



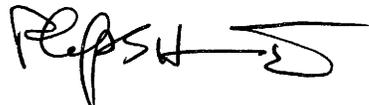
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

November 16, 2007

MEMORANDUM TO: Mr. Michael A. Pettyjohn, PE
Division 11 Engineer

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

SUBJECT: Wilkes County, Construction of a New Rest Station on US
421; T.I.P. Number K-4703; Federal Aid Project NHS-
421(32); WBS No. 36401.1

Attached is the U. S. Army Corps of Engineers 404 Individual Permit and the special conditions for the 401 Water Quality Certification 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
Ms. Teresa Hart, P.E., PDEA Western Region Unit Head
Mr. Heath Slaughter, Division Environmental Officer

**CONSTRUCTION OF A NEW REST
STATION ON US 421
WILKES COUNTY, NORTH CAROLINA
FEDERAL AID PROJECT NUMBER. NHS-421(32)
WBS NUMBER 36401.1
T.I.P. NUMBER K-4703**

PROJECT COMMITMENTS

In addition to Section 404 Individual Permit General Conditions and Section 401 Water Quality Conditions the following special commitments have been agreed to by NCDOT:

Commitments Developed during Project Development

No special conditions have been developed.

Commitments Developed during Permitting

Project Development and Environmental Analysis Branch – Natural Environment Unit

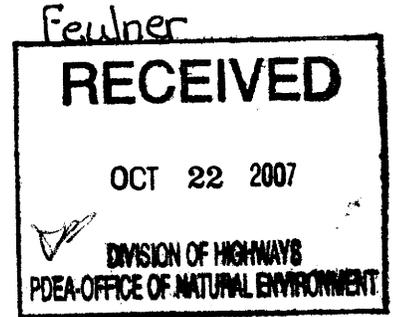
Pursuant to the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 576 linear feet of restoration equivalent cool water stream channel in the Yadkin River Basin (Hydrologic Cataloging Unit 03040101) by one year of the date of this permit. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to Ecosystem Enhancement Program (EEP) to complete the required mitigation, pursuant to Paragraph V. of the MOA.

NCDOT understands that sufficient funds have been provided for the required mitigation and EEP will have the responsibility to provide the mitigation in the timeframe agreed upon.

K-4703



DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
P.O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890



IN REPLY REFER TO

October 18, 2007

Regulatory Division

Action ID: SAW-2007-02093

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

Dear Dr. Thorpe:

Enclosed is a Department of the Army permit to authorize the proposed permanent placement of fill material into 576 linear feet of streams exhibiting important aquatic functions and 81 linear feet of stream channel not exhibiting important aquatic functions associated with the construction of the US 421 rest station. The project is located to the north of US 421 between NC Highway 115 and NC Highway 18, near Wilkesboro, Wilkes County, North Carolina.

Any deviation in the authorized work will likely require modification of this permit. If a change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

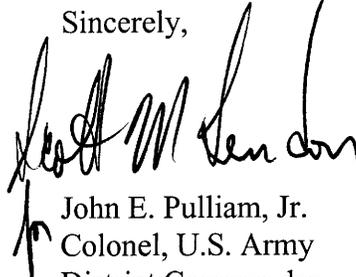
Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant conditions require that:

- a. You must complete construction before December 31, 2012.
- b. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You must notify this office in advance as to when you intend to commence and complete work.

You should address all questions regarding this authorization to Mr. Monte Matthews, Raleigh Regulatory Division, telephone (919) 876-8441, extension 30.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Pulliam, Jr.", is written over the typed name and title.

John E. Pulliam, Jr.
Colonel, U.S. Army
District Commander

Enclosures

Copy Furnished (with enclosures):

Chief, Source Data Unit
NOAA/National Ocean Service
ATTN: Sharon Tear N/CS261
1315 East-West Hwy., Rm 7316
Silver Spring, MD 20910-3282

Copies Furnished (with special conditions and plans):

Mr. Ronald J. Mikulak, Chief
Wetlands Regulatory Section
61 Forsyth Street
Atlanta, Georgia 30303

Mr. Pete Benjamin
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

Mr. Ron Sechler
National Marine Fisheries Service
Pivers Island
Beaufort, North Carolina 28516

Mr. Doug Huggett
Division of Coastal Management
North Carolina Department of
Environment and Natural Resources
400 Commerce Avenue
Morehead City, North Carolina 28557

Mr. David Rackley
National Marine Fisheries Service
219 Fort Johnson Road
Charleston, South Carolina 29412-9110

DEPARTMENT OF THE ARMY PERMIT

RECEIVED

Permittee: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DR. GREGORY THORPE

OCT 16 2007
REGULATORY
WILM.FLD.OFC.

Permit No: SAW-2007-02093

Issuing Office: USAED, WILMINGTON

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of the office acting under the authority of the commanding officer.

You are authorized to perform work in the accordance with the terms and conditions specified below.

Project Description: The proposed activity would involve the construction of a new rest station. This would include the creation of entrance and exit ramps, deceleration and acceleration lanes, associated buildings, and all required utilities. Total impacts from this proposal are 657 linear feet of stream channel, of which 576 were considered perennial and exhibiting important aquatic functions by the regulatory agencies. A final Programmatic Categorical Exclusion (CE) was approved by the Federal Highway Administration (FHEA) on September 28, 2007. To mitigate for all unavoidable impacts to jurisdictional features, the applicant has proposed payment into the North Carolina Ecosystem Enhancement Program (NCEEP) in the amount to restore 576 linear feet of cool water streams in the Yadkin River basin (Hydrologic Cataloging Unit 03040101). By letter dated August 17, 2007, the NCEEP has agreed to provide the stream restoration stated above.

Project Location: The project, known as the Rest Area Northbound on US 421, is located along the northside of US 421 Bypass halfway between the NC 115 interchange and the Edgewood Road overpass in Wilkesboro, Wilkes County. The proposed site comprises 30 acres and is found at Latitude and Longitude in Decidegrees 36.1344° N; 81.1224° W. The site is located within the Yadkin River Basin, Hydrologic Unit 03040101.

Permit Conditions:

General Conditions:

1. The time Limit for completing the work authorized ends on December 31, 2012. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Conditions 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal

and state coordination required to determine if the remains warrant a recovery effort or if the site eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

*SEE ATTACHED SPECIAL CONDITIONS

Further Information:

1. **Congressional Authorities:** You have been authorized to undertake the activity described above pursuant to:
 - () Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. C. 403).
 - (X) Section 404 of the clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. **Limits of this authorization.**
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United states in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.

SPECIAL CONDITIONS (Action ID. SAW 2007-02093; NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, DR. GREGORY THORPE)

I. WORK LIMITS

- a) All work authorized by this permit must be performed in strict compliance with the attached plans, which are a part of this permit. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.
- b) 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. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.
- c) 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 waters or wetlands or to reduce the reach of waters or wetlands.

II. RELATED LAWS

- d) All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

III. PROJECT MAINTENANCE

- e) The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.
- f) Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used.
- g) 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. A copy of this permit, including all conditions, shall be available at the project site during construction and maintenance of this project

h) The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).

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.

During the clearing phase of the project, heavy equipment must not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodable materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.

i) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

IV. ENFORCEMENT

j) Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.

V. CONSTRUCTION PLANS

k) The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached 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, Raleigh Regulatory Field Office prior to any active construction in waters or wetlands.

l) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

VI. COMPLIANCE WITH SPECIAL CONDITIONS

m) Failure to institute and carry out the details of these special conditions, 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.

VII. WET CONCRETE

n) The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.

VIII. CULVERTS

o) Measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. 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 in connection with the construction activity. The width, height, and gradient of a proposed opening should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain the existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert. A waiver from the depth specifications in this condition may be requested in writing. The waiver will be issued if it can be demonstrated that the proposal would result in the least impacts to the aquatic environment.

IX. PRECONSTRUCTION MEETING

p) The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Raleigh 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, Raleigh Regulatory Field Office, NCDOT Regulatory Project Manager, with a copy of the final plans at least two weeks prior to the preconstruction 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 schedule the preconstruction meeting for a time when the USACE and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall invite the Corps and NCDWQ Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

X. BORROW AND WASTE

q) 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 all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any 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 Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with Special Condition b) 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 Special Condition b). 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.

XI. MITIGATION

r) Compensatory mitigation for the unavoidable impacts to 657 linear feet of stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated August 17, 2007, from William D. Gilmore, EEP Director. Pursuant to the EEP Memorandum of Agreement (MOA)

between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 576 linear feet of restoration equivalent cool water stream channel in the Yadkin River basin (Hydrologic Cataloging Unit 03040101) by one year of the date of this permit. The NCDOT shall, within 30 days of the issue date of this permit, certify that sufficient funds have been provided to EEP to complete the required mitigation, pursuant to Paragraph V. of the MOA.

