



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

May 4, 2009

NC Division of Water Quality  
Transportation Permitting Unit  
2321 Crabtree Boulevard, Suite 250  
Raleigh, North Carolina 27604

ATTN: Mr. Brian Wrenn

Dear Sir,

**Subject: Neuse Riparian Buffer Authorization Request** for the proposed replacement of Bridge No. 2 over Contentnea Creek on SR 1628 in Wilson County. Federal Aid Project No. BRSTP-1628(1), State Project No. 8.2342301, WBS No.33835.1.1, **TIP No. B-4682**

Please find enclosed the PCN form, buffer drawings, half-size plans sheets, and USFWS concurrence letter for the above referenced project. A Programmatic Categorical Exclusion (PCE) was completed on March 12, 2008, and distributed shortly thereafter. Additional copies are available upon request. The North Carolina Department of Transportation (NCDOT), Division of Highways, in consultation with the Federal Highway Administration (FHWA), proposes to replace Bridge No. 2 in Wilson County. The Let date for this project is November 17, 2009 and the review date is September 29, 2009.

### **Regulatory Approvals**

Section 404 Permit: A Section 404 Permit is not required due to the lack of impacts to Waters of the U.S.

Section 401 Certification: A written Section 401 Water Quality Certification is not being requested due to a 404 permit not being required.

Neuse River Basin Buffer Authorization: NCDOT requests that the NC Division of Water Quality review this application and issue a written approval for a Neuse Riparian Buffer Authorization.

A copy of this permit application will be posted on the NCDOT website at:  
<http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>

If you have any questions or need additional information, please call Mr. Chris Manley, at 919-431-6746.

Sincerely,



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

W/attachment

Mr. Brian Wrenn, NCDWQ (2 Copies)

W/o attachment (see website for attachments)

Dr. David Chang, P.E., Hydraulics  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Victor Barbour, P.E., Project Services Unit  
Mr. Mark Staley, Roadside Environmental  
Mr. Richard E. Greene, P.E. Div. 4 Engineer  
Mr. Chad Coggins, Div. 4 Environmental Officer  
Mr. Scott McLendon, USACE, Wilmington  
Mr. Gary Jordan, USFWS  
Mr. Travis Wilson, NCWRC  
Mr. Ron Sechler, NMFS  
Ms. Anne Deaton, NCDMF  
Mr. Jay Bennett, P.E., Roadway Design  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mrs. Pam Williams, PDEA Project Planning Engineer



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

## Pre-Construction Notification (PCN) Form

### A. Applicant Information

#### 1. Processing

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

#### 2. Project Information

2a. Name of project:	Replacement of Bridge No.2 over Contentnea Creek on SR 1628.
2b. County:	Wilson
2c. Nearest municipality / town:	Stantonsburg
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no:	B-4682

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 431-6746
3g. Fax no.:	(919) 431-2002
3h. Email address:	cdmanley@ncdot.gov

<b>4. Applicant Information (if different from owner)</b>	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
<b>5. Agent/Consultant Information (if applicable)</b>	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	
<b>B. Project Information and Prior Project History</b>	
<b>1. Property Identification</b>	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.609931 (DD.DDDDDD)                      Longitude: - 77.864986 (-DD.DDDDDD)
1c. Property size:	0.86 acre
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Contentnea Creek
2b. Water Quality Classification of nearest receiving water:	C, SW, NSW
2c. River basin:	Neuse
<b>3. Project Description</b>	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: The surrounding area is mostly forested and agricultural.	
3b. List the total estimated acreage of all existing wetlands on the property: 0	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 400	
3d. Explain the purpose of the proposed project: To replace a structurally deficient bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 165-foot bridge with a 203-foot, 4-span bridge on the existing alignment with an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.	

<b>4. Jurisdictional Determinations</b>	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known):	Agency/Consultant Company: Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation.	
<b>5. Project History</b>	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
<b>6. Future Project Plans</b>	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

### C. Proposed Impacts Inventory

#### 1. Impacts Summary

1a. Which sections were completed below for your project (check all that apply):

- Wetlands                       Streams - tributaries                       Buffers  
 Open Waters                       Pond Construction

#### 2. Wetland Impacts

If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ	
<b>2g. Total wetland impacts</b>					0 Permanent 0 Temporary

2h. Comments:

#### 3. Stream Impacts

If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.

3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 6 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
<b>3h. Total stream and tributary impacts</b>						0 Perm 0 Temp

3i. Comments:

<b>4. Open Water Impacts</b>								
If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.								
4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact			4d. Waterbody type		4e. Area of impact (acres)	
O1 <input type="checkbox"/> P <input type="checkbox"/> T								
O2 <input type="checkbox"/> P <input type="checkbox"/> T								
O3 <input type="checkbox"/> P <input type="checkbox"/> T								
O4 <input type="checkbox"/> P <input type="checkbox"/> T								
<b>4f. Total open water impacts</b>							0 Permanent 0 Temporary	
4g. Comments:								
<b>5. Pond or Lake Construction</b>								
If pond or lake construction proposed, then complete the chart below.								
5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
<b>5f. Total</b>								
5g. Comments:								
5h. Is a dam high hazard permit required?				<input type="checkbox"/> Yes <input type="checkbox"/> No      If yes, permit ID no:				
5i. Expected pond surface area (acres):								
5j. Size of pond watershed (acres):								
5k. Method of construction:								
<b>6. Buffer Impacts (for DWQ)</b>								
If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you <b>MUST</b> fill out Section D of this form.								
6a. Project is in which protected basin?					<input checked="" type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)			
B1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Road crossing	Contentnea Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	507	719			
B2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bridge	Contentnea Creek	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	174				
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No					
<b>6h. Total buffer impacts</b>					681		719	
6i. Comments:								

<b>D. Impact Justification and Mitigation</b>		
<b>1. Avoidance and Minimization</b>		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The proposed bridge is 38 feet longer than the existing bridge; the proposed bridge will be at approximately the same grade as the existing structure; an off site detour will be used, 3:1 fill slopes where practicable.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. BMP's will be used during construction.		
<b>2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State</b>		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
<b>3. Complete if Using a Mitigation Bank</b>		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
<b>4. Complete if Making a Payment to In-lieu Fee Program</b>		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
<b>5. Complete if Using a Permittee Responsible Mitigation Plan</b>		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.		

<b>6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ</b>				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				
<b>E. Stormwater Management and Diffuse Flow Plan (required by DWQ)</b>				
<b>1. Diffuse Flow Plan</b>				
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments: See permit drawings				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Stormwater Management Plan</b>				
2a. What is the overall percent imperviousness of this project?				N/A %
2b. Does this project require a Stormwater Management Plan?				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:				
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings				
2e. Who will be responsible for the review of the Stormwater Management Plan?				<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input type="checkbox"/> DWQ 401 Unit
<b>3. Certified Local Government Stormwater Review</b>				
3a. In which local government's jurisdiction is this project?				not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):				<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?				<input type="checkbox"/> Yes <input type="checkbox"/> No

<b>4. DWQ Stormwater Program Review</b>	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5b. Have all of the 401 Unit submittal requirements been met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

<b>F. Supplementary Information</b>	
<b>1. Environmental Documentation (DWQ Requirement)</b>	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>2. Violations (DWQ Requirement)</b>	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
<b>3. Cumulative Impacts (DWQ Requirement)</b>	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description.	
<b>4. Sewage Disposal (DWQ Requirement)</b>	
4a. Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility. not applicable	

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

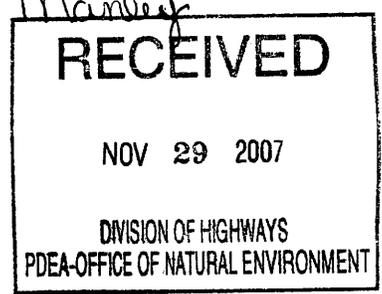
011.29.07  
cc: L. Williams



**United States Department of the Interior** *Manley*

FISH AND WILDLIFE SERVICE  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

November 27, 2007



Gregory J. Thorpe, Ph.D.  
North Carolina Department of Transportation  
Project Development and Environmental Analysis  
1598 Mail Service Center  
Raleigh, North Carolina 27699-1598

Dear Dr. Thorpe:

This letter is in response to your letter of November 15, 2007 which provided the U.S. Fish and Wildlife Service (Service) with the biological determination of the North Carolina Department of Transportation that the replacement of Bridge No. 2 on SR 1628 over Contentnea Creek in Wilson County (TIP No. B-4682) may affect, but is not likely to adversely affect the federally endangered dwarf wedgemussel (*Alasmidonta heterodon*). These comments are provided in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, a mussel survey was conducted at the project site on April 13, 2007. The survey extended 100 meters upstream and 400 meters downstream of SR 1628. Though several specimens representing four species of mussels were observed, no dwarf wedgemussels were observed. Based on available information, the Service concurs with your determination that the project may affect, but is not likely to adversely affect the dwarf wedgemussel. We believe that the requirements of section 7(a)(2) of the ESA have been satisfied. We remind you that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action.

