



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY  
GOVERNOR

ANTHONY J. TATA  
SECRETARY

July 10, 2013

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

ATTN: Ms. Amanda Fuemmeler  
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 23, 33 and 13** for the proposed replacement of Bridge No. 215 over Mountain Creek on SR 1542 in Stanly County, Federal Aid Project No. BRZ-1542(7), WBS 42296.1.1, Division 10, TIP No. B-5137.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to replace Bridge No. 215 over Mountain Creek on SR 1542 with an 85' long, two-span cored slab bridge on the existing alignment. Traffic will be maintained during construction via an offsite detour.

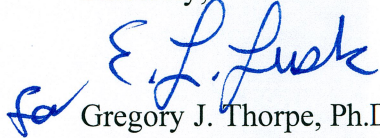
There will be <0.01 acre of mechanized clearing in wetlands to accommodate new roadway slopes, 8 linear feet of stream bank stabilization at the outlet of a base ditch and 10 linear feet (<0.01 acre) of temporary stream impacts associated with installation of the bank stabilization.

Please see enclosed copies of the Pre-Construction Notification (PCN), stormwater management plan, permit drawings and design plans for the above-referenced project. The Programmatic Categorical Exclusion (PCE) was completed in January 2012 and distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of February 18, 2014 and a review date of December 31, 2013; however, the let date may advance as additional funding becomes available.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Erin Cheely at (919) 707-6108.

Sincerely,

A handwritten signature in blue ink that reads "for E. J. Thorpe". The signature is written in a cursive style.

Gregory J. Thorpe, Ph.D., Manager

Project Development and Environmental Analysis Unit

cc:

NCDOT Permit Application Standard Distribution List



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

## Pre-Construction Notification (PCN) Form

### A. Applicant Information

#### 1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 13 23 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular	<input type="checkbox"/> Non-404 Jurisdictional General Permit	
<input type="checkbox"/> 401 Water Quality Certification – Express	<input type="checkbox"/> Riparian Buffer Authorization	
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

#### 2. Project Information

2a. Name of project:	Replacement of Bridge 215 over Mountain Creek on SR 1542
2b. County:	Stanly
2c. Nearest municipality / town:	Albemarle
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-5137

#### 3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6108
3g. Fax no.:	(919) 212-5785
3h. Email address:	ekcheely@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: 35.38765 (DD.DDDDDD) Longitude: - 82.16174 (-DD.DDDDDD)
1c. Property size:	1.2 acre
<b>2. Surface Waters</b>	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Mountain Creek
2b. Water Quality Classification of nearest receiving water:	WS-IV
2c. River basin:	Yadkin-Pee Dee
<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 land use within the vicinity of the project consists of about 30% forest land (including mixed pine-hardwood forests), 30% developed or disturbed lands (roadsides and residential areas) and 40% cultivated land (agricultural fields and pastures).	
3b. List the total estimated acreage of all existing wetlands on the property:  0.27	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property:  155	
3d. Explain the purpose of the proposed project: The purpose of this project is to replace a structurally deficient (sufficiency rating of 22.4 of 100) bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 46-foot single-span bridge with a 85' long, two-span cored slab bridge on the existing alignment with a temporary 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: Rapanos and JD packet sent February 2009. NCDOT is requesting a final JD with this permit.	<input checked="" type="checkbox"/> Yes <input 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: Mulkey Other: USACE desired to issue JD w/permit instead
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. DWQ performed site visit 3/31/09 and verified via letter 4/1/09. USACE was sent JD package in 2009 and new USACE wetland determination forms in 2011.	
<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.	

<b>C. Proposed Impacts Inventory</b>						
<b>1. Impacts Summary</b>						
1a. Which sections were completed below for your project (check all that apply):						
<input checked="" type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
<b>2. Wetland Impacts</b>						
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 checked="" type="checkbox"/> P <input type="checkbox"/> T	Mechanized clearing	Bottomland Hardwood Forest	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	<0.01	
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		
<b>2g. Total wetland impacts</b>					<0.01 Permanent 0 Temporary	
2h. Comments: Impact is from mechanized clearing to accommodate new roadway slopes						
<b>3. Stream Impacts</b>						
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 2 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Bank Stabilization	Mountain Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	35	8
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Bank Stabilization	Mountain Creek	<input checked="" type="checkbox"/> PER <input type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	35	10 (<0.01 ac)
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>						8 Perm 10 Temp (<0.01 ac)
3i. Comments: Bank stabilization at the outlet of a 2' base ditch in the northeast quadrant. Small amount of temporary impacts associated with installation of bank stabilization.						

**4. Open Water Impacts**

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
<b>4f. Total open water impacts</b>				0 Permanent 0 Temporary

4g. Comments: No open water within construction limits.

**5. Pond or Lake Construction**

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

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

**6. Buffer Impacts (for DWQ)**

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

6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>6h. Total buffer impacts</b>					
6i. Comments: This project is not located within a protected buffer area.					



<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 cored slab bridge is significantly longer than the existing bridge, and will span Mountain Creek. The longer bridge will allow for excavation of road fill under the crossing, which will improve bridge conveyance and reduce the bridge opening velocities. No water will be directly discharged to the creek via deck drains. Grass shoulders will be provided, promoting sheet flow and infiltration. The drainage systems in the vicinity of the bridge will outlet to a rip rap pad.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. Traffic will be maintained off-site during construction, eliminating the need for a temporary on-site detour. Best Management Practices (BMPs) will be utilized during construction to attempt to reduce the stormwater impacts to the receiving stream due to erosion and runoff.		
<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 If no, explain: No loss of waters of U.S.	
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:	0 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):	0 square feet	
4e. Riparian wetland mitigation requested:	0 acres	
4f. Non-riparian wetland mitigation requested:	0 acres	
4g. Coastal (tidal) wetland mitigation requested:	0 acres	
4h. Comments: The NCDOT does not propose mitigation for the 8 linear feet of stream bank stabilization activities (including the 10 linear feet of temporary stream impacts associated with the stabilization) or the <0.01 acre of mechanized clearing in the wetland. Stabilizing the bank of a stream does not require fill in the stream bed and, therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation. Furthermore, the proposed bank stabilization activities are necessary to prevent erosion and sedimentation, i.e. preventing bank destabilization and minimizing impacts to the environment. The <0.01 acre of mechanized clearing in the wetland is well below the threshold of impacts requiring mitigation (verified this with USACE 6/28/13).		
<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.		

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

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

Yes       No

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

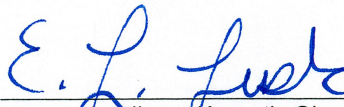
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
<b>6f. Total buffer mitigation required:</b>				

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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments: If required from 1a, see attached buffer permit drawings.	<input 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 checked="" 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 N/A
<b>5. DWQ 401 Unit Stormwater Review</b>	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

<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: Programmatic Categorical Exclusion (PCE) approved 1/12/12	<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.  Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
<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 type="checkbox"/> Raleigh <input checked="" type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat?  As of 12/26/12, there is only one federally listed species for Stanly County, Schweinitz's sunflower. Habitat for Schweinitz's sunflower is present in the study area. Surveys were conducted by NCDOT biologists throughout all areas of suitable habitat within the project area on September 17, 2008 and September 13, 2011. No individuals of this species were observed during either survey. There are known populations of Schweinitz's sunflower within 1.0 mile of the project, but construction activities from this bridge replacement will not affect these populations. Phone conversations with Jason Mays (USFWS) in September 2011 confirmed that the biological conclusion for Schweinitz's sunflower is No Effect.		
<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: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	7.9.13 Date



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



(Version 1.2; Released September 2011)

**Project/TIP No.:** 42296.1.1 B-5137      **County(ies):** Stanly      **Page** 1 **of** 1

**General Project Information**

<b>Project No.:</b>		42296.1.1 B-5137		<b>Project Type:</b>		Bridge Replacement		<b>Date:</b>		3/28/2013	
<b>NCDOT Contact:</b>		Galen Cail		<b>Contractor / Designer:</b>							
<b>Address:</b>		1020 Birch Ridge Dr. Raleigh, NC 27610		<b>Address:</b>							
<b>Phone:</b>		919.707.6711		<b>Phone:</b>							
<b>Email:</b>		gcail@ncdot.gov		<b>Email:</b>							
<b>City/Town:</b>		Albemarle		<b>County(ies):</b>		Stanly					
<b>River Basin(s):</b>		Yadkin-Pee Dee		<b>CAMA County?</b>		No					
<b>Primary Receiving Water:</b>		Mountain Creek		<b>NCDWQ Stream Index No.:</b>		13-5-(0.7)					
<b>NCDWQ Surface Water Classification for Primary Receiving Water</b>		<b>Primary:</b>		Water Supply IV (WS-IV)		Class C					
		<b>Supplemental:</b>		None							
<b>Other Stream Classification:</b>		None									
<b>303(d) Impairments:</b>		None									
<b>Buffer Rules in Effect</b>		N/A									

**Project Description**

<b>Project Length (lin. Miles or feet):</b>	500 ft.	<b>Surrounding Land Use:</b>	Residential
<b>Proposed Project</b>		<b>Existing Site</b>	
<b>Project Built-Up Area (ac.)</b>	0.27 ac.		0.25 ac.
<b>Typical Cross Section Description:</b>	2-12' lanes with 6' shoulders (4' paved) Bridge will be 2-12' lanes with 4.9' shoulders		2-10' lanes, 2' shoulder width. Bridge 10' lanes with 1' shoulders.
<b>Average Daily Traffic (veh/hr/day):</b>	<b>Design/Future:</b> 2300/2300	<b>Existing:</b>	1500(2012)

**General Project Narrative:**

The project consists of replacing Bridge #215 on SR 1542 (Ridge Rd.) over Mountain Creek. The approach work will consist of raising the existing roadway grade and providing grass shoulders and guardrails. Bridge #215 existing 1 span structure (46' total length) will be replaced with a 2 span (1 @ 55', 1 @ 30', cored slab bridge) 85' total length.

