

Project Submittal Interim Form



Updated September 4, 2020

*Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.*

Project Type: *

- ☐ For the Record Only (Courtesy Copy)
- ☐ New Project
- ☒ Modification/New Project with Existing ID
- ☐ More Information Response
- ☐ Other Agency Comments
- ☐ Pre-Application Submittal
- ☐ Re-Issuance/Renewal Request
- ☐ Stream or Buffer Appeal

Project Contact Information

Name: Gordon Cashin
Who is submitting the information?

Email Address: * gcashin@ncdot.gov

Project Information

Existing ID #: *

20080737
20170001 (no dashes)

Existing Version: *

9
1

Project Name: * Fayetteville Outer Loop-south of SR 1003 (Camden Rd) to south of SR 1104 (Strickland Bridge Rd). U-2519BA

Is this a public transportation project? *

- ☒ Yes
- ☐ No

Is this a DOT project? *

- ☒ Yes
- ☐ No

Is the project located within a NC DCM Area of Environmental Concern (AEC)? *

- ☐ Yes ☒ No ☐ Unknown

TIP#:

U-2519BA

WBS#:

34817.313
(Applies to DOT projects only)

County (ies) *

Cumberland

Please upload all files that need to be submitted.

Click the upload button or drag and drop files here to attach document

U-2519BA_BB Individual Modification Cumberland

6.88MB

December 14 2021.pdf

Only pdf or kmz files are accepted.

Describe the attachments or add comments:

Cover letter, revised Privateer Farms Debit Ledger, revised permit drawings

* ☒ By checking the box and signing box below, I certify that:

- I, the project proponent, hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.
- I, the project proponent, hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I agree that submission of this online form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the online form.

Signature: *

A rectangular box containing a handwritten signature in black ink. The signature reads "Mack C. Riverbank, III".

Submittal Date: 12/14/2021

Is filled in automatically once submitted.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

ERIC BOYETTE
SECRETARY

December 14, 2021

Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403

ATTN: Ms. Liz Hair
NCDOT Coordinator

Subject: **Request for Modification to Individual Section 404 and Section 401 Water Quality Certification** for Fayetteville Outer Loop from I-95 South of Fayetteville to NC 24-87, Cumberland, Hoke, and Robeson Counties. Federal Aid Project No. NHP-0620(031), TIP Nos. X-0002 B & C, and U-2519 AA, AB, BA, BB, CA, CB, DA, & E. WBS 34817.3.13

References: Section 404 Individual Permit issued October 23, 2008 (SAW-2008-01413)
Section 401 Water Quality Certification issued October 6, 2008 (20080737)

Dear Madam:

The purpose of this modification request is to address small design changes to the U-2519 BA project that have resulted in a slight increase to the project impacts.

As you are aware, several sections of X-0002 B & C and U-2519 are constructed or currently under construction. U-2519 BA is an approximately 3.77 mile section of the Fayetteville Outer Loop that begins south of SR 1003 (Camden Road) and extends to south of SR 1104 (Strickland Bridge Road). U-2519 BB is an approximately 1.25 mile section of the Fayetteville Outer Loop that begins south of SR 1104 (Strickland Bridge Road) and extends to south of US 401.

Several changes have been made to the design plans that affect proposed wetland impact totals for U-2519BA. These changes were in the area of Camden Road (SR 1003), affecting permit site 2B. Fill in wetlands increases from 0.11 to 0.12 acre and mechanized land clearing from 0.05 to 0.09 acre, for a total increase of 0.05 acre of permanent wetland impact. Revised permit drawings are included with this modification request.

Surveys for all federally-protected species listed for Cumberland County were updated in 2020 and 2021 (2021 update report attached). A biological conclusion of "No Effect" remains current for all species except the red-cockaded woodpecker (RCW) and the northern long-eared bat. A Biological Opinion was issued on April 28, 2005; however, the 2016 report for sections U-2519 BA & BB states that "no RCW cavity trees will be impacted or 'taken' by the project."

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH, NC 27699-1548

Telephone: (919) 707-6000
Fax: (919) 250-4224
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

The US Fish and Wildlife Service has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this programmatic covers Divisions 1-8, NLEBs are currently only known in 22 counties, but may potentially occur in 8 additional counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 current known/potential counties shown on Figure 2 of the PBO at this time. The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely Affect**. The PBO will ensure compliance with Section 7 of the Endangered Species Act for ten years (effective through December 31, 2030) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Cumberland County, where U-2519 BA & BB are located.

Compensatory Mitigation

Compensatory mitigation for the updated total of 7.16 acres of permanent wetland impacts for U-2519 BA has been debited from the Privateer Wetland and Stream Mitigation Site. A revised debit ledger for the Privateer Wetland and Stream Mitigation Site is attached to this modification request.

Utility Impacts

At this time, no changes are proposed to utility work on this section that would involve wetland or stream impacts.

Regulatory Approvals

U-2519 BA & BB have a combined letting date of June 21, 2022

Section 404: We are hereby requesting the modifications described above for the USACE Individual 404 Permit signed October 23, 2008 (SAW-2008-01413), for the above-described activities.

Section 401: We are hereby requesting a modification to the 401 Water Quality Certification from the NCDWR issued October 6, 2008 (DWQ No. 003278). In compliance with Section 143-215.3D(e) of the NCAC, please debit \$570.00 from WBS 34817.1.FR7 for processing the Section 401 permit modification.

A copy of this modification request and its distribution list will be posted on the NCDOT website at: <https://xfer.services.ncdot.gov/pdea/PermApps/>

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Gordon Cashin at 919-707-6107 or gcashin@ncdot.gov.

Sincerely,

DocuSigned by:

Mack C. Rivenbark III

AAAD1248B309416...

for Philip S. Harris III, P.E., C.P.M., Unit Head
Environmental Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

Privateer
WM 026-005

The Privateer Farms Restoration Site (Site) is located in Bladen and Cumberland Counties, North Carolina, approximately fourteen miles southeast of Fayetteville. Prior to restoration, land use on the Site over the past 20 years had been primarily row crop agriculture. Stream and riparian functions on the Site had been severely impacted as a result of agricultural conversion. Harrison Creek had historically meandered through the Site, but was channelized in the early 1980s to reduce flooding and provide a drainage outlet for the extensive network of ditches excavated across the Site. Subsequent to channelization, Harrison Creek existed as a large canal running straight through the Site.

