



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

June 22, 2007

U. S. Army Corps of Engineers  
Regulatory Field Office  
Post Office Box 1890  
Wilmington, NC 28402-1890

ATTENTION: Mr. Richard Spencer  
NCDOT Coordinator

Dear Sir:

**SUBJECT: Nationwide 14 Permit and Section 401 Water Quality Certification Application**  
for the Palmer Road Extension from NC 211 at SR 1149 (East Palmer Road) to NC  
20 at SR 1403 (Oakdale Gin Road). NCDOT Division 8, State Project No.  
8.2530301, WBS No. 34979.1.1, T.I.P. No. U-3816.

Please find the enclosed copies of the permit drawings, half-size roadway designs plans, and Pre-construction Notification for the subject project.

The North Carolina Department of Transportation (NCDOT) proposes to construct a two-lane road on new location referred to as the Palmer Road Extension. The limits of construction are from the intersection of NC 211 with East Palmer Road to the intersection of NC 20 with Oakdale Glen Road in Raeford. The new facility will include two lanes, a 12-foot wide travel lane in each direction, plus 8-foot shoulders, 4-feet of each shoulder will be paved. The proposed road will utilize a bridge that will span the Rockfish Railroad tracks. The bridge will include two lanes, 12-foot wide in each direction with a 4 -foot shoulder.

The purpose of this project is to:

1. Improve traffic flow while minimizing social/environmental disruption in the southern portion of Raeford by providing a continuous route from NC 211 to NC 20.
2. Provide regional connectivity between US1 and I-95.
3. Provide local connectivity between other circumferential facilities in Hoke County and the industries that are coming to the project area.
4. Remove from local street truck and other through traffic accessing US 401 and I-95 via NC 20.
5. Provide access for the development to this area of Raeford, including a city park planned for the northeastern quadrant of the project and an industrial park planned for the southeastern quadrant.
6. Maintain the functional integrity of Palmer Road to operate as a major collector and major thoroughfare.

### **NEPA Document Status**

An Environmental Assessment was approved October 28, 2003. A Finding of No Significant Impact was approved on March 31, 2005. Existing and projected conditions in the study area were described including natural systems and wetlands. Alignments were evaluated with respect to costs, social and economic impacts, and environmental consequences. The EA and FONSI have been provided to regulatory review agencies involved in the approval process. Additional copies will be provided upon request.

The subject project is in compliance with 23 CFR Part 771.111(f) which lists the Federal Highway Administration (FHWA) characteristics of independent utility of a project:

1. The project connects logical termini and is of sufficient length to address environmental matters on a broad scope
2. The project is usable and a reasonable expenditure, even if no additional transportation improvements are made in the area
3. The project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

### **Indirect and Cumulative Effects**

The proposed project connects two roads near the town of Raeford, in Hoke county just south of Fayetteville, Oakdale Gin road and East Palmer road. This connection will complete a loop around the south side of Raeford, bridging over the Rockfish Railroad. The improved road network will allow travel between NC 20 and NC 211, eliminating much of the truck traffic from the residential and downtown areas, improving safety and congestion.

Much of the land within the vicinity of the proposed project is farmland, scattered residential and some light industrial. The market for development in Raeford is not robust. However, as there are some lands nearby which are zoned for light industrial and neighborhood business uses, there will likely be instances of these activities developing along the proposed project. While the project will provide new access where it does not currently exist, the short length of the project (0.9 miles) and the limited market for development will not likely provide for widespread development. Furthermore, as there are no 303(d) waters, High Quality Waters, Water Supply Watersheds, prime/unique farmland or other sensitive resources within the immediate vicinity, the indirect and cumulative effects stemming from the proposed project should be moderate to minimal.

### **Impacts to Waters of the United States**

The project is located in the Cape Fear River Basin (sub-basin 03-06-05) in Hoke County. This area is part of Hydrologic Cataloging Unit 03030004 of the South Atlantic-Gulf Coast Region. An intermittent unnamed tributary to Peddler's Branch (UT1) is located within the project area. UT1 does not have a separate Best Usage Classification and, therefore, shares the Best Usage Classification of its receiving waters, Peddler's Branch (DWQ Index # 18-31-16), a Division of Water Quality Class "B" Waters of the State. There are no impacts to water resources within the project area.

No designated Outstanding Resource Waters (ORW), High Quality Waters (HQW), Water Supply I (WS-I), or Water Supply (WS-II) waters occur within 1.0 mile of the study corridor.

There are no streams listed on the Final 2004 303(d) List of Impaired Waters within 1-mile of the project area.

There are two riverine wetlands located within the project area. U.S. Army Corps of Engineers (USACE) representative Richard Spencer verified the wetlands on January 11, 2001. NCDOT biologists Erica McLamb, Greg Price, and Ashley Cox reviewed the wetlands during a site visit on January 9, 2007 and determined that there have been no changes to the jurisdictional wetlands.

***Permanent Impacts***

Site 1 is located at station 38+20 -L-; a total of 0.21 acre of riverine wetlands will be permanently impacted in this area. Construction of the new road and 66 inch reinforced concrete pipe will result in 0.17 acre of permanent fill into the wetland located at Site 1. Mechanized clearing to allow for construction access will result in the remaining 0.04 acre of permanent impact.

***Temporary Impacts***

Site 2 is located from station 49+30 to 50+28-L-. There will be 0.08 acre of temporary impacts to riverine wetlands resulting from the placement of temporary fill necessary for the temporary work mats and the temporary work pad. The temporary work mats will allow a crane access to the temporary work pad for a work crane. The temporary work pad will be used to support a crane during construction of the bridge.

***Hand Clearing***

There will be 0.36 acre of impacts to riverine wetlands resulting from hand clearing at Site 2 to allow for construction access.

***Utility Impacts***

There will be no impacts to jurisdictional wetlands resulting from the removal or relocation of utilities impacted by this project.

**Federally Protected Species**

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE), Proposed Threatened (PT), are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2007, the United States Fish and Wildlife Service lists six federally protected species for Hoke County. Table 1 list the species and their federal status.

**Table 1. Federally Protected Species in Hoke County, NC**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Federal Status</b>	<b>Biological Conclusion</b>	<b>Habitat Present</b>
St. Francis satyr	<i>Neonympha mitchellii francisci</i>	E	No Effect	No
red-cockaded woodpecker	<i>Picoides borealis</i>	E	No Effect	No
rough-leaved loosestrife	<i>Lysimachia aperulaefolia</i>	E	No Effect	No
American chaffseed	<i>Schwalbea americana</i>	E	No Effect	No
American alligator	<i>Alligator mississippiensis</i>	T(S/A)	N/A	No
Michaux's sumac	<i>Rhus michauxii</i>	E	No Effect	Yes

The project area was evaluated on June 5, 2002 and August 17, 2005 for potential habitat for federally listed species in Hoke County. Suitable habitat is not present within the project area for the red-cockaded woodpecker, St. Francis satyr, rough-leaved loosestrife, American chaffseed, or the American alligator. Biological Conclusions of "No Effect" were given in the EA.

Suitable habitat is present for Michaux's sumac. All areas containing suitable habitat were surveyed for Michaux's sumac on June 5, 2002 and August 17, 2005, no specimens were observed. A biological conclusion of "no effect" was given in the EA. Based on comments received from USFWS in a letter dated December 31, 2003, the biological conclusion was changed to "may affect, not likely to adversely affect." However, due to changes in terminology and protocol the biological conclusion was changed back to "no effect."

A review of the North Carolina Natural Heritage Program database on March 16, 2007 revealed no occurrences of Michaux's sumac, St. Francis satyr, rough-leaved loosestrife, American chaffseed, or the American alligator within 1.0 mile of the project area. There is a NCNHP elemental occurrence of the red-cockaded woodpecker located approximately 0.9 mile from the project, however, according to NCNHP records the cluster was destroyed and all the nesting trees were cut. Therefore, biological conclusions of "No Effect" remain valid for all federally protected species in Hoke County.

#### **Avoidance, Minimization, and Compensatory Mitigation**

Avoidance, Minimization, and Mitigation: The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional impacts. Avoidance measures were taken during the planning and NEPA compliance stages; minimization measures were incorporated as part of the project design.

According to the Clean Water Act (CWA) §404(b)(1) guidelines, NCDOT must avoid, minimize, and mitigate, in sequential order, impacts to Waters of the US. The following is a list of the project's jurisdictional stream avoidance/minimization activities proposed or completed by NCDOT:

Avoidance/Minimization:

- The bridge over the railroad at Site 2 was lengthened to span the wetlands.
- The fill slopes were steepened to 1.75:1 at station 45+50 -L- to 49+00 -L- to avoid the wetlands.
- Temporary work mats will be used in wetlands at Site 2.
- Preformed scour hole located at Site 1 will be used dissipate energy of stormwater discharge prior to entering wetland.
- The 66-inch reinforced concrete pipe will be buried one foot at Site 1.

Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in jurisdictional Waters of the U.S. and that the proposed action includes all practicable methods to avoid and/or minimize jurisdictional wetland impacts that may result from such use.

Compensatory Mitigation:

The NCDOT has avoided and minimized impacts to jurisdictional resources to the greatest extent possible as described above. The unavoidable permanent impacts to 0.21 acre of riverine wetland will be offset by mitigation credit currently available within Hydrologic Cataloging Unit 03030004 from the Little River Bridge Mitigation Site.

The Little River Bridge Mitigation Site was constructed as onsite mitigation for T.I.P R-0210A US 1 bypass in Moore County. The 14.8-acre site is located in Moore County, 0.75 miles southeast of the town of Vass and crosses over the Little River. Access to the site is via US 1 South Business on the northeastern boundary. The 14.8-acre site includes 6.4 acres of restoration and 8.4 acres of preservation of bottomland hardwood forest. The site was monitored in 2006 and met prescribed hydrologic and vegetative success criteria.

The site was originally debited for R-0210A in July 2002. To offset 0.21 acres of unavoidable impacts to riverine wetlands due to TIP U-3816, the Site will be debited 0.42 acres of riverine wetland restoration based on a 2:1 mitigation ratio. These debits are reflected in the debit ledger below.

**Table 2. Onsite Mitigation Debit Ledger w/ Residual Assets**

Site name	HUC	Mitigation Type	Original(acres)	Available	Debit	Debit
Little River	3030004				R-0210A	U-3816
		Riverine Preservation	8.4	0	8.4	
		Riverine Restoration	6.4	1.18	4.8	0.42

**Schedule**

At this time the project is scheduled to let December 18, 2007 (review date of November 6, 2007) with a date of availability of January 9, 2008. It is expected that the contractor will choose to start construction in January.

## Regulatory Approvals

Section 404 Permit: Application is hereby made for the Department of Army Section 404 Nationwide Permit 14 authorizing the above-described activities.

Section 401 Permit: The NCDOT will adhere to all conditions of the General Water Quality Certifications (WQC) 3627. Written concurrence from the NCDWQ is required. In accordance with 15A NCAC 2H 0.0501(a) and 15A NCAC 2B 0.200 we are providing five copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, for their review and approval.

A copy of this permit application will be posted on the NCDOT website at: <http://www.ncdot.org/doh/preconstruct/pe/>. If you have any questions or need additional information, please call Erica McLamb at 715-1521.

Sincerely,



*for*

Gregory Thorpe, Ph.D  
Environmental Management Director, PDEA

w/attachment

Mr. John Hennessy, NCDWQ (5 Copies)  
Mr. Travis Wilson, NCWRC  
Mr. Gary Jordan, USFWS  
Dr. David Chang, P.E., Hydraulics  
Mr. Mark Staley, Roadside Environmental  
Mr. Greg Perfetti, P.E., Structure Design  
Mr. Victor Barbour, P.E., Project Services Unit  
Mr. Tim Johnson, P.E., Division 8 Engineer  
Mr. Art King, Division 8 Environmental Officer

w/o attachment

Mr. Jay Bennett, P.E., Roadway Design  
Mr. Majed Alghandour, P. E., Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. Scott McLendon, USACE, Wilmington  
Ms. Jennifer Fuller, PDEA  
Mr. Randy Griffin, P.E , Mitigation Implementation Team  
Ms. Lelani Paugh, ICI/On-Site Mitigation Group  
Mr. Robert Deaton, Public Involvement and Community Studies

Office Use Only:

Form Version March 05

USACE Action ID No. \_\_\_\_\_ DWQ No. \_\_\_\_\_

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

**I. Processing**

1. Check all of the approval(s) requested for this project:

- Section 404 Permit
- Section 10 Permit
- 401 Water Quality Certification
- Riparian or Watershed Buffer Rules
- Isolated Wetland Permit from DWQ
- Express 401 Water Quality Certification

- 2. Nationwide, Regional or General Permit Number(s) Requested: NW 14
- 3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:
- 4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:
- 5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

**II. Applicant Information**

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director  
 Mailing Address: 1598 Mail Service Center  
Raleigh, NC 27699-1548

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794  
 E-mail Address: \_\_\_\_\_

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: N/A  
 Company Affiliation: \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
 E-mail Address: \_\_\_\_\_

### III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Proposed construction of Raeford-Palmer Extension on new location from NC 211 at SR 1149 (East Palmer Rd.) to NC 20 at SR 1403 (Oakdale Gin Rd.)
2. T.I.P. Project Number or State Project Number (NCDOT Only): U-3816
3. Property Identification Number (Tax PIN): N/A
4. Location  
County: Hoke Nearest Town: Raeford  
Subdivision name (include phase/lot number): \_\_\_\_\_  
Directions to site (include road numbers/names, landmarks, etc.): see map in permit drawings
5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)  
Decimal Degrees (6 digits minimum): 34.9664 °N 79.2236 °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: UT to Peddlers Branch Creek
8. River Basin: Cape Fear  
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: The project area is primarily farmland with some business developments and forested areas.

