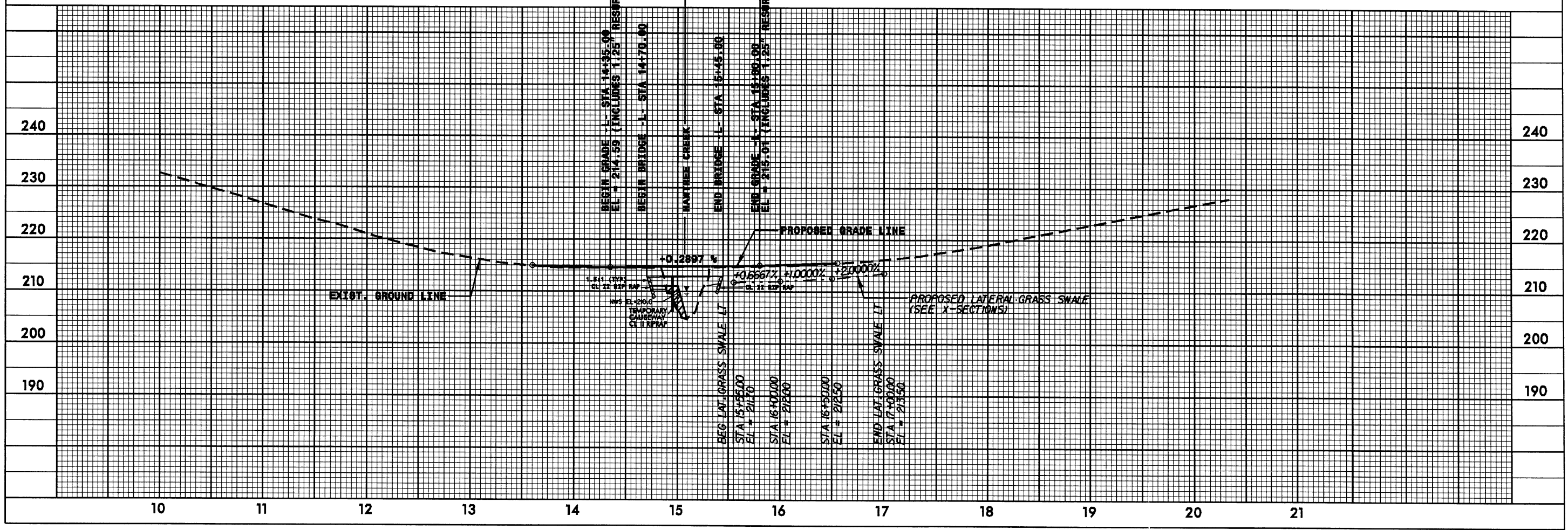
PROJECT REFERENCE NO. B-3182	SHEET NO. 8 of 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# SITE 1

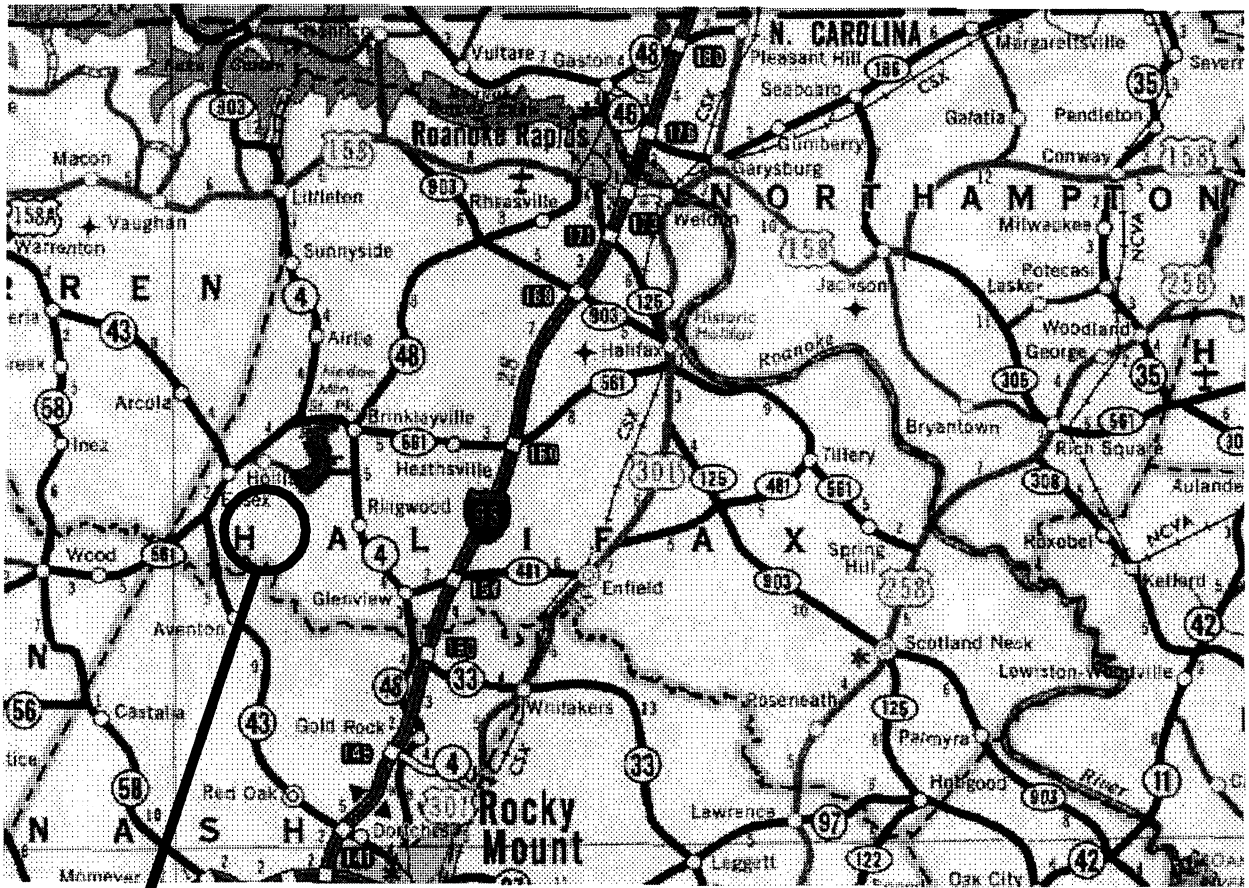


- DENOTES FILL IN WETLAND
- DENOTES FILL IN SURFACE WATER
- DENOTES MECHANIZED CLEARING
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES TEMPORARY FILL IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND

BRIDGE -L- STA 15+07.50  
 SKEW = 90°  
 EL = 214.80







PROJECT

RIPARIAN BUFFER  
IMPACTS DRAWINGS



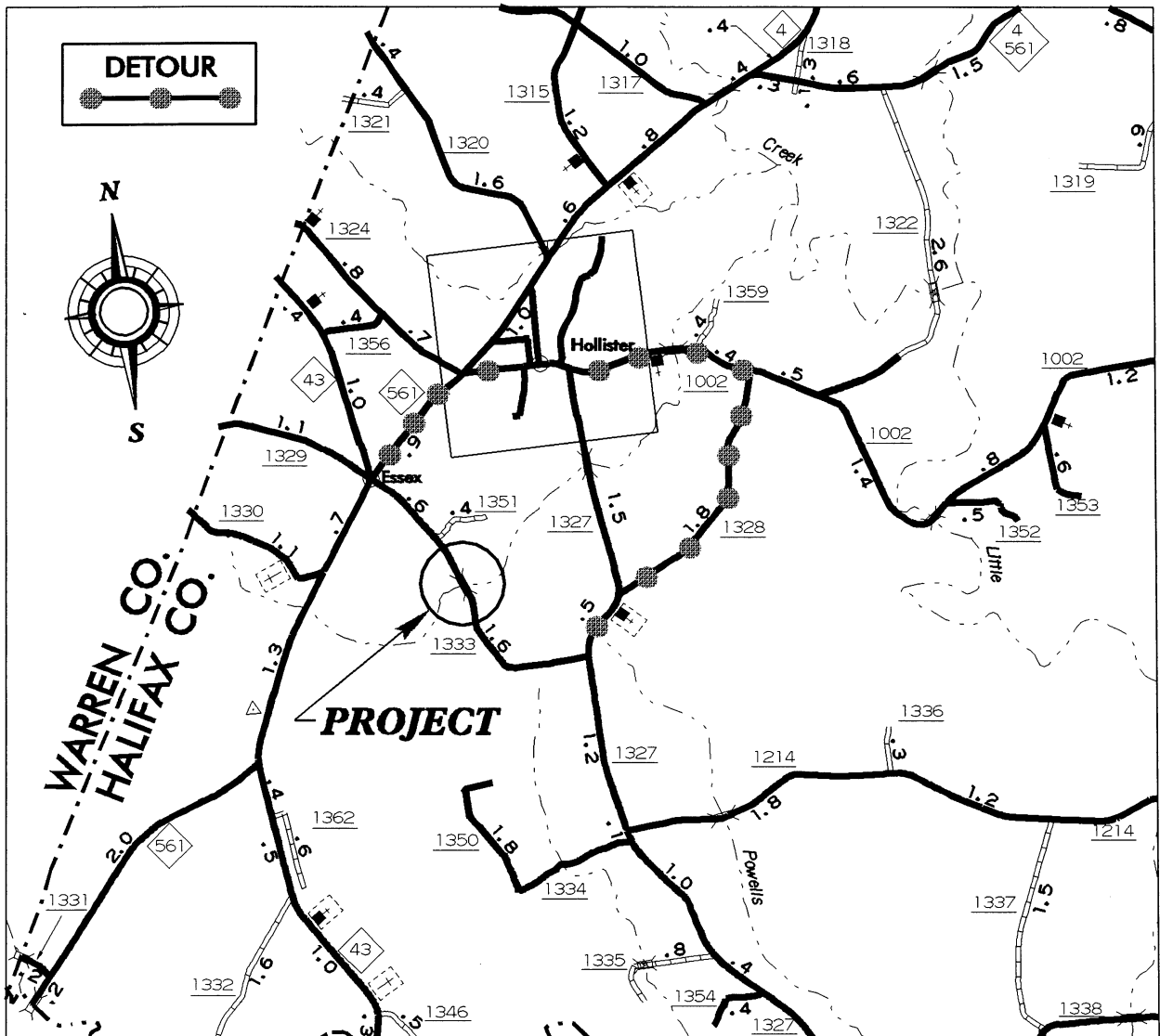
NOT TO SCALE

VICINITY  
MAP

**N.C.D.O.T.**  
**DIVISION OF HIGHWAYS**  
**HALIFAX COUNTY**

**PROPOSED REPLACEMENT OF  
BRIDGE NO. 145  
OVER HAWTREE CREEK  
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WBS NO. 32917.1.1 TIP NO. B-3182  
SHEET 1 OF 5 05-12-04



LOCATION  
MAP

**N.C.D.O.T.**  
**DIVISION OF HIGHWAYS**  
**HALIFAX COUNTY**

**PROPOSED REPLACEMENT OF**  
**BRIDGE NO. 145**  
**OVER HAWTREE CREEK**  
**ALONG SR 1333**

WBS NO. 32917.1.1 TIP NO. B-3182  
SHEET 2 OF 5 05-12-04

## BUFFER IMPACTS SUMMARY

SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	IMPACT						BUFFER REPLACEMENT			
			TYPE		ALLOWABLE		MITIGABLE		ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )		
			ROAD CROSSING	PARALLEL IMPACT	ZONE 1 (ft <sup>2</sup> )	ZONE 2 (ft <sup>2</sup> )	TOTAL (ft <sup>2</sup> )	ZONE 1 (ft <sup>2</sup> )			ZONE 2 (ft <sup>2</sup> )	
1	Bridge	15+07.5-L-	X		5798	2707	8505.0					
<b>TOTAL:</b>					5798.0	2707.0	8505.0	0.0	0.0	0.0		

N.C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 PROJ. 32917.1.1 (B-3182)  
 HALIFAX CO.  
 BRG. #145 OVER HAWTREE CR.  
 ON SR 1333  
 5/12/2004  
 SHEET 3 OF 5

PROPERTY OWNERS  
NAMES AND ADDRESSES

PARCEL NO.

