STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

January 25, 2011

Mr. Bill Biddlecome
U.S. Army Corps of Engineers
Regulatory Field Office
Post Office Box 1000
Washington, NC 27889-1000

Mr. Stephen Lane
Division of Coastal Management
N. C. Dept. of Env. & Natural Resources
400 Commerce Avenue
Morehead City, NC 28557

Dear Sirs:

Subject: **Application for Section 404 Nationwide Permit 23 and CAMA Major Development Permit** for the replacement of Bridge #12 over Queen Anne Creek on NC 32 in Chowan County. State Project No. 8.1030501. Federal Aid Project Number STP-0032(8). Debit $400 from WBS 33713.3.1.TIP No. B-4463.

The North Carolina Department of Transportation (NCDOT), Division of Highways, in consultation with the Federal Highway Administration (FHWA), proposes to replace Bridge No. 12 in Chowan County. The proposed let date for the project is October 18, 2011 with a review date of August 18, 2011; however, the let date may advance as additional funds become available.

Please find enclosed a Pre-Construction Notification (PCN) form, permit drawings, utility drawings/narrative, roadway plans, North Carolina Division of Coastal Management Major Permit Forms 1 and 5, a copy of the State Stormwater Permit Exclusion, EEP Mitigation Acceptance Letter. Adjacent riparian landowner return receipts will be forwarded once they become available. A Categorical Exclusion (CE) was completed for this project on November 6, 2008, and distributed shortly thereafter. Additional copies are available upon request.

Regulatory Approvals

CAMA: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Development Permit. The adjacent riparian landowner certified mail receipts are provided with this permit application. Authorization to debit the $400 Permit Application Fee from WBS Element 33713.3.1 is hereby given.

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

TELEPHONE: 919-431-2000
FAX: 919-431-2002
WEBSITE: WWW.NCDOT.ORG

LOCATION:
4701 ATLANTIC AVENUE
SUITE 116
RALEIGH NC 27604

Section 404 Permit: All aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR 771.115(b). The NCDOT requests that a Nationwide Permit 23 authorize these activities.

Section 401 Permit: We anticipate 401 General Certification number 3701 will apply to this project. NCDOT will adhere to all standard conditions of these certifications. NCDOT is providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their review.

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

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

Sincerely,

E. L. Lusk

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

cc List:

W/attachment
- Mr. Brian Wrenn, NCDWQ (2 copies)
- Ms. Cathy Brittingham, NCDCM

W/o attachment (see website for attachments)
- Mr. Travis Wilson, NCWRC
- Mr. Gary Jordan, USFWS
- Mr. Ron Sechler, NMFS
- Ms. Anne Deaton, NCDMF
- Dr. David Chang, P.E., Hydraulics
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Mark Staley, Roadside Environmental
- Mr. Dewayne Sykes, P.E., Utilities Unit
- Mr. Jerry Jennings, P.E., Division 1 Engineer
- Mr. Clay Willis, Division 1 Environmental Officer
- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Majed Alghandour, P. E., Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Ms. Beth Harmon, EEP
- Mr. Phillip Ayscue, NCDOT External Audit Branch
- Ms. Christy Huff, PDEA Project Planning Engineer

Ecosystem Enhancement PROGRAM

January 20, 2011

Mr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Branch
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

B-4463, Replace Bridge Number 12 over Queen Anne Creek on NC 32, Chowan County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory riparian wetland mitigation for the subject project. Based on the information supplied by you on January 19, 2011, the impacts are located in CU 03010205 of the Pasquotank River Basin in the Northern Outer Coastal Plain (NOCP) Eco-Region, and are as follows:

Pasquotank 03010205 NOCP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	0	0.11	0	0	0	0
Mitigation Units (Credits-up to 2:1)	0	0	0	0.22	0	0	0	0

EEP commits to implementing sufficient compensatory riparian wetland mitigation credits to offset the impacts associated with this project in accordance with the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

William D. Gilmore, P.E.
EEP Director

cc: Mr. Bill Biddlecome, USACE – Washington Regulatory Field Office
Mr. Brian Wrenn, Division of Water Quality, Wetlands/401 Unit
File: B-4463

NCDENR
North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

July 16, 2010

Mr. Marshall Clawson
NCDOT – Hydraulics Unit
1590 Mail Service Center
Raleigh, NC 27699-1590

Subject: **Stormwater Permit Exclusion – NC DOT Activity**
Replacement of Bridge No.12 on NC 32, B-4463
Over Queen Anne Creek
Stormwater Project No. SW7100502
Chowan County

Dear Mr. Henderson:

On May 20, 2010, the Washington Regional Office of the Division of Water Quality received a Coastal Stormwater Permit Application for project B-4463, the replacement of Bridge No. 12, located over Queen Anne Creek on NC 32 in Chowan County. Staff review of the plans and supporting documents has determined that the project proposes activities that are excluded from State Stormwater permitting requirements as set forth in Section 2.(d)(1) of Session Law 2008-211, effective October 1, 2008, and the stormwater rules under Title 15A NCAC 2H .1000, as amended.

Therefore, the Director of the Division of Water Quality is hereby providing confirmation that the subject project is excluded from State Stormwater permitting requirements, **being an activity of the NC DOT that is regulated in accordance with the provisions of the NC DOT's National Pollutant Discharge Elimination System (NPDES) Stormwater Permit.**

Under Section 15A NCAC 2H .1003, any future development or changes to the proposed development, including but not limited to, the locations of the built-upon area and construction of additional built-upon area, may require approval or a Stormwater Management permit application and permit issuance from the Division of Water Quality prior to any construction. Any construction on the site prior to receipt of the required approval or permit will constitute a violation of Title 15A NCAC 2H.1000 and Session Law 2008-211, and may result in the initiation of appropriate enforcement action.

Please keep in mind that this determination does not affect your legal obligation to obtain other permits and approvals, which may be required by Federal, State, or local government agencies, rule or law. If you have any questions, or need additional information concerning this matter, please contact either Scott Vinson or me at (252) 946-6481.

Sincerely,

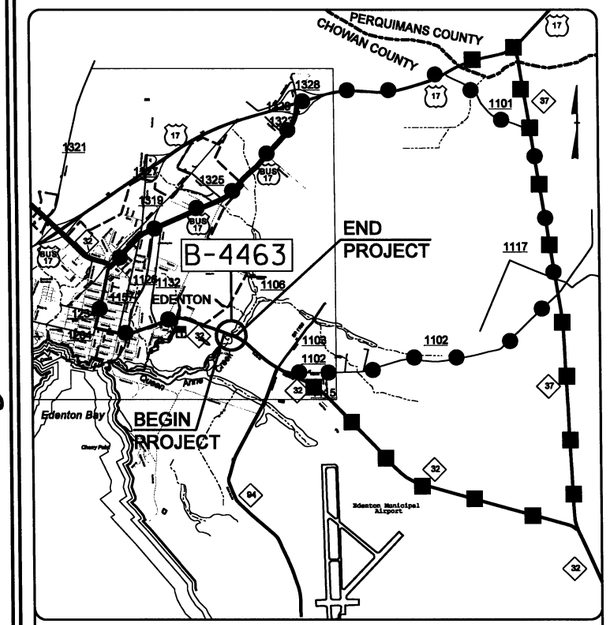
A. Hodge
Regional Supervisor
Surface Water Protection Section

AH/sv: K:\SAV\K-STORMWATER\EXCLUSIONS\SW7100502

cc: Washington Regional Office
Central Files

09/08/99

See Sheet 1-A For Index of Sheets



90% PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4463	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
33713.1.2	STP-0032(8)	P.E.
33713.2.1	STP-0032(8)	R.W. & UTILITY
33713.3.1	STP-0032(8)	CONST.

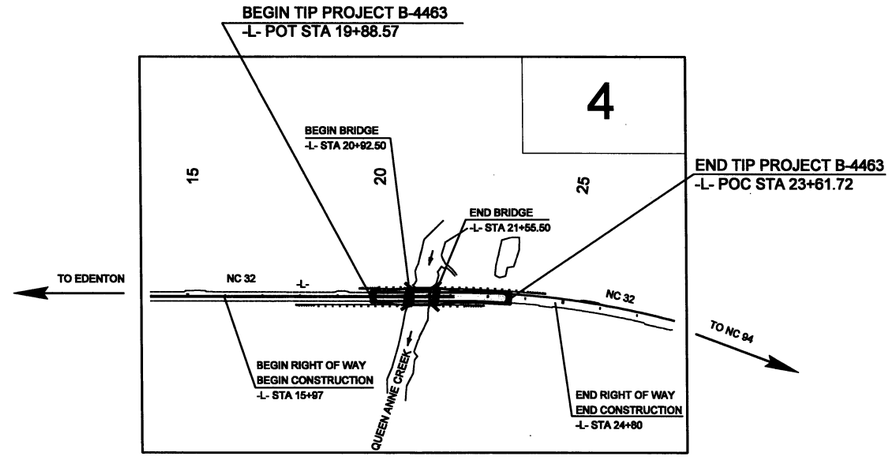
CHOWAN COUNTY

LOCATION: BRIDGE NO. 12 OVER QUEEN ANNE CREEK ON NC 32

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

Permit Drawing Sheet 1 of 8

PERMIT DRAWINGS



N
NC GRID
NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NCDOT Contact: B. Doug Taylor, PE
Roadway Design-Engineering Coordination

CONTRACT:

TIP PROJECT: B-4463

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2011 = 6280
ADT 2030 = 9200
DHV = 10 %
D = 60 %
T = 5% (TTST 2%, DUAL 3%)
V = 60 MPH

FUNC CLASS = MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4463	=	0.059 MILE
LENGTH STRUCTURE TIP PROJECT B-4463	=	0.012 MILE
TOTAL LENGTH TIP PROJECT B-4463	=	0.071 MILE

Prepared in the Office of
DYER, RIDDLE, MILLS & PRECOURT, INC. (DRMP)
7506 EAST INDEPENDENCE BLVD., SUITE 105
CHARLOTTE, NORTH CAROLINA 28227
(704) 332-2289 NC LICENSE NO. C-2213

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: OCTOBER 15, 2010

LETTING DATE: OCTOBER 18, 2011

Ronald C. Smith, PE
PROJECT ENGINEER

PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. VERDOON
P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 13690 ENGINEER RONALD C. SMITH
P.E.
SIGNATURE:

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA
P.E.
STATE HIGHWAY DESIGN ENGINEER

8/25/2010
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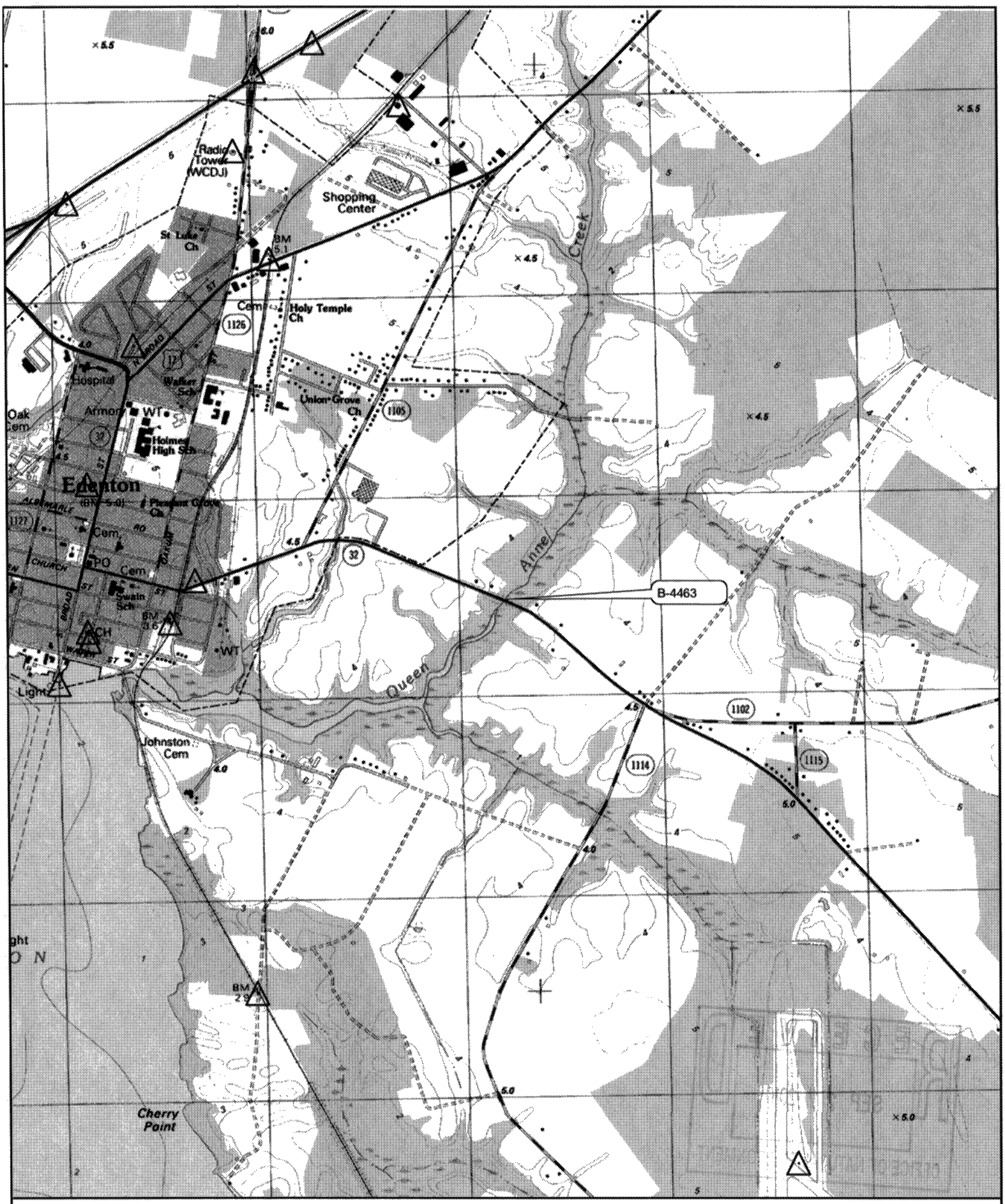


Name: EDENTON
Date: 8/25/2010
Scale: 1 inch equals 2000 feet

Location: 036° 03' 32.92" N 076° 35' 7.00" W

Permit Drawing
Sheet 2 of 8

PROJECT REFERENCE NO.	SHEET NO.
B-4463	4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

PRELIMINARY PLANS

DRMP — DYER, RIDDLE, MILLS & PRECOURT, INC. — MA Engineering Consultants, Inc.

