



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

June 19, 2015

U.S. Army Corps of Engineers
Regulatory Field Office
2407 West 5th Street
Washington, NC 27889

N.C. Division of Coastal Management
1367 US 17 South
Elizabeth City, NC 27909

ATTN: Ms. Tracey Wheeler
NCDOT Coordinator

ATTN: Mr. Greg Daisey
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 33, and Section 401 Water Quality Certification, and CAMA Major Development Permit** for the Replacement of the Temporary Bridge over New Inlet on NC 12 in Dare County, TIP No. B-2500 AB, Debit \$475 from WBS Element 32635.1.3.

References: CAMA Permit No. 106-12 modified April 22, 2014.
404 Permit Action ID: SAW-2013-01039 issued December 9, 2014.
CAMA Permit No. 104-11 modified January 16, 2015.
404 Regional General Permit Modification 1980000291 (Action ID: SAW-2013-01039), received via electronic mail January 2015.
401 Certification # 20130144v.4 issued April 10, 2014

Dear Madam and Sir:

The North Carolina Department of Transportation requests issuance and modification to the above Referenced permits (with the exception of CAMA Permit No. 104-11 and 404 Regional General 1980000291) to redesign the structure replacing the existing temporary bridge over New Inlet. Pursuant to the Settlement Agreement between Defenders of Wildlife and National Wildlife Refuge Association, the North Carolina Department of Transportation, North Carolina Department of Environment and Natural Resources Division of Coastal Management, Federal Highway Administration and Cape Hatteras Electric Membership Corporation, the project scope has changed. The attached revisions will reduce the project area, and will therefore have reduced impacts compared to the previously permitted project.

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

TELEPHONE: 919-707-6100
FAX: 919-212-5785

WEBSITE: WWW.NCDOT.ORG

LOCATION:

1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610-4328

Please find attached revised: PCN, MP forms, stormwater management plan, permit drawings, and roadway drawings.

This application provides proposed impacts needed to construct B-2500 AB. Previously permitted work which has not already taken place outside of the limits shown in the included drawings, will no longer occur, with the exception of the water access points necessary for pile jetting. Specifically, this includes the water access points at Sites 16, 17. Site 10 water access point will still be used, and is within the revised project area.

Three test piles were installed as described in previous authorizations. Due to the depth and size of these piles, safety concerns to traveling public, and practicability, these piles cannot be removed in their entirety at this time. As such, the Department proposes to cut the piles 1-foot below ground or deeper if groundwater allows. At some point in the future, should either NCDOT or NCDWM determine that the remaining portions of the piles have become an obstruction, the Department will coordinate with the permitting agencies to examine removal options of the exposed portions adjacent to NC 12.

The piles of the existing temporary structure should be able to be removed in their entirety. However, jetting may be required to assist in their removal.

Construction of the replacement structure will remain as described in previous modifications. Top-down construction may be utilized however, temporary work bridges may be used if water is present in New Inlet and if water is not present, timber matting may be used. Timber matting/ temporary work bridges may also be utilized for demolition of the existing structure. Timber matting/ temporary work bridges are displayed on Permit Drawing Sheet 6.

To protect the proposed bridge abutments from scour, 300-400 pound stones will be placed around the bridge abutments as displayed in Permit Drawing Sheet 2-4 as well as roadway plans sheets.

Compensatory Mitigation

Permanent wetland or stream impacts are not proposed for this project. Permanent impacts previously permitted for B-2500 A will not be necessary. Impacts that have already occurred as a result of B-2500 A, such as the onsite detour, will be restored to natural elevations prior to the completion of B-2500 AB.

As a result, compensatory mitigation is no longer proposed for this project and the Department will credit wetland mitigation previously debited from the Bodie Island Lighthouse Pond.

Proposed Let Date

The tentative let date for this project is currently scheduled for September 15, 2015, with a July 28, 2015 review date. Therefore, we request issuance of the above requested modifications by the review date.

Regulatory Approvals

Section 404 Permit: Issuance of a Nationwide Permit 33 is hereby made for the above-described activities.

Section 401 Certification: NCDOT hereby requests NCDWR's review for the above mentioned activities.

CAMA: Modification of the existing CAMA permit is hereby made for the above-mentioned activities. Authorization to debit \$475 from WBS 32635.1.3 is hereby given for the permit application fee.

A copy of this request and its distribution list will be posted on the NCDOT Website at: <https://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, contact Michael Turchy at maturchy@ncdot.gov or 919 707-6157.

Sincerely,



Rodger Rochelle, P.E. Administrator
Technical Services Division

The "cc" List: NCDOT Permit Application Standard Distribution List



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

June 19, 2015

U.S. Fish and Wildlife Service
Pea Island National Wildlife Refuge
PO Box 1969
Manteo, NC 27954

ATTN: Mr. Mike Bryant
Refuge Manager

SUBJECT: **Request for Modification of Permits for Construction and Demolition Activities** for the Replacement of the Temporary Bridge over New Inlet on NC 12 in Dare County, TIP No. B-2500 AB.

REFERENCE: PINWR SUP September 16, 2013
Settlement Agreement June 2015

Dear Mr. Bryant:

The North Carolina Department of Transportation requests modifications to the above referenced permit to redesign the structure replacing the existing temporary bridge over New Inlet. Pursuant to the Settlement Agreement between Defenders of Wildlife and National Wildlife Refuge Association, the North Carolina Department of Transportation, North Carolina Department of Environment and Natural Resources Division of Coastal Management, Federal Highway Administration and Cape Hatteras Electric Membership Corporation, the project scope has changed. The attached revisions will reduce the project area, and will therefore have reduced impacts compared to the previously permitted project.

This reduced project area on will result in fewer impacts compared to the previously permitted replacement structure. However, additional temporary construction easements within the Pea Island National Wildlife Refuge (PINWR) will be needed for construction. Due to the tight alignment, constructability issues, and morphology, "slivers" of PINWR property may be temporarily impacted. The additional temporary construction easement needed on the Pea Island National Wildlife Refuge is 0.135 acres (or 5,859 square feet).

This letter serves as a request for a modification of the Special Use Permit held by the Department, for the construction of the project and any associated temporary impacts, including temporary construction easements. Project drawings are included for your review and reference.

Minimization

The following measures and commitments, as found in the previous application, remain applicable:

NCDOT has continued to minimize impacts to PINWR and lessen the easement requirements for the project. The primary goal was to align the bridge as close to the existing NC 12 as feasible while generally adhering to NCDOT and FHWA design standards.

Protected Species Measures

A number of conservation measures for protected species are being implemented for this project. As the mission of your agency and PINWR includes wildlife conservation, we hereby reference these measures, which are further documented in the USFWS Biological and Conference Opinions. In addition:

- An educational night lighting meeting on-site will be scheduled with USFWS and all contractors in order to minimize disturbance to sea turtles and other protected species. Night lighting will meet the requirements specified in the attached USFWS Biological and Conference Opinions, unless otherwise specified by USFWS.
- No permanent light fixtures will be mounted on the proposed bridge.
- To the maximum extent practical, while ensuring safe travel, NCDOT will limit or avoid the use of road signs or other potential predator perches adjacent to plover nesting and foraging areas. Large cantilever signs will be avoided in favor of smaller and shorter signs.

Construction Staging Measures

- All areas of Temporary Construction Easement will be returned to the conditions present before construction started or better, and where applicable, areas to be returned to PINWR will be restored to natural habitat conditions to the satisfaction of the Refuge Manager.
- No staging of construction equipment or storage of construction supplies will be allowed in wetlands.
- Lighting required at the staging area will be coordinated along with other construction lighting to ensure no adverse effects to sea turtles and other aquatic species.
- Fueling stations will be contained to avoid inadvertent spills reaching surface waters. Any spills will be controlled and reported as applicable.

Proposed Let Date

The tentative let date for this project is currently scheduled for September 15, 2015, with a July 28, 2015 review date. Therefore, we request issuance of the above requested modifications by the review date.

Regulatory Approvals

Regulatory Approvals

The NCDOT anticipates that these activities will also be authorized under the following permits:

- USACE General 404 Permit
- NC Division of Water Quality 401 Water Quality Certification
- NC Division of Coastal Management CAMA Major Development Permit (Modification)

If you have any questions or would like additional information, please contact Michael Turchy at maturchy@ncdot.gov or (919) 707-6157. A copy of this modification request will also be posted at <http://www.doh.dot.state.nc.us/preconstruct/pe/>.

Sincerely,



Rodger Rochelle, P.E. Administrator
Technical Services Division

cc:

Ms. Tracey Wheeler, Washington Field Office, USACE

Ms. Cynthia Dohner, Southeast Regional Director, USFWS



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: 33 and General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input checked="" type="checkbox"/> Yes	<input 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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

2. Project Information

2a. Name of project:	Replacement of the temporary bridge over New Inlet on NC 12 in Dare County.
2b. County:	Dare
2c. Nearest municipality / town:	Rodanthe
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	B-2500 AB

3. Owner Information

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

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

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.68427 (DD.DDDDDD) Longitude: - 75.48389 (-DD.DDDDDD)
1c. Property size:	12.3 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Pamlico Sound/ Atlantic Ocean
2b. Water Quality Classification of nearest receiving water:	SA
2c. River basin:	Pasquotank
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Natural barrier island conditions. Area protected by USFWS Pea Island National Wildlife Refuge.	
3b. List the total estimated acreage of all existing wetlands on the property: 170 acres, as approved by the Corps on the 5/21/2012 JD, which includes wetlands outside of the easement.	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 100 feet (New Inlet)	
3d. Explain the purpose of the proposed project: To replace a temporary bridge built in 2011 to span an inlet opened in August 2011 by Hurricane Irene, with an approximately 2,350 foot long bridge.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a temporary bridge near the existing alignment with an approximately 2,350 foot bridge. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments:	<input 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 checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Ms. Lorrie Laliberte Boswell	Agency/Consultant Company: CZR Incorporated Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attached documentation. 5/21/2012	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. Please see "Reference" line in the Permit Application Cover Letter	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input type="checkbox"/> No See attached cover letter.
6b. If yes, explain.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input checked="" type="checkbox"/> Wetlands		<input type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input checked="" type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 9 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Fill	Marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01	
Site 18 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Fill	Marsh	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	< 0.01	
2g. Total wetland impacts					Permanent: zero Temporary: < 0.01	
2h. Comments: Hand Clearing Impacts: Site 7: < 0.01 Site 9: < 0.01 Site 18: <0.01						
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		
3h. Total stream and tributary impacts						
3i. Comments:						

4. Open Water Impacts

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O7 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Isolated Pond	Fill	Isolated Pond	0.04
O8 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Isolated Pond	Fill	Isolated Pond	0.13
O9 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Isolated Pond	Fill	Isolated Pond	0.01
O10 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	New Inlet	Fill	Inlet	0.14
O11 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Isolated Pond	Fill	Isolated Pond	0.02
O19 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Isolated Pond	Fill	Isolated Pond	< 0.01
4f. Total open water impacts				0.35 Temporary

4g. Comments:

5. Pond or Lake Construction

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

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

5g. Comments:

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

6. Buffer Impacts (for DWQ)

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

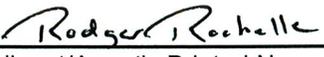
6a. Project is in which protected basin?		<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input type="checkbox"/> Catawba <input type="checkbox"/> Randleman			
6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream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

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
<p>1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.</p> <p>The project has been reduced from 2.1 miles, to approximately 1 mile.</p> <p>All impacts are now temporary in nature.</p> <p>Upon completion, the temporary bridge and approaches will be entirely within the 100' Transportation Easement within the Pea Island National Wildlife Refuge (PINWR). All jetting spoils will also be disposed of within this 100' Transportation Easement unless the Pea Island National Wildlife Refuge accepts the material for Refuge use.</p>		
<p>1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.</p> <p>Temporary construction runoff will be controlled by using Silt Fence, Special Silt Fence, Temporary Slope Drains, Rock Silt Checks, and Temporary Matting and Grassing as appropriate.</p> <p>Temporary fill in wetlands will be required. Areas will be restored to preconstruction elevations.</p> <p>Jetting spoils will not be disposed of in jurisdictional areas. Jetting spoils may be used by the PINWR at their discretion.</p> <p>Preventative measures will be taken to minimize impacts to fish species during water intake for jetting operations.</p> <p>A screen will be used on the intake of the jetting pumping operations to prevent the intake of larval species.</p> <p>Jetting piping will be placed by hand to reduce impacts in wetland areas.</p> <p>Jetting installation of the bents in New Inlet will occur at ebb tide.</p>		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	n/a square feet	
4e. Riparian wetland mitigation requested:	n/a acres	
4f. Non-riparian wetland mitigation requested:	n/a acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	

4h. Comments:				
5. Complete if Using a Permittee Responsible Mitigation Plan				
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.				
6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<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:				

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

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

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input 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? Consultation with the USFWS		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input 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		
 Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	6-19-15 Date



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

June 19, 2015

ANTHONY J. TATA
SECRETARY

Pea Island National Wildlife Refuge
ATTN: Mr. Dennis Stewart
PO BOX 1969
Manteo, NC 27954-1969

Dear Landowner:

The North Carolina Department of Transportation (NCDOT) proposes to modify the existing permit to replace the existing temporary bridge over "New Inlet," from a 2.1 mile bridge, to a 2,350 foot bridge. This project crosses an Area of Environmental Concern, as defined by the North Carolina Division of Coastal Management (DCM), and must be approved by the DCM under provisions of the Coastal Area Management Act (CAMA). One of the prerequisites to this approval is that adjacent riparian landowners be given an opportunity to comment on the proposal. A permit application, vicinity map and site drawings are enclosed for your review.

The attached form is submitted to ensure that you have an opportunity to comment on the proposal. The work planned is depicted in the attached drawing. If you have no objections to the proposal, please return the form with your response within 30 days to this office. If you do have objections to the project, please forward your comments to:

Mr. Greg Daisey
N.C. Division of Coastal Management
1367 US 17 South
Elizabeth City, NC 27909

Thank you for your cooperation.
Sincerely,

A handwritten signature in black ink, appearing to read "RR", written over a horizontal line.

Rodger Rochelle, P.E. Administrator
Technical Services Division

Enclosures

cc: Greg Daisey, NCDOT
File: B-2500 AB

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

TELEPHONE: 919-707-6100
FAX: 919-212-5785
WEBSITE: WWW.NCDOT.ORG

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610-4328

ADJACENT RIPARIAN LANDOWNER STATEMENT

Dare County: Construction of Bridge over New Inlet
NCDOT TIP B-2500 AB

General Statutes and Division of Coastal Management Major Development Permit approval procedures require that riparian landowners with property adjoining a proposed development in an Area of Environmental Concern (AEC) be given thirty (30) days in which to comment on the proposed development. This form allows the adjacent riparian landowner to express either: (1) that he objects to the project; or, (2) that he does not object and desires to waive his/her right to the 30-day period so that the processing of the application can progress more rapidly. Of course, the adjacent riparian landowner need not sign this form at all if he/she so chooses.

I, _____, am an adjacent riparian property owner and am aware of the North Carolina Department of Transportation’s plans for constructing a bridge over New Inlet in Dare County, North Carolina. I am further aware that this work will occur in one or more Areas of Environmental Concern and therefore will require authorization from the Division of Coastal Management in accordance with the Coastal Area Management Act (CAMA).

_____ I have no objection to the project as presently proposed and hereby waive that right of objection as provided in General Statute 113-229.