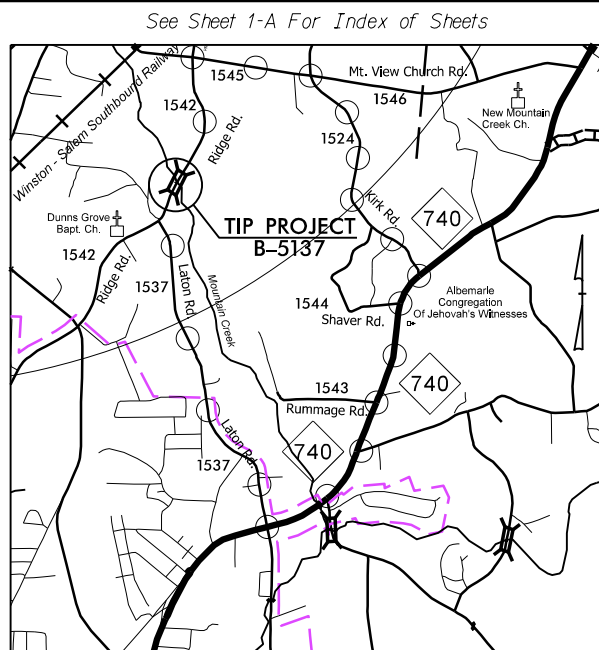
Best Management Practices:

- Promotion of sheet flow and infiltration with grass shoulders.
- Drainage systems outlet to rip rap pad.
- Removal of existing road fill under bridge will improve bridge conveyance and reduce the bridge opening velocities.

**References**

09/08/99

**CONTRACT: TIP PROJECT: B-5137**



OFFSITE DETOUR   
 THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

**STANLY COUNTY**

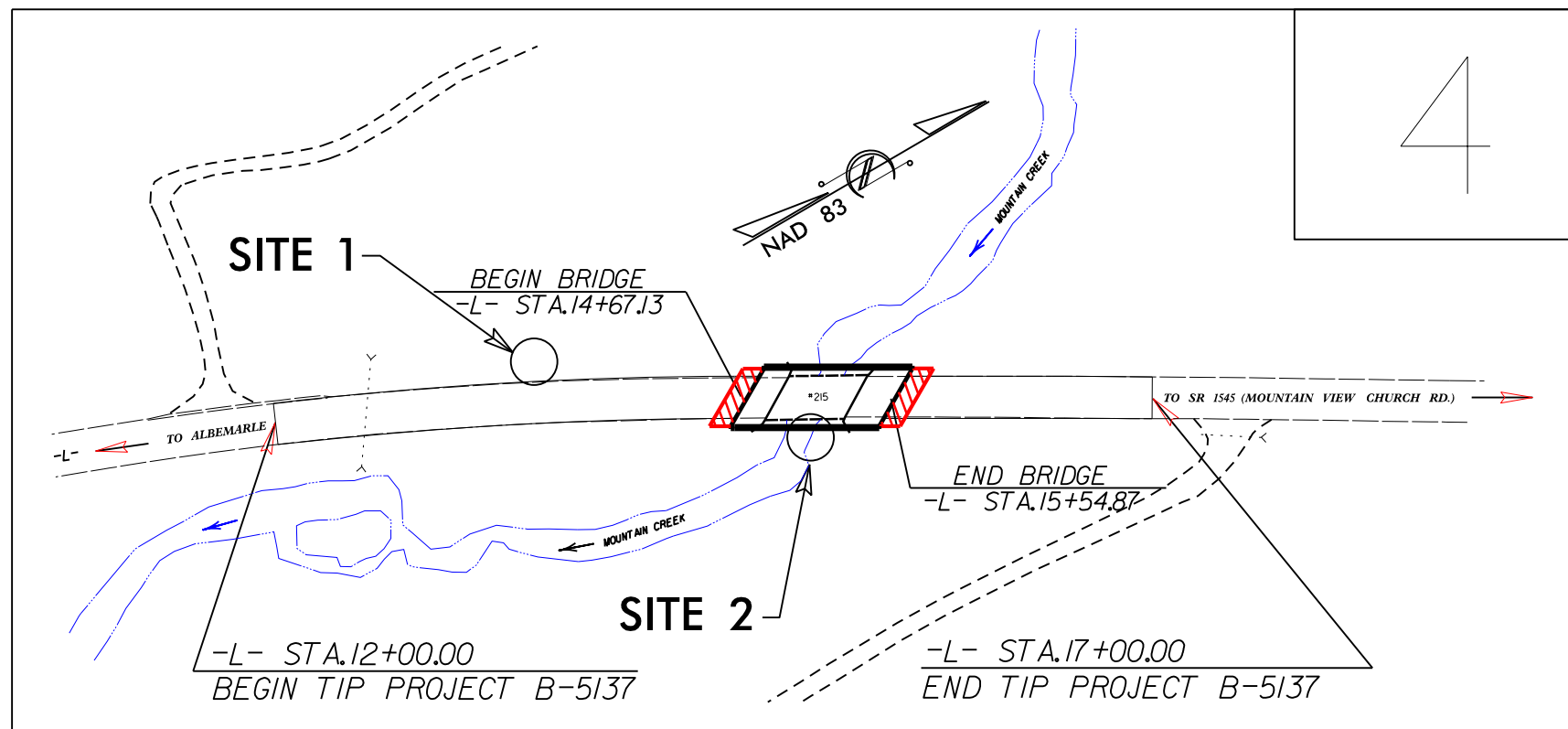
**LOCATION: REPLACE BRIDGE NO. 215 OVER MOUNTAIN CREEK ON SR 1542 (RIDGE RD.)**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5137	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42296.1.1	BRZ-1542(7)	P.E.	
42296.2.1	BRZ-1542(7)	RW & UTIL.	

Permit Drawing Sheet 1 of 7

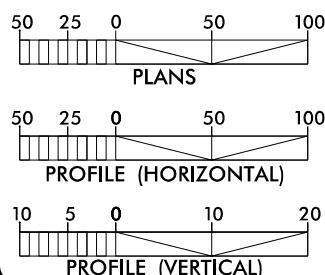
**WETLAND AND SURFACE WATER IMPACTS PERMIT**



CLEARING LIMITS ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS  
 DO NOT USE FOR CONSTRUCTION

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2012 = 1504  
 ADT 2035 = 2300  
 DHV = 60 %  
 D = 10 %  
 T = 5 % \*  
 V = 50 MPH  
 \* TTST = 1% DUAL 4%  
 FUNC CLASS =  
 RURAL COLLECTOR  
 SUBREGIONAL TIER

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT B-5137 = 0.079 MILES  
 LENGTH OF STRUCTURE TIP PROJECT B-5137 = 0.016 MILES  
 TOTAL LENGTH OF TIP PROJECT B-5137 = 0.095 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
 AUGUST 17, 2012

LETTING DATE:  
 OCTOBER 15, 2013

G. E. BREW, PE  
 PROJECT ENGINEER

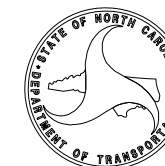
W. T. BEST  
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

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




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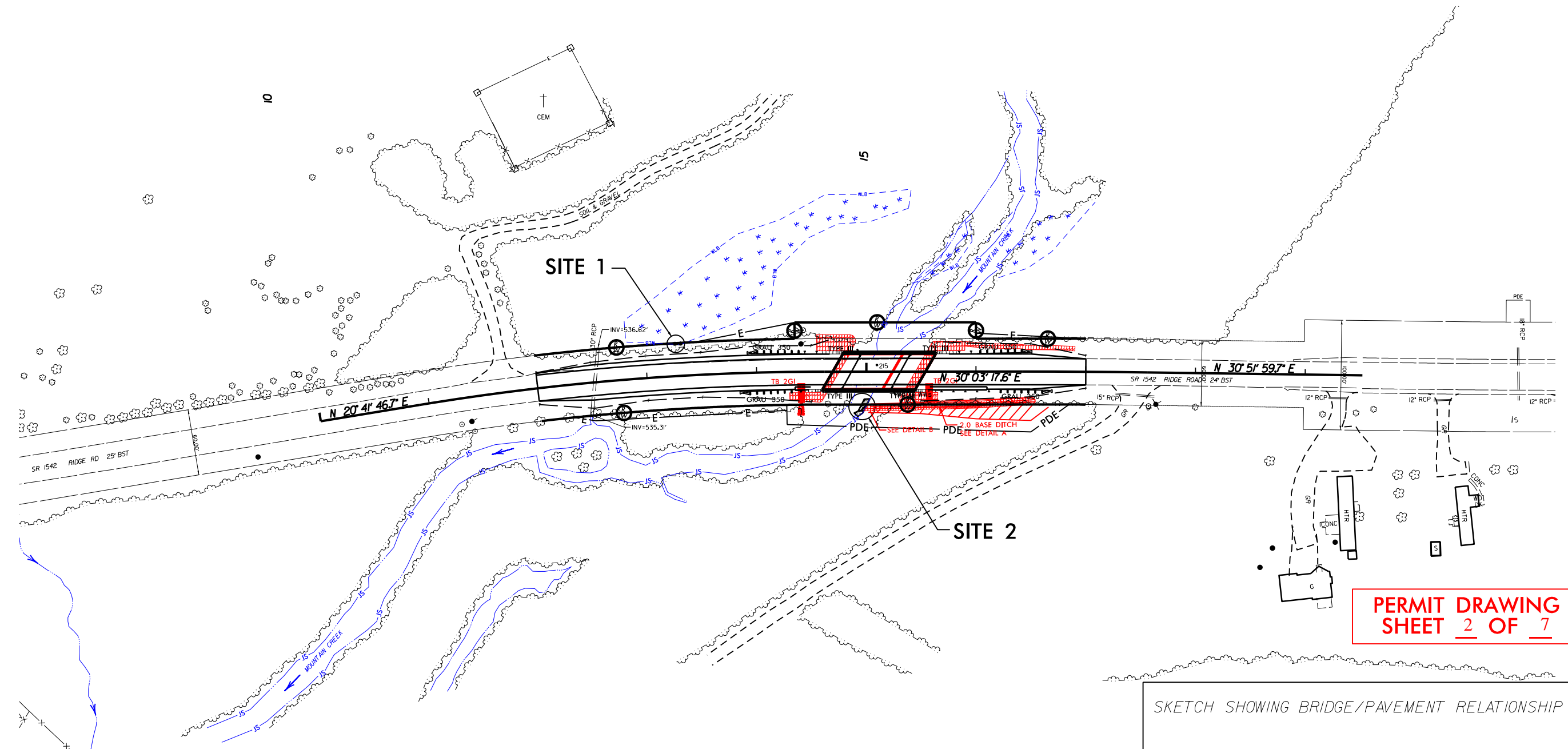
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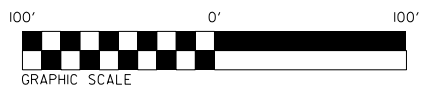
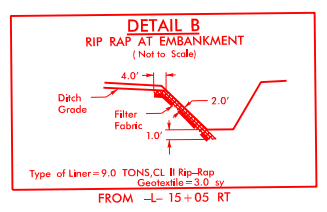
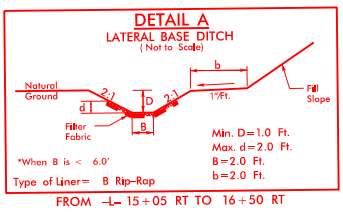
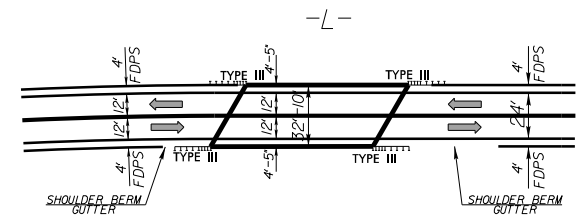
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING



**PERMIT DRAWING SHEET 2 OF 7**

SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP






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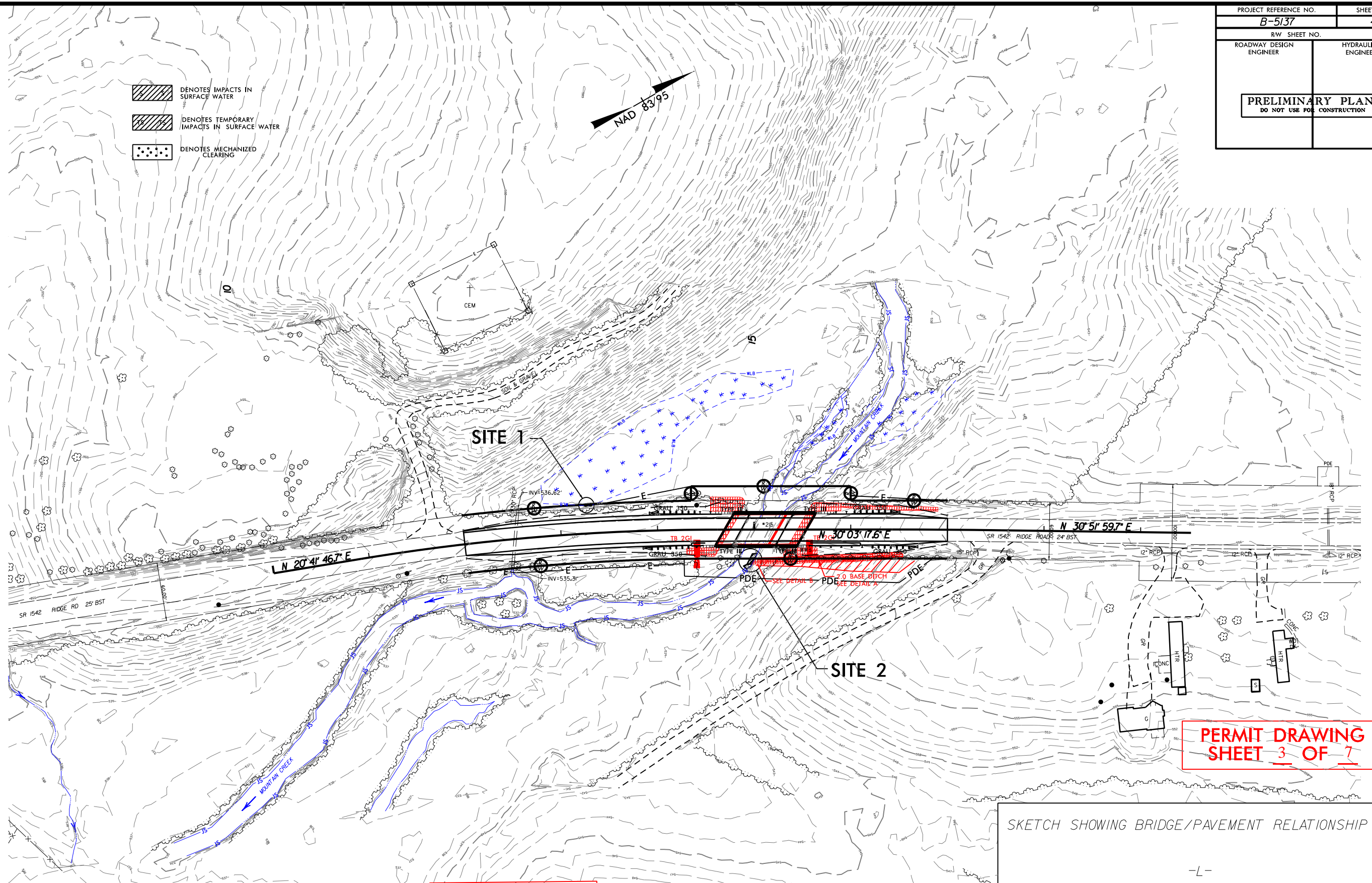
4/2/2013  
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 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$DGN\$\$\$\$\$\$  
 \$\$\$\$\$\$PRINTE\$\$\$\$\$\$

8/17/99

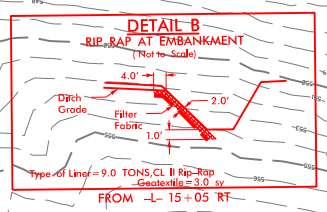
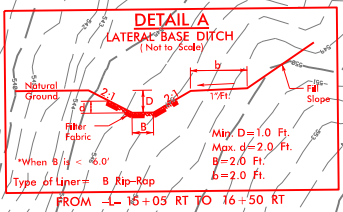
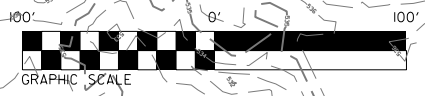


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RW SHEET NO.	
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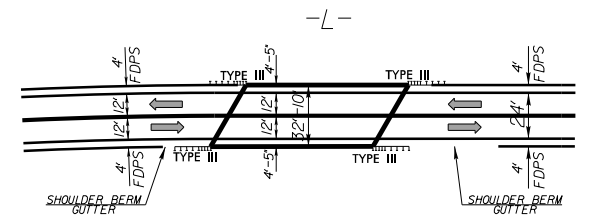
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-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING



PERMIT DRAWING  
SHEET 3 OF 7



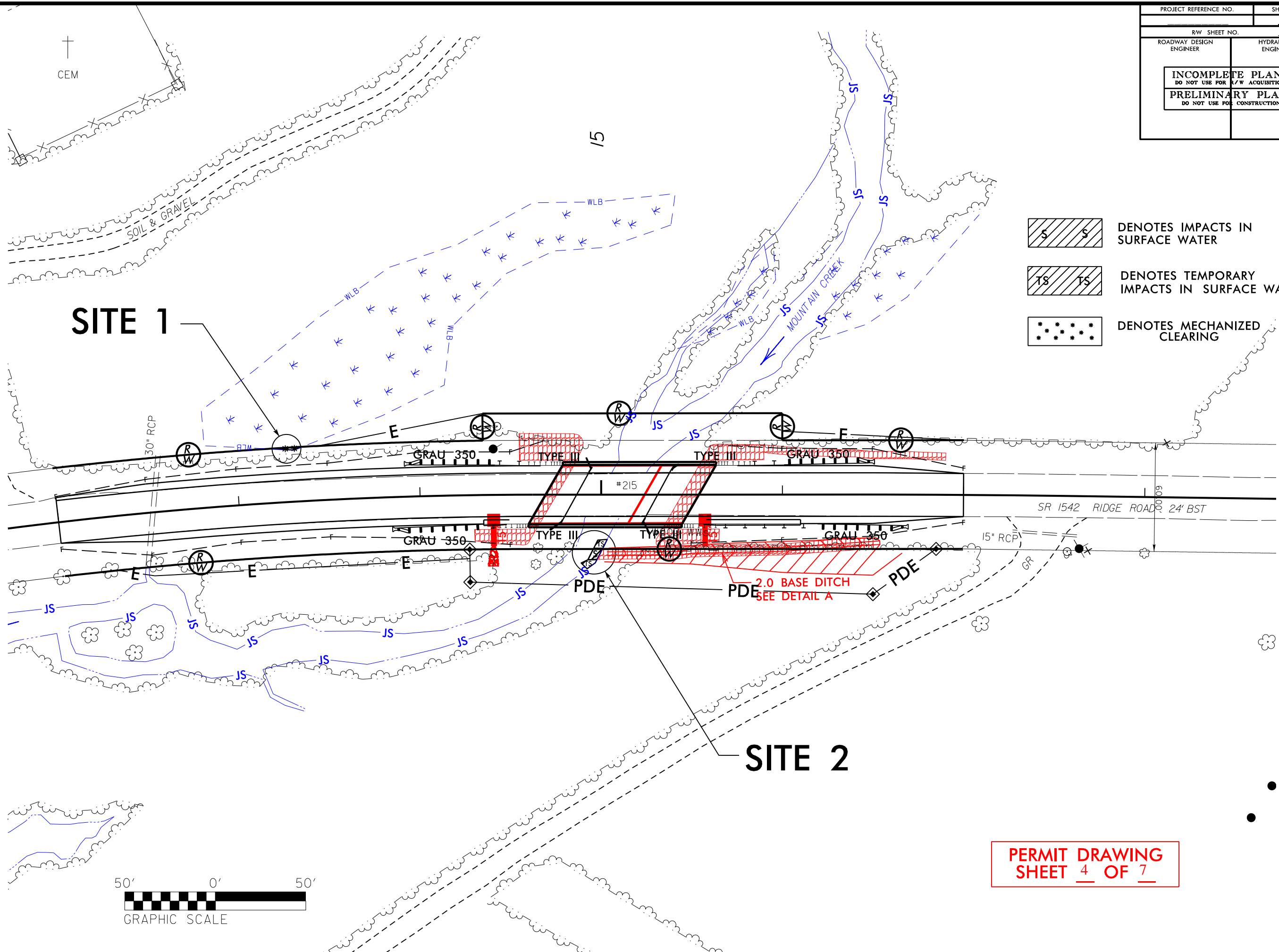
SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