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WILKES COUNTY

LOCATION: NEW REST AREA - NORTHBOUND US 421
WEST OF NC 115

TYPE OF WORK: GRADING, PAVING, AND DRAINAGE

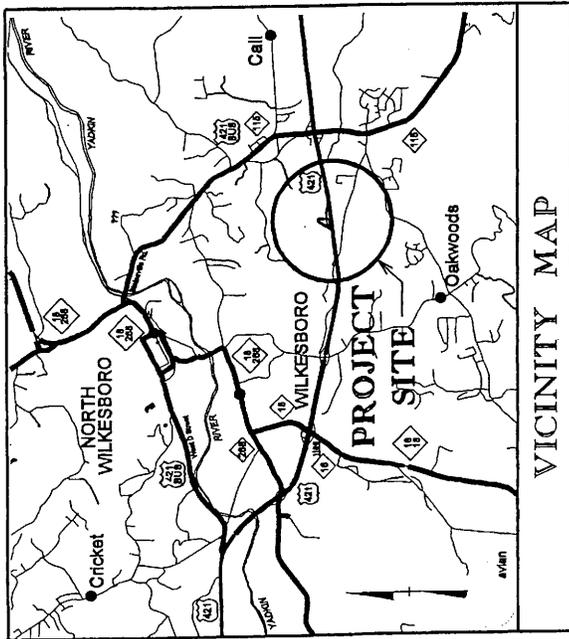
WETLAND PERMIT
DRAWINGS 01/09/07

RALEIGH REGULATORY FIELD OFFICE

STATE	N.C.	PROJECT NUMBER	K-4703
COUNTY	WILKES	SECTION	I
DISTRICT	34401.1.1	PLAN NUMBER	NHS-421(82)
DESIGNER		PROFESSION	PE
DATE	AUG 08 2007		

RECEIVED

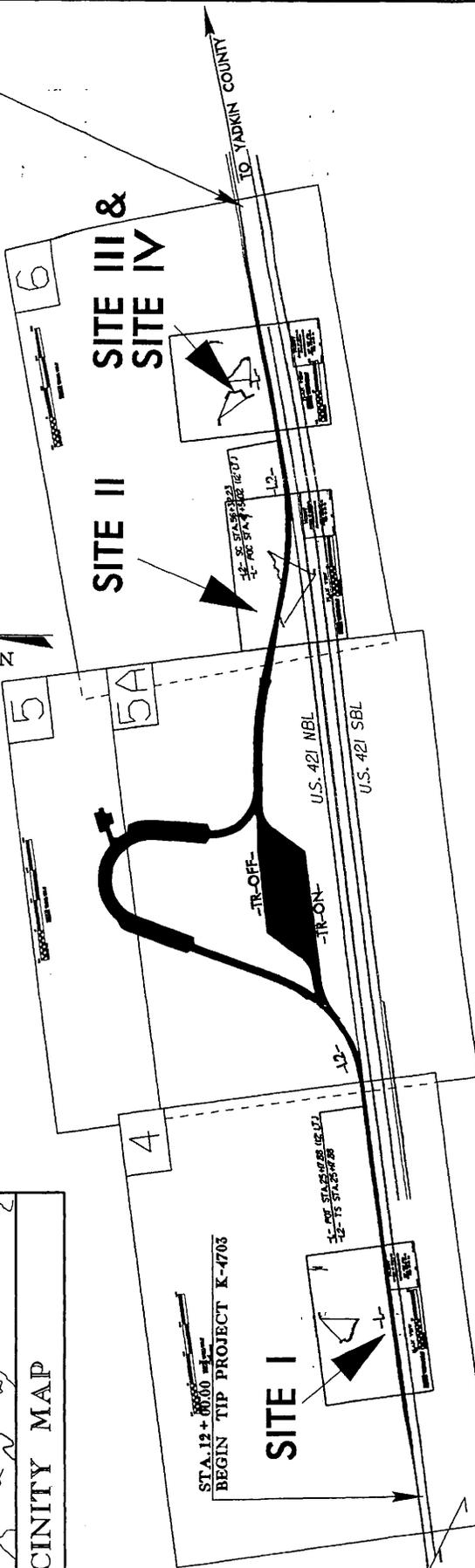
AUG 08 2007



VICINITY MAP

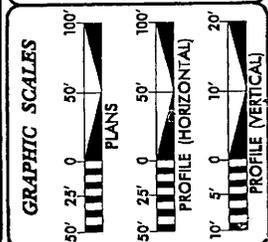


STA. 55 + 00.00 -1-
END TIP PROJECT K-4703



THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES
NOTE: CLEARING ON THIS PROJECT SHOULD BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD _____

Permit Drawing
Sheet 1 of 4



DESIGN DATA

ADT 2007	= 1000
ADT 2030	= 1500
DH V	= 11%
D	= 100%
T	= 32%
V	= 20MPH
FUNC. CLASS.	= REST AREA
	* TTST 28% DUAL 4%

PROJECT LENGTH

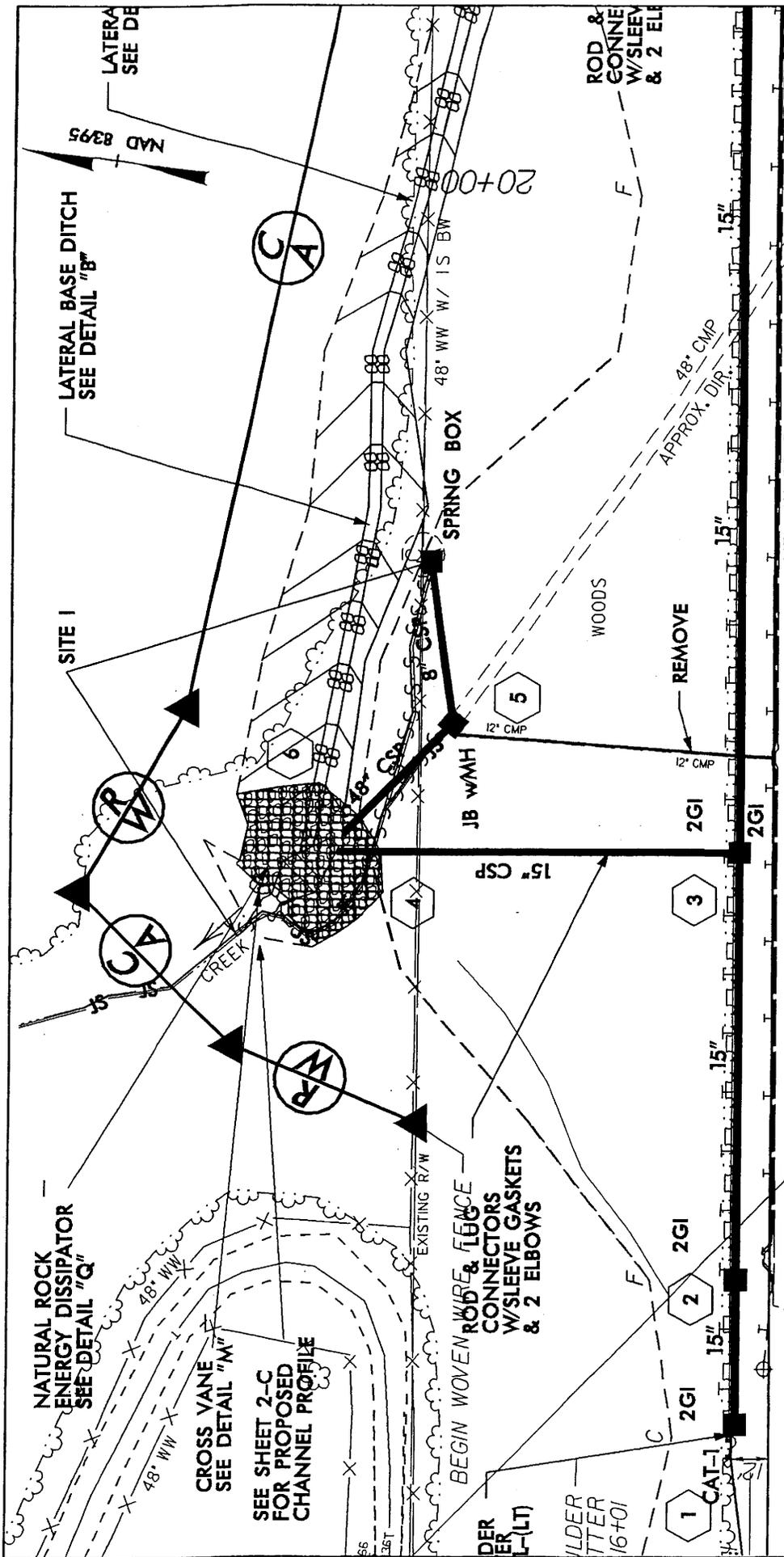
LENGTH ROADWAY TIP PROJECT K-4703	= 0.981 MILES
TOTAL LENGTH OF TIP PROJECT K-4703	= 0.981 MILES

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

2004 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	N/A
LETTING DATE:	SEPTEMBER 18, 2007
HYDRAULICS ENGINEER	ROGER D. THOMAS, P.E. PROJECT ENGINEER
ROADWAY DESIGN ENGINEER	MICHAEL W. LITTLE, P.E. PROJECT DESIGN ENGINEER

