



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

February 24, 2012

MEMORANDUM TO: Michael Pettyjohn, PE  
Division 11 Engineer

FROM: Philip S. Harris, III, P.E., Unit Head  
Natural Environment Unit  
Project Development and Environmental Analysis Branch

SUBJECT: Caldwell County, SR 1001 (Connelly Springs Road) Extension  
from US 321A (Norwood Street) to SR 1712 (Starcross Road)  
Federal Aid Project MA-STP-7533(2); WBS 34783.1.1;  
**TIP Project U-2211B**

*E. S. Fusk*

Attached are the to the U.S. Army Corps of Engineers Section 404 Individual Permit and the N.C. Division of Water Quality Section 401 Water Quality Certification for the above referenced project. All environmental permits have been received for the construction of this project.

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

Cc: w/o attachment (see website for attachments):

Mr. Randy Garris, P.E. State Contract Officer  
Mr. Heath Slaughter, Division Environmental Officer  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Jay Bennett, P.E., Roadway Design Unit  
Mr. Dewayne Sykes, P.E. Utilities Unit  
Dr. David Chang, P.E., Hydraulics Unit  
Mr. Tom Koch, P.E., Structure Design Unit  
Mr. Mark Staley, Roadside Environmental Unit  
Mr. Ron Hancock, P.E., State Roadway Construction Engineer  
Mr. Mike Robinson, P.E., State Bridge Construction Engineer  
Ms. Teresa Hart, P.E., PDEA Western Section  
Mr. Clarence Coleman, FHWA  
Ms. Beth Harmon, EEP  
Mr. Phillip Ayscue, NCDOT External Audit Branch

# PROJECT COMMITMENTS

T.I.P Project No. U-2211B  
SR 1001 (Connelly Springs Road) Extension  
from US 321A (Norwood Street) to SR 1712 (Starcross Road)  
Caldwell County  
Federal Aid Project No. MA-STP-7533(2)  
WBS Element 34783.1.1

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### **Project Development and Environmental Analysis (PDEA) – Natural Environment Section**

A commitment on the 2007 greensheet stated: “During the hydraulic design phase of the project, any stream rechannelizations will be coordinated with the appropriate natural resource agencies in accordance with the Fish and Wildlife Coordination Act.”

*This commitment has been satisfied.*

### **Project Development and Environmental Analysis (PDEA) – Human Environment Section**

In June, 2007 NCDOT met with the property owner of 1318 Hibriten Drive about a tunnel on their property. The tunnel was researched to see if it was part of an important event in history and discussed it with the state agency (HPO). In August, 2007 the HPO agreed that the tunnel was probably not eligible; however, they recommended documentation during utility relocation or construction. NCDOT agreed.

*This commitment will be implemented during construction.*

### **Hydraulics Unit**

Prior to right of way acquisition, the NCDOT Hydraulic Design Unit will coordinate with the Federal Emergency Management Agency (FEMA) and local authorities in final design to ensure compliance with applicable floodplain management ordinances.

*This commitment has been satisfied.*

### **Geotechnical Unit, Right of Way**

Twelve possible UST facilities and one paint facility were identified within the proposed project corridor. The impact is considered to be low. The GeoEnvironmental Section will provide soil and groundwater assessments on each property before right of way acquisition.

*The GeoEnvironmental Section has identified six sites with soil and/or ground water contamination which are shown on the plans. Right of Way recommendations have been provided to the Division 11 Right of Way Office. A special provision will instruct the contractor in the event contaminated soil or ground water is encountered during construction.*

### **Division 11 Construction**

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit

upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.  
*This commitment will be implemented after construction completion.*

## **COMMITMENTS FROM PERMITTING**

### **PDEA – Natural Environment Section**

**404 Condition (f)**: Compensatory mitigation for the unavoidable impacts to 1,610 linear feet of stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated December 20, 2011, from Michael Ellison, EEP Deputy Director. Pursuant to the In-Lieu-Fee Instrument signed July 28, 2010, between the State of North Carolina, Ecosystem Enhancement Program and the US Army Corps of Engineers the EEP will provide 2,522 linear feet of warm water stream channel equivalent in the Catawba River basin (Hydrologic Cataloging Unit 03050101) in accordance with Section F of the instrument. In addition, for unavoidable impacts to 0.24-acre of riparian wetlands, the NCDOT shall debit 0.24-acre of riparian wetlands restoration equivalent from the Long Creek Mitigation site. For wetlands, a minimum of 1:1 (impact to mitigation) must be in the form of wetland restoration.

### **Division 11 Construction, Roadside Environmental Unit**

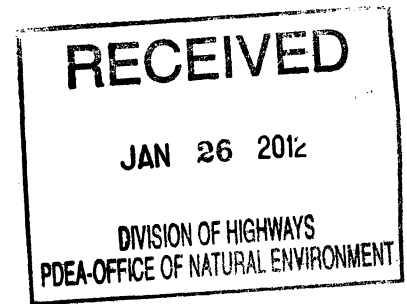
**401 Condition 6**: For the 53 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
69 DARLINGTON AVENUE  
WILMINGTON, NORTH CAROLINA 28403-1343

January 24, 2012



Regulatory Division

Action ID: SAW-2006-32042

Mr. Gregory J. Thorpe, Ph.D.  
Environmental Management Director, PDEA  
NC Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina 27699-1548

Dear Mr. Thorpe:

In accordance with your written request of August 13, 2011, and the ensuing administrative record, enclosed is a copy of a permit to authorize the proposed permanent placement of fill material into 1,610 linear feet of streams and 0.24 acre of wetlands. Additional temporary impacts to 0.01-acre of water (53 linear feet of streams) is also proposed to facilitate the extension of SR 1001 (Connelly Springs Road) on new location with the realignment of SR 1178 (Hibriten Drive) in Lenoir, Caldwell County, North Carolina. This project is identified as TIP U-2211B.

Any deviation in the authorized work will likely require modification of this permit. If a change in the authorized work is necessary, you should promptly submit revised plans to the Corps showing the proposed changes. You may not undertake the proposed changes until the Corps notifies you that your permit has been modified.

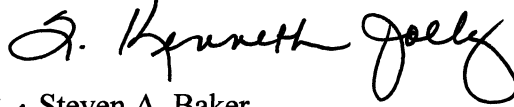
Carefully read your permit. The general and special conditions are important. Your failure to comply with these conditions could result in a violation of Federal law. Certain significant general conditions require that:

- a. You must complete construction before December 31, 2017.
- b. You must notify this office in advance as to when you intend to commence and complete work.
- c. You must allow representatives from this office to make periodic visits to your worksite as deemed necessary to assure compliance with permit plans and conditions.

You should address all questions regarding this authorization to Mr. Monte Matthews at the Raleigh Regulatory Field Office, telephone (919) 554-4884 extension 30.

Thank you in advance for completing our Customer Survey Form. This can be accomplished by visiting our web-site at <http://per2.nwp.usace.army.mil/survey.html> and completing the survey on-line. We value your comments and appreciate your taking the time to complete a survey each time you interact with our office.

Sincerely,

  
for Steven A. Baker  
Colonel, U. S. Army  
District Commander

Enclosures

Copies Furnished (with enclosures):

Chief, Source Data Unit  
NOAA/National Ocean Service  
1315 East-west Hwy., Rm 7316  
Silver Spring, MC 20910-3282

USEPA  
Wetlands and Marine Regulatory Section  
Ms. Rebecca Fox  
1307 Firefly Road  
Whittier, North Carolina 28789

Copies Furnished with special conditions  
and plans:

U.S. Fish and Wildlife Service  
Fish and Wildlife Enhancement  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

Mr. Doug Huggett  
Division of Coastal Management  
N.C. Department of Environment  
and Natural Resources  
400 Commerce Avenue  
Morehead City, North Carolina 28557

Mr. Ron Sechler  
National Marine Fisheries Service  
Pivers Island  
Beaufort, North Carolina 28516

Mr. Pace Wilber  
National Marine Fisheries Service  
219 Fort Johnson Road  
Charleston, South Carolina 29412-9110

Ms. Jennifer Derby, Chief  
Wetlands Protection Section – Region IV  
Water Management Division  
U. S. Environmental Protection Agency  
61 Forsyth Street  
Atlanta, Georgia 30303

## DEPARTMENT OF THE ARMY PERMIT

**Permittee:** NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

**Permit No:** SAW-2006-32042

**Issuing Office:** USAED, WILMINGTON

**NOTE:** The term “you” and its derivatives, as used in this permit, means the permittee or any future transferee. The term “this office” refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of the office acting under the authority of the commanding officer.

You are authorized to perform work in the accordance with the terms and conditions specified below.

**Project Description:** The North Carolina Department of Transportation (NCDOT) has identified this project as TIP U-2211B, which involves the extension of SR 1001 (Connelly Springs Road) on new location with the realignment of SR 1178 (Hibriten Drive), and construction of a half-clover interchange at US321 near Lenoir, Caldwell County, North Carolina. Specifically, the proposed facility is a four-lane, curb and gutter, median-divided roadway with two 12-foot lanes in each direction, a 17.5-foot median and 10-foot berms. The project would permanently impact 1,610 linear feet of streams and 0.24-acre of wetlands. Additional temporary impacts are also proposed to 0.01 acre of water to facilitate the project. All impacts are to occur in the Catawba River Basin (Hydrologic Cataloging Unit 03050101).

To mitigate for all unavoidable permanent impacts to jurisdictional features, the applicant has proposed payment into the North Carolina Ecosystem Enhancement Program (NCEEP) in the amount to provide 2,522 linear feet of restoration equivalent warm water stream channel in the Catawba River Basin (Hydrologic Cataloging Unit 03050101). By letter dated December 20, 2011, the NCEEP has agreed to provide the stream restoration stated above. In addition, the applicant has agreed to use their existing Long Creek Mitigation site to provide 0.24 acre of riparian wetland restoration equivalent also in the Catawba River Basin (Hydrologic Cataloging Unit 03050101).

**Project Location:** The project, known as TIP U-2211B, is a 0.9 mile proposal beginning just west of US 321A (Norwood Street) and ending 650 feet east of SR 1712 (Norcross Road) at Lenoir in Caldwell County, North Carolina. The project would impact unnamed tributaries and one abutting wetland of Gunpowder Creek, a tributary to the Catawba River. Gunpowder Creek is a tributary to the Catawba River. The approximate center of project is at 35.89068 N., -81.51978 W. The site is located within the Catawba River Basin, Hydrologic Unit 03050101.

**Permit Conditions:**

### **General Conditions:**

1. The time Limit for completing the work authorized ends on December 31, 2017 If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Conditions 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

### **Special Conditions:**

\*SEE ATTACHED SPECIAL CONDITIONS

### **Further Information:**

1. **Congressional Authorities:** You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. C. 403).

(X) Section 404 of the clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. **Limits of this authorization.**

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. **Limits of Federal Liability.** In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.**
  - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.**
  - d. Design or construction deficiencies associated with the permitted work.**
  - e. Damage claims associated with any future modification, suspension, or revocation of this permit.**
- 4. Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
- 5. Reevaluation of Permit Decision.** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. You fail to comply with the terms and conditions of this permit.**
  - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).**
  - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.**

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measure by contract or otherwise and bill you for the cost.

