



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

February 22, 2007

MEMORANDUM TO: Mr. H. Allen Pope, PE  
Division Three Engineer

FROM: Philip S. Harris, III, P.E., Unit Head *for E. F. Just*  
Natural Environment Unit  
Project Development and Environmental Analysis Branch

SUBJECT: Pender County, Replace Bridge No.21 on NC 210 over  
Northeast Cape Fear River; T.I.P. Number B-4223; Federal  
Aid Project BRSTP-0210(4); State Project 8.1271001

Attached is the U. S. Army Corps of Engineers 404 Nationwide Permit Number 23, the general conditions for the 401 Water Quality Certification and CAMA permit from Division Coastal Management for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/gyb

Attachment

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design  
Dr. David Chang, P.E., Hydraulics  
Mr. Randy Garris, P.E. State Contract Officer  
Mr. Art McMillan, P.E., Highway Design  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Mark Staley, Roadside Environmental  
Mr. John F. Sullivan, FHWA  
Mr. Rob Hanson, P.E., PDEA Eastern Region Unit Head  
Mr. Mason Herndon, Division Environmental Officer

## **Project Commitments**

NC 210  
Pender County  
Bridge No. 21 on NC 210  
Over Northeast Cape Fear River  
Federal Aid Project No. BRSTP-0210(4)  
State Project No. 81271001  
TIP B-4223

In addition to the standard Nationwide Permit 23 Conditions, the General Nationwide Permit Conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, NCDOT's Guidelines for Best Management Practices for the Protection of Surface Waters, Erosion and Sediment Control Guidelines for Contract Construction, Best Management Practices for Bridge Demolition and Removal, General Certification Conditions, and Section 401 Conditions of Certification, the following special commitments have been agreed to by NCDOT:

### **Commitments Developed During Project Development**

#### *Division 3 Construction*

A moratorium on work within jurisdictional waters from February 1 to June 30 for *Anadromous Fish Passage* will be implemented.

Precautions for Construction in Areas Which May be Used by the West Indian Manatee In North Carolina will be followed.

### **Commitments Developed During Permitting**

#### *Division 3 Construction*

The Permittee shall require its contractors and or agents to comply with the terms and conditions of all permits in the construction and maintenance of this project, and shall provide each of its contractors and or agents associated with the construction or maintenance with a copy of all permits and any authorized modifications. A copy of all permits including the authorized plans referenced in USACE Special Condition 1 and authorized modifications including all conditions shall be available at the project site during construction and maintenance of the project.

A moratorium on work within the Northeast Cape Fear River and contiguous inundated wetlands of the Northeast Cape Fear River from February 1 to June 30 will be implemented for the protection of the shortnose sturgeon and anadromous fish.

The NCDOT shall implement NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage, Except as modified in Condition No. 1 of the CAMA Permit.

Debris resulting from demolition of the existing bridge, including deck components, shall not enter wetlands or waters of the State, even temporarily.

The permanent and temporary work bridges shall be constructed with vibratory hammer or pile driver; specifically, piles shall not be drilled or jetted. Should drilled shaft construction or jetting of any bridge piles become necessary, a modification to the CAMA permit will be required.

Turbidity curtains shall be used to isolate all work areas from the Northeast Cape Fear River, excluding the construction of the interior bridge bents. The turbidity curtains shall be installed parallel to the banks on each side of the river. The turbidity curtains shall extend past the construction limits and attach to the silt fences containing the work site as shown in the figure attached to the February 2 CAMA letter of refinement.

Pilings from the existing bridge, pilings and the temporary bulkhead associated with the temporary work bridge, as well as any remnant pilings from the previous bridges, shall be removed in their entirety. In the event that a piling breaks during removal and cannot be removed in its entirety, the piling may be cut off flush with the bed of the water body if prior approval is received from DCM

Due to the possibility that compaction or other site alterations might prevent any temporary wetland impact areas from re-attaining pre-project wetland functions, the permittee shall schedule a field meeting with a Division representative to verify the extent and location of any temporary impacts upon project completion. Should temporary wetland impacts occur, the permittee shall monitor temporary wetland impacts for three years following project completion and provide an annual update on the re-attainment of pre-project wetland functions. At the end of this three year period, the permittee shall schedule a field meeting with a Division representative to determine if the wetland areas temporarily impacted by this project have re-attained pre-project wetland functions. If at the end of three years the wetland areas temporarily impacted by this project have not re-attained pre-project wetland functions, the Division of Coastal Management shall determine whether compensatory mitigation will be required.

The NCDOT shall provide verification in the form of an as built survey, to DCM that the wetland restoration areas have been restored to the approximate natural elevation of the adjacent coastal wetlands or to an appropriate reference elevation. This verification shall be provided within 60 days of the completion of the grading associated with the restoration area.

To ensure that all borrow and waster activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and or agents to identify and evaluate all areas to be used as borrow material, or disposal of dredged, fill, or waste material in accordance with NCDOT's 2006 Standard and Specifications Section 230 and 802. The permittee shall provide the USACE with appropriate maps and environmental evaluations of the proposed locations of borrow or waste sites that are within 400 feet of any streams or wetlands. All jurisdictional wetland lines on borrow and waste sites shall be verified by the Corp of Engineers and shown an the approved reclamation plans. The permittee shall ensure that all such areas comply with the preceding condition of this permit, and shall

require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the preceding condition.

*NCDOT-NEU*

The permittee shall provide an annual update on the wetland restoration areas of this project to the NC Division of Coastal Management for a minimum of five years after mitigation site construction or until mitigation site criteria are met. This annual update will consist of photographs of the restoration areas and a brief report on the progress towards re-attaining wetland jurisdiction status. After five years, monitoring may cease if the permittee can demonstrate that success criteria have been met and written concurrence is received from DCM.

Compensatory mitigation for the unavoidable impacts to 0.52 acres of wetlands associated with the proposed project shall be provided by the NCDOT in accordance with the plan entitled "Restoration Plan for Northeast Cape Fear River Wetland at Bridge No. 21 on NC 210, Pender County, TIP B-4223" dated January 11, 2006. This mitigation plan will remove approximately 332 feet of the existing causeway, located on the eastern shoreline of the Northeast Cape Fear River. The restored area will be planted with vegetation native to the surrounding wetland areas as described in the restoration plan. Monitoring shall include visual observations and photos.



North Carolina Department of Environment and Natural Resources  
**Division of Coastal Management**

Michael F. Easley, Governor

**Charles S. Jones, Director**

William G. Ross Jr., Secretary

June 30, 2006

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

Dear Dr. Gray:

The enclosed permit constitutes authorization under the Coastal Area Management Act, and where applicable, the State Dredge and Fill Law, for you to proceed with your project proposal. The original (buff-colored form) is retained by you and it must be available on site when the project is inspected for compliance. Please sign both the original and the copy and return the copy to this office in the enclosed envelope. Signing the permit and proceeding means you have waived your right of appeal described below.

If you object to the permit or any of the conditions, you may request a hearing pursuant to NCGS 113A-121.1 or 113-229. Your petition for a hearing must be filed in accordance with NCGS Chapter 150B with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27611-6714, (919) 733-2698 within twenty (20) days of this decision on your permit. You should also be aware that if another qualified party submits a valid objection to the issuance of this permit within twenty (20) days, the matter must be resolved prior to work initiation. The Coastal Resources Commission makes the final decision on any appeal.

The project plan is subject to those conditions appearing on the permit form. Otherwise, all work must be carried out in accordance with your application. Modifications, time extensions, and future maintenance require additional approval. Please read your permit carefully prior to starting work and review all project plans, as approved. If you are having the work done by a contractor, it would be to your benefit to be sure that he fully understands all permit requirements.

From time to time, Department personnel will visit the project site. To facilitate this review, we request that you complete and mail the enclosed Notice Card just prior to work initiation. However, if questions arise concerning permit conditions, environmental safeguards, or problem areas, you may contact Department personnel at any time for assistance. By working in accordance with the permit, you will be helping to protect our vitally important coastal resources.

Sincerely,

Douglas V. Huggett  
Major Permits and Consistency Manager

Enclosure

1638 Mail Service Center, Raleigh, North Carolina 27699-1638  
Phone: 919-733-2293 \ FAX: 919-733-1495 \ Internet: <http://dcm2.enr.state.nc.us>

An Equal Opportunity \ Affirmative Action Employer - 50% Recycled \ 10% Post Consumer Paper

Permit Class  
NEW

Permit Number  
123-06

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

Major Development in an Area of Environmental Concern  
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1548

Authorizing development in Pender County at Northeast Cape Fear River, Bridge No. 21  
on NC 210 (B-4223) as requested in the permittee's application dated 3/1/06  
including the attached sixteen (16) 1/2-size plan drawings dated as received in Raleigh on 4/6/06.

This permit, issued on 6/30/06, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

### Bridge No. 21 Replacement (TIP No. B-4223)

- 1) In order to protect juvenile finfish, shellfish, and anadromous fish and including the Shortnose Sturgeon, no in-water work shall be conducted from February 1<sup>st</sup> to September 30 of any year without prior approval of the NC Division of Coastal Management (DCM), in consultation with the NC Wildlife Resources Commission (WRC), the NC Division of Marine Fisheries (DMF), and/or the National Marine Fisheries Service (NMFS). For the purposes of this moratorium, "in-water" is defined as those areas that are inundated at normal water level at any time during construction, including the waters or contiguous inundated wetlands of the Northeast Cape Fear River.
- 2) The permittee shall implement NCDOT's Stream Crossing Guidelines for Anadromous Fish Passage, except as modified in Condition No. 1 of this permit.

### (See attached sheets for Additional Conditions)

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

### No Expiration Date, pursuant to GS 136-44.7B

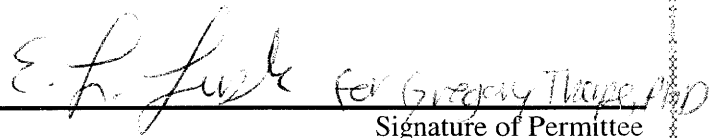
In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



*for* Charles S. Jones, Director  
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

**ADDITIONAL CONDITIONS**

- 3) The West Indian Manatee, *Trichechus manatus*, which is listed as a federally endangered species, has been reported in North Carolina waters. In order to protect the West Indian manatee all work should be done during the period from November 1 to May 31. If work must be done during the period from June through October the enclosed guidelines prepared by the U.S. Fish and Wildlife Service (USFWS) (rev. 06/2003), entitled "Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters" shall be followed.
- 4) The authorized project is located within a Primary Nursery Area (PNA). Therefore, in accordance with T15A:07H.0208 of the rules of the Coastal Resources Commission, no new dredging or excavation within the PNA shall be permitted. Dredging in any manner, including "kicking" with boat propellers, is not authorized. This prohibition shall be applied and enforced throughout the entire existence of the permitted structure.
- 5) Barges, when used, shall be floated into place and then sunk. They shall not be sunk and then dragged into place.
- 6) The NCDOT document "Best Management Practices for Bridge Demolition and Removal" (final 9/20/99) shall be followed during demolition and construction activities.
- 7) All materials and debris associated with the removal and/or construction of the existing and/or new bridge, roadway asphalt, existing causeway, and associated materials shall be disposed of at an approved upland site or shall be recycled in an environmentally appropriate manner provided appropriate authorizations from any relevant state, federal, or local authorities are obtained.
- 8) Debris resulting from demolition of the existing bridge, including deck components, shall not enter wetlands or waters of the State, even temporarily.
- 9) The bridge shall be constructed using top down construction methodologies
- 10) The permanent and temporary work bridges shall be constructed with vibratory hammer or pile driver; specifically, piles shall not be drilled or jetted. Should drilled shaft construction or jetting of any bridge piles become necessary, a modification to this permit will be required.
- 11) Pilings from the existing bridge, pilings and the temporary bulkhead associated with the temporary work bridge, as well as any remnant pilings from previous bridges, shall be removed in their entirety. In the event that a piling breaks during removal and cannot be removed in its entirety, the piling may be cut off flush with the bed of the water body if prior approval is received from DCM.
- 12) Turbidity curtains shall be used to isolate all work areas from the Northeast Cape Fear River, including pile or casement installation, placement of riprap, excavation or filling. The turbidity curtains shall be installed parallel to the banks on each side of the river. The turbidity curtains shall extend past the construction limits and attach to the silt fences containing the work site. The turbidity curtains shall not fully encircle the work area or extend across the river. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and all of the work area contained by the turbidity curtains has been stabilized by vegetation or other means. The turbidity curtains shall be removed when turbidity within the curtains reaches ambient levels.

ADDITIONAL CONDITIONS

**NOTE:** This permit does not convey or imply approval of the suitability of the excess mitigation generated by this project as compensatory wetland mitigation for any particular future projects. The use of any portion of the excess mitigation generated by this project as compensatory mitigation for future projects will be approved on a case-by-case basis during the CAMA permit review and/or consistency process.

- 24) Except as specified by conditions of this permit, on-site mitigation shall be carried out as described in the document titled "Restoration Plan for Northeast Cape Fear River Wetland at Bridge No. 21 on NC 210" dated January 11, 2006.
- 25) Any subsequent changes to the mitigation plan authorized by this CAMA permit shall require additional authorization from the N.C. Division of Coastal Management.
- 26) The permittee shall ensure the removal of all unsuitable fill material within the wetland restoration areas and shall fill any void left by the removal of unsuitable material with clean, unconsolidated material to the same approximate elevation as the adjacent natural wetlands or to an appropriate reference wetland elevation.
- 27) The permittee shall provide verification, in the form of an as-built survey, to DCM that the wetland restoration areas have been restored to the approximate natural elevation of the adjacent coastal wetlands or to an appropriate reference wetland elevation. This verification shall be provided within 60 days of completion of the grading associated with the restoration area.
- 28) The wetland restoration areas shall be fully contained by silt fence until all unsuitable fill material has been removed and the restoration areas have been restored to the approximate natural elevation of the adjacent wetlands and stabilized with vegetation. Turbidity curtains shall also be used to contain the wetland restoration areas where the existing causeway comes within close proximity to the river.
- 29) The permittee shall provide an annual update on the wetland restoration areas of this project to the NC Division of Coastal Management (DCM) for a minimum of five years after mitigation site construction or until mitigation success criteria are met. This annual update will consist of photographs of the restoration areas and a brief report on the progress towards re-attaining wetland jurisdictional status. After five years, monitoring may cease if the permittee can demonstrate to DCM, the NC Division of Water Quality (DWQ), the NC Wildlife Resources Commission (WRC), and the US Army Corps of Engineers (USACE) that success criteria have been met and written concurrence is received from DCM.
- 30) The area of wetland mitigation shall be protected in perpetuity in the restored state as appropriate according to the approved final mitigation plans and owned by the permittee or its approved designee. An appropriate conservation easement, deed restriction or other appropriate instrument shall be attached to the title for the subject property. Failure to adequately protect mitigation sites may result in further mitigation requirements.

**NOTE:** The exact amount of wetland mitigation credits will not be determined until the restoration site receives confirmation from DCM, DWQ, and USACE that the site has re-attained jurisdictional status.



ADDITIONAL CONDITIONS

- 13) The temporary placement or double handling of excavated or fill materials within waters or vegetated wetlands are not authorized.
- 14) All excavated materials shall be confined above normal high water level and landward of regularly or irregularly flooded wetlands behind adequate dikes or other retaining structures to prevent spillover of solids into any wetlands or surrounding waters.
- 15) No excavated or fill material shall be placed at any time in any vegetated wetlands or surrounding waters outside of the alignment of the fill area indicated on the work plan drawing(s).
- 16) The fill material shall be clean and free of any pollutants except in trace quantities.
- 17) No excavation shall take place at any time in any vegetated wetlands or surrounding waters outside of the alignment of the fill areas indicated on the workplan drawing(s).
- 18) Placement of riprap shall be limited to the areas as depicted on the attached work plan drawings. The riprap material shall be free from loose dirt or any pollutant. The riprap material shall consist of clean rock or masonry materials, such as but not limited to, granite, marl, or broken concrete.
- 19) Live concrete shall not be allowed to contact waters of the State or water that will enter waters of the State.

**Sedimentation and Erosion Control**

- 20) The permittee shall follow "Best Management Practices for the Protection of Surface Waters" and shall also implement sedimentation and erosion control measures sufficient to protect aquatic resources.
- 21) Appropriate sedimentation and erosion control devices, measures or structures shall be implemented to ensure that eroded materials do not enter adjacent wetlands, watercourses and property (e.g. silt fence, diversion swales or berms, etc.).
- 22) This project shall conform to all requirements of the NC Sedimentation Pollution Control Act and NC DOT's Memorandum of Agreement with the Division of Land Resources.
- 23) In order to protect water quality, runoff from construction shall not visibly increase the amount of suspended sediments in adjacent waters.

**Mitigation**

**NOTE:** The existing 590-foot long bridge will be replaced with an adjacent 920-foot long pre-stressed concrete girder bridge. Approximately 0.95 acres of riverine wetlands will be restored to its natural hydrology by the removal of existing causeway fill. 0.52 acres of wetlands would be permanently impacted by the project; however, the causeway removal will offset the wetland impacts, leaving approximately 0.43 acres of potential riverine wetland mitigation credit for future projects.

**ADDITIONAL CONDITIONS**

**General**

- 31) Any relocation of utility lines that is not already depicted on the attached work plan drawings, or described within the attached permit application, shall require approval by DCM, either under the authority of this permit, or by the utility company obtaining separate authorization.
- 32) If it is determined that additional permanent and/or temporary impacts will occur that are not shown on the attached permit drawings, additional authorization from DCM shall be required.
- 33) This permit does not eliminate the need to obtain any additional permits, approvals or authorizations that may be required.
- 34) The N.C. Division of Water Quality (DWQ) authorized the proposed project under General Water Quality Certification Numbers 3403 and 3366 (DWQ Project No. 060364), on 3/8/06. Any violation of the Certification approved by the DWQ shall be considered a violation of this CAMA permit.

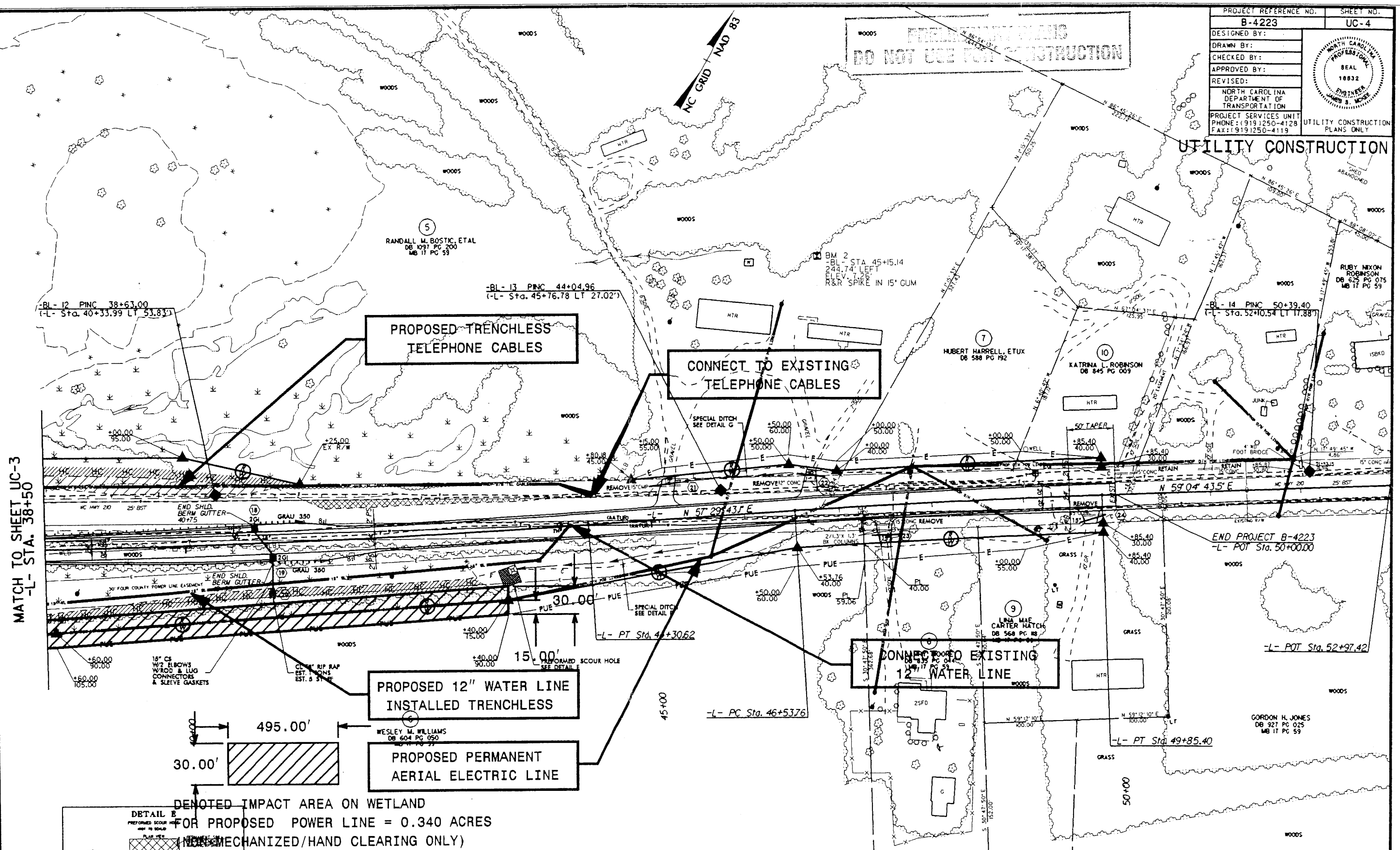
**NOTE:** The U.S. Army Corps of Engineers assigned COE Action ID No. 200300882 to the project.



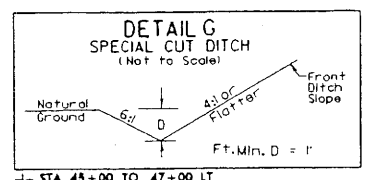
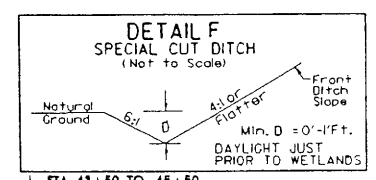
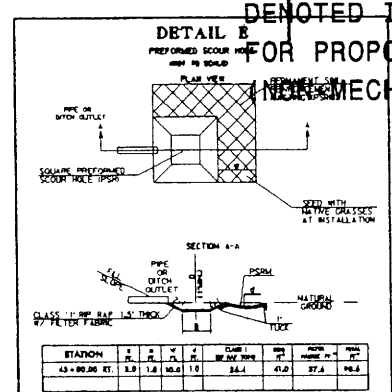




WOODS  
**UTILITY CONSTRUCTION**  
 DO NOT USE FOR CONSTRUCTION



MATCH TO SHEET UC-3  
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-L-  
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- HAND CLEARING AREA
- PAVEMENT REMOVAL
- MITIGATION EXCAVATION

FOR -L- PROFILE SEE SHEET B

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North Carolina Department of Environment and Natural Resources  
**Division of Coastal Management**

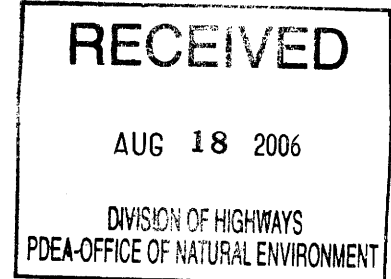
Michael F. Easley, Governor

**Charles S. Jones, Director**

William G. Ross Jr., Secretary

August 15, 2006

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



RE: Letter of Authorization  
CAMA Major Development Permit No. 123-06 (TIP No. B-4223). Replacement of Bridge  
No. 21 on NC 210 over the Northeast Cape Fear River in Pender County.

Dear Dr. Thorpe:

This letter is in response to a telephone request and subsequent e-mail on August 2, 2006, by Brett Feulner of your staff, regarding the proposed relaxation of the in-water work moratorium for the subject project.

Condition No. 1 of CAMA Major Permit No. 123-06 specifies that no in-water work shall be conducted from February 1<sup>st</sup> to September 30<sup>th</sup>. This moratorium period encompasses the moratoria requirements of the Wildlife Resources Commission (WRC) and the NC Division of Marine Fisheries (DMF) for Shortnose Sturgeon and Primary Nursery Area (PNA). Per e-mail from Fritz Rhode of DMF on August 2, 2006, DMF authorized the reduction of the in-water work moratorium period to February 1<sup>st</sup> to June 30<sup>th</sup>. This revised moratorium period will provide for the Shortnose Sturgeon and also anadromous fish species of concern to the WRC.

This Letter of Authorization, which alters the in-water work moratorium listed in Condition No. 1 to February 1st to June 30th of any year, must be attached to the original CAMA Permit No. 123-06, which was issued on June 30, 2006, and both documents must be readily available on site when a DCM representative inspects the project for compliance. All conditions and stipulations of the active permit remain in force unless altered herein.

Please contact me at (919) 733-2293 ext. 230 if you have any questions or concerns.

Sincerely,

Steven D. Sollod  
Transportation Projects Coordinator

cc: Brett Feulner, NCDOT  
Fritz Rhode, DMF  
Dave Timpy, USACE  
Travis Wilson, WRC  
Brian Wrenn, DWQ

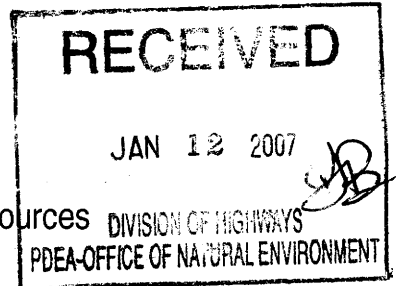


North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Charles S. Jones, Director

William G. Ross Jr., Secretary

Michael F. Easley, Governor



January 12, 2007

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

Dear Dr. Thorpe:

The enclosed permit constitutes authorization under the Coastal Area Management Act, and where applicable, the State Dredge and Fill Law, for you to proceed with your project proposal. The original (buff-colored form) is retained by you and it must be available on site when the project is inspected for compliance. Please sign both the original and the copy and return the copy to this office in the enclosed envelope. Signing the permit and proceeding means you have waived your right of appeal described below.

If you object to the permit or any of the conditions, you may request a hearing pursuant to NCGS 113A-121.1 or 113-229. Your petition for a hearing must be filed in accordance with NCGS Chapter 150B with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27611-6714, (919) 733-2698 within twenty (20) days of this decision on your permit. You should also be aware that if another qualified party submits a valid objection to the issuance of this permit within twenty (20) days, the matter must be resolved prior to work initiation. The Coastal Resources Commission makes the final decision on any appeal.

The project plan is subject to those conditions appearing on the permit form. Otherwise, all work must be carried out in accordance with your application. Modifications, time extensions, and future maintenance require additional approval. Please read your permit carefully prior to starting work and review all project plans, as approved. If you are having the work done by a contractor, it would be to your benefit to be sure that he fully understands all permit requirements.

From time to time, Department personnel will visit the project site. To facilitate this review, we request that you complete and mail the enclosed Notice Card just prior to work initiation. However, if questions arise concerning permit conditions, environmental safeguards, or problem areas, you may contact Department personnel at any time for assistance. By working in accordance with the permit, you will be helping to protect our vitally important coastal resources.

Sincerely,

Douglas V. Huggett  
Major Permits and Consistency Manager

Enclosure

1638 Mail Service Center, Raleigh, North Carolina 27699-1638  
Phone: 919-733-2293 \ FAX: 919-733-1495 \ Internet: <http://dcm2.enr.state.nc.us>



Permit Class  
**MODIFICATION/MINOR**

Permit Number  
**123-06**

STATE OF NORTH CAROLINA  
Department of Environment and Natural Resources  
and  
Coastal Resources Commission

# Permit

for

Major Development in an Area of Environmental Concern  
pursuant to NCGS 113A-118

Excavation and/or filling pursuant to NCGS 113-229

Issued to **N.C. Department of Transportation, 1598 Mail Service Center, Raleigh, NC 27699-1548**

Authorizing development in Pender County at Northeast Cape Fear River, Bridge No. 21  
on NC 210 (B-4223) as requested in the permittee's application letter dated 11/13/06  
including the attached three (3) 1/2-size plan drawings: including one (1) dated 10/25/06 and two (2) dated 10/24/06.

This permit, issued on 1/12/07, is subject to compliance with the application (where consistent with the permit), all applicable regulations, special conditions and notes set forth below. Any violation of these terms may be subject to fines, imprisonment or civil action; or may cause the permit to be null and void.

### Relocation of Overhead Power Line

- 1) Due to the possibility that compaction or other site alterations might prevent any temporary wetland impact areas from re-attaining pre-project wetland functions, the permittee shall schedule a field meeting with a Division representative to verify the extent and location of any temporary impacts upon project completion. Should temporary wetland impacts occur, the permittee shall monitor temporary wetland impacts for three years following project completion and provide an annual update on the re-attainment of pre-project wetland functions. At the end of this three year period, the permittee shall schedule a field meeting with a Division representative to determine if the wetland areas temporarily impacted by this project have re-attained pre-project wetland functions. If at the end of 3 years the wetland areas temporarily impacted by this project have not re-attained pre-project wetland functions, the Division of Coastal Management shall determine whether compensatory wetland mitigation shall be required.

**(See attached sheet for Additional Conditions)**

This permit action may be appealed by the permittee or other qualified persons within twenty (20) days of the issuing date. An appeal requires resolution prior to work initiation or continuance as the case may be.

This permit must be accessible on-site to Department personnel when the project is inspected for compliance.

Any maintenance work or project modification not covered hereunder requires further Division approval.

