



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

November 8, 2011

MEMORANDUM TO: Mr. Barry Moose, PE
Division 10 Engineer

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

SUBJECT: Mecklenburg and Cabarrus Counties; I-85 from South of Concord
Mills Blvd / Bruton Smith Blvd (SR 2894) to NC 73; Federal
Project No. NHIMF-85-2(51)47; WBS Element 34187.1.1;
TIP I-3803B.

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

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

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

Mr. Rodger Rochelle, P.E. Transportation Program Management
Mr. Larry Thompson, Division Environmental Officer
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Jay Bennett, P.E., Roadway Design Unit
Mr. Dewayne Sykes, P.E. Utilities Unit
Dr. David Chang, P.E., Hydraulics Unit
Mr. Tom Koch, P.E., Structure Design Unit
Mr. Mark Staley, Roadside Environmental Unit
Mr. Ron Hancock, P.E., State Roadway Construction Engineer
Ms. Teresa Hart, P.E., PDEA Western Region Unit Head
Mr. Clarence Coleman, FHWA
Ms. Beth Harmon, EEP
Mr. Phillip Ayscue, NCDOT External Audit Branch

PROJECT COMMITMENTS

I-85

From South of Concord Mills Boulevard/Bruton
Smith Boulevard (SR 2894) to NC 73
Mecklenburg and Cabarrus Counties
Federal Aid Project NHIMF-85-2(51)47
WBS Element 34187.1.1
STIP Project No. I-3803 B

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

Roadway Design Unit

National Register boundaries for the Poplar Tent Presbyterian Church and the Blake House will be shown on the project plans. Both properties will be labeled "Historic Property, Do Not Impact" on the plans. Other conditions related to this historic property are stated in the Section 106 concurrence form included in Appendix H of the FONSI.

In order to accommodate both motor vehicles and bicycle traffic, 14-foot outside lanes will be constructed on the sections of Poplar Tent Road (SR 1394) and NC 73 (Davidson Highway) to be widened to full four-lane divided curb and gutter typical sections. In addition, 4-foot paved shoulders will be constructed along the portion of Pitts School Road (SR 1305) to be realigned. Appropriate signing for N. C. Bike Route 6, which follows Pitts School Road and Poplar Tent Road within the project study area, will be provided.

Sidewalks will be constructed on both sides of Poplar Tent Road (SR 1394) and NC 73 (Davidson Highway) in locations where full four-lane divided curb and gutter typical sections are proposed.

The new bridges that will be constructed to carry Poplar Tent Road and NC 73 over I-85 will be designed with 32 feet of additional length to accommodate the future construction of one managed lane in each direction on I-85. This additional length in each direction will accommodate a 12-foot managed lane and a 4-foot buffer between the managed lane and the general purpose lanes.

Both the Charlotte Area Transit System (CATS) and Concord-Kannapolis Area Transit (CKTS) operate bus service in the project study area. Coordination with CATS and CKAT will be performed during the final design phase of the project to determine if special provisions are needed for these bus routes.

The City of Kannapolis request for "Kannapolis" to be added to the I-85 signs at Exit 55 (NC 73 interchange) will be evaluated during the final design phase of the project.

A two-lane roadway on new location will be constructed to link Rustic Lane with International Drive (SR 1429) near the I-85 interchange with NC 73. The location of the intersection of this new roadway with International Drive will be coordinated with the International Business Park Master Plan during the final design phase of the project.

The existing emergency vehicle preemption signal at Concord Fire Station #9, located on Poplar Tent Road west of I-85, will remain in place under the subject project, and the proposed 30-foot raised median will be designed to allow emergency vehicles to make left turns at this location.

Based upon further coordination with Concord Regional Airport, the elevation of Poplar Tent Road will be lowered by approximately four feet in the vicinity of the Concord Regional Airport runway as part of the subject project. This proposed lowering will allow greater use of the recently extended runway at the airport. The airport has agreed to donate the right of way and easements needed to accomplish this lowering.

Voluntary Agricultural District boundaries will be shown on the project plans.

Project Development and Environmental Analysis Branch (Human Environment Unit, Natural Environment Unit, and Project Development Unit)

Two noise sensitive areas, located near the I-85 interchange with Kannapolis Parkway/George Liles Parkway, will be further studied to more accurately evaluate the feasibility and reasonableness of constructing noise barriers. Additional public involvement will be performed if noise mitigation measures are warranted.

Roadway Design Unit and Hydraulics Unit

The proposed new I-85 bridges over Rocky River and Coddle Creek will be designed with adequate vertical and horizontal clearance to accommodate future greenways proposed along those streams. In addition, a stable, level shelf will be provided on at least one stream bank under each bridge.

Project Development and Environmental Analysis Branch (Natural Environment Unit)

Depending upon the amount of stream impacts that will result from the project, an individual Section 404 permit may be required from the U. S. Army Corps of Engineers. In addition, a Section 401 Water Quality Certification will be required from the North Carolina Division of Water Quality.

Hydraulics Unit

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of NCDOT's

Memorandum of Agreement with the FMP (dated 6-5-08) or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division 10 Office

This project will involve construction activities on or adjacent to FEMA-regulated streams. Therefore, the NCDOT Division Office shall submit sealed as-built construction plans to the NCDOT Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Congestion Management Unit

Due to the proposed improvements to the I-85 interchanges with Poplar Tent Road and NC 73 (Davidson Highway), an interchange modification report (IMR) is being prepared and will be submitted to the Federal Highway Administration for approval prior to the beginning of right of way acquisition. The electronic files for the approved IMR will be sent to Concord Regional Airport.

Project Development and Environmental Analysis Branch (Project Development Unit) and Roadway Design Unit

Due to the potential for impacts to navigable airspace, appropriate coordination with FAA will be performed prior to project construction, including submittal of Form 7460-1 by the PDEA Branch (Notice of Proposed Construction) and 7460-2 by the Roadway Design Unit (Notice of Actual Construction or Alteration).

Roadway Design Unit and Division 10 Office

Security fencing will be maintained at all times along NCDOT right of way where it adjoins Concord Regional Airport property. NCDOT will notify the airport of any breaches in the fencing so that any needed repairs can be made in compliance with FAA specifications.

If excess soil from the project is to be disposed of on Concord Regional Airport property, the soil must be tested, a plan must be developed and approved, compaction will be required, and coordination with inspectors will be required for placement of the soil and for safety and security precautions.

Division 10 Office, Project Development and Environmental Analysis Branch (Project Development Unit)

The possibility of extending the proposed widening of NC 73 approximately 0.4 mile westward to Kannapolis Parkway will be evaluated. If this work is to be performed, additional environmental studies and public involvement will be required.

COMMITMENTS FROM PERMITTING

Design Build Team, Division 10 Office

404 condition e) At permit site 3, the applicant proposes to construct a ditch adjacent to the wetland, which will have 0.02 acres of mechanized land clearing impacts authorized. In order to provide information regarding baseline hydrologic conditions, the applicant will provide to the Asheville Regulatory Field Office, Corps Project Manager, Wetland Data Forms in accordance with the U.S. Army Corps of Engineers Interim Regional Supplement to the Corps Wetland Delineation Manual: Eastern Mountain and Piedmont Region (July 2010), which are to be completed PRIOR to the ditch construction. Immediately after ditch construction, NCDOT will visually monitor the wetland for two growing seasons to determine impacts to wetland hydrology conditions as the result of ditch construction. Completed Wetland Data forms shall be submitted to the Asheville Regulatory Field Office Corps Project Manager post ditch construction. If the ditch results in lost hydrology to the wetland, these impacts must be accounted for in a permit modification, and additional compensatory mitigation will be required.

404 condition w) Compensatory mitigation for the unavoidable impacts to 0.05 acres of non riparian wetlands and 1,169 linear feet of stream fill and 43 linear feet of bank stabilization associated with proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated April 12, 2010 from William D. Gilmore, EEP Director. Pursuant to the In-Lieu-Fee Instrument signed July 28, 2010 between the State of North Carolina, Ecosystem Enhancement Program and the US Army Corps of Engineers the EEP will provide 0.10 acres of restoration equivalent riparian wetlands and 2,381 linear feet of restoration equivalent warm water stream channel in the Yadkin River Basin (Hydrologic Cataloging Unit 03040105 in accordance with Section F of the instrument.

401 condition 2. A ditch with a 9.62% slope will be constructed that outfalls into the jurisdictional stream at Permit Site 7. Riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.

401 condition 3. A ditch with a 4.65% slope will be constructed that outfalls into the jurisdictional stream a Permit Site 8. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.

401 condition 4. A ditch with a 7% slope will be constructed that outfalls perpendicularly into the jurisdictional stream at Permit Site 9. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.

401 condition 5. Class II riprap or shot rock must be used to armor the scourhole at Permit Site 11. Additionally, the rock must be embedded in the stream to allow for unimpeded low flow passage of water and aquatic life.

401 condition 6. A ditch with a 3.21% slope will be constructed that outfalls into the jurisdictional stream at Permit Site 13. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.

401 condition 7. Two (2) preformed scourholes will be installed near the outlet of the jurisdictional stream at Permit Site 14. Please be advised that if installation of the preformed scourholes results in erosion which impacts water quality or stream destabilization is observed, NCDOT will be required to install corrective measures to address the issue.

401 condition 8. Two ditches, with 9.2% and 9.5% slopes, will be constructed that outfall into the jurisdictional stream at Permit Site 16. Riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.

401 condition 9. A rock ladder will be constructed at the outlet of the culvert at Permit Site 17. Class II riprap or shot rock must be used to construct the rock ladder. DWQ will also require that the NCDOT Division 10 Environmental Officer or Environmental Specialist be on site during the construction of the rock ladder.

401 condition 11. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to turbidity shall be designed, constructed, and operated with sediment and erosion control measures that meet Design Standards in Sensitive Watersheds [15A NCAC 4B .0124]. However, due to the size of the project, NCDOT shall not be required to meet 15A NCAC 4B .0124(a) regarding the maximum amount of uncovered acres.

401 condition 12. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to biological criteria exceedances shall not discharge stormwater directly to surface waters. Stormwater shall be treated using appropriate best management practices (e.g., vegetated conveyances, constructed wetlands, detention ponds, etc.) prior to discharging to surface waters.

DEPARTMENT OF THE ARMY PERMIT

Permittee **NORTH CAROLINA DEPARTMENT OF TRANSPORTATION**

Permit No. **SAW-2009-02290**

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 permanently impact 1,427 linear feet of stream and 0.05 acres of wetlands in order to facilitate the widening of I-85 to an eight lane facility from south of Concord Mills/Bruton Smith Boulevard to NC 73 in Cabarrus County, TIP I-3803B. Temporary impacts total 34 linear feet of stream. Impacts to jurisdictional waters of the U.S. are associated with the construction and installation of culverts, wing walls, roadway fill, mechanized land clearing, and bank stabilization.

Project Location: Cabarrus County, North Carolina

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **December 31, 2016**. 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).
 - (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
 - () Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.
 - c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.

SPECIAL CONDITIONS
SAW-2009-02290

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

Work Limits

- a) All work authorized by this permit must be performed in strict compliance with the attached plans, which are a part of this permit and attached as Exhibit A. Any modification to these plans must be approved by the US Army Corps of Engineers (USACE) prior to implementation.

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

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

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

- e) At permit site 3, the applicant proposes to construct a ditch adjacent to the wetland, which will have 0.02 acres of mechanized land clearing impacts authorized. In order to provide information regarding baseline hydrologic conditions, the applicant will provide to the

Asheville Regulatory Field Office, Corps Project Manager, Wetland Data Forms in accordance with the U.S. Army Corps of Engineers Interim Regional Supplement to the Corps Wetland Delineation Manual: Eastern Mountain and Piedmont Region (July 2010), which are to be completed PRIOR to the ditch construction. Immediately after ditch construction, NC DOT will visually monitor the wetland for two growing seasons to determine impacts to wetland hydrology conditions as the result of ditch construction. Completed Wetland Data forms shall be submitted to the Asheville Regulatory Field Office Corps Project Manager post ditch construction. If the ditch results in lost hydrology to the wetland, these impacts must be accounted for in a permit modification, and additional compensatory mitigation will be required.

Related Laws

f) The North Carolina Division of Water Quality has issued a conditioned Water Quality Certification for your project. The conditions of that certification are hereby incorporated as special conditions of this permit. For your convenience, a copy of the certification is attached as Exhibit A. These referenced conditions are hereby incorporated as special conditions of this permit.

g) All mechanized equipment will be regularly inspected and maintained to prevent contamination of waters and wetlands from fuels, lubricants, hydraulic fluids, or other toxic materials. In the event of a spill of petroleum products or any other hazardous waste, the permittee shall immediately report it to the N.C. Division of Water Quality at (919) 733-5083, Ext. 526 or (800) 662-7956 and provisions of the North Carolina Oil Pollution and Hazardous Substances Control Act will be followed.

Project Maintenance

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

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

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

- k) The permittee shall employ all sedimentation and erosion control measures necessary to prevent an increase in sedimentation or turbidity within waters and wetlands outside the permit area. This shall include, but is not limited to, the immediate installation of silt fencing or similar appropriate devices around all areas subject to soil disturbance or the movement of earthen fill, and the immediate stabilization of all disturbed areas. Additionally, the project must remain in full compliance with all aspects of the Sedimentation Pollution Control Act of 1973 (North Carolina General Statutes Chapter 113A Article 4).
- l) The permittee shall remove all sediment and erosion control measures placed in wetlands or waters, and shall restore natural grades in those areas, prior to project completion.
- m) During the clearing phase of the project, heavy equipment must not be operated in surface waters or stream channels. Temporary stream crossings will be used to access the opposite sides of stream channels. All temporary diversion channels and stream crossings will be constructed of non-erodable materials. Grubbing of riparian vegetation will not occur until immediately before construction begins on a given segment of stream channel.
- n) No fill or excavation for the purposes of sedimentation and erosion control shall occur within jurisdictional waters, including wetlands, unless it is included on the plan drawings and specifically authorized by this permit.
- o) The permittee, upon receipt of a notice of revocation of this permit or upon its expiration before completion of the work will, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the water or wetland to its pre-project condition.

Enforcement

- p) Violations of these conditions or violations of Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act must be reported in writing to the Wilmington District U.S. Army Corps of Engineers within 24 hours of the permittee's discovery of the violation.
- q) The permittee will ensure that the construction design plans for this project do not deviate from the permit plans attached to this authorization. Written verification shall be provided that the final construction drawings comply with the attached permit drawings prior to any active construction in waters of the United States, including wetlands. Any deviation in the construction design plans will be brought to the attention of the Corps of Engineers, Asheville Regulatory Field Office prior to any active construction in waters or wetlands.
- r) Prior to commencing construction within jurisdictional waters of the United States for any portion of the proposed project, the permittee shall forward the latest version of project construction drawings to the Corps of Engineers, Asheville Regulatory Field Office NCDOT Regulatory Project Manager. Half-size drawings will be acceptable.

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

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

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

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

Mitigation

w) Compensatory mitigation for the unavoidable impacts to 0.05 acres of non riparian wetlands and 1,169 linear feet of stream fill and 43 linear feet of bank stabilization associated with the proposed project shall be provided by the Ecosystem Enhancement Program (EEP), as outlined in the letter dated April 12, 2010 from William D. Gilmore, EEP Director. Pursuant to the In-Lieu-Fee Instrument signed July 28, 2010 between the State of North Carolina, Ecosystem Enhancement Program and the US Army Corps of Engineers the EEP will provide 0.10 acres of restoration equivalent riparian wetlands and 2,381 linear feet of restoration equivalent warm water stream channel in the Yadkin River Basin (Hydrologic Cataloging Unit 03040105 in accordance with Section F of the instrument.

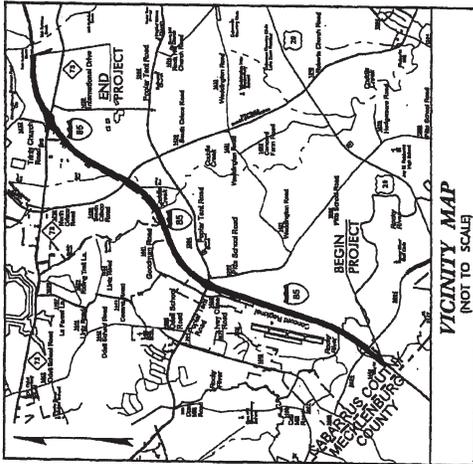
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CABARRUS COUNTY

LOCATION: I-85 FROM SOUTH OF SR-2894 (BRUTON SMITH/CONCORD MILLS BLVD.) TO NORTH OF NC 73 (DAVIDSON HIGHWAY)

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

See Sheet I-4 For Index of Sheets
See Sheet I-5 For Conventional Symbols

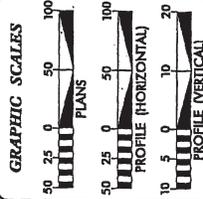


VICINITY MAP
(NOT TO SCALE)

BEGIN STATE PROJECT I-3803B
END F.A. PROJECT NHMF-85-2(62)48
-L- STA. 159 + 74.12

BEGIN CONSTRUCTION
-L- STA. 144 + 54.31

THIS PROJECT IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF CONCORD AND KANNAHOLLS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.