NAMES

ADDRESSES

W. RUSSELL RICHARDSON

4209 CAMELOT DR.  
RALEIGH, NC 27609

LILLIE B. LYNCH

40063 HWY. 561  
HOLLISTER, NC 27844

B. D. LYNCH, HEIRS

RT. 1, BOX 324  
HOLLISTER, NC 27844

DONALD RAY SATTERWHITE

P.O. BOX 63  
HOLLISTER, NC 27844

**NCDOT**

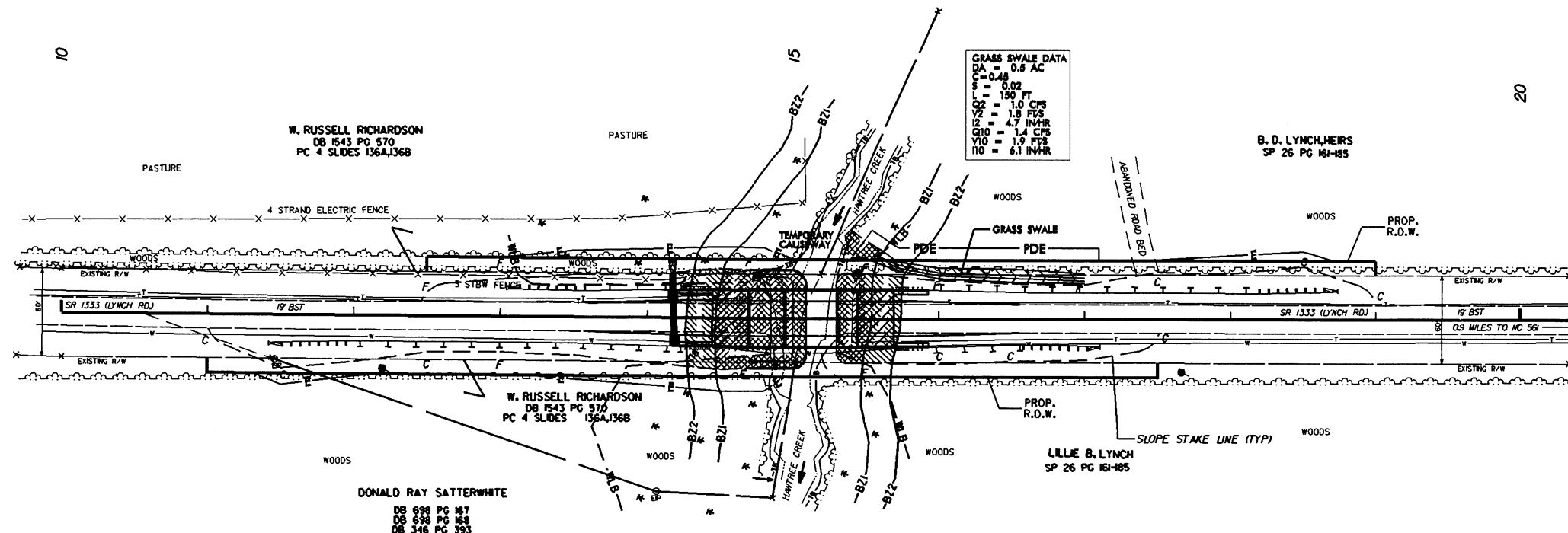
DIVISION OF HIGHWAYS

**PROPOSED REPLACEMENT OF  
BRIDGE NO. 145  
OVER HAWTREE CREEK  
ALONG SR 1333**

**WBS NO. 32917.1.1 TIP NO. B-3182**

8/17/99

PROJECT REFERENCE NO. B-3182	SHEET NO. 5 of 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

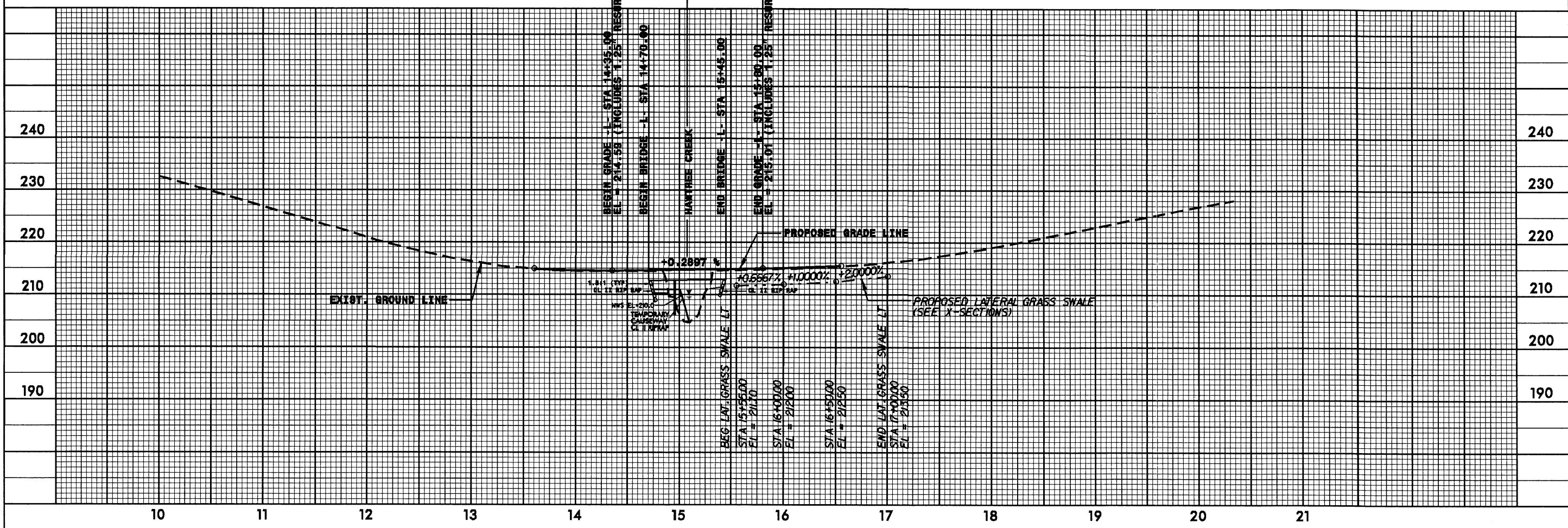


GRASS SWALE DATA

SA = 0.5 AC
TA = 0.45
LA = 0.02
SL = 150 FT
VS = 1.0 CFS
VS2 = 1.8 FVS
VS3 = 4.7 IN/HR
VS4 = 1.4 CFS
VS5 = 1.9 FVS
VS6 = 6.1 IN/HR

- ALLOWABLE IMPACTS ZONE 1 — BZ — RIPARIAN BUFFER ZONE
- ALLOWABLE IMPACTS ZONE 2 — BZ1 — RIPARIAN BUFFER ZONE 1  
30 ft (9.2m)
- MITIGABLE IMPACTS ZONE 1 — BZ2 — RIPARIAN BUFFER ZONE 2  
20 ft (6.1m)
- MITIGABLE IMPACTS ZONE 2

§ BRIDGE -L- STA 15+07.50  
 SKEW = 90°  
 EL = 214.80



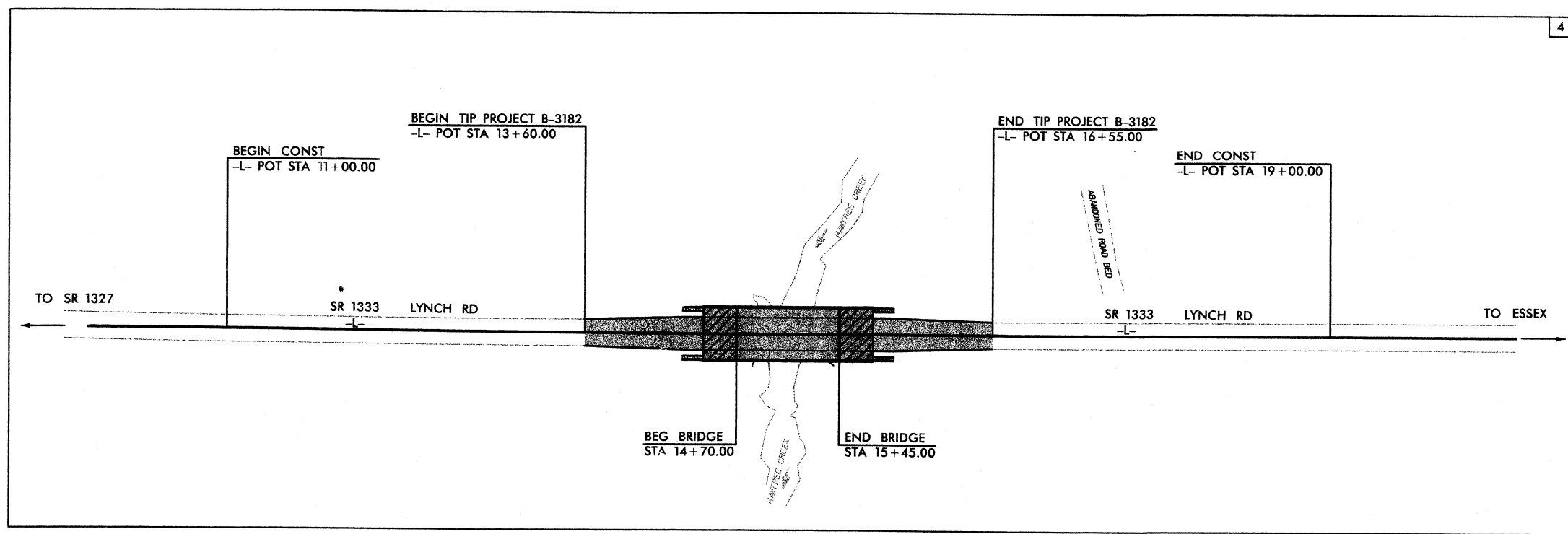
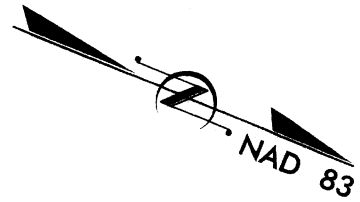
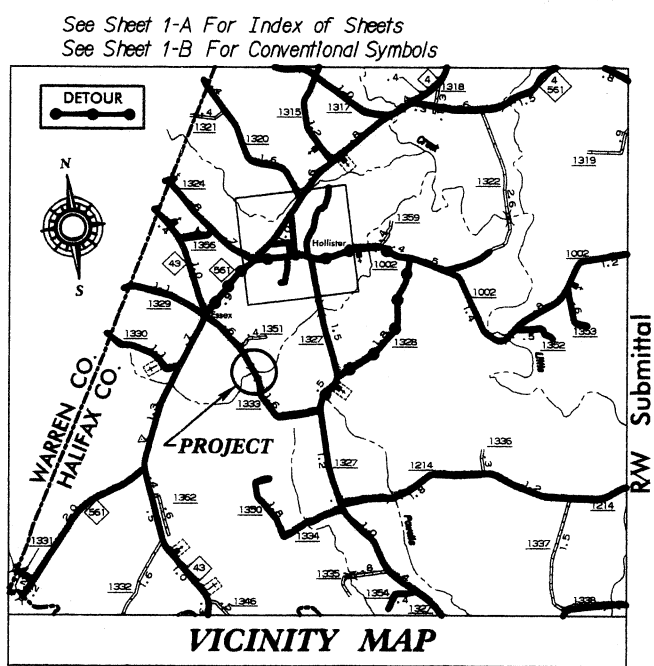
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3182	1	
WB NO.	F.A. PROJ. NO.	DESCRIPTION	
32917.1.1	BRZ-1333(4)	PE	
32917.2.1	BRZ-1333(4)	R/W, UTIL.	
32917.3.2	BRZ-1333(4)	CONST.	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**HALIFAX COUNTY**

