



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

September 7, 2006

MEMORANDUM TO: Mr. Barry Moose, PE
Division Ten Engineer

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

SUBJECT: Union County, US 601 From the South Carolina State Line
to North of Marion Lee Road (SR 2105); T.I.P. Number R-
2616 A&B; Federal Aid Project STP-NHS-601(4); State
Project 8.1690303

Attached is the U. S. Army Corps of Engineers 404 Individual Permit and the special conditions for the 401 Water Quality Certification for the above referenced project. All environmental permits have been received for the construction of this project.

PSH/gyb

Attachment

Cc:

Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design
Dr. David Chang, P.E., Hydraulics
Mr. Randy Garris, P.E. State Contract Officer
Mr. Art McMillan, P.E., Highway Design
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan, FHWA
Ms. Teresa Hart, P.E., PDEA Western Region Unit Head
Mr. Larry Thompson, RS, PWS, Division Environmental Officer

US 601
From the South Carolina State Line to
North of Marion Lee Road (SR 2105)
Union County
WBS Element 34485
State Project Number 8.1690303
Federal Project Number STP-NHS-601(4)
T.I.P. Project Number R-2616 A&B

PROJECT COMMITMENTS

In addition to all Individual Permit conditions, Section 404 Only Conditions, Regional Conditions, State Consistency Conditions, Best Management Practices for the Protection of Surface Waters, NCDOT's Guidelines for Best Management Practices for Bridge Demolition and Removal, and Section 401 Conditions for Certification, the following conditions have been agreed to by NCDOT:

Commitments in *italics* have been fulfilled.

Division 10 Construction Unit

Students that are dropped off at bus stops along US 601 will be crossing through the road construction on the way to their homes. NCDOT personnel and construction contractors will caution their crews to be aware of school bus traffic and students in the construction area.

Temporary or permanent herbaceous vegetation should be planted on all bare soil as soon as possible and within 15 calendar days of ground disturbing activities to provide long-term erosion control. Tall fescue and straw mulch should not be used in riparian areas. Matting should be used, as appropriate, and should be secured with staples or live stakes of native trees.

The outside 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.

On jurisdictional streams, all pipes and culverts 48 inches in diameter or greater should be buried 1 foot. Pipes and culverts less than 48 inches should be buried 20 percent of the diameter of the culvert.

The requirements for WS-IV and WS-V Waters will be incorporated into design and construction with respect to stormwater management, sediment and erosion control, and riparian buffers for the entire project length.

"Design Standards in Sensitive Watersheds" will be incorporated into design and construction due to crossings of water supply watershed waters and the presence of 303(d)-listed streams.

Roadway Design & Right of Way

Partial control of access will be incorporated into roadway design to limit access to US 601.

Roadway Design & Hydraulics & Structures & Geotechnical Engineering

This project includes dual bridges spanning Lanes Creek. Fill should be removed from the floodplain and the natural grade and stream dimensions should be restored.

The Geotechnical Engineering Unit will conduct a subsurface exploration to determine the feasibility of a bottomless culvert at the Wicker Branch crossing.

Geoenvironmental & Geotechnical Engineering

Additional geoenvironmental studies, including geophysical surveys, are being conducted on 11 underground storage tank sites.

Hydraulics & Roadside Environmental & Construction

Hazardous spill catch basins will be designed and installed for crossings of two unnamed tributaries of Buck Branch located north and south of McRorie Road (SR 1952).

Hydraulics

The Hydraulics Unit will coordinate final designs with FEMA and Union County to facilitate the floodway revision process and ensure compliance with applicable floodplain ordinances.



IN REPLY REFER TO

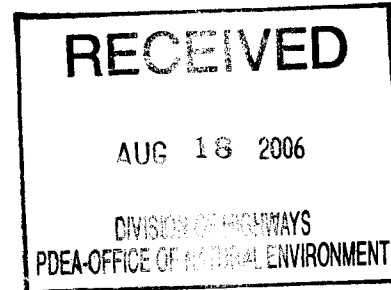
**DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS**

P. O. BOX 1890
WILMINGTON, NORTH CAROLINA 28402-1890

August 15, 2006

Regulatory Division

Action ID. 200530393, TIP No. R-2616 A/B



Dr. Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, NC 27699-1598

Dear Mr. Thorpe:

In accordance with the written request of July 21, 2005, and the ensuing administrative record, enclosed is a permit to discharge dredged or fill material into 0.353 acres of wetland, 3202 linear feet of stream channel and 3.47 acres of man-made ponds in and adjacent to the waters of Wicker Branch, Cowpens Branch, Lanes Creek, Mill Creek and unnamed tributaries to facilitate the widening of 10.9 miles of US Highway 601 from the South Carolina State Line to north of SR 2105 (Marion Lee Road) southeast of Monroe, Union County, North Carolina (TIP No. R-2616 A/B, State Project No. 8.1690303).

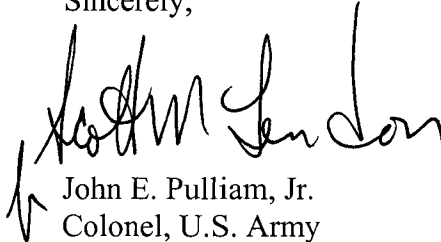
If any change in the authorized work is required because of unforeseen or altered conditions or for any other reason, the plans revised to show the change must be sent promptly to this office. Such action is necessary, as revised plans must be reviewed and the permit modified.

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, 2011.
- 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.

Should you have questions, contact Mr. Steven Lund, Regulatory Division, Asheville
Regulatory Field Office, telephone (828) 271-7980 extension 223.

Sincerely,



John E. Pulliam, Jr.
Colonel, U.S. Army
District Engineer

Enclosures

Copy Furnished with enclosures:

Chief, Source Data Unit
NOAA/National Ocean Service
ATTN: Sharon Tear N/CS261
1315 East-West Hwy., Rm 7316
Silver Spring, MD 20910-3282

Copies Furnished with special conditions and plans:

Mr. Pete Benjamin, Field Supervisor
U.S. Fish and Wildlife Service
Fish and Wildlife Enhancement
Post Office Box 33726
Raleigh, North Carolina 27636-3726

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

Mr. David Rackley
National Marine Fisheries
Service, NOAA
219 Fort Johnson Road
Charleston, South Carolina 29412-9110

Mr. Ronald Mikulak, Chief
Wetlands Section - Region IV
Water Management Division
U.S. Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

Mr. Doug Huggett
NC Division of Coastal Management
Division of Coastal Management
400 Commerce Avenue
Morehead City, NC 28557-3421

DEPARTMENT OF THE ARMY PERMIT

RECEIVED

Permittee **North Carolina Department of Transportation**

AUG 15 2006

Permit No. **200530393**

REGISTRATION
SECTION

Issuing Office **CESAW-RG-A**

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 that office acting under the authority of the commanding officer.

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

Project Description: **To discharge dredged or fill material into 0.353 acres of wetland, 3202 linear feet of stream channel and 3.47 acres of man-made ponds in and adjacent to the waters of wicker branch, cowpens branch, lanes creek, mill creek and unnamed tributaries to facilitate the widening of 10.9 miles of us highway 601 from the south carolina state line to north of sr 2105 (marion lee road) (tip no. r-2616 a/b)**

Project Location: **southeast of Monroe, Union County, North Carolina**

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **July 25, 2011**. 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 Condition 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 is 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).
 - 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 33 CFR 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 measures 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.

 (for Gregory Therpe, PhD) 8.8.06

 (PERMITTEE) **NORTH CAROLINA DEPARTMENT OF TRANSPORTATION** (DATE)

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



 (DISTRICT COMMANDER) **JOHN E. PULLIAM, JR, COLONEL** 15 AUG 2006
(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.

 (TRANSFEE) (DATE)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: NC Department of Transportation		File Number: 200530393	Date: 12-05-05
Attached is:			See Section below
XX	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
	PROFFERED PERMIT (Standard Permit or Letter of permission)	B	
	PERMIT DENIAL	C	
	APPROVED JURISDICTIONAL DETERMINATION	D	
	PRELIMINARY JURISDICTIONAL DETERMINATION	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Mr. Steven W. Lund, Project Manager
CESAW-RG-A
US Army Corps of Engineers, Wilmington District
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

If you only have questions regarding the appeal process you may also contact:

Mr. Michael Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

DIVISION ENGINEER:
Commander
U.S. Army Engineer Division, South Atlantic
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303

SPECIAL CONDITIONS

1. All work must be performed in strict compliance with the attached plans, which are a part of this permit. Any modifications to the permit plans must be approved by the Corps of Engineers prior to implementation.
2. Failure to institute and carry out the details of the following special conditions will result in a directive to cease all ongoing and permitted work within waters and/or wetlands associated with the permitted project or such other remedies and/or fines as the District Engineer or his authorized representatives may seek.
3. 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, Asheville Regulatory Field Office prior to any active construction in waters and wetlands.
4. The permittee shall schedule a preconstruction meeting between their representatives, the contractor and the Corps of Engineers, Asheville Regulatory Field Office, NCDOT Regulatory Project Manager prior to any work in jurisdictional waters and wetlands to ensure that there is a mutual understanding of all terms and conditions contained in this DA permit. The permittee shall provide the Corps of Engineers, Regulatory Project Manager with a copy of the final plans at least two weeks prior to the pre-construction 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 pre-construction meeting for a time when the Corps of Engineers and North Carolina Division of Water Quality (NCDWQ) Project Managers can attend. The permittee shall notify the Corps of Engineers and NCDWQ Project Managers a minimum of thirty (30) days in advance of the meeting.
5. 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, and any authorized modifications. A copy of this permit and any authorized modifications, including all conditions, shall be available at the project site during construction and maintenance of this project.
6. Except as authorized by this permit or any Corps of Engineers 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 nor shall any activities take place that cause the degradation of waters or wetlands. In addition, 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, into or out of waters and wetlands or to reduce the reach of waters or wetlands.

7. To ensure that all borrow and waste activities occur on uplands and do not result in the degradation of adjacent waters and wetlands, 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 Corps of Engineers with appropriate maps indicating the locations of proposed borrow or waste sites as soon as such information is available. The permittee will coordinate with the Corps of Engineers before approving any borrow or waste sites that are within 400 feet of any stream or wetland. All jurisdictional wetland delineations on borrow and waste areas shall be verified by the Corps of Engineers and shown on the approved reclamation plans. The permittee shall ensure that all such areas comply with the **preceding condition** of this permit and shall require and maintain documentation of the location and characteristics of all borrow and disposal sites associated with this project. This documentation will include data regarding soils, vegetation and hydrology sufficient to clearly demonstrate compliance with the **preceding condition**. All information will be available to the Corps of Engineers upon request. The permittee shall require its contractors to complete and execute reclamation plans for each waste and borrow site and provide written documentation that the reclamation plans have been implemented and all work is completed. This documentation will be provided to the Corps of Engineers within 30 days of the completion of the reclamation work.

8. Adequate sedimentation and erosion control measures must be implemented prior to any ground disturbing activities to minimize impacts to downstream aquatic resources. These measures must be inspected and maintained regularly, especially following rainfall events. All fill material must be adequately stabilized at the earliest practicable date to prevent sediment from entering into adjacent waters or wetlands.

9. The permittee shall remove all sediment and erosion control measures placed in waters or wetlands, and shall restore natural grades in those areas prior to project completion.

10. 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-erodible materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.

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

12. All authorized culverts will be installed to allow the passage of low stream flows and the continued movement of fish and other aquatic life as well as to prevent head-cutting of the streambed. For all box culverts and for pipes greater than 48 inches in diameter, the bottom of the pipe will be buried at least one foot below the bed of the stream unless such burial would be

impractical and the Corps of Engineers has waived this requirement. For culverts 48 inches in diameter or smaller, the bottom of the pipe must be buried below the bed of the stream to a depth equal to or greater than 20 percent of the diameter of the culvert. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in the disequilibrium of wetlands, streambeds or stream banks adjacent to, upstream of or downstream of the structures. In order to allow for the continued movement of bed load and aquatic organisms, existing stream channel widths and depths will be maintained at the inlet and outlet ends of culverts. Riprap armoring of streams at culvert inlets and outlets shall be minimized above ordinary high water elevation in favor of bioengineering techniques such as bank sloping, erosion control matting and revegetation with deep-rooted woody plants.

13. Unless 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.

14. All mechanized equipment operating near surface waters shall be regularly inspected and maintained to prevent contamination of streams and wetlands from leakage of fuels, lubricants, hydraulic fluids or other toxic materials. No equipment staging or storage of construction material will occur in wetlands. Hydroseeding equipment will not be discharged or washed out into any surface waters or wetlands. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the NC Division of Water Quality at (919) 733-5083 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

MITIGATION

15. Compensatory mitigation for the unavoidable impacts to 0.158 acres of riverine wetland, 0.195 acres of non-riverine wetland and 3202 linear feet of stream associated with the proposed project shall be provided the North Carolina Ecosystem Enhancement Program (EEP) as outlined in the letter dated April 20, 2006 from William D. Gilmore, EEP Director. Pursuant to Section X of the EEP Memorandum of Agreement (MOA) between the State of North Carolina and the US Army Corps of Engineers signed on July 22, 2003, the EEP will provide 0.158 acres of restoration equivalent riverine wetland, 0.195 acres of restoration equivalent non-riverine wetlands and 6404 linear feet of warm water stream channel restoration in the Yadkin River Basin, Hydrologic Cataloging Unit 03040105. For wetlands, a minimum of 1:1 (impact to mitigation) must be in the form of wetland restoration.

16. The permittee will implement the recommendations (1-14) in the attached September 30, 2005 letter from the North Carolina Wildlife Resources Commission.

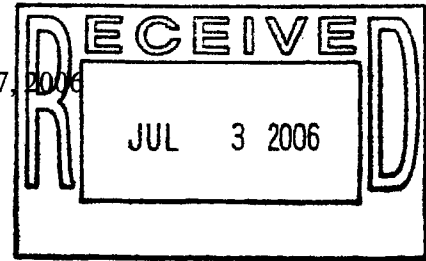
17. The permittee will report any violations of the above conditions and any violation of Section 404 of the Clean Water Act from unauthorized work in writing to the Wilmington District, US Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.



William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

June 27, 2006



Dr. Greg Thorpe, PhD., Manager
Planning and Environmental Branch
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 the Proposed Widening of US 601 from the South Carolina State Line to North of Marion Lee Road (SR 2105) South of Monroe in Union County, Federal Aid Project No. STP-NHS-601(4), State Project No. 8.1690303, TIP R-2616, DWQ No. 05-1396

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 3579 issued to The North Carolina Department of Transportation dated June 27, 2006.

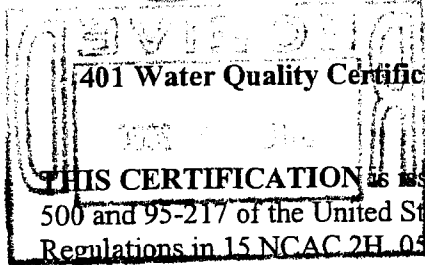
If we can be of further assistance, do not hesitate to contact us.

Sincerely,

Alan W. Klimek, P.E.
Director

Attachments

cc: Steve Lund, US Army Corps of Engineers, Asheville Field Office
Chris Militscher, Environmental Protection Agency
Marla Chambers, NC Wildlife Resources Commission
Marella Buncick, US Fish and Wildlife Service
William Gilmore, Ecosystem Enhancement Program
Polly Lespinasse, DWQ Mooresville Regional Office
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 (DWQ) Regulations in 15 NCAC 2H.0500. This certification authorizes the NCDOT to impact permanently 0.35 acres of jurisdictional wetlands and 3,202 linear feet of jurisdictional streams in Union County to construct the widening of US 601 from the South Carolina State Line to North of Marion Lee Road (SR 2105) South of Monroe in Union County. The project shall be constructed pursuant to the application received May 17, 2006. The authorized impacts are as described below:

Stream Impacts in the Yadkin 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)
1A			104	10	114	104
1			223	75	298	223
2			166	40	206	166
3				150	150	0
4			48	10	58	48
5			240	47	287	240
7			215	10	225	215
8A			150	10	160	150
10			170	22	192	170
11			161	20	181	161
12			290	22	312	290
13			128	40	168	128
14			124	62	186	124
15			466	62	528	466
16			25	240	265	25
22			460	30	490	460
23A			160	30	190	160
24			151	30	181	151
Total			3281	910	4191	3202*

Total Stream Impacts for Project: 4191 linear feet

***Stream impacts at Site 3 will be reduced by 39 linear feet as a culvert will be replaced by a bridge. Stream impacts at Site 16 will be reduced by 40 linear feet as a culvert will be replaced by a bottomless culvert. Therefore, total streams impacts requiring mitigation will be reduced by 79 linear feet.**



Wetland Impacts in the Yadkin River Basin

Site	Fill (permanent) (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Area under Bridge (ac)	Total Wetland Impact (ac)
1A (riverine)	0.013			0.023			0.036
6 (riverine)	0.006			0.003			0.009
8 (riverine)	0.006			0.003			0.009
10 (riverine)	0.034			0.013			0.047
18 (non-riverine)	0.040						0.040
19 (non-riverine)			0.04				0.04
23 (non-riverine)	0.110			0.005			0.115
25 (riverine)	0.030			0.027			0.057
Total	0.24		0.04	0.07			

Total Wetland Impacts for Project: 0.353 acres (0.158 Riverine/0.195 Non-Riverine)

Open Water (Ponds) Impacts in the Yadkin River Basin

Site	Permanent Fill in Open Waters (ac)	Temporary Fill in Open Waters (ac)	Total Fill in Open Waters (ac)
9	0.83		0.83
17	0.31		0.31
18	0.08	0.81	0.89
19	0.47		0.47
20	0.58		0.58
21	0.45		0.45
26	0.29		0.29
9	0.83		0.83
17	0.31		0.31
Total			

Total Open Water Impacts for Project: 3.82 acres.

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin River Basin and wetlands 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 May 17, 2006. Should your project change, you are required to notify the DWQ 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.

Conditions of Certification:

1. Placement of culverts and other structures in waters, streams, and wetlands 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 disequilibrium of wetlands, streambeds or banks, adjacent to and upstream and downstream of the structures. The applicant is required to provide evidence that the equilibrium is being maintained if required in writing by the Division of Water Quality (DWQ). If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the DWQ for guidance on how to proceed and to determine whether a permit modification will be required.
2. The permittee shall use *Design Standards in Sensitive Watersheds* [15A NCAC 4B.0124(a)-(e)]. Temporary cover (wheat, millet, or similar annual grain) or permanent herbaceous cover should be planted on all bare soil within 15 days of ground disturbing activities to provide long term erosion control. Erosion control matting should be used in conjunction with appropriate seeding on disturbed soils in steep slope and riparian areas. Matting should be secured in place with staples, or wherever possible, live stakes of native trees. Straw mulch and tall fescue shall **not** be used in riparian areas.
3. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.
4. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pretreated through site appropriate means (grassed swales, pre-formed scour holes, vegetated buffers, etc.) before entering the stream. Please refer to the most current version of *Stormwater Best Management Practices*.
5. During construction of the project, no staging of equipment, of any kind, is permitted in waters of the U.S. or protected riparian buffers.
6. 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 should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.



7. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
8. 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 the 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.
9. 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.
10. 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.
11. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this Certification.
12. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this Certification.
14. 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.
15. Native riparian vegetation must be re-established within the construction limits of the project by the end of the growing season following completion of construction.
16. 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 be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
17. 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 water standards.



18. 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*. 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. The reclamation measures and implementation must comply with the requirements of the Sedimentation Pollution Control Act.
19. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.
20. Compensatory mitigation for 3,202 linear feet of stream **and** 0.353 acres of impacts to riverine and non-riverine wetlands is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams and wetlands through the North Carolina Ecosystem Enhancement Program (EEP) and that the EEP has agreed to implement the mitigation for this project. EEP has indicated in a letter dated April 20, 2006 that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above referenced project, in accordance with the Tri-Party MOA signed on July 22, 2003, and the Dual-Party MOA signed on April 12, 2004.
21. A copy of this Water Quality Certification shall be posted 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. Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.
23. The permittee and its authorized agents shall conduct its activities in a manner consistent with State Water Quality Standards [including any requirements resulting from compliance with 303(d) of the Clean Water Act] and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use), that State or Federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may re-evaluate and modify this certification.

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 this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699-6714. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

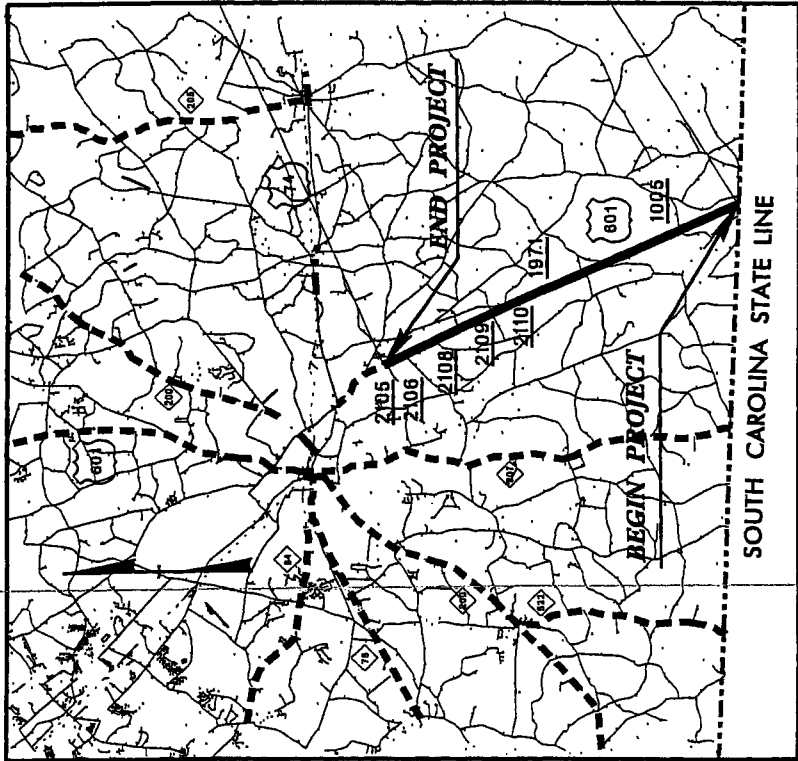
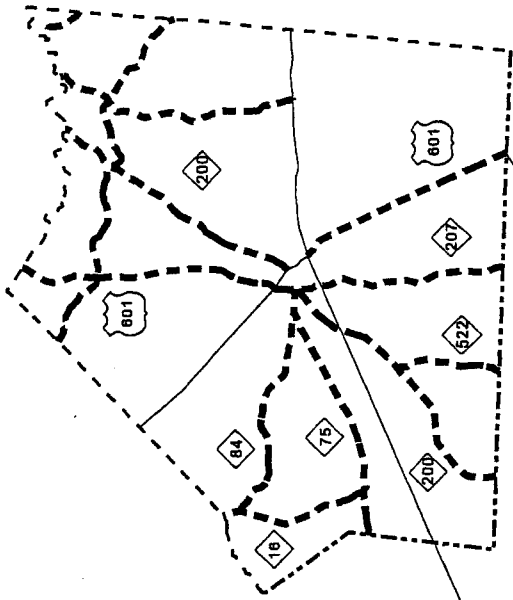
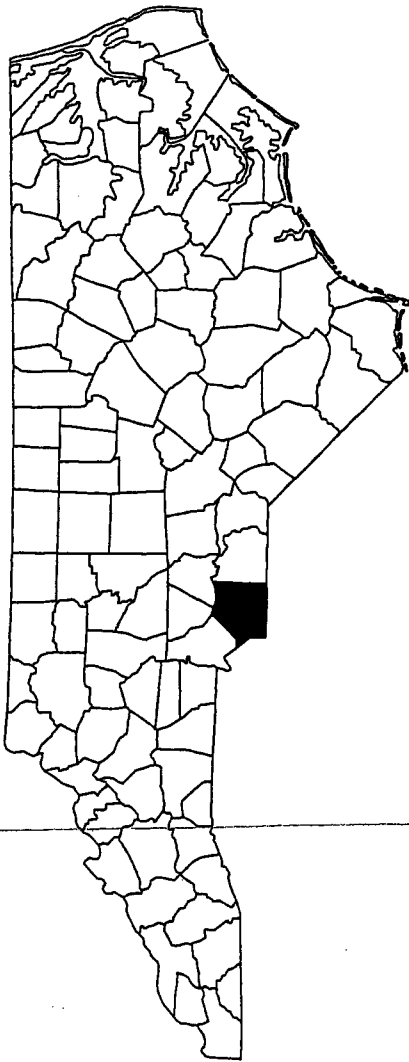
This the 27th day of June 2006

DIVISION OF WATER QUALITY

A handwritten signature in black ink, appearing to read "Alan W. Klimek", is written over the typed name and title.

Alan W. Klimek, P.E.
Director

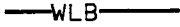


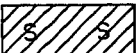


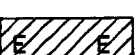

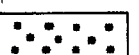

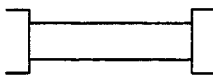
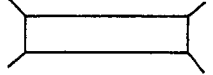




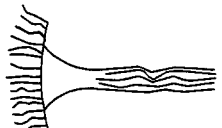




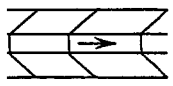
WQC No. 3579



N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
UNION COUNTY
PROJECT 34485.1.2 (R-2616 A&B)
US 601 FROM THE SOUTH
CAROLINA STATE LINE
TO NORTH OF
SR 2105 (MARION LEE RD.)

Permit Drawings Sheet / of 66

WETLAND LEGEND

- | | |
|---|---|
| <p>— WLB — WETLAND BOUNDARY</p> <p> WETLAND BOUNDARY</p> <p> WETLAND</p> <p> DENOTES FILL IN WETLAND</p> <p> DENOTES PERM. SURFACE WATER IMPACTS</p> <p> DENOTES FILL IN SURFACE WATER (POND)</p> <p> DENOTES TEMPORARY FILL IN WETLAND</p> <p> DENOTES EXCAVATION IN WETLAND</p> <p> DENOTES TEMPORARY SURFACE WATER IMPACT</p> <p> DENOTES MECHANIZED CLEARING</p> <p>→ → FLOW DIRECTION</p> <p>— TB — TOP OF BANK</p> <p>— WE — EDGE OF WATER</p> <p>— C — PROP. LIMIT OF CUT</p> <p>— F — PROP. LIMIT OF FILL</p> <p>▲ PROP. RIGHT OF WAY</p> <p>— NG — NATURAL GROUND</p> <p>— PL — PROPERTY LINE</p> <p>— TDE — TEMP. DRAINAGE EASEMENT</p> <p>— PDE — PERMANENT DRAINAGE EASEMENT</p> <p>— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY</p> <p>— EPB — EXIST. ENDANGERED PLANT BOUNDARY</p> <p>▽ WATER SURFACE</p> <p>x x x x x
x x x x x LIVE STAKES</p> <p> BOULDER</p> <p>— COIR FIBER ROLLS</p> | <p> PROPOSED BRIDGE</p> <p> PROPOSED BOX CULVERT</p> <p> PROPOSED PIPE CULVERT
12"-48"
PIPES
54" PIPES & ABOVE</p> <p>(DASHED LINES DENOTE EXISTING STRUCTURES)</p> <p> SINGLE TREE</p> <p> WOODS LINE</p> <p> DRAINAGE INLET</p> <p> ROOTWAD</p> <p> RIP RAP</p> <p> ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE</p> <p> PREFORMED SCOUR HOLE</p> <p> LEVEL SPREADER (LS)</p> <p> DITCH / GRASS SWALE</p> |
|---|---|

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
UNION COUNTY
PROJECT 34485.1.2 (R-2616 A&B)

US 601 FROM THE SOUTH
CAROLINA STATE LINE
TO NORTH OF
SR 2105 (MARION LEE RD)

IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size	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)	Exist. Chan. Impacts Permanent (ft)	Exist. Chan. Impacts Temp. (ft)	Natural Stream Design (ft)			
1A	L 24+12	2 @ 42" RCP	0.013			0.023					0.007	0.001	104	10	
1	L 102+00 to 106+50	2 @ 54" RCP									0.02	0.01	223	75	
2	L 119+34	3 @ 10'X8' RCBC									0.08	0.01	166	40	
3	L 129+50	(2) 2 SPAN@65' BRIDGE										0.15			39**
4	L 148+91 LT	42" RCP									0.003	0.001	48	10	
5	L 180+30 RT & LT	48" RCP									0.02	0.003	240	47	
6	L 180+68 LT	48" RCP	0.006			0.003									
7	L 180+30 to 183+00 LT	Earthen Fill									0.03	0.004	215	10	
8A	L 206+00	36" RCP									0.01	0.001	150	10	
8	L 215+70 RT	24" RCP	0.006			0.003									
9	L 221+70 LT	Drain Pond									0.83				
10	L 231+20	54" RCP	0.034			0.013					0.01	0.001	170	22	
11	L 242+35	66" RCP									0.04	0.003	161	20	
12	L 248+30 to 251+09	48" RCP									0.04	0.003	290	22	
13	L 281+51	12'X10' RCBC									0.04	0.01	128	40	
14	L 288+06.5	2 @ 8'X7' RCBC									0.04	0.01	124	62	
15	L 290+00 to 294+30	2 @ 30" RCP									0.06	0.010	466	62	
16	L 315+56 *	16'X8' Bottomless Structure									0.01	0.08	25	240	40*
17	L 342+00 LT	Drain Pond									0.31				
18	L 349+50 RT	Road Fill; Temp Drain Pond	0.040								0.08	0.81			
19	L 349+50 LT	Drain Pond									0.47				
20	L 400+00 RT	Drain Pond									0.58				
21	L 422+00 LT	Drain Pond									0.45				
22	L 426+03 to 430+50	54" RCP									0.03	0.001	460	30	
23	L 474+07 to 476+41	24" RCP	0.110			0.005									
23A	L 495+00	42" RCP									0.01	0.001	160	30	
24	L 534+20	48" RCP									0.01	0.001	151	30	
25	L 549+60	36" RCP	0.030			0.027									
26	L 575+85 LT	24" RCP									0.29				
TOTALS:			0.24	0.00	0.00	0.07	0.00	0.00	0.00	0.00	3.47	1.11	3281	910	0

* Stream replacement by addition of bottomless culvert.

** Stream that is currently culverted that will be spanned.

*** Wetland adjacent to drained pond- dewatered wetland.

SHEET

NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
UNION COUNTY
WBS - 34485.122 (R-2616)

Apr-06

PROPERTY OWNERS

PARCEL NO.	NAMES	ADDRESSES
26	ANNE M. COLLINS	
27	MARION F. COX DELANO, S. COX JOHN ROBERT COX RUTH C. COX	
28	DAVID MICHAEL BOOTH WENDY M. BOOTH	
29	ANNL P. HOWEY	
36	JERRY E. THOMAS ELSIE L. THOMAS	
39	WILLIAM HOLT EARNHART JANET GODWIN EARNHART	
37	TRUSTEES OF GALILEE BAPTIST CHRCH	
40	MILDRED S. SUTTON	
44	PHILLIP EDWARD DEESE	
46	BURL H. GRIFFIN DOROTHY H. GRIFFIN	
47	GERALD K. HARGETT DIANE R. HARGETT	
56	ROY L. WALTERS ELAINE R. WALTERS	
55	ANNE M. BAUCOM	
58	CAROL B. INGRAM	

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
UNION COUNTY
PROJECT 34485.12 (R-2616 A&B)

US 601 FROM THE SOUTH
CAROLINA STATE LINE
TO NORTH OF
SR 2105 (MARION LEE RD)

PROPERTY OWNERS

PARCEL NO.

NAMES

ADDRESSES

57	MANGUM FAMILY PARTNERSHIP, L.P.	
59	CARL W. MANGUM, JR.	
69	ROGER V. LANE JEANETTE F. LANE	
70	BUDDY HOWELL DYER	
71	B.D. PARKER LOIS L. PARKER	
72	BETTY R. KRIMMINGER	
82	WALTER E. ALBRIGHT CAROL J. ALBRIGHT	---
83	HUBER DRAKE	
97	TAE HYUN CHUN IN SOOK CHUN	
115	DELORES P. PEREZ	
114	JOHNNY R. WALKER JULIE WALKER	
136	JAMES W. SELF NANCY W. SELF	
135	CELESTE A. BRYCHEK	
137	WILLIAM B. MULDROW BETTY W. MULDROW	
159	STEPHANIE M. CRIPE THOMAS JOSEPH CRIPE	

N. C. DEPT. OF TRANSPORTATION
~~DIVISION OF HIGHWAYS~~
UNION COUNTY
PROJECT 34485.1.2 (R-2616 A&B)

US 601 FROM THE SOUTH
CAROLINA STATE LINE
TO NORTH OF
SR 2105 (MARION LEE RD)

Permit Drawings Sheet 5 of 66

PROPERTY OWNERS

PARCEL NO.

NAMES

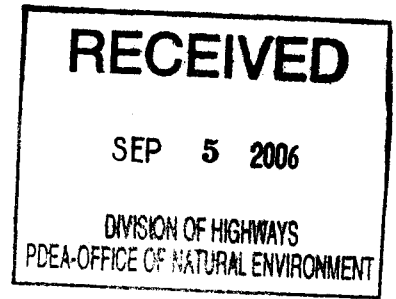
ADDRESSES

161	GARREN BLAIR DEAN PEGGY R. DEAN	
160	DENNIS M. SUTTON REBECCA M. SUTTON	
162	FRANCES C. VICK	
167	THOMAS F. RITZ BARBARA A. RITZ	
168	AADELADE C. CLAWSON	
173	FRANCES C. VICK	

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
UNION COUNTY
PROJECT 34485.12 (R-2616 A&B)

US 601 FROM THE SOUTH
CAROLINA STATE LINE
TO NORTH OF
SR 2105 (MARION LEE RD.)

Permit Drawings Sheet 6 of 66



June 2, 2006

Mr. Steve Lund
U. S. Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

Dear Mr. Lund:

Subject: EEP Mitigation Acceptance Letter:

R-2616, US 601 Widening, Union County from the South Carolina State Line to North of SR 2105 (Marion Lee Road); Yadkin River Basin (CU 03040105); Southern Piedmont (SP) Eco-Region

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) is willing to provide compensatory wetland and stream mitigation for the unavoidable impacts associated with the above referenced project. The impacts as reported by the NCDOT in their April 7, 2006 mitigation request are as follows:

Riparian Wetland Impacts:	0.158 acre
Non-Riparian Wetland Impacts:	0.195 acre
Stream Impacts:	3,202 feet

This mitigation strategy letter replaces the mitigation strategy letters issued on July 19, 2005, January 31, 2006, and April 20, 2006. Mitigation for this project will be provided in accordance with Section X of the Memorandum of Agreement between the N. C. Department of Environment and Natural Resources, the N. C. Department of Transportation, and the U. S. Army Corps of Engineers signed on July 22, 2003. EEP commits to implement sufficient compensatory wetland and stream mitigation up to a 2:1 ratio to offset the impacts associated with this project by the end of the MOA year in which this project is permitted. If the impacts change from the above listed amount, then this mitigation strategy letter will no longer be valid and a new mitigation strategy letter will be required from EEP.

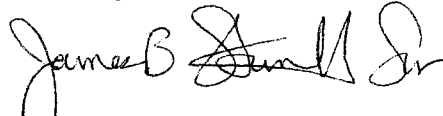
Restoring... Enhancing... Protecting Our State



Mr. Steve Lund
June 2, 2006
Page Two

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-715-1929.

Sincerely,

A handwritten signature in black ink, appearing to read "James B. Gilmore, P.E.", written in a cursive style.