The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,

*for Gary Jordan*  
Pete Benjamin  
Field Supervisor

- cc: William Wescott, USACE, Washington, NC
- Rob Ridings, NCDWQ, Raleigh, NC
- Travis Wilson, NCWRC, Creedmoor, NC
- Chris Militscher, USEPA, Raleigh, NC
- John Sullivan, FHWA, Raleigh, NC
- David Harris, NCDOT, Raleigh, NC

09/08/09

See Sheet 1-A For Index of Sheets

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## WILSON COUNTY

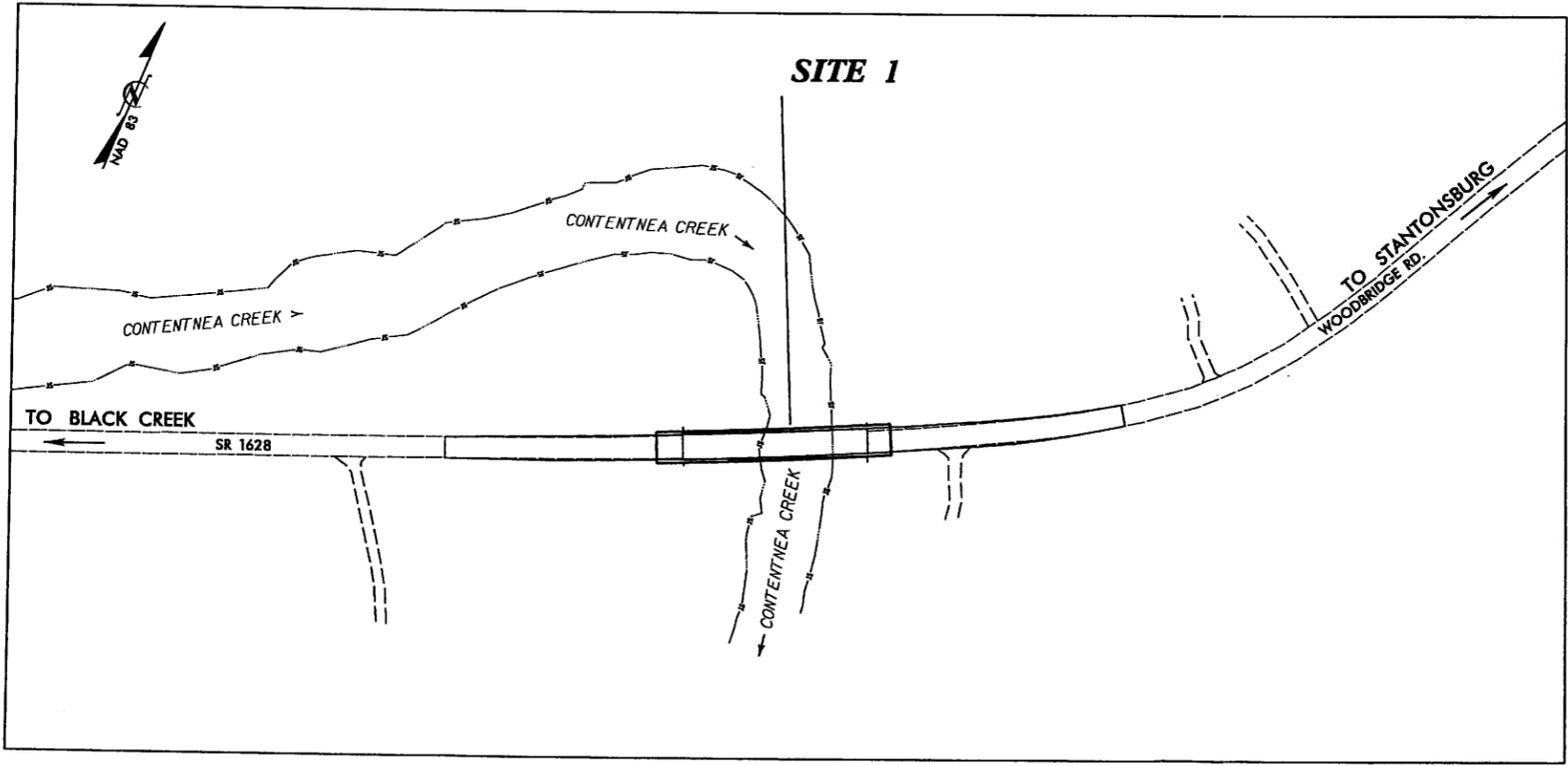
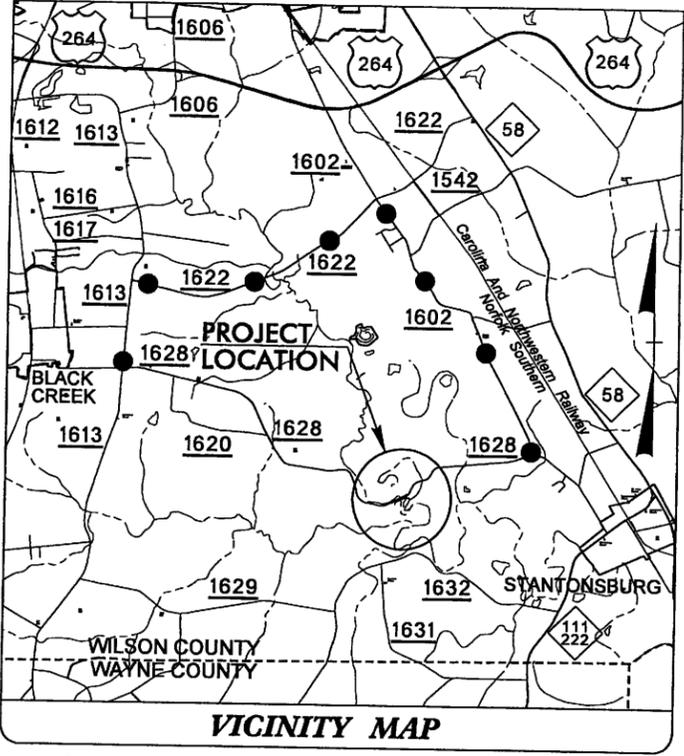
LOCATION: BRIDGE NO. 2 ON SR 1628 (WOODBIDGE ROAD)  
OVER CONTENTNEA CREEK

BUFFER PERMIT DRAWINGS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4682	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33835.1.1	BRSTP-1628(1)	PE	

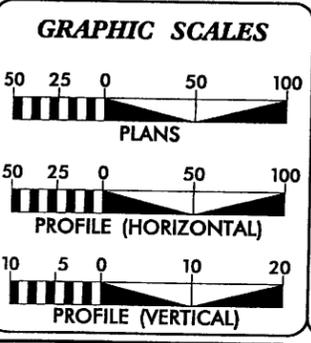
Buffer Drawing  
Sheet 1 of 7

TIP PROJECT: B-4682



METHOD OF CLEARING \_\_\_\_\_  
THE PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

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



**DESIGN DATA**

ADT 2007 =	550
ADT 2030 =	800
DHV =	10 %
D =	60 %
T =	3 % *
V =	60 MPH
* TTST=1%	DUAL=2%
FUNC. CLASS =	LOCAL

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-4682	=	0.076 MI
LENGTH STRUCTURE TIP PROJECT B-4682	=	0.040 MI
TOTAL LENGTH TIP PROJECT B-4682	=	0.116 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 18, 2008	JAMES A. SPEER, PE PROJECT ENGINEER
LETTING DATE: JULY 21, 2009	NYA K. BOAYUE, 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

RECEIVED

DEC 19 2008

manley

DIVISION OF HIGHWAYS  
DEPARTMENT OF TRANSPORTATION

\$\$\$\$\$ USER: \$\$\$\$\$\$

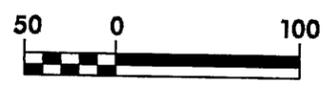
CONTRACT:

B/17.099

PROJECT REFERENCE NO. B-4682		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

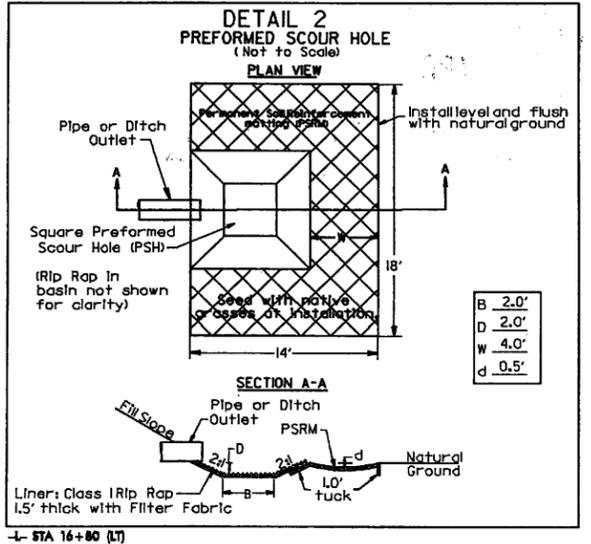
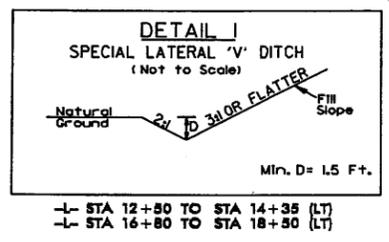
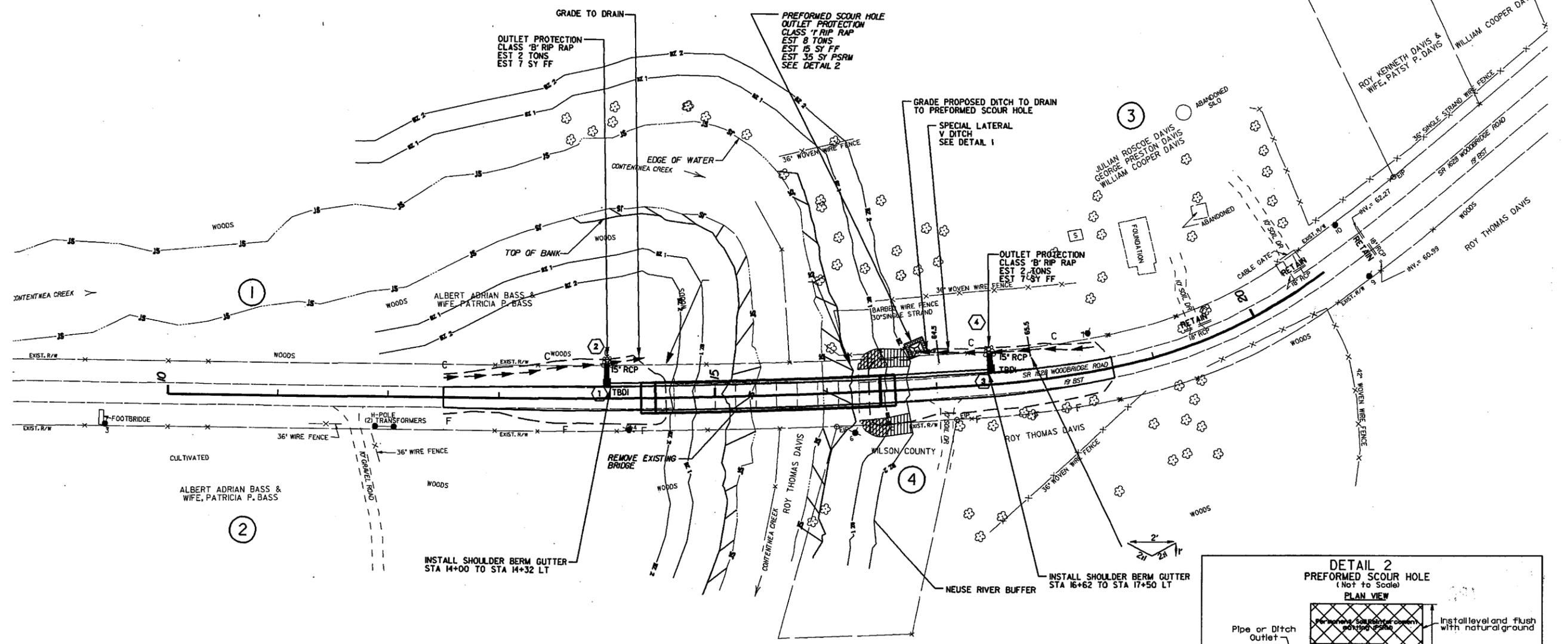
	ALLOWABLE IMPACTS ZONE 1
	MITIGABLE IMPACTS ZONE 1
	MITIGABLE IMPACTS ZONE 2