All work must cease when the permit expires on

### No Expiration Date, pursuant to GS 136-44.7B

In issuing this permit, the State of North Carolina agrees that your project is consistent with the North Carolina Coastal Management Program.

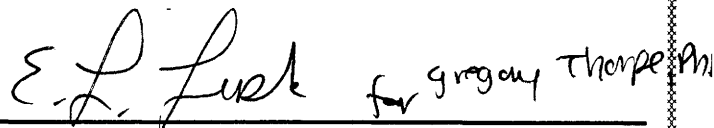
Signed by the authority of the Secretary of DENR and the Chairman of the Coastal Resources Commission.



*CSJ*

Charles S. Jones, Director  
Division of Coastal Management

This permit and its conditions are hereby accepted.



Signature of Permittee

**ADDITIONAL CONDITIONS**

- 2) This minor modification must be attached to the original of major permit # 123-06, along with all subsequent modifications and/or refinements, and copies of all documents must be readily available on site when a Division representative inspects the project for compliance.
- 3) All conditions and stipulations of the active permit remain in force under this minor modification unless specifically altered herein.

**NOTE:** This permit does not eliminate the need to obtain any additional state, federal, or local permits, approvals, or authorizations that may be required, including, but not limited to, any authorizations required from the US Army Corps of Engineers.

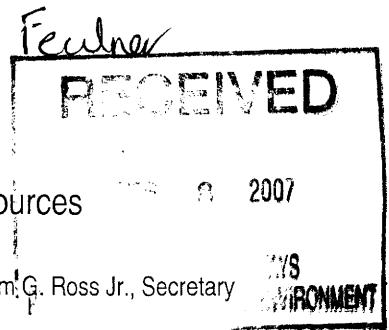


North Carolina Department of Environment and Natural Resources  
Division of Coastal Management

Michael F. Easley, Governor

Charles S. Jones, Director

William G. Ross Jr., Secretary



February 2, 2007

Mr. Brett Feulner  
N.C. Department of Transportation  
Natural Environment Unit  
1598 Mail Service Center  
Raleigh, NC 27699-1598

RE: Refinement of CAMA Major Development Permit No. 123-06 (TIP No. B-4223).  
Replacement of Bridge No. 21 on NC210 over the Northeast Cape Fear River,  
Pender County.

Dear Mr. Feulner:

This letter is in response to your e-mail request, dated January 23, 2007. The email requests the refinement of CAMA Major Permit No. 123-06. This permit was issued to the NC Department of Transportation on June 30, 2006, and has no expiration date. The permit authorized the replacement of Bridge No. 21 over the Northeast Cape Fear River in Pender County.

The request is to refine Condition 9 and Condition 12 of this permit. Condition 9 requires that the bridge be constructed using top down construction methodologies. Due to the weight of the concrete girders that will be used to support the bridge, top down construction cannot be utilized. Construction of the bridge with a barge is requested as an alternative method.

Condition 12 requires that turbidity curtains be used to isolate all work areas from the Northeast Cape Fear River. The refinement request proposes to use turbidity curtains in accordance with Condition 12, except during the construction of the interior bents, which would be excluded from this requirement since the turbidity curtains would be extremely difficult to maintain around the bents in the center of the river and very little turbidity is expected during the construction of the bents. The proposed turbidity curtain layout dated received January 23, 2007 is attached.

The email also requests to replace the existing pipe on plan sheet 4 at Station 23+00 with a new 18" welded steel pipe using an open cut in of trench-less construction. This activity is expected to have no additional impacts to any wetlands or streams.

This Letter of Refinement authorizes the bridge construction methodology, turbidity curtain deployment, and pipe replacement as described herein and must be attached to the original CAMA Permit No. 123-06 and both documents must be readily available on site when a DCM representative inspects the project for compliance. All conditions and stipulations of the active permit remain in force unless altered herein.

400 Commerce Avenue, Morehead City, North Carolina 28557  
Phone: 252-808-2808 \ FAX: 252-247-3330 \ Internet: [www.nccoastalmanagement.net](http://www.nccoastalmanagement.net)

Please contact Stephen Lane at (252) 808-2808 Ext. 214 if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug Huggett". The signature is written in a cursive style with a large initial "D".

Doug Huggett  
Major Permits and Consistency Coordinator

cc: Greg Thorpe, NCDOT  
Mason Herndon, NCDOT  
Chris Rivenbark, NCDOT  
Dave Timpy, USACE  
Brian Wrenn, DWQ

**Subject:** B-4223- CAMA Major Permit conditions

**From:** "Brett M. Feulner" <bmfeulner@dot.state.nc.us>

**Date:** Tue, 23 Jan 2007 16:12:18 -0500

**To:** Stephen Lane <Stephen.Lane@ncmail.net>

**CC:** Steve Sollod <Steve.Sollod@ncmail.net>, DAVE TIMPY <david.l.timpy@usace.army.mil>, Brian Wrenn <brian.wrenn@ncmail.net>, Mason Herndon <mherndon@dot.state.nc.us>, Chris Rivenbark <crivenbark@dot.state.nc.us>

Stephen,

The NCDOT would like to request a letter of refinement for two of the conditions on the CAMA Major Development Permit issued for NCDOT project B-4223.

Condition 9-"/The Bridge shall be constructed using top down construction"/  
The bridge will be supported by pre-stressed concrete girders. Due to the weight of pre-stressed concrete girders top down construction cannot be used. The NCDOT will use a barge to construct the bridge.

Condition 12-"/Turbidity curtains shall be used to isolate all work areas from the Northeast Cape Fear River, including pile or casement installation, placement of rip rap, excavation or filling. The turbidity curtains shall extend past the construction limits and attach to the silt fences containing the work site. The turbidity curtains shall not fully encircle the work area or extend across the river. The turbidity curtains shall be properly maintained and retained in the water until construction is complete and all of the work area contained by the turbidity curtains has been stabilized by vegetation or other means. The turbidity curtains shall be removed when turbidity within the curtains reaches ambient levels/."  
The Northeast Cape Fear River is very wide at this crossing and the most interior bents are 180-200 ft from the shoreline. This would require a very long turbidity curtain which would be almost impossible to maintain and keep in place during pile installation. The NCDOT proposed to use a turbidity curtain as proposed in the CAMA condition along the shoreline to prevent any turbidity created by placement of causeway fill and rip rap but the interior bents be dropped from the turbidity curtain requirement (see attached drawing). There should be very little turbidity created by installing a hollow casing.

Also on plan sheet 4, at Station 23+00 the NCDOT will replace the pipe using an open cut in of trench-less construction. This pipe is not located in any wetlands or streams and will not impact any jurisdictional resources.

Thanks

Brett Feulner

**Turbidity Curtain.doc**

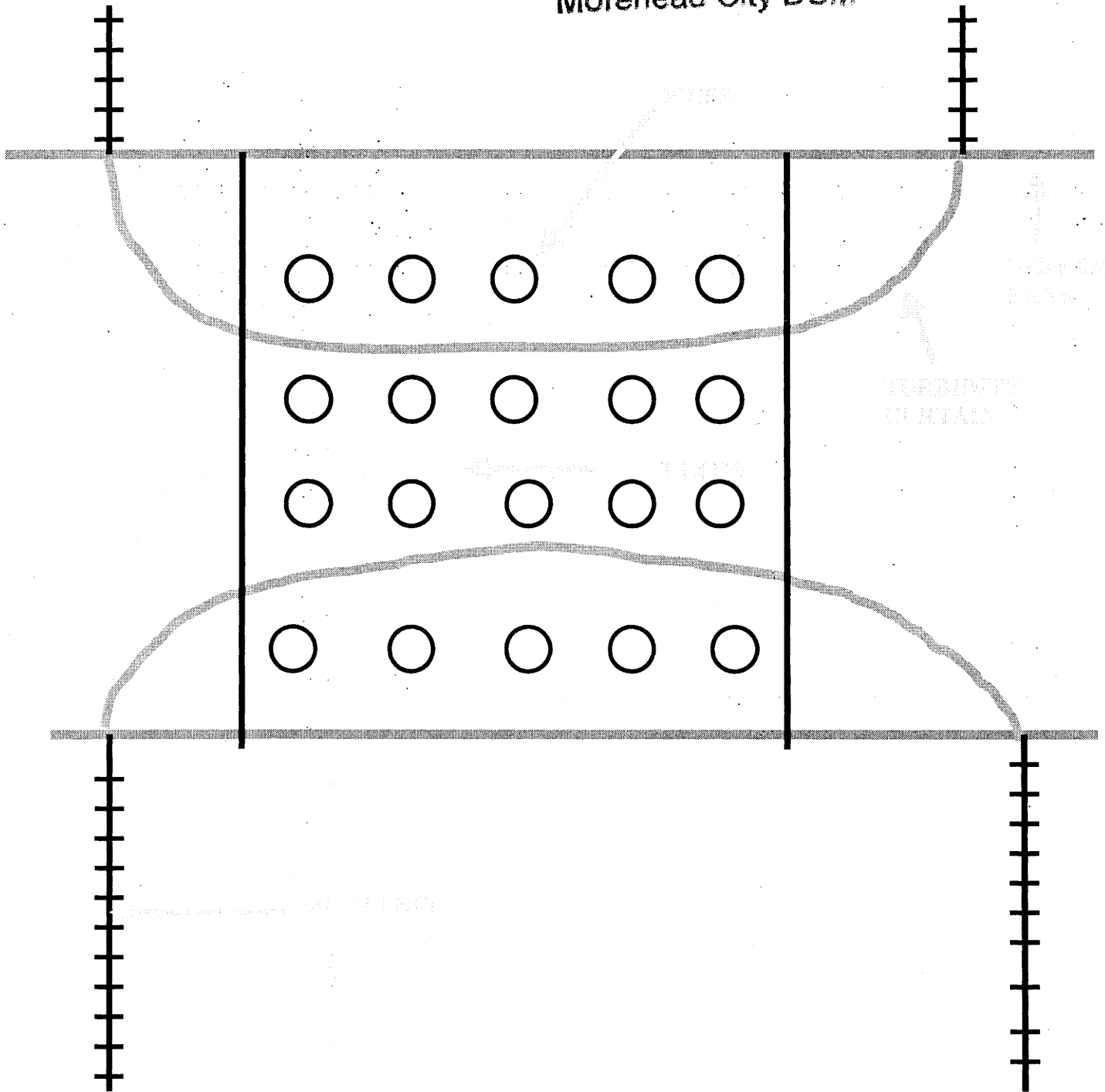
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**Content-Encoding:** base64

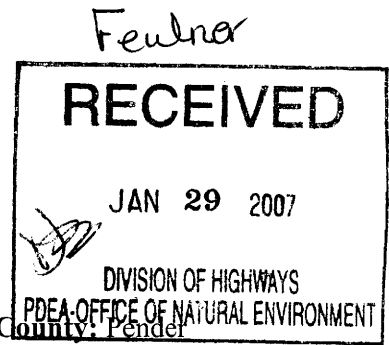
RECEIVED

JAN 23 2007

Morehead City DCM



U.S. ARMY CORPS OF ENGINEERS  
WILMINGTON DISTRICT  
P.O. Box 1890  
Wilmington, North Carolina 28402



Action ID: 200101172 TIP No. B-4223 State Project No. 8.1271001

**GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION**

**Property Owner:** Gregory J. Thorpe, Ph.D  
**Address:** Environmental Management Director, PDEA  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, NC 27699-1548

**Telephone Number:** (910) 733-3141

**Size and Location of project (waterway, road name/number, town, etc.):** Bridge No. 21 over the Northeast Cape Fear River on NC 210 in Pender County, North Carolina.

**Description of Activity:** Discharge of fill material permanently impacting a total of 0.52 acres of waters of the United States, including wetlands, for the construction of TIP Project No. B-4223 that will replace Bridge No. 21 over the Northeast Cape Fear River on NC 210 in Pender County, North Carolina as described in the NCDOT letter dated March 2, 2005. Bridge No. 21 is 590 feet long and is composed of reinforced concrete on steel beams. It will be replaced with a new bridge south of its existing location that will be 920 ft long constructed from temporary work bridge and temporary bulkhead as shown in Figure 9 of 23 of the permit drawings submitted with referenced letter. Traffic will be maintained on the existing bridge during construction. Work associated with the proposed project shall be accomplished in accordance with the attached special conditions.

**Applicable Law:**  Section 404 (Clean Water Act, 33 U.S.C. 1344)  
 Section 10 (River and Harbor Act of 1899)  
**Authorization:**  Nationwide Permit Number  
 Regional General Permit Number

Your work is authorized by this Regional General (RGP) or Nationwide (NWP) Permit provided it is accomplished in strict accordance with the attached conditions and your submitted plans. If your activity is subject to Section 404 (if Section 404 block above is checked), before beginning work you must also receive a Section 401 water quality certification from the N.C. Division of Environmental Management, telephone (919) 733-1786. For any activity within the twenty coastal counties, before beginning work you must contact the N.C. Division of Coastal Management, telephone (919) 733-2293.

Please read and carefully comply with the attached conditions of the RGP or NWP. Any violation of the conditions of the RGP or NWP referenced above may subject the permittee to a stop work order, a restoration order, and/or appropriate legal action.

This Department of the Army RGP or NWP verification does not relieve the permittee of the responsibility to obtain any other required Federal, State, or local approvals/permits. The permittee may need to contact appropriate State and local agencies before beginning work.

**Action ID:** 200101172    **TIP No.** B-4223    **State Project No.** 8.1271001    **County:** Pender

This verification will remain valid until 18 March 2007 unless the nationwide authorization is modified, reissued or revoked. If, prior to 18 March 2007 the nationwide permit authorization is reissued and/or modified, this verification will remain valid until 18 March 2007, provided it complies with all modifications. If the nationwide permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

If there are any questions regarding this authorization or any of the conditions of the RGP or NWP, please contact Mr. Dave Timpy of the Corps Regulatory Office in Wilmington at the phone number specified below.

**Date** January 16, 2007

**Corps Regulatory Official** /s/  **Telephone No.** (910) 251-4634

CF: NCDOT Division 3, ATTN Mason Herndon.



SPECIAL CONDITIONS  
TIP Project No. B-4223  
Action ID 200101172

COMPLIANCE WITH PLANS

1. All work must be performed in strict compliance with the plans attached to the NCDOT letters dated March 2, 2005, which are authorized by this permit. Any modification to the authorized permit plans must be approved by the USACE prior to implementation.

COMPLIANCE WITH SPECIAL CONDITIONS

2. Failure to institute and carry out the details of the following special conditions, below, will result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with the permitted project, or such other remedies and/or fines as the District Engineer or his authorized representatives may seek.

CONSTRUCTION PLANS

3. The permittee will ensure that the construction design plans for this project do not deviate from the authorized permit plans. Written verification shall be provided that the final construction plans comply with the authorized permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Wilmington Regulatory Field Office prior to any active construction in waters or wetlands.

PRECONSTRUCTION MEETING

4. The permittee shall schedule a pre-construction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Wilmington Regulatory Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall provide the USACE, Wilmington Regulatory Field Office, NCDOT Regulatory Project Manager, with a copy of the final construction plans at least two weeks prior to the pre-construction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall notify the Corps of Engineers Project Manager a minimum of thirty (30) days in advance of the scheduled meeting in order to provide that individual with ample opportunity to schedule and participate in the required meeting.

CONTRACTOR COMPLIANCE

5. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit, and any authorized modifications. A copy of this permit including the authorized plans referenced in Special Condition (1) and authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.

ACTIVITIES **NOT** AUTHORIZED

6. Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill, or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands, or shall any activities take place that cause the degradation of waters or wetlands. In addition, except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within, into, or out of waters or wetlands or to reduce the reach of waters or wetlands.

This permit does not authorize temporary placement or double handling of excavated or fill material or construction equipment within waters or wetlands outside the permitted area.

#### BORROW AND WASTE

7. To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify and evaluate all areas to be used for borrow material, or disposal of dredged, fill, or waste material in accordance with NCDOT's 2006 Standards and Specifications Sections 230 and 802. The permittee shall provide the USACE with appropriate maps and environmental evaluations of the proposed locations of borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any borrow sites that are within 400 feet of any streams or wetlands. All jurisdictional wetland lines on borrow and waste sites shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with the preceding condition of this permit, and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This information will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the preceding condition. All information will be available to the USACE upon request. NCDOT shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

#### REPORTING OF VIOLATIONS

8. The permittee will report any violation of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act in writing to the Wilmington District, U. S Army Corps of Engineers, within 24 hours of the permittee's discovery of the violation.

#### SEDIMENTATION AND EROSION CONTROL MEASURES

9. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands. The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.

#### MORATORIUM

10. A moratorium on all work in the waters of North East Cape Fear River will be in effect during construction of this project for the period between February 1 and June 30<sup>th</sup> of any year to protect anadromous fish spawning.

#### COMPENSATORY MITIGATION

11. Compensatory mitigation for the unavoidable impacts to 0.52 acres of riverine wetlands associated with the proposed project shall be provided by the NCDOT in accordance with the plan entitled "Restoration Plan for Northeast Cape Fear River Wetland at Bridge No. 21 on NC 210, Pender County, TIP B-4223" dated January 11, 2006 (copy attached). This mitigation plan will remove approximately 332 feet of the existing causeway, located on the eastern shoreline of the Northeast Cape Fear River. This work will result in the restoration of 0.95 acres of previously filled riverine wetlands adjacent to the North East Cape Fear River. The restored area will be planted with vegetation native to the surrounding wetland areas as described in the restoration plan. Monitoring shall include visual observation and photos

### Determination of Jurisdiction:

- Based on preliminary information, there appear to be waters of the US including wetlands within the above described project area. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).
- There are Navigable Waters of the United States within the above described project area subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are waters of the US and/or wetlands within the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The jurisdictional areas within the above described project area have been identified under a previous action. Please reference jurisdictional determination issued for this project on **January 2, 2002**. Action ID **200101172**.

Permit Number: 200101172/NWP23

Permittee: NCDOT/B-4223

Issuance: May 3, 2006

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

**ATTN: MR DAVID TIMPY  
US ARMY COE/WILMINGTON DISTRICT  
WILMINGTON REGULATORY FIELD OFFICE  
POST OFFICE BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890**

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify the work authorized by the above referenced permit has been completed in accordance with the terms and condition of the said permit, and required mitigation was completed in accordance with the permit conditions.

---

Signature of Permittee

**NATIONWIDE PERMIT 23**  
DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS  
FINAL NOTICE OF ISSUANCE AND MODIFICATION OF NATIONWIDE PERMITS  
FEDERAL REGISTER  
AUTHORIZED MARCH 18, 2002

**Approved Categorical Exclusions:** Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where that agency or department has determined, pursuant to the Council on Environmental Quality Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) (40 CFR part 1500 et seq.), that the activity, work, or discharge is categorically excluded from environmental documentation because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment, and the Office of the Chief of Engineers (ATTN: CECW-OR) has been furnished notice of the agency's or department's application for the categorical exclusion and concurs with that determination. Before to approval for purposes of this nationwide permit of any agency's categorical exclusions, the Chief of Engineers will solicit public comment. In addressing these comments, the Chief of Engineers may require certain conditions for authorization of an agency's categorical exclusions under this nationwide permit. (Sections 10 and 404)

## NATIONWIDE PERMIT GENERAL CONDITIONS

The following General Conditions must be followed in order for any authorization by a NWP to be valid:

1. Navigation. No activity may cause more than a minimal adverse effect on navigation.
2. Proper Maintenance. Any structure or fill authorized shall be properly maintained, including maintenance to ensure public safety.
3. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.
4. Aquatic Life Movements. No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.
5. Equipment. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
6. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state or tribe in its Section 401 Water Quality Certification and Coastal Zone Management Act consistency determination.
7. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System; or in a river officially designated by Congress as a 'study river' for possible inclusion in the system, while the river is in an official study status; unless the appropriate Federal agency, with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation, or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).
8. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
9. Water Quality.
  - a. In certain states and tribal lands an individual 401 Water Quality Certification must be obtained or waived (See 33 CFR 330.4(c)).

b. For NWP 12, 14, 17, 18, 32, 39, 40, 42, 43, and 44, where the state or tribal 401 certification (either generically or individually) does not require or approve water quality management measures, the permittee must provide water quality management measures that will ensure that the authorized work does not result in more than minimal degradation of water quality (or the Corps determines that compliance with state or local standards, where applicable, will ensure no more than minimal adverse effect on water quality). An important component of water quality management includes stormwater management that minimizes degradation of the downstream aquatic system, including water quality (refer to General Condition 21 for stormwater management requirements). Another important component of water quality management is the establishment and maintenance of vegetated buffers next to open waters, including streams (refer to General Condition 19 for vegetated buffer requirements for the NWPs).

This condition is only applicable to projects that have the potential to affect water quality. While appropriate measures must be taken, in most cases it is not necessary to conduct detailed studies to identify such measures or to require monitoring.

10. Coastal Zone Management. In certain states, an individual state coastal zone management consistency concurrence must be obtained or waived (see 33 CFR 330.4(d)).

#### 11. Endangered Species.

a. No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. Non-federal permittees shall notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or is located in the designated critical habitat and shall not begin work on the activity until notified by the District Engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that may affect Federally-listed endangered or threatened species or designated critical habitat, the notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. As a result of formal or informal consultation with the FWS or NMFS the District Engineer may add species-specific regional endangered species conditions to the NWPs.

b. Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the USFWS or the NMFS, both lethal and non-lethal "takes" of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the USFWS and NMFS or their World Wide Web pages at <http://www.fws.gov/r9endspp/endspp.html> and <http://www.nfms.noaa.gov/protres/overview/es.html> respectively.

12. Historic Properties. No activity that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the District Engineer has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must

notify the District Engineer if the authorized activity may affect any historic properties listed, determined to be eligible, or which the prospective permittee has reason to believe may be eligible for listing on the National Register of Historic Places, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places (see 33 CFR 330.4(g)). For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the notification must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

### 13. Notification.

a. Timing; where required by the terms of the NWP, the prospective permittee must notify the District Engineer with a preconstruction notification (PCN) as early as possible. The District Engineer must determine if the notification is complete within 30 days of the date of receipt and can request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the District Engineer will notify the prospective permittee that the notification is still incomplete and the PCN review process will not commence until all of the requested information has been received by the District Engineer. The prospective permittee shall not begin the activity:

1. Until notified in writing by the District Engineer that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or

2. If notified in writing by the District or Division Engineer that an Individual Permit is required; or

3. Unless 45 days have passed from the District Engineer's receipt of the complete notification and the prospective permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

b. Contents of Notification: The notification must be in writing and include the following information:

1. Name, address and telephone numbers of the prospective permittee;

2. Location of the proposed project;

3. Brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), Regional General Permit(s), or Individual Permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP (Sketches usually clarify the project and when provided result in a quicker decision.);



4. For NWPs 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43, the PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f));

5. For NWP 7 (Cutfall Structures and Maintenance), the PCN must include information regarding the original design capacities and configurations of those areas of the facility where maintenance dredging or excavation is proposed;

6. For NWP 14 (Linear Transportation Projects), the PCN must include a compensatory mitigation proposal to offset permanent losses of waters of the US and a statement describing how temporary losses of waters of the US will be minimized to the maximum extent practicable;

7. For NWP 21 (Surface Coal Mining Activities), the PCN must include an Office of Surface Mining (OSM) or state-approved mitigation plan, if applicable. To be authorized by this NWP, the District Engineer must determine that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are minimal both individually and cumulatively and must notify the project sponsor of this determination in writing;

8. For NWP 27 (Stream and Wetland Restoration Activities), the PCN must include documentation of the prior condition of the site that will be reverted by the permittee;

9. For NWP 29 (Single-Family Housing), the PCN must also include:

i. Any past use of this NWP by the Individual Permittee and/or the permittee's spouse;

ii. A statement that the single-family housing activity is for a personal residence of the permittee;

iii. A description of the entire parcel, including its size, and a delineation of wetlands. For the purpose of this NWP, parcels of land measuring  $\frac{1}{4}$ -acre or less will not require a formal on-site delineation. However, the applicant shall provide an indication of where the wetlands are and the amount of wetlands that exists on the property. For parcels greater than  $\frac{1}{4}$ -acre in size, formal wetland delineation must be prepared in accordance with the current method required by the Corps. (See paragraph 13(f));

iv. A written description of all land (including, if available, legal descriptions) owned by the prospective permittee and/or the prospective permittee's spouse, within a one mile radius of the parcel, in any form of ownership (including any land owned as a partner, corporation, joint tenant, co-tenant, or as a tenant-by-the-entirety) and any land on which a purchase and sale agreement or other contract for sale or purchase has been executed;

10. For NWP 31 (Maintenance of Existing Flood Control Facilities), the prospective permittee must either notify the District Engineer with a PCN prior to each maintenance activity or submit a five-year (or less) maintenance plan. In addition, the PCN must include all of the following:

i. Sufficient baseline information identifying the approved channel depths and configurations and existing facilities. Minor deviations are authorized, provided the approved flood control protection or drainage is not increased;

ii. A delineation of any affected special aquatic sites, including wetlands; and,

iii. Location of the dredged material disposal site;

11. For NWP 33 (Temporary Construction, Access, and Dewatering), the PCN must also include a restoration plan of reasonable measures to avoid and minimize adverse effects to aquatic resources;

12. For NWPs 39, 43 and 44, the PCN must also include a written statement to the District Engineer explaining how avoidance and minimization for losses of waters of the US were achieved on the project site;

13. For NWP 39 and NWP 42, the PCN must include a compensatory mitigation proposal to offset losses of waters of the US or justification explaining why compensatory mitigation should not be required. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

14. For NWP 40 (Agricultural Activities), the PCN must include a compensatory mitigation proposal to offset losses of waters of the US. This NWP does not authorize the relocation of greater than 300 linear feet of existing serviceable drainage ditches constructed in non-tidal streams unless, for drainage ditches constructed in intermittent nontidal streams, the District Engineer waives this criterion in writing, and the District Engineer has determined that the project complies with all terms and conditions of this NWP, and that any adverse impacts of the project on the aquatic environment are minimal, both individually and cumulatively;

15. For NWP 43 (Stormwater Management Facilities), the PCN must include, for the construction of new stormwater management facilities, a maintenance plan (in accordance with state and local requirements, if applicable) and a compensatory mitigation proposal to offset losses of waters of the US. For discharges that cause the loss of greater than 300 linear feet of an intermittent stream bed, to be authorized, the District Engineer must determine that the activity complies with the other terms and conditions of the NWP, determine adverse environmental effects are minimal both individually and cumulatively, and waive the limitation on stream impacts in writing before the permittee may proceed;

16. For NWP 44 (Mining Activities), the PCN must include a description of all waters of the US adversely affected by the project, a description of measures taken to minimize adverse effects to waters of the US, a description of measures taken to comply with the criteria of the NWP, and a reclamation plan (for all aggregate mining activities in isolated waters and non-tidal wetlands adjacent to headwaters and any hard rock/mineral mining activities);

17. For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work; and

18. For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.

c. Form of Notification: The standard Individual Permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all of the information required in (b) (1)-(18) of General Condition 13. A letter containing the requisite information may also be used.

d. District Engineer's Decision: In reviewing the PCN for the proposed activity, the District Engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may submit a proposed mitigation plan with the PCN to expedite the process. The District Engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. If the District Engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the District Engineer will notify the permittee and include any conditions the District Engineer deems necessary. The District Engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the District Engineer will expeditiously review the proposed compensatory mitigation plan. The District Engineer must review the plan within 45 days of receiving a complete PCN and determine whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the District Engineer to be minimal, the District Engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the District Engineer determines that the adverse effects of the proposed work are more than minimal, then the District Engineer will notify the applicant either:

1. That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an Individual Permit;
2. that the project is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or
3. that the project is authorized under the NWP with specific modifications or conditions. Where the District Engineer determines that mitigation is required to ensure no more than

minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level. When conceptual mitigation is included, or a mitigation plan is required under item (2) above, no work in waters of the US will occur until the District Engineer has approved a specific mitigation plan.

e. Agency Coordination: The District Engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

For activities requiring notification to the District Engineer that result in the loss of greater than  $\frac{1}{2}$ -acre of waters of the US, the District Engineer will provide immediately (e.g., via facsimile transmission, overnight mail, or other expeditious manner) a copy to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the District Engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the District Engineer will wait an additional 15 calendar days before making a decision on the notification. The District Engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The District Engineer will indicate in the administrative record associated with each notification that the resource agencies' concerns were considered. As required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act, the District Engineer will provide a response to NMFS within 30 days of receipt of any Essential Fish Habitat conservation recommendations. Applicants are encouraged to provide the Corps multiple copies of notifications to expedite agency notification.

f. Wetland Delineations: Wetland delineations must be prepared in accordance with the current method required by the Corps (For NWP 29 see paragraph (b)(9)(iii) for parcels less than  $\frac{1}{4}$ -acre in size). The permittee may ask the Corps to delineate the special aquatic site. There may be some delay if the Corps does the delineation. Furthermore, the 45-day period will not start until the wetland delineation has been completed and submitted to the Corps, where appropriate.

14. Compliance Certification. Every permittee who has received NWP verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter and will include:

- a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;
- b. A statement that any required mitigation was completed in accordance with the permit conditions; and
- c. The signature of the permittee certifying the completion of the work and mitigation.

15. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit (e.g. if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed  $\frac{1}{3}$ -acre).

16. Water Supply Intakes. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.

17. Shellfish Beds. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.

18. Suitable Material. No activity, including structures and work in navigable waters of the US or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the CWA).