_____ I have objections to the project as presently proposed and my comments are attached

Signature of Adjacent Riparian Landowner

Date

Phone Number with Area Code

APPLICATION for Major Development Permit

(last revised 12/27/06)



North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information

Business Name North Carolina Department Of Transportation		Project Name (if applicable) B-2500 AB	
Applicant 1: First Name Richard	MI W	Last Name Hancock	
Applicant 2: First Name	MI	Last Name	
<i>If additional applicants, please attach an additional page(s) with names listed.</i>			
Mailing Address 1020 Birch Ridge Drive		PO Box	City Raleigh
		State NC	
ZIP 27610	Country US	Phone No. 919 - 707 - 6157 ext.	FAX No. - -
Street Address (if different from above)		City	State
		ZIP -	
Email			

2. Agent/Contractor Information

Business Name N/A			
Agent/ Contractor 1: First Name	MI	Last Name	
Agent/ Contractor 2: First Name	MI	Last Name	
Mailing Address		PO Box	City
		State	
ZIP		Phone No. 1 - - ext.	Phone No. 2 - - ext.
FAX No.	Contractor #		
Street Address (if different from above)		City	State
		ZIP -	
Email			

<Form continues on back>

3. Project Location			
County (can be multiple) Dare	Street Address Existing NC 12 from just south of southern most freshwater pond to north of Rodanthe. 21111 A NC Highway 12	State Rd. # NC-12	
Subdivision Name N/A	City Rodanthe	State NC	Zip n/a -
Phone No. N/A - - ext.		Lot No.(s) (if many, attach additional page with list) N/A, , , ,	
a. In which NC river basin is the project located? Pasquotank		b. Name of body of water nearest to proposed project Pamlico Sound	
c. Is the water body identified in (b) above, natural or manmade? <input checked="" type="checkbox"/> Natural <input type="checkbox"/> Manmade <input type="checkbox"/> Unknown		d. Name the closest major water body to the proposed project site. Atlantic Ocean	
e. Is proposed work within city limits or planning jurisdiction? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		f. If applicable, list the planning jurisdiction or city limit the proposed work falls within. N/A	

4. Site Description	
a. Total length of shoreline on the tract (ft.) 300 ft	b. Size of entire tract (sq.ft.) 174,240
c. Size of individual lot(s) N/A, (If many lot sizes, please attach additional page with a list)	d. Approximate elevation of tract above NHW (normal high water) or NWL (normal water level) 3' <input checked="" type="checkbox"/> NHW or <input type="checkbox"/> NWL
e. Vegetation on tract Brackish marsh, smooth cordgrass, maritime shrub thicket, salt/shrub grassland, maritime grassland, black needlerush, reed stands, beach, dunes and disturbed wetland and upland vegetation.	
f. Man-made features and uses now on tract Existing NC-12, utility lines, recreation.	
g. Identify and describe the existing land uses <u>adjacent</u> to the proposed project site. Recreational (federal Seashore and Refuge lands), open space, open water and water foul impoundments.	
h. How does local government zone the tract? Unzoned	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
j. Is the proposed activity part of an urban waterfront redevelopment proposal? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No	
k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. <input checked="" type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>NA If yes, by whom? NCDOT	
l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? <input checked="" type="checkbox"/>Yes <input type="checkbox"/>No <input type="checkbox"/>NA	

<Form continues on next page>

m. (i) Are there wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(ii) Are there coastal wetlands on the site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? <i>(Attach documentation, if available)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
n. Describe existing wastewater treatment facilities. N/A	
o. Describe existing drinking water supply source. N/A	
p. Describe existing storm water management or treatment systems. Grass swales and Rip rap pads at the pipe ends	

5. Activities and Impacts	
a. Will the project be for commercial, public, or private use?	<input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Public/Government <input type="checkbox"/> Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. NCDOT Roadway and temporary bridge.	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. Work bridge over open water. Crane, backhoe, etc, for construction and demolotion.	
d. List all development activities you propose. Roadway re-alignment and new temporary bridge.	
e. Are the proposed activities maintenance of an existing project, new work, or both?	Both
f. What is the approximate total disturbed land area resulting from the proposed project?	12.3 <input type="checkbox"/> Sq.Ft or <input checked="" type="checkbox"/> Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
h. Describe location and type of existing and proposed discharges to waters of the state. The roadway typical is shoulder section, therefore runoff from the road will quickly infiltrate into the sandy shoulders. Stormwater runoff along the concrete sheet pile walls will go over the top of the walls and fall onto rip-rap placed along the walls where it will infiltrate into sandy soils. Bridge deck will drain using horizontal deck drains. Bridge is 9' to 12' above the ground elevation.	
i. Will wastewater or stormwater be discharged into a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
If yes, will this discharged water be of the same salinity as the receiving water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
j. Is there any mitigation proposed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
If yes, attach a mitigation proposal.	

<Form continues on back>

6. Additional Information

In addition to this completed application form, (MP-1) the following items below, if applicable, must be submitted in order for the application package to be complete. Items (a) – (f) are always applicable to any major development application. Please consult the application instruction booklet on how to properly prepare the required items below.

- a. A project narrative.
- b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.
- c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.
- d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.
- e. The appropriate application fee. Check or money order made payable to DENR.

f. A list of the names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail. Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management.

Name Pea Island National Wildlife Refuge, Attn: Mr. Dennis Stewart	Phone No.
Address PO Box 1969, Manteo, NC 27954-1969	
Name	Phone No.
Address	
Name	Phone No.
Address	

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.
See References in attached permit application cover letter.

- h. Signed consultant or agent authorization form, if applicable.
- i. Wetland delineation, if necessary.
- j. A signed AEC hazard notice for projects in oceanfront and inlet areas. (Must be signed by property owner)

k. A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A 1-10), if necessary. If the project involves expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

7. Certification and Permission to Enter on Land

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to the conditions and restrictions contained in the permit.

I certify that I am authorized to grant, and do in fact grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

Date 6-19-15 Print Name Redger Rochelle
Signature [Handwritten Signature]

- Please indicate application attachments pertaining to your proposed project.
- DCM MP-2 Excavation and Fill Information
 - DCM MP-3 Upland Development
 - DCM MP-4 Structures Information
 - DCM MP-5 Bridges and Culverts

BRIDGES and CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project. Please include all supplemental information.

1. BRIDGES This section not applicable

a. Is the proposed bridge:
 Commercial Public/Government Private/Community

b. Water body to be crossed by bridge:
Pea Island, New Inlet

c. Type of bridge (construction material):
Reinforced Concrete

d. Water depth at the proposed crossing at NLW or NWL:
Approx. 8' (NWL) at breach

e. (i) Will proposed bridge replace an existing bridge? Yes No
If yes,
(ii) Length of existing bridge: 650'
(iii) Width of existing bridge: 24'
(iv) Navigation clearance underneath existing bridge: 15'
(v) Will all, or a part of, the existing bridge be removed?
(Explain) All parts of the existing bridge will be removed.

f. (i) Will proposed bridge replace an existing culvert? Yes No
If yes,
(ii) Length of existing culvert: _____
(iii) Width of existing culvert: _____
(iv) Height of the top of the existing culvert above the NHW or NWL: _____
(v) Will all, or a part of, the existing culvert be removed?
(Explain)

g. Length of proposed bridge: 2,350'

h. Width of proposed bridge: 36' out to out

i. Will the proposed bridge affect existing water flow? Yes No
If yes, explain:

j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? Yes No
If yes, explain: New breach between Pamlico Sound and Atlantic Ocean. Vertical clearance will be increased.

k. Navigation clearance underneath proposed bridge: Approx. 10' to 11.5'

l. Have you contacted the U.S. Coast Guard concerning their approval? Yes No
If yes, explain: Advanced approval has been received.

m. Will the proposed bridge cross wetlands containing no navigable waters? Yes No
If yes, explain: Coastal wetlands

n. Height of proposed bridge above wetlands: Approx. 9' to 12'

2. CULVERTS This section not applicable

a. Number of culverts proposed: _____

b. Water body in which the culvert is to be placed:

< Form continues on back >

c. Type of culvert (construction material):

d. (i) Will proposed culvert replace an existing bridge? Yes No

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

(v) Will all, or a part of, the existing bridge be removed? (Explain)

e. (i) Will proposed culvert replace an existing culvert? Yes No

If yes,

(ii) Length of existing culvert(s): _____

(iii) Width of existing culvert(s): _____

(iv) Height of the top of the existing culvert above the NHW or NWL: _____

(v) Will all, or a part of, the existing culvert be removed? (Explain)

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

h. Height of the top of the proposed culvert above the NHW or NWL.

i. Depth of culvert to be buried below existing bottom contour.

j. Will the proposed culvert affect navigation by reducing or increasing the existing navigable opening? Yes No

If yes, explain:

k. Will the proposed culvert affect existing water flow? Yes No

If yes, explain:

3. EXCAVATION and FILL This section not applicable

a. (i) Will the placement of the proposed bridge or culvert require any excavation below the NHW or NWL? Yes No

If yes,

(ii) Avg. length of area to be excavated: 380'

(iii) Avg. width of area to be excavated: 29'

(iv) Avg. depth of area to be excavated: 2'

(v) Amount of material to be excavated in cubic yards: 816 cy

b. (i) Will the placement of the proposed bridge or culvert require any excavation within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

CW _____ SAV _____ SB _____

WL _____ None

(ii) Describe the purpose of the excavation in these areas:

c. (i) Will the placement of the proposed bridge or culvert require any high-ground excavation? Yes No

If yes,

(ii) Avg. length of area to be excavated: _____

(iii) Avg. width of area to be excavated: _____

(iv) Avg. depth of area to be excavated: _____

(v) Amount of material to be excavated in cubic yards: _____

d. If the placement of the bridge or culvert involves any excavation, please complete the following:

(i) Location of the spoil disposal area: Jetting spoils will be confined to the 100' Transportation Easement within the Pea Island National Wildlife Refuge, unless the Refuge accepts the material for Refuge use.

(ii) Dimensions of the spoil disposal area: TBD by contractor, possibly in conjunction with the Refuge.

(iii) Do you claim title to the disposal area? Yes No (If no, attach a letter granting permission from the owner.)

(iv) Will the disposal area be available for future maintenance? Yes No

(v) Does the disposal area include any coastal wetlands/marsh (CW), submerged aquatic vegetation (SAVs), other wetlands (WL), or shell bottom (SB)?

CW SAV WL SB None

If any boxes are checked, give dimensions if different from (ii) above.

(vi) Does the disposal area include any area below the NHW or NWL? ? Yes No

If yes, give dimensions if different from (ii) above.

e. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed below NHW or NWL? Yes No

If yes,

(ii) Avg. length of area to be filled: _____

(iii) Avg. width of area to be filled: _____

(iv) Purpose of fill:

f. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed within coastal wetlands/marsh (CW), submerged aquatic vegetation (SAV), shell bottom (SB), or other wetlands (WL)? If any boxes are checked, provide the number of square feet affected.

CW 369 SAV _____ SB _____

WL _____ None

(ii) Describe the purpose of the excavation in these areas:

Temporary impacts at interior bridge bents due pile installation.

g. (i) Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d above) to be placed on high-ground? Yes No

If yes,

(ii) Avg. length of area to be filled: 800'

(iii) Avg. width of area to be filled: 41.5'

(iv) Purpose of fill: Roadway approaches to bridge

4. GENERAL

a. Will the proposed project require the relocation of any existing utility lines? Yes No

If yes, explain:

If this portion of the proposed project has already received approval from local authorities, please attach a copy of the approval or certification.

b. Will the proposed project require the construction of any temporary detour structures? Yes No

If yes, explain:

< Form continues on back >

c. Will the proposed project require any work channels? Yes No

If yes, complete Form DCM-MP-2.

d. How will excavated or fill material be kept on site and erosion controlled?

Standard erosion control measures such as silt fence and rock filter dams.

e. What type of construction equipment will be used (for example, dragline, backhoe, or hydraulic dredge)?

Work bridge over open water; Crane and backhoe for piers; timber matting; pile hammer; jetting equipment

f. Will wetlands be crossed in transporting equipment to project site? Yes No

If yes, explain steps that will be taken to avoid or minimize environmental impacts.

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization? Yes No

If yes, complete form MP-2, Section 3 for Shoreline Stabilization only.

6-19-15

Date

B-2500 AB

Project Name

Rodgers-Rochelle

Applicant Name

[Signature]

Applicant Signature



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



(Version 2.02; Released April 2015)

WBS Element: 32635.1.3 **TIP No.:** B-2500AB **County(ies):** Dare **Page** 1 **of** 1

General Project Information

WBS Element:	32635.1.3	TIP Number:	B-2500AB	Project Type:	New Location	Date:	6/18/2015
NCDOT Contact:	John W. Twisdale, Jr., PE			Contractor / Designer:	Matthew York		
	Address:	1020 Birch Ridge Road Raleigh, NC 27610			Address:	1020 Birch Ridge Road Raleigh, NC 27610	
	Phone:	919-707-6700			Phone:	919-707-6765	
	Email:	jtwisdale@ncdot.gov			Email:	mjyork@ncdot.gov	
City/Town:	Pea Island			County(ies):	Dare		
River Basin(s):	Pasquotank			CAMA County?	Yes		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	1.017 miles	Surrounding Land Use:	Coastal Barrier Island					
	Proposed Project			Existing Site				
Project Built-Up Area (ac.)	4.0	ac.	3.3	ac.				
Typical Cross Section Description:	Two lane highway with 12' travel lanes and 8' shoulders (4' paved and 4' W/GR).			Two lane highway with 10' travel lanes and 2' paved shoulders.				
Annual Avg Daily Traffic (veh/hr/day):	Design/Future:	10900	Year:	2032	Existing:	7300	Year:	2012

General Project Narrative:
(Description of Minimization of Water Quality Impacts)

The project is located within the Pasquotank Basin in Dare County which is also a CAMA county. The roadway typical is shoulder section, therefore runoff from the road will quickly infiltrate into the sandy shoulders. Stormwater runoff along the concrete sheet pile walls will go over the top of the walls and fall onto rip-rap placed along the walls where it will infiltrate into sandy soils.

The existing temporary structure has a total length of 664' and the proposed temporary bridge will have a total length of 2350'. The proposed temporary bridge will have horizontal deck drains down the entire length of the bridge roughly 7' to 11' above the ground elevation. Concentration of runoff has been minimized by placing deck drains on 4'-4" centers and no deck drains within 5'-5" from all proposed bridge bents. These distributed flows will quickly infiltrate into existing soils. Open graded friction course will be used on the bridge deck which will reduce total suspended solids concentrations and decrease under carriage wash from vehicles. Finally the existing two lane facility will be maintained; therefore, the result will be equal or better treatment than currently exists.

Note for spanning and discharging over water body:
The water body shown on the permit drawings is currently filled in with sand. The water body forms during major storm events causing a breach within the coastal barrier island. The water body will later fill back in after the storm event, but the bridge will span the water body as long as it remains open. For more frequent rain events, water from bridge will be discharged onto sand.

Waterbody Information

Surface Water Body (1):	Atlantic Ocean		NCDWR Stream Index No.:	N/A			
NCDWR Surface Water Classification for Water Body	Primary Classification:	Class SA					
	Supplemental Classification:	High Quality Waters (HQW)					
Other Stream Classification:							
Impairments:							
Aquatic T&E Species?	Comments:						
NRTR Stream ID:				Buffer Rules in Effect:	N/A		
Project Includes Bridge Spanning Water Body?	No	Deck Drains Discharge Over Buffer?	No	Dissipator Pads Provided in Buffer?	N/A		
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)			
(If yes, provide justification in the General Project Narrative)							

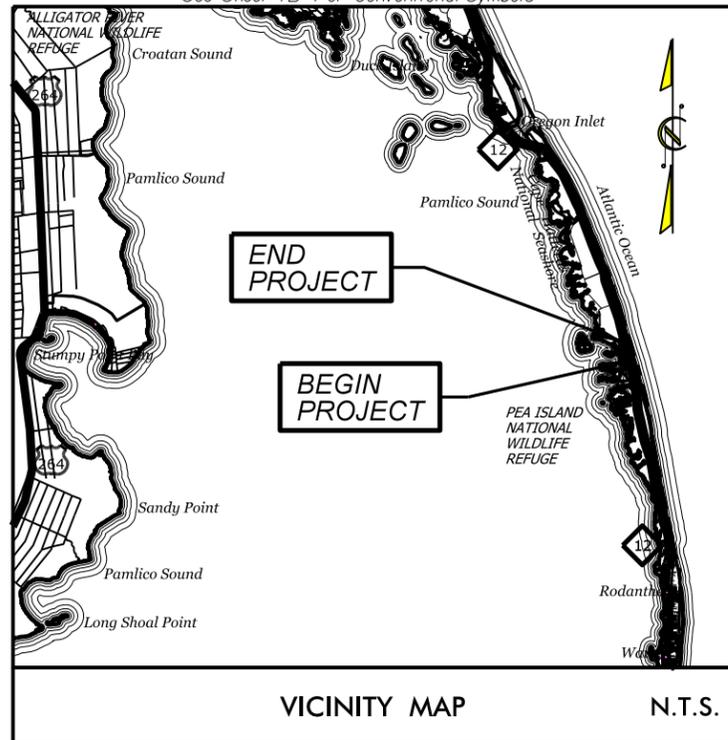
09/05/99

TIP PROJECT: B-2500AB

CONTRACT:

6/18/2015
m:\work
R:\Hydraulics\PERMITS Environmental\Drawings\B2500AB_Hyd_prm_1sh.dgn
\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DCN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



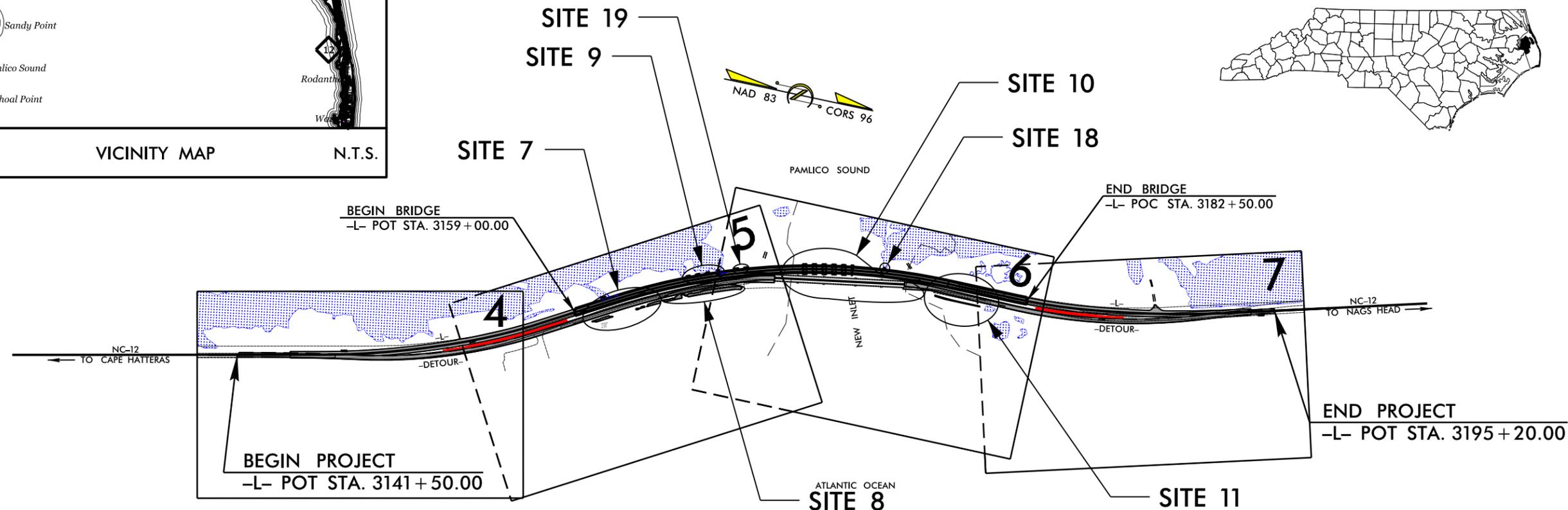
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
DARE COUNTY

LOCATION: PHASE II, NC-12 SHORT-TERM IMPROVEMENTS AT PEA ISLAND
TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2500AB	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
		P.E.	
		CONSTR.	