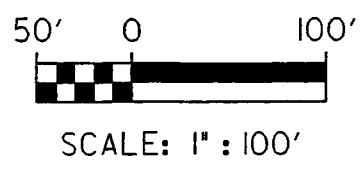
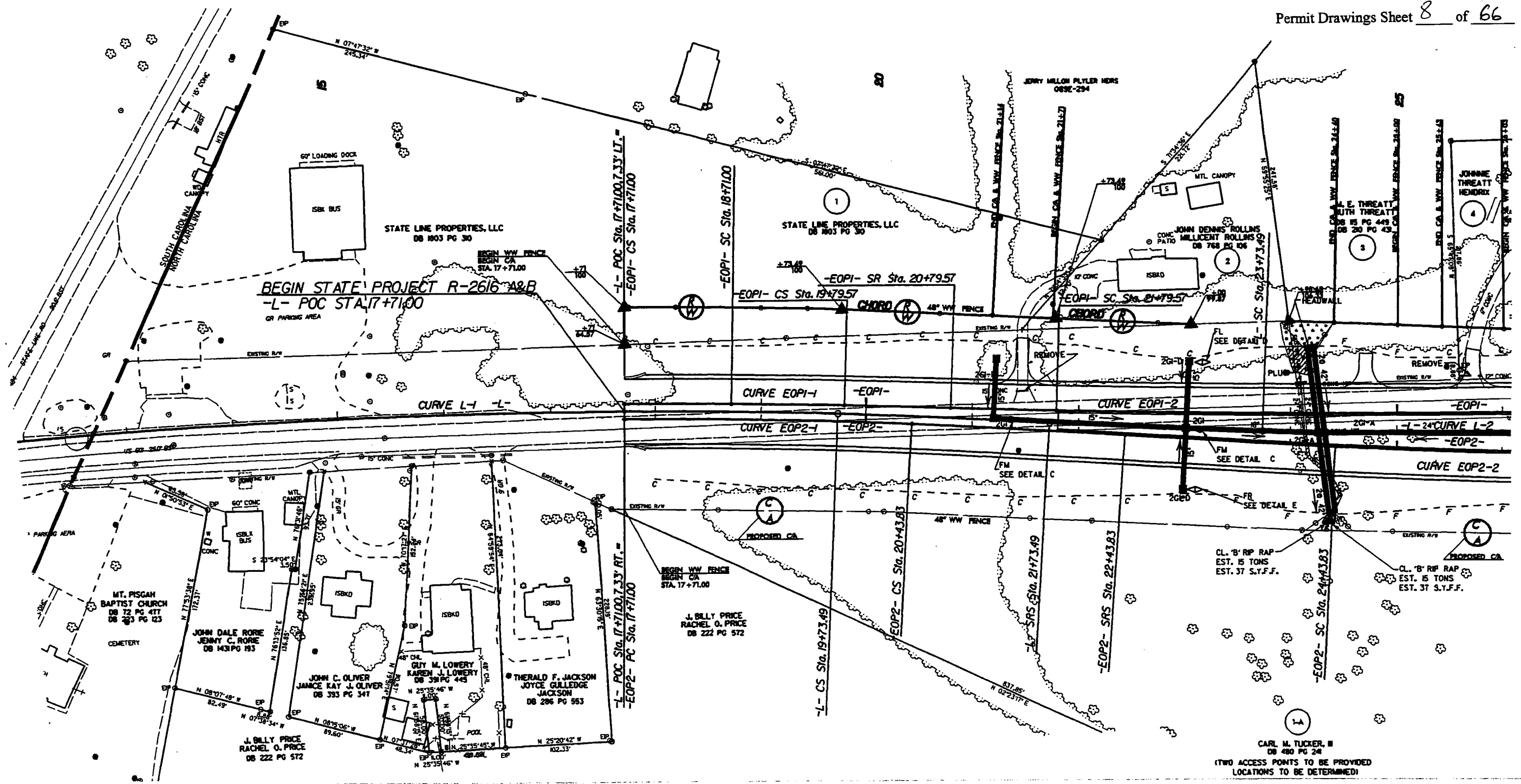
William D. Gilmore, P.E.
EEP Director

cc: Mr. Gregory J. Thorpe, Ph.D., NCDOT-PDEA
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit
File: R-2616 Revised

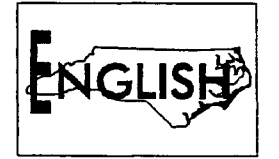
SITE 1A -L- 24+12

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR S.F.F. ACCURACY</small>	

Permit Drawings Sheet 8 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

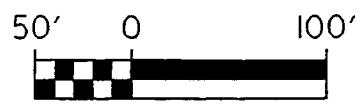
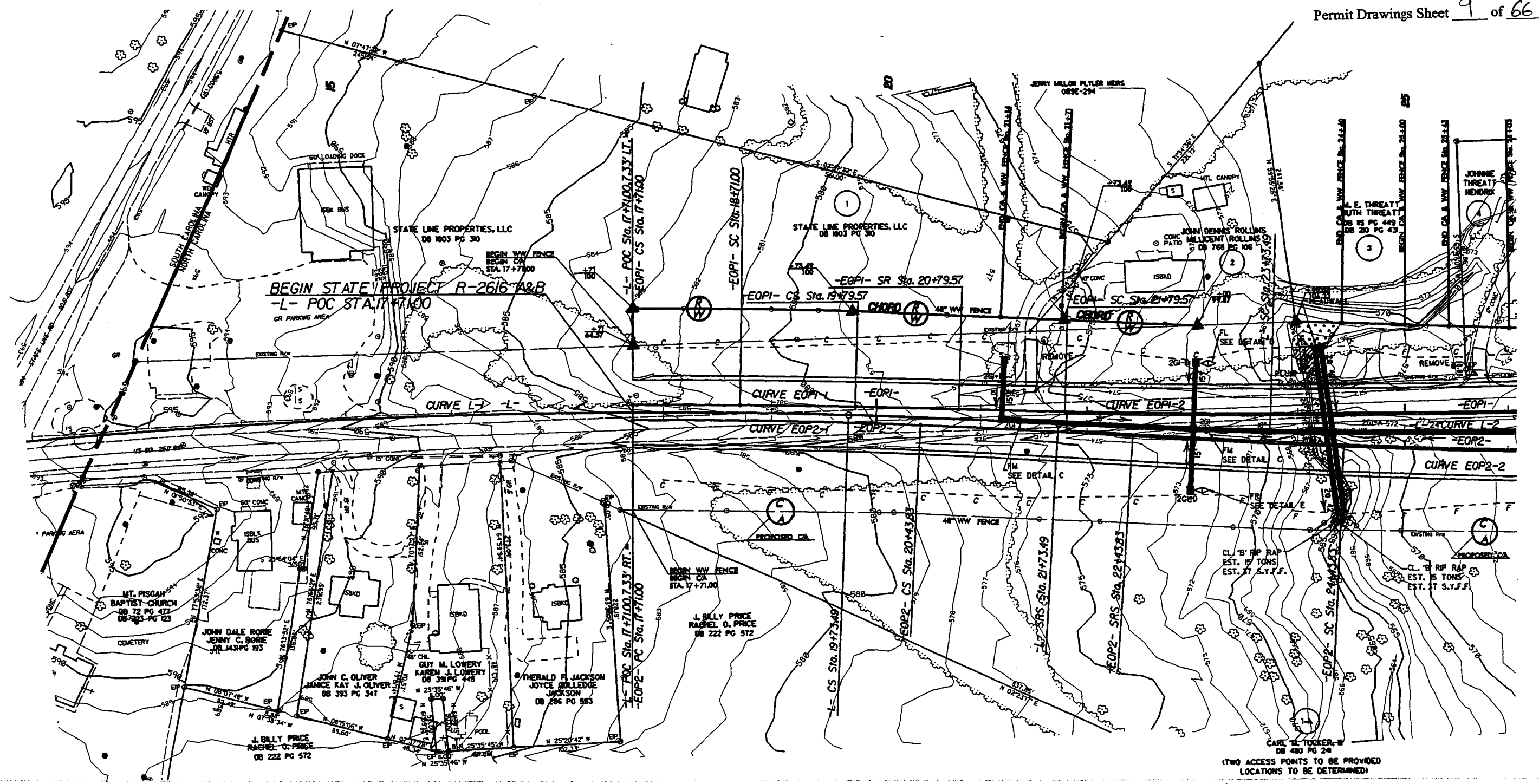


SITE 1A -L- 24+12

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	



Permit Drawings Sheet 9 of 66



SCALE: 1" = 100'

- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

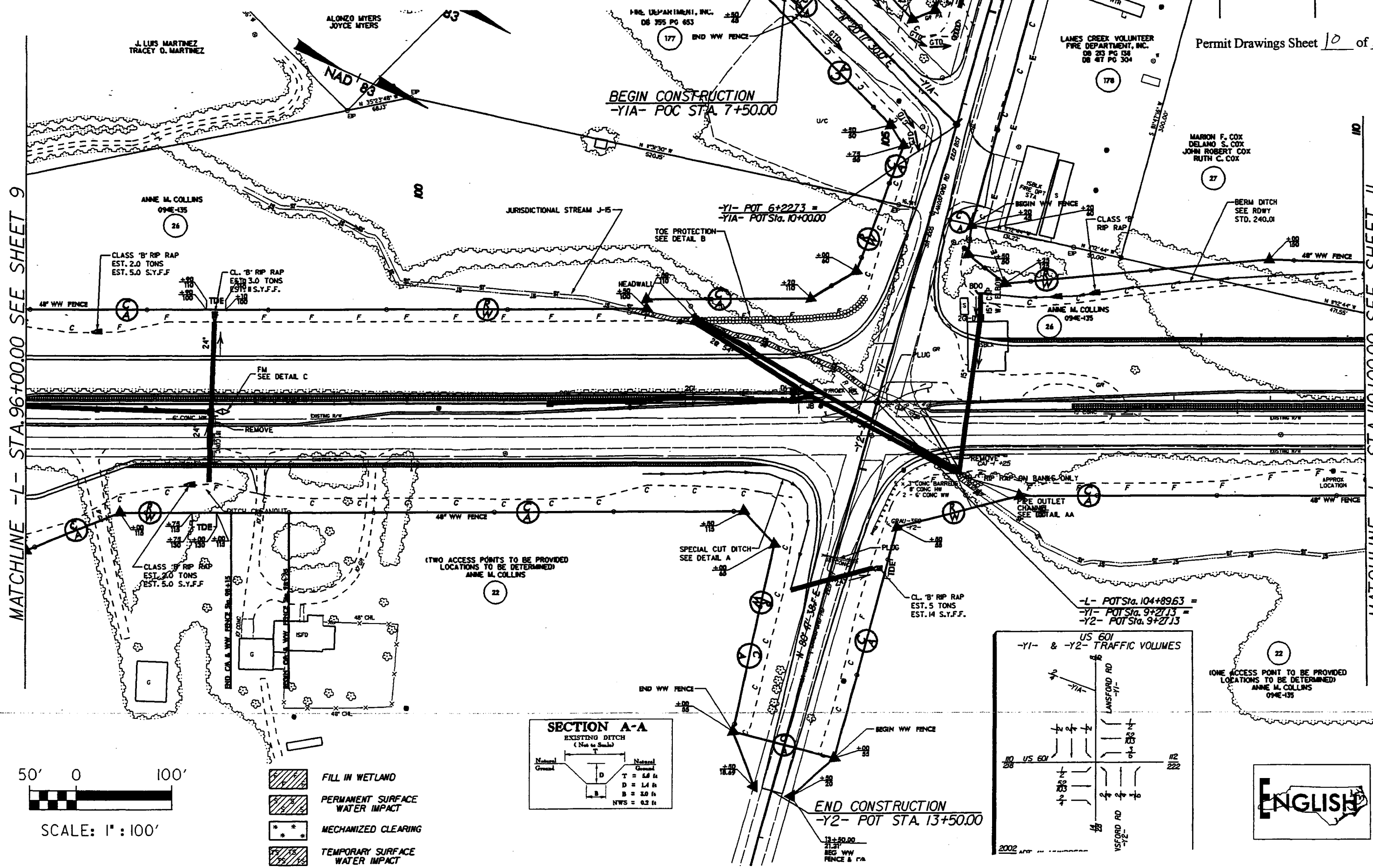


(TWO ACCESS POINTS TO BE PROVIDED
LOCATIONS TO BE DETERMINED)

SITE 1 -L- 102+40

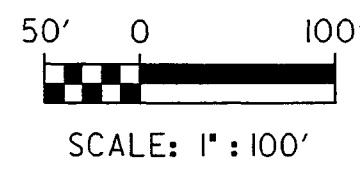
PROJECT REFERENCE NO. R-2416 A&B	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR A/T ACCURACY</small>	

Permit Drawings Sheet 10 of 66

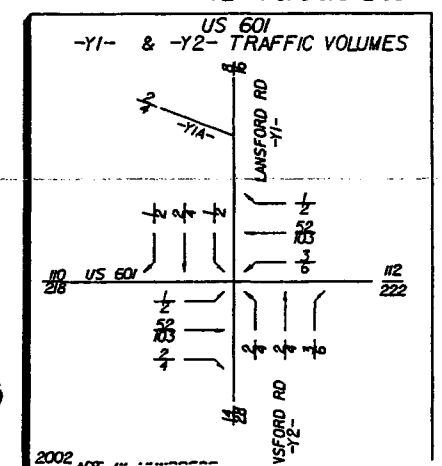
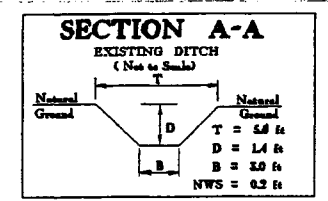


MATCHLINE -L- STA. 96+00.00 SEE SHEET 9

MATCHLINE -L- STA. 10+00.00 SEE SHEET 11



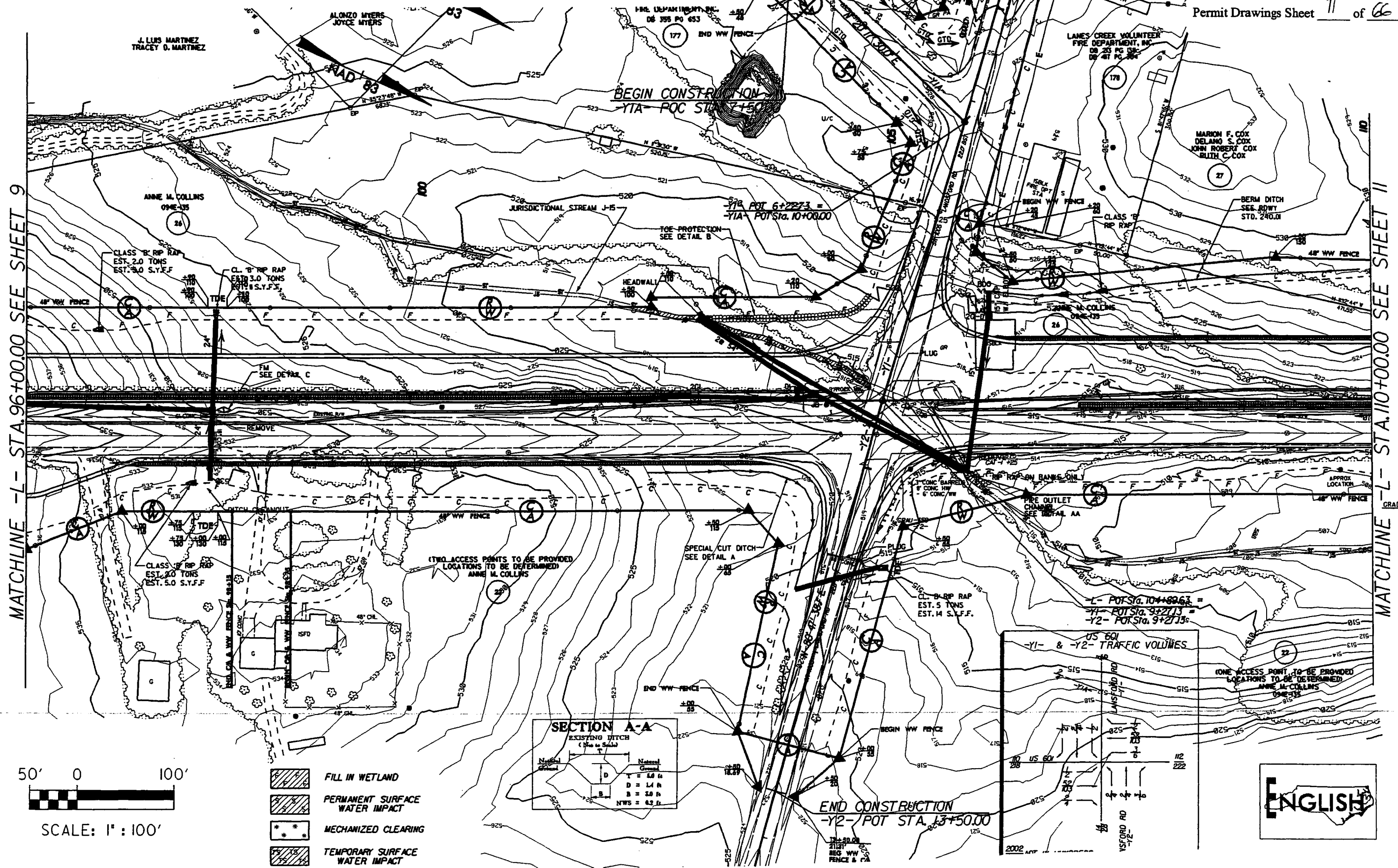
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 1 -L- 102+40

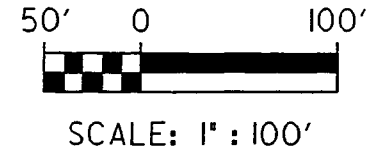
PROJECT REFERENCE NO. R-2414 A&B	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NO PART TO BE USED FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>NO PART TO BE USED FOR CONSTRUCTION</small>	

Permit Drawings Sheet 11 of 66

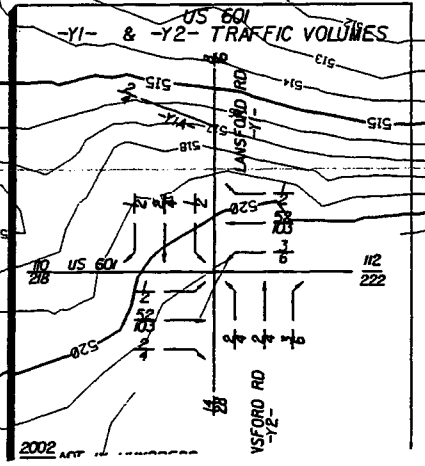
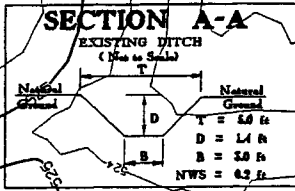


MATCHLINE -L- STA. 96+00.00 SEE SHEET 9

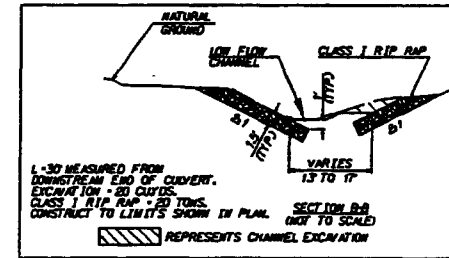
MATCHLINE -L- STA. 10+00.00 SEE SHEET 11



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

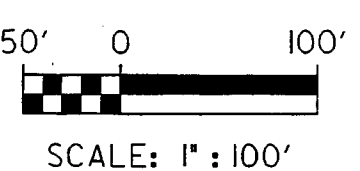
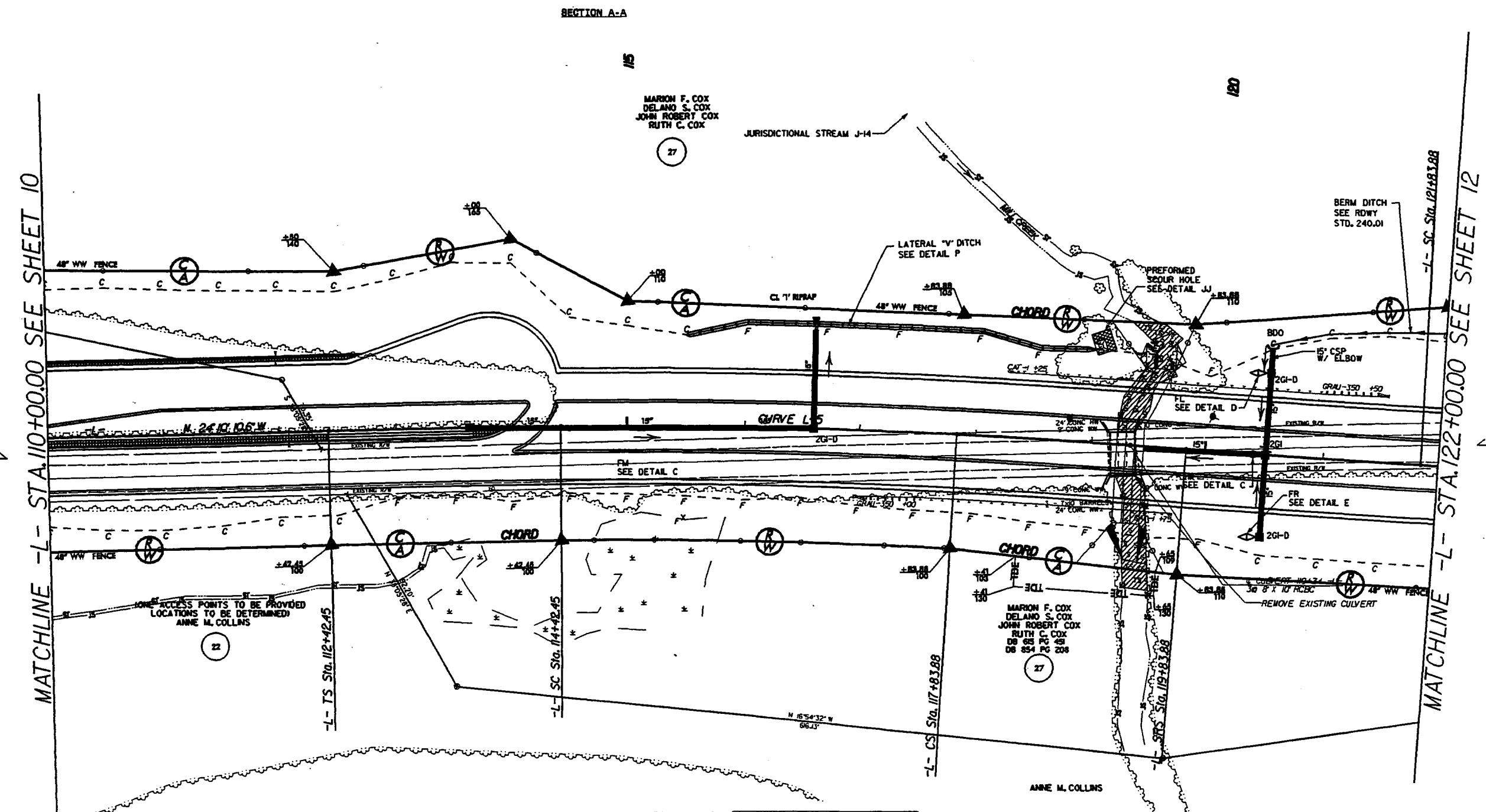


SITE 2 -L- STA 119+34

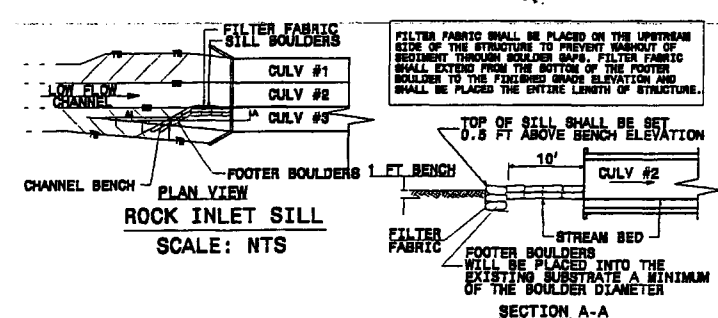


PROJECT REFERENCE NO. R-2416 A&B	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NO PART TO BE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>NO PART TO BE FOR CONSTRUCTION</small>	

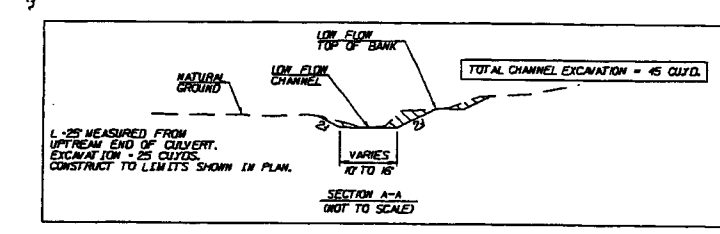
Permit Drawings Sheet 12 of 66



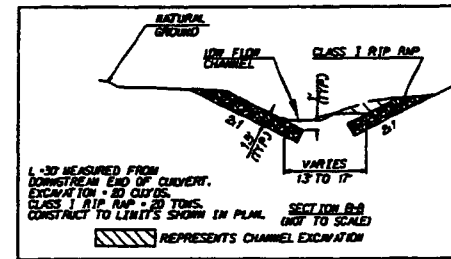
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



- NOTES:
1. ALL STONES ARE TO BE STRUCTURE STONE.
 2. GAPS BETWEEN BOULDERS SHALL BE MINIMIZED BY FITTING BOULDERS TOGETHER. JOINTS WITH STRUCTURE STONE CLASS A AND NO. 87 AND LINING WITH FILTER FABRIC.
 3. DIMENSIONS AND SIZES MAY BE ADJUSTED TO FIT BY THE ENGINEER.
 4. A DOUBLE FOOTER BOLDER SHALL BE UTILIZED IN SAND BED MATERIAL.
 5. FOOTER BOULDERS AND SILL BOULDERS SHALL BE NATIVE STONE OR BUILT ROCK, CUBICAL OR RECTANGULAR IN SHAPE.
 6. ACCEPTABLE BOULDERS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 3' x 3' x 1'.

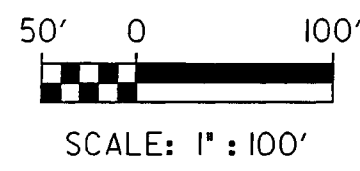
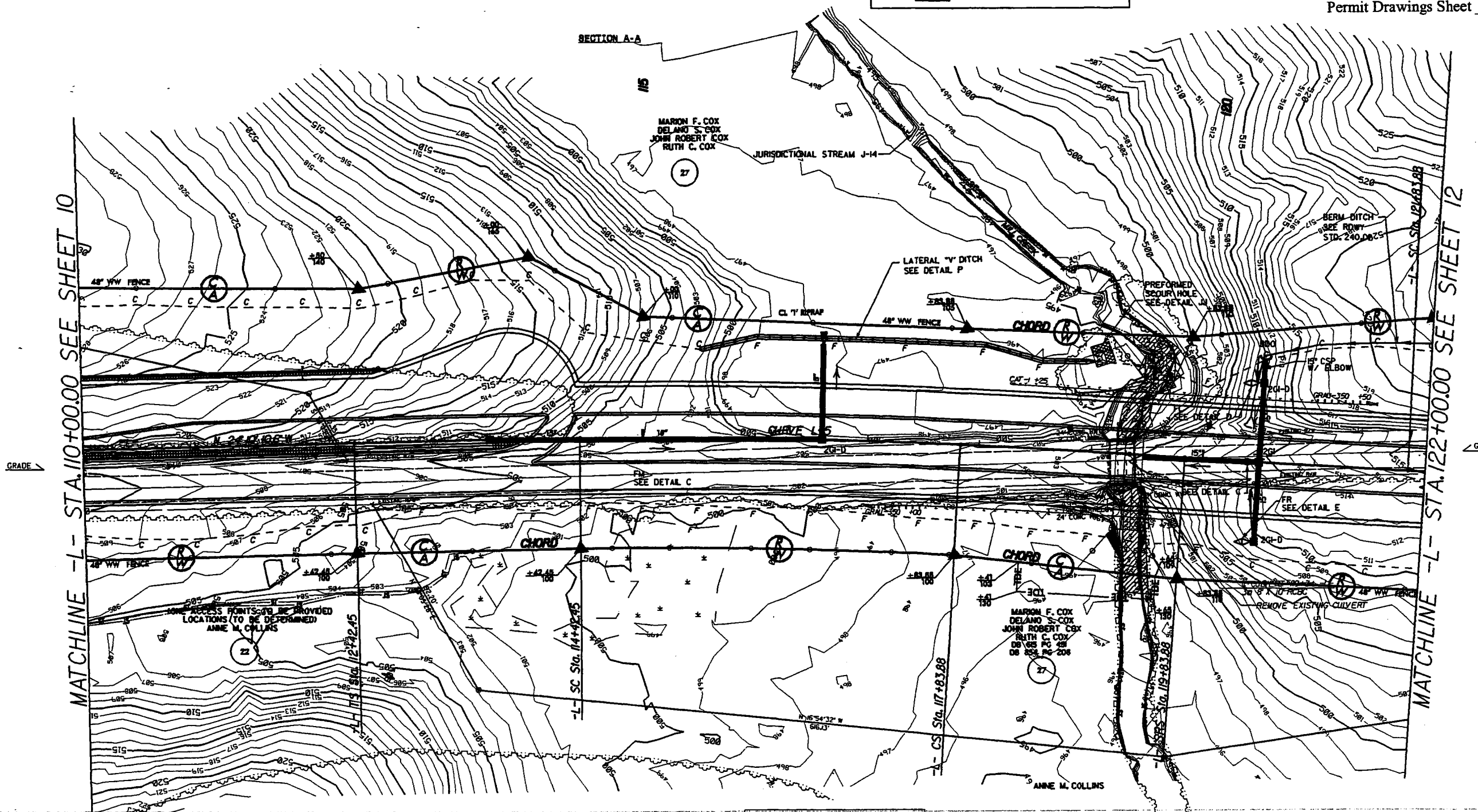


SITE 2 -L- STA 119+34

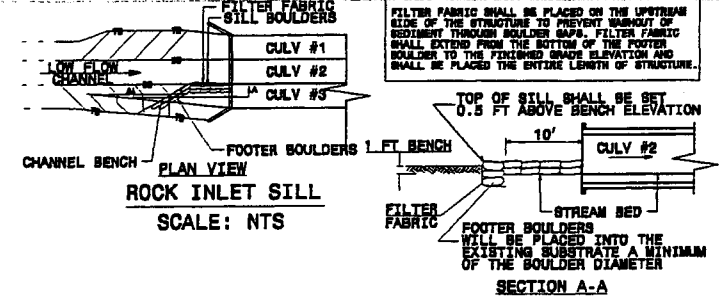


PROJECT REFERENCE NO. R-2614 AM	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

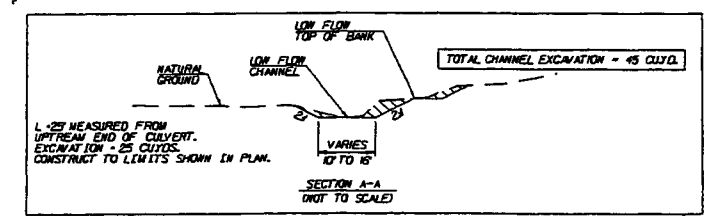
Permit Drawings Sheet 13 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



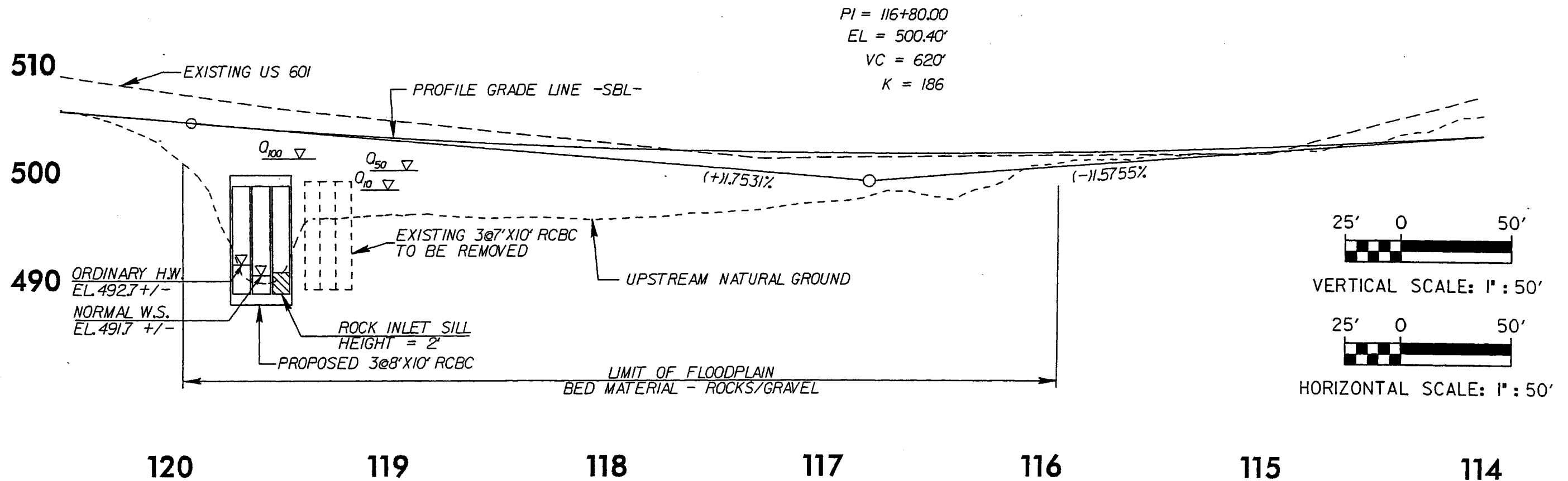
- NOTES:
1. ALL STONES ARE TO BE STRUCTURE STONE.
 2. GAPS BETWEEN BOULDERS SHALL BE MINIMIZED BY FITTING BOULDERS TOGETHER, FILLING WITH STRUCTURE STONE CLASS A AND NO. 57 AND LINING WITH FILTER FABRIC.
 3. DIMENSIONS AND SLOPES MAY BE ADJUSTED TO FIT BY THE ENGINEER.
 4. A DOUBLE FOOTER BOLDER SHALL BE UTILIZED IN ALL BENCH AREAS.
 5. FOOTER BOULDERS AND SILL BOULDERS SHALL BE NATIVE STONE OR BENT ROCK, CUBICAL OR RECTANGULAR IN SHAPE.
 6. ACCEPTABLE BOULDERS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 9" x 8" x 1'.



SITE 2 -L- STA 119+34

PROJECT REFERENCE NO. R-2016 ABB	SHEET NO. 11A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR U.T. ACQUISITION</small>	

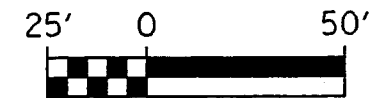
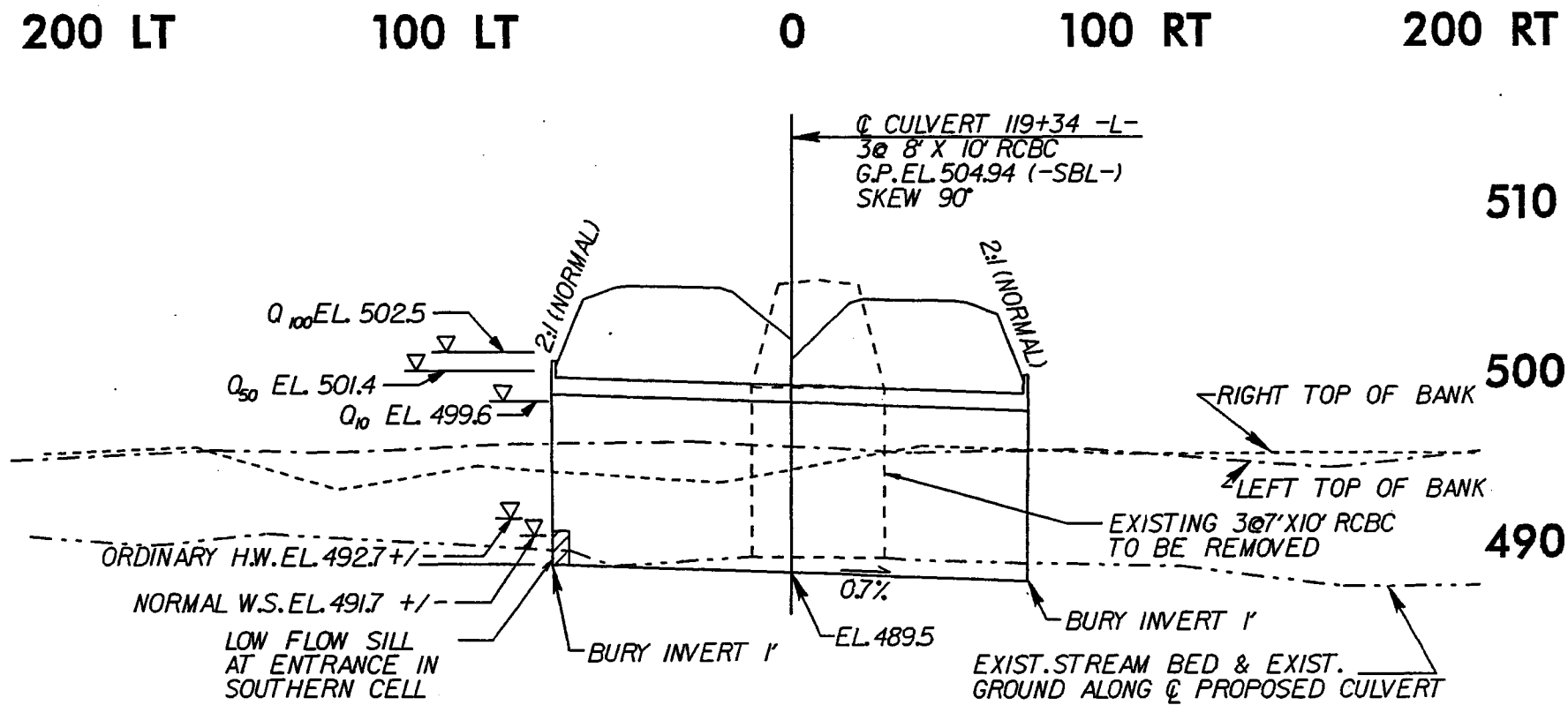
Permit Drawings Sheet 14 of 66



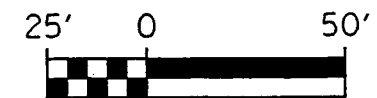
SITE 2 -L- STA 119+34

PROJECT REFERENCE NO. R-2616 AMB	SHEET NO. 118
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR U.P. APPLICATION</small>	

Permit Drawings Sheet 15 of 66



VERTICAL SCALE: 1" = 50'



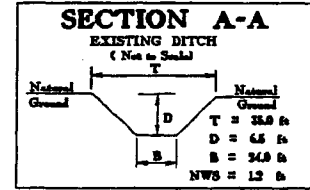
HORIZONTAL SCALE: 1" = 50'



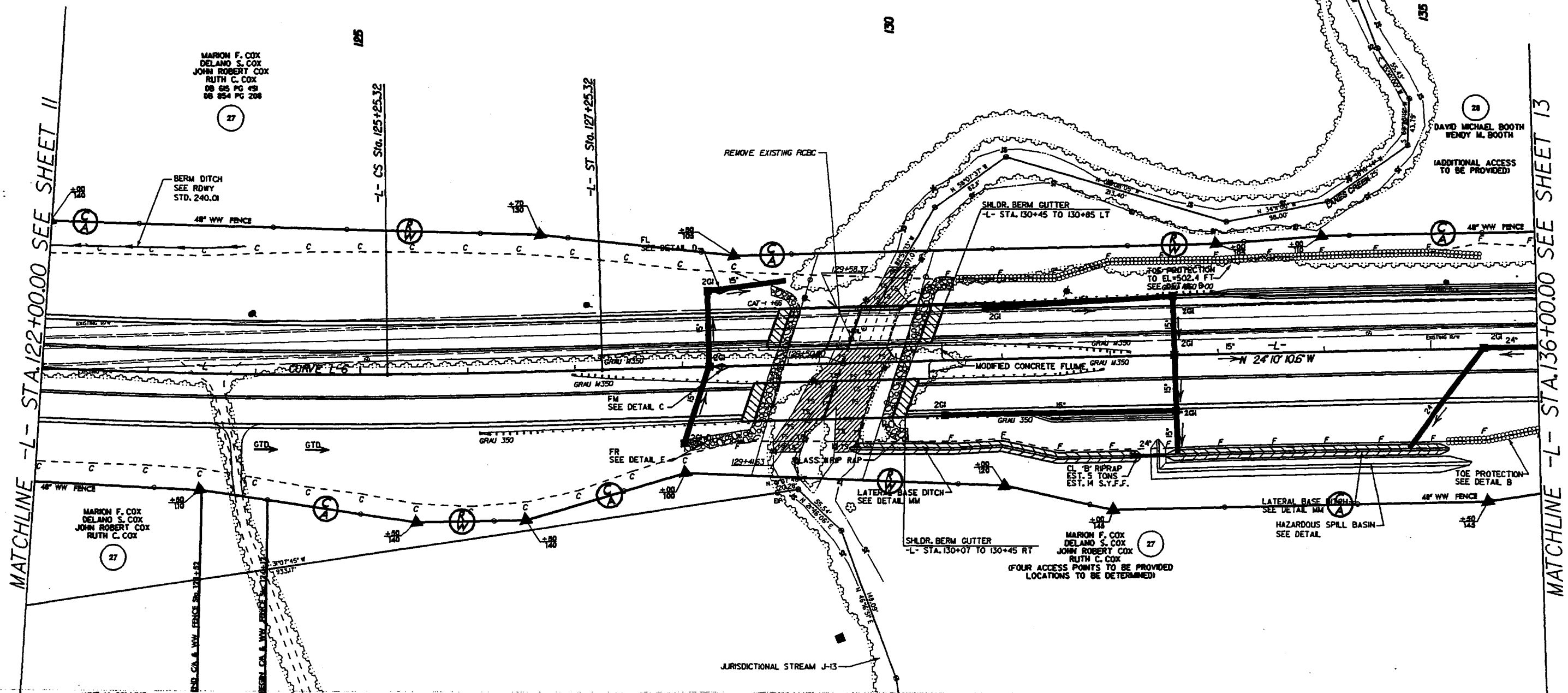
SITE 3 -L- STA. 129+50

PROJECT REFERENCE NO. R-2416 AM	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