DESIGN DATA

ADT 2011	= 118,275
ADT 2031	= 189,775
DHVV	= 10 %
D	= 60 %
T	= 14 %
V	= 70 MPH

FUNCTIONAL CLASSIFICATION:
INTERSTATE

* TTST=9% DUAL=5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-3803B	= 6.930 MILES
LENGTH STRUCTURE TIP PROJECT I-3803B	= 0.082 MILES
TOTAL LENGTH TIP PROJECT I-3803B	= 7.012 MILES

RIGHT OF WAY DATE:
JULY 23, 2010

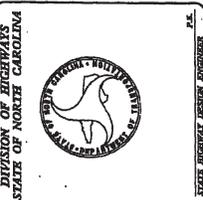
LETTING DATE:
JULY 23, 2010

PROJECT MANAGER:
GREGORY KEMPE, P.E.

PROJECT MANAGER:
JONATHAN HENDERSON, P.E.

HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

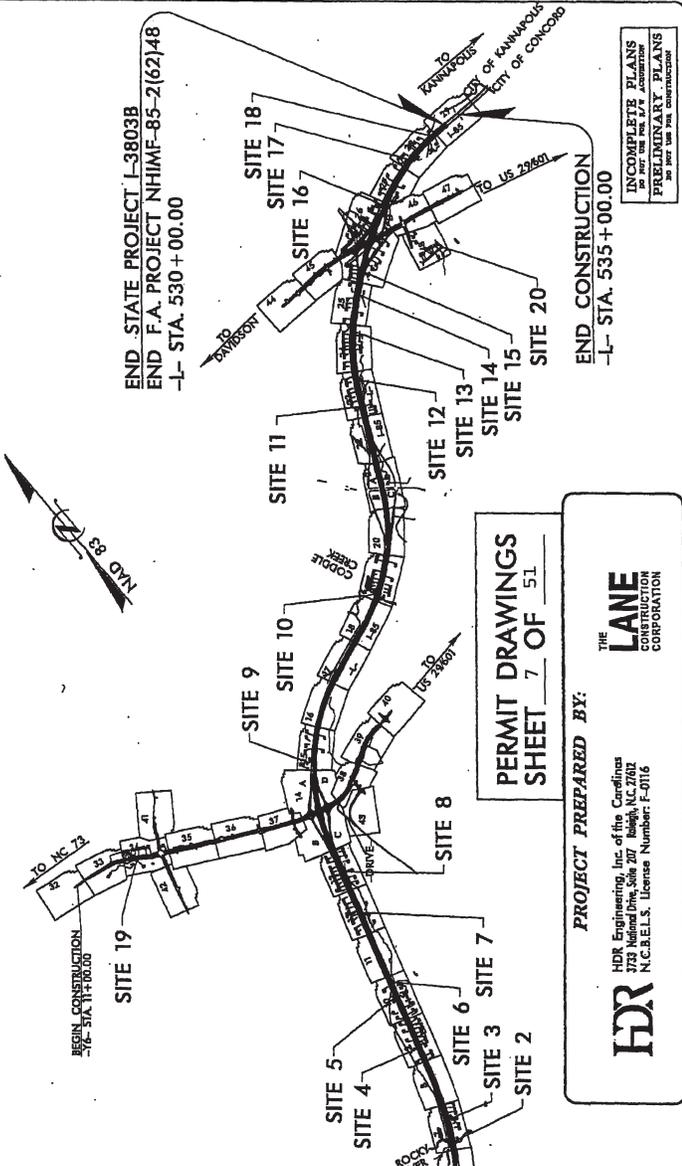


DATE	NO. OF SHEETS	SHEET NO.
N.C.	1	1
PROJECT NO.	I-3803B	
CONTRACT NO.	C202522	
CONTRACT DESCRIPTION	I-85 FROM SOUTH OF SR-2894 (BRUTON SMITH/CONCORD MILLS BLVD.) TO NORTH OF NC 73 (DAVIDSON HIGHWAY) CONSTRUCTION	

WETLAND SITE MAP

SUBMITTED: 03-29-2011

SUBMITTAL # C-020R



END STATE PROJECT I-3803B
END F.A. PROJECT NHMF-85-2(62)48
-L- STA. 530 + 00.00

END CONSTRUCTION
-L- STA. 535 + 00.00

PERMIT DRAWINGS
SHEET 7 OF 51

PROJECT PREPARED BY:

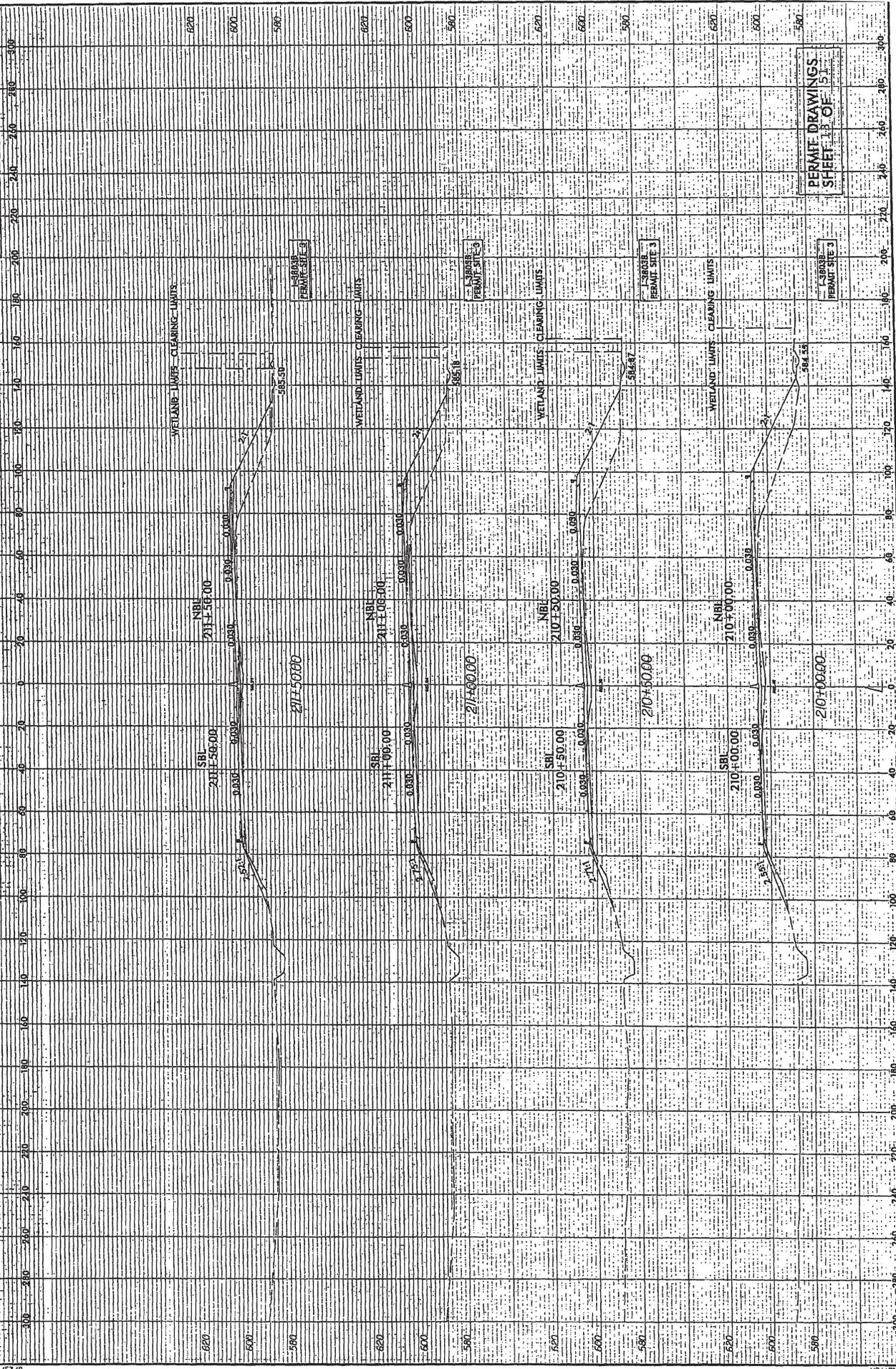
HDR HDR Engineering, Inc. of the Carolinas
3732 National Dr., Suite 207, Raleigh, NC 27602
N.C.B.E.L.S. License Number: F-0116

THE LANE CORPORATION

IN COMPLETE PLANS
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

TIP PROJECT: I-3803B

CONTRACT: C202522



MATCHLINE L- STA. 257+00, SEE SHEET NO. 11

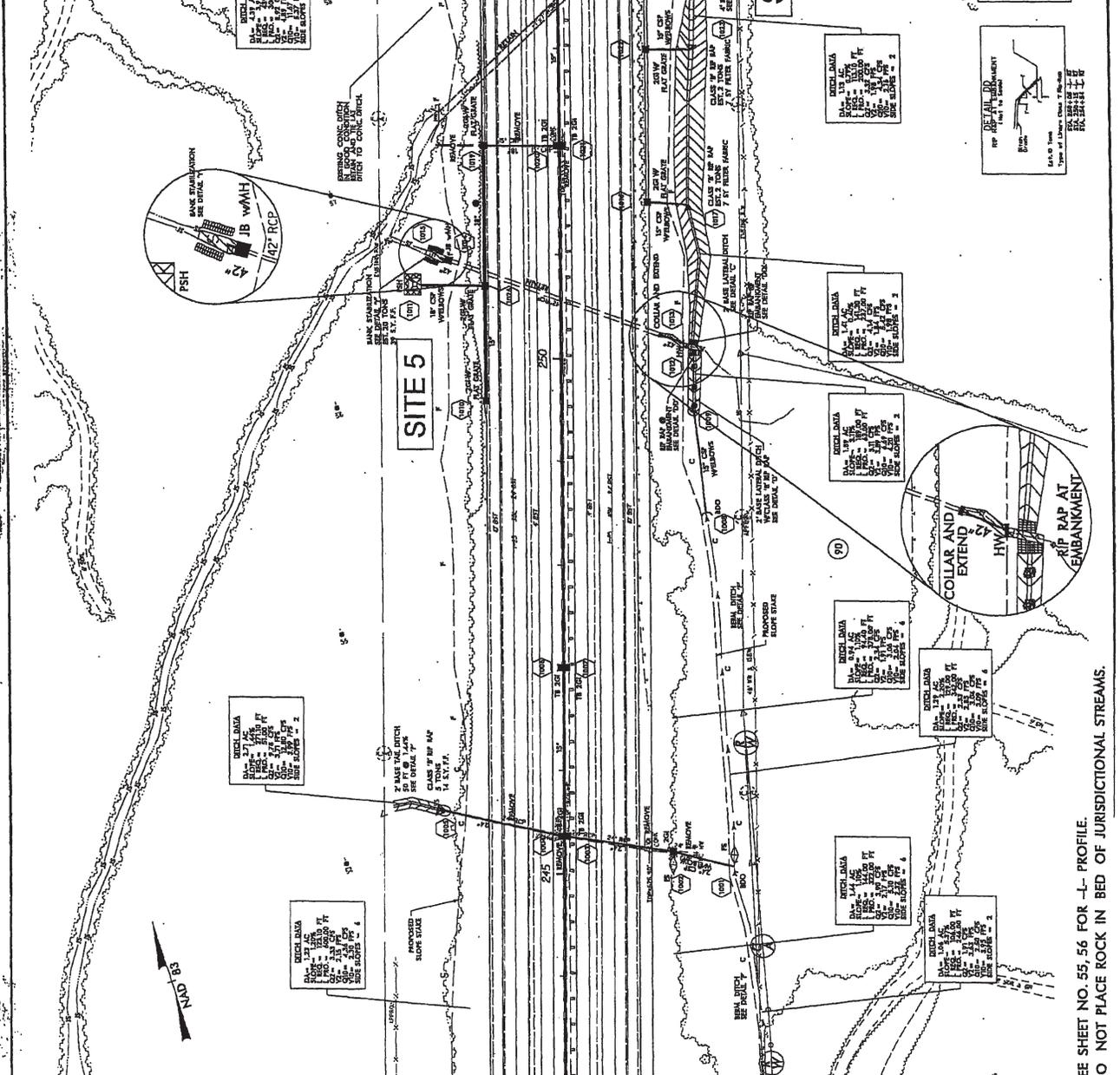
MATCHLINE L- STA. 243+00, SEE SHEET NO. 9

PERMIT DRAWINGS
 SHEET 16 OF 51

PROJECT REFERENCE NO. 3803B
 HWY. SHEET NO. 10

THE LANE CORPORATION
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 FOR THE PROPOSED
 CONSTRUCTION

LEGEND
 Hatched Area: REMOVED WATER
 Dashed Line: DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DETAIL 6
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

DETAIL 5
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

DETAIL 4
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

DETAIL 3
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

DETAIL 2
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

DETAIL 1
 RIP RAP AT EMBANKMENT
 CLASS 2
 18" MIN. SPACING
 18" MIN. THICKNESS
 18" MIN. COURSE
 SEE DETAIL 11

SEE SHEET NO. 55, 56 FOR -L- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