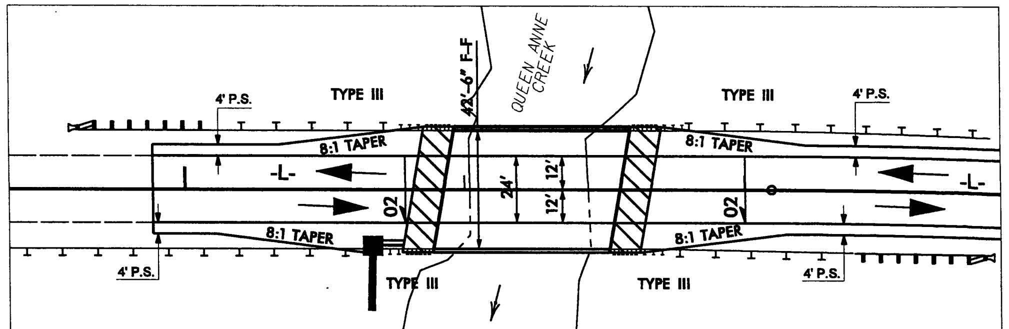
F — DENOTES FILL IN WETLAND

HC — DENOTES HAND CLEARING

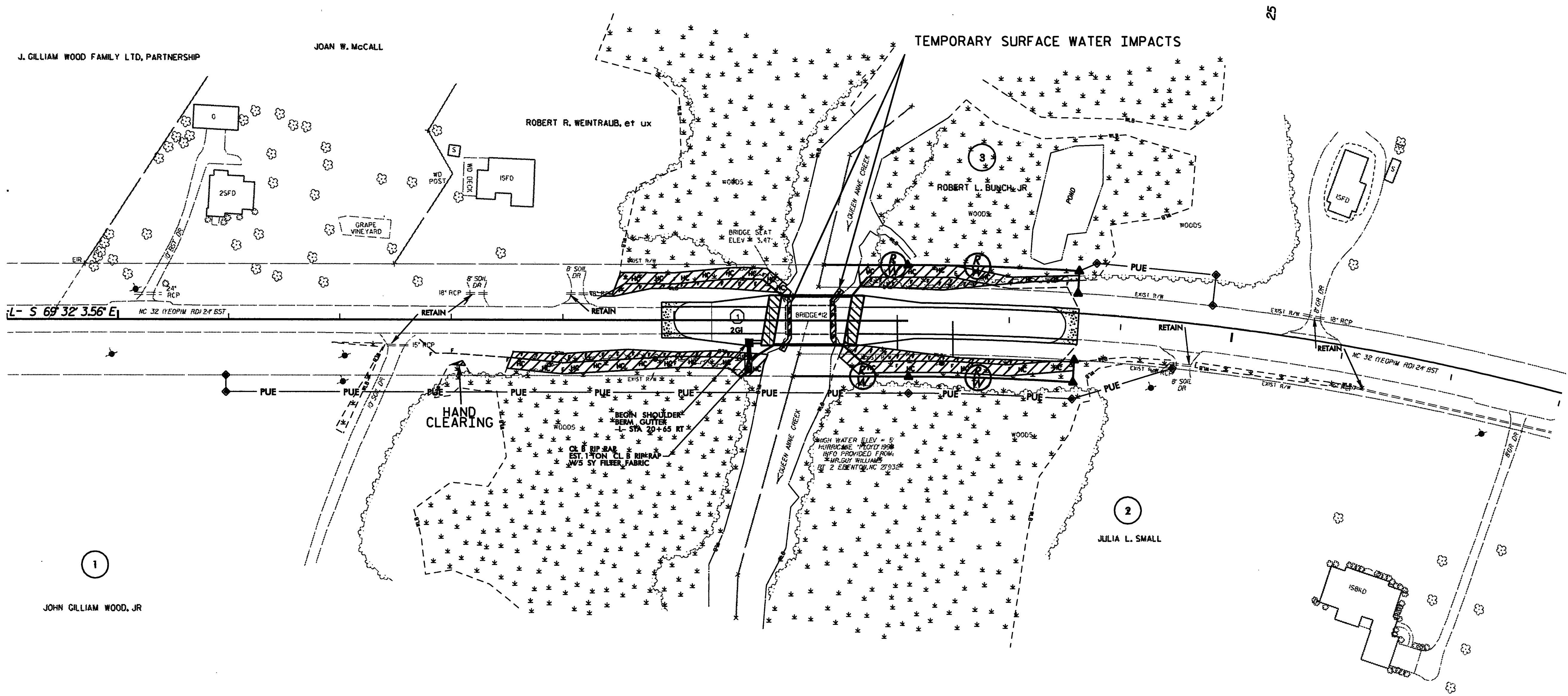
TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NC GRID NAD 83/95

Permit Drawing
Sheet 3 of 8



SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP



TEMPORARY SURFACE WATER IMPACTS
J. GILLIAM WOOD FAMILY LTD. PARTNERSHIP
JOAN W. McCALL
ROBERT R. WEINTRAUB, et ux
ROBERT L. BUNCH, JR
JOHN GILLIAM WOOD, JR
JULIA L. SMALL
QUEEN ANNE CREEK
WOODS
POND
BRIDGE #12
-L- S 69 32' 3.56" E
NC 32 (YEOPIM RD) 24' BST
RETAIN
PUE
HAND CLEARING
BEGIN SHOULDER BERM GUTTER -L- STA 20+65 RT
CL B RIP RAP EST. 1 TON CL B RIP RAP W/5 SY FILTER FABRIC
BRIDGE SEAT ELEV = 3.47
HIGH WATER ELEV = 5' HURRICANE "FLOYD" 1999 INFO PROVIDED FROM: MR. GUY WILLIAMS RT 2 EDENTON, NC 27932
GRAPE VINEYARD
15
20
25

REVISIONS

8/17/99

9/20/2010
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PROJECT REFERENCE NO.	SHEET NO.
B-4463	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS

DRMP — DYER, RIDDLE, MILLS & PRECOURT, INC. 7506 EAST INDEPENDENCE BLVD., SUITE 105 CHARLOTTE, NORTH CAROLINA 28227 (704) 332-2289 NC LICENSE NO. C-2213

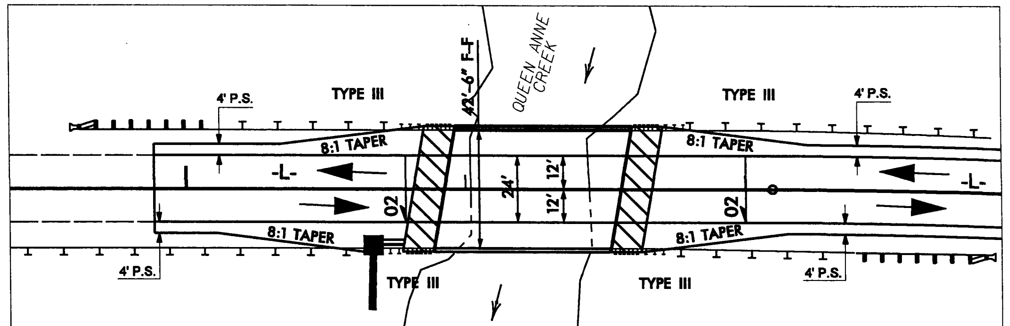
MA Engineering CONSULTANTS, INC.

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

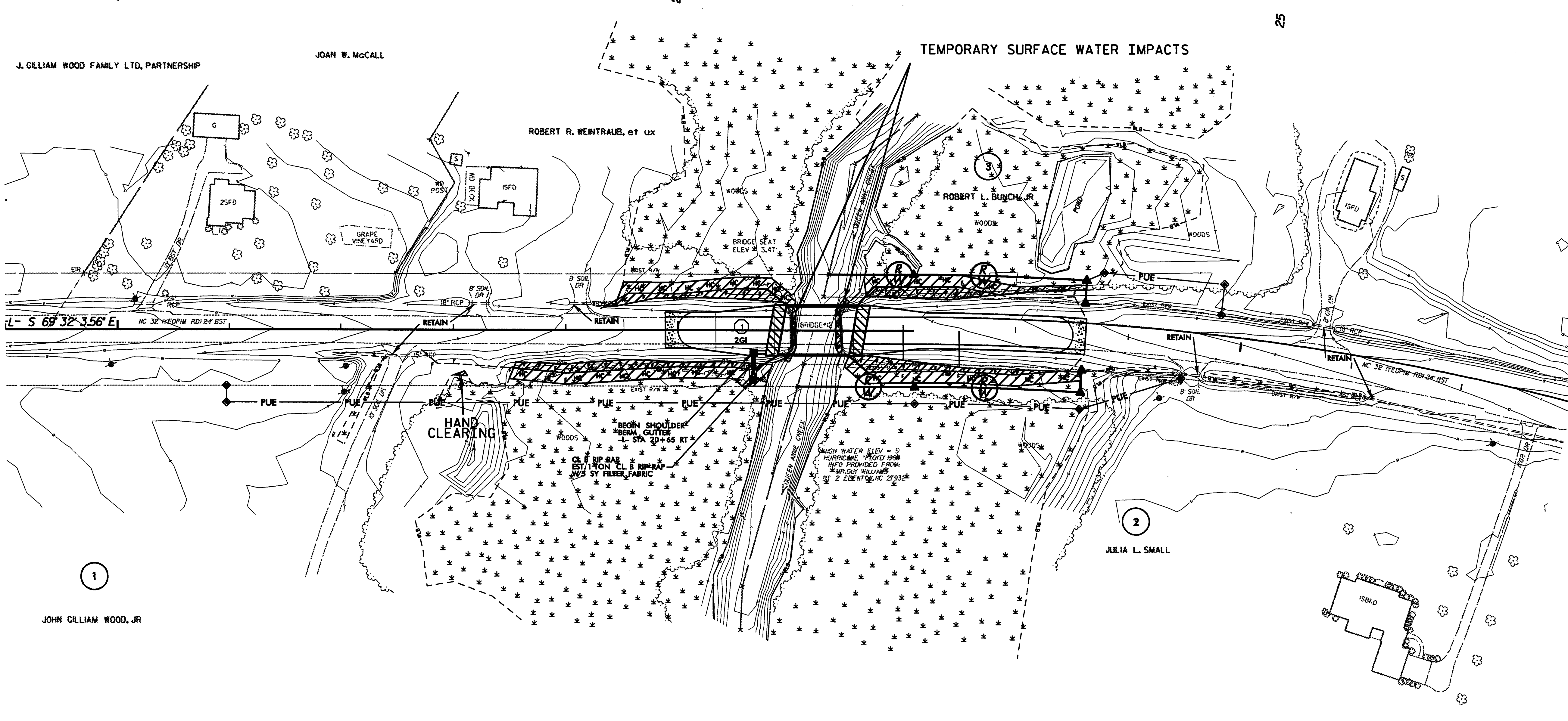
TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NC GRID NAD 83/95



SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

Permit Drawing Sheet 4 of 8



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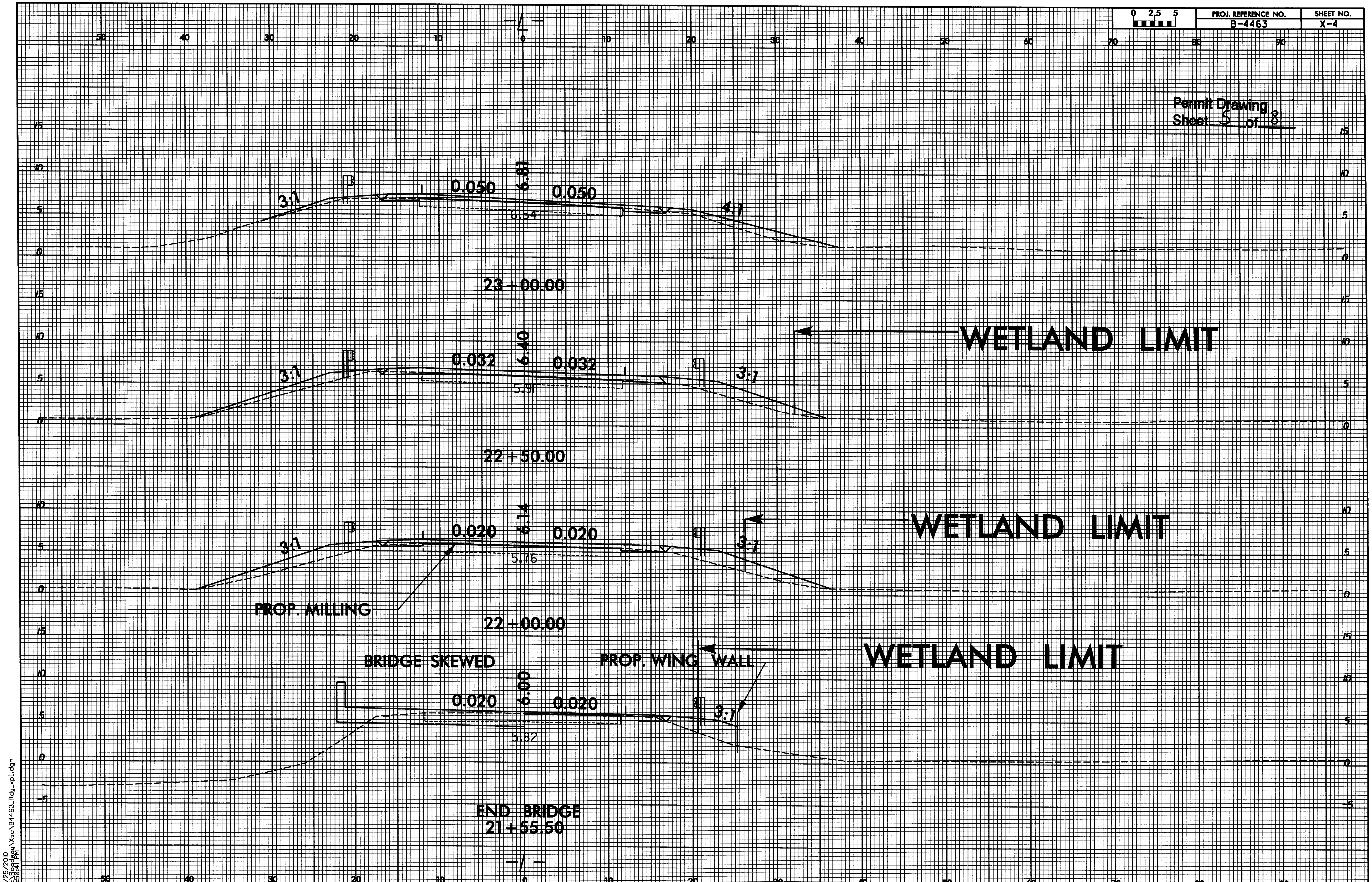
REVISIONS



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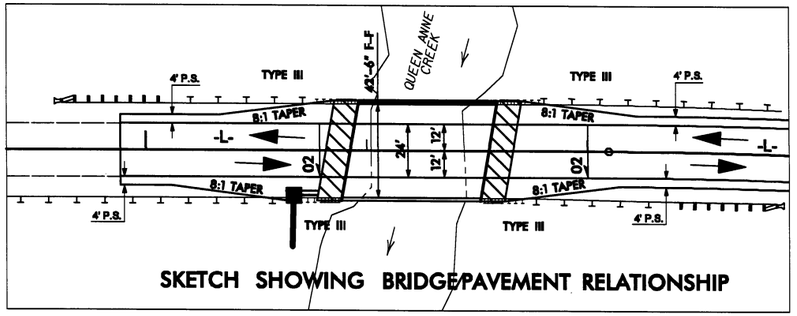
8/17/99

REVISIONS



SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP

PROJECT REFERENCE NO.	SHEET NO.
B-4463	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21989 ENGINEER — RONALD C. DYER

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 22815 ENGINEER — ROGER S. WEAVER

PRELIMINARY PLANS — NOT FOR CONSTRUCTION

DRMP — DYER, RIDDLE, MILLS & PRECOURT, INC. 7506 EAST INDEPENDENCE BLVD., SUITE 105 CHARLOTTE, NORTH CAROLINA 28227 (704) 532-2289 NC LICENSE NO. C-2203

HA Engineering CONSULTANTS, INC. 1808 East Charleston Blvd. Suite 107 Coos, SC 29511 Phone: 843.200.4525 Fax: 843.200.4526 NC License No. P-0569

NC GRID NAD 83/95

FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-9

FOR -L- PROFILE, SEE SHEET NO. 5

-L- CURVE DATA
CURVE 1
PI -L- Sta 26+42.84
Δ = 2° 24' 16.83" (RT)
D = 2° 30' 00.00"
L = 856.19'
T = 433.14'
R = 2,291.83'
e = 0.06 (EXISTING)
RUNOFF = 160'
DESIGN SPEED = 60 MPH

Permit Drawing Sheet 6 of 8

15 20 25

J. GILLIAM WOOD FAMILY LTD, PARTNERSHIP
DB 249 PG 78

JOAN W. McCALL
DB 300 PG 457
PB 2 PG 47 (PLAT)

PROPOSED 552' OF 6" WATER LINE

REMOVE EXISTING STRUCTURE (STRUCTURE PAY ITEM)

ROBERT R. WEINTRAUB, et ux
DB 18 PG 230
DB 274 PG 736
PB 2 PG 47 (PLAT)
PB 4 PG 4 (PLAT)

ROBERT L. BUNCH, JR
DB 29 PG 426

REMOVE 541' OF 6 " WATER LINE

BEGIN PROJECT
-L- POT STA 19+88.57

END PROJECT
-L- POC STA 23+61.72

BEGIN RIGHT OF WAY
BEGIN CONSTRUCTION
-L- STA 15+97

BEGIN APPROACH SLAB
-L- STA 20+81.52

STA. 19+83.0
Offset 50.00

BEGIN BRIDGE
-L- STA 20+92.50

END BRIDGE
-L- STA 21+55.50

END APPROACH SLAB
-L- STA 21+66.48

STA. 22+40.00
Offset 50.00

END RIGHT OF WAY
END CONSTRUCTION
-L- STA 24+80

-L- PC Sta. 22+09.70

HIGH WATER ELEV = 5' HURRICANE "FLOYD" 1999 INFO. PROVIDED FROM MR.GUY WILLIAMS RT 2 EDENTON,NC 27932

JULIA L. SMALL
DB 235 PG 100

JOHN GILLIAM WOOD, JR
DB 27 PG 478

R:\Utility Jobs\b4463_ut_ucput.dgn
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Property Owners

Parcel Number	Names	Addresses			
1	John G Wood Jr.	PO Box 176	Edenton	NC	27932
2	Julia L. Small	320 Yeopim RD	Edenton	NC	27932
3	Robert L. Bunch Jr.	399 Yeopim RD	Edenton	NC	27932

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CHOWAN COUNTY
WBS - 33713.1.1 (B-4463)

SHEET 8/25/2010

Permit Drawing
Sheet 7 of 8

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 18+49 to 23+60	Single Span Bridge	0.11				0.18		0.01			
TOTALS:			0.11	0.00	0.00	0.00	0.18	0.00	0.01	0.00	0	0

Temporary Impacts: Proposed temporary impacts to wetlands of 0.03 acres of Temporary Fill in Wetlands in the Hand Clearing areas for the installation of erosion control measures, including Temporary Silt Fence and Special Sediment Control Fence.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CHOWAN COUNTY
WBS - 33713.1.1 (B-4463)

SHEET 11/29/2010

ATN Revised 3/31/05

Permit Drawing
Sheet 8 of 8

NARRATIVE FOR B-4463 ENVIRONMENTAL PERMIT

The TIP B-4463 consists of the replacement of bridge no. 12 over Queen Anne Creek on NC 32 in Chowan County. An offsite detour will be utilized in order to be able to build the bridge without buying more permanent utility easement than NCDOT will be required to buy presently.