Permit Drawings Sheet 16 of 66

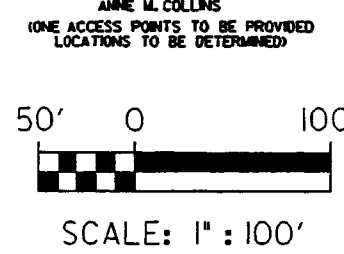


MARION F. COX
DELANO S. COX
JOHN ROBERT COX
RUTH C. COX
DB 65 PG 491
DB 65 PG 491



MATCHLINE -L- STA. 122+00.00 SEE SHEET 11

MATCHLINE -L- STA. 136+00.00 SEE SHEET 13

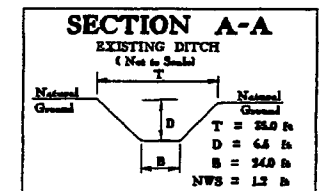


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

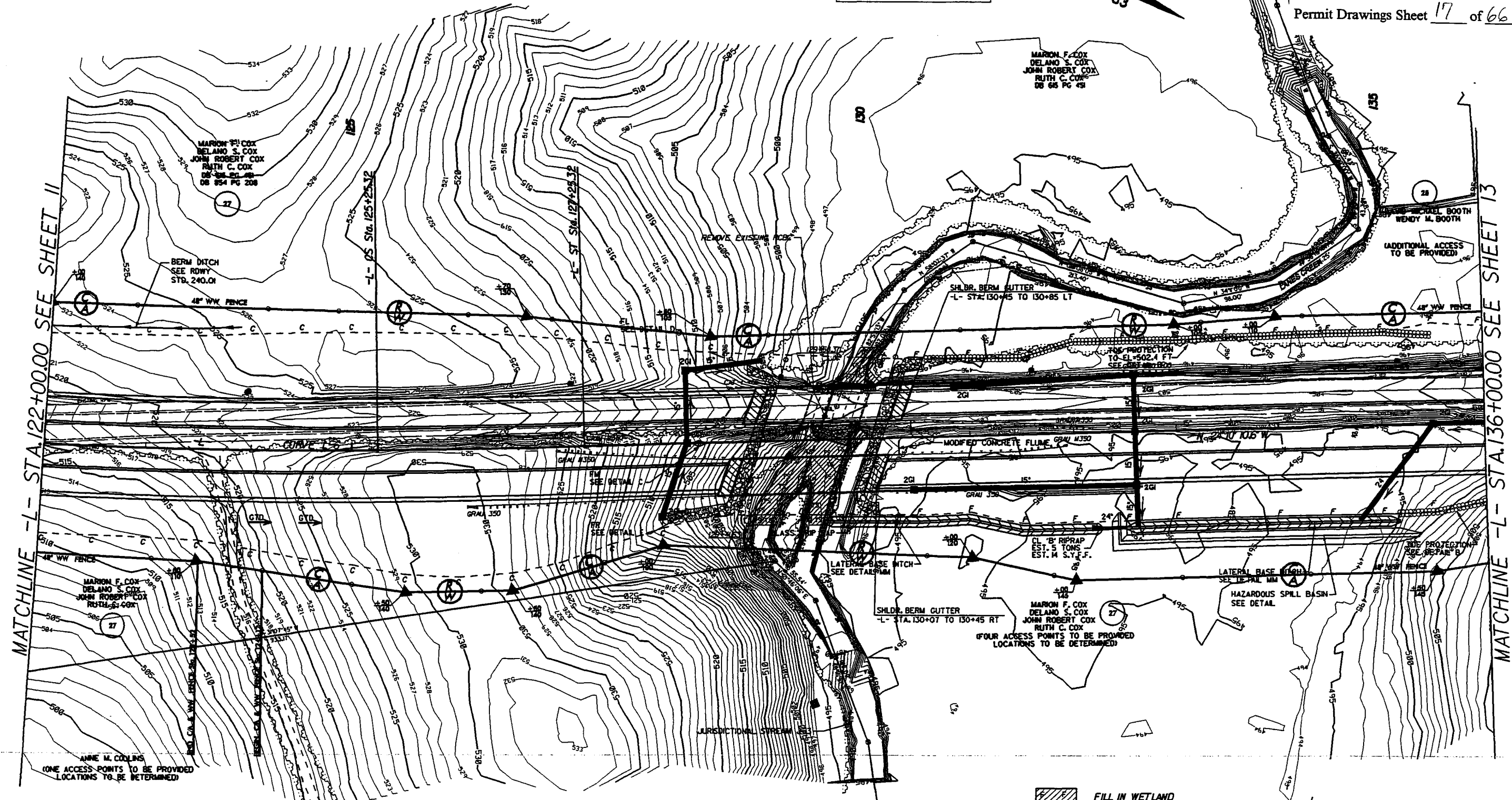


SITE 3 -L- STA. 129 + 50

PROJECT REFERENCE NO. R-2416 AM	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR R.F.W. ACQUISITION</small>	

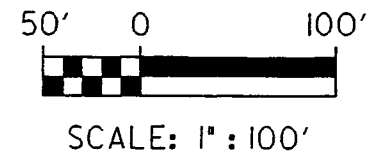


Permit Drawings Sheet 17 of 66



MATCHLINE -L- STA. 122+00.00 SEE SHEET 11

MATCHLINE -L- STA. 136+00.00 SEE SHEET 13



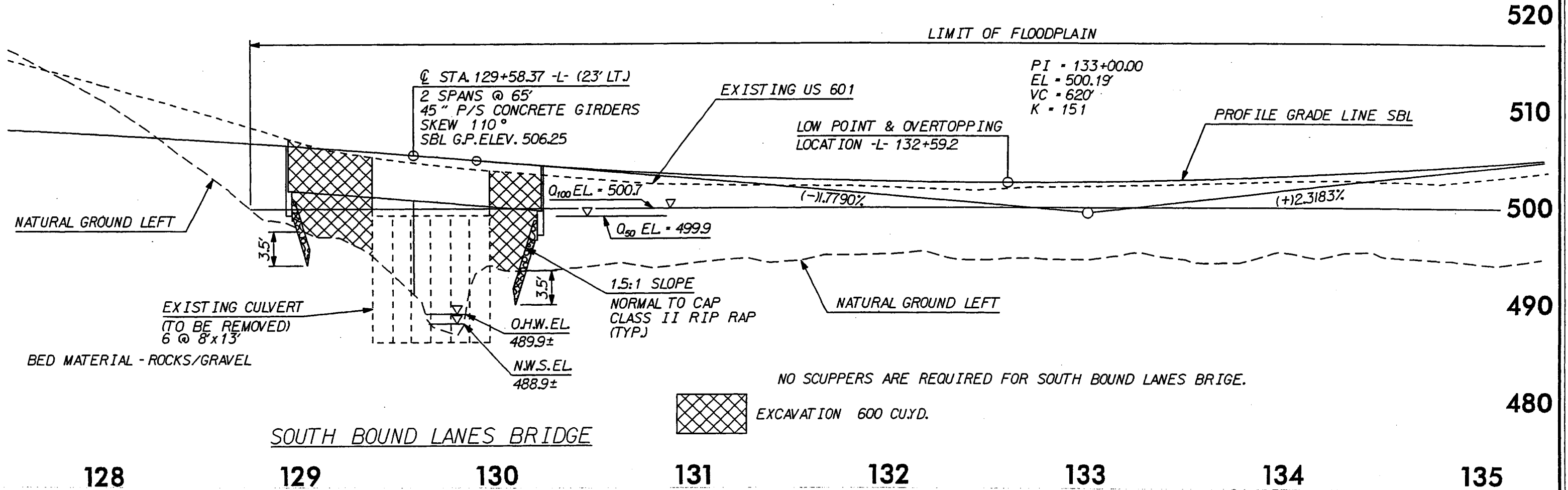
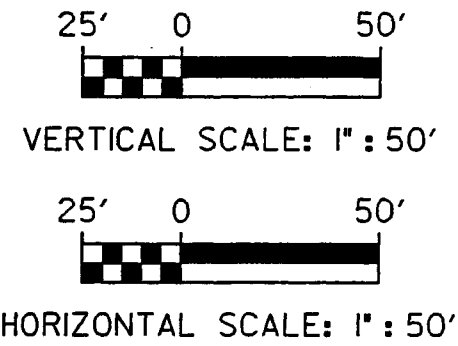
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 3 -L- STA 129+50

PROJECT REFERENCE NO. R-286 AB	SHEET NO. 12A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
INCOMPLETE PLANS	

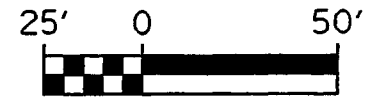
Permit Drawings Sheet 18 of 66



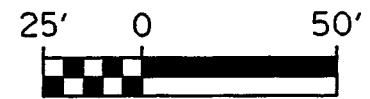
SITE 3 -L- STA 129+50

PROJECT REFERENCE NO. I-266 A&B	SHEET NO. 128
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR R/F ACQUISITION	

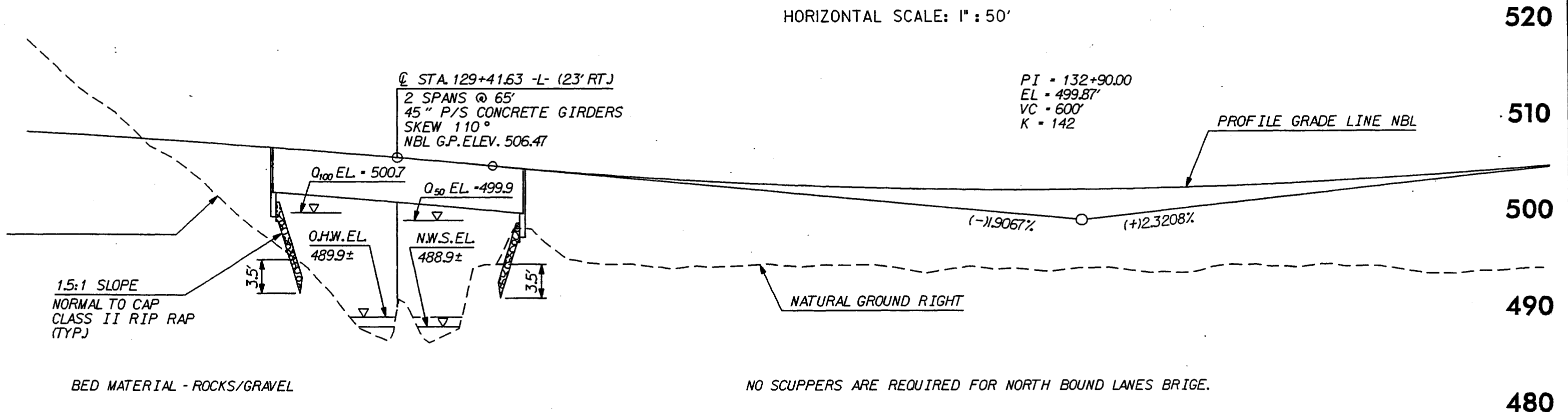
Permit Drawings Sheet 19 of 66



VERTICAL SCALE: 1" = 50'



HORIZONTAL SCALE: 1" = 50'



NORTH BOUND LANES BRIDGE

128

129

130

131

132

133

134

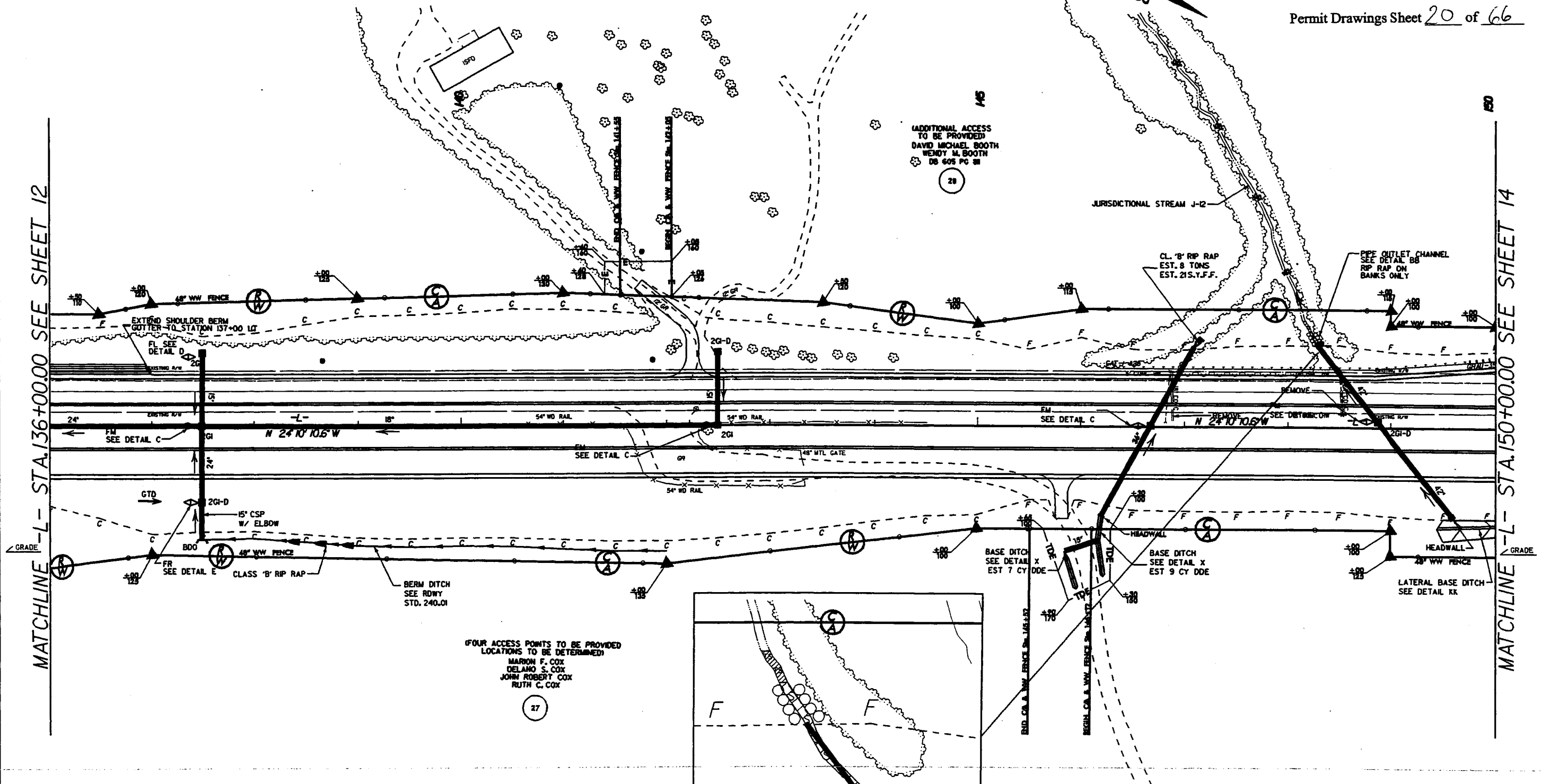
135



SITE 4 -L- STA. 148+91

PROJECT REFERENCE NO. R-3616 A&M	SHEET NO. 13
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS OR FOR ANY OTHER PURPOSE</small>	

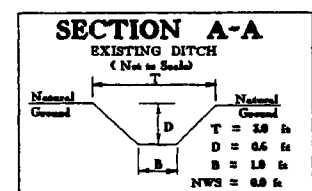
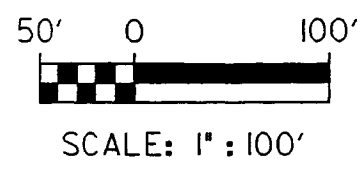
Permit Drawings Sheet 20 of 66



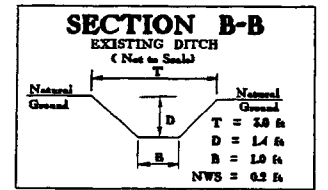
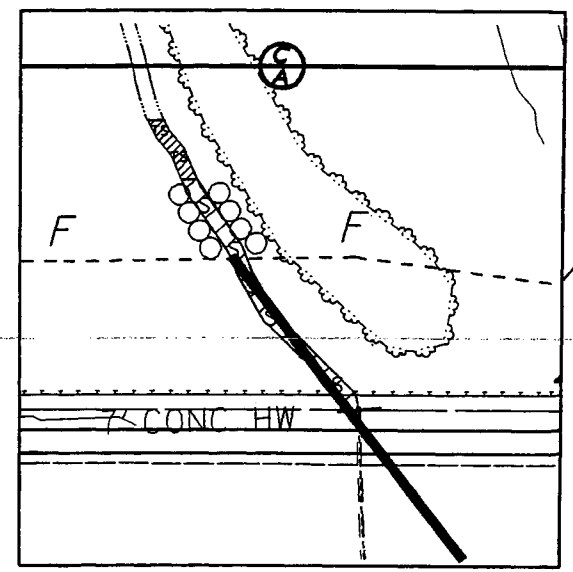
MATCHLINE -L- STA. 136+00.00 SEE SHEET 12

MATCHLINE -L- STA. 150+00.00 SEE SHEET 14

FOUR ACCESS POINTS TO BE PROVIDED
 LOCATIONS TO BE DETERMINED:
 MARION F. COX
 DELANO S. COX
 JOHN ROBERT COX
 RUTH C. COX



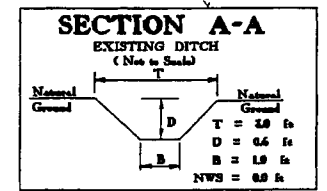
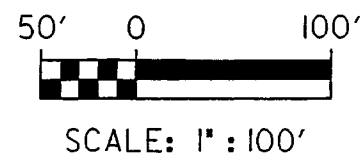
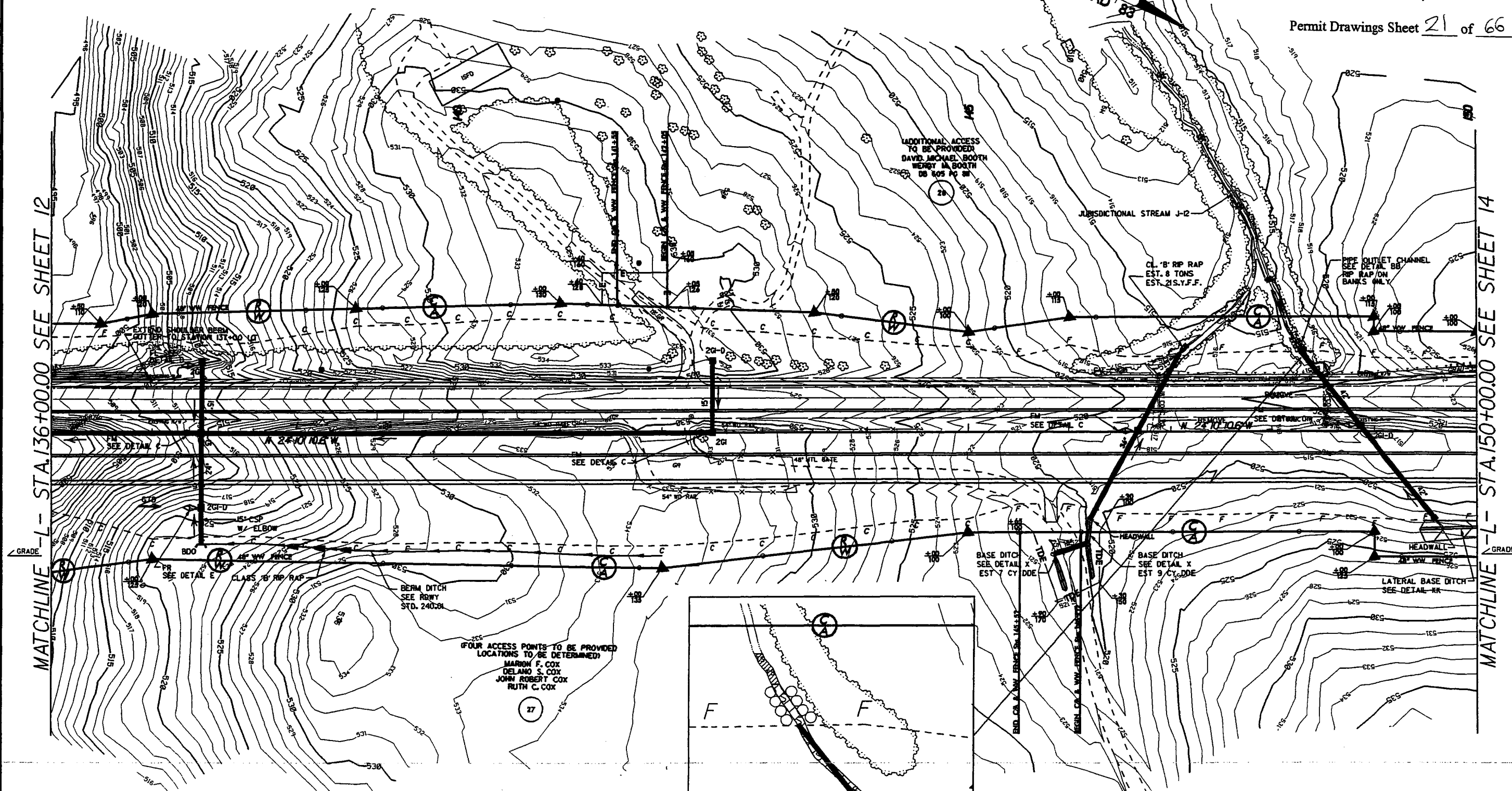
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



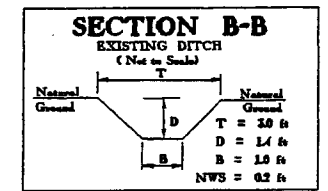
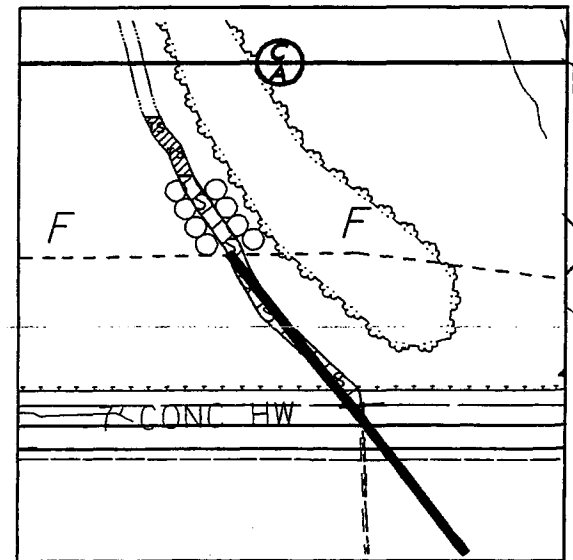
SITE 4 -L- STA. 148+91

PROJECT REFERENCE NO. R-2416 A&B	SHEET NO. 13
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

Permit Drawings Sheet 21 of 66



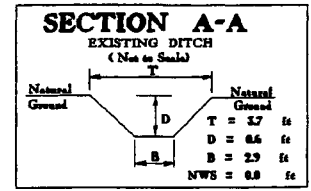
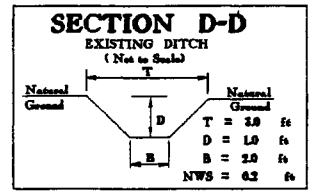
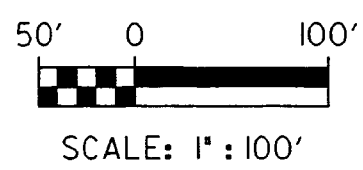
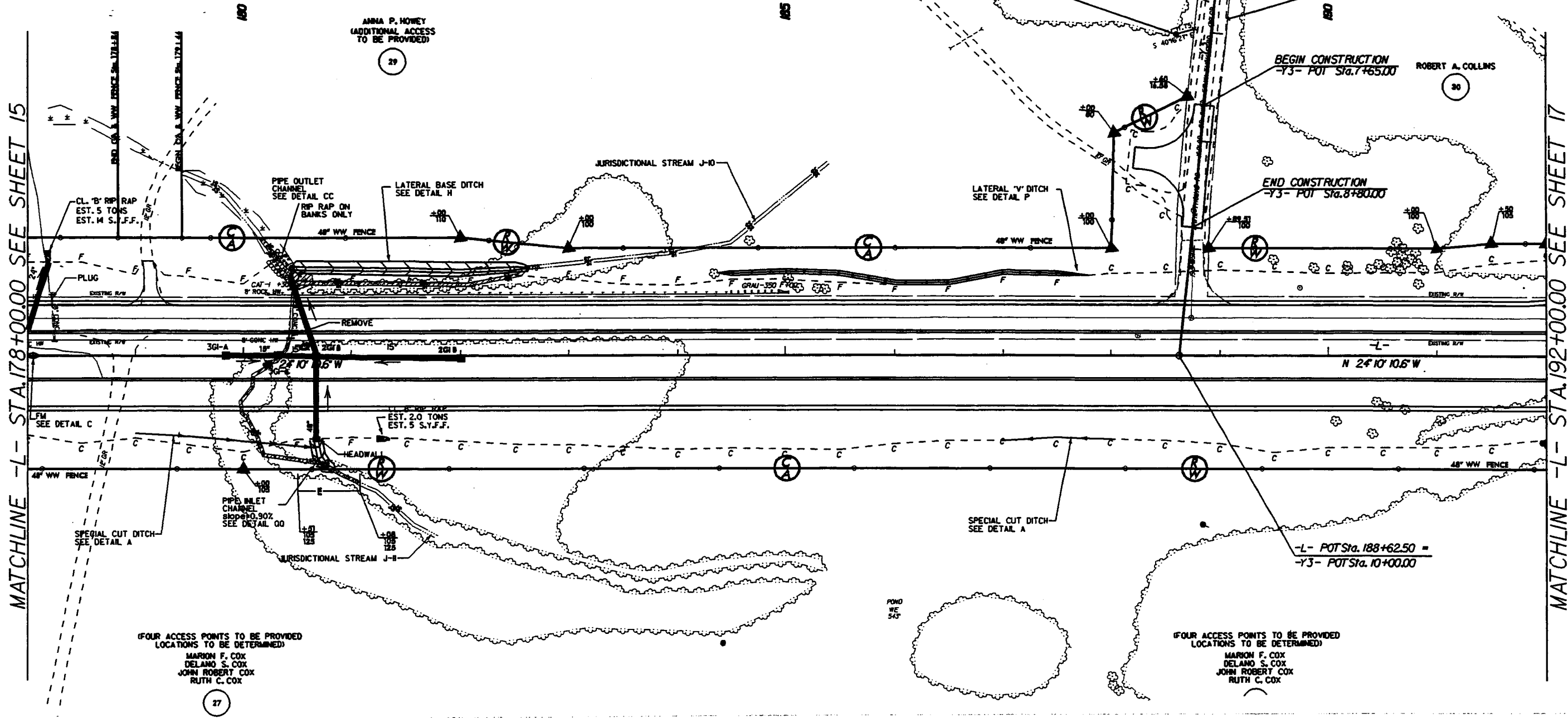
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



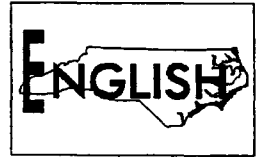
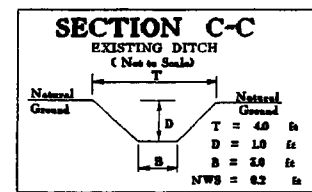
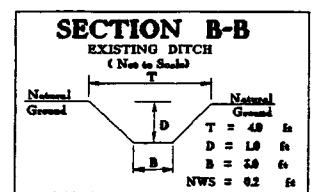
SITE 5 -L- STA. 180+00 (RT.)
 SITE 6 -L- STA. 180+00 (LT.)
 SITE 7 -L- STA. 183+00 (LT.)

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NOT TO BE USED FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT BE USED FOR CONSTRUCTION</small>	

Permit Drawings Sheet 22 of 66

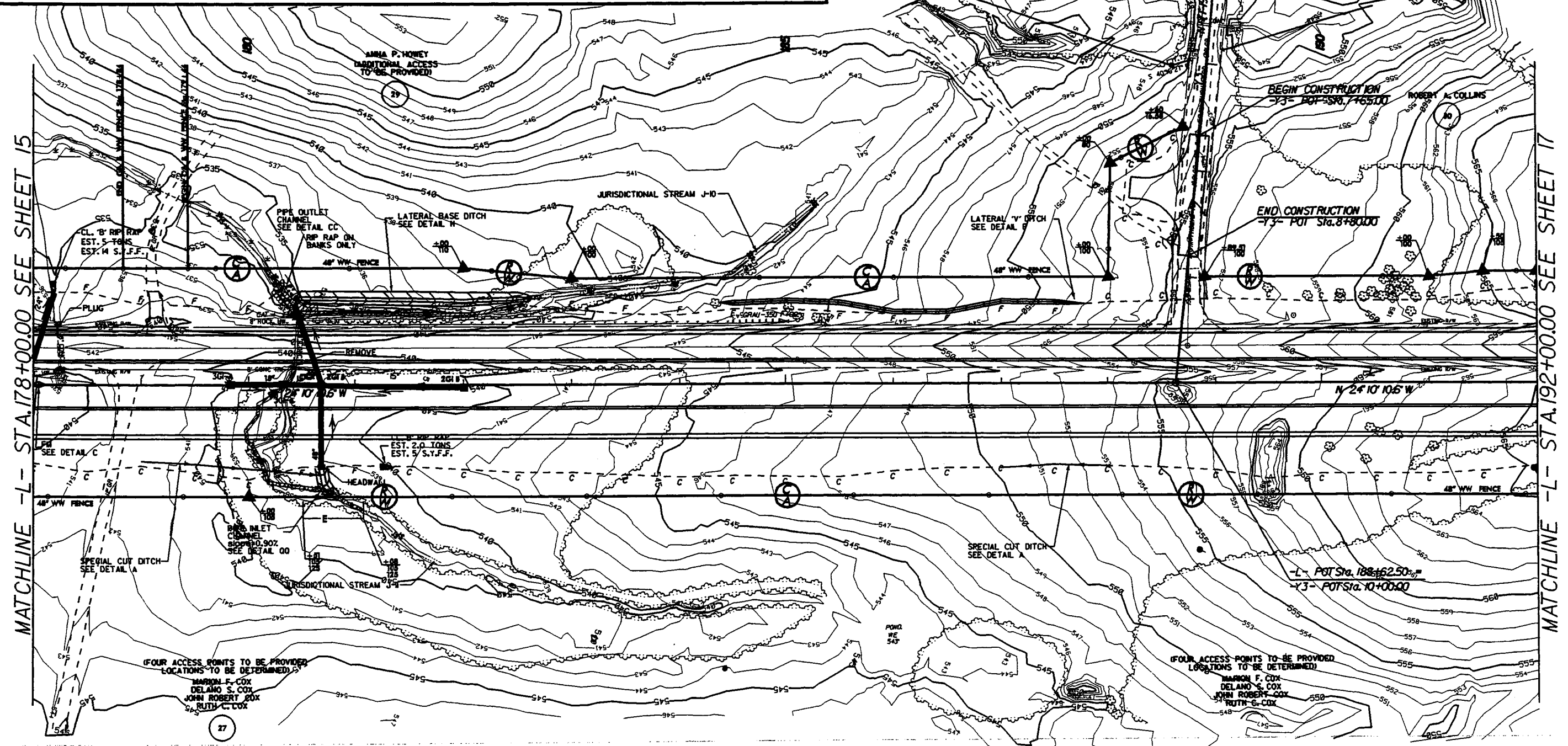


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



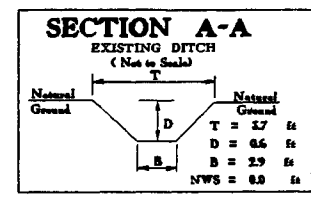
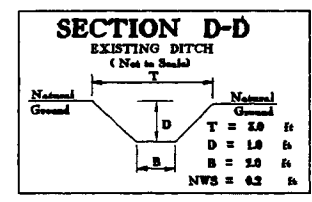
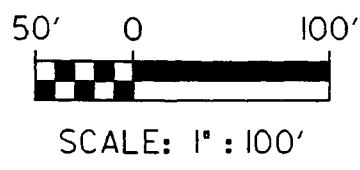
SITE 5 -L- STA. 180 + 00 (RT.)
 SITE 6 -L- STA. 180 + 00 (LT.)
 SITE 7 -L- STA. 183 + 00 (LT.)

Permit Drawings Sheet 13 of 66

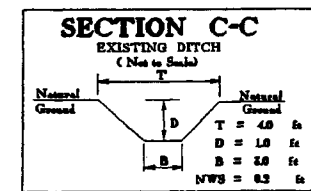
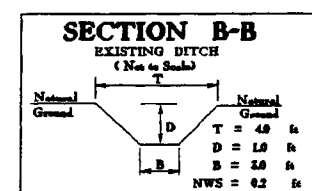


MATCHLINE -L- STA. 178+00.00 SEE SHEET 15

MATCHLINE -L- STA. 192+00.00 SEE SHEET 17



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

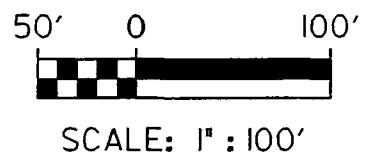
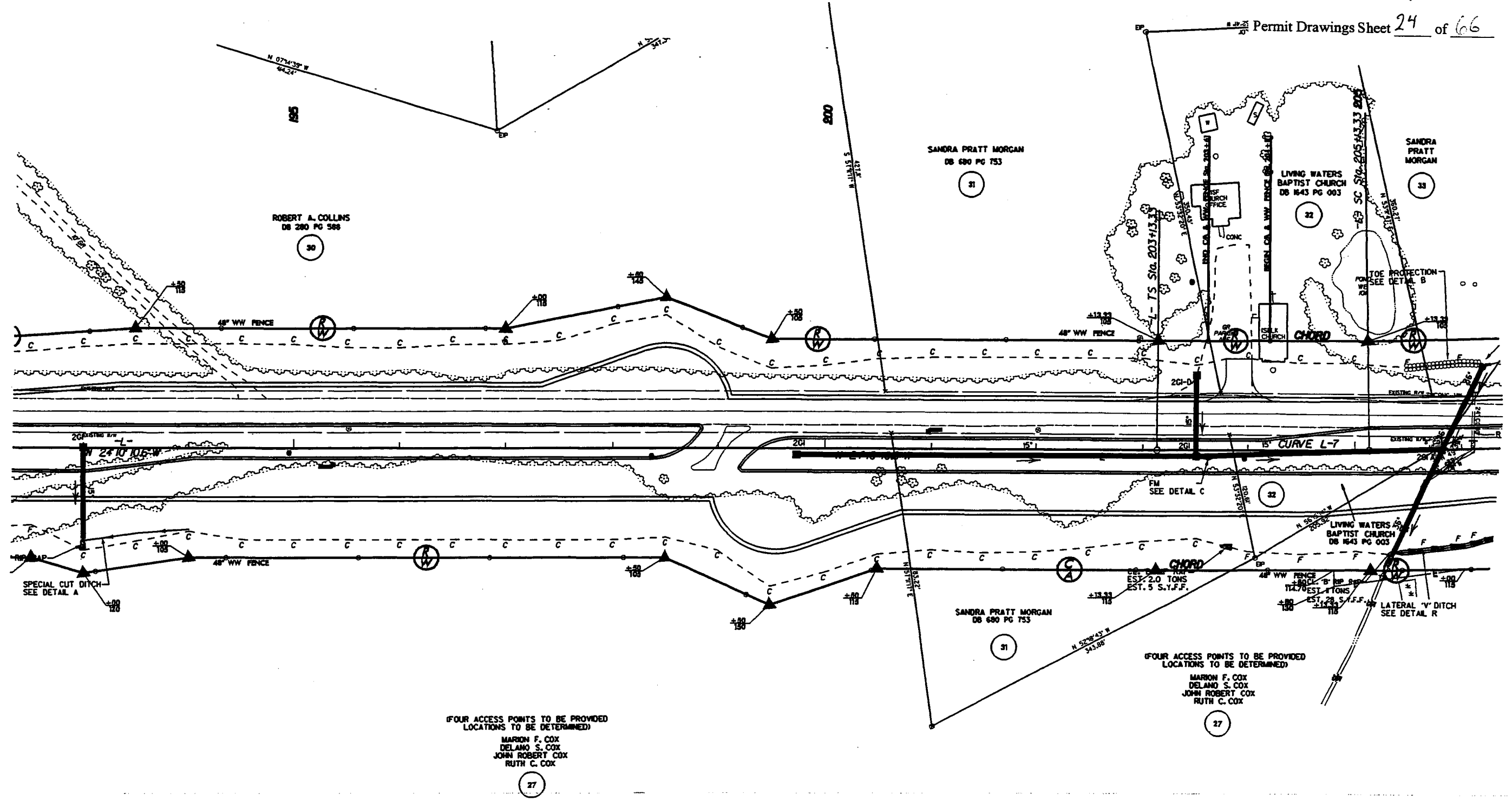


SITE 8A -L- STA. 206 + 00

PROJECT REFERENCE NO. R-3614 A&B	SHEET NO. 17
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR R/W ACQUISITION</small>	



Permit Drawings Sheet 24 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 8A

-L- STA. 206 + 00

PROJECT REFERENCE NO. SHEET NO.