19. Mitigation. The District Engineer will consider the factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal.

a. The project must be designed and constructed to avoid and minimize adverse effects to waters of the US to the maximum extent practicable at the project site (i.e., on site).

b. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

c. Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland impacts requiring a PCN, unless the District Engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. Consistent with National policy, the District Engineer will establish a preference for restoration of wetlands as compensatory mitigation, with preservation used only in exceptional circumstances.

d. Compensatory mitigation (i.e., replacement or substitution of aquatic resources for those impacted) will not be used to increase the acreage losses allowed by the acreage limits of some of the NWPs. For example,  $\frac{1}{4}$ -acre of wetlands cannot be created to change a  $\frac{3}{4}$ -acre loss of wetlands to a  $\frac{1}{2}$ -acre loss associated with NWP 39 verification. However,  $\frac{1}{2}$ -acre of created wetlands can be used to reduce the impacts of a  $\frac{1}{2}$ -acre loss of wetlands to the minimum impact level in order to meet the minimal impact requirement associated with NWPs.

e. To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of

mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.

f. Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance, and legal protection (e.g., easements, deed restrictions) of vegetated buffers to open waters. In many cases, vegetated buffers will be the only compensatory mitigation required. Vegetated buffers should consist of native species. The width of the vegetated buffers required will address documented water quality or aquatic habitat loss concerns. Normally, the vegetated buffer will be 25 to 50 feet wide on each side of the stream, but the District Engineers may require slightly wider vegetated buffers to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the Corps will determine the appropriate compensatory mitigation (e.g., stream buffers or wetlands compensation) based on what is best for the aquatic environment or, a watershed basis. In cases where vegetated buffers are determined to be the most appropriate form of compensatory mitigation, the District Engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland impacts.

g. Compensatory mitigation proposals submitted with the " notification" may be either conceptual or detailed. If conceptual plans are approved under the verification, then the Corps will condition the verification to require detailed plans be submitted and approved by the Corps prior to construction of the authorized activity in waters of the US.

h. Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases that require compensatory mitigation, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

20. Spawning Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., excavate, fill, or smother downstream by substantial turbidity) of an important spawning area are not authorized.

21. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions (e.g., location, capacity, and flow rates). Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters) and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site, provide for maintaining surface flow rates from the site similar to preconstruction conditions, and provide for not increasing water flows from the project site, relocating water, or redirecting water flow beyond preconstruction conditions. Stream channelizing will be reduced to the minimal amount necessary, and the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows. In most cases, it will not be a requirement to conduct detailed studies and monitoring of water flow.

This condition is only applicable to projects that have the potential to affect waterflows. While appropriate measures must be taken, it is not necessary to conduct detailed studies to identify such measures or require monitoring to ensure their effectiveness. Normally, the Corps will defer to state and local authorities regarding management of water flow.

22. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to the acceleration of the passage of water, and/or the restricting its flow shall be minimized to the maximum extent practicable. This includes structures and work in navigable waters of the US, or discharges of dredged or fill material.

23. Waterfowl Breeding Areas. Activities, including structures and work in navigable waters of the US or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

24. Removal of Temporary Fills. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.

25. Designated Critical Resource Waters. Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the District Engineer after notice and opportunity for public comment. The District Engineer may also designate additional critical resource waters after notice and opportunity for comment.

a. Except as noted below, discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. Discharges of dredged or fill materials into waters of the US may be authorized by the above NWPs in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the USFWS or the NMFS has concurred in a determination of compliance with this condition.

b. For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with General Condition 13, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The District Engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

26. Fills Within 100-Year Floodplains. For purposes of this General Condition, 100-year floodplains will be identified through the existing Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps.

a. Discharges in Floodplain; Below Headwaters. Discharges of dredged or fill material into waters of the US within the mapped 100-year floodplain, below headwaters (i.e. five cfs), resulting in permanent above-grade fills, are not authorized by NWPs 39, 40, 42, 43, and 44.

b. Discharges in Floodway; Above Headwaters. Discharges of dredged or fill material into waters of the US within the FEMA or locally mapped floodway, resulting in permanent above-grade fills, are not authorized by NWP 39, 40, 42, and 44.

c. The permittee must comply with any applicable FEMA-approved state or local floodplain management requirements.

27. Construction Period. For activities that have not been verified by the Corps and the project was commenced or under contract to commence by the expiration date of the NWP (or modification or revocation date), the work must be completed within 12-months after such date (including any modification that affects the project).

For activities that have been verified and the project was commenced or under contract to commence within the verification period, the work must be completed by the date determined by the Corps.

For projects that have been verified by the Corps, an extension of a Corps approved completion date may be requested. This request must be submitted at least one month before the previously approved completion date.

### **FURTHER INFORMATION**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of a NWP.
2. NWPs do not obviate the need to obtain other Federal, State, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

### ***DEFINITIONS***

***Best Management Practices (BMPs):*** BMPs are policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or nonstructural. A BMP policy may affect the limits on a development.

***Compensatory Mitigation:*** For purposes of Section 10/404, compensatory mitigation is the restoration, creation, enhancement, or in exceptional circumstances, preservation of wetlands and/or other aquatic resources for the purpose of compensating for unavoidable adverse impacts, which remain, after all appropriate and practicable avoidance and minimization has been achieved.



Creation: The establishment of a wetland or other aquatic resource where one did not formerly exist.

Enhancement: Activities conducted in existing wetlands or other aquatic resources that increase one or more aquatic functions.

Ephemeral Stream: An ephemeral stream has *flowing* water only during and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Farm Tract: A unit of contiguous land under one ownership that is operated as a farm or part of a farm.

Flood Fringe: That portion of the 100-year floodplain outside of the floodway (often referred to as “floodway fringe”).

Floodway: The area regulated by Federal, state, or local requirements to provide for the discharge of the base flood so the cumulative increase in water surface elevation is no more than a designated amount (not to exceed one foot as set by the National Flood Insurance Program) within the 100-year floodplain.

Independent Utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

*Intermittent Stream:* An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

*Loss of waters of the US:* Waters of the US that include the filled area and other waters that are permanently adversely affected by flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent above-grade, at-grade, or below-grade fills that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the US is the threshold measurement of the impact to existing waters for determining whether a project may qualify for a NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the US temporarily filled, flooded, excavated, or drained, but restored to preconstruction contours and elevations after construction, are not included in the measurement of loss of waters of the US. Impacts to ephemeral waters are only not included in the acreage or linear foot measurements of loss of waters of the US or loss of stream bed, for the purpose of determining compliance with the threshold limits of the NWPs.

*Non-tidal Wetland:* An area that, during a year with normal patterns of precipitation has standing or flowing water for sufficient duration to establish an ordinary high water mark. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. The term “open water” includes rivers, streams, lakes, and ponds. For the purposes of the NWPs, this term does not include ephemeral waters.

*Perennial Stream:* A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for the most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

*Permanent Above-grade Fill:* A discharge of dredged or fill material into waters of the US, including wetlands, that results in a substantial increase in ground elevation and permanently converts part or all of the waterbody to dry land. Structural fills authorized by NWPs 3, 25, 36, etc. are not included.

*Preservation:* The protection of ecologically important wetlands or other aquatic resources in perpetuity through the implementation of appropriate legal and physical mechanisms. Preservation may include protection of upland areas adjacent to wetlands as necessary to ensure protection and/or enhancement of the overall aquatic ecosystem.

*Restoration:* Re-establishment of wetland and/or other aquatic resource characteristics and function(s) at a site where they have ceased to exist, or exist in a substantially degraded state.

*Riffle and Pool Complex:* Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Single and Complete Project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers (see definition of independent utility). For linear projects, the “single and complete project” (i.e., a single and complete crossing) will apply to each crossing of a separate water of the US (i.e., a single waterbody) at that location. An exception is for linear projects crossing a single waterbody several times at separate and distant locations; each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies.

Stormwater Management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater Management Facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and BMPs, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream Channelization: The manipulation of a stream channel to increase the rate of water flow through the stream channel. Manipulation may include deepening, widening, straightening, armoring, or other activities that change the stream cross-section or other aspects of stream channel geometry to increase the rate of water flow through the stream channel. A channelized stream remains a water of the US, despite the modifications to increase the rate of water flow.

Tidal Wetland: A tidal wetland is a wetland (i.e., water of the US) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line (i.e., spring high tide line) and are inundated by tidal waters two times per lunar month, during spring high tides.

Vegetated Buffer: A vegetated upland or wetland area next to rivers, streams, lakes, or other open waters, which separates the open water from developed areas, including agricultural land. Vegetated buffers provide a variety of aquatic habitat functions and values (e.g., aquatic habitat for fish and other aquatic organisms, moderation of water temperature changes, and detritus for aquatic food webs) and help improve or maintain local water quality. A vegetated buffer can be established by maintaining an existing vegetated area or planting native trees, shrubs, and herbaceous plants on land next to openwaters. Mowed lawns are not considered vegetated buffers because they provide little or no aquatic habitat functions and values. The establishment and maintenance of vegetated buffers is a method of compensatory mitigation that can be used in conjunction with the restoration, creation, enhancement or preservation of aquatic habitats to ensure that activities authorized by NHPs result in minimal adverse effects to the aquatic environment. (See General Condition 19.)

Vegetated Shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: A waterbody is any area that in a normal year has water flowing or standing above ground to the extent that evidence of an ordinary high water mark is established. Wetlands contiguous to the waterbody are considered part of the waterbody.

## **FINAL REGIONAL CONDITIONS FOR NATIONWIDE PERMITS IN THE WILMINGTON DISTRICT**

### 1. Waters Excluded from NWP or Subject to Additional Notification Requirements:

#### a. The Corps identified waters that will be excluded from use of this NWP. These waters are:

1. Discharges into Waters of the United States designated by either the North Carolina Division of Marine Fisheries (NCDMF) or the North Carolina Wildlife Resources Commission (NCWRC) as anadromous fish spawning area are prohibited during the period between February 15 and June 30, without prior written approval from NCDMF or NCWRC and the Corps.

2. Discharges into Waters of the United States designated as sturgeon spawning areas are prohibited during the period between February 1 and June 30, without prior written approval from the National Marine Fisheries Service (NMFS).

#### b. The Corps identified waters that will be subject to additional notification requirements for activities authorized by this NWP. These waters are:

1. Prior to the use of any NWP in any of the following North Carolina *designated waters*, applicants must comply with Nationwide Permit General Condition 13. In addition, the applicant must furnish a written statement of compliance with all of the conditions of the applicable Nationwide Permit. The North Carolina *designated waters* that require additional notification requirements are “Outstanding Resource Waters” (ORW) and “High Quality Waters” (HQW) (as defined by the North Carolina Division of Water Quality), or “Inland Primary Nursery Areas” (IPNA) (as defined by the North Carolina Wildlife Resources Commission), or contiguous wetlands (as defined by the North Carolina Division of Water Quality), or “Primary Nursery Areas” (PNA) (as defined by the North Carolina Division of Marine Fisheries).

2. Applicants for any NWP in a designated “Area of Environmental Concern” (AEC) in the twenty (20) coastal counties of Eastern North Carolina covered by the North Carolina Coastal Area Management Act (CAMA), must also obtain the required CAMA permit. Construction activities may not commence until a copy of the approved CAMA permit is furnished to the appropriate Wilmington District Regulatory Field Office (Wilmington Field Office – P.O. Box 1890, Wilmington, NC 28402 or Washington Field Office – P.O. Box 1000, Washington, NC 27889) for authorization to begin work.

3. Prior to the use of any NWP on a Barrier Island of North Carolina, applicants must comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable Nationwide Permit.

4. Prior to the use of any NWP in a “Mountain or Piedmont Bog” of North Carolina, applicants shall comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP.

Note: The following wetland community types identified in the N.C. Natural Heritage Program document, “Classification of Natural communities of North Carolina (Michael P. Schafale and Alan S. Weakley, 1990), are subject to this regional condition.

Mountain Bogs

Swamp Forest-Bog Complex  
Swamp Forest-Bog Complex (Spruce Subtype)  
Southern Appalachian Bog (Northern Subtype)  
Southern Appalachian Bog (Southern Subtype)  
Southern Appalachian Fen

Piedmont Bogs

Upland Depression Swamp Forest

5. Prior to the use of any NWP in Mountain Trout Waters within twenty-five (25) designated counties of North Carolina, applicants shall comply with Nationwide General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP. Notification will include a letter of comments and recommendations from the North Carolina Wildlife Resources Commission (NCWRC), the

location of work, a delineation of wetlands, a discussion of alternatives to working in the Mountain Trout Waters, why other alternatives were not selected, and a plan to provide compensatory mitigation for all unavoidable adverse impacts to the Mountain Trout Waters. To facilitate coordination with the NCWRC, the proponent may provide a copy of the notification to the NCWRC concurrent with the notification to the District Engineer. The NCWRC will respond both to the proponent and directly to the Corps of Engineers.

The twenty-five (25) designated counties are:

Alleghany	Ashe	Avery	Yancey
Buncombe	Burke	Caldwell	Wilkes
Cherokee	Clay	Graham	Swain
Haywood	Henderson	Jackson	Surry
Macon	Madison	McDowell	Stokes
Mitchell	Polk	Rutherford	
Transylvania	Watauga		

6. Applicants shall notify the NCDENR Shellfish Sanitation Section prior to dredging in or removing sediment from an area closed to shell fishing where the effluent may be released to an area open for shell fishing or swimming in order to avoid contamination of the disposal area and allow a temporary shellfish closure to be made. Any disposal of sand to the beach should occur between November 1 and April 30 when recreational usage is low. Only clean sand should be used and no dredged sand from closed shell fishing areas. If beach disposal was to occur at times other than stated above or if sand from a closed shell fishing area is to be used, a swim advisory shall be posted and a press release shall be made. NCDENR Shellfish Sanitation Section must be notified before commencing this activity.

2. List of Final Corps Regional Modifications and Conditions for All Nationwide Permits

a. Individual or multiple NWP may not be used for activities that result in the cumulative loss or degradation of greater than 300 total linear feet of perennial streambed or intermittent streambed that exhibits important aquatic function(s).

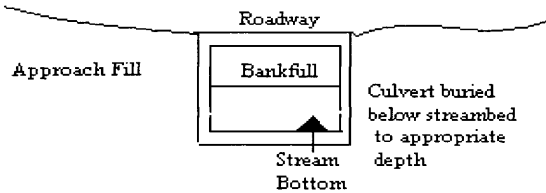
b. Prior to the use of any NWP (except 13, 27, and 39) for any activity that has more than a total of 150 total linear feet of perennial streambed impacts or intermittent streambed impacts (if the intermittent stream has important aquatic function), the applicant must comply with Nationwide Permit General Condition 13. In addition, the applicant shall furnish a written statement of compliance with all of the conditions listed of the applicable NWP. Compensatory mitigation is typically required for any impact that requires such notification. [Note: The Corps uses the Intermittent Channel Evaluation Form, located with Permit Information on the Regulatory Program Web Site, to aid in the determination of the intermittent channel stream status. Also, NWPs 13, 27 and 39 have specific reporting requirements.]

c. For all Nationwide Permits which allow the use of concrete as a building material, measures will be taken to prevent live or fresh concrete, including bags of uncured concrete, from coming into contact with waters of the state until the concrete has hardened.

d. For all Nationwide Permits that allow for the use of riprap material for bank stabilization, filter cloth must be placed underneath the riprap as an additional requirement of its use in North Carolina waters.

e. For all NWP's that involve the construction of culverts, measures will be included in the construction that will promote the safe passage of fish and other aquatic organisms.

All culverts in the 20 CAMA coastal counties must be buried to a depth of one foot below the bed of



the stream or wetland. For all culvert construction activities, the dimension, pattern, and profile of the stream, (above and below a pipe or culvert), should not be modified by widening the stream channel or by reducing the depth of the stream. Culvert inverts will be buried at least one foot below the bed of the stream for culverts greater than 48 inches in diameter. For culverts 48 inches in diameter or smaller, culverts must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Bottomless arch culverts will satisfy this condition. A waiver from the depth specifications in this Regional Condition may be requested in writing. The waiver will only be issued if it can be demonstrated that the impacts of complying with this Regional Condition would result in more adverse impacts to the aquatic environment.

**NORTH CAROLINA DIVISION OF WATER QUALITY**  
**GENERAL CERTIFICATION CONDITIONS**  
**GC3361**

1. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires notification to the Division of Water Quality. Two copies shall be submitted to DWQ at the time of notification in accordance with 15A NCAC 2H .0501(a). Written concurrence from DWQ is not required unless any standard conditions of this Certification cannot be met;

2. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;

3. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this

Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur. The mitigation plan must be implemented and/or constructed before any permanent building or structure on site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the traveling public;

4. Compensatory stream mitigation shall be required at a 1:1 ratio for all perennial and intermittent stream impacts equal to or exceeding 150 feet and that require application to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II;

5. All sediment and erosion control measures placed in wetlands or waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;

6. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;

7. In accordance with North Carolina General Statute Section 143-215.3D(e), any request for written concurrence for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted and will be the higher of the two fees;

8. Impacts to any stream length in the Neuse, Tar-Pamlico, Randleman and Catawba River Basins (or any other river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as “exempt” from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse, Tar-Pamlico, Randleman and Catawba River Basins shall be limited to “uses” identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;

9. Additional site-specific conditions may be added to projects for which written concurrence is required or requested under this Certification in order to ensure compliance with all applicable water quality and effluent standards;

10. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide and Regional General Permits, whichever is sooner;

11. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed.



**NORTH CAROLINA DIVISION OF COASTAL MANAGEMENT**  
**STATE CONSISTENCY**

Consistent.

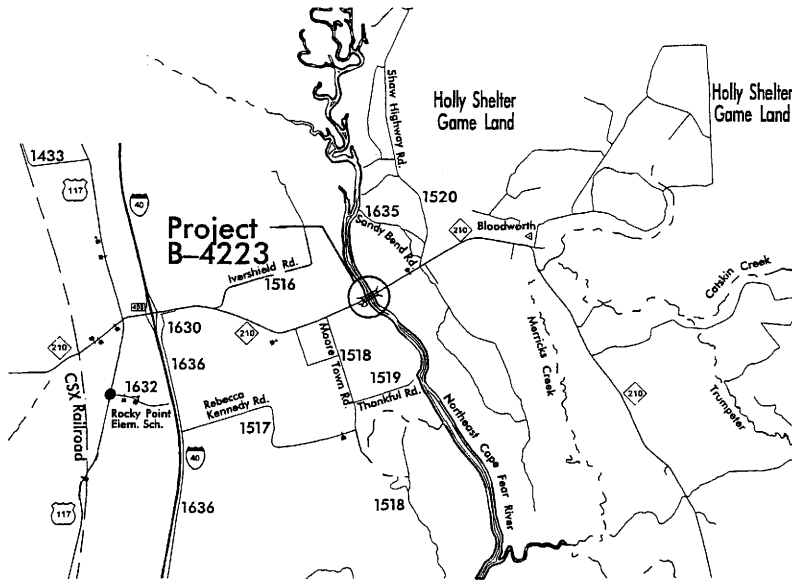
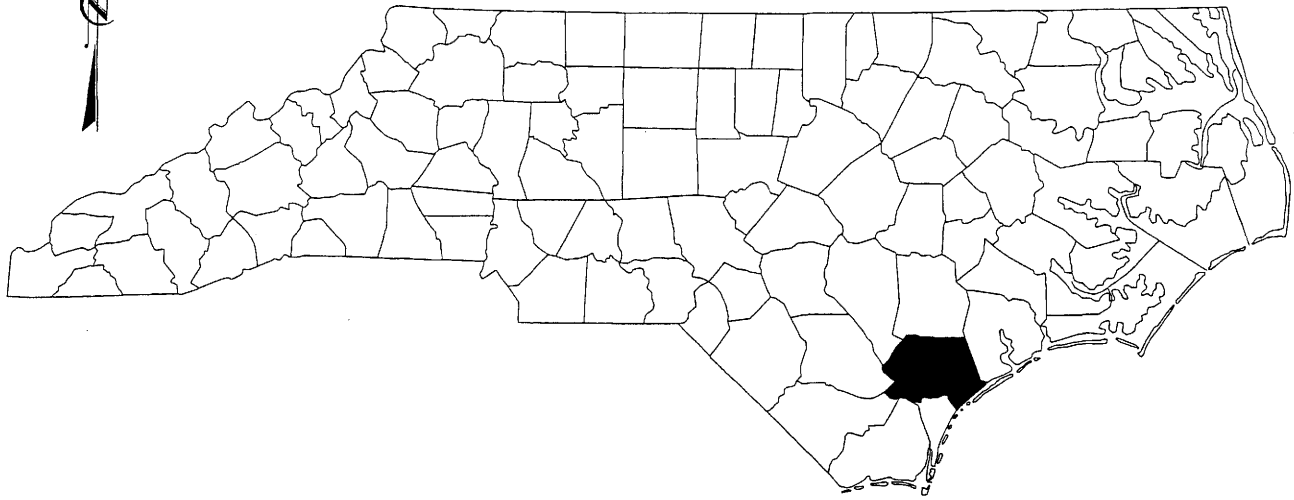
Citations:

2002 Nationwide Permits - Federal Register Notice 15 Jan 2002

2002 Nationwide Permits Corrections - Federal Register Notice 13 Feb 2002

2002 Regional Conditions – Authorized 17 May 2002

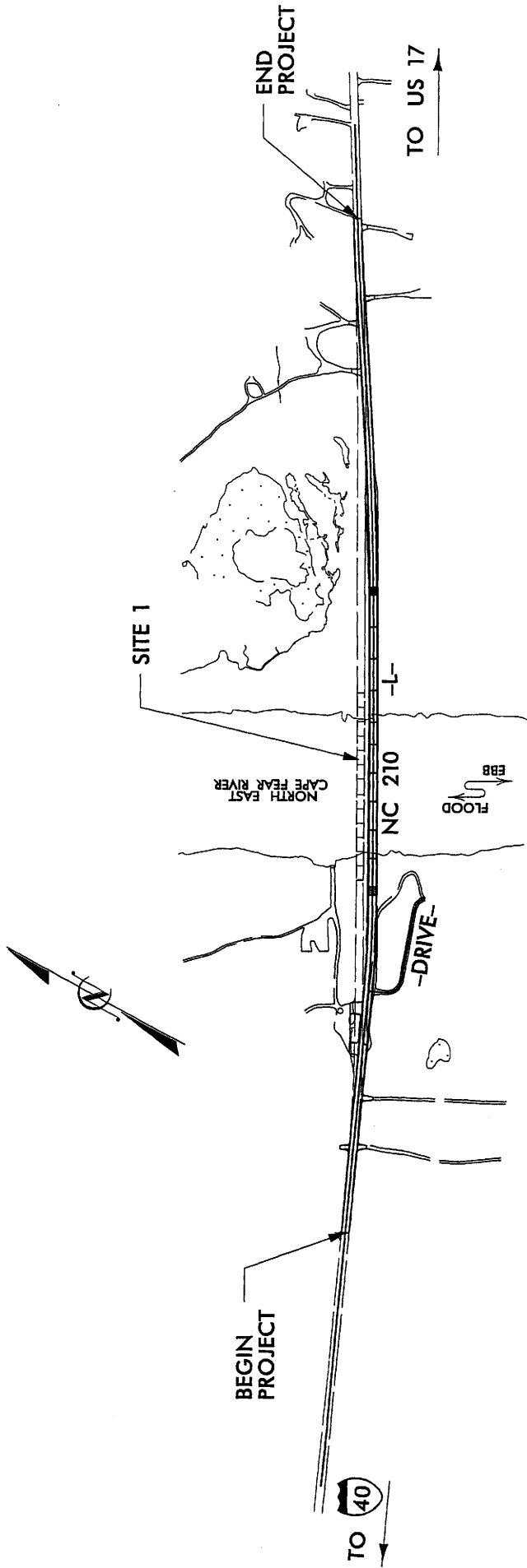
# NORTH CAROLINA



(NOT TO SCALE)

## VICINITY MAPS

NCDOT  
DIVISION OF HIGHWAYS  
PENDER COUNTY  
PROJECT: 33567.1.1 (B-4223)  
BRIDGE NO. 21 OVER  
NORTHEAST CAPE FEAR RIVER  
AND APPROACHES ON NC 210



NCDOT

DIVISION OF HIGHWAYS

PENDER COUNTY

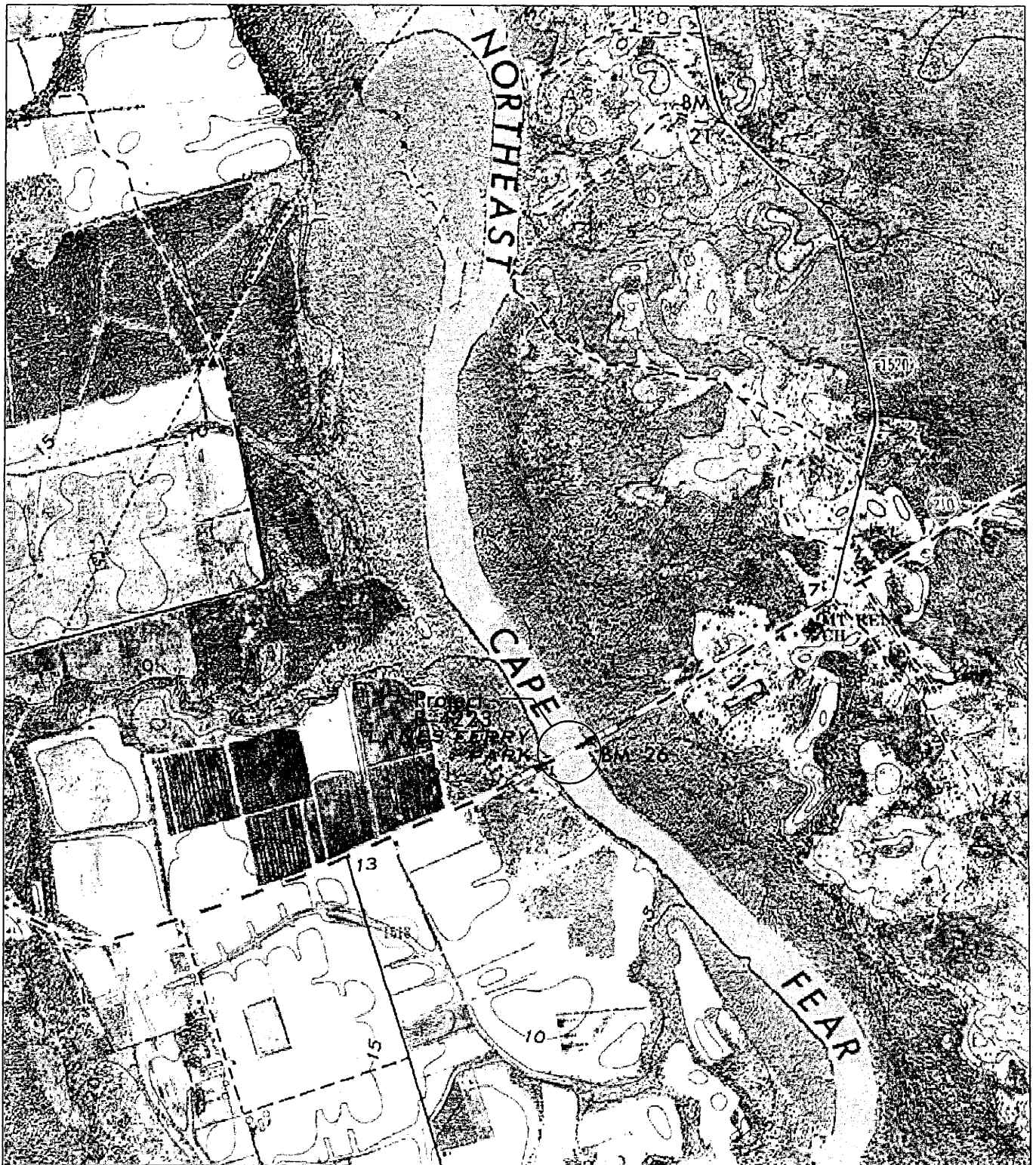
PROJECT: 33567.1.1 (B-4225)

BRIDGE NO. 21 OVER

NORTHEAST CAPE FEAR RIVER

AND APPROACHES ON NC 210

SITE MAP  
NOT TO SCALE



# TOPO MAP

SCALE: 1" : 1500'

## NCDOT

DIVISION OF HIGHWAYS  
PENDER COUNTY

PROJECT: 33567.1.1 (B-4223)

BRIDGE NO. 21 OVER

NORTHEAST CAPE FEAR RIVER  
AND APPROACHES ON NC 210

# PROPERTY OWNERS

## NAMES AND ADDRESSES

REFERENCE NO.	NAMES	ADDRESSES
1	Cason Trask	2511 S. Canterbury Road Wilmington, NC 28403
2	River Rock Farms, LLC	2511 S. Canterbury Road Wilmington, NC 28403
3	E. Allen James	1802 Fawncrest Ct. Vienna, VA 22182
4	Hall Family Properties of Wilmington, LLC	718 Market Street Wilmington, NC 28401
5	Randall M. Bostic	10604 NC Hwy 210 Rocky Point, NC 28457
6	Wesley Williams	8635 Tuttle Road Springfield, VA 22152
7	Hubert Harrell	P.O. Box 93 Burgaw, NC 28425
8	Larry Moore	10567 NC Hwy 210 Rocky Point, NC 28457
9	Lisa Mae Hatch	New York, NY 10026
10	Katrina L. Robinson	P.O. Box 276 Rocky Point, NC 28457

NCDOT

DIVISION OF HIGHWAYS

PENDER COUNTY

PROJECT: 33567.1.1 (B-4223)