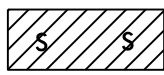
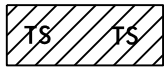
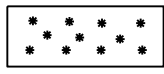


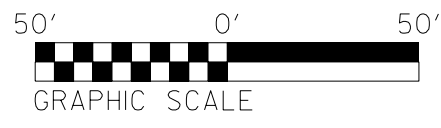
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 B.M. Rev. Corrected of set distance for proposed R.W. L. and Rt. of Sta. 17+00.00 -L- -WLB JL/29/12

4/2/2013  
 R. Hydrolics Permits Environmental Drawings  
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$DGN\$\$\$\$\$\$  
 \$\$\$\$PRINT\$\$\$\$\$\$

PROJECT REFERENCE NO.	SHEET NO.
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	



-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER
-  DENOTES MECHANIZED CLEARING



**PERMIT DRAWING**  
**SHEET 4 OF 7**

4/22/2013  
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 Idclawson  
 8/17/99  
 REVISIONS

5/14/99

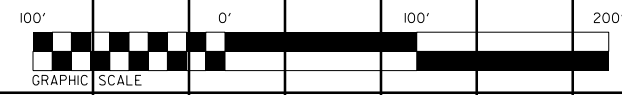
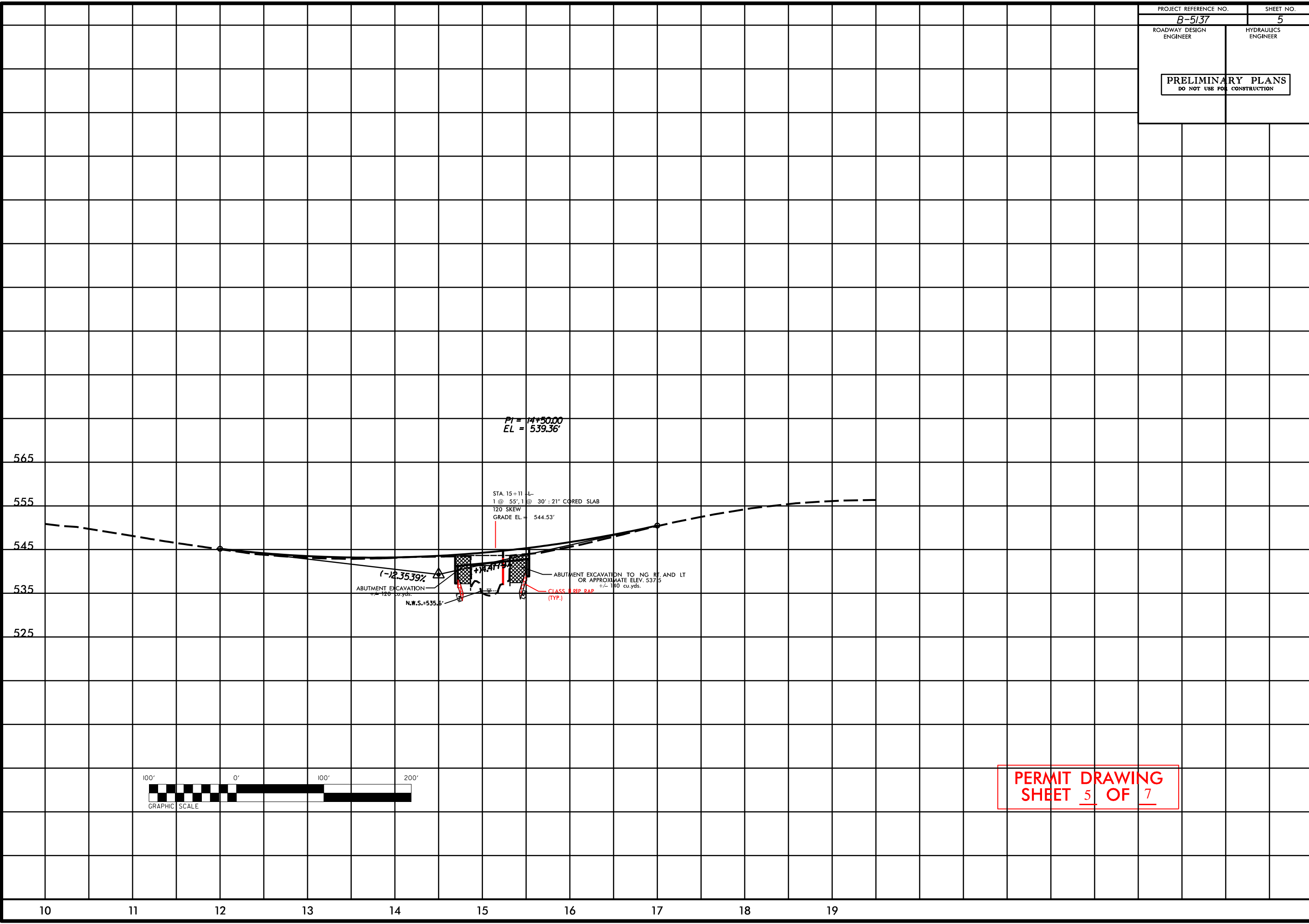
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B-5137 5

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

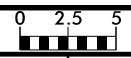
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DO NOT USE FOR CONSTRUCTION



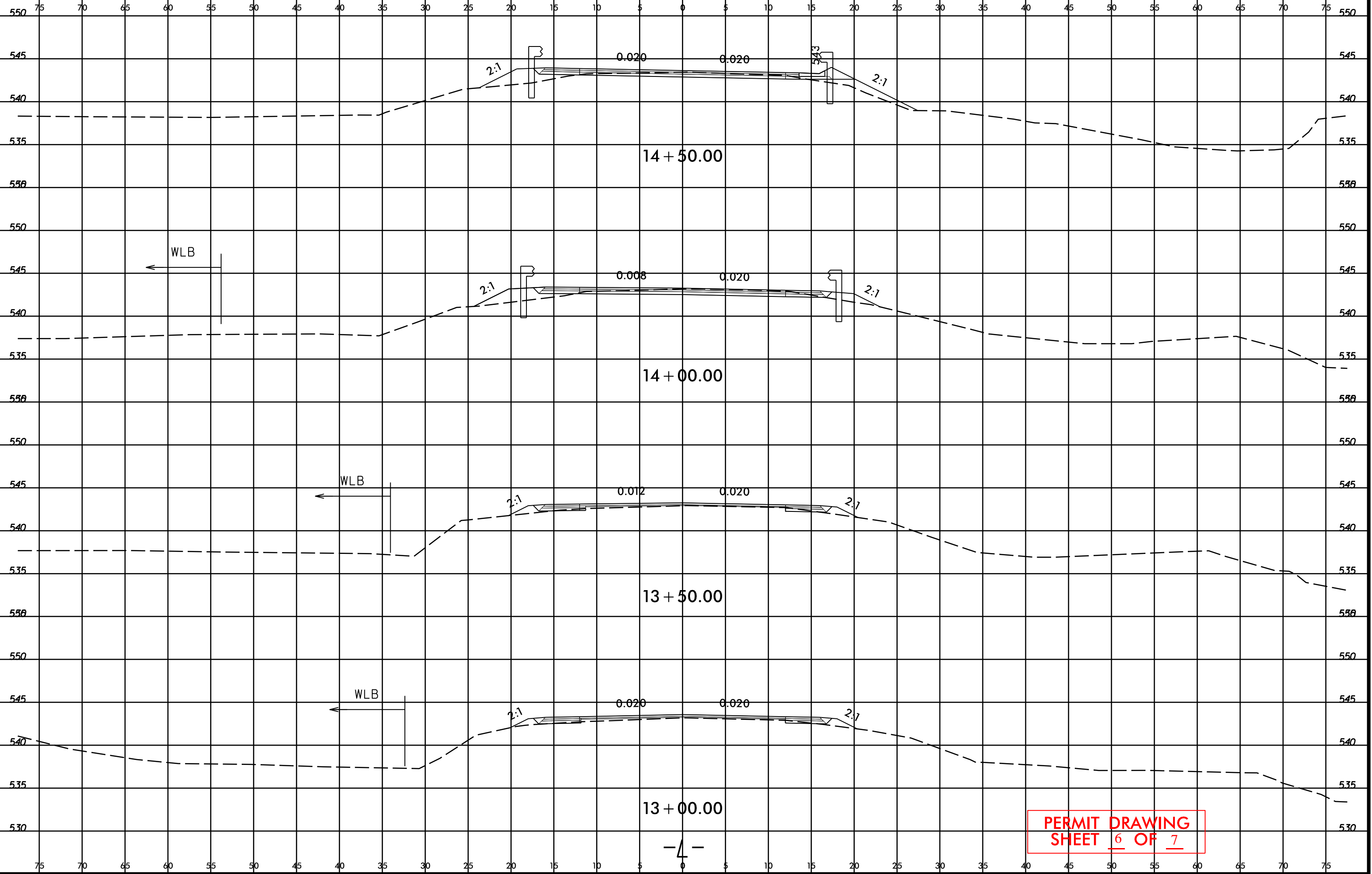
PERMIT DRAWING  
SHEET 5 OF 7

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\$\$\$\$SYTIME\$\$\$\$

8/23/99



PROJ. REFERENCE NO.	SHEET NO.
B-5137	X-2



PERMIT DRAWING  
 SHEET 6 OF 7

4/2/03  
 Backhoe  
 \$\$\$SYTIME\$\$\$  
 \$\$\$USERNAME\$\$\$

**WETLAND PERMIT IMPACT SUMMARY**

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	13+30 Lt.					<.01						
2	15+00 Rt.	Bank Stabilization						<.01	<.01	8	10	
<b>TOTALS:</b>						<.01		<.01	<.01	8	10	

NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
  
 COUNTY  
 WBS - 42296.1.1 (B-5137)