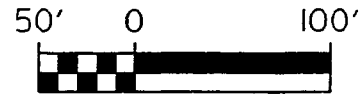
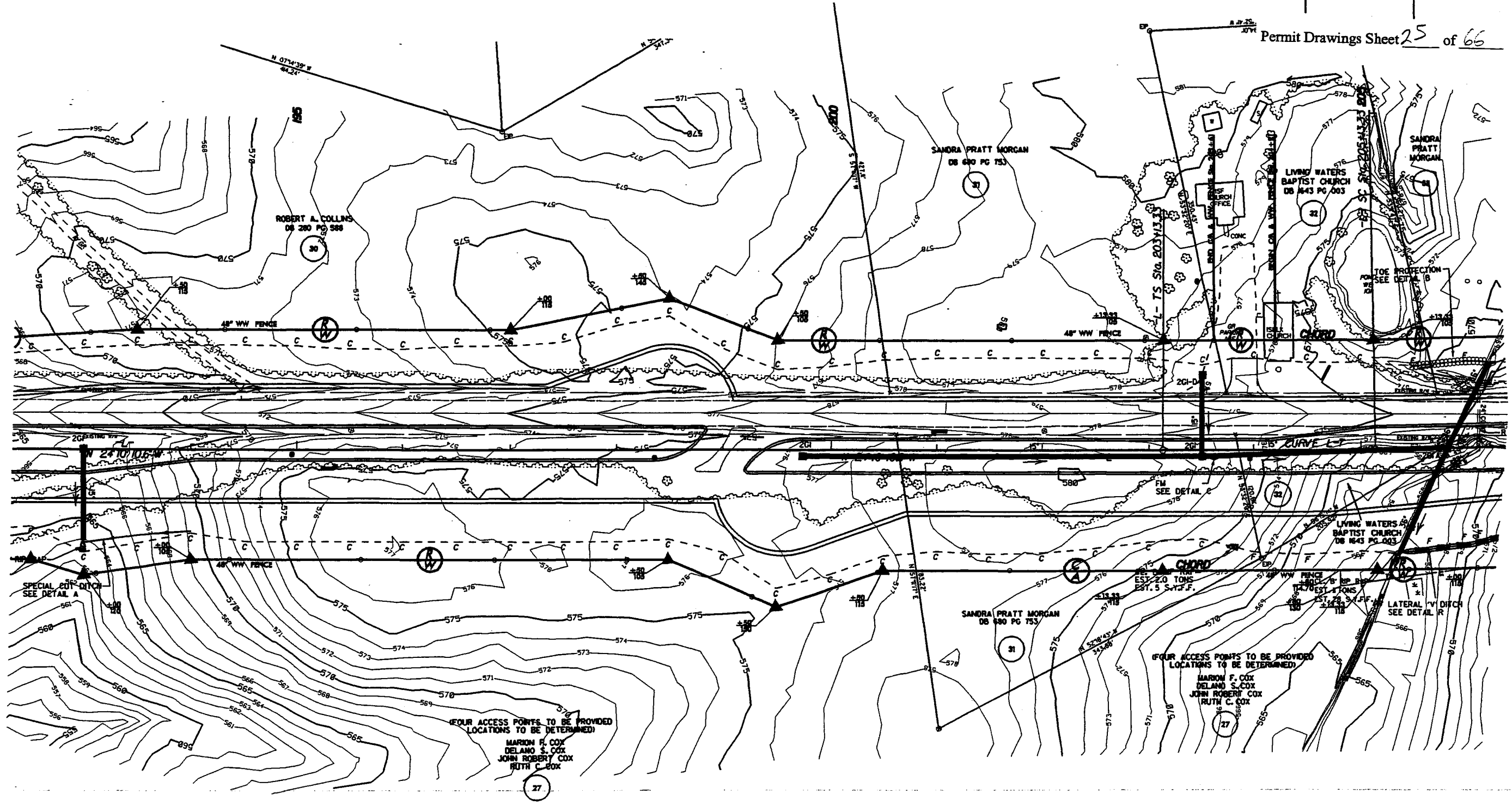
R-2616 ABB 17

ROADWAY DESIGN ENGINEER HYDRAULIC ENGINEER





PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR B.F.F. ACQUISITION



Permit Drawings Sheet 25 of 66



SCALE: 1" = 100'

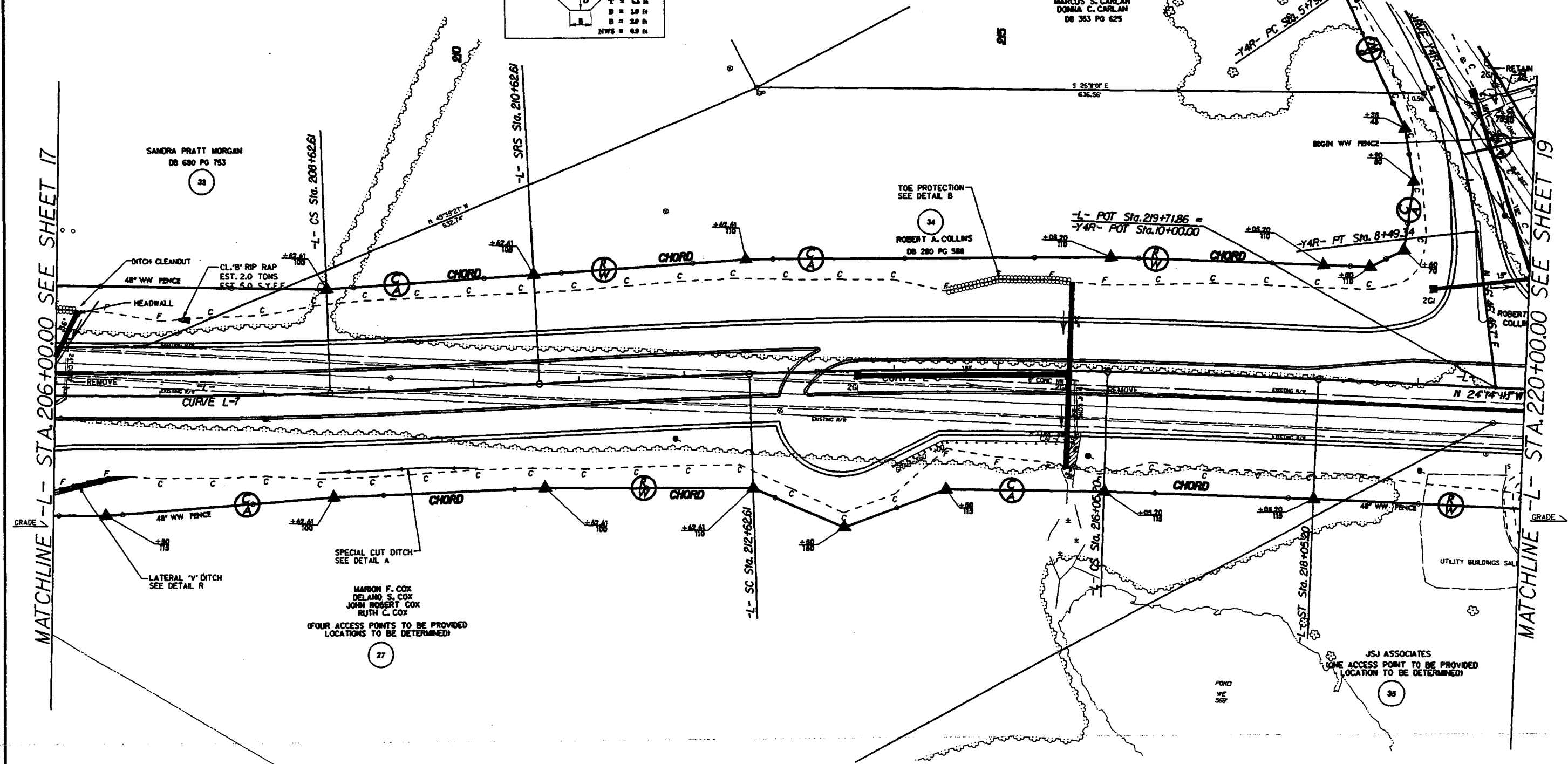
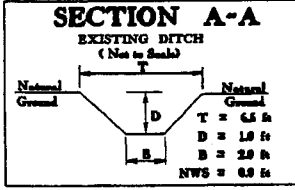
-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT



SITE 8 -L- STA. 215 + 70

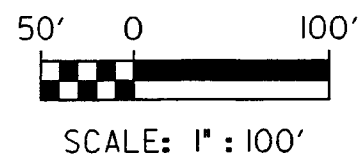
PROJECT REFERENCE NO. R-3616 A&B	SHEET NO. 18
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR B.L.V. ACQUISITION	

Permit Drawings Sheet 26 of 66

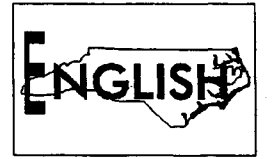


MATCHLINE -L- STA. 206+00.00 SEE SHEET 17

MATCHLINE -L- STA. 220+00.00 SEE SHEET 19



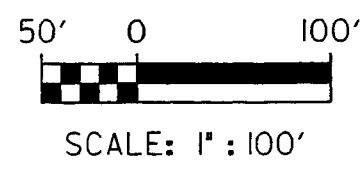
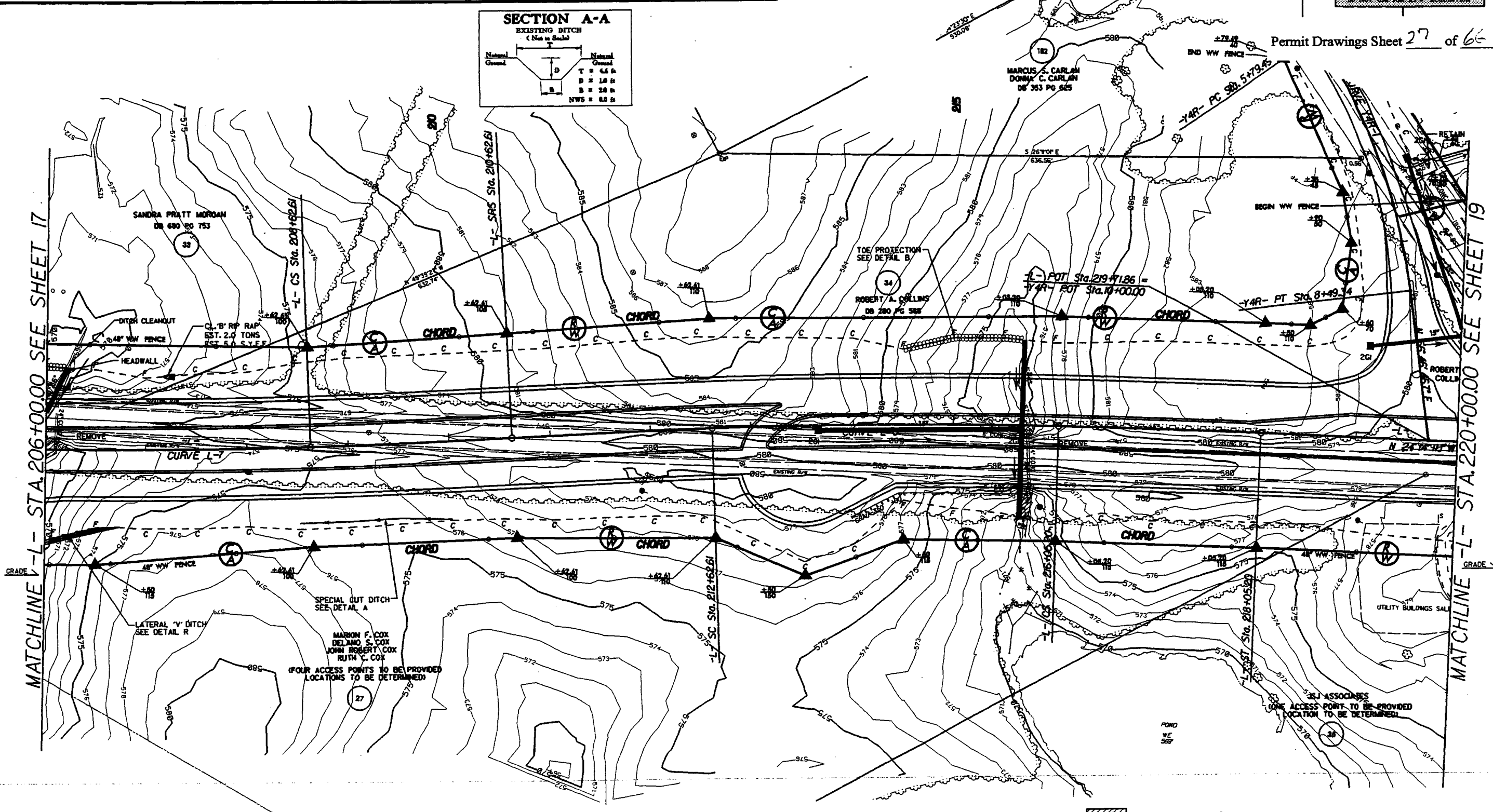
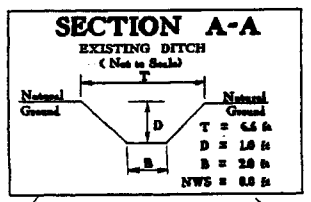
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 8 -L- STA. 215+70

PROJECT REFERENCE NO. R-2614 A&B	SHEET NO. 18
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR E.T. ACCEPTANCE</small>	

Permit Drawings Sheet 27 of 66



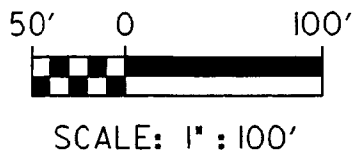
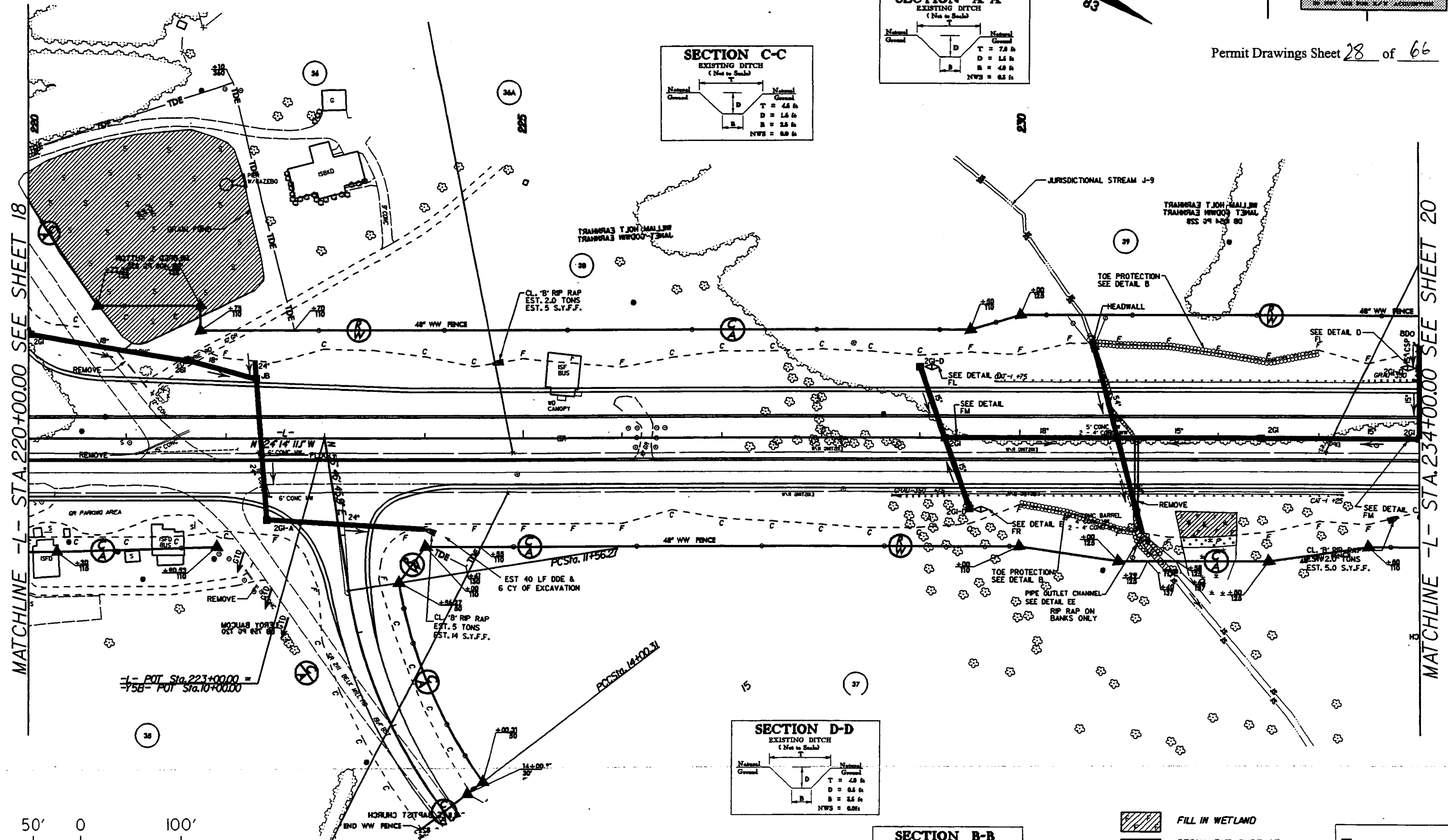
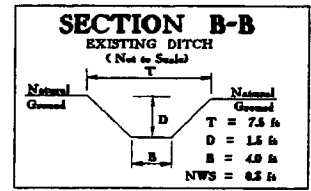
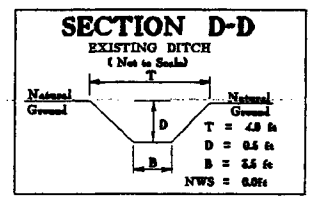
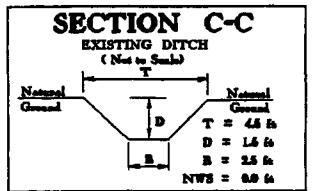
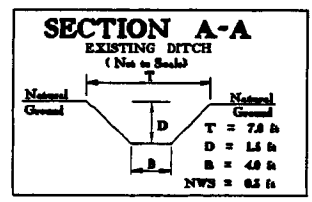
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 9 -L- STA. 221+00 LT.
 SITE 10 -L- STA. 231+20

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 19
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	

Permit Drawings Sheet 28 of 66



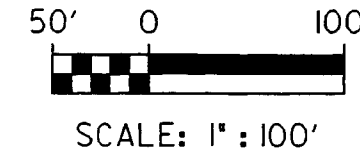
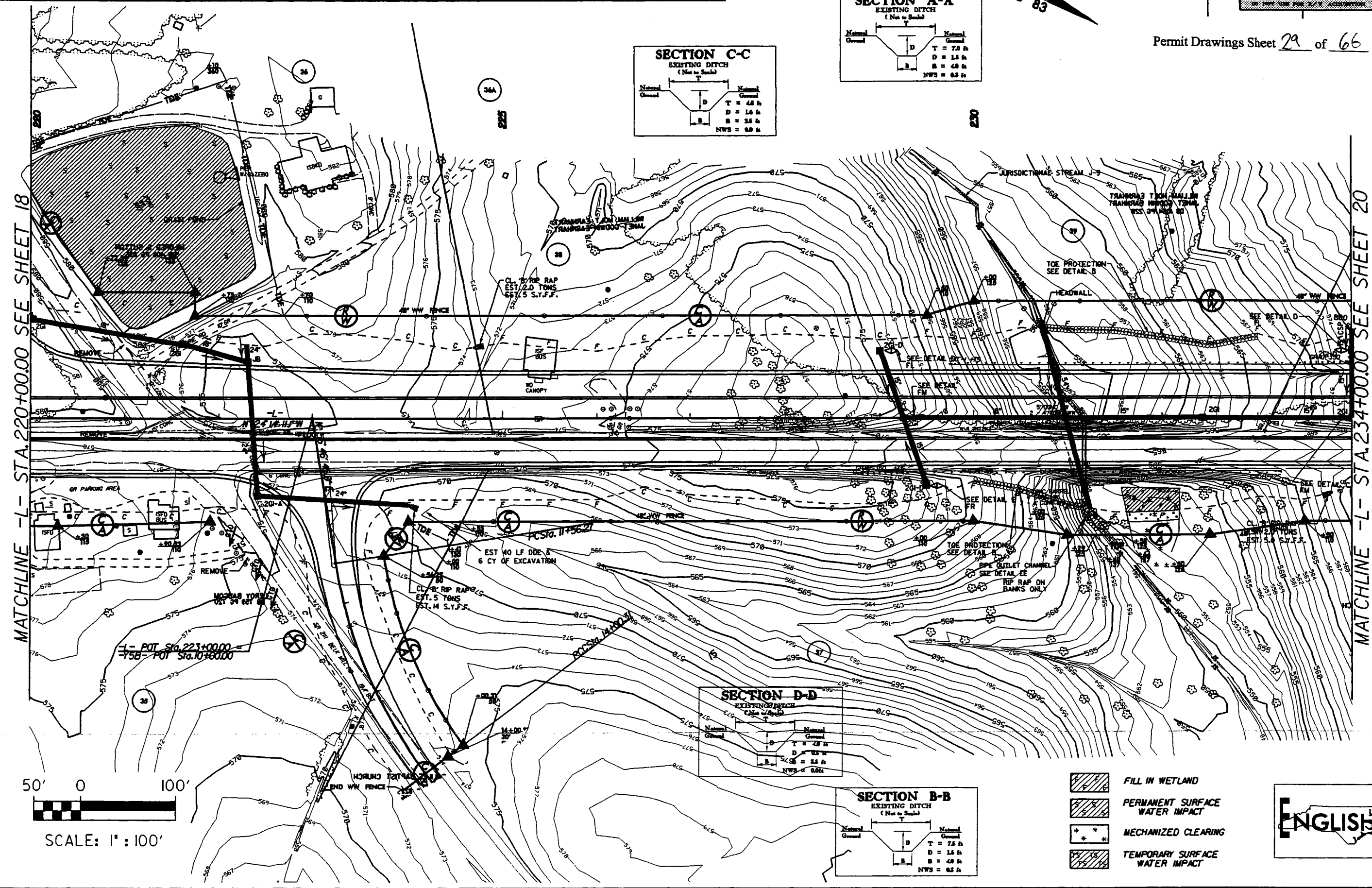
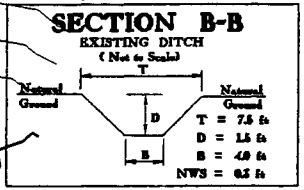
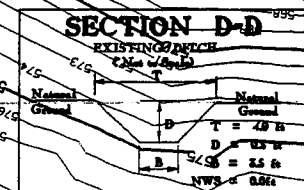
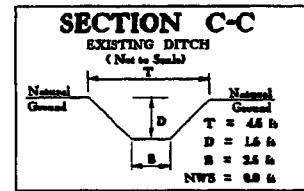
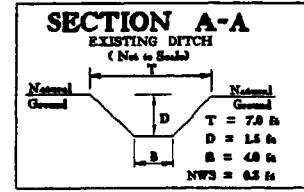
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 9 -L- STA. 221+00 LT.
 SITE 10 -L- STA. 231+20

PROJECT REFERENCE NO. R-2414 A&B	SHEET NO. 19
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR Bidding	

Permit Drawings Sheet 29 of 66



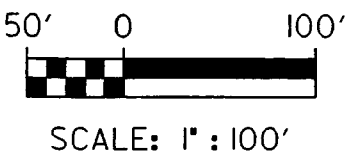
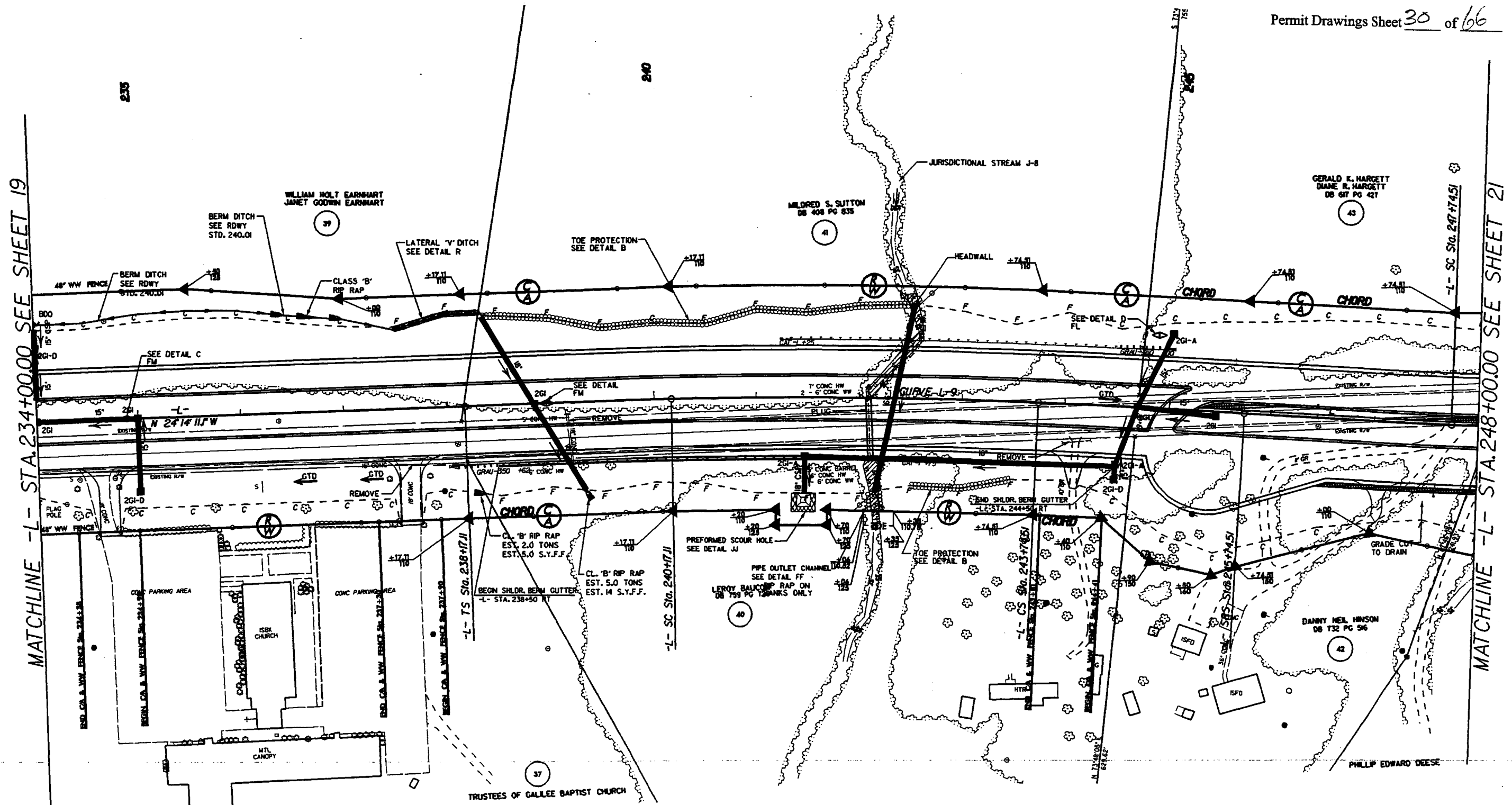
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 11 -L- STA. 242+35

PROJECT REFERENCE NO. R-2614 A&B	SHEET NO. 30
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS OR ACCIDENTS</small>	

Permit Drawings Sheet 30 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



MATCHLINE -L- STA. 234+00.00 SEE SHEET 19

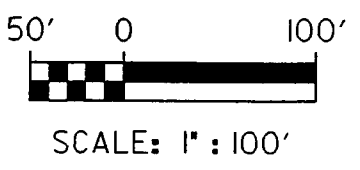
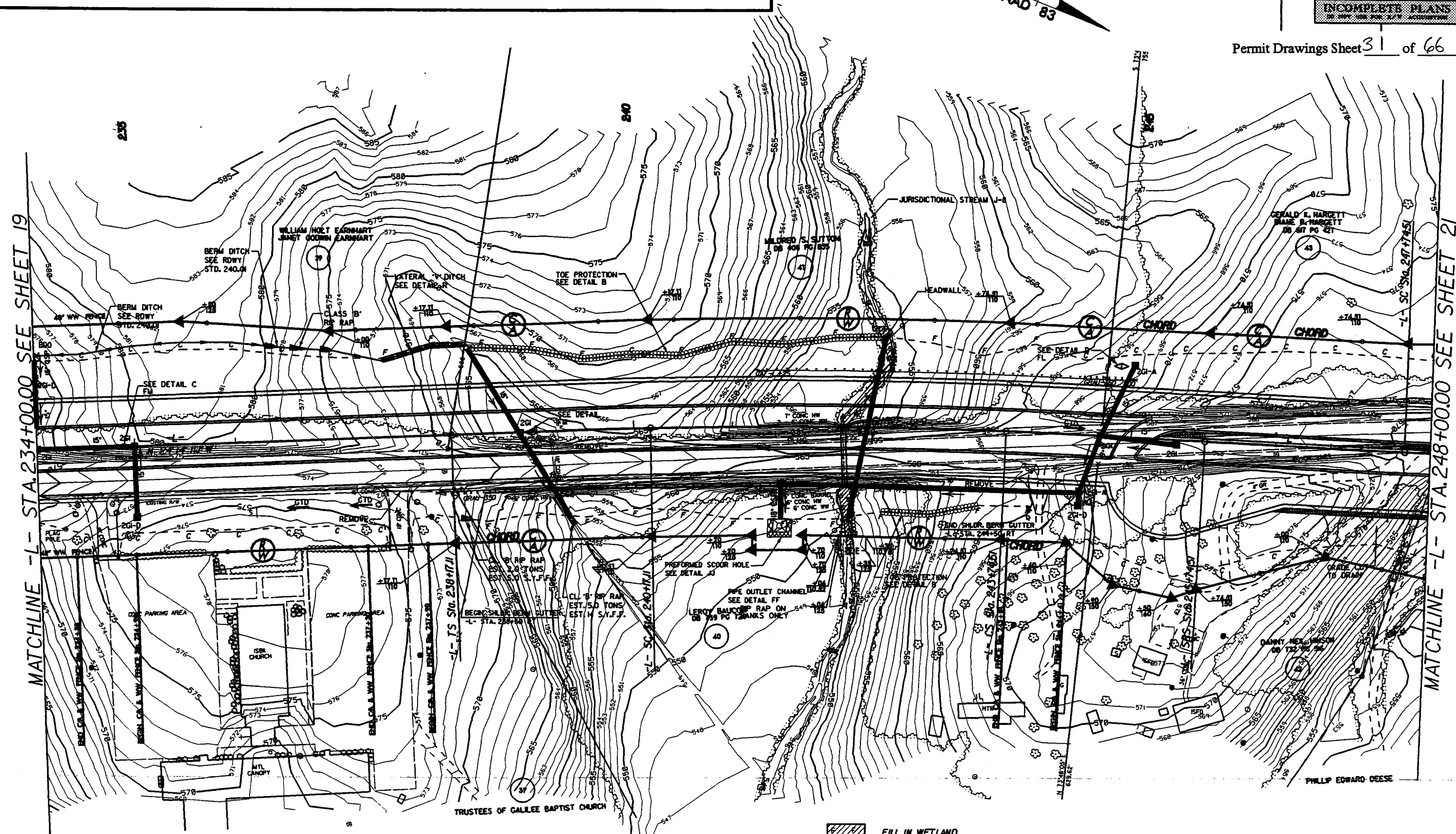
MATCHLINE -L- STA. 248+00.00 SEE SHEET 21

SITE 11 -L- STA. 242 + 35

PROJECT REFERENCE NO. R-2616 AMB	SHEET NO. 20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT BE USED FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT BE USED FOR PERMITS OR ACCIDENTS</small>	



Permit Drawings Sheet 31 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

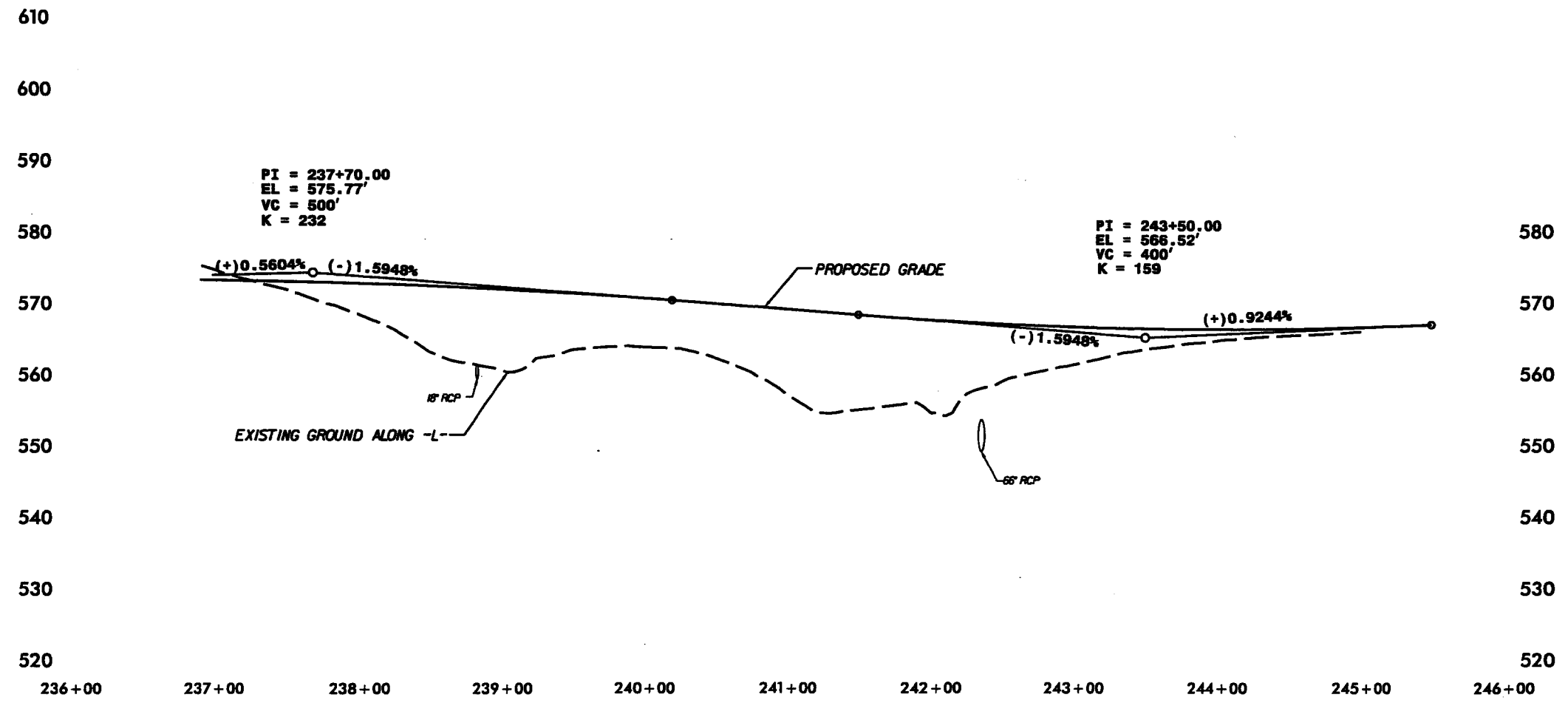


PHILIP EDWARD DEESE

SITE 11 -L- STA. 242+35

25 0 50	PROJECT REFERENCE NO.	SHEET NO.
5 0 10	I-261AAS	63
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
	INCOMPLETE PLANS DO NOT USE FOR A/V ACQUISITION	

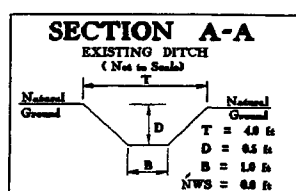
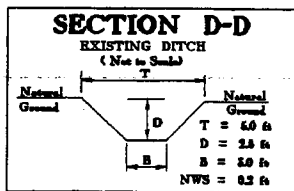
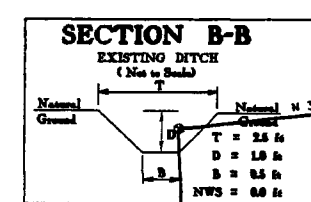
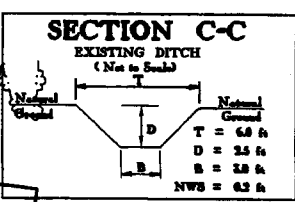
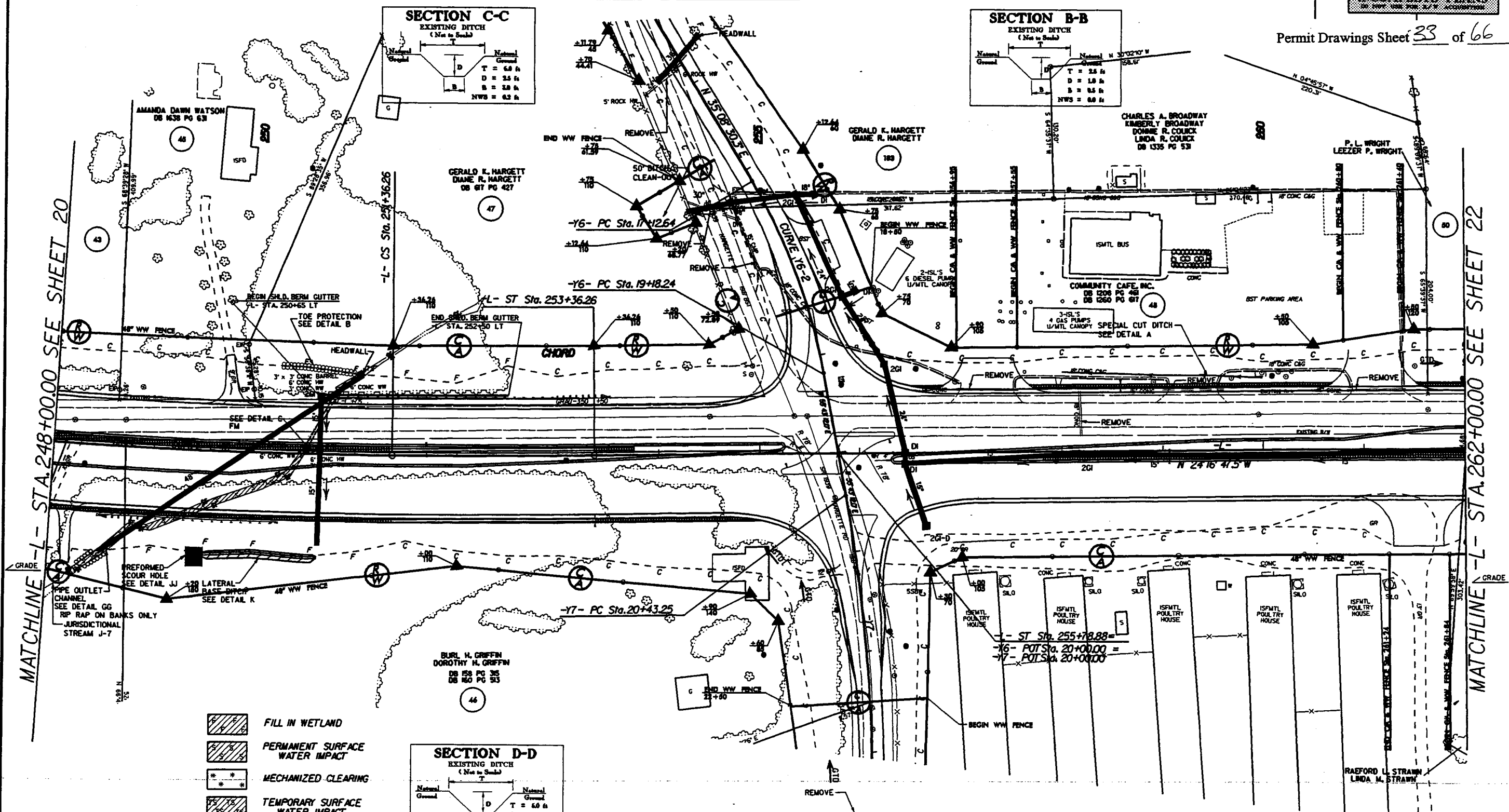
Permit Drawings Sheet 32 of 66