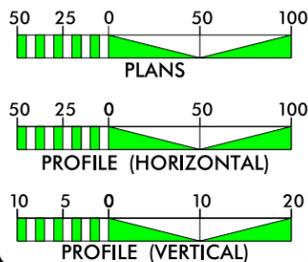
**PERMIT DRAWING
SHEET 1 OF 12**



* RECOMMENDED POSTED 45 MPH

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

GRAPHIC SCALES



**DESIGN DATA
(B-2500A DATA)**

ADT 2012 = 7,300
ADT 2032 = 10,900
K = N/A %
D = N/A %
T = 6% **
* V = 55 MPH
** (TTST 1%, DUAL 5%)
FUNC CLASS=COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-2500AB = 0.572 MILES
LENGTH STRUCTURE TIP PROJECT B-2500AB = 0.445 MILES
TOTAL LENGTH TIP PROJECT B-2500AB = 1.017 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:

GARY LOVERING, PE
PROJECT ENGINEER

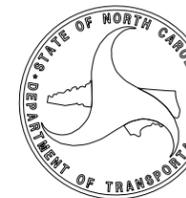
CHRISTOPHER H. LEE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

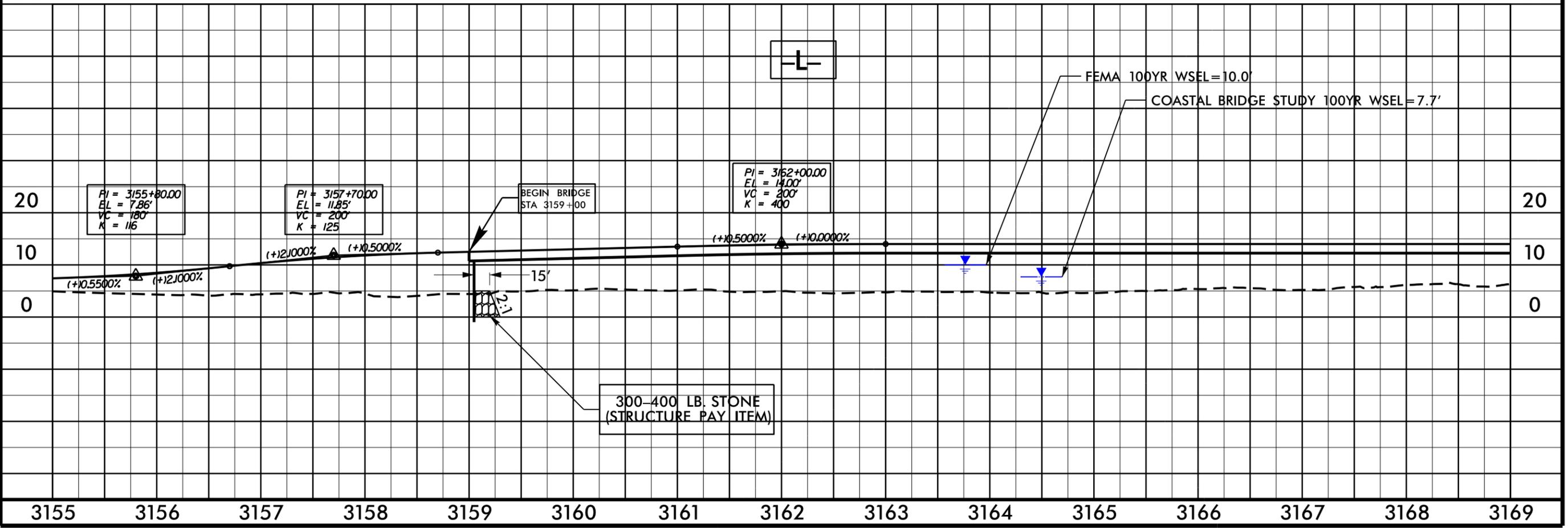
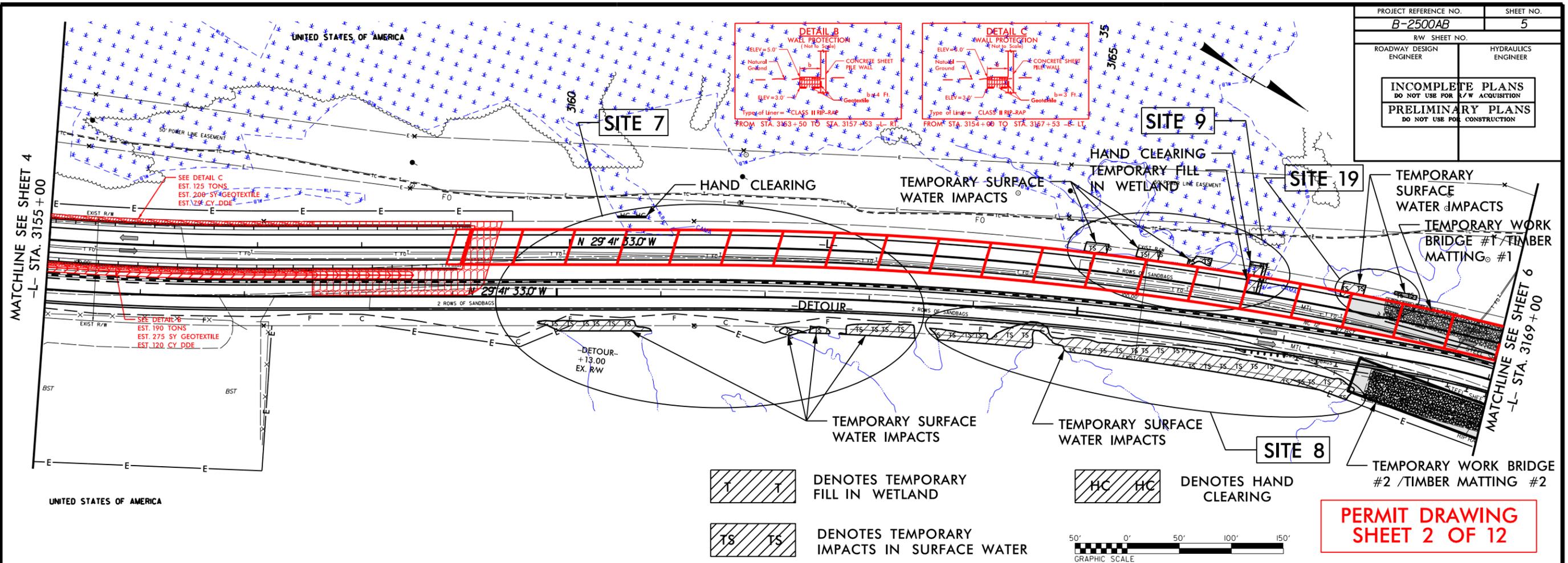
SIGNATURE: _____ P.E.

**ROADWAY DESIGN
ENGINEER**

SIGNATURE: _____ P.E.

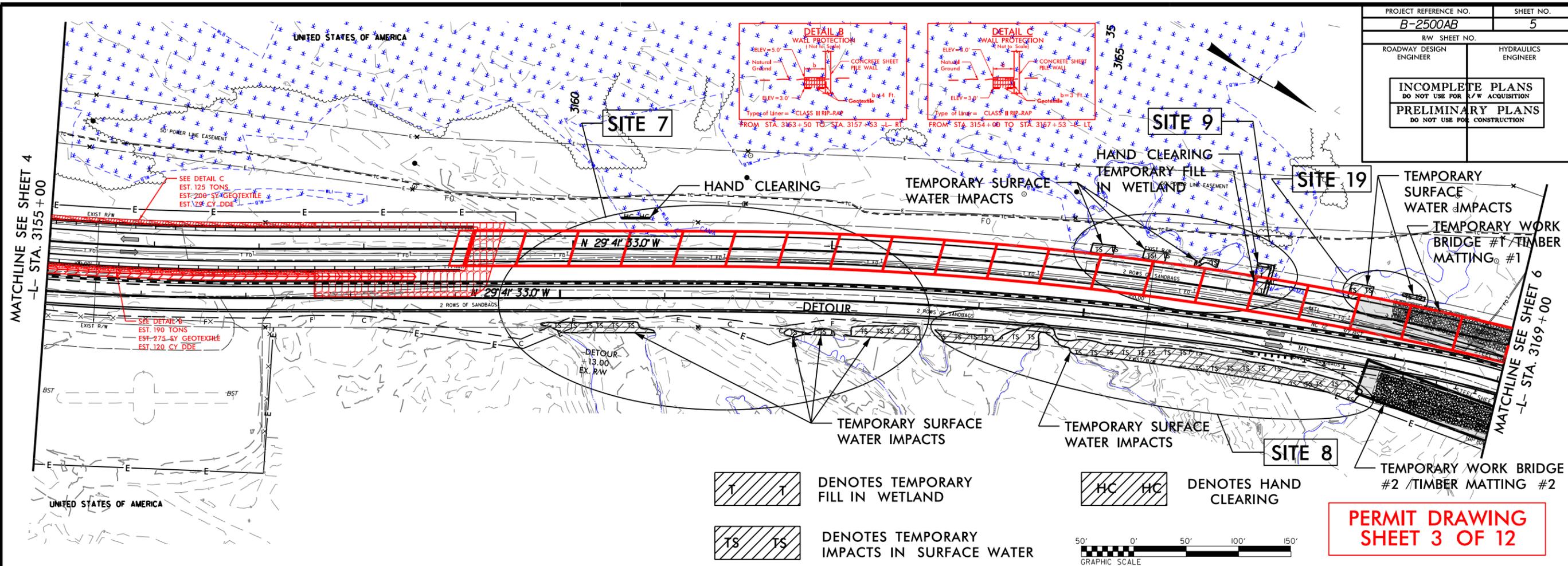


PROJECT REFERENCE NO. B-2500AB	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



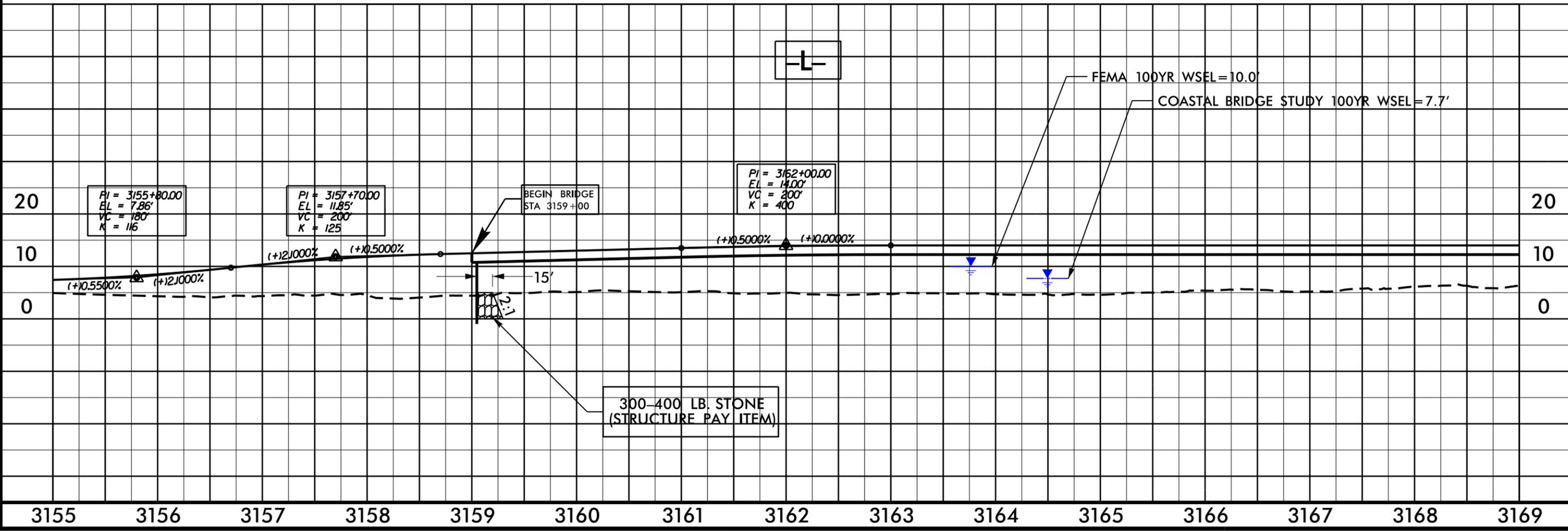
6/18/2015
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PROJECT REFERENCE NO. B-2500AB	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES HAND CLEARING
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER

