



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

May 15, 2014

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

ATTN: Ms. Liz Hair
NCDOT Coordinator

Dear Madam:

Subject: **Revised 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. NHF-DPR-0100(001), State Project No. 8.2441301, TIP Nos. X-0002 B & C, and U-2519 AA, AB, BA, BB, CA, CB, DA, & E. WBS 35196.3.19

References: Section 404 and 401 Individual Permit Application requested April 25, 2008
Section 404 Individual Permit issued October 23, 2008 (SAW-2008-01413)
Section 401 Water Quality Certification issued October 6, 2008 (003278)
Section 404 and 401 Modification requested May 21, 2010
Section 401 Modification issued June 3, 2010 (20080737 v.2)
Section 404 and 401 Modification requested October 7, 2010
Section 401 Modification issued December 16, 2010 (20080737 v.3)
Section 404 Modification issued December 21, 2010 (SAW-2008-01413)
Section 404 and 401 Modification requested April 30, 2014

The purpose of this revised modification request is to provide revisions to the final design for U-2519 CB and a portion of DA since the previous modification request, dated April 30, 2014. The previous modification request did not include a permanent stream crossing on TT4DA (site 18) at Fort Bragg's request. However, NCDOT has elected to install two 48-inch RCPs with rip rap for embankment protection at the stream crossing. Additional compensatory mitigation will be provided as a result. Furthermore, fill slopes at sites 15, 16, 17, 20, and 25 have been reduced to 3:1; which has resulted in decreased wetland impacts from the previous modification request of 5.88 acres to 5.86 acres (4.35 riparian, 1.51 non-riparian). Conversely, stream impacts have increased from the of 739 feet along with 40 feet of bank stabilization to 882 feet and 60 feet of bank stabilization due to the permanent crossing at TT4DA. Also note, stream impacts at site 15 have been reduced by 4 feet, from 444 feet to 440 feet. Please see the attached revised permit drawings.

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

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Table 1. U-2519 CB Wetland Impacts and Descriptions

Permit Site No.	FEIS Site ID	Riverine or Non-Riverine	Permanent (ac.)	Temporary (ac.)	Mitigation Required
1	B	Riverine	0.00	0.00	N/A
2	B	Riverine	0.00	0.00	N/A
3	B	Riverine	0.35	0.00	Yes
4	B	Riverine	0.19	0.00	Yes
5	C	Riverine	0.69	0.00	Yes
6	C	Riverine	0.13	0.00	Yes
7	C	Riverine	0.08	0.00	Yes
8	C	Riverine	0.66	0.00	Yes
9	C	Riverine	0.31	0.00	Yes
10	C	Riverine	1.94	0.00	Yes
12	C2	Non-Riverine	0.01	0.00	Yes
13	U	Non-Riverine	0.27	0.00	Yes
15	S	Non-Riverine	0.50	0.00	Yes
16	T	Non-Riverine	0.20	0.00	Yes
18 [†]	N	Non-Riverine	0.53	0.00	Yes
Total			5.86	0.0	

[†]Site 18 was originally included with the U-2519 DA section as “future”; however, hydraulic design was not complete.

Table 2. U-2519 CB Stream Impacts and Descriptions

Permit Site No.	FEIS Site ID	Permanent (ft)	Permanent (ac.)	Temporary (ft)	Temporary (ac.)	Type of Stream	Mitigation Required
1	2UTB	0	0.00	5	0.01	Perennial	N/A
2	2UTB	69	0.01	19	0.01	Perennial	Yes
2*	2UTB	10	0.00	0	0.00	Perennial	No
13	U	80	0.01	0	0.00	Perennial	Yes
13*	U	10	0.00	0	0.00	Perennial	No
14	V	25	0.01	10	0.01	Perennial	Yes
14*	V	10	0.00	0	0.00	Perennial	No
15	S/UTS	440	0.06	40	0.01	Perennial	Yes
18 [†]	N	268	0.04	11	0.01	Perennial	Yes
18*	N	30	0.00	0	0.00	Perennial	No
Total		942	0.13	85	0.05		

*Denotes bank stabilization; when necessary, mitigation required by the USACE exceeds the amount required by NCDWR

[†]Site 18 was originally include with the U-2519 DA section as “future”; however, hydraulic design was not complete.

Compensatory mitigation for the reduction of 0.02 acre of wetland impacts will be credited back to the Privateer Wetland and Stream Mitigation Site. This brings total project wetland impacts to 51.26 acres (33.74 riparian, 17.52 non-riparian). The increase of 143 feet of stream impacts will be debited from the Privateer Wetland and Stream Mitigation Site, bringing the total project stream impacts to 13,173 feet. A revised debit ledger for the Privateer Wetland and Stream Mitigation Site is attached to this modification request.

Proposed utility relocations have not been adjusted since the April 30, 2014 modification request.

Regulatory Approvals

The let date for this project is August 19, 2014 however the review date is May 27, 2014. As the review date for the project is quickly approaching, we respectfully request expedited issuance of the permit modification in an effort keep the project letting on schedule.

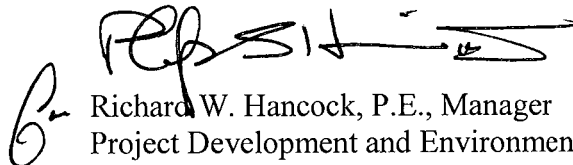
Section 404: We are hereby requesting the modifications described above and an expiration date of December 31, 2019 for the USACE Individual 404 Permit signed October 23, 2008 (SAW-2008-01413), for the above-described activities.

Section 401: We are hereby requesting a modification to the 401 Water Quality Certification from the NCDWR issued October 6, 2008 (DWQ No. 003278).

A copy of this modification request and its distribution list will be posted on the NCDOT website at: <https://connect.ncdot.gov/resources/Environmental>

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Tyler Stanton at 919-707-6156 or tstanton@ncdot.gov.

Sincerely,


Richard W. Hancock, P.E., Manager
Project Development and 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.

According to the April 2014 permit mod, there were an additional 0.36 acres of wetland impacts associated with T.I.P. U-2519CB and an excess of 612 linear feet of debits to the Privateer Mitigation Site. To offset the additional 0.36 acres of unavoidable wetland impacts, the Privateer Farms Mitigation Site will be debited at a 3:1 ratio, totaling 1.14 acres wetland debits. Privateer will be credited 775 linear feet of stream credit from the over debit of 516.6 linear feet at 1.5:1 ratio from preliminary design. 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**

Mitigation Type	Debit Amount (Ln.Ft.)	Status	Site TIP	Action ID#	Notes
Stream Restoration	19759.5	Close Out	U-2519	2008-01413	Debit amount includes all modification request including U-2519CB(5/15/14)
Stream Restoration	615	Close Out	U-2519 Mod	2008-01413	

Mitigation Type	Debit Amount (Ac.)	Status	Site TIP	Action ID#	Notes
Riparian Wetland Restoration	153.78	Close Out	U-2519	2008-01413	Debit amount includes all modification request including U-2519CB(5/15/14)
Riparian Wetland Restoration	1.29	Close Out	U-2519 Mod	2008-01413	
Riparian Wetland Restoration	7.38	Close Out	R-2303A	1992-03237	