**6. Extensions.** General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.



Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

E. L. Lusk for Gregory J. Thayer, PhD Jan 17, 2012  
(PERMITTEE) NORTH CAROLINA DEPARTMENT (DATE)  
OF TRANSPORTATION

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

S. Kenneth Kelly 1/24/12  
(DISTRICT Commander) STEVEN A. BAKER, COLONEL (DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(Transferee) (Date)

**SPECIAL CONDITIONS**  
**ACTION ID. SAW-2006-32042**  
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION U-2211B**

Failure to institute and carry out the details of the following special conditions below (listed as a-w) will result in a directive to cease all ongoing and permitted work within waters of the United States, including wetlands, associated with the permitted project, or such other remedies and/or fines as the U.S. Army Corps of Engineers District Commander or his authorized representatives may seek.

a) The North Carolina Division of Water Quality (DWQ) permit/certification number WQC 3874 was issued for this project on January 3, 2012. Special conditions were issued associated with this water quality permit/certification and a copy of these conditions is attached as Exhibit A. These referenced conditions are hereby incorporated as special conditions of this permit.

b) All work authorized by this permit must be performed in strict compliance with the attached plans which were received on August 31, 2011 and November 2, 2011 (email), and December 7, 2011 (email). These plans are a part of this permit and identified as Exhibit B. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.

c) The permittee shall schedule a preconstruction meeting between its representatives, the contractor's representatives, and the Corps of Engineers, Raleigh Regulatory Field Office, NCDOT Regulatory Project Manager, prior to any work within jurisdictional waters and wetlands to ensure that there is a mutual understanding of all of the terms and conditions contained within this Department of the Army Permit. The permittee shall provide the USACE, Raleigh Regulatory Field Office, NCDOT Regulatory Project Manager, with a copy of the final plans at least two weeks prior to the preconstruction meeting along with a description of any changes that have been made to the project's design, construction methodology or construction timeframe. The permittee shall schedule the preconstruction meeting for a time when the USACE and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall invite the Corps and NCDWQ Project Managers a minimum of thirty (30) days in advance of the scheduled meeting in order to provide those individuals with ample opportunity to schedule and participate in the required meeting.

d) Except as authorized by this permit or any USACE approved modification to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, within waters or wetlands. This permit does not authorize temporary placement or double handling of excavated or fill material within waters or wetlands outside the permitted area. This prohibition applies to all borrow and fill activities connected with this project.

**SPECIAL CONDITIONS**  
**ACTION ID. SAW-2006-32042**  
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION U-2211B**

e) Except as specified in the plans attached to this permit, no excavation, fill or mechanized land-clearing activities shall take place at any time in the construction or maintenance of this project, in such a manner as to impair normal flows and circulation patterns within waters or wetlands or to reduce the reach of waters or wetlands.

f) Compensatory mitigation for the unavoidable impacts to 1,610 linear feet of stream associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated December 20, 2011, from Michael Ellison, EEP Deputy Director. Pursuant to the In-Lieu-Fee Instrument signed July 28, 2010, between the State of North Carolina, Ecosystem Enhancement Program and the US Army Corps of Engineers the EEP will provide 2,522 linear feet of warm water stream channel equivalent in the Catawba River basin (Hydrologic Cataloging Unit 03050101) in accordance with Section F of the instrument. In addition, for unavoidable impacts to 0.24-acre of riparian wetlands, the NCDOT shall debit 0.24-acre of riparian wetlands restoration equivalent from the Long Creek Mitigation site. For wetlands, a minimum of 1:1 (impact to mitigation) must be in the form of wetland restoration.

g) All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at 1 (800) 858-0368 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

h) The permittee shall advise the Corps in writing prior to beginning the work authorized by this permit and again upon completion of the work authorized by this permit.

i) Unless otherwise authorized by this permit, all fill material placed in waters or wetlands shall be generated from an upland source and will be clean and free of any pollutants except in trace quantities. Metal products, organic materials (including debris from land clearing activities), or unsightly debris will not be used.

j) The permittee shall require its contractors and/or agents to comply with the terms and conditions of this permit in the construction and maintenance of this project, and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this permit. A copy of this permit, including all conditions, shall be available at the project site during construction and maintenance of this project

**SPECIAL CONDITIONS**  
**ACTION ID. SAW-2006-32042**  
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION U-2211B**

- k) The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).
- l) The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.
- m) During the clearing phase of the project, heavy equipment must not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodable materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.
- n) No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.
- o) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.
- p) Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.
- q) The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Raleigh Regulatory Field Office prior to any active construction in waters or wetlands.

**SPECIAL CONDITIONS**  
**ACTION ID. SAW-2006-32042**  
**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION U-2211B**

r) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

s) The permittee shall take measures to prevent live or fresh concrete from coming into contact with any surface waters until the concrete has hardened.

t) Measures will be included in the construction/installation that will promote the safe passage of fish and other aquatic organisms. The dimension, pattern, and profile of the stream above and below a pipe or culvert should not be modified by widening the stream channel or by reducing the depth of the stream in connection with the construction activity. The width, height, and gradient of a proposed opening should be such as to pass the average historical low flow and spring flow without adversely altering flow velocity. Spring flow should be determined from gauge data, if available. In the absence of such data, bankfull flow can be used as a comparable level.

u) Culverts greater than 48 inches in diameter will be buried at least one foot below the bed of the stream. Culverts 48 inches in diameter or less shall be buried or placed on the stream bed as practicable and appropriate to maintain aquatic passage, and every effort shall be made to maintain the existing channel slope. The bottom of the culvert must be placed at a depth below the natural stream bottom to provide for passage during drought or low flow conditions. Destabilizing the channel and head cutting upstream should be considered in the placement of the culvert. A waiver from the depth specifications in this condition may be requested in writing. The waiver will be issued if it can be demonstrated that the proposal would result in the least impacts to the aquatic environment.

v) To ensure that all borrow and waste activities occur on high ground and do not result in the degradation of adjacent wetlands and streams, except as authorized by this permit, the permittee shall require its contractors and/or agents to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. The permittee shall provide the USACE with appropriate maps indicating the locations of proposed borrow or waste sites as soon as the permittee has that information. The permittee will coordinate with the USACE before approving any borrow or waste sites that are within 400 feet of any streams or wetlands.

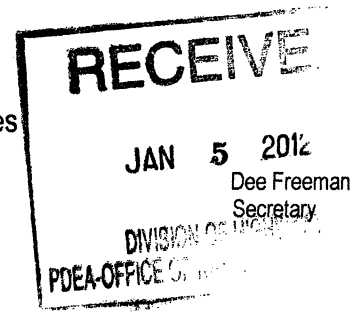
w) If the permittee discovers any previously unknown historic or archaeological sites while accomplishing the authorized work, he shall immediately stop work and notify the Corps of Engineers, Raleigh Regulatory Field Office NCDOT Regulatory Project Manager who will initiate the required State/Federal coordination.



North Carolina Department of Environment and Natural Resources

Division of Water Quality  
Charles Wakild, P. E.  
Director

Beverly Eaves Perdue  
Governor



January 3, 2012

Dr. Greg Thorpe, PhD., Manager  
Project Development and Environmental Analysis  
North Carolina Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with ADDITIONAL CONDITIONS for Proposed improvements to 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), State Project No. WBS 34783.1.1, TIP No. U-2211B. NCDWQ Project No. 2011-0844.

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 3874 issued to The North Carolina Department of Transportation (NCDOT) dated January 3, 2012.

If we can be of further assistance, do not hesitate to contact us.

Sincerely,

  
Charles Wakild, P.E.  
Director

Attachments

cc: Monte Matthews, US Army Corps of Engineers, Raleigh Field Office  
Mike Pettyjohn, PE, Division 11 Engineer  
Heath Slaughter, Division 11 Environmental Officer  
Chris Militscher, Environmental Protection Agency (electronic copy only)  
Marla Chambers, NC Wildlife Resources Commission (electronic copy only)  
Beth Harmon, Ecosystem Enhancement Program  
Mike Parker, DWQ-ARO  
Wetlands/401 Transportation Permitting Unit  
File Copy

**401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with  
ADDITIONAL CONDITIONS**

**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (NCDWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to impact 0.24 acres of jurisdictional wetlands and 1663 linear feet of jurisdictional streams Caldwell County. The project shall be constructed pursuant to the application dated received September 1, 2011 with additional information dated received December 7, 2011 and January 3, 2012. The authorized impacts are as described below:

**Stream Impacts in the Catawba River Basin**

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
1	0	0	1000	34	1034	1000
2A	0	0	297	0	297	297
3	0	0	16	0	16	16
4	0	0	144	19	163	144
5	153	0	0	0	153	0
<b>Total</b>	<b>153</b>	<b>0</b>	<b>1457</b>	<b>53</b>	<b>1663</b>	<b>1457</b>

**Total Stream Impact for Project: 1663 linear feet**

**Wetland Impacts in the Catawba River Basin (riparian)**

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Area under Bridge (ac)	Total Wetland Impact (ac)
2	0.24	0	0	0	0	0	0.24
<b>Total</b>	<b>0.24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.24</b>

**Total Wetland Impact for Project: 0.24 acres.**

The application provides adequate assurance that the discharge of fill material into the waters of the **Catawba River Basin** in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application dated received September 1, 2011 with additional information dated received December 7, 2011 and January 3, 2012. Should your project change, you are required to notify the NCDWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply

watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

**Condition(s) of Certification:**

1. Compensatory mitigation for 1457 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated December 20, 2011 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the North Carolina Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument signed July 28, 2010.
2. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
3. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
4. The stream channel shall be excavated no deeper than the natural bed material of the stream, to the maximum extent practicable. Efforts must be made to minimize impacts to the stream banks, as well as to vegetation responsible for maintaining the stream bank stability. Any applicable riparian buffer impact for access to stream channel shall be temporary and be revegetated with native riparian species.
5. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
6. For the 53 linear feet of streams being impacted due to site dewatering activities, the site shall be graded to its preconstruction contours and revegetated with appropriate native species.
7. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction.
8. The outside buffer, wetland or water boundary located within the construction corridor approved by this authorization shall be clearly marked by highly visible fencing prior to any land disturbing activities. Impacts to areas within the fencing are prohibited unless otherwise authorized by this certification.
9. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
10. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.



11. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
12. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
13. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
14. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
15. Heavy equipment shall be operated from the banks rather than in the stream channel in order to minimize sedimentation and reduce the introduction of other pollutants into the stream.
16. All mechanized equipment operated near surface waters must be regularly inspected and maintained to prevent contamination of stream waters from fuels, lubricants, hydraulic fluids, or other toxic materials.
17. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
18. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
19. State or federal law is being violated, or that further conditions are necessary to assure compliance, NCDWQ may reevaluate and modify this certification.
20. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.
21. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
22. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
23. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.