PROJECT REFERENCE NO. I-3803B

DATE 5/28/99

DESIGNED BY

CHECKED BY

INCOMPLETE PLANS on 08/17/00 FOR PERMITS

PRELIMINARY PLANS to start and for construction

PERMITS

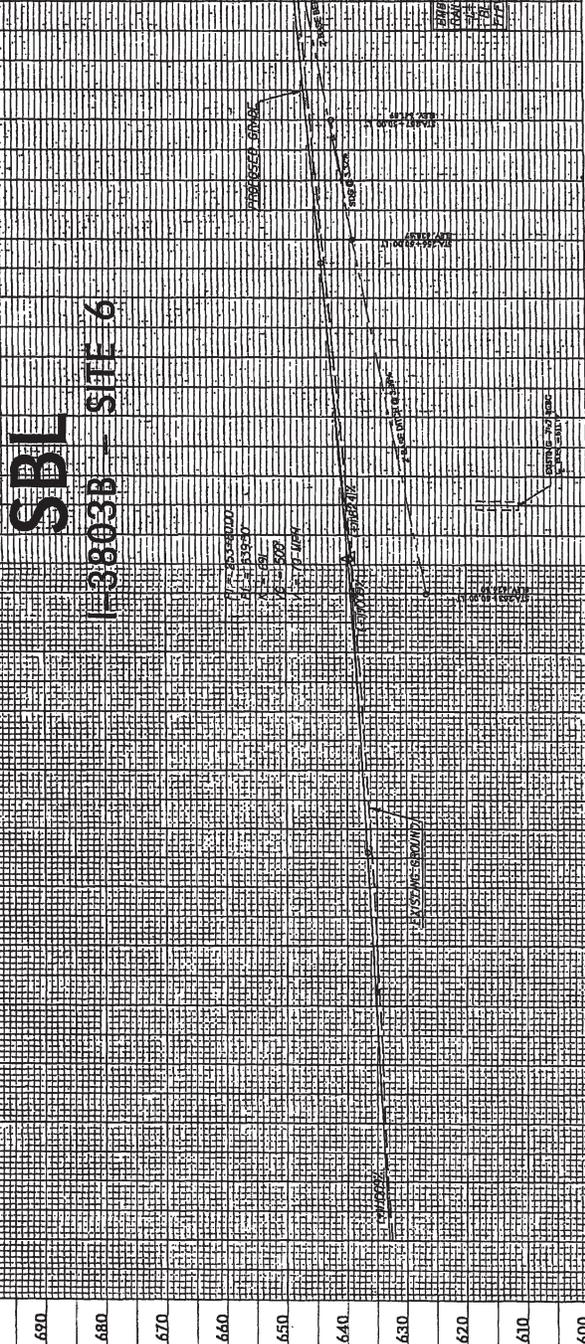
PERMITS

PERMITS

PERMITS

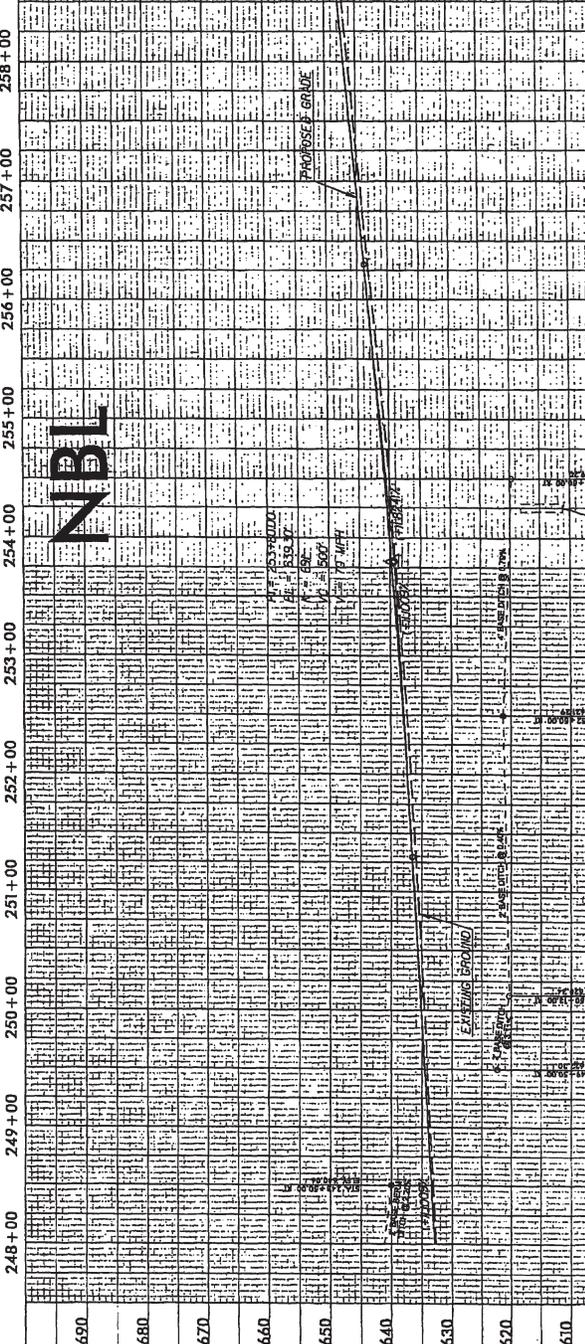
SBL

I-3803B - STE 6



690	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00	257+00	258+00	259+00	260+00	261+00	600
680															
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NBL



690	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00	257+00	258+00	259+00	260+00	261+00	600
680															
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PERMITS

PERMITS

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PERMITS

LOT DRYER #PTDHY5

DATE: 2/22/2011

SCALE: 8CALSHORT

TIME: 10:43:20 AM

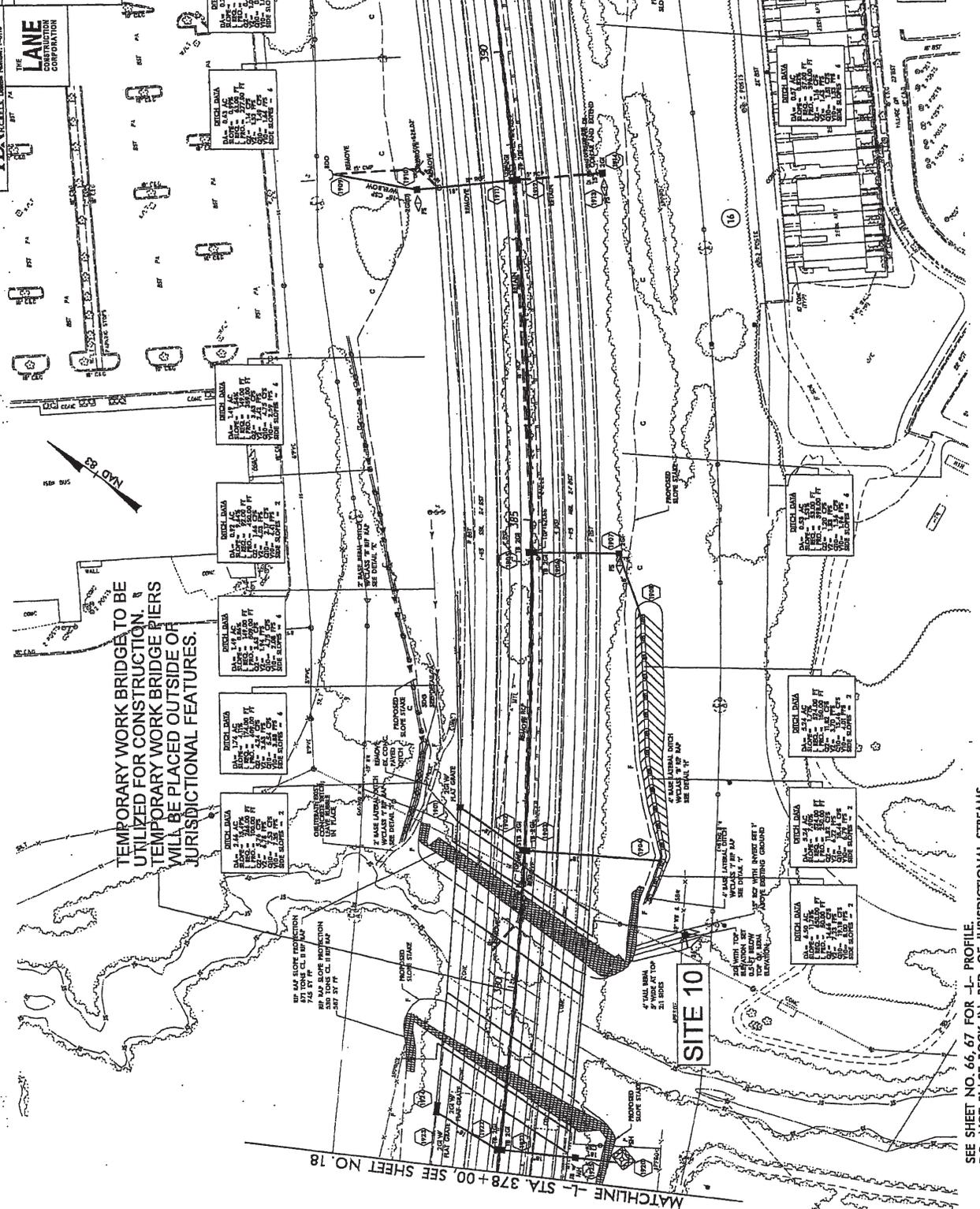
SCALE: 8CALSHORT

PROJECT REFERENCE NO. 1-3803B
 SHEET NO. 19

DATE: 11/11/2011
 SCALE: 1/8"=1'-0"
 DRAWN BY: J. COOPER
 CHECKED BY: J. COOPER
 PERMITTED BY: J. COOPER

THE LANE
 CONSTRUCTION CORPORATION

INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



TEMPORARY WORK BRIDGE TO BE
 UTILIZED FOR CONSTRUCTION. &
 TEMPORARY WORK BRIDGE PIERS
 WILL BE PLACED OUTSIDE OF
 JURISDICTIONAL FEATURES.

MATCHLINE - L- STA. 392+00, SEE SHEET NO. 20

MATCHLINE - L- STA. 378+00, SEE SHEET NO. 18

PERMIT DRAWINGS
 SHEET 26 OF 51

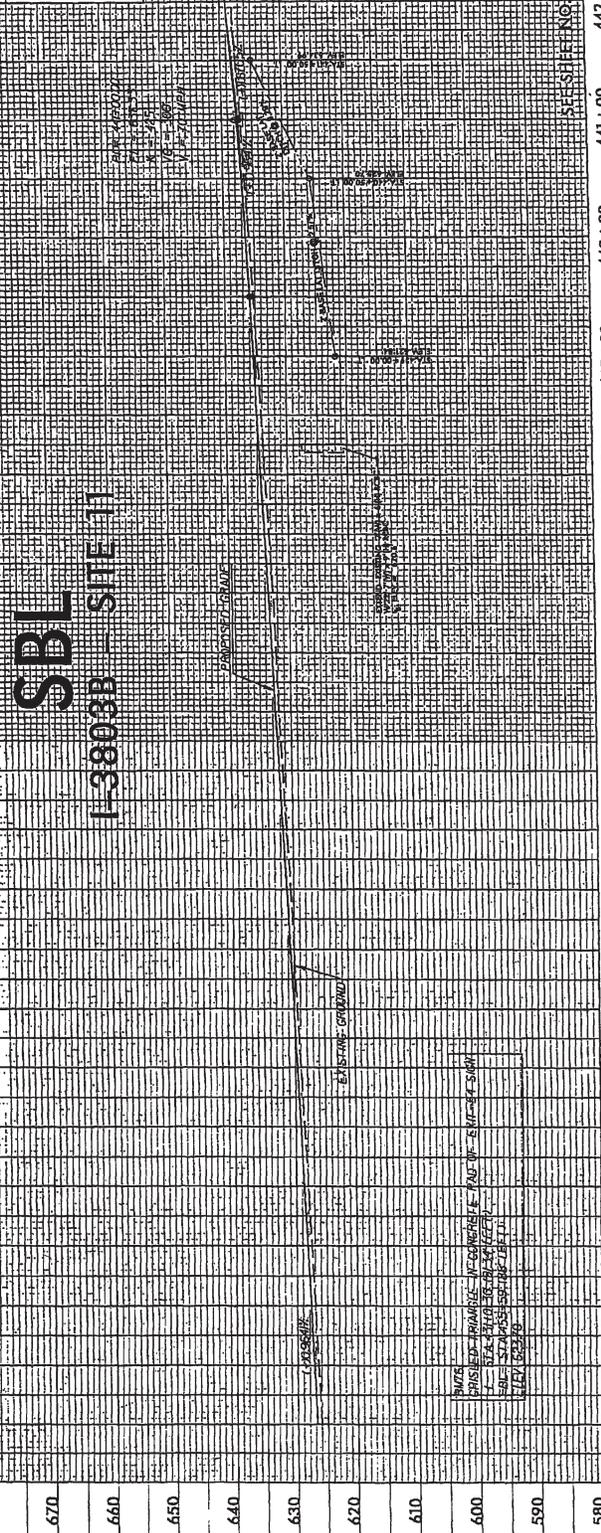
SEE SHEET NO. 66.67 FOR -L- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

REVISIONS
 1. DATE: 11/11/2011
 2. DATE: 11/11/2011
 3. DATE: 11/11/2011
 4. DATE: 11/11/2011
 5. DATE: 11/11/2011

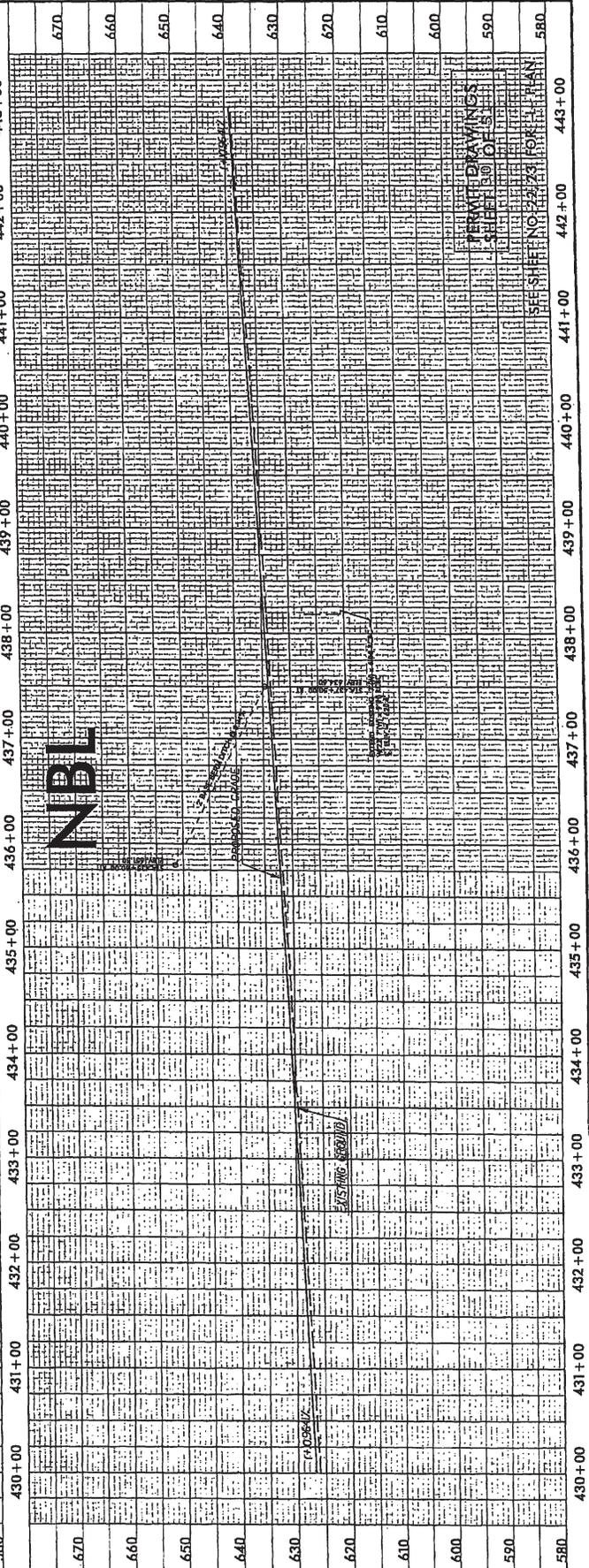
PROJECT REFERENCE NO. I-38003B SHEET NO. 70