Wetlands

There is a creek that flows under the proposed replacement bridge no. 12. This creek is called Queen Anne Creek. This creek is ranges from 40 to 65 feet wide in the project area. There are wetlands on both sides of the creek and on both sides of NC 32. No impacts to the wetland will occur from the installation of the gas and water lines on this bridge replacement because a directional bore will used to install these lines. Hand clearing will be used on the south side of the bridge to install the power pole line with telephone and CATV attached. There will be hand clearing in the wetlands in order to place and maintain the multiuse poles. A 15 foot strip of land will be used to maintain the multiuse poles.

Utilities on Project

Utility owners identified on project are: Chowan County Water, the contact person is Mr. Nick Lolies at City of Edenton Power Piedmont Natural Gas, Century-Link Telephone, and Mediacom Communications.

There is water, telephone, electric, power, gas and cable TV that are located inside the project boundaries.

There are no existing or proposed sanitary sewer lines on this project.

There is an existing 6 inch water line located on the north side of NC 32 that will interfere with the construction of the replacement of bridge no. 12 over Queen Anne Creek. This line runs the entire length of the project. The existing water line that interferes with the bridge construction will be removed from approximately L-STA. 18+40 to approximately L-STA. 24+65.

The water line on the north side of the project will be relocated closer to the right of way line. The water line will be moved to run parallel and 5 feet off of the right of way in order to allow room for the replacement of the bridge 12 over the creek. The new water line will connect to the existing 6 inch water at approximately L-STA.18+40 and veers off to the east approximately 70 feet to approximately L-STA. 19+03. Then the line runs parallel with the right of way line to approximately L-STA. 24+09. The water main then turns the southeastwardly and reconnects to the existing 6 inch water line at approximately L-STA.24+65. The proposed water line will be a 6 inch SDR-9 HDPE pipe.

There is an existing overhead combined telephone, power and cable TV line that runs almost parallel on the south side of the L-line inside the existing right of way line. A conflict exists between the existing multiuse line and the proposed construction of the replacement bridge. The existing poles for the existing multiuse line will be removed to allow room for the bridge construction.

A proposed overhead multiuse telephone, power and cable TV poles and line will be moved to the existing right of way line from L-STA. 17+04 to L-STA. 24+32 on the south side of the L-line.

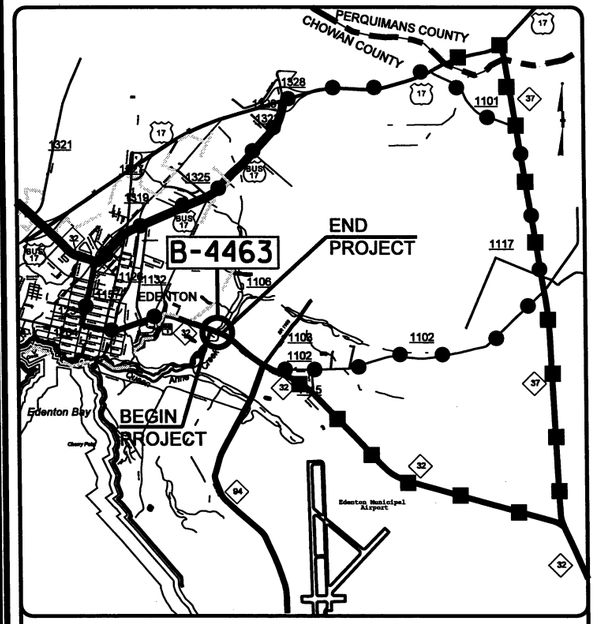
A 6 inch gas line exist on the south side of the L-line that will be too close the bridge and interfere with the project.

A proposed 6 inch SDR-11 medium density polyethylene pipe will connect to the existing 6 inch gas line at approximately L-STA 16+44 and veers off of the L-line to L-STA. 18+43 on the south side of NC 32. It then runs parallel to the L-line at approximately 5 feet off of the PUE line to approximately L-STA. 23+62. From there it runs back and connects to the existing 6 inch gas line at approximately L-STA. 24+29.

There will be hand clearing in the wetlands on the south side of the L-line in order to place the overhead multiuse lines and poles on the right of way boundary.

05/08/08

TIP PROJECT: B-4463



OFFSITE DETOUR

TRUCK ROUTE DETOUR

PROJECT VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

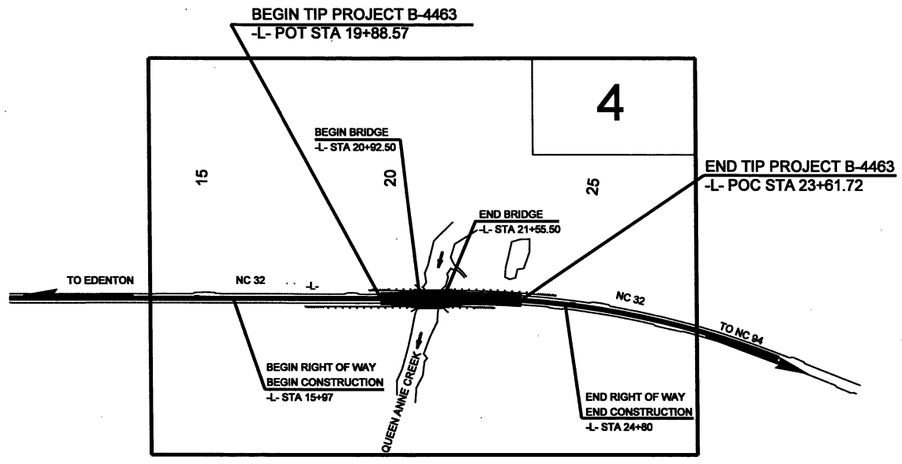
T.I.P. NO.	SHEET NO.
B-4463	U-1

Utility Permit Drawing
Sheet 1 of 9

NEU
UTILITY RELOCATION PLANS
CHOWAN COUNTY

LOCATION: BRIDGE OVER QUEEN ANNE CREEK

TYPE OF WORK: RELOCATION OF GAS, POWER TELEPHONE AND CATV



NC GRID
NAD 83/95

INDEX OF SHEETS

SHEET NO.	*DESCRIPTION*
U-1	*TITLE SHEET*
U-2	*NEU PERMIT PLAN SHEETS*
U-3 THRU U-7	*PROFILE SHEET(S)*

UTILITY OWNERS ON PROJECT

(1) CITY OF EDENTON
(2) PIEDMONT NATURAL GAS
(3) CENTURY-LINK TELEPHONE
(4) MEDIA TELE-COM TELECOM

SEAL

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES ENGINEERING SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

Roger Worthington, P.E. — *UTILITIES SECTION ENGINEER*
Corey Bousquet, P.E. — *UTILITIES SQUAD LEADER PROJECT ENGINEER*
Kelvin Martin — *UTILITIES PROJECT DESIGNER*

25-JAN-2011 8:08
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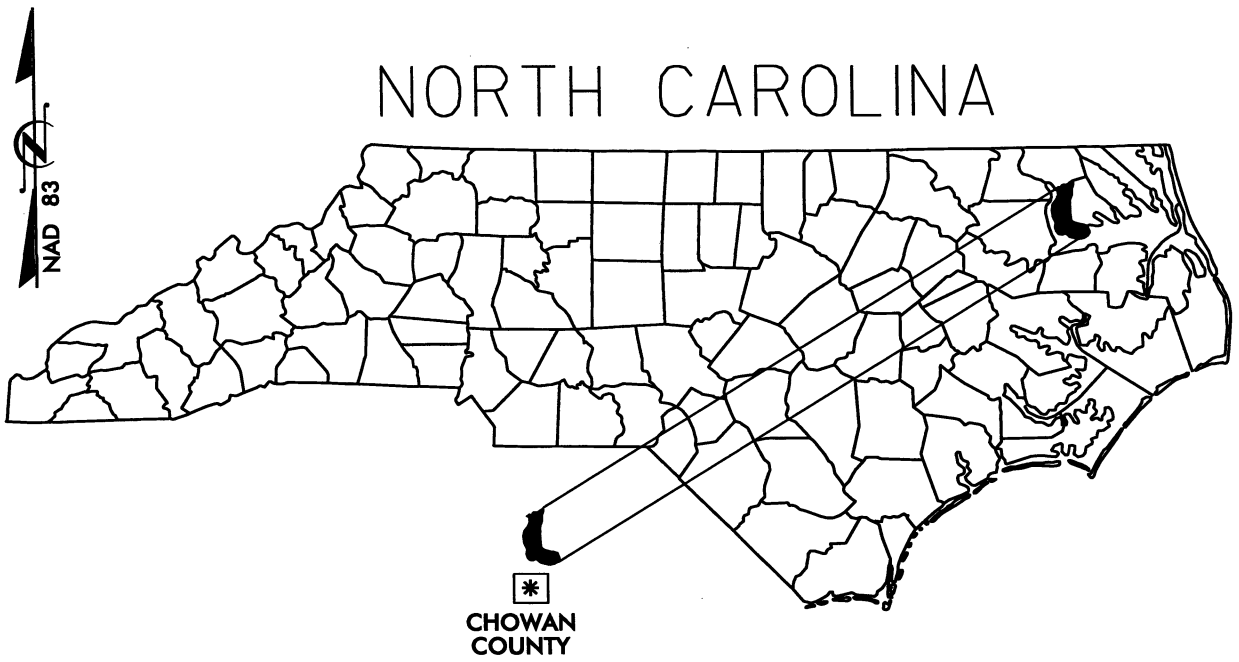


Utility Permit Drawing
Sheet 2 of 9

VICINITY MAPS

NORTH CAROLINA

DIVISION OF HIGHWAYS
CHOWAN COUNTY
PROJECT: 33713 (B-4463)
REPLACEMENT OF BRIDGE #12
OVER QUEEN ANNE CREEK
ON NC 32

SHEET 1 OF 4 **1/25/11**

NEU UTILITY RELOCATE PERMIT PLANS 1-20-2011

PROJECT REFERENCE NO.	SHEET NO.
B-4463	U-2

DESIGNED BY: KSM
DRAWN BY: KSM
CHECKED BY: CBB
APPROVED BY: CBB
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE: (919)250-4128
FAX: (919)250-4119

UTILITY CONSTRUCTION PLANS ONLY

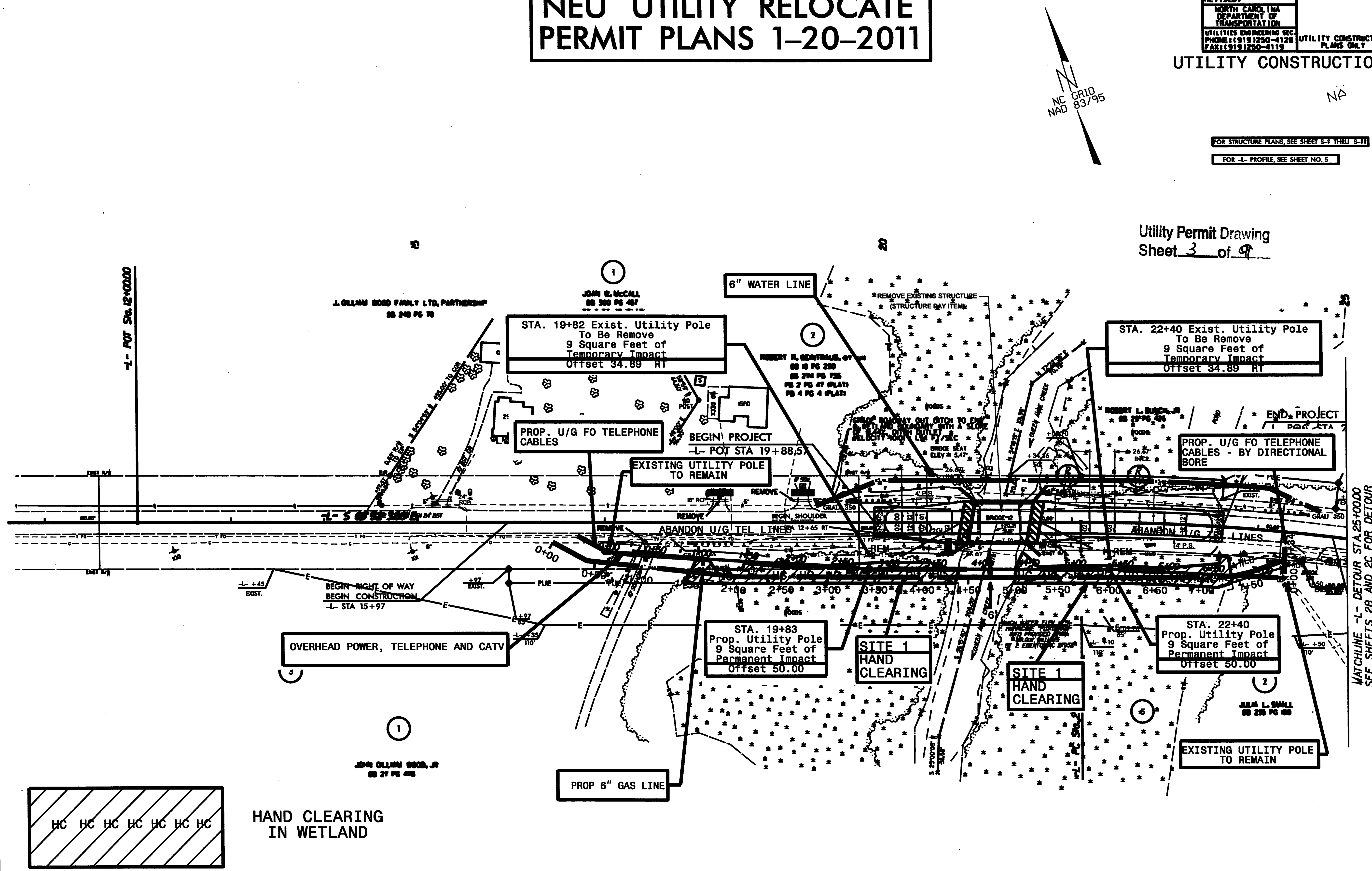
UTILITY CONSTRUCTION

NA

FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-11

FOR -L- PROFILE, SEE SHEET NO. 5

Utility Permit Drawing
Sheet 3 of 9



NC GRID
NAD 83/95
-L- POT Sta. 12+00.00
J. GILLIAM WOOD FAMILY LTD. PARTNERSHIP
JOHN R. McCALL
STA. 19+82 Exist. Utility Pole
To Be Remove
9 Square Feet of
Temporary Impact
Offset 34.89 RT
6" WATER LINE
REMOVE EXISTING STRUCTURE
(STRUCTURE PAY ITEM)
STA. 22+40 Exist. Utility Pole
To Be Remove
9 Square Feet of
Temporary Impact
Offset 34.89 RT
ROBERT L. BUNCH, JR
END PROJECT
PROP. U/G FO TELEPHONE
CABLES
BEGIN PROJECT
-L- POT STA 19+88.57
EXISTING UTILITY POLE
TO REMAIN
PROP. U/G FO TELEPHONE
CABLES - BY DIRECTIONAL
BORE
ABANDON U/G TEL LINES
REMOVE
BEGIN SHOULDER
BEGIN RIGHT OF WAY
BEGIN CONSTRUCTION
-L- STA 15+97
OVERHEAD POWER, TELEPHONE AND CATV
STA. 19+83
Prop. Utility Pole
9 Square Feet of
Permanent Impact
Offset 50.00
SITE 1
HAND
CLEARING
SITE 1
HAND
CLEARING
STA. 22+40
Prop. Utility Pole
9 Square Feet of
Permanent Impact
Offset 50.00
MATCHLINE -L- DETOUR STA.25+00.00
SEE SHEETS 2B AND 2C FOR DETOUR
JULIA L. SMALL
JOHN GILLIAM WOOD, JR
PROP 6" GAS LINE
EXISTING UTILITY POLE
TO REMAIN
HC HC HC HC HC HC HC
HAND CLEARING
IN WETLAND

5/14/99

25-JAN-2011 09:28

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4463	U-3

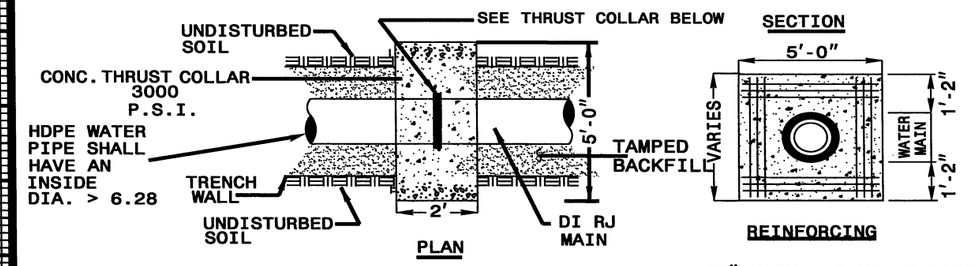
DESIGNED BY:	KSM
DRAWN BY:	KSM
CHECKED BY:	CDB
APPROVED BY:	CDB
REVISED:	3/29/10

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)250-4128
FAX:(919)250-4119

NORTH CAROLINA PROFESSIONAL SEAL 23041 ENGINEER CASEY D. BOUSQUET

UTILITY CONSTRUCTION PLANS ONLY

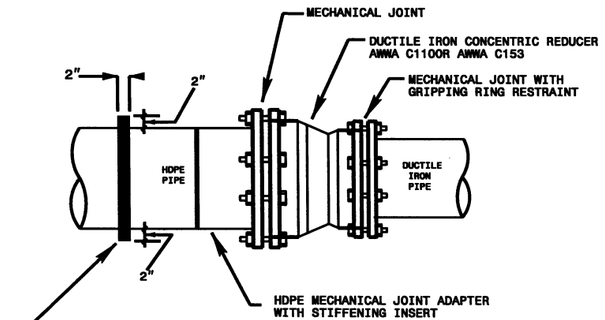
UTILITY CONSTRUCTION



10" MAIN= 12-NO. 7 BARS
BARS PLACED AS SHOWN

NOTE: BOTTOM OF TRENCH NEEDS TO BE STABILIZED TO SUPPORT THE WEIGHT OF THE THRUST COLLAR.