- c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
24. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
  25. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
  26. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.

Violations of any condition herein set forth may result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or Coastal Area Management Act Permit. This Certification shall expire upon the expiration of the 404 or CAMA permit.

If you wish to contest any statement in the attached Certification you must file a petition for an administrative hearing. You may obtain the petition form from the office of Administrative hearings. You must file the petition with the office of Administrative Hearings within sixty (60) days of receipt of this notice. A petition is considered filed when it is received in the office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official state holidays. The original and one (1) copy of the petition must be filed with the Office of Administrative Hearings.

The petition may be faxed-provided the original and one copy of the document is received by the Office of Administrative Hearings within five (5) business days following the faxed transmission. The mailing address for the Office of Administrative Hearings is:

Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh, NC 27699-6714  
Telephone: (919)-733-2698, Facsimile: (919)-733-3478

A copy of the petition must also be served on DENR as follows:

Ms. Mary Penny Thompson, General Counsel  
Department of Environment and Natural Resources  
1601 Mail Service Center  
Raleigh, NC 27699-1601

This the 3rd day of January 2012

DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read 'C. Wakild', written in a cursive style.

*for* Charles Wakild, P.E.  
Director

WQC No. 3874

NCDWQ Project No.: \_\_\_\_\_

County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

**Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Quality, 1650 Mail Service Center, Raleigh, NC, 27699-1650. This form may be returned to NCDWQ by the applicant, the applicant's authorized agent, or the project engineer. It is not necessary to send certificates from all of these.

***Applicant's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Agent's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Engineer's Certification***

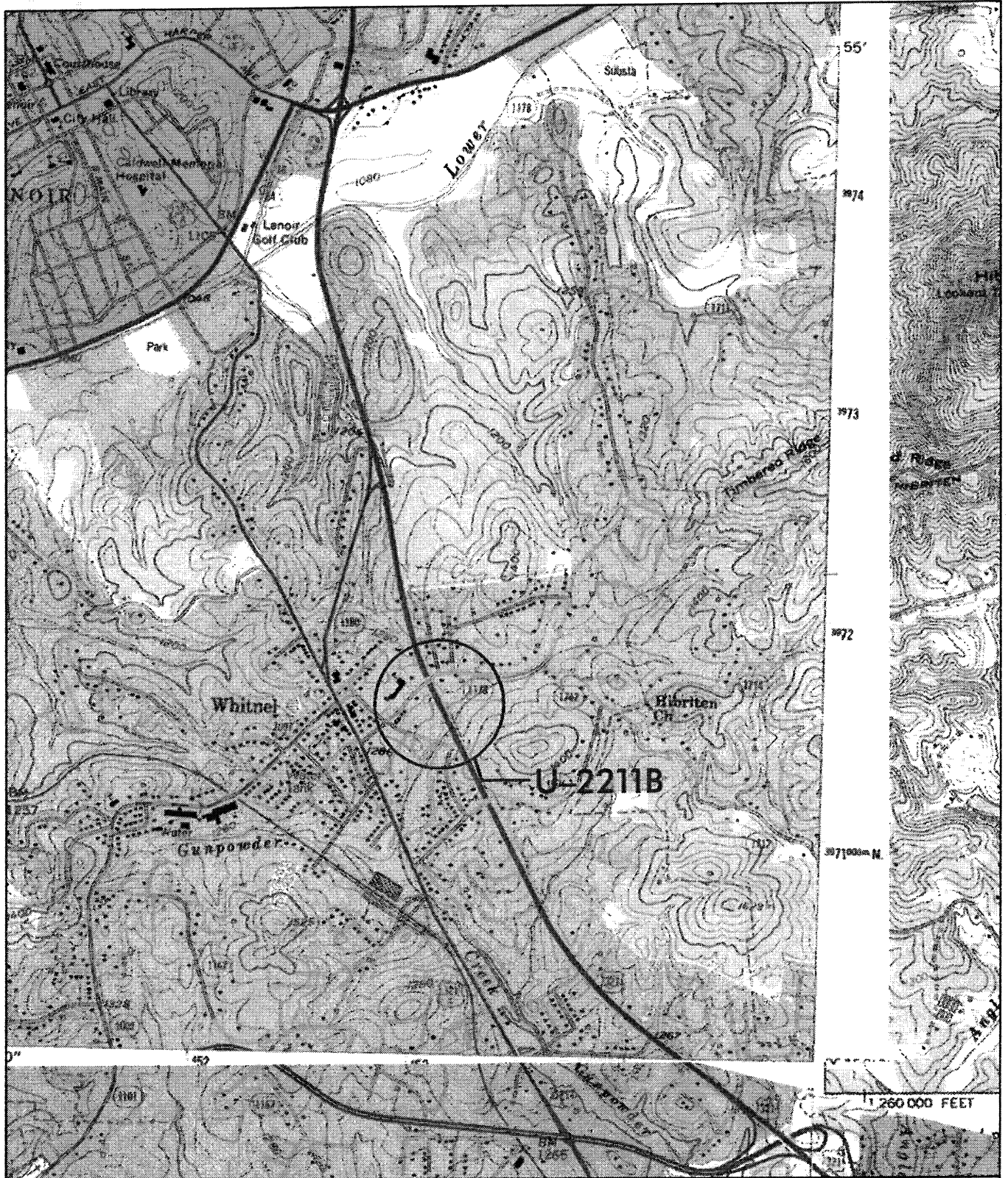
\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project, for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature \_\_\_\_\_ Registration No.

\_\_\_\_\_

Date \_\_\_\_\_



Permit Drawing  
Sheet 1 of 14

# TOPO MAP

SCALE: 1" : 2000'

## NCDOT

DIVISION OF HIGHWAYS  
CALDWELL COUNTY

PROJECT: 34783.11 (U-2211B)

SR 1001 (CONNELLY SPRINGS ROAD) FROM  
US 321A (NORWOOD STREET) TO SR 1712  
(STARCROSS ROAD) EAST OF US 321

SHEET 1 OF 1

7/11/2008

# PROPERTY OWNERS

## NAMES AND ADDRESSES

	NAMES	ADDRESSES
16	THOMAS SHUFORD & SYBIL BUFF	1229 CAMELOT CT LENOIR, NC 28645
22	NELLIE JACKSON BLAIR	3144 STONEY BROOK DR LENOIR, NC 28645
30	LILLIAN WALDROP	LIVING TRUST AGREEMENT 4-2-04 BRUNSWICK, OH 44212
31	ELIZABETH C CRAVEN	2785 SMOKEY CREEK RD LENOIR, NC 28645
34	RENEE TRIPLETT	1508 STARCROSS RD LENOIR, NC 28645
35	CAROLE K. SWEAT ET AL	1305 HIBRITEN DR SE LENOIR, NC 28645
36	JOSEPH A GOMEZ A/W	527 N BOUNDARY ST RALEIGH, NC 27604
38	EDWIN DUARD PRICE	PRICE JOHN ALLEN & MARK TODD DENVER, NC 28037
60	CALDWELL GARDENS HOUSING INC.	P.O. BOX 1526 LENOIR, NC 28645
61	WILLIAM HARTLEY & STEPHEN ICENHOUR	1514 WINDSOR ST. LENOIR, NC 28645

Permit Drawing  
Sheet 2 of 14

### NCDOT

DIVISION OF HIGHWAYS  
CALDWELL COUNTY

PROJECT: 34783.L1 (U-2211B)

SR 1001 (CONNELLY SPRINGS RD.) FROM  
US 321A (NORWOOD ST.) TO SR 1712  
(STARCROSS RD.) EAST OF US 321

SHEET OF

08 / 13 / 2008

ATN Revised 3/31/05

NOV 18 2011

DIVISION OF HIGHWAYS  
 N.C. DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

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										
2A	-RPC- 23+77 to SR1 12+30	Roadway/54" RCP						0.02		297			
3	-L- 46+38 to 46+54 RT	Bank Stabilization						<0.01		16			
4	-Y9- 11+95 RT/LT	8'x8' RCBC						<0.01		42	19		
4	-Y9- 11+95 RT/LT	Bank Stabilization						0.01		102			
5	-L- 51+44 to 52+41 LT	54" RCP						0.02		153			
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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2211B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34783.1.1	MA-STP-7533(2)	P.E.	

