



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

December 7, 2011

U. S. Army Corps of Engineers
Regulatory Field Office
3331 Heritage Trade Drive Suite 105
Wake Forest, NC 27587

ATTN: Mr. Monte Matthews
NCDOT Coordinator

Dear Sir:

Subject: **Application Update for an Individual Section 404 and Section 401 Water Quality Certification** for SR 1001 (Connelly Springs Road) from US 321A (Norwood Street) to SR 1712 (Starcross Road) in Caldwell County. Federal Aid Project No. MA-STP-7533(2), Division 11, WBS 34783.1.1, TIP No. U-2211B.

Reference: Application for an Individual Section 404 Permit and Section 401 Water Quality Certification, dated August 24, 2011

The North Carolina Department of Transportation (NCDOT) proposes to extend SR 1001 (Connelly Springs Road) on new location with the realignment of SR 1178 (Hibriten Drive) in Lenoir, Caldwell County.

Since the original permit application was submitted on August 24, 2011, there has been an additional stream discovered that was previously not identified as jurisdictional. Also additional bank stabilization will be added to an existing permit site. This application update provides updated impact numbers and permit site descriptions reflecting these changes at sites 2a, 4 and 5.

Please see the enclosed Revised Ecosystem Enhancement Program (EEP) mitigation acceptance letter and revised permit drawings for the above referenced project. The enclosed permit drawings replace permit drawings 3, 5, 6, 7 and 8 of 14 from the August application, and include an additional drawing, Sheet 14a of 14. Roadway design plan sheets 6 and 7 are also enclosed.

Summary of Jurisdictional Impacts:

In the August permit application it was stated that the project will permanently impact 0.24 acre of wetlands, 1,252 linear feet of streams, and temporarily impact 0.01 acre (73 linear feet) of streams. Since

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WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC, 27610-4328

the revisions, this project will now permanently impact 0.24 acre of wetlands, 1,610 linear feet of streams, and temporarily impact 0.01 acre (53 linear feet) of streams.

Summary of Mitigation:

Compensatory mitigation for 0.24 acre of wetland impacts will still be provided by debiting the Long Creek Mitigation Site in Mecklenburg County. Previously it was stated that the EEP will provide compensatory mitigation for 1,252 linear feet of stream impacts (the previous EEP request was incorrectly submitted for all 1,252 feet of permanent impacts, rather than the 964 linear feet at 2:1 to satisfy the USACE mitigation requirements). To account for the additional stream impacts, the EEP will provide mitigation for the 1,261 linear feet of permanent stream impacts which require mitigation (see Table 1B).

IMPACTS TO WATERS OF THE U.S.

Impacts to wetlands have not changed since the August application. Table 1B summarizes the updated impacts to jurisdictional water resources and replaces Table 1B in the August application. Site numbers correspond with the permit (hydraulic) drawings included in this application. The stream names correspond to the 2007 NEPA document. A brief description of the updated impact sites will follow the table.

Table 1B – U-2211B Revised Stream Impacts (changes are in bold).

Site	Stream Name & Intermittent (I) or Perennial (P) ¹	Stream Number	Impact Type	Impact Length (linear feet)	Temporary Impacts (acres)	Mitigation Requirement (linear feet)
1	UT1 to Gunpowder Creek (P)	UT1	Perm. fill	922	--	USACE & DWQ
			Bank Stabilization	78	--	DWQ ²
			Temp. fill	--	<0.01	--
2	N/A (wetland only)	--	--	--	--	--
2A	UT3 to Gunpowder Creek (P)	UT3	Perm. fill	297	--	USACE & DWQ
			Bank Stabilization	--	--	--
			Temp. fill	--	--	--
3	UT1 to Gunpowder Creek (P)	UT1	Perm. fill	--	--	--
			Bank Stabilization	16	--	DWQ ²
			Temp. fill	--	--	--
4	UT1 to Gunpowder Creek (P)	UT1	Perm. fill	42	--	USACE & DWQ
			Bank Stabilization	102	--	DWQ²
			Temp. fill	--	<0.01	--
5	UT2 to Gunpowder Creek (I) ³	UT2	Perm. fill	153	--	DWQ ³
			Bank Stabilization	--	--	--
			Temp. fill	--	0	--
Total Temporary Impacts:				--	0.01 ⁴	--
Total Permanent Impacts (Perm. Fill + Bank Stabilization):				1,610	--	--
Permanent Impacts Requiring DWQ Mitigation (1:1):				1,610	--	--
Permanent Impacts Requiring USACE Mitigation (2:1):				1,261	--	--
Total Impacts Requiring Mitigation (2:1):				1,261	--	2,522⁵

1 - All streams are Class C waters with a DWQ Index Number of 11-55-(0.5)

2 - Mitigation for bank stabilization impacts required by DWQ – not required by USACE

3 - UT2 was determined by the USACE in March 2008 to be an intermittent, unimportant stream (not requiring mitigation from USACE). Since that time, DWQ has changed its policy regarding mitigating for intermittent streams, therefore it now requires mitigation from DWQ at a 1:1 ratio.

4 - Values are based on rounding, due to some of the individual impacts being <0.01 acre

5 - Mitigation proposed by NCDOT (based on mitigation required by the USACE exceeding the amount required by DWQ)

Descriptions of Permit Sites 1, 2 and 3 remain the same as they were written in the August 2011 permit application. Since the August application, a new permit site (2a) has been added, additional impacts have been included within Site 4, and temporary impacts no longer occur at site 5.