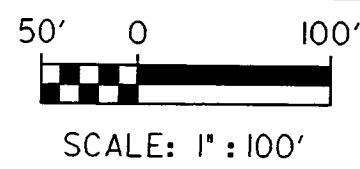
SITE 12 -L- STA. 250+00

PROJECT REFERENCE NO. R-3814 A&B	SHEET NO. 21
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR P.C. & U. ACCEPTANCE</small>	

Permit Drawings Sheet **33** of **66**



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



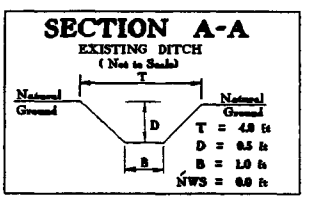
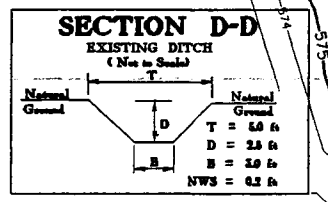
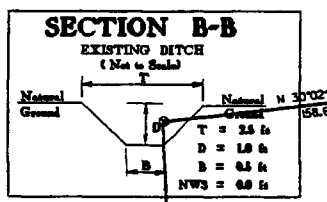
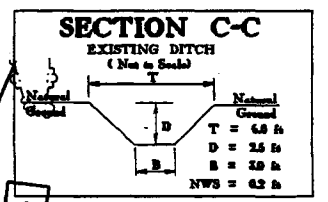
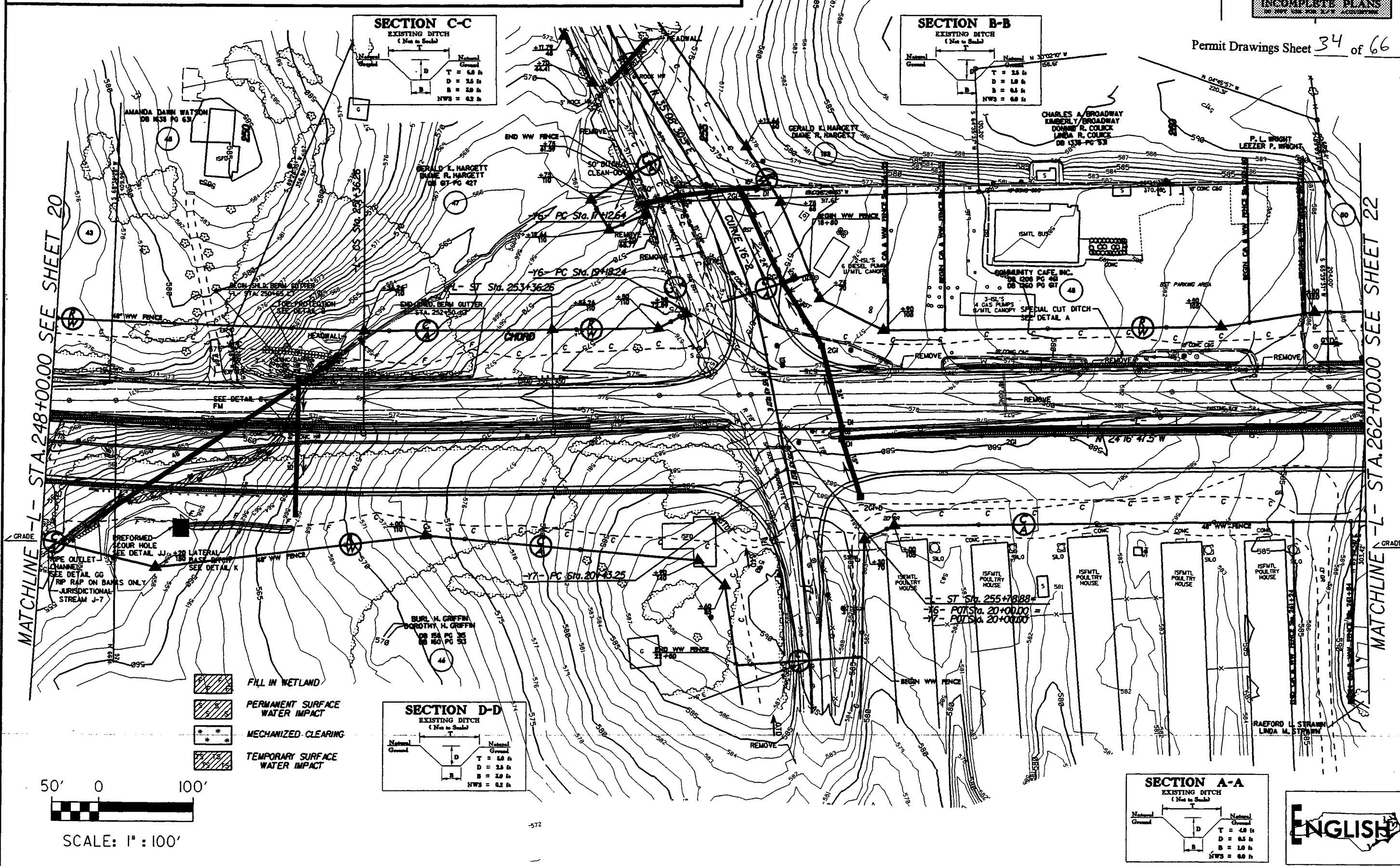
MATCHLINE -L- STA. 248+00.00 SEE SHEET 20

MATCHLINE -L- STA. 262+00.00 SEE SHEET 22

SITE 12 -L- STA. 250 + 00

PROJECT REFERENCE NO. R-3816 AM	SHEET NO. 21
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR E.I. ACCURACY</small>	

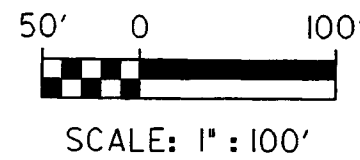
Permit Drawings Sheet 34 of 66



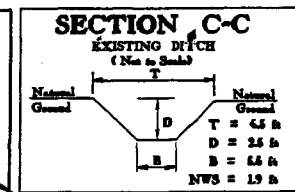
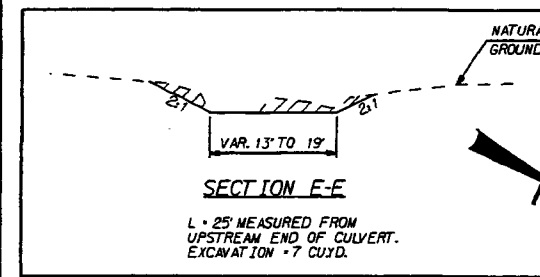
MATCHLINE -L- STA. 248+00.00 SEE SHEET 20

MATCHLINE -L- STA. 262+00.00 SEE SHEET 22

- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

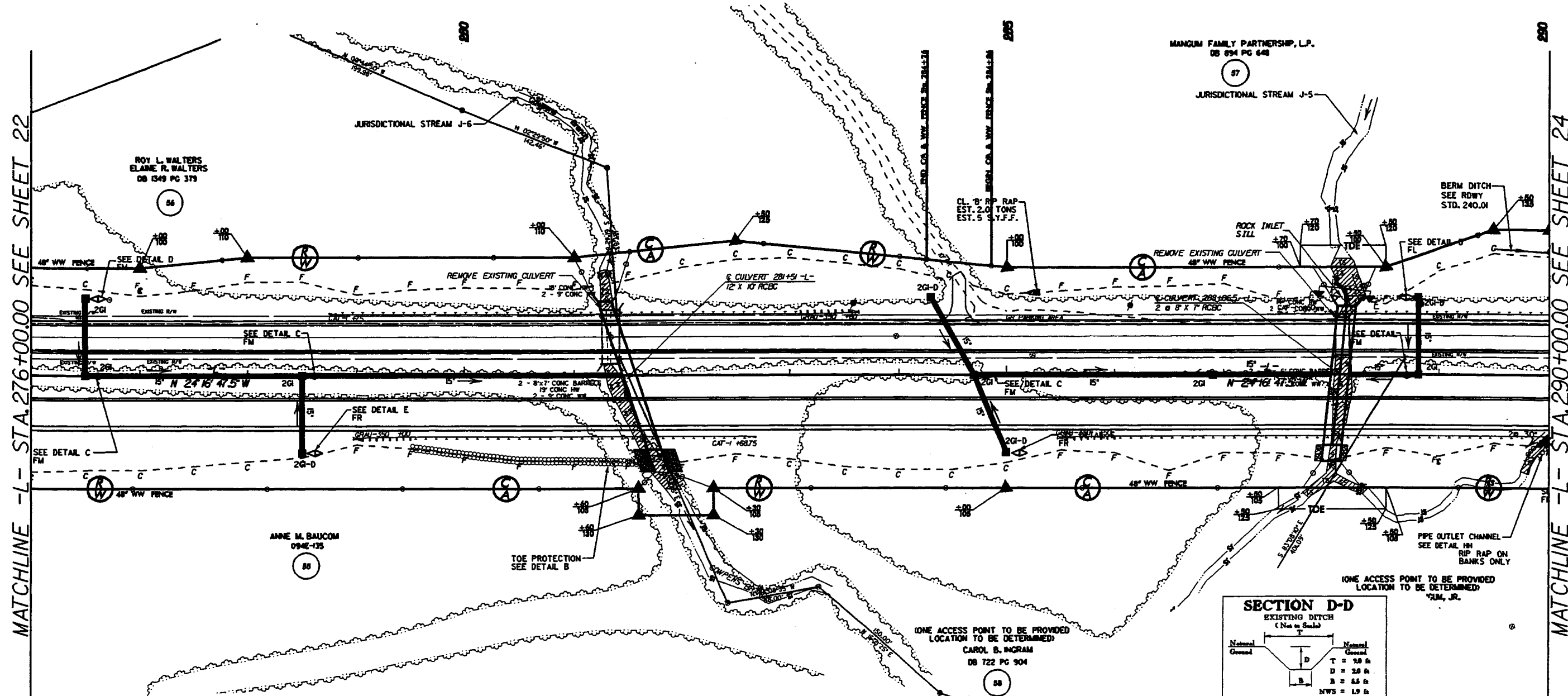


SITE 13 -L- STA. 281 + 51
 SITE 14 -L- STA. 288 + 06.5
 SITE 15 -L- STA. 290 + 00 - 294 + 30



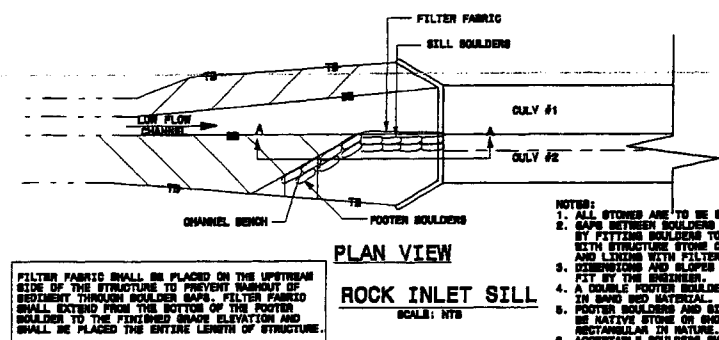
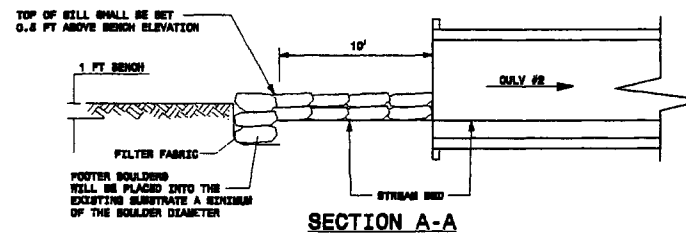
PROJECT REFERENCE NO. A-2614 A&B	SHEET NO. 23
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION	

Permit Drawings Sheet 35 of 66



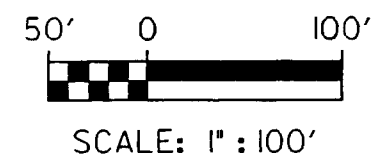
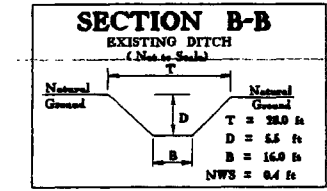
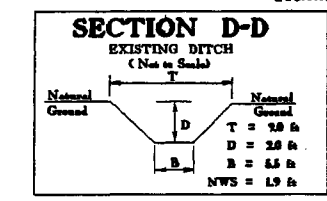
MATCHLINE -L- STA. 276+00.00 SEE SHEET 22

MATCHLINE -L- STA. 290+00.00 SEE SHEET 24



- NOTES:
1. ALL STONES ARE TO BE STRUCTURE STONE.
 2. SAND BETWEEN BOULDERS SHALL BE UTILIZED BY FITTING BOULDERS TOGETHER, PLUMBING WITH STRUCTURE STONE CLASS A AND NO. 47 AND LOCKING WITH FILTER FABRIC.
 3. DIMENSIONS AND SLOPES MAY BE ADJUSTED TO FIT BY THE ENGINEER.
 4. A DOUBLE FOOTER BOLDER SHALL BE UTILIZED IN SAND BED MATERIAL.
 5. FOOTER BOULDERS AND SILL BOULDERS SHALL BE NATIVE STONE OR SHOT ROCK, CURVED OR RECTANGULAR IN SHAPE.
 6. ACCEPTABLE BOULDERS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 2' X 3' X 1'.

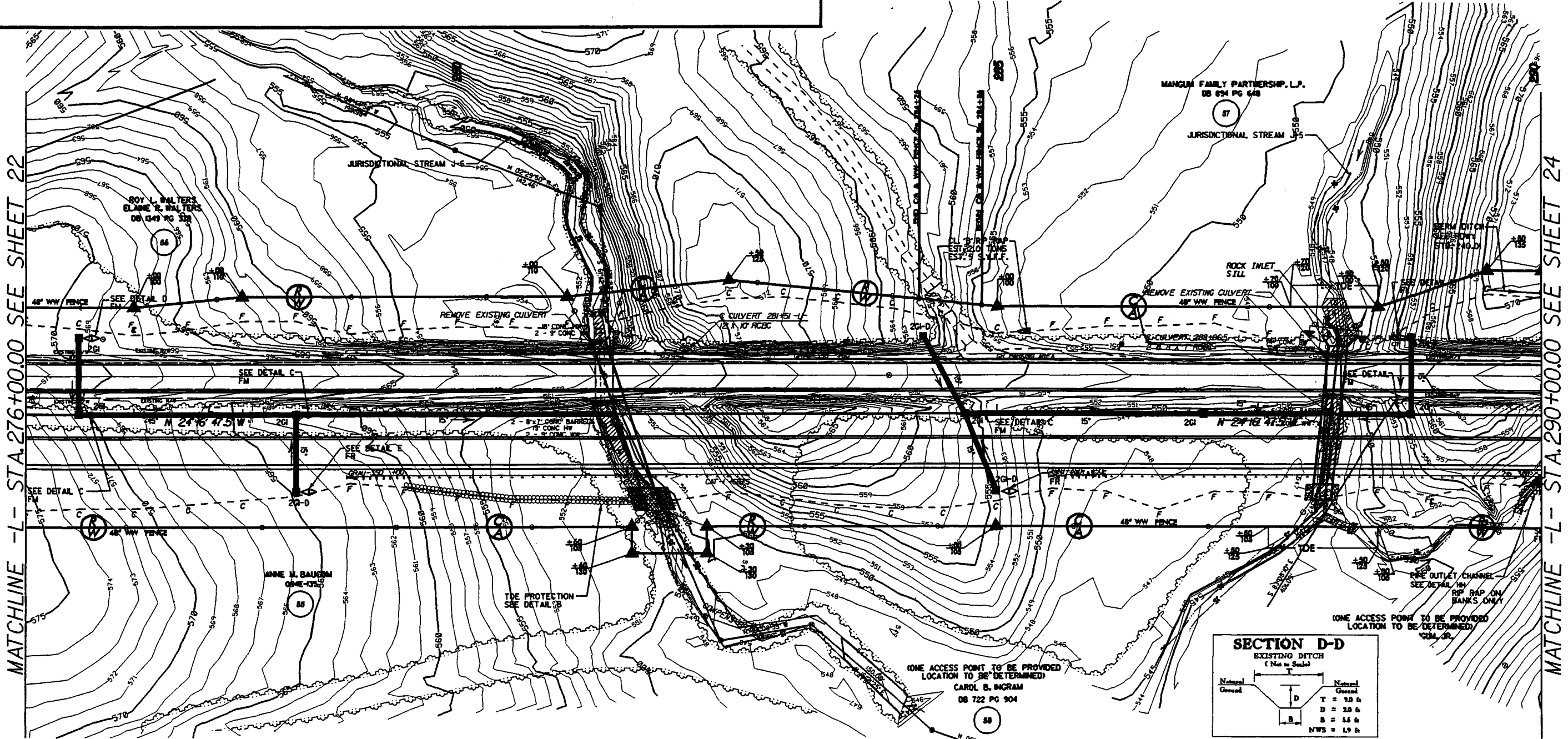
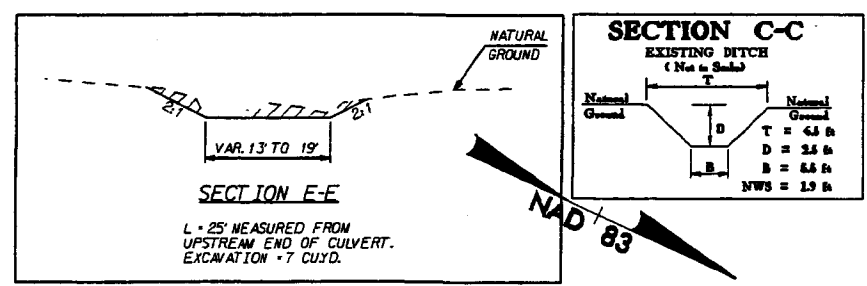
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 13 -L- STA. 281 + 51
 SITE 14 -L- STA. 288 + 06.5
 SITE 15 -L- STA. 290 + 00 - 294 + 30

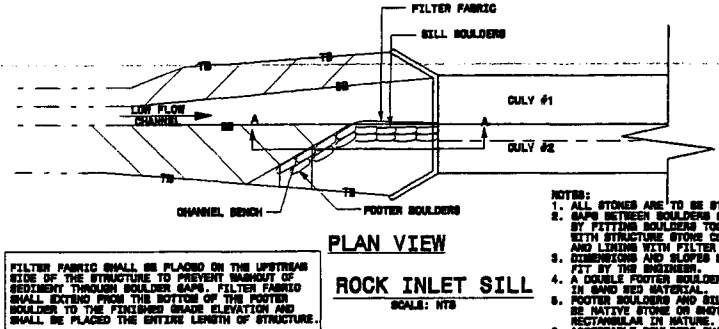
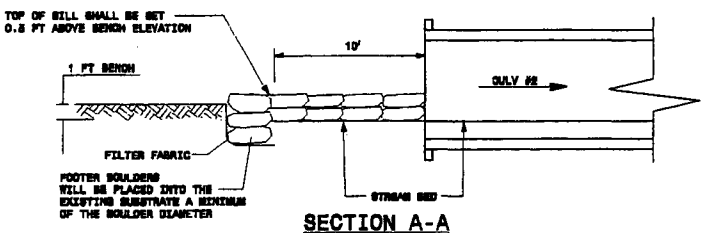
PROJECT REFERENCE NO. R-2816 A&B	SHEET NO. 23
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR CONSTRUCTION	

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MATCHLINE -L- STA. 276+00.00 SEE SHEET 22

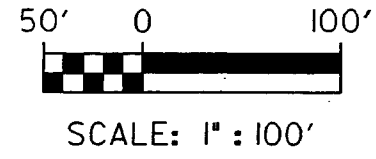
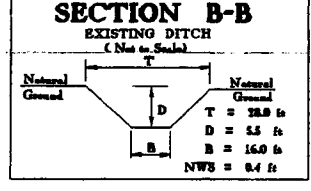
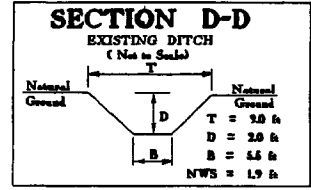
MATCHLINE -L- STA. 290+00.00 SEE SHEET 24



FILTER FABRIC SHALL BE PLACED ON THE UPSTREAM SIDE OF THE STRUCTURE TO PREVENT BACKFLOW OF SEDIMENT THROUGH BOASTER GAPS. FILTER FABRIC SHALL EXTEND FROM THE BOTTOM OF THE FOOTER BOASTERS TO THE FINISHED GRADE ELEVATION AND SHALL BE PLACED THE ENTIRE LENGTH OF STRUCTURE.

- NOTES:
1. ALL STONES ARE TO BE STRUCTURE STONE.
 2. GAPS BETWEEN BOASTERS SHALL BE MINIMIZED BY FITTING BOASTERS TOGETHER, PLUMBING WITH STRUCTURE STONE CLASS A AND NO. 47 AND LINING WITH FILTER FABRIC.
 3. DIMENSIONS AND SLOPES MAY BE ADJUSTED TO FIT BY THE ENGINEER.
 4. A DOUBLE FOOTER BOASTER SHALL BE UTILIZED IN SAND BED MATERIAL.
 5. FOOTER BOASTERS AND SILL BOASTERS SHALL BE NATIVE STONE OR SHOT ROCK, CURICAL OR RECTANGULAR IN SHAPE.
 6. ACCEPTABLE BOASTERS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: 9" x 8" x 1'.

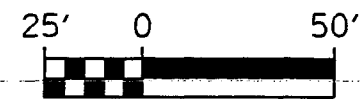
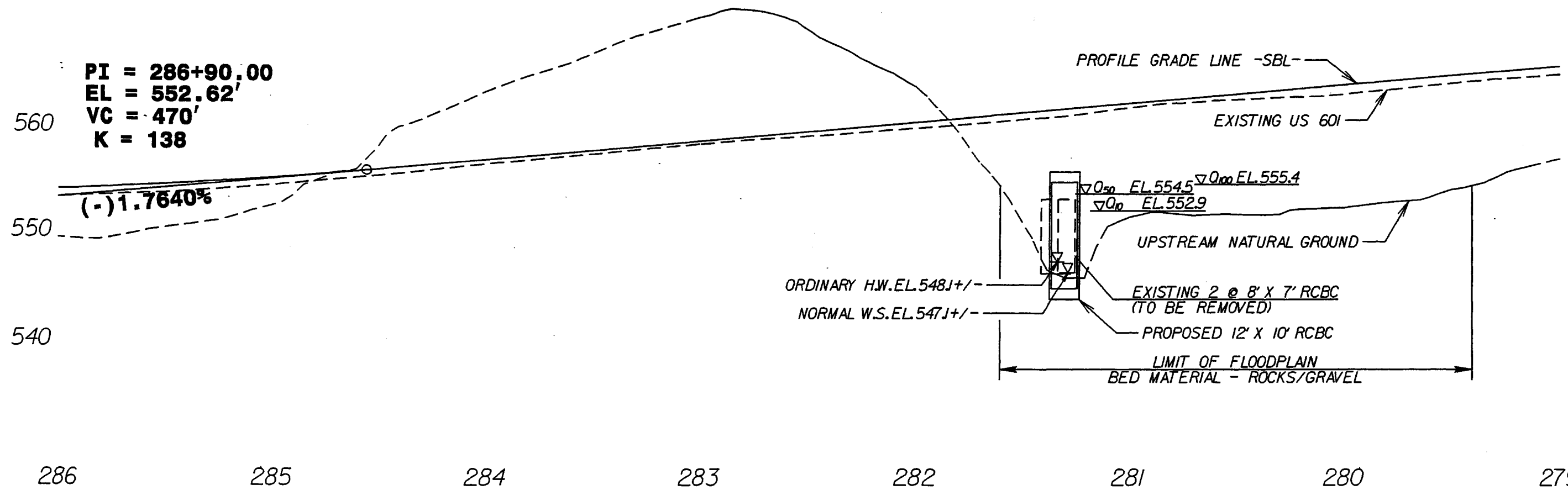
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



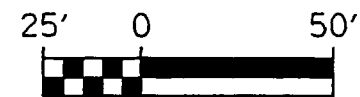
SITE 13 -L- STA 281+51

PROJECT REFERENCE NO. R-5814 ABB	SHEET NO. 23A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<div style="border: 1px solid black; padding: 2px; display: inline-block;"> INCOMPLETE PLANS NOT FOR CONSTRUCTION </div>	

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VERTICAL SCALE: 1" : 50'



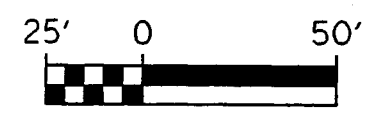
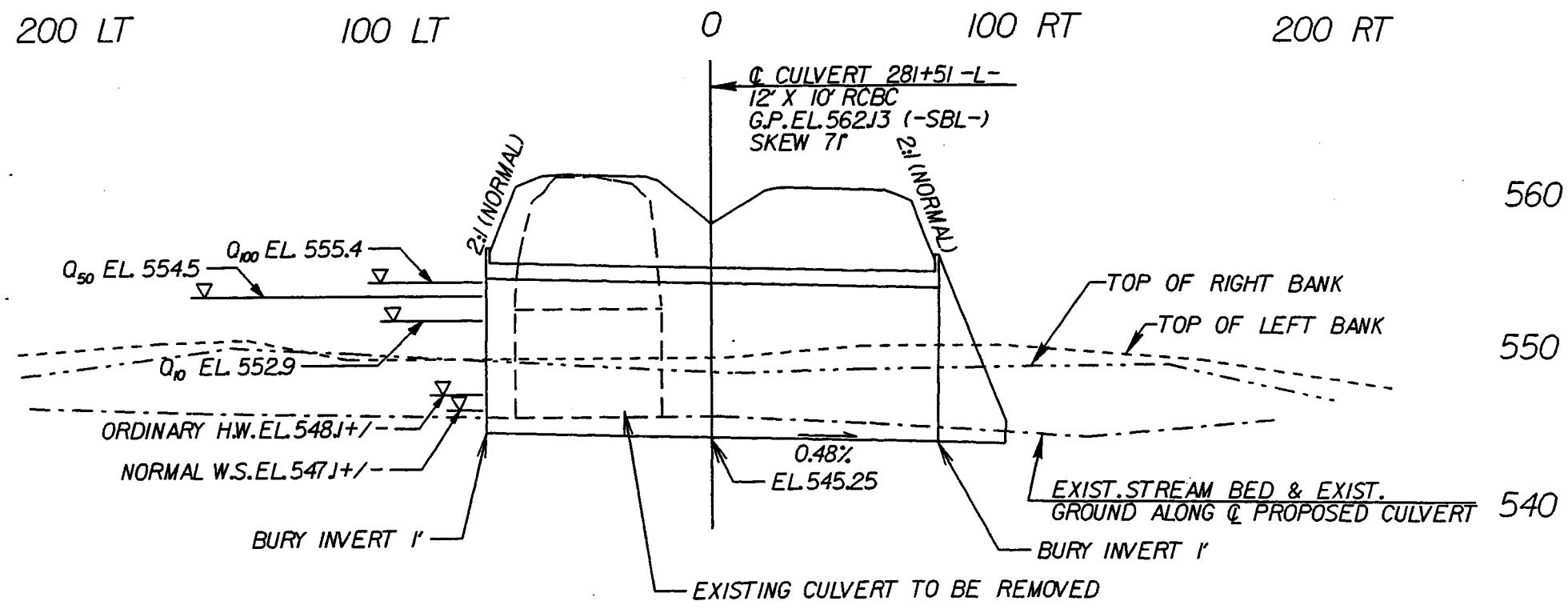
HORIZONTAL SCALE: 1" : 50'



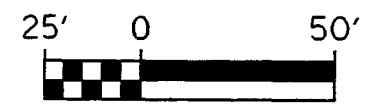
SITE 13 -L- STA 281+51

PROJECT REFERENCE NO. R-2614 ADD	SHEET NO. 238
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>FOR PERMITTING AND CONSTRUCTION</small>	
INCOMPLETE PLANS <small>FOR PERMITTING AND CONSTRUCTION</small>	

Permit Drawings Sheet 38 of 66



VERTICAL SCALE: 1" = 50'



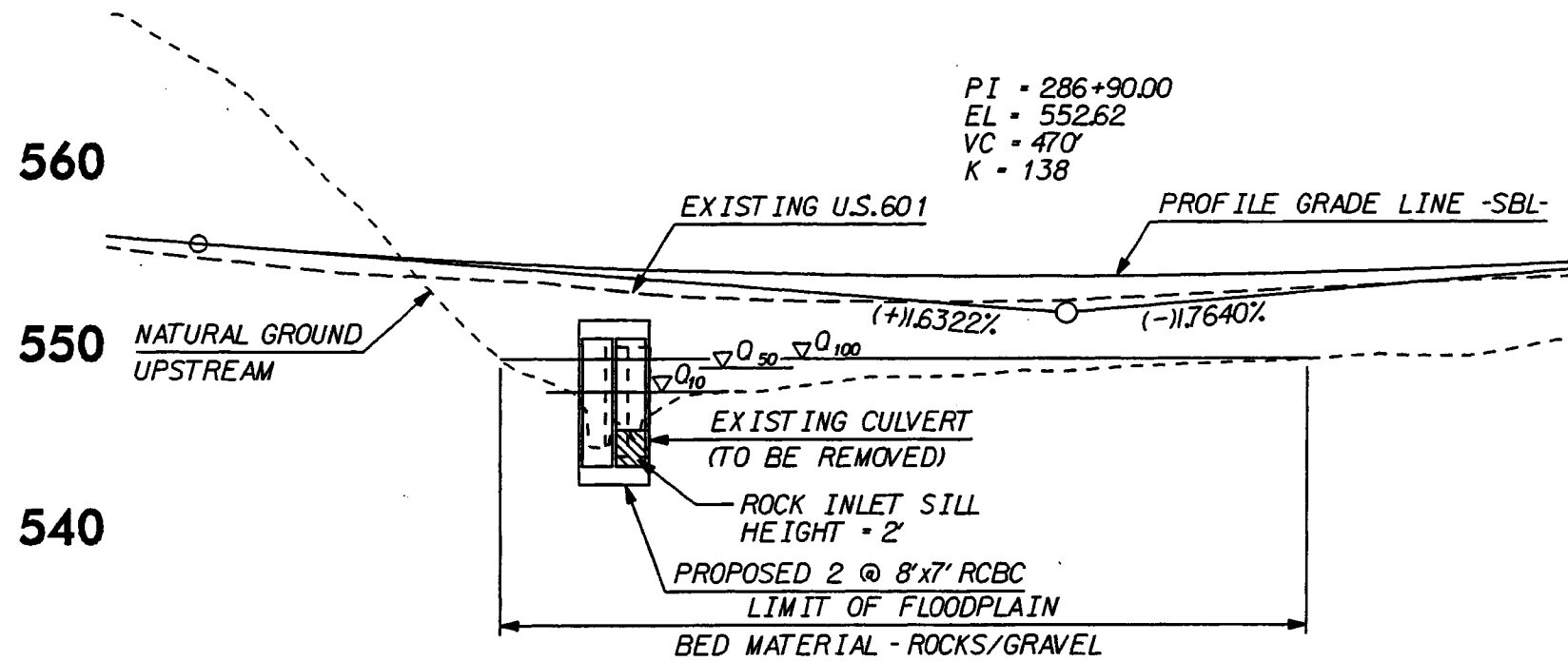
HORIZONTAL SCALE: 1" = 50'



SITE 14 -L- STA 288 + 06.5

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 23C
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR U/P ADJUSTMENT</small>	

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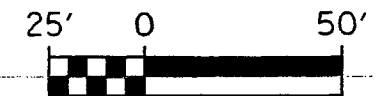


289

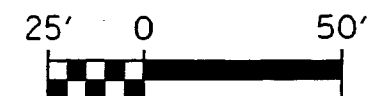
288

287

286



VERTICAL SCALE: 1" : 50'



HORIZONTAL SCALE: 1" : 50'



SITE 14 -L- STA 288 + 06.5

PROJECT REFERENCE NO. E-2614 A&B	SHEET NO. 23D
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NOT TO BE USED FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>NOT TO BE USED FOR CONSTRUCTION</small>	

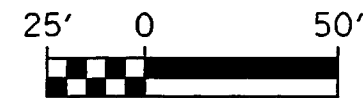
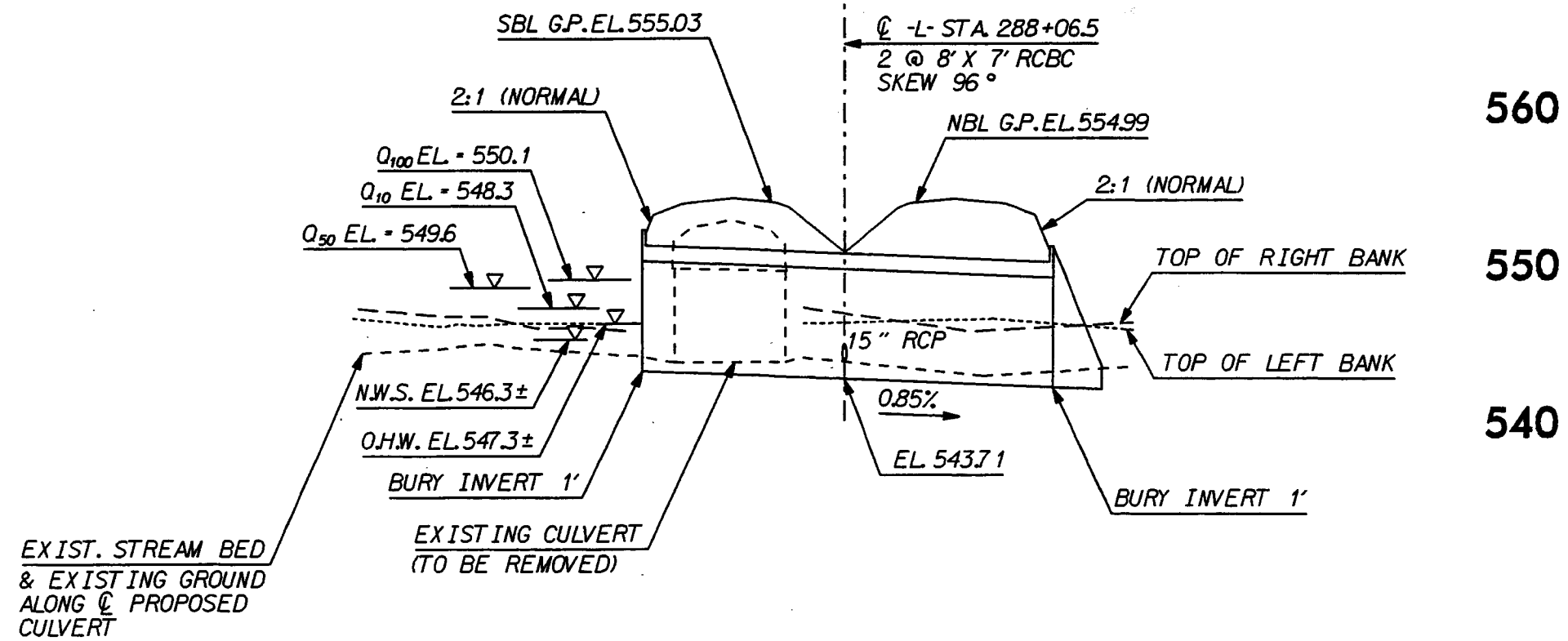
Permit Drawings Sheet 40 of 66

286

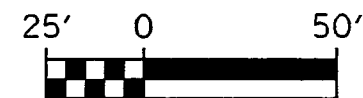
100 LT

0

100 RT



VERTICAL SCALE: 1" = 50'



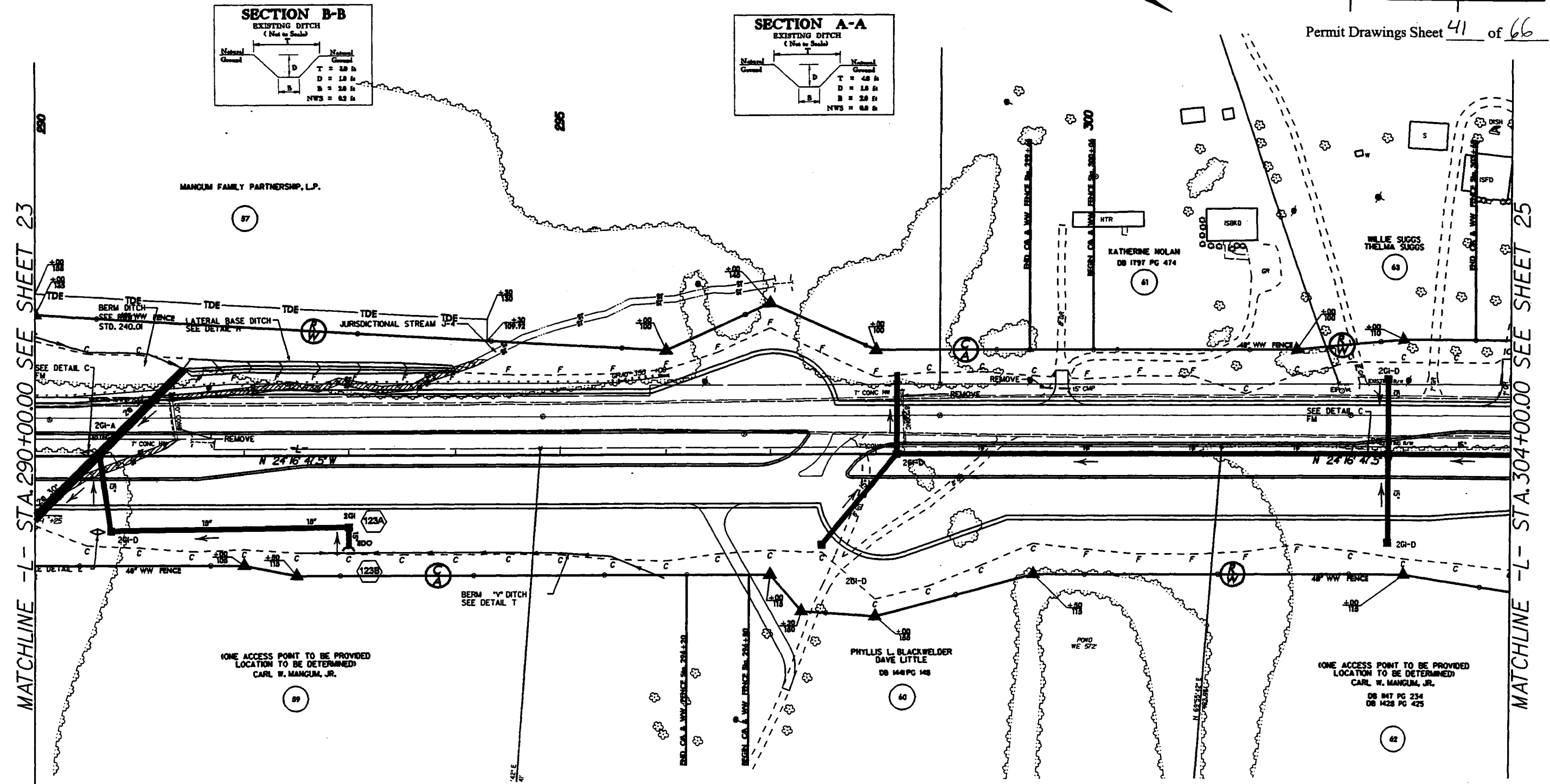
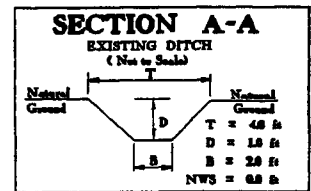
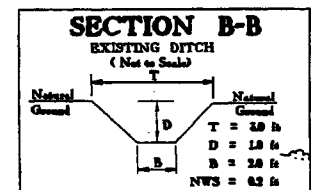
HORIZONTAL SCALE: 1" = 50'