BOUNDARY DESIGN
DRAWINGS

INCOMPLETE PLANS
DO NOT USE FOR
PRELIMINARY PLANS
NO POST CONSTRUCTION

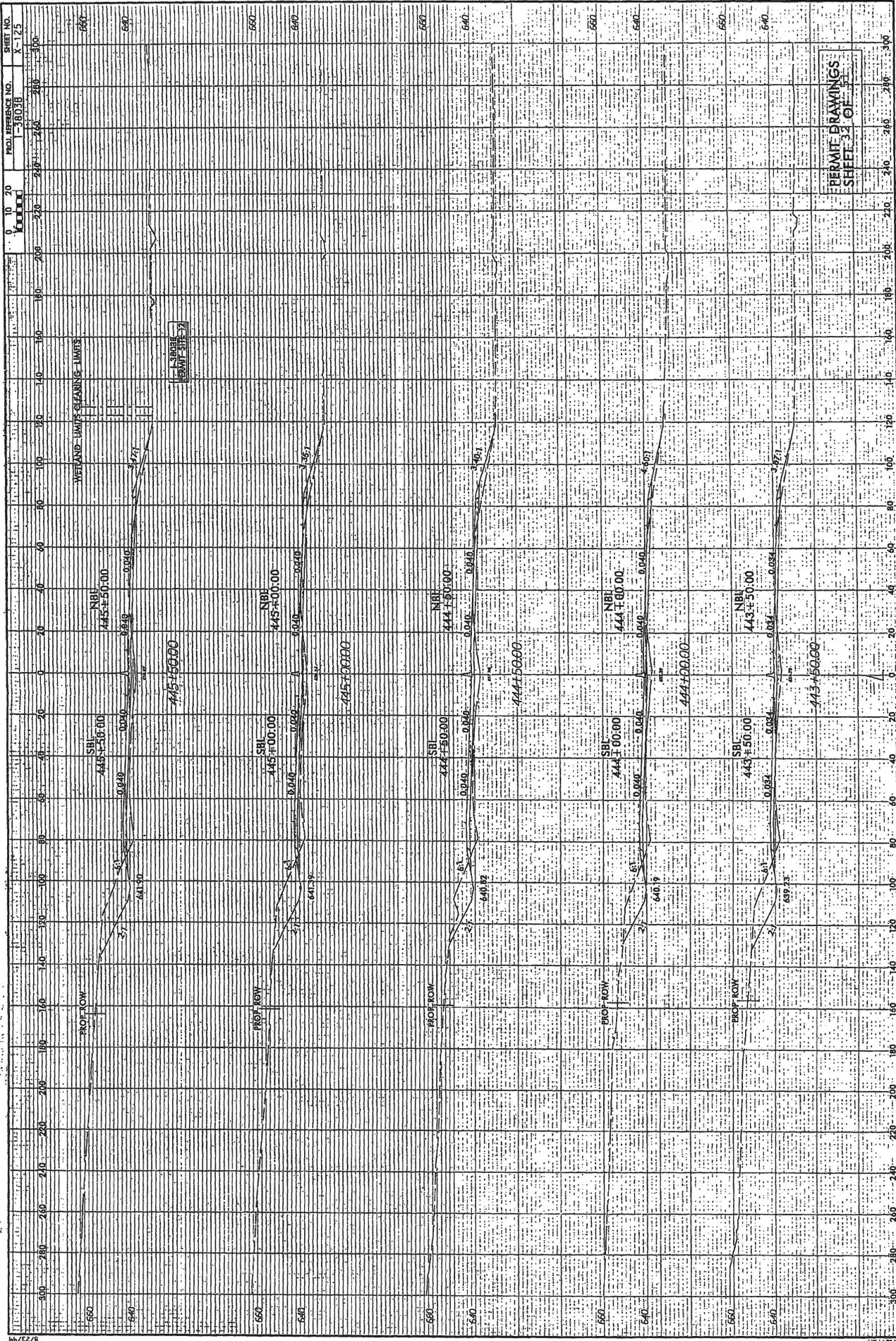


5/28/99



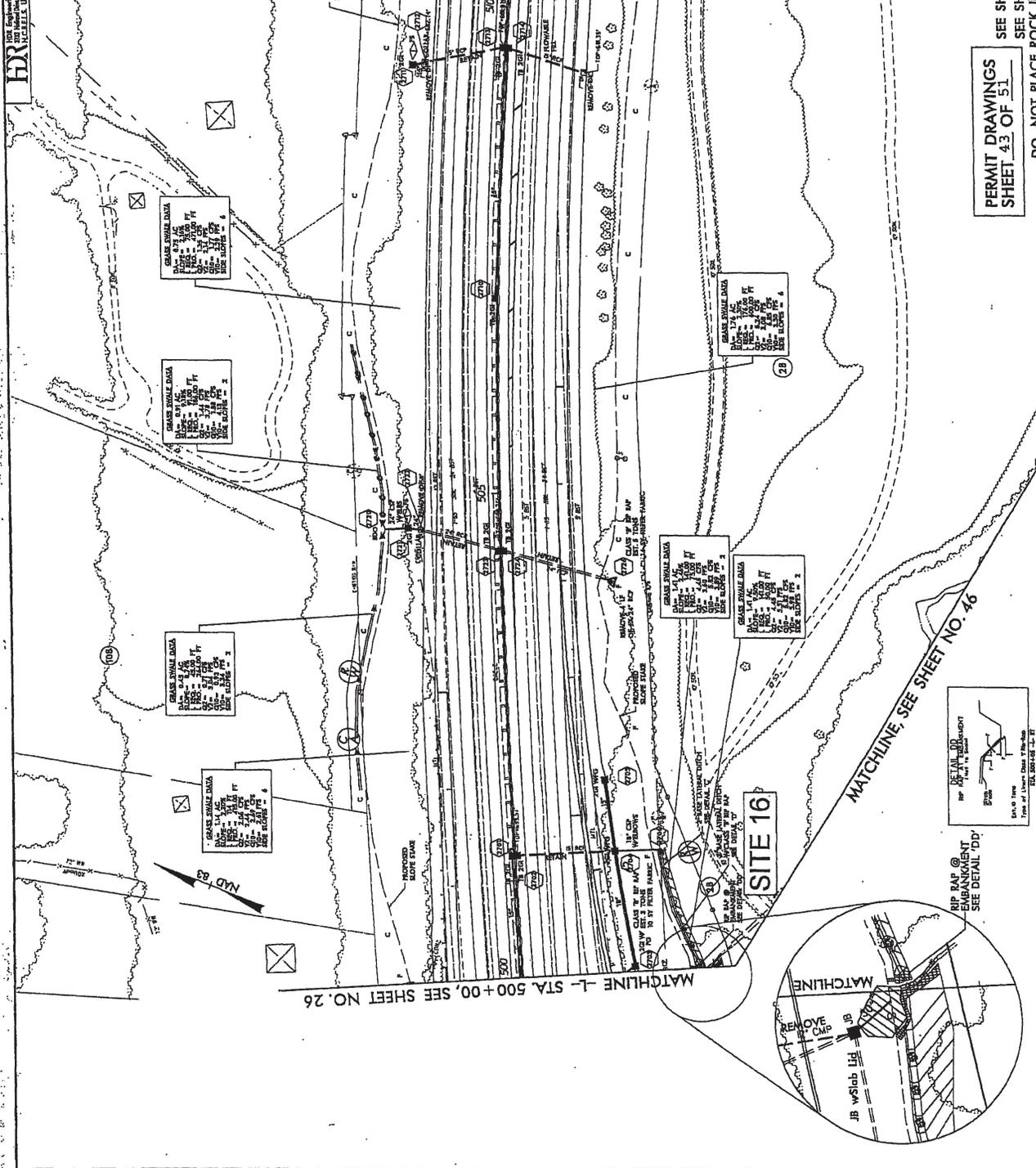
5/28/99

07 DRIVER, HPLTINVS#
DATE: 3/8/2011
SCALE: AS SHOWN
PENITENT: 02/18/11
1:1: 4/2/2011
DATE: 3/8/2011
SCALE: AS SHOWN
PENITENT: 02/18/11



PROJECT REFERENCE NO. 1-3003B
 SHEET NO. 27
 HYDRAULICS DIVISION
 ROADWAY DESIGN DIVISION
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

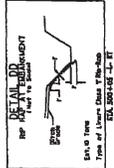
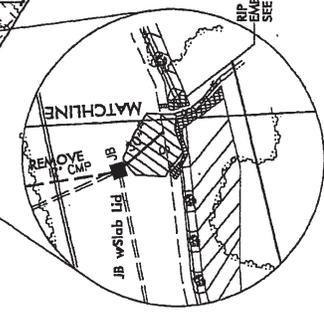
THE LANE CORPORATION
 1001 East 10th Street, Suite 100
 Lincoln, Nebraska 68502
 PHONE: (402) 441-1111
 FAX: (402) 441-1112



LEGEND
 Hatched pattern symbol

PERMIT DRAWINGS
 SHEET 43 OF 51
 SEE SHEET NO. 75, 76 FOR -I- PROFILE
 SEE SHEET NO. 103 FOR -YIZRPD- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

SITE 16



RIP RAP @ EMBANKMENT
 SEE DETAIL 'DD'

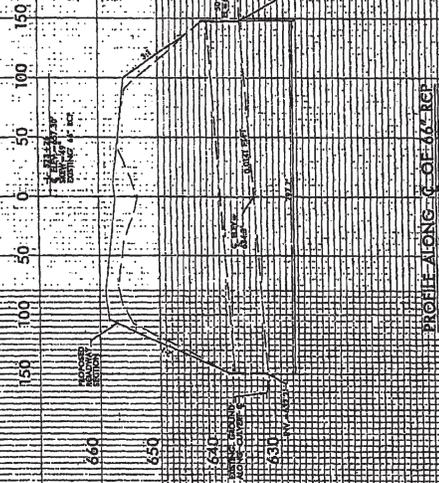
OT DRIVER NCDOT.DAT color.enr.100.047
 PENTABLE: NCDOT.DAT.enr.100.047
 TIME: 11/11/2011
 SCALE: 1:100
 REVISIONS
 L.E. Mfg. Control/Converter/Printer/Permits/Envr/Output/Drawings/3/30/09.HTB.PRM.PLAN.SHEET5.DGN

PROJECT REFERENCE NO. L-3803B
BOUNDARY DESIGN NUMBER

SHEET NO. SITE 18

PROPOSED PROJECT
INCOMPLETE PLANS
FOR PERMITTING AND CONSTRUCTION
PRELIMINARY PLANS
NO PART USE FOR CONSTRUCTION

L-3803B SITE 18



PERMIT DRAWINGS
SHEET 7 OF 51

SHEET NO. 48
 PROJECT REFERENCE NO. 1-3803B
 HYDRAULIC DESIGN DRAWING
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

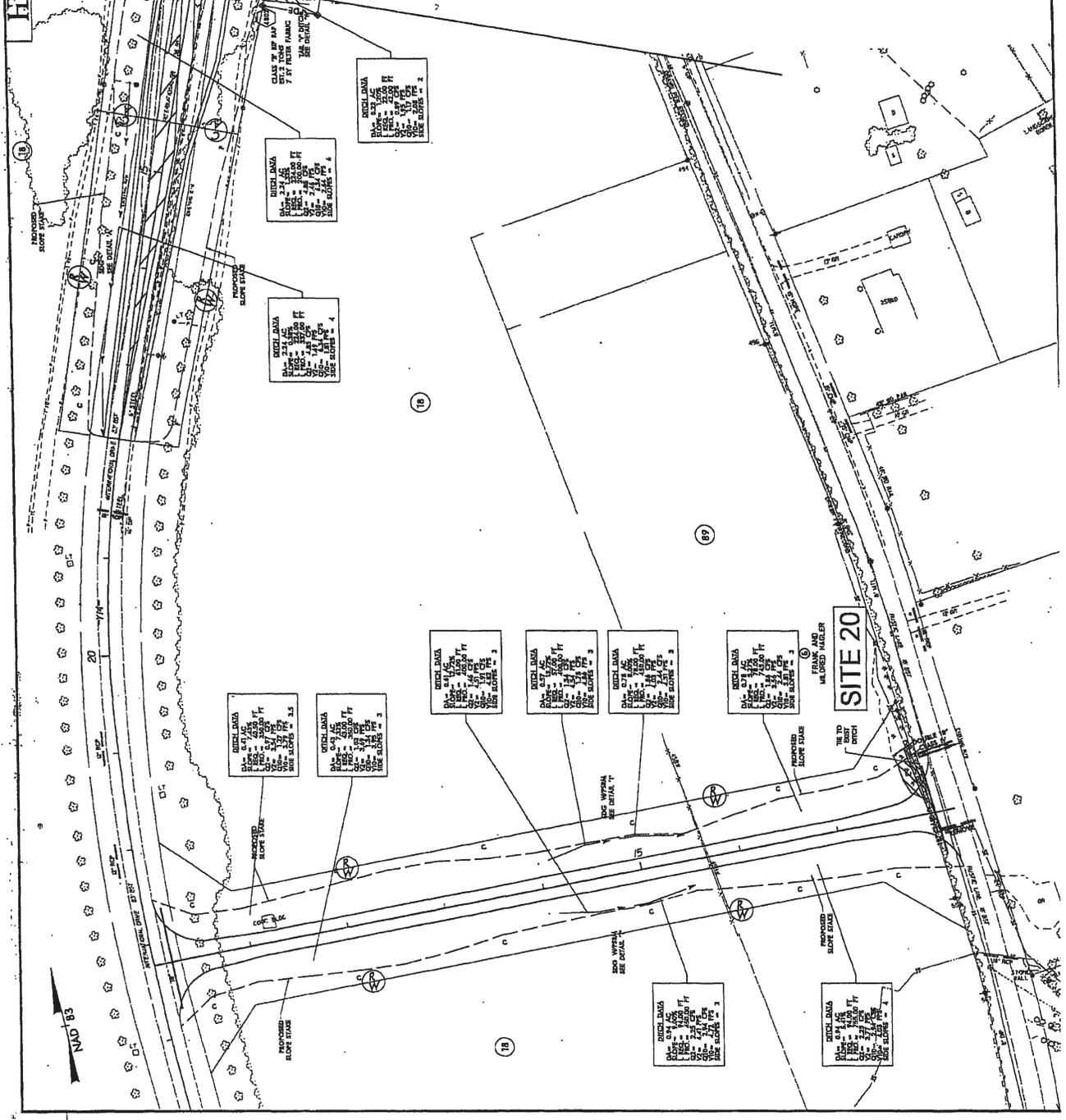
THE LANE CORPORATION
 3800 Riverchase, Inc. 4845
 3800 Riverchase, Inc. 4845
 3800 Riverchase, Inc. 4845
 3800 Riverchase, Inc. 4845

MATCHLINE - Y14 - STA. 13+00
 SEE SHEET NO. 46

LEGEND
 DEMONSTRATION
 DEMONSTRATION
 DEMONSTRATION
 DEMONSTRATION

PERMIT DRAWINGS
 SHEET 50 OF 51

SEE SHEET NO. 105 FOR -Y14- PROFILE.
 SEE SHEET NO. 106 FOR -Y16- PROFILE.
 DO NOT PLACE ROCK IN BED
 OF JURISDICTIONAL STREAMS.



REVISIONS
 DATE: 3/11/2011
 TIME: 12:56:02 PM
 SCALE: 1:100
 PENTABLE: MCDOT...
 ER: ...
 LE: ...



North Carolina Department of Environment and Natural Resources
Division of Water Quality

Beverly Eaves Perdue
Governor

Coleen H. Sullins
Director

Dee Freeman
Secretary

June 3, 2011

Gregory J. Thorpe, Ph.D., Environmental Management Director
North Carolina Department of Transportation
Project Development and Environmental Analysis Branch
1598 Mail Service Center
Raleigh, North Carolina, 27699-1598

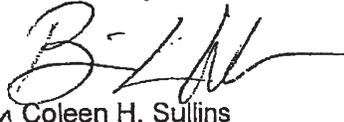
Subject: 401 Water Quality Certification Pursuant to Section 401 of the Federal Clean Water Act with Additional Conditions for the Proposed Reconstruction and Widening of I-85 from South of Concord Mills/Bruton Smith Boulevard (SR 2894) to North of NC 73, Cabarrus County, TIP No. I-3803B, WBS 34187.3.GV3, NCDWQ Project No. 02-1524, V.3

Dear Dr. Thorpe:

Attached hereto is a copy of Certification No. 3859 issued to The North Carolina Department of Transportation (NCDOT) dated June 3, 2011.

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

Sincerely,


Coleen H. Sullins
Director

JUN 17 2011

Attachments

cc: Sarah Hair, US Army Corps of Engineers, Asheville Field Office
Chris Militscher, Environmental Protection Agency (electronic copy only)
Marla Chambers, NC Wildlife Resources Commission (electronic copy only)
Marella Buncick, US Fish and Wildlife Service (electronic copy only)
William Gilmore, Ecosystem Enhancement Program
Jason Dilday, NCDOT PDEA
Larry Thompson, NCDOT Division 10 Environmental Officer
Polly Lespinasse, NCDWQ Mooresville Regional Office
Brian Wrenn, NCDWQ Transportation Permitting Unit
File Copy

Mooresville Regional Office
Location: 610 East Center Ave., Suite 301 Mooresville, NC 28115
Phone: (704) 663-1699 \ Fax: (704) 663-6040 \ Customer Service: 1-877-623-6748
Internet: <http://portal.ncdenr.org/web/wq>

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One
North Carolina
Naturally

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

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (NCDWQ) Regulations in 15 NCAC 2H .0500. This certification authorizes the NCDOT to permanently impact 1,427 linear feet of jurisdictional streams, 0.08 acres of jurisdictional wetlands, and temporarily impact 34 linear feet of streams in Cabarrus County. The project shall be constructed pursuant to the application received April 26, 2011. The authorized impacts are as described below:

Stream Impacts in the Yadkin River Basin I-3803B

Permit Site No. / Station No.s/ Tributary ID	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)
Site 1/Station 173+05-L-RT/UT 10			16 lf for bank stabilization		16 lf	0
Site 4/Station 233+94-L-LT and 234+20-L-RT/UT 8			38 lf (24 lf for culvert and 14 lf for bank stabilization)		38 lf	38 lf
Site 5/Station 250+57-L-LT/UT 8			66 lf (52 lf for culvert, 14 lf for bank stabilization)		66 lf	66 lf
Site 6/Station 254+58-L-RT/UT 8			11 lf for bank stabilization	7 lf for wingwall replacement	18 lf	11 lf
Site 7/Station 277+05-L-RT/UT 8			24 lf for bank stabilization		24 lf	24 lf
Site 8/Station 286+39/293+43-L-RT and 286+55-L-RT/UT 8			742 lf (699 lf for fill/relocation of stream*, 43 lf for bank stabilization)		742 lf	742 lf
Site 9/325+25-L-LT/UT 7A			11 lf for bank stabilization		11 lf	0
Site 11/Station 437+25-L-LT/UT 4			47 lf for culvert	27 lf for wingwall replacement	74 lf	47 lf
Site 13/Station 460+20-L-/UT 4			67 lf (18 lf for culvert, 49 lf for bank stabilization)		67 lf	67 lf
Site 14/Station 471+15-L-RT/UT 4			69 lf (43 lf for culvert, 26 lf for bank stabilization)		69 lf	69 lf
Site 15/Station 478+25-L-RT/UT 4			26 lf (12 lf for culvert, 14 lf for bank stabilization)		26 lf	26 lf
Site 16/Station 499+15-L-/UT 1			65 lf for culvert		65 lf	0
Site 17/Station 514+68-L-LT and 515+51-L-RT/UT 1			41 lf (18 lf for culvert, 23 lf for bank stabilization)		41 lf	0

Site 18/Station 524+30-L-LT/UT 1			35 lf (8 lf for culvert, 27 lf for bank stabilization)		35 lf	0
Site 19/Station 31+00-Y6-RT/UT 14A			74 lf (34 lf for fill/relocation of stream* and 40 lf for bank stabilization)		74 lf	0
Site 20/Station 17+90-Y16-LT/UT 15			95 lf for culvert		95 lf	0
Total			1,427 lf	34 lf	1,461 lf	1,090 lf

*Stream relocations are not being conducted in accordance with natural stream design and mitigation for the relocations has not been proposed by the applicant.