7/2/99

REVISIONS

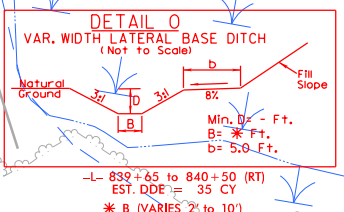
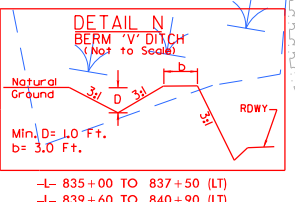
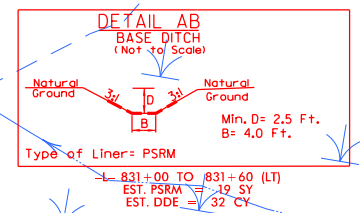
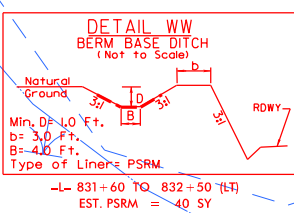
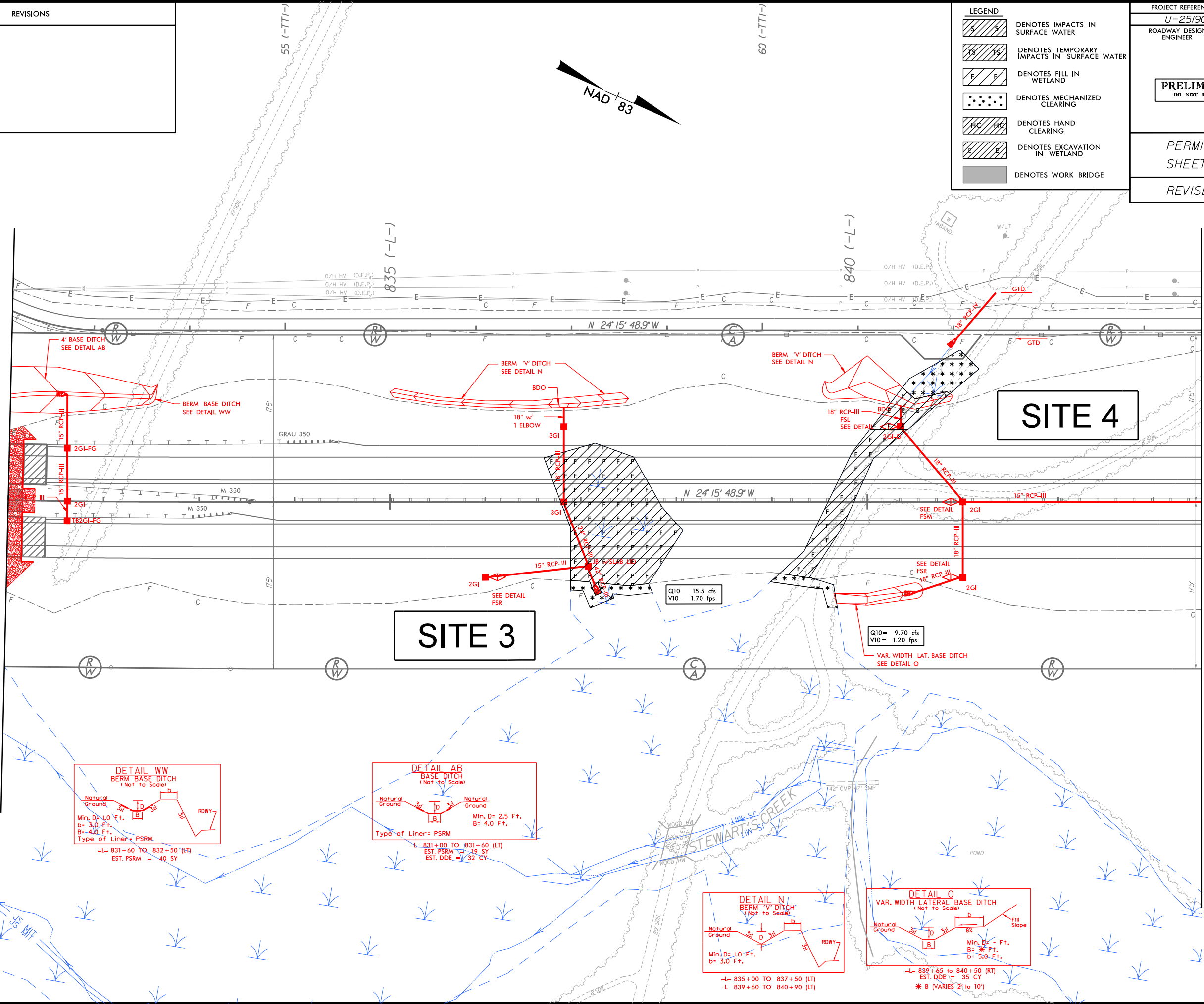
PROJECT REFERENCE NO. U-2519CB	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 14 OF 55	
REVISED 5/13/14	

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE



MATCH LINE STA. 831+00 SEE SHEET 9

MATCH LINE STA. 843+50 SEE SHEET 11



104.001.00/U2519cb/Roadway/prj/U2519cb_r.dwg_psh10

SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 64 -TT1- FOR PROFILE

7/2/99

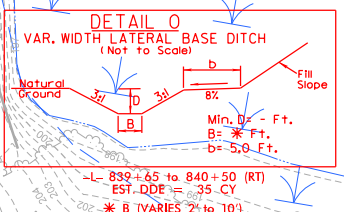
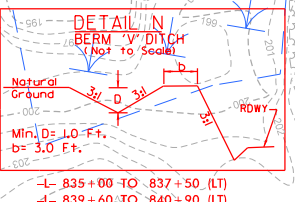
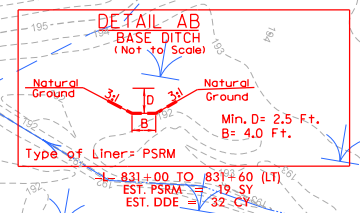
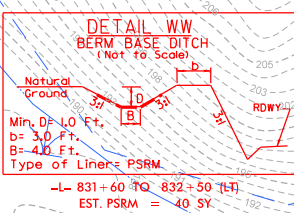
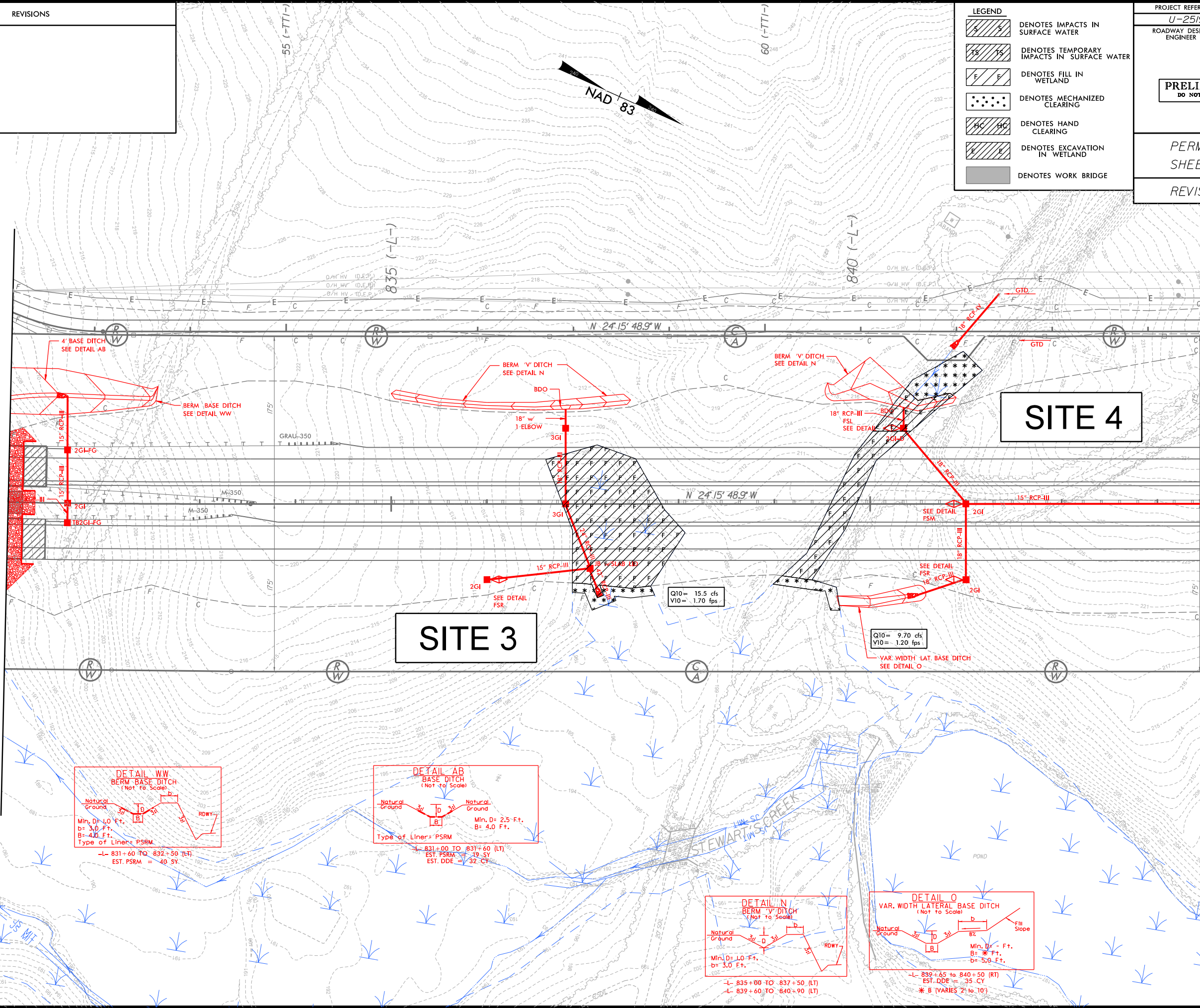
REVISIONS