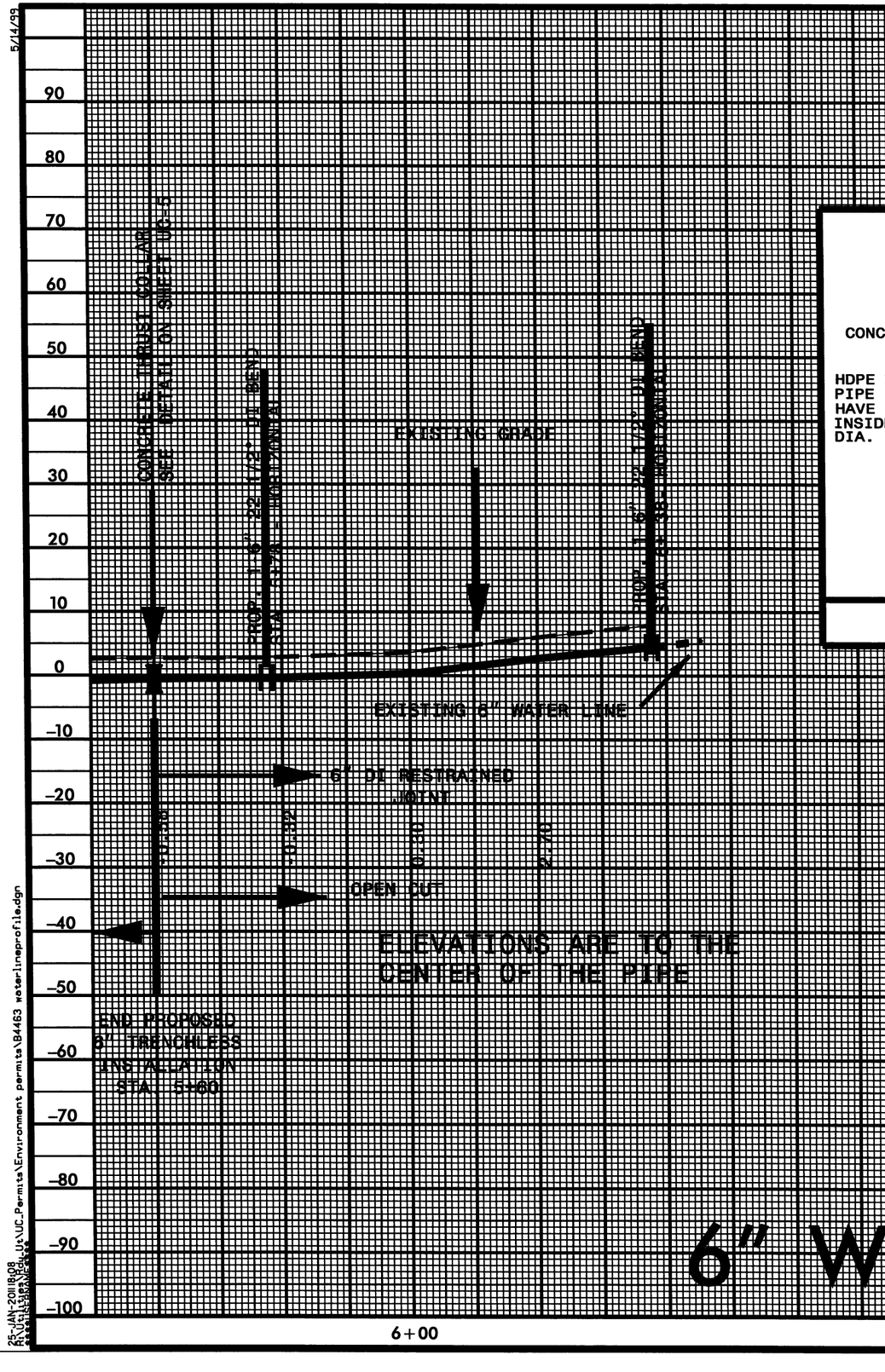
CONCRETE THRUST COLLAR DETAIL - 6" WATER LINE



Utility Permit Drawing
Sheet 4 of 9

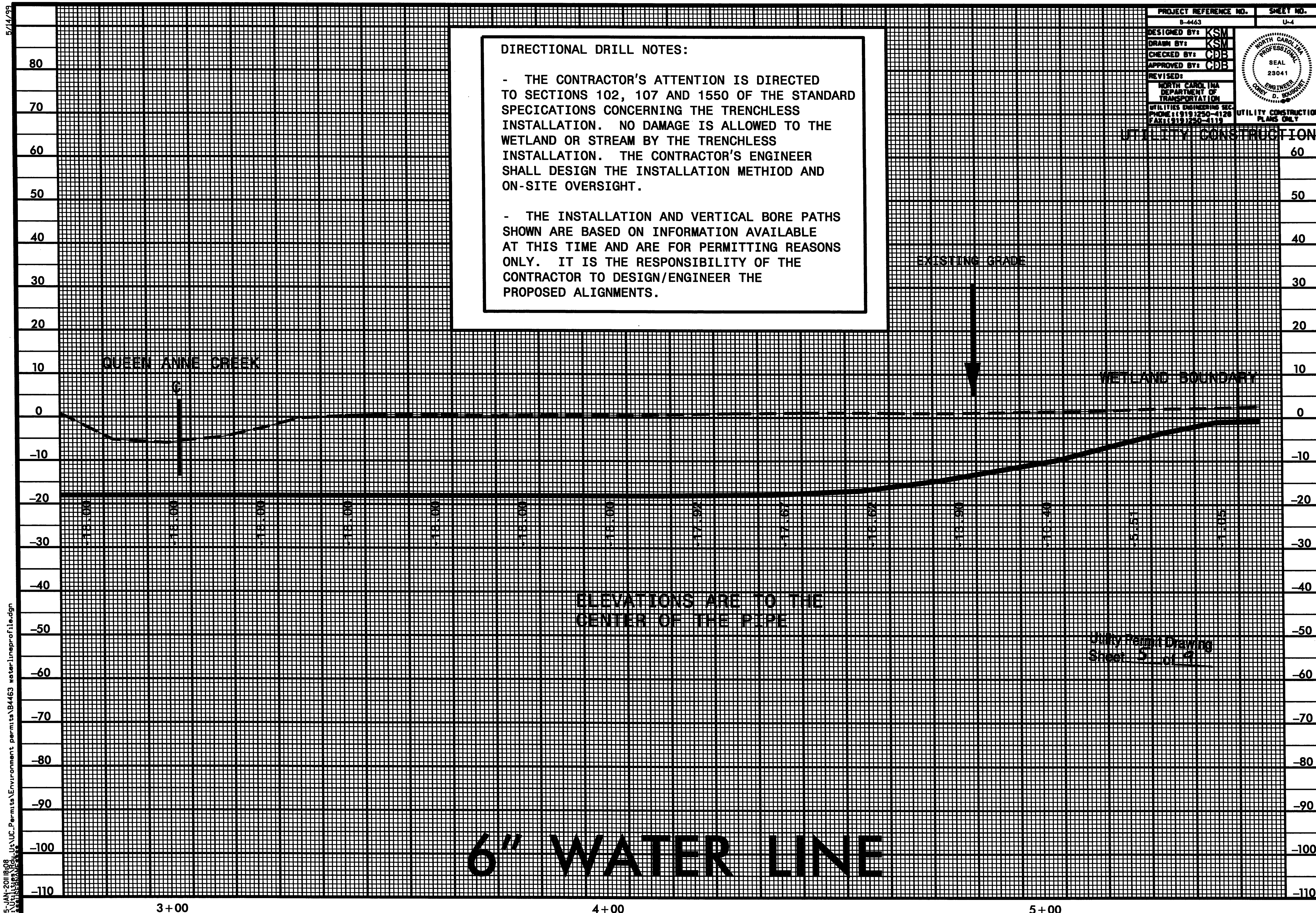
NOTE: SEE SEPARATE DETAIL FOR CONCRETE THRUST COLLAR

TRANSITION DETAIL FROM HDPE TO DI WATER PIPE



6" WATER LINE

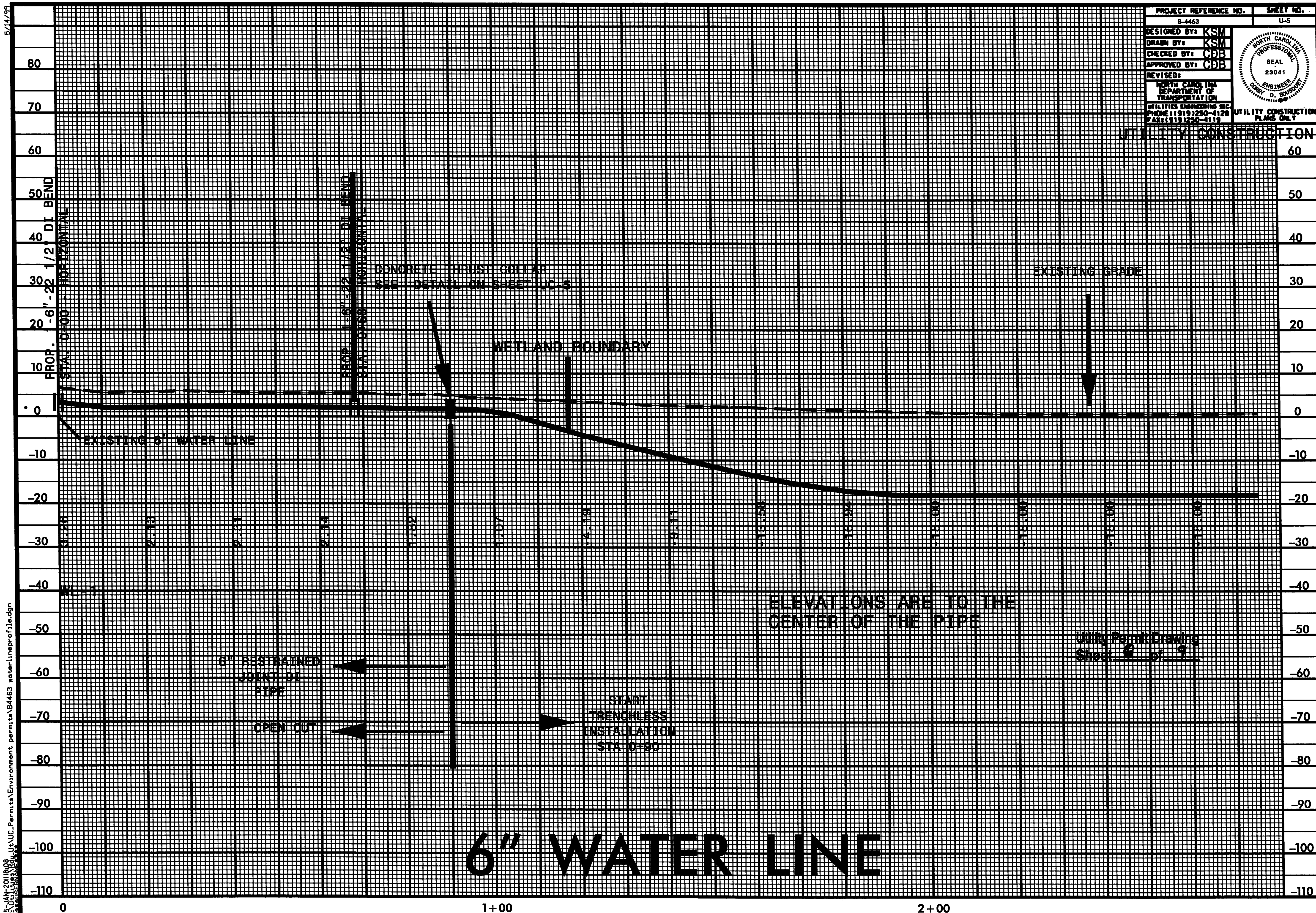
25-JAN-2011 18:08
R:\Utilities\Projects\U\UC_Permits\Environment permits\B4463 waterlineprofile.dgn


PROJECT REFERENCE NO.
B-4463
SHEET NO.
U-4
DESIGNED BY: KSM
DRAWN BY: KSM
CHECKED BY: CDB
APPROVED BY: CDB
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)250-4128
FAX:(919)250-4119
NORTH CAROLINA PROFESSIONAL SEAL 23041 ENGINEER COREY D. BOUSQUET
UTILITY CONSTRUCTION PLANS ONLY
UTILITY CONSTRUCTION
QUEEN ANNE CREEK
EXISTING GRADE
WETLAND BOUNDARY
-18.00
-18.00
-18.00
-18.00
-18.00
-18.00
-18.00
-17.92
-17.67
-16.62
-13.90
-10.40
-5.51
-1.05
ELEVATIONS ARE TO THE CENTER OF THE PIPE
Utility Permit Drawing Sheet 5 of 9
6" WATER LINE
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
3+00
4+00
5+00
5/14/99
25-JAN-2011 8:08
waterlineprofile.dgn

DIRECTIONAL DRILL NOTES:

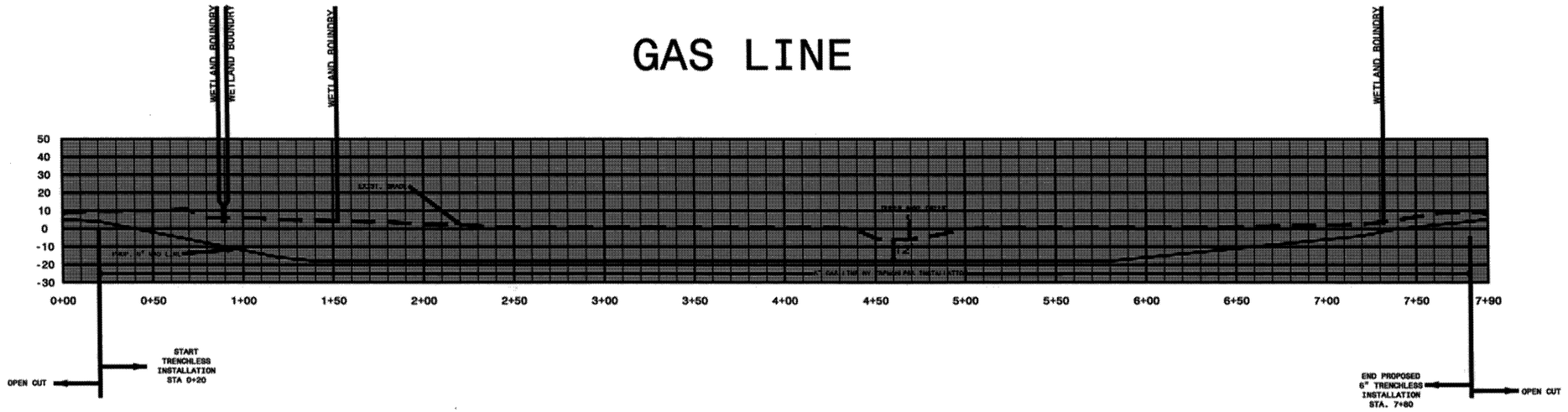
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107 AND 1550 OF THE STANDARD SPECICATIONS CONCERNING THE TRENCHLESS INSTALLATION. NO DAMAGE IS ALLOWED TO THE WETLAND OR STREAM BY THE TRENCHLESS INSTALLATION. THE CONTRACTOR'S ENGINEER SHALL DESIGN THE INSTALLATION METHIOD AND ON-SITE OVERSIGHT.