Total Stream Impacts for Project: 1,461 linear feet

Wetland Impacts in the Yadkin River Basin (Riverine) – I-3803B

Permit Site No./ Station No.s	Fill/Clearing/Excavation Impacts (ac)	Temporary Impacts (ac)	Total Wetland Impact (ac)	Wetland Impacts Requiring Mitigation (ac)
Site 3/Station 209+82/211+64-L-RT	0.02 ac (mechanized clearing)		0.02 ac	0
Site 12/Station 445+06/445+67-L-RT	0.02 ac (0.01 ac fill and 0.01 ac mechanized clearing)		0.02 ac	0
Site 16/Station 499+15-L-	0.01 ac (mechanized clearing)		0.01 ac	0
Site 19/Station 31+00-Y6-RT	0.01 ac fill		0.01 ac	0
Site 20/Station 17+90-Y16-LT	0.02 (0.01 ac excavation and 0.01 ac mechanized clearing)		0.02 ac	0
Total	0.08 acres	0	0.08 acres	0

Total Wetland Impacts for Project: 0.08 acres

The application provides adequate assurance that the discharge of fill material into the waters of the Yadkin River Basin and associated 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 April 26, 2011. Should your project change, you are required to notify the NCDWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If any additional wetland impacts, or stream impacts, for this project (now or in the future) exceed one acre or 150 linear feet, respectively, additional compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations. This Certification shall expire on the same day as the expiration date of the corresponding Corps of Engineers Permit.

Conditions of Certification:

1. A ditch is proposed to be constructed adjacent to the wetland at Permit Site 3 with 0.02 acres of the wetland being impacted by mechanized clearing. Baseline conditions, including hydrology, must be provided prior to the construction of the ditch. Completion of the ACOE Wetland Data Forms, immediately prior to construction, shall be used to provide the baseline information. Upon completion of the construction of the ditch, NCDOT must **visually monitor** the wetland for a period of two (2) growing seasons to determine if wetland hydrology has been impacted by the ditch. Completed ACOE Wetland Data Forms shall be submitted to NCDWQ to document the hydrology conditions of the wetland post construction. If construction of the ditch results in a loss of hydrology to the wetland, the additional impacts must be accounted for in a permit modification. Wetland mitigation may be required if cumulative impacts for the project exceed 1 acre.
2. A ditch with a 9.62% slope will be constructed that outfalls into the jurisdictional stream at Permit Site 7. Riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.
3. A ditch with a 4.65% slope will be constructed that outfalls into the jurisdictional stream at Permit Site 8. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.
4. A ditch with a 7% slope will be constructed that outfalls perpendicularly into the jurisdictional stream at Permit Site 9. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.
5. Class II riprap or shot rock must be used to armor the scourhole at Permit Site 11. Additionally, the rock must be embedded in the stream to allow for unimpeded low flow passage of water and aquatic life.
6. A ditch with a 3.21% slope will be constructed that outfalls into the jurisdictional stream at Permit Site 13. Please be advised if the ditch alignment results in destabilization of the stream, NCDOT will be required to install corrective measures to address the stream destabilization. Additionally, riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.
7. Two (2) preformed scourholes will be installed near the outlet of the jurisdictional stream at Permit Site 14. Please be advised that if installation of the preformed scourholes results in erosion which impacts water quality or stream destabilization is observed, NCDOT will be required to install corrective measures to address the issue.
8. Two ditches, with 9.2% and 9.5% slopes, will be constructed that outfall into the jurisdictional stream at Permit Site 16. Riprap at the outfall of the ditch shall be of sufficient size to prevent stream destabilization and the migration of riprap into the active stream channel.
9. A rock ladder will be constructed at the outlet of the culvert at Permit Site 17. Class II riprap or shot rock must be used to construct the rock ladder. DWQ will also require that the NCDOT Division 10 Environmental Officer or Environmental Specialist be on site during the construction of the rock ladder.

10. Compensatory mitigation for 1,090 linear feet of impact to streams is required. We understand that you have chosen to perform compensatory mitigation for impacts to streams through the North Carolina Ecosystem Enhancement Program (EEP), and that the EEP has agreed to implement the mitigation for the project. EEP has indicated in a letter dated April 12, 2010, that they will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for the above-referenced project, in accordance with the EEP Mitigation Banking Instrument signed July 28, 2010.
11. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to turbidity shall be designed, constructed, and operated with sediment and erosion control measures that meet Design Standards in Sensitive Watersheds [15A NCAC 4B .0124]. However, due to the size of the project, NC DOT shall not be required to meet 15A NCAC 4B .0124(a) regarding the maximum amount of uncovered acres.
12. All portions of the proposed project draining to 303(d) listed watersheds that are impaired due to biological criteria exceedances shall not discharge stormwater directly to surface waters. Stormwater shall be treated using appropriate best management practices (e.g., vegetated conveyances, constructed wetlands, detention ponds, etc.) prior to discharging to surface waters.
13. The post-construction removal of any temporary bridge structures must return the project site to its preconstruction contours and elevations. The impacted areas shall be revegetated with appropriate native species.
14. Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.
15. Strict adherence to the most recent version of NCDOT's Best Management Practices For Bridge Demolition and Removal approved by the US Army Corps of Engineers is a condition of the 401 Water Quality Certification.
16. Bridge deck drains shall not discharge directly into the stream. Stormwater shall be directed across the bridge and pre-treated 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*.
17. Bridge piles and bents shall be constructed using driven piles (hammer or vibratory) or drilled shaft construction methods. More specifically, jetting or other methods of pile driving are prohibited without prior written approval from NCDWQ first.
18. No drill slurry or water that has been in contact with uncured concrete shall be allowed to enter surface waters. This water shall be captured, treated, and disposed of properly.
19. All pile driving or drilling activities shall be enclosed in turbidity curtains unless otherwise approved by NCDWQ in this certification.
20. All bridge construction shall be performed from the existing bridge, temporary work bridges, temporary causeways, or floating or sunken barges. If work conditions require barges, they shall be floated into position and then sunk. The barges shall not be sunk and then dragged into position. Under no circumstances should barges be dragged along the bottom of the surface water.

21. Unless otherwise approved in this certification, placement of culverts and other structures in open waters and streams shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in dis-equilibrium of wetlands or streambeds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium is being maintained if requested in writing by NCDWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact NCDWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
22. If concrete is used during construction, a dry work area shall be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete shall not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
23. During the construction of the project, no staging of equipment of any kind is permitted in waters of the U.S., or protected riparian buffers.
24. The dimension, pattern and profile of the stream above and below the crossing shall not be modified. Disturbed floodplains and streams shall be restored to natural geomorphic conditions.
25. The Permittee shall ensure that the final design drawings adhere to the permit and to the permit drawings submitted for approval.
26. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.
27. 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.
28. 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.
29. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
30. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
31. 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 NCDWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, NCDWQ may reevaluate and modify this certification.
32. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification.

33. A copy of this Water Quality Certification shall be maintained on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
34. 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.
35. The issuance of this certification does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other government agencies (i.e. local, state, and federal) having jurisdiction, including but not limited to applicable buffer rules, stormwater management rules, soil erosion and sedimentation control requirements, etc.
36. The Permittee shall report any violations of this certification to the Division of Water Quality within 24 hours of discovery.
37. Upon completion of the project (including any impacts at associated borrow or waste sites), the NCDOT (or their authorized agent) shall complete and return the enclosed "Certification of Completion Form" to notify NCDWQ when all work included in the 401 Certification has been completed.
38. Native riparian vegetation must be reestablished in the riparian areas within the construction limits of the project by the end of the growing season following completion of construction.
39. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites, or access roads to waste or borrow sites, be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.
40. Erosion and sediment control practices must be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to protect surface waters standards:
 - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
 - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
 - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
 - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
41. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification.
42. 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 Permit. This Certification shall expire upon the expiration of the 404 Permit.

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

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

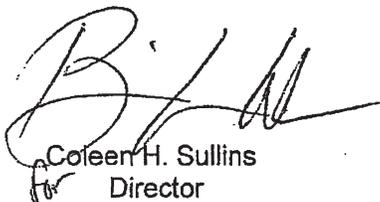
Office of Administrative Hearings
6714 Mail Service Center
Raleigh, NC 27699-6714
Telephone: (919)-733-2698, Facsimile: (919)-733-3478

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

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

This, the 3rd day of June 2011

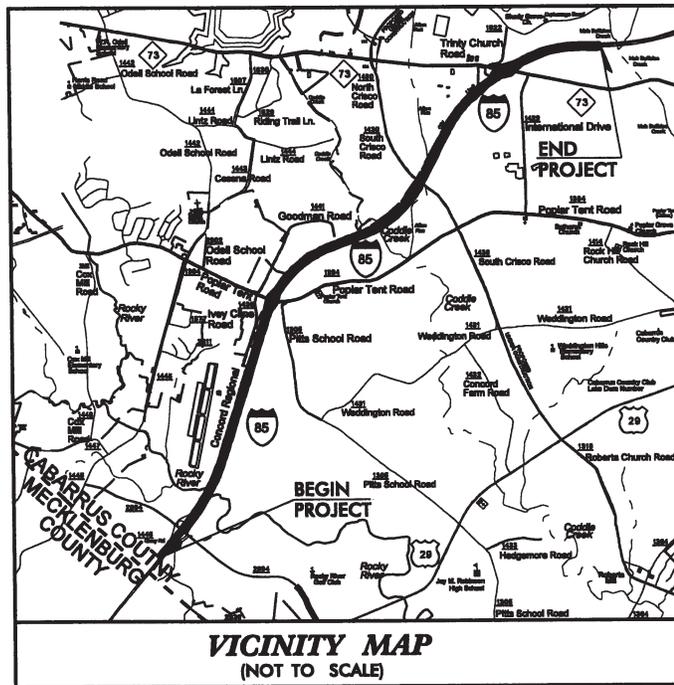
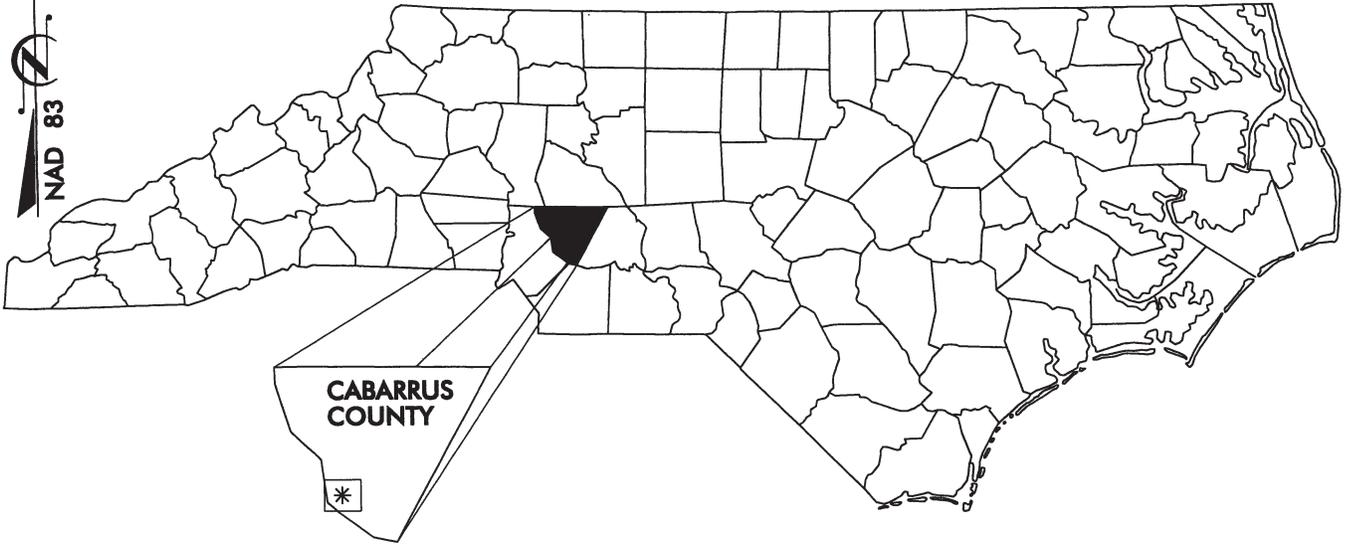
DIVISION OF WATER QUALITY



Coleen H. Sullins
Director

WQC No. 3859

NORTH CAROLINA



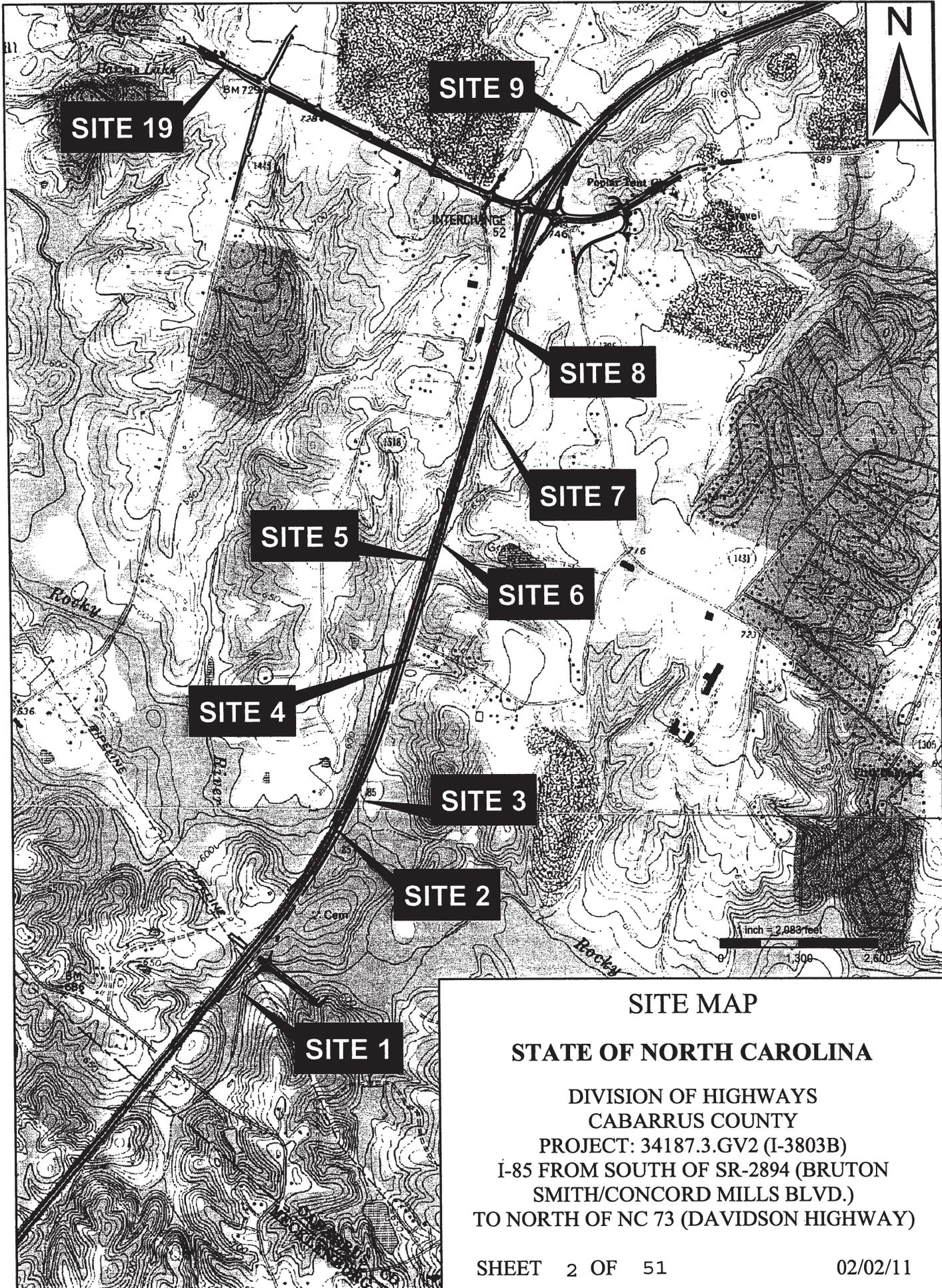
VICINITY MAPS

NORTH CAROLINA

DIVISION OF HIGHWAYS
CABARRUS COUNTY

PROJECT: 34187.3.GV2
(I-3803B)