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 15 OF 55	
REVISED 5/13/14	

MATCH LINE STA. 831+00 SEE SHEET 9

MATCH LINE STA. 843+50 SEE SHEET 11

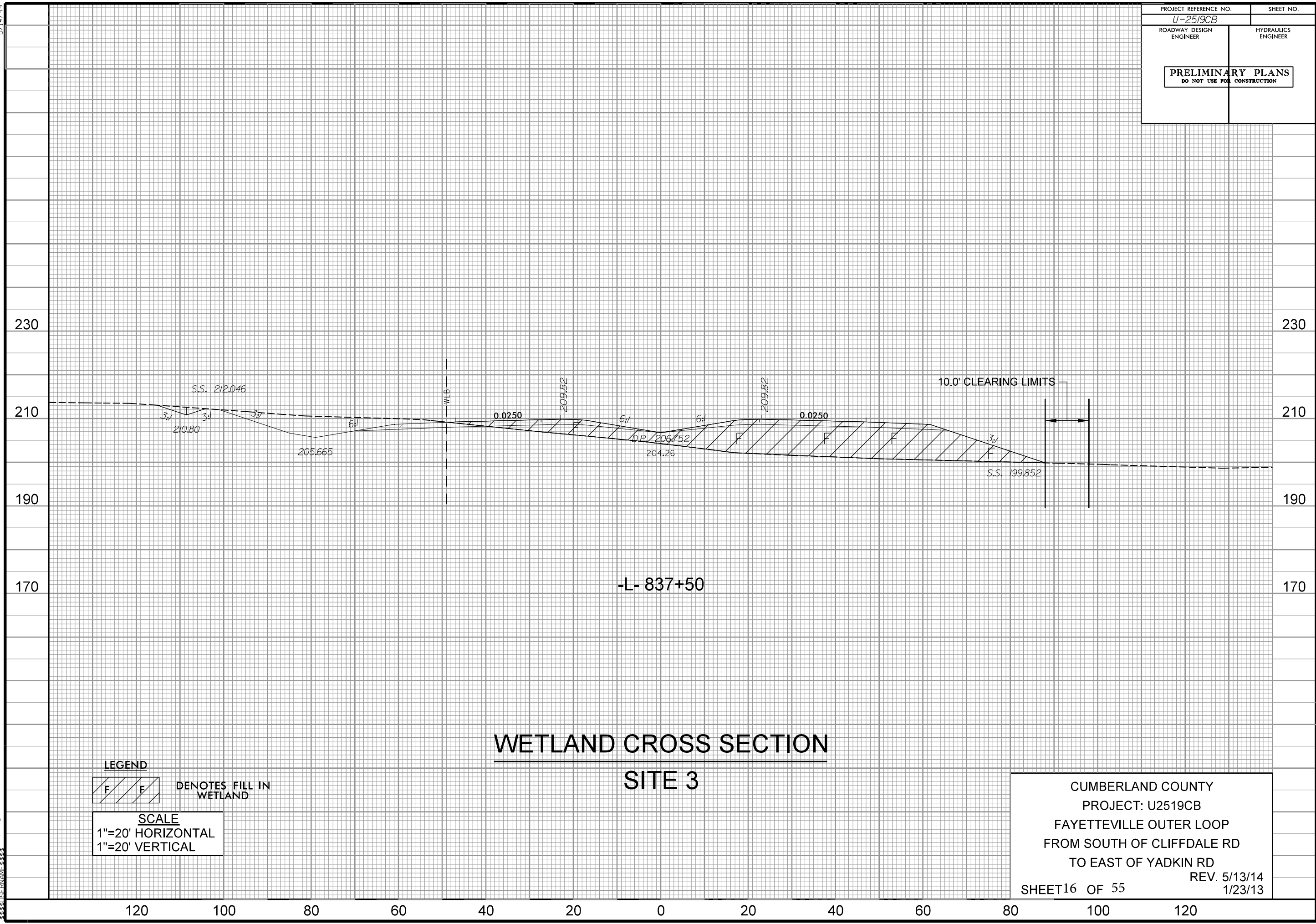



SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 64 -TT1- FOR PROFILE

104.001\001\U2519cb\Roadway\proj\U2519cb_r.dwg_psh10

5/14/99

PROJECT REFERENCE NO. <i>U-2519CB</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



LEGEND
 DENOTES FILL IN WETLAND

SCALE
 1"=20' HORIZONTAL
 1"=20' VERTICAL

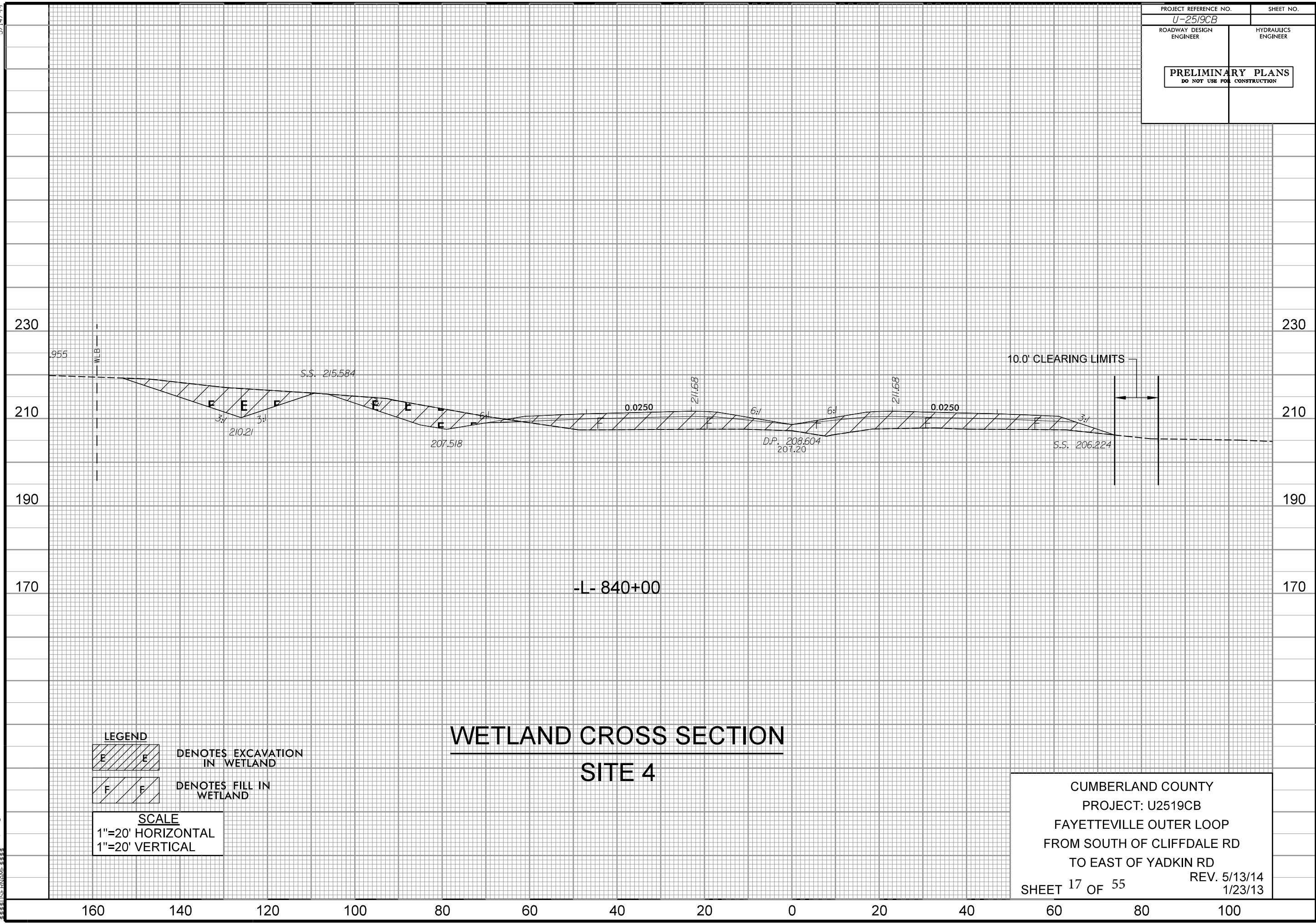
WETLAND CROSS SECTION
SITE 3

CUMBERLAND COUNTY
 PROJECT: U2519CB
 FAYETTEVILLE OUTER LOOP
 FROM SOUTH OF CLIFFDALE RD
 TO EAST OF YADKIN RD
 SHEET 16 OF 55
 REV. 5/13/14
 1/23/13

4:16:41 PM 4/25/14 2519cb.dwg

5/14/99

PROJECT REFERENCE NO. <i>U-2519CB</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



WETLAND CROSS SECTION
SITE 4

LEGEND

E	E	DENOTES EXCAVATION IN WETLAND
F	F	DENOTES FILL IN WETLAND

SCALE
1"=20' HORIZONTAL
1"=20' VERTICAL

CUMBERLAND COUNTY
PROJECT: U2519CB
FAYETTEVILLE OUTER LOOP
FROM SOUTH OF CLIFFDALE RD
TO EAST OF YADKIN RD
SHEET 17 OF 55
REV. 5/13/14
1/23/13