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**RECEIVED**

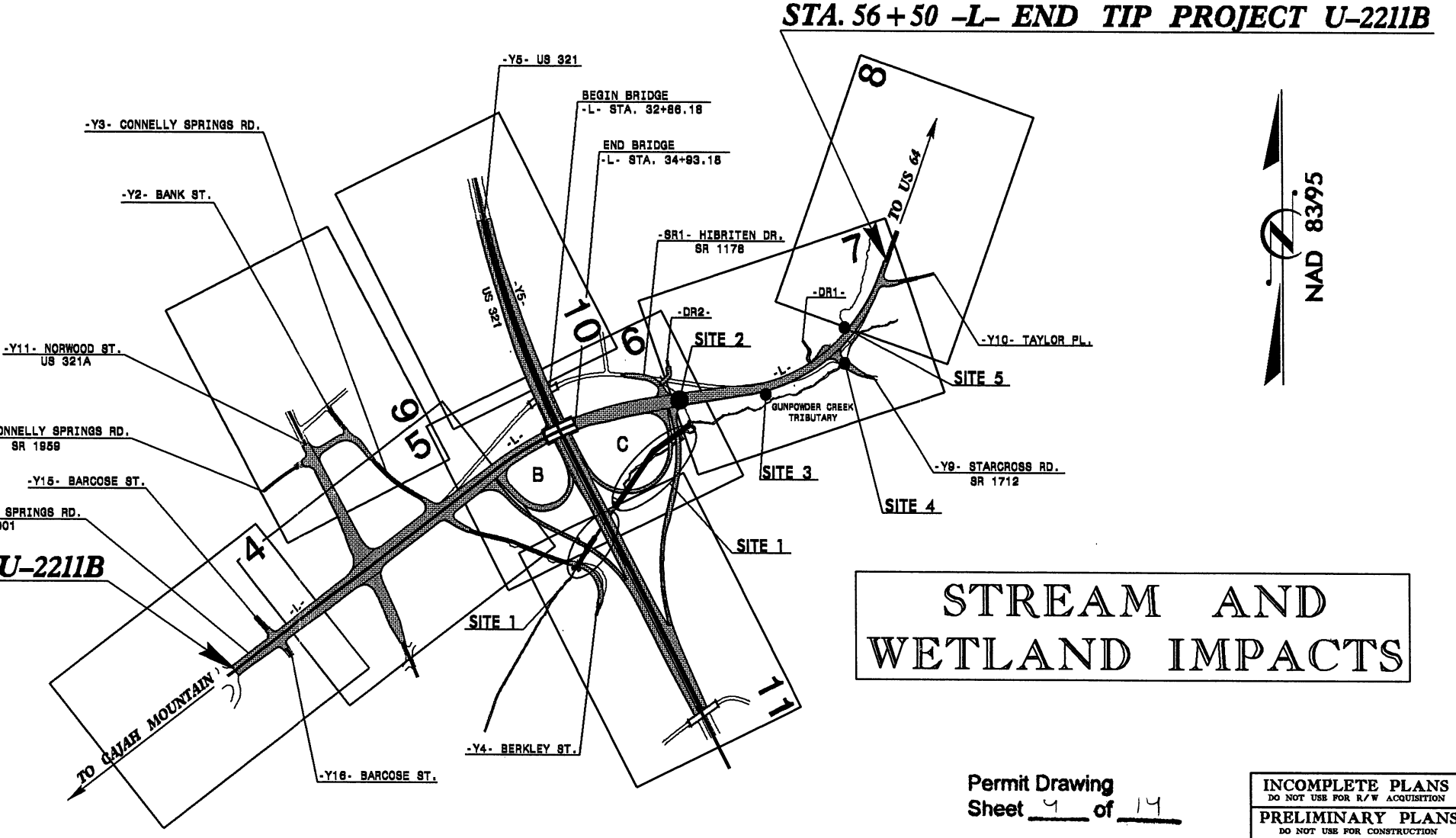
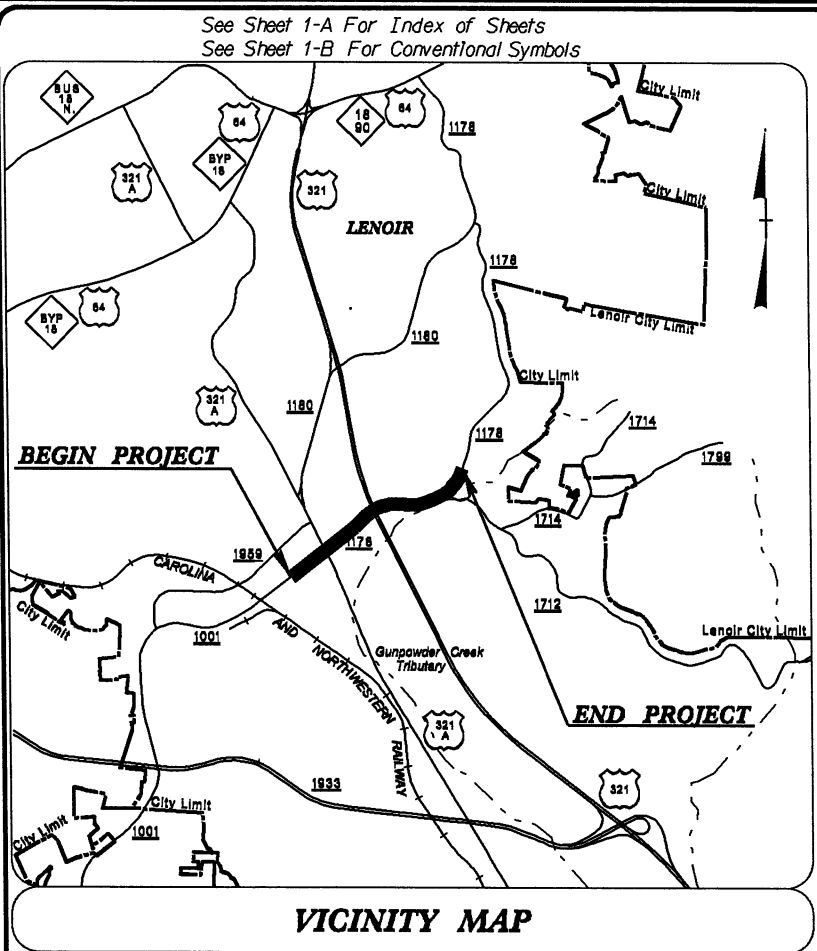
MAY 26 2011

DIVISION OF HIGHWAYS  
PDEA-OFFICE

**CALDWELL COUNTY**

**LOCATION: LENOIR - SR 1001 (CONNELLY SPRINGS ROAD) FROM  
US 321A (NORWOOD STREET) TO SR 1712 (STARCROSS ROAD)  
EAST OF US 321**

**TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURES**



**TIP PROJECT: U-2211B**

**CONTRACT:**

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

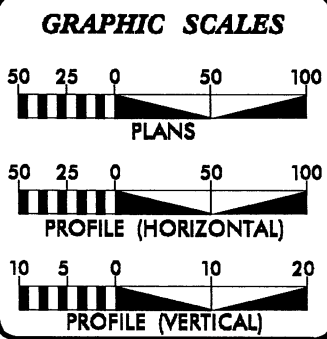
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF LENOIR.

**STREAM AND WETLAND IMPACTS**

Permit Drawing  
Sheet 4 of 14

INCOMPLETE PLANS  
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION



**DESIGN DATA**

ADT 2010 =	8,674
ADT 2030 =	14,600
DHV =	10 %
D =	60 %
T =	4 % *
V =	50 MPH
FUNC. CLASS. =	URBAN COLLECTOR
* TTST 1%	DUAL 3%

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT U-2211B =	0.831 MILES
LENGTH STRUCTURE TIP PROJECT U-2211B =	0.039 MILES
<b>TOTAL LENGTH OF TIP PROJECT U-2211B =</b>	<b>0.870 MILES</b>

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b> SEPTEMBER 19, 2008	<b>GARY LOVERING, PE</b> PROJECT ENGINEER
<b>LETTING DATE:</b> SEPTEMBER 21, 2010	<b>RON McCOLLUM, PE</b> 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

\$\$\$ SYSTEM \$\$\$  
 \$\$\$ DRAWN BY: DON \$\$\$  
 \$\$\$ USER NAME \$\$\$



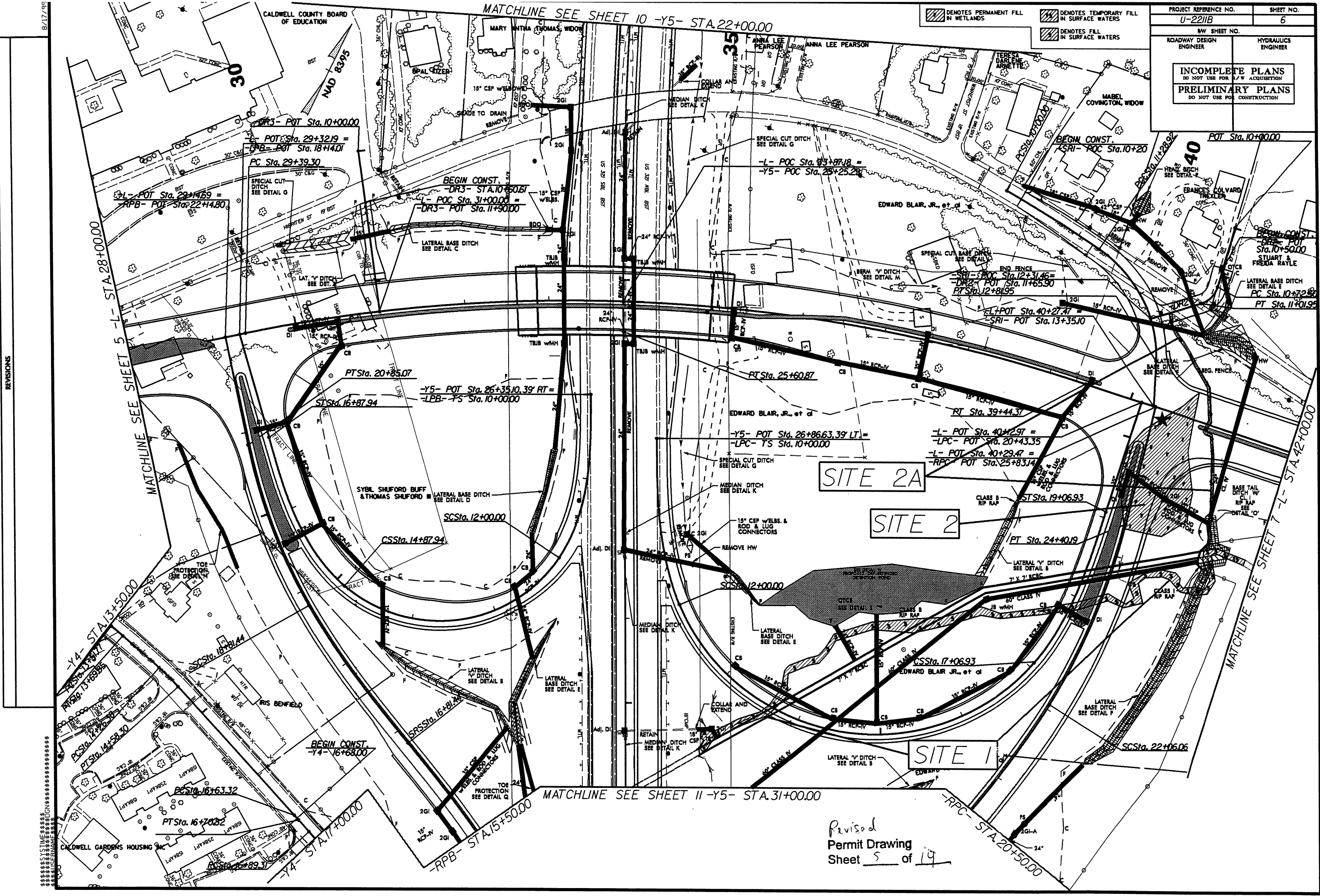
8/17/95

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

PROJECT REFERENCE NO. U-2211B	SHEET NO. 6
HW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

**INCOMPLETE PLANS**  
DO NOT USE FOR A/W ACQUISITION  
**PRELIMINARY PLANS**  
DO NOT USE FOR CONSTRUCTION

- DEMOTES PERMANENT FILL IN WETLANDS
- DEMOTES TEMPORARY FILL IN SURFACE WATERS
- DEMOTES FILL IN SURFACE WATERS



SITE 2A

SITE 2

SITE 1

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

Revised  
Permit Drawing  
Sheet 5 of 19

REVISIONS

\*\*\*\*\*  
SYSTEMS DESIGN \*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*  
\*\*\*\*\*