I-85 FROM SOUTH OF SR-2894
(BRUTON SMITH/ CONCORD MILLS BLVD.)
TO NORTH OF NC 73 (DAVIDSON HIGHWAY)



SITE 19

SITE 9

SITE 8

SITE 7

SITE 5

SITE 6

SITE 4

SITE 3

SITE 2

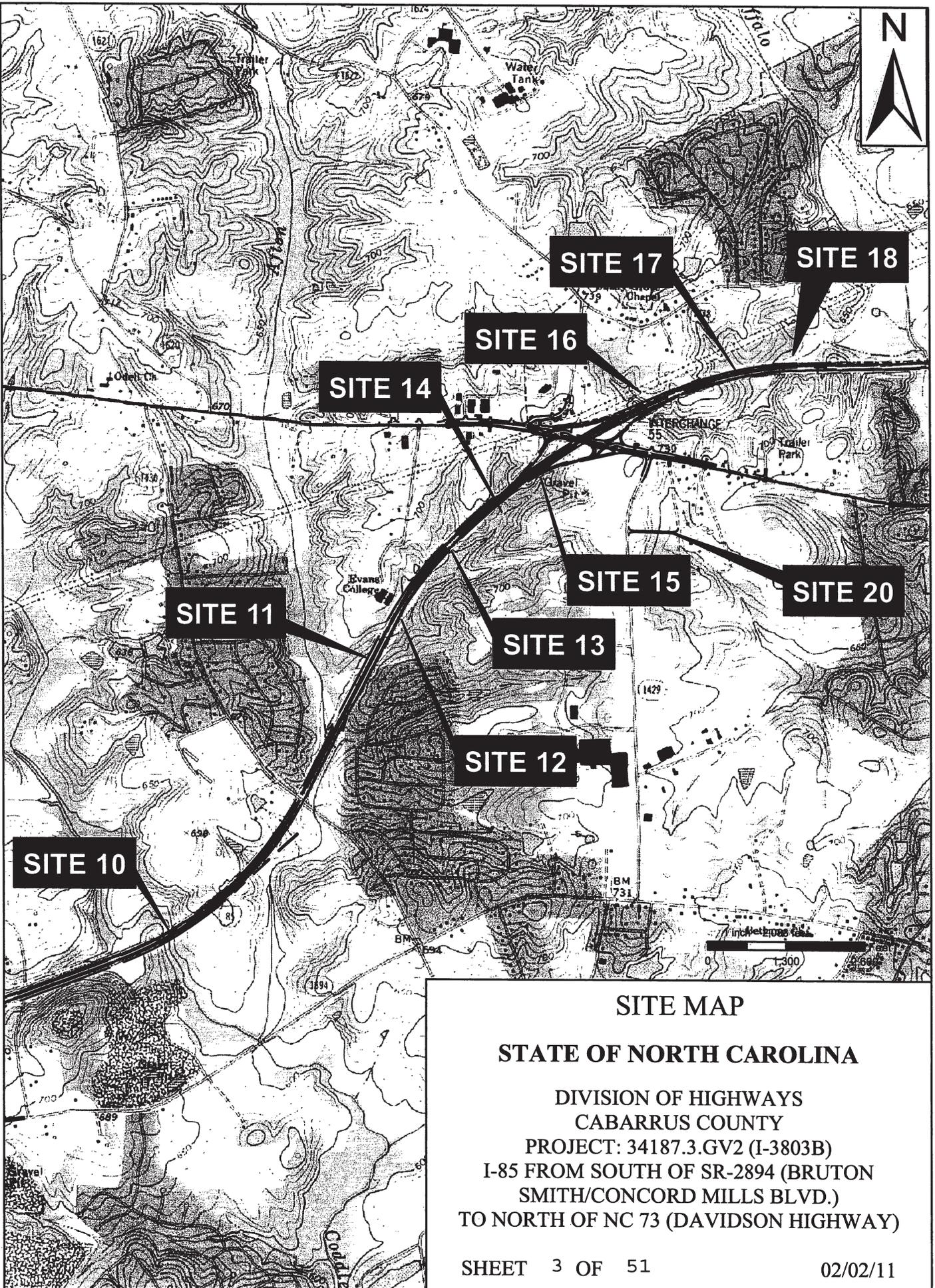
SITE 1

SITE MAP

STATE OF NORTH CAROLINA

**DIVISION OF HIGHWAYS
CABARRUS COUNTY**

**PROJECT: 34187.3.GV2 (I-3803B)
I-85 FROM SOUTH OF SR-2894 (BRUTON
SMITH/CONCORD MILLS BLVD.)
TO NORTH OF NC 73 (DAVIDSON HIGHWAY)**



PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES	SITE NO.
1	BASSETT DIRECT NC, LLC	3525 FAIRYSTONE PK HWY BASSETT, VA 24055	1
2	JMH, LLC	2838 MAJOR RIDGE TRAIL DULUTH, GA 30097	9
3	NOLIM GROUP, S.A, INC.	1499 W PALMETTO PK RD BOCA RATON, FL 33486	13
4	SHOFFNER DEVELOPMENT, LLC	P.O. BOX 10 MORRIS, OK 74445	16
5	CAROLINA TRACTOR AND EQUIPMENT COMPANY	P.O. BOX 1095 CHARLOTTE, NC 28201	19
6	JAMES FRANK HEGLER	36225 FINGER RD. MY. PLEASANT, NC	20

NORTH CAROLINA

DIVISION OF HIGHWAYS
CABARRUS COUNTY

PROJECT: 34187.3.GV2
(I-3803B)

I-85 FROM SOUTH OF SR-2894
(BRUTON SMITH/ CONCORD MILLS BLVD.)
TO NORTH OF NC 73 (DAVIDSON HIGHWAY)

SHEET 4 OF 51 02/02/11

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS						SURFACE WATER IMPACTS						
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)			
1	173+05 -L- RT	Bank Stabilization											16		
2	202+57 / 205+00 -L-	Bridge													
3	209+82 / 211+64 -L- RT	Lateral Ditch													
4	233+94 -L- LT	Bank Stabilization				0.02							14		
4	234+20 -L- RT	42" RCP											24		
5	250+57 -L- LT	42" RCP											52		
5	250+57 -L- LT	Bank Stabilization											14		
*6	254+58 -L- RT	7' X 7' RCBC												7	
6	254+58 -L- RT	Lateral Ditch											11		
7	277+05 -L- RT	Bank Stabilization											24		
8	286+39 / 293+43 -L- RT	Roadway Fill											699		
8	286+55 -L- RT	Bank Stabilization											43		
9	325+25 -L- LT	Bank Stabilization											11		
10	380+00 -L-	Bridge													
11	437+25 -L- LT	7' X 6" RCBC											47		
*11	437+25 -L- RT	7' X 6" RCBC												27	
12	445+06 / 445+67 -L- RT	Roadway Fill	<0.01			0.01									
13	460+20 -L-	36" RCP											18		
13	460+20 -L-	Bank Stabilization											49		
14	471+15 -L- RT	36" RCP											43		
14	471+15 -L- RT	Bank Stabilization											26		
15	478+25 -L- RT	30" RCP											12		
15	478+25 -L- RT	Bank Stabilization											14		
16	499+15 -L-	30" RCP											65		
17	514+68 -L- LT	30" RCP											18		
17	515+51 -L- RT	Bank Stabilization											23		
18	524+30 -L- LT	66" RCP											8		
18	524+30 -L- LT	Bank Stabilization											27		
TOTALS:			<0.01	0.00	0.00	0.03	0.00	0.00	0.12	<0.01	<0.01	1258	34	0	

*Temporary impacts due to the replacing of culvert wing walls.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CABARRUS COUNTY
34187.3.GV2 (I-3803B)

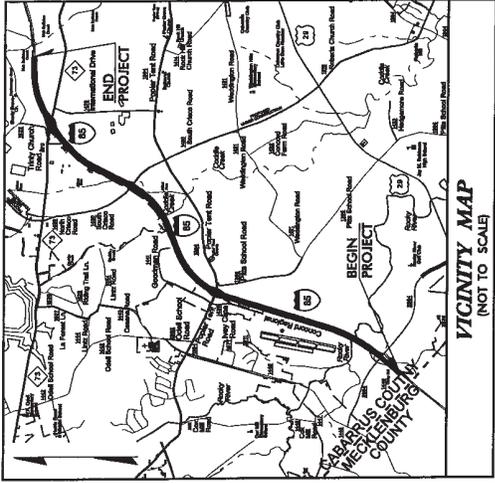
STATE PROJECT NUMBER	1-3803B
PROJECT NUMBER	NHMF-85-2(62)48
CONTRACT NUMBER	34187.3.012
CONSTRUCTION	

WETLAND SITE MAP
SUBMITTED: 03-11-2011

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CABARRUS COUNTY

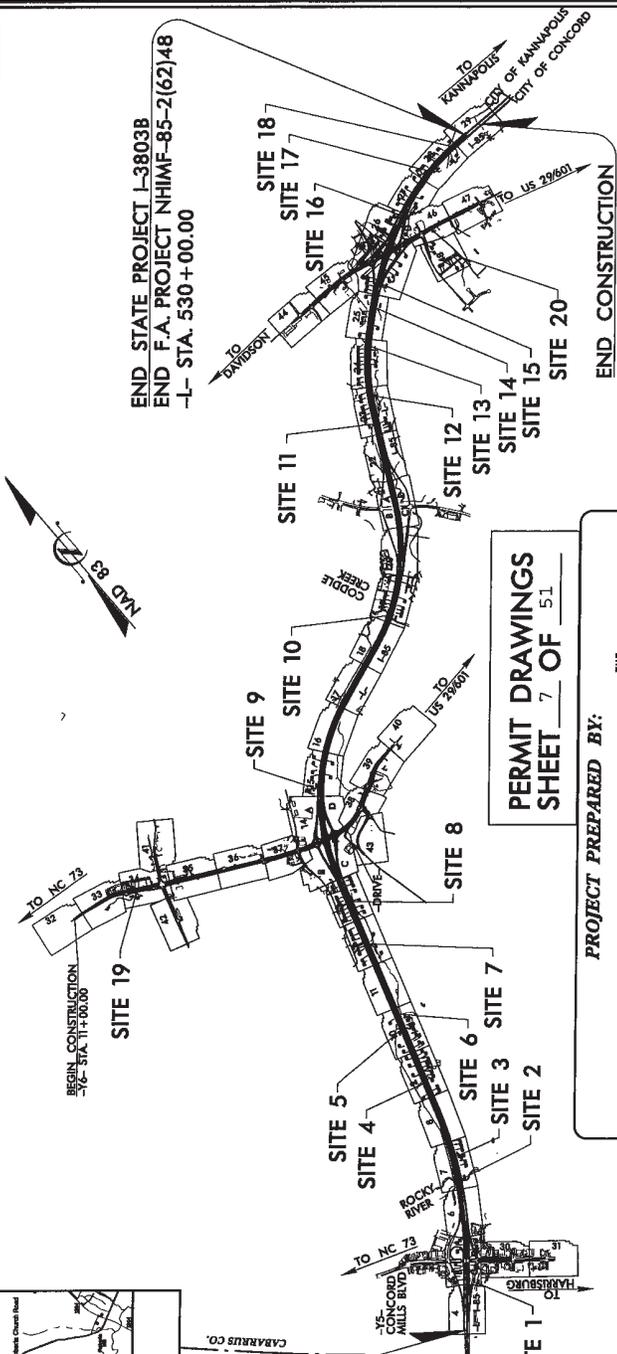
LOCATION: I-85 FROM SOUTH OF SR-2894 (BRUTON SMITH/CONCORD MILLS BLVD.) TO NORTH OF NC 73 (DAVIDSON HIGHWAY)

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS



BEGIN STATE PROJECT I-3803B
BEGIN F.A. PROJECT NHMF-85-2(62)48
-L- STA. 159 + 74.12

BEGIN CONSTRUCTION
-L- STA. 144 + 54.31



END STATE PROJECT I-3803B
END F.A. PROJECT NHMF-85-2(62)48
-L- STA. 530 + 00.00

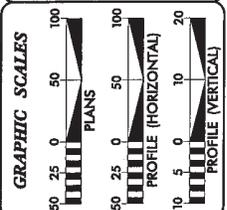
END CONSTRUCTION
-L- STA. 535 + 00.00

PERMIT DRAWINGS
SHEET 7 OF 51

HDR HDR Engineering, Inc. of the Carolinas
1000 Birkhead Drive, Raleigh, NC 27610
N.C. B.L.S. License Number: F-0116

PROJECT PREPARED BY:
THE LANE CONSTRUCTION CORPORATION

THIS PROJECT IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF CONCORD AND KANNAPOUS. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.



DESIGN DATA

ADT 2011	= 118,275
ADT 2031	= 189,775
DHY	= 10 %
D	= 60 %
T	= 14 %
V	= 70 MPH

FUNCTIONAL CLASSIFICATION:
INTERSTATE

* TTST = 9% DUAL = 5%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-3803B	= 6.930 MILES
LENGTH STRUCTURE TIP PROJECT I-3803B	= 0.082 MILES
TOTAL LENGTH TIP PROJECT I-3803B	= 7.012 MILES

Prepared for the Office of:
DIVISION OF HIGHWAYS
1000 Birkhead Drive, Raleigh, NC 27610

2008 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 23, 2010

LETTING DATE:
JULY 23, 2010

PROJECT ENGINEER:
GREGORY KEMPF, P.E.

PROJECT DESIGN ENGINEER:
JONATHAN HENDERSON, P.E.

HYDRAULICS ENGINEER: P.E.

ROADWAY DESIGN ENGINEER: P.E.