- THE INSTALLATION AND VERTICAL BORE PATHS SHOWN ARE BASED ON INFORMATION AVAILABLE AT THIS TIME AND ARE FOR PERMITTING REASONS ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN/ENGINEER THE PROPOSED ALIGNMENTS.

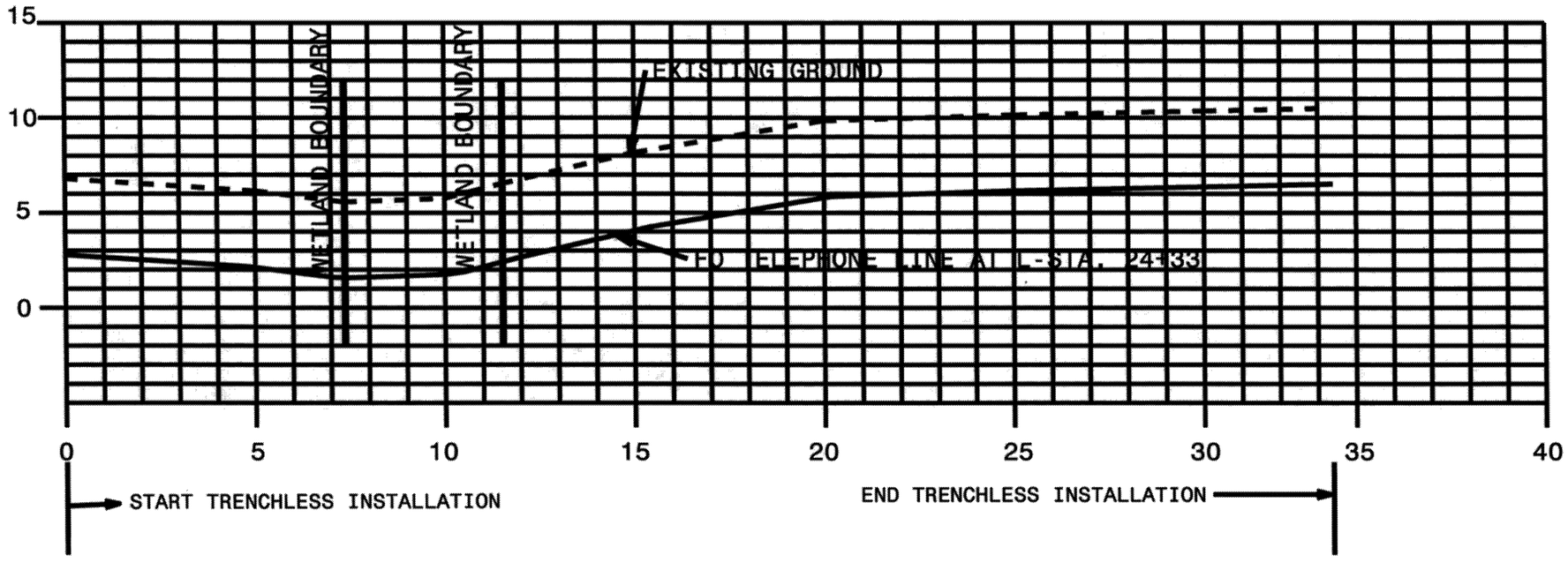

PROJECT REFERENCE NO.
B-4463
SHEET NO.
U-5
DESIGNED BY: KSM
DRAWN BY: KSM
CHECKED BY: CDB
APPROVED BY: CDB
REVISED:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)250-4128
FAX:(919)250-4119
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 23041 COREY D. BOUSQUET
UTILITY CONSTRUCTION PLANS ONLY
UTILITY CONSTRUCTION
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
PROP. 1-6"-22 1/2° DI BEND
STA. 0+00 - HORIZONTAL
PROP. 1-6"-22 1/2° DI BEND
STA. 0+68 - HORIZONTAL
CONCRETE THRUST COLLAR
SEE DETAIL ON SHEET UC-6
WETLAND BOUNDARY
EXISTING GRADE
EXISTING 6" WATER LINE
3.26
2.13
2.31
2.14
1.32
1.07
-4.19
-9.11
-13.58
-16.94
-18.00
-18.00
-18.00
-18.00
WL-1
ELEVATIONS ARE TO THE
CENTER OF THE PIPE
Utility Permit Drawing
Sheet ___ of ___
6" RESTRAINED
JOINT DI
PIPE
OPEN CUT
START
TRENCHLESS
INSTALLATION
STA 0+90
6" WATER LINE
0
1+00
2+00

PROJECT REFERENCE NO.	SHEET NO.
8-4463	U-6

GAS LINE



TELEPHONE LINE



Utility Permit Drawing
Sheet 7 of 9

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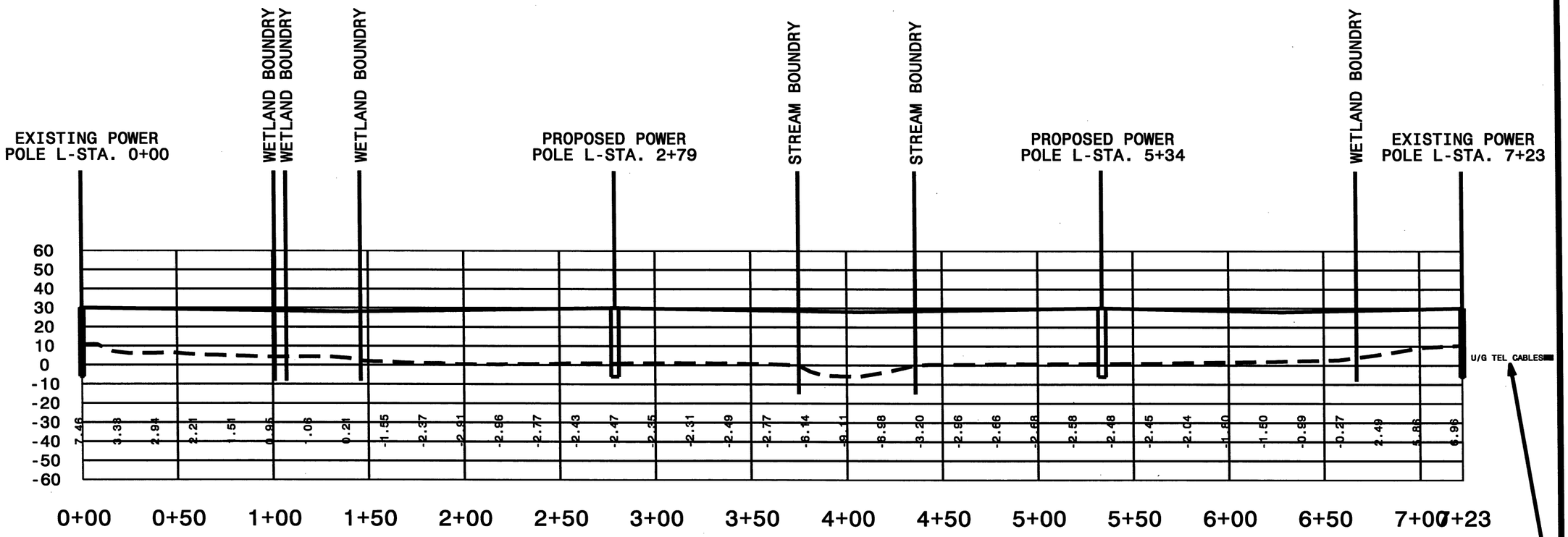
permits\ges_tel_profile_neu_permit_plans.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-4463	U-7
DESIGNED BY: KSM	
DRAWN BY: KSM	
CHECKED BY: CDB	
APPROVED BY: CDB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)250-4128 FAX: (919)250-4119	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

OVERHEAD POWER LINES



PROPOSED U/G TELPHONE CABLES, SEE SHEET U-6

Utility Permit Drawing
Sheet 8 of 9

25-JAN-2011 8:08
UC_Permits\Environment permits\b4463_rdy_permit_2_psh.dgn

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND 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)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L-17+84 TO 20+78	Multi-use Line	*				0.13					
2	'-L-21+37 TO 23+76	Multi-use Line					0.11					
TOTALS:			0.00	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00

Note 1: 22 sq. ft. temporary impact in the wetlands from pole removal or temporary poles.
Note 2 : 2 sq. ft. permanent impact in the wetlands from permanent pole installation.

Utility Permit Drawing
Sheet 9 of 9

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CHOWAN COUNTY
TIP PROJECT (B-4463)
BRIDGE NO. 12
OVER QUEEN ANNE CREEK ON NC 32
SHEET 4 OF 5 3/8/2010

ATN Revised 3/31/05

See Sheet 1-A For Index of Sheets

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4463	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
33713.1.2	STP-0032(8)	P.E.
33713.2.1	STP-0032(8)	R.W. & UTILITY
33713.3.1	STP-0032(8)	CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

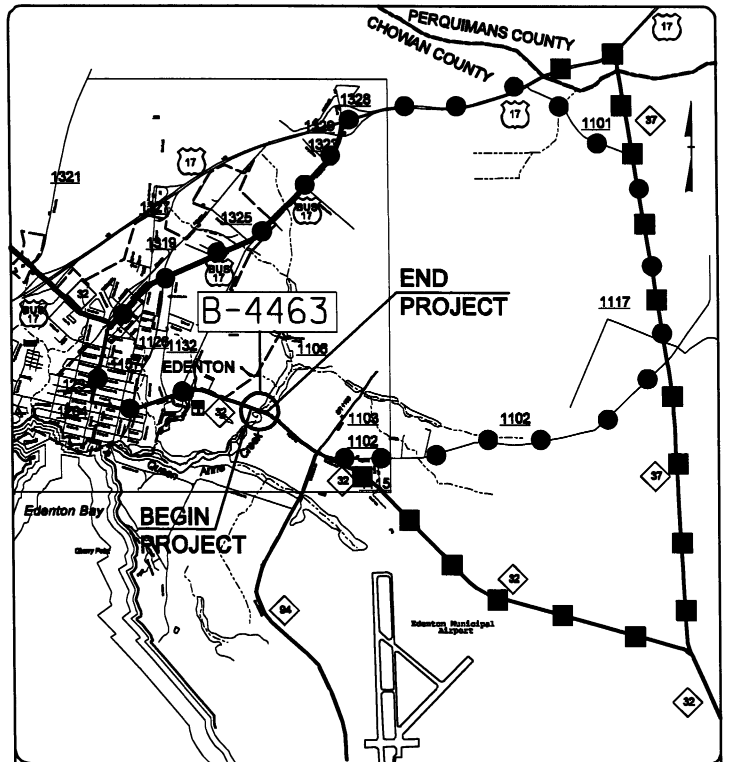
CHOWAN COUNTY

LOCATION: BRIDGE NO. 12 OVER QUEEN ANNE CREEK ON NC 32

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

TIP PROJECT: B-4463

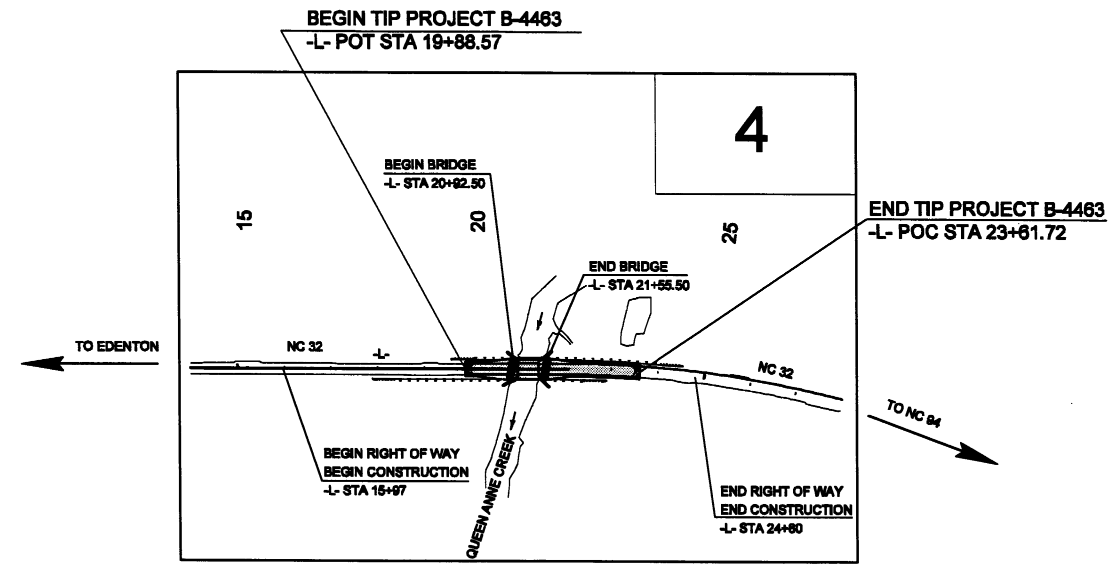
90% PLANS



OFFSITE DETOUR

TRUCK ROUTE DETOUR

PROJECT VICINITY MAP



NC GRID NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NCDOT Contact: B. Doug Taylor, PE
Roadway Design-Engineering Coordination

GRAPHIC SCALES

50 25 0 50 100 — PLANS

50 25 0 50 100 — PROFILE (HORIZONTAL)

10 5 0 10 20 — PROFILE (VERTICAL)

DESIGN DATA

ADT 2011 = 6280
ADT 2030 = 9200
DHV = 10 %
D = 60 %
T = 5% (TTST 2%, DUAL 3%)
V = 60 MPH

FUNC CLASS = MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4463	=	0.059 MILE
LENGTH STRUCTURE TIP PROJECT B-4463	=	0.012 MILE
TOTAL LENGTH TIP PROJECT B-4463	=	0.071 MILE

Prepared In the Office of
DYER, RIDDLE, MILLS & PRECOURT, INC. (DRMP)
7506 EAST INDEPENDENCE BLVD., SUITE 105
CHARLOTTE, NORTH CAROLINA 28227
(704) 332-2289 NC LICENSE NO. C-2213

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
OCTOBER 15, 2010

LETTING DATE:
OCTOBER 18, 2011

Ronald C. Smith, PE
PROJECT ENGINEER

PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 13690 ENGINEER RONALD C. SMITH

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY DESIGN ENGINEER P.E.

