



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

June 15, 2010

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

ATTENTION: Mr. Tom Steffens
NCDOT Coordinator

Dear Sir:

Subject: Modification Request for the Nationwide 14 Permit and Water Quality Certification for Improvements to US 17 from Mills Street in Bridgeton to Norfolk & Southern Railroad, Craven County. State Project: 8.117601. Federal Aid Project: STPNHF-17(24). TIP: R-3403AA. Debit \$570.00 from WBS 34538.1.1

Reference: USACE Nationwide Permit 14 dated January 29, 2009, Action ID SAW 2009-00217. NCDWQ Water Quality Certification and Tar-Pamlico Buffer Authorization dated January 12, 2009, WQC No. 20081808v1.

The purpose of this letter is to request modifications to the Clean Water Act (CWA) Section 404 Permit issued by the USACE and the Water Quality Certification issued by the NCDWQ. This project is due to let on September 21, 2010. The North Carolina Department of Transportation (NCDOT) is proposing the following modifications:

- The addition of curb and gutter results in a decrease of 0.11 acre of wetland impacts.

A revised EEP acceptance letter will follow this request.

Regulatory Approvals

The NCDOT respectfully requests that the referenced 404 USACE Permit and 401 Water Quality Certification be modified to reflect the revision to the project's plan sheets as outlined in this letter. We are providing five copies of this permit modification request to the North Carolina Department of Environment and Natural Resources, Division of Water Quality for their review and approval.

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

TELEPHONE: 919-431-2000

FAX: 919-431-2001

WEBSITE: WWW.NCDOT.ORG

LOCATION:
ENVIRONMENTAL RESOURCES CENTER
4701 ATLANTIC AVENUE, STE. 116
RALEIGH, NC 27604

Enclosed are copies of the revised permit drawings and impact summary depicting the proposed modifications.

A copy of this modification request 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 contact Chris Underwood at (919) 431-6662.

Sincerely,



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

W/attachment:

Mr. Brian Wrenn, NCDWQ (5 copies)

W/o attachment

Dr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Victor Barbour, P.E., Project Services Unit
Mr. Mark Staley, Roadside Environmental
Mr. C. E. Lassiter, P.E., Div. 2 Engineer
Mr. Jay Johnson, Div. 2 Environmental Officer
Mr. Scott McLendon, USACE, Wilmington
Mr. Steve Sollod, NCDCM
Mr. Gary Jordan, USFWS
Mr. Travis Wilson, NCWRC
Mr. Ron Sechler, NMFS
Ms. Anne Deaton, NCDMF
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
Mr. Brian Yamamoto, P.E., PDEA

STORMWATER MANAGEMENT PLAN

Project: 34538.3.5
TIP: R-3403AA
County: Craven

6/7/10

Hydraulics Project Engineers: W. Henry Wells, Jr., PE and William M. Hines, Jr., P.E.
(Sungate Design Group); Anne Gamber, P.E. (NCDOT
Hydraulics Unit)

ROADWAY DESCRIPTION

The project involves the widening of US 17, located in Bridgeton, New Hanover County, from Mills Street to Norfolk and Southern Railroad. The overall length of the project is approximately 0.63 miles. The existing roadway is a predominately 28-foot wide roadway with two 12-foot wide lanes and 2-foot paved shoulders. With Project R-3403A, it is proposed to widen US 17 to a four-lane, shoulder section roadway with a narrow grass median. Concrete curbing is proposed along both sides of the roadway between -L- Station 18+50 and 50+90 (0.61 miles). Curb cuts along the concrete curbing will allow the stormwater to flow into the roadside ditches. The project drainage system consists of cross pipes, grated inlets and associated pipe systems, and side and lateral ditches and swales.

ENVIRONMENTAL DESCRIPTION

The project is located in the Neuse River Basin. There are two wetland sites that will be impacted by the proposed project. Wetland impacts have been kept to a minimum as much as practicable. There are no jurisdictional streams on this section of the project.

BEST MANAGEMENT PRACTICES AND MAJOR STRUCTURES

The primary goal of Best Management Practices (BMPs) is to prevent degradation of the states surface waters as a result of the location, construction and operation of the highway system. BMPs are activities, practices and procedures taken to prevent or reduce stormwater pollution. The BMPs and measures that will be used on this project to reduce stormwater impacts are grassed swales and raised drive-pipes in ditch lines.

GRASSED SWALES AND RAISED DRIVE-PIPES

Grassed swales are proposed along the majority of the project. These ditches will have a maximum 3:1 side slope and a relatively flat grade. In addition, the grassed swales along the side of the roadway will be used for stormwater storage and encourage infiltration by raising the drive-pipes 3-inches above the ditch line.

The wetland at site 1 will be partially filled by proposed curbing for a roadside ditch and a driveway entrance. No new stormwater will be entering the wetland at site 1.

The wetland at site 2 will receive stormwater from median inlets at station 28+50-L-, 32+13-L- and a roadside grassed swale. Stormwater entering the median inlets is treated by grassed swales from station 27+00 to 29+50 -L- and from station 31+47 to 32+13 -L-. The roadside grassed swale is treating stormwater from station 27+09 to 32+13 -L- RT. As shown in the attached calculations, all 2yr velocities in the grassed swales are under 2ft/s. Although the velocity of stormwater exiting the system into the wetland during the 10yr design storm is 2.8ft/s, class 'B' rip rap will be placed at the pipe outlet to dissipate flow. Further, the 10yr velocity in the roadside grassed swale is 1.8ft/s, meeting criteria for diffuse flow into the wetland.