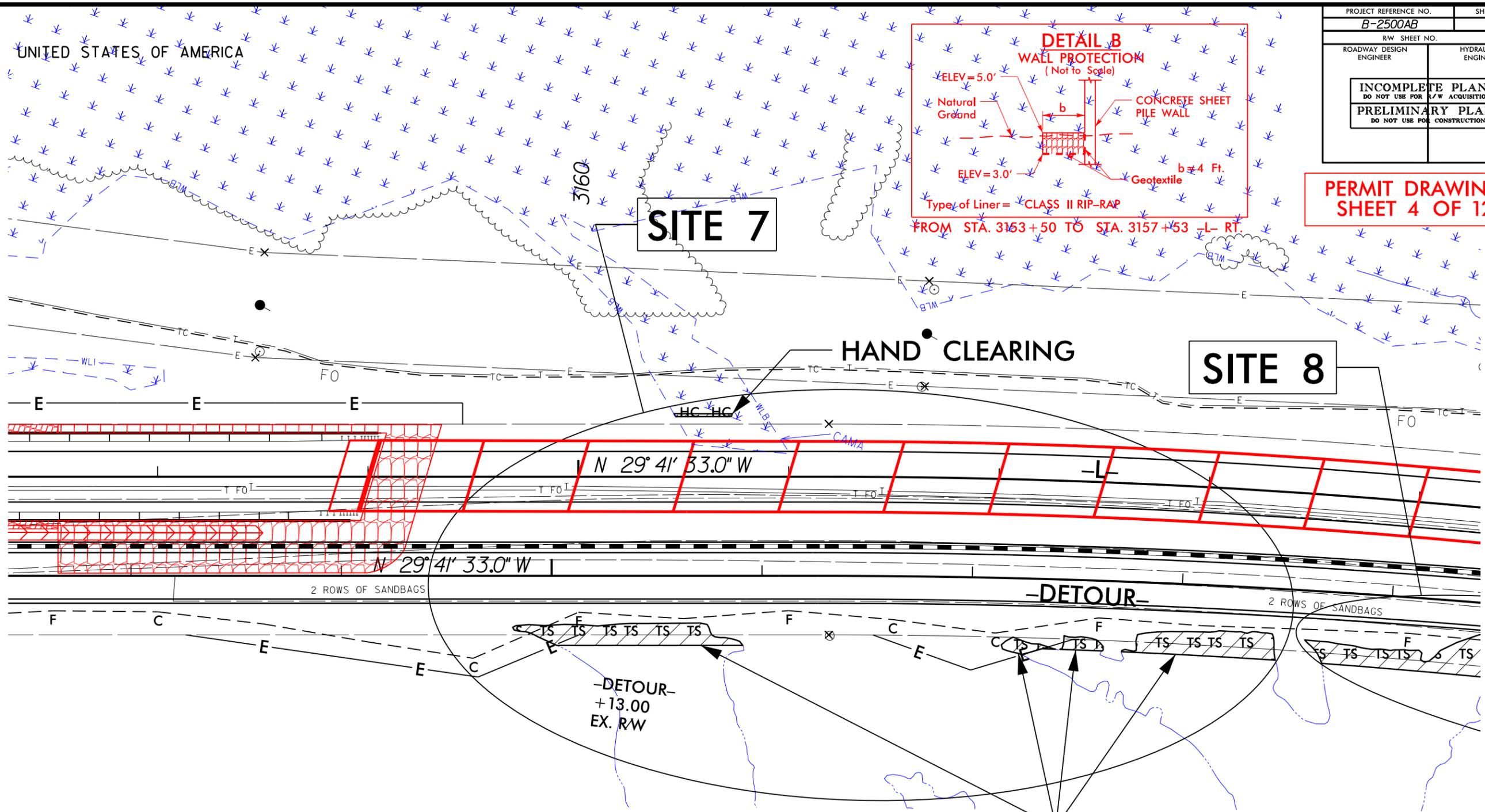
PERMIT DRAWING
 SHEET 3 OF 12



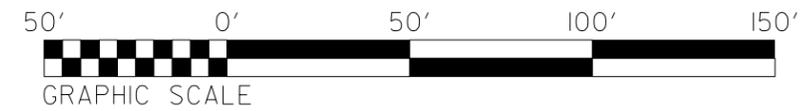
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PROJECT REFERENCE NO. B-2500AB	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

**PERMIT DRAWING
SHEET 4 OF 12**



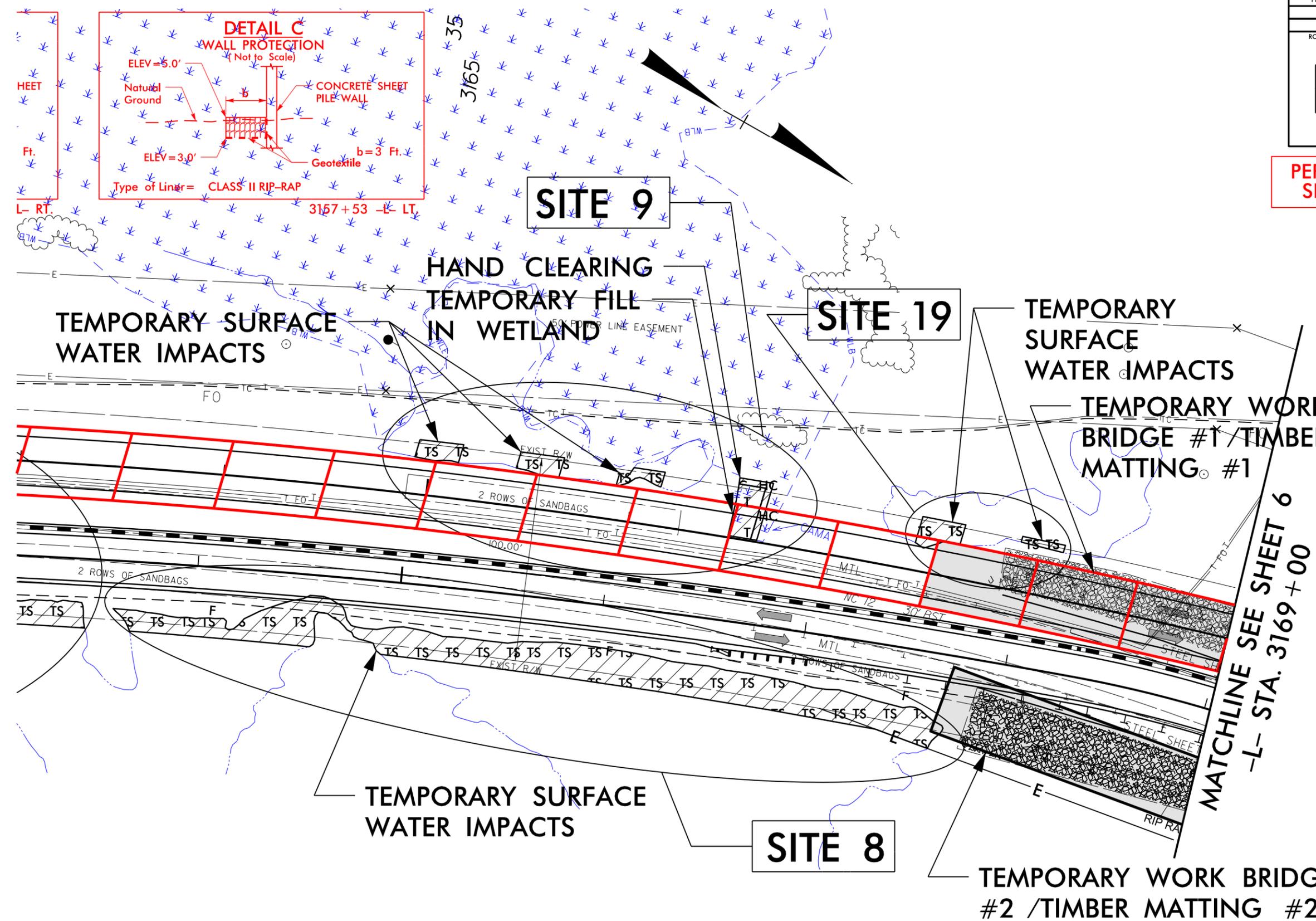
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



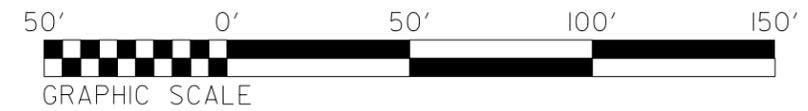
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 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$\$\$\$DESIGN\$\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$\$

PROJECT REFERENCE NO. B-2500AB	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

**PERMIT DRAWING
SHEET 6 OF 12**



- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



**MATCHLINE SEE SHEET 6
-L- STA. 3169+00**

6/18/2015
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 mywork
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$\$\$\$DESIGN\$\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$\$

PROJECT REFERENCE NO. B-2500AB	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

PERMIT DRAWING
SHEET 10 OF 12

SITE 10

SITE 18

NOTE:
 JETTING INTAKE PIPE LOCATIONS
 TO BE DETERMINED WITHIN
 EXISTING EASEMENT

TEMPORARY SURFACE
WATER IMPACTS

TEMPORARY WORK
BRIDGE #1 /TIMBER
MATTING #1

HAND CLEARING

TEMPORARY SURFACE
WATER IMPACTS

UNITED STATES OF AMERICA

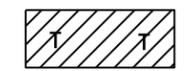
3170

CAMA

RIP RAP

N 9°14'03.1"W
-DETOUR-

MTL CHECKER PLATE



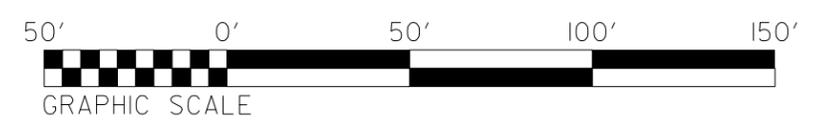
DENOTES TEMPORARY
FILL IN WETLAND



DENOTES HAND
CLEARING



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER

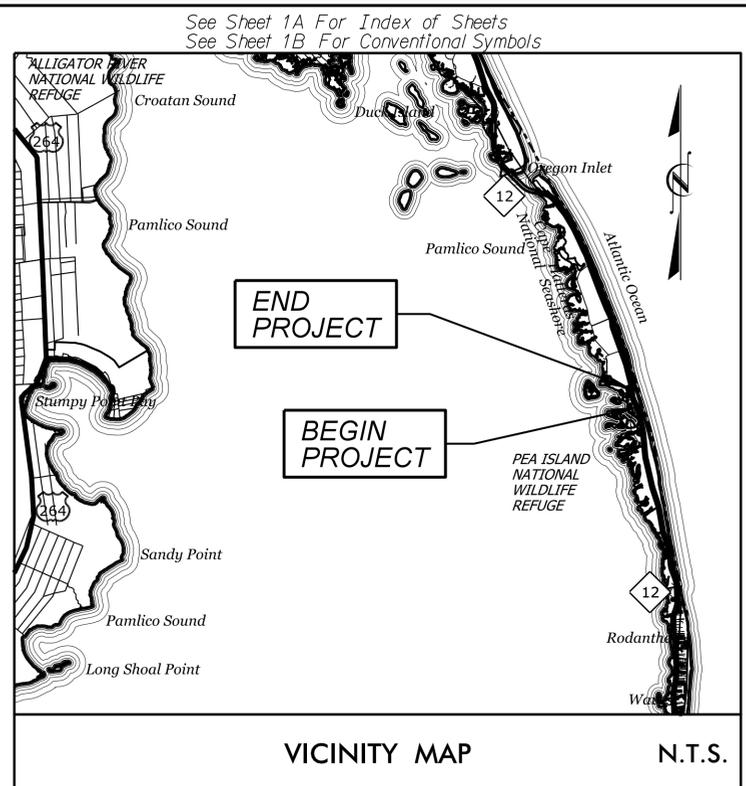


TEMPORARY WORK
BRIDGE #2 /TIMBER
MATTING #2

6/17/2015
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 \$\$\$\$\$\$DESIGN\$\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$\$

09/08/99

TIP PROJECT: B-2500AB



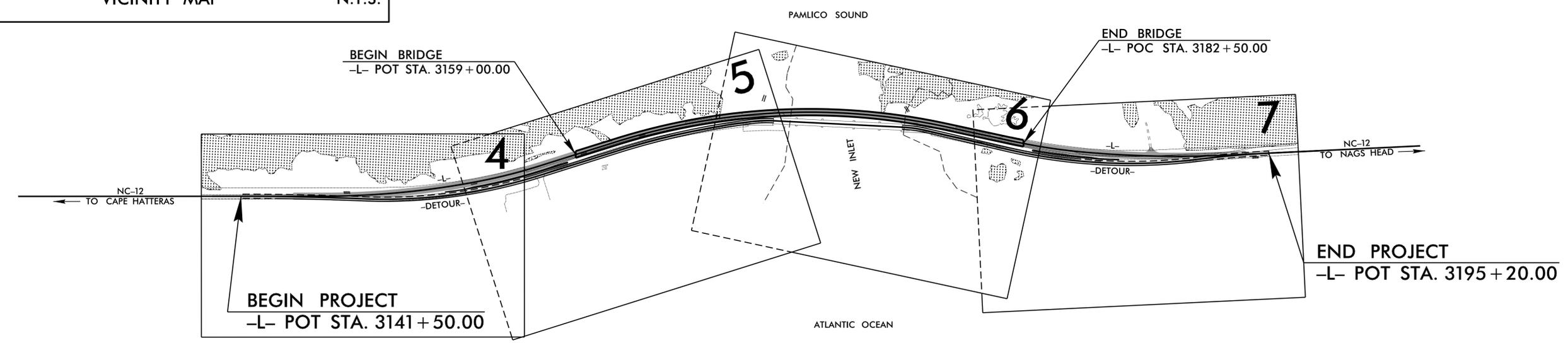
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DARE COUNTY

LOCATION: PHASE II, NC-12 SHORT-TERM IMPROVEMENTS AT PEA ISLAND

TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE

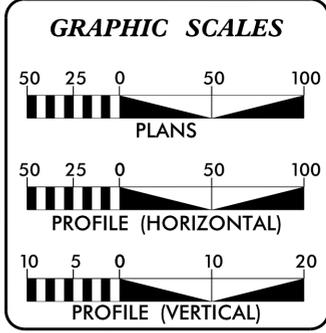
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2500AB	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
		P.E.	
		CONSTR.	



* RECOMMENDED POSTED 45 MPH

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

CONTRACT:



DESIGN DATA
(B-2500A DATA)

ADT 2012 =	7,300
ADT 2032 =	10,900
K =	N/A %
D =	N/A %
T =	6% % **
* V =	55 MPH
** (TTST 1%, DUAL 5%)	
FUNC CLASS =	COLLECTOR
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-2500AB	= 0.572 MILES
LENGTH STRUCTURE TIP PROJECT B-2500AB	= 0.445 MILES
TOTAL LENGTH TIP PROJECT B-2500AB	= 1.017 MILES

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

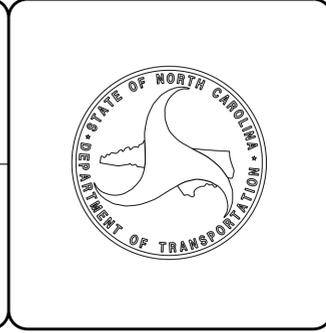
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	N/A
LETTING DATE:	
	GARY LOVERING, PE PROJECT ENGINEER
	CHRISTOPHER H. LEE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



18-JUN-2015 09:36
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\$\$\$\$\$USERNAME\$\$\$\$\$

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	----->
Property Monument	□ EDM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB
Existing Historic Property Boundary	----- HPB
Known Contamination Area: Soil	-----
Potential Contamination Area: Soil	-----
Known Contamination Area: Water	-----
Potential Contamination Area: Water	-----
Contaminated Site: Known or Potential	☠☠

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

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

RIGHT OF WAY:

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

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

Orchard	☼☼☼☼
Vineyard	□ Vineyard

EXISTING STRUCTURES:

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

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	●
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	----- P
U/G Power Line LOS C (S.U.E.*)	----- P
U/G Power Line LOS D (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	●
U/G Telephone Cable LOS B (S.U.E.*)	----- T
U/G Telephone Cable LOS C (S.U.E.*)	----- T
U/G Telephone Cable LOS D (S.U.E.*)	----- T
U/G Telephone Conduit LOS B (S.U.E.*)	----- TC
U/G Telephone Conduit LOS C (S.U.E.*)	----- TC
U/G Telephone Conduit LOS D (S.U.E.*)	----- TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	----- W
U/G Water Line LOS C (S.U.E.*)	----- W
U/G Water Line LOS D (S.U.E.*)	----- W
Above Ground Water Line	----- A/G Water

TV:

TV Pedestal	⊠
TV Tower	⊗
U/G TV Cable Hand Hole	●
U/G TV Cable LOS B (S.U.E.*)	----- TV
U/G TV Cable LOS C (S.U.E.*)	----- TV
U/G TV Cable LOS D (S.U.E.*)	----- TV
U/G Fiber Optic Cable LOS B (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS C (S.U.E.*)	----- TV FO
U/G Fiber Optic Cable LOS D (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	----- G
U/G Gas Line LOS C (S.U.E.*)	----- G
U/G Gas Line LOS D (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

SANITARY SEWER:

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	----- FSS
SS Forced Main Line LOS C (S.U.E.*)	----- FSS
SS Forced Main Line LOS D (S.U.E.*)	----- FSS

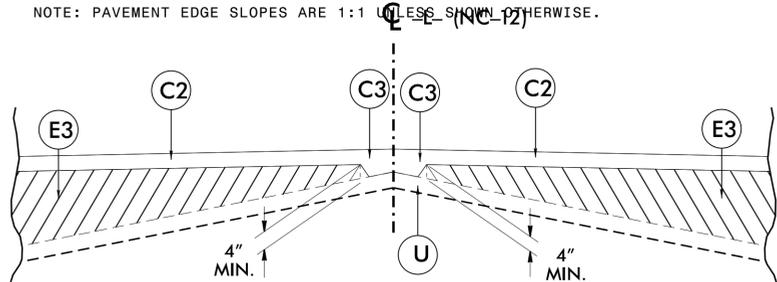
MISCELLANEOUS:

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

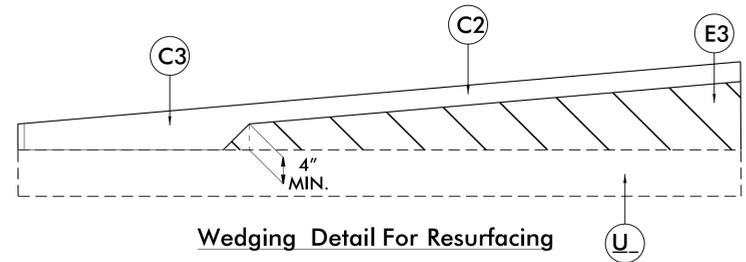
6/2/09

PAVEMENT SCHEDULE (MAY 18, 2015)	
B	PROP. APPROX. 0.75" OPEN-GRADED ASPHALT FRICTION COURSE (OGFC), TYPE FC-2 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" 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. APPROX. 5" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E3	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 4" OR GREATER THAN 5.5" IN DEPTH.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	VARIABLE DEPTH ASPHALT (SEE WEDGING DETAIL THIS SHEET)

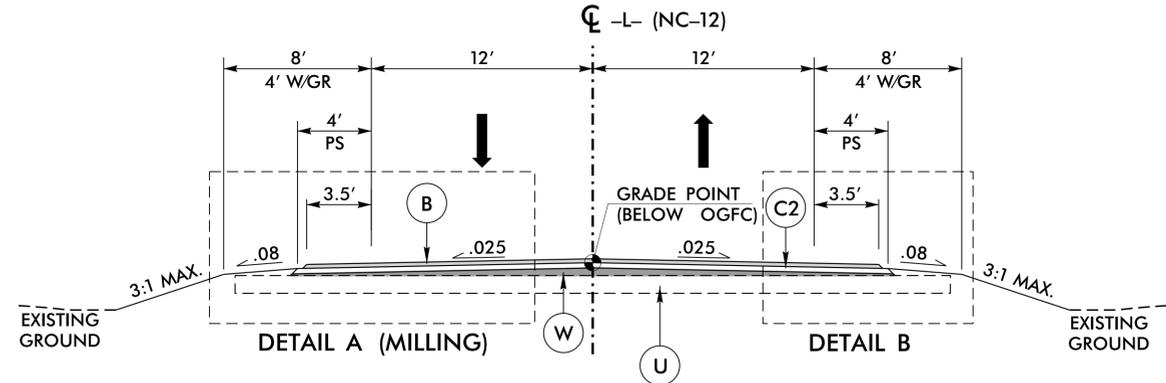
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



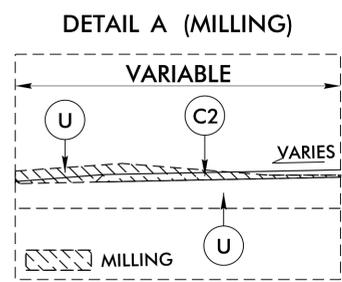
Detail Showing Method of Wedging



Wedging Detail For Resurfacing

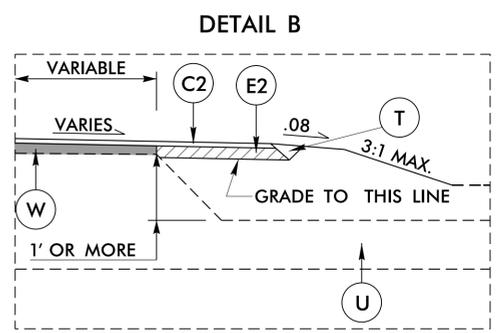


TYPICAL SECTION NO. 1



DETAIL A:

-L- STA. 3144 + 20.00 TO STA. 3149 + 50.00 LT



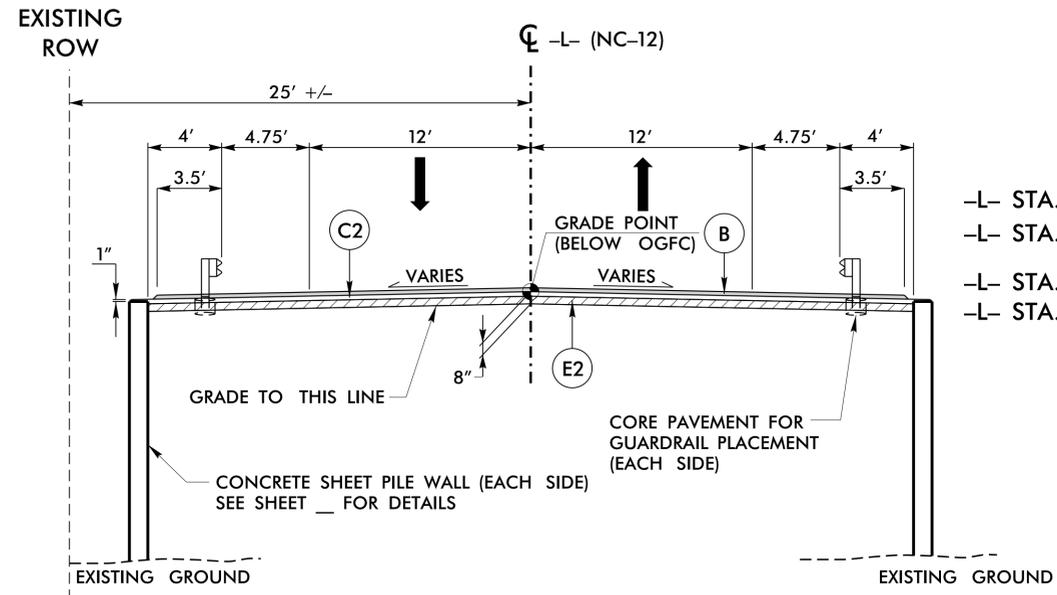
DETAIL B:

-L- STA. 3152 + 00 TO STA. 3153 + 50 RT
-L- STA. 3186 + 00 TO STA. 3188 + 50 RT

PROJECT REFERENCE NO. B-2500AB	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small> PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

TYPICAL SECTION NO. 1

-L- STA. 3149 + 50.00 TO STA. 3154 + 00.00 LT
-L- STA. 3186 + 50.00 TO STA. 3194 + 00.00 LT
-L- STA. 3144 + 00.00 TO STA. 3153 + 50.00 RT
-L- STA. 3186 + 00.00 TO STA. 3194 + 00.00 RT



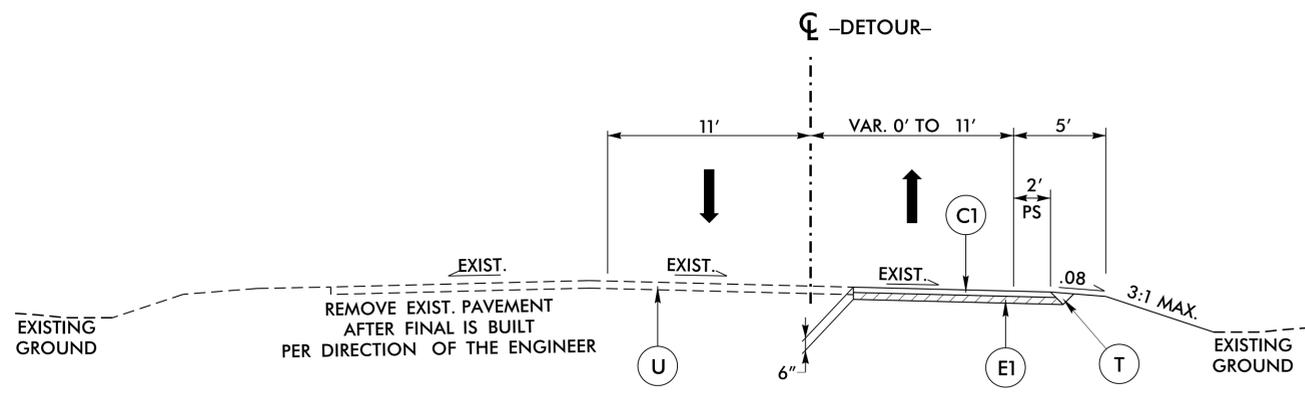
TYPICAL SECTION NO. 2

TYPICAL SECTION NO. 2

-L- STA. 3154 + 00.00 TO STA. 3159 + 00.00 (BEGIN BRIDGE) LT
-L- STA. 3182 + 50.00 (END BRIDGE) TO STA. 3186 + 50.00 LT.
-L- STA. 3153 + 50.00 TO STA. 3159 + 00.00 (BEGIN BRIDGE) RT
-L- STA. 3182 + 50.00 (END BRIDGE) TO STA. 3186 + 00.00 RT.

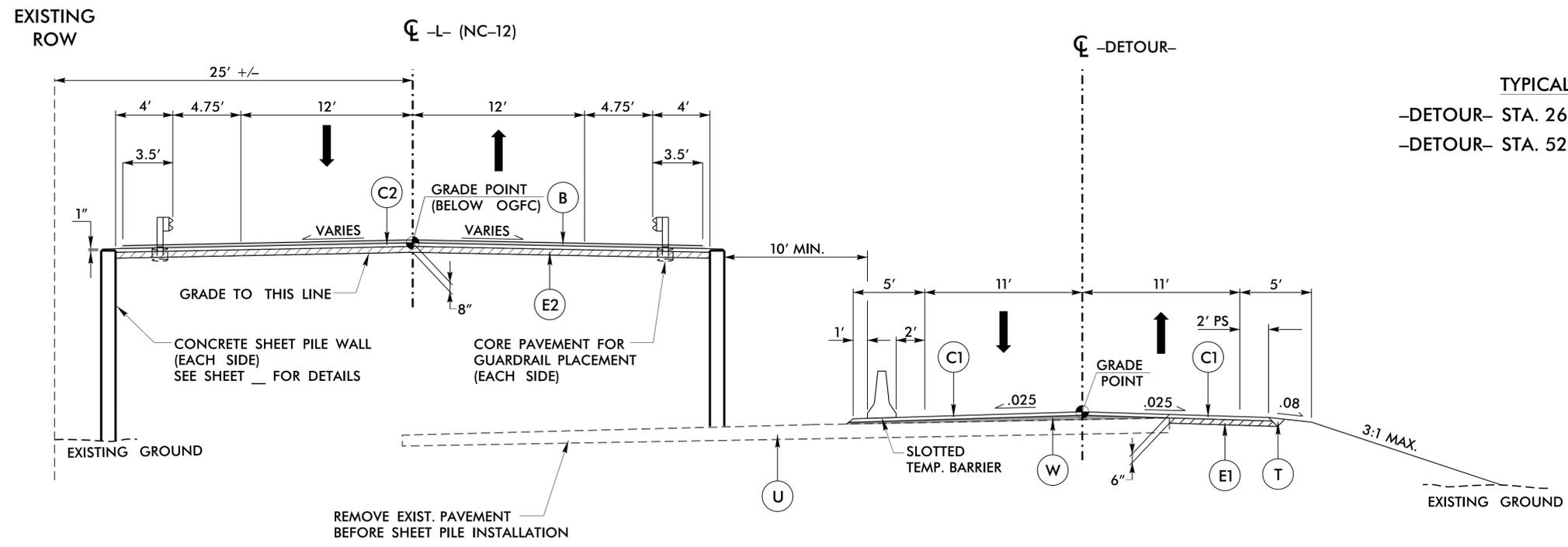
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PROJECT REFERENCE NO. B-2500AB	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



TYPICAL SECTION NO. 3

TYPICAL SECTION NO. 3
 -DETOUR- STA. 11+57.38 TO STA. 26+23.97
 -DETOUR- STA. 55+13.50 TO STA. 65+22.38



TYPICAL SECTION NO. 4

TYPICAL SECTION NO. 4
 -DETOUR- STA. 26+23.97 TO STA. 29+06.50
 -DETOUR- STA. 52+45.64 TO STA. 55+13.50

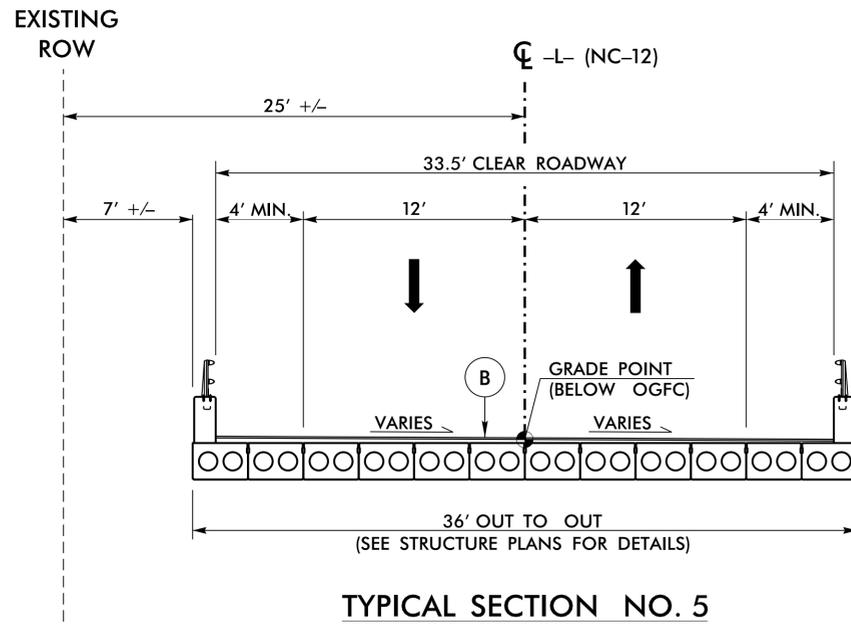
PAVEMENT SCHEDULE	
C1	2" S9.5B
C2	3" S9.5B
C3	VAR. S9.5B
E1	4" B25.0B
E2	5" B25.0B
E3	VAR. B25.0B
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING (SEE WEDGING DETAILS SHEET 2A-1)

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

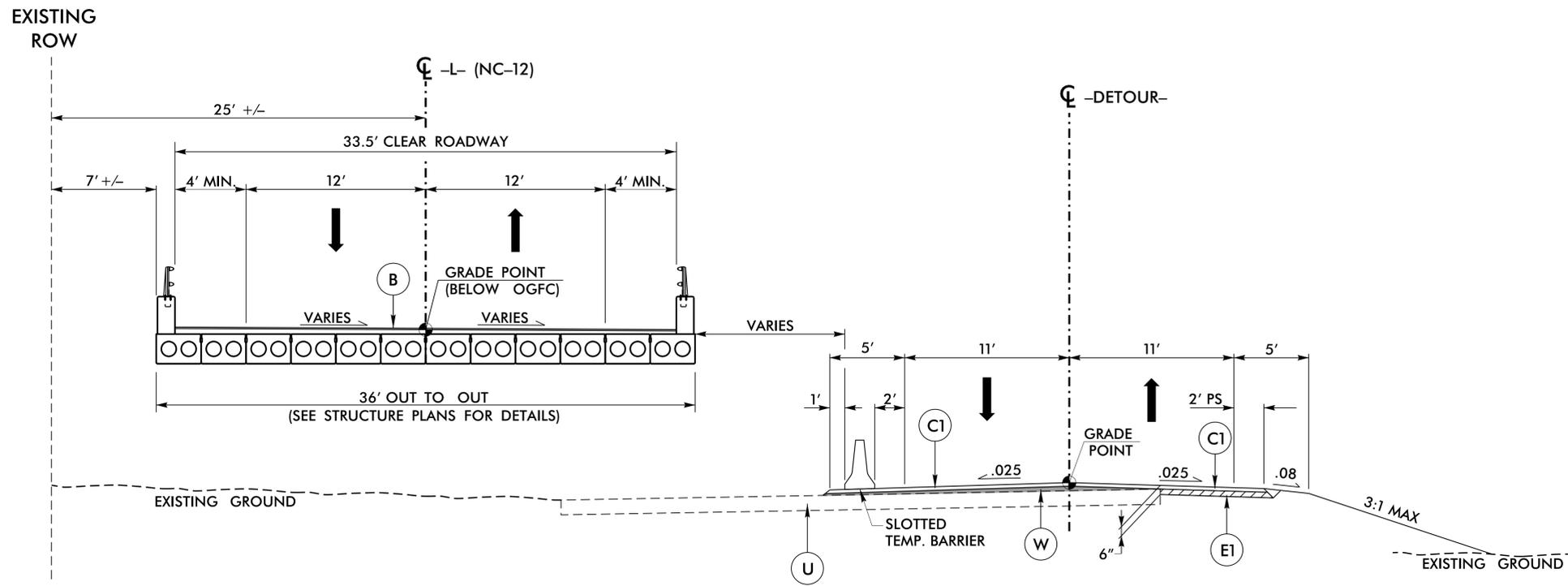
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PROJECT REFERENCE NO. B-2500AB	SHEET NO. 2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



BRIDGE TYPICAL SECTION
 -L- STA. 3159+00.00 (BEGIN BRIDGE) TO STA. 3182+50.00 (END BRIDGE)