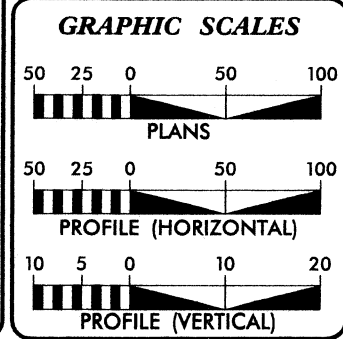
LOCATION: BRIDGE NO. 145 OVER HAWTREE CREEK ON SR 1333 (LYNCH ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE



- CLEARING FOR THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
- THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2004	=	1300
ADT 2024	=	2100
DHV	=	10%
D	=	60%
T	=	5% *
V	=	60 MPH

\* (2% TTST + 3% DUALS)  
FUNC CLASS = LOCAL

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-3182	=	0.042 MI.
LENGTH STRUCTURE TIP PROJECT B-3182	=	0.014 MI.
TOTAL LENGTH TIP PROJECT B-3182	=	0.056 MI.

**NCDOT CONTACT:** TERESA M. BRUTON, PE  
PROJECT ENGINEER-DESIGN SERVICES

Prepared in the Office of:

**BUCK**  
ENGINEERS & ARCHITECTS  
8000 Regency Parkway Suite 200  
Cary, North Carolina 27511  
Phone: 919-463-5488  
Fax: 919-463-5490

2002 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
December 20, 2001

**LETTING DATE:**  
January 18, 2005

C. HEATH WADSWORTH, PE  
PROJECT ENGINEER

GREGORY K. ATKINS  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

STATE DESIGN ENGINEER \_\_\_\_\_ P.E.

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED  
DIVISION ADMINISTRATOR \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT: C200671 PROJECT: B-3182  
 6/15/2004  
 P:\B3182\Roadway\Proj\B3182\_RDY\_TSH.DGN

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ IP
Property Corner	-----
Property Monument	□ EM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	-o-o-o-
Proposed Chain Link Fence	-□-□-□-
Proposed Barbed Wire Fence	-◇-◇-◇-
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing High Quality Wetland Boundary	-HQ WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-

### BUILDINGS AND OTHER CULTURE:

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

### HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
River Basin Buffer	-RBB-
Flow Arrow	←
Disappearing Stream	→
Spring	○
Swamp Marsh	⋈
Proposed Lateral, Tail, Head Ditch	-----
False Sump	◇

### RAILROADS:

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

### RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	-E-
Proposed Temporary Construction Easement	-E-
Proposed Temporary Drainage Easement	-TDE-
Proposed Permanent Drainage Easement	-PDE-
Proposed Permanent Utility Easement	-PUE-

### ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Wheel Chair Ramp	○ WCR
Curb Cut for Future Wheel Chair Ramp	○ CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊗

### VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----
Orchard	○
Vineyard	□ Vineyard

### EXISTING STRUCTURES:

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

### UTILITIES:

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

### TELEPHONE:

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

### WATER:

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

### TV:

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

### GAS:

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

### SANITARY SEWER:

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

### MISCELLANEOUS:

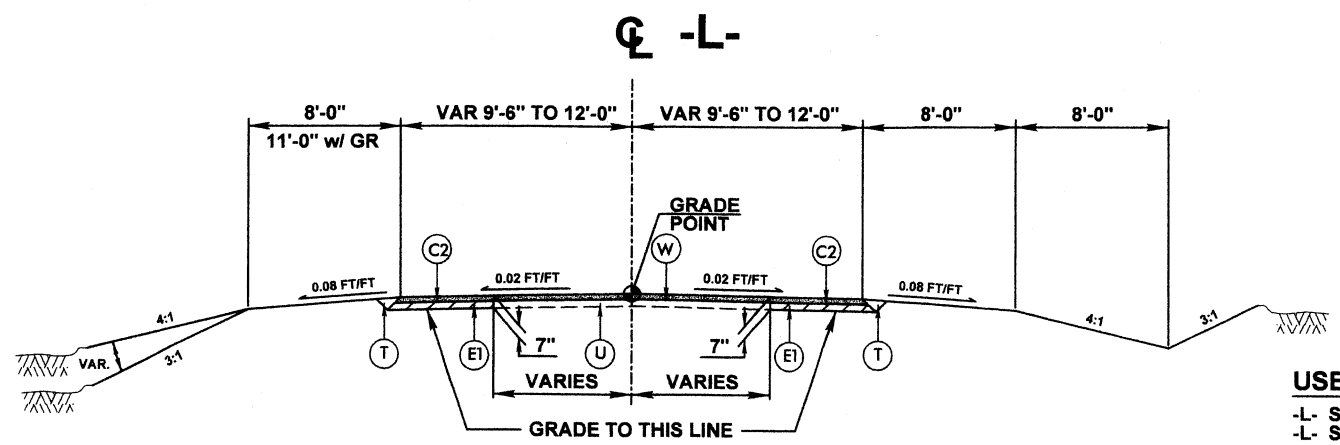
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

6/2/98  
6/15/2004  
B3182-Roadway-Project-B3182-RDY\_TYP.DGN

PROJECT REFERENCE NO. <b>B-3182</b>	SHEET NO. <b>2</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>BUCK</b> 6000 Regency Parkway Suite 200 Cary, North Carolina 27511 Phone: 919-463-5488 Fax: 919-463-6490	

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 140 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 140 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 1 1/2" IN DEPTH.
E1	PROP. APPROX. 4 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 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" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL ON THIS SHEET).

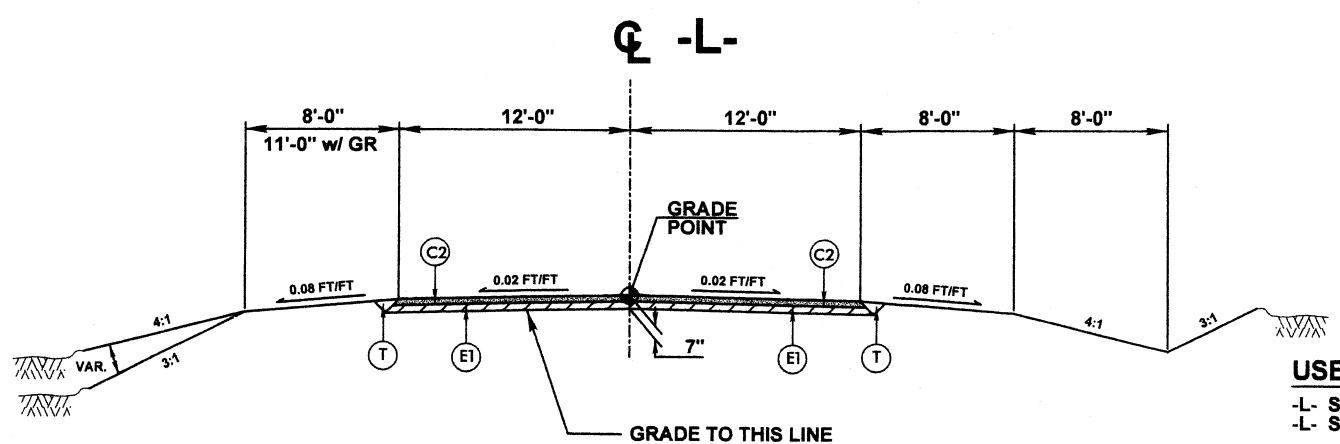
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



**TYPICAL SECTION NO. 1**

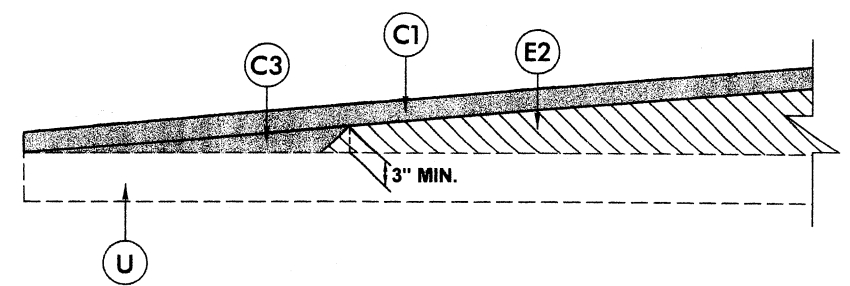
**USE TYPICAL SECTION NO. 1 FOR:**  
 -L- STA 13+60 TO STA 14+35  
 -L- STA 15+80 TO STA 16+55

**NOTE: SHOULDER WIDENING ONLY**  
 -L- STA 11+50 TO STA 13+60 RT  
 -L- STA 13+00 TO STA 13+60 LT  
 -L- STA 16+55 TO STA 17+00 RT  
 -L- STA 16+55 TO STA 18+50 LT