Permit Site 2a: A new jurisdictional feature, UT3 to Gunpowder Creek, has been identified within the project footprint since the August 2011 permit application. This channel begins at the outlet of an existing 24" corrugated metal pipe (CMP) under Hibriten Drive and is located just east of wetland W1. All 297 linear feet of UT3 will be impacted by the proposed new interchange at US 321 as a result of roadway fill.

Permit Site 4: The existing 72" CMP, approximately 40' in length, that carries UT1 under Starcross Road (SR 1712) will be replaced with an 8' x 8' reinforced concrete box culvert (RCBC). This RCBC will be slightly longer (64'3") to accommodate the widened portion of Starcross Road, but will provide better alignment for the stream than the existing CMP. The pipe replacement will result in 42 linear feet of permanent impacts to UT1. Additionally, there will be <0.01 acre (19 linear feet) of temporary impacts associated with culvert installation and 41 linear feet of bank stabilization impacts to UT1 at the inlet and outlet ends of the new culvert. Previously, the temporary impacts totaled 29 linear feet (<0.01 acre), but 10 of these feet are now incorporated into the bank stabilization impacts described below.

A short section of UT1 between the inlet of the proposed culvert extension and the outlet of a pipe under a nearby driveway will now be stabilized and counted as a bank stabilization impact. This will result in 61 additional feet of bank stabilization impacts to UT1 for a total of 102 linear feet of bank stabilization at Site 4.

There is potentially petroleum contaminated soil in the immediate vicinity of the stabilization of UT1 described above. Therefore, during construction, this stream will be temporarily dewatered (using NCDOT's Best Management Practices for Construction and Maintenance Activities) during the placing of the rip rap bank protection to ensure that the stream does not receive contamination from the disturbance of the soils during bank stabilization.

Permit Site 5: The existing 24" CMP, approximately 36' in length, that carries UT2 under Hibriten Drive will be removed and replaced with a 54" RCP to accommodate the widened roadway in this location. A portion of the channel on the inlet side of the new pipe will be lined with rip rap for stabilization purposes. This pipe replacement and upstream rip rap will result in 153 linear feet of permanent impacts to UT2.

The previous <0.01 acre of temporary impact listed for this site at the outlet end of the pipe is now incorporated into the bank stabilization impacts at site 4.

MITIGATION OPTIONS

Compensation:

The NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent practicable as described above. This project will permanently impact 0.24 acre of wetlands, 1,610 linear feet of streams, and temporarily impact 0.01 acre (53 linear feet) of streams.

Of the 1,610 linear feet of permanent stream impacts, 1,261 linear feet are permanent impacts to a perennial stream, 196 linear feet are bank stabilization impacts to this same perennial stream and 153 linear feet are permanent impacts to an intermittent, unimportant stream.

Therefore, all 1,610 linear feet of permanent stream impacts require mitigation by DWQ at a ratio of 1:1. A total of 1,261 linear feet of permanent stream impacts require mitigation by USACE at a ratio of 2:1.


The USACE stream mitigation requirement is 2,522 ft (1,261 ft @ 2:1). The DWQ stream mitigation requirement is 1,610 ft (1,610 ft @ 1:1). Please reference Table 1B in this application update for further breakdown of impacts and mitigation requirements. Therefore, the NCDOT proposes to mitigate for the larger of these mitigation requirements, 2,522 ft, by utilizing the EEP (see attached updated acceptance letter).

Mitigation for the 0.24 acre of wetland impacts will be still provided by debiting the Long Creek Mitigation Site at a ratio of 1:1 as described in the August application.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Erin Cheely at ekcheely@ncdot.gov or (919) 707-6108.

A copy of this permit application update and its distribution list will be posted on the NCDOT website at <http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html>

Sincerely,



for Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis

cc:

NCDOT Permit Application Standard Distribution List.



November 22, 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:

U-2211B, SR 1001 (Hibriten Drive) from US 321A (Norwood Street) to SR 1712 (Oak Hill School Road), Caldwell County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream mitigation for the subject project. Based on the information supplied by you on July 14, 2011, the impacts are located in CU 03050101 of the Catawba River Basin in the Northern Mountains (NM) Eco-Region, and are as follows:

Catawba 03050101 NM	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non- Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	1,261	0	0	0	0	0

This mitigation acceptance letter replaces the mitigation acceptance letter issued on July 19, 2011. EEP commits to implementing sufficient compensatory stream 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,

Michael Ellison
EEP Deputy Director

cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office
Mr. Brian Wrenn, Division of Water Quality, Wetlands/401 Unit
File: U-2211B Revised