CONTRACT:

09/08/99

R:\Roadway\Proj\B4463_Rdy_tsh.dgn
2:19:25 PM
8/24/2010

3/15/06

PROJECT REFERENCE NO.	SHEET NO.
B-4463	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — IP
- Property Corner
- Property Monument — CM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite Marker
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Utility Easement — PUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole — HH
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

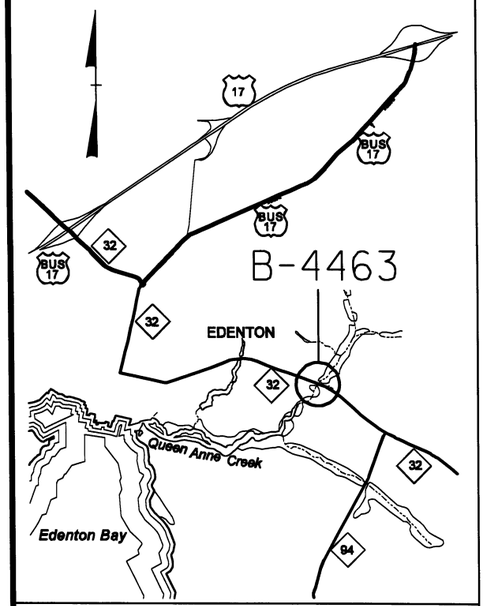
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?U/G
- U/G Tank; Water, Gas, Oil
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
B-4463	I-C
LOCATION AND SURVEYS	

SURVEY CONTROL SHEET B-4463



PROJECT VICINITY MAP

CONTROL DATA

BL

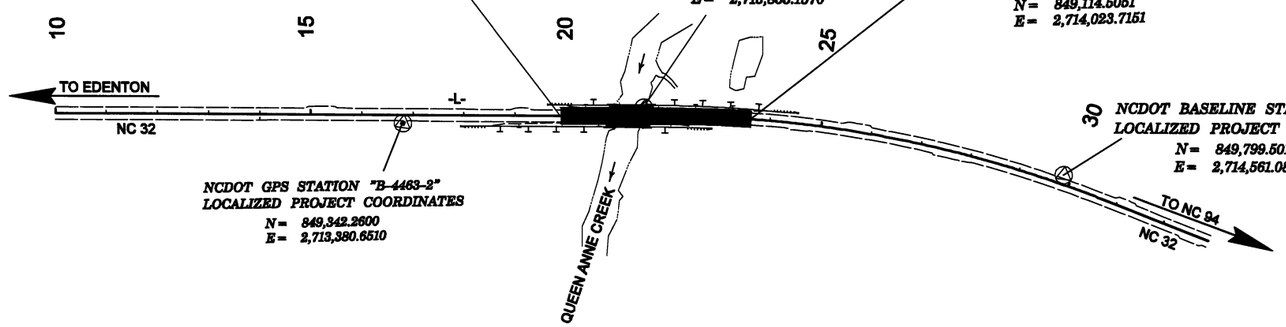
POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
B44631	GPS MON B4463-1	849855.8240	2712004.6850	12.20	OUTSIDE PROJECT LIMITS	
B44632	GPS MON B4463-2	849342.2600	2713380.6510	7.99	16+79.50	16.51 RT
BL3	BL3	849208.1810	2713835.1570	4.81	21+52.20	16.79 LT
BL4	BL4	848799.5010	2714561.0850	11.56	29+83.79	18.25 LT

NC GRID
NAD 83/95

BEGIN TIP PROJECT B-4463
-L- STA 19+88.57
LOCALIZED PROJECT COORDINATES
N= 849,249.6585
E= 2,713,675.9843

NCDOT BASELINE STATION "BL-3"
LOCALIZED PROJECT COORDINATES
N= 849,208.1810
E= 2,713,835.1570

END TIP PROJECT B-4463
-L- STA 23+61.72
LOCALIZED PROJECT COORDINATES
N= 849,114.5051
E= 2,714,023.7151



NCDOT GPS STATION "B-4463-1"
LOCALIZED PROJECT COORDINATES
N= 849,855.8240
E= 2,712,004.6850

NCDOT GPS STATION "B-4463-2"
LOCALIZED PROJECT COORDINATES
N= 849,342.2600
E= 2,713,380.6510

NCDOT BASELINE STATION "BL-4"
LOCALIZED PROJECT COORDINATES
N= 849,799.5010
E= 2,714,561.0850

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4463-1" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 849855.824(ft) EASTING: 2712004.685(ft) ELEVATION: 12.20(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99997746
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4463-1" TO -L- STATION 15+97.00 IS S70°03'53"E 1,777.83'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

BENCHMARK DATA

****

BM5 ELEVATION = 8.11
N 849171 E 2713349
L STATION 17+09 188 RIGHT

****

BM6 ELEVATION = 13.53
N 848737 E 2714693
L STATION 31+24 58 LEFT

****

NOTE: DRAWING NOT TO SCALE

NOTES:

THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING HTTP:\WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT

FILE: b4463_ls_control_090218.txt

SITE CALIBRATION PARAMETERS HAVE NOT BEEN DETERMINED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.

PROJECT CONTROL ESTABLISHED UTILIZING GLOBAL POSITIONING SYSTEM.

NETWORK FOR GPS "B4463-1" ESTABLISHED FROM NGS ONLINE POSITIONING USER SERVICE (OPUS)

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
B-4463	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

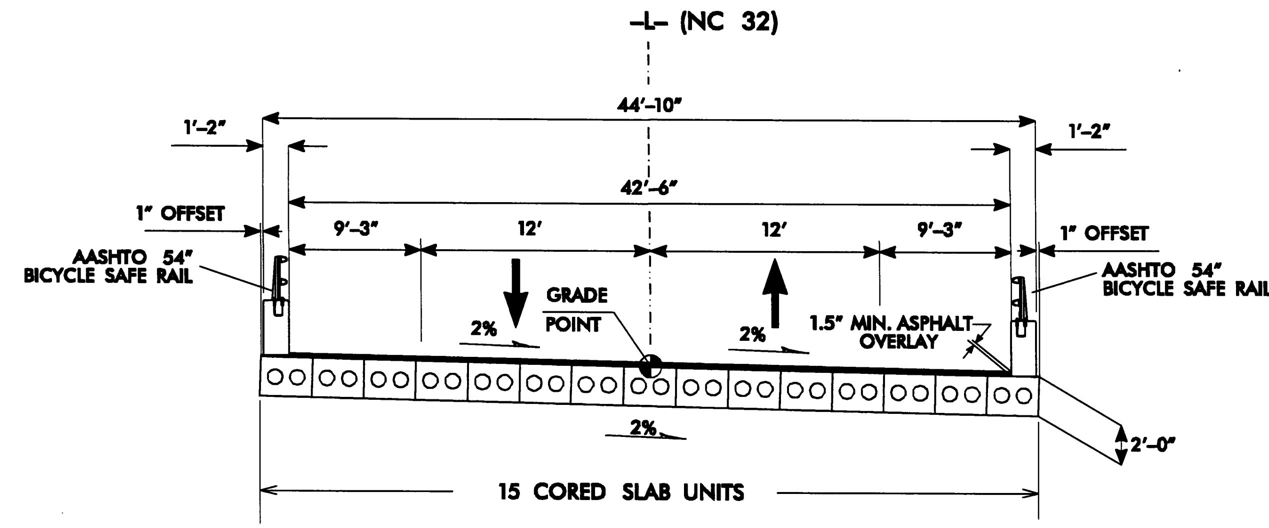
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DRMP
ENGINEERS · PLANNERS · SCIENTISTS
DYER, RIDDLE, MILLS & PRECOURT, INC.
7506 EAST INDEPENDENCE BLVD., SUITE 105
CHARLOTTE, NORTH CAROLINA 28227
(704) 332-2289
NC LICENSE NO. C-2213

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2.0" IN DEPTH.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4.0" IN DEPTH.
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
V	PROP. APPROX. 1.5" MILLING ASPHALT PAVEMENT
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING. (SEE WEDGING DETAIL, THIS SHEET)

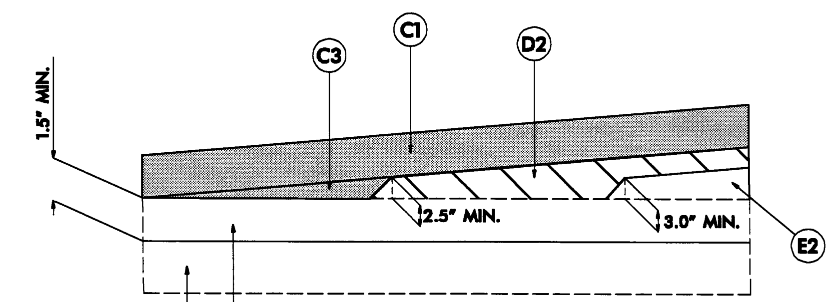
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



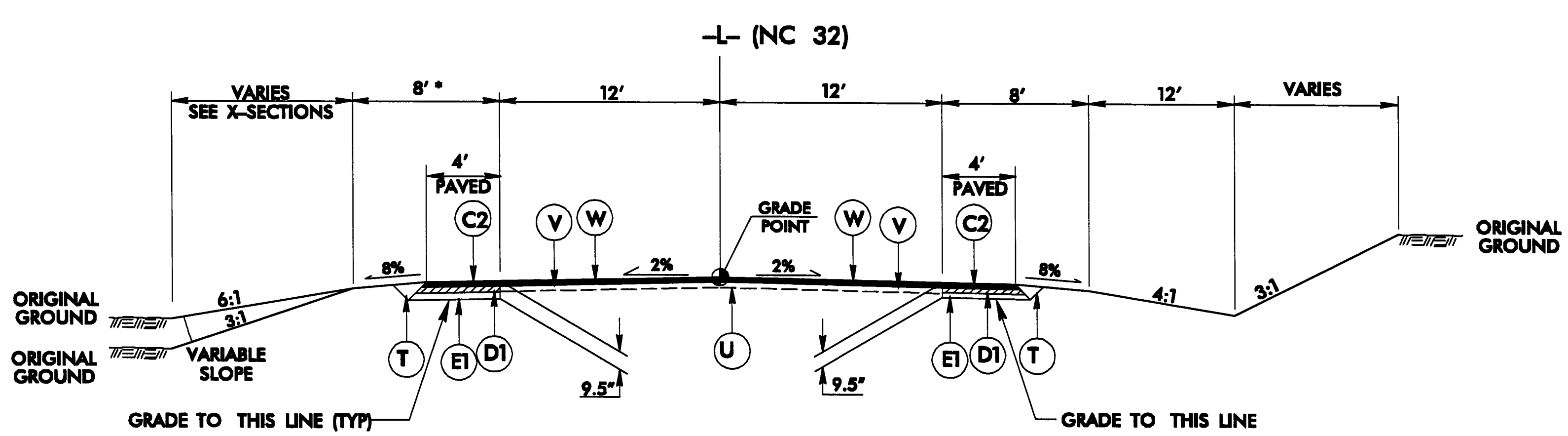
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

-L- STA 20+92.50 (BEGIN BRIDGE) TO -L- STA 21+55.50 (END BRIDGE)

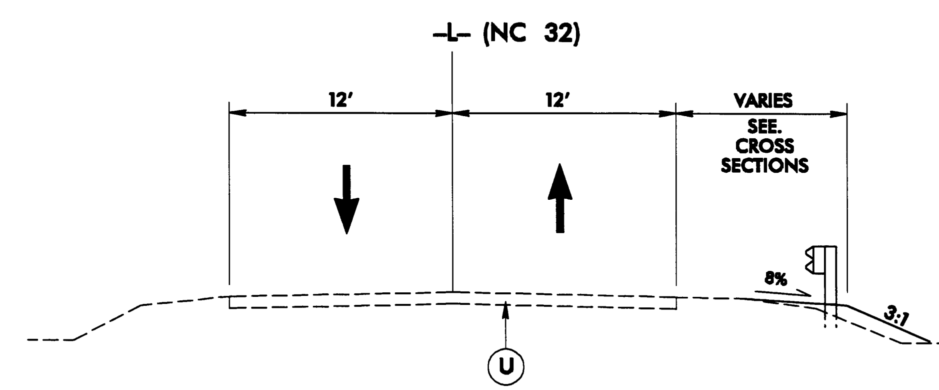


(W) – Wedging Detail



* 11' WITH GUARDRAIL

TYPICAL SECTION NO. 1



TYPICAL SECTION NO. 3
SHOULDER CONSTRUCTION

USE TYPICAL SECTION NO. 3

-L- STA 17+71.27 TO -L- STA 19+88.57 RT.
-L- STA 19+30.76 TO -L- STA 19+88.57 LT.

USE TYPICAL SECTION NO. 1

-L- STA 20+03.57 TO -L- STA 20+92.50 (BEGIN BRIDGE)
-L- STA 21+55.50 (END BRIDGE) TO -L- STA 23+46.72

TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING (INCLUDES FEATHERING)

-L- STA 19+88.57 (BEGIN PROJECT) TO -L- STA 20+03.57
-L- STA 23+46.72 TO -L- STA 23+61.72 (END PROJECT)

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8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
B-4463	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

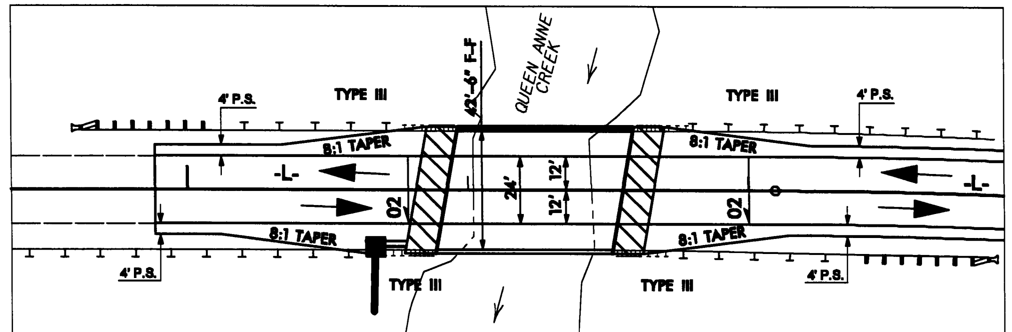
PRELIMINARY PLANS

DRMP
DYER, RIDDLE, MILLS & PRECOURT, INC.
CHARLOTTE, NORTH CAROLINA 28227
NC LICENSE NO. C-2213

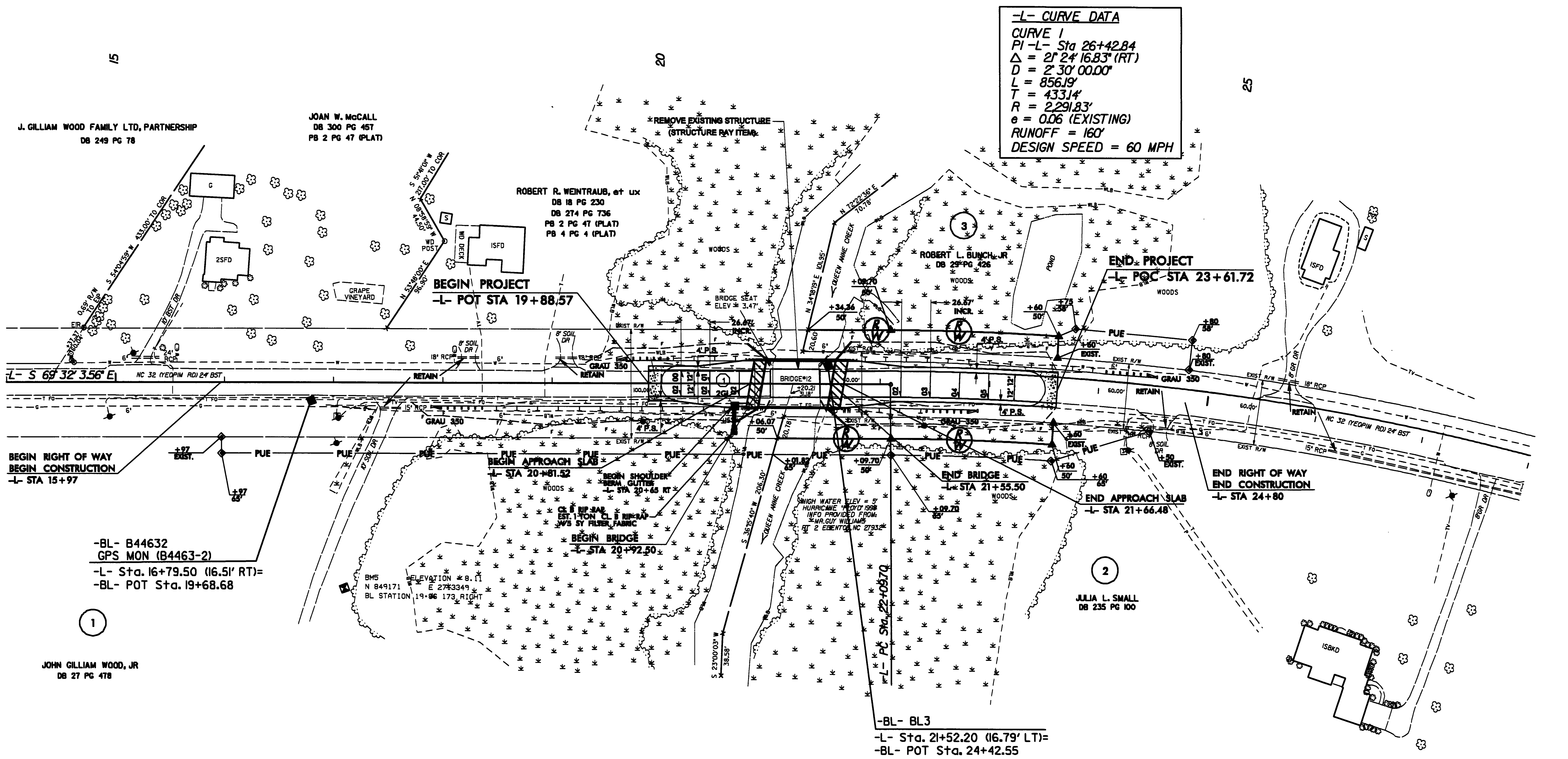
MA Engineering CONSULTANTS, INC.

FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-??