Restoration activities for the Site involved moving the stream channel back to its historic location and elevation, and filling drainage ditches to raise the local water table and restore wetland and stream hydrology. The plan also included scarification of the fields and breaking of the local plow pan to increase surface water storage and provide a range of hydrologic conditions suitable for a variety of native wetland plant species. The restoration plan for the Site predicted the restoration of 405 acres of riverine wetlands, 25 acres of riverine wetland enhancement, and 33,985 linear feet (LF) of stream restoration. Following construction, the as-built data indicated that the total area of restored riverine wetlands was 402.5 acres (excluding 2.5 acres for road accesses), with 25 acres of enhanced riverine wetlands, and 34,005 LF of restored stream channel.

As of fall 2009, the Site has met all prescribed hydrologic and vegetative monitoring criteria and been recommended for closeout.

To offset unavoidable wetland and stream impacts associated with T.I.P. U-2519 BA/BB, the Privateer Mitigation Site will be debited 1 ac of Riparian wetland for 1 acre of Riparian wetland impact, 21.33 acres of Riparian Wetland for 7.11 acre of non-riparian wetland impact, and 2142 linear feet of stream for 1428 linear of stream impacts. These debits and credits are reflected in the following ledger.

HUC	Mitigation Type	Starting Amount	Additional Notes
3030004	Stream Restoration	25676	**Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
3030004	Riparian Wetland Restoration	185.58	**Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts

Privateer
WM 026-005

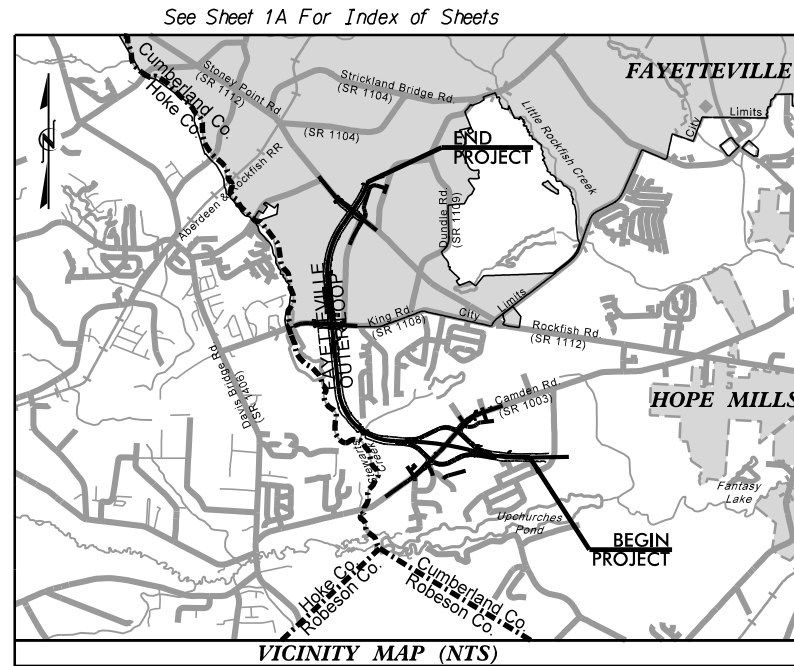
TYPE	DEBITAMOUNT	Status	SITE TIP	Action ID#	Notes
S_REST	-25676	Close Out	From EEP for U-2519/X-2		Credits transferred from EEP. **Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
S_REST	-918	Close Out	U-2519CB, DA Mod	2008-01413	612 lf reduction @ 1.5:1
S_REST	-529.5	Close Out	U-2519CB, DA Mod	2008-01413	353 lf reduction @ 1.5:1
S_REST	214.5	Close Out	U-2519CB, DA Mod	2008-01413	143 lf addition @ 1.5:1
S_REST	615	Close Out	X-0002C Site 8 Mod	2008-01413	410 lf addition @ 1.5:1
S_REST	852	Close Out	U-2519CA Mod	2008-01413	568 lf addition @ 1.5:1
S_REST	1329	Close Out	U-2519, X-0002 Mod	2008-01413	886 lf addition @ 1.5:1. Unable to Confirm in permits. Taken from old ledger (Math works out)
S_REST	1518	Close Out	R-4903	2009-00655	1012 lf of impacts @ 1.5:1.
S_REST	8329	Close Out	EEP		Site transferred to EEP
S_REST	18519	Close Out	U-2519, X-0002	2008-01413	12,346 lf @ 1.5:1. Original Permit
S_REST	2142	Close Out	U-2519 BA BB		1428 lf @ 1.5:1

Privateer
WM 026-005

TYPE	DEBIT AMOUNT	Status	SITE TIP	Action ID#	Notes
RW_REST	-101.76	Close Out	From EEP for U-2519/X-2		Credits transferred from EEP. **Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
RW_REST	-39.6	Close Out	From EEP for R-2303		Credits transferred from EEP. **Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
RW_REST	-23.86	Close Out	From EEP for U-2519/X-2		Credits transferred from EEP. **Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
RW_REST	-20.36	Close Out	From EEP for U-2519		Credits transferred from EEP. **Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts
RW_REST	-0.6	Close Out	U-2519CB, DA Mod	2008-01413	0.2 ac reduction @ 3:1.
RW_REST	-0.06	Close Out	U-2519CB, DA Mod	2008-01413	0.02 ac reduction @ 3:1.
RW_REST	0.15	Close Out	R-2303A	1992-03237	Permit Mod 0.5 ac impacts @ 3:1
RW_REST	1.14	Close Out	U-2519CB, DA Mod	2008-01413	0.38 ac addition @ 3:1.
RW_REST	1.29	Close Out	X-0002C Site 8	2008-01413	0.43 ac addition @ 3:1.
RW_REST	5.1	Close Out	U-2519E		Unable to Confirm. Unknown what the source of this debit is.
RW_REST	6.99	Close Out	U-2519CA Mod	2008-01413	2.33 ac addition @ 3:1.
RW_REST	7.38	Close Out	R-2303A	1992-03237	
RW_REST	145.29	Close Out	U-2519, X-0002	2008-01413	48.43 ac @ 3:1. Original Permit Estimate for all sections
RW_REST	216.92	Close Out	EEP		Site Transferred to EEP
RW_REST	1	Close Out	U-2519 BA/BB		1 ac Riparian Wetland impact @ 1:1 ratio
RW_REST	21.48	Close Out	U-2519 BA/BB		7.16 ac Non-Riparian wetland impact @ 3:1