STATE HIGHWAY DESIGN ENGINEER

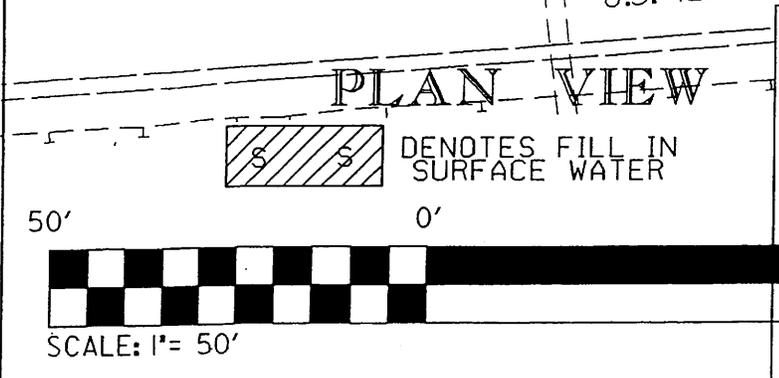
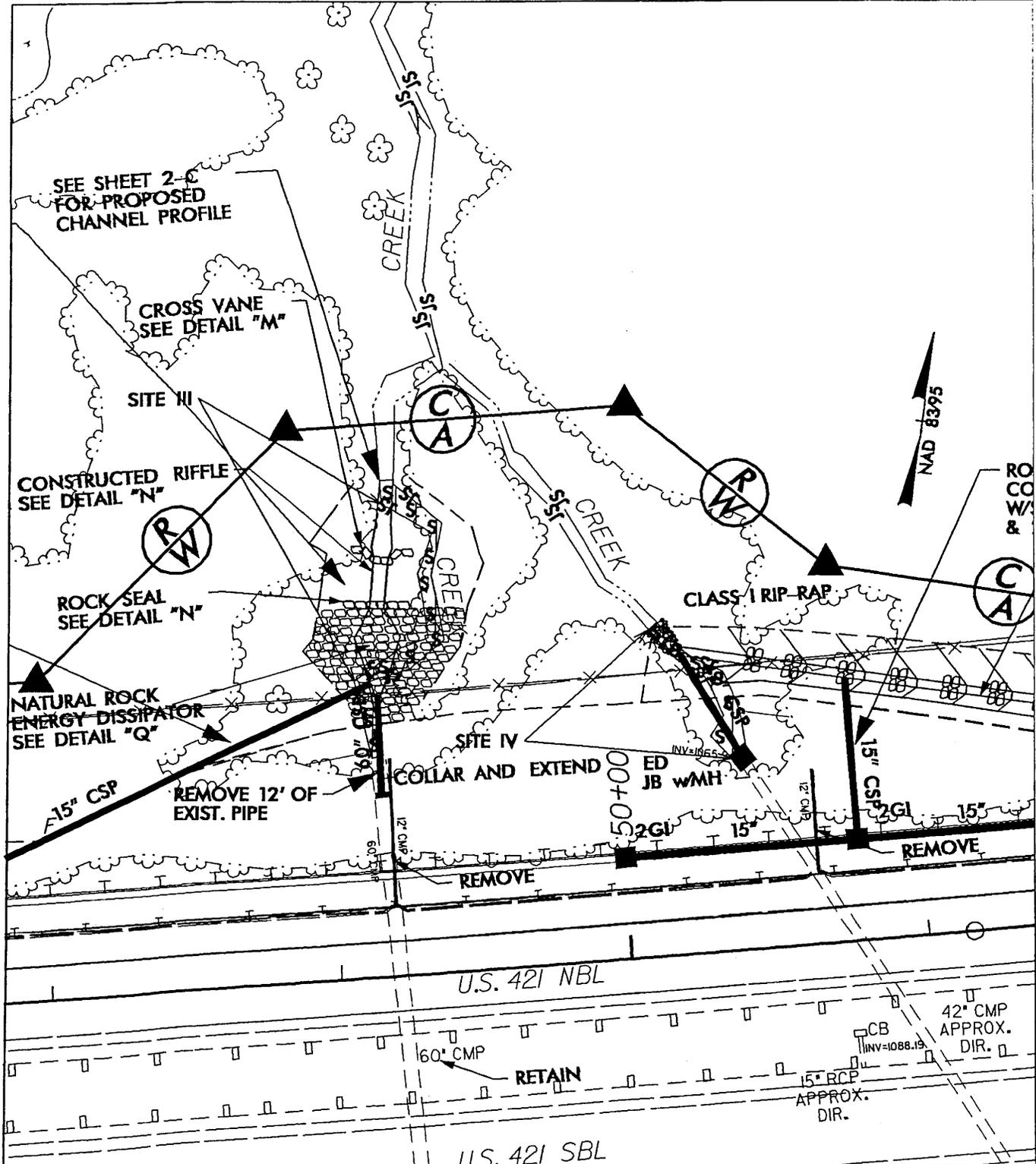
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



NCDOT
 DIVISION OF HIGHWAYS
 WILKES COUNTY
 PROJECT: 36-401.1.1 (K-4703)
 NEW REST AREA
 NORTH BOUND US 421
 WEST OF NC 116

SHEET **2** OF **4**
 REV. 05/21/07
 04/09/07

PLAN VIEW
 SCALE: 1" = 50'
 DENOTES FILL IN SURFACE WATER
 50' 0' 50'



NCDOT
 DIVISION OF HIGHWAYS
 WILKES COUNTY
 PROJECT: 36401.11 (K-4703)
 NEW REST AREA
 NORTH BOUND US 421
 WEST OF NC 115