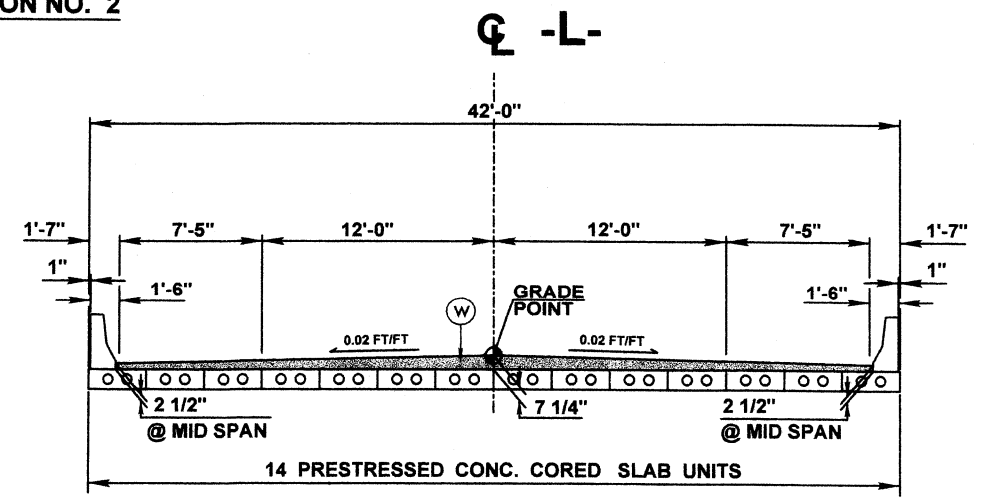


**TYPICAL SECTION NO. 2**

**USE TYPICAL SECTION NO. 2 FOR:**  
 -L- STA 14+35 TO STA 14+70 (BEGIN BRIDGE)  
 -L- STA 15+45 (END BRIDGE) TO STA 15+80



**WEDGING DETAIL FOR RESURFACING**  
 USE IN CONJUNCTION WITH  
 TYPICAL SECTION NO. 1



**BRIDGE TYPICAL**

-L- STA 14+70.00 TO STA 15+45.00  
 NOTE: IN ORDER TO MEET THE MIN. OF 3' PRESTRESSED CONC. CORED SLAB UNITS, THE REQUIRED RAIL OFFSET OF 8" WAS ADJUSTED.





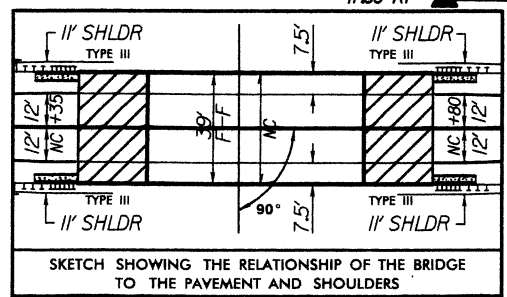
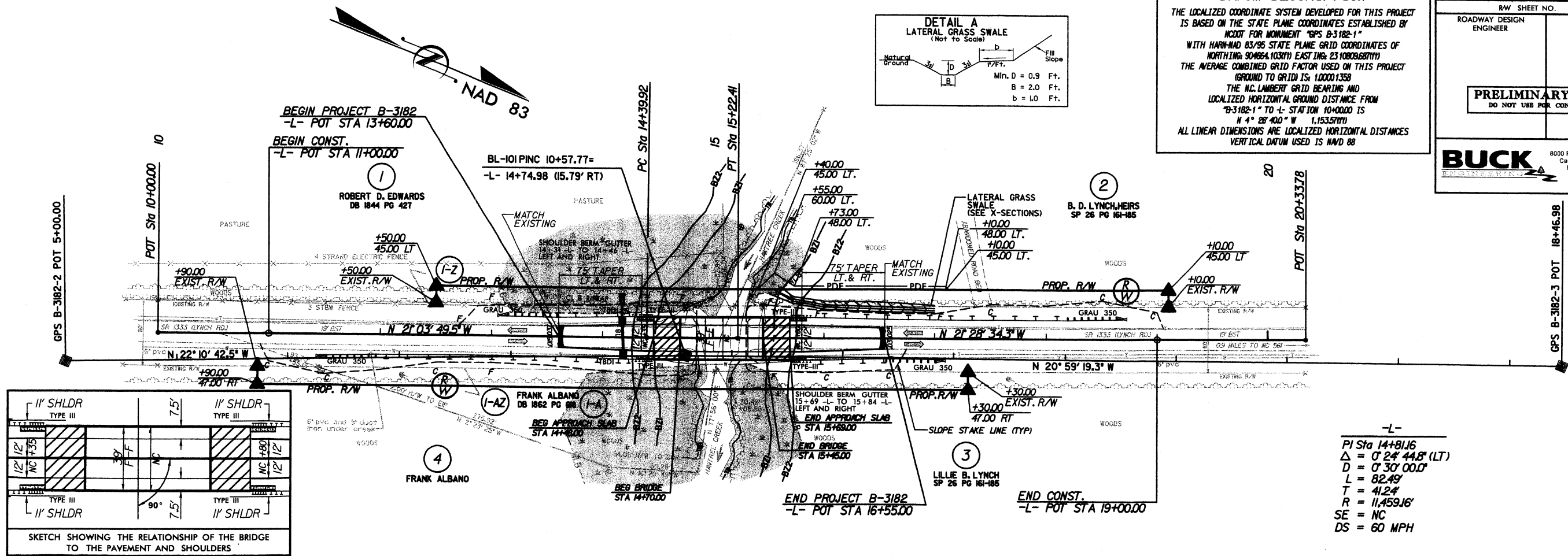
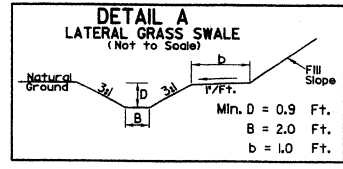
PROJECT REFERENCE NO.		SHEET NO.	
B-3182		4	
RAW SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		
<b>PRELIMINARY PLANS</b>			
DO NOT USE FOR CONSTRUCTION			
<b>BUCK</b>		8000 Regency Parkway Suite 200 Cary, North Carolina 27511 Phone: 919-483-5488 Fax: 919-483-5490	

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDDOT FOR MONUMENT "GPS B-3182-1" WITH HARN-NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 904664.103(11) EASTING: 2310802.687(11) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.00001358

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B-3182-1" TO L- STATION 10+00.00 IS N 4° 28' 40" W 1,153.57(11)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NVD 88



-L-

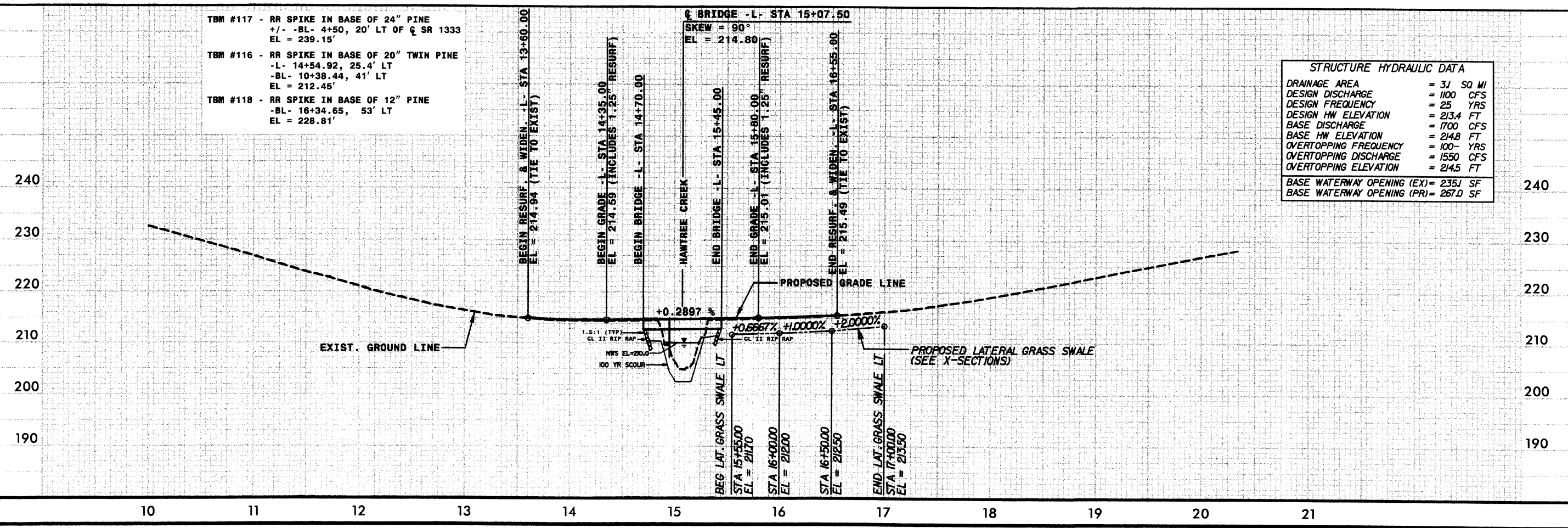
PI Sta 14+81.6  
 $\Delta = 0' 24' 44.8''$  (LT)  
 $D = 0' 30' 00.0''$   
 $L = 82.49'$   
 $T = 41.24'$   
 $R = 11,459.16'$   
 $SE = NC$   
 $DS = 60$  MPH

- TBM #117 - RR SPIKE IN BASE OF 24" PINE +/- -BL- 4+50, 20' LT OF C SR 1333 EL = 239.15'
- TBM #116 - RR SPIKE IN BASE OF 20" TWIN PINE -L- 14+54.92, 25.4' LT -BL- 10+38.44, 41' LT EL = 212.45'
- TBM #118 - RR SPIKE IN BASE OF 12" PINE -BL- 16+34.65, 53' LT EL = 228.81'

**STRUCTURE HYDRAULIC DATA**

DRAINAGE AREA	= 3J SQ MI
DESIGN DISCHARGE	= 1100 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 213.4 FT
BASE DISCHARGE	= 1700 CFS
BASE HW ELEVATION	= 214.8 FT
OVERTOPPING FREQUENCY	= 100- YRS
OVERTOPPING DISCHARGE	= 1550 CFS
OVERTOPPING ELEVATION	= 214.5 FT