SITE 15 -L- STA. 290+00 RT - 294+30 LT

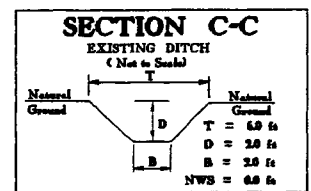
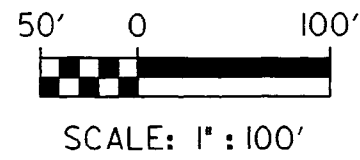
PROJECT REFERENCE NO. I-2616 A&B	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT BE USED FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT BE USED FOR CONSTRUCTION</small>	

Permit Drawings Sheet 41 of 66



MATCHLINE -L- STA. 290+00.00 SEE SHEET 23

MATCHLINE -L- STA. 304+00.00 SEE SHEET 25



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

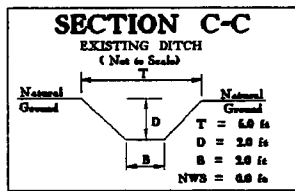
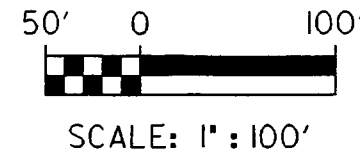
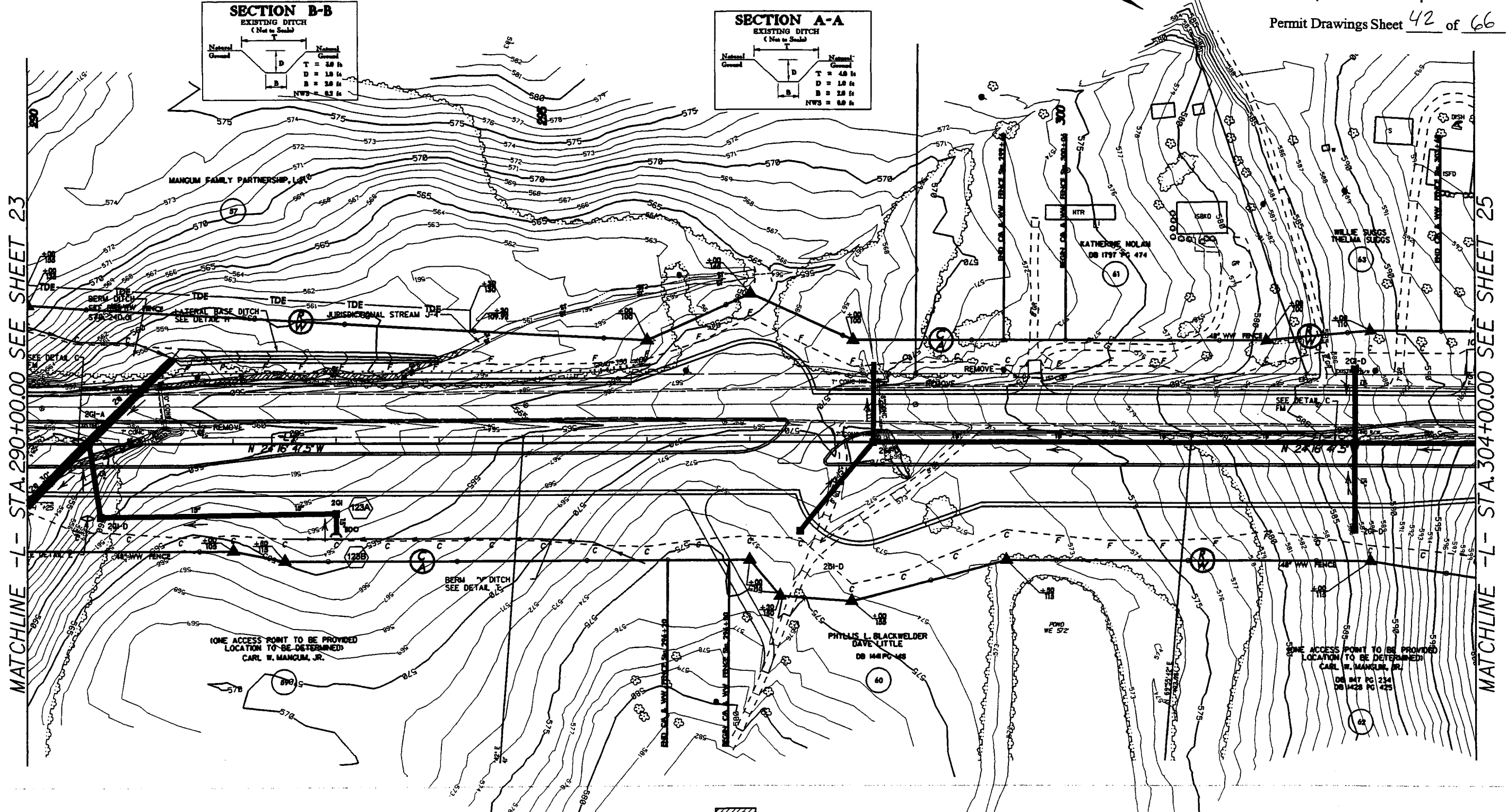


SITE 15 -L- STA. 290+00 RT - 294+30 LT

PROJECT REFERENCE NO. R-3616 A&B	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	



Permit Drawings Sheet 42 of 66



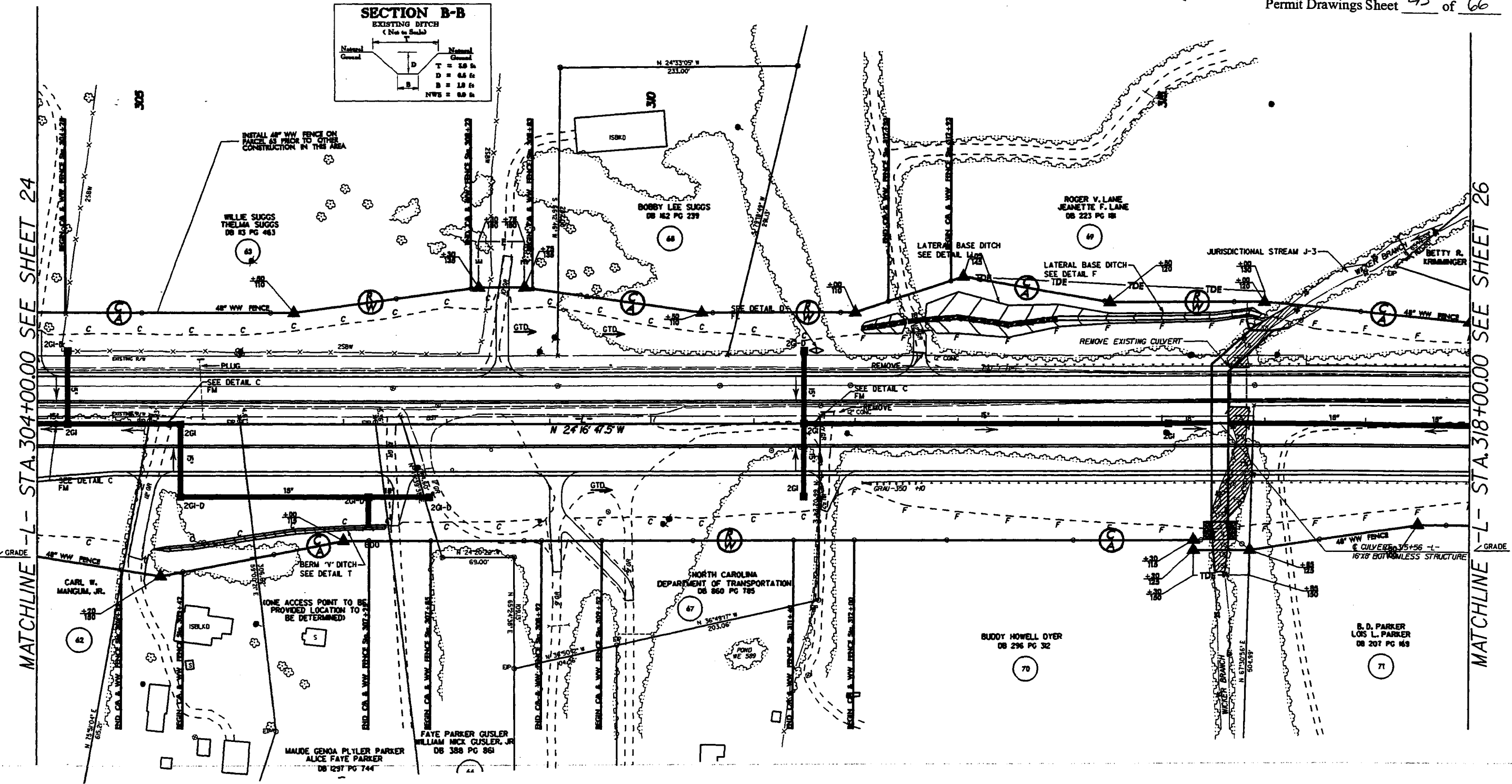
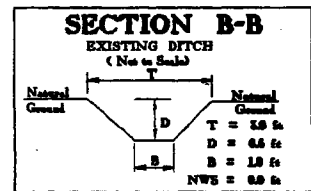
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 16 -L- STA. 315 + 56

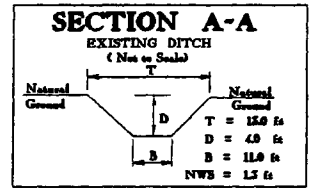
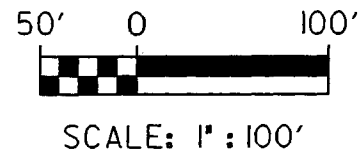
PROJECT REFERENCE NO. R-2614 A&B	SHEET NO. 23
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR B.I.F. ACQUISITION</small>	

Permit Drawings Sheet 43 of 66

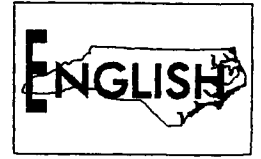


MATCHLINE -L- STA. 304+00.00 SEE SHEET 24

MATCHLINE -L- STA. 318+00.00 SEE SHEET 26



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

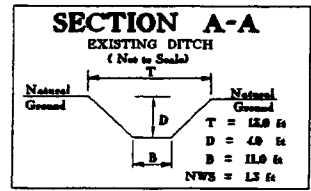
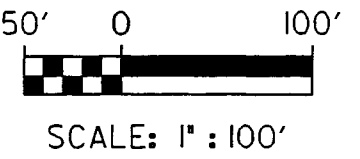
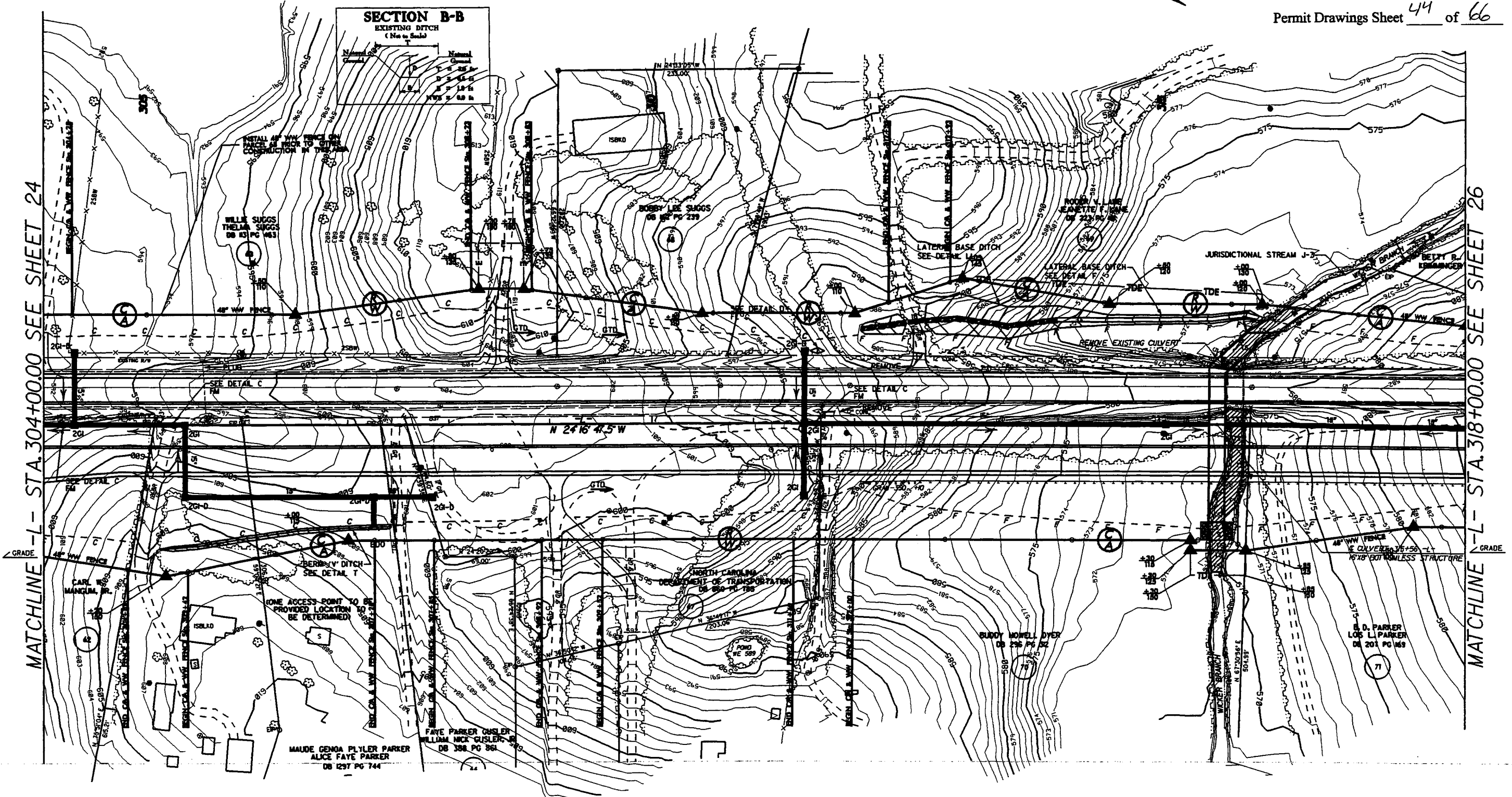


SITE 16 -L- STA. 315 + 56

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 25
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR R.F.V. ACCURACY</small>	



Permit Drawings Sheet 44 of 66



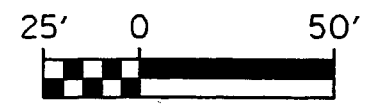
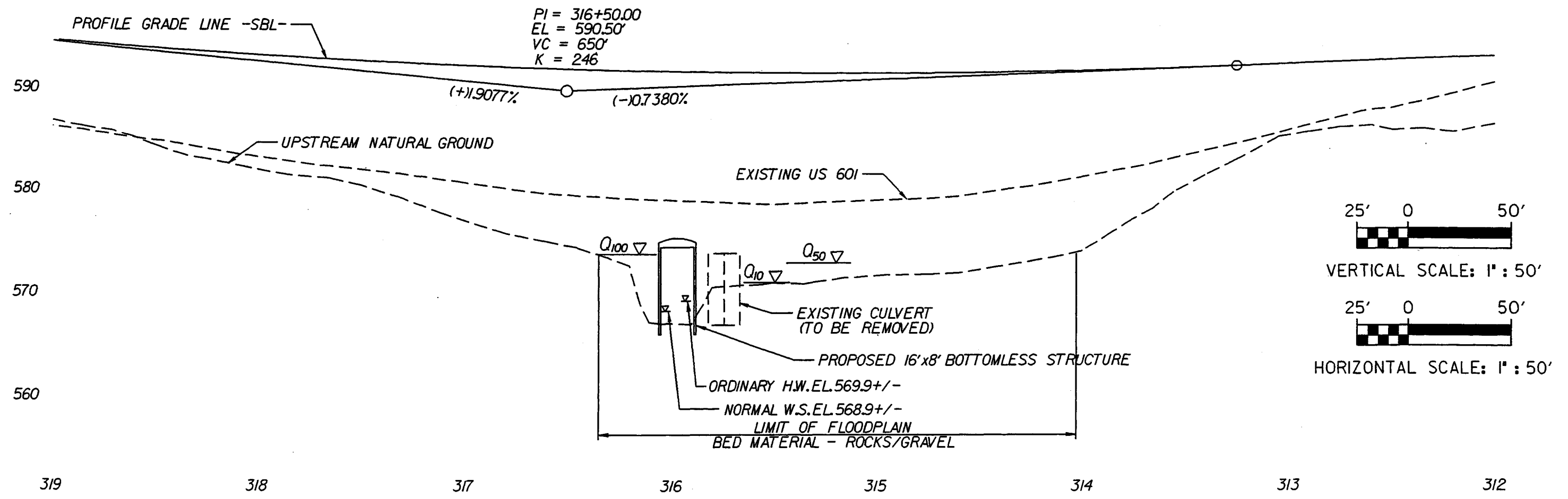
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



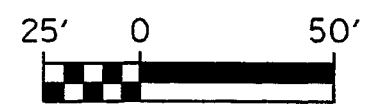
SITE 16 -L- STA 315+56

PROJECT REFERENCE NO. R-2616 ABB	SHEET NO. 28A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	

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VERTICAL SCALE: 1" : 50'



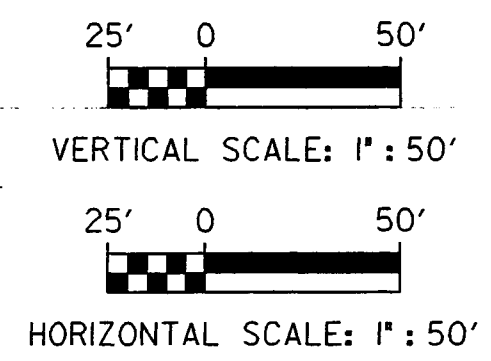
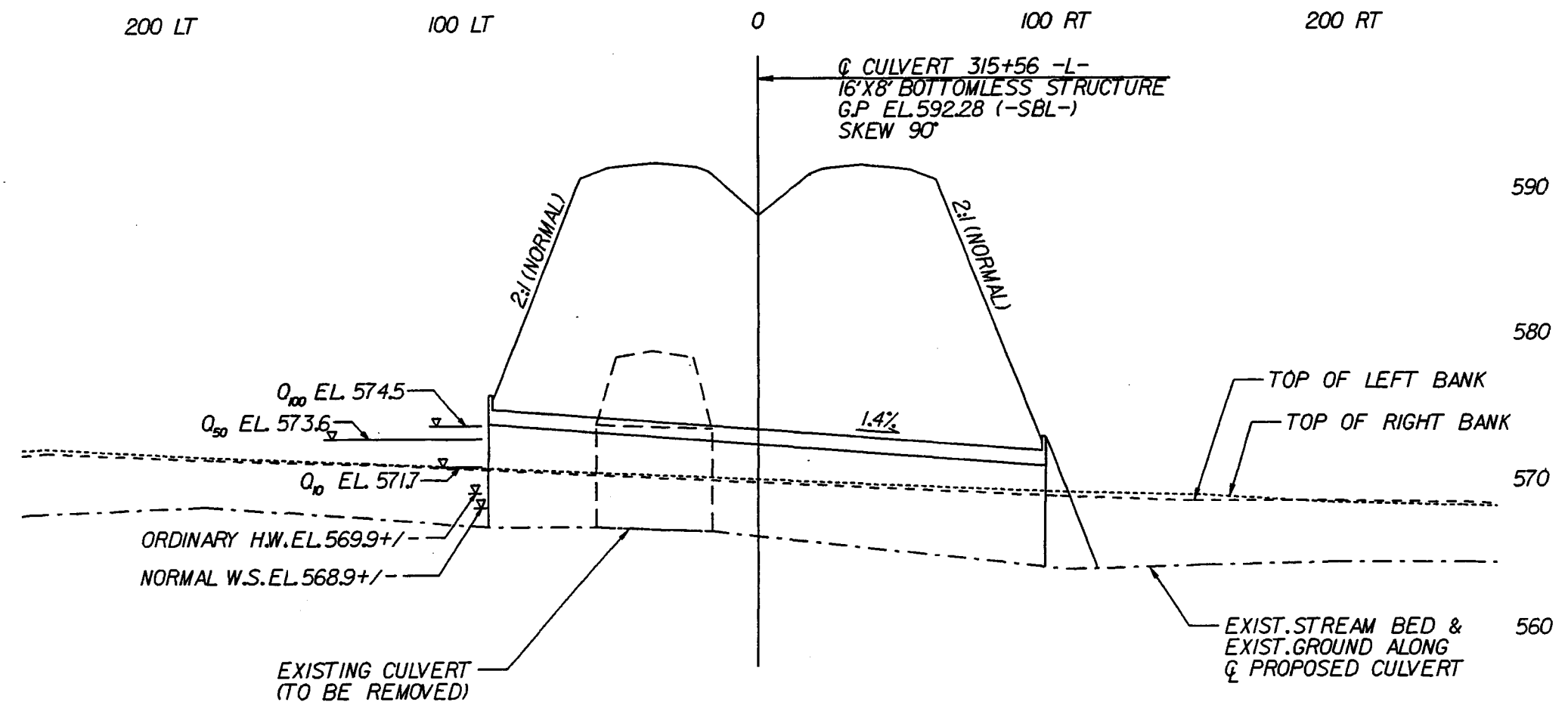
HORIZONTAL SCALE: 1" : 50'



SITE 16 -L- STA 315+56

PROJECT REFERENCE NO. R-2616 ABB	SHEET NO. 238
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>NOT FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR S.F.T. CONSTRUCTION</small>	

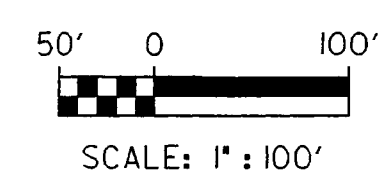
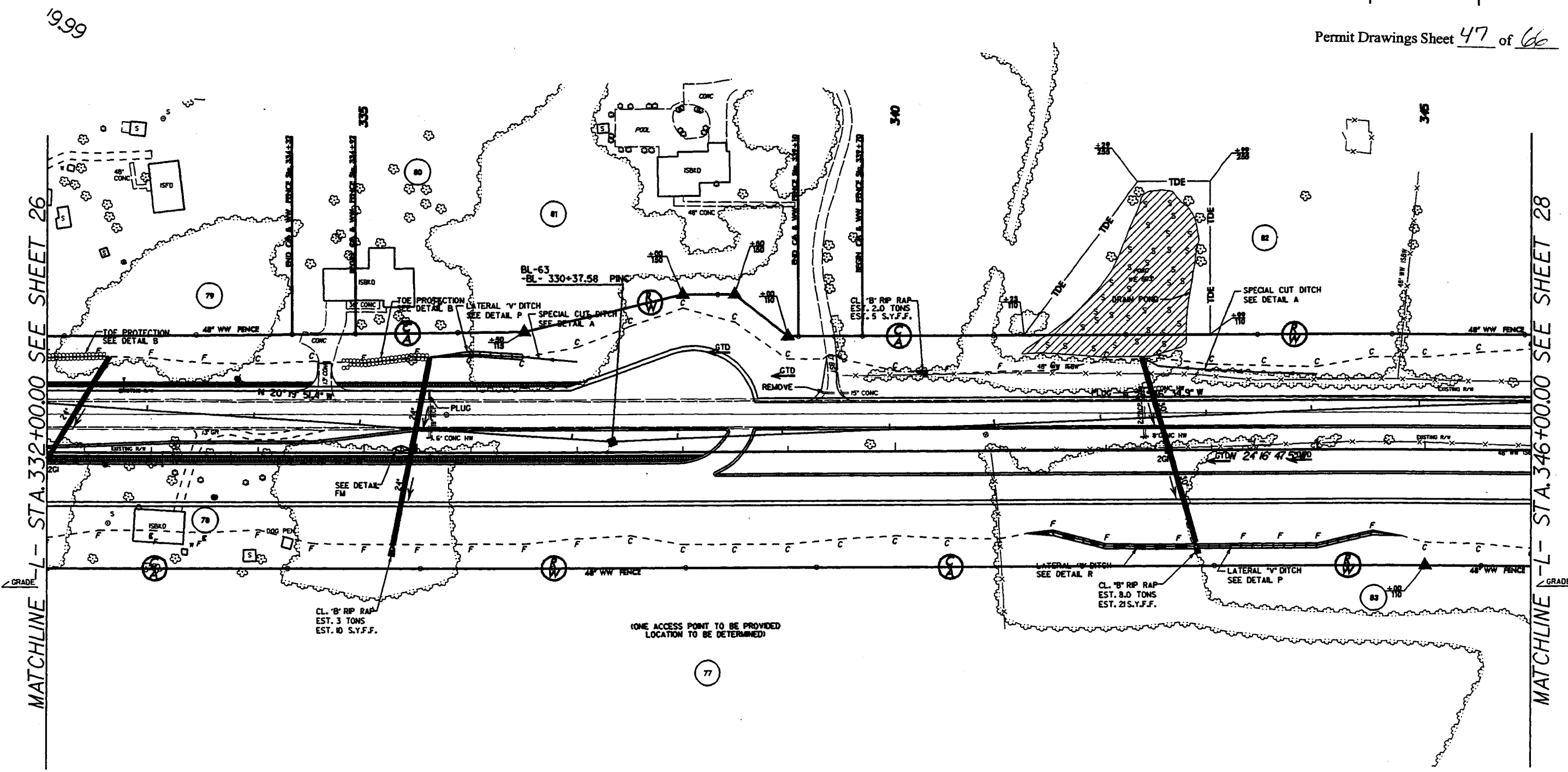
Permit Drawings Sheet 46 of 66



SITE 17 -L- STA. 342+00

PROJECT REFERENCE NO. I-2616 A&B	SHEET NO. 27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR Bidding</small>	

Permit Drawings Sheet 47 of 66



- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



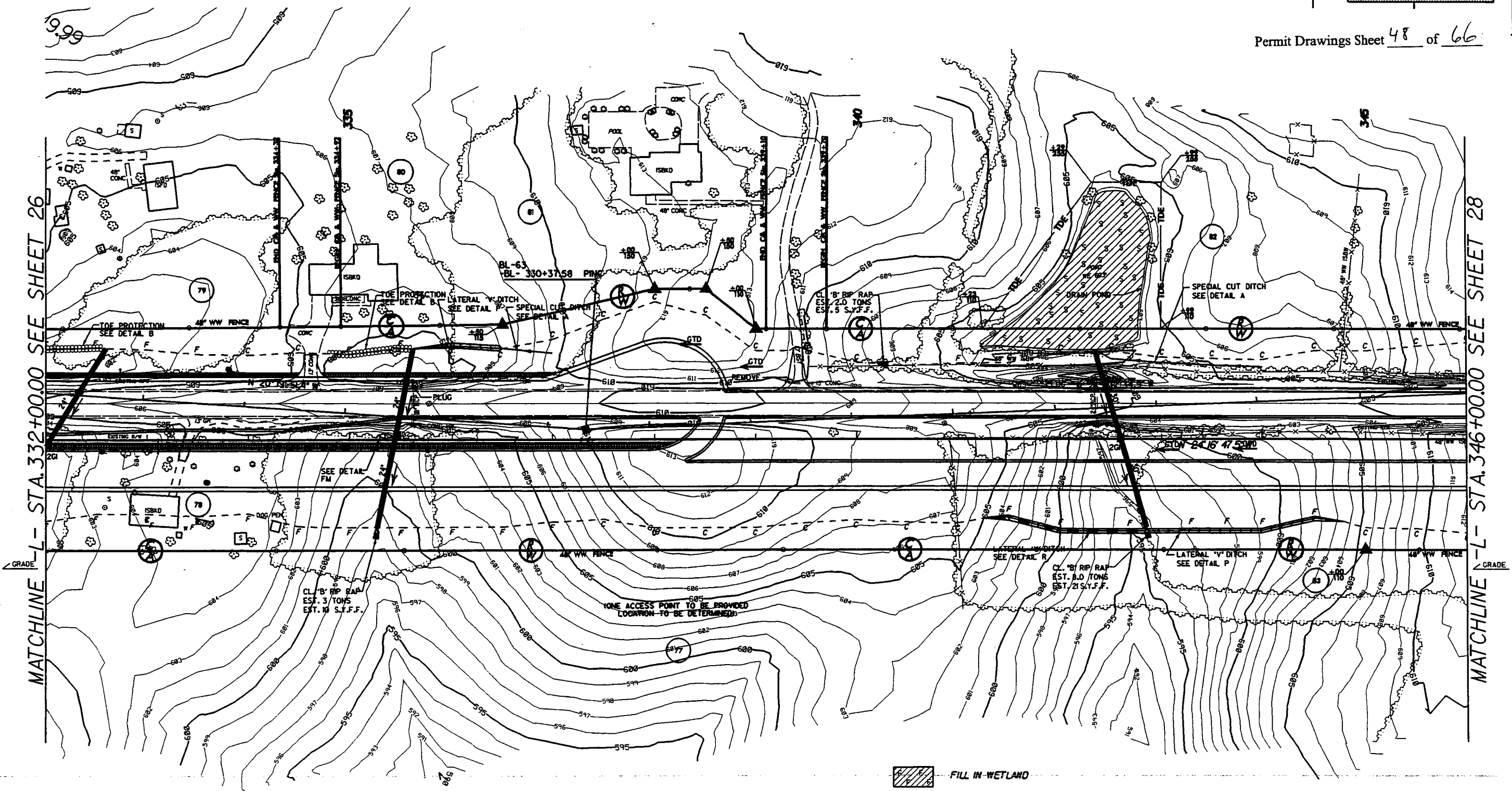
B-172
SCALE: AT 1/2"=100'

8/17/99

SITE 17 -L- STA. 342+00

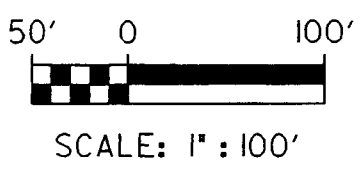
PROJECT REFERENCE NO. E-3616 AM	SHEET NO. 27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	





Permit Drawings Sheet 48 of 66



MATCHLINE -L- STA. 332+00.00 SEE SHEET 26

MATCHLINE -L- STA. 346+00.00 SEE SHEET 28

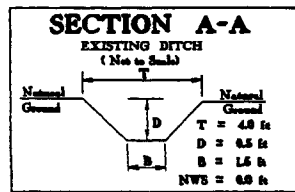


-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT



001 01 HY221524

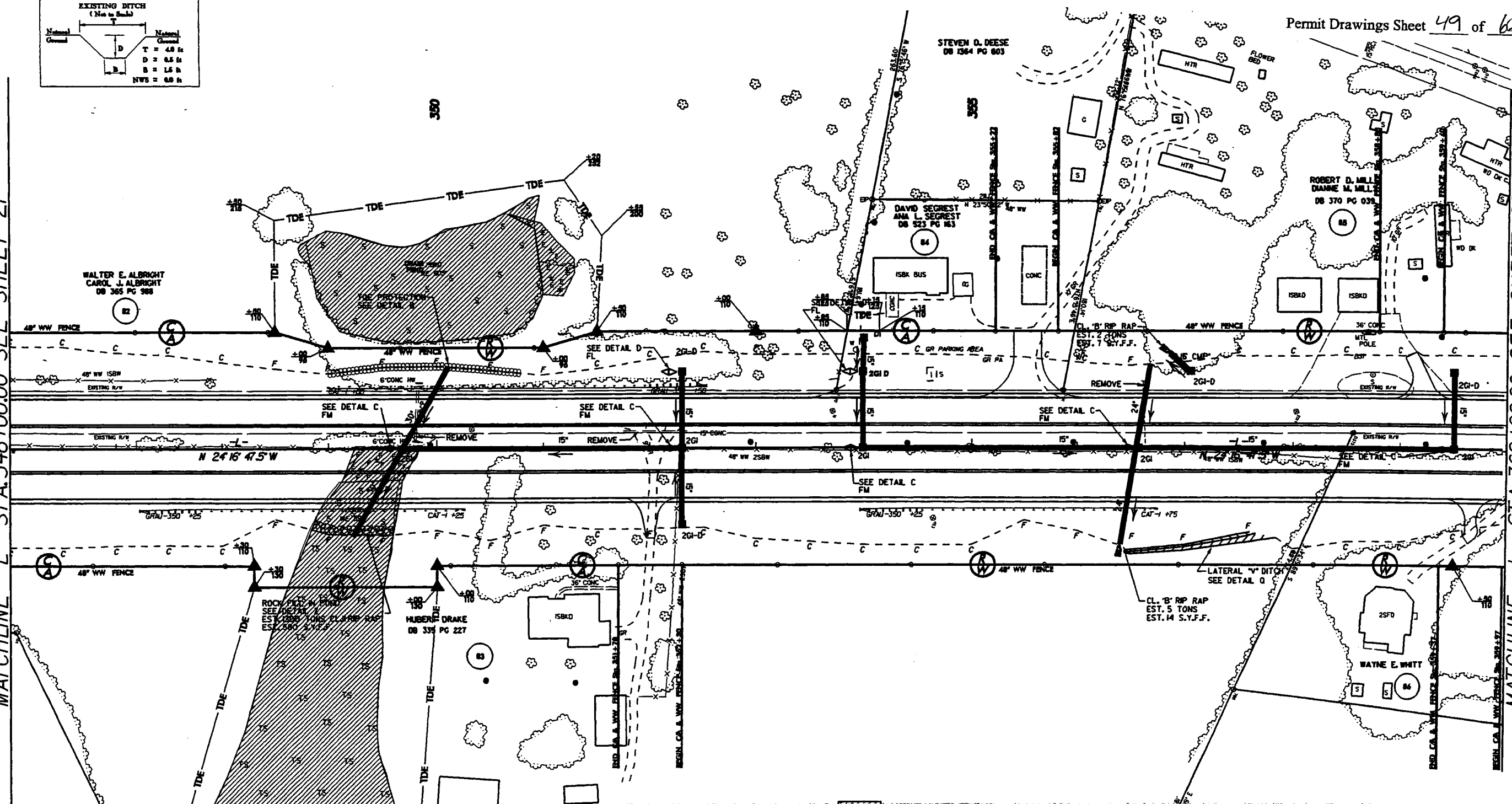
SITE 18 -L- STA. 349+50 RT
 SITE 19 -L- STA. 349+50 LT



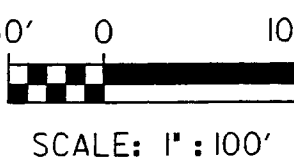
Permit Drawings Sheet 49 of 66

MATCHLINE -L- STA. 346+00.00 SEE SHEET 27

MATCHLINE -L- STA. 360+00.00 SEE SHEET 29



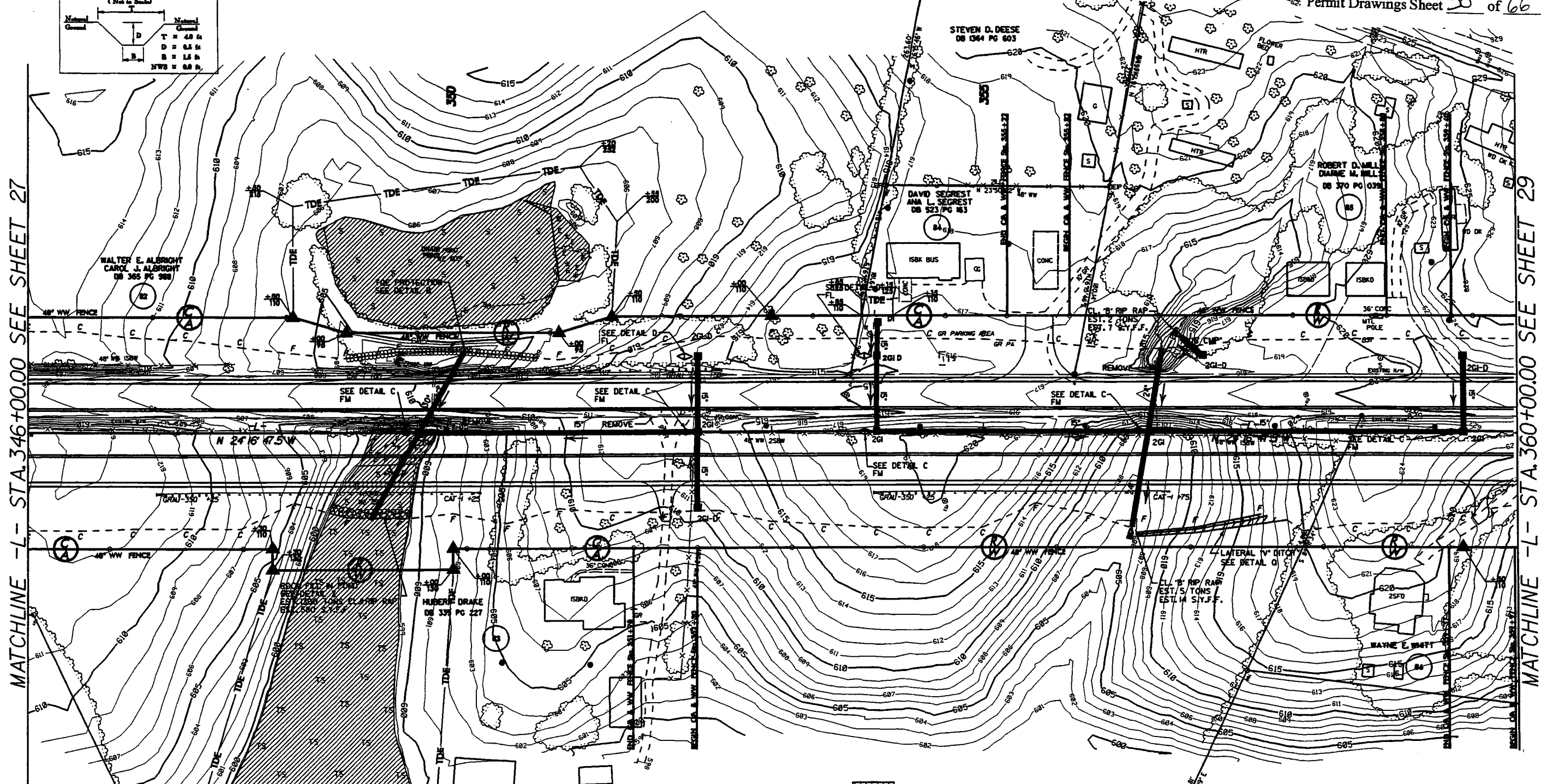
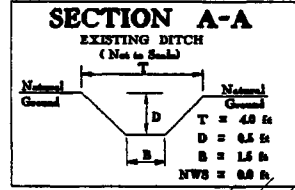
- EXCAVATION IN WETLAND
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 18 -L- STA. 349+50 RT
 SITE 19 -L- STA. 349+50 LT