4:16:57 PM 5/13/14 5:19cb.dwg

7/2/99

REVISIONS

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 18 OF 55	
REVISED 5/13/14	

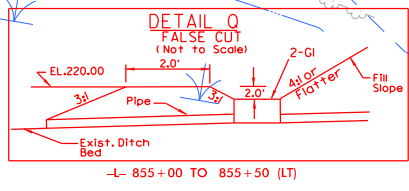
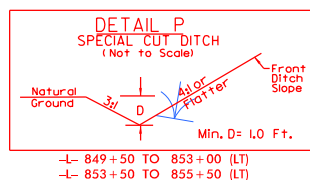
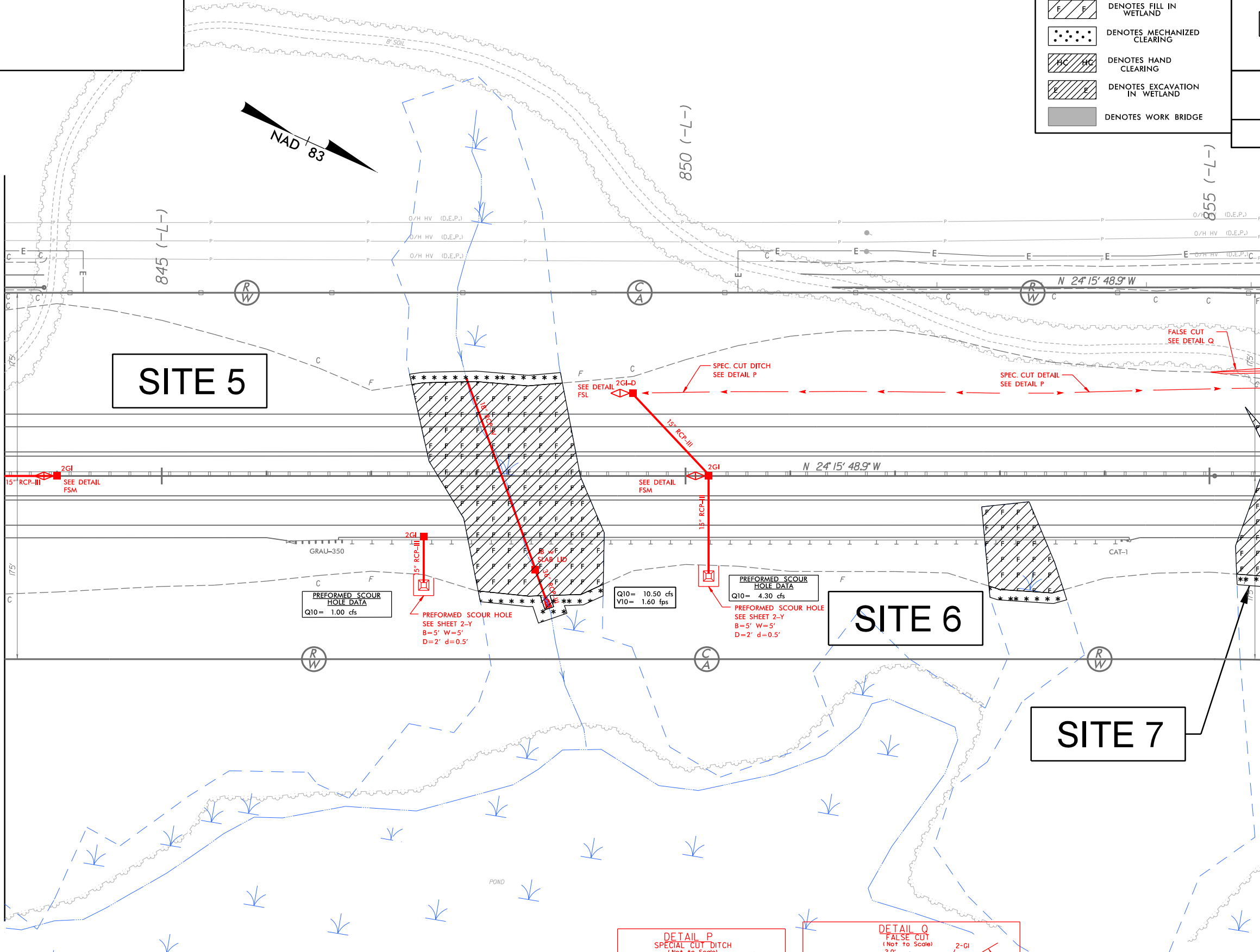
MATCH LINE STA. 843+50 SEE SHEET 10

MATCH LINE STA. 855+50 SEE SHEET 12

SITE 5

SITE 6

SITE 7



104.001.00/U2519cb/Roadway/prj/U2519cb_r.dwg_pshll

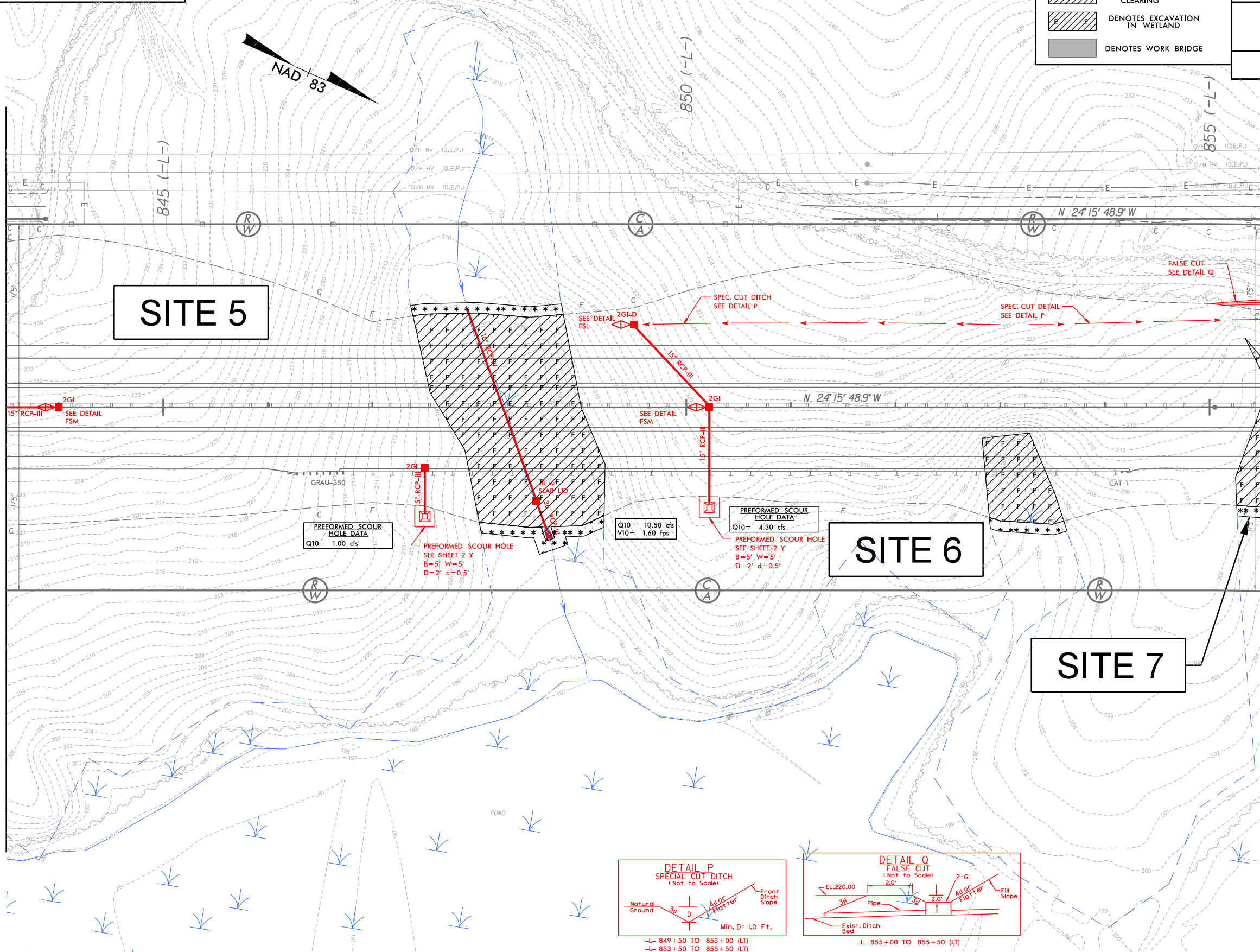
SEE SHEETS 35 & 36 FOR -L- PROFILE
SEE SHEET 64 FOR -TL- PROFILE
SEE SHEET 65 FOR -IT2- PROFILE