BRIDGE NO. 21 OVER

NORTHEAST CAPE FEAR RIVER  
AND APPROACHES ON NC 210



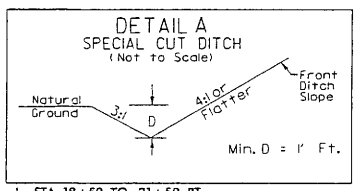
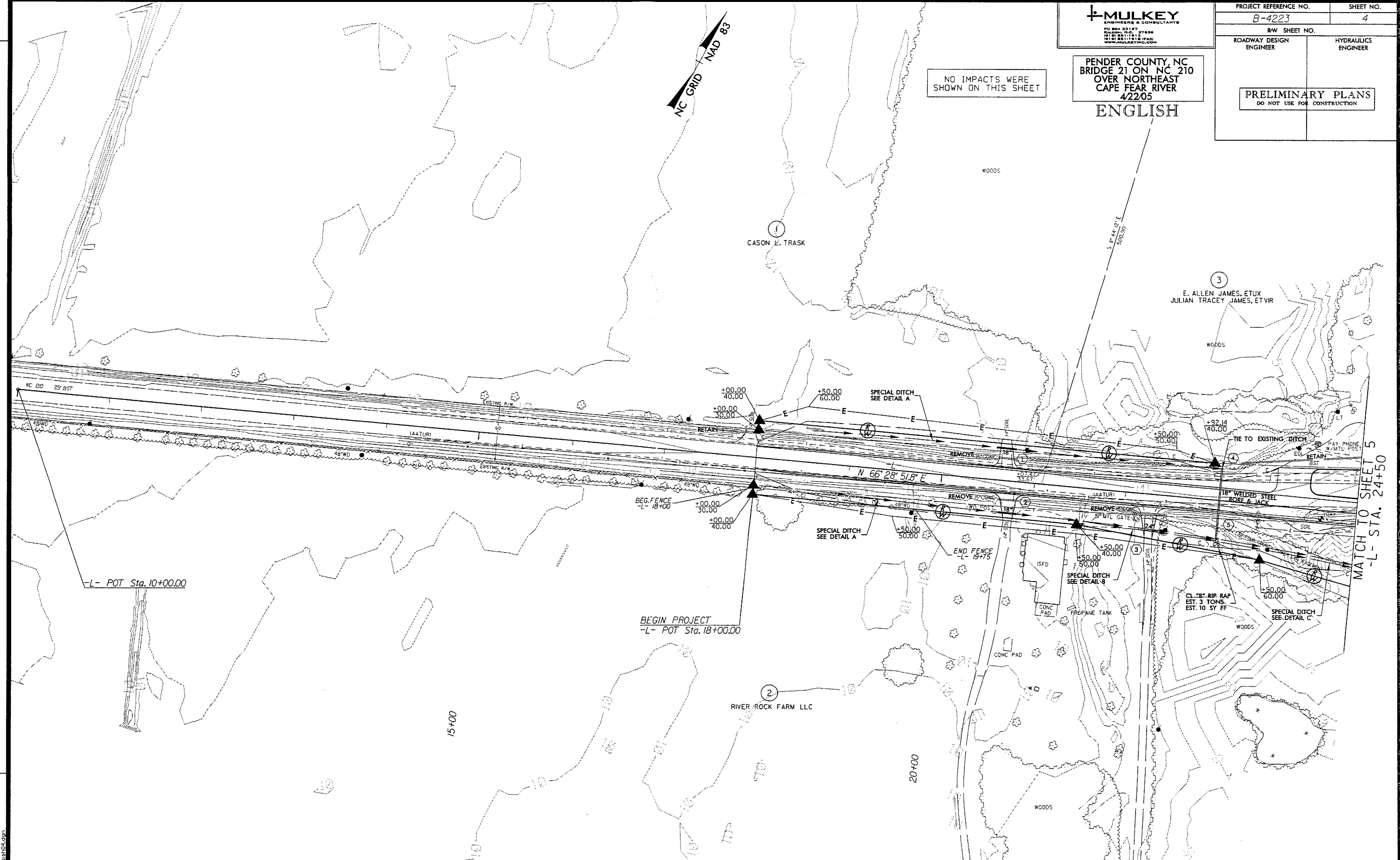


PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205  
ENGLISH

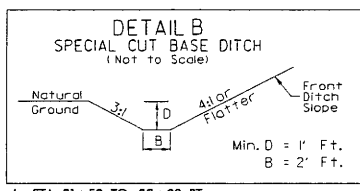
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SHOWN ON THIS SHEET

NC GRID NAD 83

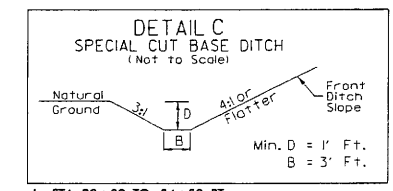
REVISIONS



-L- STA 18+50 TO 21+50 RT  
-L- STA 18+50 TO 23+00 LT



-L- STA 21+50 TO 23+00 RT







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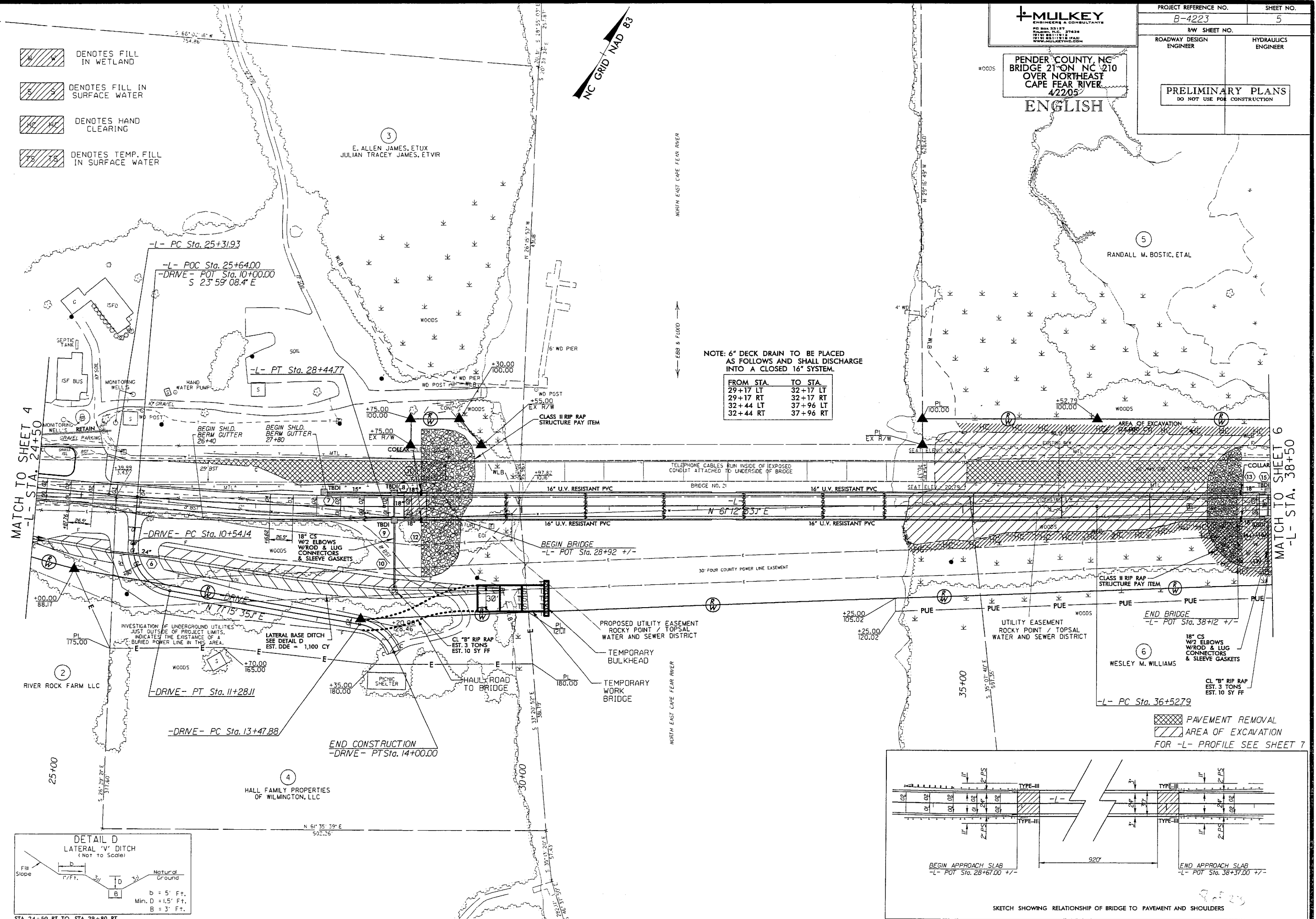
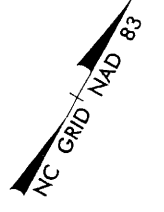
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7 05 57  
FOR -L- PROFILE SEE SHEET 7



PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205  
**ENGLISH**

-  DENOTES FILL IN WETLAND
-  DENOTES FILL IN SURFACE WATER
-  DENOTES HAND CLEARING
-  DENOTES TEMP. FILL IN SURFACE WATER

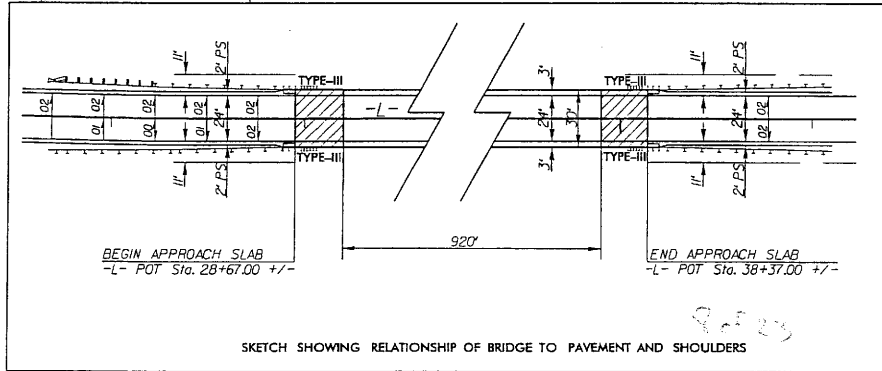
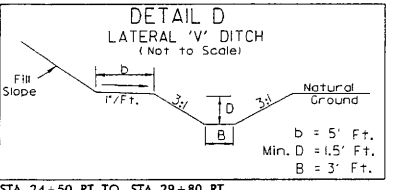


NOTE: 6" DECK DRAIN TO BE PLACED AS FOLLOWS AND SHALL DISCHARGE INTO A CLOSED 16" SYSTEM.

FROM STA.	TO STA.
29+17 LT	32+17 LT
29+17 RT	32+17 RT
32+44 LT	37+96 LT
32+44 RT	37+96 RT

MATCH TO SHEET 4  
-L- STA. 24+50

MATCH TO SHEET 6  
-L- STA. 38+50



REVISIONS

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PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
422.05  
ENGLISH

- DENOTES FILL IN WETLAND
- DENOTES FILL IN SURFACE WATER
- DENOTES HAND CLEARING
- DENOTES TEMP. FILL IN SURFACE WATER

NC GRID NAD 83

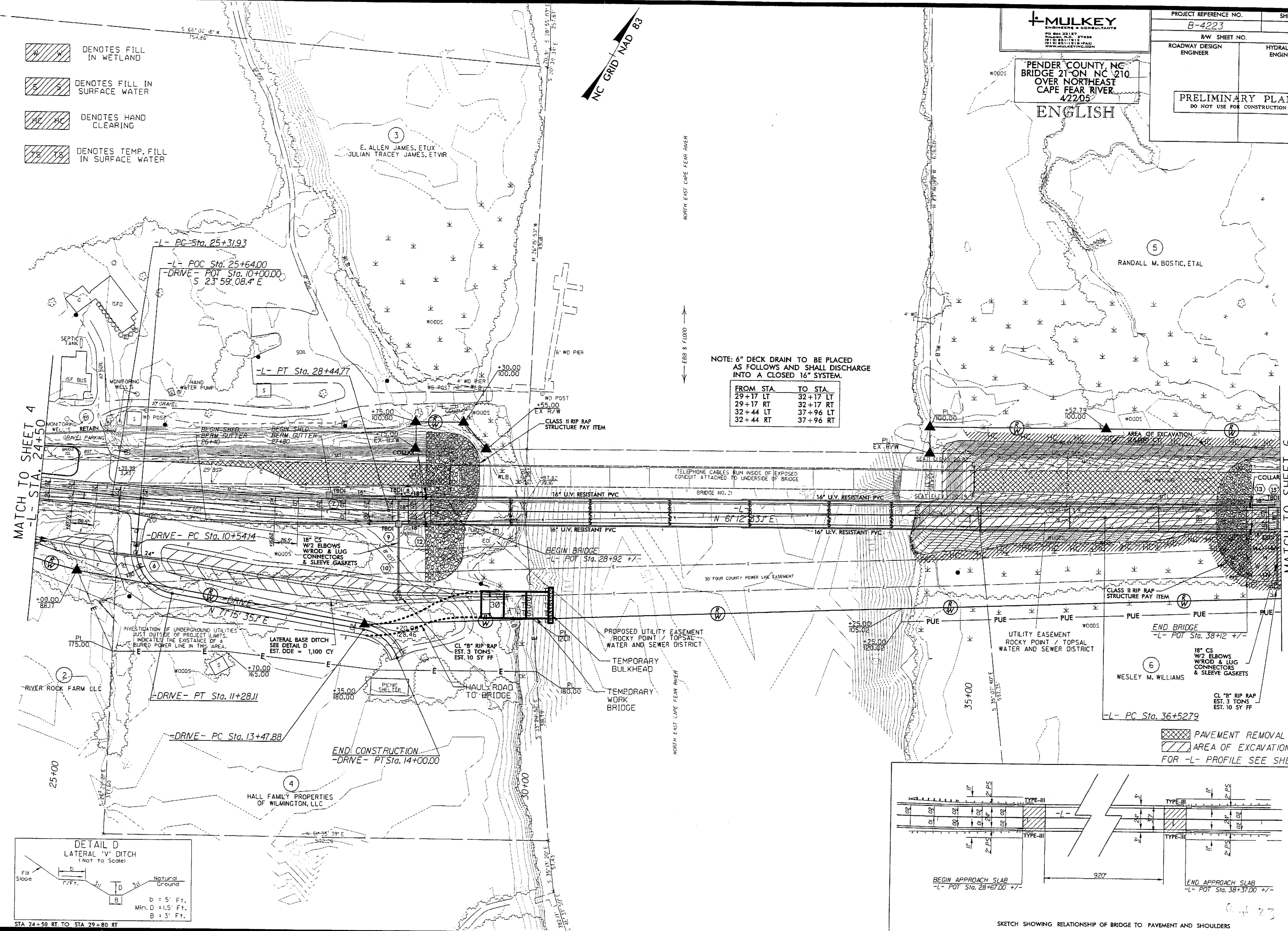
NORTH EAST CAPE FEAR RIVER

EGGS & FLOOD

NORTH EAST CAPE FEAR RIVER

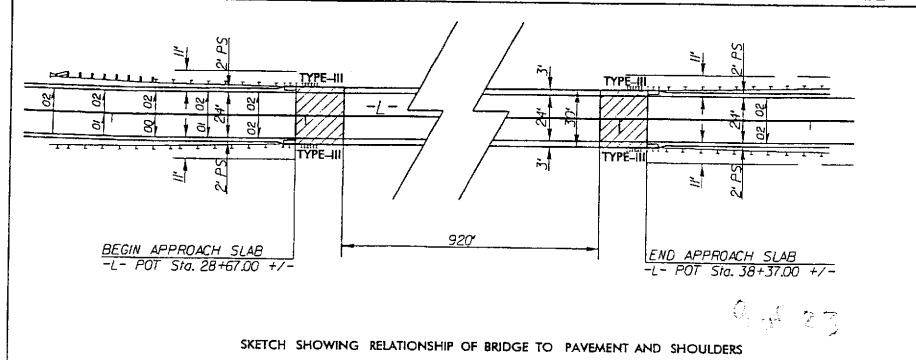
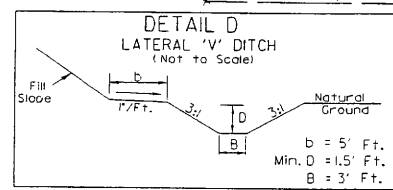
NOTE: 6" DECK DRAIN TO BE PLACED AS FOLLOWS AND SHALL DISCHARGE INTO A CLOSED 16" SYSTEM.

FROM STA.	TO STA.
29+17 LT	32+17 LT
29+17 RT	32+17 RT
32+44 LT	37+96 LT
32+44 RT	37+96 RT



MATCH TO SHEET 4  
-L- STA. 24+50

MATCH TO SHEET 6  
-L- STA. 38+50

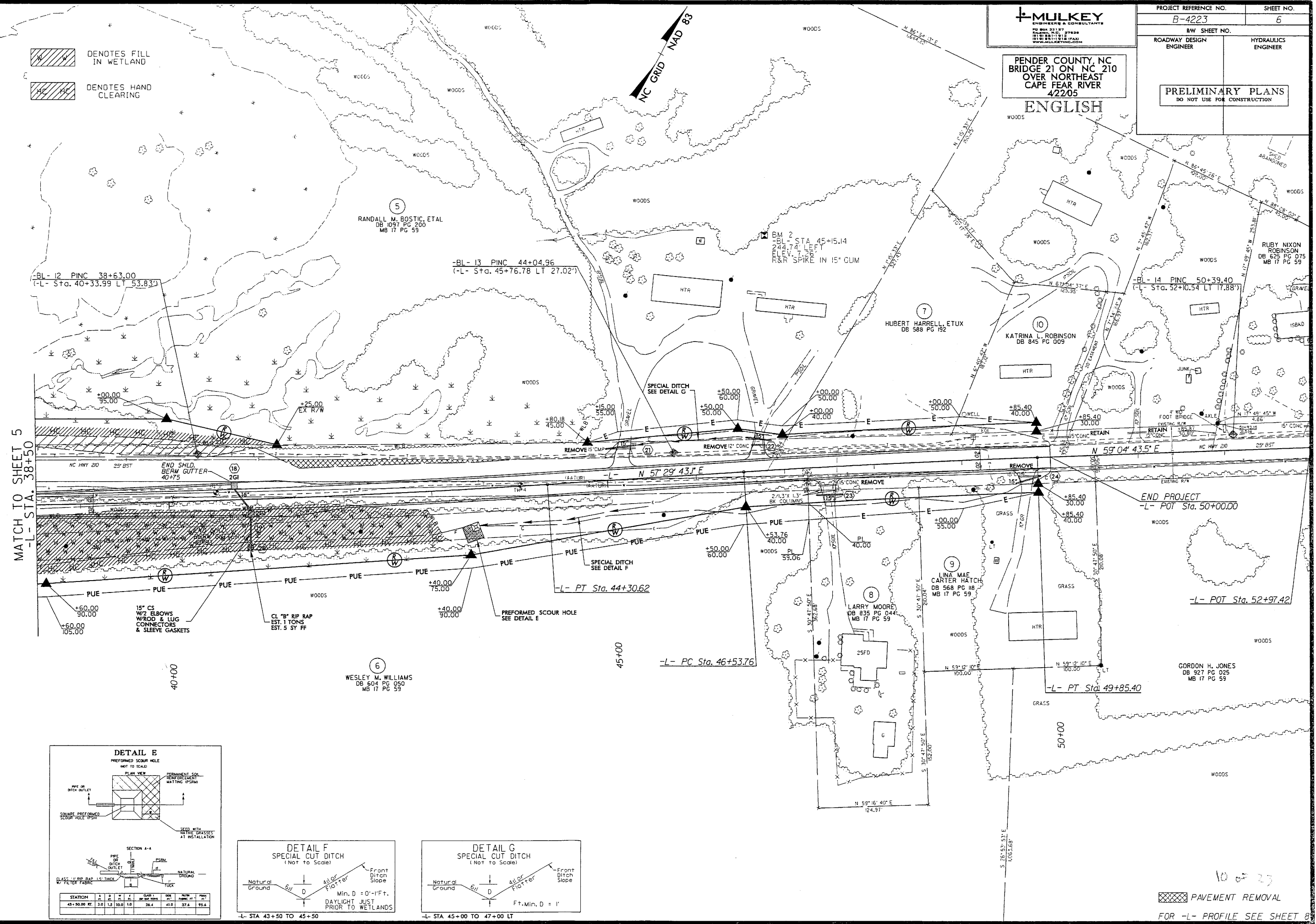


REVISIONS

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PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
CAPE FEAR RIVER  
42205  
**ENGLISH**

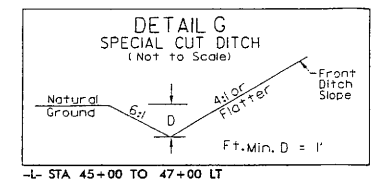
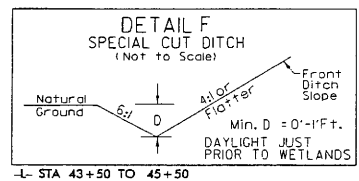
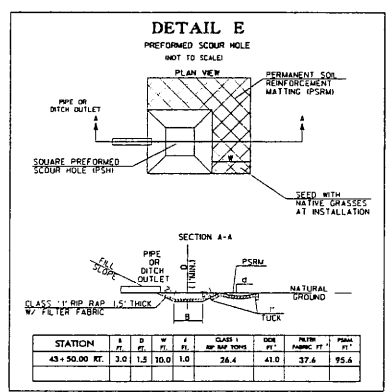
DENOTES FILL IN WETLAND  
 DENOTES HAND CLEARING



MATCH TO SHEET 5  
-L- STA. 38+50

END PROJECT  
-L- POT Sta. 50+00.00

-L- POT Sta. 52+97.42



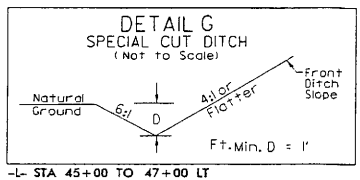
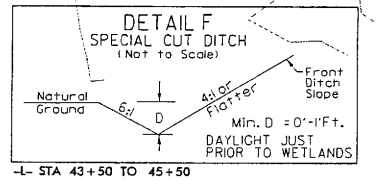
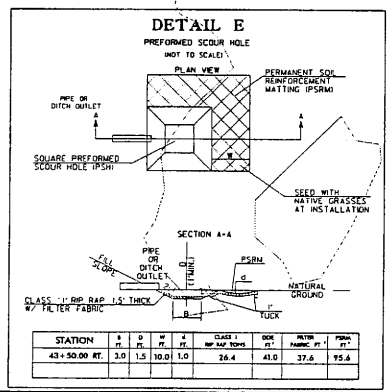
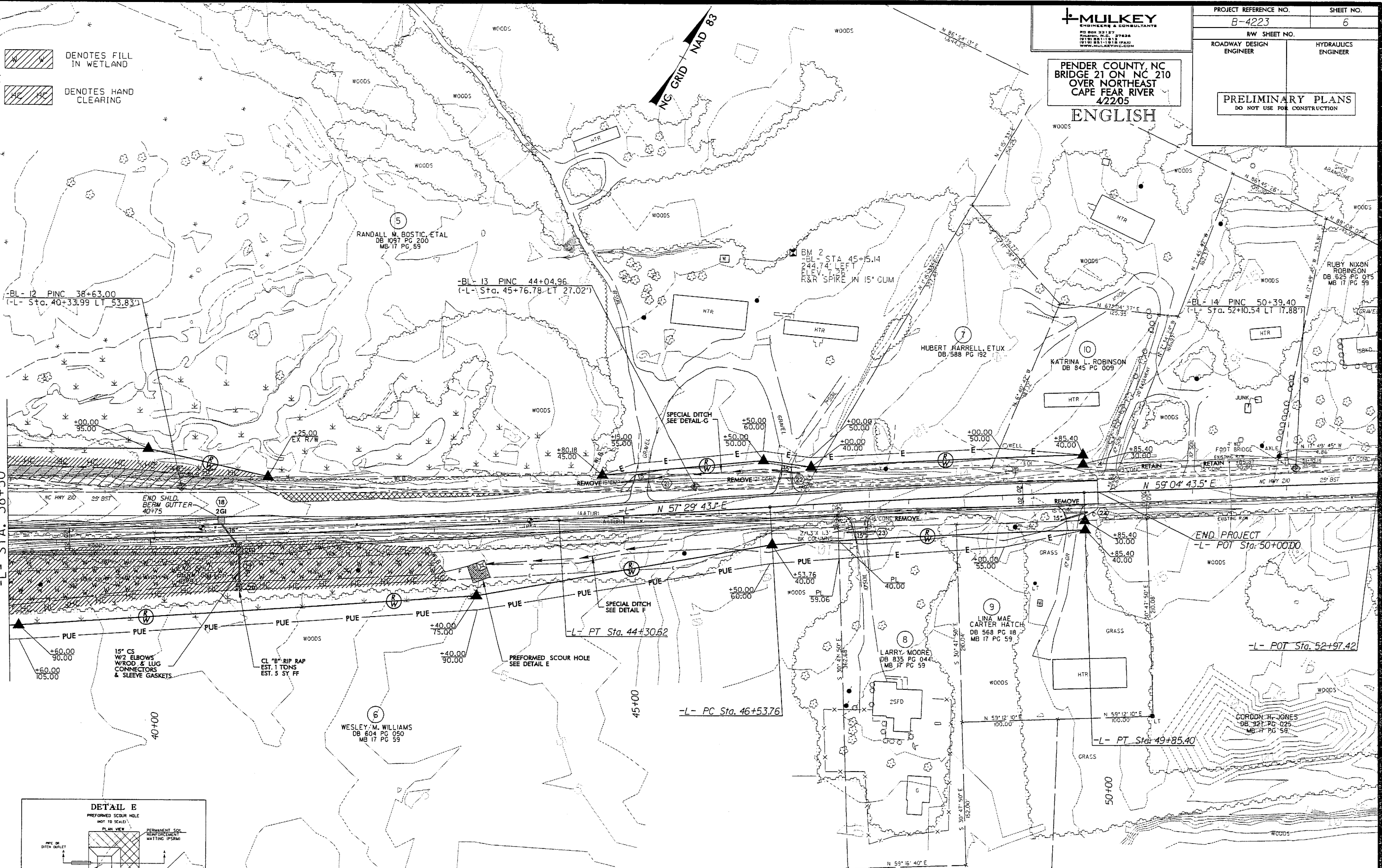
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10 of 23  
 PAVEMENT REMOVAL  
FOR -L- PROFILE SEE SHEET 5

**PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205**  
**ENGLISH**

DENOTES FILL IN WETLAND  
 DENOTES HAND CLEARING

MATCH TO SHEET 5  
-L- STA. 38+50



REVISIONS

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-BL- 6  
EL = 1168'  
8" REBAR WITH CAP

-BL- 7  
EL = 1127'  
8" REBAR WITH CAP

-BL- 8  
EL = 928'  
8" REBAR WITH CAP



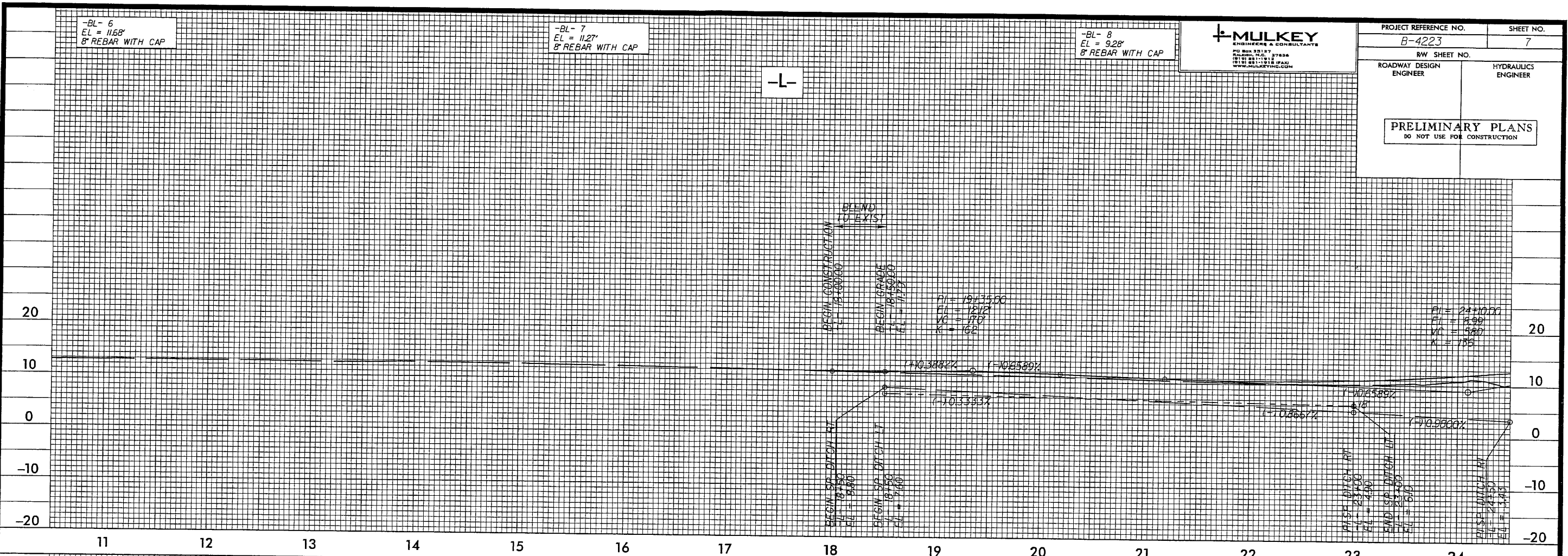
PROJECT REFERENCE NO. B-4223 SHEET NO. 7

RW SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION



-BL- 9  
EL = 1137'  
8" REBAR WITH CAP

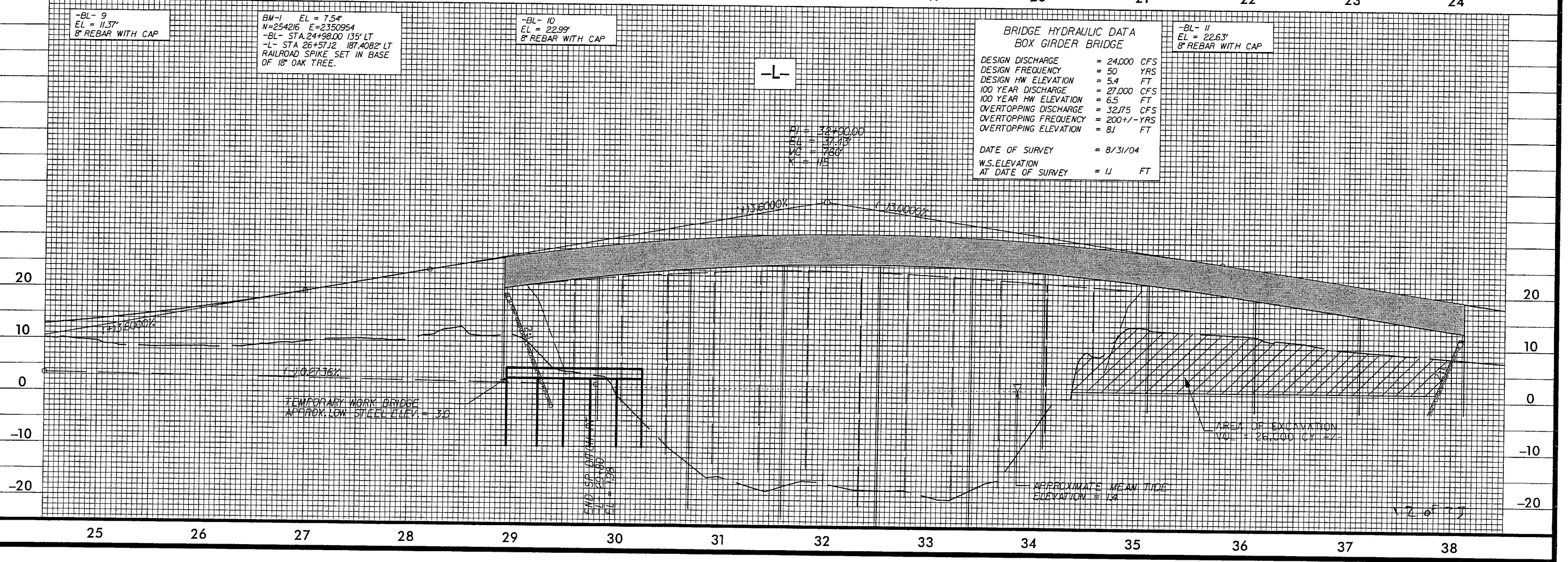
BM-1 EL = 7.54  
N=254216 E=2350954  
-BL- STA 24+98.00 135' LT  
-L- STA 26+57.12 187.4082' LT  
RAILROAD SPIKE SET IN BASE  
OF 18" OAK TREE.