N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 WILSON COUNTY  
 PROJECT: 3385.L1 (B-4682)  
 BRIDGE NO. 2 ON SR 1628  
 (WOODBIDGE RD) OVER  
 CONTENTNEA CREEK  
 DATE: 12/9/2008



Buffer Drawing  
 Sheet 2 of 7

**SITE 1**



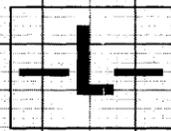
REVISIONS

PLANS-2009 09:50  
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 21/09/2009 09:50

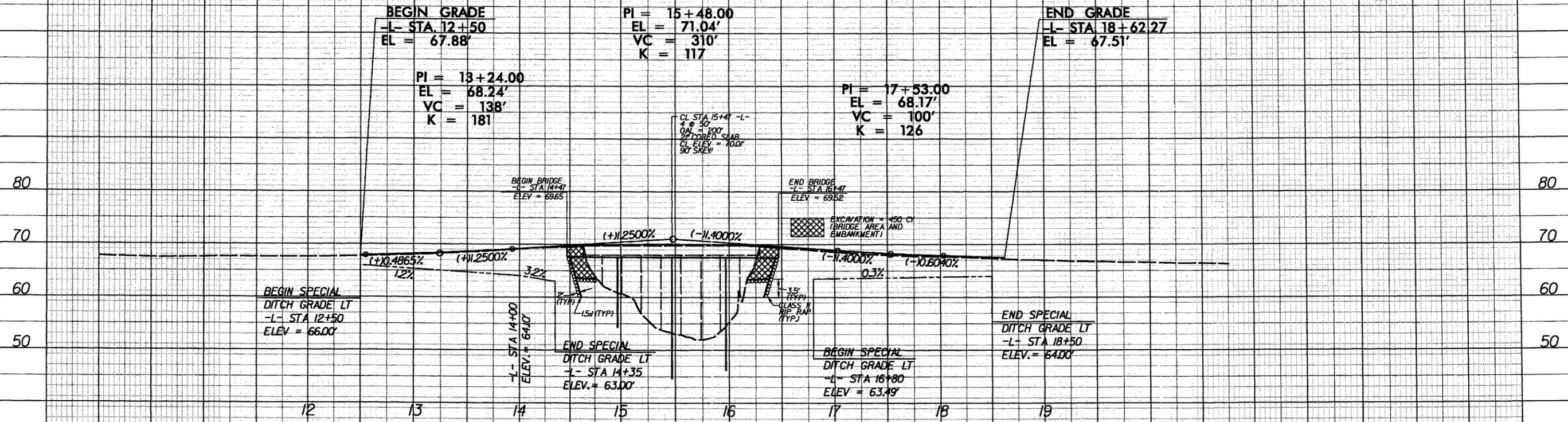


Buffer Drawing  
Sheet 4 of 7

BRIDGE HYDRAULIC DATA	
200' BRIDGE	
DRAINAGE AREA	= 270.4 SQ MI
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 7800 CFS
DESIGN HW ELEVATION	= 66.2 FT
100 YEAR DISCHARGE	= 11000 CFS
100 YEAR HW ELEVATION	= 67.4 FT
OVERTOPPING FREQUENCY	= < 10 YRS
OVERTOPPING DISCHARGE	= 5900 CFS
OVERTOPPING ELEVATION	= 65.1 FT



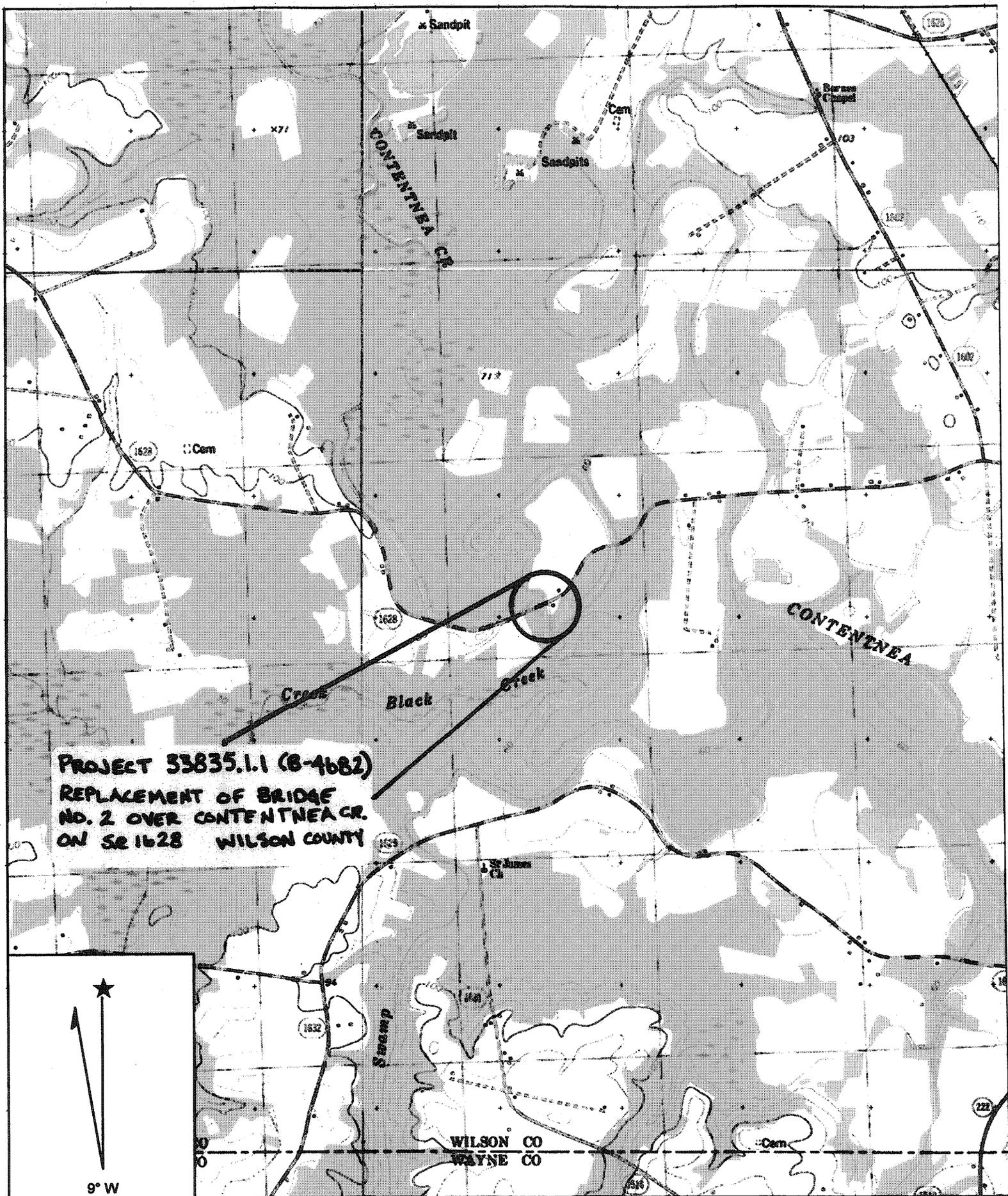
### SITE 1



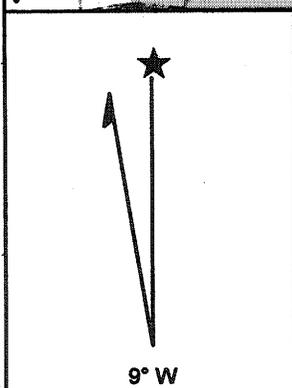
TBM # 2 RR SPIKE IN BASE OF 36" PIN OAK
-L- STA. 13+65.12    61.04 LT.
N 678836 E 2337207    ELEV. = 69.7'

SEE SHEET 4 FOR -L- DESIGN

5/14/9  
SYTIM  
DCN  
CHN



**PROJECT 33835.1.1 (B-4682)**  
**REPLACEMENT OF BRIDGE**  
**NO. 2 OVER CONTENTNEA CR.**  
**ON SR 1628 WILSON COUNTY**



Name: STANTONSBURG  
 Date: 9/15/2008  
 Scale: 1 inch equals 2000 feet

Location: 035° 36' 36.2" N 077° 52' 01.6" W  
 Caption: Project: 33835.1.1 (B-4682)  
 Wilson County