7/2/99

REVISIONS

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 19 OF 55	
REVISED 5/13/14	

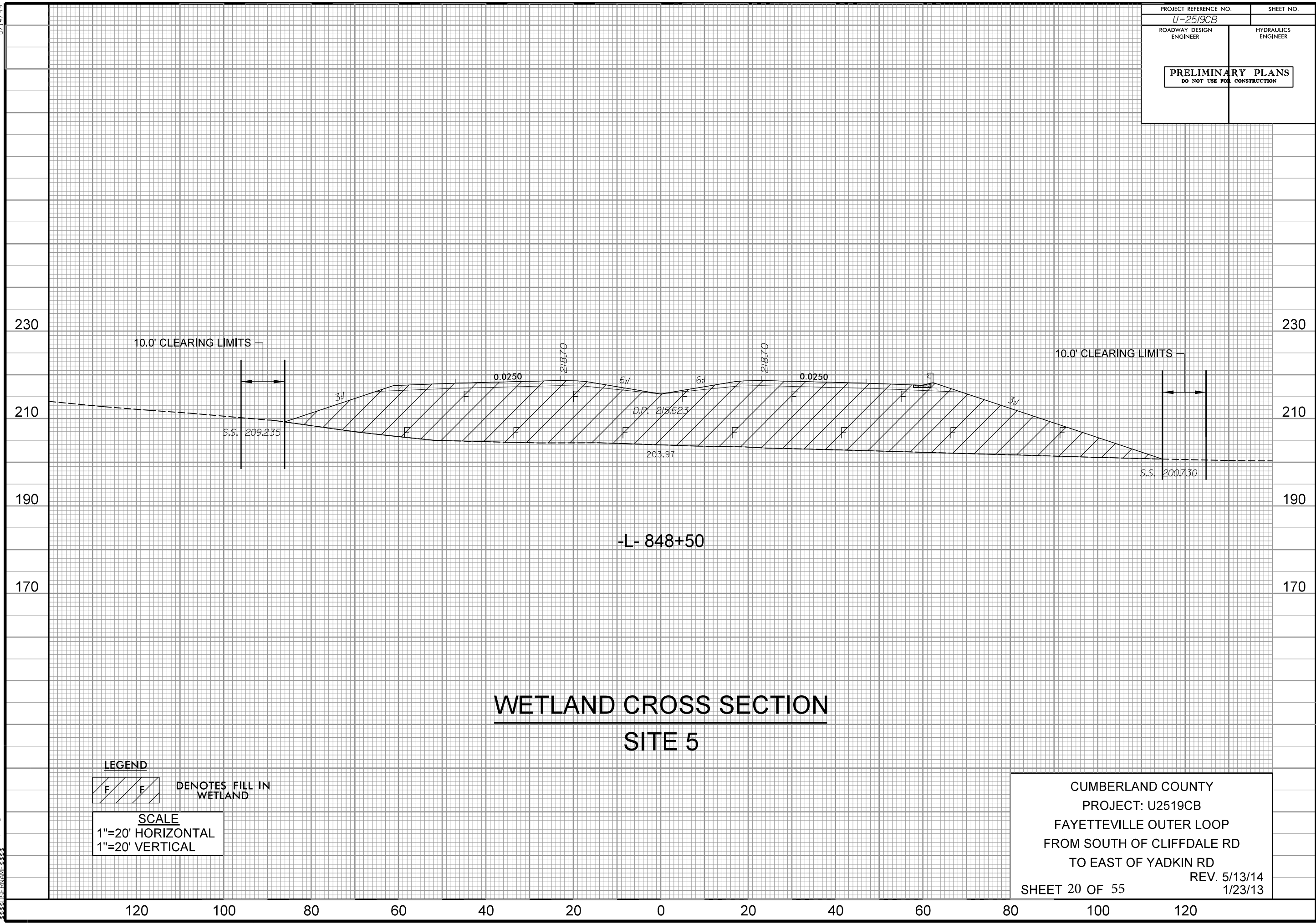


104.001.00/U2519cb/Roadway/prj/U2519cb_r.dwg_p.shl

SEE SHEETS 35 & 36 FOR -L- PROFILE
SEE SHEET 64 FOR -TL- PROFILE
SEE SHEET 65 FOR -T2- PROFILE

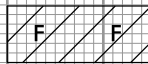
5/14/99

PROJECT REFERENCE NO. <i>U-2519CB</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



WETLAND CROSS SECTION
SITE 5

-L- 848+50

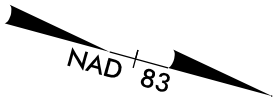
LEGEND
 DENOTES FILL IN WETLAND
SCALE
 1"=20' HORIZONTAL
 1"=20' VERTICAL

CUMBERLAND COUNTY
 PROJECT: U2519CB
 FAYETTEVILLE OUTER LOOP
 FROM SOUTH OF CLIFFDALE RD
 TO EAST OF YADKIN RD
 REV. 5/13/14
 SHEET 20 OF 55 1/23/13

4:16:45 PM 5/13/14 19cb_prrm_xpl.dgn

7/2/99

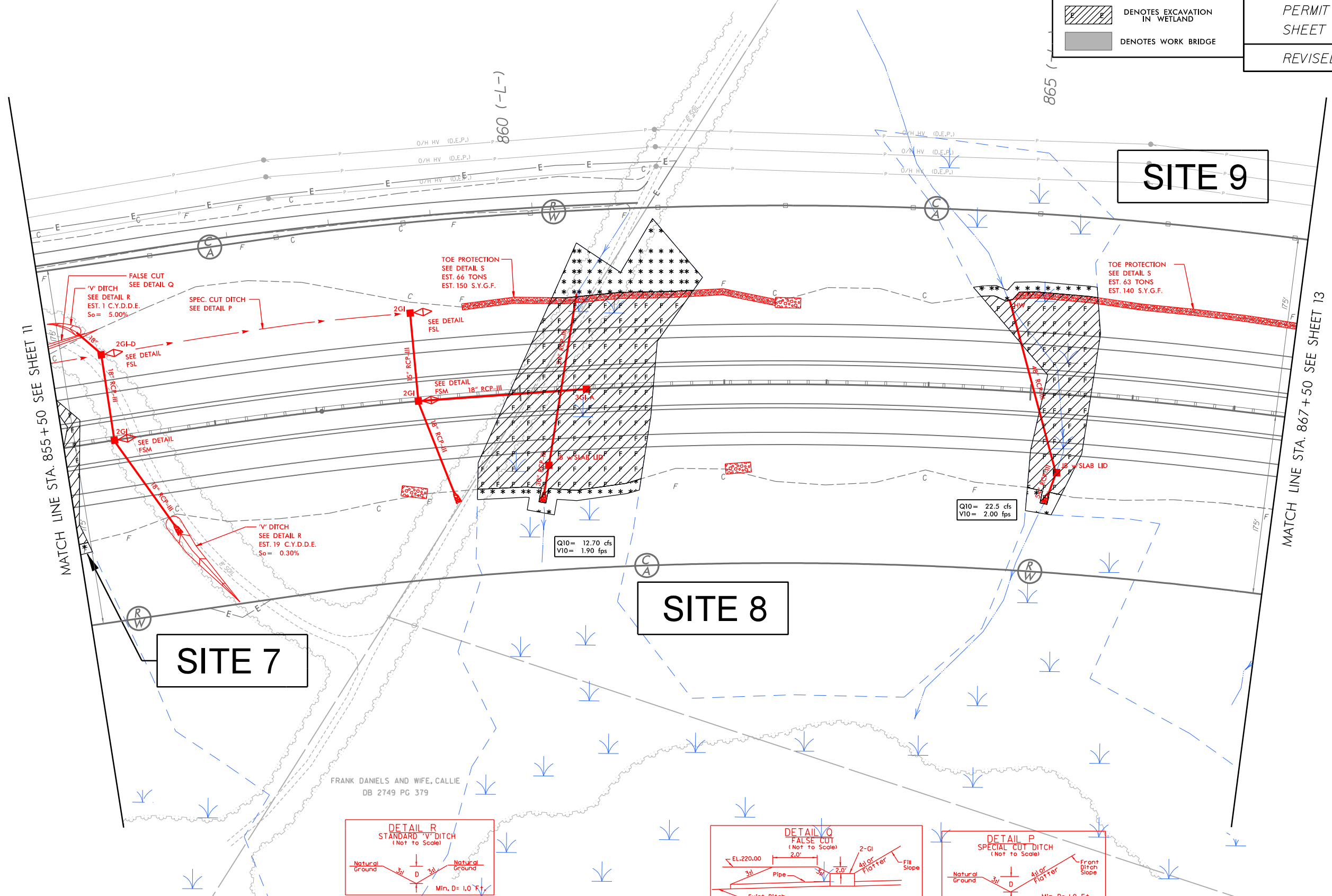
REVISIONS



20 (-TT2-)

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 22 OF 55	
REVISED 5/13/14	



MATCH LINE STA. 855+50 SEE SHEET 11

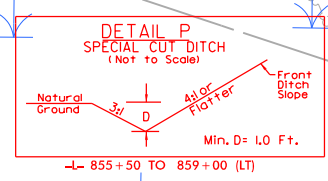
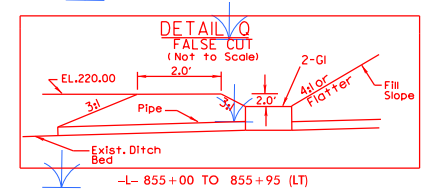
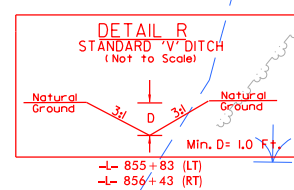
MATCH LINE STA. 867+50 SEE SHEET 13