Restoring... Enhancing... Protecting Our State



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NOV 18 2011

DIVISION OF HIGHWAYS
 REGIONAL OFFICE OF ENVIRONMENTAL MANAGEMENT

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	-Y5- 28+22 LT to 32+83 RT	7' x 7' RCBC (transitions to 7' x 8' RCBC with Baffles)							0.49	<0.01	922	34	
1	-Y5- 28+22 LT	Bank Stabilization							<0.01		38		
1	-Y5- 32+83 RT	Bank Stabilization							0.01		40		
2	-RPC- 23+77 to 24+46 RT	Roadway	0.24						0.02		297		
2A	-RPC- 23+77 to SR1 12+30	Roadway/54" RCP							<0.01		16		
3	-L- 46+38 to 46+54 RT	Bank Stabilization							<0.01	<0.01	42	19	
4	-Y9- 11+95 RT/LT	8'x8' RCBC							0.01		102		
4	-Y9- 11+95 RT/LT	Bank Stabilization							0.02	<0.01	153		
5	-L- 51+44 to 52+41 LT	54" RCP											
TOTALS:			0.24						0.55	0.01	1610	53	

Revised
 Permit Drawing
 Sheet 3 of 14

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 CALDWELL COUNTY
 WBS - 34783.1.1 (U-2211B)

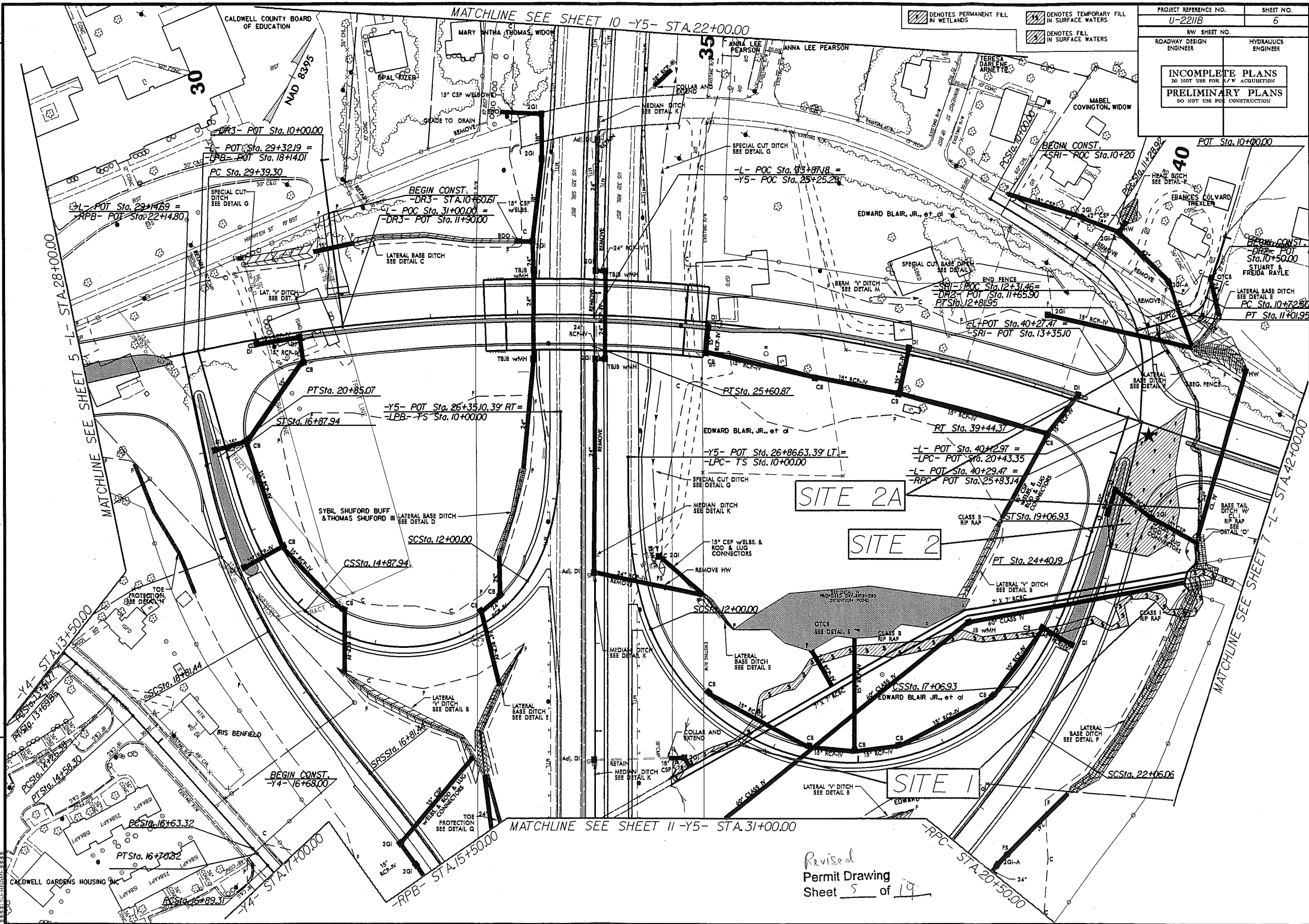
SHEET 11/16/2011

8/17/99

MATCHLINE SEE SHEET 10 -Y5- STA.22+00.00

DENOTES PERMANENT FILL IN WETLANDS	DENOTES TEMPORARY FILL IN SURFACE WATERS
DENOTES PERMANENT FILL IN SURFACE WATERS	DENOTES FILL IN SURFACE WATERS

PROJECT REFERENCE NO. U-2211B	SHEET NO. 6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	