MINIMIZATION OF IMPACTS

Several design elements provided for minimization of wetland impacts. Grassed swales along with raised drive-pipes will promote infiltration and treat storm water before it enters the wetland.

R-3403AA Craven Co.

Discharge is considered to be treated if it meets the following criteria:

100 ft. of grass swale for every 1 acre of drainage area. AND

2 yr. velocity is less than or equal to 2 ft./sec.

 Date: 6/8/2010
 Dsn. By: BNE
 Check: SDG

SHT.	Structure	Station	Type	Total D.A. (ac)	Required length for treatment (ft.)	Actual Length (ft)	Channel Slope (ft/ft)	Side Slopes	Treated Discharge?	Q2 cfs	Q2 vel. fps	Q10 cfs	Q10 vel. fps	Treatment Provided
5	124A	28+50 MED	2GI	0.42	42.0	250	0.008	3-5:1	YES	1.70	1.53	2.20	1.63	GS
5	124	32+13 MED	2GI	0.21	21.0	66	0.009	5:1	YES	0.94	1.31	1.21	1.40	GS
5	N/A	32+13 RT	DITCH	0.60	60.0	500	0.009	3-6:1	YES	1.68	1.69	2.17	1.81	GS

Pipe exit velocity from structure 124 at site 2 wetland = 2.8 fps Class 'B' rip rap will be used to dissipate

 2GI = 2 GRATED INLET
 3GI = 3 GRATED INLET
 SBG = SHOULDER BERM GUTTER
 CB = CATCH BASIN
 DDB = DRY DETENTION BASIN
 B = BASIN

 BDOS = BERM DRAINAGE OUTLET STRUCTURE
 OTCB = OPEN THROAT CATCH BASIN
 OPEN = OPEN END PIPE
 PSH = PRE FORMED SCOUR HOLE
 LS = LEVEL SPREADER
 GS = GRASS SWALE

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	24+39 to 24+84 -L-	Fill	0.02			0.01												
2	32+00 to 36+00 -L-	Fill	0.06			0.08												
TOTALS:			0.08			0.08												

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CRAVEN COUNTY
WBS - 34538.1.1 (R-3403AA)

SHEET 6/8/2010

Revised 6/14/10
Permit Drawing
Sheet 13 of 13

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
8	WARD, MARTHA S. AND WILLIAM F. JR	P.O. BOX 1428 NEW BERN, NC 28563
19	DONOFRIO, CARMEN V	1540 OCEAN AVE. UNIT 22 RUMSON, NJ 07760
	HARBORSIDE 17 PARTNERS LLC	2404 N. RIO GRANDE AVE. ORLANDO, FL 32804

WETLAND/STREAM
IMPACTS

NCDOT
DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 34538.1.1 (R-3403AA)
WIDENING OF US 17 FROM
MILLS STREET TO NORFOLK
AND SOUTHERN RAILROAD

SHEET OF 6/2/10

6/14/10 Revised Permit Drawing
Sheet 13A of 13.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3403AA	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34538.1.1	STPNHF-17(24)	PE	
34538.2.2	STPNHF-17(47)	RW, UTIL	
34538.3.5	STPNHF-17(74)	CONST.	