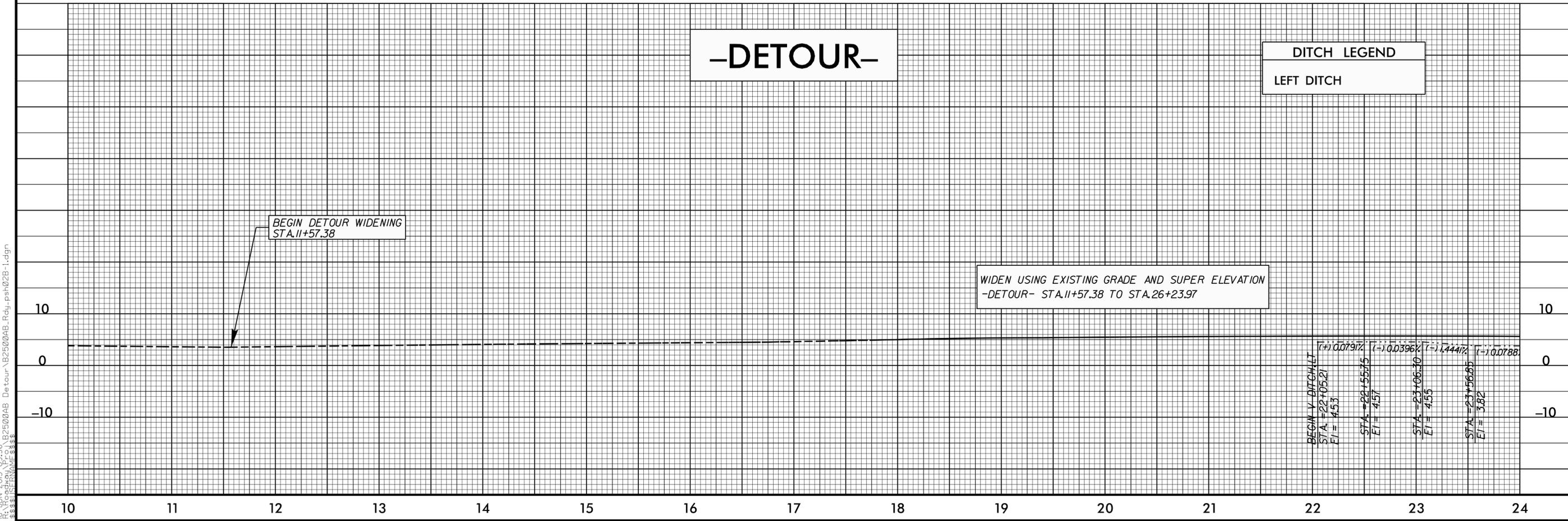
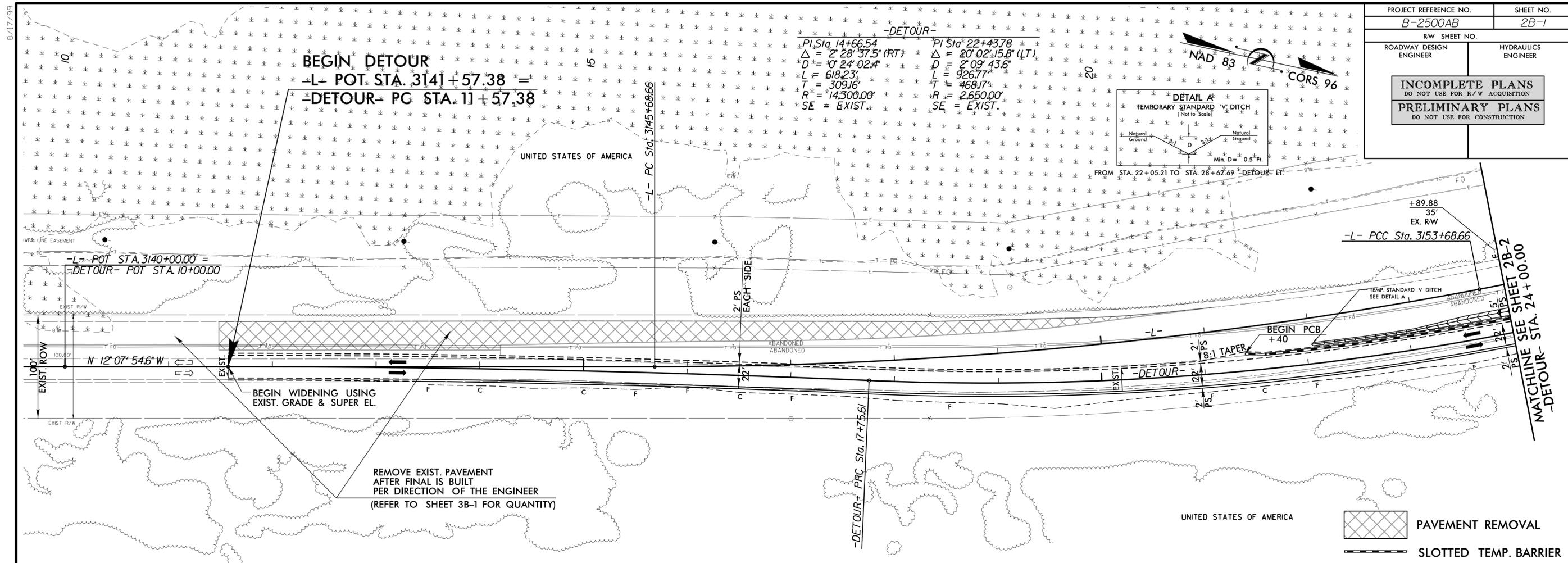
TYPICAL SECTION NO. 6
 -DETOUR- STA. 29+06.50 TO STA. 39+46.67 (BEGIN EXIST. BRIDGE)
 -DETOUR- STA. 46+11.90 (END EXIST. BRIDGE) TO STA. 52+45.64

PAVEMENT SCHEDULE	
C1	2" S9.5B
C2	3" S9.5B
C3	VAR. S9.5B
E1	4" B25.0B
E2	5" B25.0B
E3	VAR. B25.0B
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING <small>(SEE WEDGING DETAILS SHEET 2A-1)</small>

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

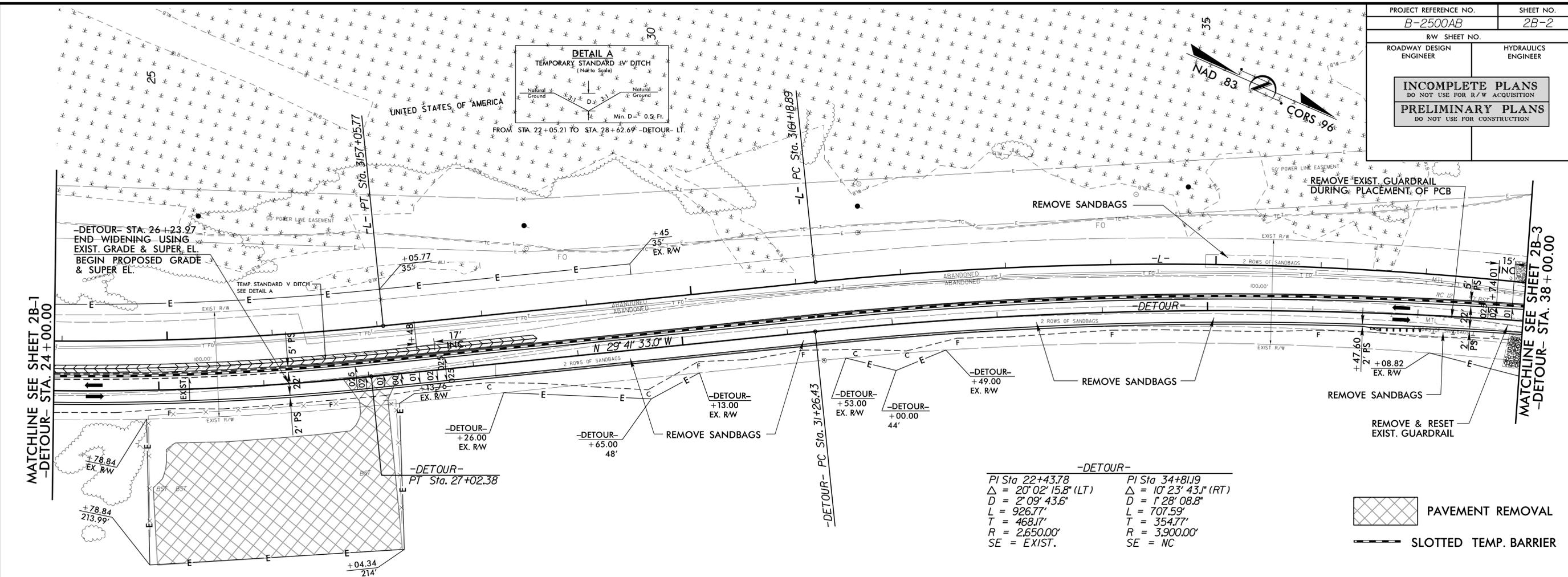
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18-JUN-2015 09:36 B-2500AB_RdJ.txd.dgn



8/17/99
 18 JUN 2015 09:36 09:36 B-2500AB Detour_V-Ditch.dgn
 3:44:48 PM 3:44:48 PM

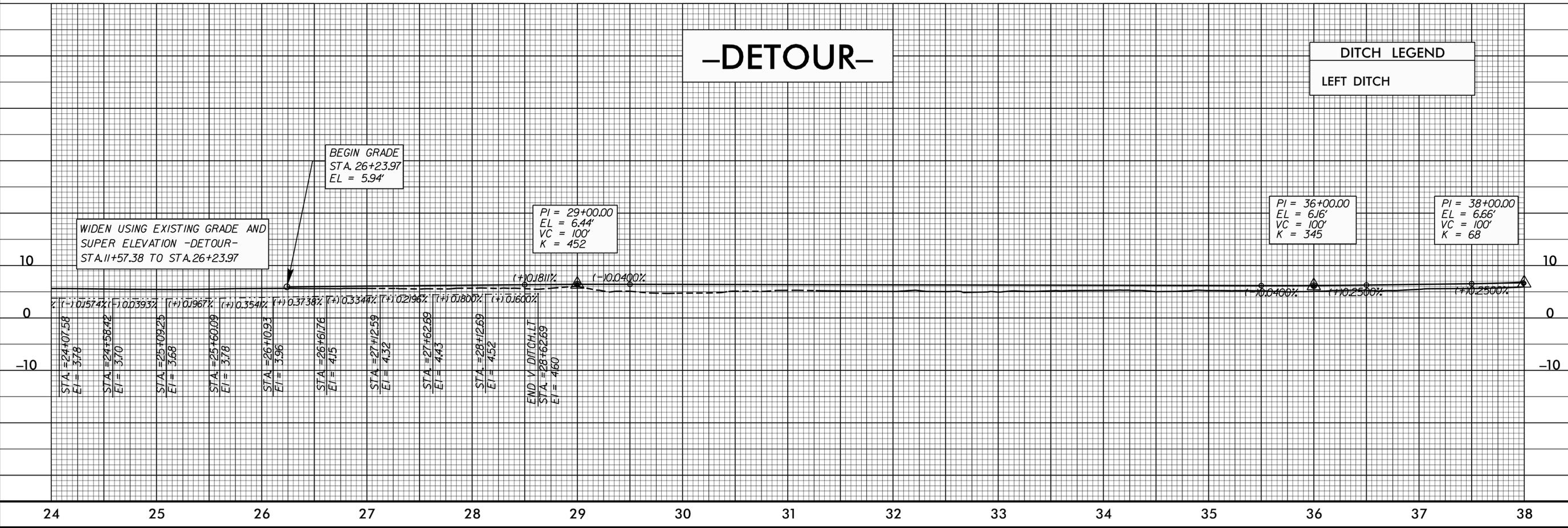
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



-DETOUR-

PI Sta 22+43.78	PI Sta 34+81.9
$\Delta = 20^{\circ} 02' 15.8\" (LT)$	$\Delta = 10^{\circ} 23' 43.1\" (RT)$
$D = 2^{\circ} 09' 43.6\"$	$D = 1^{\circ} 28' 08.8\"$
$L = 926.77'$	$L = 707.59'$
$T = 468.17'$	$T = 354.77'$
$R = 2,650.00'$	$R = 3,900.00'$
SE = EXIST.	SE = NC

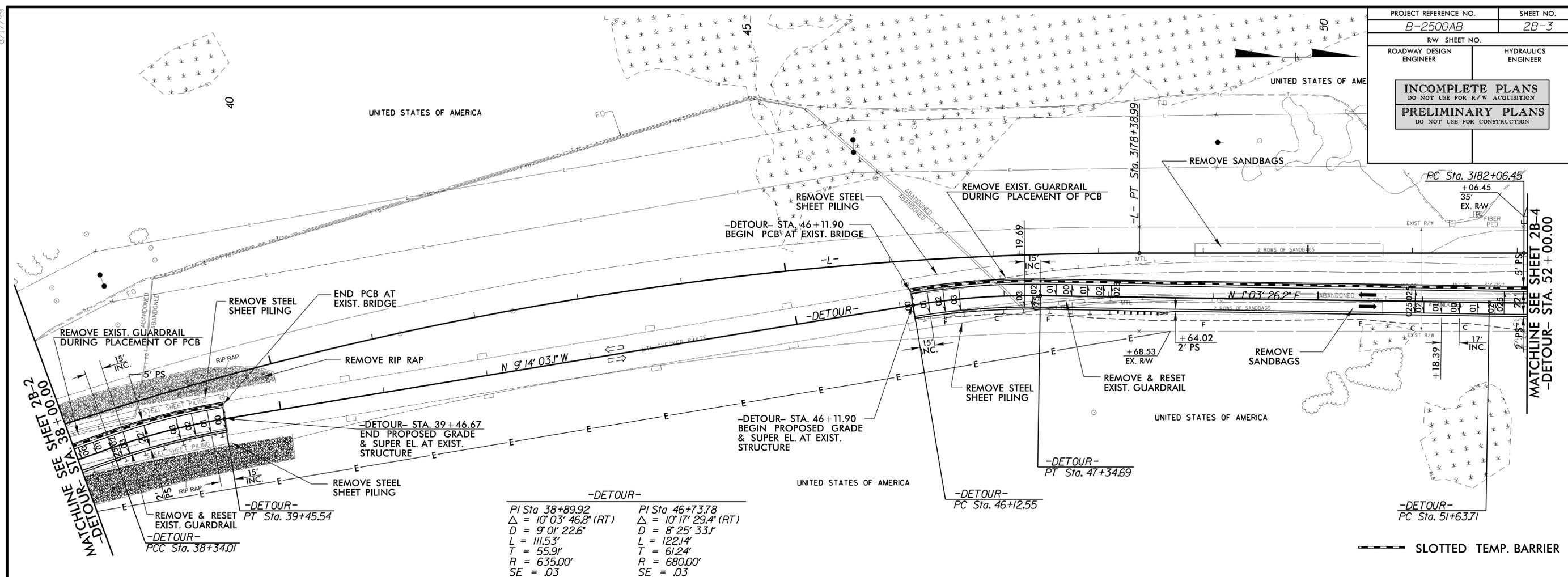
PAVEMENT REMOVAL
 SLOTTED TEMP. BARRIER



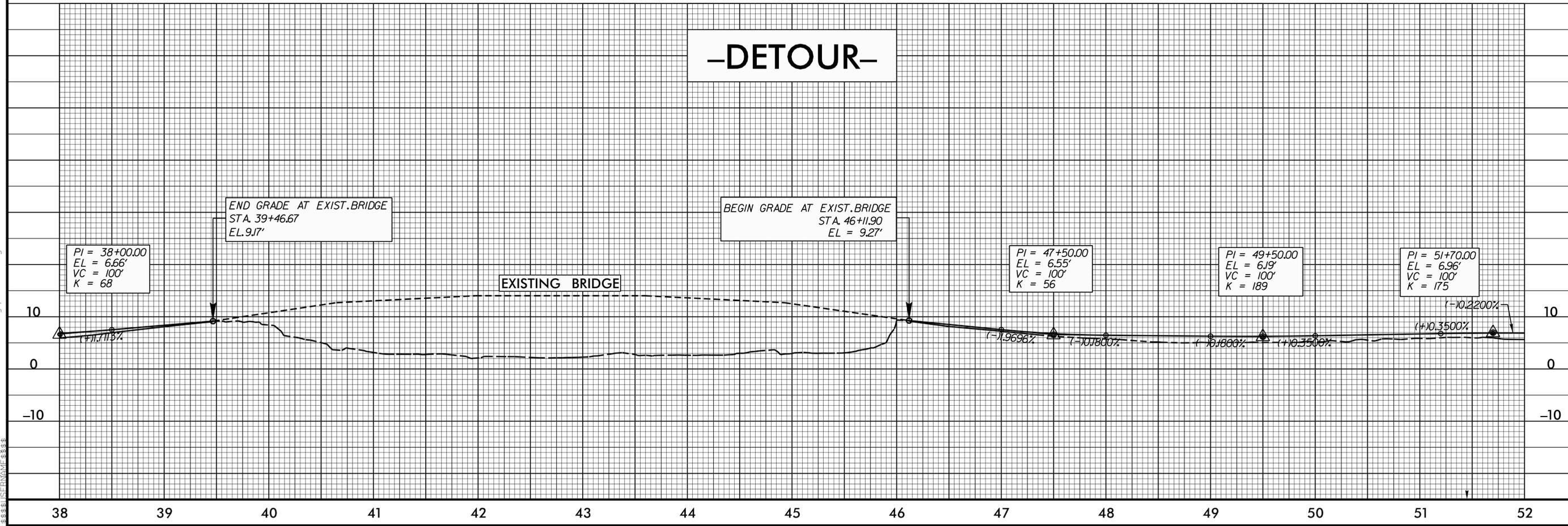
8/17/99
18 JUN 2015 09:36:09:36 Detour_B2500AB_Rdy_psh02B-2.dgn