INCOMPLETE PLANS
DO NOT USE FOR A.A. ACCURACY

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

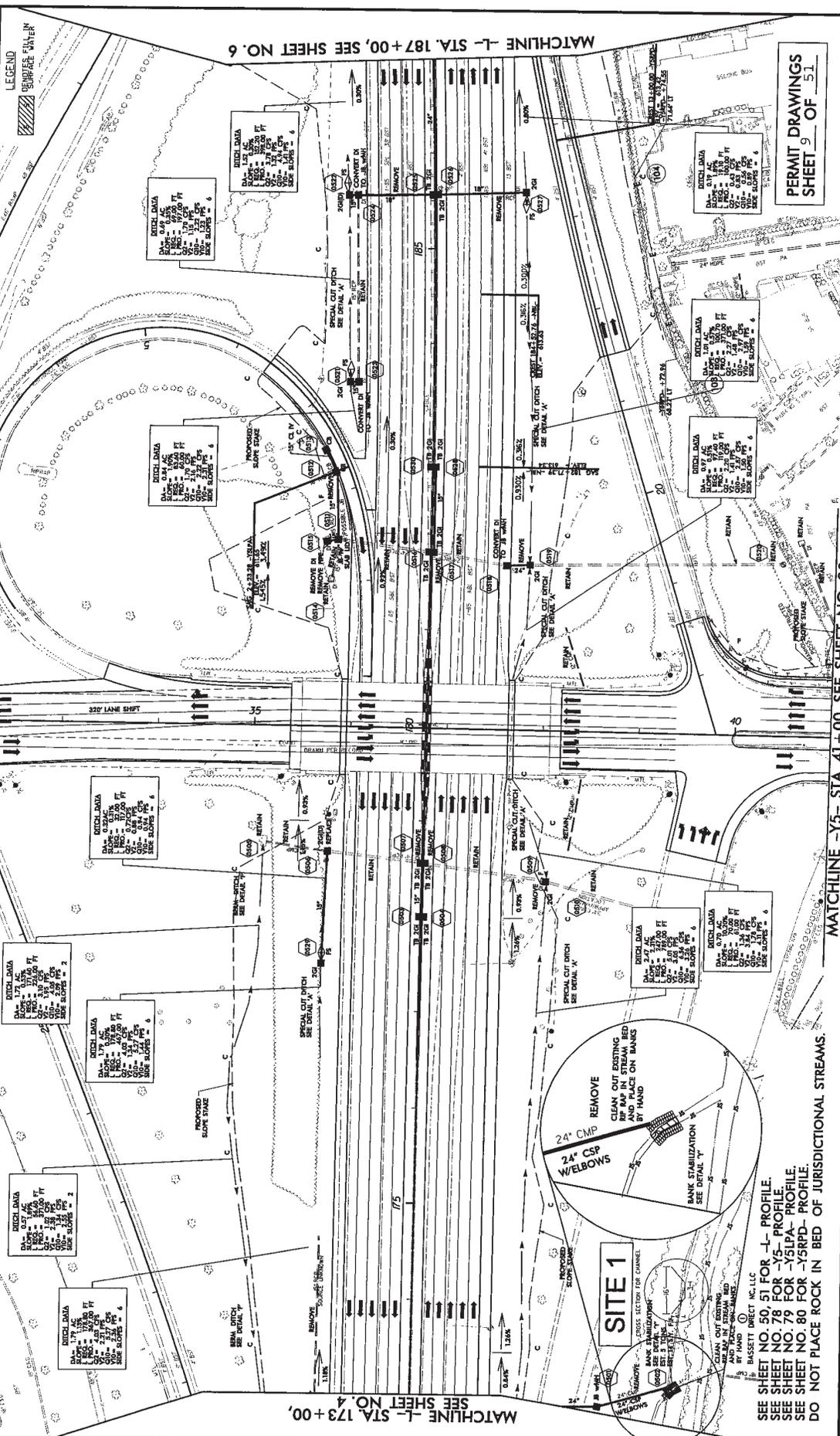
STATE HIGHWAY DESIGN ENGINEER

TIP PROJECT: I-3803B

CONTRACT: C202522

PROJECT REFERENCE NO. 1-3803B
 SHEET NO. 5
 ROADWAY DESIGN ENGINEER
 HYDRAULIC ENGINEER
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

THE LANE CORPORATION
 10000 E. 15th Ave., Suite 300
 Denver, CO 80232
 (303) 751-1000
 www.lane.com



DETAIL V
 BANK STABILIZATION
 5' x 10' x 10' PILE
 NORMAL WATER
 SUPPLY ELEVATION
 STA. 173+00 -L- R

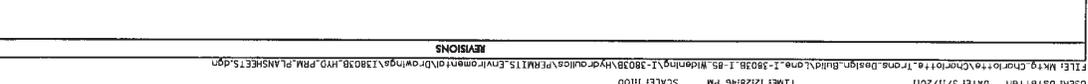
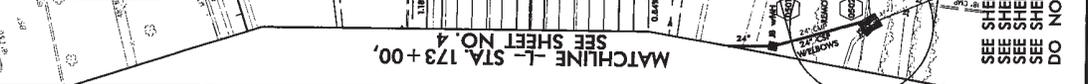
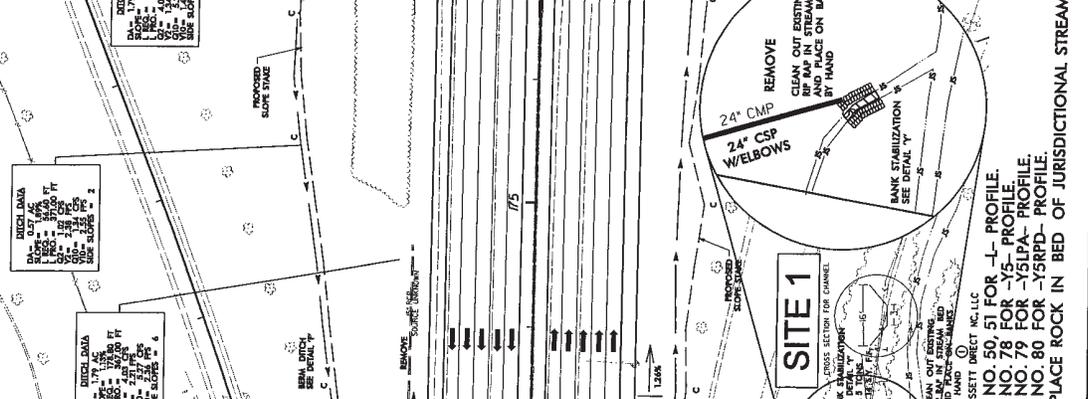
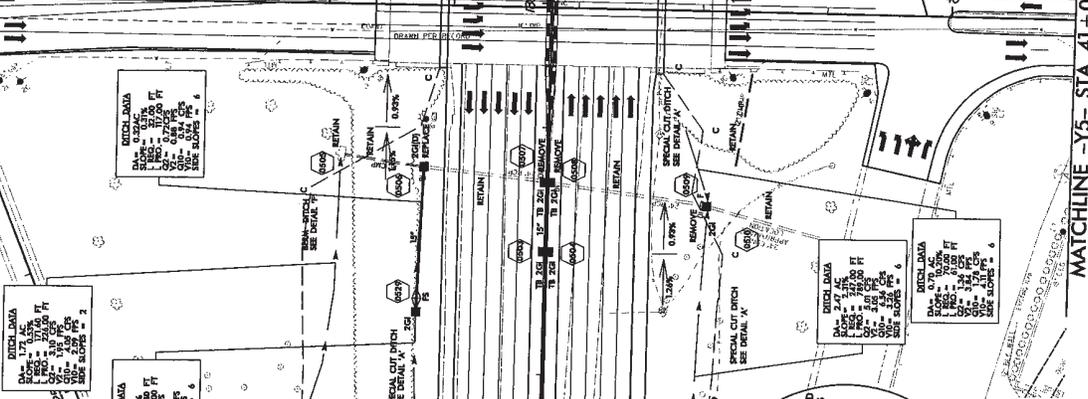
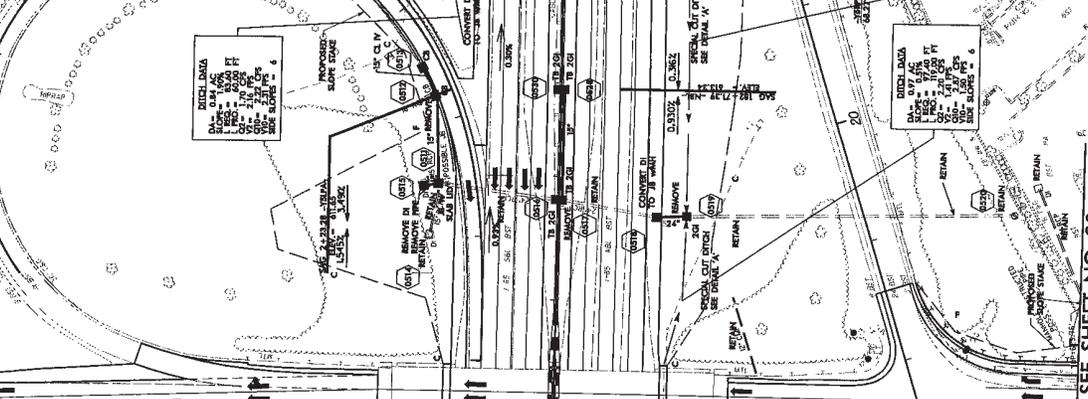
DETAIL DATA
 D=17.0 AC
 SLOPE = 1:1.5
 L=10.0 FT
 C=1.0 FT
 SIDE SLOPE = 2

DETAIL DATA
 D=17.0 AC
 SLOPE = 1:1.5
 L=10.0 FT
 C=1.0 FT
 SIDE SLOPE = 6

DETAIL DATA
 D=17.0 AC
 SLOPE = 1:1.5
 L=10.0 FT
 C=1.0 FT
 SIDE SLOPE = 6

DETAIL DATA
 D=17.0 AC
 SLOPE = 1:1.5
 L=10.0 FT
 C=1.0 FT
 SIDE SLOPE = 6

DETAIL DATA
 D=17.0 AC
 SLOPE = 1:1.5
 L=10.0 FT
 C=1.0 FT
 SIDE SLOPE = 6



REVISIONS
 DATE: 12/28/16 PM SCALE: 1:100
 PLOT DRIVER: MCD01.DWT COLOR: eng-100.tbl
 USER: baird@lanecorp.com
 FILE: M:\proj\173+00\173+00.dwg
 DATE: 1/11/2017
 SCALE: 1:100
 PLOT DRIVER: MCD01.DWT COLOR: eng-100.tbl
 USER: baird@lanecorp.com
 FILE: M:\proj\173+00\173+00.dwg

SEE SHEET NO. 50, 51 FOR -L- PROFILE.
 SEE SHEET NO. 78 FOR -Y5- PROFILE.
 SEE SHEET NO. 79 FOR -Y5LPA- PROFILE.
 SEE SHEET NO. 80 FOR -Y5RPD- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

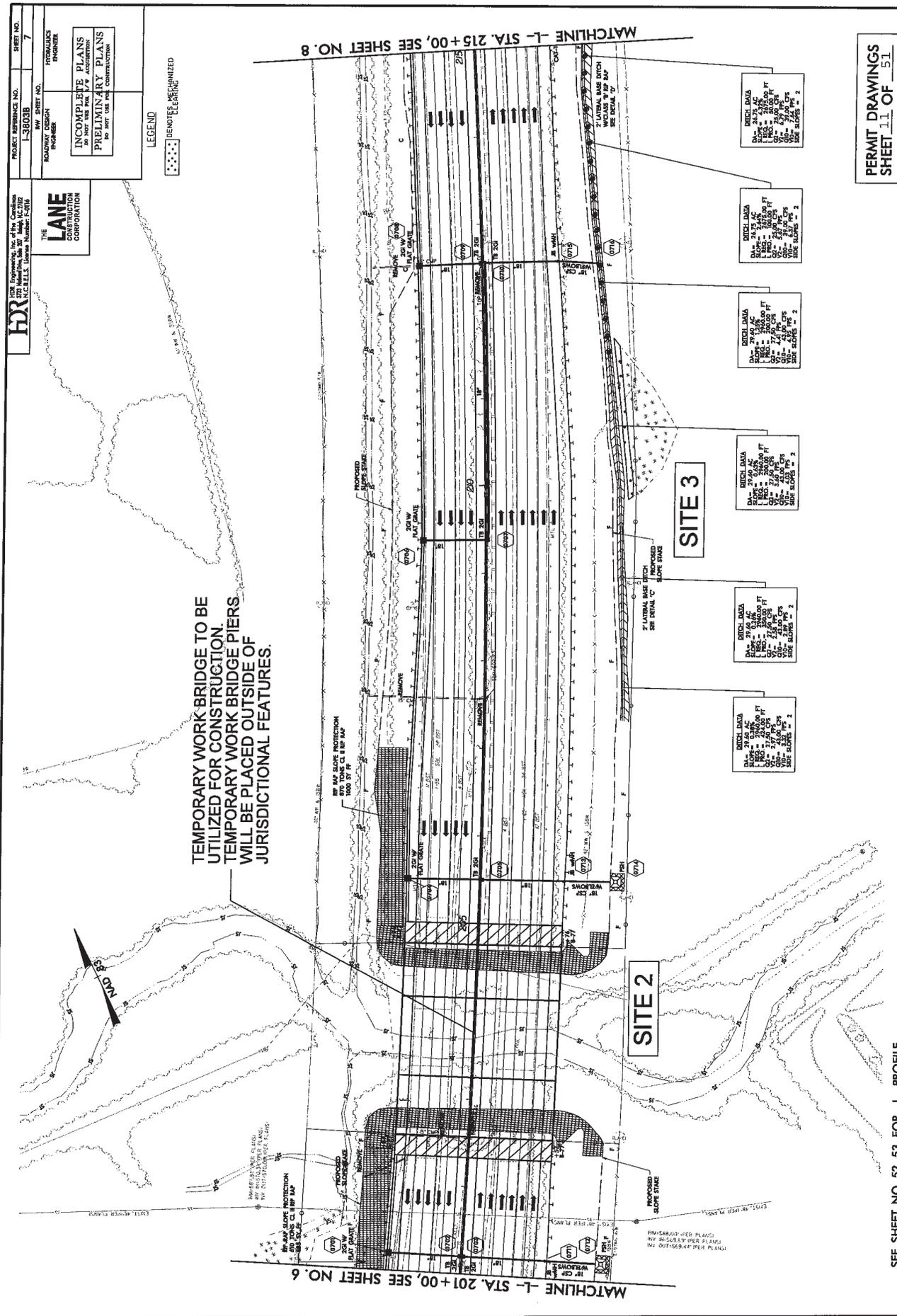
MATCHLINE -L- STA. 173+00, SEE SHEET NO. 4
 MATCHLINE -L- STA. 187+00, SEE SHEET NO. 6
 MATCHLINE -Y5- STA. 41+00, SEE SHEET NO. 30
 PERMIT DRAWINGS
 SHEET 9 OF 51

PROJECT REFERENCE NO. 1-3803B
 SHEET NO. 7
 ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER
 INCOMPLETE PLANS
 DO NOT BE USED FOR CONSTRUCTION
 PRELIMINARY PLANS
 DO NOT BE USED FOR CONSTRUCTION

THE LANE
 CORPORATION
 1000 W. 10th Street
 Lincoln, NE 68502
 PHONE: 402-441-1100
 FAX: 402-441-1101
 LICENSE NUMBER: 1-0116

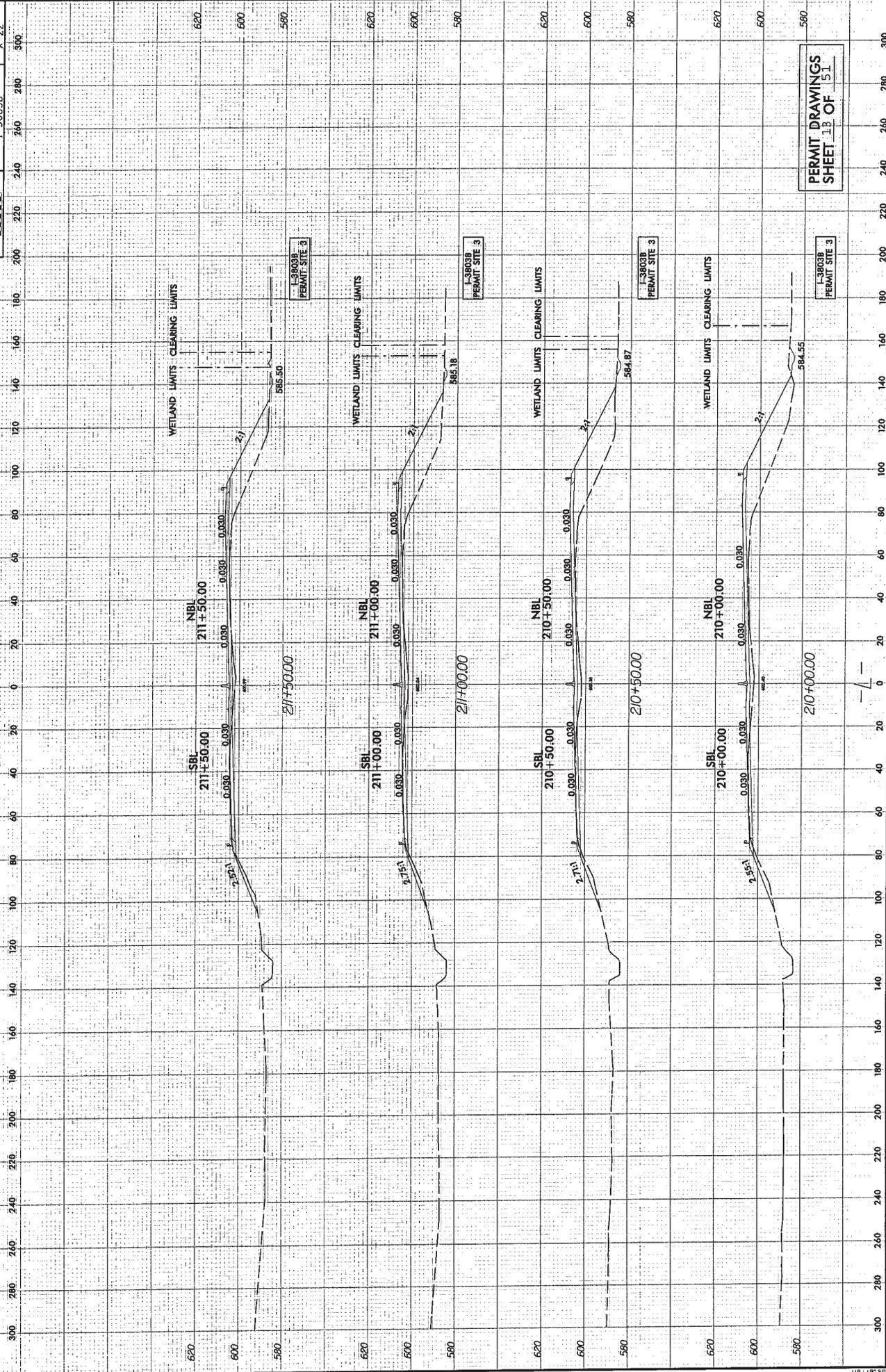
LEGEND
 DEMOTED/REMOVED

TEMPORARY WORK BRIDGE TO BE UTILIZED FOR CONSTRUCTION. TEMPORARY WORK BRIDGE PIERS WILL BE PLACED OUTSIDE OF JURISDICTIONAL FEATURES.