Revised 6/14/10
 Permit Drawing
 Sheet 2 of 13
ENGLISH

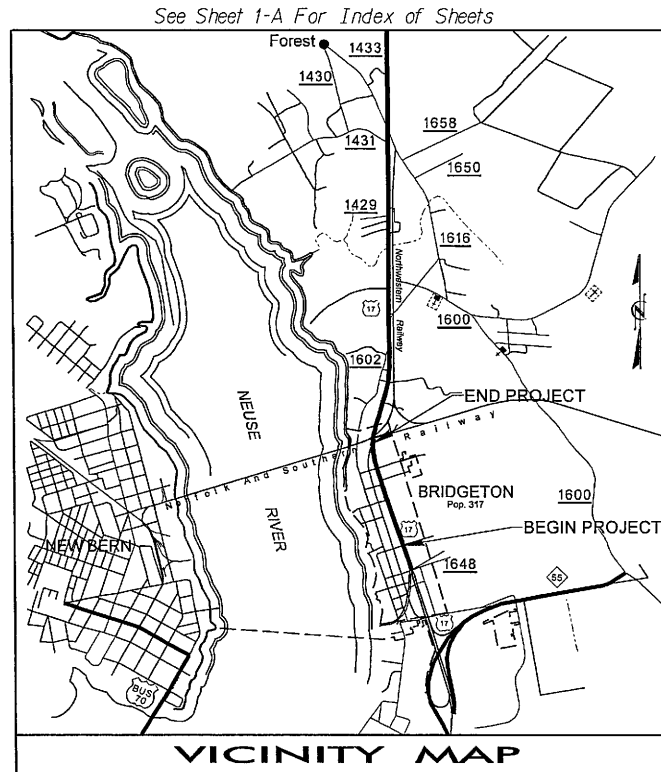
WETLAND/STREAM IMPACTS

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

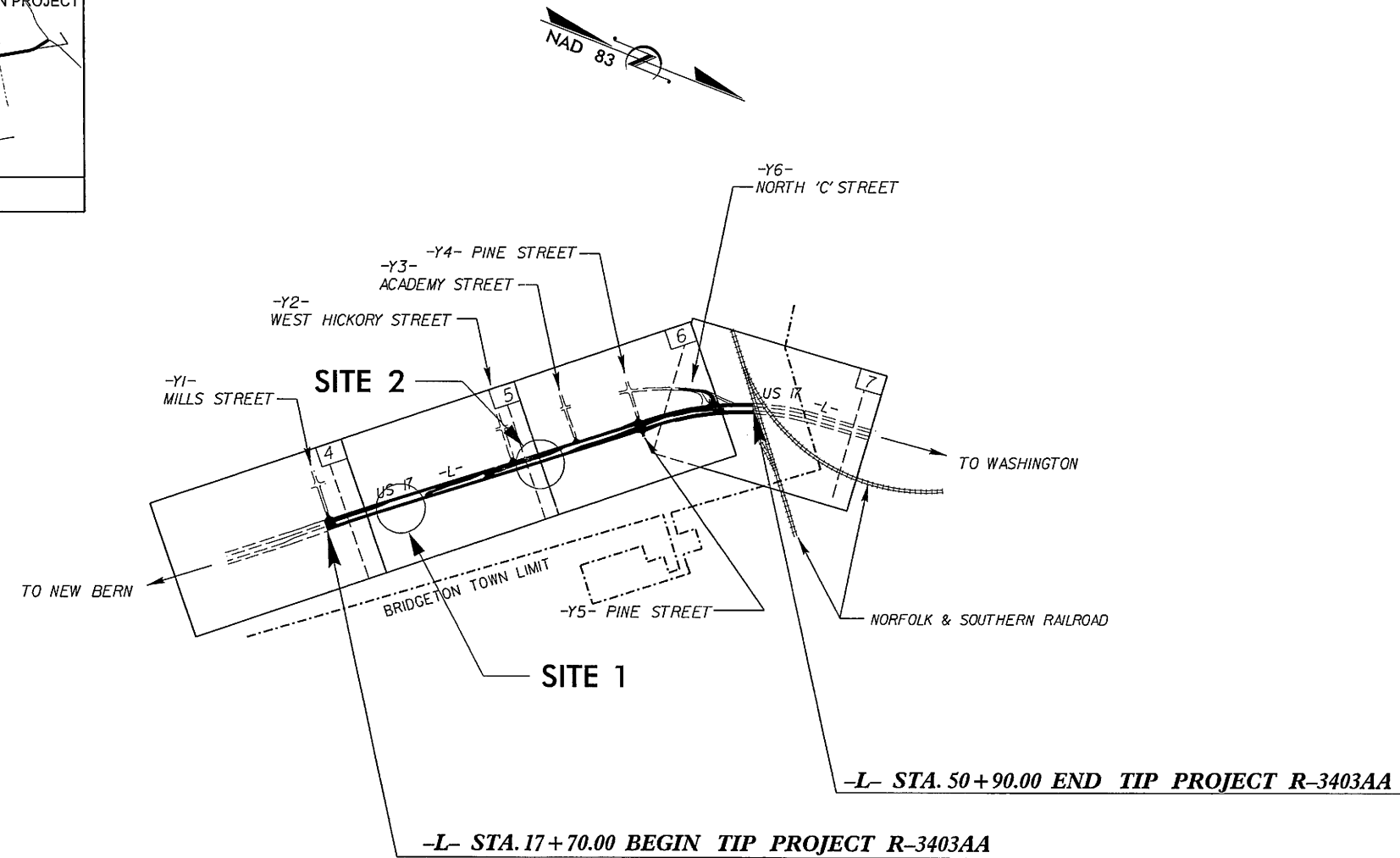
CRAVEN COUNTY

LOCATION: US 17 FROM MILLS STREET
 TO NORFOLK & SOUTHERN RAILROAD

TYPE OF WORK: GRADING, PAVING, AND DRAINAGE

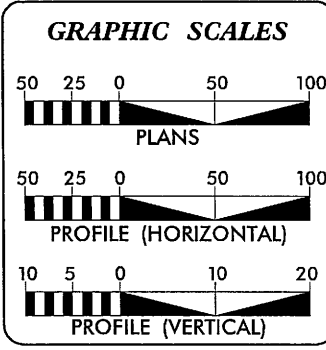


This Project is within the Municipal Boundaries of Bridgeton



PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

CONTRACT: C201877
 TIP PROJECT: R-3403AA



DESIGN DATA

ADT 2010 =	16,920
ADT 2030 =	27,705
DHV =	11 %
D =	60 %
T =	10 % *
V =	50 MPH
* TTST	5% DUAL 5%
FUNC CLASS =	ARTERIAL
STATEWIDE TIER	

PROJECT LENGTH

TOTAL LENGTH OF TIP PROJECT R-3403AA	=	0.629 MILES
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Prepared in the Office of:
DIVISION OF HIGHWAYS
 1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
 March 22, 2005