TIP PROJECT: U-2519BA

CONTRACT:



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

LOCATION: FAYETTEVILLE OUTER LOOP FROM SOUTH OF
SR 1003 (CAMDEN ROAD) TO SOUTH OF SR 1104
(STRICKLAND BRIDGE ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS
SIGNING, STRUCTURES, & NOISE WALLS

WETLAND AND STREAM IMPACTS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2519BA	1	
STATE PROJ.NO.	P.A. PROJ.NO.	DESCRIPTION	
34817.1.FR7	NHF-0100(24)	P.E.	
34817.2.FR14	NHF-0100(24)	UTILITIES & R/W	
34817.3.14	NHF-0100(24)	CONSTRUCTION	

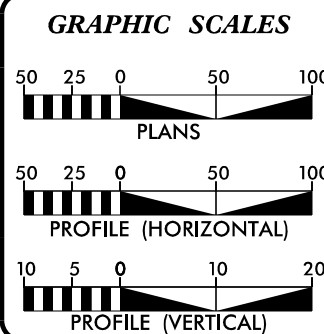
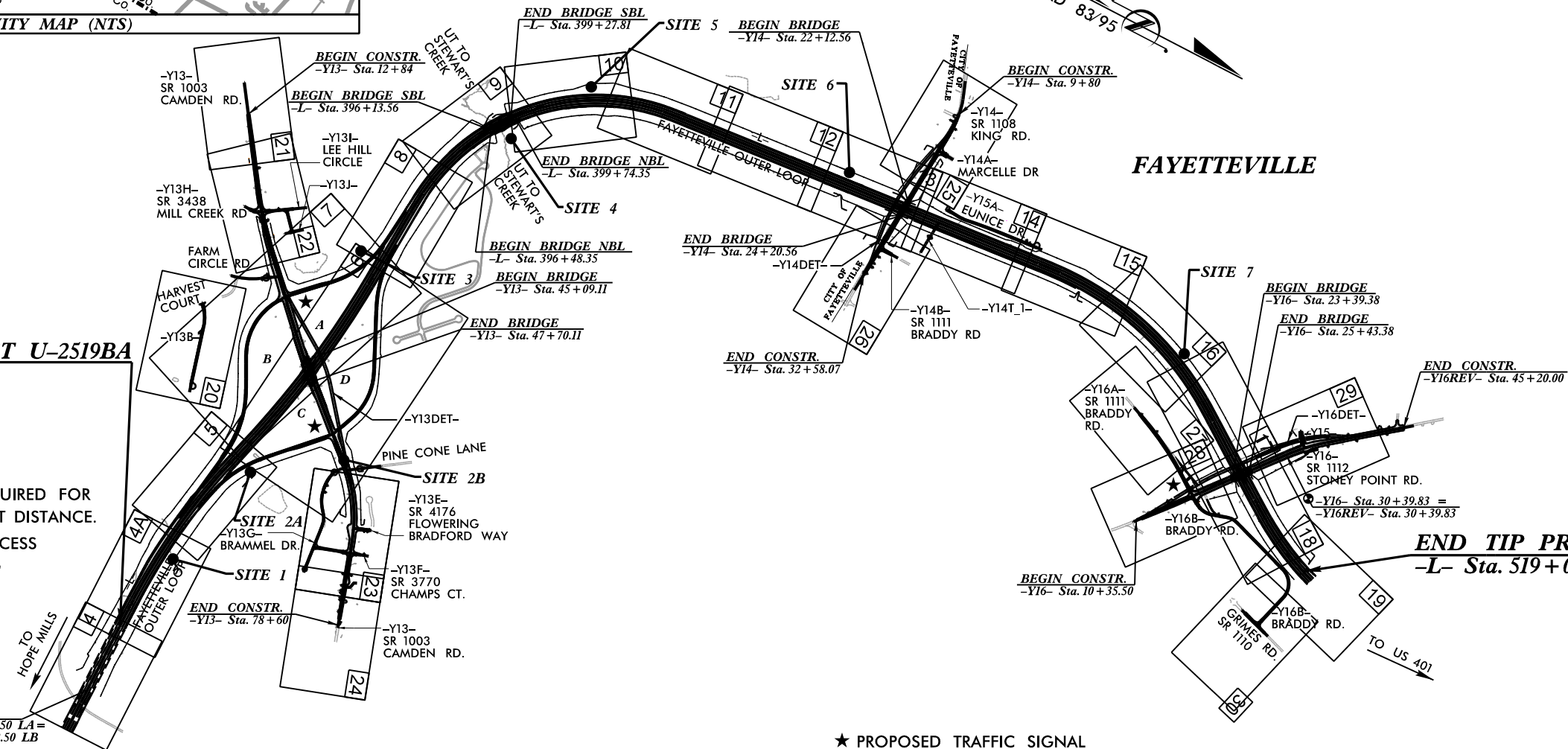
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 1 OF 39

BEGIN TIP PROJECT U-2519BA
-L- Sta. 320 + 00.00

- NOTES:
1. DESIGN EXCEPTION IS REQUIRED FOR HORIZONTAL STOPPING SIGHT DISTANCE.
 2. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

BEGIN CONSTRUCTION
U-2519BA -L- Sta. 311 + 18.50 LA =
U-2519AB -L- Sta. 303 + 62.50 LB

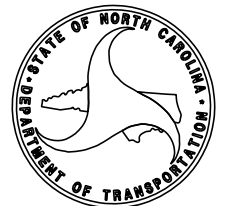


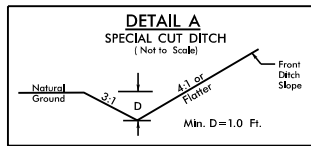
DESIGN DATA	
ADT 2021 =	27,592
ADT 2041 =	33,907
K =	8%
D =	55%
T =	12% *
V =	70 MPH
FUNC CLASS = INTERSTATE	
* (TTST 4% + DUAL 8%) STATEWIDE TIER	

PROJECT LENGTH (NB LANE)	
LENGTH ROADWAY TIP PROJECT U-2519BA.....	3.707 miles
LENGTH STRUCTURES TIP PROJECT U-2519BA.....	0.062 miles
TOTAL LENGTH OF TIP PROJECT U-2519BA.....	3.769 miles

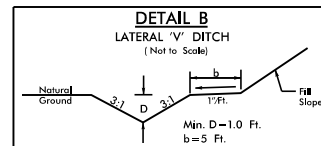
PREPARED IN THE OFFICE OF: RK&K FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
2018 STANDARD SPECIFICATIONS	B. KEITH SKINNER, PE PROJECT ENGINEER RK&K, LLP
RIGHT OF WAY DATE: SEPTEMBER 16, 2016	MICHAEL T. MERRITT, PE PROJECT DESIGN ENGINEER RK&K, LLP
LETTING DATE: FEBRUARY 16, 2021	
NCDOT CONTACT:	KHALED ALAKHDAR, PE PROJECT ENGINEER - ENGR. COORD.