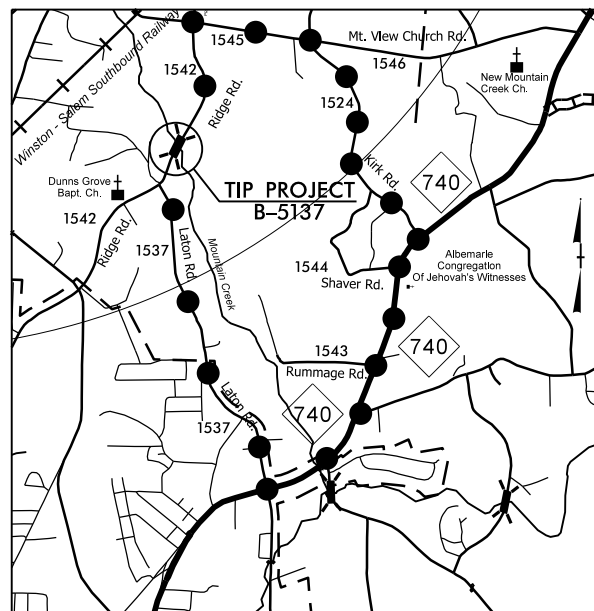
SHEET **7 of 7** 4/11/2013

09/08/99

**TIP PROJECT: B-5137**

**CONTRACT:**

See Sheet 1-A For Index of Sheets



OFFSITE DETOUR ●—●—●—●  
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES

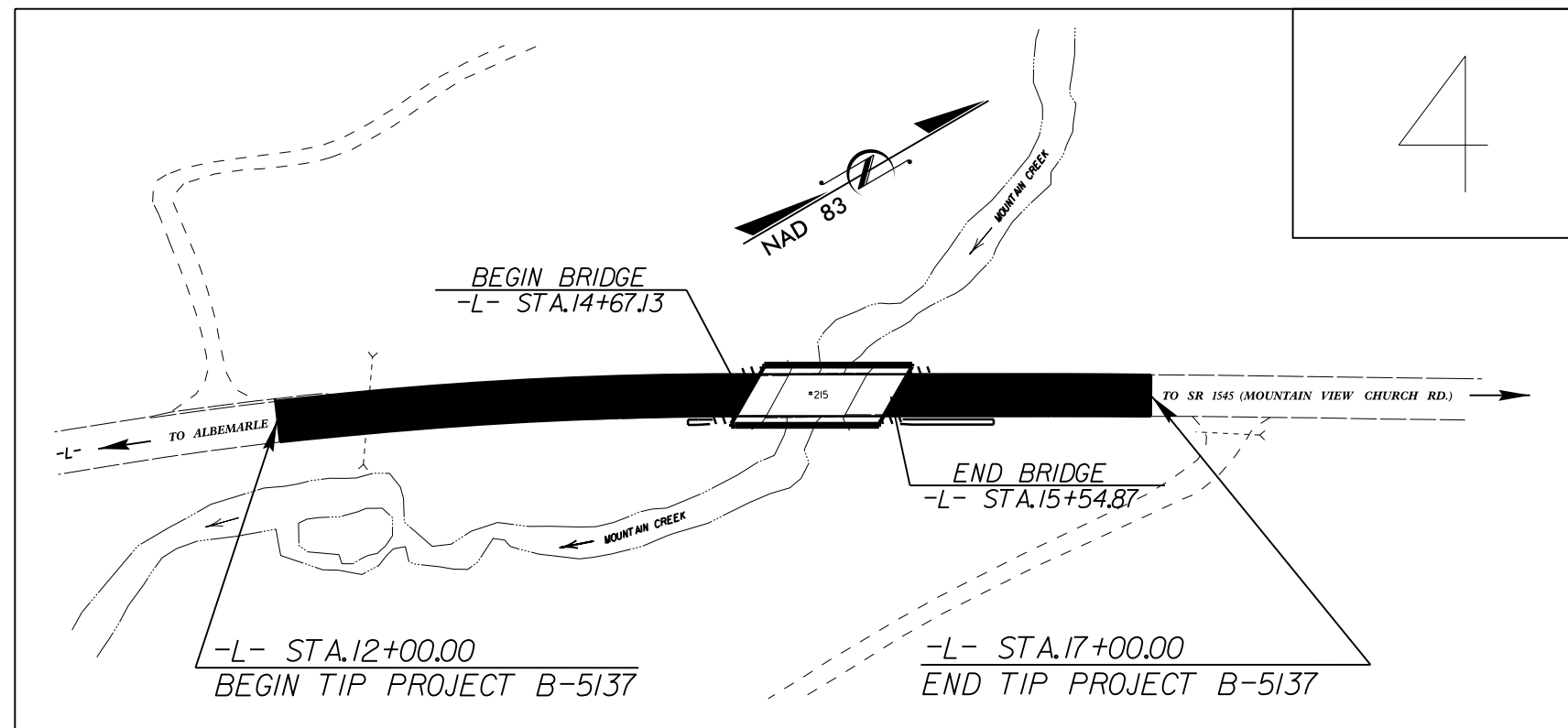
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**STANLY COUNTY**

**LOCATION: REPLACE BRIDGE NO. 215 OVER MOUNTAIN CREEK ON SR 1542 (RIDGE RD.)**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE**

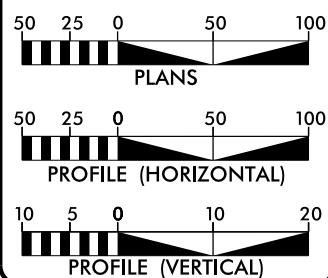
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5137	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42296.1.1	BRZ-1542(7)	P.E.	
42296.2.1	BRZ-1542(7)	RW & UTIL.	



CLEARING LIMITS ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

**GRAPHIC SCALES**



**DESIGN DATA**

ADT 2012 = 1504  
ADT 2035 = 2300  
DHV = 60 %  
D = 10 %  
T = 5 % \*  
V = 50 MPH  
\* TTST = 1% DUAL 4%  
FUNC CLASS = RURAL COLLECTOR  
SUBREGIONAL TIER

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT B-5137 = 0.079 MILES  
LENGTH OF STRUCTURE TIP PROJECT B-5137 = 0.016 MILES  
TOTAL LENGTH OF TIP PROJECT B-5137 = 0.095 MILES

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

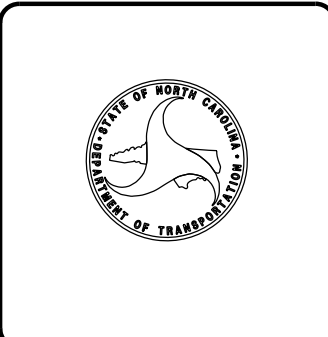
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: AUGUST 17, 2012	G. E. BREW, PE PROJECT ENGINEER
LETTING DATE: OCTOBER 15, 2013	W. T. BEST PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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