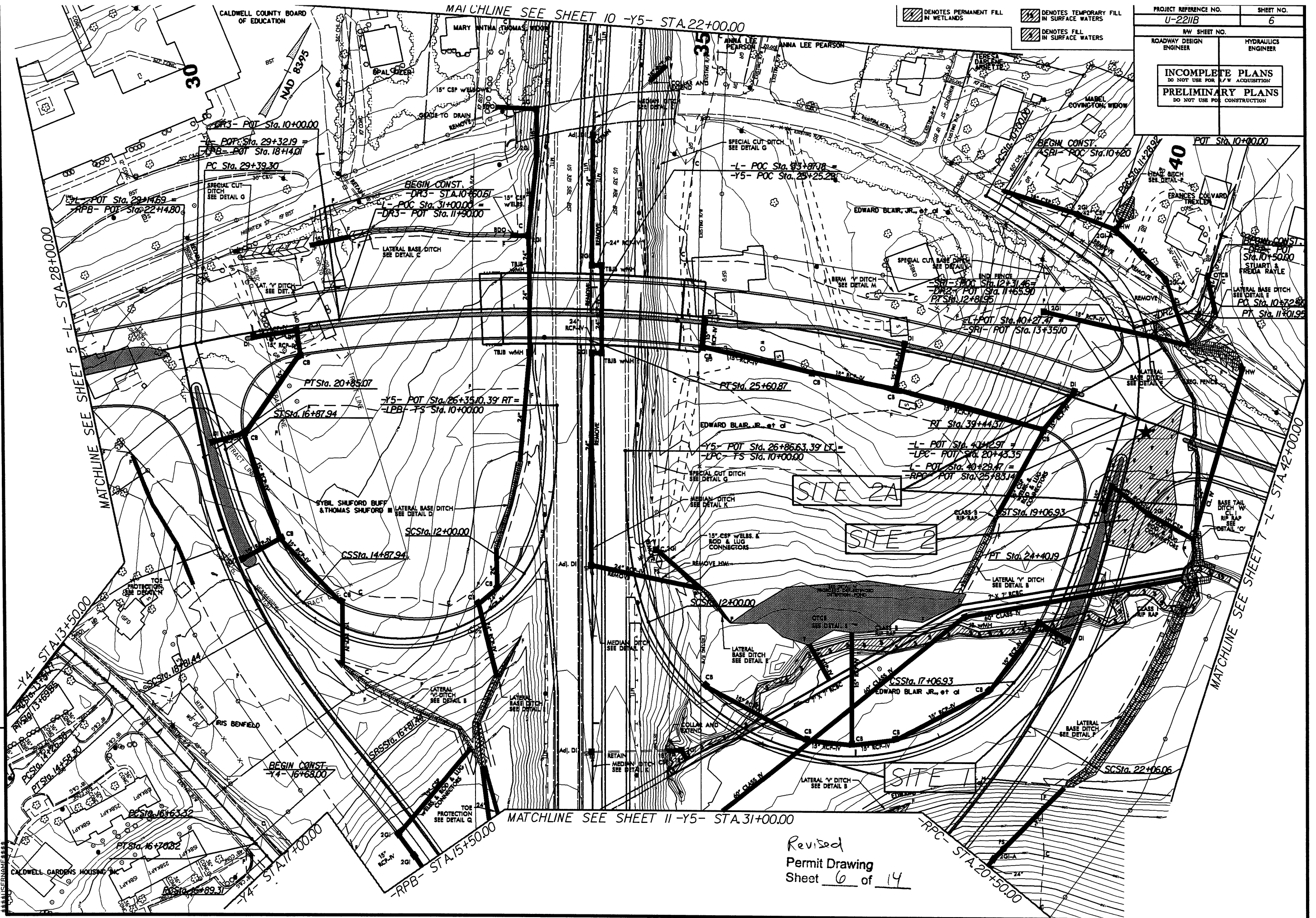
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MATCHLINE SEE SHEET 10 -Y5- STA.22+00.00

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

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

REVISIONS



MATCHLINE SEE SHEET 5 -L- STA.28+00.00

MATCHLINE SEE SHEET 10 -Y5- STA.13+50.00

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

MATCHLINE SEE SHEET 7 -L- STA.42+00.00

Revised  
 Permit Drawing  
 Sheet 6 of 14

\*\*\*\*\*  
 TIME DESIGN  
 \*\*\*\*\*

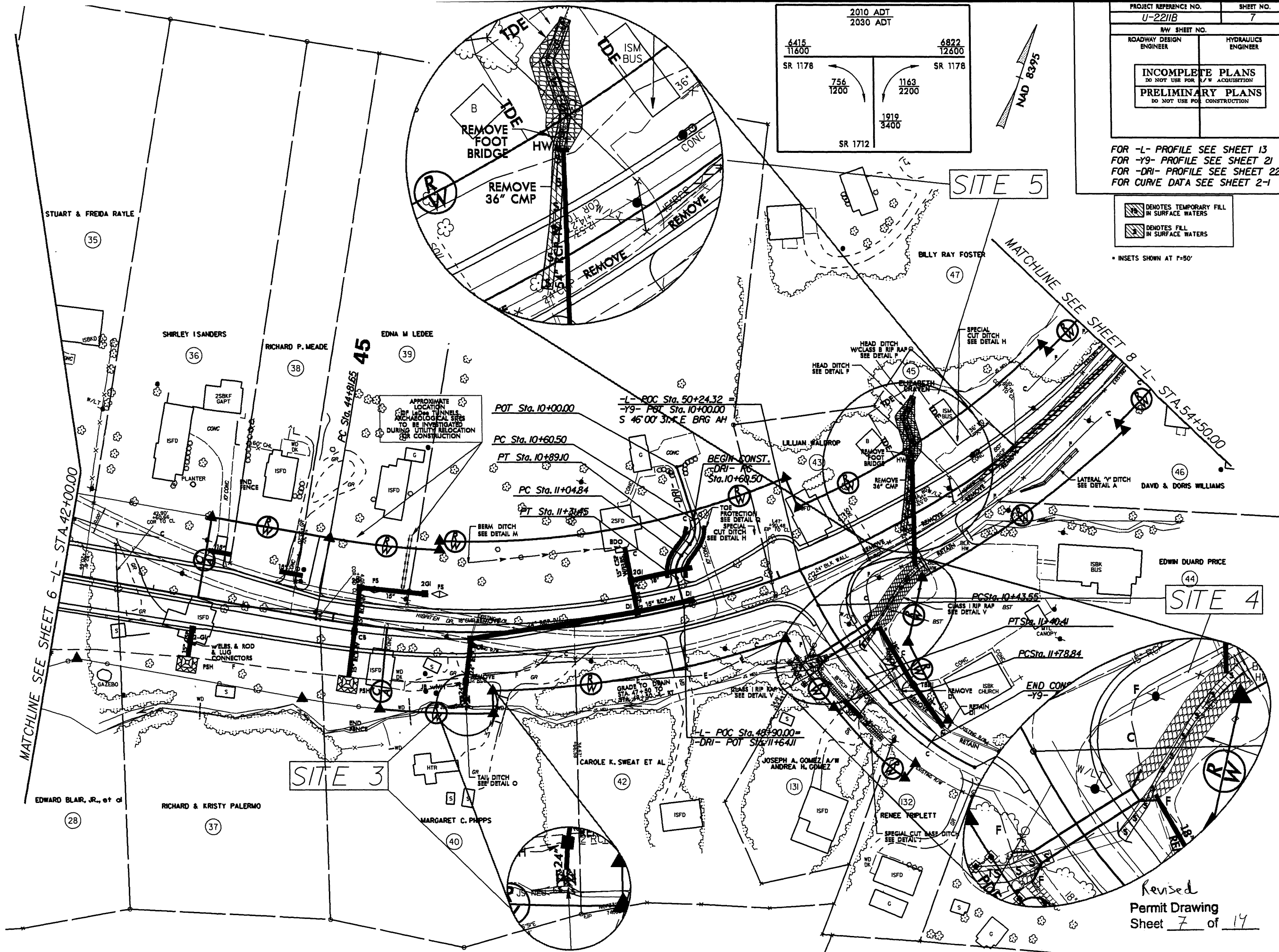
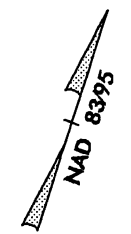
B/17/9

REVISIONS

SYSTEMS DESIGN  
ENGINEERING

PROJECT REFERENCE NO. U-2211B		SHEET NO. 7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		
<b>INCOMPLETE PLANS</b> DO NOT USE FOR A/W ACQUISITION <b>PRELIMINARY PLANS</b> 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			

2010 ADT 2030 ADT	
6415 11600	6822 12600
SR 1178	SR 1178
756 1200	1163 2200
	1919 3400
SR 1712	



	DENOTES TEMPORARY FILL IN SURFACE WATERS
	DENOTES FILL IN SURFACE WATERS

• INSETS SHOWN AT F=50'

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

MATCHLINE SEE SHEET 8 -L- STA. 54+50.00

SITE 3

SITE 5

SITE 4

Revised  
Permit Drawing  
Sheet 7 of 14

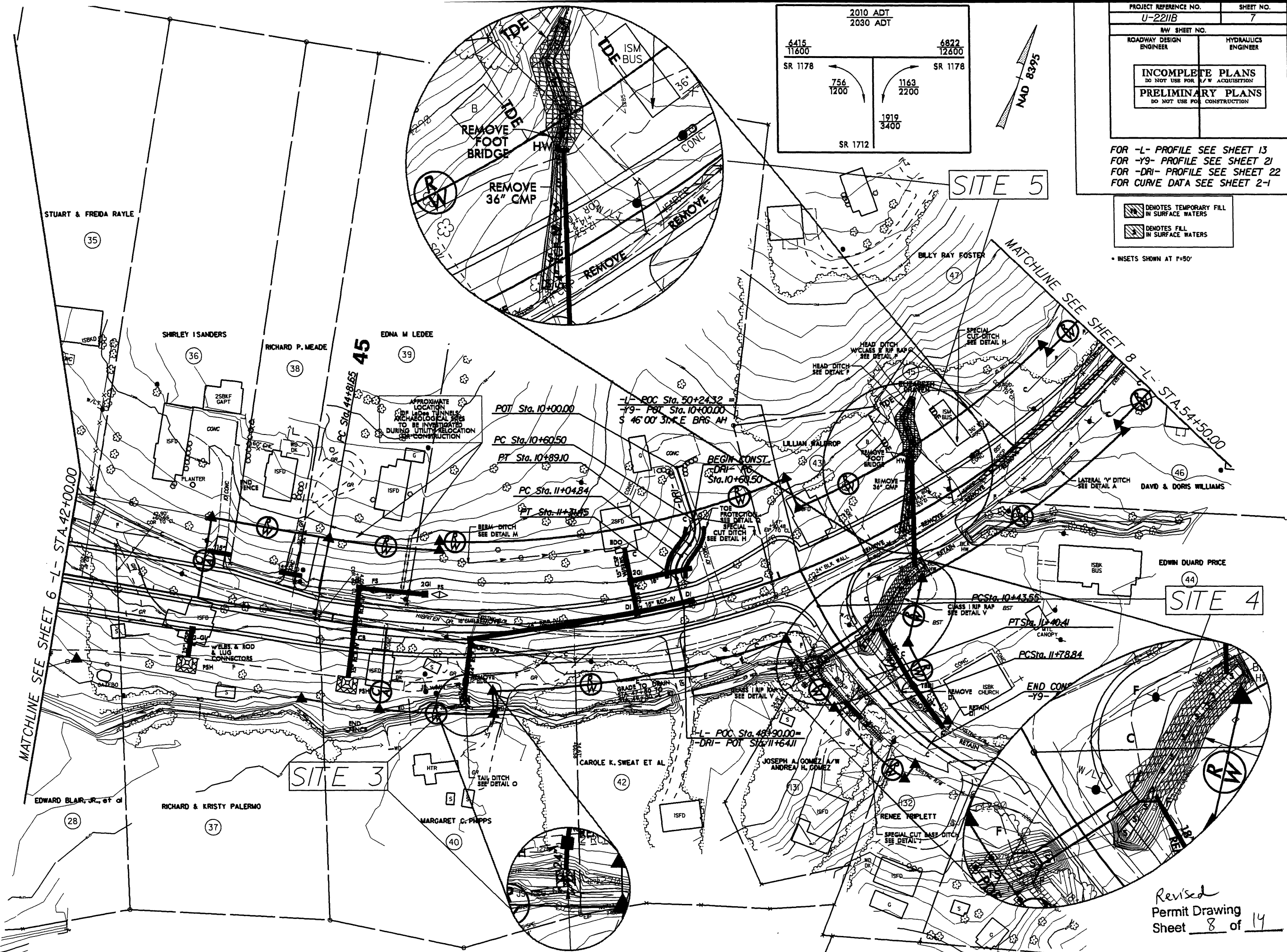
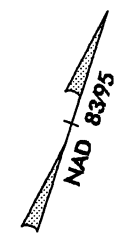
PROJECT REFERENCE NO.		SHEET NO.	
U-2211B		7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