10. Describe the overall project in detail, including the type of equipment to be used: The Palmer Rd. Extension will be constructed on new location. Heavy duty excavation equipment will be used such as trucks, dozers, cranes and other various equipment necessary for roadway construction.

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11. Explain the purpose of the proposed work: To improve traffic flow through the southern portion of Raeford, provide connectivity between US1 and I-p5, provide connectivity between facilities in Hoke County and future industries, remove trucks and through traffic from local streets, provide access for development, and to maintain the functional integrity of Palmer Road to operate as a major collector and thoroughfare.

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#### **IV. Prior Project History**

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules. N/A

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#### **V. Future Project Plans**

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.  
N/A

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#### **VI. Proposed Impacts to Waters of the United States/Waters of the State**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. Each impact must be listed separately in the tables below (e.g., culvert installation should be listed separately from riprap dissipater pads). Be sure to indicate if an impact is temporary. All proposed impacts, permanent and temporary, must be listed, and must be labeled and clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) should be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: Please refer to attached cover letter.
2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
1	Permanent Fill	Riverine	Yes	110	0.17
1	Mechanized Clearing	Riverine	Yes	100	0.04
2	Temporary Fill	Riverine	Yes	100	0.08
Total Wetland Impact (acres)					0.29

3. List the total acreage (estimated) of all existing wetlands on the property: 0.88 acre
4. Individually list all intermittent and perennial stream impacts. Be sure to identify temporary impacts. Stream impacts include, but are not limited to placement of fill or culverts, dam construction, flooding, relocation, stabilization activities (e.g., cement walls, rip-rap, crib walls, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included. To calculate acreage, multiply length X width, then divide by 43,560.

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
Total Stream Impact (by length and acreage)					0	0

5. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.). Open water impacts include, but are not limited to fill, excavation, dredging, flooding, drainage, bulkheads, etc.

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
Total Open Water Impact (acres)				0

6. List the cumulative impact to all Waters of the U.S. resulting from the project:

Stream Impact (acres):	0
Wetland Impact (acres):	0.29
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	0
Total Stream Impact (linear feet):	0

7. Isolated Waters

Do any isolated waters exist on the property?  Yes  No

Describe all impacts to isolated waters, and include the type of water (wetland or stream) and the size of the proposed impact (acres or linear feet). Please note that this section only applies to waters that have specifically been determined to be isolated by the USACE.

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8. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply):  uplands  stream  wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): \_\_\_\_\_

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): \_\_\_\_\_

Current land use in the vicinity of the pond: \_\_\_\_\_

Size of watershed draining to pond: \_\_\_\_\_ Expected pond surface area: \_\_\_\_\_

**VII. Impact Justification (Avoidance and Minimization)**

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. Please refer to the attached cover letter

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**VIII. Mitigation**

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCEEP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ’s Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

Mitigation is required for the proposed permanent impacts to riverine wetlands resulting from mechanized clearing and the placement of permanent fill within portions of the wetlands. Wetland impacts will be offset by mitigation credit currently available within Hydrologic Cataloging Unit 03030004 from the Little River Bridge Mitigation Site.

2. Mitigation may also be made by payment into the North Carolina Ecosystem Enhancement Program (NCEEP). Please note it is the applicant's responsibility to contact the NCEEP at (919) 715-0476 to determine availability, and written approval from the NCEEP indicating that they are will to accept payment for the mitigation must be attached to this form. For additional information regarding the application process for the NCEEP, check the NCEEP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCEEP is proposed, please check the appropriate box on page five and provide the following information:

Amount of stream mitigation requested (linear feet): 0  
Amount of buffer mitigation requested (square feet): 0  
Amount of Riparian wetland mitigation requested (acres): 0  
Amount of Non-riparian wetland mitigation requested (acres): 0  
Amount of Coastal wetland mitigation requested (acres): 0

#### **IX. Environmental Documentation (required by DWQ)**

1. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land? Yes  No
2. If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?  
Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.  
Yes  No
3. If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter. Yes  No

**X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)**

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

1. Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 02B .0243 (Catawba) 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify \_\_\_\_\_)? Yes  No
2. If "yes", identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3 (2 for Catawba)	
2		1.5	
Total			

\* Zone 1 extends out 30 feet perpendicular from the top of the near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

3. If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Riparian Buffer Restoration / Enhancement, or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0244, or .0260.  
NA

**XI. Stormwater (required by DWQ)**

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. N/A

**XII. Sewage Disposal (required by DWQ)**

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

N/A

**XIII. Violations (required by DWQ)**

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

Yes  No

Is this an after-the-fact permit application? Yes  No

**XIV. Cumulative Impacts (required by DWQ)**

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes  No

If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/newetlands>. If no, please provide a short narrative description: \_\_\_\_\_

\_\_\_\_\_

**XV. Other Circumstances (Optional):**

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

None

\_\_\_\_\_



**Applicant/Agent's Signature**

5.14.07

**Date**

(Agent's signature is valid only if an authorization letter from the applicant is provided.)

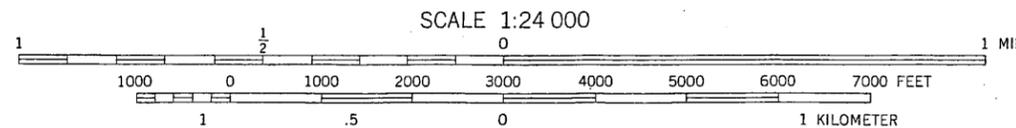
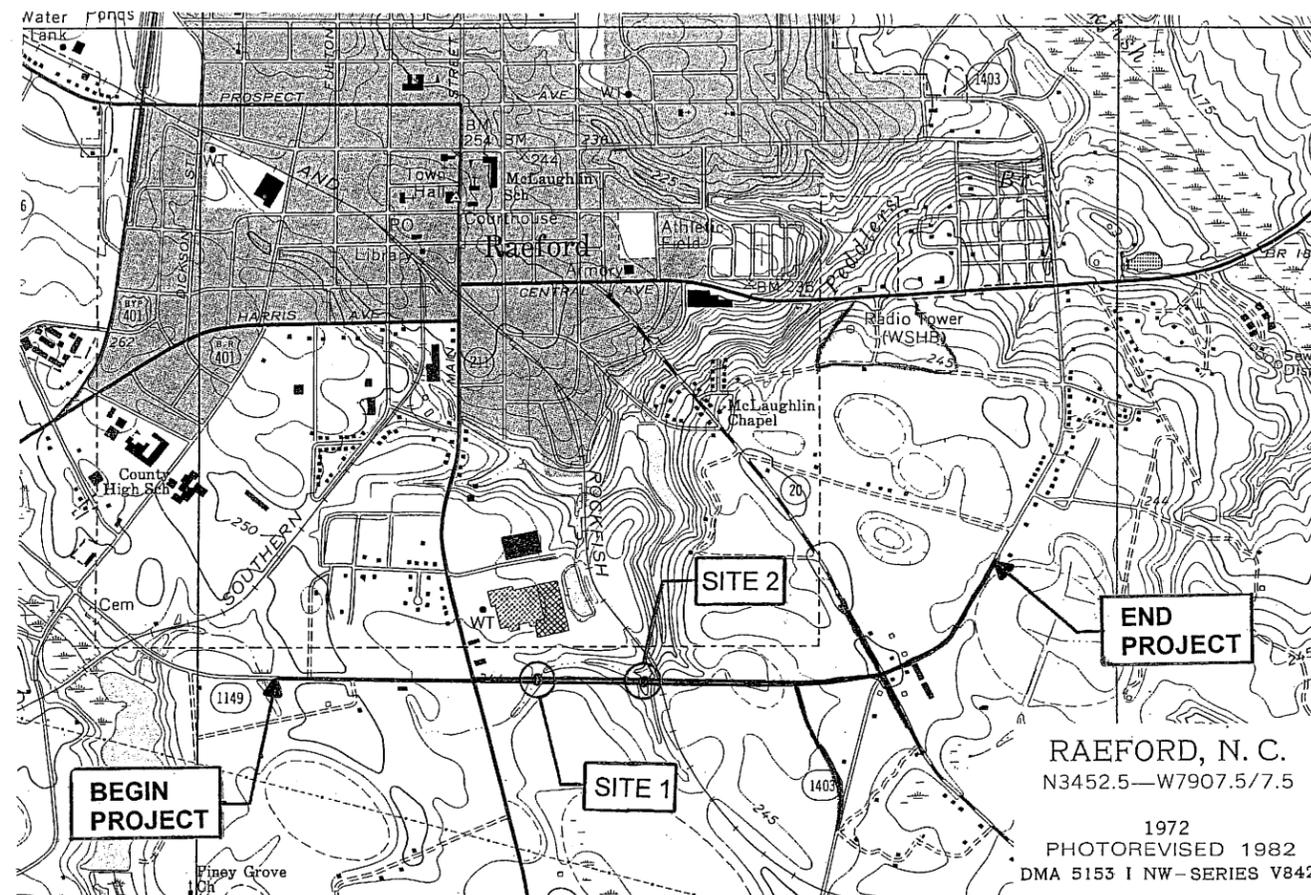
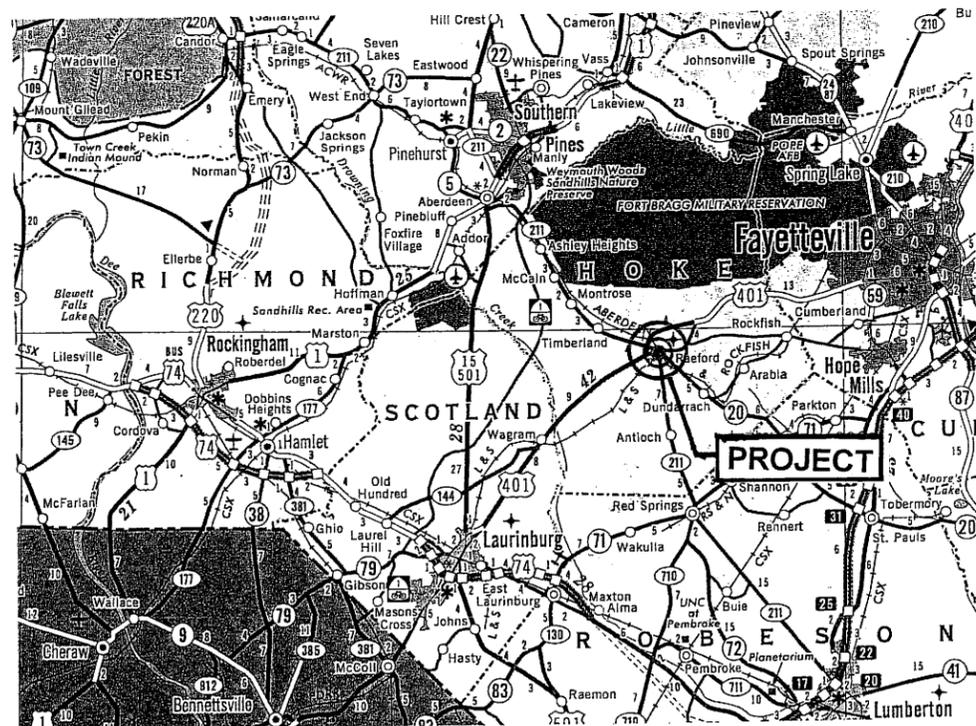
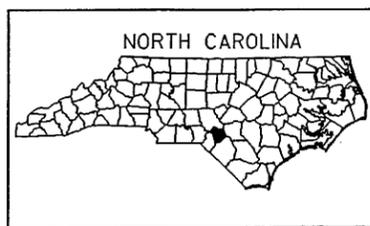
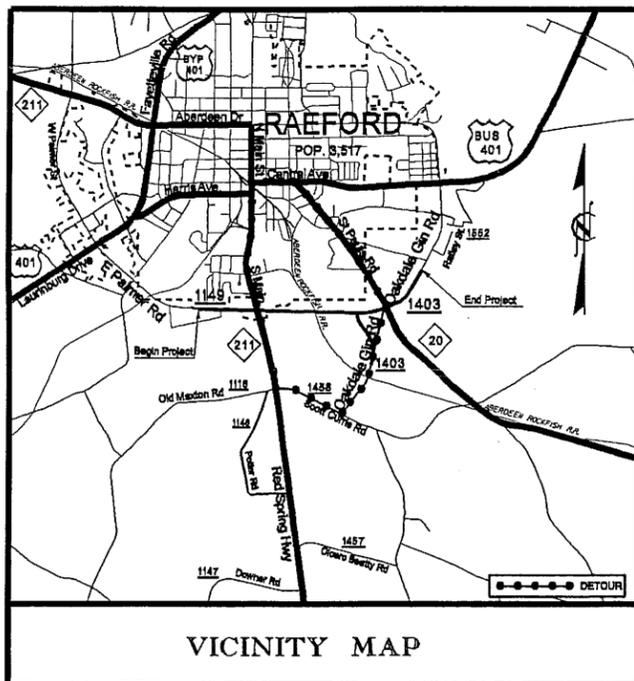
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**HOKE COUNTY**