SITE 7

SITE 8

SITE 9

FRANK DANIELS AND WIFE, CALLIE
DB 2749 PG 379



SEE SHEET 36 FOR -L- PROFILE
SEE SHEET 65 FOR -TT2- PROFILE

104,001,001/u2519cb/Roadway/prj/u2519cb_rdy_psh12

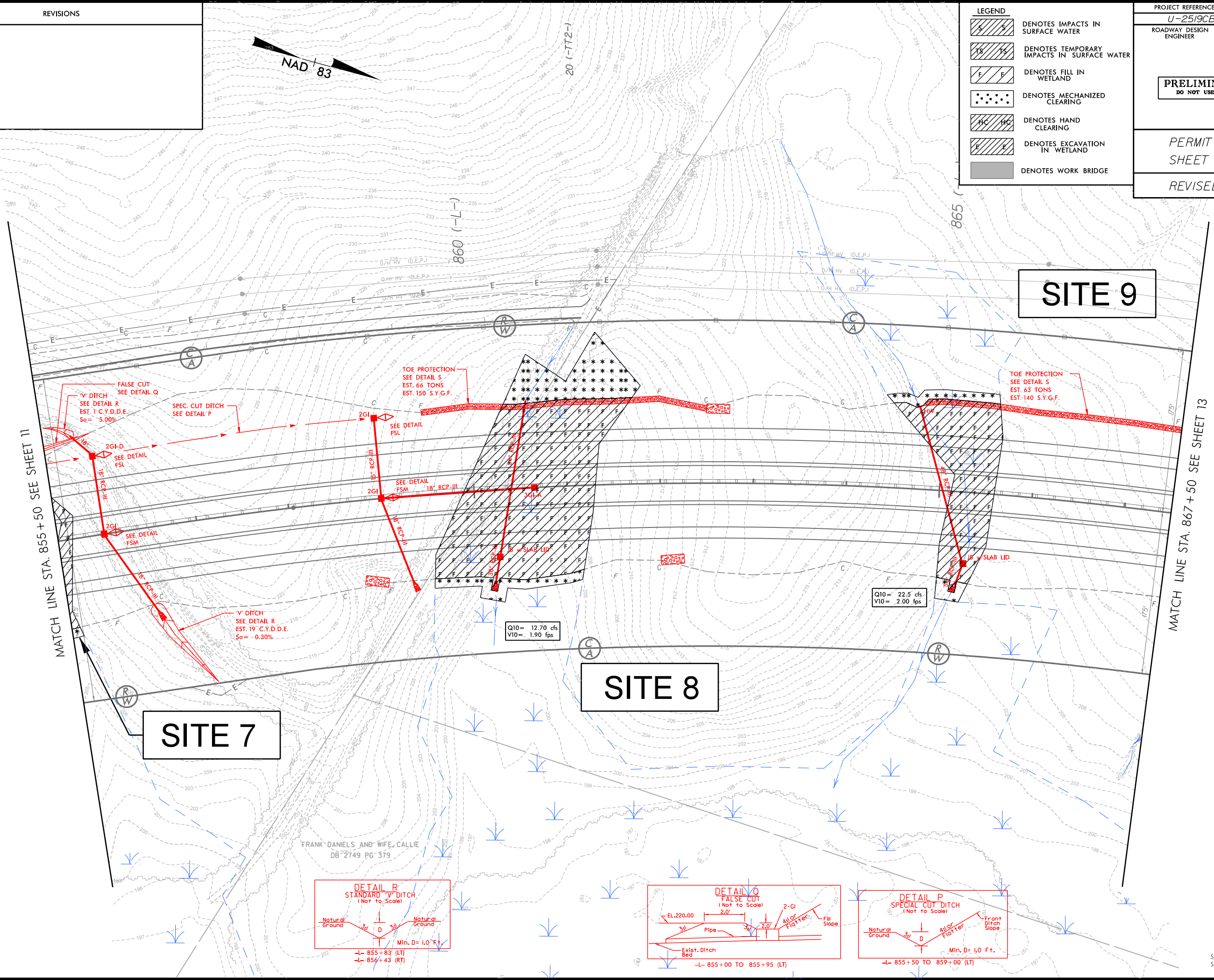
7/2/99

REVISIONS

NAD 83

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
PERMIT DRAWINGS SHEET 23 OF 55	
REVISED 5/13/14	



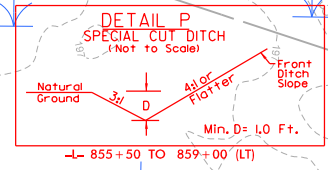
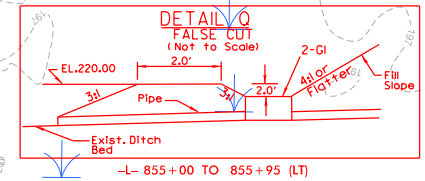
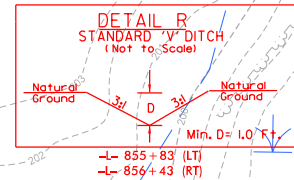
MATCH LINE STA. 855+50 SEE SHEET 11

MATCH LINE STA. 867+50 SEE SHEET 13

SITE 7

SITE 8

SITE 9

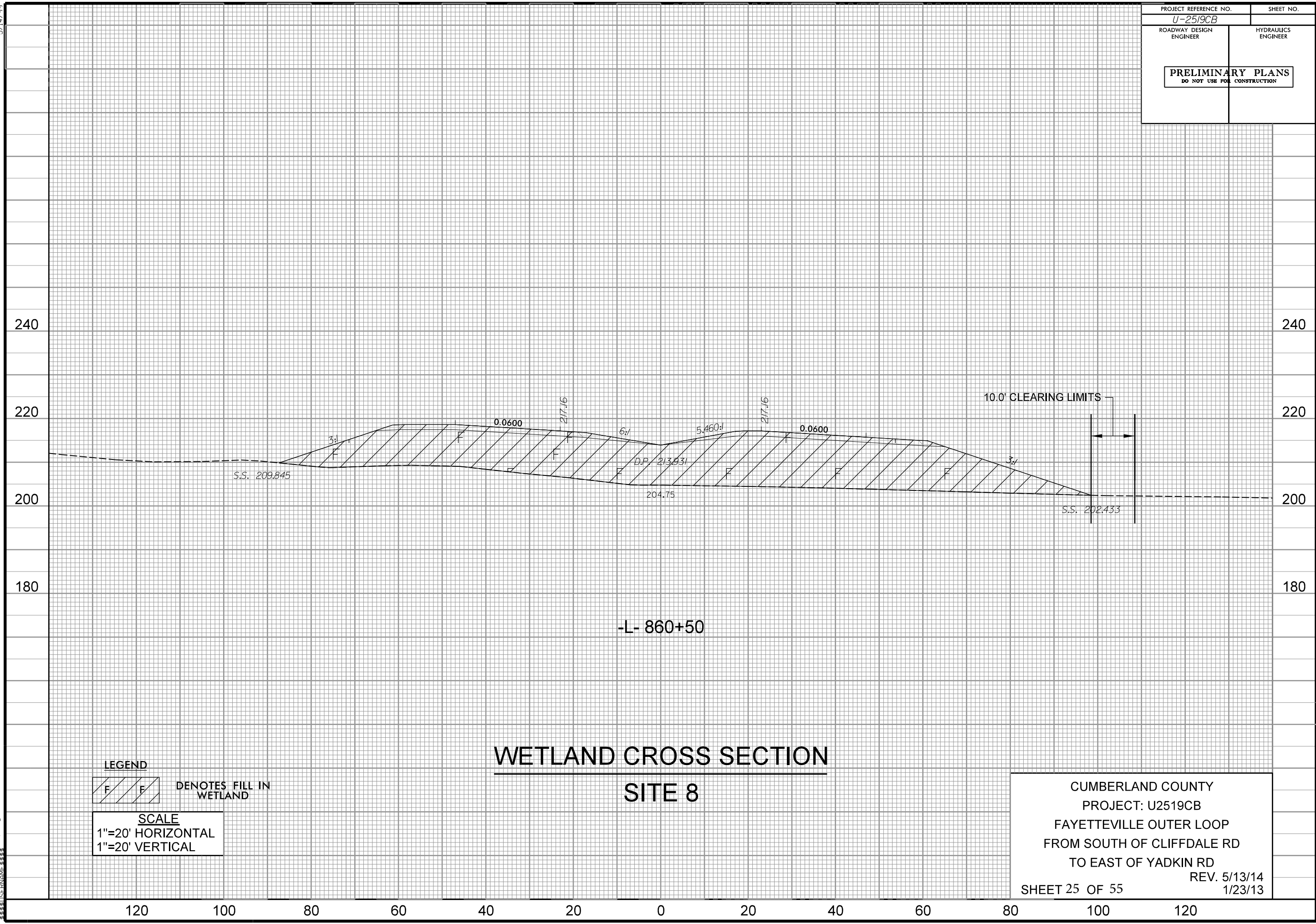


SEE SHEET 36 FOR -L- PROFILE
SEE SHEET 65 FOR -TT2- PROFILE

104,001,001\42519cb\Roadway\proj\42519cb_r.dwg_psh12

5/14/99

PROJECT REFERENCE NO. <i>U-2519CB</i>	SHEET NO.
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