SHEET 4 OF 4

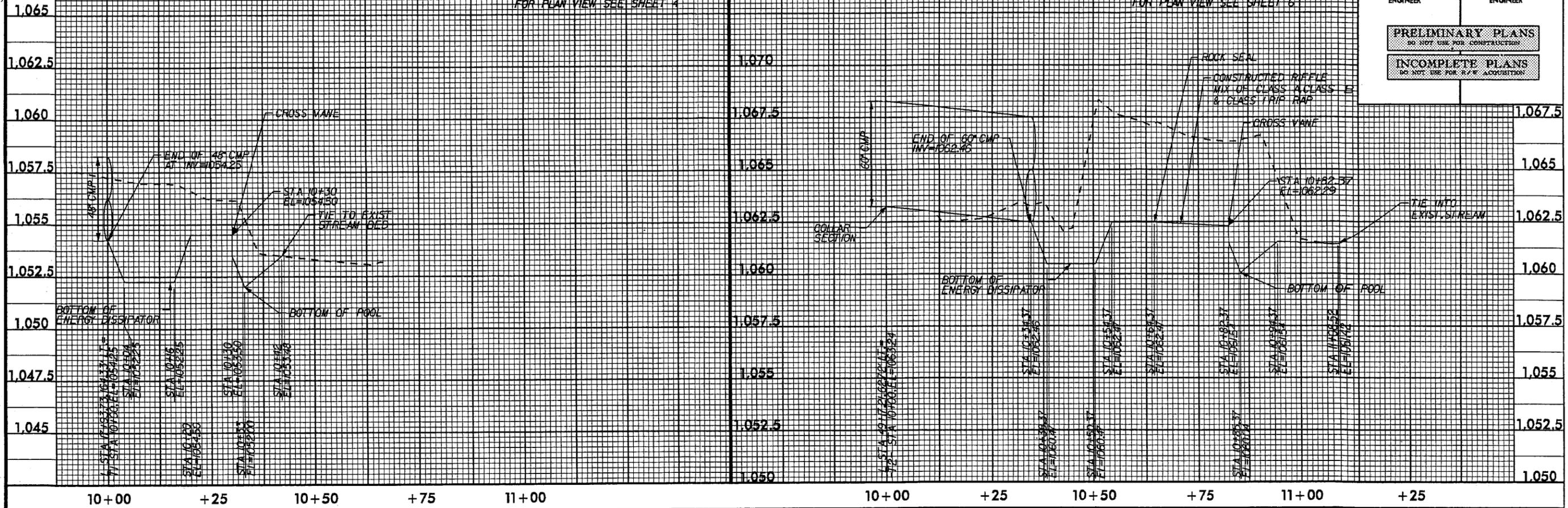
REV 7/16/07
 04/09/07

5/28/99

STREAM DESIGN FOR 48" CMP
L- STA 10+93.73, 10+94.38 L1 - L2- STA 10+00
FOR PLAN VIEW SEE SHEET 4

STREAM DESIGN FOR 60" CMP
L- STA 10+112.62, 10+113.27 L1 - L2- STA 10+00
FOR PLAN VIEW SEE SHEET 6

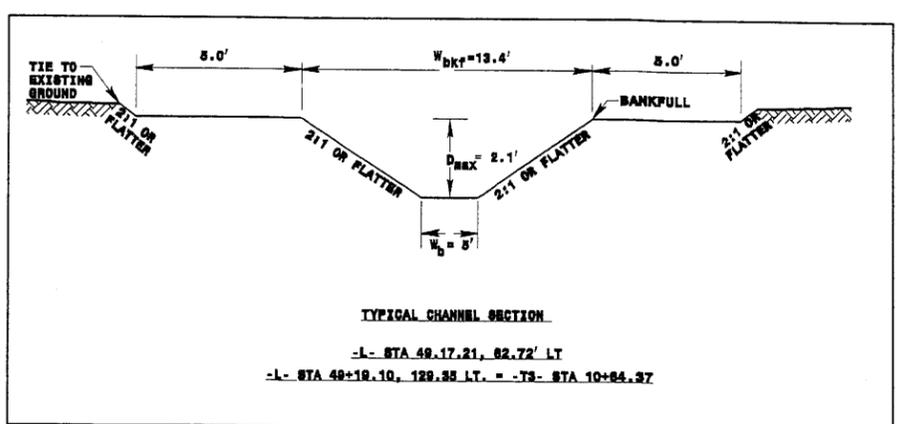
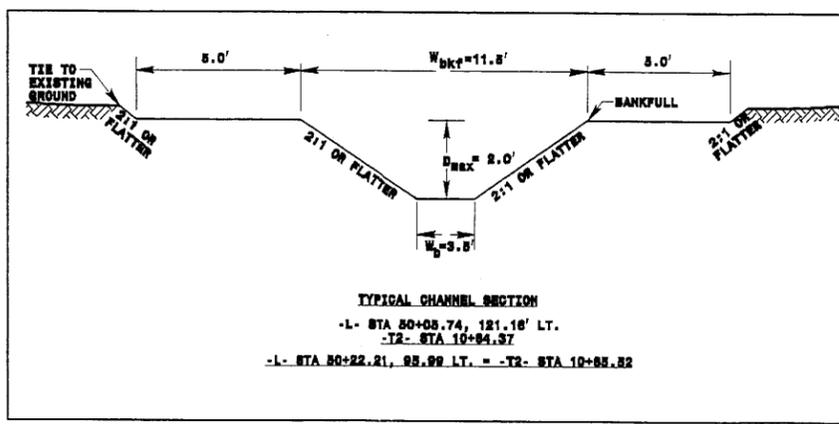
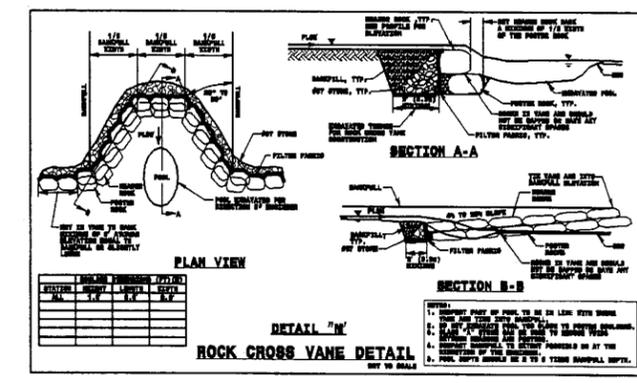
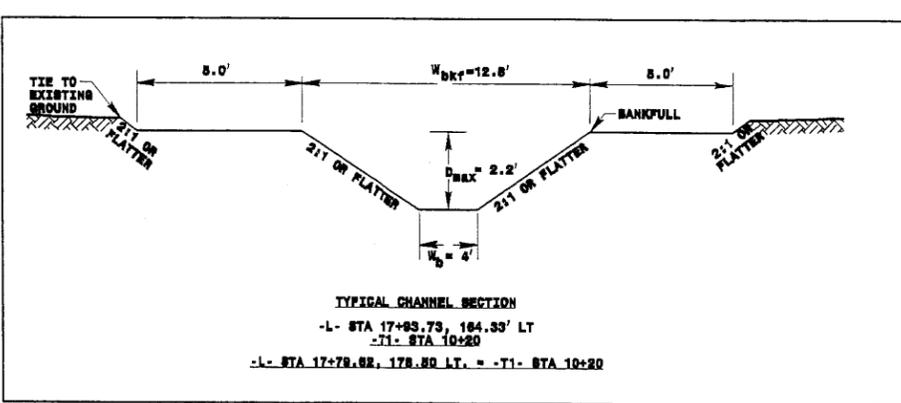
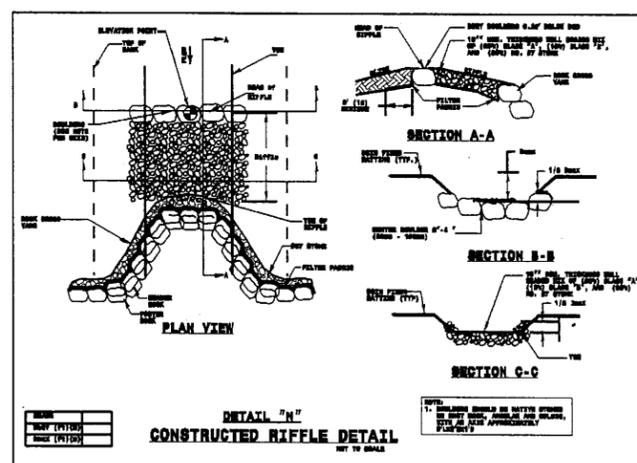
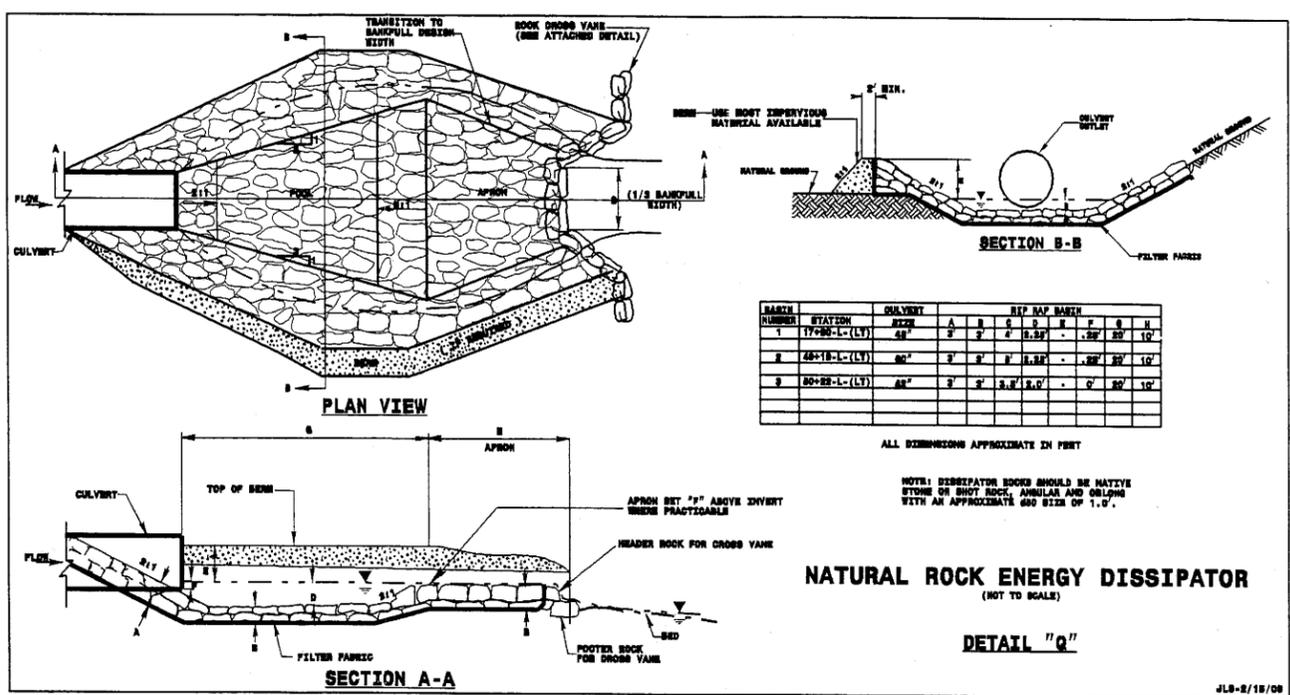
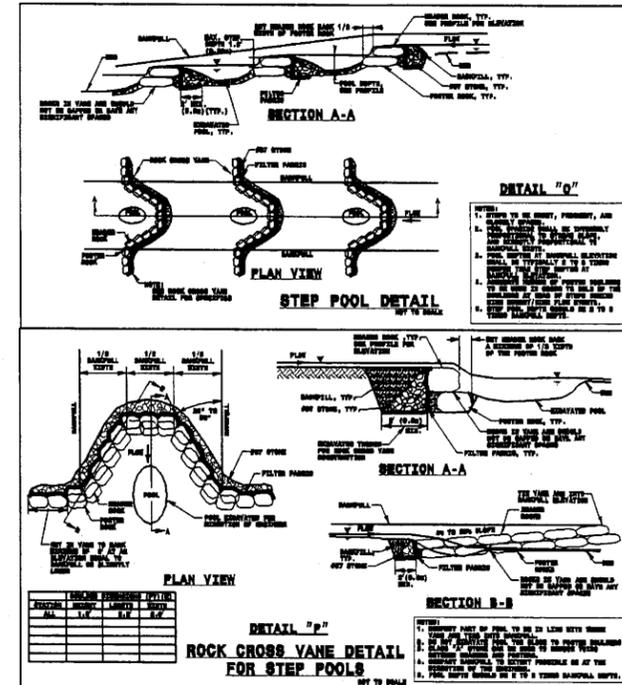
PROJECT REFERENCE NO. K-4703	SHEET NO. 2-C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR R.F.W. ACQUISITION</small>	