8/17/99

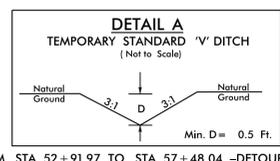
PROJECT REFERENCE NO. B-2500AB	SHEET NO. 2B-3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



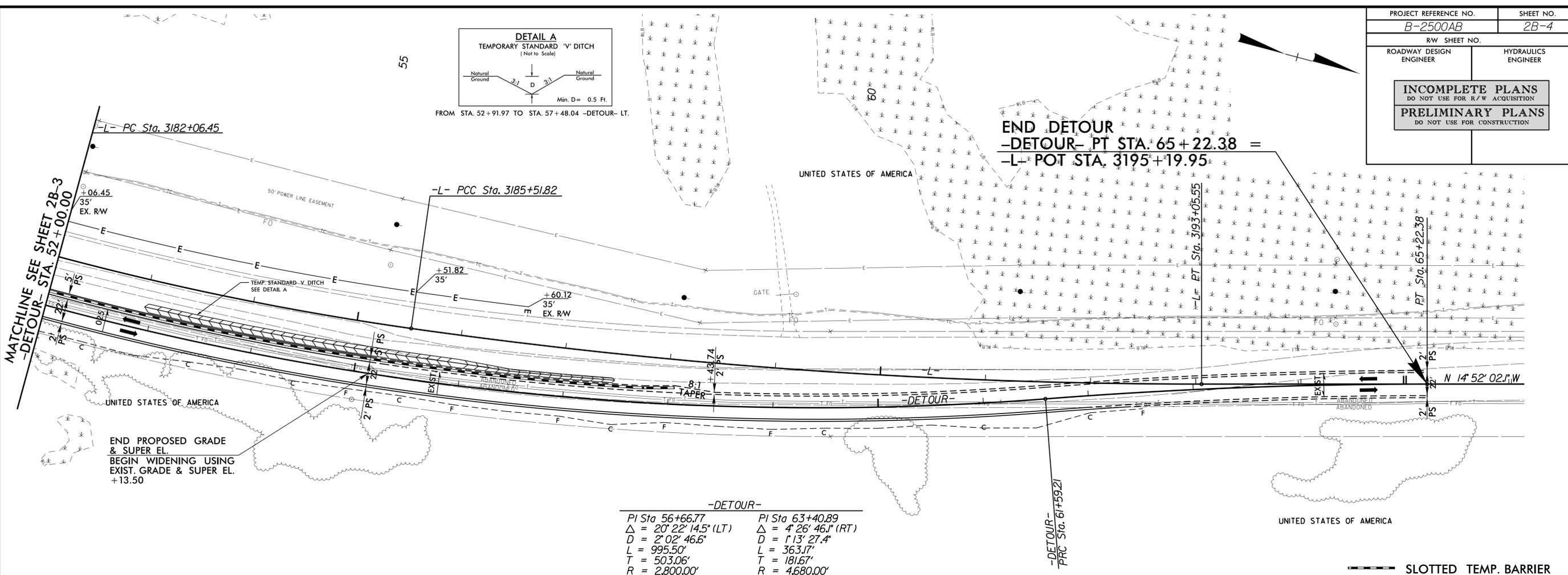
-DETOUR-	
PI Sta 38+89.92	PI Sta 46+73.78
$\Delta = 10^{\circ}03'46.8''$ (RT)	$\Delta = 10^{\circ}17'29.4''$ (RT)
$D = 9^{\circ}01'22.6''$	$D = 8^{\circ}25'33.1''$
$L = 111.53'$	$L = 122.14'$
$T = 55.9'$	$T = 61.24'$
$R = 635.00'$	$R = 680.00'$
$SE = .03$	$SE = .03$



18 JUN 2015 09:37 B2500AB Detour B2500AB.Rdy.pln02B-3.dgn



FROM STA. 52+91.97 TO STA. 57+48.04 -DETOUR- LT.

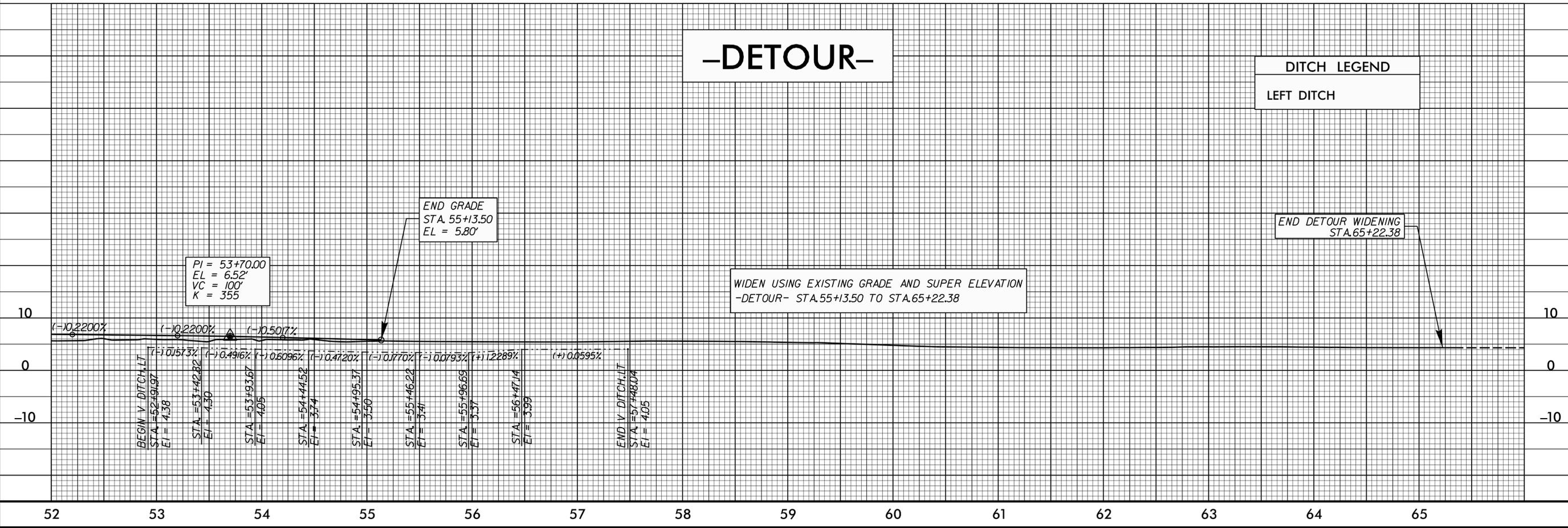


-DETOUR-

PI Sta 56+66.77	PI Sta 63+40.89
$\Delta = 20' 22' 14.5''$ (LT)	$\Delta = 4' 26' 46.1''$ (RT)
$D = 2' 02' 46.6''$	$D = 1' 13' 27.4''$
$L = 995.50'$	$L = 363.17'$
$T = 503.06'$	$T = 181.67'$
$R = 2,800.00'$	$R = 4,680.00'$

END PROPOSED GRADE & SUPER EL. BEGIN WIDENING USING EXIST. GRADE & SUPER EL. +13.50

— SLOTTED TEMP. BARRIER —



-DETOUR-

DITCH LEGEND
LEFT DITCH

END DETOUR WIDENING
STA. 65+22.38

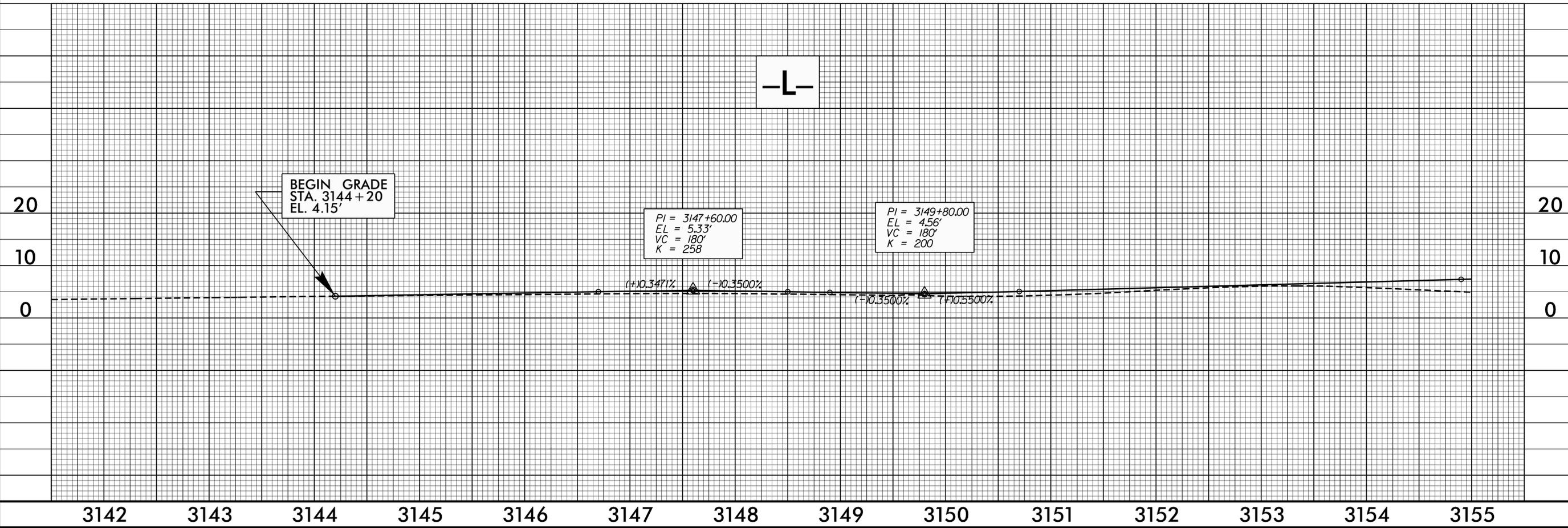
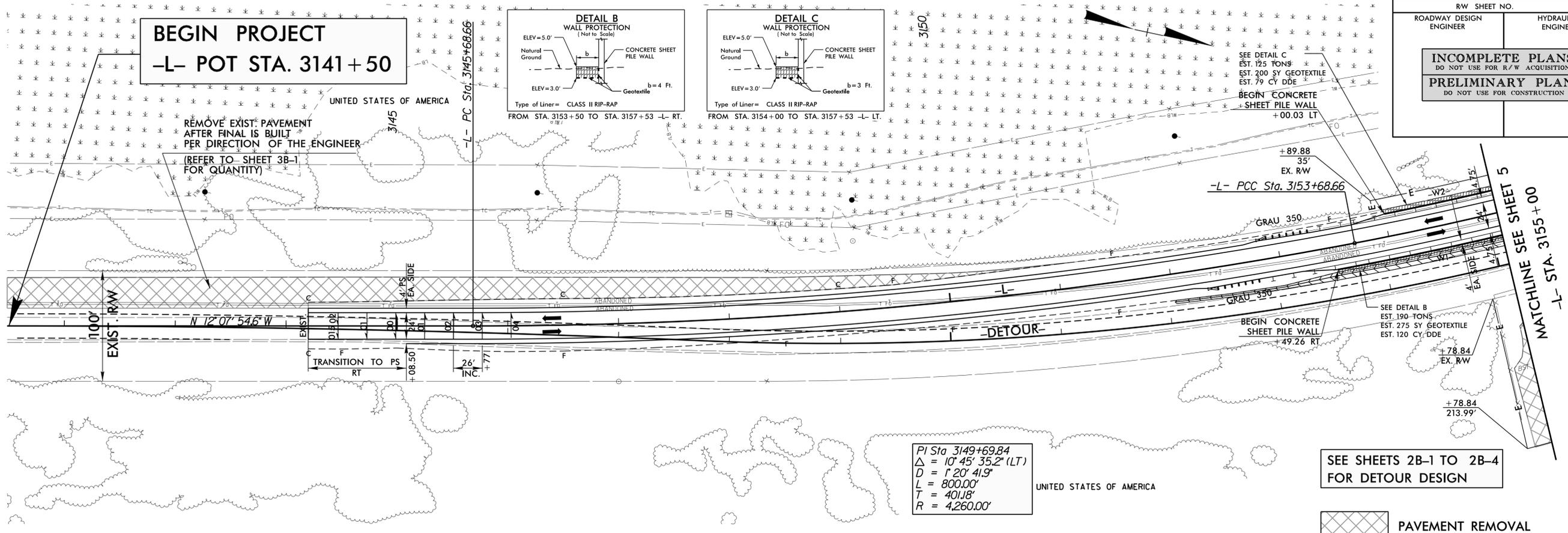
WIDEN USING EXISTING GRADE AND SUPER ELEVATION
-DETOUR- STA. 55+13.50 TO STA. 65+22.38

PI = 53+70.00
EL = 6.52'
VC = 100'
K = 355

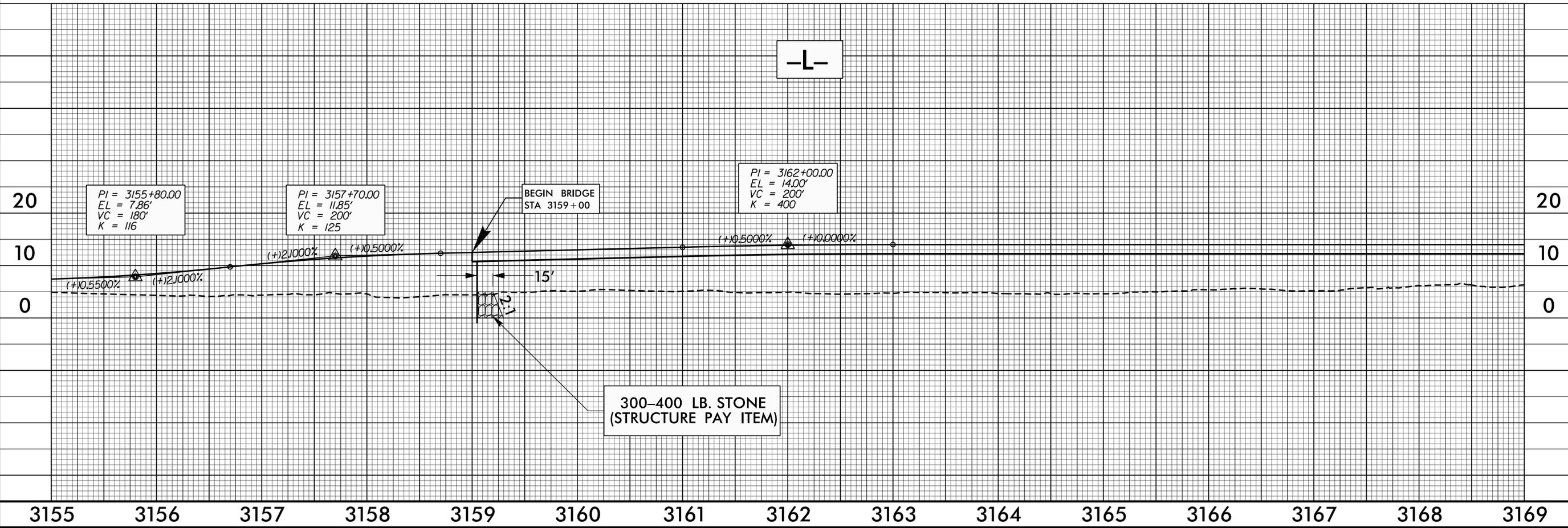
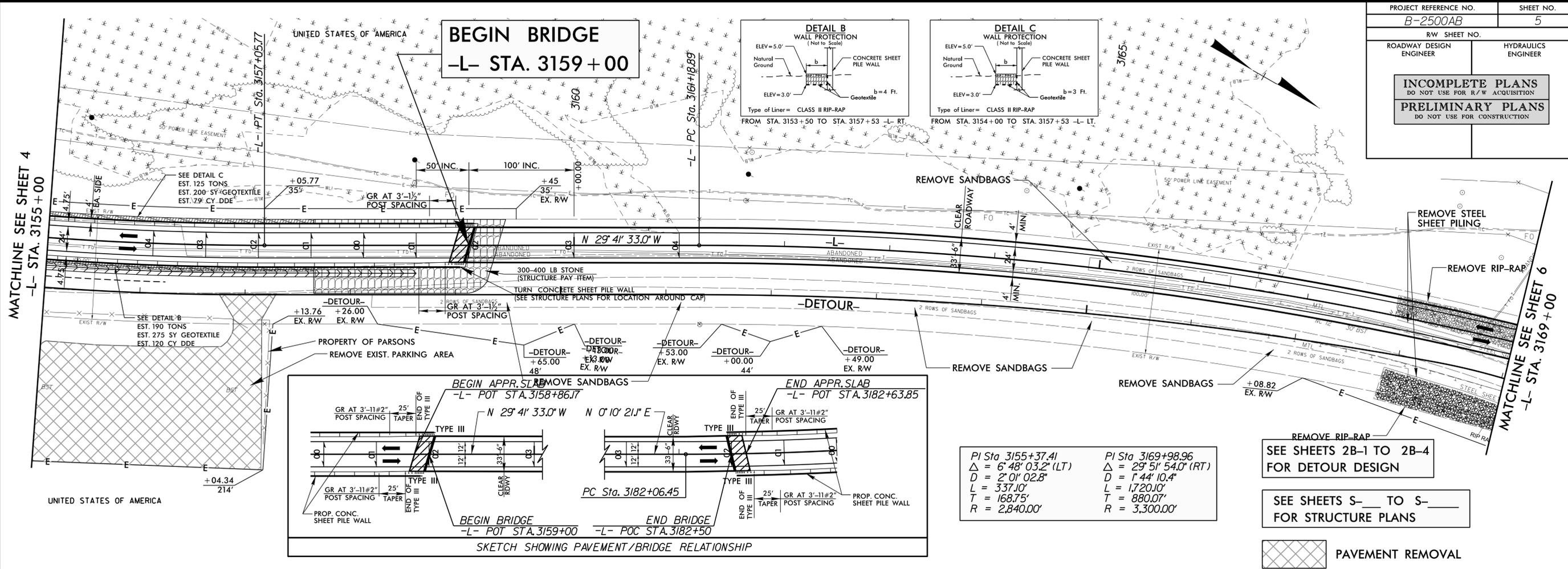
END GRADE
STA. 55+13.50
EL = 5.80'