LETTING DATE:
 September 21, 2010

G.E. BREW, PE
 PROJECT ENGINEER

E. MORRISON
 PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

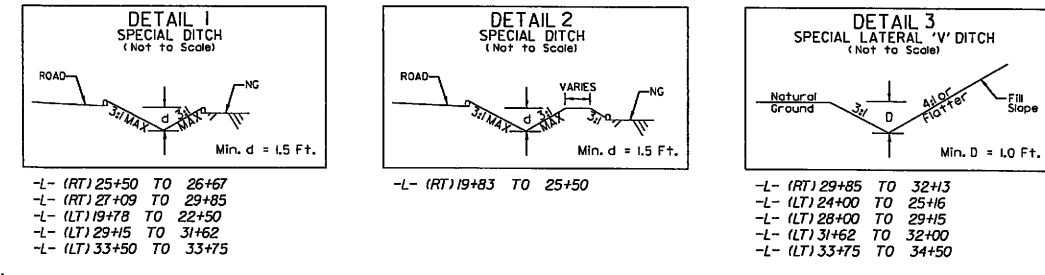
STATE HIGHWAY DESIGN ENGINEER

\$\$\$\$\$SYTIME\$\$\$\$\$
 \$\$\$DGN\$\$\$\$\$
 \$\$\$USERNAME\$\$\$\$\$

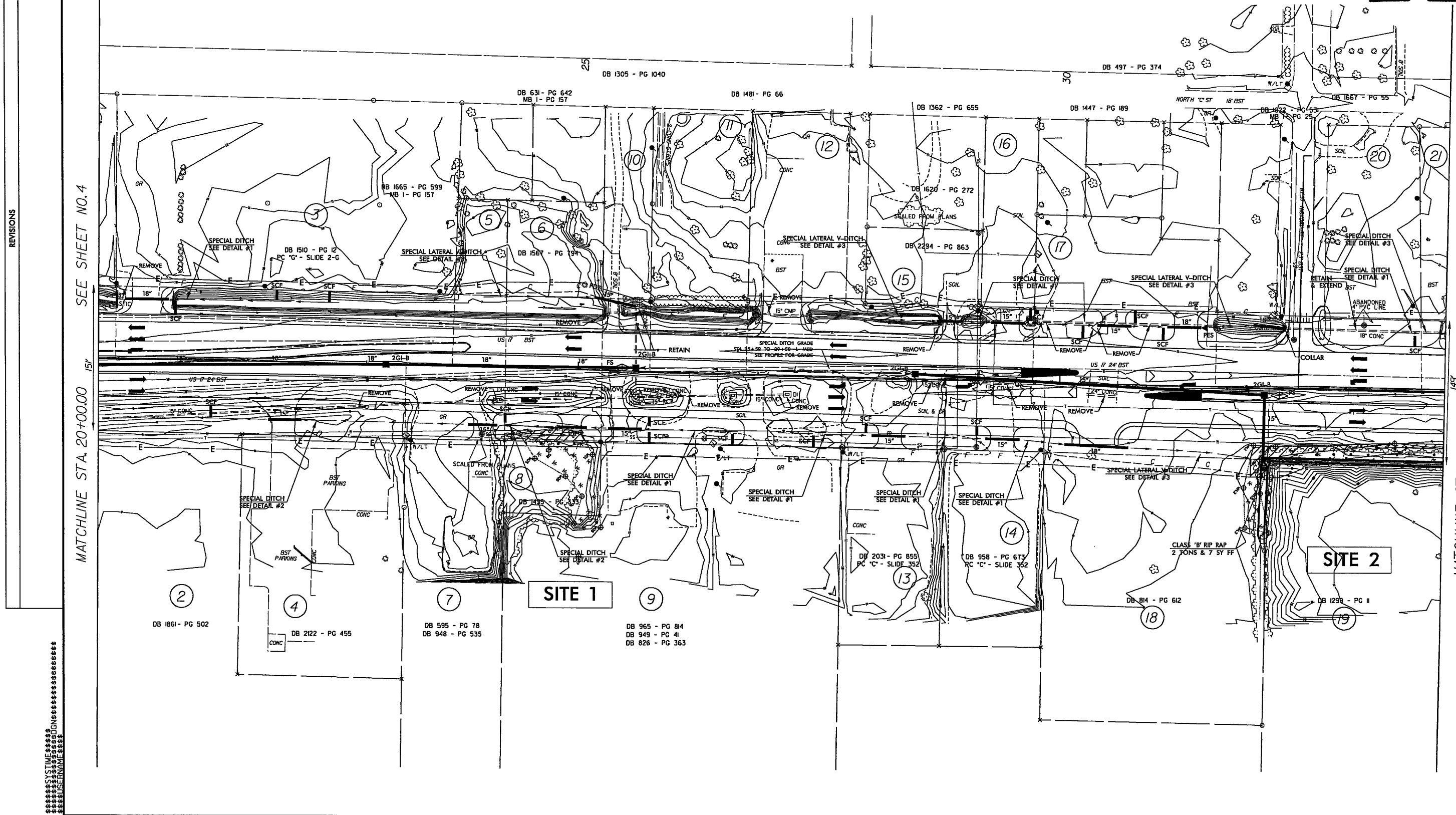
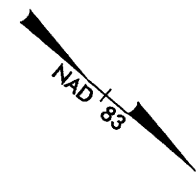
PROJECT REFERENCE NO. R-3403AA		SHEET NO. 5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 6/14/10
Permit Drawing
Sheet 4 of 13