FOR -L- PROFILE, SEE SHEET NO. 5



SKETCH SHOWING BRIDGE/PAVEMENT RELATIONSHIP



NC GRID
NAD 83/95
-L- CURVE DATA
CURVE 1
PI -L- Sta 26+42.84
Δ = 21° 24' 16.83" (RT)
D = 2° 30' 00.00"
L = 856.19'
T = 433.14'
R = 2,291.83'
e = 0.06 (EXISTING)
RUNOFF = 160'
DESIGN SPEED = 60 MPH
15
20
25
J. GILLIAM WOOD FAMILY LTD. PARTNERSHIP
DB 249 PG 78
JOAN W. McCALL
DB 300 PG 457
PB 2 PG 47 (PLAT)
ROBERT R. WEINTRAUB, et ux
DB 18 PG 230
DB 274 PG 736
PB 2 PG 47 (PLAT)
PB 4 PG 4 (PLAT)
REMOVE EXISTING STRUCTURE
(STRUCTURE PAY ITEM)
ROBERT L. BUNCH, JR
GRAPE VINEYARD
WOODS
BEGIN PROJECT
-L- POT STA 19+88.57
END PROJECT
-L- POC STA 23+61.72
-L- S 69° 32' 3.56" E
NC 32 (YEOPIM RD) 24' BST
BRIDGE #12
BEGIN RIGHT OF WAY
BEGIN CONSTRUCTION
-L- STA 15+97
BEGIN APPROACH SLAB
-L- STA 20+81.52
BEGIN BRIDGE
-L- STA 20+92.50
END BRIDGE
-L- STA 21+55.50
END APPROACH SLAB
-L- STA 21+66.48
END RIGHT OF WAY
END CONSTRUCTION
-L- STA 24+80
-BL- B44632
GPS MON (B4463-2)
-L- Sta. 16+79.50 (16.51' RT)=
-BL- POT Sta. 19+68.68
-L- PC Sta. 22+08.70
-BL- BL3
-L- Sta. 21+52.20 (16.79' LT)=
-BL- POT Sta. 24+42.55
1
JOHN GILLIAM WOOD, JR
DB 27 PG 478
2
JULIA L. SMALL
DB 235 PG 100
3

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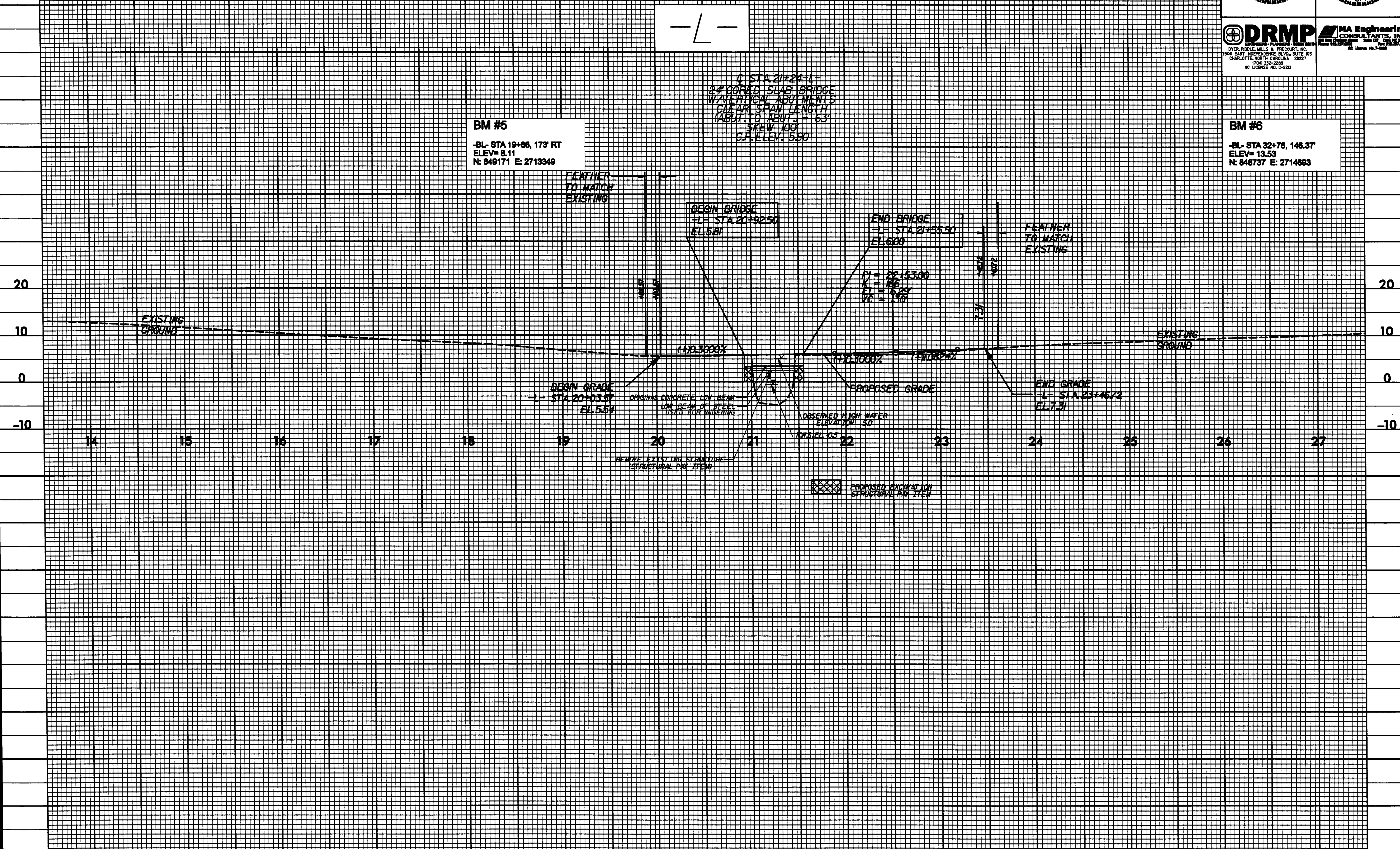
PROJECT REFERENCE NO.	SHEET NO.
B-4463	5

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

PRELIMINARY PLANS

DRMP — MA Engineering CONSULTANTS, INC.

-L-



℄ STA 21+24 -L-
24" CORED SLAB BRIDGE
W/VERTICAL ABUTMENTS
CLEAR SPAN LENGTH
(ABUT. TO ABUT.) = 63'
SKEW 100°
G.R. ELEV. 5.90
BM #5
-BL- STA 19+86, 173' RT
ELEV= 8.11
N: 849171 E: 2713349
BM #6
-BL- STA 32+76, 146.37'
ELEV= 13.53
N: 848737 E: 2714693
FEATHER TO MATCH EXISTING
BEGIN BRIDGE -L- STA 20+92.50 EL 5.81
END BRIDGE -L- STA 21+55.50 EL 6.00
PI = 22+53.00
K = 166
EL = 6.29'
VC = 130'
FEATHER TO MATCH EXISTING
EXISTING GROUND
(+)0.3000%
(+)0.3000%
(+)1.0824%
BEGIN GRADE -L- STA 20+03.57 EL 5.54
ORIGINAL CONCRETE LOW BEAM
LOW BEAM OF STEEL USED FOR WIDENING
OBSERVED HIGH WATER ELEVATION 5.0'
N.W.S. EL -0.5'
PROPOSED GRADE
END GRADE -L- STA 23+46.72 EL 7.31
7.31
EXISTING GROUND
REMOVE EXISTING STRUCTURE (STRUCTURAL PAY ITEM)
PROPOSED EXCAVATION STRUCTURAL PAY ITEM
20
10
0
-10
14
15
16
17
18
19
20
21
22
23
24
25
26
27

5/14/99

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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4463	X-1

—L—

7.55

3:1

18+50.00

8.32

3:1

18+00.00

BEGIN SHOULDER STA 17+71.27 RT

8.17

17+50.00

9.29

17+00.00

—L—

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

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2:25:04 PM
8/24/2016

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4463	X-2

—/—

0.018 0.020

3:1 3:1

5.63

20+65.50

0.012 0.020

3:1 3:1

5.64

20+50.00

3:1 3:1

PROP. MILLING

20+03.57

BEGIN PROJECT STA 19+88.57

3:1 3:1

6.03

19+50.00

BEGIN SHOULDER STA 19+30.76 LT

3:1 3:1

6.82

19+00.00

—/—

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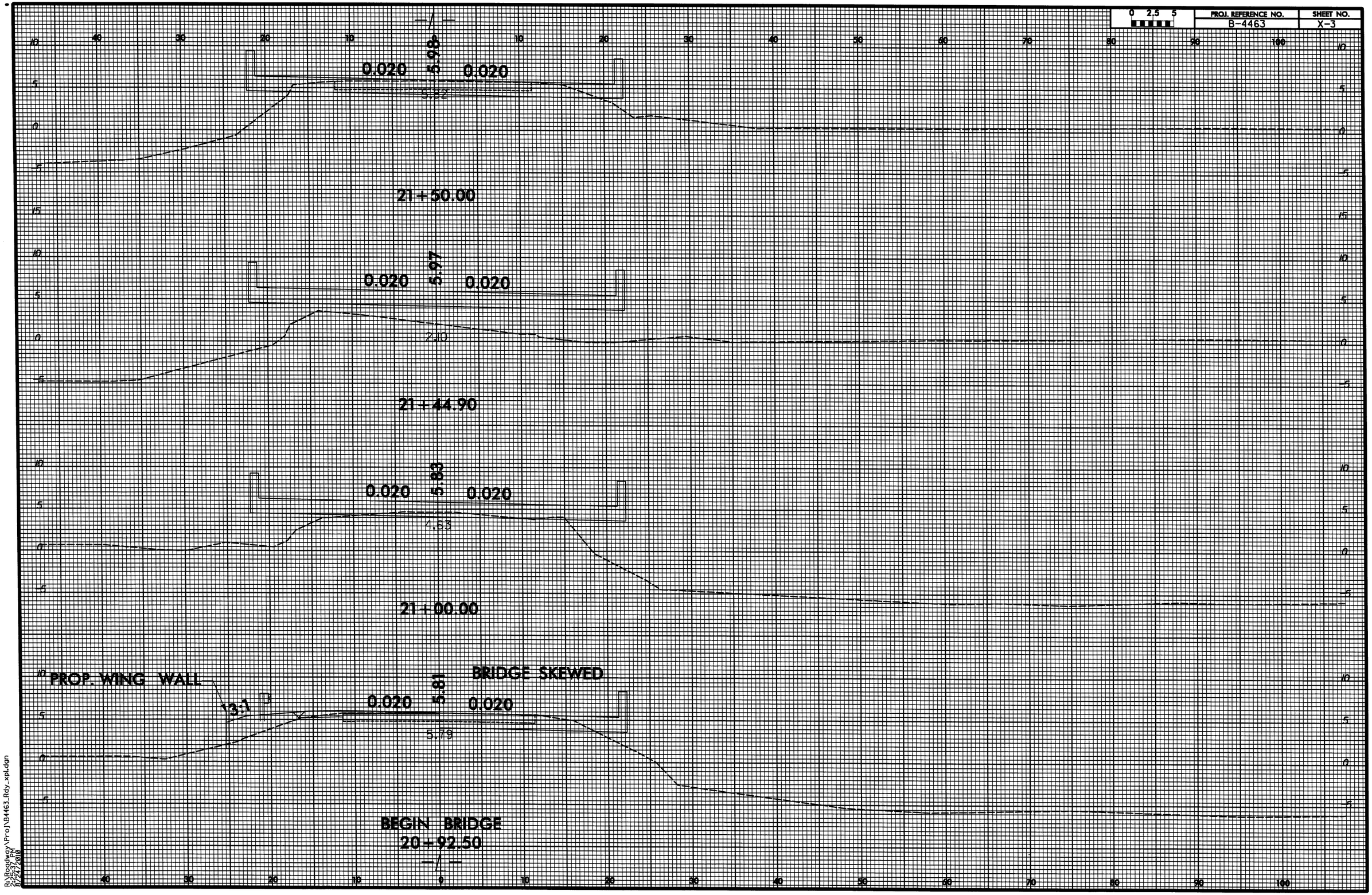
	B-4463	X-3



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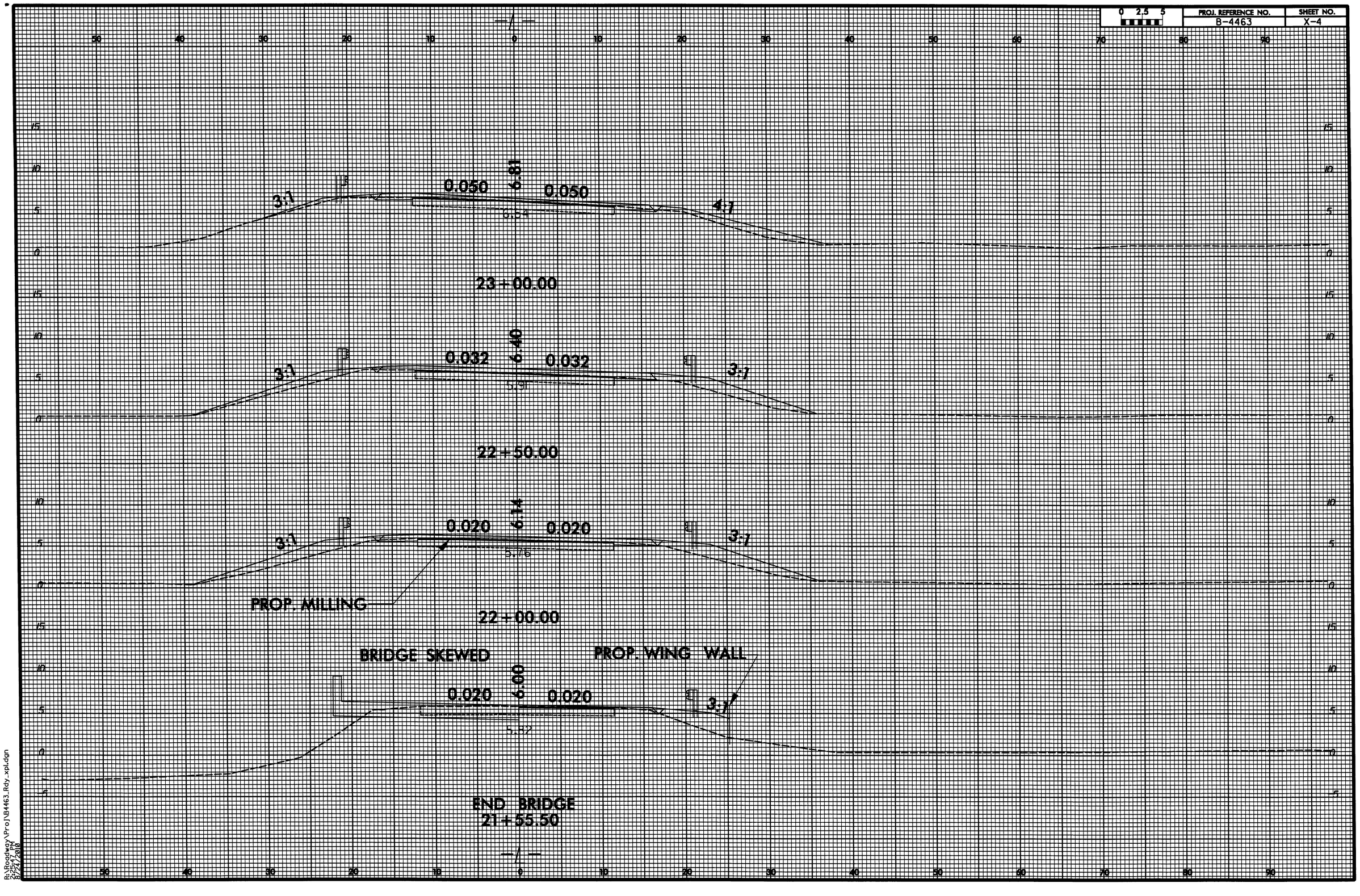
8/22/2016

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4463	X-4



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8/23/2010

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-4463	X-5

8.56

25+00.00

8.32

24+50.00

7.87

24+00.00

END PROJECT STA. 23+61.72

MATCH EXIST.