REVISIONS

Revised
Permit Drawing
Sheet 5 of 14

8/17/99

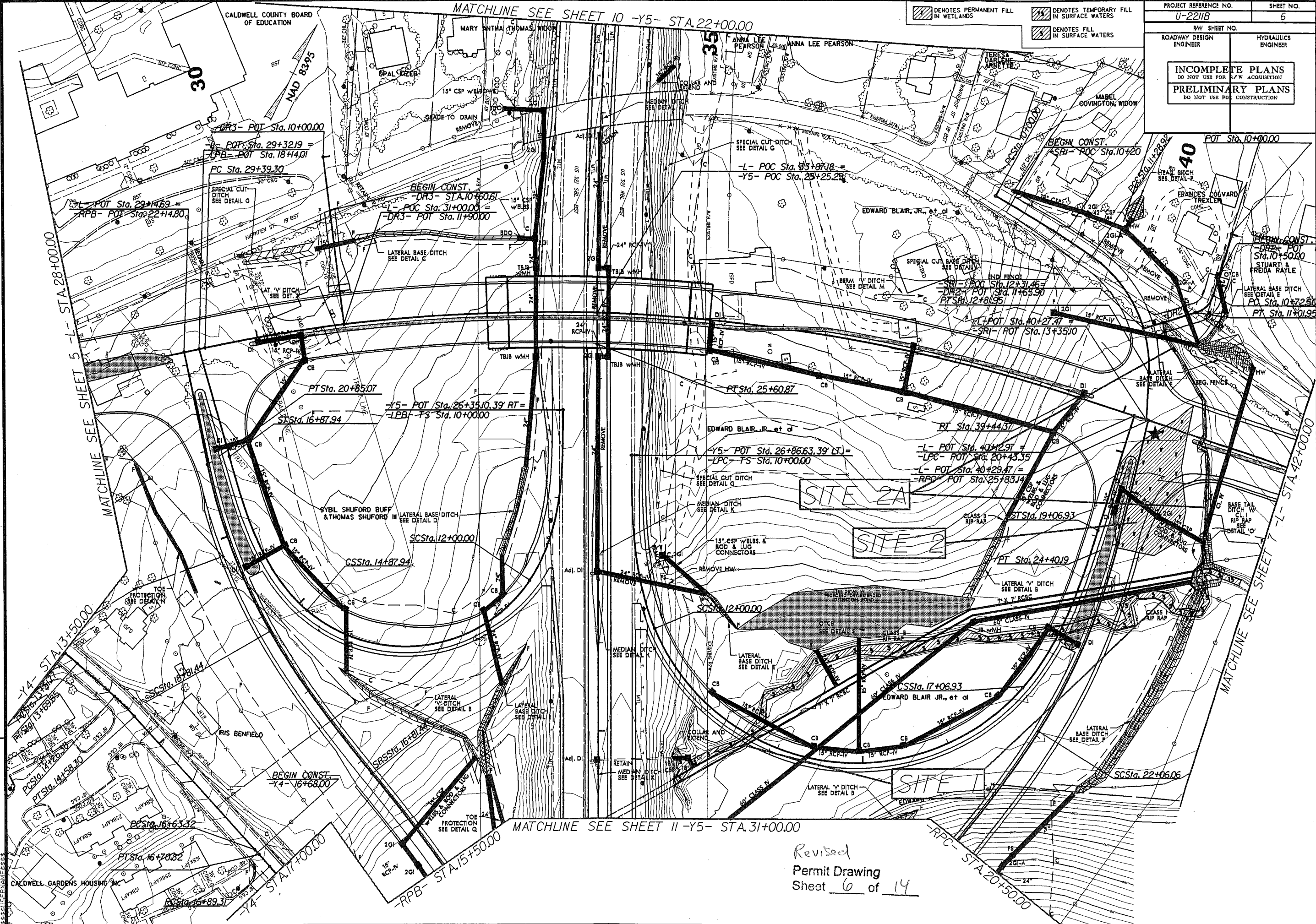
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 DENOTES PERMANENT FILL IN WETLANDS
 DENOTES TEMPORARY FILL IN SURFACE WATERS
 DENOTES FILL IN SURFACE WATERS

PROJECT REFERENCE NO. U-2211B	SHEET NO. 6
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

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 Permit Drawing
 Sheet 6 of 14