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 F=50'

2010 ADT		2030 ADT	
6415	6822	11600	12600
SR 1178	SR 1178	SR 1712	SR 1712
756	1163	1919	2200
1200	2200	3400	





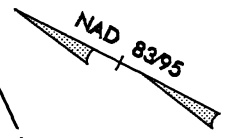
Revised  
 Permit Drawing  
 Sheet 8 of 14

REVISIONS

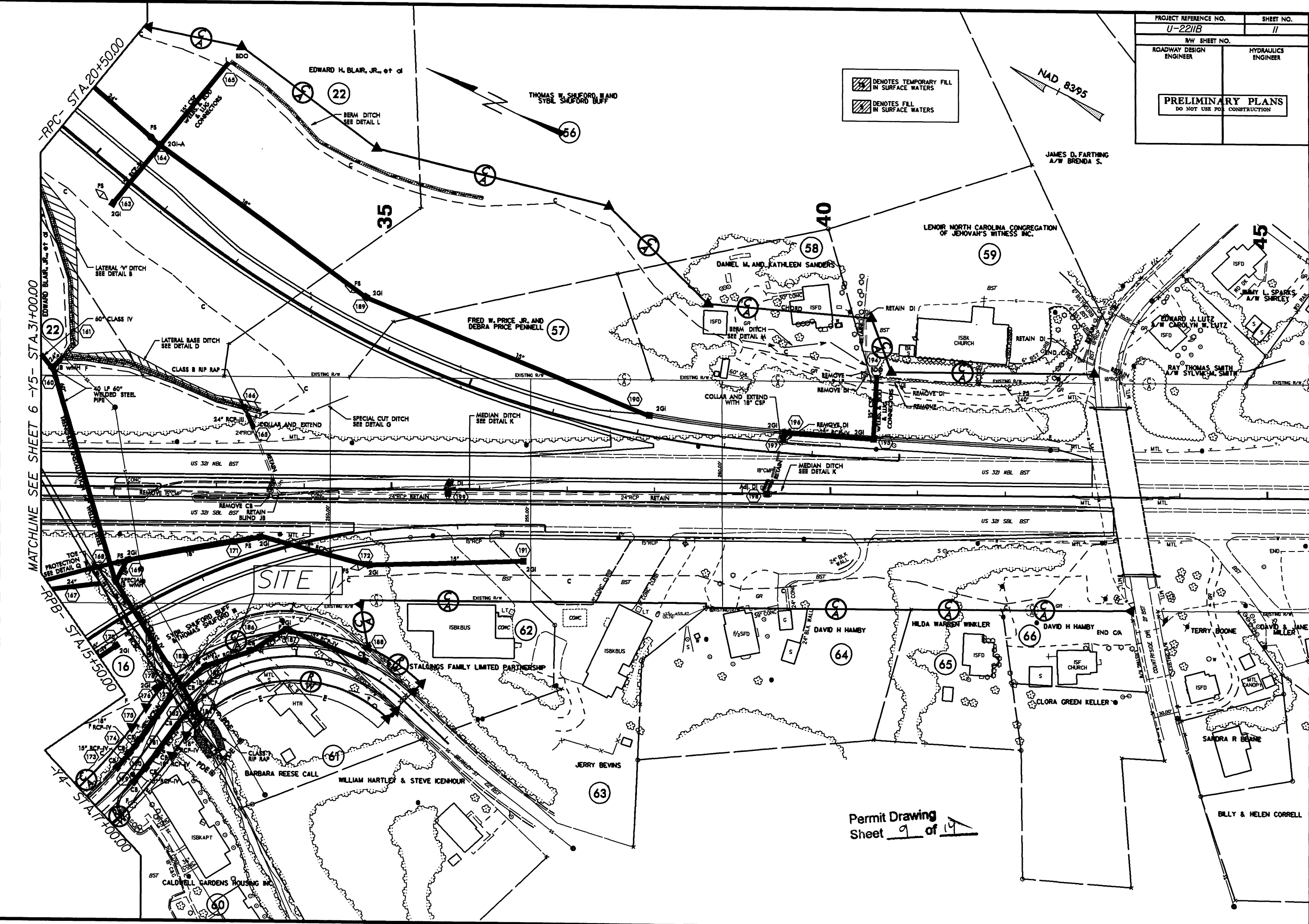
\*\*\*\*\*SYSTEMATIC CONSTRUCTION\*\*\*\*\*

PROJECT REFERENCE NO. U-2211B	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

 DENOTES TEMPORARY FILL IN SURFACE WATERS  
 DENOTES FILL IN SURFACE WATERS





REVISIONS  
 MAY 7, 2010 - R/W REVISIONS - PARCEL 22 COMBINED PARCEL 55 WITH PARCEL 22 AND CHANGED THE OWNER NAME; PARCEL 56 CHANGED OWNER NAME; PARCELS 62 & 63, REDUCED EXISTING R/W 5 FEET AND MADE THE EXISTING R/W CONTROLLED ACCESS.



Permit Drawing Sheet 9 of 14

8/17/99

PROJECT REFERENCE NO. U-221B	SHEET NO. 11
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	DO NOT USE FOR CONSTRUCTION

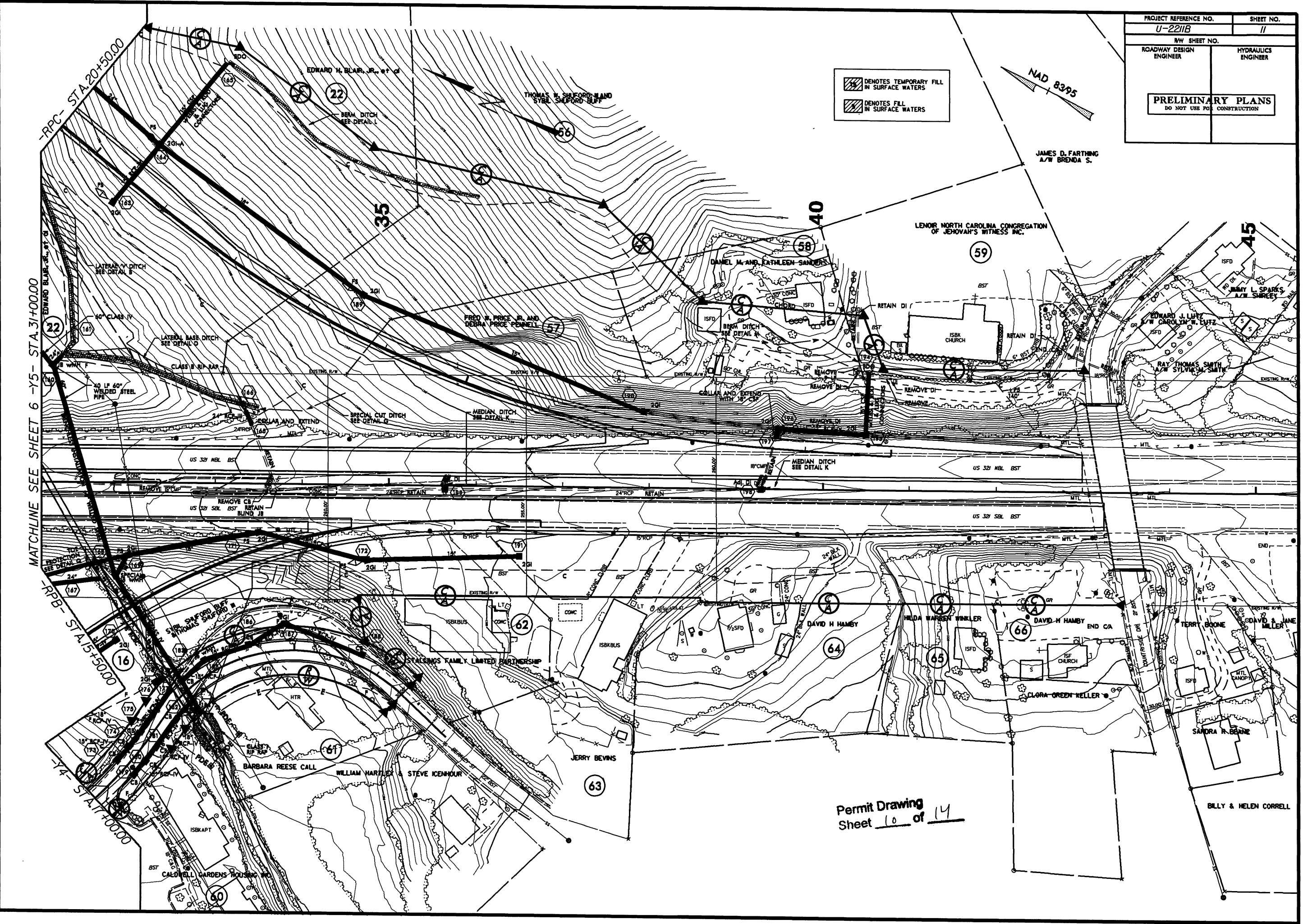
 DENOTES TEMPORARY FILL IN SURFACE WATERS  
 DENOTES FILL IN SURFACE WATERS



JAMES D. FARTHING  
A/W BRENDA S.