SCF = SPECIAL CONCRETE FLUME
NOTE: DRIVE PIPES TO BE RAISED 3-INCHES ABOVE DITCH LINE THROUGHOUT PROJECT



REVISIONS

MATCHLINE STA. 20+00.00

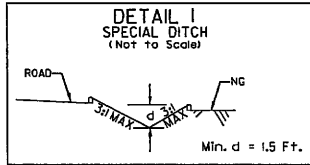
MATCHLINE STA. 34+00.00

SEE SHEET NO. 4

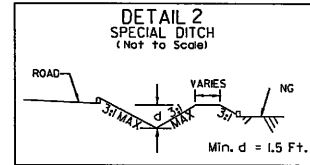
SEE SHEET NO. 6

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

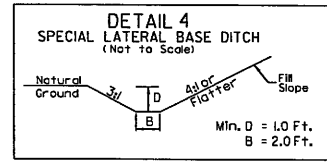
Revised 6/14/10
Permit Drawing Sheet 5 of 13



-L- (RT) 38+00 TO 41+50
-L- (RT) 45+23 TO 46+60



-L- (RT) 42+85 TO 44+00

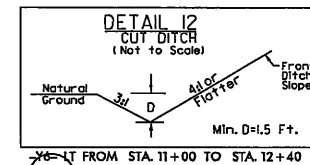


-L- (LT) 37+75 TO 39+66
-L- (LT) 39+67 TO 44+00

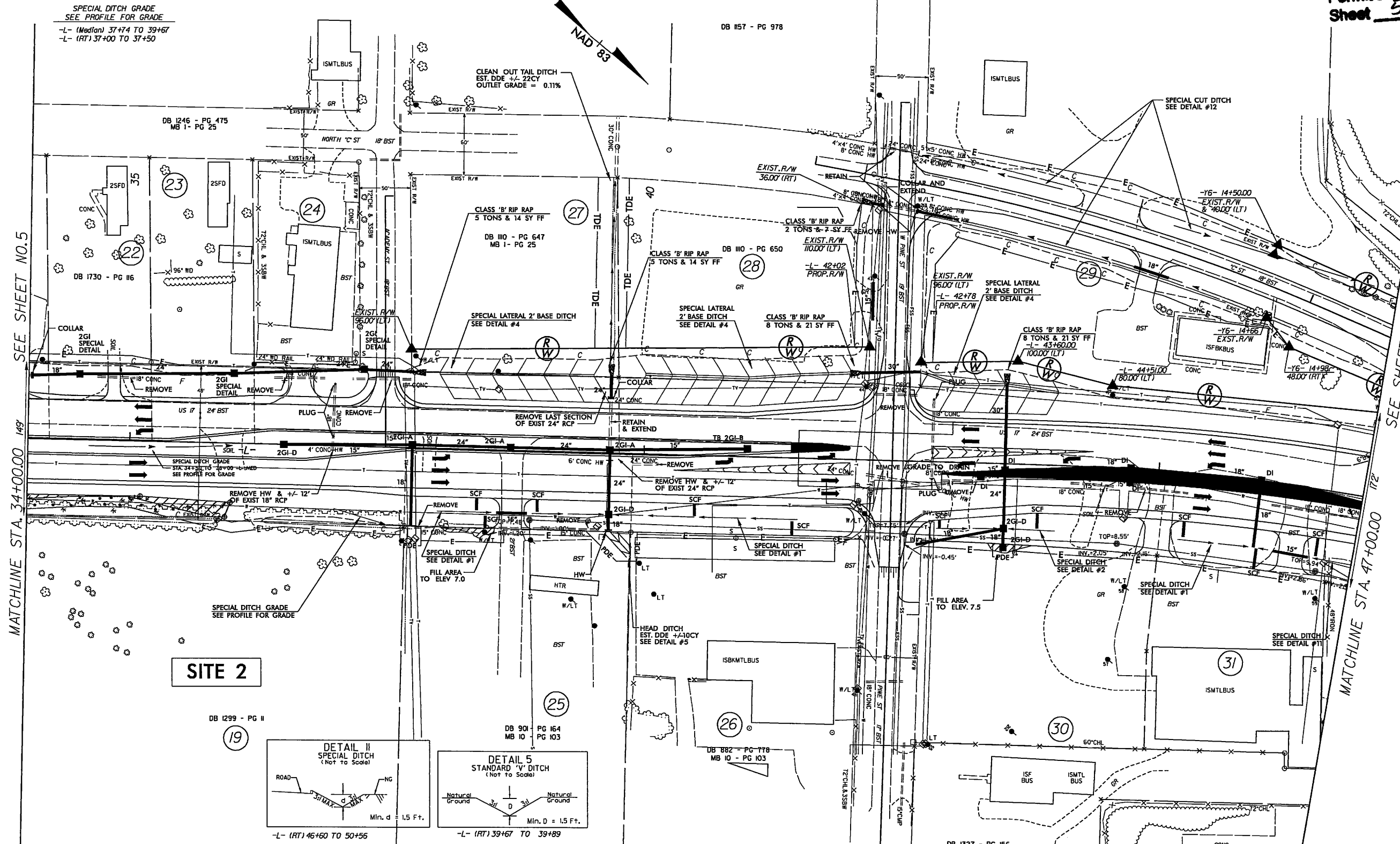
SCF = SPECIAL CONCRETE FLUME
NOTE: DRIVE PIPES TO BE RAISED 3-INCHES ABOVE DITCH LINE THROUGHOUT PROJECT