Buffer Drawing  
 Sheet 5 of 7





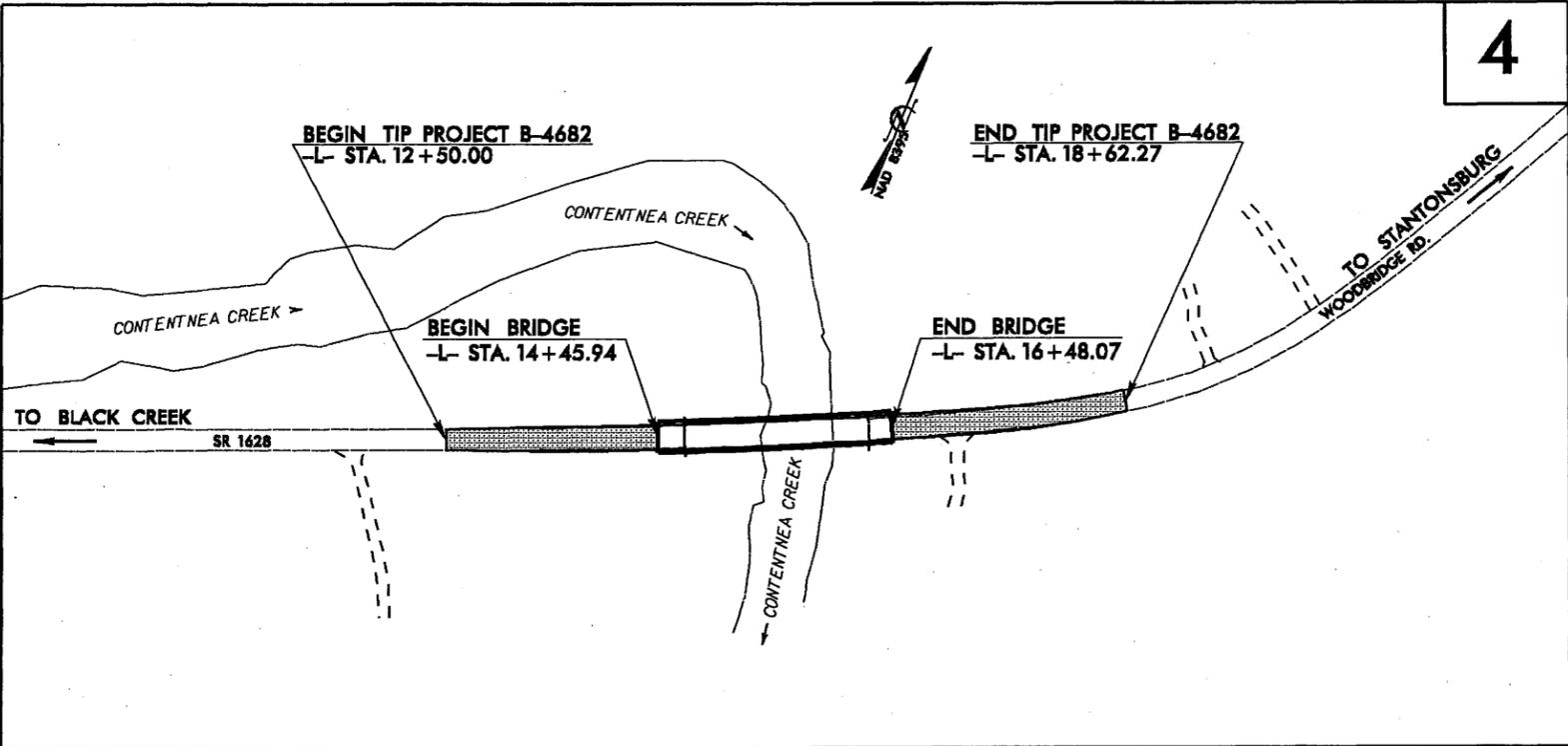
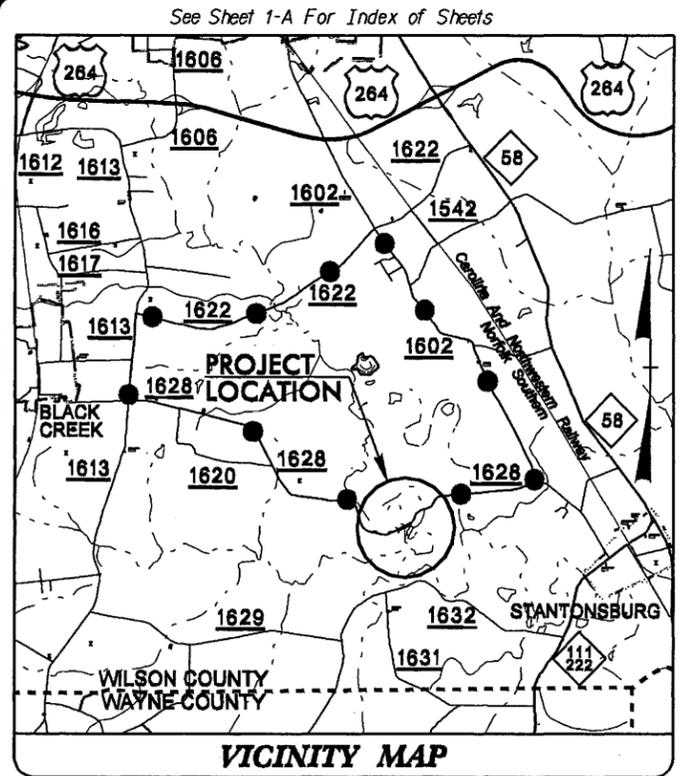
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4682	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33835.1.1	BRSTP-1628(1)	PE	
33835.2.1	BRSTP-1628(1)	RW, UTIL.	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**WILSON COUNTY**

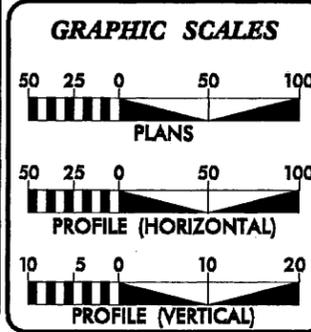
LOCATION: BRIDGE NO. 2 ON SR 1628 (WOODBIDGE ROAD)  
OVER CONTENTNEA CREEK

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



METHOD OF CLEARING III  
THE PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



DESIGN DATA

ADT 2007 =	550
ADT 2030 =	800
DHV =	10 %
D =	60 %
T =	3 % *
V =	50 MPH
* TTST =	1%
DUAL =	2%
FUNC. CLASS =	LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4682	=	0.078 MI
LENGTH STRUCTURE TIP PROJECT B-4682	=	0.038 MI
TOTAL LENGTH TIP PROJECT B-4682	=	0.116 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
JULY 10, 2008

LETTING DATE:  
NOVEMBER 17, 2009

JAMES A. SPEER, PE  
PROJECT ENGINEER

NYA K. BOAYUE, PE  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

04-FEB-2009 07:02  
 F:\Roadway\Drawings\B4682\_rdy\_tsh.dgn  
 \$\$\$USERNAME\$\$\$  
**CONTRACT: C202236**  
**TIP PROJECT: B-4682**

3/15/06

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 \_\_\_\_\_
- Property Corner \_\_\_\_\_
- Property Monument \_\_\_\_\_
- Parcel/Sequence Number \_\_\_\_\_
- Existing Fence Line \_\_\_\_\_
- Proposed Woven Wire Fence \_\_\_\_\_
- Proposed Chain Link Fence \_\_\_\_\_
- Proposed Barbed Wire Fence \_\_\_\_\_
- Existing Wetland Boundary \_\_\_\_\_
- Proposed Wetland Boundary \_\_\_\_\_
- Existing Endangered Animal Boundary \_\_\_\_\_
- Existing Endangered Plant Boundary \_\_\_\_\_

### BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap \_\_\_\_\_
- Sign \_\_\_\_\_
- Well \_\_\_\_\_
- Small Mine \_\_\_\_\_
- Foundation \_\_\_\_\_
- Area Outline \_\_\_\_\_
- Cemetery \_\_\_\_\_
- Building \_\_\_\_\_
- School \_\_\_\_\_
- Church \_\_\_\_\_
- Dam \_\_\_\_\_

### HYDROLOGY:

- Stream or Body of Water \_\_\_\_\_
- Hydro, Pool or Reservoir \_\_\_\_\_
- Jurisdictional Stream \_\_\_\_\_
- Buffer Zone 1 \_\_\_\_\_
- Buffer Zone 2 \_\_\_\_\_
- Flow Arrow \_\_\_\_\_
- Disappearing Stream \_\_\_\_\_
- Spring \_\_\_\_\_
- Wetland \_\_\_\_\_
- Proposed Lateral, Tail, Head Ditch \_\_\_\_\_
- False Sump \_\_\_\_\_

### RAILROADS:

- Standard Gauge \_\_\_\_\_
- RR Signal Milepost \_\_\_\_\_
- 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 \_\_\_\_\_
- Proposed Temporary Construction Easement \_\_\_\_\_
- Proposed Temporary Drainage Easement \_\_\_\_\_
- Proposed Permanent Drainage Easement \_\_\_\_\_
- Proposed Permanent Utility Easement \_\_\_\_\_
- Proposed Temporary Utility Easement \_\_\_\_\_
- Proposed Permanent Easement with Iron Pin and Cap Marker \_\_\_\_\_

### ROADS AND RELATED FEATURES:

- Existing Edge of Pavement \_\_\_\_\_
- Existing Curb \_\_\_\_\_
- Proposed Slope Stakes Cut \_\_\_\_\_
- Proposed Slope Stakes Fill \_\_\_\_\_
- Proposed Wheel Chair Ramp \_\_\_\_\_
- 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 \_\_\_\_\_

### EXISTING STRUCTURES:

- MAJOR:
  - Bridge, Tunnel or Box Culvert \_\_\_\_\_
  - Bridge Wing Wall, Head Wall and End Wall \_\_\_\_\_
- MINOR:
  - Head and End Wall \_\_\_\_\_
  - Pipe Culvert \_\_\_\_\_
  - Footbridge \_\_\_\_\_
  - Drainage Box: Catch Basin, DI or JB \_\_\_\_\_
  - 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 \_\_\_\_\_
- End of Information \_\_\_\_\_

# SURVEY CONTROL SHEET B-4682

PROJECT REFERENCE NO. <b>B-4682</b>	SHEET NO. <b>1C</b>
Location and Surveys	

### BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
	2	GPS B4682-2	678408.4170	2336239.9660	85.92	OUTSIDE PROJECT LIMITS	
	101	-BL- 101	678602.5980	2336836.7510	67.44	OUTSIDE PROJECT LIMITS	
	102	-BL- 102	678902.1004	2337471.0775	69.11	16+35.16	12.47 LT
	103	-BL- 103	679129.9980	2337824.8550	66.25	20+58.50	14.85 RT
	104	-BL- 104	679679.4820	2338108.9110	64.49	OUTSIDE PROJECT LIMITS	
	105	-BL- 105	679860.8930	2338602.5040	65.61	OUTSIDE PROJECT LIMITS	
	106	-BL- 106	680037.1730	2338964.6750	66.59	OUTSIDE PROJECT LIMITS	
	107	-BL- 107	680520.1080	2339224.9460	66.64	OUTSIDE PROJECT LIMITS	
	108	-BL- 108	680580.9120	2339648.0570	66.65	OUTSIDE PROJECT LIMITS	