-L- 860+50

WETLAND CROSS SECTION SITE 8

LEGEND

DENOTES FILL IN WETLAND

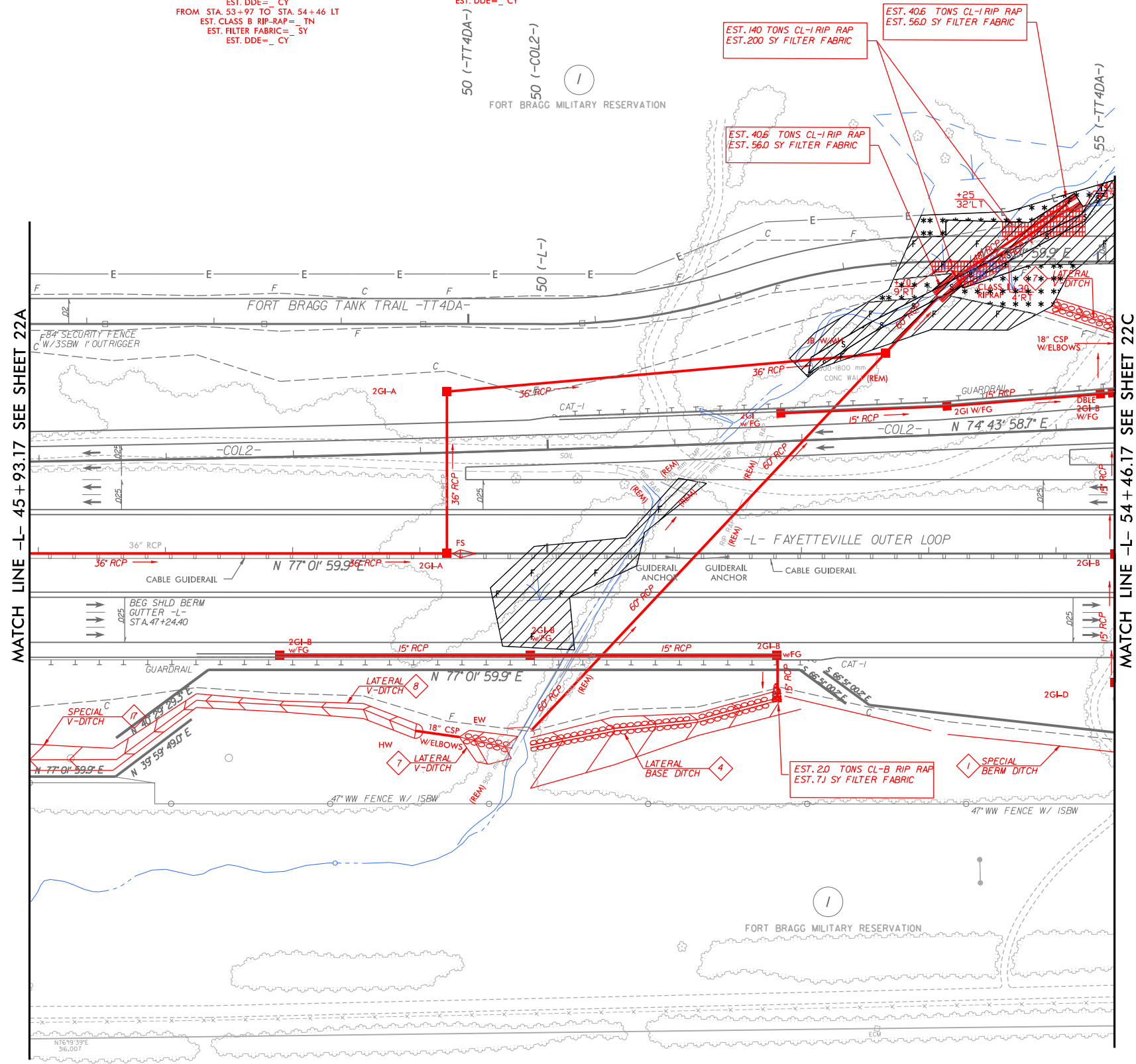
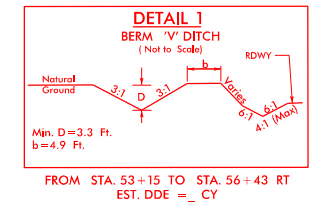
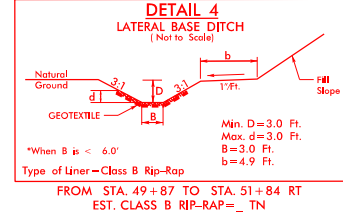
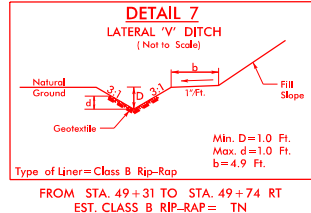
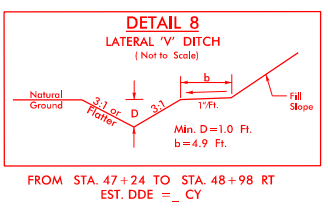
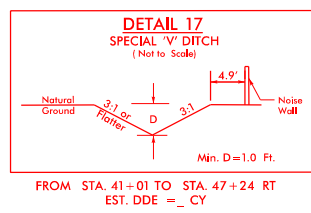
SCALE
1"=20' HORIZONTAL
1"=20' VERTICAL

CUMBERLAND COUNTY
PROJECT: U2519CB
FAYETTEVILLE OUTER LOOP
FROM SOUTH OF CLIFFDALE RD
TO EAST OF YADKIN RD
REV. 5/13/14
SHEET 25 OF 55 1/23/13

4:16:51 PM 5/14/99 U2519CB.dgn

120 100 80 60 40 20 0 20 40 60 80 100 120

PROJECT REFERENCE NO. U-2519CB	SHEET NO. 22B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY: DENNIS JAMES MORY 20031 ON 8-29-08 THIS DOCUMENT IS ONLY CERTIFIED AS TO THE REVISIONS.	HYDRAULICS ENGINEER NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY: W. HENRY WELLS JR. 9334 ON 8-29-08 THIS DOCUMENT IS ONLY CERTIFIED AS TO THE REVISIONS.



Right of Way for this Plan Sheet has been acquired under metric TIP Project U-2519DA. Right of Way authorization was May 19, 2006. Right of Way shown is for information purposes only.

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PERMIT DRAWINGS
SHEET 42 OF 55
REVISED 5/14/14

SITE 18

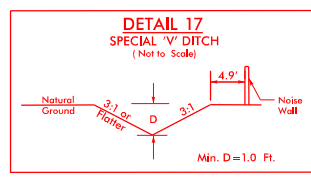
SEE SHEET 41A FOR -L- PROFILE
SEE SHEET 74 FOR -COL2- PROFILE
SEE SHEET 70 FOR -TT4DA- PROFILE

REVISIONS

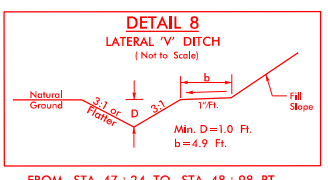
8/17/99

I:\7100_BM\150A Rdly_esh_22B.dgn
3/6/07

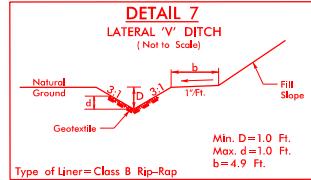
8/17/99



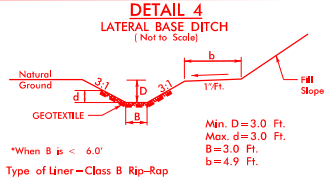
FROM STA. 41+01 TO STA. 47+24 RT
EST. DDE = _ CY



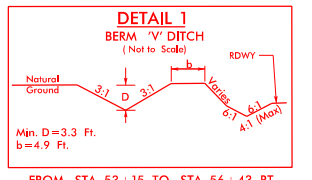
FROM STA. 47+24 TO STA. 48+98 RT
EST. DDE = _ CY