LOCATION: PALMER STREET EXTENSION FROM NC 211  
AT SR 1149 TO NC 20 AT SR 1403

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3816	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34979.1.1	STP-0831 (2)	PE	

Permit Drawing  
Sheet 1 of 9

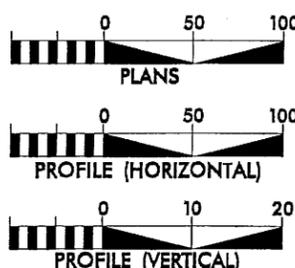


CONTOUR INTERVAL 5 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

TIP PROJECT: U-3816

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2005 = 7900  
ADT 2025 = 13000  
DHV = 14%  
D = 60%  
T = 6%  
V = 50 MPH  
TTST 2% DUAL 4%  
FUNC CLASS =  
RURAL MAJOR COLLECTOR

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT U-3816 = 1.299 MI  
LENGTH OF STRUCTURE TIP PROJECT U-3816 = 0.036 MI  
TOTAL LENGTH OF TIP PROJECT U-3816 = 1.335 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
JULY 21, 2006

PRODUCTION LETTING DATE:  
DECEMBER 18, 2007

LETTING DATE:  
JULY 15, 2008

**G. E. BREW, PE**  
PROJECT ENGINEER

**W. T. BEST**  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER

**DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED  
DIVISION ADMINISTRATOR

DATE

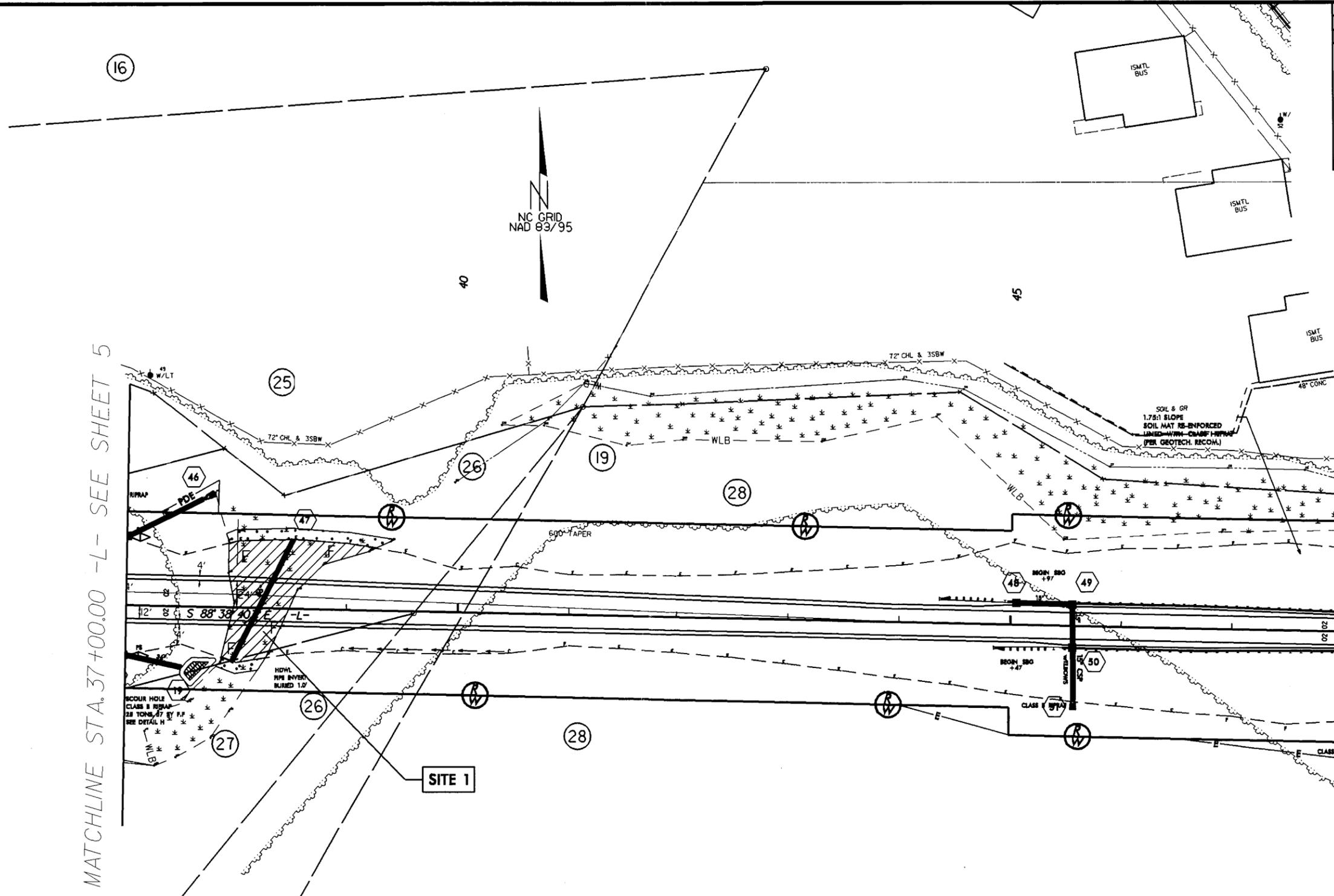
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PROJECT REFERENCE NO. U-3816	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

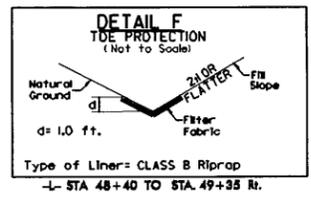
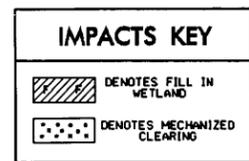
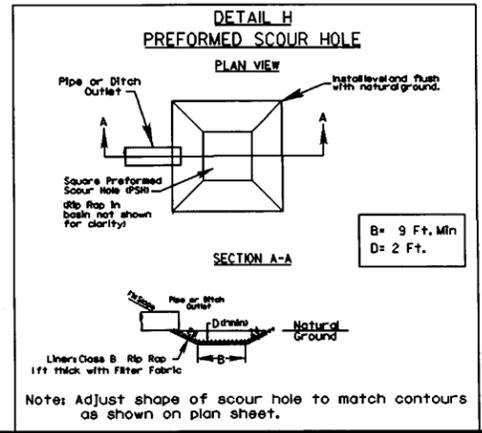


Permit Drawing  
Sheet 2 of 9



MATCHLINE STA. 37+00.00 -L- SEE SHEET 5

MATCHLINE STA. 48+00.00 -L- SEE SHEET 7



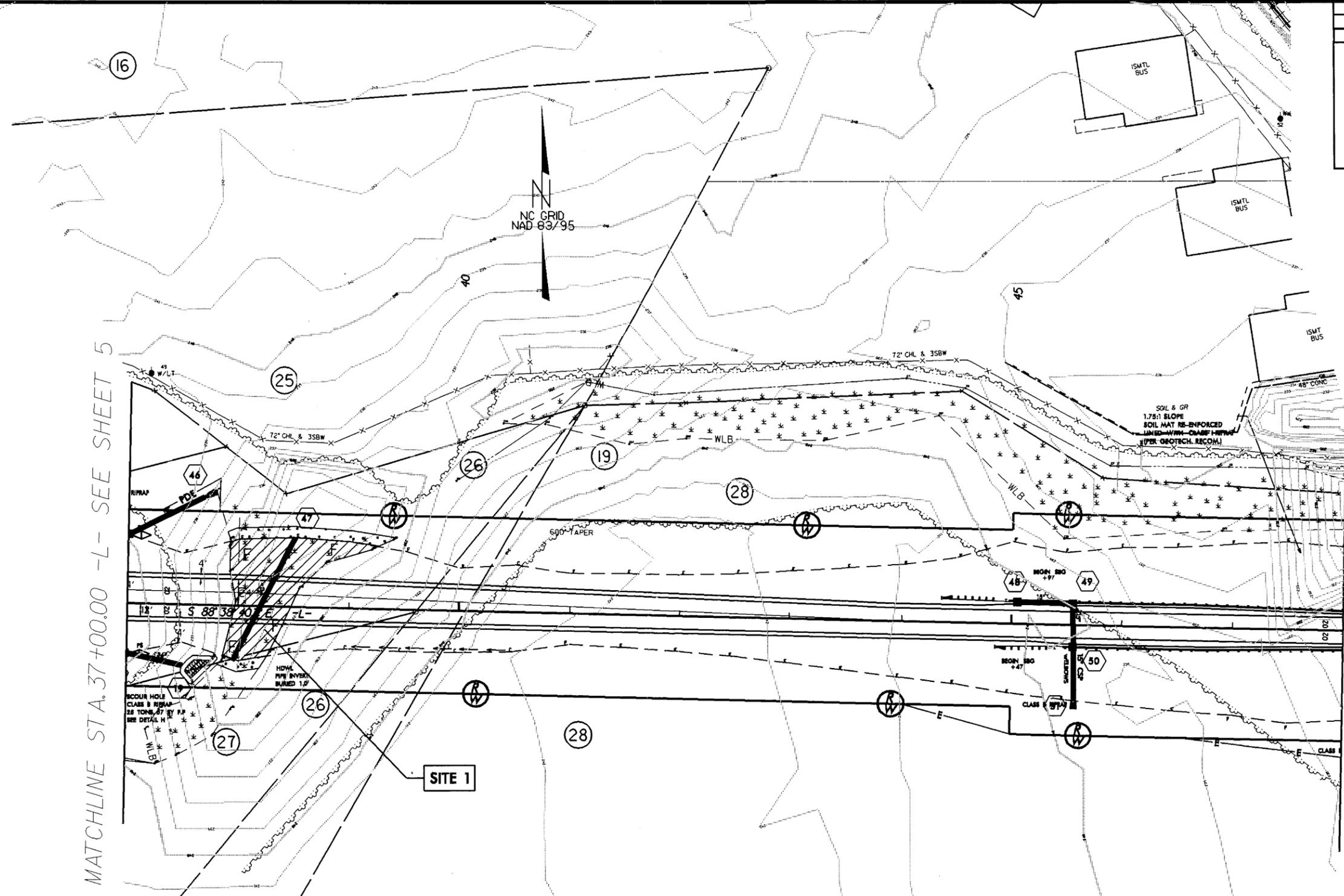
8/17/99

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PROJECT REFERENCE NO. U-3816	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

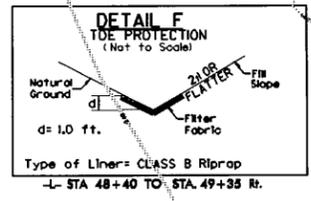
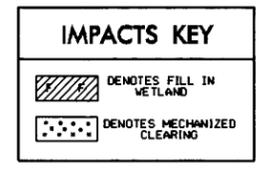
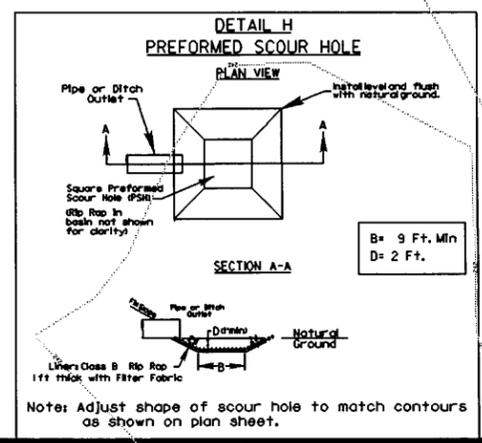