### BENCHMARK DATA

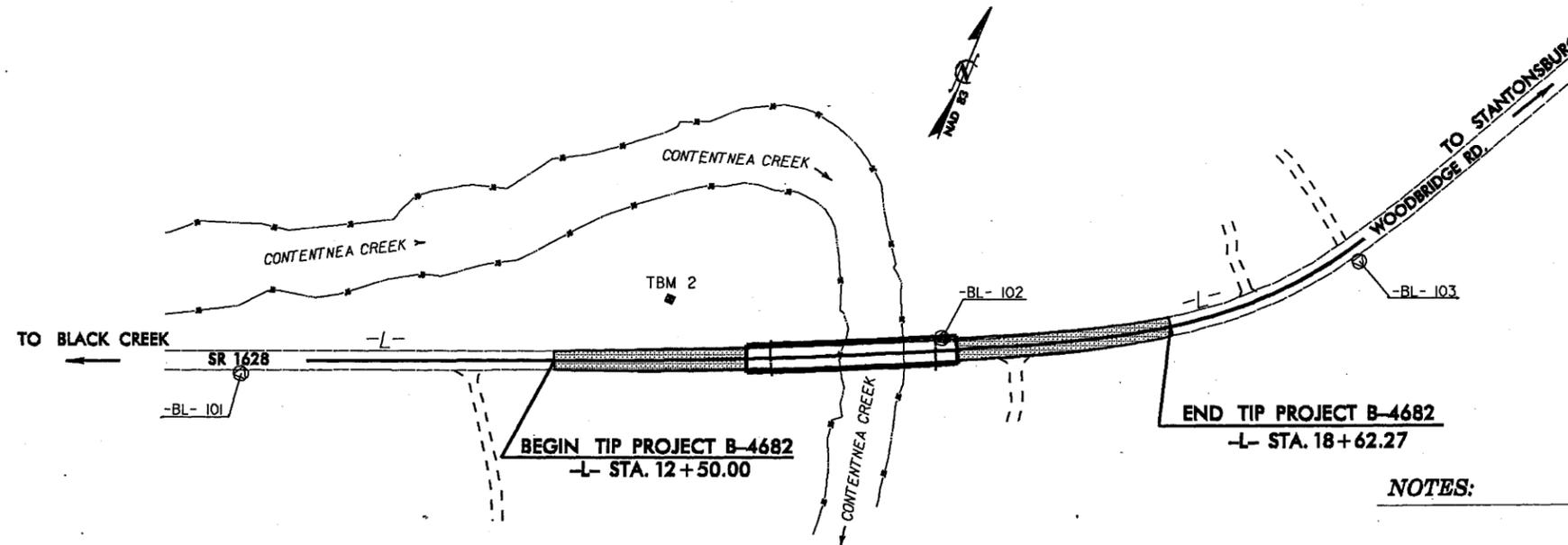
802 ELEVATION = 84.28  
 N 678472 E 2336310  
 L STATION 10+00  
 S 73° 59' 11.7" W DIST 606.56  
 TBM 1 RAILROAD SPIKE IN BASE OF 30" PINE

1251 ELEVATION = 68.58  
 N 679340 E 2337959  
 L STATION 20+76  
 N 36° 21' 00.3" E DIST 231.95  
 TBM 3 RAILROAD SPIKE IN BASE OF 36" PIN OAK

834 ELEVATION = 69.71  
 N 678836 E 2337207  
 L STATION 13+65 61 LEFT  
 TBM 2 RAILROAD SPIKE IN BASE OF 36" PIN OAK

586 ELEVATION = 67.65  
 N 679926 E 2338890  
 L STATION 20+76  
 N 54° 06' 50.2" E DIST 1318.90  
 TBM 4 RAILROAD SPIKE IN BASE OF 30" TWIN PINE

1677 ELEVATION = 65.96  
 N 680615 E 2339446  
 L STATION 20+76  
 N 48° 00' 08.9" E DIST 2186.01  
 TBM 5 RAILROAD SPIKE IN BASE OF 24" GUM



#### NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/Preconstruct/Highway/Location/Project/)  
 THE FILES TO BE FOUND ARE AS FOLLOWS:  
**B4682\_LS\_CONTROL\_080118.TXT**  
 SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- ② INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.  
 PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.  
 NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS "B4682-2""  
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 678408.417(++) EASTING: 2336239.966(++)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99989348  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS "B4682-2"" TO -L- STATION 12+50.00 IS  
 N 69°43'22.2" E 942.73'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

6/2/99  
 04-FEB-2009 07:02  
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 11:11:11 AM

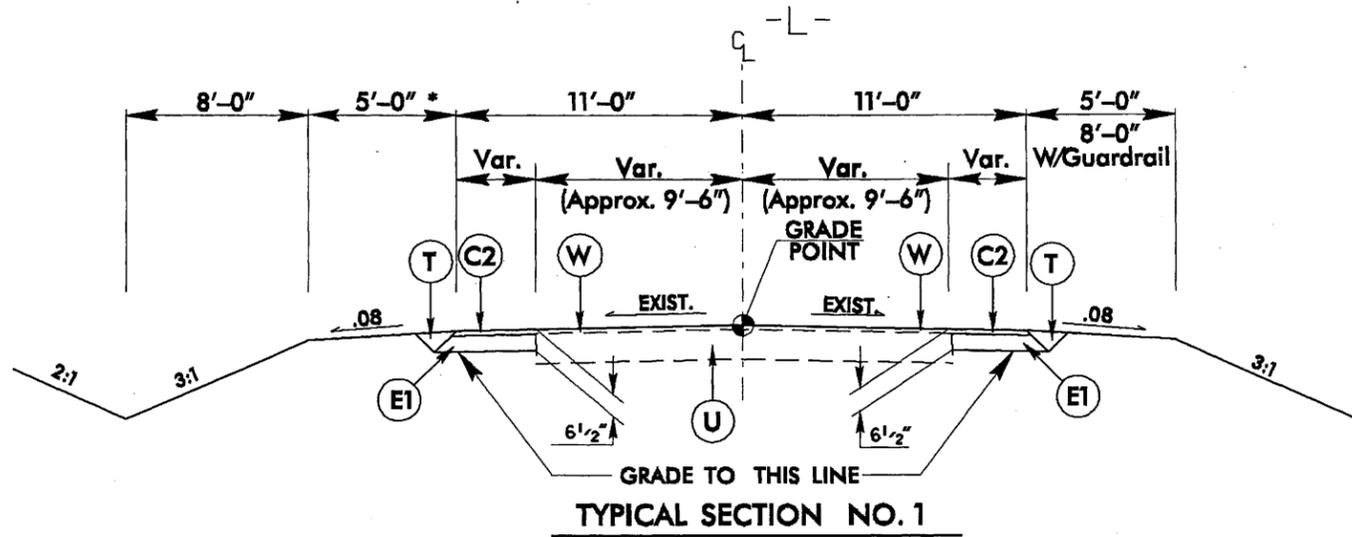
10/26/98

# PAVEMENT SCHEDULE

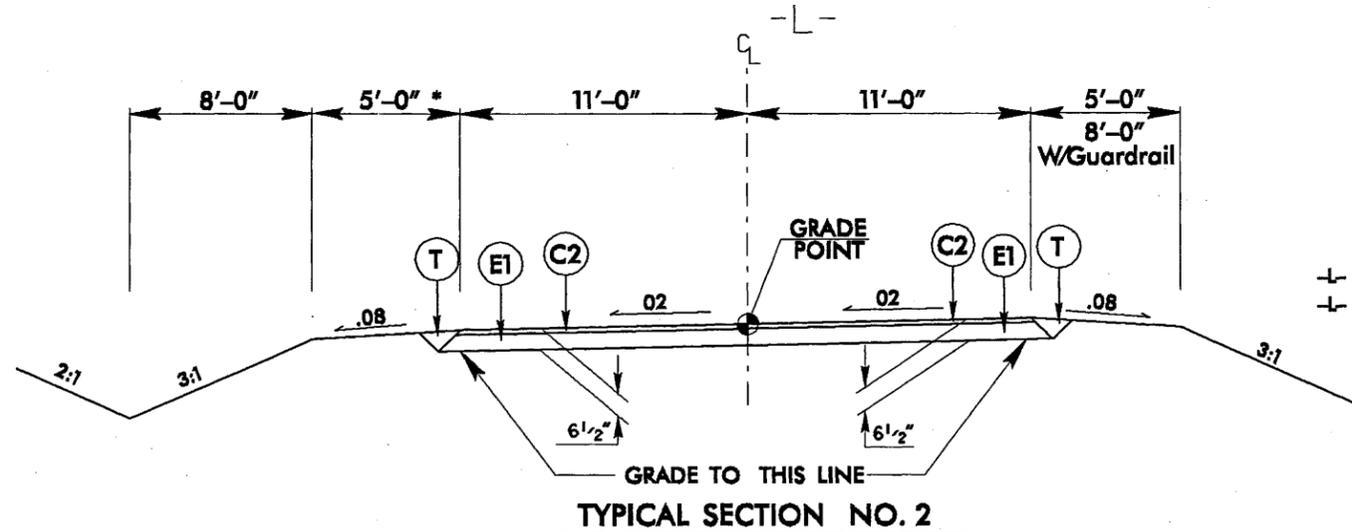
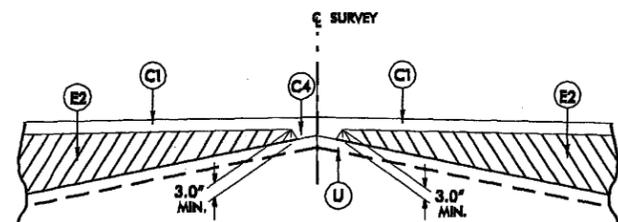
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 3 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 128.33 LBS. PER SQ. YD. IN EACH OF THREE LAYERS.
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE IN LAYERS NOT TO EXCEED 1.5" IN DEPTH
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 458 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.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE DETAIL 1)

NOTE: ALL SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO. B-4682	SHEET NO. 2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