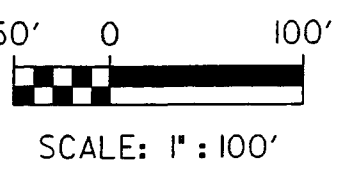
PROJECT REFERENCE NO. I-3514 A&B	SHEET NO. 28
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS OR ACCIDENTS</small>	

Permit Drawings Sheet 50 of 66



MATCHLINE -L- STA. 346+00.00 SEE SHEET 27

MATCHLINE -L- STA. 360+00.00 SEE SHEET 29



- EXCAVATION IN WETLAND
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

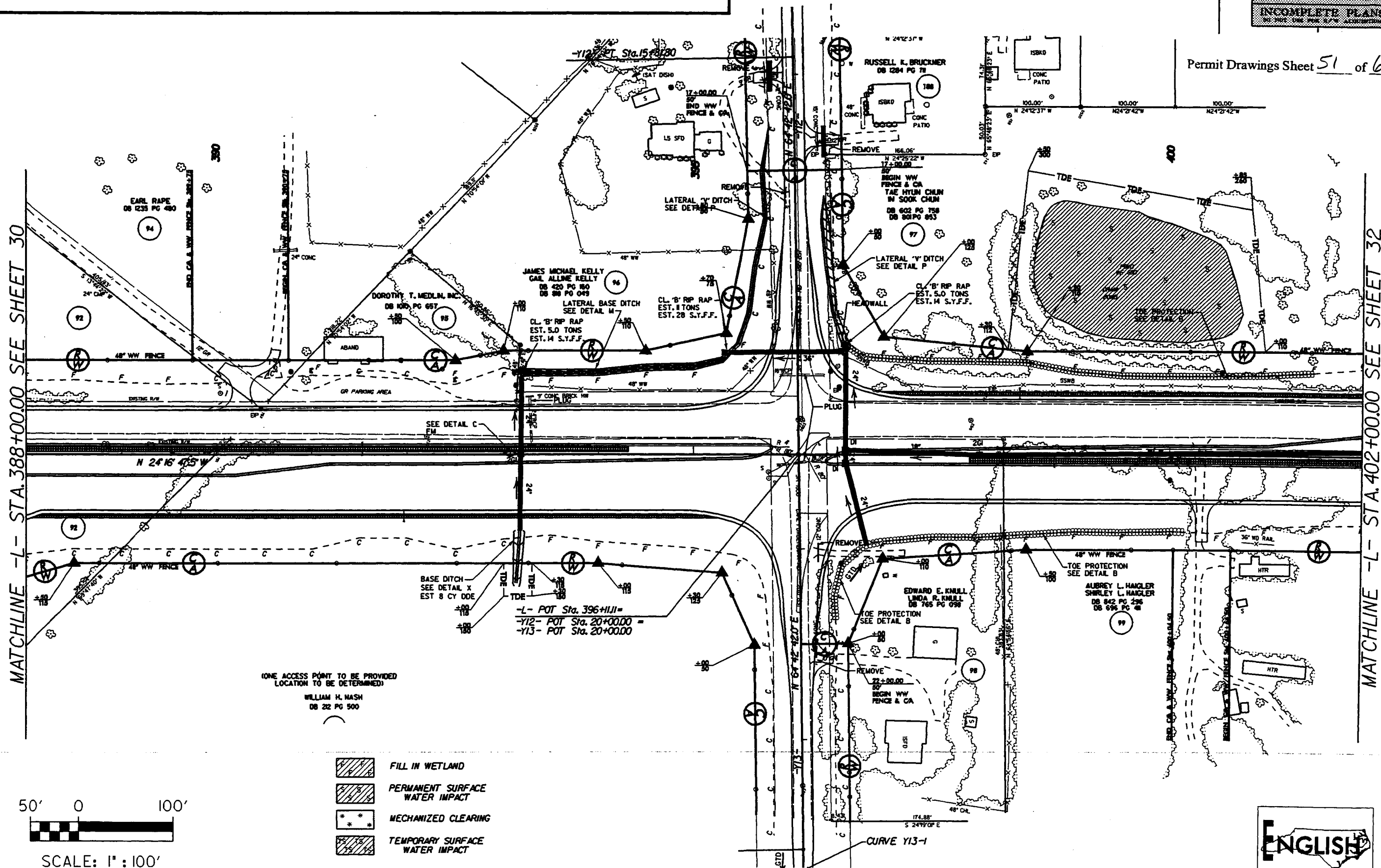


B/17/4/9

SITE 20 -L- STA. 400 + 00

PROJECT REFERENCE NO. R-2616 ADD	SHEET NO. 31
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS INCOMPLETE PLANS	

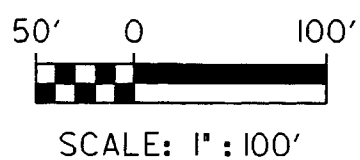
Permit Drawings Sheet 51 of 66







MATCHLINE -L- STA. 388+00.00 SEE SHEET 30

MATCHLINE -L- STA. 402+00.00 SEE SHEET 32

(ONE ACCESS POINT TO BE PROVIDED
LOCATION TO BE DETERMINED)
WILLIAM H. NASH
DB 22 PG 500



-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT



8/17/95

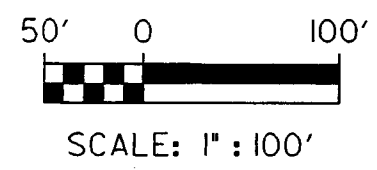
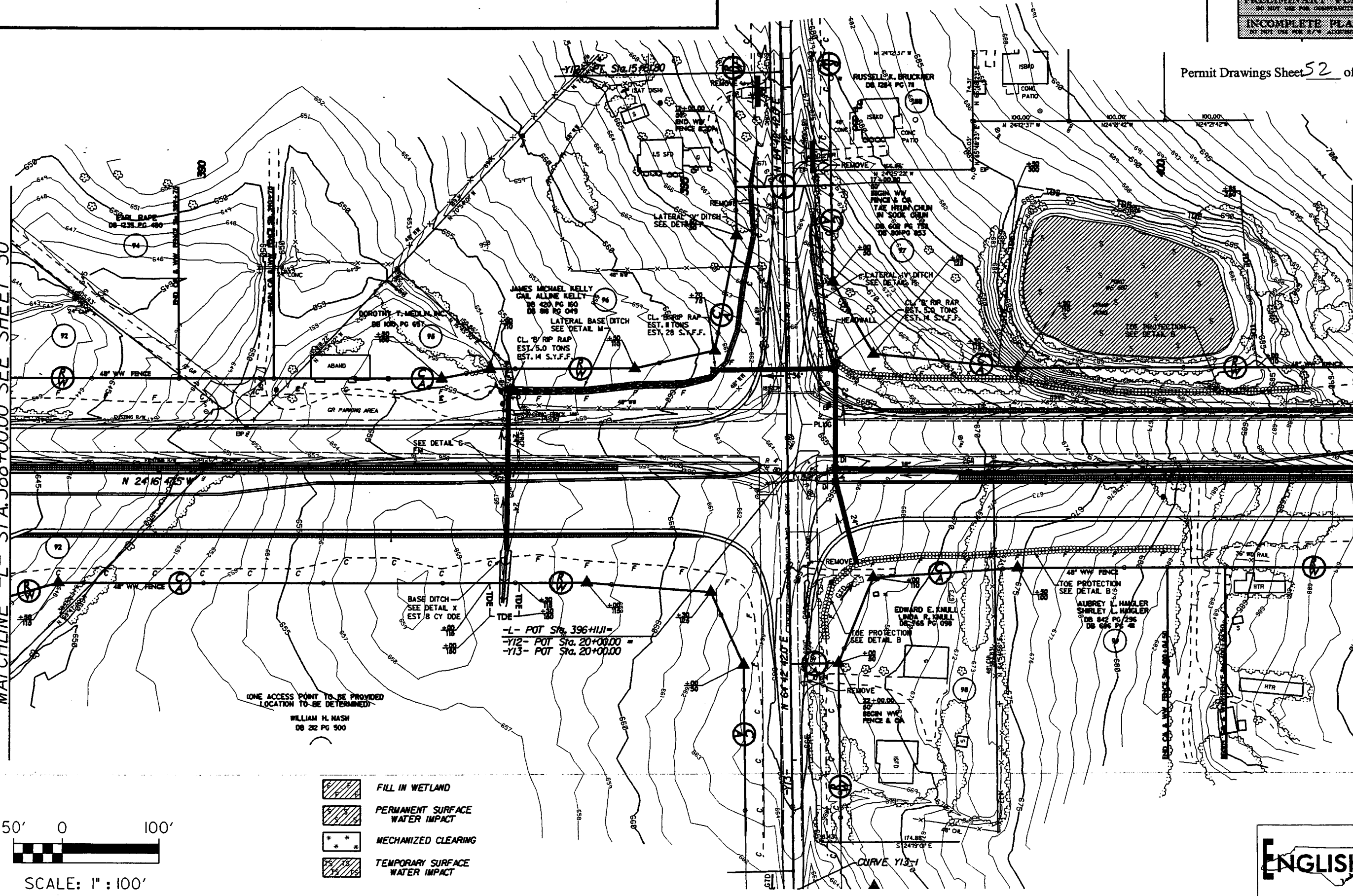
SITE 20 -L- STA. 400 + 00

PROJECT REFERENCE NO. I-2616 A&B	SHEET NO. 31
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	
INCOMPLETE PLANS DO NOT USE FOR 8 1/2" ALUMINUM	

Permit Drawings Sheet 52 of 66

MATCHLINE -L- STA. 388+00.00 SEE SHEET 30

MATCHLINE -L- STA. 402+00.00 SEE SHEET 32



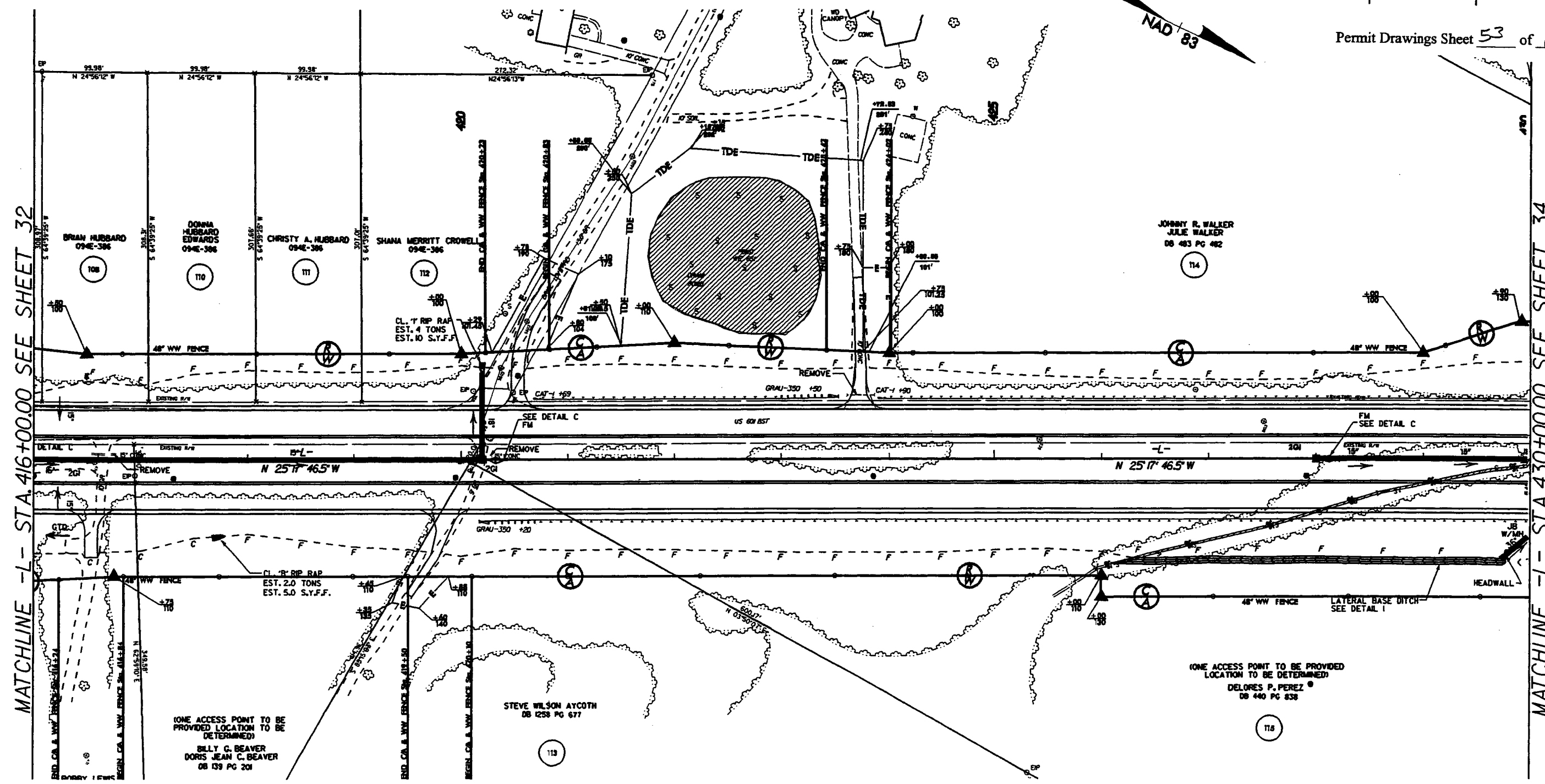
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 21 -L- STA. 422+00 LT.
 SITE 22 -L- STA. 426+03 RT - 430+50 LT

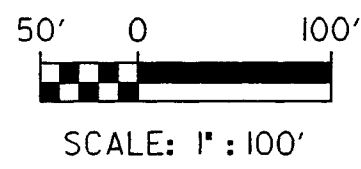
PROJECT REFERENCE NO. S-2616 A&B	SHEET NO. 33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR U.T.M. ACCURACY</small>	

Permit Drawings Sheet 53 of 66

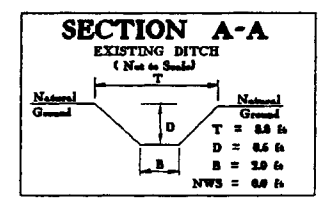


MATCHLINE -L- STA. 416+00.00 SEE SHEET 32

MATCHLINE -L- STA. 430+00.00 SEE SHEET 34



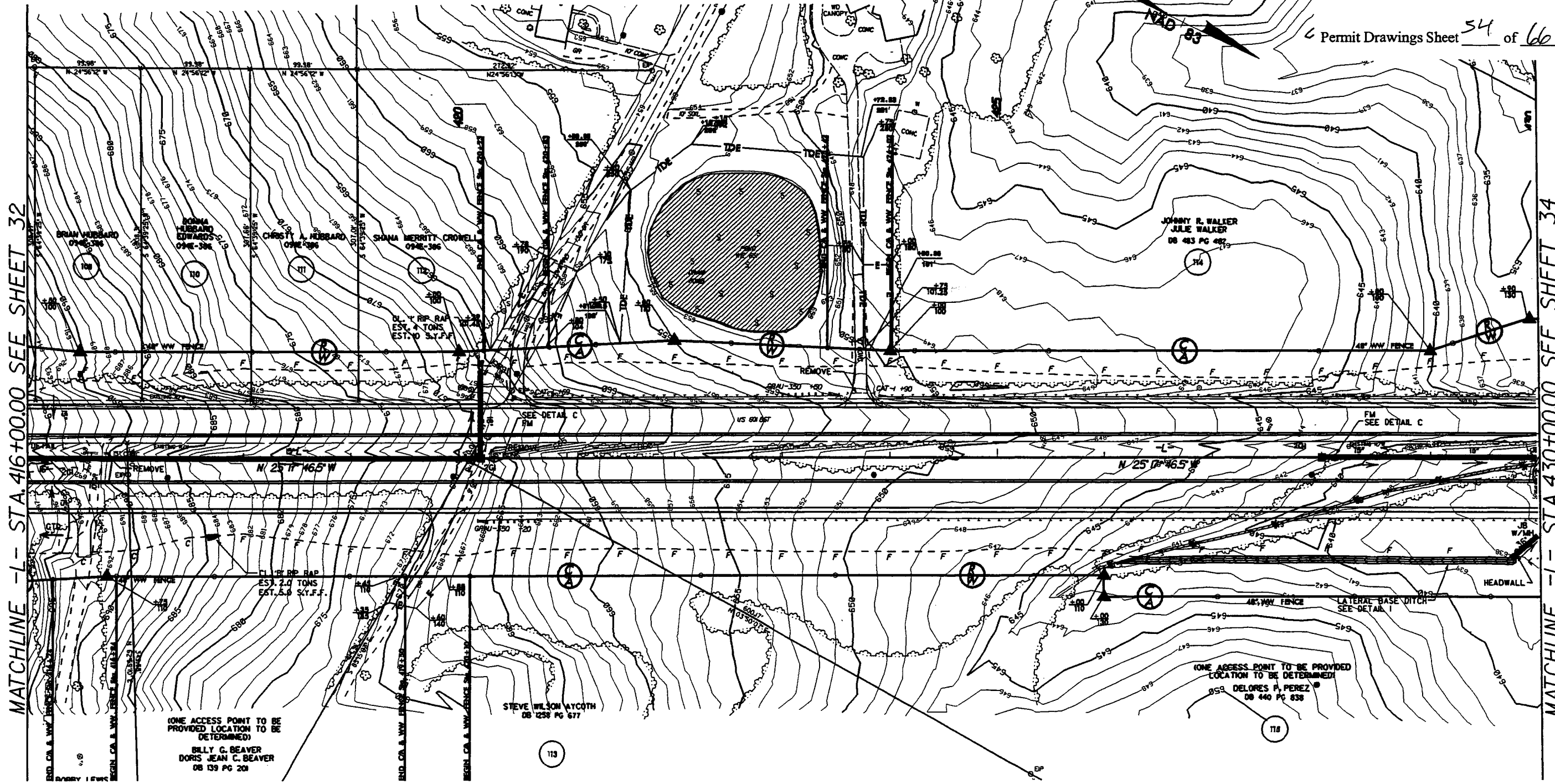
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



SITE 21 -L- STA. 422 + 00 LT.
 SITE 22 -L- STA. 426 + 03 RT - 430 + 50 LT

PROJECT REFERENCE NO. R-2416 A&M	SHEET NO. 33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	

Permit Drawings Sheet 54 of 66



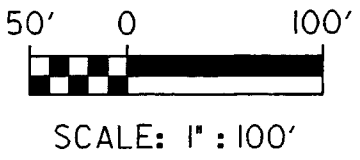
MATCHLINE -L- STA. 416+00.00 SEE SHEET 32

MATCHLINE -L- STA. 430+00.00 SEE SHEET 34

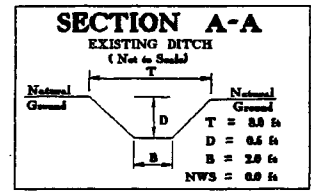
(ONE ACCESS POINT TO BE PROVIDED LOCATION TO BE DETERMINED)
 BILLY G. BEAVER
 DORIS JEAN C. BEAVER
 DB 139 PG 201

STEVE WILSON MYCOTH
 DB 129 PG 677

(ONE ACCESS POINT TO BE PROVIDED LOCATION TO BE DETERMINED)
 DELORES P. PEREZ
 DB 440 PG 638

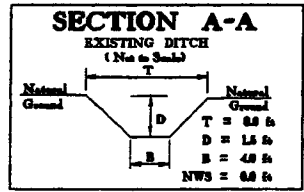


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

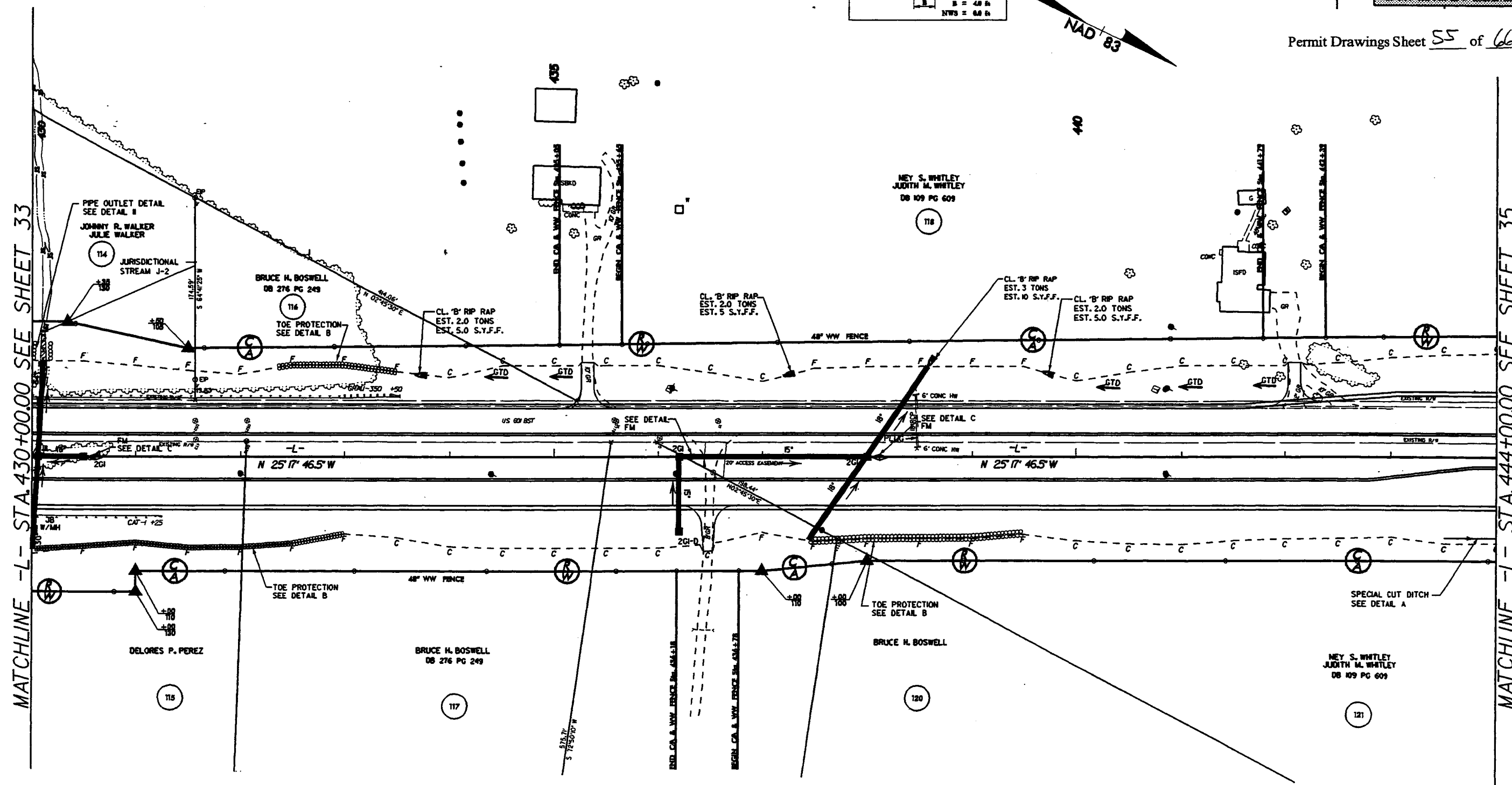


SITE 22 -L- STA. 430 + 50

PROJECT REFERENCE NO. R-2816 A&B	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS INCOMPLETE PLANS	

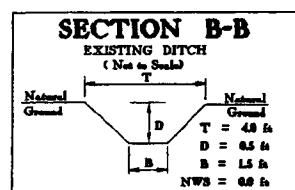
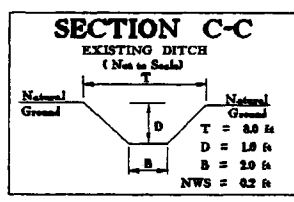
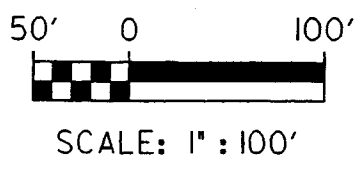


Permit Drawings Sheet 55 of 66



MATCHLINE -L- STA. 430+00.00 SEE SHEET 33

MATCHLINE -L- STA. 444+00.00 SEE SHEET 35

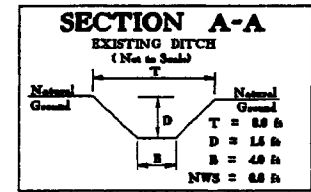


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

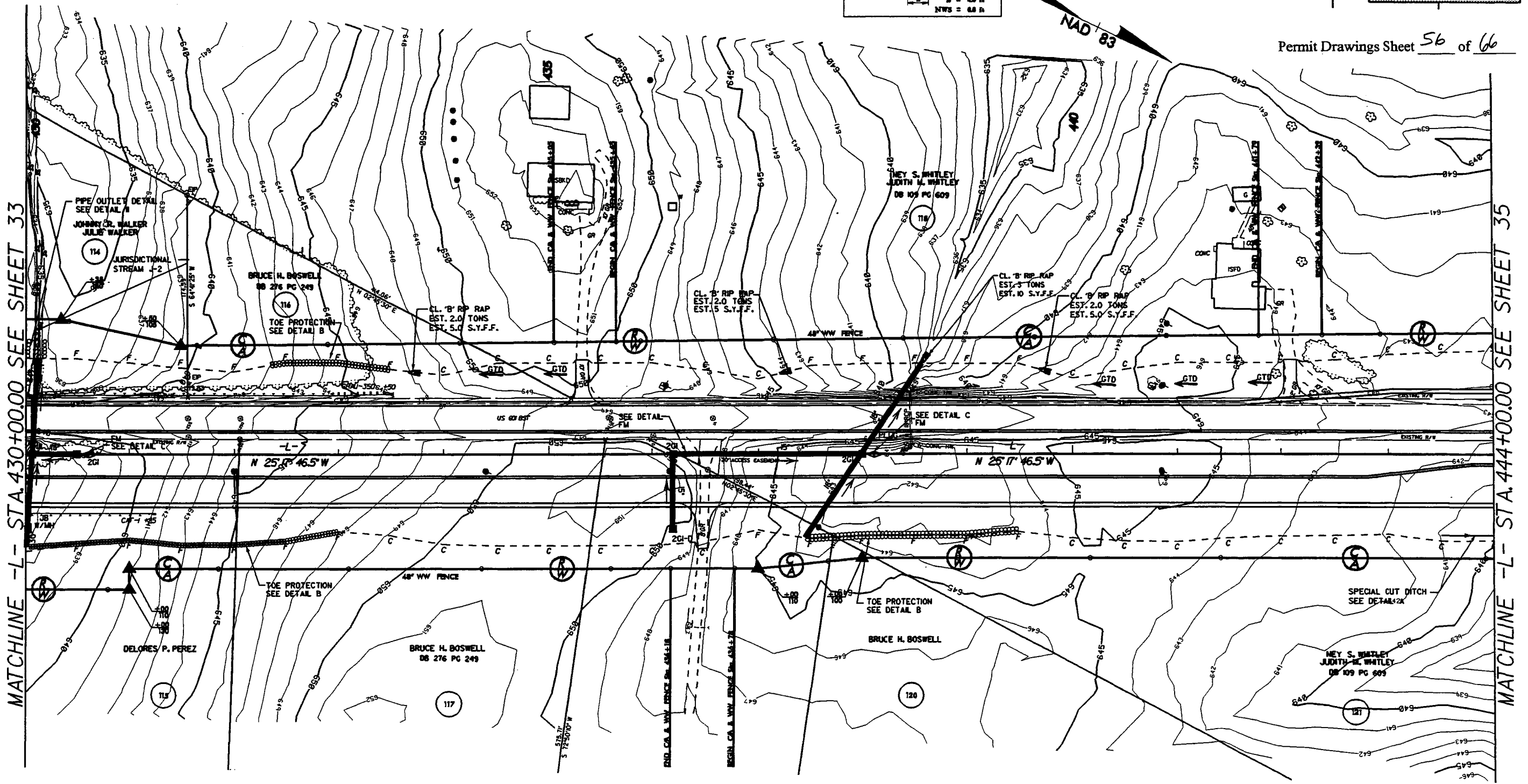


SITE 22 -L- STA. 430 + 50

PROJECT REFERENCE NO. R-2816 A&B	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS DO NOT USE FOR S&P ACCORDANCE	

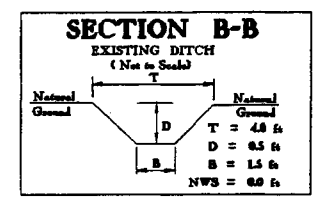
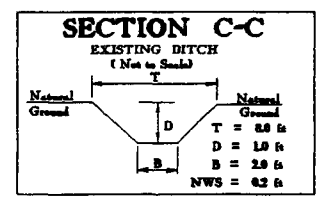
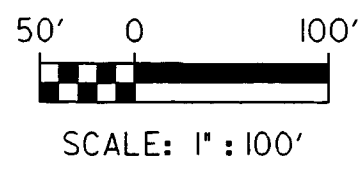


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MATCHLINE -L- STA. 430+00.00 SEE SHEET 33

MATCHLINE -L- STA. 444+00.00 SEE SHEET 35

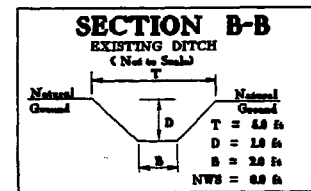
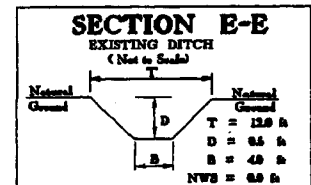


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT



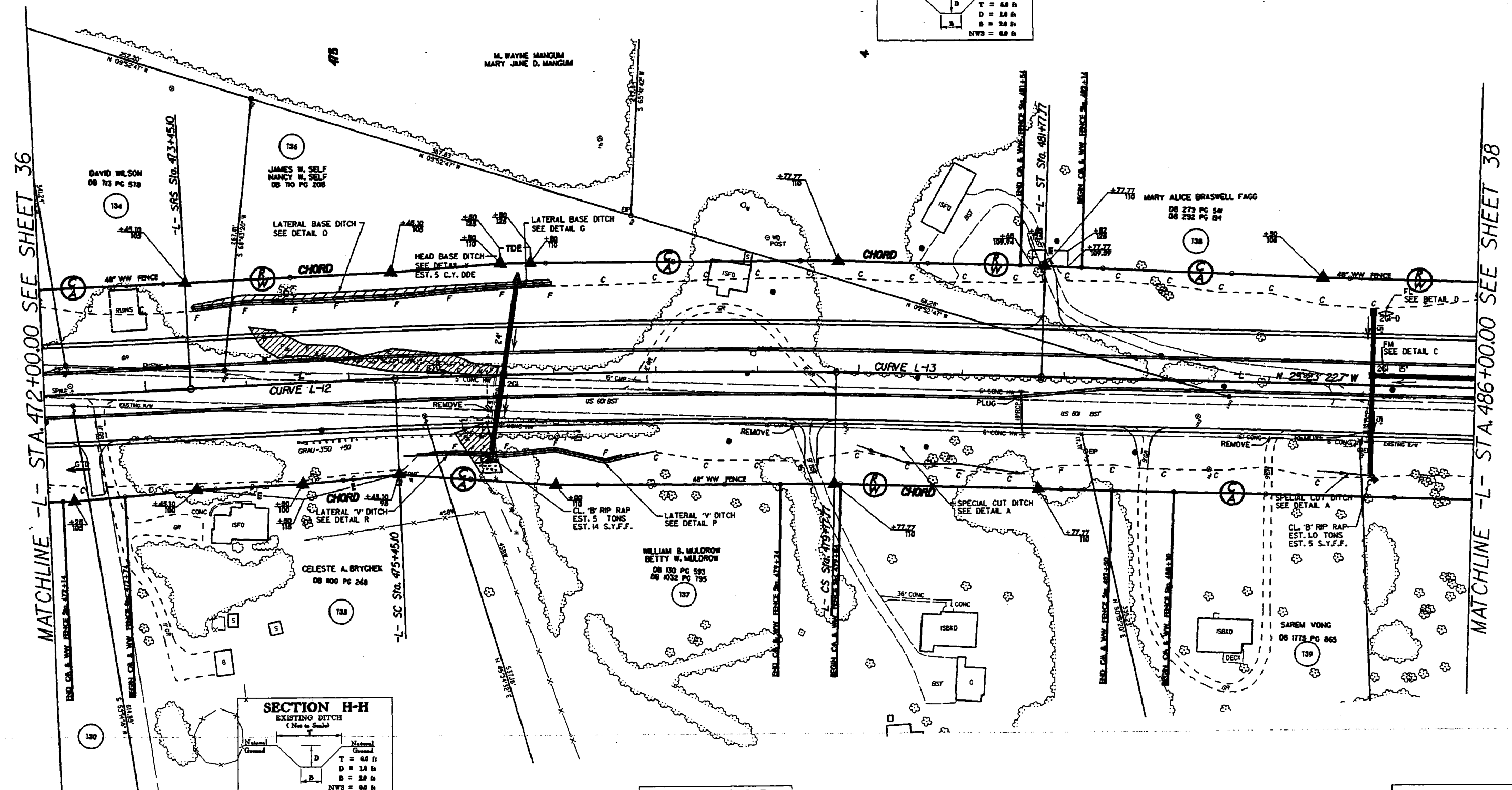
SITE 23 -L- STA. 474+07
 - STA. 476+41

PROJECT REFERENCE NO. R-2614 AMB	SHEET NO. 37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION INCOMPLETE PLANS NO V.P.P. USE FOR E.L.V. ACQUISITION	



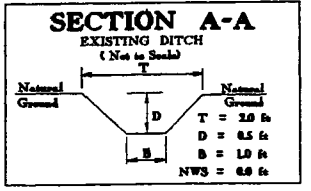
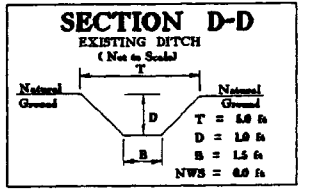
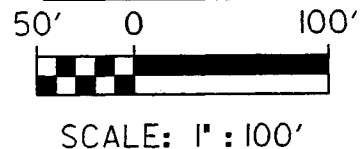
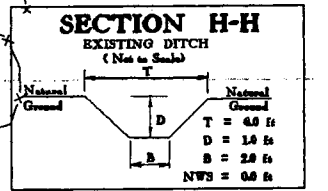
- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

Permit Drawings Sheet 57 of 66



MATCHLINE -L- STA. 472+00.00 SEE SHEET 36

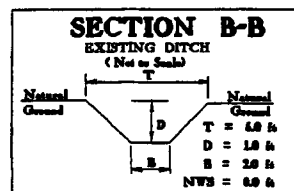
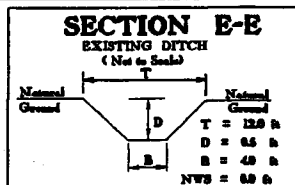
MATCHLINE -L- STA. 486+00.00 SEE SHEET 38



SITE 23 -L- STA. 474 + 07

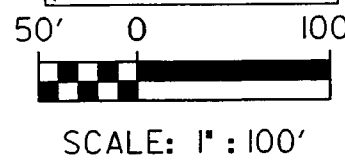
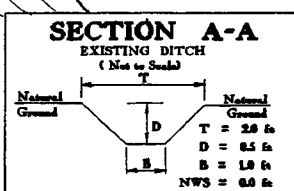
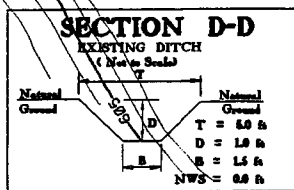
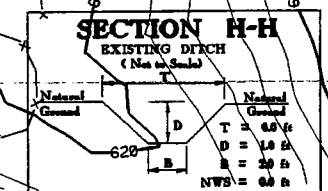
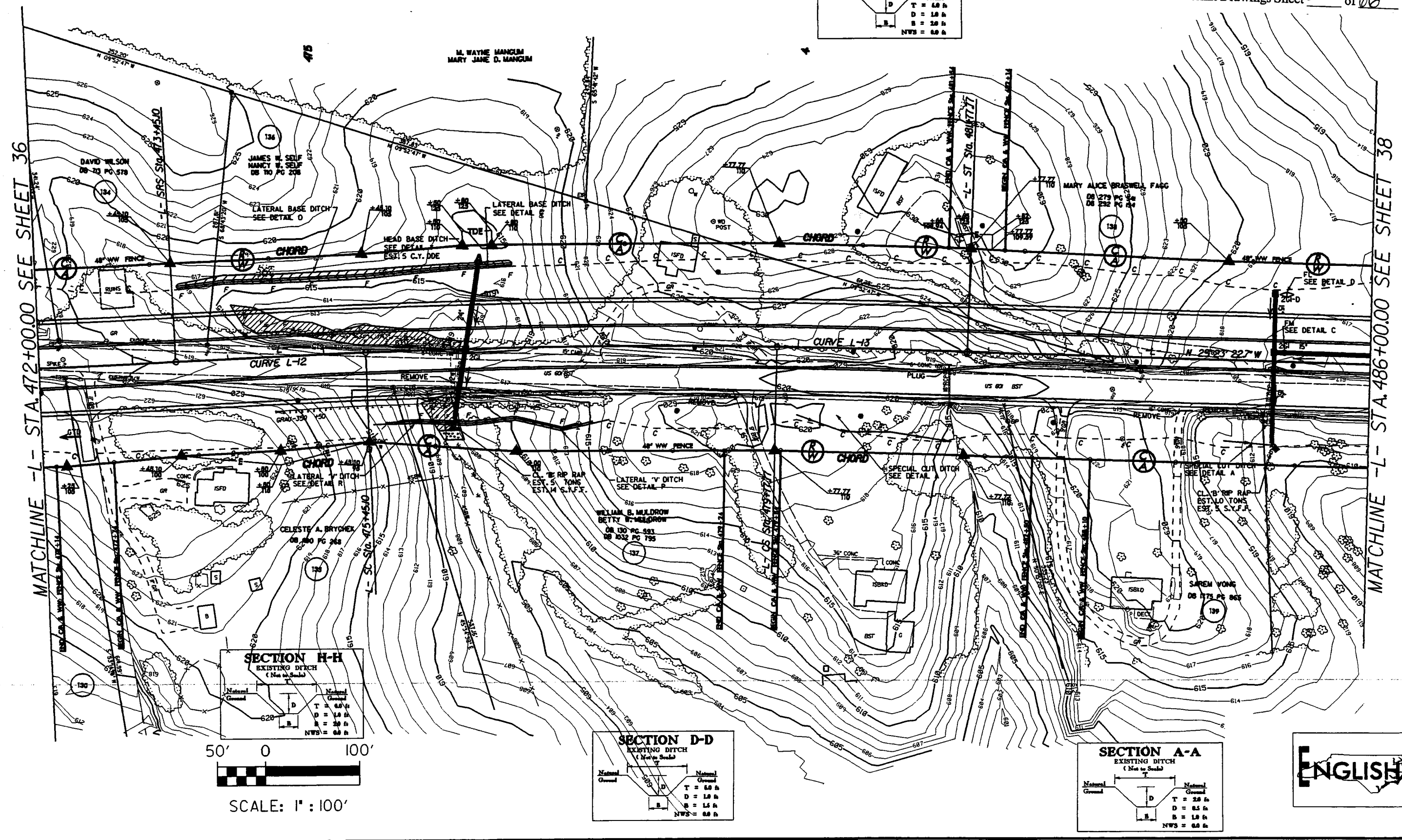
- STA. 476 + 41