Permit Drawing  
Sheet 3 of 9



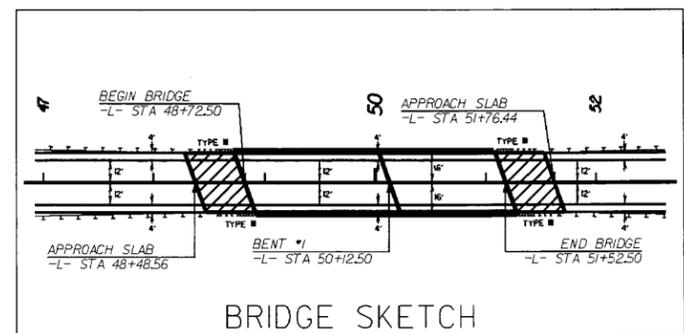
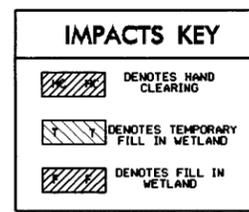
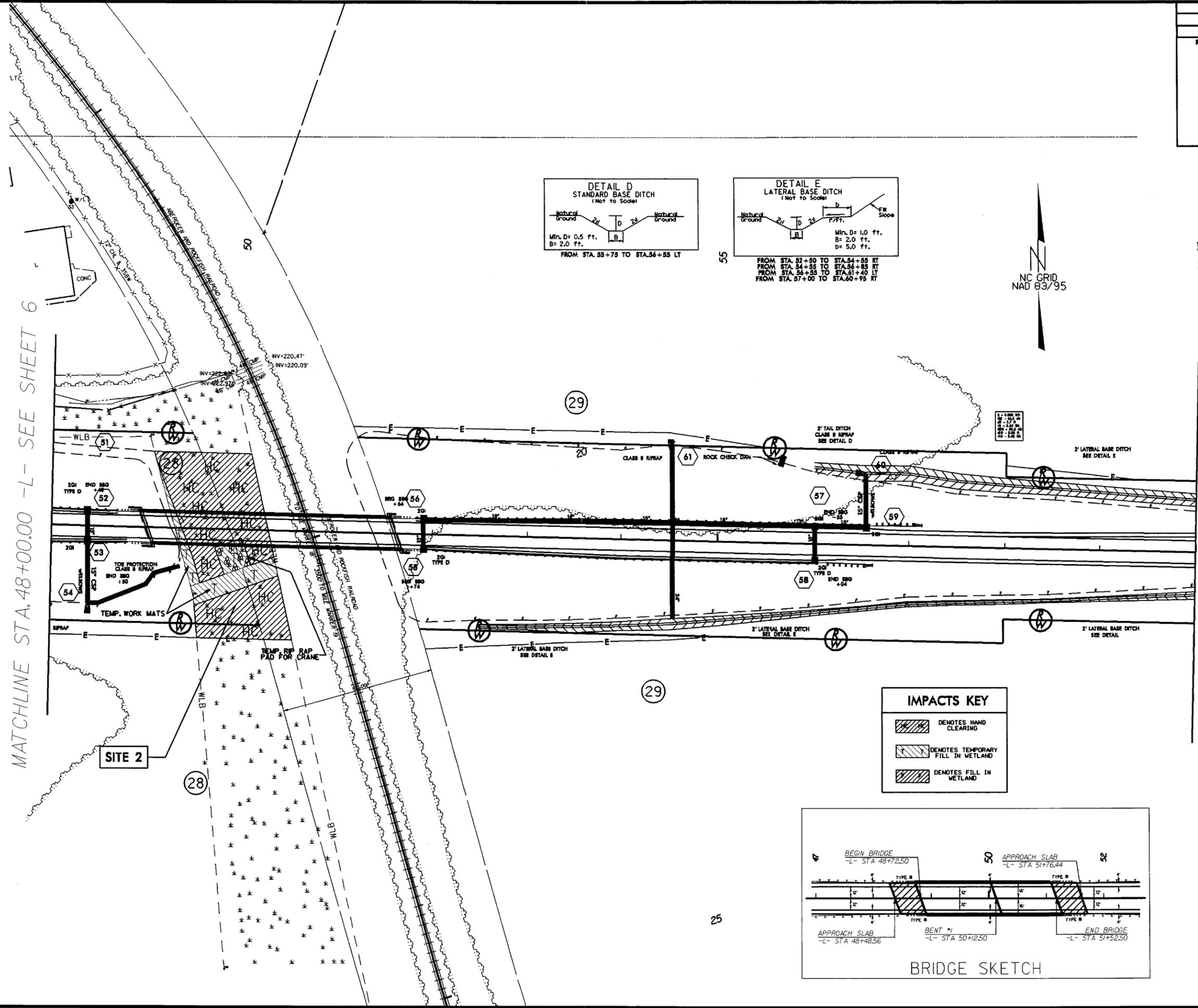
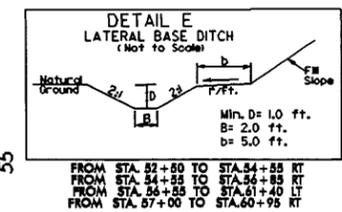
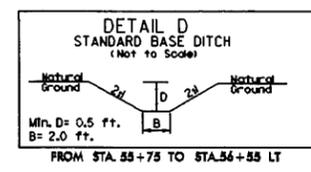
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MATCHLINE STA. 48+00.00 -L- SEE SHEET 7





Permit Drawing  
Sheet 4 of 9



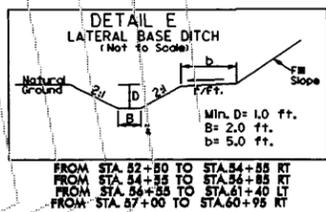
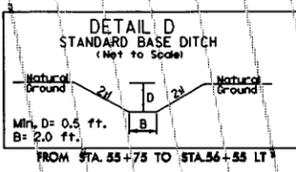
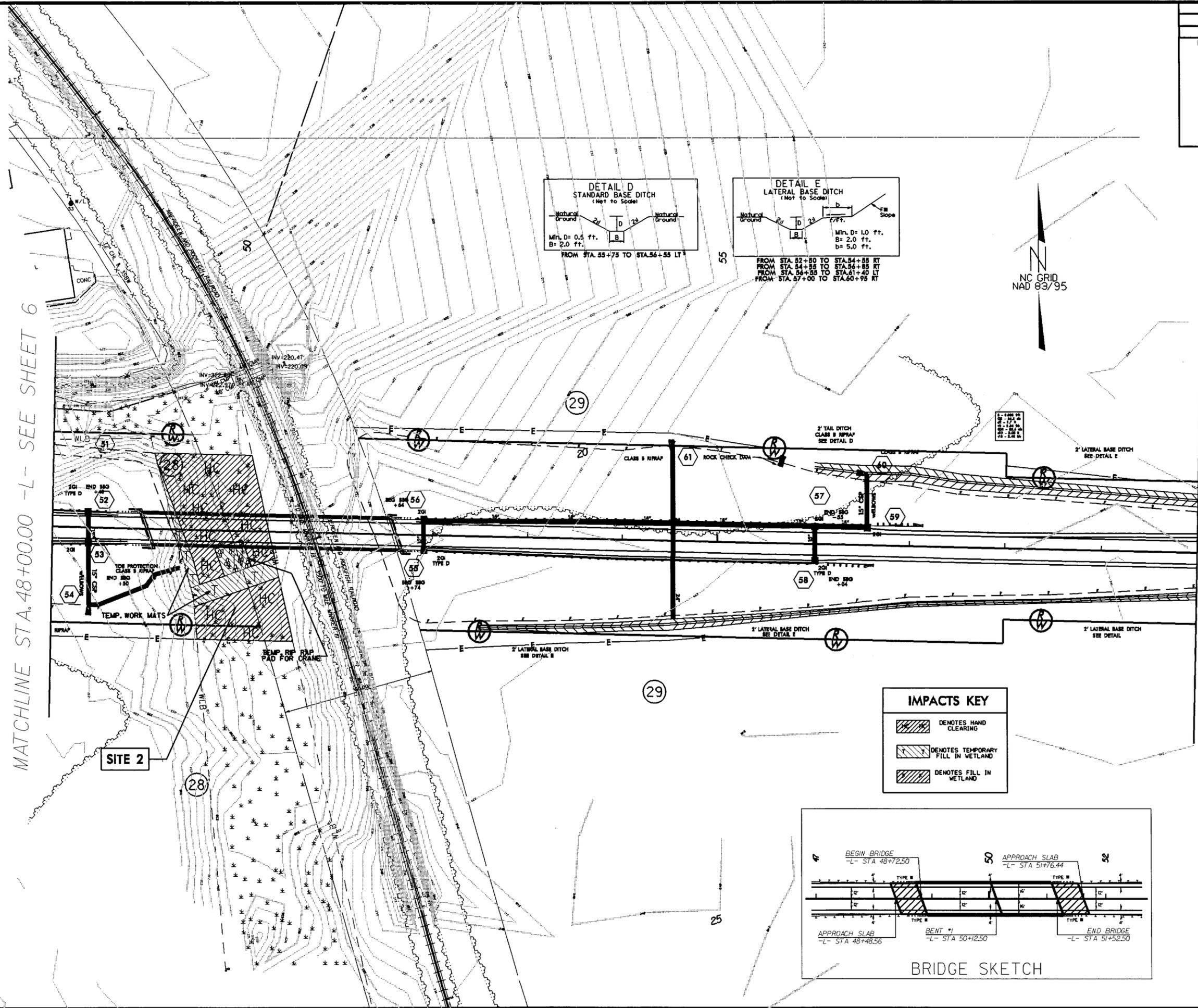
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MATCHLINE STA. 60+00.00 -L- SEE SHEET 8

PROJECT REFERENCE NO. U-3816	SHEET NO. 7
NW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

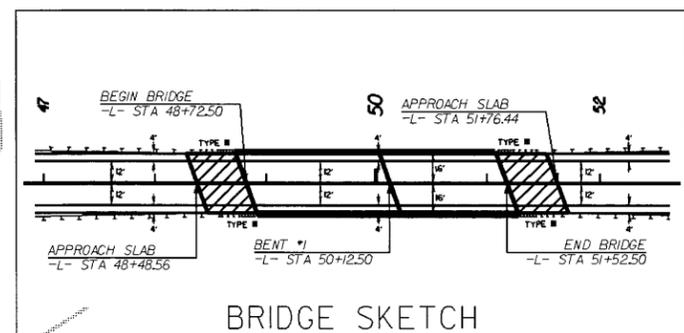


Permit Drawing  
Sheet 5 of 9



**IMPACTS KEY**

	DENOTES HAND CLEARING
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES FILL IN WETLAND