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REVISIONS

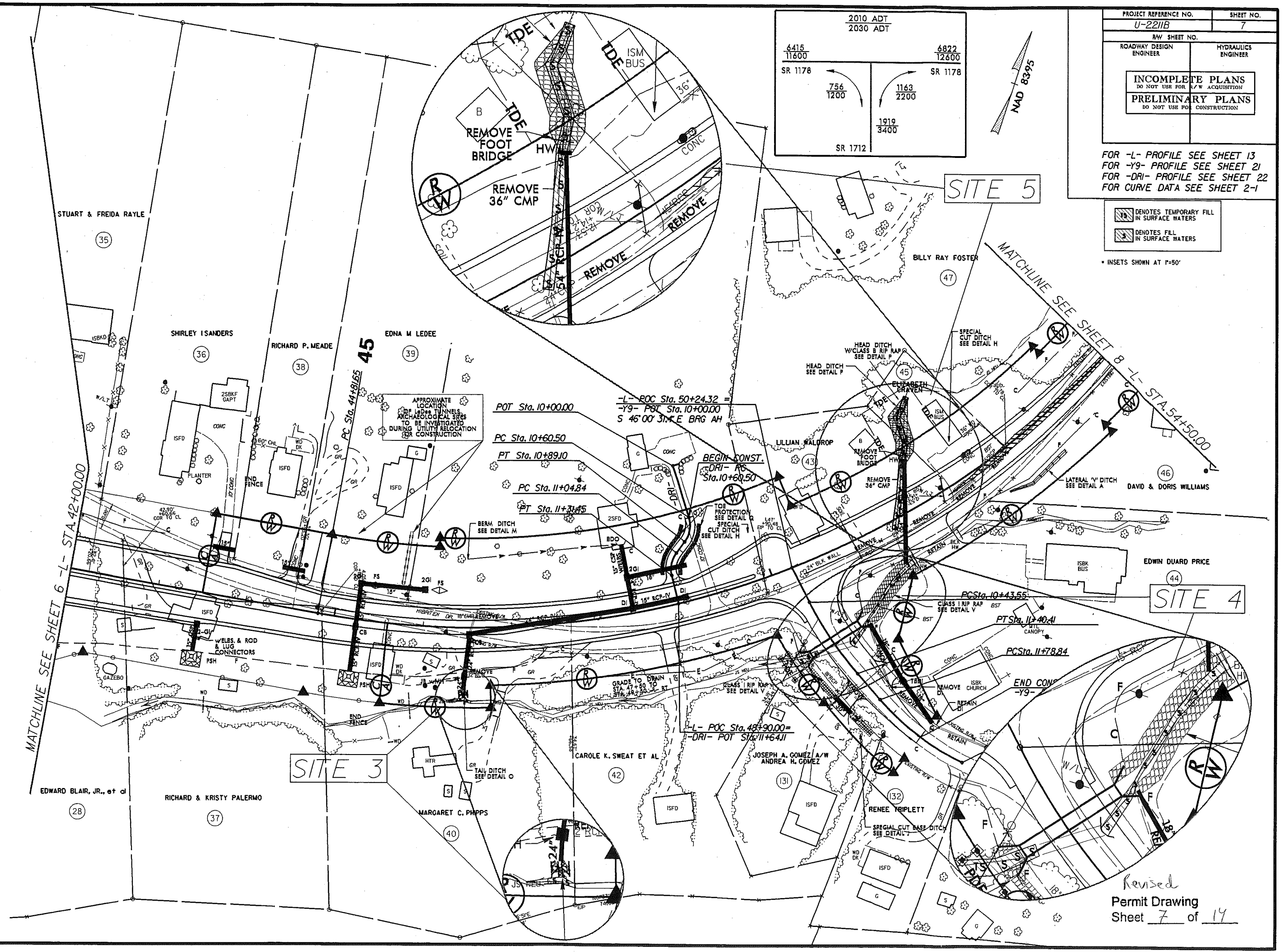
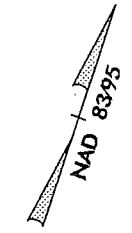
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PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

FOR -L- PROFILE SEE SHEET 13
 FOR -Y9- PROFILE SEE SHEET 21
 FOR -DRI- PROFILE SEE SHEET 22
 FOR CURVE DATA SEE SHEET 2-1

- DENOTES TEMPORARY FILL IN SURFACE WATERS
- DENOTES FILL IN SURFACE WATERS

* INSETS SHOWN AT P=50'