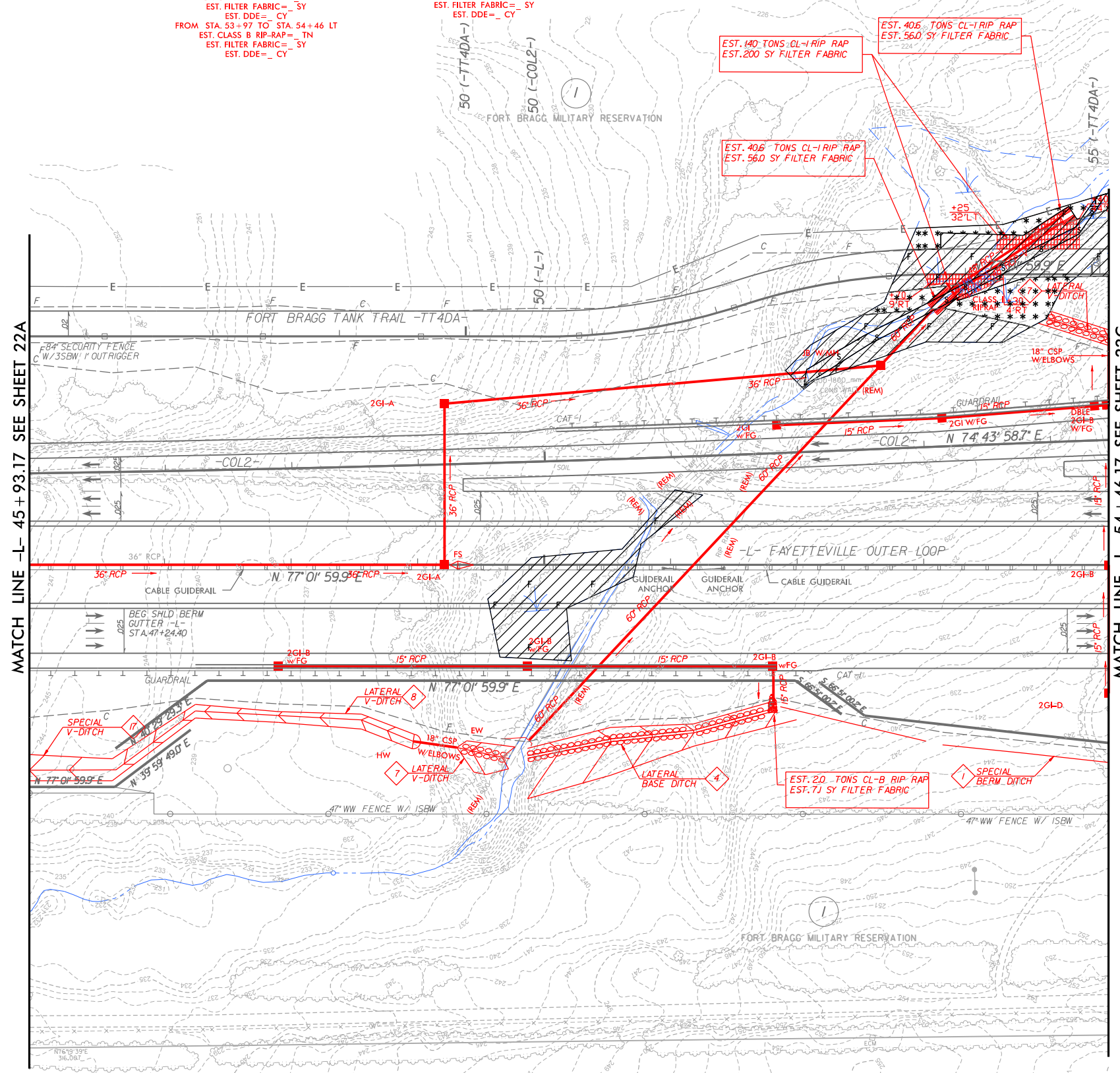
FROM STA. 49+31 TO STA. 49+74 RT
EST. CLASS B RIP-RAP = _ TN
EST. FILTER FABRIC = _ SY
EST. DDE = _ CY
FROM STA. 53+97 TO STA. 54+46 LT
EST. CLASS B RIP-RAP = _ TN
EST. FILTER FABRIC = _ SY
EST. DDE = _ CY



FROM STA. 49+87 TO STA. 51+84 RT
EST. CLASS B RIP-RAP = _ TN
EST. FILTER FABRIC = _ SY
EST. DDE = _ CY



FROM STA. 53+15 TO STA. 56+43 RT
EST. DDE = _ CY



PROJECT REFERENCE NO. U-2519CB	SHEET NO. 22B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY: DENNIS JAMES MORY 20031 ON 8-29-08 THIS DOCUMENT IS ONLY CERTIFIED AS TO THE REVISIONS.	HYDRAULICS ENGINEER NOT A CERTIFIED DOCUMENT AS TO THE ORIGINAL DOCUMENT BUT ONLY AS TO THE REVISIONS. THIS DOCUMENT ORIGINALLY ISSUED AND SEALED BY: W. HENRY WELLS JR. 9334 ON 8-29-08 THIS DOCUMENT IS ONLY CERTIFIED AS TO THE REVISIONS.

Right of Way for this Plan Sheet has been acquired under metric TIP Project U-2519DA. Right of Way authorization was May 19, 2006. Right of Way shown is for information purposes only.

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES FILL IN WETLAND
	DENOTES MECHANIZED CLEARING
	DENOTES HAND CLEARING
	DENOTES EXCAVATION IN WETLAND
	DENOTES WORK BRIDGE

PERMIT DRAWINGS
SHEET 43 OF 55
REVISED 5/14/14

SITE 18

REVISIONS

1:46:44 PM
I:\612519DA Rcdy_esh_22B.dgn
3/10/14 10:46:44 AM

SEE SHEET 41A FOR -L- PROFILE
SEE SHEET 74 FOR -COL2- PROFILE
SEE SHEET 70 FOR -TT4DA- PROFILE

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 821+59 TO 830+76	Bridge	-	-	-	-	2.60	-	0.01	-	5	-
2	-TT1- 46+10 TO 46+73	48" CSP	-	-	-	-	-	0.01	0.01	69	19	-
	-TT1- 46+29	Bank Stabilization	-	-	-	-	-	-	-	10	-	-
3	-L- 836+61 TO 838+07	Roadway & 42" RCP	0.33	-	-	0.02	-	-	-	-	-	-
4	-L- 838+80 TO 841+17	Roadway	0.10	-	0.07	0.02	-	-	-	-	-	-
5	-L- 847+36 TO 849+22	Roadway & 36" RCP	0.62	-	-	0.07	-	-	-	-	-	-
6	-L- 852+83 TO 853+64	Roadway	0.11	-	-	0.02	-	-	-	-	-	-
7	-L- 855+25 TO 855+70	Roadway	0.07	-	-	0.01	-	-	-	-	-	-
8	-L- 859+50 TO 861+81	Roadway & 30" RCP	0.62	-	-	0.04	-	-	-	-	-	-
9	-L- 864+39 TO 865+64	Roadway & 54" RCP	0.27	-	-	0.04	-	-	-	-	-	-
10	-L- 889+04 TO 902+62	Roadway & Bridge	1.47	-	0.30	0.17	2.18	-	-	-	-	-
11	SITE ELIMINATED	N/A	-	-	-	-	-	-	-	-	-	-
12	-L- 908+82 TO 909+03	Roadway	-	-	-	0.01	-	-	-	-	-	-
13	-Y2REV_LT- 34+55 TO 36+20	Roadway	0.27	-	-	-	-	0.01	-	80	-	-
	-Y2REV_LT- 35+03	Bank Stabilization	-	-	-	-	-	-	-	10	-	-
14	-Y2REV_LT- 29+32 TO 29+33	66" RCP	-	-	-	-	-	0.01	0.01	25	10	-
	-Y2REV_LT- 29+33	Bank Stabilization	-	-	-	-	-	-	-	10	-	-
15	-TT4- 54+56 TO 58+27	Roadway & 72" RCP	0.42	-	-	0.08	-	0.06	0.01	440	40	-
16	-Y1- 39+18 TO 40+61	Roadway & 72" RCP	0.15	-	-	0.05	-	-	-	-	-	-
17	SITE ELIMINATED	N/A	-	-	-	-	-	-	-	-	-	-
18	-L- 49+55 TO 53+31	Roadway & 60" RCP	0.25	-	-	0.07	-	0.02	-	135	-	-
	-L- 53+08	Bank Stabilization	-	-	-	-	-	-	-	20	-	-
	-TT4DA- 43+45 TO 56+12	Roadway & 48" RCP	0.16	-	-	0.05	-	0.02	0.01	133	11	-
	-TT4DA- 54+75	Bank Stabilization	-	-	-	-	-	-	-	10	-	-
19	-L- 89+00 TO 93+35	Bridge	-	-	-	-	2.62	-	-	-	-	-
20	-RP1C- 42+50 TO 48+50	Bridge	-	-	-	-	0.89	-	-	-	-	-
TOTALS:			4.84	0.00	0.37	0.65	8.29	0.13	0.05	942	85	0

- Notes:
- Total for "Existing Channel Impacts - Permanent" includes 40' of Bank Stabilization at culvert outlets.
 - Site 4 includes 0.05 acres of "Total Take"
 - Site 8 includes 0.13 acres of "Total Take"
 - Site 13 includes 0.18 acres of "Total Take"
 - Permanent Wetland Impacts from bridge pier installation = 0.03
 - Temporary Wetland Impacts from work bridge pier installation = 0.02
 - All impacts at Sites 19 & 20 other than those associated with the Bridge Construction shown, were permitted under Project U-2519DA.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

U-2519CB

Rev. 5/14/2014

SHEET 55

OF 55

10/8/2013