BASE WATERWAY OPENING (EX) = 235J SF  
 BASE WATERWAY OPENING (PR) = 267.0 SF



# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

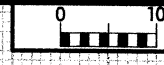
## CROSS-SECTION SUMMARY

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

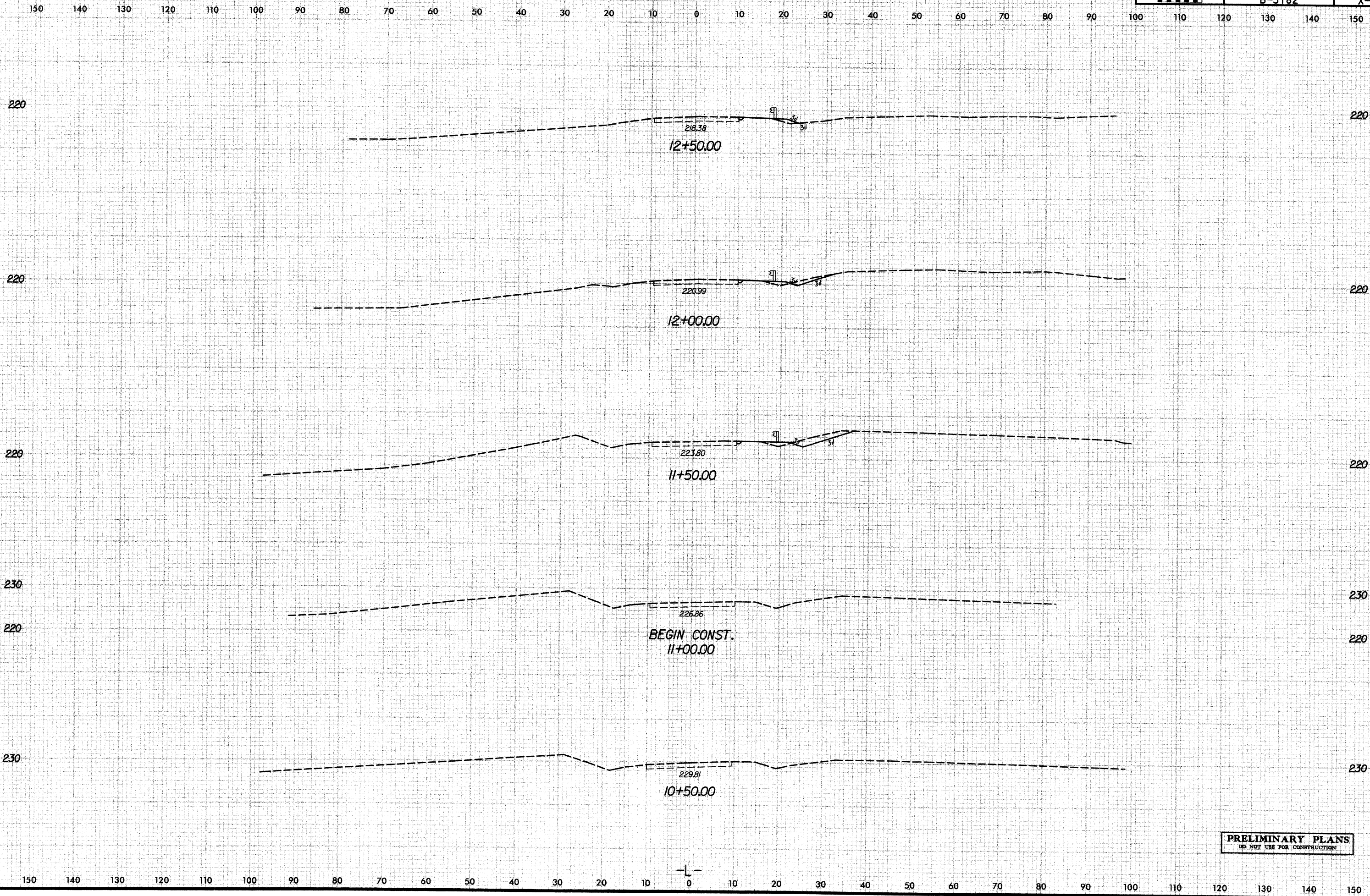
Station	Uncl. Exc.	Embt										
L	(cu. yd.)	(cu. yd.)										
11+00.00	0	0										
11+50.00	15	3										
12+00.00	20	6										
12+50.00	6	5										
13+00.00	2	12										
13+50.00	2	33										
14+00.00	2	59										
14+50.00	4	87										
14+70.00	1	21										
Station	Uncl. Exc.	Embt										
L	(cu. yd.)	(cu. yd.)										
15+45.00	0	0										
15+50.00	0	4										
16+00.00	8	56										
16+50.00	8	20										
17+00.00	2	15										
17+50.00	7	17										
18+00.00	12	20										
18+50.00	23	21										
19+00.00	18	11										
Station	Ditch. Exc.	Embt										
L	(cu. yd.)	(cu. yd.)										
16+00.00	0	0										
16+50.00	10	0										
17+00.00	11	0										

**Approximate quantities only. Unclassified excavation, borrow excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the lump sum price for "Grading".**

6/23/99



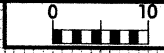
PROJ. REFERENCE NO. B-3182 SHEET NO. X-2



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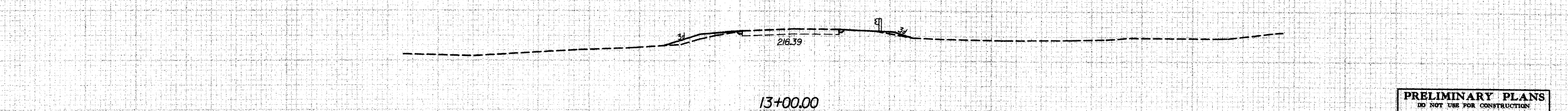
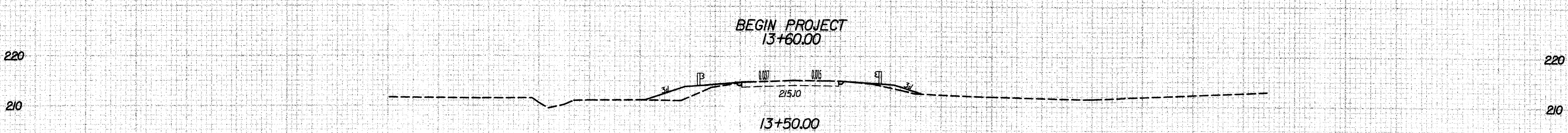
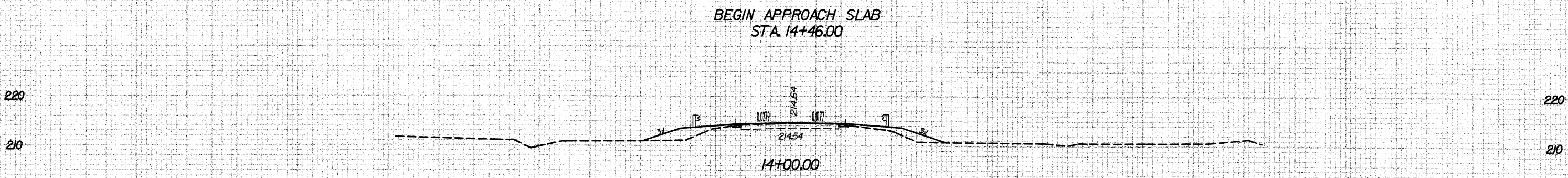
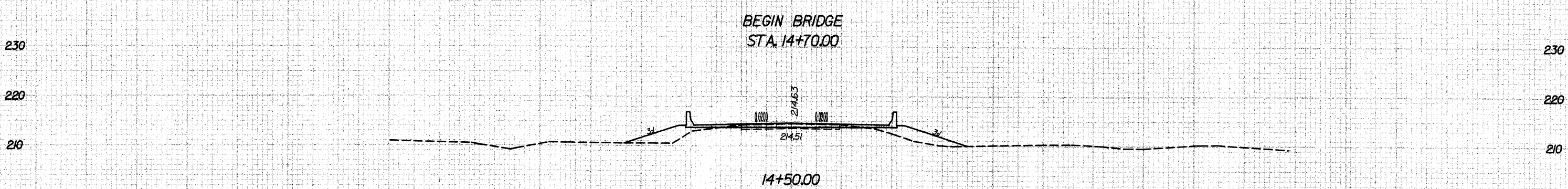
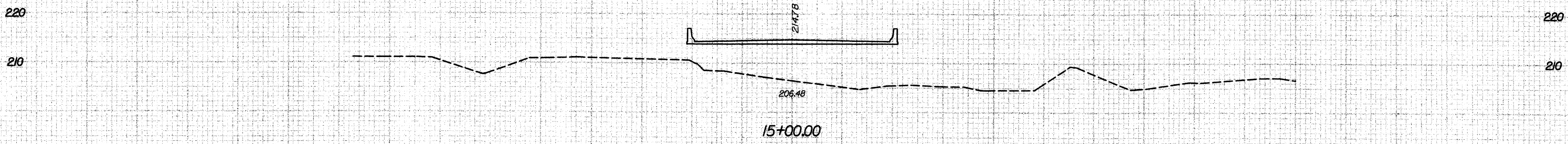
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

8/23/99



PROJ. REFERENCE NO.	SHEET NO.
B-3182	X-3

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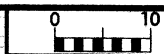
-L-

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

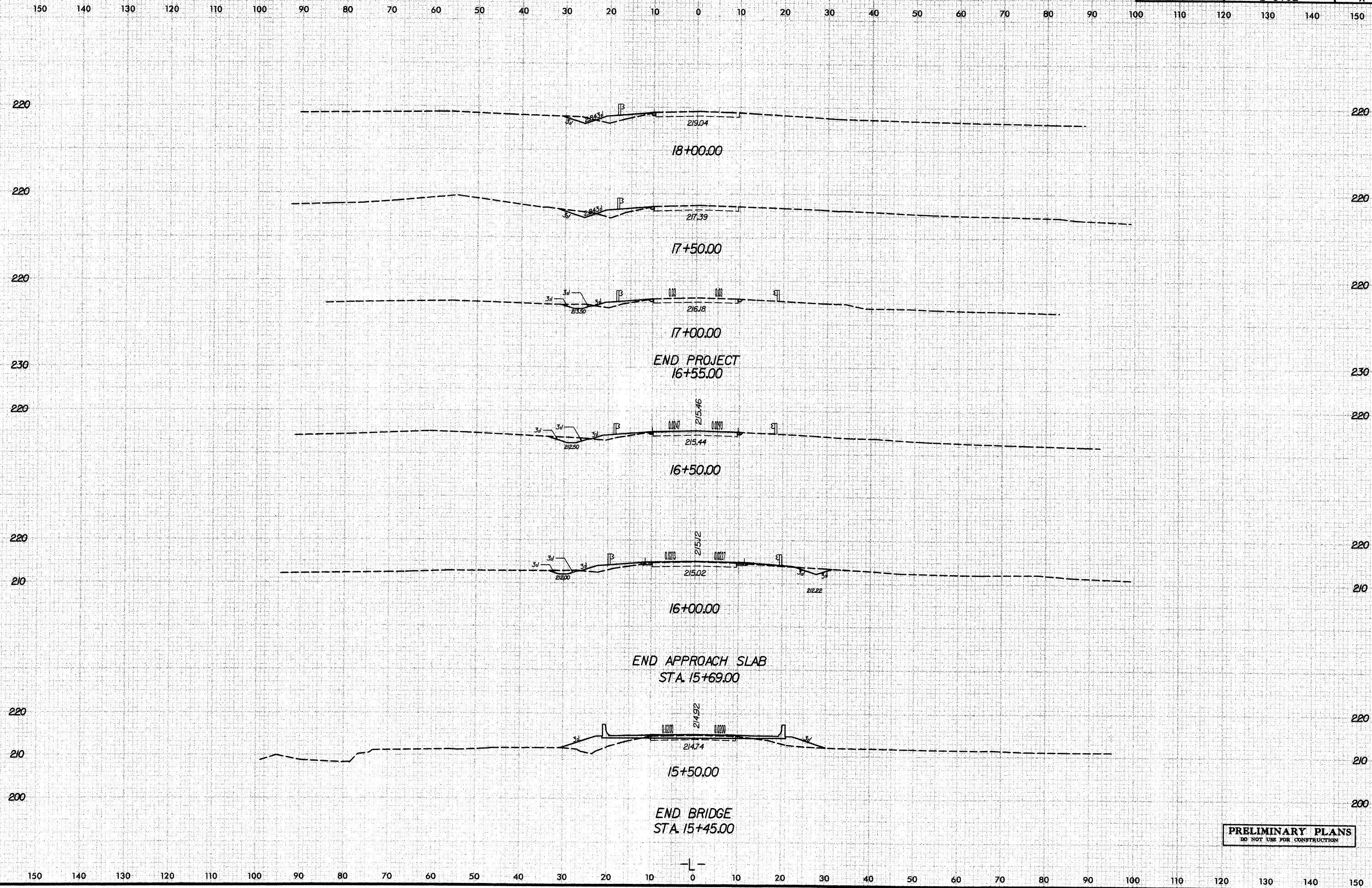
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8/23/99