2010 ADT		2030 ADT	
4415 11600		6822 12600	
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SR 1712			



MATCHLINE SEE SHEET 6 -L- STA. 42+00.00

SITE 5

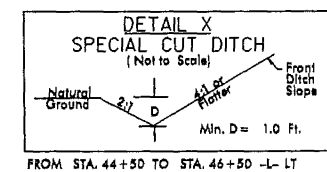
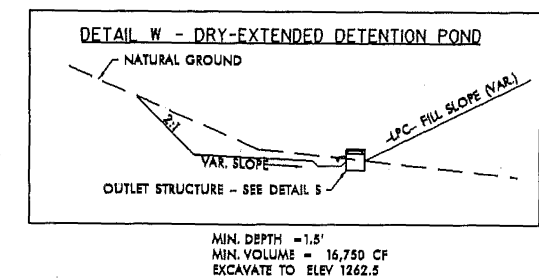
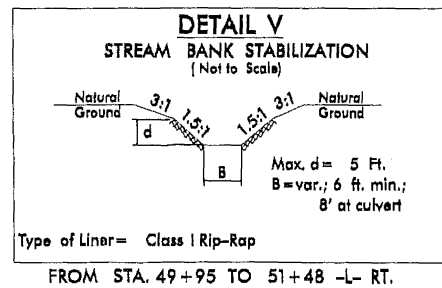
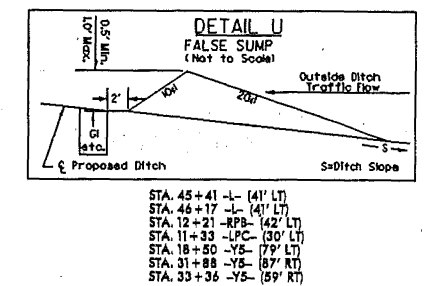
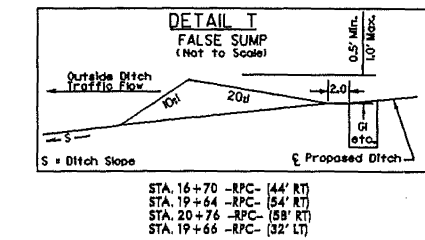
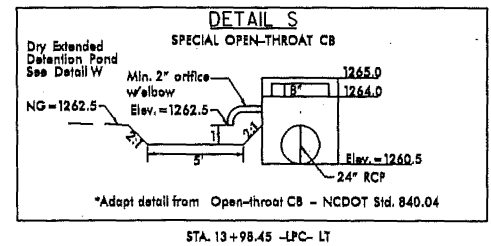
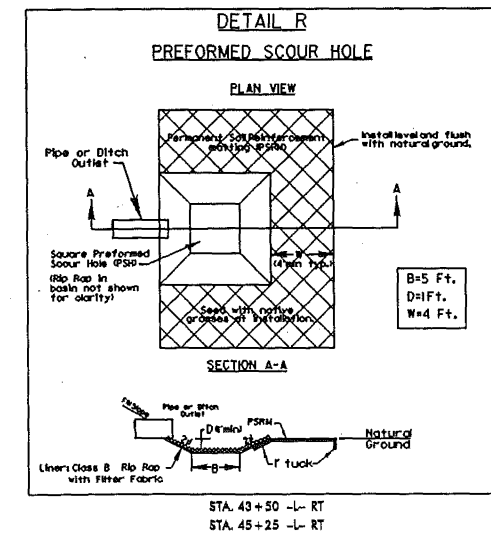
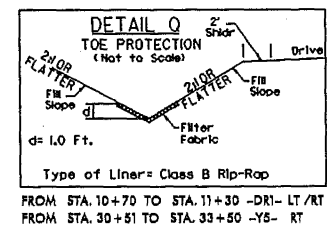
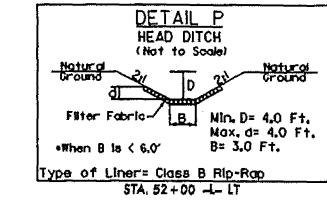
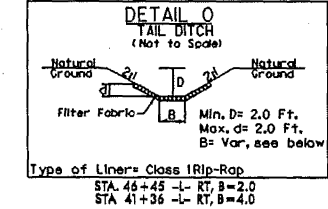
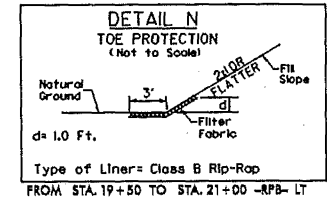
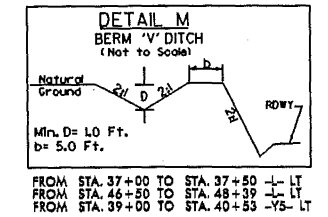
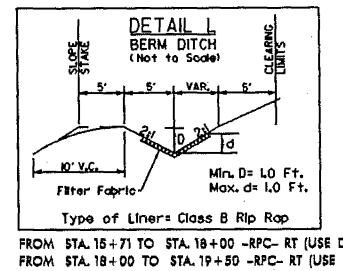
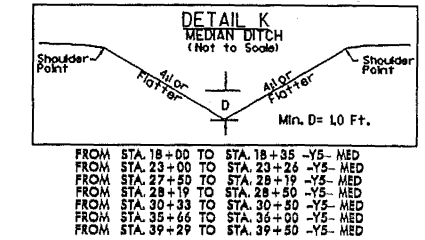
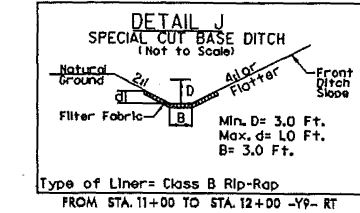
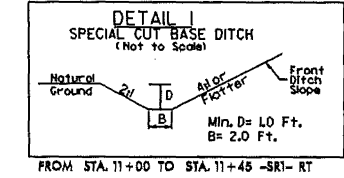
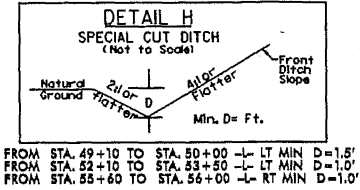
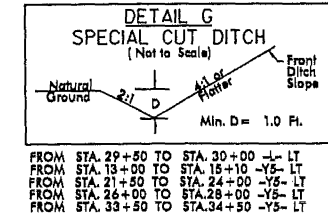
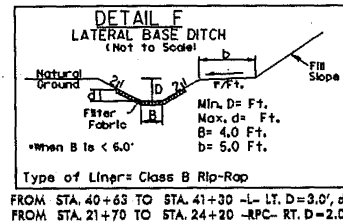
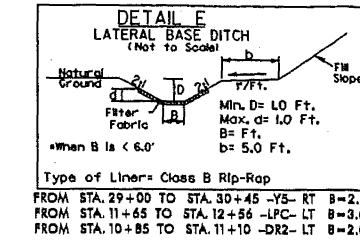
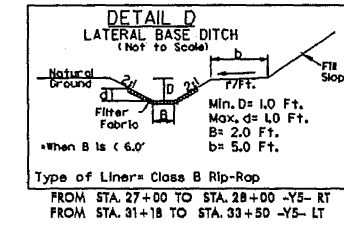
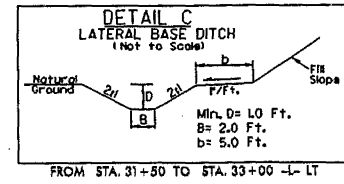
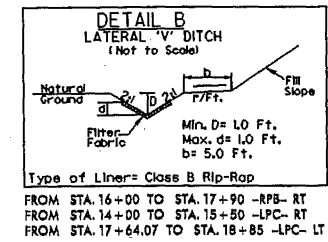
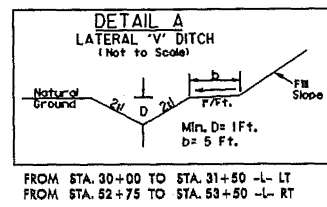
SITE 4