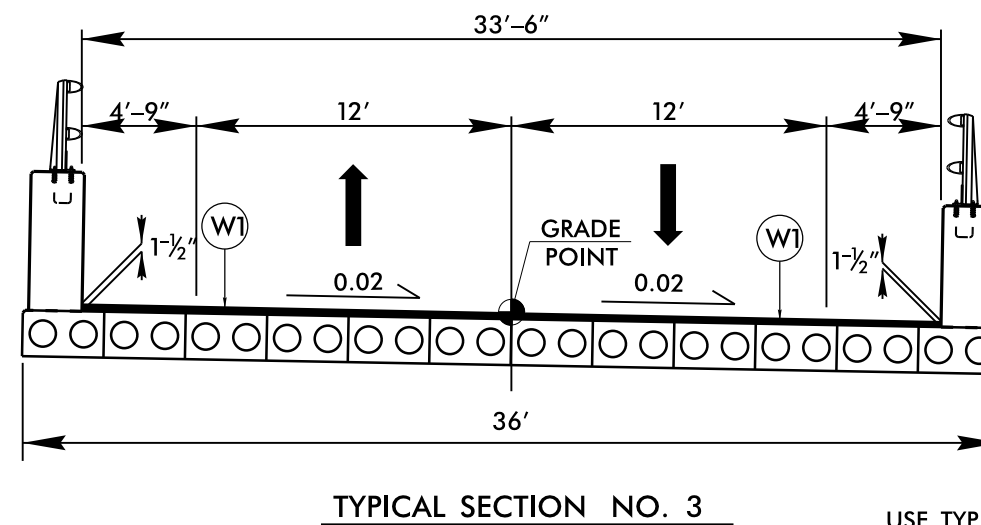
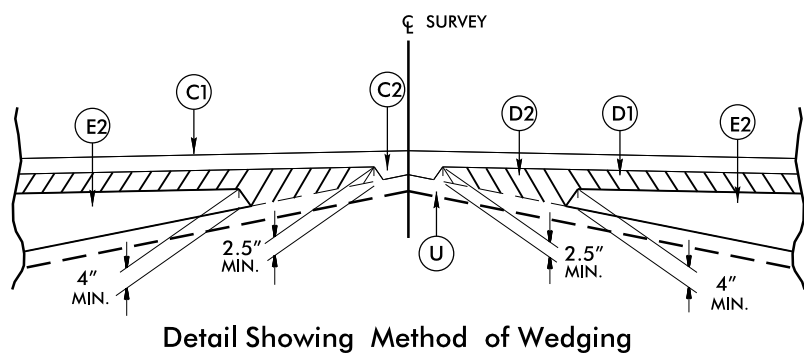
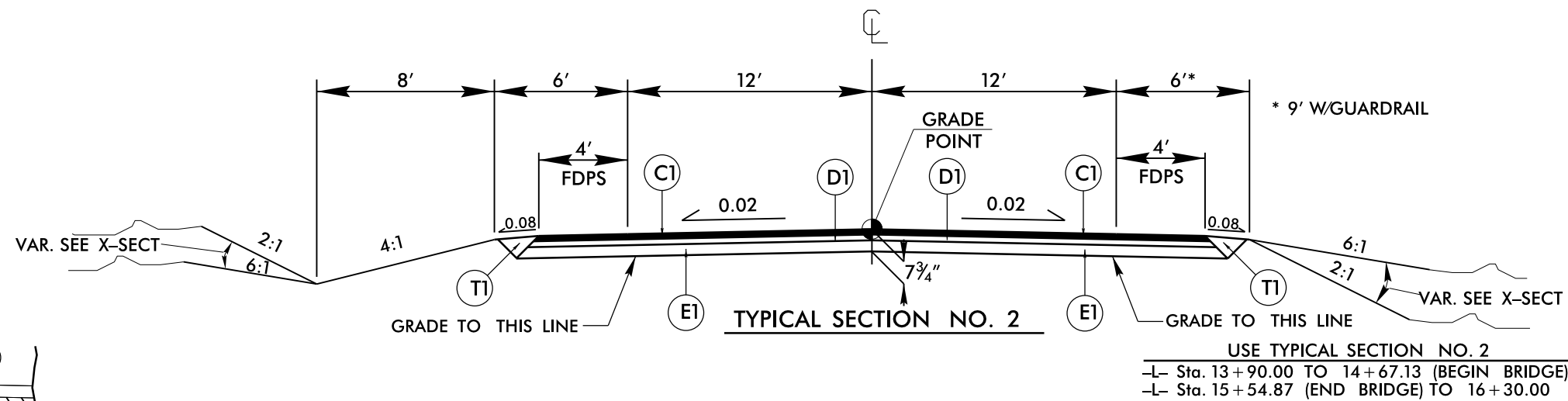
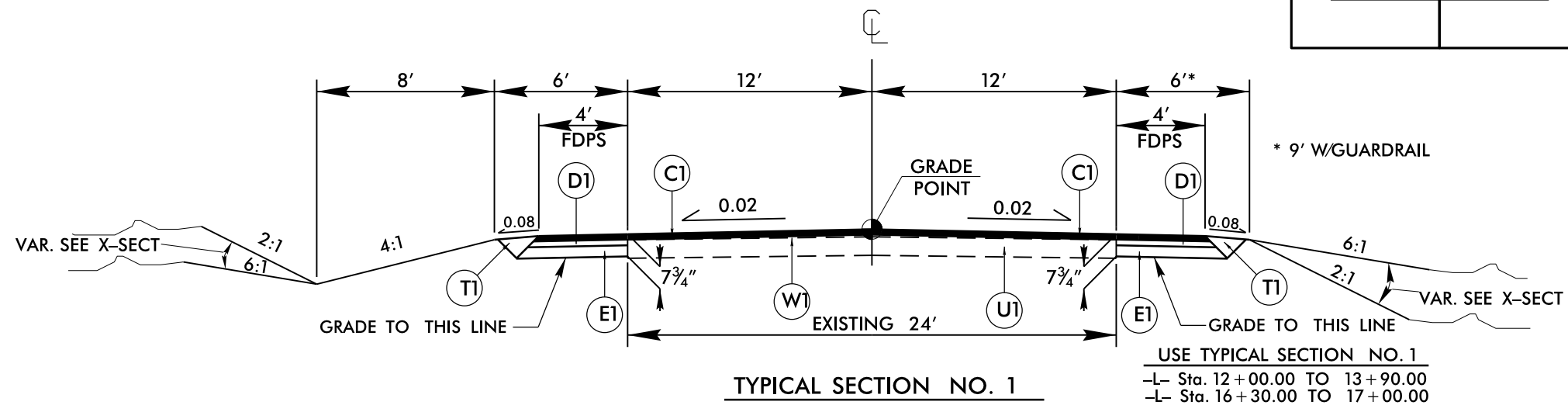
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PROJECT REFERENCE NO. <b>B-5137</b>	SHEET NO. <b>2</b>
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

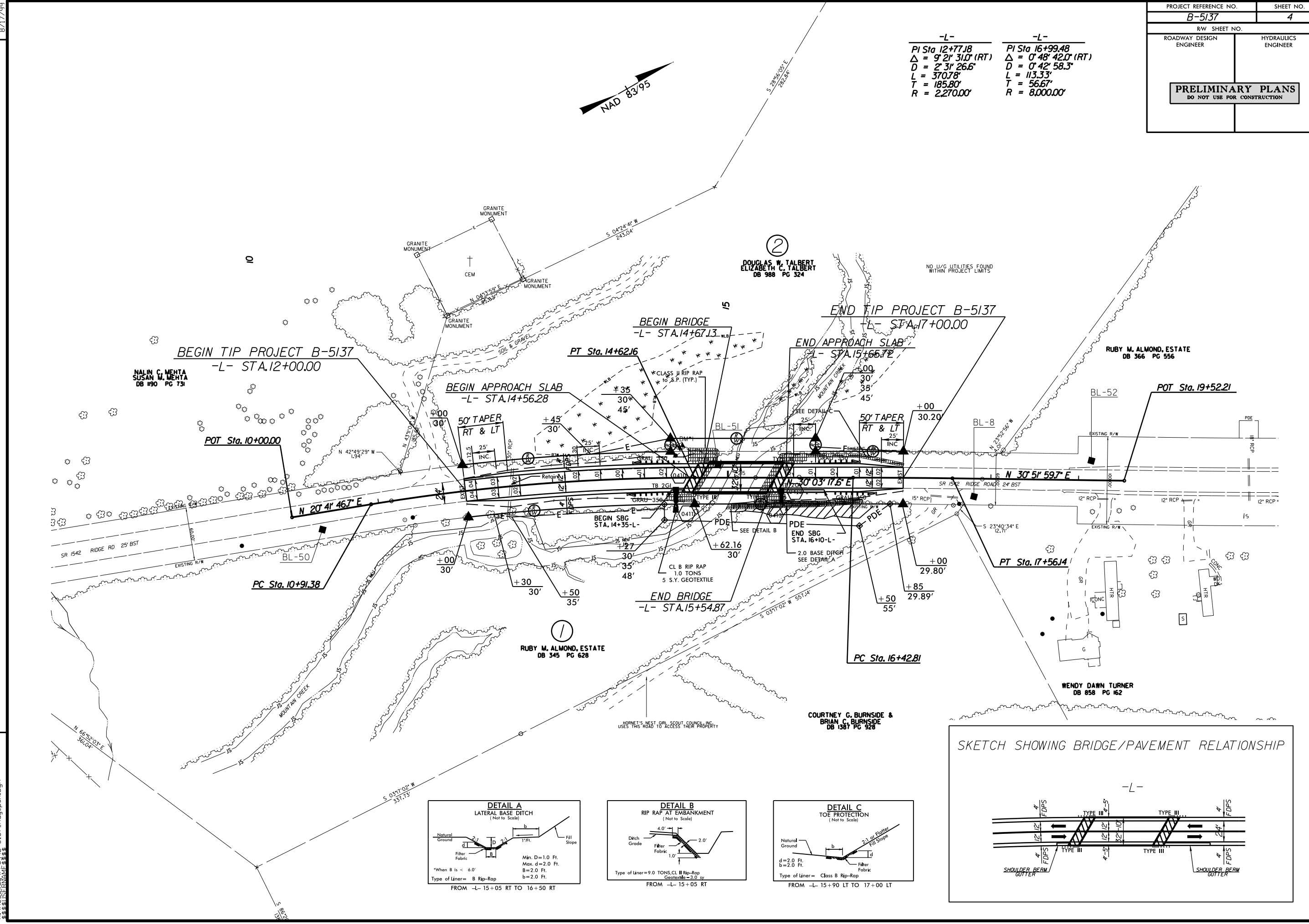
### PAVEMENT SCHEDULE

C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	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 PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 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.
T1	EARTH MATERIAL.
U1	EXISTING PAVEMENT.
W1	VARIABLE DEPTH ASPHALT PAVEMENT

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

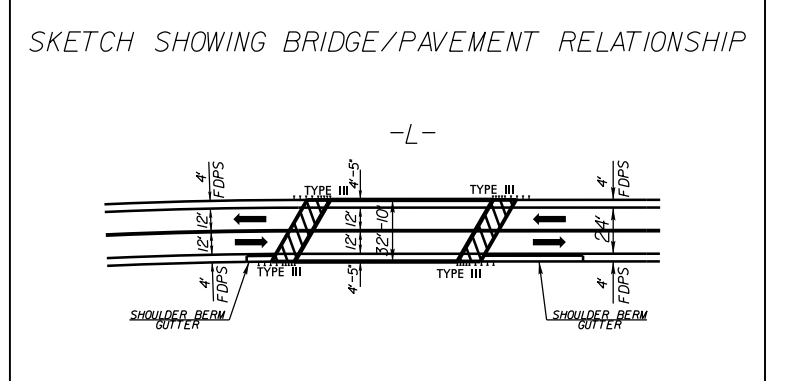
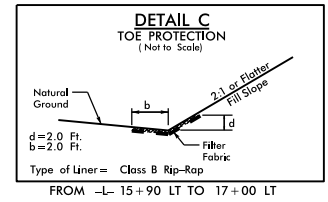
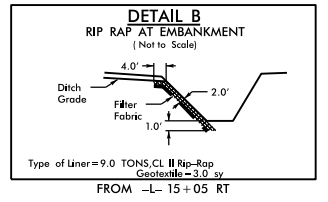
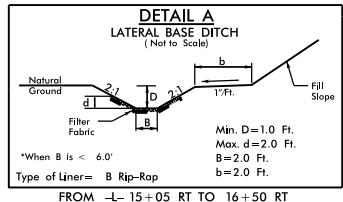


-L-	-L-
PI Sta 12+77.8	PI Sta 16+99.48
$\Delta = 9^{\circ} 21' 31.0''$ (RT)	$\Delta = 0^{\circ} 48' 42.0''$ (RT)
D = 2' 31' 26.6"	D = 0' 42' 58.3"
L = 370.78'	L = 113.33'
T = 185.80'	T = 56.67'
R = 2270.00'	R = 8,000.00'



REVISIONS  
R/W Rev. Corrected off set distance for proposed R/W Lt. and Rt. of Sta. 17+00.00 -L-, WTB 11/29/12