-BL- 10  
EL = 22.99'  
8" REBAR WITH CAP

-BL- 11  
EL = 22.63'  
8" REBAR WITH CAP

**BRIDGE HYDRAULIC DATA**  
BOX GIRDER BRIDGE

DESIGN DISCHARGE	= 24,000 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 5.4 FT
100 YEAR DISCHARGE	= 27,000 CFS
100 YEAR HW ELEVATION	= 6.5 FT
OVERTOPPING DISCHARGE	= 32,175 CFS
OVERTOPPING FREQUENCY	= 200+/- YRS
OVERTOPPING ELEVATION	= 8J FT
DATE OF SURVEY	= 8/31/04
W.S. ELEVATION AT DATE OF SURVEY	= 1J FT



5/2/2005 2:05:48 PM  
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-BL- 12  
EL = 8.24'  
8" REBAR WITH CAP

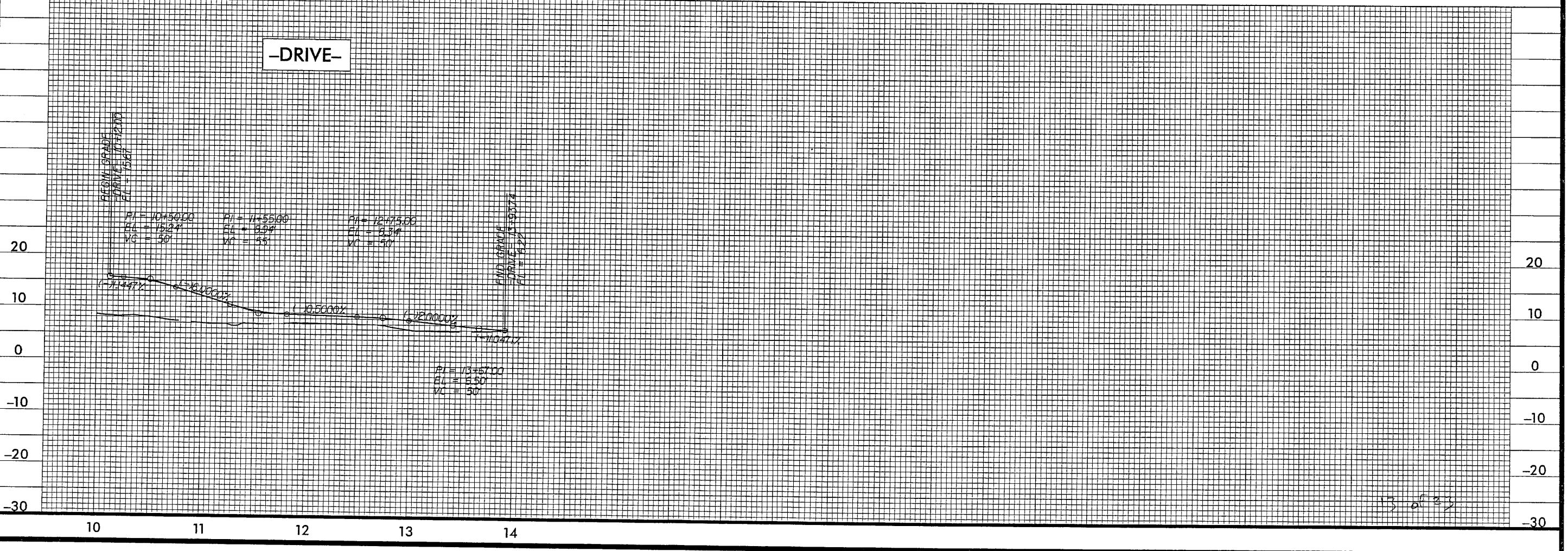
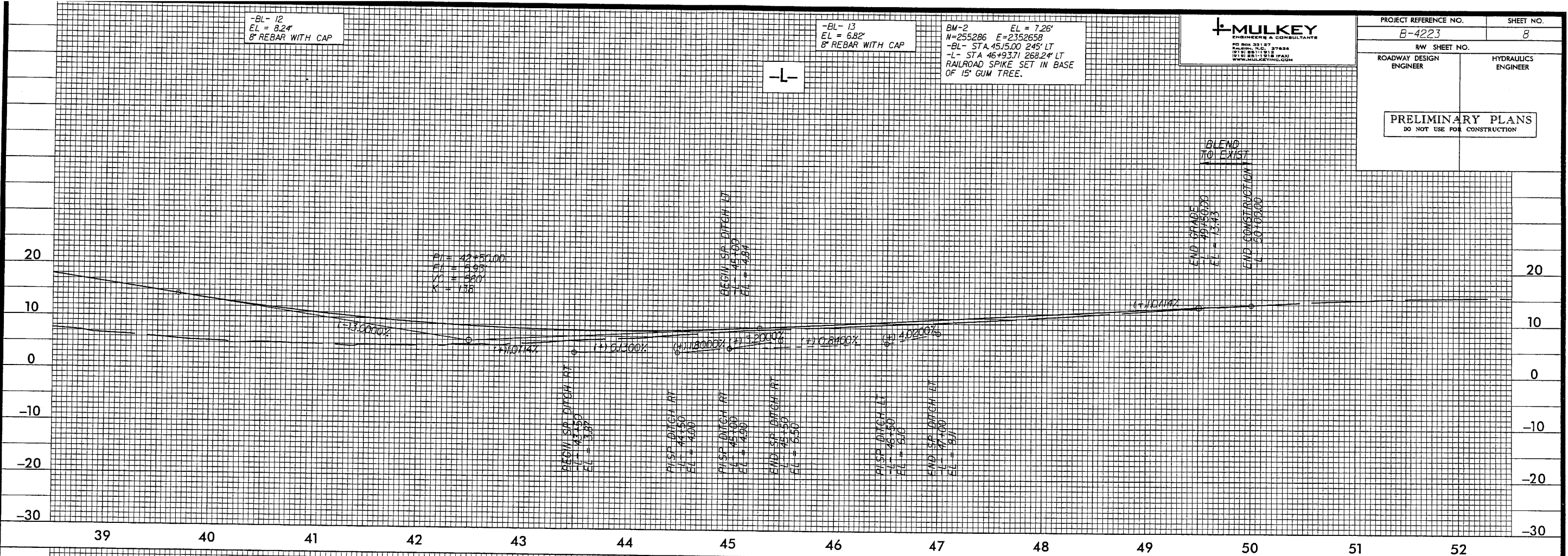
-BL- 13  
EL = 6.82'  
8" REBAR WITH CAP

BM-2 EL = 7.26'  
N=255286 E=2352658  
-BL- STA 45+50.00 245' LT  
-L- STA 46+93.71 268.24' LT  
RAILROAD SPIKE SET IN BASE  
OF 15' GUM TREE.



PROJECT REFERENCE NO. B-4223	SHEET NO. 8
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

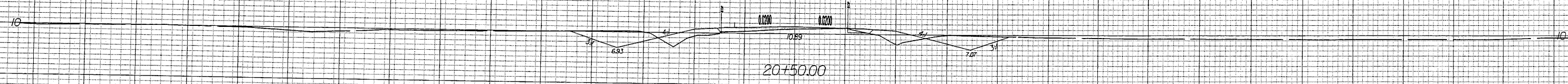
PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



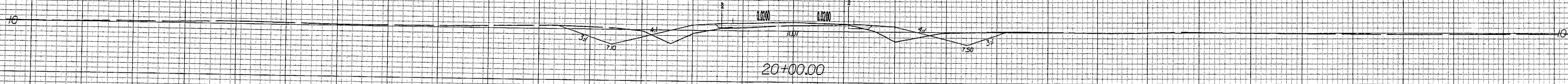
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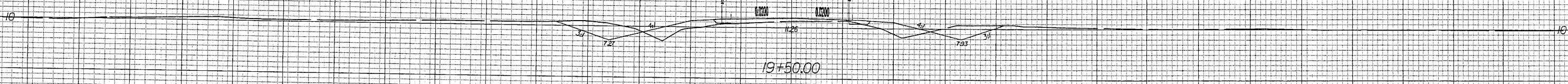
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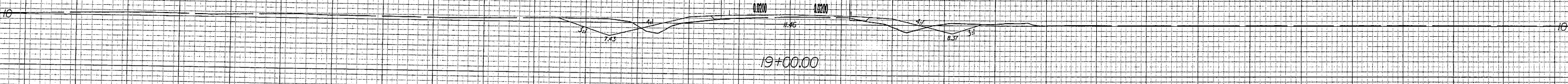
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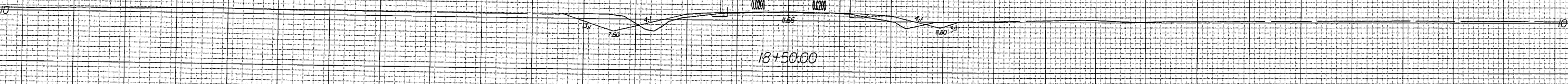
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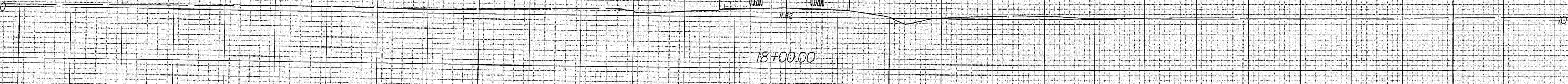
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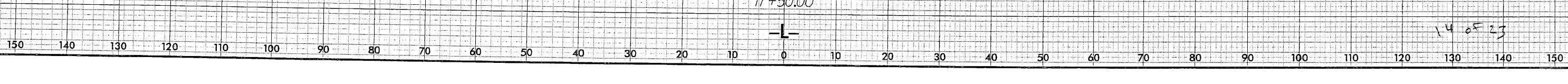
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18+50.00



18+00.00

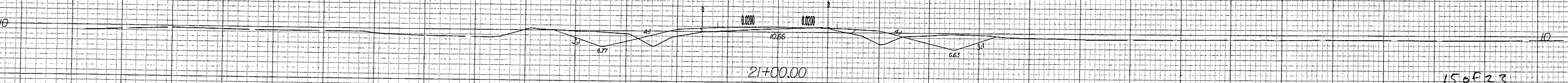
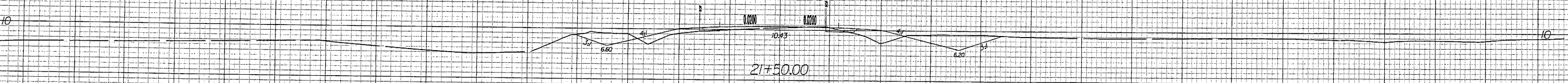
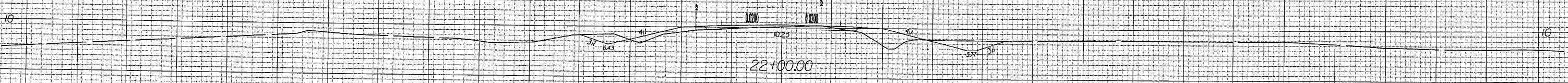
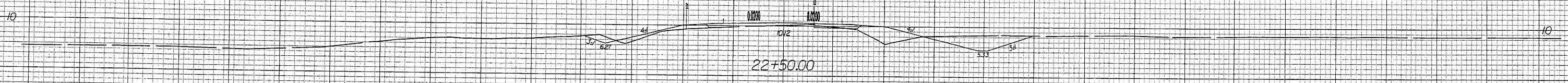
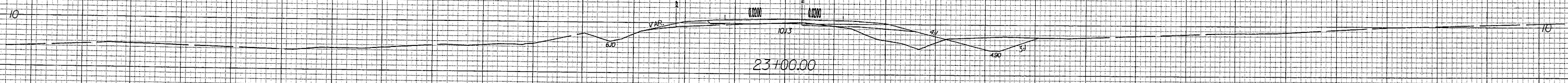
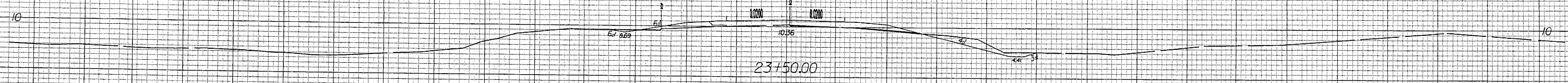


17+50.00

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14 of 23

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15 of 23

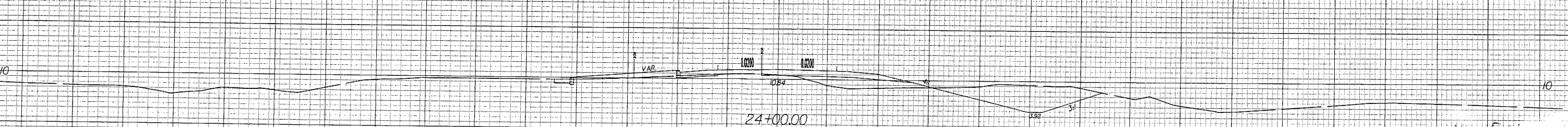
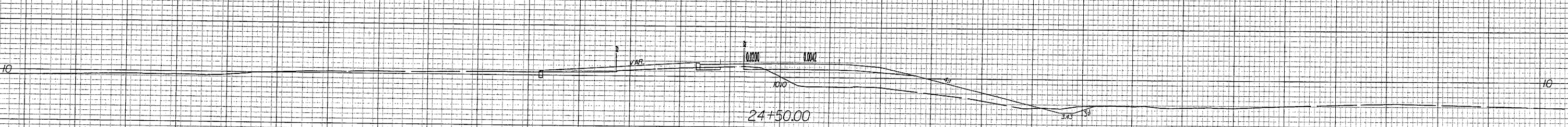
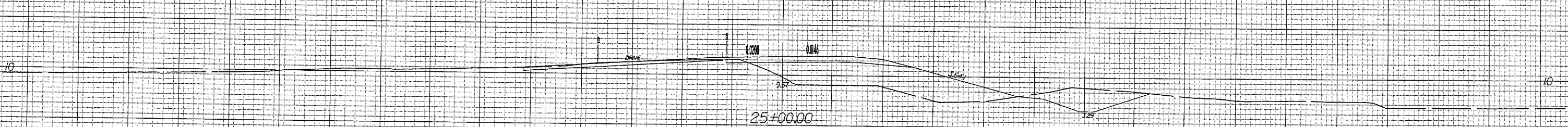
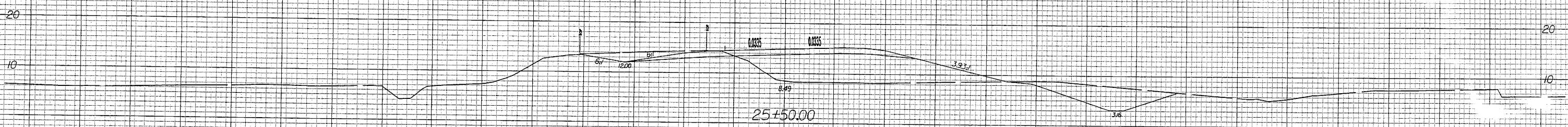
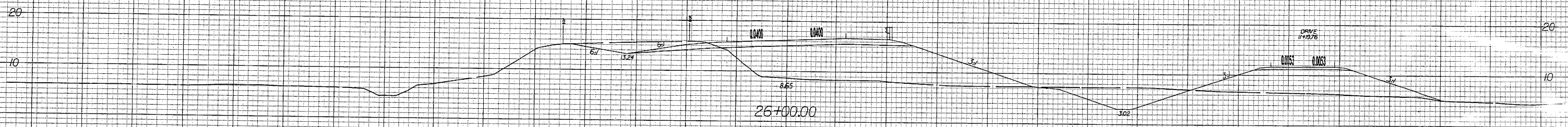
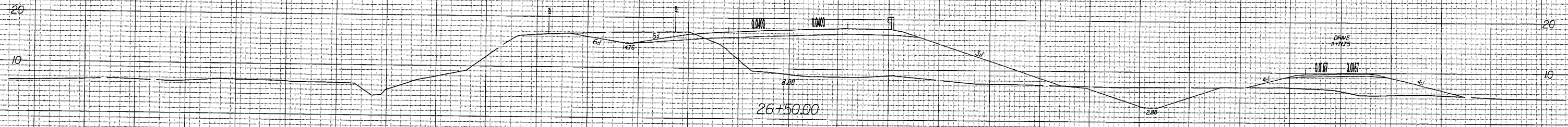




PROJ. REFERENCE NO.  
B-4223

NO.

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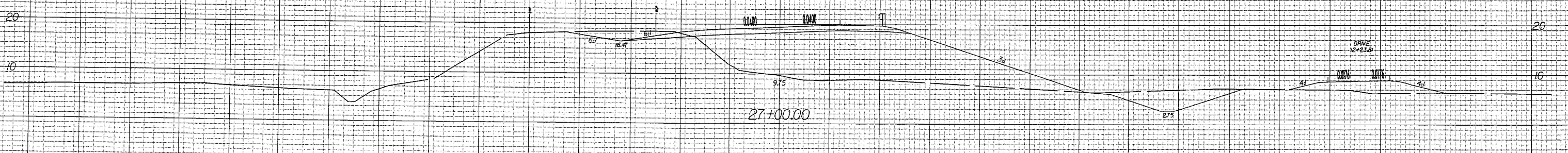
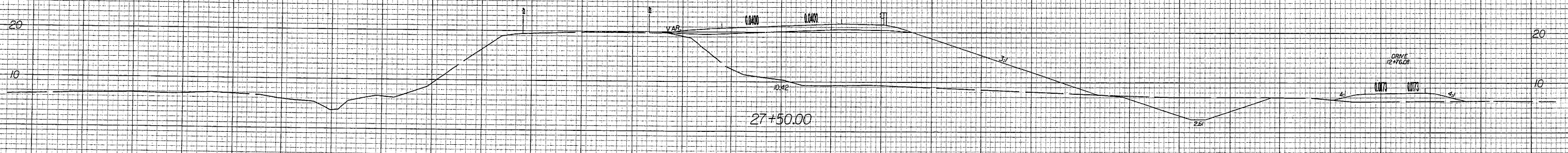
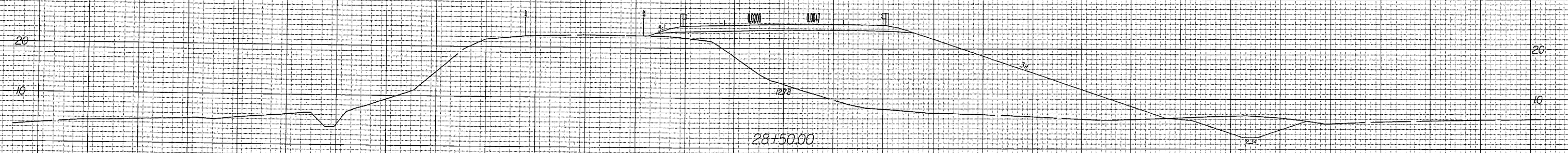


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BEGIN BRIDGE = L - STA. 28+92.00



-L-

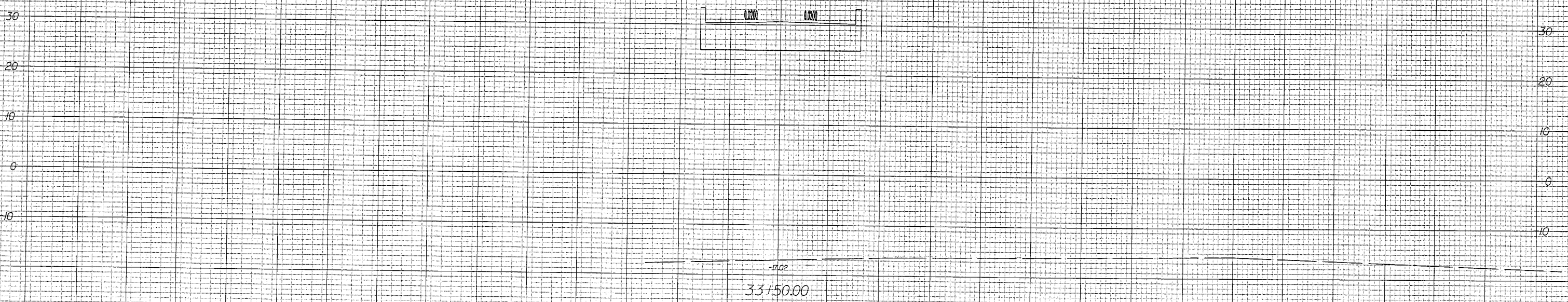
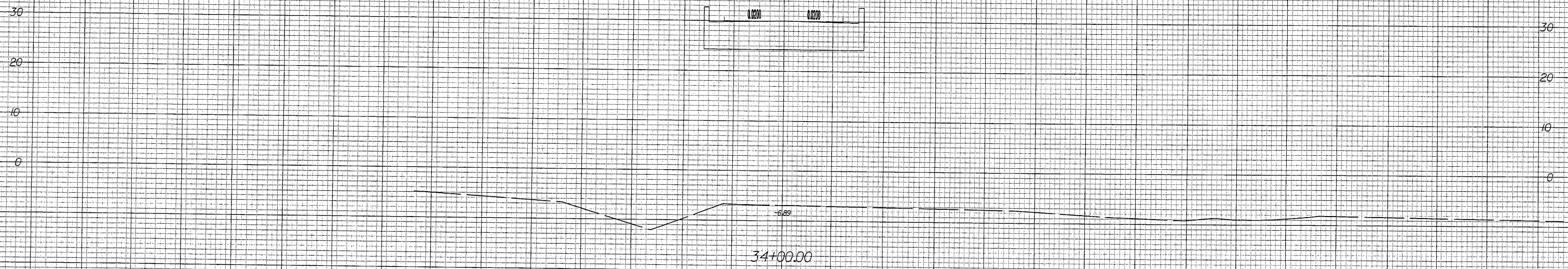
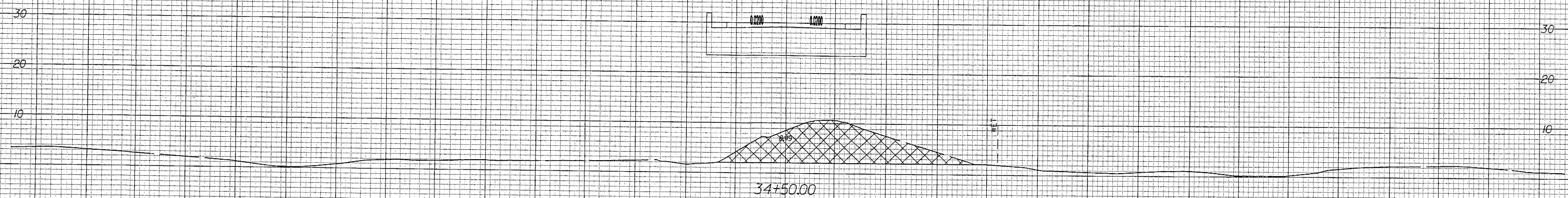
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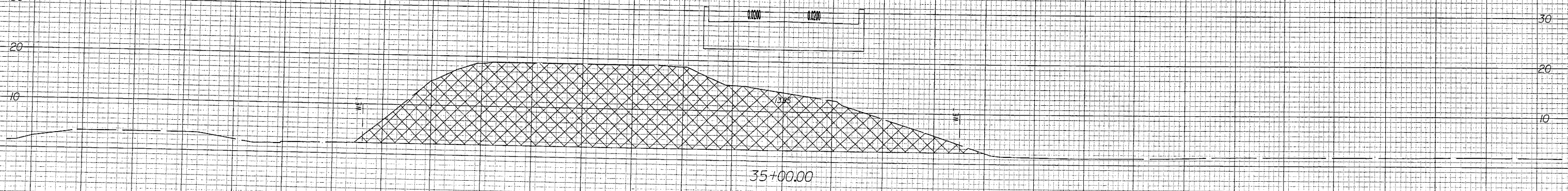
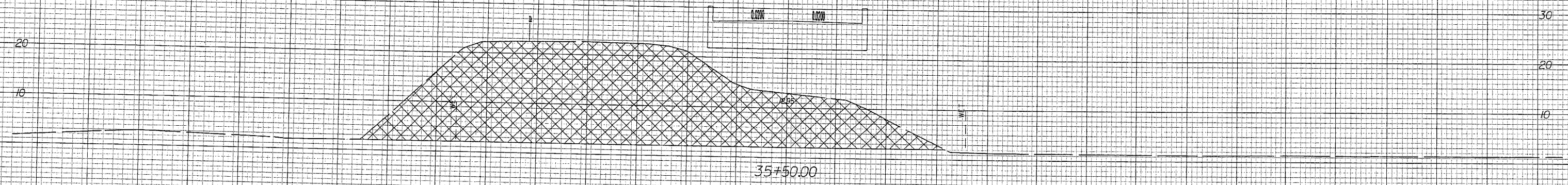
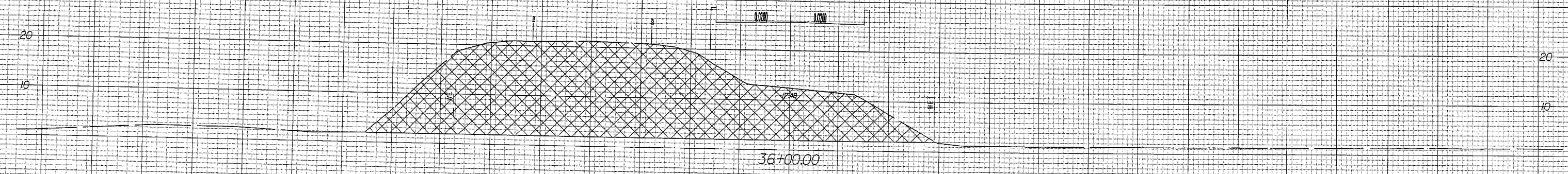
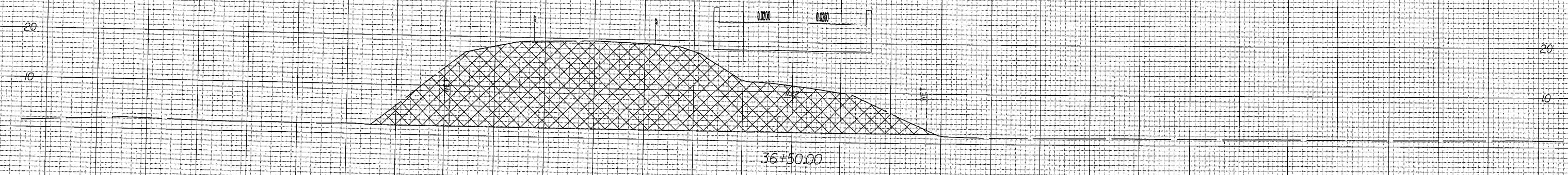
PROJ. REFERENCE NO.  
B-4223