HYDRAULICS ENGINEER	
SIGNATURE: _____	P.E.
ROADWAY DESIGN ENGINEER	
SIGNATURE: _____	P.E.

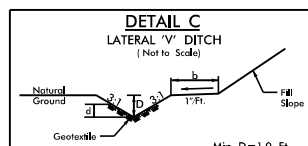


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UNLESS ALL SIGNATURES COMPLETEDPERMIT DRAWING
SHEET 2 OF 39

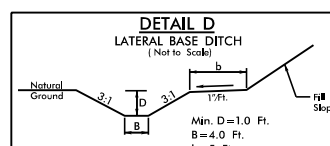
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— STA. 13+50 TO STA. 14+50 LT
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— STA. 12+00 TO STA. 13+43 LT
— STA. 12+00 TO STA. 13+46 RT
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— STA. 10+20 TO STA. 11+00 LT
— STA. 13+25 TO STA. 13+75 LT
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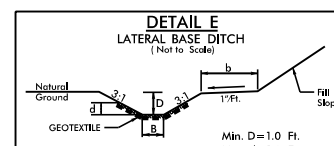
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— STA. 472+50 TO STA. 475+00 RT
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— STA. 495+00 TO STA. 496+00 LT
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— STA. 12+17 TO STA. 13+00 LT
— STA. 11+50 TO STA. 13+25 LT
— STA. 13+35 TO STA. 13+75 RT
— STA. 19+35 TO STA. 22+00 RT
— STA. 24+18 TO STA. 26+00 LT
— STA. 26+90 TO STA. 29+50 RT
— STA. 13+38 TO STA. 17+40 RT
— STA. 18+74 TO STA. 20+12 LT
— STA. 16+50 TO STA. 18+50 RT
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— STA. 34+70 TO STA. 35+65 LT
— STA. 21+17 TO STA. 23+00 LT



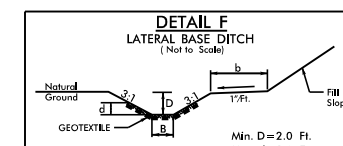
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— STA. 10+50 TO STA. 12+17 LT



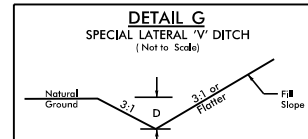
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— STA. 390+50 TO STA. 394+00 LT
— STA. 58+22 TO STA. 60+00 LT
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— STA. 24+65 TO STA. 26+90 RT



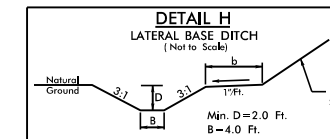
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— STA. 348+00 TO STA. 349+50 LT
— STA. 395+58 TO STA. 397+19 RT
— STA. 399+60 TO STA. 403+00 RT
— STA. 406+00 TO STA. 415+00 RT
— STA. 419+50 TO STA. 420+27 RT
— STA. 22+00 TO STA. 23+50 RT
— STA. 20+50 TO STA. 22+00 LT
— STA. 18+00 TO STA. 18+80 RT



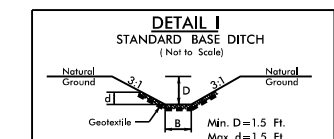
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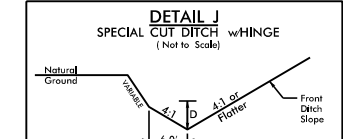
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— STA. 11+00 TO STA. 13+38 RT
— STA. 36+80 TO STA. 38+00 RT
— STA. 44+00 TO STA. 46+14 RT
— STA. 13+50 TO STA. 14+50 RT
— STA. 11+00 TO STA. 12+13 LT
— STA. 14+50 TO STA. 27+00 LT
— STA. 30+50 TO STA. 31+84 LT
— STA. 33+50 TO STA. 34+25 LT



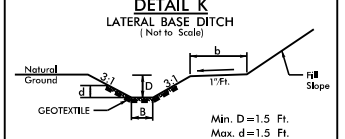
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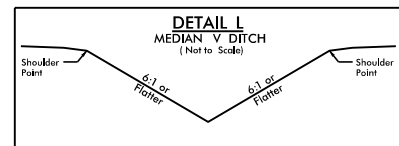
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S=2.5%, BEG. ELEV=167.12, END ELEV=169.33



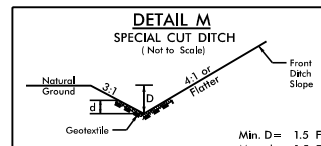
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— STA. 417+50 TO STA. 419+50 RT
— STA. 422+00 TO STA. 422+50 LT
— STA. 428+00 TO STA. 431+00 RT
— STA. 454+00 TO STA. 456+00 RT
— STA. 454+00 TO STA. 456+00 LT



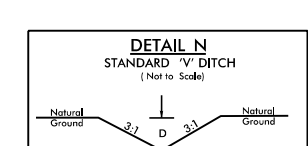
— STA. 394+00 TO STA. 395+93.14 LT
— STA. 398+96 TO STA. 399+60 RT
— STA. 489+00 TO STA. 493+50 RT
— STA. 20+00 TO STA. 22+00 RT
— STA. 16+50 TO STA. 19+00 LT