Denotes FILL IN WETLAND

Denotes MECHANIZED CLEARING

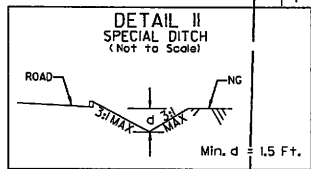


-L- (LT) FROM STA. 11+00 TO STA. 12+40
-L- (RT) FROM STA. 13+50 TO STA. 15+50
-L- (RT) FROM STA. 11+40 TO STA. 15+00

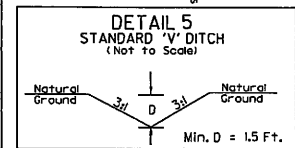


SITE 2

DB 1299 - PG II



-L- (RT) 46+60 TO 50+56



-L- (RT) 39+67 TO 39+89

SE = 032
RUNOFF = 80'

REVISIONS

SEE SHEET NO. 5

MATCHLINE STA. 34+00.00

SEE SHEET NO. 7

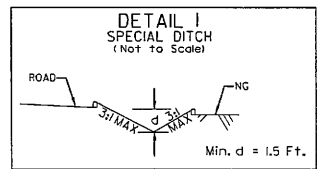
8/17/99

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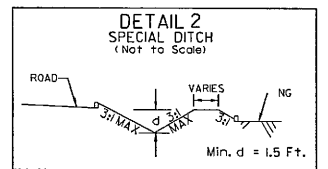
B.17/99

PROJECT REFERENCE NO. R-3403AA	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

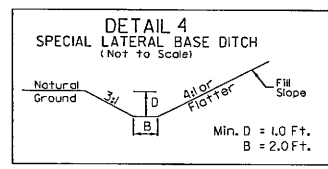
Revised 6/14/10
Permit Drawing
Sheet **6** of **13**



-L- (RT) 38+00 TO 41+50
-L- (RT) 45+23 TO 46+60



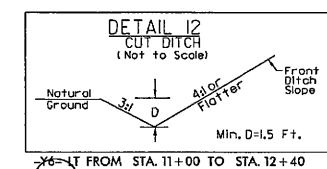
-L- (RT) 42+85 TO 44+00



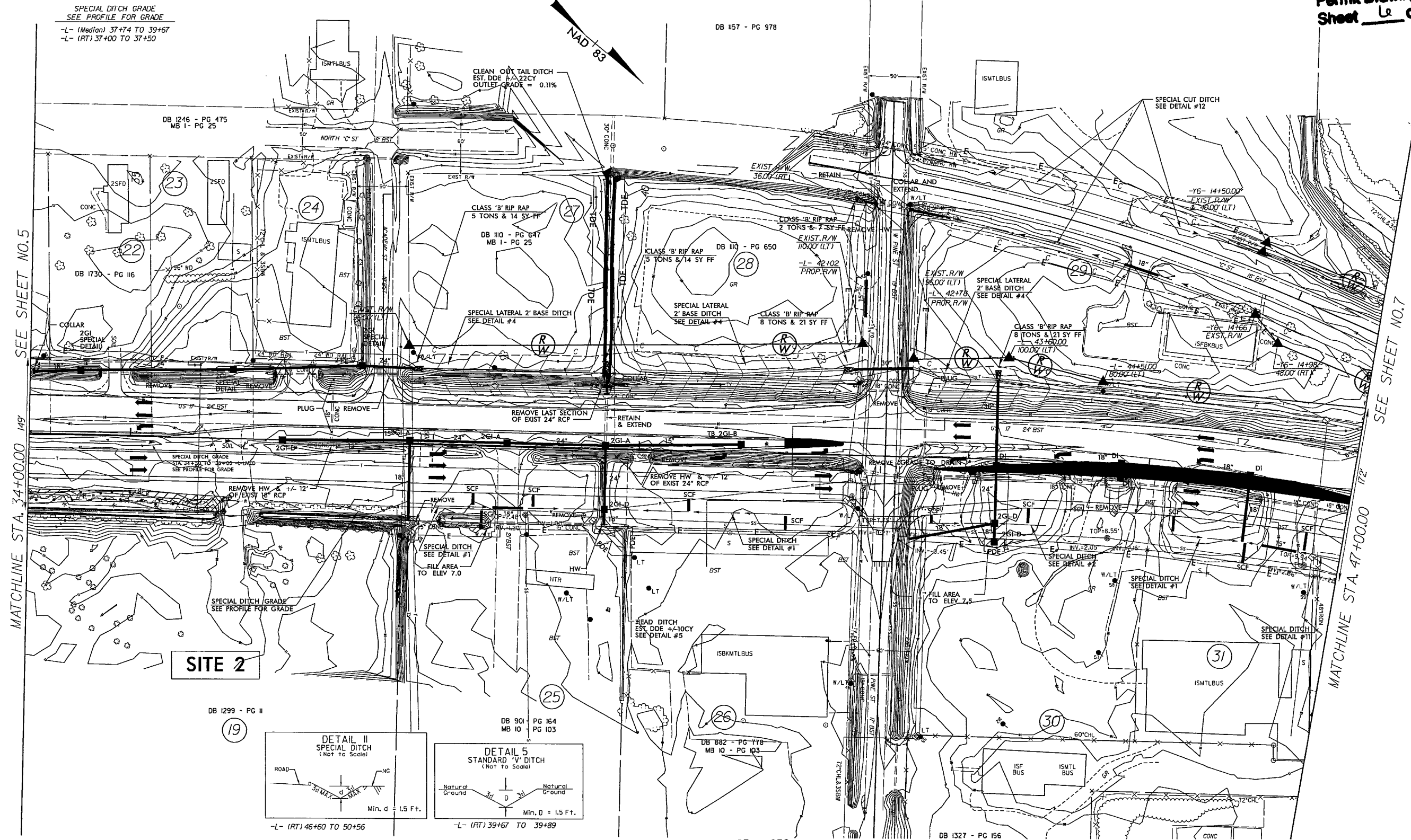
-L- (LT) 37+75 TO 39+66
-L- (LT) 39+67 TO 44+00