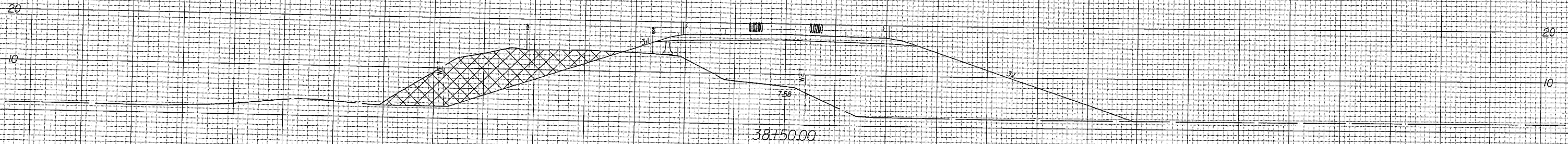
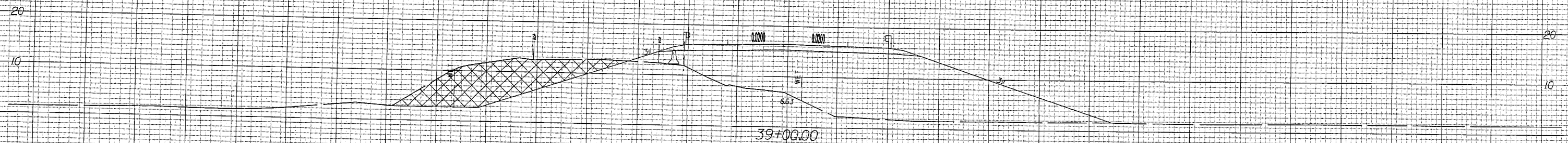
SHEET NO.  
X-6



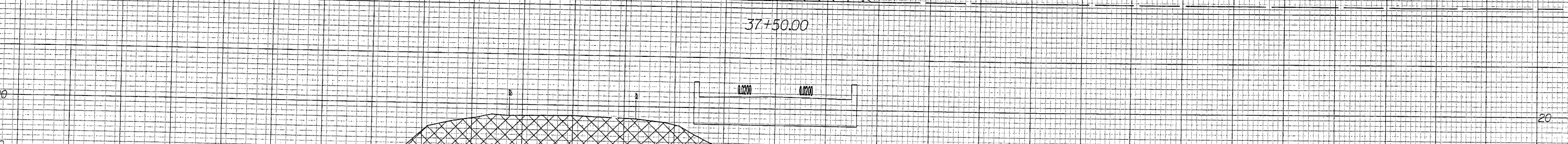
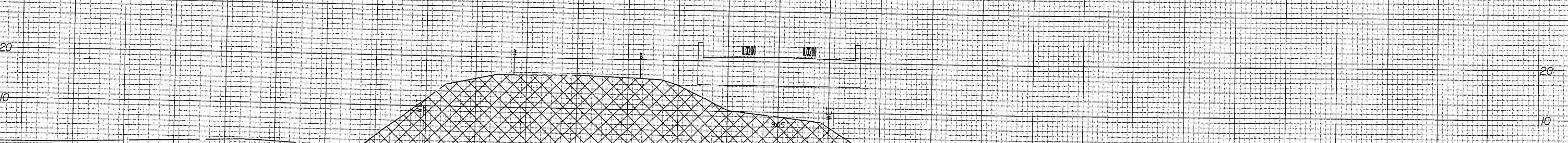
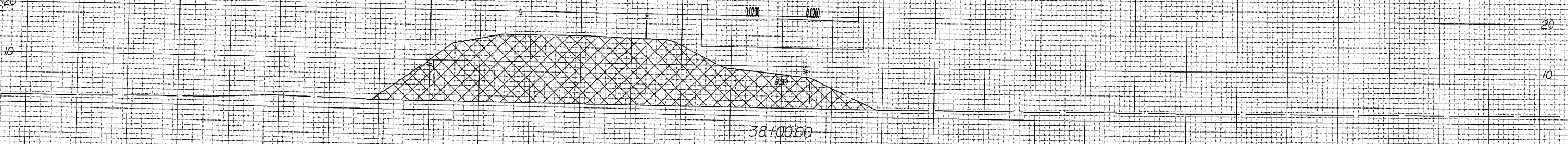
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18 of 23



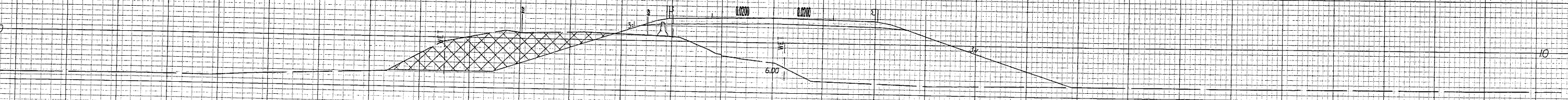
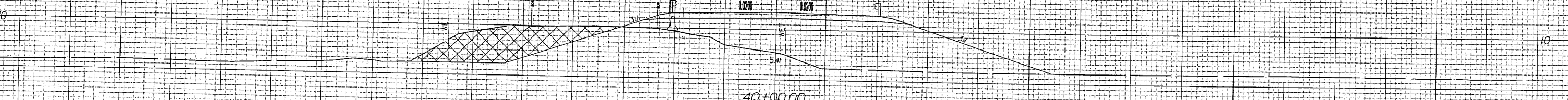
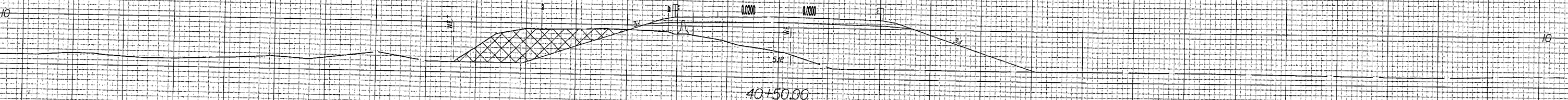
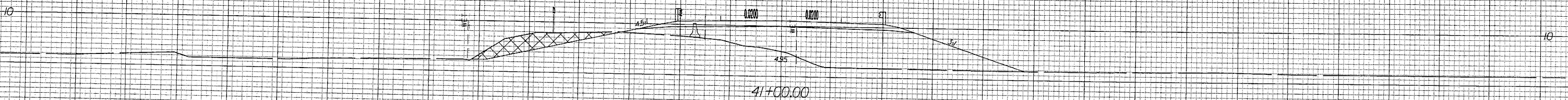
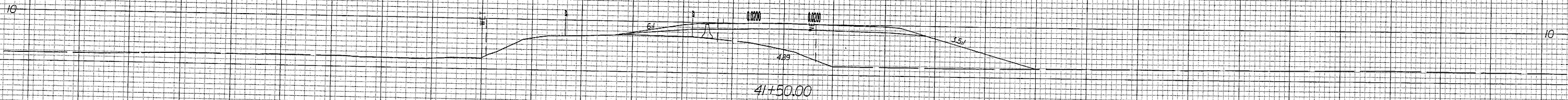
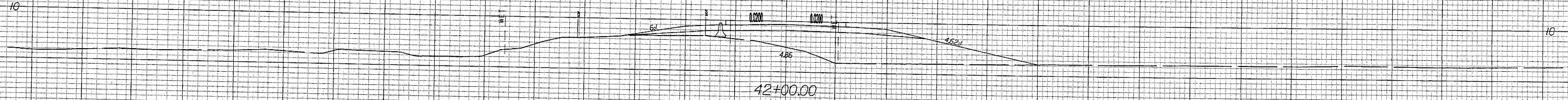


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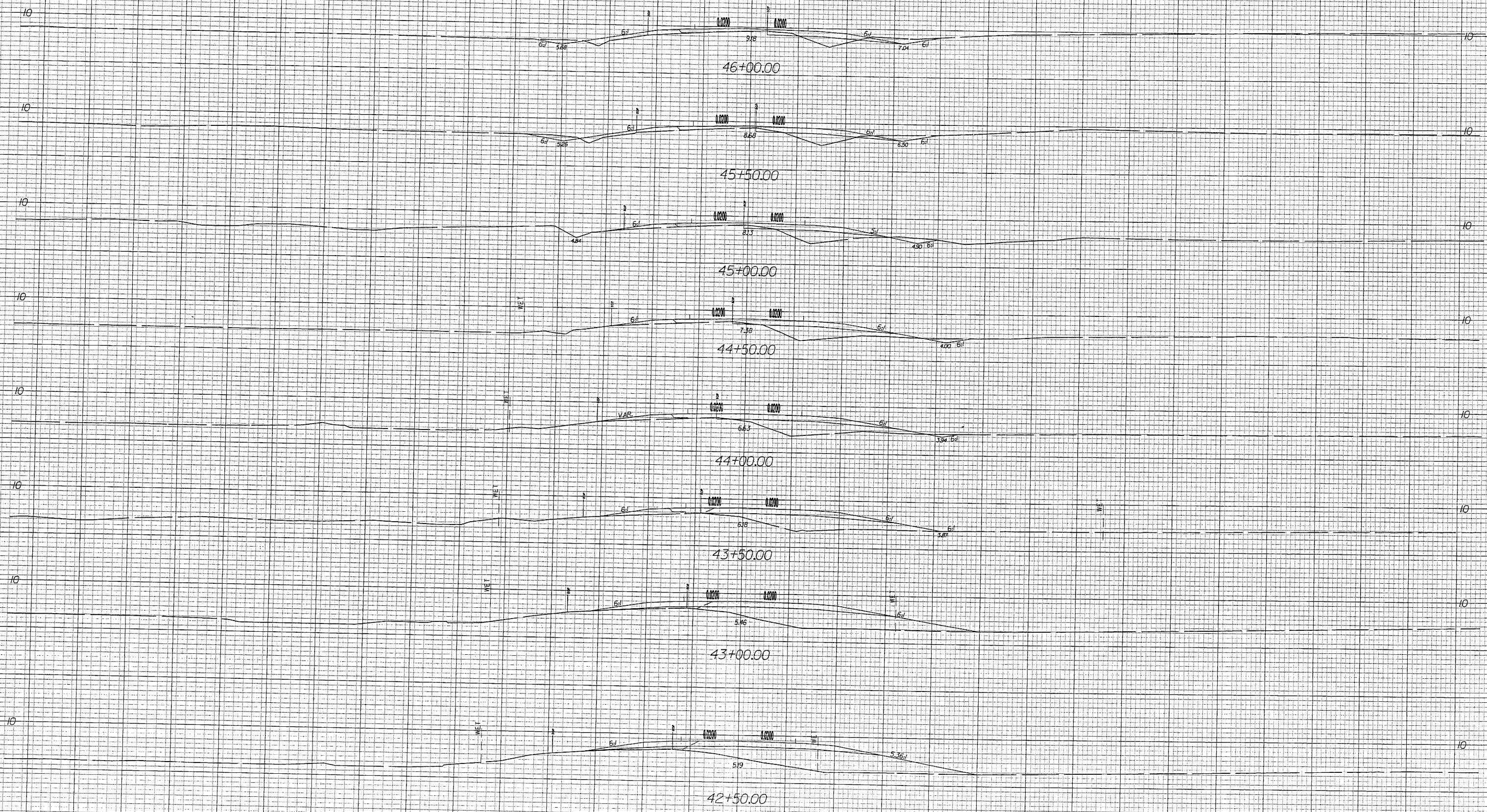
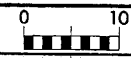


37+00.00

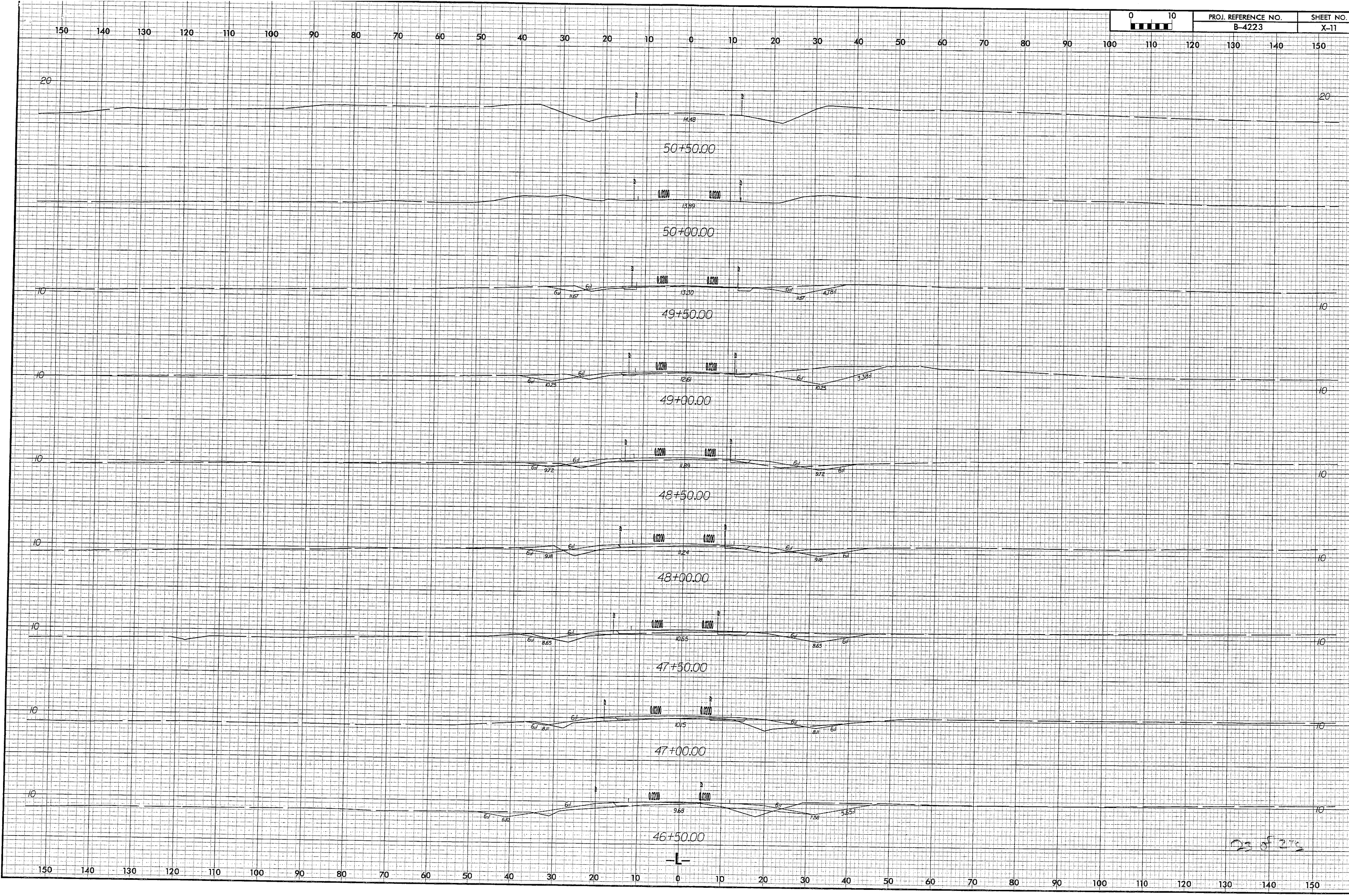
20 of 23



21 of 23



22.5.23



23 of 24



STATE	STATE PROJECT REFERENCE NO.	NO.	SHEETS
N.C.	B-4223	I	
SYM. NO.	P.A. PROJ. NO.	DESCRIPTION	
33567.1.1	BRSTP-0210(4)	P.E.	
33567.2.1	BRSTP-0210(4)	R.O.W., UTIL.	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

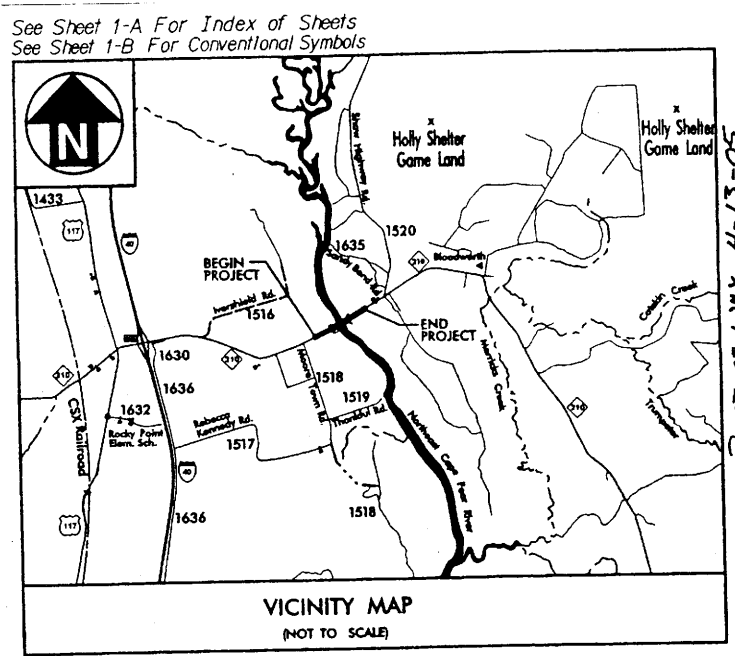
**PENDER COUNTY**

LOCATION: BRIDGE NO. 21 ON NC 210 OVER  
NORTHEAST CAPE FEAR RIVER

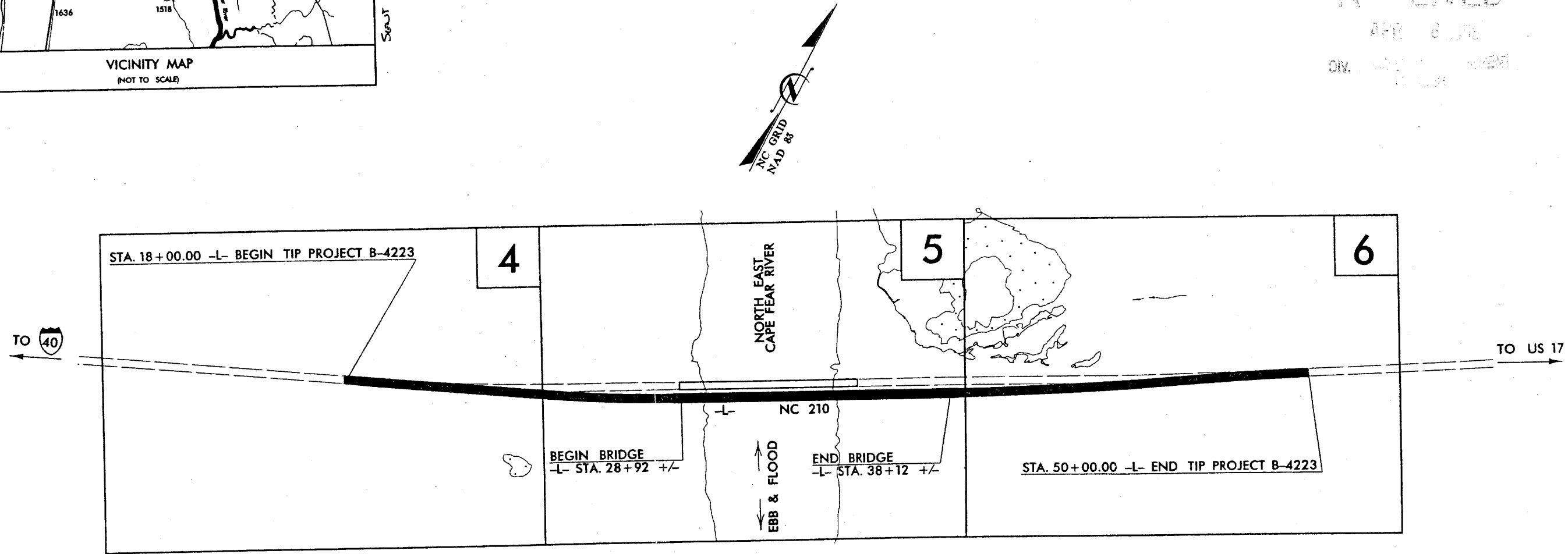
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

RECEIVED  
APR 20 2005  
DIV. OF HIGHWAYS

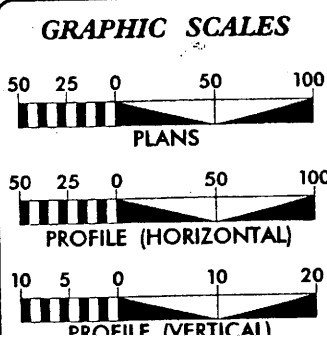


TIP PROJECT: B-4223



**MULKEY**  
ENGINEERS & CONSULTANTS  
PO Box 33127  
RALEIGH, N.C. 27634  
(919) 851-1912  
(919) 851-1918 (FAX)  
WWW.MULKEYINC.COM

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.  
CLEARING ON THIS PROJECT SHOULD BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.



**DESIGN DATA**  
ADT 2006 = 4,100  
ADT 2026 = 7,600  
DHV = 14 %  
D = 65 %  
T = 10 % \*  
V = 60 MPH  
\* TTST 4% DUAL 6%  
FUNC CLASS = MAJOR RURAL COLLECTOR

**PROJECT LENGTH**  
LENGTH ROADWAY TIP PROJECT B-4223 = 0.432 MILES  
LENGTH STRUCTURE TIP PROJECT B-4223 = 0.174 MILES  
TOTAL LENGTH STATE TIP PROJECT B-4223 = 0.606 MILES

Prepared in the Office of:  
**MULKEY**  
ENGINEERS & CONSULTANTS  
FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION  
2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: APRIL 15, 2005

LETTING DATE: APRIL 18, 2006

NCDOT CONTACT: CATHY HOUSER, PE

TIM JORDAN, PE  
MULKEY E & C  
PROJECT MANAGER

RICK MOORE, PE  
MULKEY E & C  
HYDRAULICS ENGINEER

**HYDRAULICS ENGINEER**

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

**ROADWAY DESIGN ENGINEER**

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

**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED DIVISION ADMINISTRATOR DATE

CONTRACT:

09/08/9

04/05/2005  
18:00:00  
18:00:00

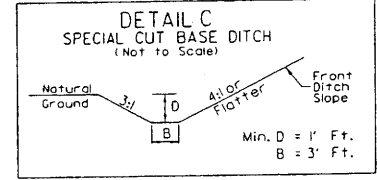
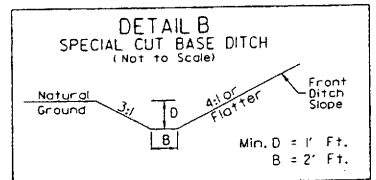
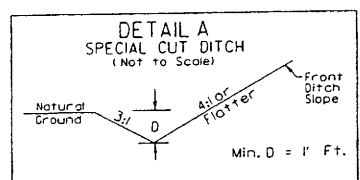
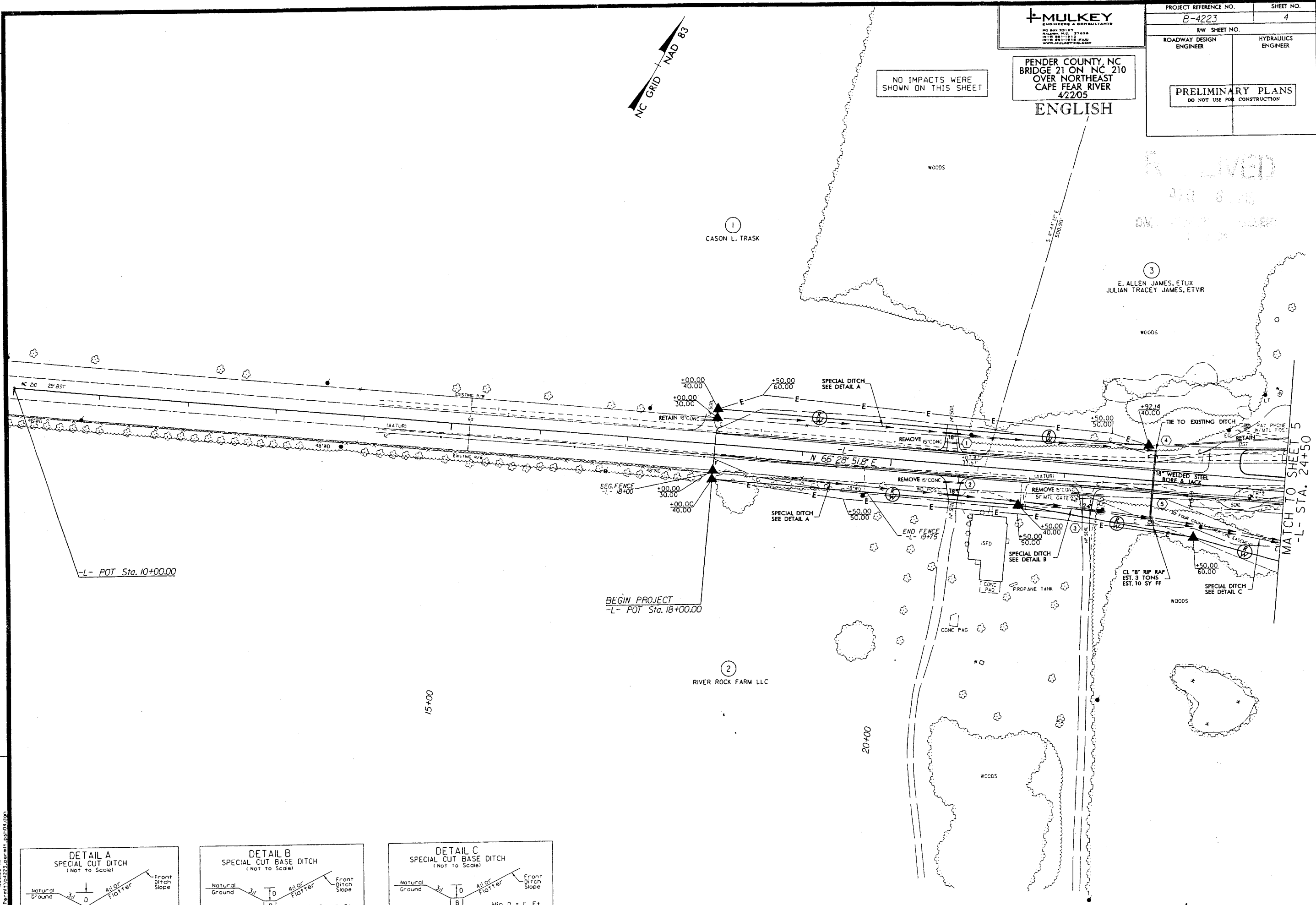
PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205  
ENGLISH

NO IMPACTS WERE  
SHOWN ON THIS SHEET





NC GRID NAD 83

R. LIVED  
DR. ...

REVISIONS



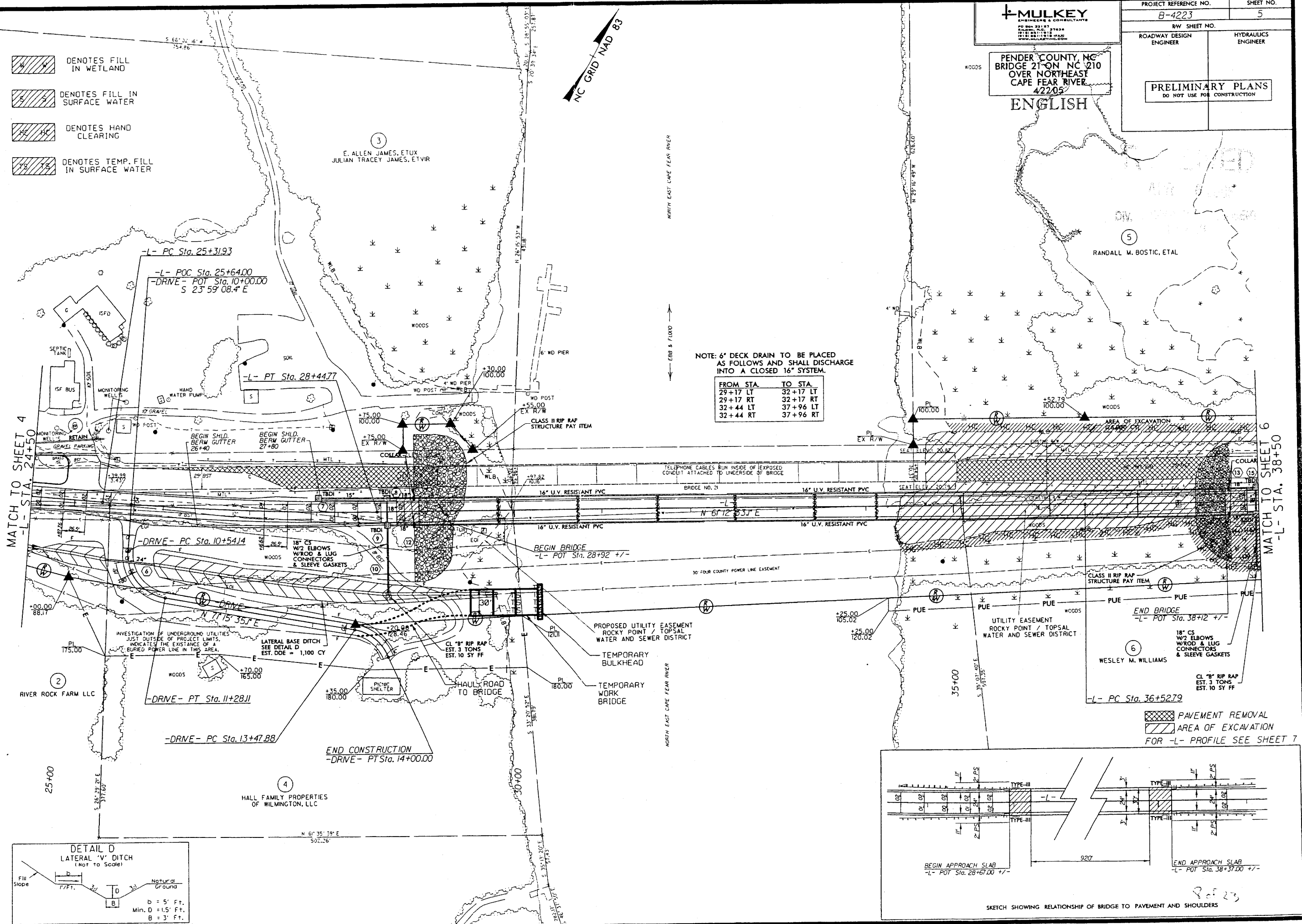
PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205  
**ENGLISH**

-  DENOTES FILL IN WETLAND
-  DENOTES FILL IN SURFACE WATER
-  DENOTES HAND CLEARING
-  DENOTES TEMP. FILL IN SURFACE WATER

NC GRID NAD 83

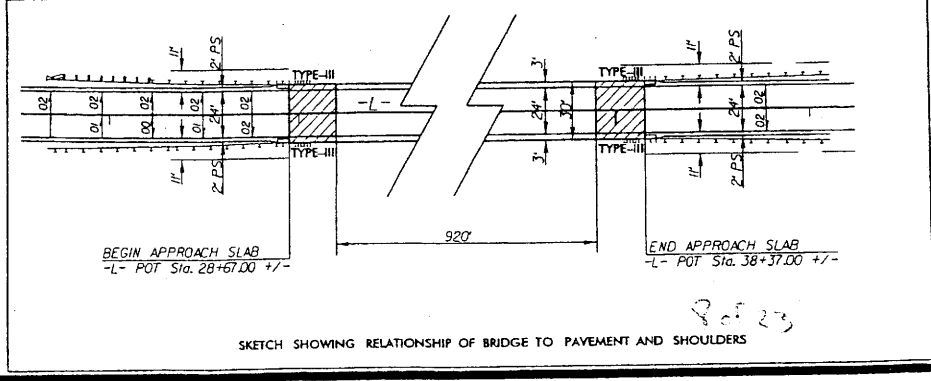
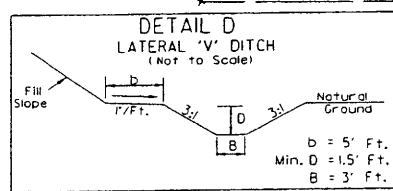
NOTE: 6" DECK DRAIN TO BE PLACED AS FOLLOWS AND SHALL DISCHARGE INTO A CLOSED 16" SYSTEM.