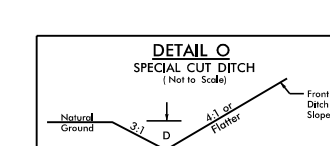
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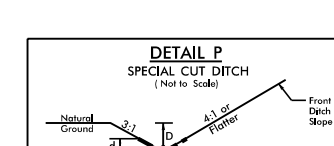
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— STA. 19+50 TO STA. 20+00 LT, CL
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— STA. 10+50 TO STA. 13+00 RT, CL
— STA. 12+17 TO STA. 13+00 RT, CL
— STA. 19+17 TO STA. 21+00 LT, CL
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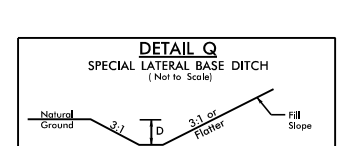
— STA. 14+50 TO STA. 15+06 LT, L=56'
S=0.96%, BEG. ELEV=177.05, END ELEV=176.51
— STA. 14+80 TO STA. 15+14 RT, L=34'
S=0.79%, BEG. ELEV=176.97, END ELEV=176.70
— STA. 8+18 TO STA. 9+87 RT, L=170'
S=1.67%, BEG. ELEV=163.16, END ELEV=166.0
— STA. 11+50 TO STA. 12+05 LT, L=55'
S=1.2%, BEG. ELEV=196.95, END ELEV=196.29
— STA. 11+50 TO STA. 12+40 RT, L=90'
S=0.67%, BEG. ELEV=196.52, END ELEV=195.92
— STA. 12+00 TO STA. 11+10', L=110', S=1.71%
BEG. ELEV=190.17, END ELEV=188.29
— STA. 12+25 RT, L=135', S=1.67%
BEG. ELEV=189.21, END ELEV=186.95
— STA. 10+70 RT, L=31', S=2.58%
BEG. ELEV=214.20, END ELEV=215.00



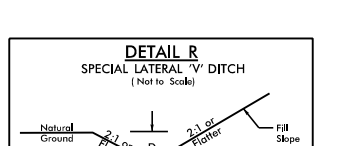
— STA. 21+00 TO STA. 25+50 RT
— STA. 70+00 TO STA. 78+00 RT
— STA. 11+25 TO STA. 12+50 LT
— STA. 12+50 TO STA. 14+00 LT
— STA. 27+00 TO STA. 28+29 RT
— STA. 29+50 TO STA. 33+00 LT



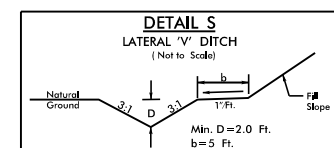
— STA. 415+00 TO STA. 415+50 RT
— STA. 456+80 TO STA. 458+50 RT
— STA. 12+91 TO STA. 14+00 LT
— STA. 12+84 TO STA. 14+00 RT
— STA. 36+15 TO STA. 37+50 LT
— STA. 10+00 TO STA. 11+00 LT
— STA. 11+78 TO STA. 14+50 RT
— STA. 12+30 TO STA. 13+00 LT



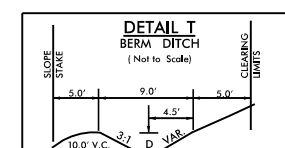
— STA. 70+00 TO STA. 72+15 LT, MIN D=2.25'
— STA. 77+40 TO STA. 78+53 LT, MIN D=1.0'



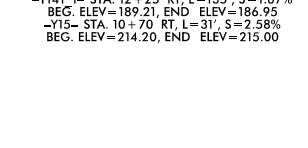
— STA. 36+50 TO STA. 36+80 RT
— STA. 43+65 TO STA. 44+00 RT



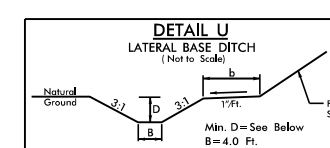
— STA. 506+00 TO STA. 513+00 RT
— STA. 31+66 TO STA. 36+25 LT
— STA. 15+00 TO STA. 18+67 RT
— STA. 15+50 TO STA. 16+50 LT
— STA. 34+70 TO STA. 34+70 LT
— STA. 14+50 TO STA. 19+20 RT
— STA. 21+27 TO STA. 23+56 RT



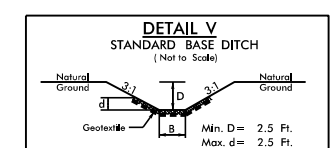
— STA. 354+00 TO STA. 358+82 LT
— STA. 377+00 TO STA. 380+50 RT
— STA. 431+00 TO STA. 435+50 RT
— STA. 450+90 TO STA. 451+79 RT
— STA. 23+50 TO STA. 36+00 RT



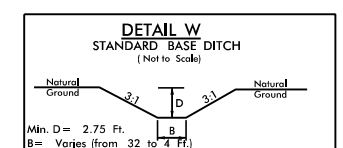
— STA. 372+50 TO STA. 373+29.10 LT, D=4'
— STA. 26+62 TO STA. 27+50 RT, D=4.5'



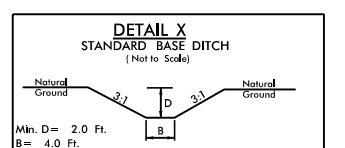
— STA. 457+08 LT, L=41', S=0.34%
BEG. ELEV=184.72, END ELEV=184.58



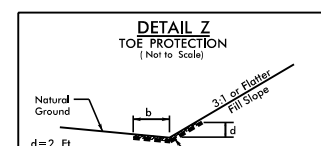
— STA. 12+29 LT, L=139', S=0.39%
BEG. ELEV=184.20, END ELEV=183.66
— STA. 33+34 RT, L=74', S=0.3%
BEG. ELEV=206.10, END ELEV=205.88
— STA. 13+75 LT, L=145', S=0.5%
BEG. ELEV=175.65, END ELEV=175.08



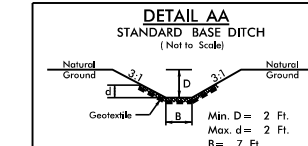
— STA. 21+17 RT, L=56', S=0.09%
BEG. ELEV=213.70, END ELEV=213.64



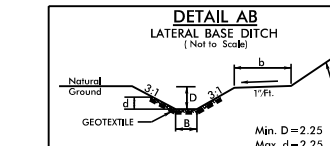
— STA. 12+50 LT, L=940', S=0.28%
BEG. ELEV=169.88, END ELEV=172.56