PROJ. REFERENCE NO.	SHEET NO.
B-3182	X-4

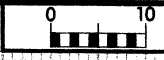


PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

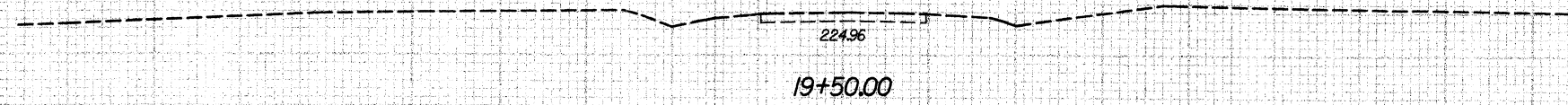
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8/23/99

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



PROJ. REFERENCE NO.  
B-3182  
SHEET NO.  
X-5

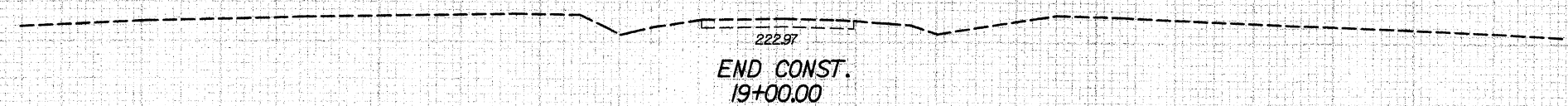


19+50.00

224.96

220

220

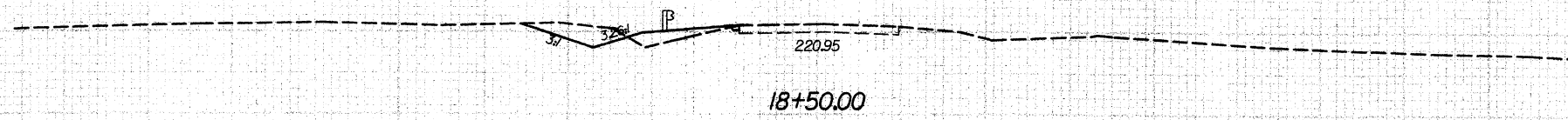


END CONST.  
19+00.00

222.97

220

220



18+50.00

220.95

-L-

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6/15/2004  
F:\B3182\Roadway\Xsec\B3182\_RDY\_xpl.dgn  
6:14:13 PM

## CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No. B-3182  
State Project No. 8.2301001  
Federal Project No. BRZ-1333 (4)

A. Project Description:

This project proposes to replace Bridge No. 145 on SR 1333 over Hawthorne Creek in Halifax County. Bridge No. 145 will be replaced with a two-barrel [each 12 feet (3.6 m) by 9 feet (2.7 m)] reinforced concrete box culvert. The proposed roadway cross section will include two 11-foot (3.3-m) lanes with 6-foot (1.8-m) grassed shoulders. Shoulders will be 9 feet (2.7 m) where guardrail is installed. Approach work will consist of resurfacing and tying in to the existing roadway. The total project length is approximately 145 feet (44.2 m). Traffic will be detoured along surrounding roads during construction.

B. Purpose and Need:

Bridge No. 145 has a sufficiency rating of 44.0 out of a possible 100. The deck and substructure of the bridge are in poor condition. Therefore, Bridge No. 145 needs to be replaced.

C. Proposed Improvements:

The following Type II improvements which apply to the project are circled:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
  - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
  - b. Widening roadway and shoulders without adding through lanes
  - c. Modernizing gore treatments
  - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
  - e. Adding shoulder drains
  - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
  - g. Providing driveway pipes
  - h. Performing minor bridge widening (less than one through lane)
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
  - a. Installing ramp metering devices
  - b. Installing lights
  - c. Adding or upgrading guardrail
  - d. Installing safety barriers including Jersey type barriers and pier protection
  - e. Installing or replacing impact attenuators
  - f. Upgrading medians including adding or upgrading median barriers



- g. Improving intersections including relocation and/or realignment
  - h. Making minor roadway realignment
  - i. Channelizing traffic
  - j. Performing clear zone safety improvements including removing hazards and flattening slopes
  - k. Implementing traffic aid systems, signals, and motorist aid
  - l. Installing bridge safety hardware including bridge rail retrofit
- ③ Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
- a. Rehabilitating, reconstructing, or replacing bridge approach slabs
  - b. Rehabilitating or replacing bridge decks
  - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
  - ④ d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
  5. Construction of new truck weigh stations or rest areas.
  6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
  7. Approvals for changes in access control.
  8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
  9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
  10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
  11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
  12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may

be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.

D. Special Project Information:

Estimated Costs:

Total Construction	\$ 225,000
Right of Way	\$ 40,000
<b>Total</b>	<b>\$ 265,000</b>

Estimated Traffic:

Current	-	1200 vpd
Year 2025	-	2100 vpd
TTST	-	2%
Dual	-	3%

Proposed Typical Cross Section:

The proposed approach roadway cross section will include two 11-foot (3.3-m) lanes with 6-foot (1.8-m) grassed shoulders. Where guardrail is installed, shoulders will be 9 feet (2.7 m) wide.

Design Speed:

60 mph (100 km/h)

Functional Classification:

Rural Local Route

Division Office Comments:

The Division Four-Construction Office concurs with the recommendation of detouring traffic along surrounding roads during construction.

Bridge Demolition:

Bridge No. 145 has an asphalt overlay surface on reinforced concrete floor on timber joists. The bridge has reinforced concrete cap and timber pile bents and end bents. The bridge is 47 feet (14.3 m) long and 25 feet (7.6 m) wide. The creek is approximately 45 feet (13.7 m) wide at the bridge crossing. There is the potential for parts of all three spans of the bridge deck to be dropped into the water during removal of this bridge. The resulting temporary fill associated with the bridge into Waters of the United States is approximately 24 cubic yards of material. All temporary fill material will be removed from the creek as soon as possible as part of the bridge removal process.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u>X</u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input checked="" type="checkbox"/>	_____
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u>X</u>
(4) If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated?	<u>X</u>	<input type="checkbox"/>
(5) Will the project require the use of U. S. Forest Service lands?	<input type="checkbox"/>	<u>X</u>
(6) Will the quality of adjacent water resources be adversely impacted by proposed construction activities?	<input type="checkbox"/>	<u>X</u>
(7) Does the project involve waters classified as Outstanding Water Resources (OWR) and/or High Quality Waters (HQW)?	<input type="checkbox"/>	<u>X</u>
(8) Will the project require fill in waters of the United States in any of the designated mountain trout counties?	<input type="checkbox"/>	<u>X</u>
(9) Does the project involve any known underground storage tanks (UST's) or hazardous materials sites?	<input type="checkbox"/>	<u>X</u>
<u>PERMITS AND COORDINATION</u>	<u>YES</u>	<u>NO</u>
(10) If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)?	<input type="checkbox"/>	<u>X</u>
(11) Does the project involve Coastal Barrier Resources Act resources?	<input type="checkbox"/>	<u>X</u>
(12) Will a U. S. Coast Guard permit be required?	<input type="checkbox"/>	<u>X</u>

(13)	Will the project result in the modification of any existing regulatory floodway?	<input type="checkbox"/>	<u>  X  </u>
(14)	Will the project require any stream relocations or channel changes?	<input type="checkbox"/>	<u>  X  </u>
<u>SOCIAL, ECONOMIC, AND CULTURAL RESOURCES</u>		<u>  YES  </u>	<u>  NO  </u>
(15)	Will the project induce substantial impacts to planned growth or land use for the area?	<input type="checkbox"/>	<u>  X  </u>
(16)	Will the project require the relocation of any family or business?	<input type="checkbox"/>	<u>  X  </u>
(17)	Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population?	<input type="checkbox"/>	<u>  X  </u>
(18)	If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?	<u>  X  </u>	<input type="checkbox"/>
(19)	Will the project involve any changes in access control?	<input type="checkbox"/>	<u>  X  </u>
(20)	Will the project substantially alter the usefulness and/or land use of adjacent property?	<input type="checkbox"/>	<u>  X  </u>
(21)	Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<u>  X  </u>
(22)	Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?	<u>  X  </u>	<input type="checkbox"/>
(23)	Is the project anticipated to cause an increase in traffic volumes?	<input type="checkbox"/>	<u>  X  </u>
(24)	Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?	<u>  X  </u>	<input type="checkbox"/>
(25)	If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility?	<u>  X  </u>	<input type="checkbox"/>
(26)	Is there substantial controversy on social, economic, or environmental grounds concerning the project?	<input type="checkbox"/>	<u>  X  </u>

- |      |   |                          |                          |
|------|---|--------------------------|--------------------------|
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?   | <u>  X  </u>             | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?  | <input type="checkbox"/> | <u>  X  </u>             |
| (29) | Will the project affect any archaeological remains, which are important to history or pre-history?  | <input type="checkbox"/> | <u>  X  </u>             |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? | <input type="checkbox"/> | <u>  X  </u>             |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended?  | <input type="checkbox"/> | <u>  X  </u>             |
| (32) | Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the Natural System of Wild and Scenic Rivers?  | <input type="checkbox"/> | <u>  X  </u>             |

F. Additional Documentation Required for Unfavorable Responses in Part E  
(Discussion regarding all unfavorable responses in Part E should be provided below. Additional supporting documentation may be attached, as necessary.)