Recent Drawings
Sheet 5 of 15

VERTICAL: 1"=25'
HORIZONTAL: 1"=25'

I:\JUL-2007\1478
p:\c\m\p\1478\1478.dwg
5/28/99



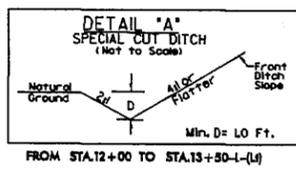
REVISIONS

09-APR-2007 13:41
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delunna@ohio DOT gov

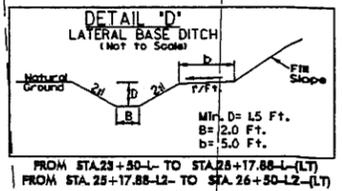
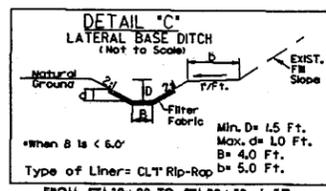
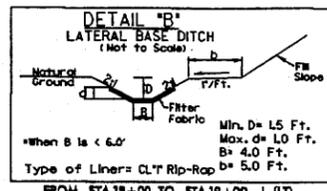
PROJECT REFERENCE NO.	SHEET NO.
K-4703	4
BW SHEET NO.	F
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	SC
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR P.P. ACQUISITION	

-L2- SPIRAL DATA
 Pts Sta 26+51.65
 $\theta_s = 14' 19'' 26.2''$
 $L_s = 200.00'$
 $LT = 133.77'$
 $ST = 67.07'$

NAD 83 95



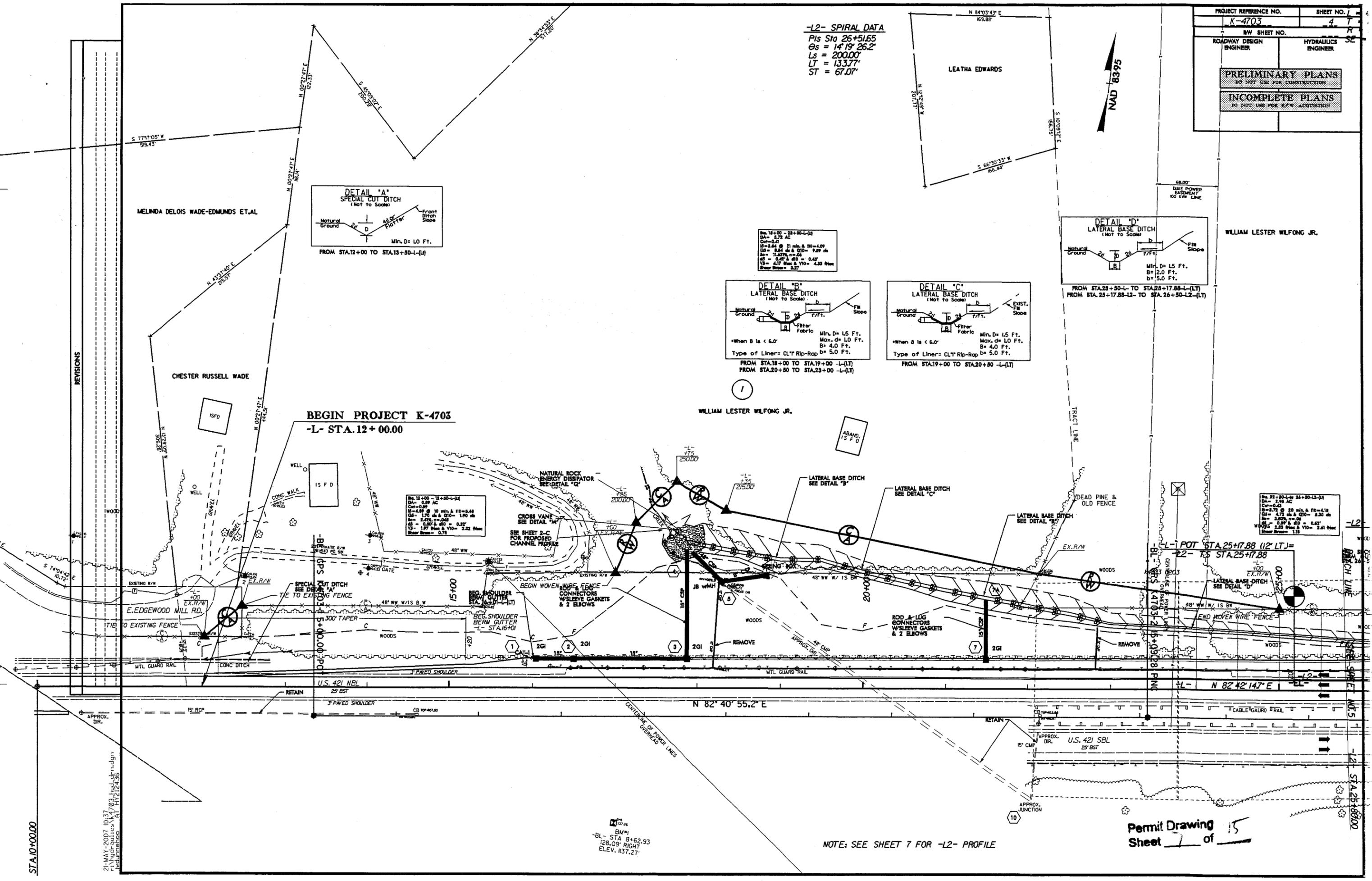
Sta. 18+00 - 19+00-L(-L)
 DA = 0.73 AC
 $C_d = 0.41$
 $V = 2.54 @ 10 \text{ min.} \& \text{ PD} = 4.09$
 $C_d = 0.41$
 $V = 1.43 @ 10 \text{ min.} \& \text{ PD} = 1.29$
 $V = 0.67 @ 10 \text{ min.} \& \text{ PD} = 0.45$
 $V = 4.17 @ 10 \text{ min.} \& \text{ PD} = 4.33$
 Shear Stress = 0.37



WILLIAM LESTER WILFONG JR.

BEGIN PROJECT K-4703
-L- STA.12+00.00

WILLIAM LESTER WILFONG JR.



Sta. 13+00 - 14+00-L(-L)
 DA = 0.59 AC
 $C_d = 0.29$
 $V = 4.89 @ 10 \text{ min.} \& \text{ PD} = 5.46$
 $C_d = 0.29$
 $V = 1.70 @ 10 \text{ min.} \& \text{ PD} = 1.90$
 $V = 0.76 @ 10 \text{ min.} \& \text{ PD} = 0.82$
 $V = 1.77 @ 10 \text{ min.} \& \text{ PD} = 2.02$
 Shear Stress = 0.78

Sta. 22+00-L to 24+50-L(-L)
 DA = 1.95 AC
 $C_d = 0.45$
 $V = 3.73 @ 10 \text{ min.} \& \text{ PD} = 4.18$
 $C_d = 0.45$
 $V = 4.73 @ 10 \text{ min.} \& \text{ PD} = 5.30$
 $V = 3.02 @ 10 \text{ min.} \& \text{ PD} = 3.33$
 $V = 0.59 @ 10 \text{ min.} \& \text{ PD} = 0.67$
 $V = 2.33 @ 10 \text{ min.} \& \text{ PD} = 2.61$
 Shear Stress = 1.18