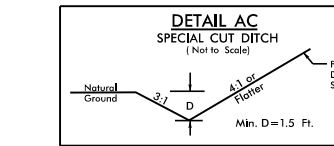
— STA. 328+00 TO STA. 331+50 RT
— STA. 331+50 TO STA. 334+50 LT
— STA. 392+27 TO STA. 393+50 RT
— STA. 440+50 TO STA. 443+35 RT
— STA. 440+50 TO STA. 443+50 LT
— STA. 20+00 TO STA. 22+00 LT
— STA. 17+00 TO STA. 19+00 RT



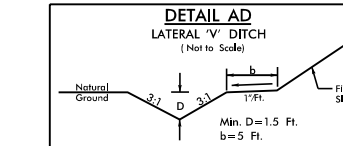
— STA. 420+27 RT, L=116', S=3.82%
BEG. ELEV=175.20, END ELEV=179.63



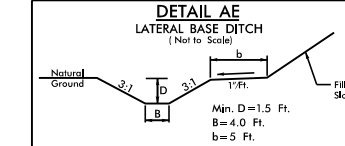
— STA. 331+15 TO STA. 332+00 RT
— STA. 16+75 TO STA. 20+00 RT
— STA. 12+53 TO STA. 16+50 LT



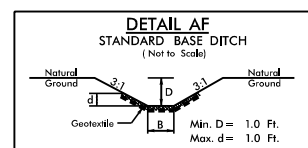
— STA. 370+00 TO STA. 371+00 RT
— STA. 21+00 TO STA. 25+50 LT
— STA. 29+50 TO STA. 31+66 LT
— STA. 1+00 TO STA. 15+50 LT
— STA. 30+50 TO STA. 34+00 LT
— STA. 16+25 TO STA. 18+00 LT
— STA. 15+00 TO STA. 18+00 RT
— STA. 38+50 TO STA. 40+50 RT
— STA. 14+00 TO STA. 15+00 RT
— STA. 13+00 TO STA. 16+17 LT
— STA. 12+95 TO STA. 14+00 RT
— STA. 31+00 TO STA. 33+50 RT



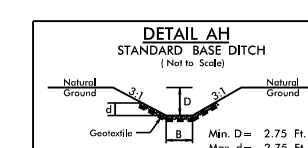
— STA. 371+00 TO STA. 371+61 RT
— STA. 375+40 TO STA. 379+00 LT
— STA. 464+20 TO STA. 468+00 RT
— STA. 490+00 TO STA. 496+00 LT
— STA. 37+38 TO STA. 45+00 RT
— STA. 10+15 TO STA. 11+56 LT
— STA. 10+50 TO STA. 12+50 LT
— STA. 18+59 TO STA. 22+00 LT
— STA. 16+15 TO STA. 19+50 RT
— STA. 16+50 TO STA. 30+50 RT
— STA. 11+00 TO STA. 11+50 RT
— STA. 29+00 TO STA. 32+00 LT
— STA. 23+00 TO STA. 25+00 LT
— STA. 14+00 TO STA. 16+00 RT
— STA. 18+75 TO STA. 21+17 LT



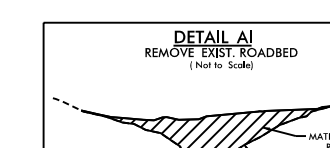
— STA. 332+00 TO STA. 338+00 RT
— STA. 375+35 TO STA. 376+50 RT
— STA. 489+39 TO STA. 490+00 LT



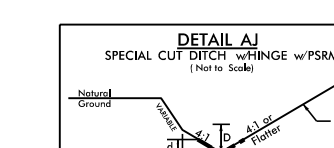
— STA. 20+50 RT, L=57', S=4.9%
BEG. ELEV=154.81, END ELEV=152.00
— STA. 376+92 RT, L=80', S=7.5%
BEG. ELEV=155.58, END ELEV=149.55
— STA. 18+89 LT, L=44', S=8.3%
BEG. ELEV=160.20, END ELEV=156.57
— STA. 18+80 RT, L=50', S=7.4%
BEG. ELEV=156.70, END ELEV=153.00



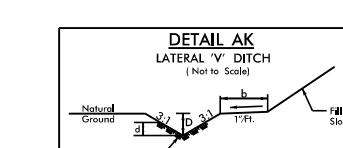
— STA. 13+75 LT, L=15', S=0.5%
BEG. ELEV=175.08, END ELEV=175.00
— STA. 12+20 LT, L=61', S=0.39%
BEG. ELEV=184.44, END ELEV=184.20