FROM STA.	TO STA.
29+17 LT	32+17 LT
29+17 RT	32+17 RT
32+44 LT	37+96 LT
32+44 RT	37+96 RT



MATCH TO SHEET 4  
-L- STA. 24+50

MATCH TO SHEET 6  
-L- STA. 38+50

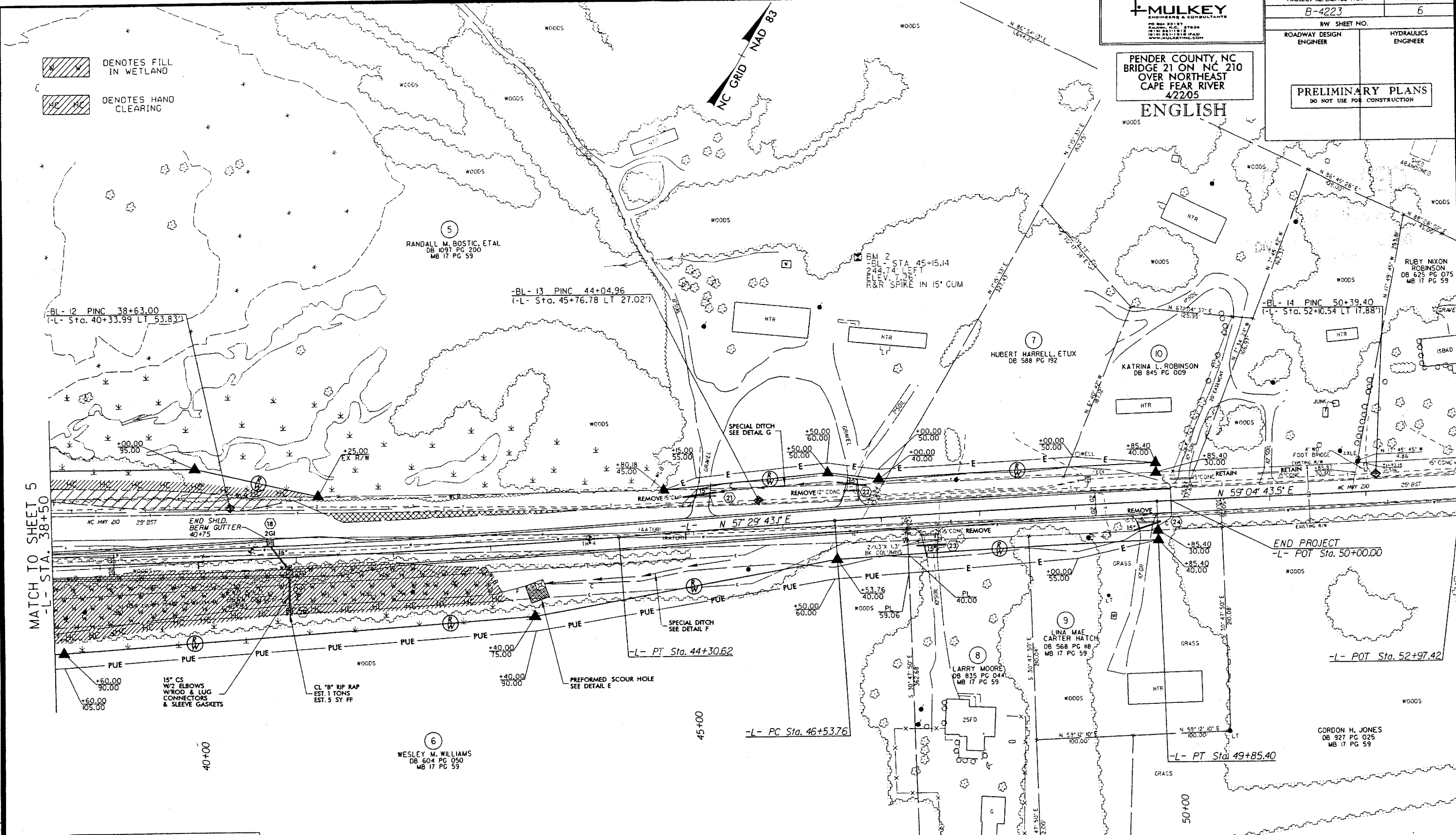


REVISIONS

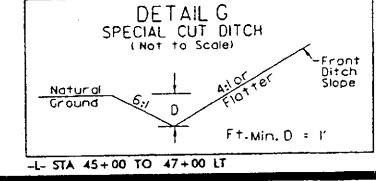
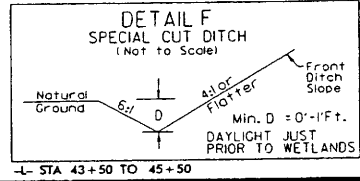
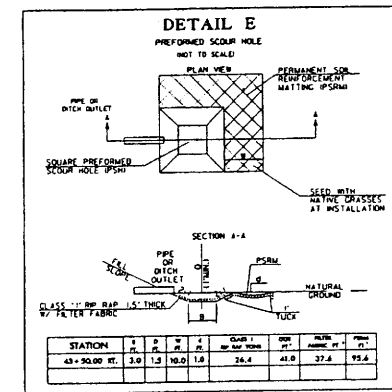
27/2005 8:36 AM  
HYDRAULICS PERMIT 4223 PERMIT 4223

PENDER COUNTY, NC  
BRIDGE 21 ON NC 210  
OVER NORTHEAST  
CAPE FEAR RIVER  
42205  
**ENGLISH**

DENOTES FILL IN WETLAND  
 DENOTES HAND CLEARING



MATCH TO SHEET 5  
-L- STA. 38+50



PAVEMENT REMOVAL  
FOR -L- PROFILE SEE SHEET B

6/27/2005 8:36:50 AM  
C:\mydrive\pender\miller\4223\plan\miller\_062005.dgn

-BL- 6  
EL = 11.68'  
8" REBAR WITH CAP

-BL- 7  
EL = 11.27'  
8" REBAR WITH CAP

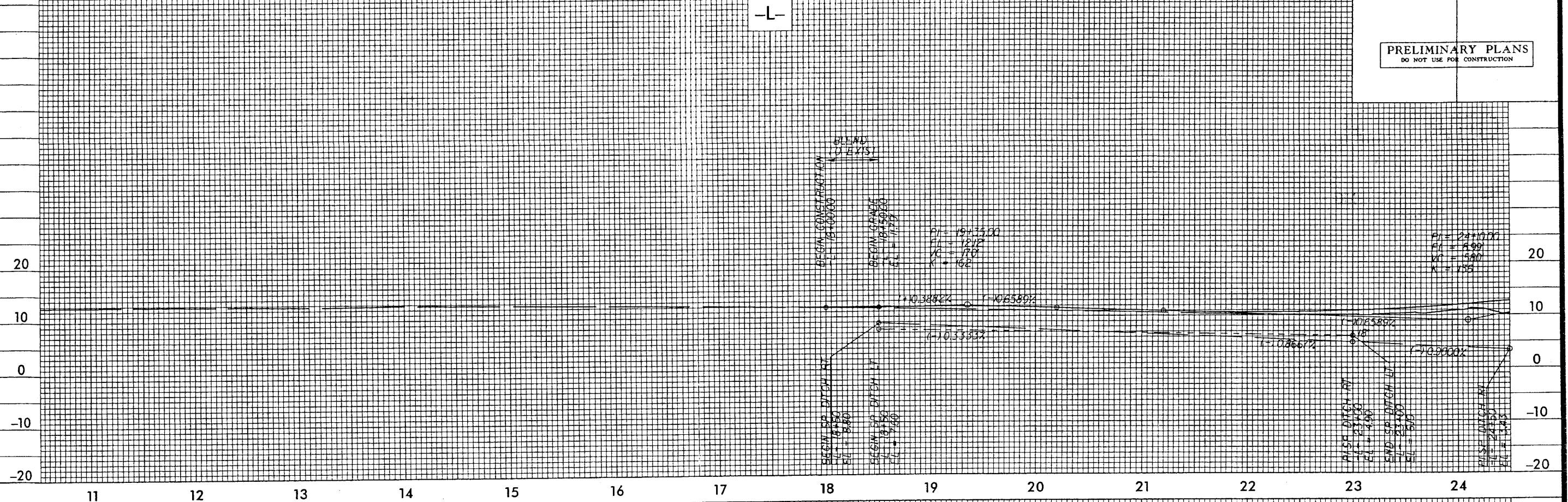
-BL- 8  
EL = 9.28'  
8" REBAR WITH CAP



PROJECT REFERENCE NO. B-4223 SHEET NO. 7

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



-BL- 9  
EL = 11.37'  
8" REBAR WITH CAP

BW-1 EL = 7.54'  
N=254216 E=2350954  
-BL- STA.24+98.00 135' LT  
-L- STA 26+57.12 187.4082' LT  
RAILROAD SPIKE SET IN BASE  
OF 18" OAK TREE.

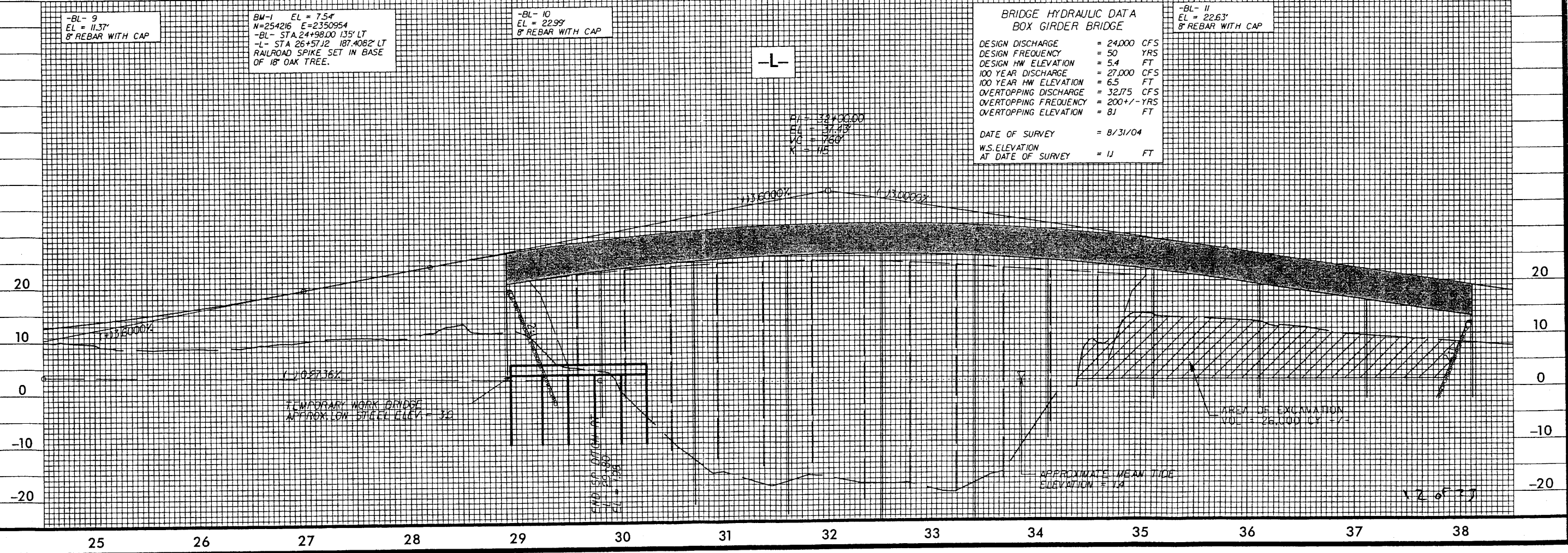
-BL- 10  
EL = 22.99'  
8" REBAR WITH CAP

BRIDGE HYDRAULIC DATA  
BOX GIRDER BRIDGE

DESIGN DISCHARGE = 24,000 CFS  
DESIGN FREQUENCY = 50 YRS  
DESIGN HW ELEVATION = 5.4 FT  
100 YEAR DISCHARGE = 27,000 CFS  
100 YEAR HW ELEVATION = 6.5 FT  
OVERTOPPING DISCHARGE = 32,715 CFS  
OVERTOPPING FREQUENCY = 200+/- YRS  
OVERTOPPING ELEVATION = 8.1 FT

DATE OF SURVEY = 8/31/04  
W.S. ELEVATION AT DATE OF SURVEY = 11 FT

-BL- 11  
EL = 22.63'  
8" REBAR WITH CAP



5/2/2005 2:05:48 PM  
C:\projects\2004\NT\1.00\B-4223\_Design\Hydr\pduca\Permit\B4223\_per.mxd, s.f.1.gpn

-BL- 12  
EL = 8.24  
8" REBAR WITH CAP

-BL- 13  
EL = 6.82  
8" REBAR WITH CAP

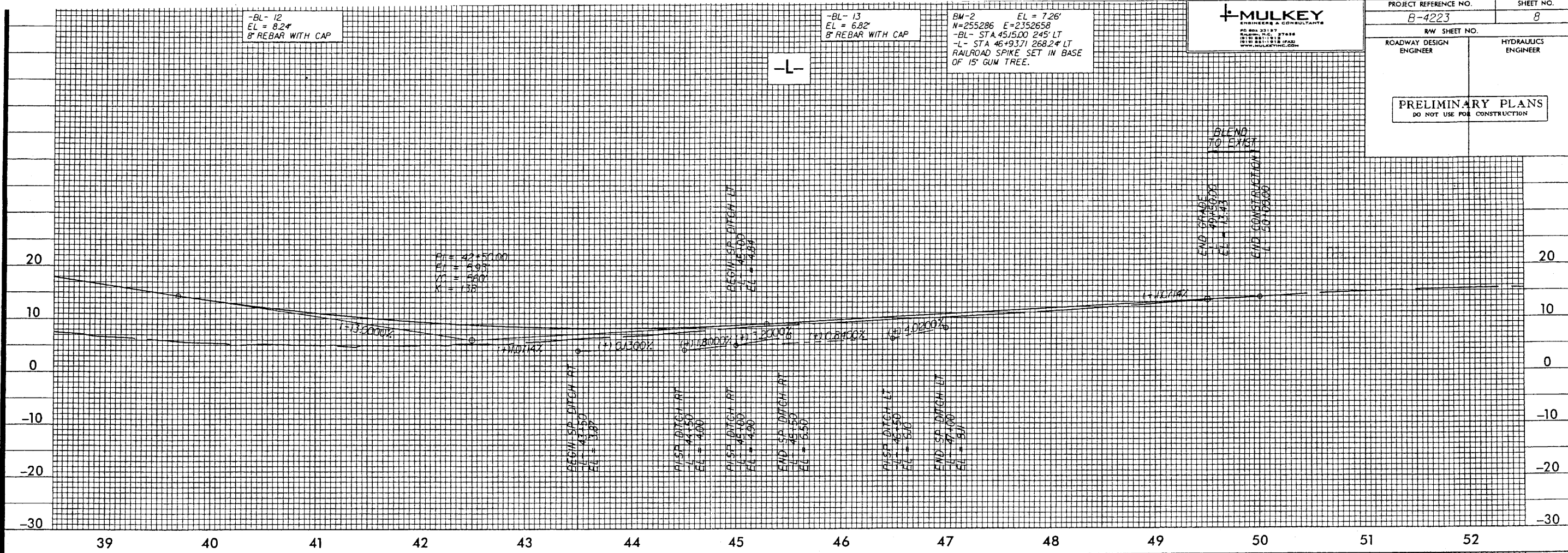
BM-2 EL = 7.26'  
N=255286 E=2352658  
-BL- STA 45+50.00 245' LT  
-L- STA 46+93.71 268.24' LT  
RAILROAD SPIKE SET IN BASE  
OF 15' GUM TREE.



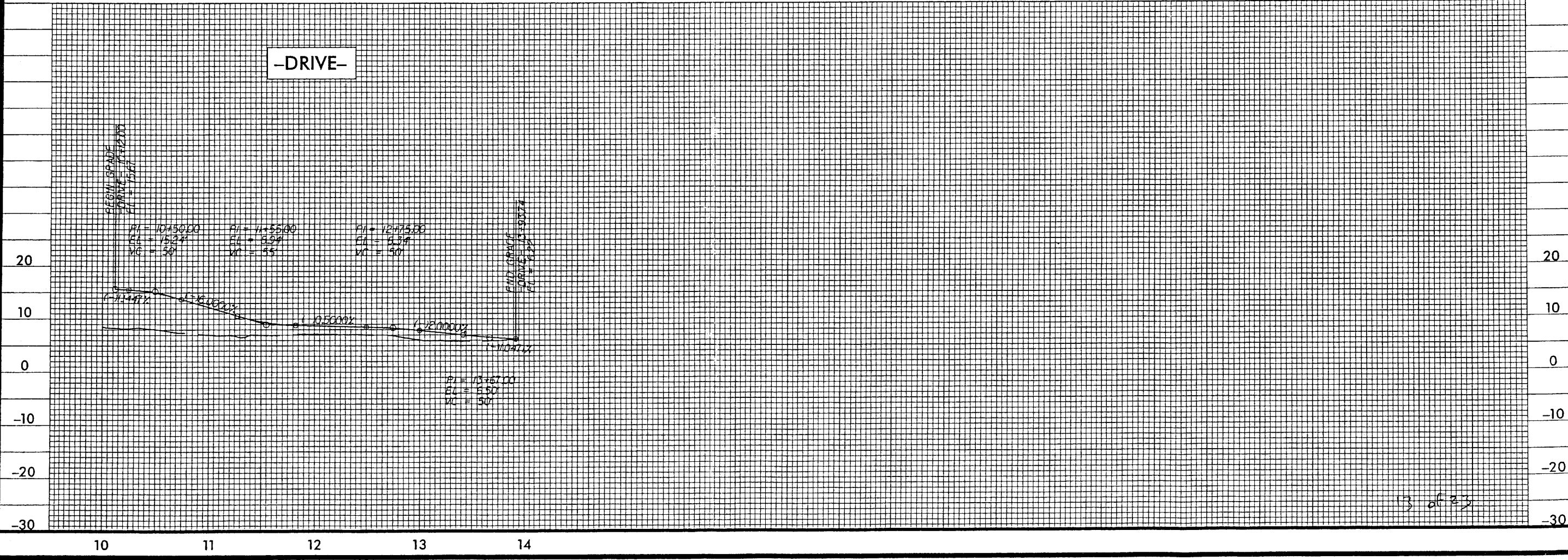
PROJECT REFERENCE NO. B-4223 SHEET NO. 8

R/W SHEET NO. ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



-DRIVE-



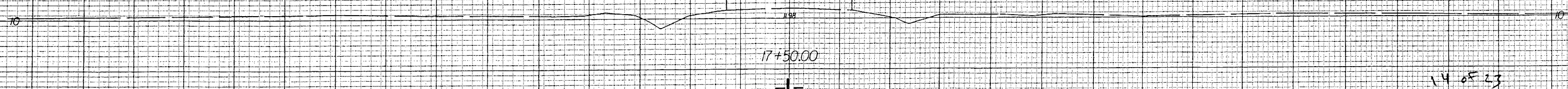
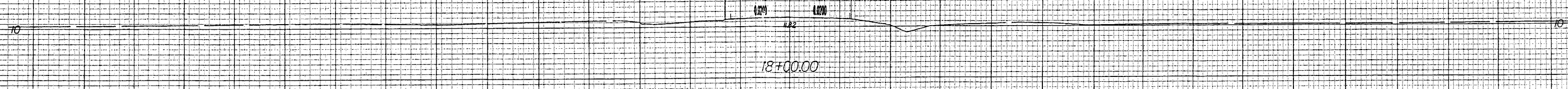
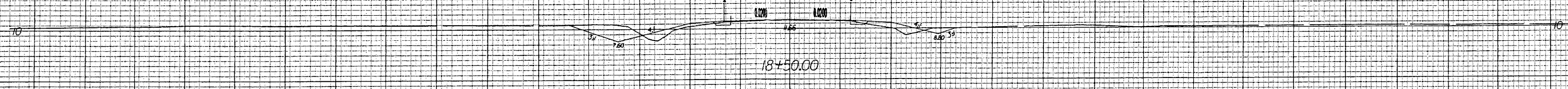
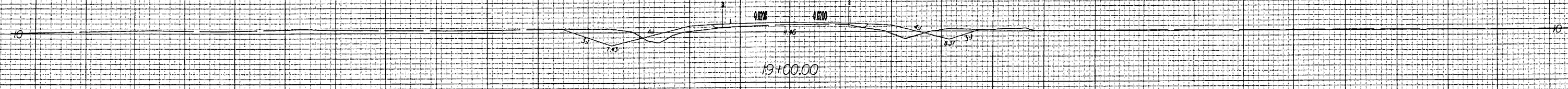
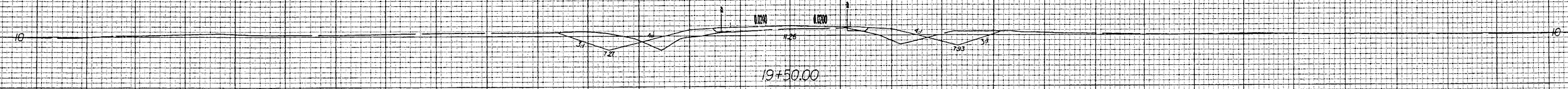
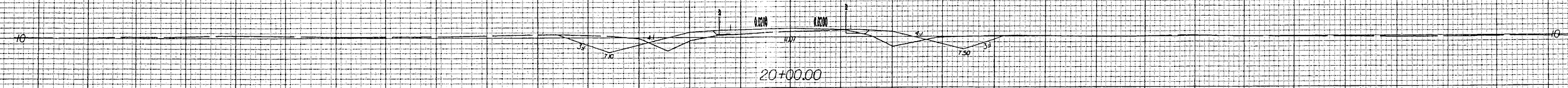
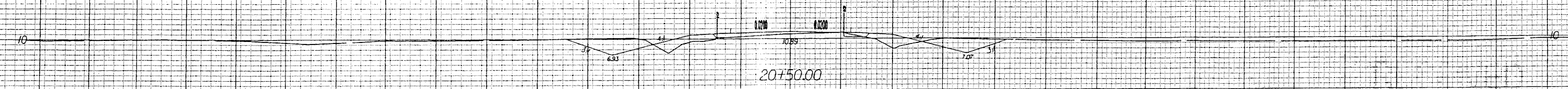
13 of 23



PROJ. REFERENCE NO.  
B-4223

SHEET NO.  
X-2

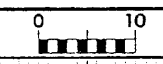
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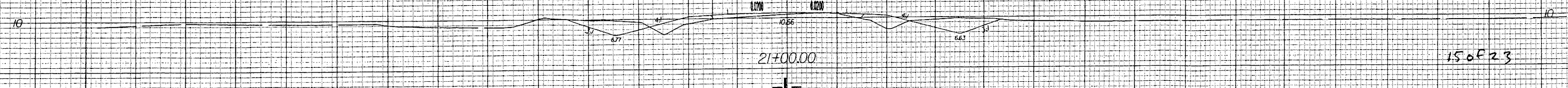
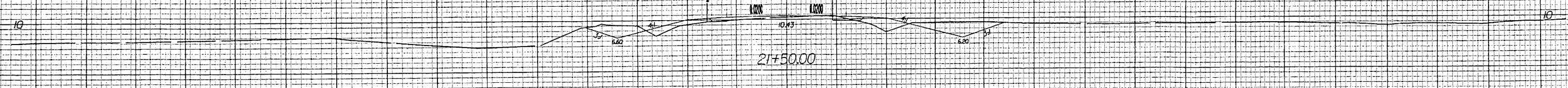
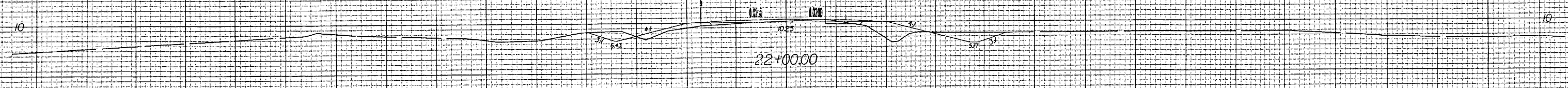
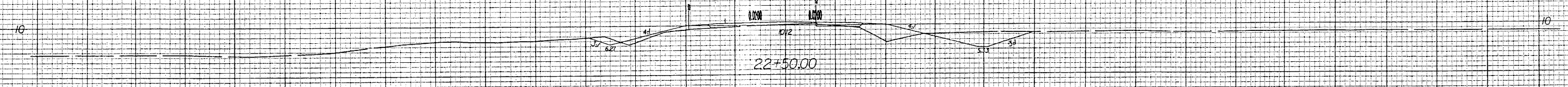
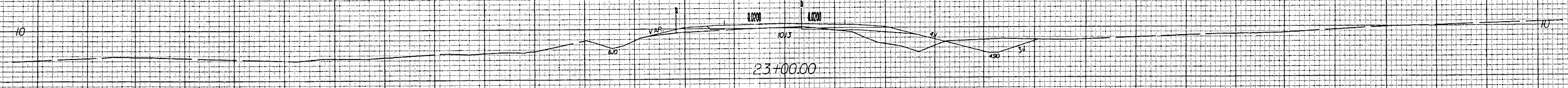
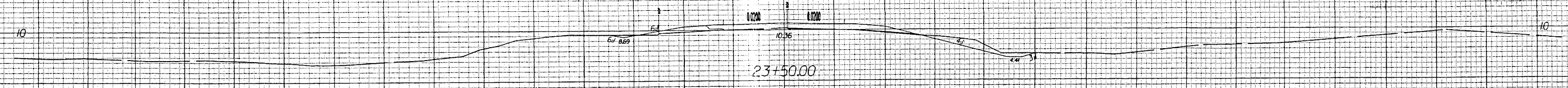
-L-