BM#1
 -BL- STA 8+62.93
 ELEV. 117.27

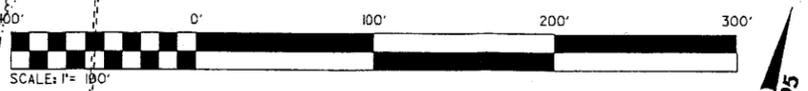
NOTE: SEE SHEET 7 FOR -L2- PROFILE

Permit Drawing
 Sheet 4 of 15

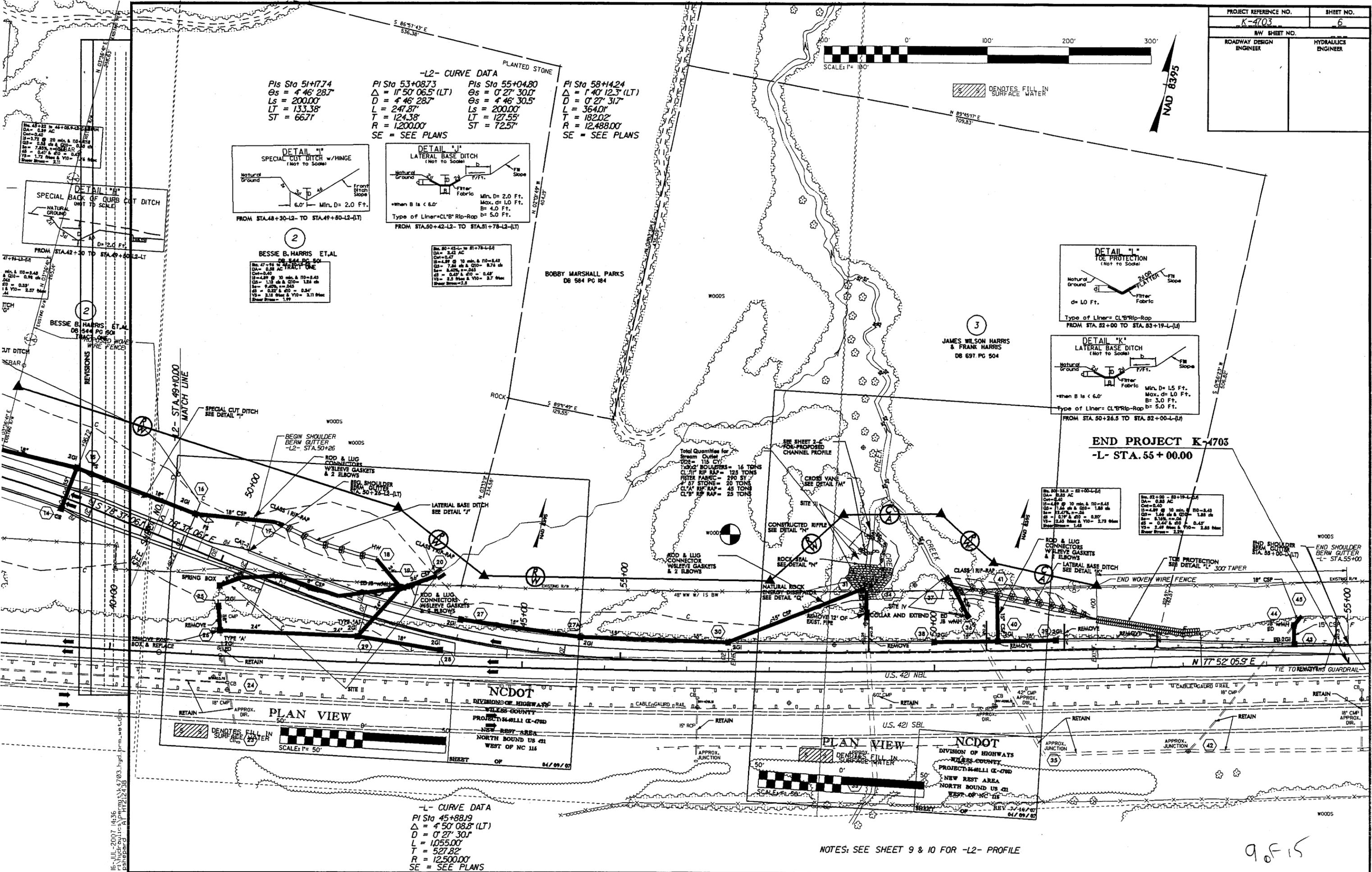
STA.10+00.00

STA.28+88.00

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NAD 83

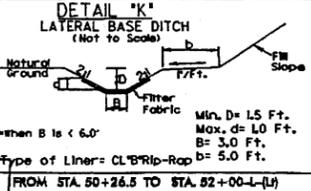
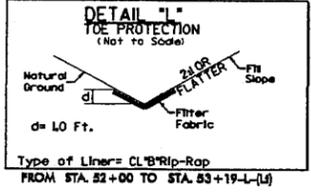
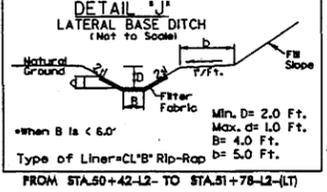
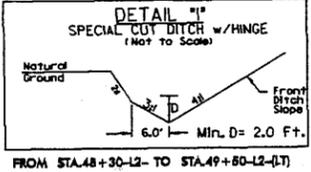


Pls Sta 51+77.4
 $\Theta_s = 4^\circ 46' 28.7''$
 $L_s = 200.00'$
 $LT = 133.38'$
 $ST = 66.71'$

-L2- CURVE DATA
 PI Sta 53+08.73
 $\Delta = 1^\circ 50' 06.5''$ (LT)
 $D = 4^\circ 46' 28.7''$
 $L = 247.87'$
 $T = 124.38'$
 $R = 1,200.00'$
 SE = SEE PLANS

Pls Sta 55+04.80
 $\Theta_s = 0^\circ 27' 30.0''$
 $D = 4^\circ 46' 30.5''$
 $L_s = 200.00'$
 $LT = 127.55'$
 $ST = 72.57'$

Pls Sta 58+14.24
 $\Delta = 1^\circ 40' 12.3''$ (LT)
 $D = 0^\circ 27' 31.7''$
 $L = 364.01'$
 $T = 182.02'$
 $R = 12,488.00'$
 SE = SEE PLANS



END PROJECT K-4703
 -L- STA. 55 + 00.00

PLAN VIEW
 SCALE: 1" = 50'

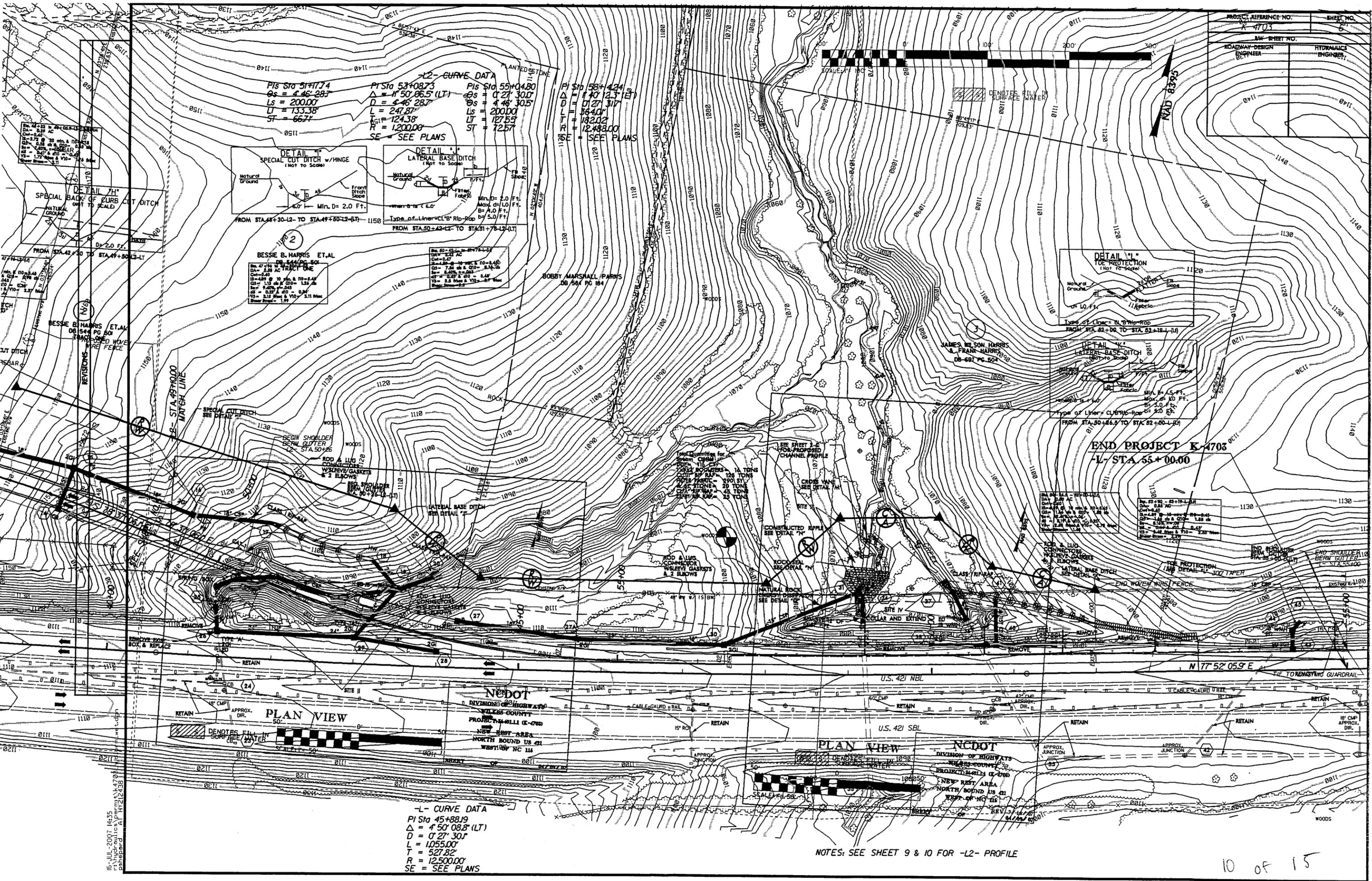
PLAN VIEW
 SCALE: 1" = 50'

-L- CURVE DATA
 PI Sta 45+88.19
 $\Delta = 4^\circ 50' 08.8''$ (LT)
 $D = 0^\circ 27' 30.0''$
 $L = 1,055.00'$
 $T = 527.82'$
 $R = 12,500.00'$
 SE = SEE PLANS