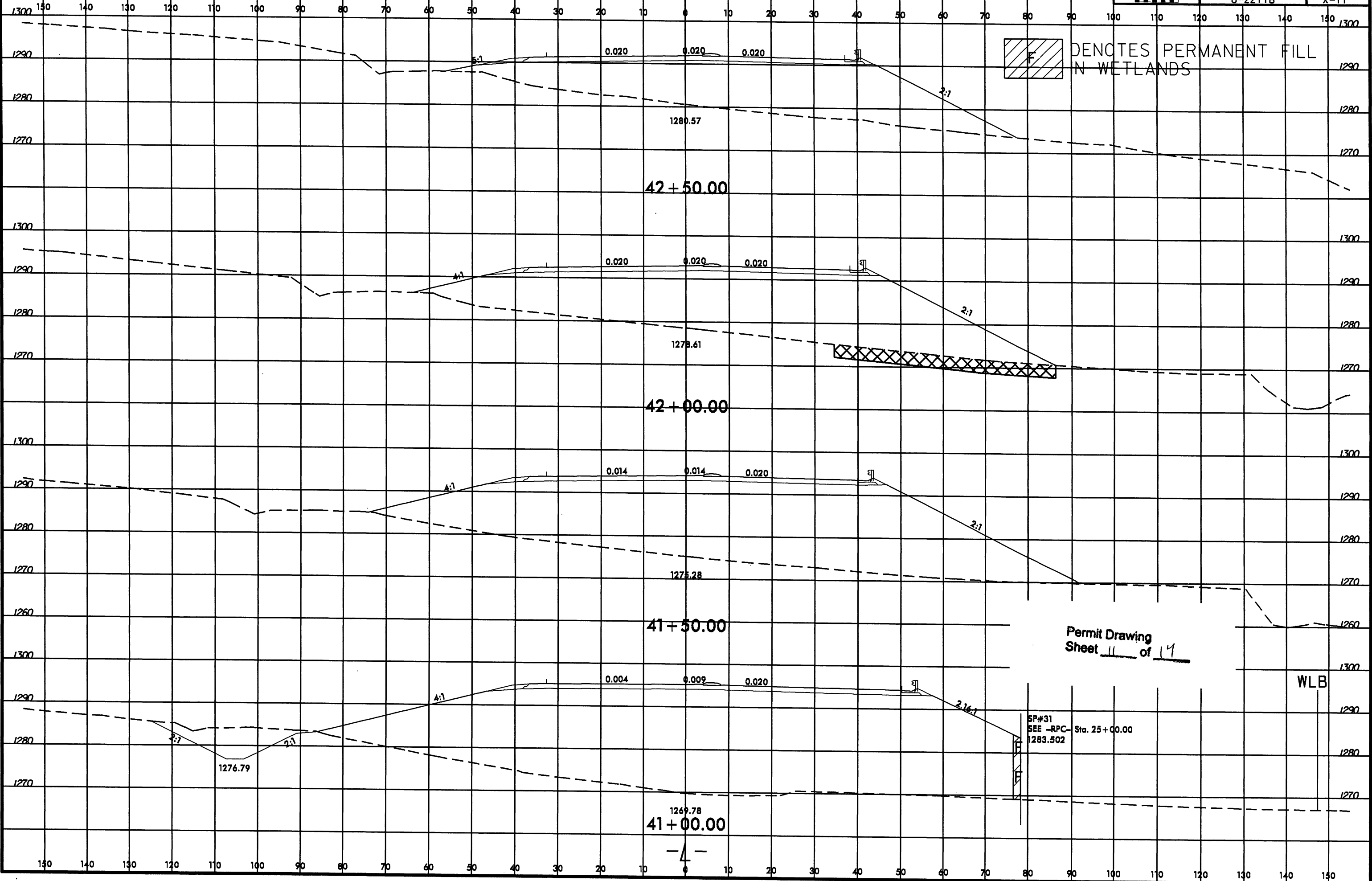
REVISIONS  
 MAY 7, 2010 - R/W REVISIONS - PARCEL 22 COMBINED PARCEL 55 WITH PARCEL 22 AND CHANGED THE OWNER NAME, PARCEL 56, CHANGED OWNER NAME, PARCELS 62 & 63, REDUCED EXISTING R/W 5 FEET AND MADE THE EXISTING R/W CONTROLLED ACCESS.

MATCHLINE SEE SHEET 6 -Y5- STA. 31+00.00  
 -RPC- STA. 20+50.00  
 -RPA- STA. 15+50.00  
 -Y4- STA. 17+00.00



Permit Drawing  
Sheet 10 of 14

\*\*\*\*\*  
 SYSTEMS  
 \*\*\*\*\*



INDICATES PERMANENT FILL IN WETLANDS

Permit Drawing Sheet 11 of 14

SP#31 SEE -RPC- Sta. 25+00.00 1283.502

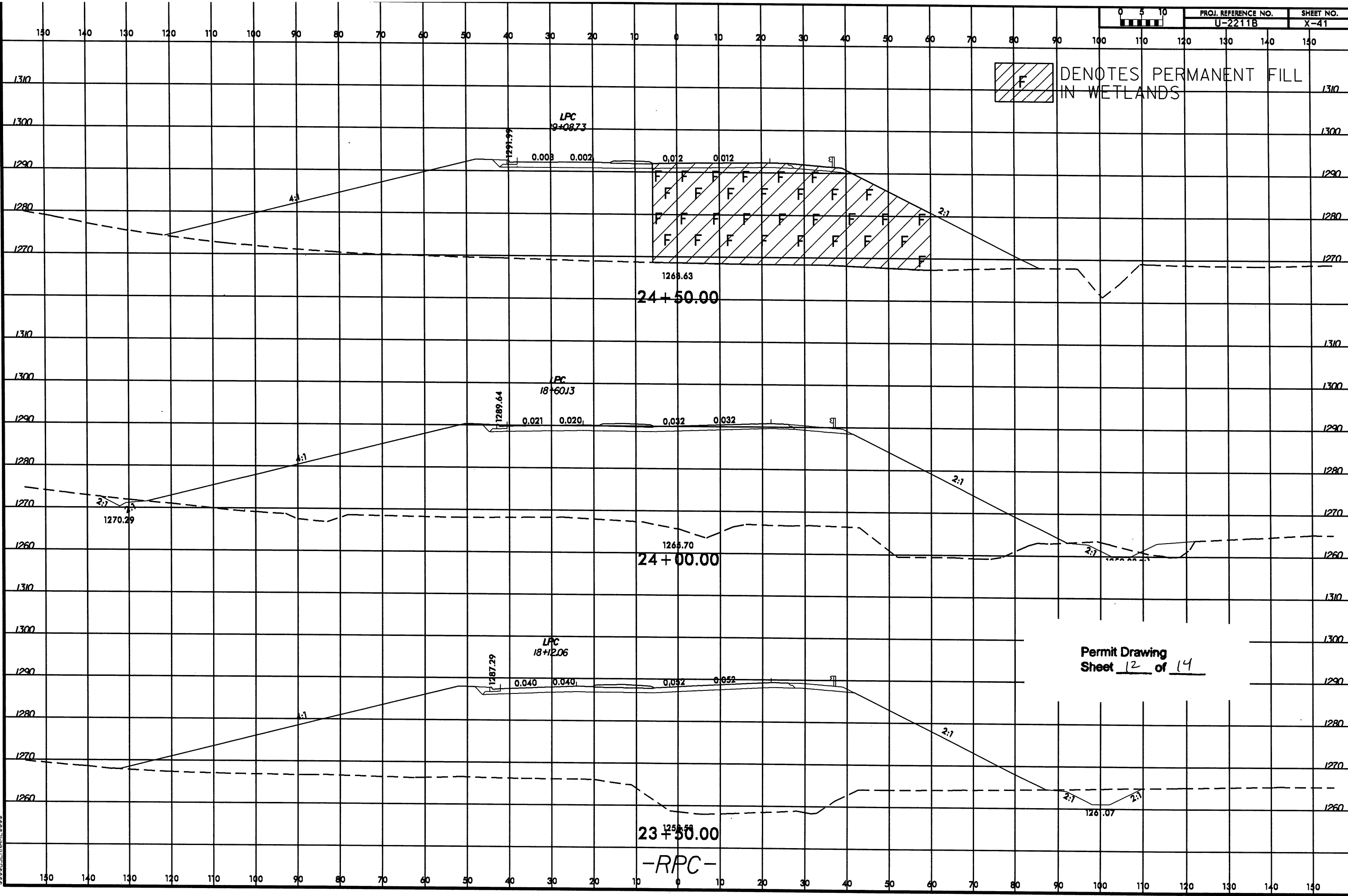
WLB

SYTIME  
SECTION  
SUBNAME

8/23/09



PROJ. REFERENCE NO.	SHEET NO.
U-2211B	X-41



 DENOTES PERMANENT FILL IN WETLANDS

Permit Drawing Sheet 12 of 14

-RPC-

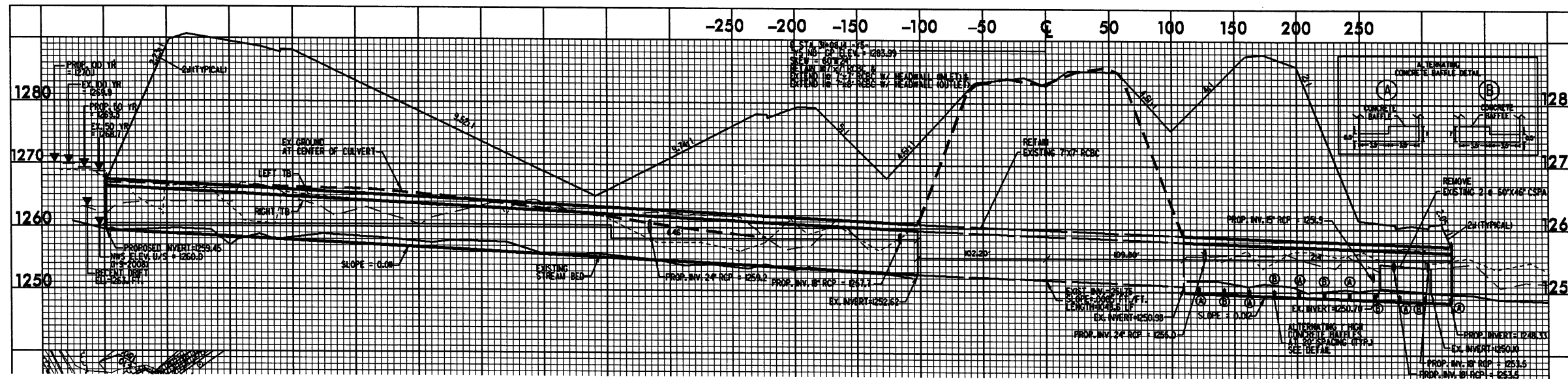
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 SYSTEMS  
 10/22/09  
 10:52 AM  
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PROJECT REFERENCE NO. U-2211B	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# STREAM PROFILE