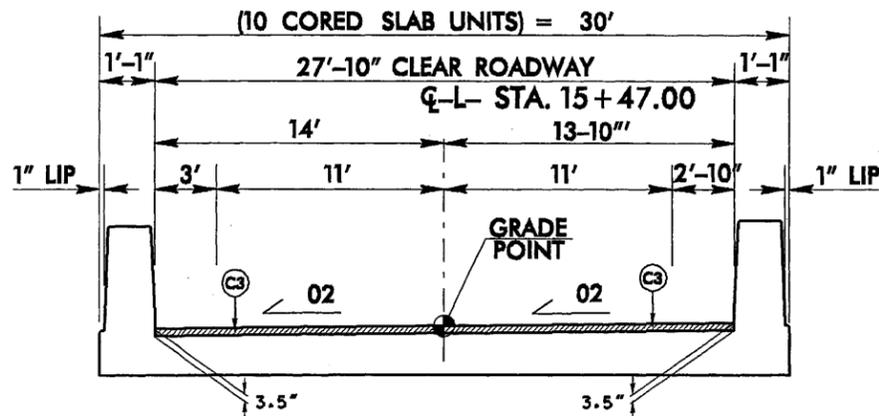


USE TYPICAL SECTION NO. 1  
 -L- STA. 12+50.00 to -L- STA. 13+90.00  
 -L- STA. 17+00.00 to -L- STA. 18+62.27



USE TYPICAL SECTION NO. 2  
 -L- STA. 13+90.00 to -L- STA. 14+45.94 (BEG. BRIDGE)  
 -L- STA. 16+48.07 (END BRIDGE) to -L- STA. 17+00.00

\* INSTALL SHOULDER BERM GUTTER AS FOLLOWS:  
 STA. 14+00.00 TO STA. 14+31.94 LT  
 STA. 16+62.07 TO STA. 17+50.00 LT  
 SEE ROADWAY STD. DRWG. No. 846.03



BEGIN BRIDGE -L- STA. 14+45.94 TO END BRIDGE -L- STA. 16+48.07

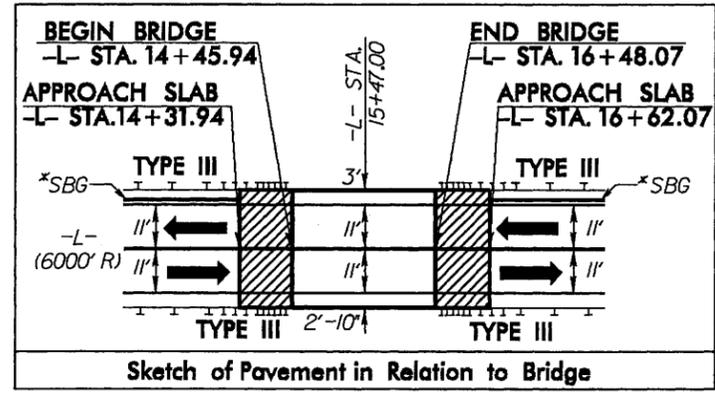
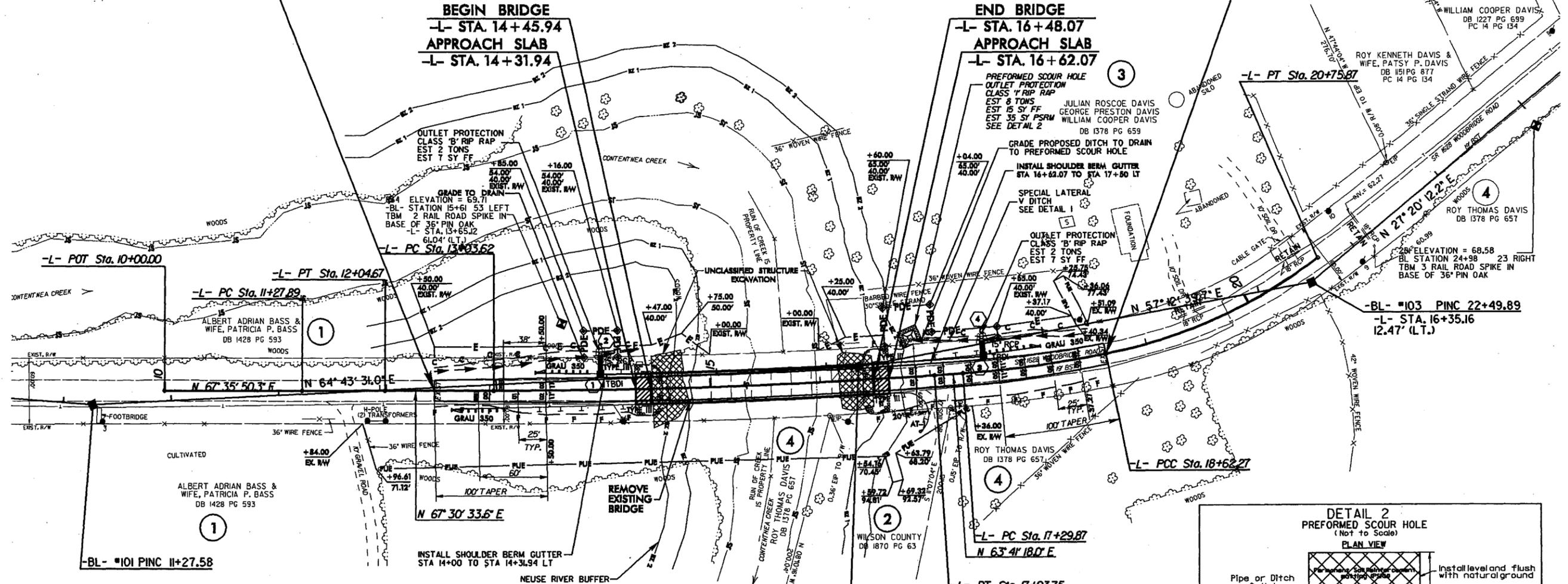
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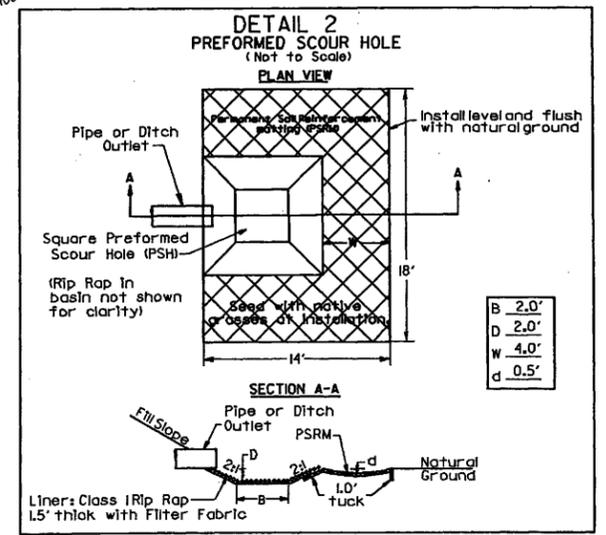
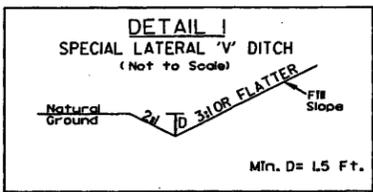
**BEGIN STATE PROJECT B-4682**  
-L- STA. 12+50.00

**END STATE PROJECT B-4682**  
-L- STA. 18+62.27



\* SBG DENOTES 'SHOULDER BERM GUTTER'

-L-			
PI Sta 11+66.28 Δ = 0° 05' 16.7" (LT) D = 0' 08' 52.5" L = 76.78' T = 38.39' R = 50,000.00'	PI Sta 15+03.76 Δ = 3° 49' 15.6" (LT) D = 0' 57' 17.7" L = 400.13' T = 200.14' R = 6,000.00' SE = 02 RO = SEE PLANS	PI Sta 17+96.16 Δ = 7° 24' 28.5" (LT) D = 5' 35' 43.0" L = 132.40' T = 66.29' R = 1,024.00' SE = SEE PLANS RO = SEE PLANS	PI Sta 19+70.93 Δ = 25° 56' 55.7" (LT) D = 12' 08' 53.0" L = 213.60' T = 108.67' R = 471.65'



-L- STA 12+50 TO STA 14+35 (LT)  
-L- STA 16+80 TO STA 18+50 (LT)

-L- STA 16+80 (LT)  
NOTE: SEE SHEET NO. 5 FOR -L- PROFILE  
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS  
TRAFFIC IS TO BE MAINTAINED WITH AN OFF SITE DETOUR

REVISIONS  
11/13/08: Add PUE from Sta 11+84.00 to 17+36.00 (RT) and Sta 18+44.14 (LT)  
11/25/08: Add property line on the east side of the creek south of the bridge and denoting the ownership as Roy Thomas Davis, Parcel 4.

8/17/99

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5/14/99

PROJECT REFERENCE NO. B-4682	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	

**BRIDGE HYDRAULIC DATA**

DESIGN DISCHARGE = 7800 CFS  
 DESIGN FREQUENCY = 25 YRS  
 DESIGN HW ELEVATION = 66.2 FT  
 BASE DISCHARGE = 11000 CFS  
 BASE FREQUENCY = 100 YRS  
 BASE HW ELEVATION = 67.4 FT  
 OVERTOPPING DISCHARGE = <5900 CFS  
 OVERTOPPING FREQUENCY = <10 YRS  
 OVERTOPPING ELEVATION = 65.1 FT

NORMAL WATER SURFACE = 54.75 FT ELEVATION  
 DATE OF SURVEY = 12/06/07



**BRIDGE Q STA. 15+47 -L-**  
 ELEV. = 70.0'  
 SKEW = 90'  
 PROPOSED 2 @ 50' AND 2 @ 5'-0 3/4"  
 2" PRESTRESSED CONCRETE  
 CORED SLAB, OAL = 202.13'

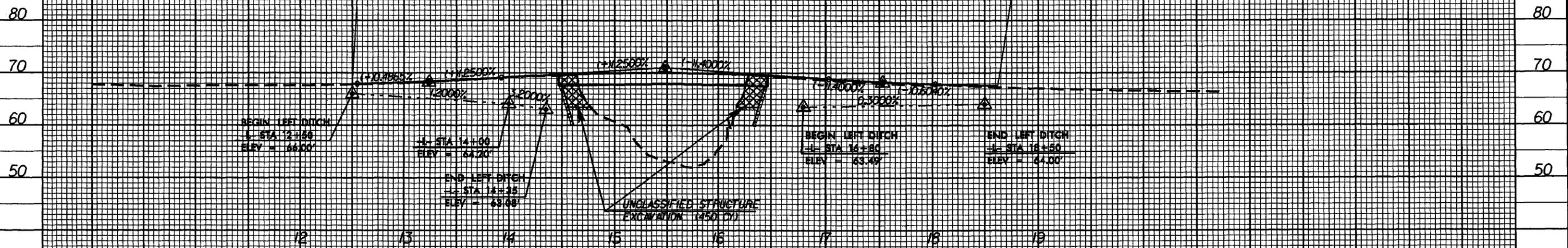
**BEGIN GRADE**  
 -L- STA. 12+50  
 EL = 67.88'