NOTES: SEE SHEET 9 & 10 FOR -L2- PROFILE

9 of 15

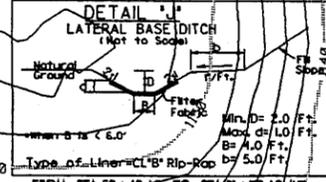
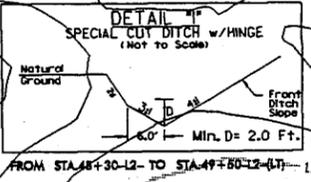
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-L2- CURVE DATA

PI Sta 51+17.74	PI Sta 53+08.73	PI Sta 55+04.80	PI Sta 58+42.4
Δ = 4° 46' 28.7"	Δ = 4° 50' 06.5" (LT)	Δ = 0° 27' 30.0"	Δ = 1° 40' 23.7" (E)
Ls = 200.00'	L = 446' 28.7"	Ls = 446' 30.5"	Ls = 564.0'
LT = 133.38'	L = 247.87'	LT = 200.00'	LT = 127.53'
ST = 66.7'	RSI = 124.38'	ST = 127.53'	ST = 72.57'
	R = 1200.00'		R = 12488.00'

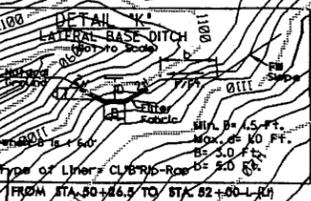
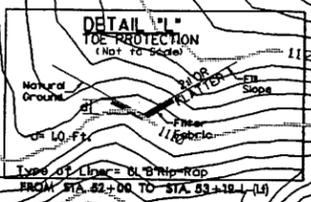
SE - SEE PLANS



BESSIE B. HARRIS ET AL.
DB 544 PG 504

BOBBY MARSHALL PARRIS
DB 504 PG 184

JAMES WILSON HARRIS & FRANK HARRIS
DB 687 PG 504



END PROJECT K-4703
-L- STA 55+00.00

PLAN VIEW

PLAN VIEW

-L- CURVE DATA

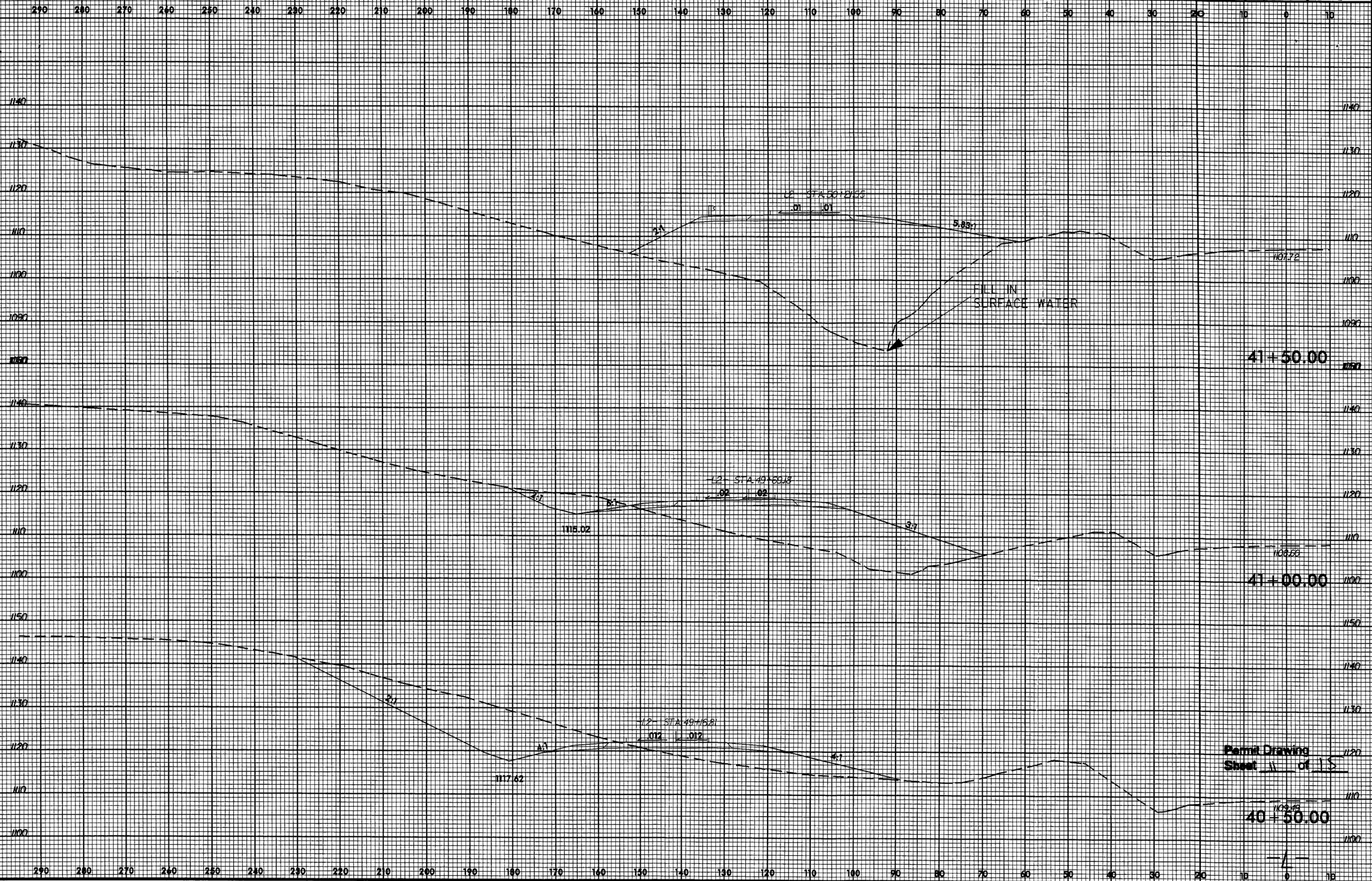
PI Sta 45+88.19
Δ = 4° 50' 08.8" (LT)
D = 0° 27' 30.0"
L = 1055.00'
T = 527.82'
R = 12500.00'
SE = SEE PLANS

NOTES: SEE SHEET 9 & 10 FOR -L2- PROFILE

8/23/99



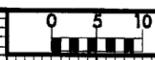
PROJ. REFERENCE NO.	SHEET NO.
K-4703	X-21



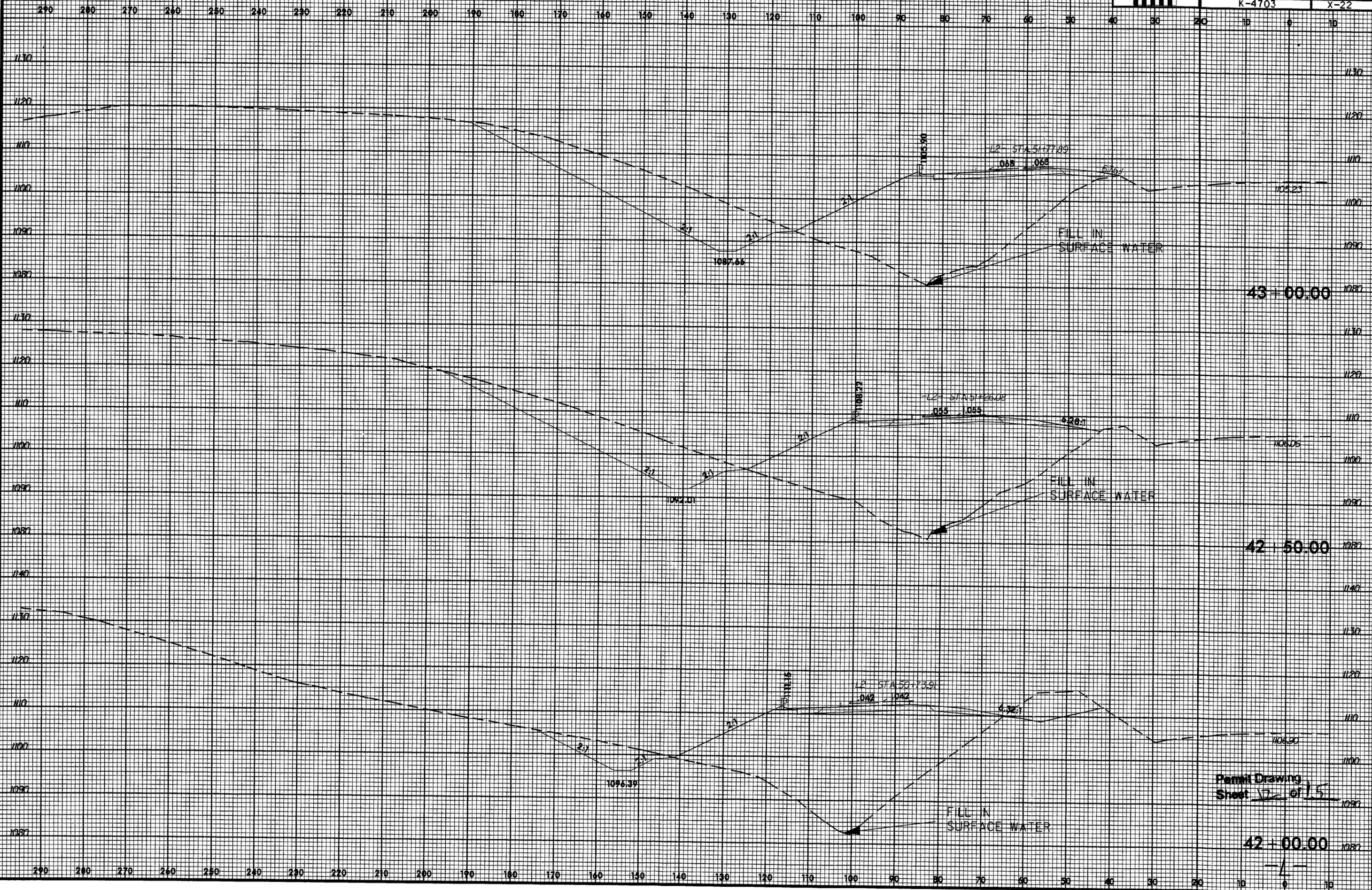
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Permit Drawing
Sheet 11 of 15