- BEGIN V. DITCH LT
STA = 52+91.97
E1 = 4.38
- STA = 53+42.82
E1 = 4.30
- STA = 53+93.67
E1 = 4.05
- STA = 54+44.52
E1 = 3.74
- STA = 54+95.37
E1 = 3.50
- STA = 55+46.22
E1 = 3.41
- STA = 55+96.69
E1 = 3.37
- STA = 56+47.14
E1 = 3.39
- END V. DITCH LT
STA = 57+48.04
E1 = 4.05

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

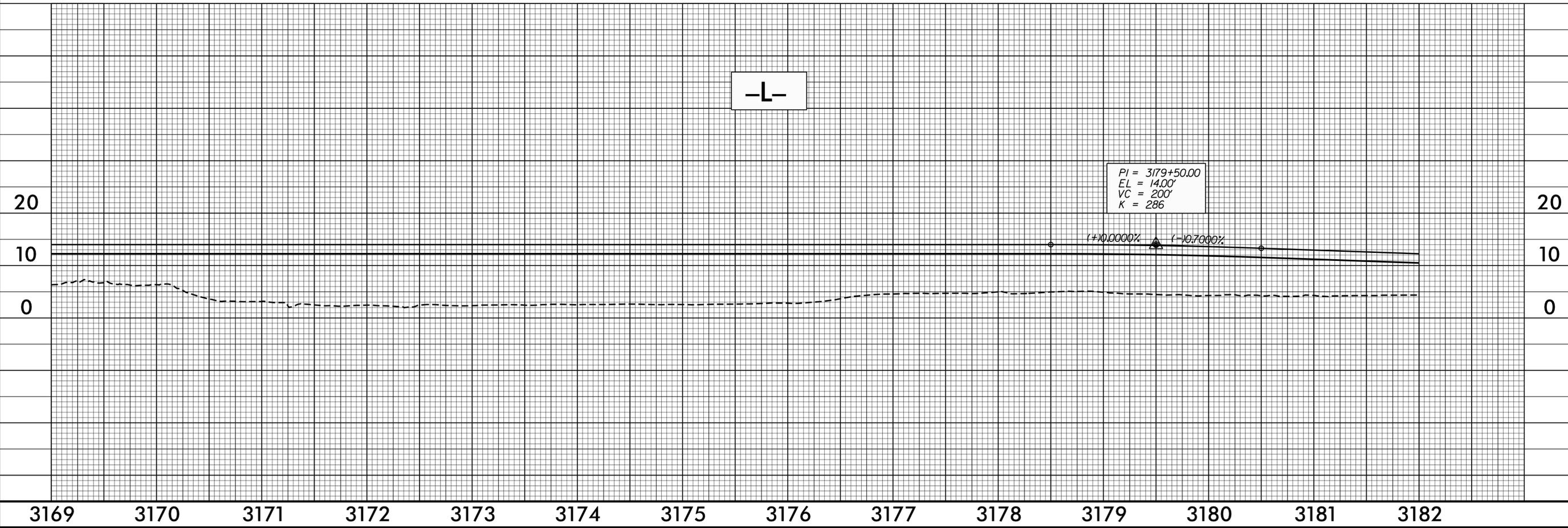
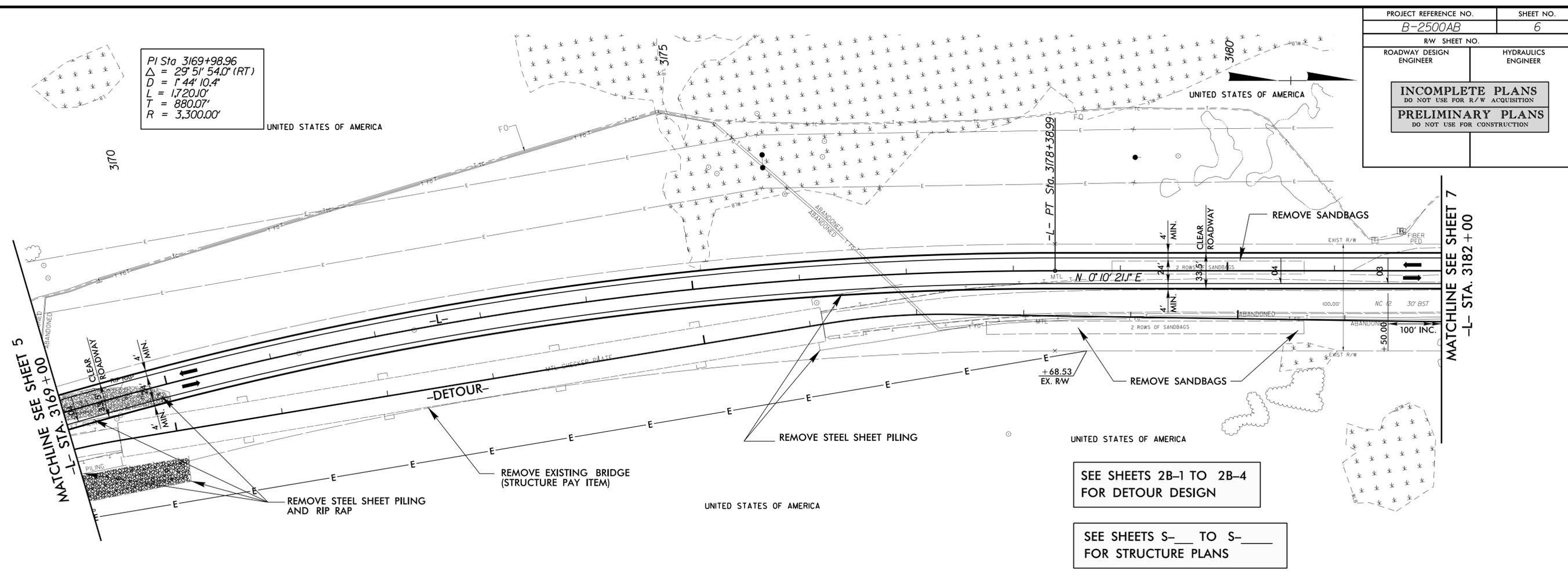


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 18 JUN 2015 09:37 B-2500AB-Rdy-psht04.dgn
 3142 3143 3144 3145 3146 3147 3148 3149 3150 3151 3152 3153 3154 3155

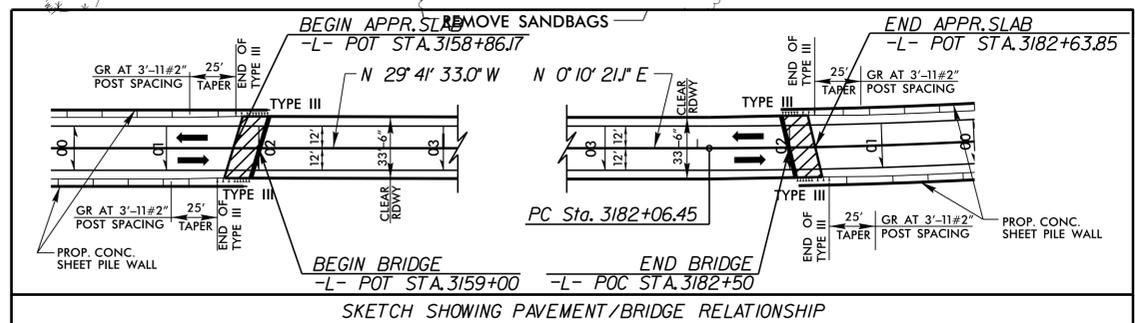
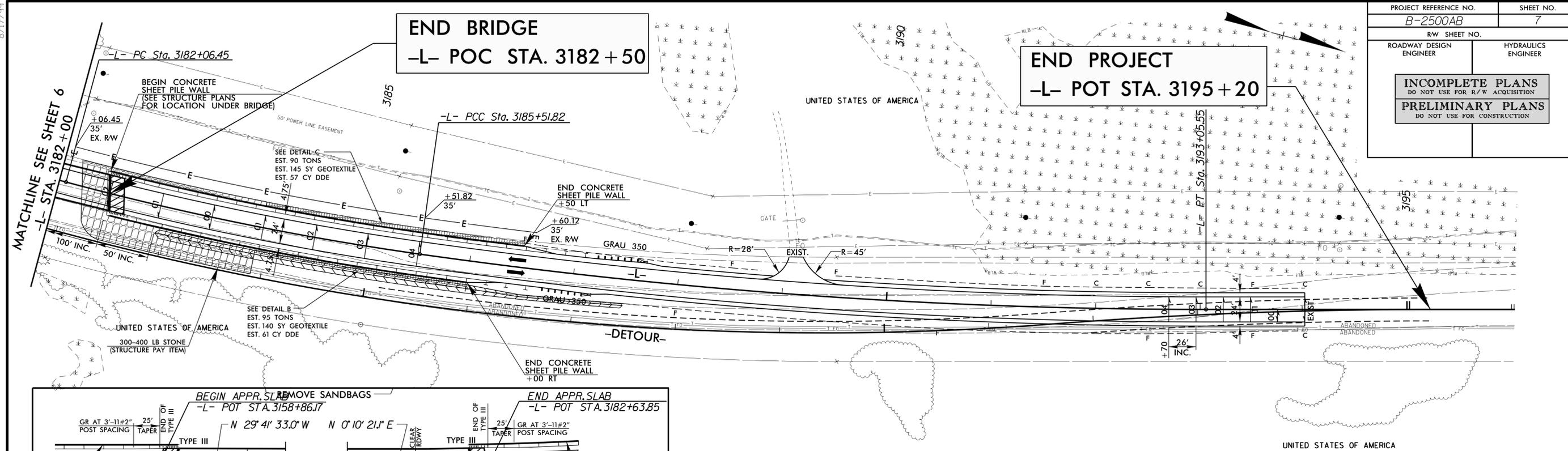


8/17/99
 18 JUN 2015 09:37 B2500AB.Rdy-psht05.dgn
 3155 3156 3157 3158 3159 3160 3161 3162 3163 3164 3165 3166 3167 3168 3169

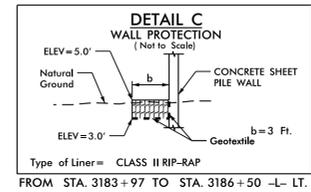
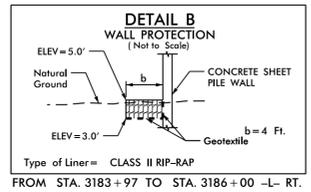
PI Sta 3169+98.96
 $\Delta = 29^\circ 51' 54.0''$ (RT)
 $D = 1' 44'' 10.4''$
 $L = 1,720.10'$
 $T = 880.07'$
 $R = 3,300.00'$



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 18 JUN 2015 09:37 B2500AB.Rdy-psht06.dgn
 3169-3182

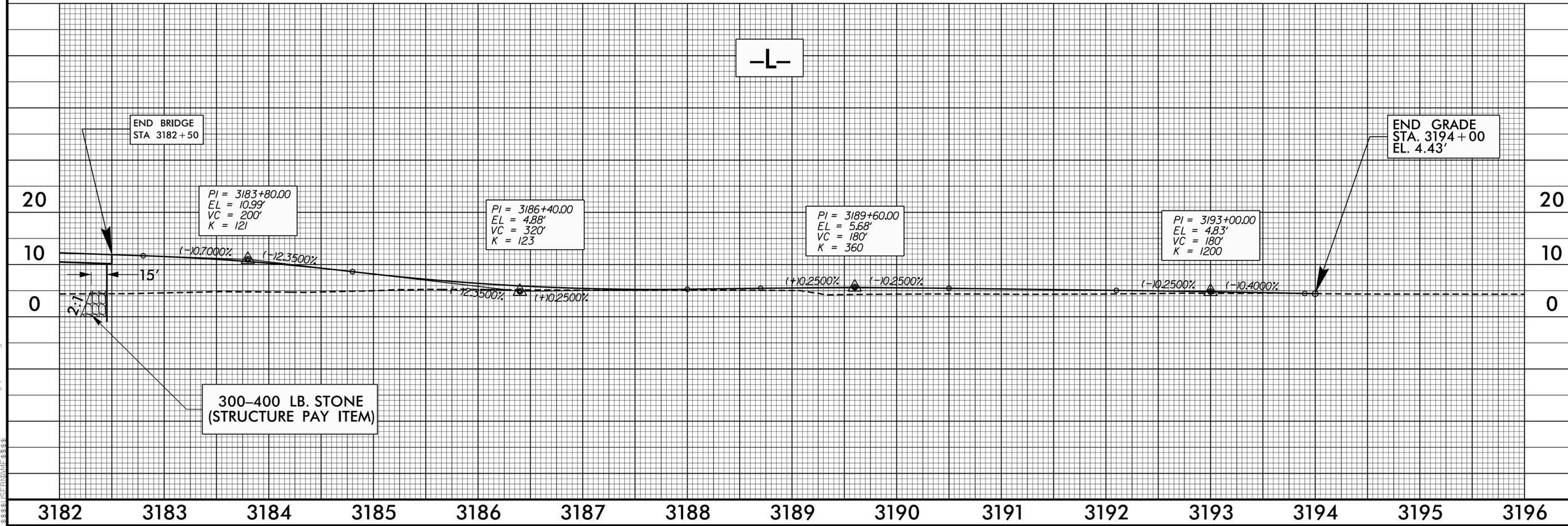


PI Sta 3183+79.35 $\Delta = 6' 58'' 03.6'' (LT)$ $D = 2' 0'' 02.8''$ $L = 345.37'$ $T = 172.90'$ $R = 2,840.00'$	PI Sta 3189+29.31 $\Delta = 8' 04'' 19.6'' (LT)$ $D = 1' 04'' 15.4''$ $L = 753.73'$ $T = 377.49'$ $R = 5,350.00'$
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SEE SHEETS 2B-1 TO 2B-4 FOR DETOUR DESIGN

SEE SHEETS S- TO S- FOR STRUCTURE PLANS



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 JUN-2015 09:38 B-2500AB-Rdy-psht07.dgn
 3182-3196.RDW