MATCHLINE STA. 48+00.00 -L- SEE SHEET 6

MATCHLINE STA. 60+00.00 -L- SEE SHEET 8

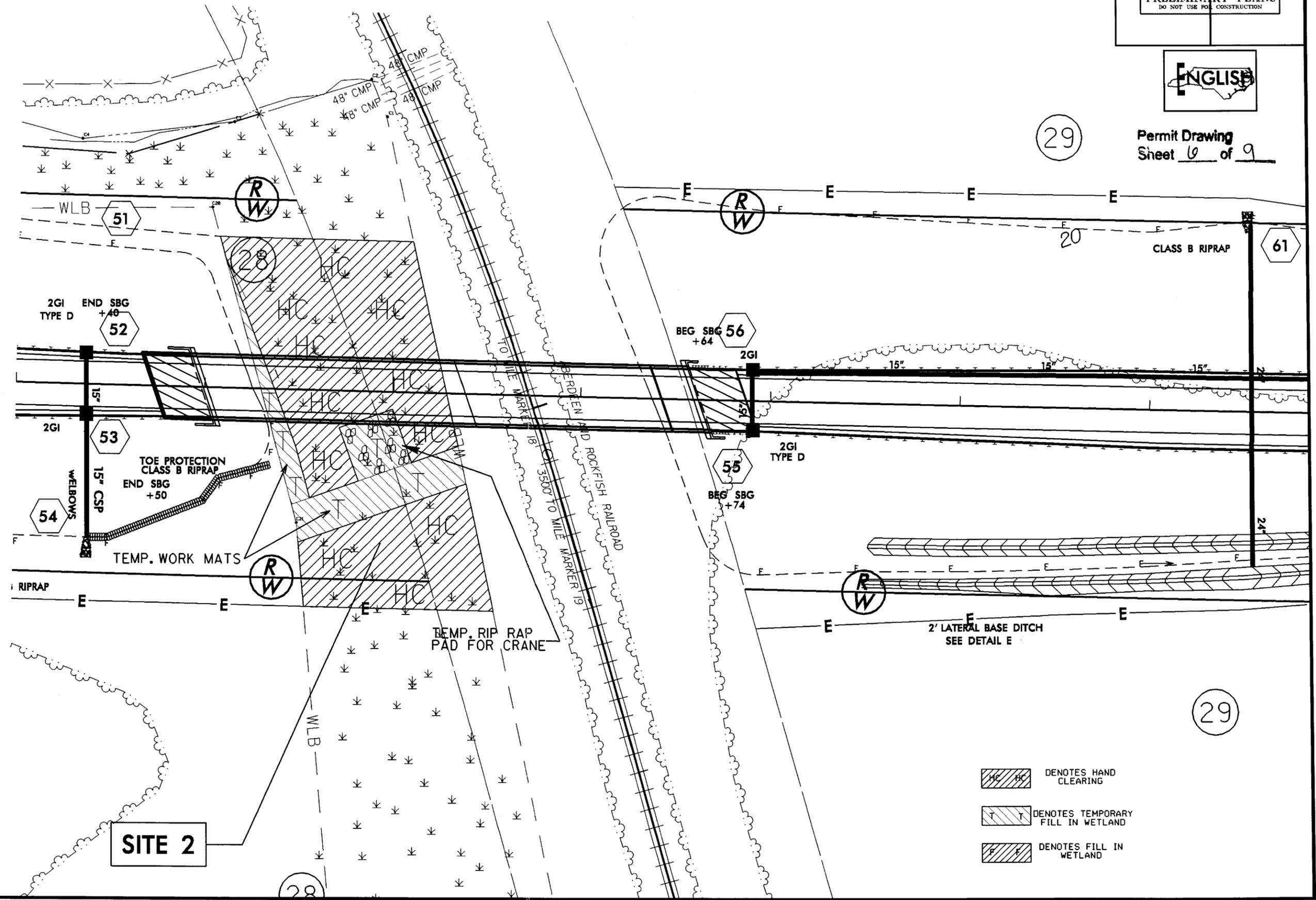
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PROJECT REFERENCE NO. U-3816	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



29

Permit Drawing  
Sheet 6 of 9



-  DENOTES HAND CLEARING
-  DENOTES TEMPORARY FILL IN WETLAND
-  DENOTES FILL IN WETLAND

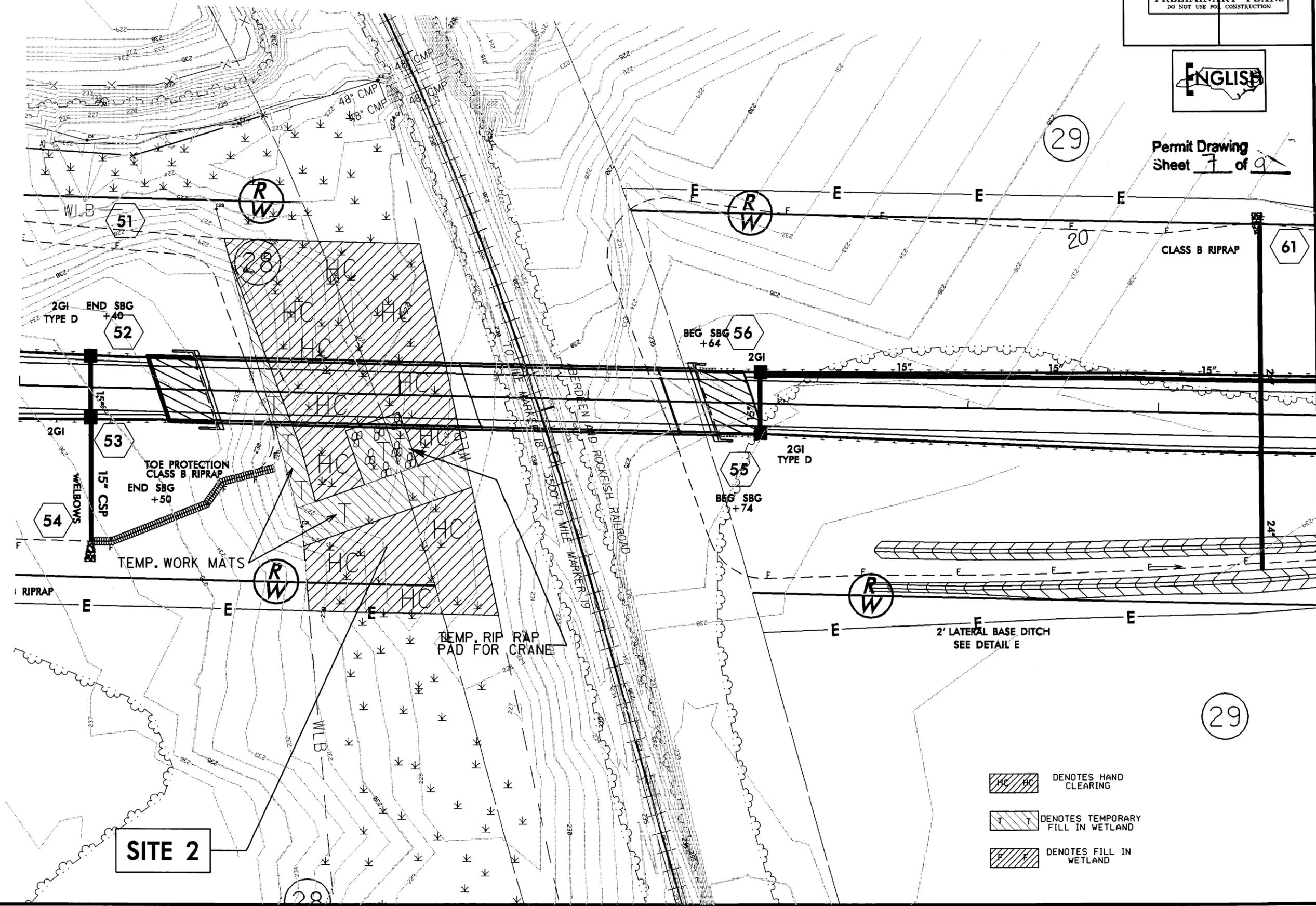
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# ENLARGED VIEW SITE 2

PROJECT REFERENCE NO. U-3816	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



Permit Drawing  
Sheet 7 of 9



- DENOTES HAND CLEARING
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES FILL IN WETLAND

**SITE 2**

02-MAR-2007 08:07  
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See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

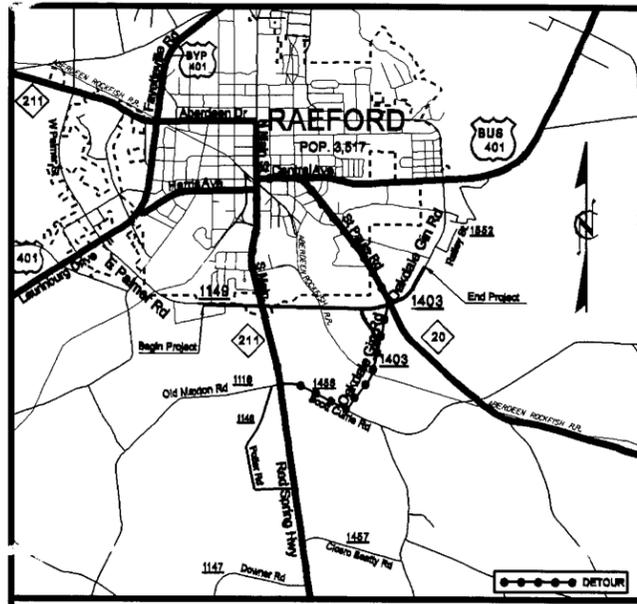
**HOKE COUNTY**

LOCATION: PALMER STREET EXTENSION FROM NC 211  
AT SR 1149 TO NC 20 AT SR 1403

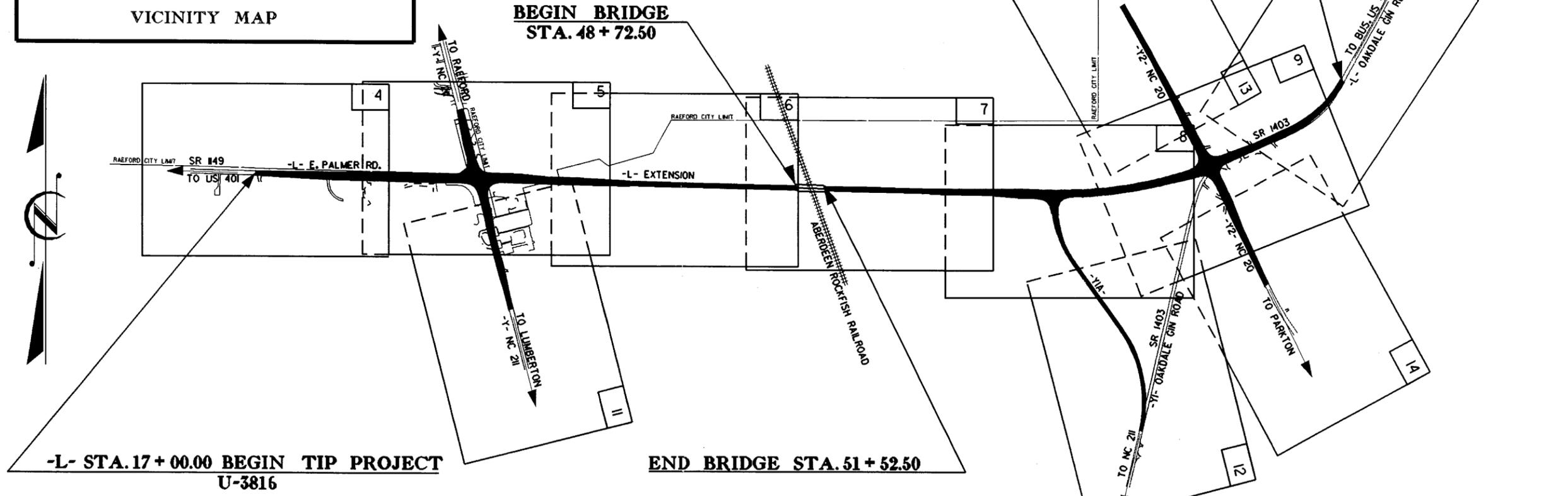
TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE AND SIGNALS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3816	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
34979.1.1	STP-0831 (2)	PE	

**TIP PROJECT: U-3816**



VICINITY MAP



-L- STA. 17 + 00.00 BEGIN TIP PROJECT U-3816

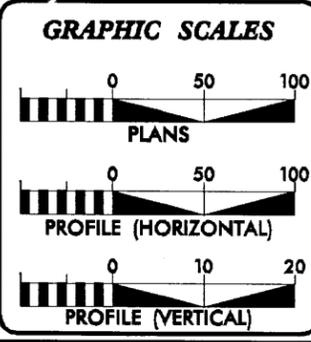
END BRIDGE STA. 51 + 52.50

-L- STA. 87 + 50.00  
END TIP PROJECT U-3816

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF RAEFORD.  
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

PRELIMINARY PLANS  
DO NOT USE FOR CONSTRUCTION

**CONTRACT:**



**DESIGN DATA**

ADT 2005	=	7900
ADT 2025	=	13000
DHV	=	14%
D	=	60%
T	=	6%
V	=	50 MPH
TTST 2%	DUAL 4%	
FUNC CLASS = RURAL MAJOR COLLECTOR		

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT U-3816	=	1.299 MI
LENGTH OF STRUCTURE TIP PROJECT U-3816	=	0.036 MI
TOTAL LENGTH OF TIP PROJECT U-3816	=	1.335 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 21, 2006	<b>G. E. BREW, PE</b> PROJECT ENGINEER
PRODUCTION LETTING DATE: DECEMBER 18, 2007	
LETTING DATE: JULY 15, 2008	<b>W. T. BEST</b> PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

\_\_\_\_\_  
SIGNATURE: P.E.

**ROADWAY DESIGN ENGINEER**

\_\_\_\_\_  
SIGNATURE: P.E.

**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

\_\_\_\_\_  
STATE DESIGN ENGINEER P.E.

**DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION**

\_\_\_\_\_  
APPROVED DIVISION ADMINISTRATOR P.E.