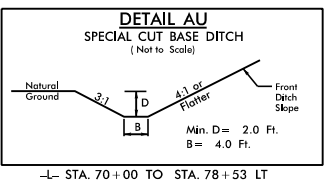
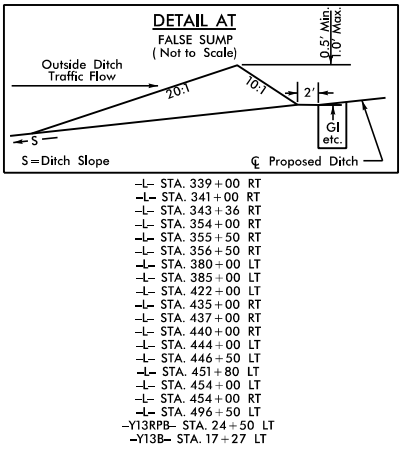
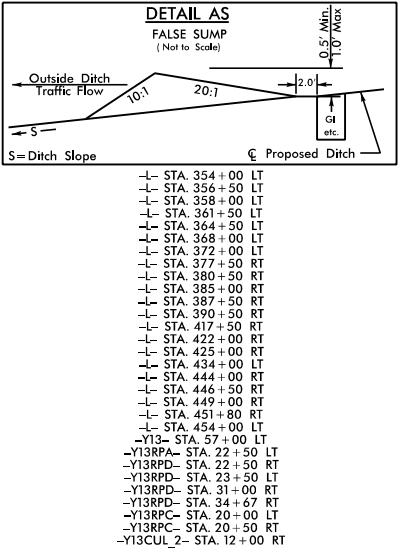
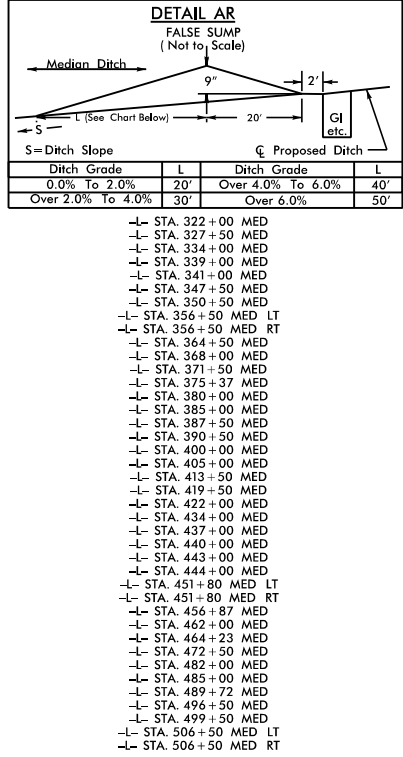
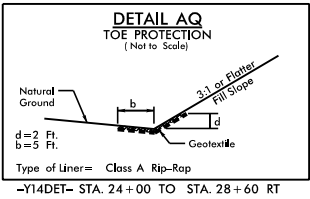
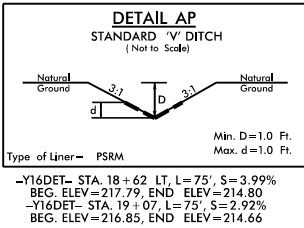
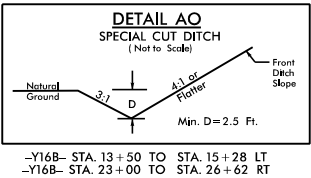
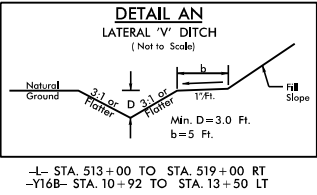
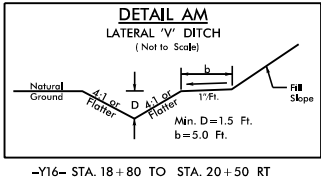
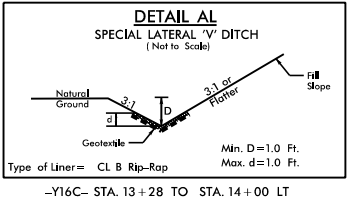
— STA. 441+93 TO STA. 443+35 RT