SCF = SPECIAL CONCRETE FLUME
NOTE: DRIVE PIPES TO BE RAISED 3-INCHES ABOVE DITCH LINE THROUGHOUT PROJECT

DENOTES FILL IN WETLAND
 DENOTES MECHANIZED CLEARING



-L- (LT) FROM STA 11+00 TO STA 12+40
-L- (LT) FROM STA 13+50 TO STA 15+50
-L- (RT) FROM STA 11+40 TO STA 15+00



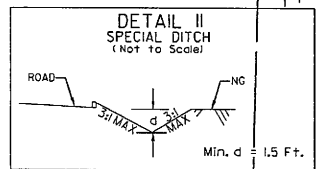
SEE SHEET NO. 5

SEE SHEET NO. 7

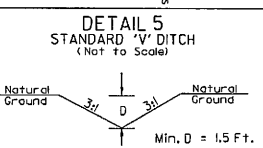
MATCHLINE STA. 34+00.00

MATCHLINE STA. 47+00.00

SITE 2



-L- (RT) 46+60 TO 50+56



-L- (RT) 39+67 TO 39+89

SE = 032
RUNOFF = 80'

REVISIONS

DATE TIME BY

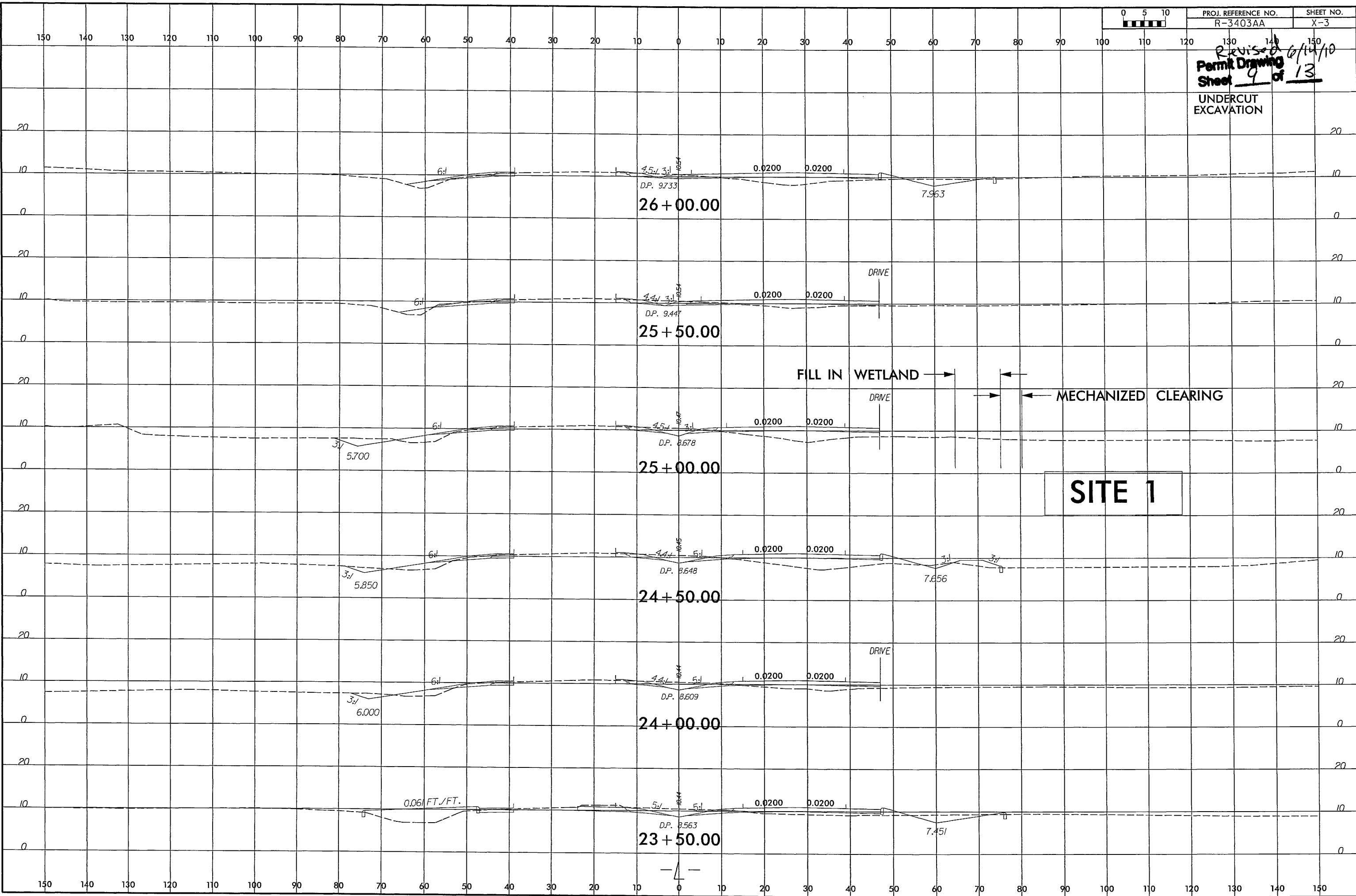
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PROJ. REFERENCE NO. R-3403AA SHEET NO. X-3