\_\_\_\_\_  
DATE

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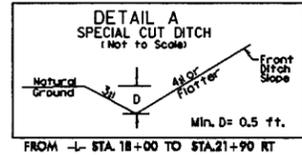
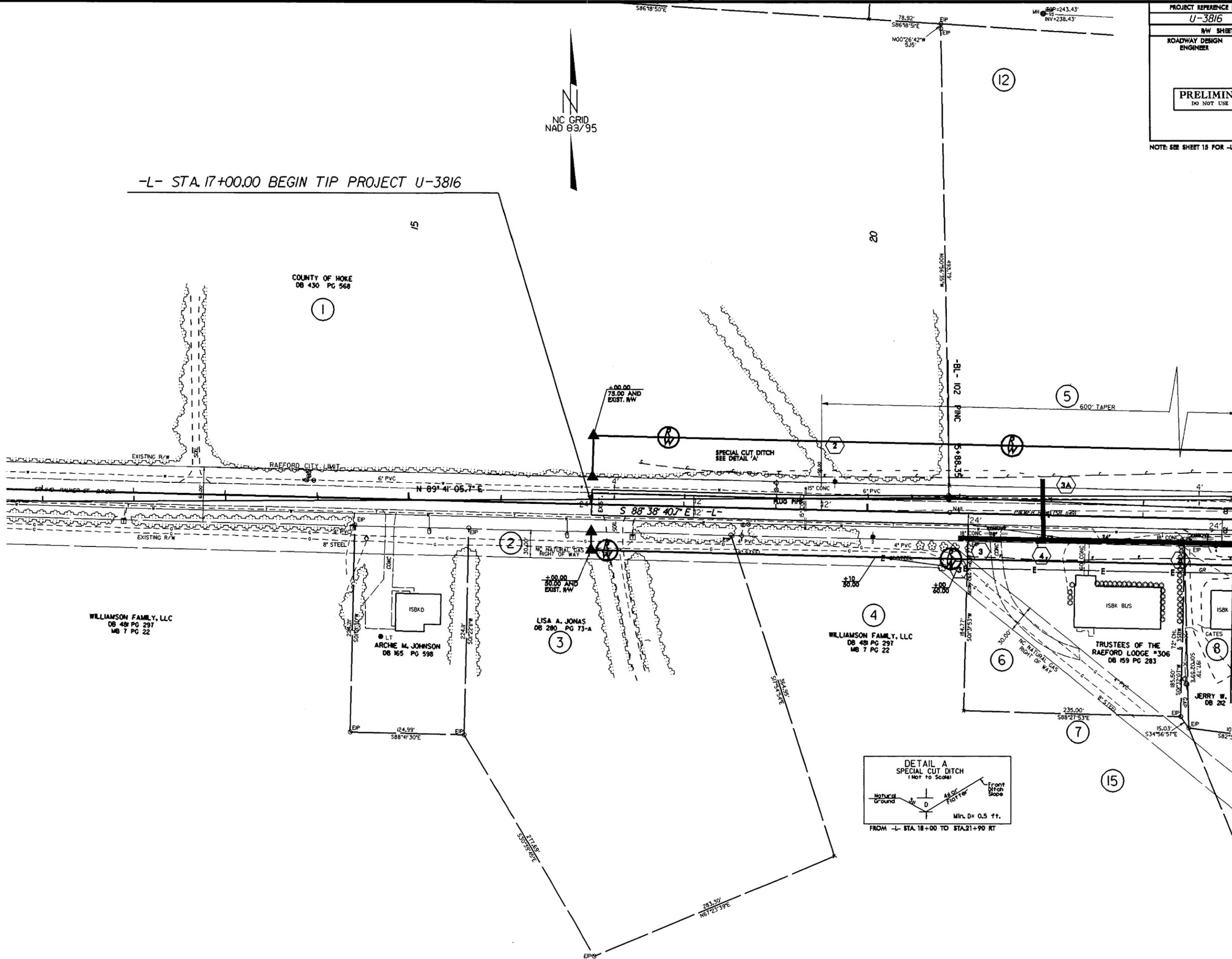
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

NOTE: SEE SHEET 15 FOR -L- PROFILE

MATCHLINE STA. 24+00.00 -L- SEE SHEET 5

-L- STA. 17+00.00 BEGIN TIP PROJECT U-3816

NC GRID  
NAD 83/95



8/17/09

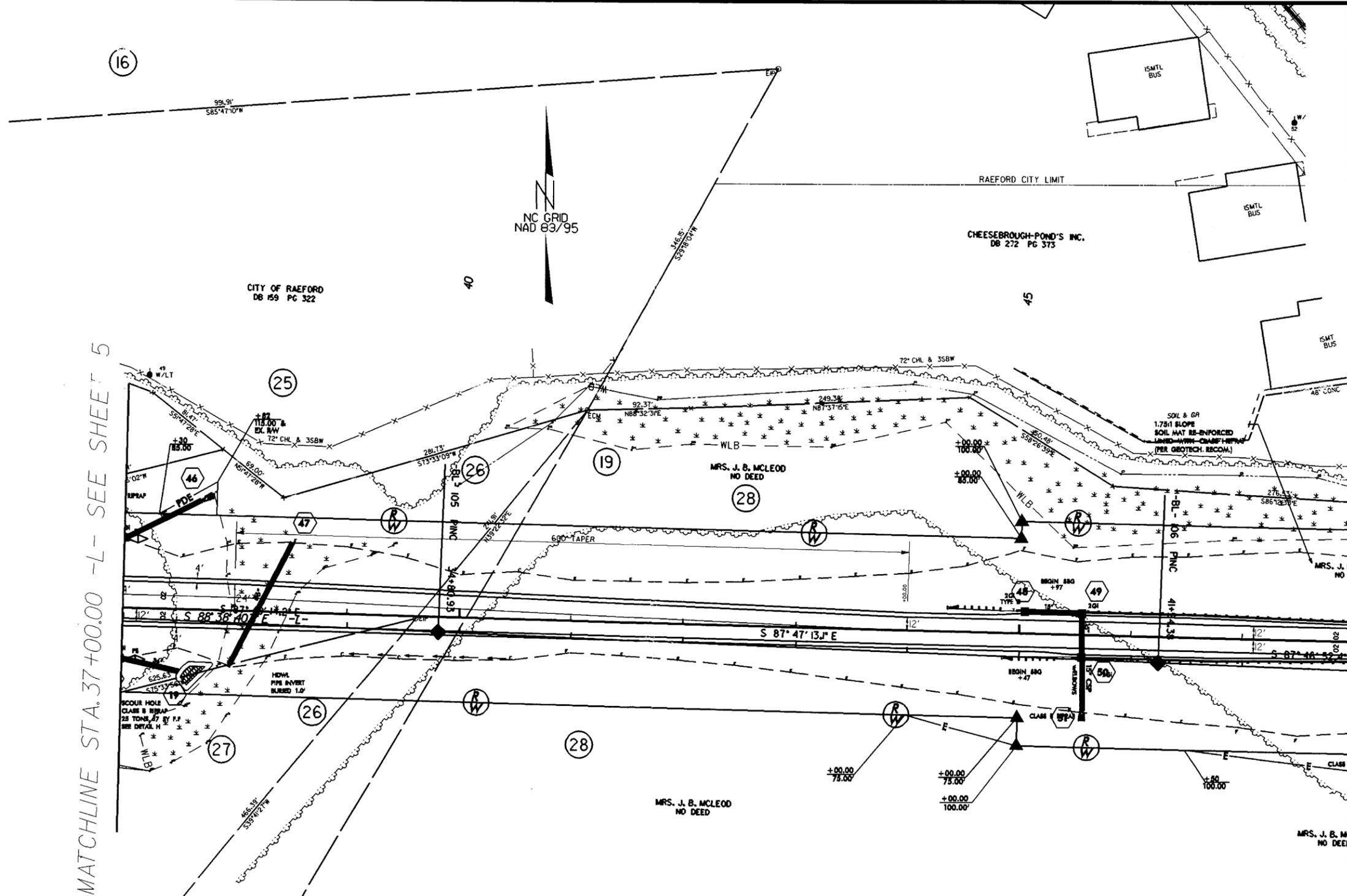
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8/17/99

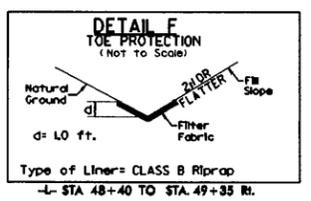
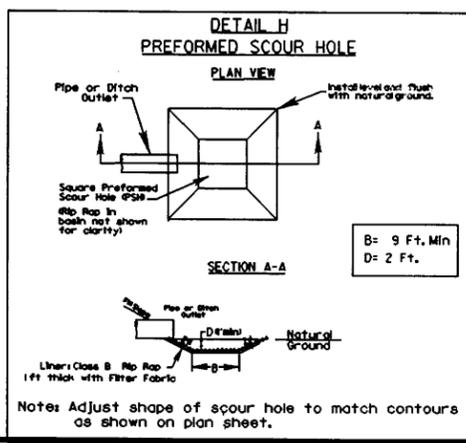
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RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

NOTE: SEE SHEET 16 FOR -L- PROFILE



MATCHLINE STA. 37+00.00 -L- SEE SHEET 5

MATCHLINE STA. 48+00.00 -L- SEE SHEET 7



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3816-RDWAY-PLAN-6

B/17/99

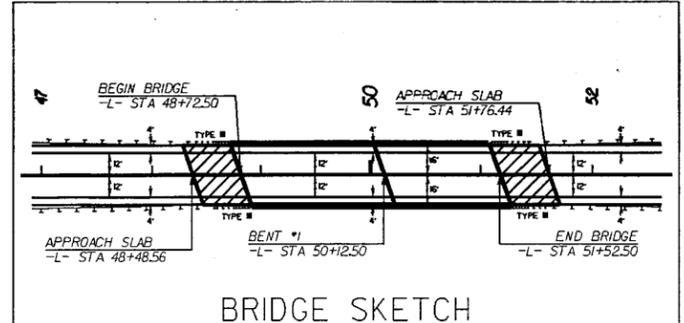
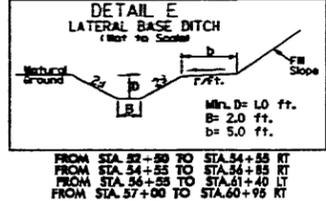
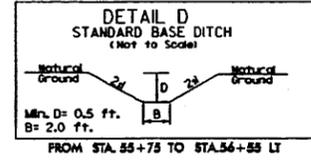
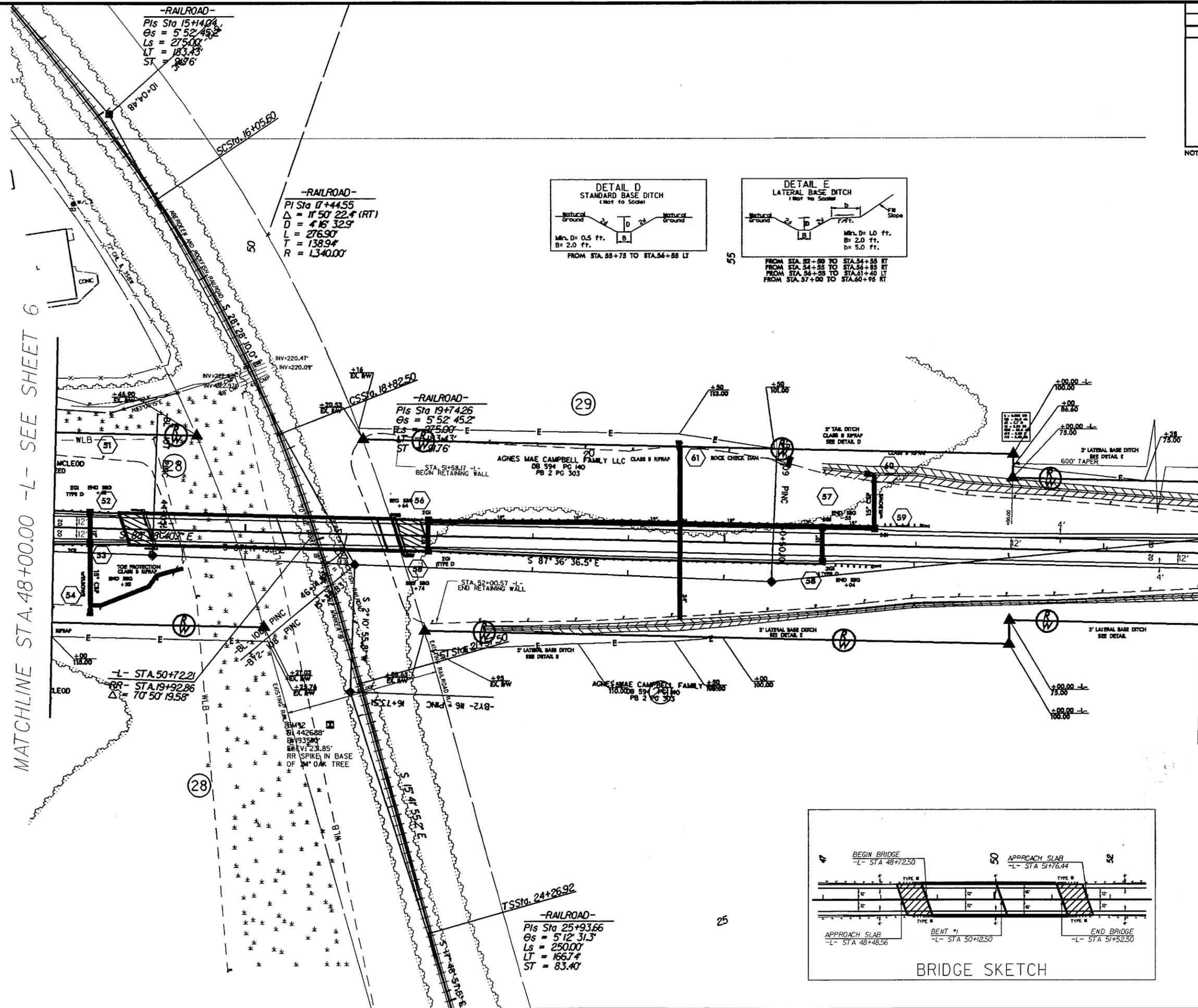
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RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