PI = 13+24.00  
 EL = 68.24'  
 VC = 138'  
 K = 181

PI = 15+48.00  
 EL = 71.04'  
 VC = 310'  
 K = 117

PI = 17+53.00  
 EL = 68.17'  
 VC = 100'  
 K = 126

**END GRADE**  
 -L- STA. 18+62.27  
 EL = 67.51'



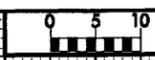
**TBM # 2 RR SPIKE IN BASE OF 36" PIN OAK**  
 -L- STA. 13+65.12 61.04 LT.  
 N 678836 E 2337207 ELEV. = 69.71'

**DITCH LEGEND**  
 LEFT DITCH - - - - -

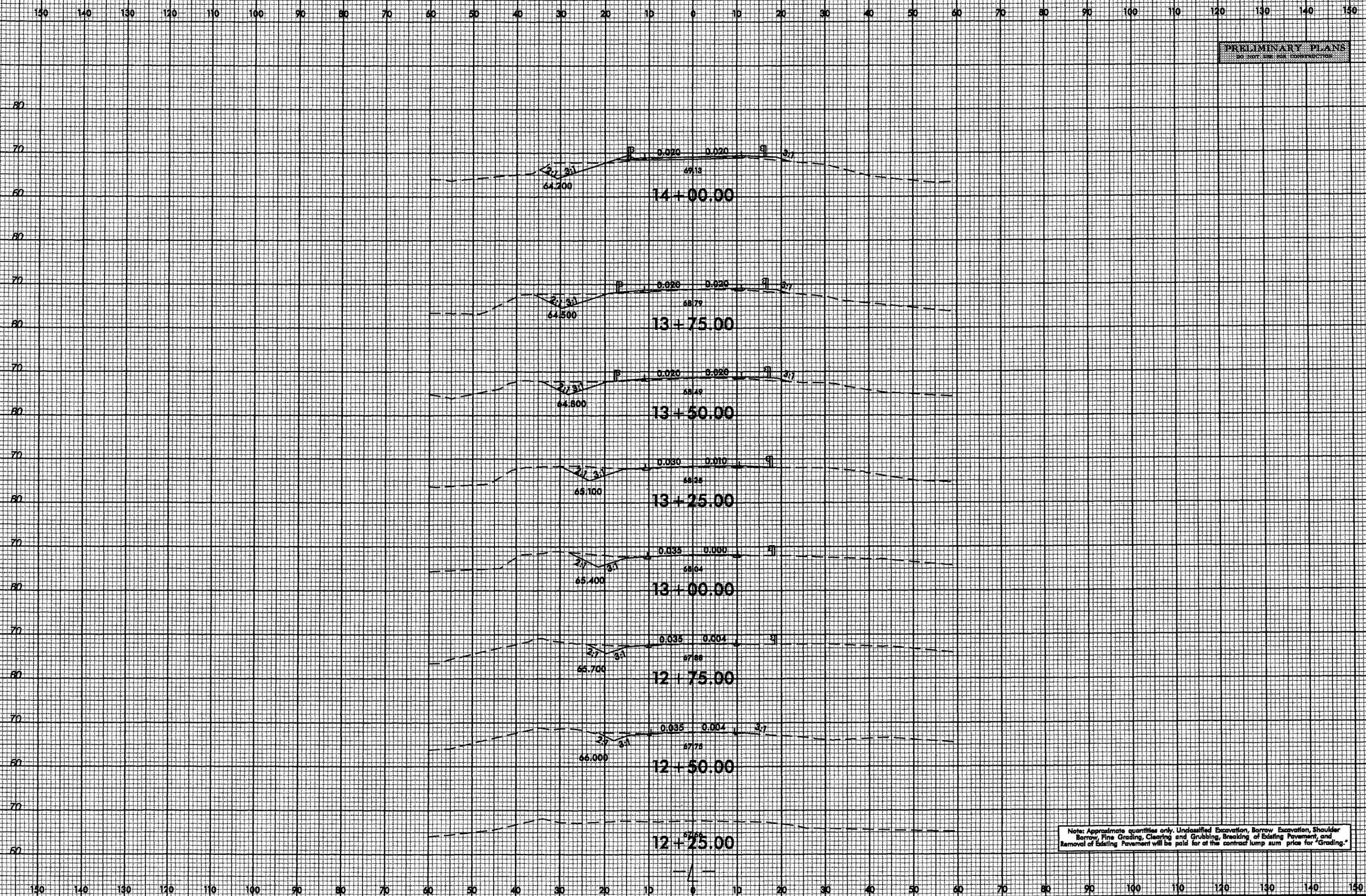
**SEE SHEET 4 FOR -L- DESIGN**

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PROJ. REFERENCE NO.	SHEET NO.
B-4682	X-1

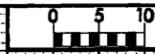


**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

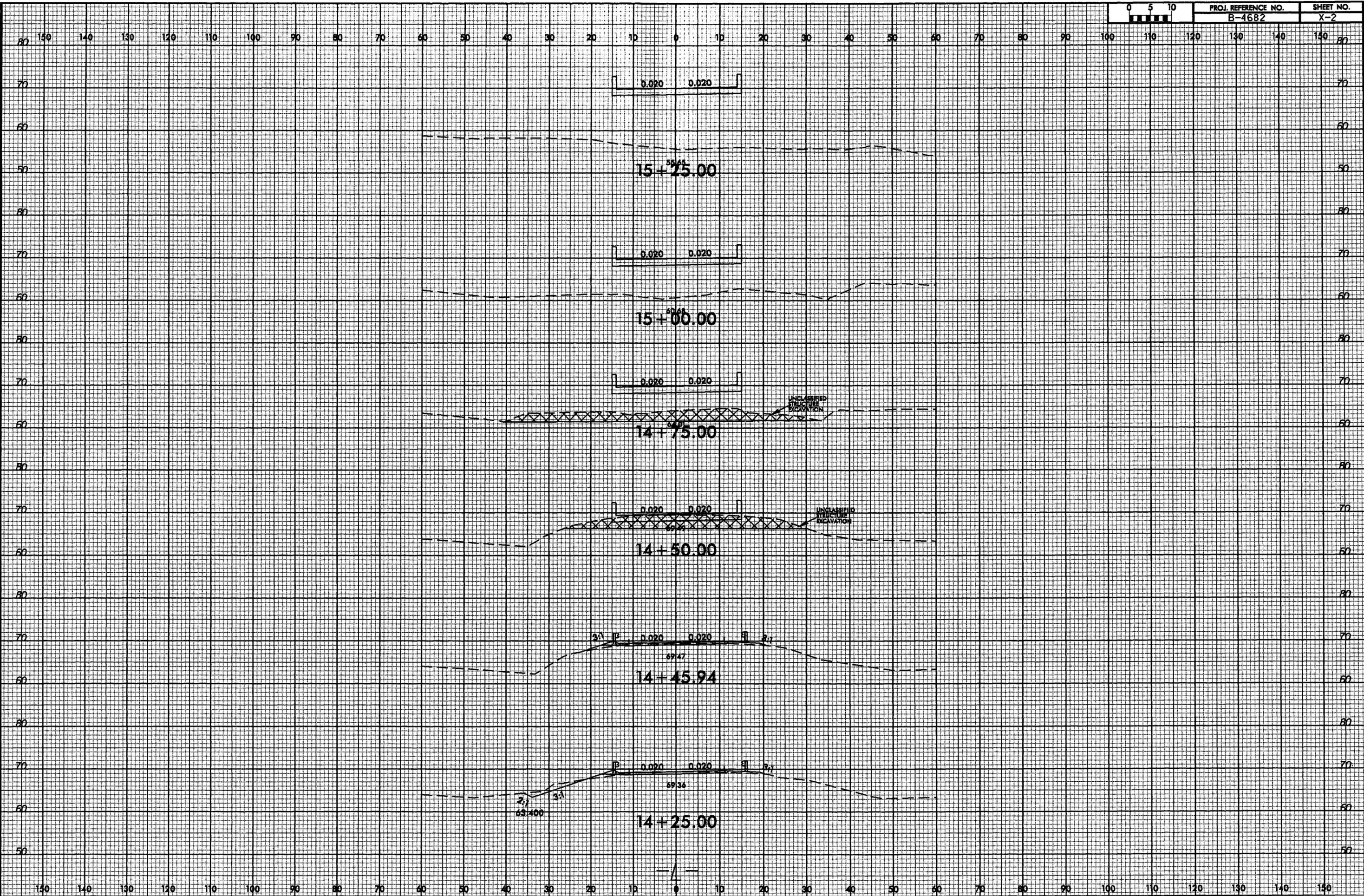
Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Shoulder Borrow, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