14 05 23

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



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



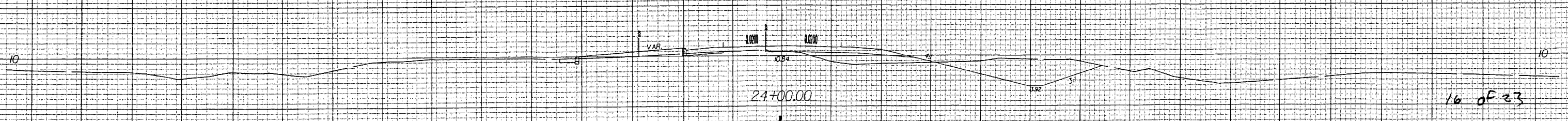
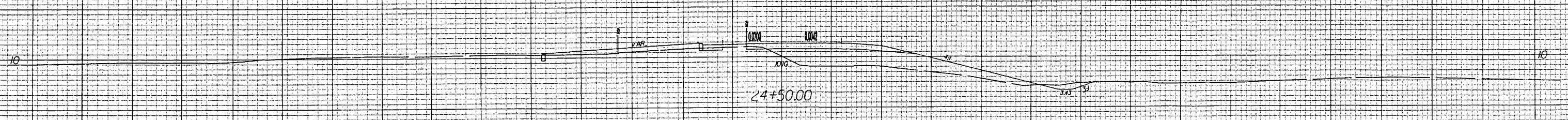
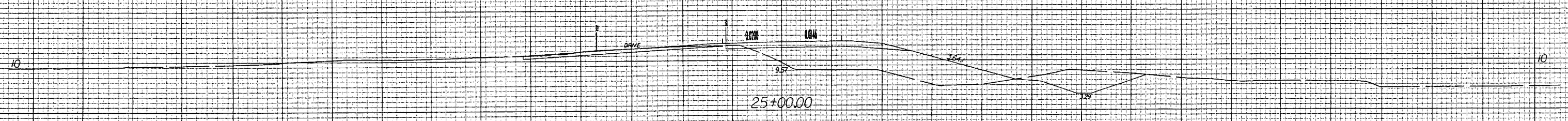
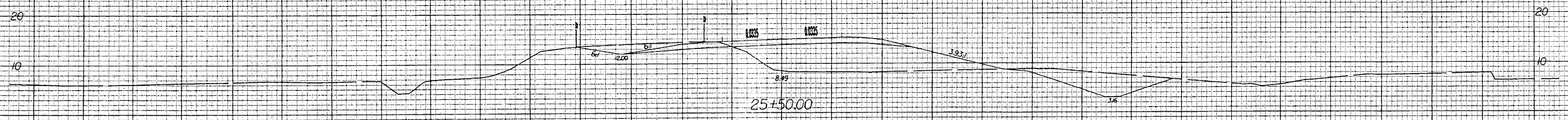
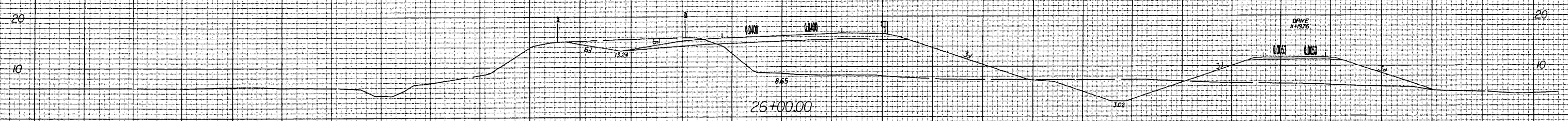
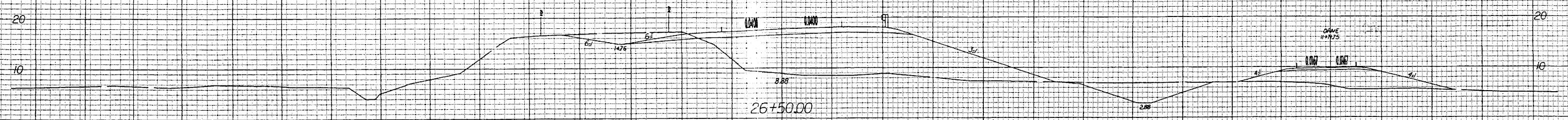
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150F23

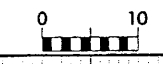




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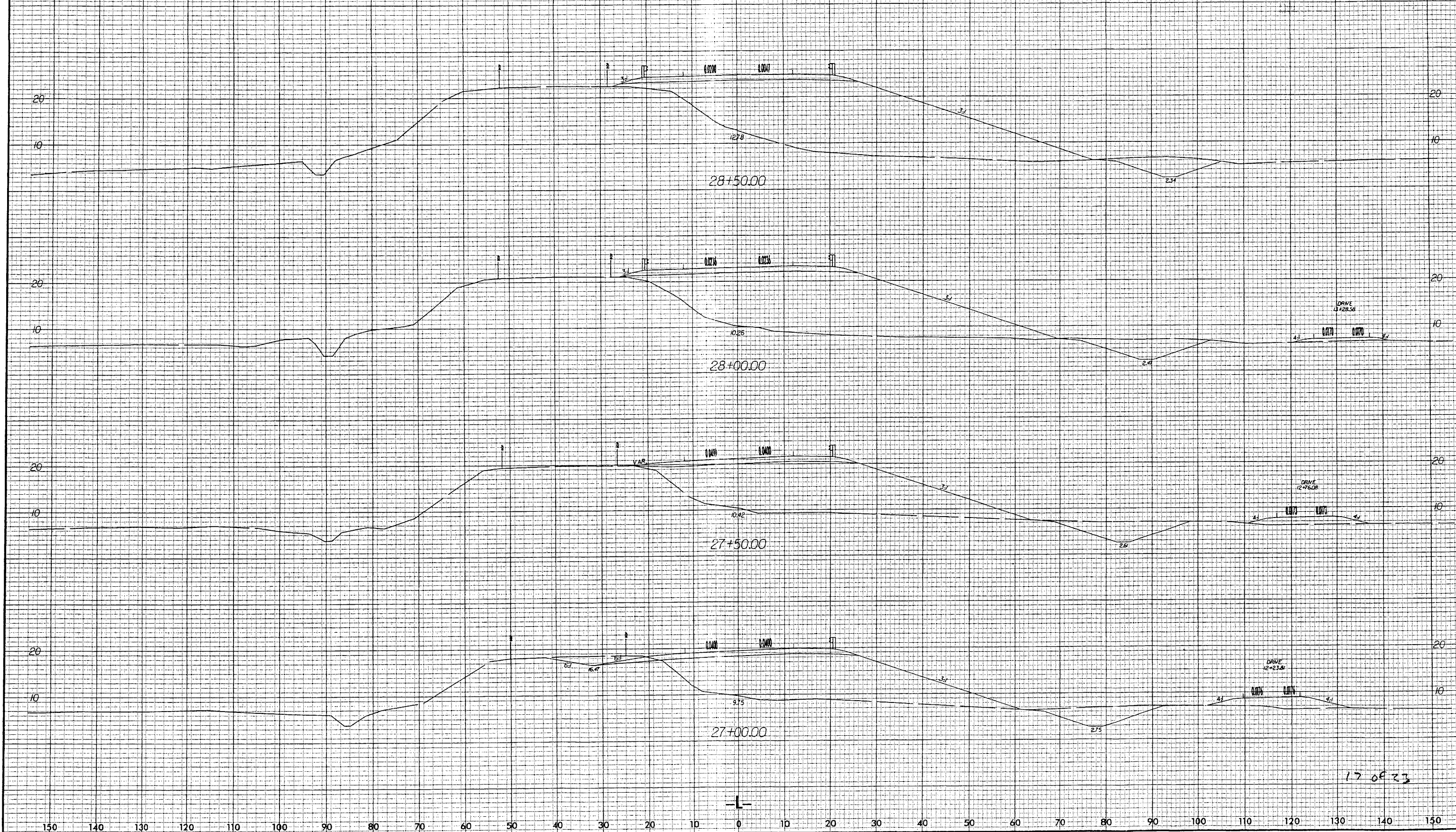


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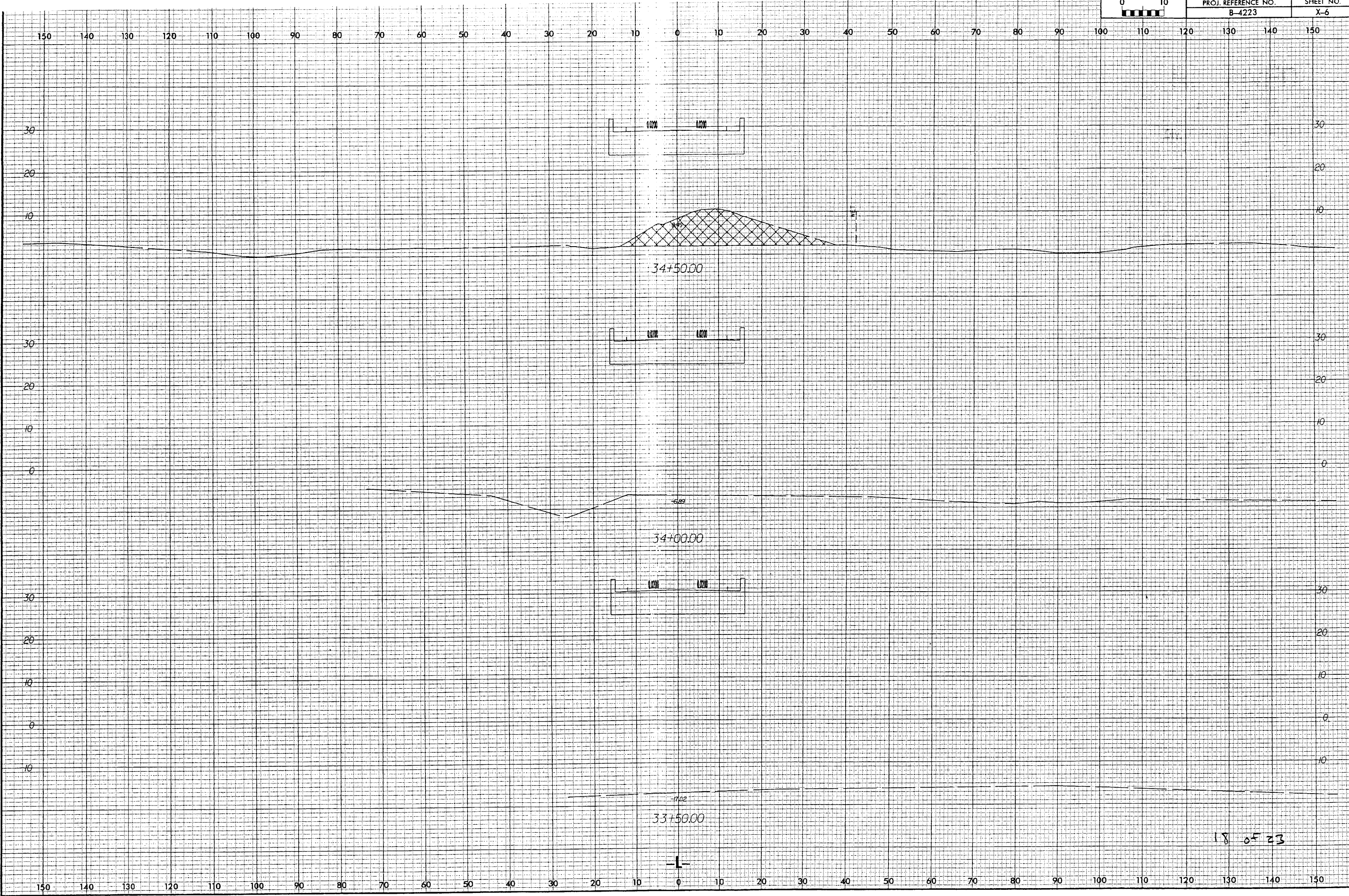
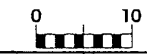


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BEGIN BRIDGE -L- STA. 28+92.00



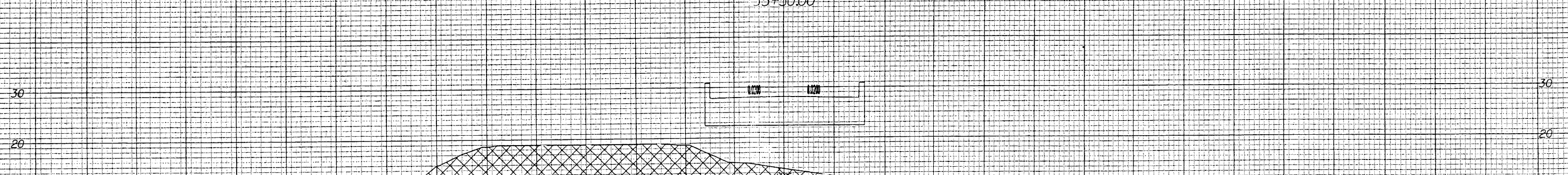
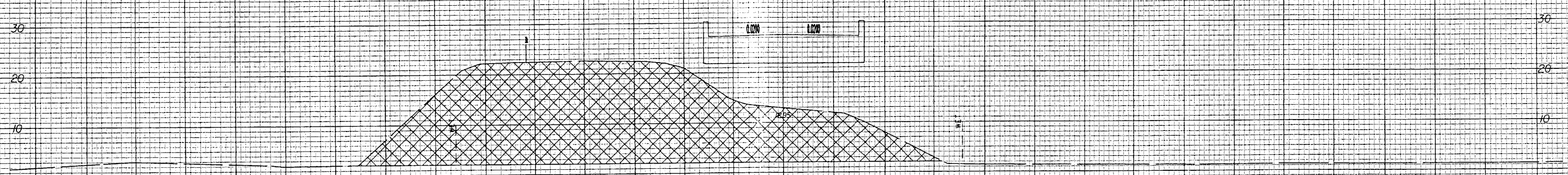
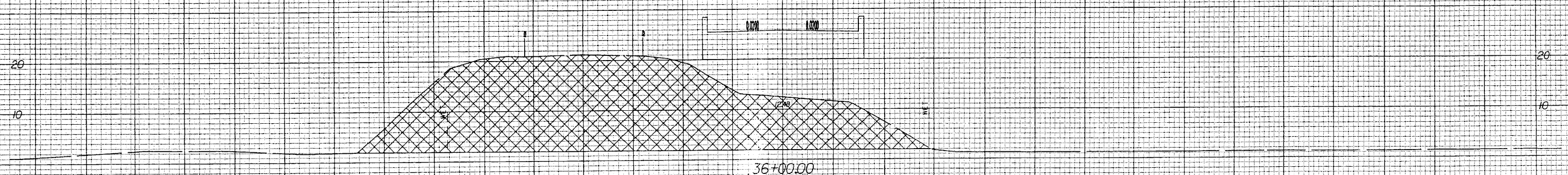
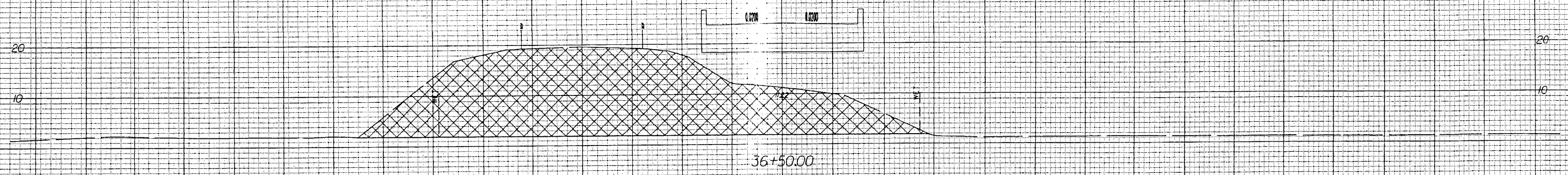
17 08 23



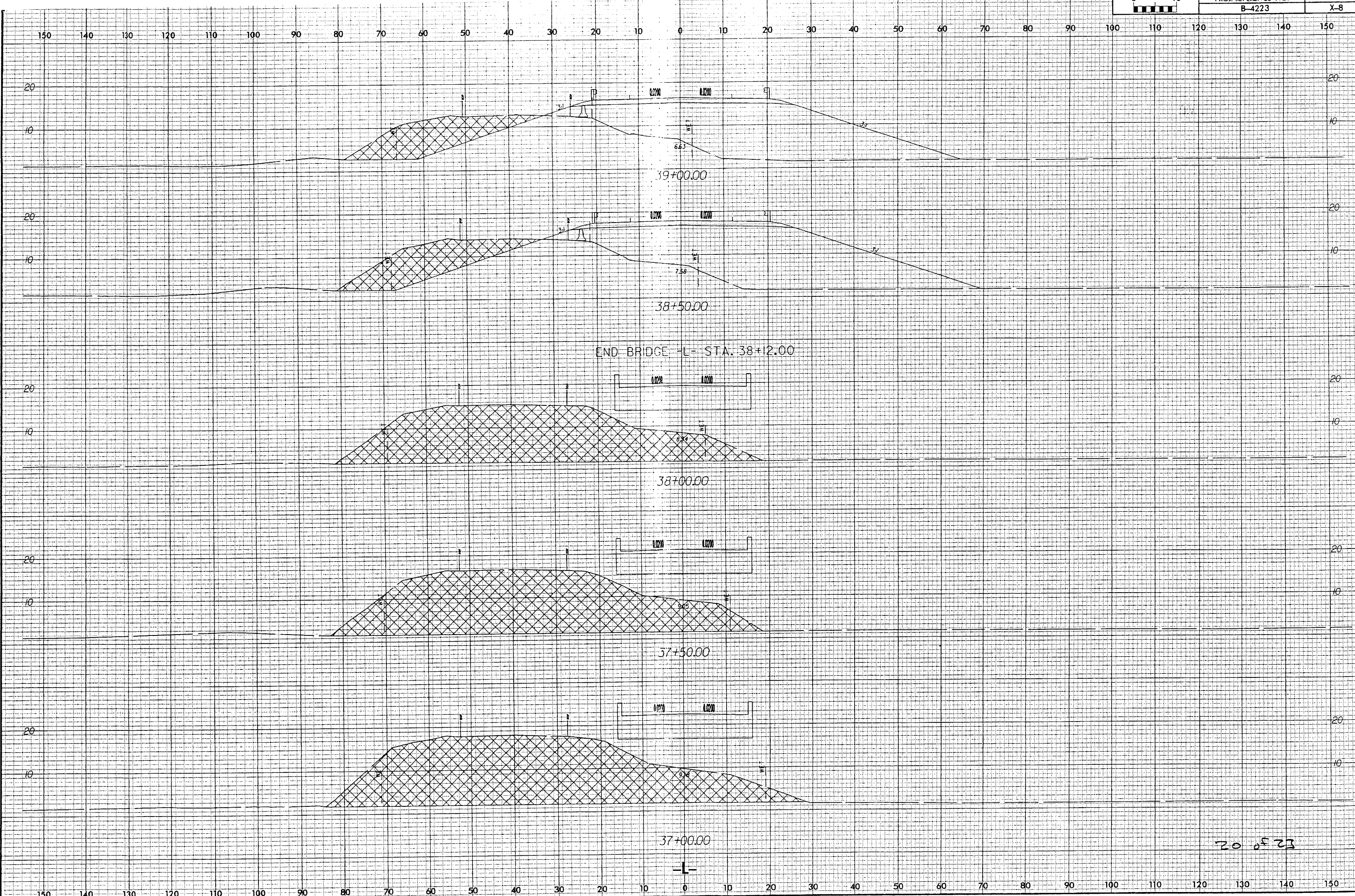
18 of 23



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



39+00.00

38+50.00

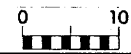
END BRIDGE = L = STA. 38+12.00

38+00.00

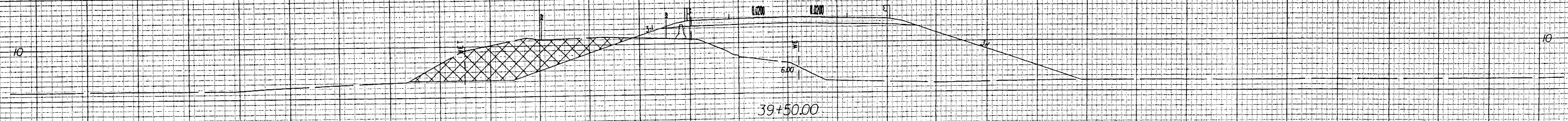
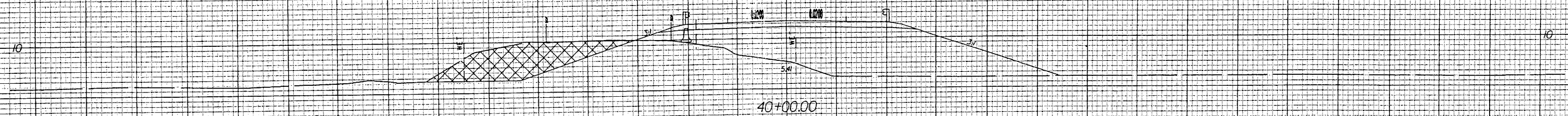
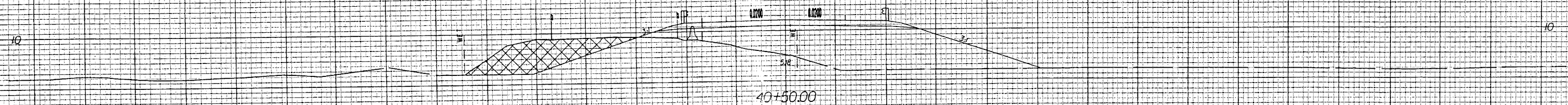
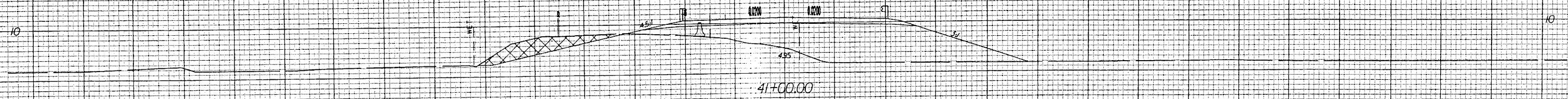
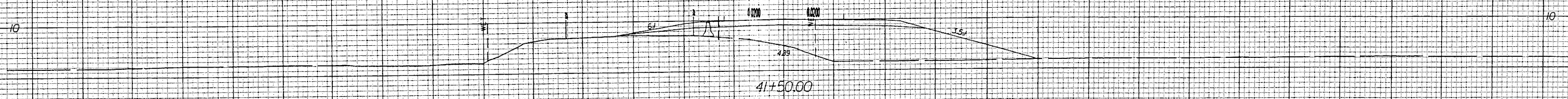
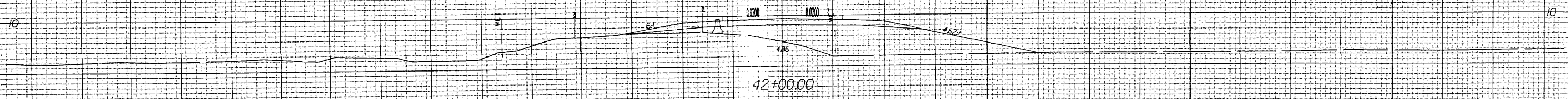
37+50.00

37+00.00

20 of 23



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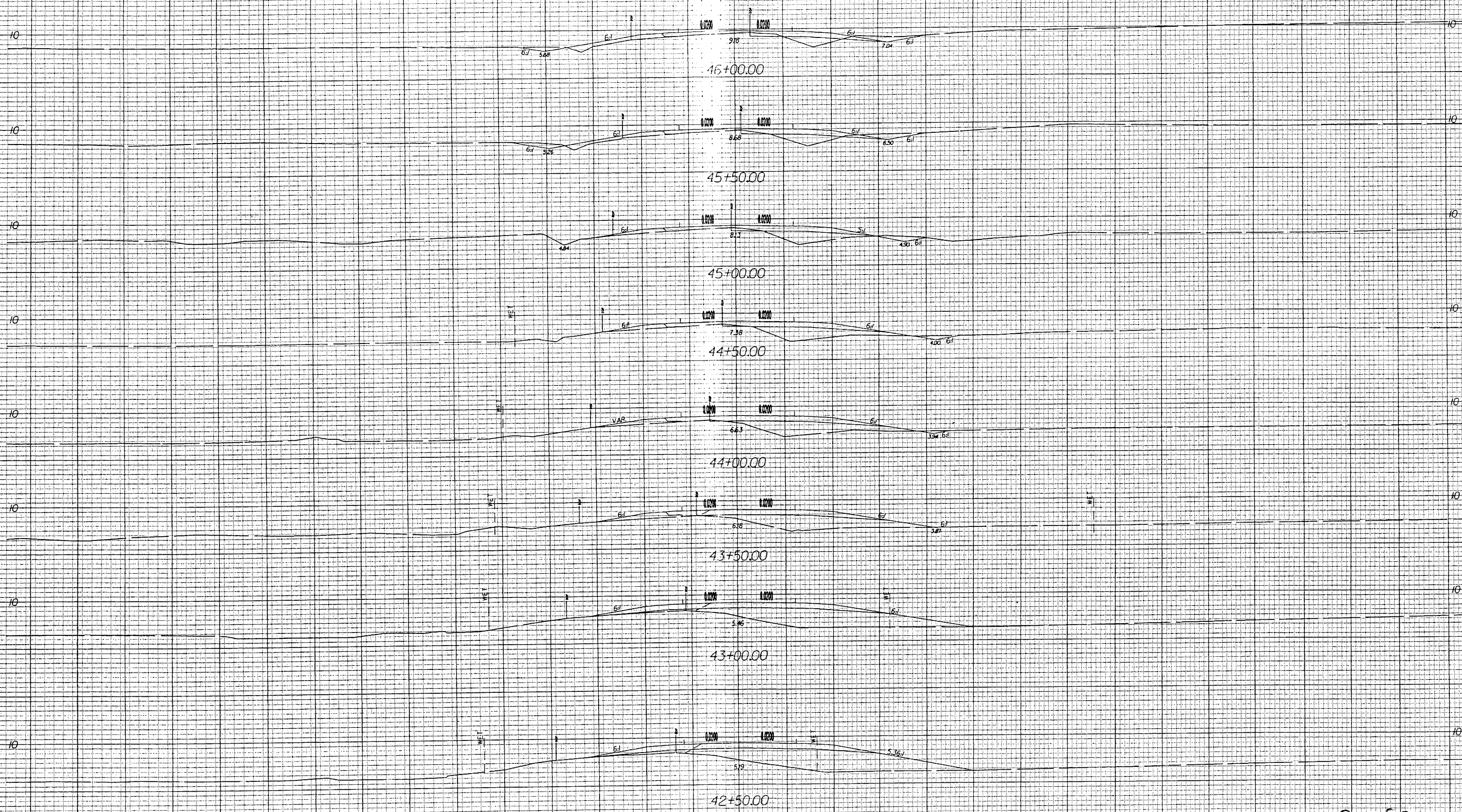


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21 of 23

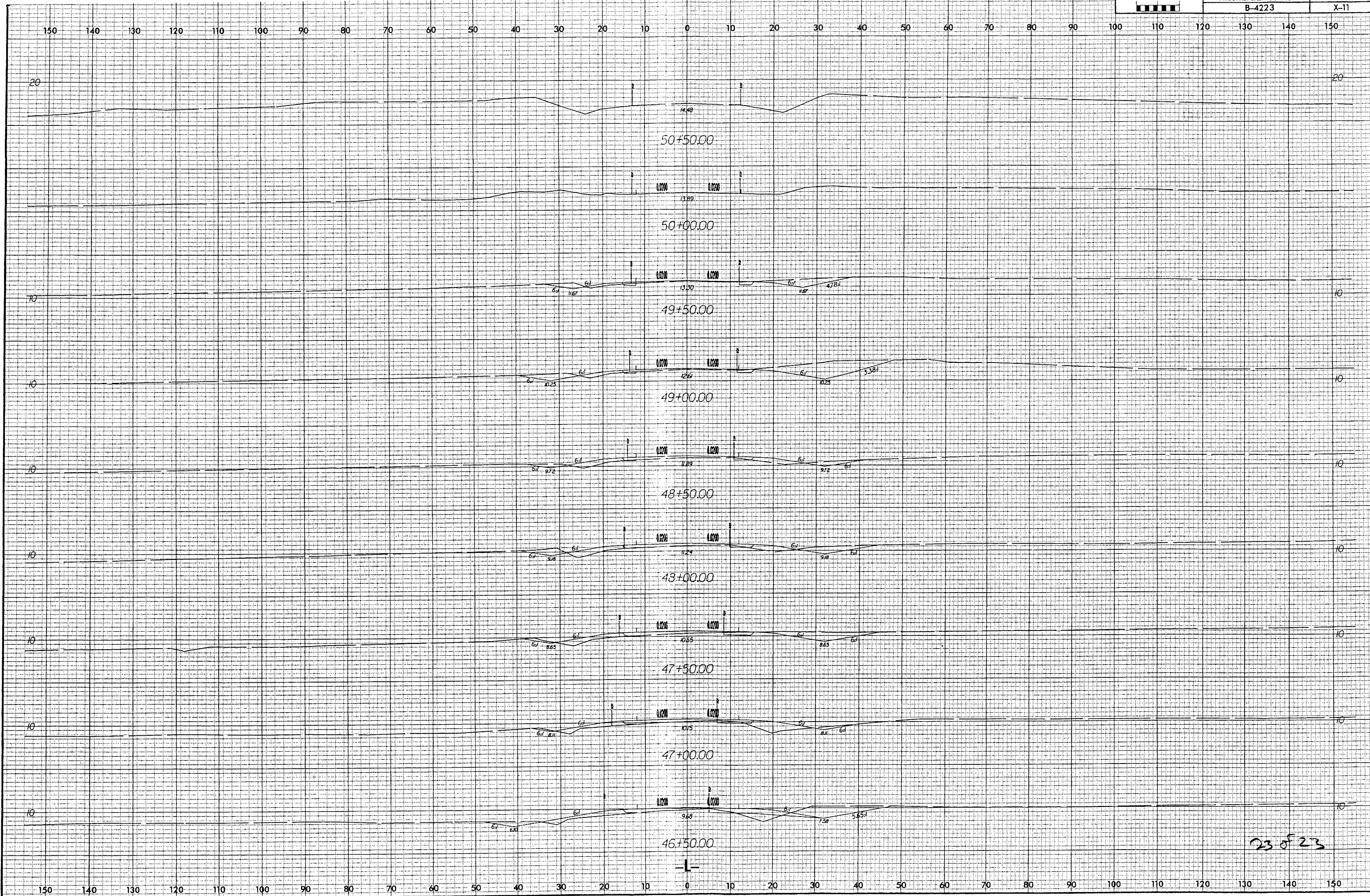


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22 of 23

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



23 of 23