SITE 3

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 Permit Drawing
 Sheet 7 of 14

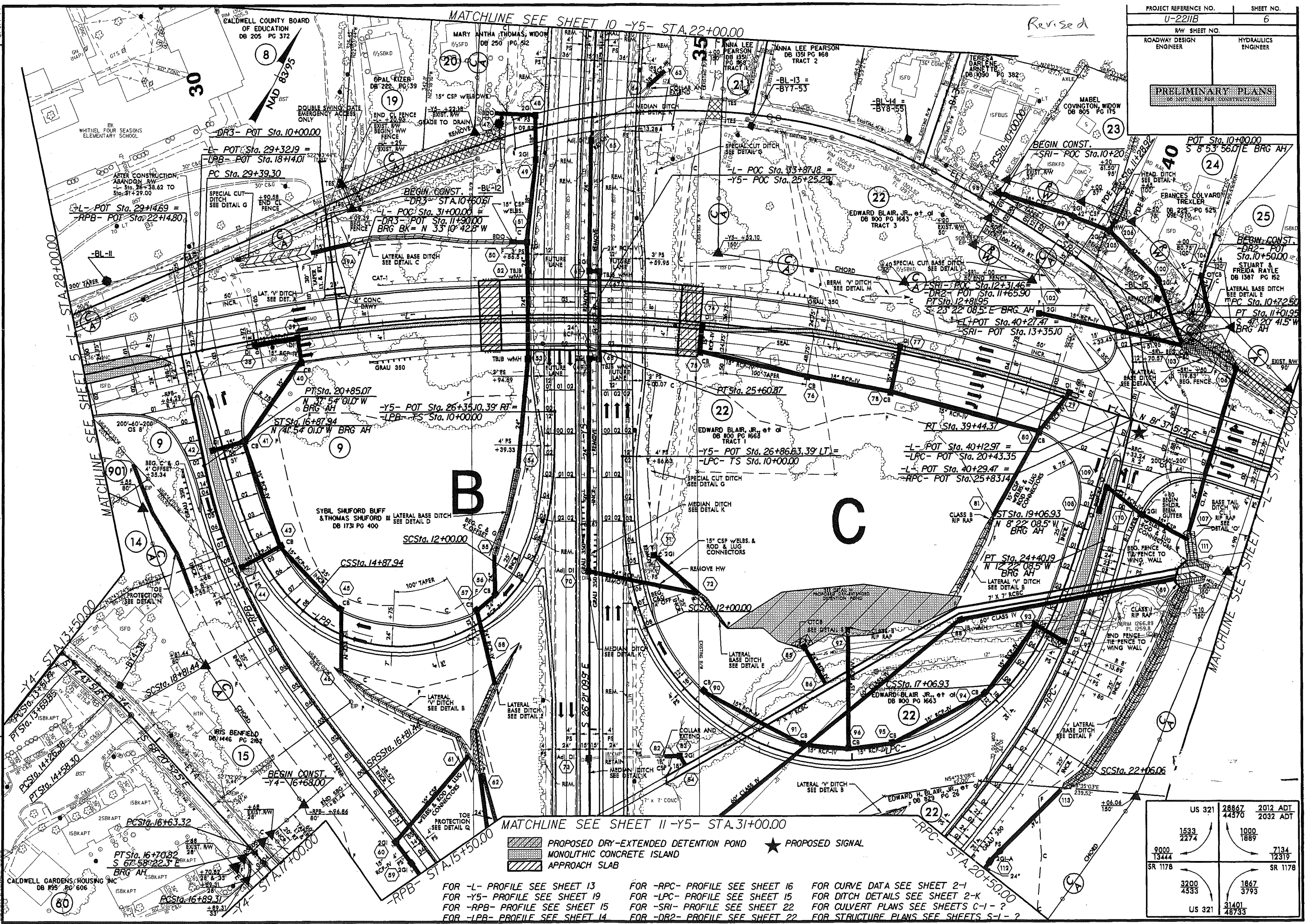
DITCH DETAILS

INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



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 Permit Drawing
 Sheet 14 of 14

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MATCHLINE SEE SHEET 11 -Y5- STA.31+00.00

PROPOSED DRY-EXTENDED DETENTION POND
 MONOLITHIC CONCRETE ISLAND
 APPROACH SLAB
 PROPOSED SIGNAL

FOR -L- PROFILE SEE SHEET 13
 FOR -Y5- PROFILE SEE SHEET 19
 FOR -RPB- PROFILE SEE SHEET 15
 FOR -LPC- PROFILE SEE SHEET 16
 FOR -RPC- PROFILE SEE SHEET 15
 FOR -SRI- PROFILE SEE SHEET 22
 FOR -DR2- PROFILE SEE SHEET 22
 FOR CURVE DATA SEE SHEET 2-1
 FOR DITCH DETAILS SEE SHEET 2-K
 FOR CULVERT PLANS SEE SHEETS C-1-? ?
 FOR STRUCTURE PLANS SEE SHEETS S-1-? ?