22-FEB-2013 11:33 AM B-5137\_Rdy\_psh.dgn  
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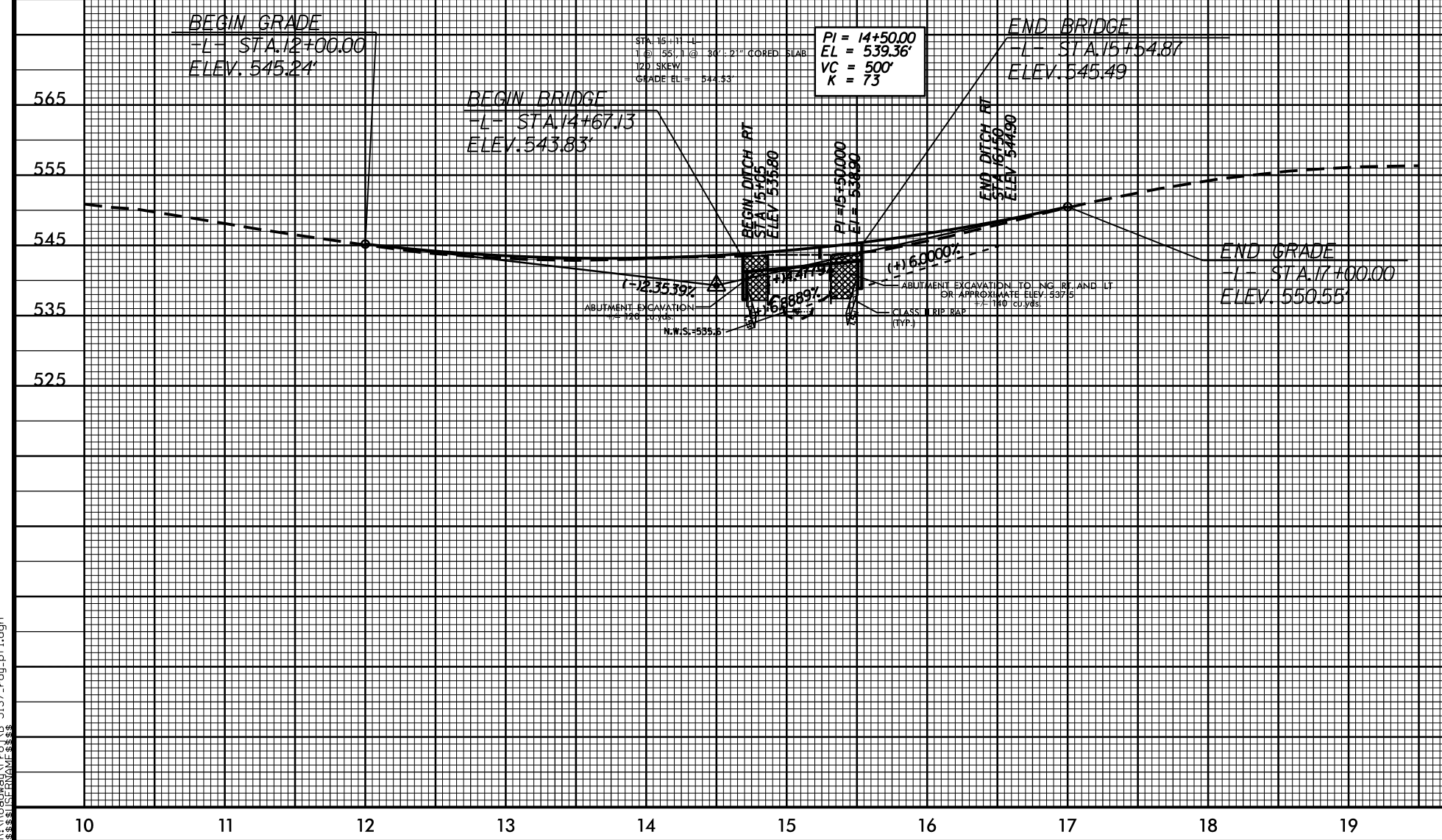
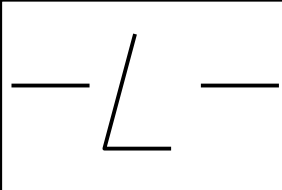




5/14/99

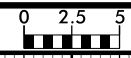
BM\* 1 ELEV. = 540.82'  
DESCRIPTION: RR SPIKE IN 20" OAK  
35.64' ON THE RT OF -L- STA. 14+46.72

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1620	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 542.5	FT
BASE DISCHARGE	= 2328	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 543.9	FT
OVERTOPPING DISCHARGE	= +/- 2320	CFS
OVERTOPPING FREQUENCY	= +/- 100	YRS
OVERTOPPING ELEVATION	= 543.3	FT
	=	FT
DATE OF SURVEY	=	
W.S. ELEVATION AT DATE OF SURVEY	= 535.6	FT