8/23/99



PROJ. REFERENCE NO.	SHEET NO.
K-4703	X-22

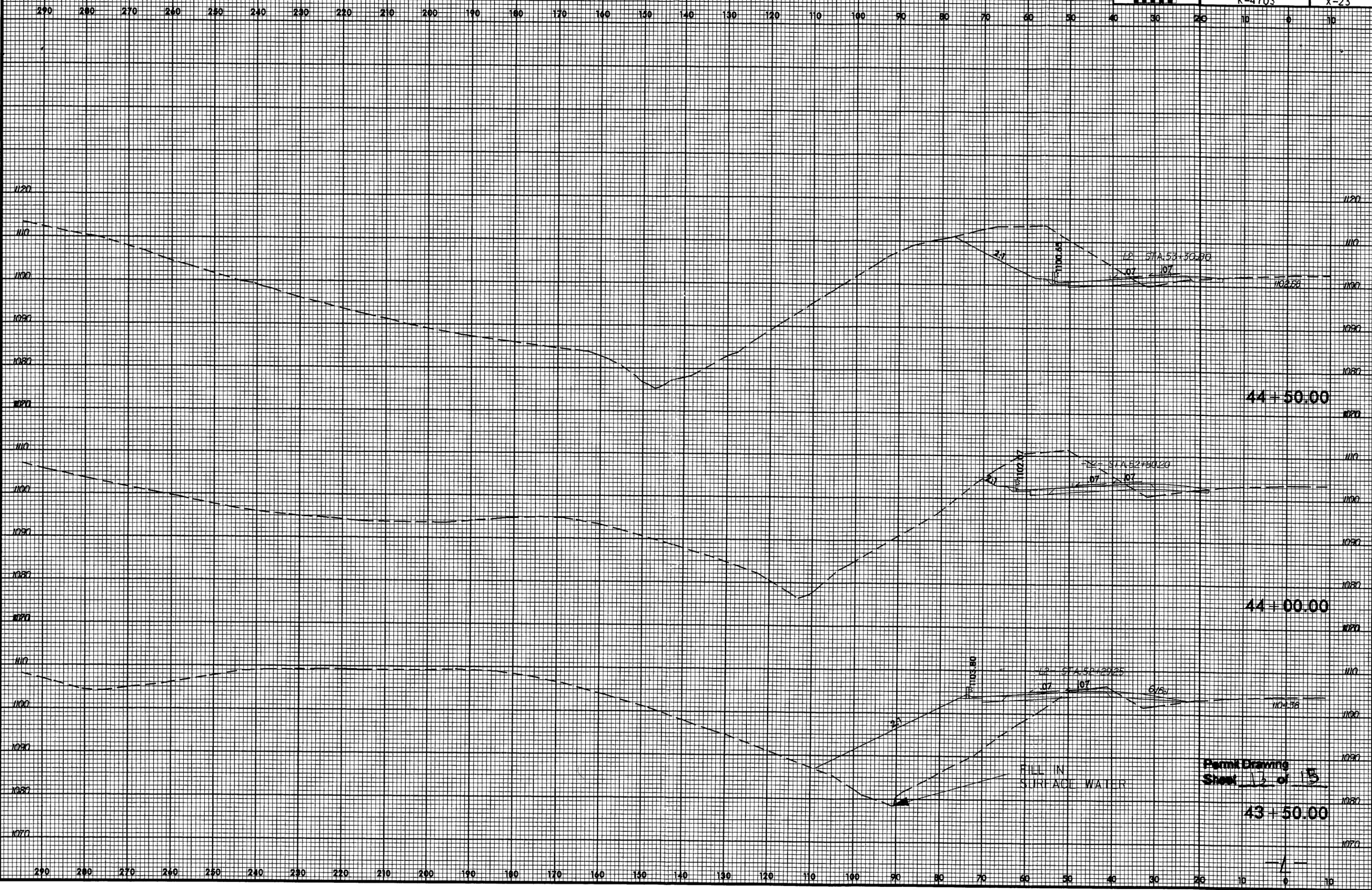


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Permit Drawing
Sheet 12 of 15

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	K-4703	X-23



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Permit Drawing
Sheet 12 of 15
43 - 50.00

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS						
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	
I	17+60 to	48" CSP									115		
	18+82 -L- LT	8" CSP TO JB									81		
II	41+30 TO	8" CSP TO									278		
	43+93 -L- LT	36" CSP											
III	49+14 TO	60" CSP									124		
	49+43 -L- LT												
IV	49+77 TO	42" CSP									59		
	50+43 -L- LT												
TOTALS:											657		

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

WILKES COUNTY
WBS - 36401.1.1 (K-4703)

SHEET **15 of 15** REV. 07/19/07



Michael F. Easley, Governor
William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Coleen H. Sullins, Director
Division of Water Quality

September 18, 2007
RECEIVED

SEP 20 2007

RALEIGH REGULATORY FIELD OFFICE

Dr. Greg Thorpe, PhD., Manager
Planning and Environmental Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina, 27699-1548

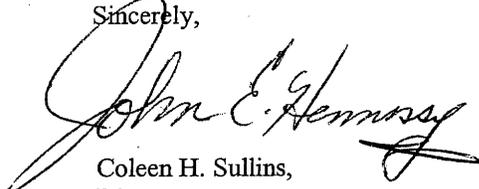
Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with
ADDITIONAL CONDITIONS for Proposed Visitor Center-Rest Station in Wilkes County, Federal Aid
Project No. NHS-421(32), State Project No. 36401.1.1, TIP K-4703.
DWQ Project No. 07-0965

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 3676 issued to The North Carolina Department of Transportation dated September 18, 2007.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,



Coleen H. Sullins,
Director

Attachments

cc: Monte Matthews, US Army Corps of Engineers, Raleigh Field Office
Brett Feulner, NCDOT PDEA
Heath Slaughter, Division 11 Environmental Officer
Chris Miltscher, Environmental Protection Agency
Marla Chambers, NC Wildlife Resources Commission
Marella Buncick, US Fish and Wildlife Service
NC Ecosystem Enhancement Program
DWQ Winston Salem Regional Office
DWQ 401 Transportation Permitting Unit

401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 657 linear feet of jurisdictional streams and in Wilkes County. The project shall be constructed pursuant to the application dated May 21, 2007 and additional information dated August 1, 2007. The authorized impacts are as described below:

Stream Impacts in the Yadkin River Basin

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1A			115		115	115
1B	81				81	0
2			278		278	278
3			124		124	124
4			59		59	59
Total	81		576		657	576

Total Stream Impact for Project: 657 linear feet

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin River Basin in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated May 21, 2007 and additional information dated August 1, 2007. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Condition(s) of Certification:

1. Compensatory mitigation for 576 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated August 17, 2007 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003 and the Dual-Party MOA signed on April 12, 2004.

2. Upon completion of this project, the permittee shall maintain a Stormwater Management Plan that addresses perpetual maintenance of the stormwater management facilities, including hazardous spill basins, approved with this Certification
3. A copy of this Water Quality Certification shall be maintained on site at the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
4. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
5. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification.
6. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
7. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
8. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
9. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by DWQ.

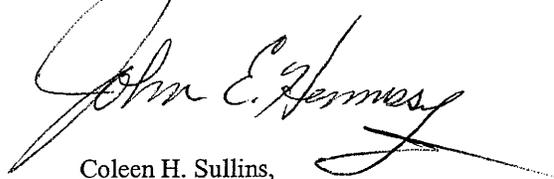
10. Due to existing perched pipe conditions at Site I and Site III, culvert extensions are not required to be buried per the previous condition. Natural Rock Energy Dissipater Pads will be installed to prevent erosion and scouring downstream of the culvert extensions at these permitted sites.
11. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
12. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
13. The dimension, pattern and profile of the stream above and below the crossing shall not be modified beyond that described in the permit application. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
14. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
15. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
16. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
17. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
18. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
19. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
20. Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 18th day of September 2007

DIVISION OF WATER QUALITY



Coleen H. Sullins,
Director

WQC No. 3676