US 321	28867 44370	2012 ADT 2032 ADT
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REVISIONS

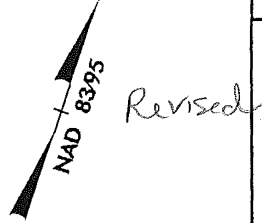
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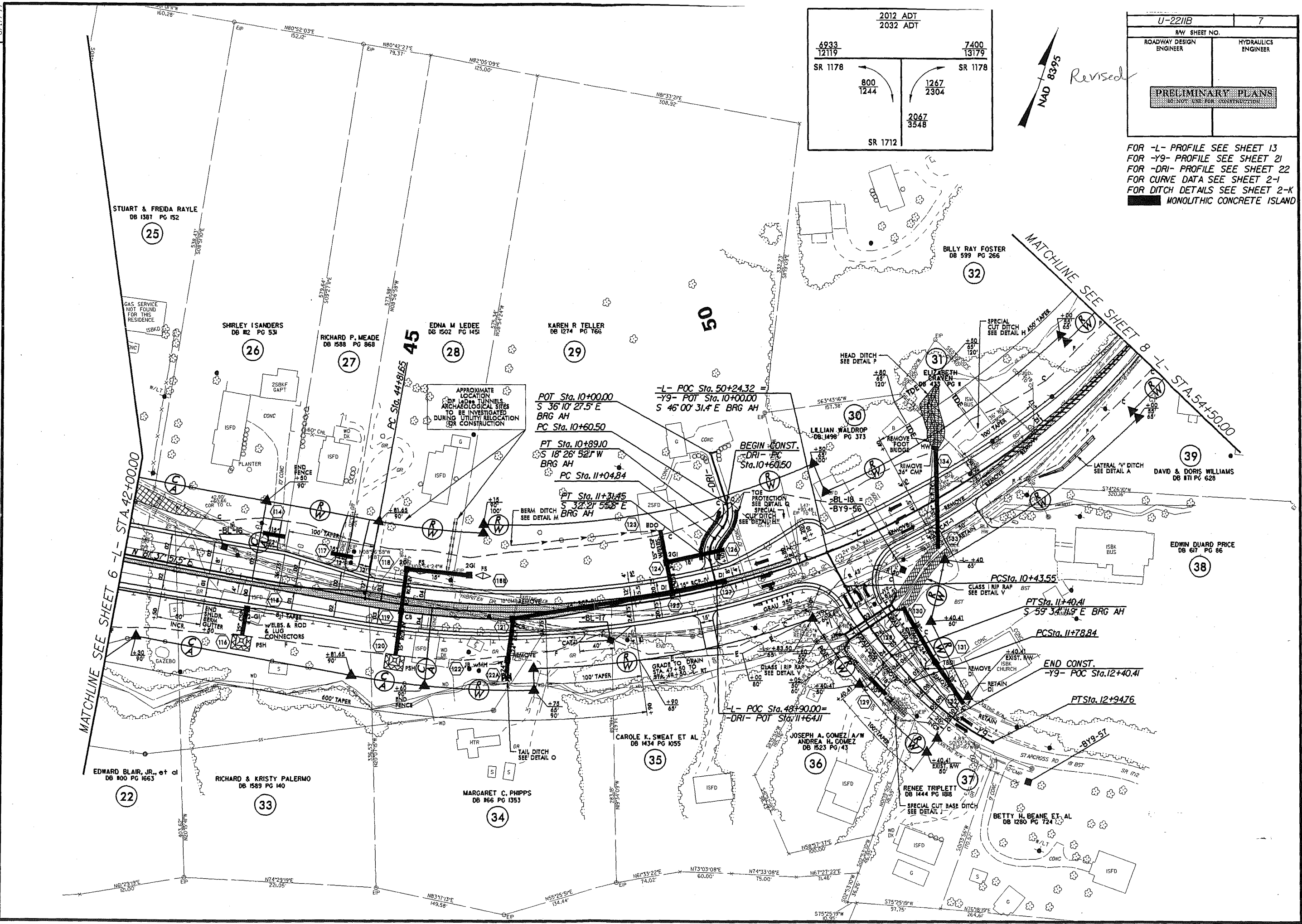
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SR 1178	SR 1178	800	1267
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SR 1712			

U-2211B		7
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
PRELIMINARY PLANS		
DO NOT USE FOR CONSTRUCTION		



FOR -L- PROFILE SEE SHEET 13
 FOR -Y9- PROFILE SEE SHEET 21
 FOR -DRI- PROFILE SEE SHEET 22
 FOR CURVE DATA SEE SHEET 2-I
 FOR DITCH DETAILS SEE SHEET 2-K
 MONOLITHIC CONCRETE ISLAND

REVISIONS



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