3:1

7.23

4:1

PROP. MILLING

23+50.00

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8/25/08 8:41

DCM MP-1

APPLICATION for Major Development Permit

(last revised 12/27/06)

North Carolina DIVISION OF COASTAL MANAGEMENT

1. Primary Applicant/ Landowner Information

Business Name North Carolina Department Of Transportation		Project Name (if applicable) B-4463	
Applicant 1: First Name Gregory	MI	Last Name Thorpe	
Applicant 2: First Name	MI	Last Name	
If additional applicants, please attach an additional page(s) with names listed.			
Mailing Address 1598 Mail Service Center	PO Box	City Raleigh	State NC
ZIP 27699 1598	Country USA	Phone No. 919 - 431 - 6746 ext.	FAX No. 919 - 431 - 2002
Street Address *(if different from above)* 4701 Atlantic Avenue Suite 116	City Raleigh	State NC	ZIP 27604-
Email cdmanley@ncdot.gov			

2. Agent/Contractor Information

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

<Form continues on back>

3. Project Location

County (can be multiple)	Street Address		State Rd. #
Chowan	Bridge No. 12 over Queen Anne Creek		NC 32
Subdivision Name	**City**	**State**	**Zip**
N/A	Edenton	NC	27932 -

Phone No.	Lot No.(s) *(if many, attach additional page with list)*
- - ext.	, , , ,
a. In which NC river basin is the project located? Chowan	b. Name of body of water nearest to proposed project Queen Anne Creek
c. Is the water body identified in (b) above, natural or manmade? ☒Natural ☐Manmade ☐Unknown	d. Name the closest major water body to the proposed project site. Albemarle Sound
e. Is proposed work within city limits or planning jurisdiction? ☐Yes ☒No	f. If applicable, list the planning jurisdiction or city limit the proposed work falls within.

4. Site Description

a. Total length of shoreline on the tract (ft.)	b. Size of entire tract (sq.ft.)
200 (both sides combined)	40,050
c. Size of individual lot(s) N/A, , , *(If many lot sizes, please attach additional page with a list)*	d. Approximate elevation of tract above NHW *(normal high water)* or NWL *(normal water level)* 3' ☐NHW or ☒NWL

e. Vegetation on tract
Cypress, sweetgum, green ash, swamp gum, red maple, poison ivy, Japanese honeysuckle, and trumpet creeper.

f. Man-made features and uses now on tract
Bridge and Roadway Approaches

g. Identify and describe the existing land uses adjacent to the proposed project site.
Agricultural & Sparse Residential

h. How does local government zone the tract?	i. Is the proposed project consistent with the applicable zoning? (Attach zoning compliance certificate, if applicable)
Right ot Way	☐Yes ☐No ☒NA

j. Is the proposed activity part of an urban waterfront redevelopment proposal? ☐Yes ☒No

k. Has a professional archaeological assessment been done for the tract? If yes, attach a copy. ☒Yes ☒No ☐NA

If yes, by whom? See CE (SHPO)

l. Is the proposed project located in a National Registered Historic District or does it involve a National Register listed or eligible property? ☐Yes ☒No ☐NA

<Form continues on next page>

m. (i) Are there wetlands on the site?	☒Yes ☐No
(ii) Are there coastal wetlands on the site?	☐Yes ☒No
(iii) If yes to either (i) or (ii) above, has a delineation been conducted? *(Attach documentation, if available)*	☒Yes ☐No
n. Describe existing wastewater treatment facilities. N/A	
o. Describe existing drinking water supply source. N/A	
p. Describe existing storm water management or treatment systems. None	

5. Activities and Impacts

a. Will the project be for commercial, public, or private use?	☐Commercial ☒Public/Government ☐Private/Community
b. Give a brief description of purpose, use, and daily operations of the project when complete. Public Road and Bridge	
c. Describe the proposed construction methodology, types of construction equipment to be used during construction, the number of each type of equipment and where it is to be stored. This project involves the replacement of Bridge No. 12 (NC 32) near Edenton. The bridge will be replaced at the existing location, and traffic will be routed on an off site detour. Top down construction will be the construction method. The existing bridge will be removed without dropping any components into the water. Typical construction, earth moving, and road surface equipment will be used.	
d. List all development activities you propose. Roadway and bridge construction	
e. Are the proposed activities maintenance of an existing project, new work, or both?	Both
f. What is the approximate total disturbed land area resulting from the proposed project?	32,300 ☒Sq.Ft or ☐Acres
g. Will the proposed project encroach on any public easement, public accessway or other area that the public has established use of?	☒Yes ☐No ☐NA
h. Describe location and type of existing and proposed discharges to waters of the state. See Permit Drawings	
i. Will wastewater or stormwater be discharged into a wetland?	☒Yes ☐No ☐NA
If yes, will this discharged water be of the same salinity as the receiving water?	☐Yes ☒No ☐NA
j. Is there any mitigation proposed? If yes, attach a mitigation proposal.	☒Yes ☐No ☐NA

<Form continues on back>

6. Additional Information

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

a. A project narrative.

b. An accurate, dated work plat (including plan view and cross-sectional drawings) drawn to scale. Please give the present status of the proposed project. Is any portion already complete? If previously authorized work, clearly indicate on maps, plats, drawings to distinguish between work completed and proposed.

c. A site or location map that is sufficiently detailed to guide agency personnel unfamiliar with the area to the site.

d. A copy of the deed (with state application only) or other instrument under which the applicant claims title to the affected properties.

e. The appropriate application fee. Check or money order made payable to DENR.

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

Name See attached list	Phone No.
Address	
Name	Phone No.
Address	
Name	Phone No.
Address	

g. A list of previous state or federal permits issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

Stormwater Permit, July 16, 2010 SW7100502

h. Signed consultant or agent authorization form, if applicable.

i. Wetland delineation, if necessary.

j. A signed AEC hazard notice for projects in oceanfront and inlet areas. *(Must be signed by property owner)*

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

7. Certification and Permission to Enter on Land

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

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

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

Date 1.24.11 Print Name _____

Signature E. L. Fuske

Please indicate application attachments pertaining to your proposed project.

☐DCM MP-2 Excavation and Fill Information ☒DCM MP-5 Bridges and Culverts

☐DCM MP-3 Upland Development

☐DCM MP-4 Structures Information

Form DCM MP-5

BRIDGES and CULVERTS

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

1. BRIDGES

☐ *This section not applicable*

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

b. Water body to be crossed by bridge:
Queen Anne Creek

c. Type of bridge (construction material):
24" Cored Slab

d. Water depth at the proposed crossing at NLW or NWL:
4.5'

e. (i) Will proposed bridge replace an existing bridge? ☒Yes ☐No
If yes,
(ii) Length of existing bridge: 45'
(iii) Width of existing bridge: 26'
(iv) Navigation clearance underneath existing bridge: 2'
(v) Will all, or a part of, the existing bridge be removed? (Explain) Yes, all of the existing bridge will be removed.

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

g. Length of proposed bridge: 55 (ft)

h. Width of proposed bridge: 45'

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

j. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? ☒Yes ☒No
If yes, explain: The navigable opening will be wider and taller.

k. Navigation clearance underneath proposed bridge: 4'

l. Have you contacted the U.S. Coast Guard concerning their approval? ☒Yes ☐No
If yes, explain: Yes, on May 25, 2005. Their response was no permit required.

m. Will the proposed bridge cross wetlands containing no navigable waters? ☒Yes ☐No
If yes, explain: Stream too small for navigation

n. Height of proposed bridge above wetlands: 4'

2. CULVERTS

☒ *This section not applicable*

a. Number of culverts proposed: N/A

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

< Form continues on back>

c. Type of culvert (construction material):
N/A

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

If yes,

(ii) Length of existing bridge: _____

(iii) Width of existing bridge: _____

(iv) Navigation clearance underneath existing bridge: _____

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

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

If yes,

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

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

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

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

f. Length of proposed culvert: _____

g. Width of proposed culvert: _____

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

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

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

If yes, explain:

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

If yes, explain:

3. EXCAVATION and FILL

☐ *This section not applicable*

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

If yes,

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

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

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

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

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

☐CW _____ ☐SAV _____ ☐SB _____

☐WL _____ ☒None

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

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

If yes,

(ii) Avg. length of area to be excavated: 10'

(iii) Avg. width of area to be excavated: 30'

(iv) Avg. depth of area to be excavated: 7

(v) Amount of material to be excavated in cubic yards: 85

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

(i) Location of the spoil disposal area: Approved NCDOT Site

(ii) Dimensions of the spoil disposal area: To be determined by contractor

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

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

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

☐CW ☐SAV ☐WL ☐SB ☒None

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

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

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

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

If yes,

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

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

(iv) Purpose of fill:

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

☐CW _____ ☐SAV _____ ☐SB _____

☒WL 4593 ☐None

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

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

If yes,

(ii) Avg. length of area to be filled: 280 ft.

(iii) Avg. width of area to be filled: 55 ft.

(iv) Purpose of fill: To slighty raise the road bed.

4. GENERAL

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

If yes, explain: See Utility Narative

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

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

If yes, explain:

< Form continues on back>

c. Will the proposed project require any work channels?

☐Yes ☒No

If yes, complete Form DCM-MP-2.

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

Use of Standard NCDOT BMP's

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

Typical construction, earth moving, and road surface equipment will be used.

f. Will wetlands be crossed in transporting equipment to project site?

☐Yes ☒No

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

g. Will the placement of the proposed bridge or culvert require any shoreline stabilization?

☐Yes ☒No

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

1.24.11

Date

B-4463

Project Name

Applicant Name

E.L. Lush

Applicant Signature

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

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	☒ Section 404 Permit	☐ Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 23	or General Permit (GP) number:	
1c. Has the NWP or GP number been verified by the Corps?	☐ Yes	☒ No

1d. Type(s) of approval sought from the DWQ (check all that apply):

☐ 401 Water Quality Certification – Regular ☐ Non-404 Jurisdictional General Permit

☐ 401 Water Quality Certification – Express ☐ Riparian Buffer Authorization

1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: ☒ Yes ☐ No	For the record only for Corps Permit: ☐ Yes ☒ No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.		☐ Yes ☒ No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.		☒ Yes ☐ No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?		☒ Yes ☐ No

2. Project Information

2a. Name of project:	Replacment of Bridge 12 over Queen Anne Creek on NC 32
2b. County:	Chowan
2c. Nearest municipality / town:	Edenton
2d. Subdivision name:	*not applicable*
2e. NCDOT only, T.I.P. or state project no:	B-4463

3. Owner Information

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

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

B. Project Information and Prior Project History		
1. Property Identification		
1a. Property identification no. (tax PIN or parcel ID):	*not applicable*	
1b. Site coordinates (in decimal degrees):	Latitude: 36.059441 (DD.DDDDDD)	Longitude: - 76.584881 (-DD.DDDDDD)
1c. Property size:	0.92 acres	
2. Surface Waters		
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Queen Anne Creek	
2b. Water Quality Classification of nearest receiving water:	C NSW	
2c. River basin:	Chowan	
3. Project Description		
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: Currently there is an existing roadway and bridge on site, and the surrounding area is forested and agriculture.		
3b. List the total estimated acreage of all existing wetlands on the property: 0.5		
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 110		
3d. Explain the purpose of the proposed project: NCDOT Bridge Maintenance Unit records indicate Bridge No. 12 has a sufficiency rating of 60.2 out of a possible 100 for a new structure. The bridge is considered functionally obsolete due to a deck geometry appraisal of 2 out of 9. Therefore, NCDOT proposes to replace Bridge No. 12 with a new bridge.		
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves replacing a 46.5-foot bridge with a 60-foot, single-span bridge on the existing alignment with an off-site detour. Standard road building equipment, such as trucks, dozers, and cranes will be used.		
4. Jurisdictional Determinations		
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Action ID 200511635	☒ Yes	☐ No ☐ Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	☐ Preliminary ☒ Final	
4c. If yes, who delineated the jurisdictional areas? Name (if known): Michael Gloden, Craig Terwilliger, Elizabeth Scherrer, and David O'Loughlin	Agency/Consultant Company: EcoScience Corporation Other:	
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. March 7, 2006		
5. Project History		
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	☒ Yes	☐ No ☐ Unknown
5b. If yes, explain in detail according to "help file" instructions. Stormwater Permit, July 16, 2010, SW7100502		
6. Future Project Plans		
6a. Is this a phased project?	☐ Yes	☒ No
6b. If yes, explain.		

C. Proposed Impacts Inventory

1. Impacts Summary

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

☒ Wetlands ☐ Streams - tributaries ☐ Buffers

☒ Open Waters ☐ Pond Construction

2. Wetland Impacts

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

2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)
Site 1 ☒ P ☐ T	Fill	riparian	☒ Yes ☐ No	☒ Corps ☐ DWQ	0.11
Site 2 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
Site 3 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
Site 4 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
Site 5 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
Site 6 ☐ P ☐ T			☐ Yes ☐ No	☐ Corps ☐ DWQ	
				2g. **Total wetland impacts**	0.11 Permanent

2h. Comments: There is 0.18 acre of hand clearing, within the hand clearing area there is 0.03 acre of temporary fill in wetlands for erosion control measures. There will also be 0.25 acre of hand clearing in wetlands for utilities. Within the 0.25 acre of hand clearing there will be 22 sq. ft. of temporary impact for pole removal or temporary poles, plus 2 sq. ft. of permanent impact for pole installation.

3. Stream Impacts

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

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

3i. Comments:

4. Open Water Impacts

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

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 ☐ P ☒ T	Queen Anne Creek	fill	Stream	0.01
O2 ☐ P ☐ T				
O3 ☐ P ☐ T				
O4 ☐ P ☐ T				
			4f. Total open water impacts	0 Permanent 0.01 Temporary

4g. Comments:

5. Pond or Lake Construction

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

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

5g. Comments:

5h. Is a dam high hazard permit required?	☐ Yes ☐ No If yes, permit ID no:
5i. Expected pond surface area (acres):	
5j. Size of pond watershed (acres):	
5k. Method of construction:	

6. Buffer Impacts (for DWQ)

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

6a. Project is in which protected basin?	☐ Neuse ☐ Catawba	☐ Tar-Pamlico ☐ Randleman	☐ Other:

6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 ☐ P ☐ T			☐ Yes ☐ No		
B2 ☐ P ☐ T			☐ Yes ☐ No		
B3 ☐ P ☐ T			☐ Yes ☐ No		
		6h. **Total buffer impacts**		0	0

6i. Comments:

D. Impact Justification and Mitigation

1. Avoidance and Minimization

1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project.

The proposed bridge is 15 feet longer than the existing bridge; the bridge will be constructed with cored slab units; an off site detour will be used, 3:1 fill slopes where practicable. There will be an in-water work moratorium from February 15 to June 15 to minimize impacts to anadromous fish (per correspondence with NCWRC after the CE).

1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques.

Top down construction will be implemented, and there will be no workpads or causeways. The gas and water lines will be directional bored beneath jurisdictional areas.

2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State

2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	☒ Yes ☐ No
2b. If yes, mitigation is required by (check all that apply):	☐ DWQ ☒ Corps
2c. If yes, which mitigation option will be used for this project?	☐ Mitigation bank ☒ Payment to in-lieu fee program ☐ Permittee Responsible Mitigation

3. Complete if Using a Mitigation Bank

3a. Name of Mitigation Bank: not applicable

3b. Credits Purchased (attach receipt and letter)	Type	Quantity

3c. Comments:

4. Complete if Making a Payment to In-lieu Fee Program

4a. Approval letter from in-lieu fee program is attached.	☒ Yes
4b. Stream mitigation requested:	linear feet
4c. If using stream mitigation, stream temperature:	☐ warm ☐ cool ☐ cold
4d. Buffer mitigation requested (DWQ only):	square feet
4e. Riparian wetland mitigation requested:	0.22 acres
4f. Non-riparian wetland mitigation requested:	acres
4g. Coastal (tidal) wetland mitigation requested:	acres

4h. Comments:

5. Complete if Using a Permittee Responsible Mitigation Plan

5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan.

6. **Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ**				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?			☐ Yes	☒ No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
	6f. **Total buffer mitigation required:**			
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	☐ Yes ☒ No
1b. If yes, then is a diffuse flow plan included? If no, explain why. Comments:	☐ Yes ☐ No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A %
2b. Does this project require a Stormwater Management Plan?	☒ Yes ☐ No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See permit drawings	
2e. Who will be responsible for the review of the Stormwater Management Plan?	☐ Certified Local Government ☐ DWQ Stormwater Program ☒ DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	☐ Phase II ☐ NSW ☐ USMP ☐ Water Supply Watershed ☐ Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	☐ Yes ☐ No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	☒ Coastal counties ☐ HQW ☐ ORW ☐ Session Law 2006-246 ☐ Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	☒ Yes ☐ No
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	☐ Yes ☐ No
5b. Have all of the 401 Unit submittal requirements been met?	☐ Yes ☐ No

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

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	☐ Yes	☒ No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	☒ Yes	☐ No
5c. If yes, indicate the USFWS Field Office you have contacted.	☒ Raleigh ☐ Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? NHP, Field Surveys, and USFWS		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	☐ Yes	☒ No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	☐ Yes	☒ No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	☒ Yes	☐ No
8b. If yes, explain how project meets FEMA requirements: Hydraulics coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		

Dr. Gregory J. Thorpe, Ph D Applicant/Agent's Printed Name	E. L. Luck Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	1-24-11 Date