**Item 2** – The federally protected species Tar spiny mussel (*Elliptio steinstansana*) is known to occur in Little Fishing Creek in the vicinity of the Hawthorne Creek confluence. Therefore, mussel surveys were conducted for both the Tar spiny mussel and the Dwarf wedge mussel (*Alasmidonta heterodon*), both federally protected species listed by the U. S. Fish and Wildlife Service for Halifax County.

Mussel surveys were conducted on June 28, 2001 by NCDOT biologists Logan Williams and Jeff Burleson using SCUBA for a distance of approximately 100 feet upstream and downstream of the bridge site. Neither the Tar spiny mussel nor the dwarf wedge mussel was found at the bridge site.

The U. S. Fish and Wildlife Service (USFWS) was consulted in regard to the effect of project construction on the Tar Spiny mussel and the dwarf wedge mussel (see attachment). The USFWS concurred in the biological conclusion that project construction is "Not Likely to Adversely Affect" the Tar Spiny mussel and the dwarf wedge mussel if the following environmental commitments are implemented:

- 1) A moratorium on clearing and grubbing will be implemented so that no work will occur between November 15 and April 1.
- 2) Weep holes will be configured so that run-off does not fall into the stream.

- 3) The NCDOT resident engineer will be responsible for providing a written invitation to the North Carolina Wildlife Resources Commission, Nongame and Protected Species Branch and the U. S. Fish and Wildlife Service to the pre-construction meeting for this project.
- 4) The erosion control plans for Protected Aquatic Species will be used. These plans include the following requirements:
  - Sediment and Erosion controls must be in place prior to land clearing activities. No sediment from either bridge demolition or construction activities will be allowed to enter the flowing stream.
  - “Environmentally Sensitive Areas” will be defined on the plans, which consist of a 50-foot buffer zone on both sides of the stream.
  - The Contractor may perform clearing operations, but no grubbing operations in the “Environmentally Sensitive Areas”, until immediately prior to beginning grading operations.
  - Once grading operations begin in the “Environmentally Sensitive Areas”, as specified on the plans, work will progress in a continuous manner until complete.
  - Seeding and mulching will be performed immediately following final grade establishment.
  - Stage seeding will be performed on cut and fill slopes as a grading process.

G. CE Approval

TIP Project No. B-3182  
State Project No. 8.2301001  
Federal-Aid Project No. BRZ-1333(4)

Project Description:

This project proposes to replace Bridge No. 145 on SR 1333 over Hawthorne Creek in Halifax County. Bridge No. 145 will be replaced with a two-barrel [each 12 feet (3.6 m) by 9 feet (2.7 m)] reinforced concrete box culvert. The proposed cross section will include two 11-foot (3.3-m) lanes with 6-foot (1.8-m) grassed shoulders. Shoulders will be 9 feet (2.7 m) where guardrail is installed. Approach work will consist of resurfacing and tying in to the existing roadway. The total project length is approximately 145 feet (44.2 m). Traffic will be detoured along surrounding roads during construction.

Categorical Exclusion Action Classification:

       TYPE II(A)  
  X   TYPE II(B)

Approved:

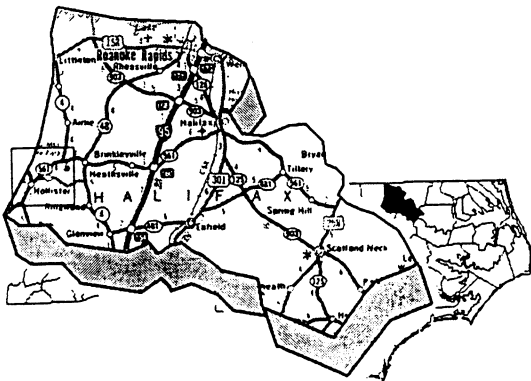
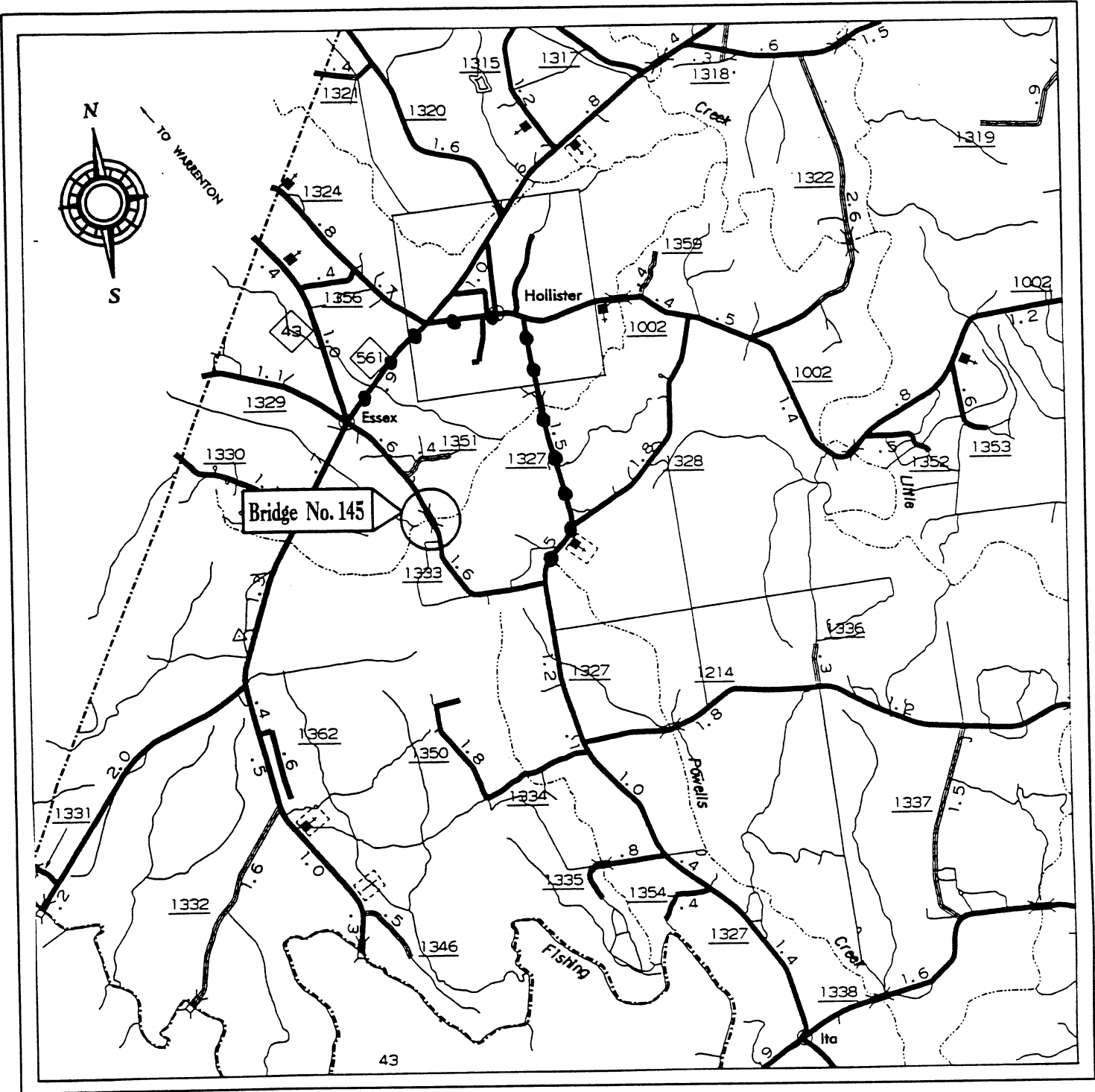
10-2-01  
Date Lubin V. Prevatt  
Lubin V. Prevatt, P. E., Assistant Manager  
Project Development & Environmental Analysis Branch

10-2-01  
Date William T. Goodwin, Jr.  
William T. Goodwin, Jr., P. E., Unit Head  
Project Development & Environmental Analysis Branch

10-1-01  
Date Karen T. Orthner  
Karen Orthner, Project Development Engineer  
Project Development & Environmental Analysis Branch

For Type II(B) projects only:

10/3/01  
Date for Ronald Lucas  
Division Administrator  
Federal Highway Administration



Studied Detour Route — ●●●●●●●●●●

	<p><i>North Carolina Department of Transportation Division of Highways Project Development &amp; Environmental Analysis Branch</i></p>
<p align="center"><b>Halifax County</b> Replace Bridge No. 145 on SR 1333 Over Hawthorne Creek B-3182</p>	
<p>SCALE: 1 in = 1 mi</p>	<p align="right">Figure 1</p>



100duu



## North Carolina Department of Cultural Resources

James B. Hunt Jr., Governor  
Betty Ray McCain, Secretary

Division of Archives and History  
Jeffrey J. Crow, Director

January 8, 1999

Nicholas L. Graf  
Division Administrator  
Federal Highway Administration  
Department of Transportation  
310 New Bern Avenue  
Raleigh, N.C. 27601-1442



Re: Bridge 145 on SR 1333 over creek, Halifax  
County, B-3182, ER 99-7700

Dear Mr. Graf:

We regret staff was unable to attend the scoping meeting for the above project on December 8, 1998. However, Debbie Bevin met with John Williams of the North Carolina Department of Transportation (NCDOT) on January 4, 1999, to discuss the project and view the project photographs and aerial.

Based upon our review of the photographs and the information discussed at the meeting, we offer our preliminary comments regarding this project.

In terms of historic architectural resources, we are aware of no historic structures located within the area of potential effect. We recommend that no historic architectural survey be conducted for this project.

There are no known archaeological sites within the proposed project area. Based on our present knowledge of the area, it is unlikely that any archaeological resources which may be eligible for inclusion in the National Register of Historic Places will be affected by the project construction. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

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 of 1966 and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800.



Nicholas L. Graf  
January 8, 1999, Page 2

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763.

Sincerely,

A handwritten signature in cursive script that reads "David Brook/w".

David Brook  
Deputy State Historic Preservation Officer

DB:slw

cc: ✓ W. D. Gilmore  
B. Church  
T. Padgett



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

May 14, 2001

Memorandum To: Karen Orthner, Project Manager  
Bridge Replacement Unit

From: <sup>fw</sup> Logan Williams, Environmental Specialist

Subject: Replacement of Bridge Number 145 over Hawthorne Creek on SR 1333, TIP B-3182, F.A. Project BRZ-1333(4), State project 8.2301001, Halifax County.

The following memo addresses the dwarf wedge mussel (*Alasmodonta heterodon*) and Tar spiny mussel (*Elliptio steinstansana*), two federally protected species listed by the U.S. Fish and Wildlife Service for Halifax County. A mussel survey was conducted for the proposed bridge replacement on June 28, 2001 by NCDOT biologists Logan Williams and Jeff Burleson.

Mussel surveys were conducted at the bridge site and for a distance of approximately 100 feet upstream and downstream using SCUBA for approximately one man hour. Water depth at the bridge site averaged around 6 feet and visibility was poor. Habitat in the vicinity of the bridge is somewhat degraded due to sediment loads and debris. No mussels were found during the survey. Neither the dwarf wedge mussel nor the Tar spiny mussel was not found.