## SITE 1



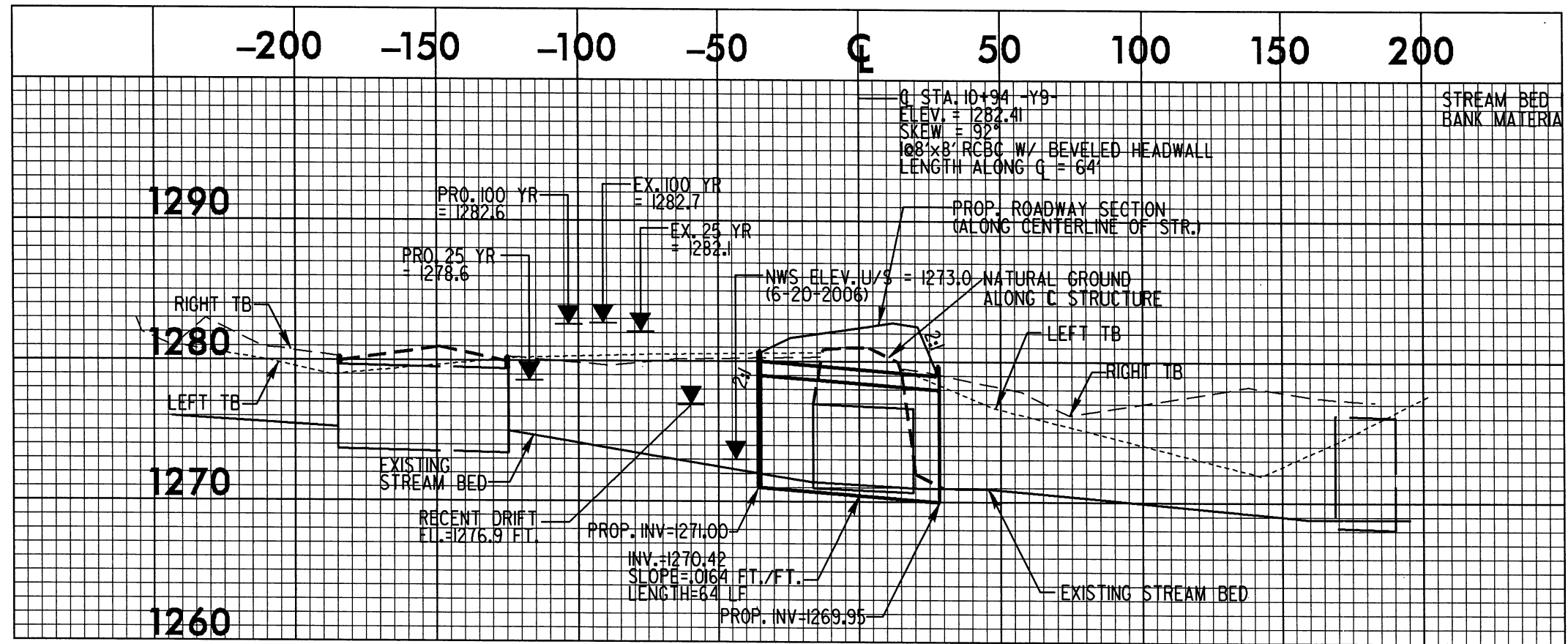
Permit Drawing  
 Sheet 13 of 14

5/23/2011  
 \*\*\*\*\*  
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PROJECT REFERENCE NO.		SHEET NO.	
U-221B		7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

STREAM PROFILE

SITE 4



Permit Drawing  
Sheet 14 of 14

**MULKEY**  
ENGINEERS & CONSULTANTS  
1116 E. INDEPENDENCE BULEVARD  
SUITE 100  
CHARLOTTE, NC 28207  
(704) 367-2800  
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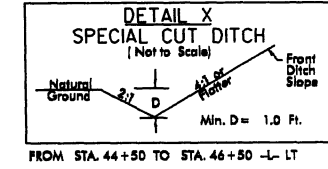
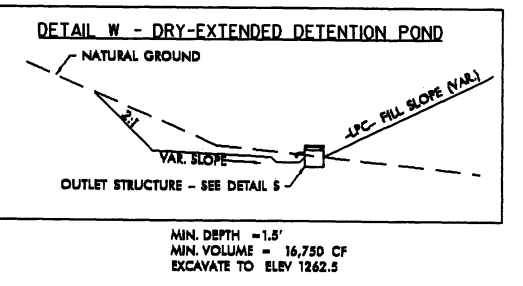
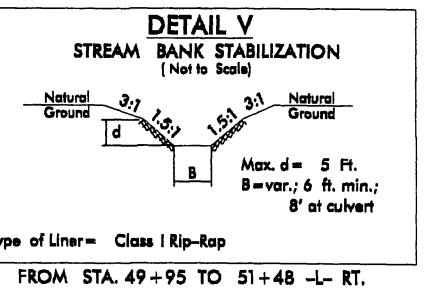
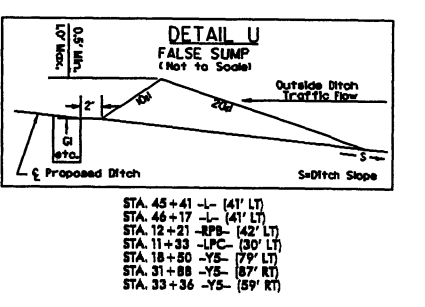
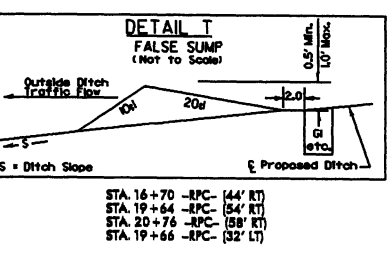
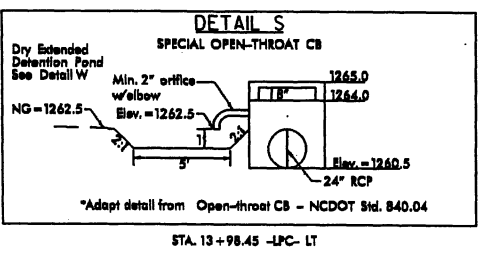
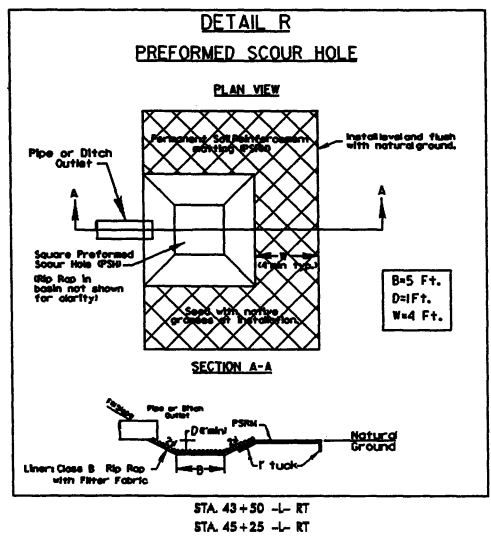
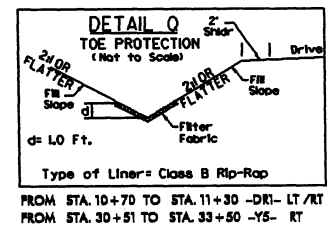
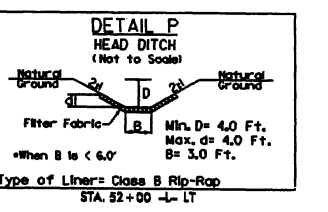
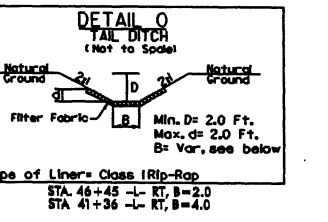
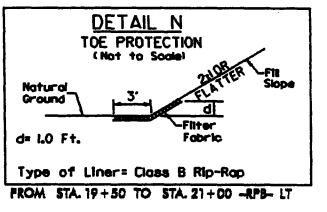
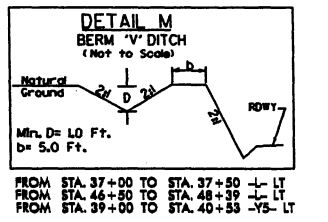
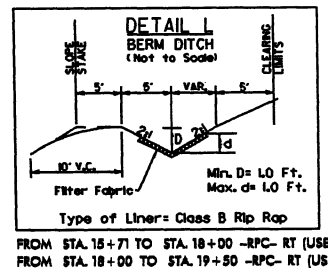
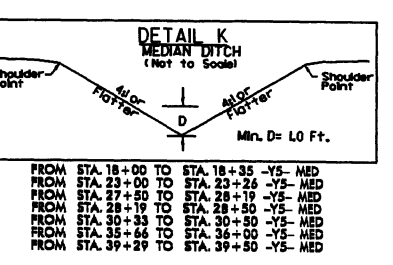
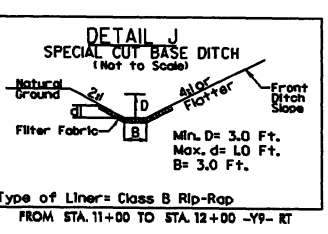
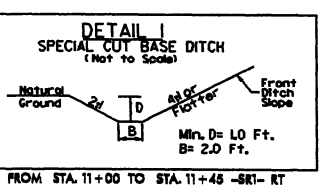
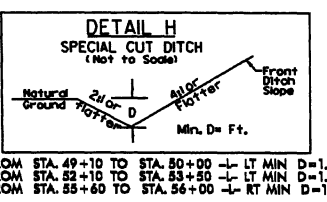
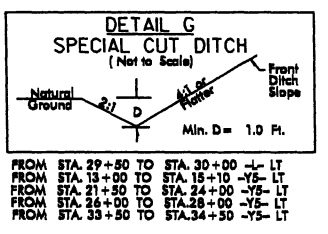
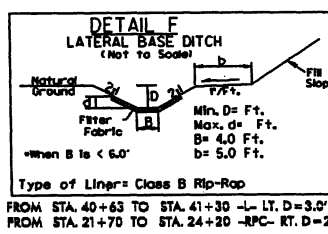
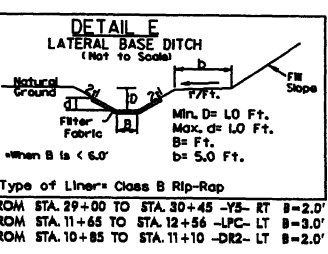
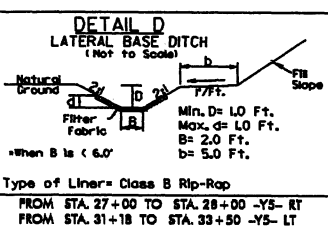
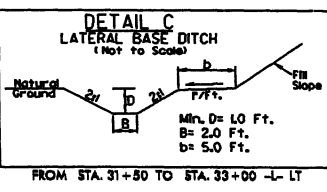
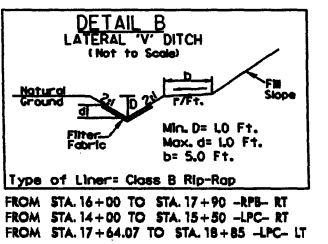
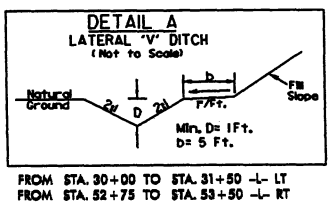
5/14/99

17-NOV-2011 16:32  
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 \*\*\*\*\*UNDESIGNABLE\*\*\*\*\*

PROJECT REFERENCE NO.	SHEET NO.
U-2211B	2-K
HW SHEET NO.	
HYDRAULICS ENGINEER	

INCOMPLETE PLANS  
 PRELIMINARY PLANS  
 NOT TO BE USED FOR CONSTRUCTION

# DITCH DETAILS



Revised  
 Permit Drawing  
 Sheet 14a of 14