NOTE: SEE SHEET 16 FOR -L- PROFILE

MATCHLINE STA. 48+00.00 -L- SEE SHEET 6

MATCHLINE STA. 60+00.00 -L- SEE SHEET 8

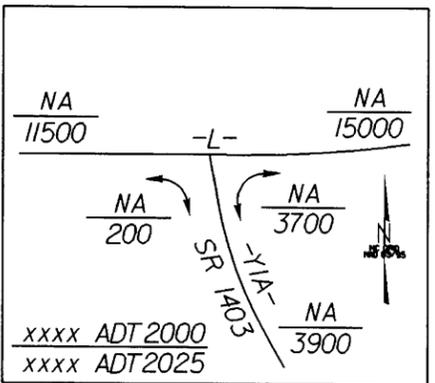
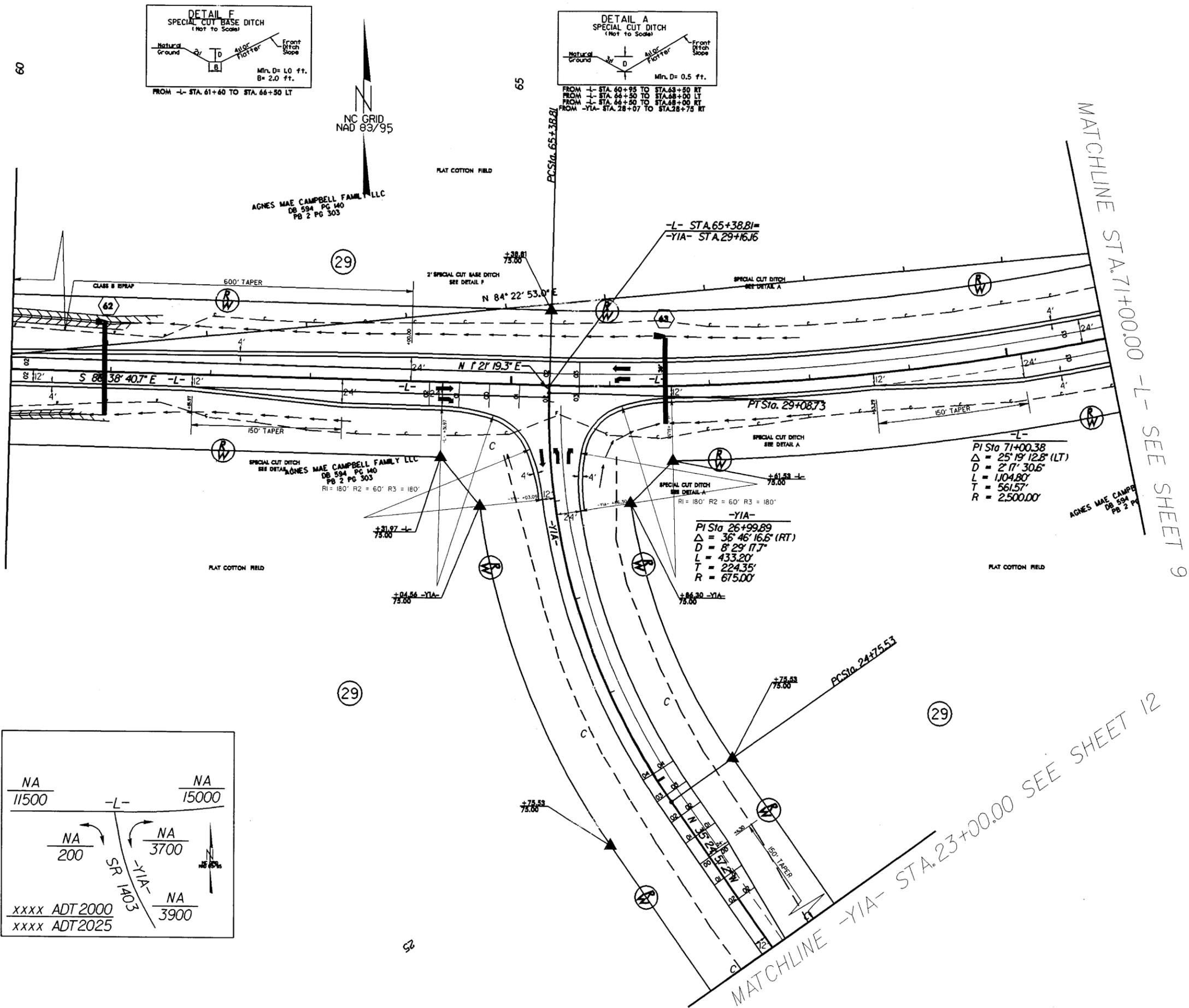


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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

NOTE: SEE SHEETS 16 & 17 FOR -L- PROFILE  
SEE SHEET 19 FOR -YIA- PROFILE

MATCHLINE STA. 60+00.00 -L- SEE SHEET 7

MATCHLINE STA. 71+00.00 -L- SEE SHEET 9



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PROJECT REFERENCE NO.		SHEET NO.	
U-3816		9	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

NOTE: SEE SHEET 17 FOR -L- PROFILE  
SEE SHEET 20 FOR -Y2- PROFILE

MATCHLINE -Y2- STA. 17+00.00 SEE SHEET 13

MATCHLINE STA. 71+00.00 -L- SEE SHEET 8

MATCHLINE STA. 82+00.00 -L- SEE SHEET 10

-L-  
PI Sta 71+00.38  
 $\Delta = 25^{\circ}19'12.8"$  (LT)  
D = 2'17" 30.6"  
L = 1,104.80'  
T = 561.57'  
R = 2,500.00'

-L- -Y1-  
PI Sta 27+81.86  
 $\Delta = 6^{\circ}52'31.8"$  (RT)  
D = 5'52" 35.4"  
L = 117.00'  
T = 58.57'  
R = 975.00'

PI Sta 29+18.83  
 $\Delta = 24^{\circ}48'15.8"$  (RT)  
D = 16'22" 12.8"  
L = 151.52'  
T = 76.97'  
R = 350.00'

-Y2-  
PI Sta 20+92.23  
 $\Delta = 4^{\circ}17'41.0"$  (RT)  
D = 0'52" 53.3"  
L = 487.22'  
T = 243.72'  
R = 6,500.00'

-L-  
PI Sta 82+67.46  
 $\Delta = 37^{\circ}03'02.2"$  (LT)  
D = 5'43" 46.5"  
L = 646.66'  
T = 335.09'  
R = 1,000.00'

ADT 2000	2400	2400
ADT 2025	4800	4800
800	300	4500
NA	1600	15000
NA	2100	
15000	1200	SR 1403
	2400	
SR 1403	100	2600
3900	NA	5400
NA		



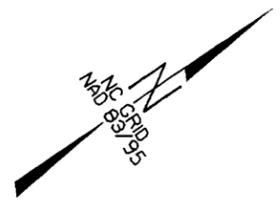
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SEE SHEET 12

MATCHLINE -Y2- STA. 26+00.00 SEE SHEET 14

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 8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
U-3816		10	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

NOTE: SEE SHEET 17 FOR -L- PROFILE



-L- STA. 87+50.00 END TIP PROJECT U-3816

MATCHLINE STA. 82+00.00 -L- SEE SHEET 9

-L-  
 PI Sta 82+67.46  
 $\Delta = 37^{\circ}03'02.2''$  (LT)  
 $D = 5^{\circ}43'46.5''$   
 $L = 646.66'$   
 $T = 335.09'$   
 $R = 1,000.00'$

(29)

85

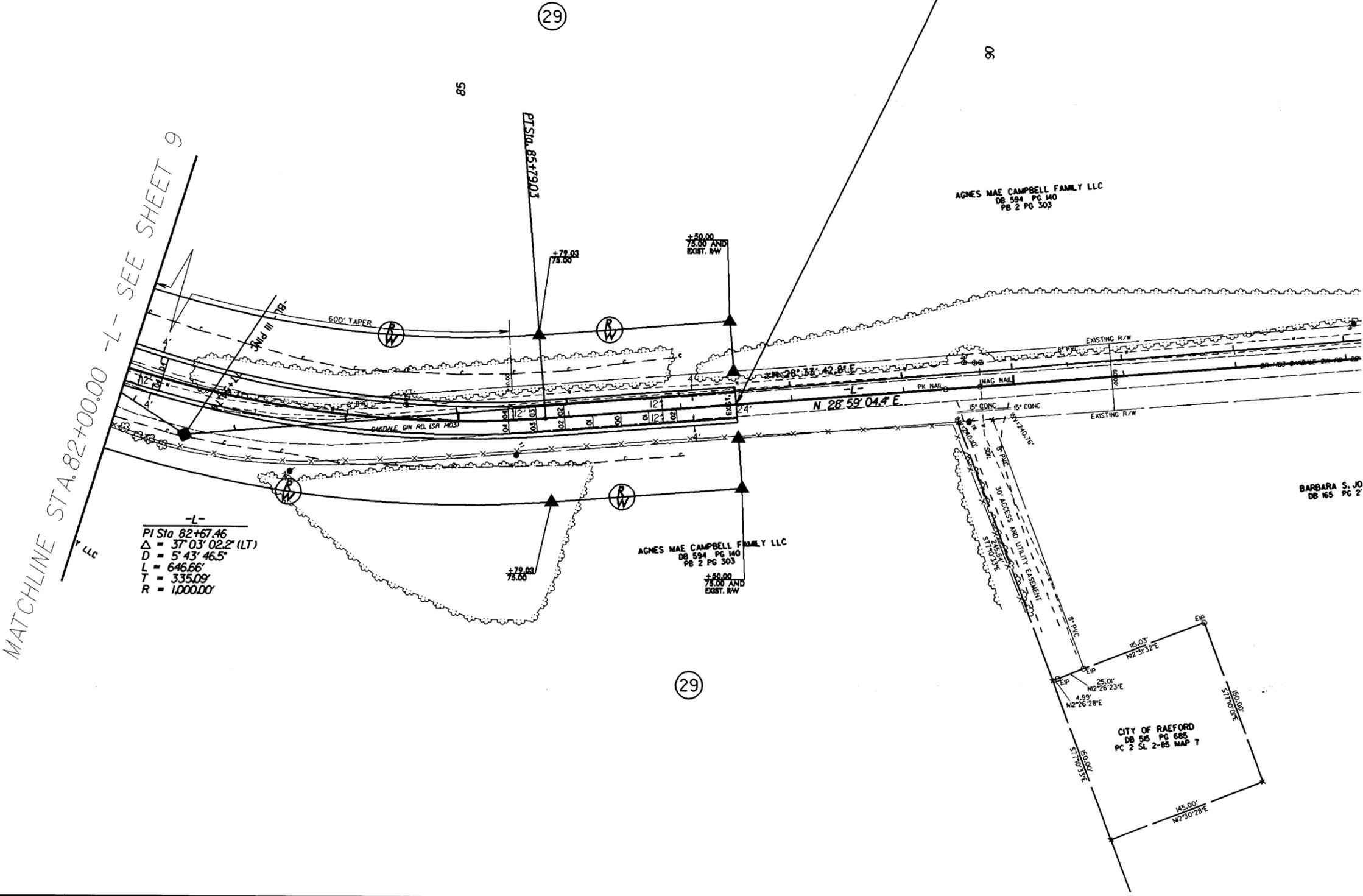
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AGNES MAE CAMPBELL FAMILY LLC  
 DB 594 PG 140  
 PB 2 PG 303