**Biological Conclusion: Not Likely to Adversely Affect**

Given the survey results it is apparent that neither the dwarf wedge mussel nor the Tar spiny mussel occur in the project footprint. However, the Tar spiny mussel has been recorded in Little Fishing Creek which is approximately 2 miles downstream from the proposed bridge replacement. A list of Environmental Commitments proposed by NCDOT for the construction of this project is listed below. Habitat at the bridge site is not present, the following conditions should be adhered to in order to protect downstream populations of Tar spiny mussel in Little Fishing Creek. Given the survey results and it can be concluded that project construction is "Not Likely to Adversely Affect" these species.

1. There will be a moratorium on clearing and grubbing- no work between November 15 and April 1.
2. Weep holes shall be configured so that the run-off does not fall into the stream.
3. NCDOT resident engineer is responsible for providing a written invitation to the North Carolina Wildlife Resources Commission, Nongame and Protected Species Branch, and the US Fish and Wildlife Service prior to construction.
4. The erosion control plans for Protected Aquatic Species must be used. These plans include the following requirements:
  - Sediment and Erosion controls must be in place prior to land clearing activities. No sediment from either bridge demolition or construction activities shall be allowed to enter the flowing stream.
  - "Environmentally Sensitive Areas" will be defined on the plans which consist of a 50 ft. buffer zone on both sides of the stream.
  - The Contractor may perform clearing operations, but not grubbing operations in the "Environmentally Sensitive Areas", until immediately prior to beginning grading operations.
  - Once grading operations begin in "Environmentally Sensitive Areas", as specified on the plans, work will progress in a continuous manner until complete.
  - Seeding and mulching will be performed immediately following final grade establishment.
  - Stage seeding will be performed on cut and fill slopes as grading progresses.

CC. Hal Bain, Unit Head  
File: B-3182

McCartney



## United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Raleigh Field Office  
Post Office Box 33725  
Raleigh, North Carolina 27696-3725

September 5, 2001

Mr. William D. Gilmore, P.E., Manager  
NCDOT  
Project Development and Environmental Analysis Branch  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Mr. Gilmore:

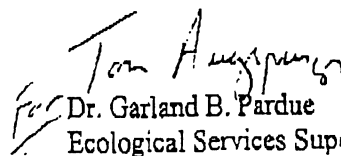
Thank you for your letter of August 10, 2001, requesting comments or concurrence from the U.S. Fish and Wildlife Service (Service) on the biological assessment for the dwarf wedge mussel (*Alasmidonta heterodon*) and the tar spiny mussel (*Elliptio steinstansana*) in the vicinity of Bridge No. 145 on SR 1333 over Hawthorne Creek, Halifax County, North Carolina (TIP No. B-3182). This report is provided in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667d) and section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543).

The Service considers this report to be an accurate representation of the survey and results for these species, and their habitat. Based on the information provided, the Service concurs that this project, implemented as described, is "Not Likely to Adversely Affect" either the dwarf wedge mussel or the tar spiny mussel, provided you strictly adhere to all project commitments outlined in the May 14, 2001, NCDOT memorandum, attached to your letter.

Note, however, that this concurrence applies only to the referenced species up to the date of this report. Should additional information become available relative to the referenced species, additional surveys and/or modification of the agreed to commitments may be required.

The Service appreciates the opportunity to comment on this document. Please advise us of any changes in project plans. If you have any questions regarding these comments, contact Tom McCartney at (919) 856-4520, Ext. 32.

Sincerely,

  
for Dr. Garland B. Pardue  
Ecological Services Supervisor

cc: COE, Raleigh, NC (Eric Alsmeyer)

FWS/R4:TMcCartney:TM:09/05/01:919/856-4520 extension 32:\B-3182.csp

# PROJECT COMMITMENTS

Replacement of Bridge No. 145  
On SR 1333 over a creek  
Halifax County  
Federal-Aid No. BRZ-1333 (4)  
State Project No. 8.2301001  
T.I.P. No. B-3182

## Commitments Developed Through Project Development and Design

### *Hydraulics Unit, Roadside Environmental Unit, Division Four Construction Office, Structure Design Unit*

NCDOT will adhere to the Best Management Practices (BMPs) for "Bridge Demolition and Removal" during the removal of Bridge No. 145.

### *Roadway Design Unit, Hydraulics Unit, Roadside Environmental Unit, Division Four Construction Unit*

The U. S. Fish and Wildlife Service (USFWS) was consulted in regard to the effect of project construction on two federally protected species, the Tar Spiny mussel and the dwarf wedge mussel. The following commitments will be implemented by NCDOT in concurrence with the USFWS:

- 1) A moratorium on clearing and grubbing will be implemented so that no work will occur between November 15 and April 1.
- 2) Weep holes will be configured so that run-off does not fall into the stream.
- 3) The NCDOT resident engineer will be responsible for providing a written invitation to the North Carolina Wildlife Resources Commission, Nongame and Protected Species Branch and the U. S. Fish and Wildlife Service to the pre-construction meeting for this project.
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  - Sediment and Erosion controls must be in place prior to land clearing activities. No sediment from either bridge demolition or construction activities will be allowed to enter the flowing stream.
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  - Once grading operations begin in the "Environmentally Sensitive Areas", as specified on the plans, work will progress in a continuous manner until complete.
  - Seeding and mulching will be performed immediately following final grade establishment.
  - Stage seeding will be performed on cut and fill slopes as a grading process.

North Carolina Department of Transportation  
PROJECT ENVIRONMENTAL CONSULTATION FORM  
I. D. No. B-3182

I. GENERAL INFORMATION

- a. Consultation Phase: Construction Consultation
- b. Project Description: Replacement of Bridge No. 145 over Creek on SR 1333 in Halifax County
- c. State Project: 8.2301001  
Federal Project: BRZ-1333(4)
- d. Document Type: Programmatic Categorical Exclusion 10-3-01

II. ACTION PROPOSED IN CATEGORICAL EXCLUSION

This project proposes to replace Bridge No. 145 with a double barreled reinforced concrete box culvert at approximately the same location as the existing bridge.

III. CONCLUSIONS

The Programmatic Categorical Exclusion has been reevaluated as required by 23 CFR 771. It was determined that the current proposed action is essentially the same as the action proposed in the previous documents. Proposed changes, if any, are noted below in Section IV. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the Categorical Exclusion unless noted otherwise herein. Therefore, the previous Administration Action remains valid.

IV. CHANGES IN PROPOSED ACTION AND ENVIRONMENTAL CONSEQUENCES

The new structure will be a bridge instead of a culvert. The change in design is to avoid moving a water line. In addition, the rock line was too shallow to allow the construction of a culvert.

The Threatened and Endangered Species list has not changed according Christopher Underwood, Environmental Specialist. A mussel survey was conducted on August 26, 2003 by John M. Alderman and Logan Williams. The biological conclusion was no effect for federally listed species.

## V. LIST OF ENVIRONMENTAL COMMITMENTS

All standard procedures and measures will be implemented to avoid or minimize environmental impacts. All practical Best Management Practices (BMP's) will be included and properly maintained during project construction.

In accordance with the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344), a permit will be required from the Corps of Engineers for the discharge of dredged or fill material into "Waters of the United States." A Corps of Engineers Nationwide Permit # 23 will likely be applicable for this project

North Carolina Division of Environmental Management (DEM) Section 401 Water Quality General Certification will be obtained prior to issue of the Army Corps of Engineers Nationwide Permit # 23.

The U. S. Fish and Wildlife Service (USFWS) was consulted in regard to the effect of project construction on two federally protected species, the Tar Spiny mussel and the dwarf wedge mussel. The following commitments will be implemented by NCDOT in concurrence with the USFWS:

- 1) A moratorium on clearing and grubbing will be implemented so that no work will occur between November 15 and April 1.
- 2) Weep holes will be configured so that run-off does not fall into the stream.
- 3) The NCDOT resident engineer will be responsible for providing a written invitation to the North Carolina Wildlife Resources Commission, Nongame and Protected Species Branch and the U. S. Fish and Wildlife Service to the pre-construction meeting for this project.
- 4) The erosion control plans for Protected Aquatic Species will be used. These plans include the following requirements:
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  - Once grading operations begin in the "Environmentally Sensitive Areas", as specified on the plans, work will progress in a continuous manner until complete.
  - Seeding and mulching will be performed immediately following final grade establishment. Stage seeding will be performed on cut and fill slopes as a grading process.



VI. COORDINATION

Project Development and Environmental Analysis Branch personnel have discussed current project proposals with others as follows:

Design Engineer: K. Zak Hamidi

6-9-04

Date

Permits Section: Chris Underwood

6-9-04

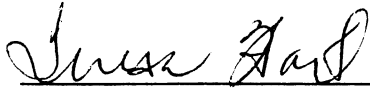
Date

VII. N. C. D. O. T. CONCURRENCE

  
\_\_\_\_\_  
Project Development Engineer

7-2-04

Date

  
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Assistant Manager of Project Development and  
Environmental Analysis Branch

7-2-04

Date

# PROJECT COMMITMENTS

**Replacement of Bridge No. 145  
On SR 1333 over a creek  
Halifax County  
Federal-Aid No. BRZ-1333 (4)  
State Project No. 8.2301001  
T.I.P. No. B-3182**

## Commitments Developed Through Project Development and Design

### *Hydraulics Unit, Roadside Environmental Unit, Division Four Construction Office, Structure Design Unit*

NCDOT will adhere to the Best Management Practices (BMPs) for "Bridge Demolition and Removal" during the removal of Bridge No. 145.

The U. S. Fish and Wildlife Service (USFWS) was consulted in regard to the effect of project construction on two federally protected species, the Tar Spiny mussel and the dwarf wedge mussel. The following commitments will be implemented by NCDOT in concurrence with the USFWS:

- 1) A moratorium on clearing and grubbing will be implemented so that no work will occur between November 15 and April 1.
- 2) Weep holes will be configured so that run-off does not fall into the stream.
- 3) The NCDOT resident engineer will be responsible for providing a written invitation to the North Carolina Wildlife Resources Commission, Nongame and Protected Species Branch and the U. S. Fish and Wildlife Service to the pre-construction meeting for this project.
- 4) The erosion control plans for Protected Aquatic Species will be used. These plans include the following requirements:
  - Sediment and Erosion controls must be in place prior to land clearing activities. No sediment from either bridge demolition or construction activities will be allowed to enter the flowing stream.
  - "Environmentally Sensitive Areas" will be defined on the plans, which consist of a 50-foot buffer zone on both sides of the stream.
  - The Contractor may perform clearing operations, but not grubbing operations in the "Environmentally Sensitive Areas", until immediately prior to beginning grading operations.
  - Once grading operations begin in the "Environmentally Sensitive Areas", as specified on the plans, work will progress in a continuous manner until complete.
  - Seeding and mulching will be performed immediately following final grade establishment. Stage seeding will be performed on cut and fill slopes as a grading process.