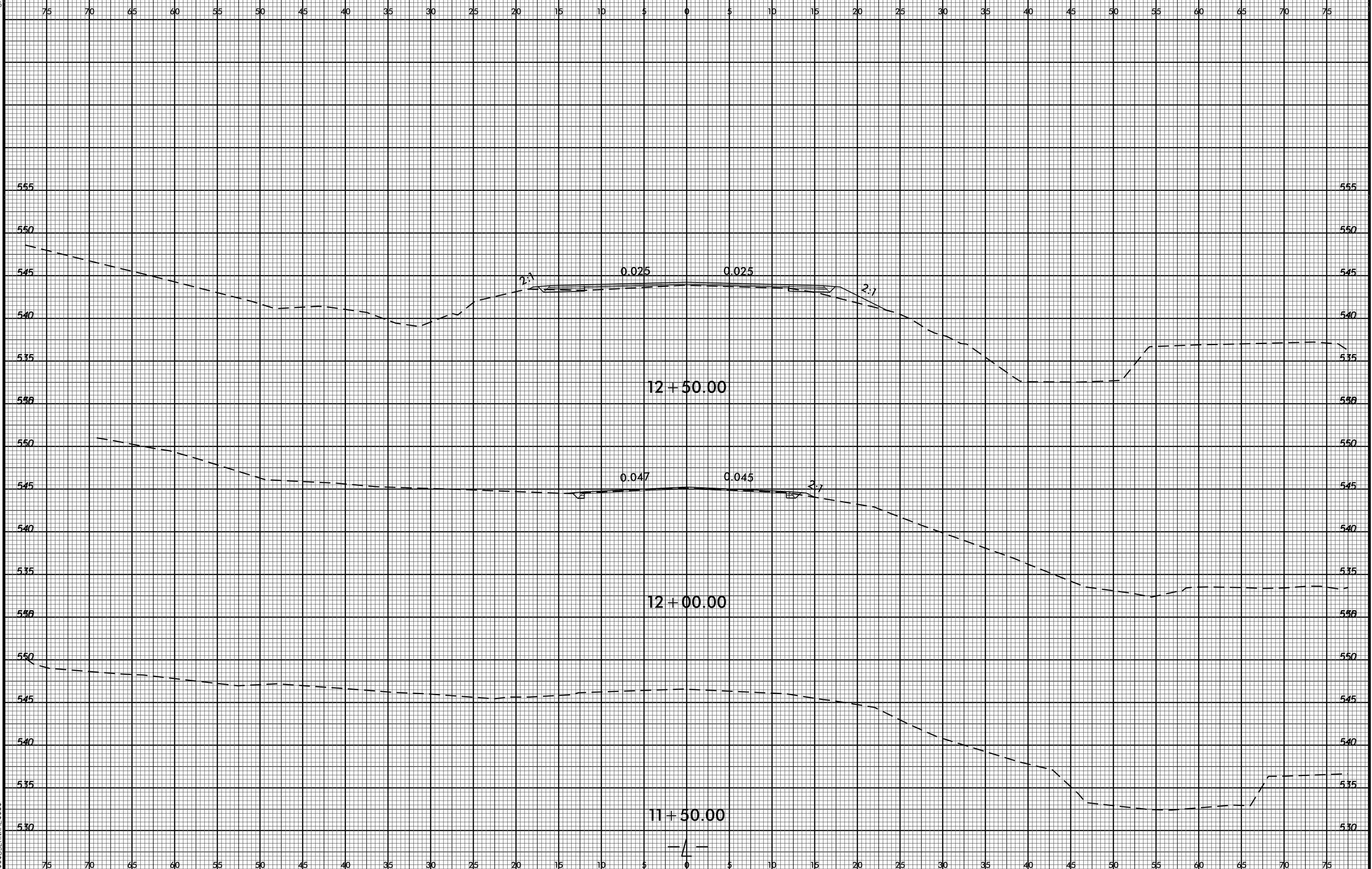


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8/23/99

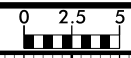


PROJ. REFERENCE NO.	SHEET NO.
B-5137	X-1

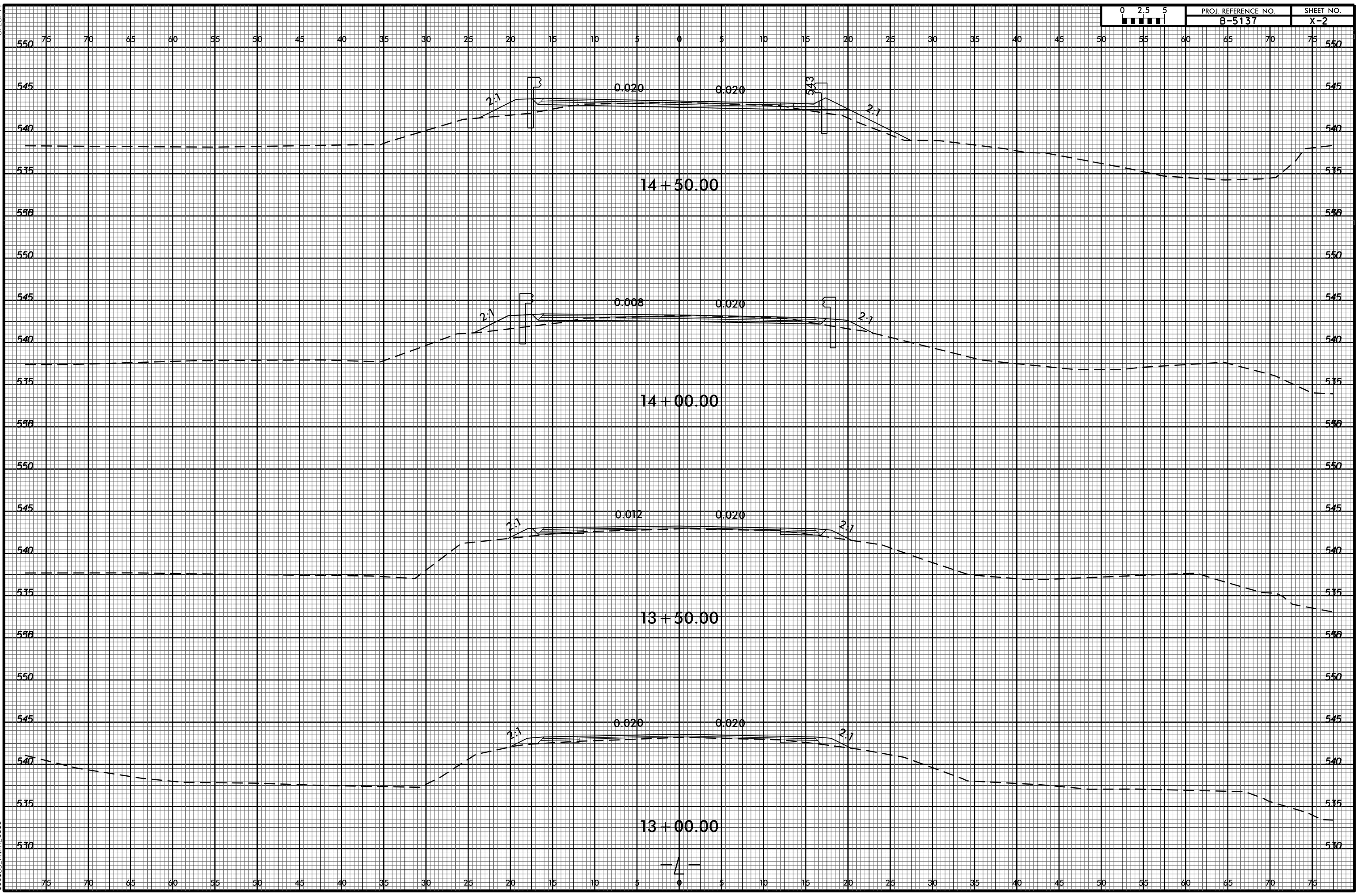


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8/23/99

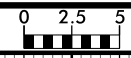


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B-5137	X-2

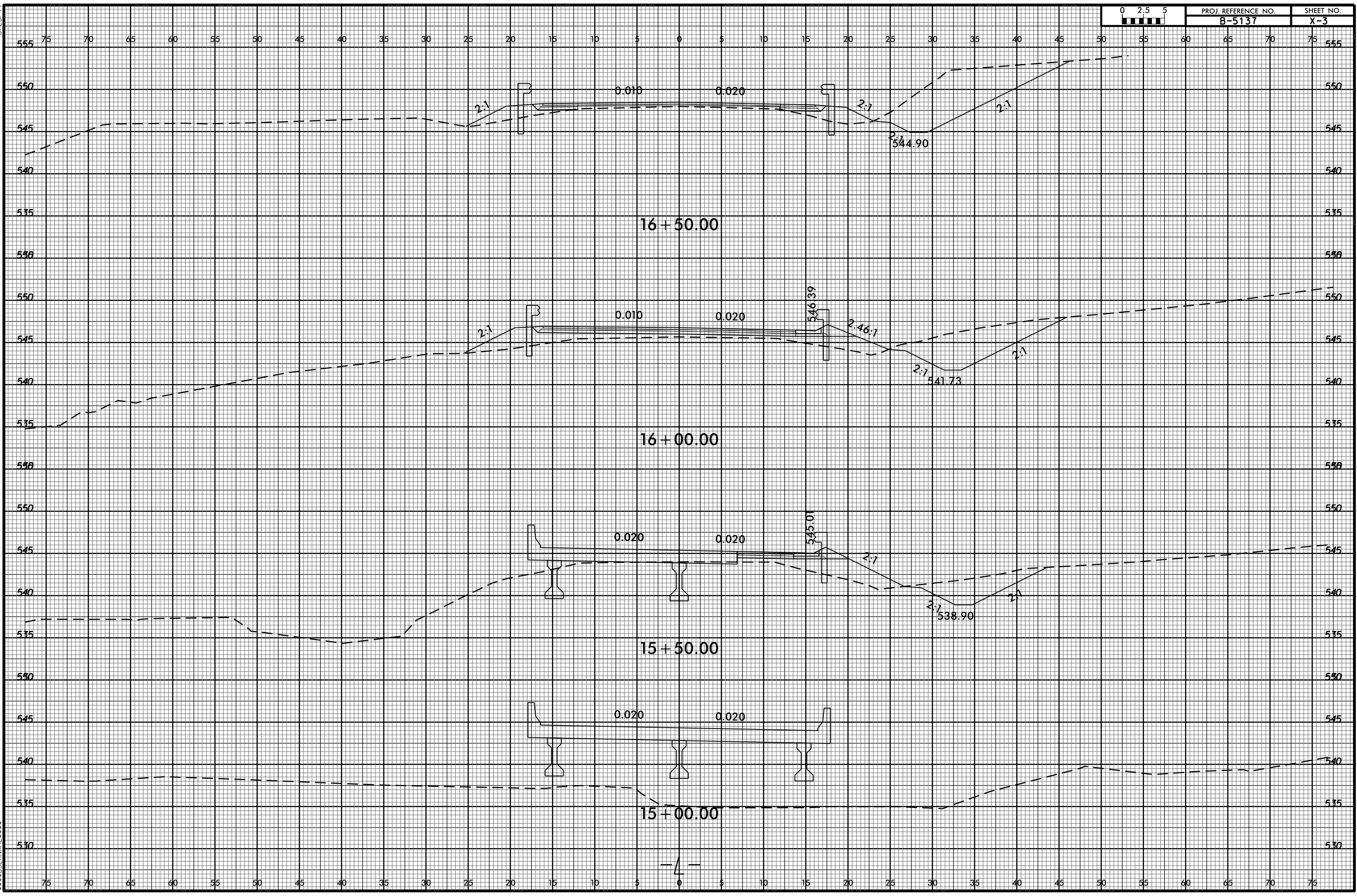


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8/23/99

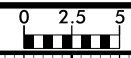


PROJ. REFERENCE NO.	SHEET NO.
B-5137	X-3

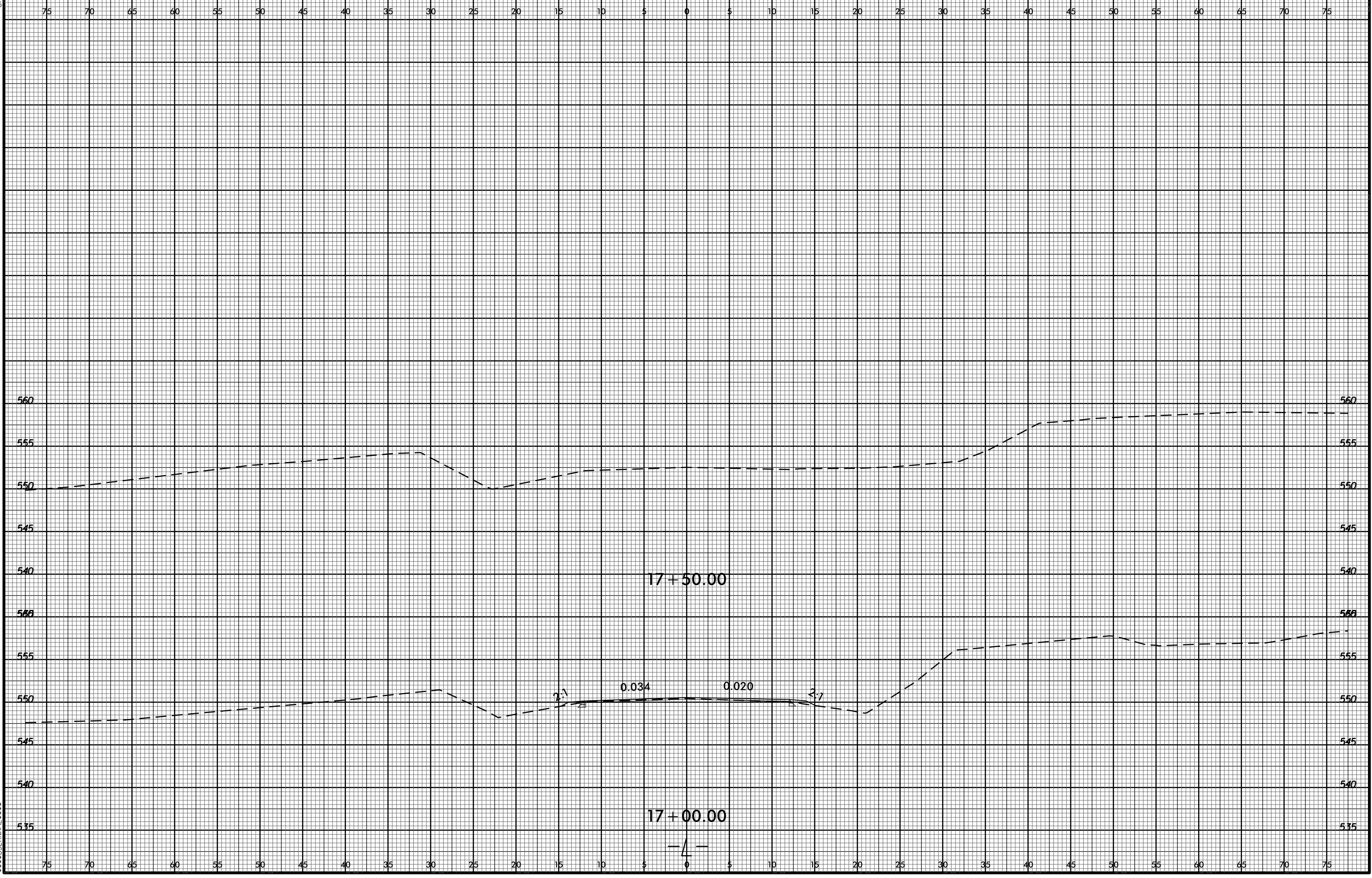


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PROJ. REFERENCE NO.	SHEET NO.
B-5137	X-4



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