AGNES MAE CAMPBELL FAMILY LLC  
 DB 594 PG 140  
 PB 2 PG 303

BARBARA S. JO  
 DB 85 PG 2

CITY OF RAEFORD  
 DB 56 PG 685  
 PC 2 SL 2-B5 MAP 7



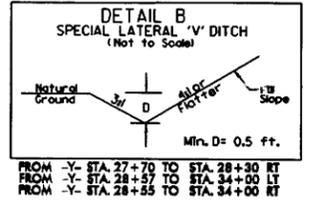
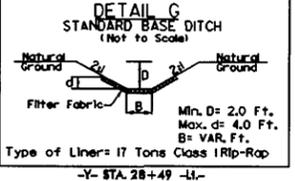
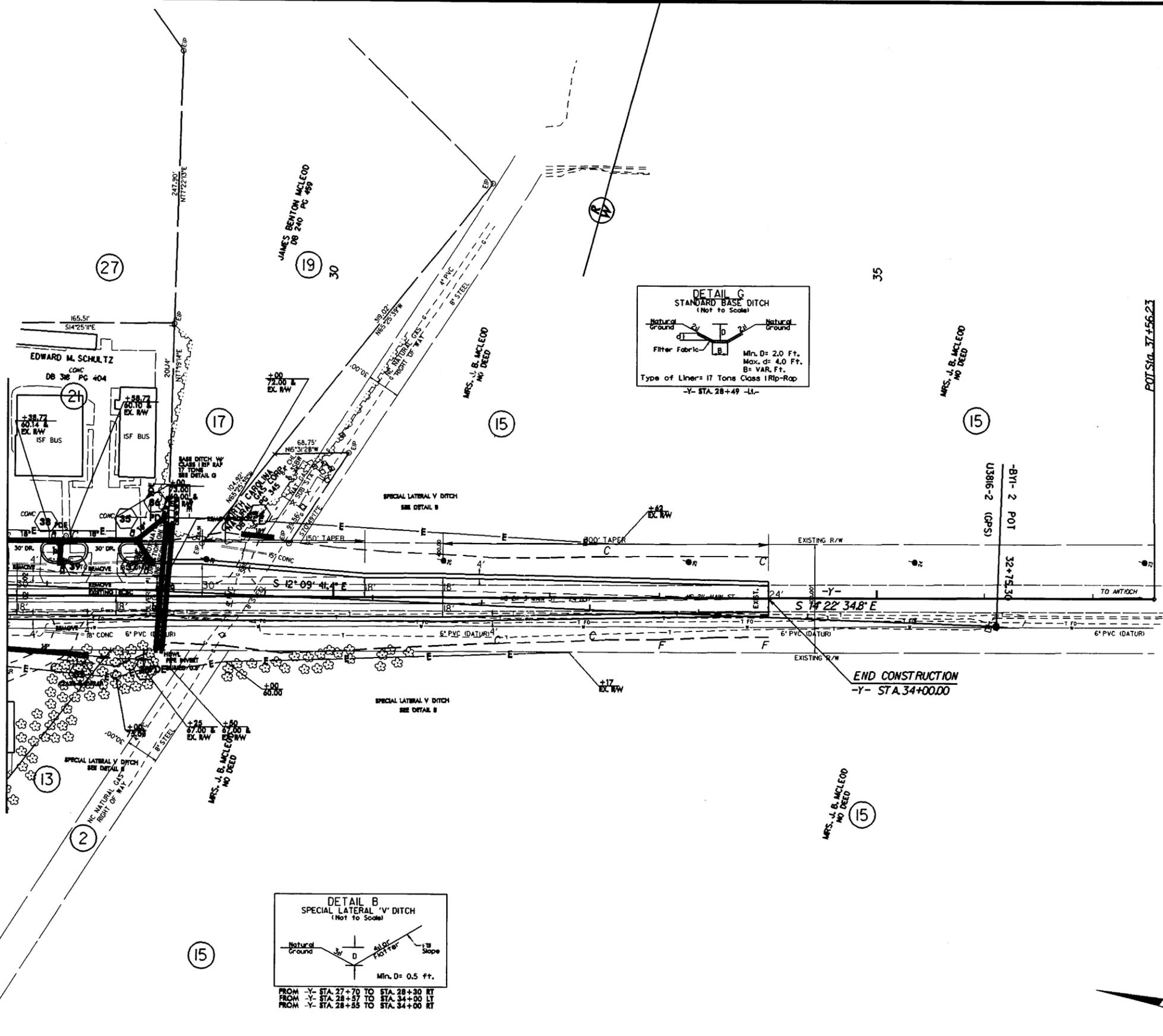
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PROJECT REFERENCE NO. U-3816	SHEET NO. 11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	

NOTE SEE SHEET 18 FOR -Y- PROFILE

8/17/99

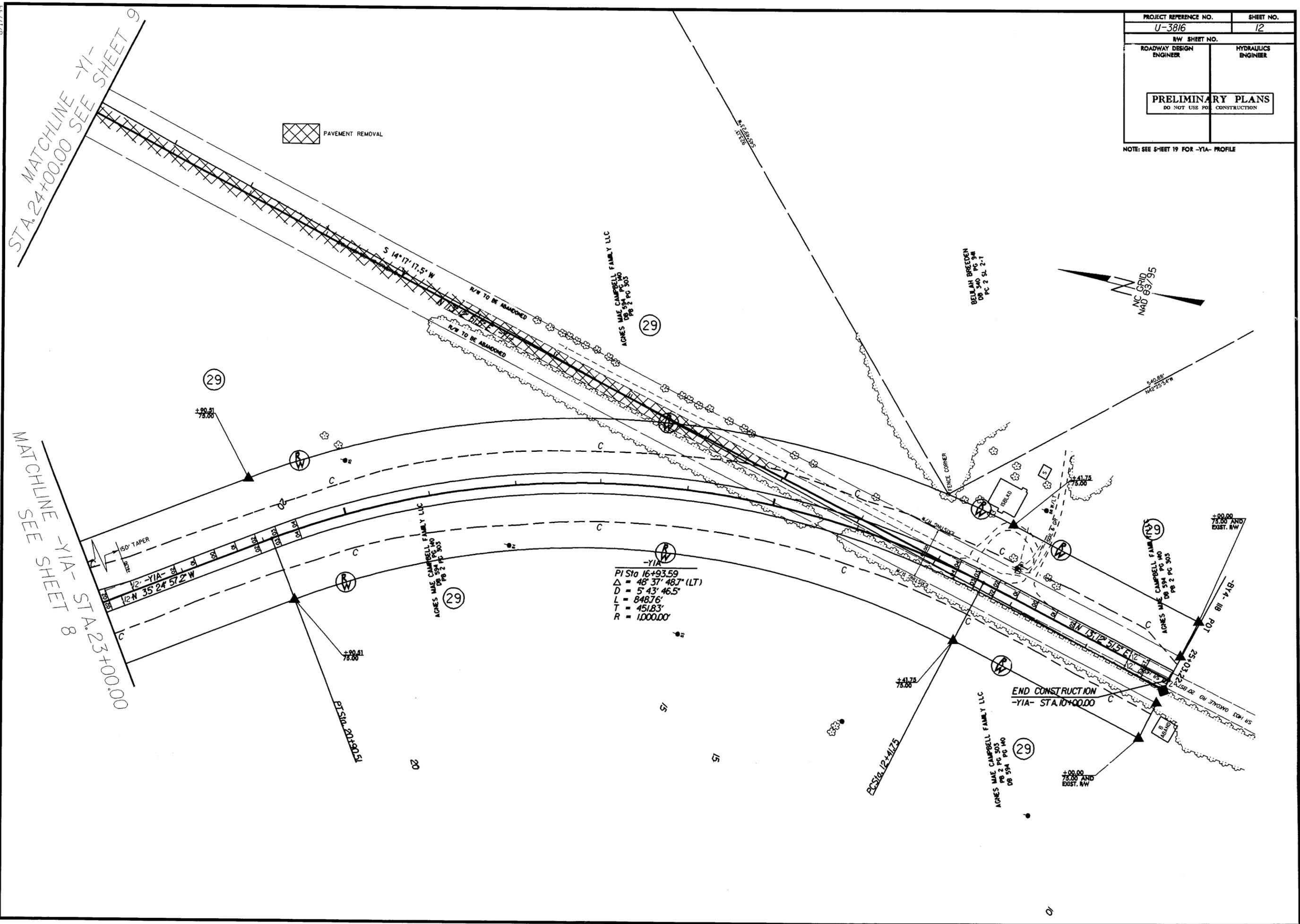
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U-3816		12	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS		DO NOT USE FOR CONSTRUCTION	

NOTE: SEE SHEET 19 FOR -Y1A- PROFILE





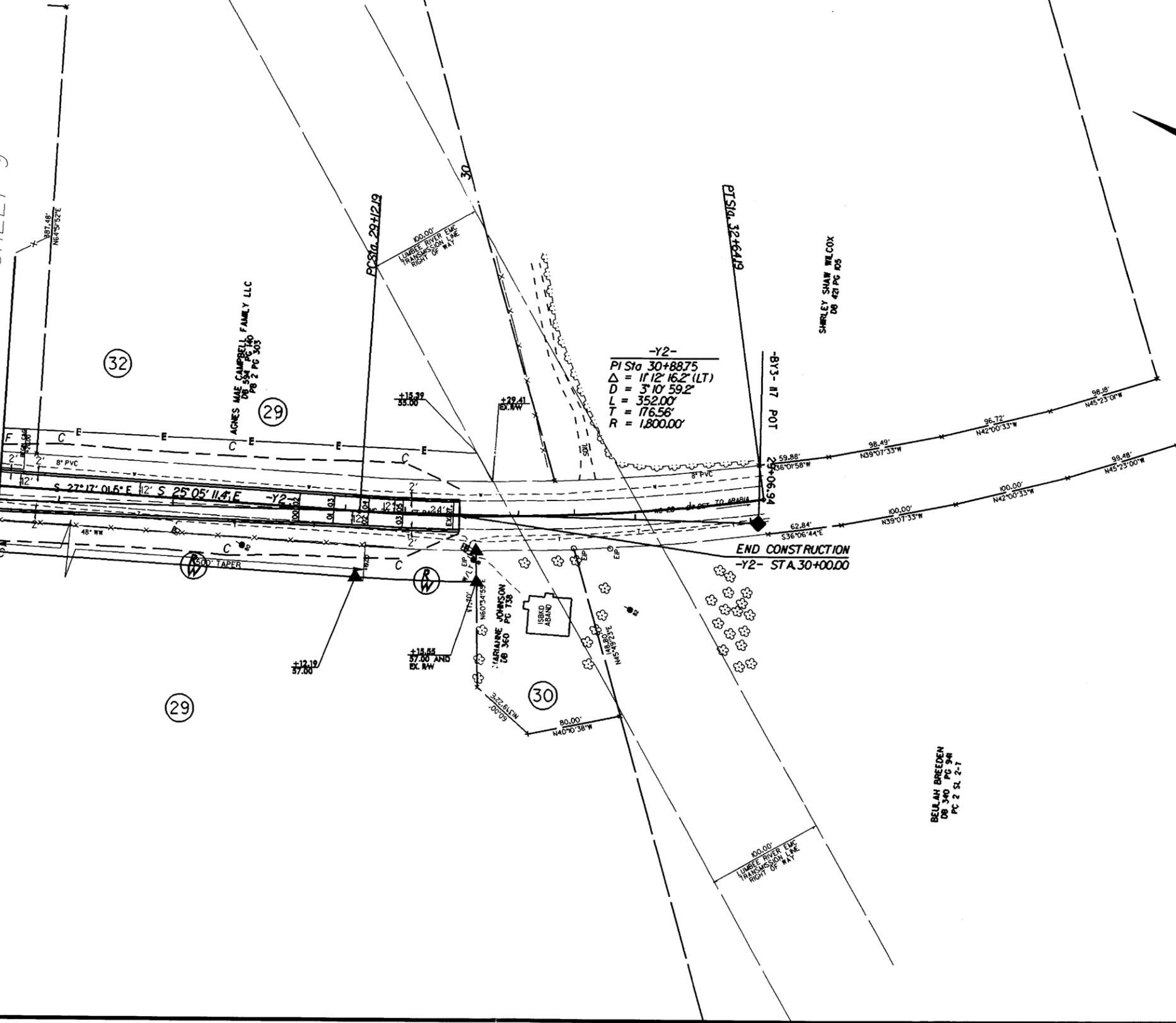
PROJECT REFERENCE NO.		SHEET NO.	
U-3816		14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION			

NOTE: SEE SHEET 20 FOR -Y2- PROFILE

MATCHLINE -Y2- STA. 26+00.00 SEE SHEET 9

-Y2-  
 PI Sta 30+88.75  
 $\Delta = 112^{\circ} 16.2' (LT)$   
 $D = 310' 59.2'$   
 $L = 352.00'$   
 $T = 176.56'$   
 $R = 1,800.00'$

END CONSTRUCTION  
 -Y2- STA. 30+00.00



23-FEB-2007 10:38  
 1:1 PLOT SCALE  
 U:\3816.rdy\_psh14.dgn

8/17/99