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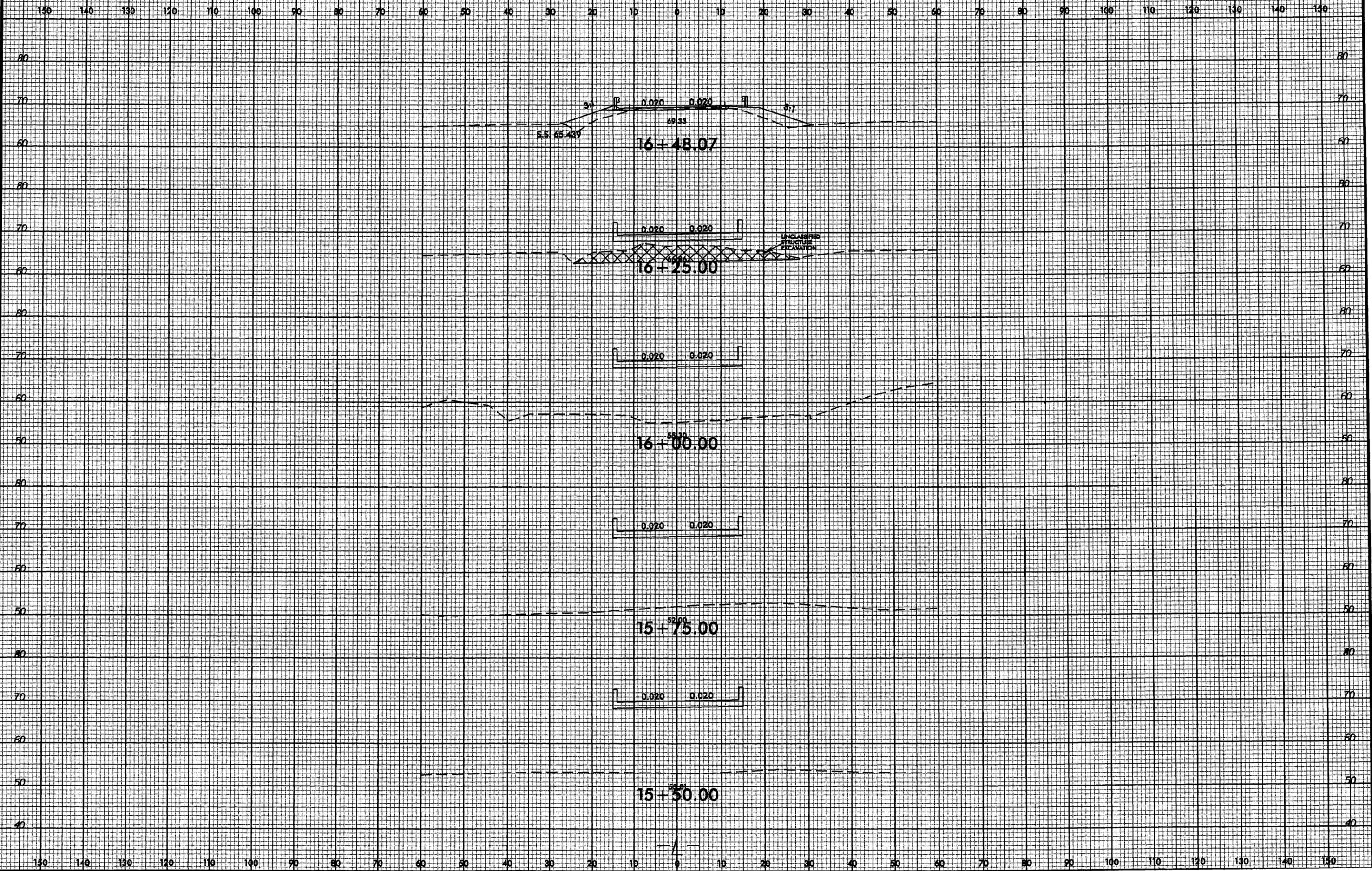


PROJ. REFERENCE NO. B-4682	SHEET NO. X-2
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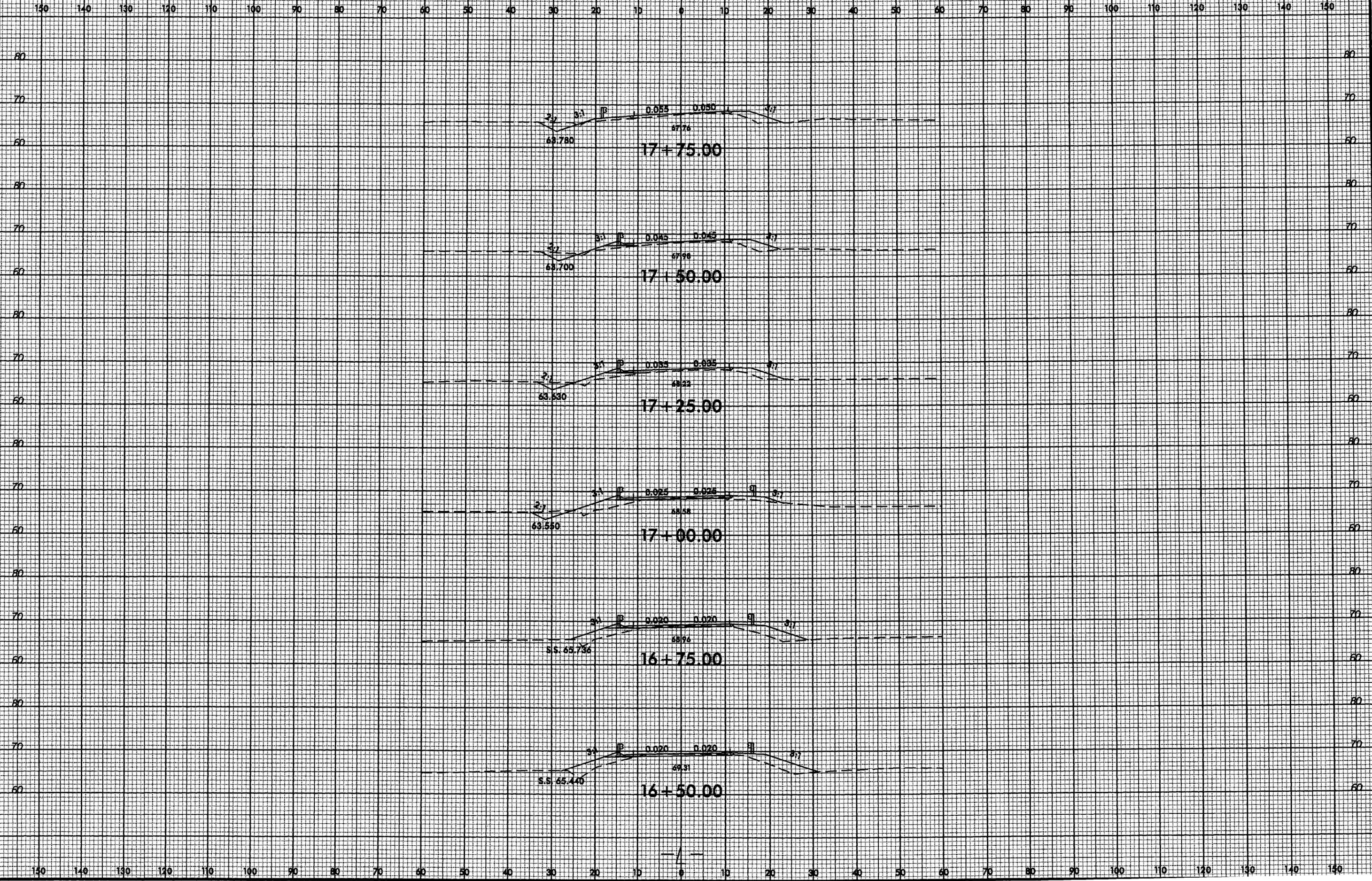
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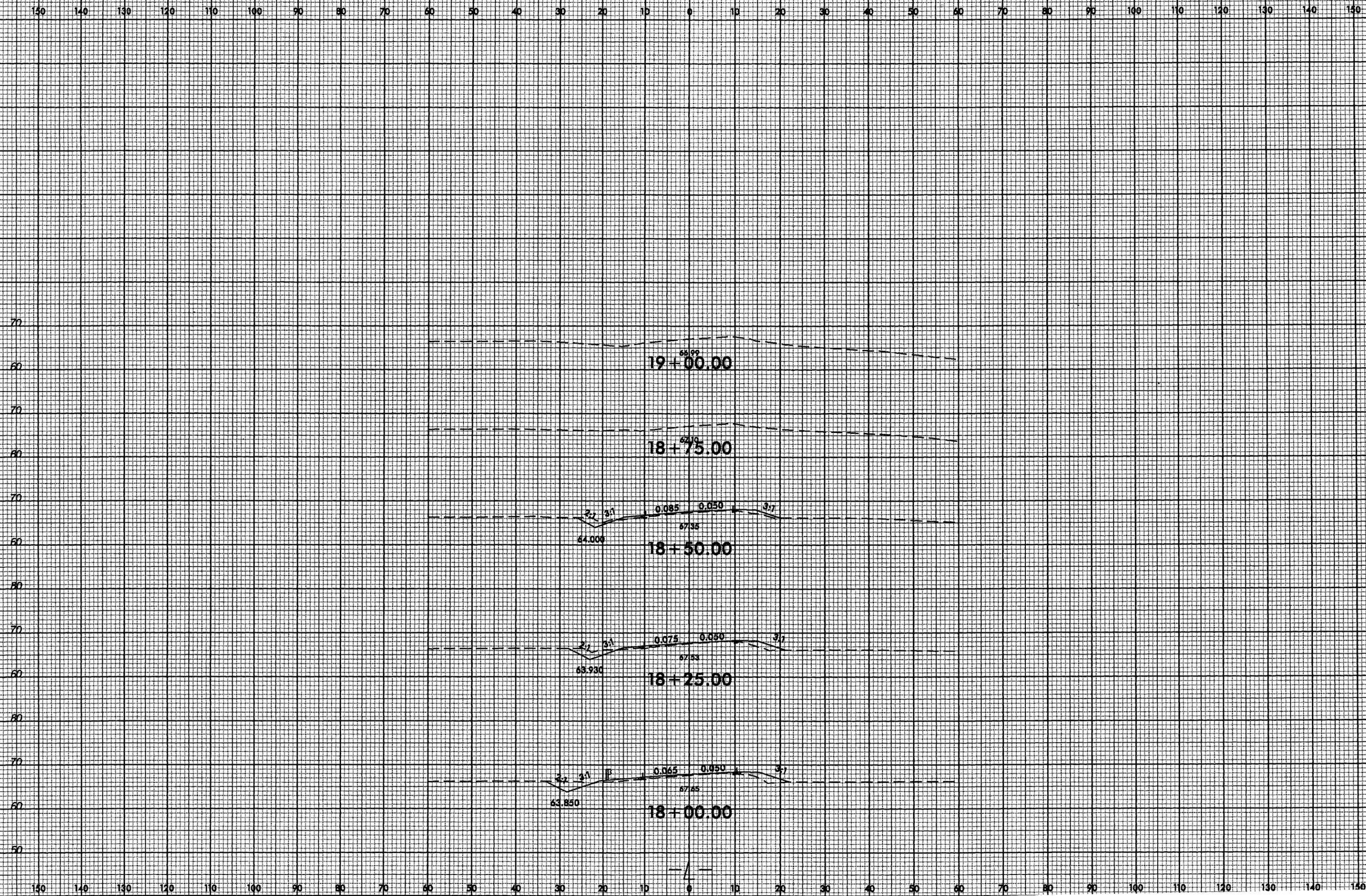
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8/23/98



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