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 37
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	







- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

Permit Drawings Sheet 58 of 66

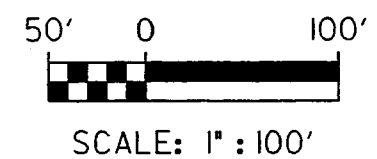
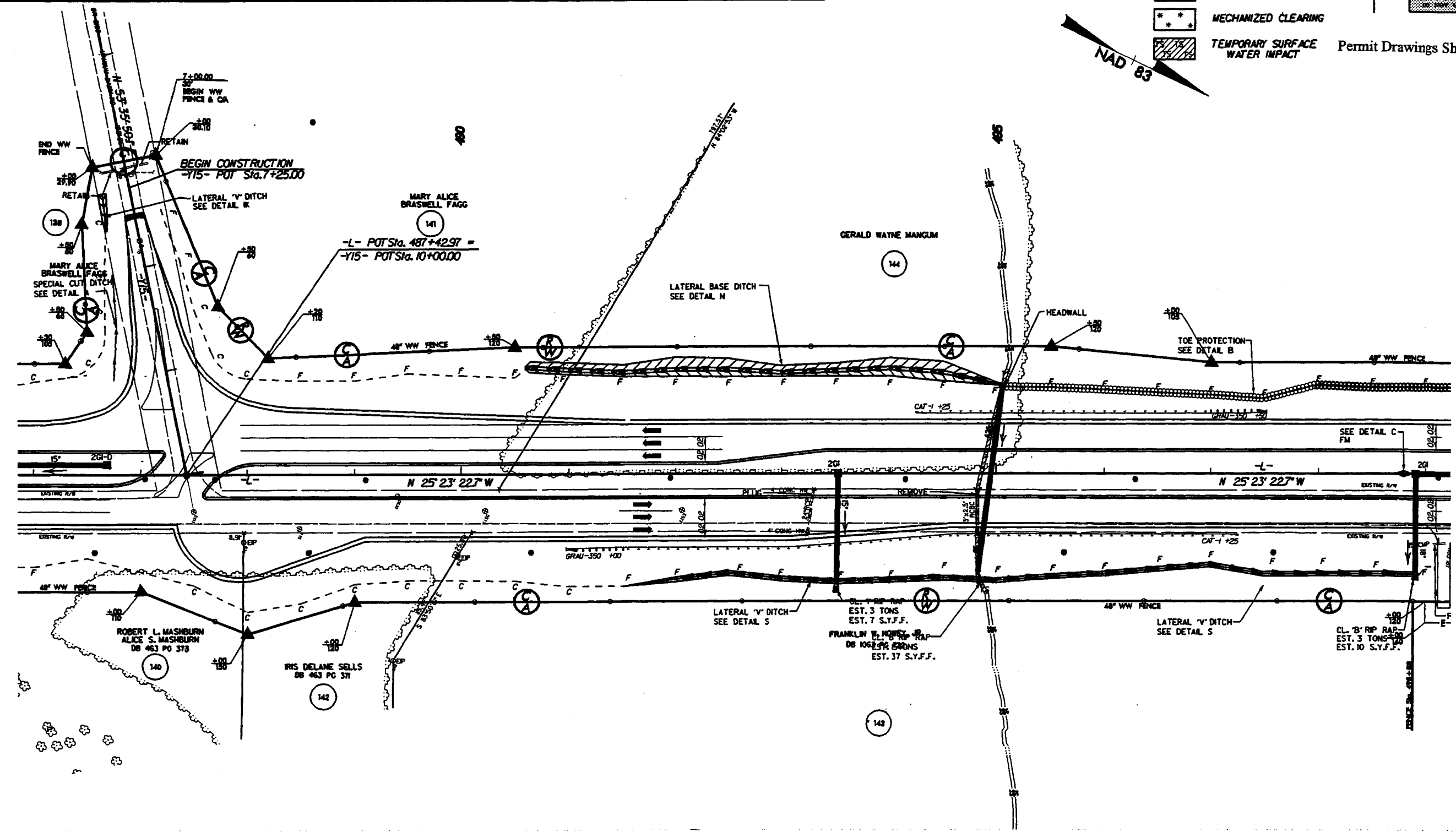
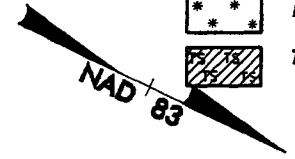


SITE 23A -L- STA. 495 + 00

PROJECT REFERENCE NO. R-2616 AMB	SHEET NO. 38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>FOR REVIEW AND COMMENT ONLY</small>	
INCOMPLETE PLANS <small>FOR REVIEW AND COMMENT ONLY</small>	





-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT

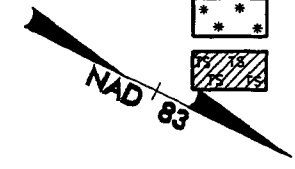
Permit Drawings Sheet **59** of **66**



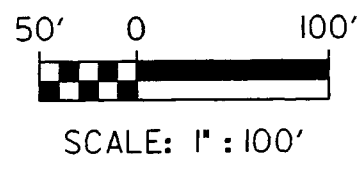
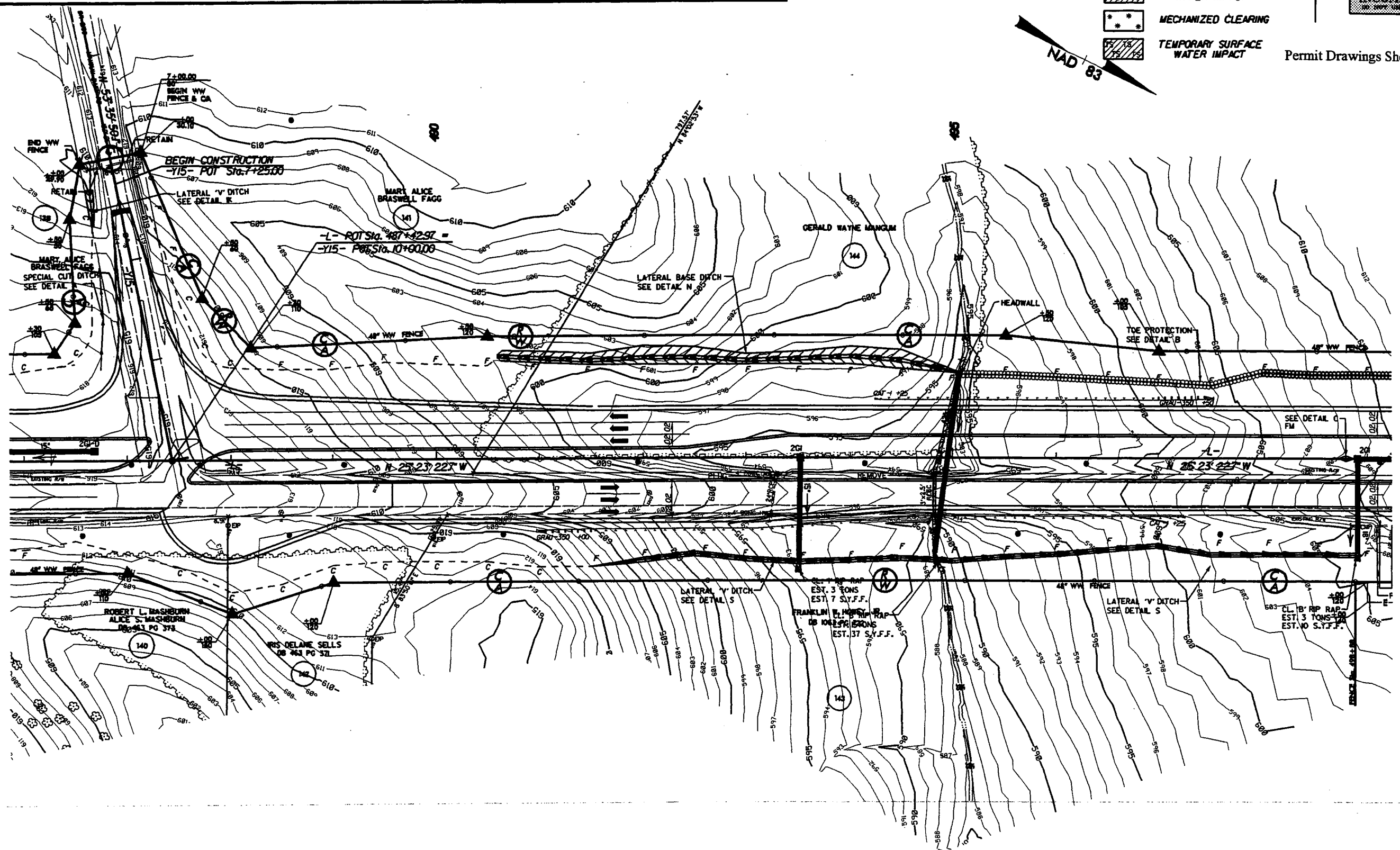
SITE 23A -L- STA. 495 + 00

PROJECT REFERENCE NO. R-2614 AM	SHEET NO. 38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR S.F.F. ADJUSTMENT</small>	

-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT







Permit Drawings Sheet 60 of 66

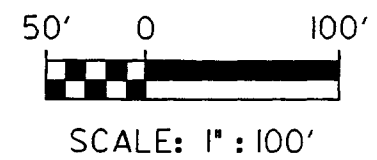
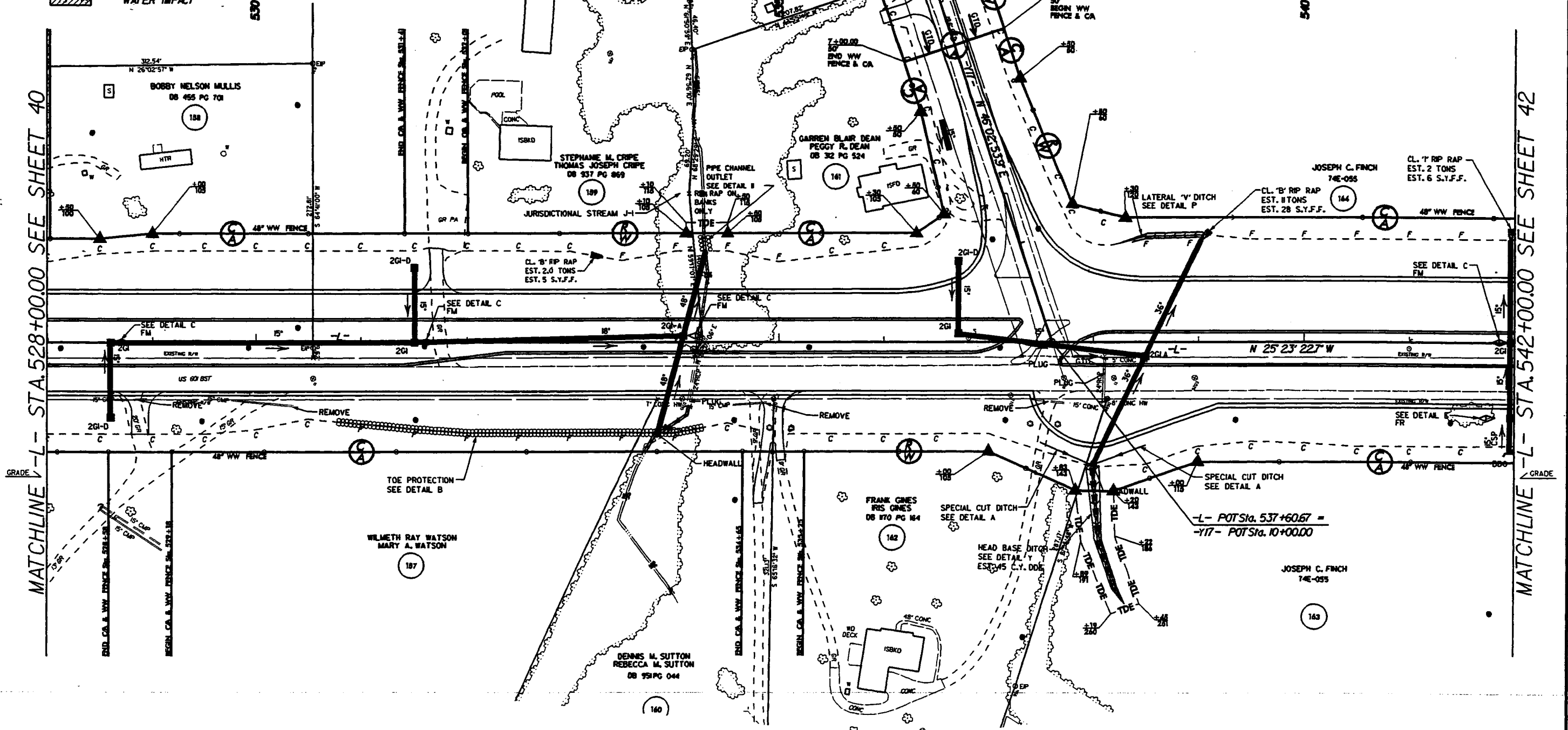


SITE 24 -L- STA. 534 + 20

PROJECT REFERENCE NO. E-2416 A&B	SHEET NO. 41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	

Permit Drawings Sheet 61 of 66





-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT

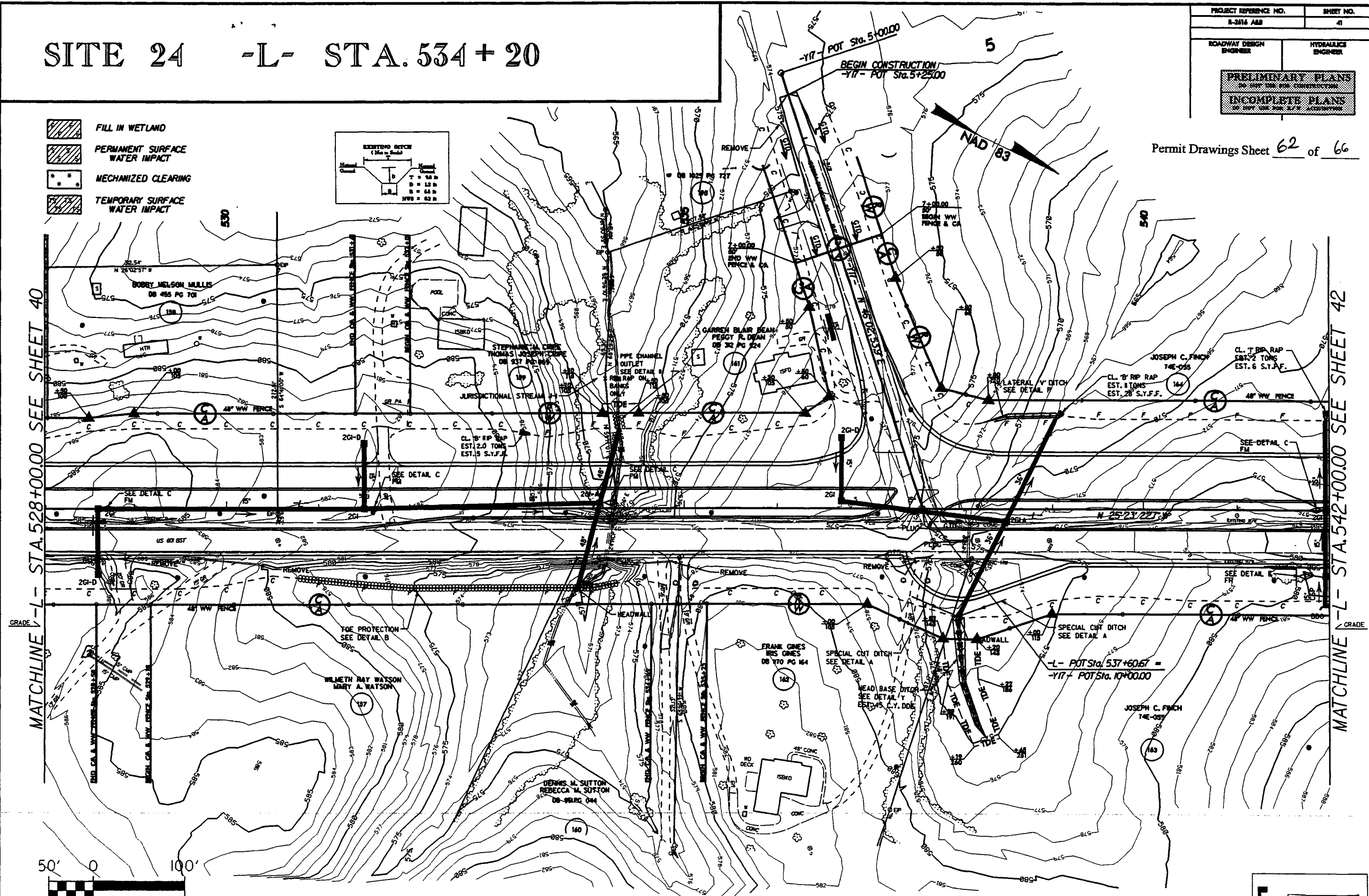
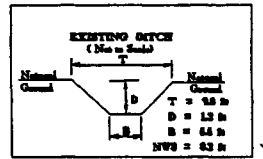


SITE 24 -L- STA. 534 + 20

PROJECT REFERENCE NO. I-3814 ADD	SHEET NO. 41
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

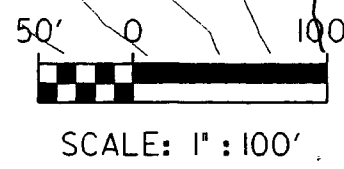
Permit Drawings Sheet 62 of 66

-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT



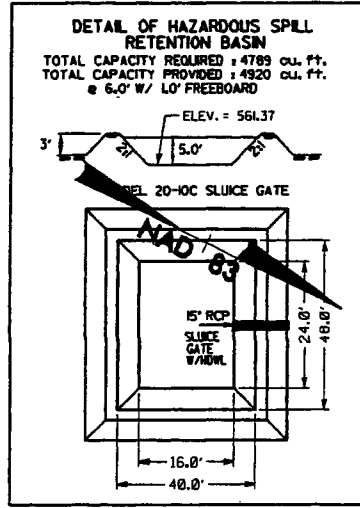
MATCHLINE -L- STA. 528+00.00 SEE SHEET 40

MATCHLINE -L- STA. 542+00.00 SEE SHEET 42



SITE 25 -L- STA. 549+60

PROJECT REFERENCE NO. R-2616 A&B	SHEET NO. 42
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR PERMITS</small>	

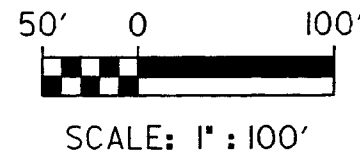
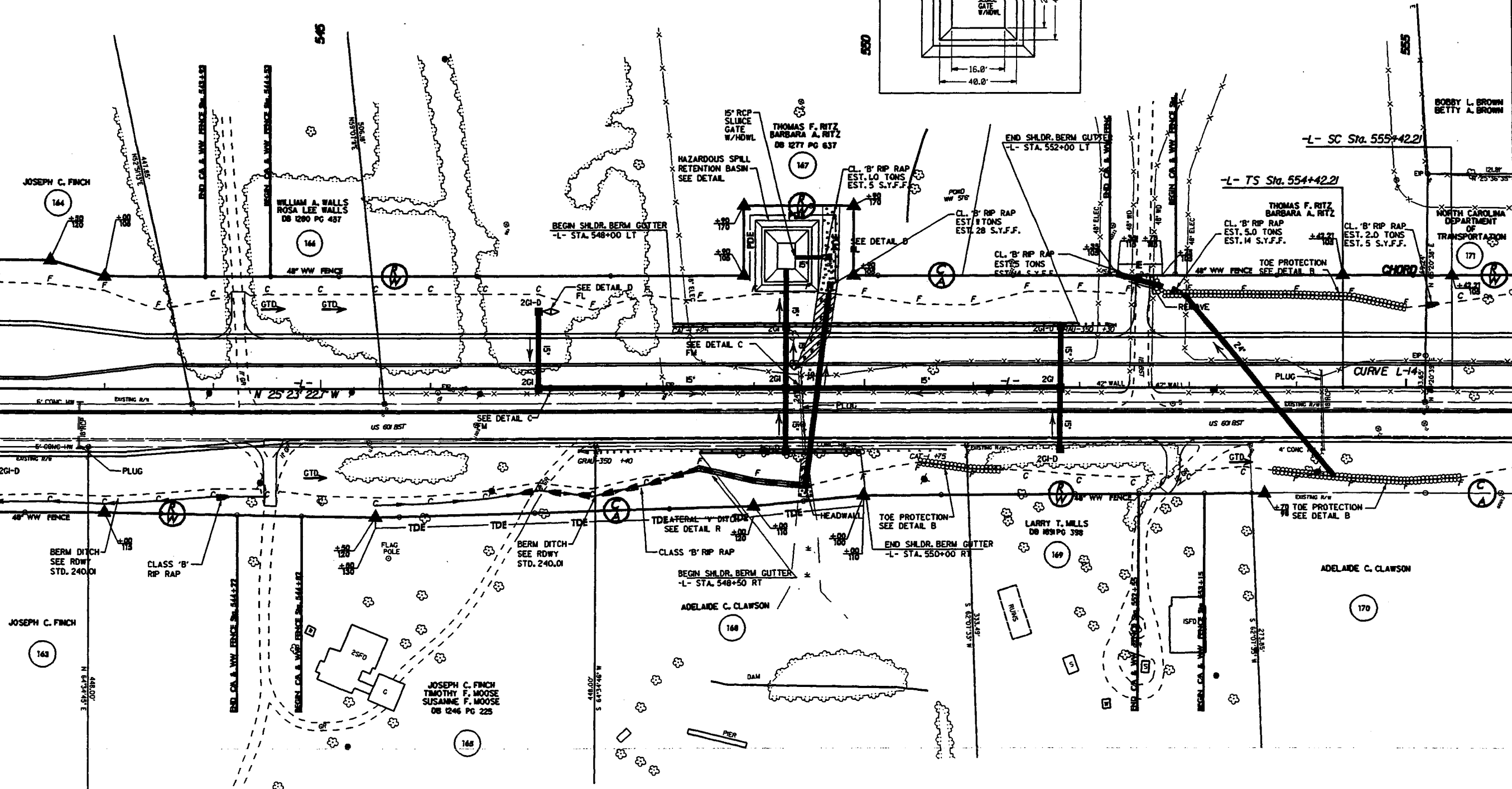


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEAR
- TEMPORARY SURFAC WATER IMPACT

Permit Drawings Sheet **63** of **66**

MATCHLINE -L- STA. 542+00.00 SEE SHEET 41

MATCHLINE -L- STA. 556+00.00 SEE SHEET 43

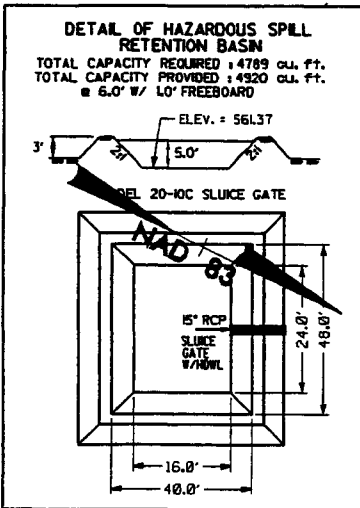


CURVE L-14
 Pts Sta 555+00.00 Pts Sta 556+00.00 Pts Sta 558+



SITE 25 -L- STA. 549 + 60

PROJECT REFERENCE NO. A-3414 A&B	SHEET NO. 42
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR R.F.M. ACQUISITION</small>	

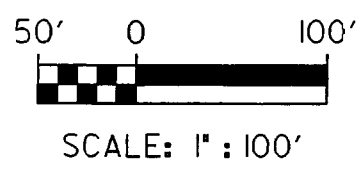
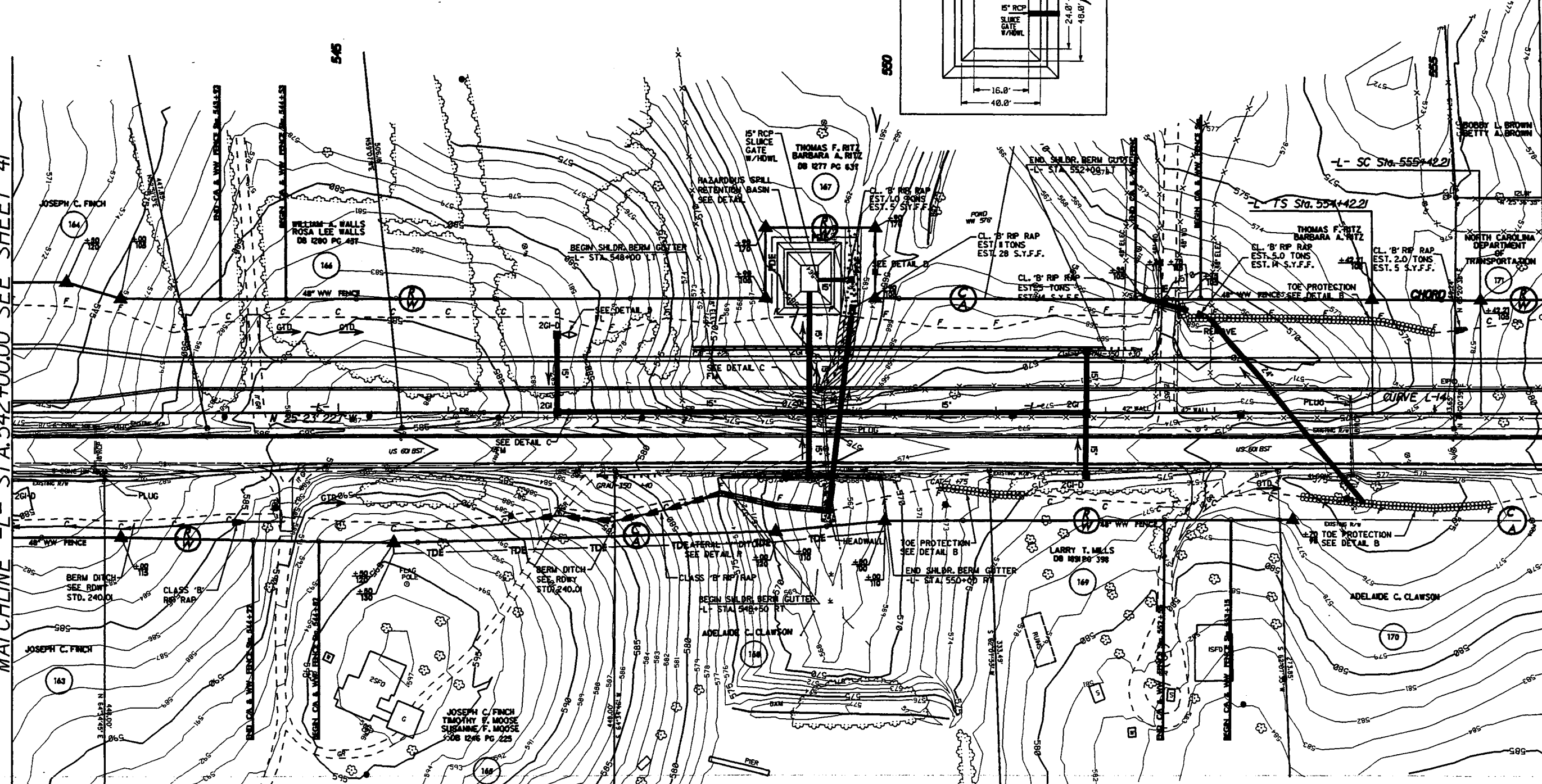


- FILL IN WETLAND
- PERMANENT SURFACE WATER IMPACT
- MECHANIZED CLEARING
- TEMPORARY SURFACE WATER IMPACT

Permit Drawings Sheet **64** of **66**

MATCHLINE -L- STA. 542+00.00 SEE SHEET 41

MATCHLINE -L- STA. 556+00.00 SEE SHEET 43







CURVE L-14
 PLS STA 555+00.00 PLS STA 556+00.00 PLS STA 558+

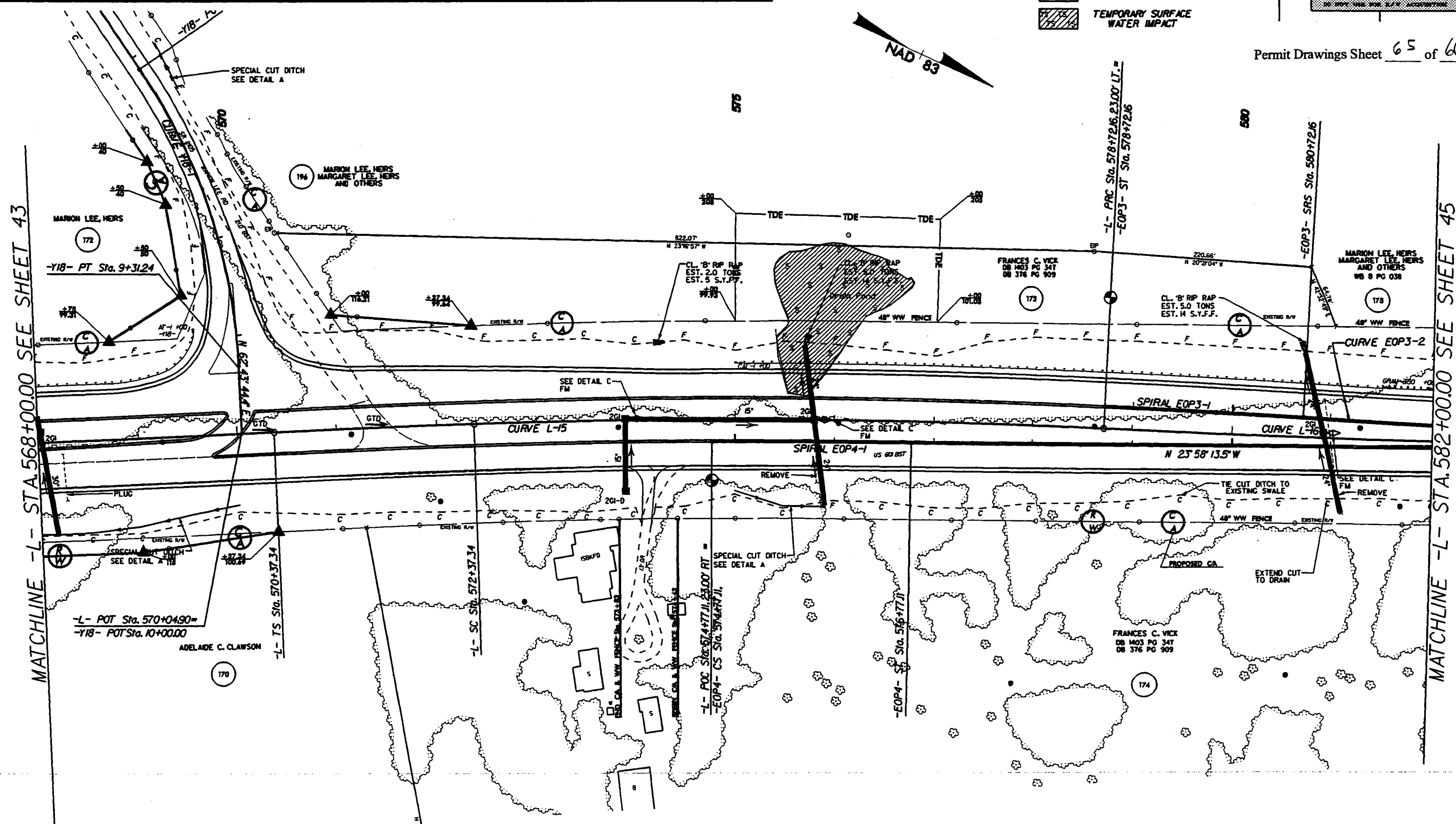


SITE 26 -L- STA. 575 + 85

PROJECT REFERENCE NO. R-2614 A&B	SHEET NO. 44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small> INCOMPLETE PLANS <small>DO NOT USE FOR P.L.T. ACQUISITION</small>	

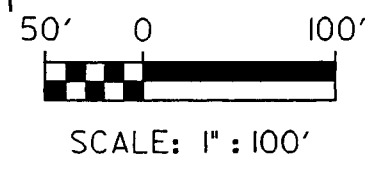
-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT

Permit Drawings Sheet 65 of 66







MATCHLINE -L- STA. 568+00.00 SEE SHEET 43

MATCHLINE -L- STA. 582+00.00 SEE SHEET 45

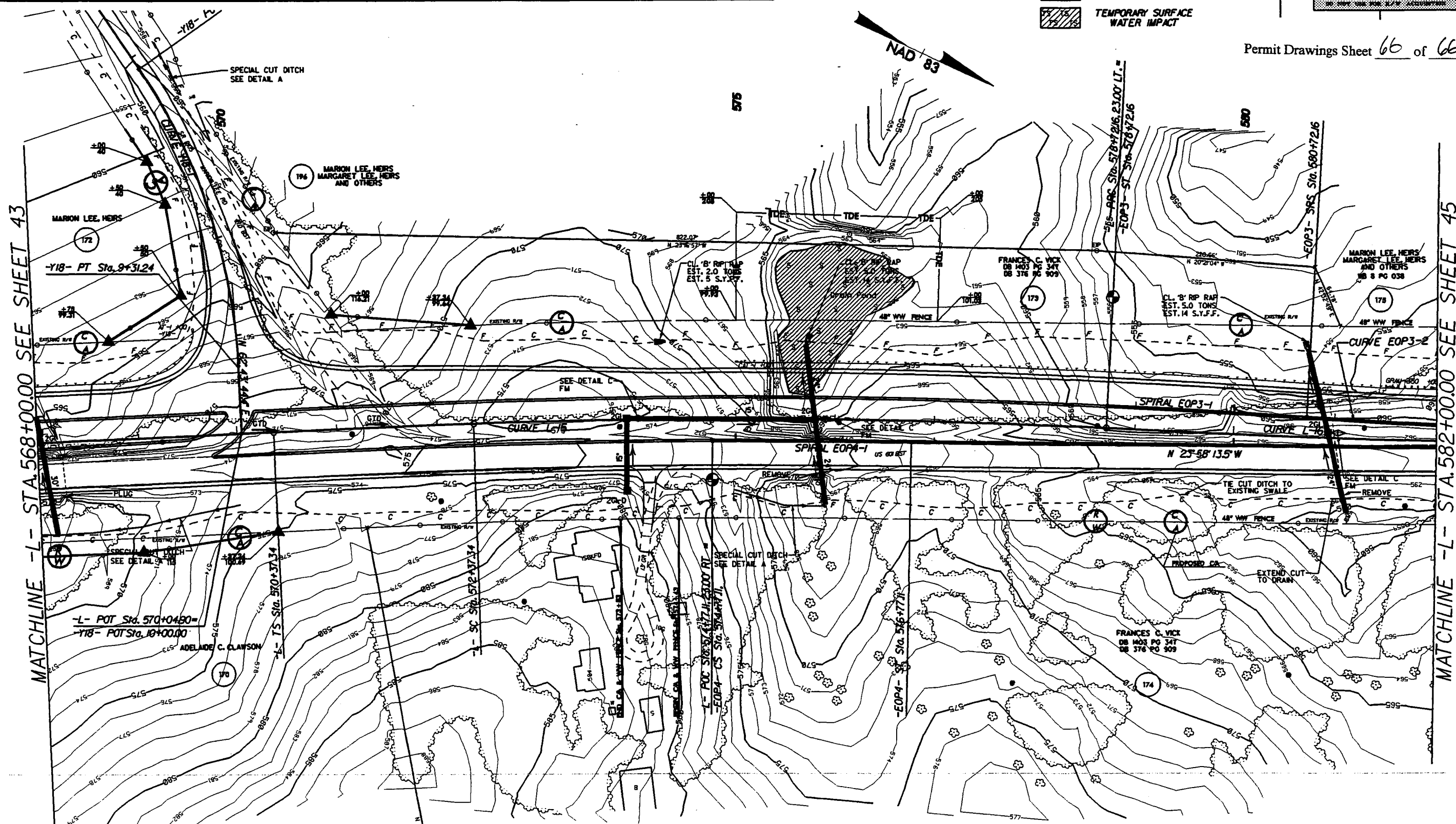


SITE 26 -L- STA. 575 + 85

PROJECT REFERENCE NO. R-2416 A&B	SHEET NO. 44
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	
INCOMPLETE PLANS <small>DO NOT USE FOR A.P.C. SUBMISSION</small>	

-  FILL IN WETLAND
-  PERMANENT SURFACE WATER IMPACT
-  MECHANIZED CLEARING
-  TEMPORARY SURFACE WATER IMPACT

Permit Drawings Sheet 66 of 66



MATCHLINE -L- STA. 568+00.00 SEE SHEET 43

MATCHLINE -L- STA. 582+00.00 SEE SHEET 45