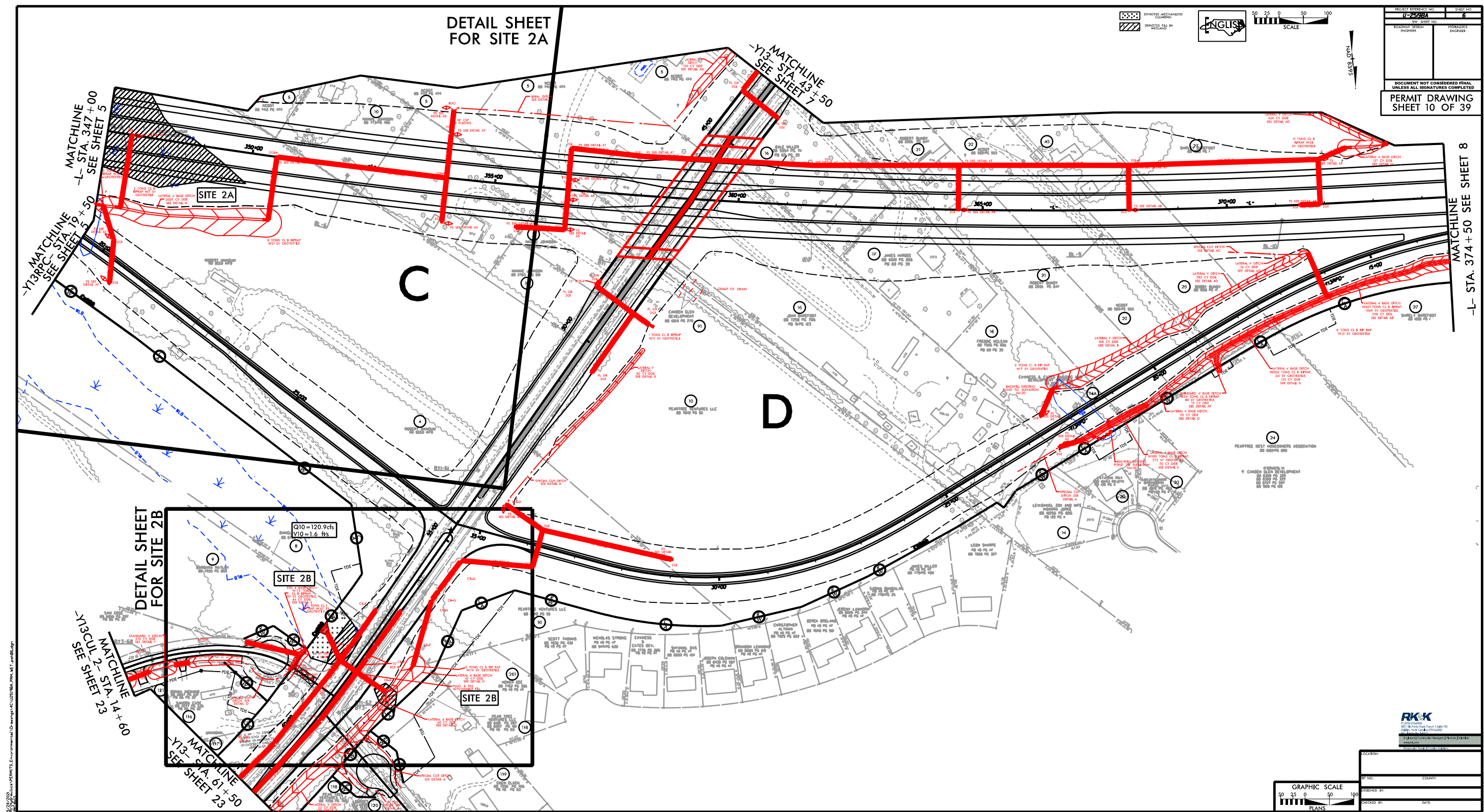


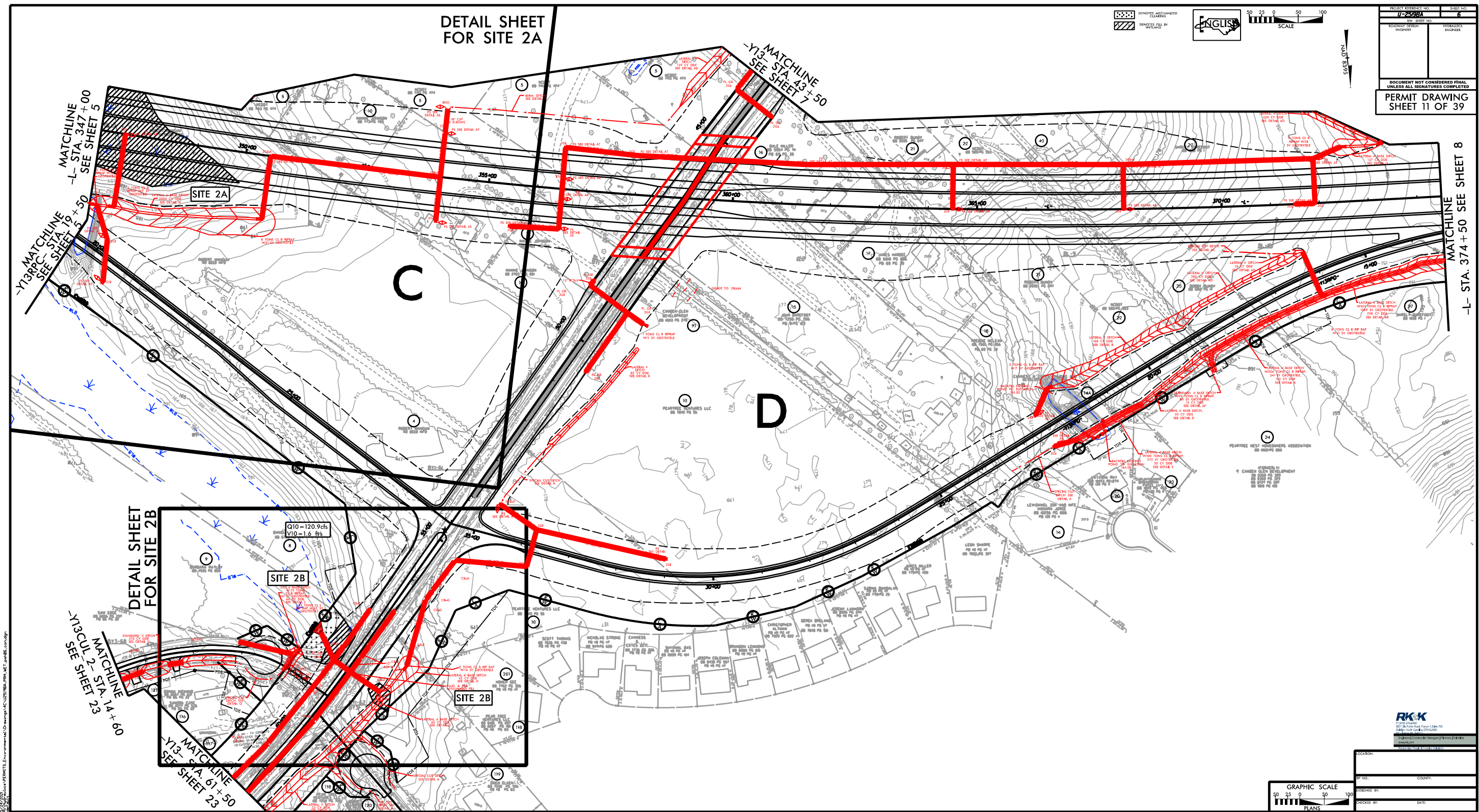
— STA. 10+50 TO STA. 11+78 RT

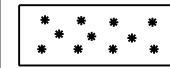
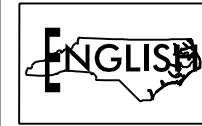


— STA. 379+00 TO STA. 379+50 LT

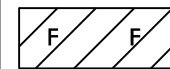








DENOTES MECHANIZED
CLEARING



DENOTES FILL IN
WETLAND

SITE 2B

Q10 = 120.9 cfs
V10 = 1.6 ft/s

8

STD. 4' BASE DITCH
W/73 TONS
CL B RIPRAP
191 SY GEOTEXTILE,
44 CY DDE,
SEE DETAIL I

33 TONS CL I
RIP RAP W/62 SY
GEOTEXTILE

CHORD

SP DET
CB-F

SP DET
CB-G

SP DET
CB-G

SP DET
CB-G

SP DET
CB-G

SP DET
CB-G

SP DET
CB-G

SP DET
CB-G

SITE 2B

5 TONS CL B RIP RAP
W/14 SY GEOTEXTILE

LATERAL 4' BASE DITCH
42 CY DDE
SEE DETAIL H

PLUG & FILL
W/FLOWABLE FILL

LATERAL 4' BASE DITCH
60 CY DDE
SEE DETAIL D

PROJECT REFERENCE NO.	SHEET NO.
U-2519BA	6B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 20 OF 39

201

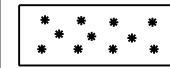
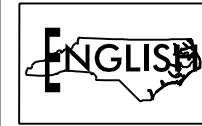
HOMER GEE
DB 7762 PG 356
PB 119 PG 117

118

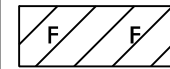
PEAR TREE
VENTURES LLC
DB 6108 PG 207
DB 6057 PG 481
PB 110 PG 03



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CLEARING



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STD. 4' BASE DITCH
W/73 TONS
CL B RIPRAP
191 SY GEOTEXTILE,
44 CY DDE,
SEE DETAIL I
33 TONS CL I
RIP RAP W/62 SY
GEOTEXTILE

CHORD

RETAIN

REMOVE

PDE

PDE

DONNA WIENAND
DB 8667 PG 621
PB 86 PG 22

SANDRA CASE
DB 4277 PG 536
PB 86 PG 22

116

SPECIAL CUT
DITCH SEE
DETAIL O

SP. DET.
CB-G

UNKNOWN

117

TDE

TDE

C

CB-F

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

15" RCP-III

55+00

35+00

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

18" RCP-III

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

CB-G

5 TONS CL B RIP RAP
W/14 SY GEOTEXTILE

LATERAL 4' BASE DITCH
42 CY DDE
SEE DETAIL H

PLUG & FILL
W/FLOWABLE FILL

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