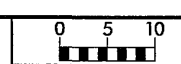
REVISED 6/14/10
Permit Drawing
Sheet 9 of 13

UNDERCUT
EXCAVATION

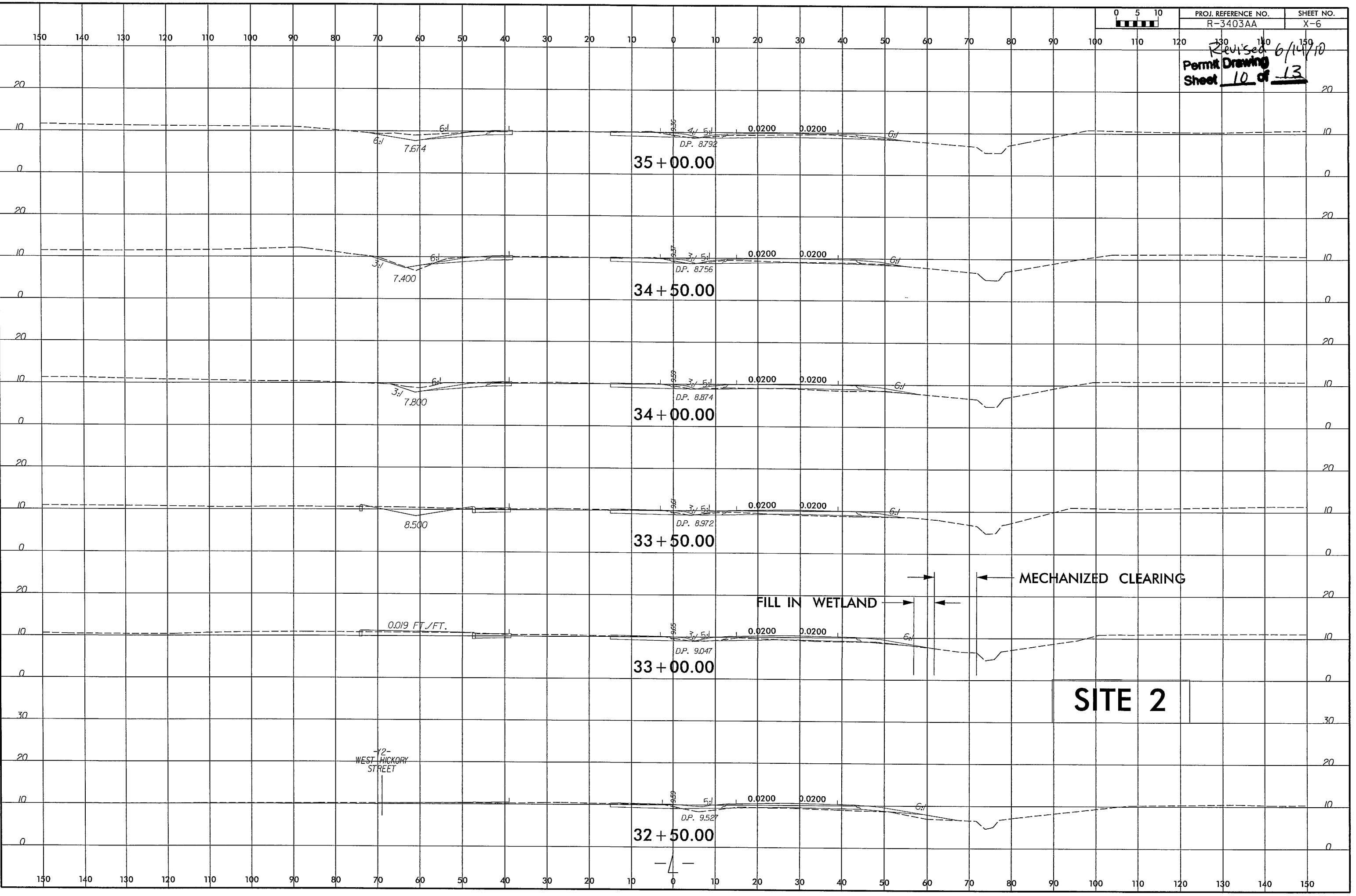


SYSTEM TIME
DCON
USER NAME

8/23/99



Revised 6/14/10
Permit Drawing
Sheet 10 of 13



SYSDRAWING
DATE
DRAWN BY
CHECKED BY
APPROVED BY