PERMIT DRAWINGS
 SHEET 11 OF 51

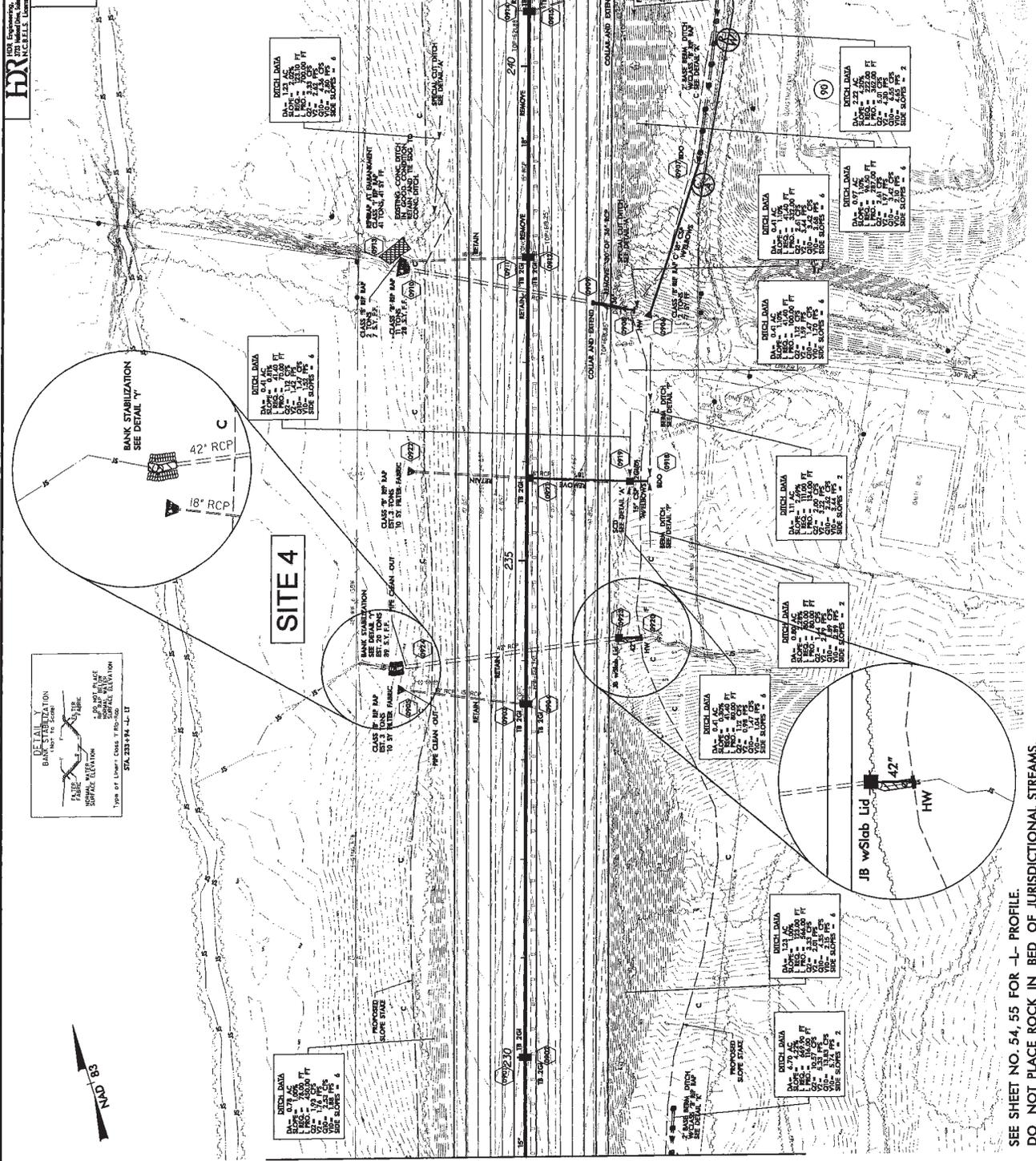
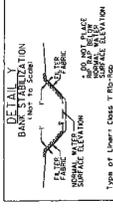
SEE SHEET NO. 52, 53 FOR -L- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.



PERMIT DRAWINGS
SHEET 13 OF 51

THE LANE
CONSTRUCTION
CORPORATION

ROADWAY DESIGN
SOURCE
INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



MATCHLINE -L- STA. 229+00, SEE SHEET NO. 8
MATCHLINE -L- STA. 243+00, SEE SHEET NO. 10

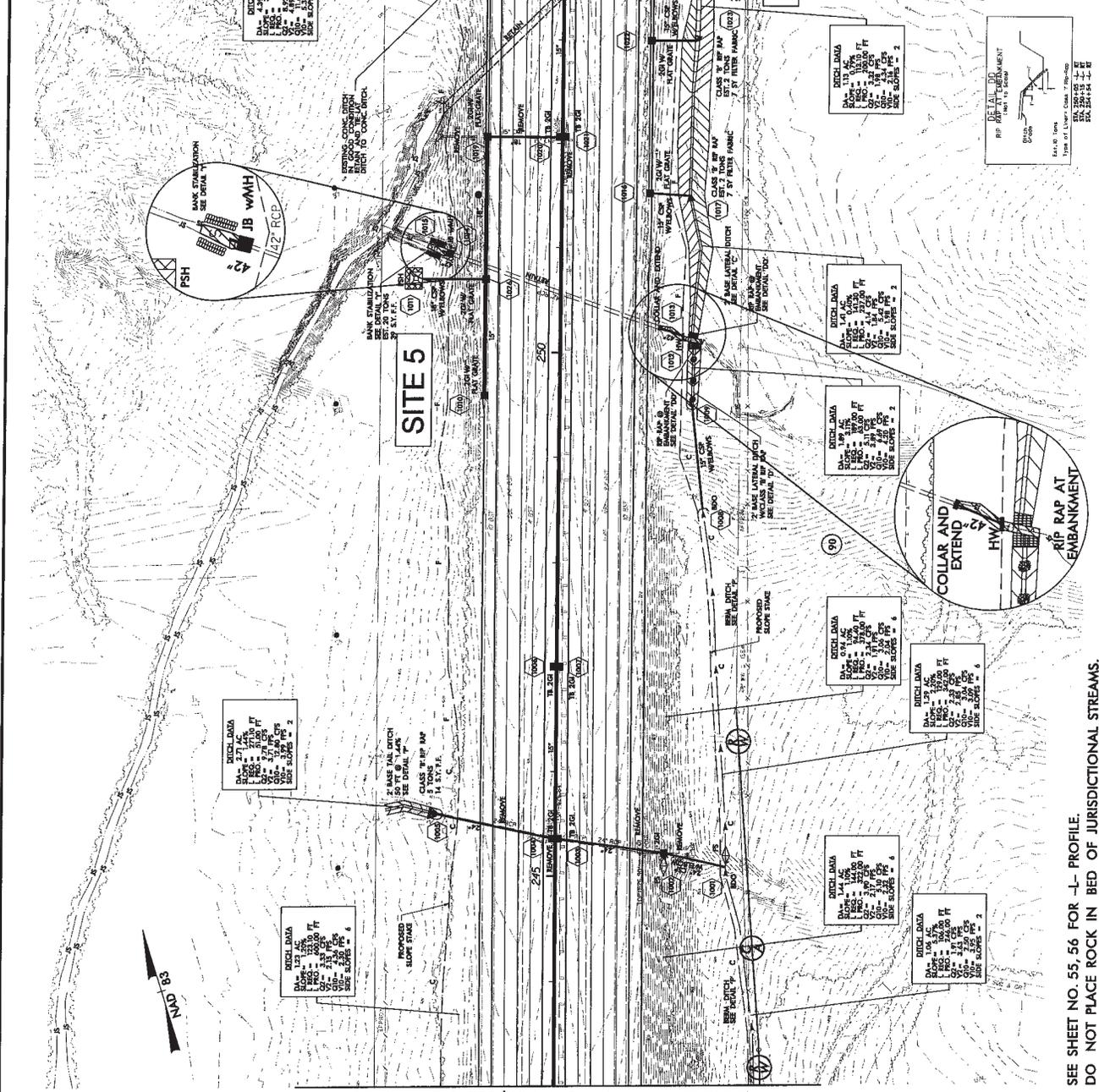
PERMIT DRAWINGS
SHEET 15 OF 51

SEE SHEET NO. 54, 55 FOR -L- PROFILE.
DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

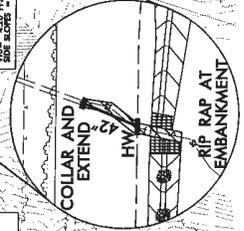
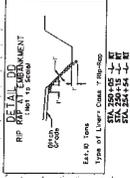
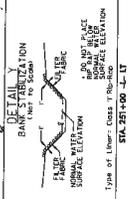
PROJECT REFERENCE NO. 1-3803B
 RW SHEET NO. 10
 HYDRAULICS ENGINEER
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 NO WARRANTY OR GUARANTEE

HX HX Engineering, Inc. of the Corporation
 1100 N. 10th Street, Suite 100
 Lincoln, Nebraska 68502
THE LANE CORPORATION
 1100 N. 10th Street, Suite 100
 Lincoln, Nebraska 68502

LEGEND
 SURFACE WATER
 DRAINS IN SURFACE WATER



PERMIT DRAWINGS
 SHEET 17 OF 51

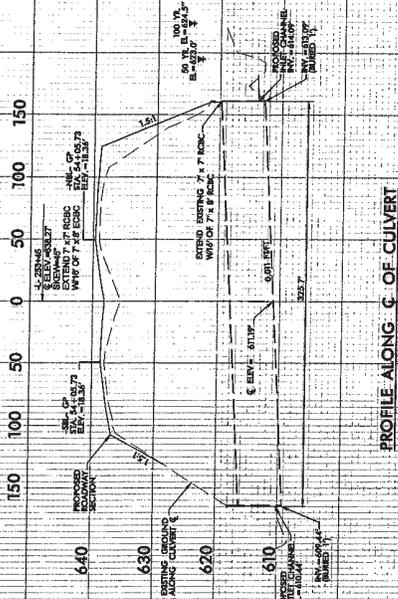


SEE SHEET NO. 55, 56 FOR -L- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

I-3803B SITE 6

PROJECT REFERENCE NO. SHEET NO.
 ROADWAY DESIGN ENGINEER
 CIVIL ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR ACCURATE
PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



PROFILE ALONG C. OF CULVERT

PERMIT DRAWINGS
 SHEET 19 OF 51

PROJECT REFERENCE NO. 1-3803B
 SHEET NO. 13
 HYDRAULICS ENGINEER
 ROADWAY DESIGN ENGINEER

HDR HDR Engineering, Inc. of the Carolina
 Division
 10000 North Carolina Highway 101
 Raleigh, NC 27615
 TEL: 919.487.2000
 FAX: 919.487.2001
 WWW.HDR.COM

THE LANE CORPORATION
 CONSTRUCTION CORPORATION

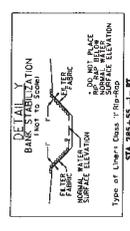
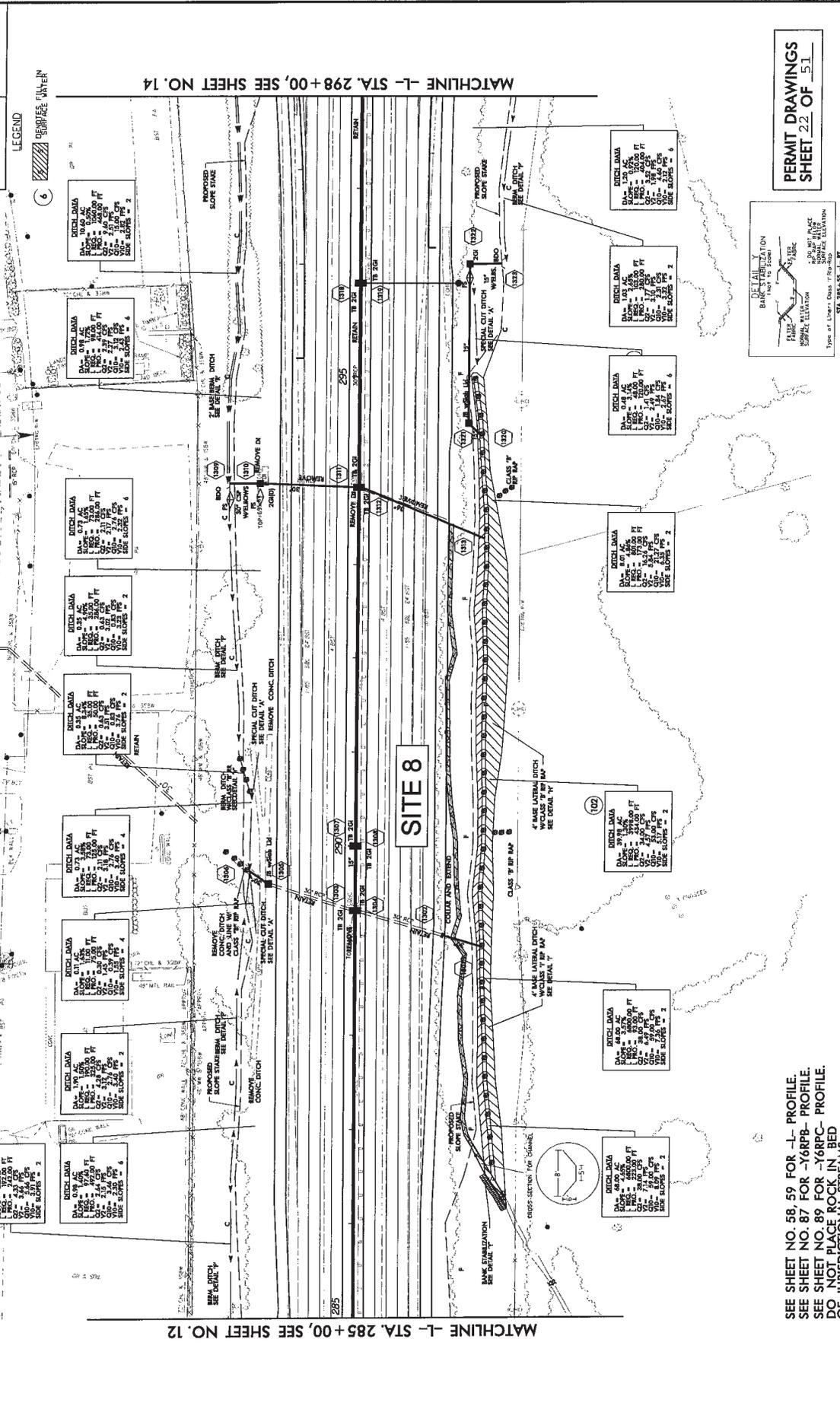
INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

LEGEND
 SURFACE WATER

MATCHLINE L- STA. 298+00, SEE SHEET NO. 14

MATCHLINE L- STA. 285+00, SEE SHEET NO. 12

REVISIONS



DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

DETAIL DATA
 DA= 1.02 AC
 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

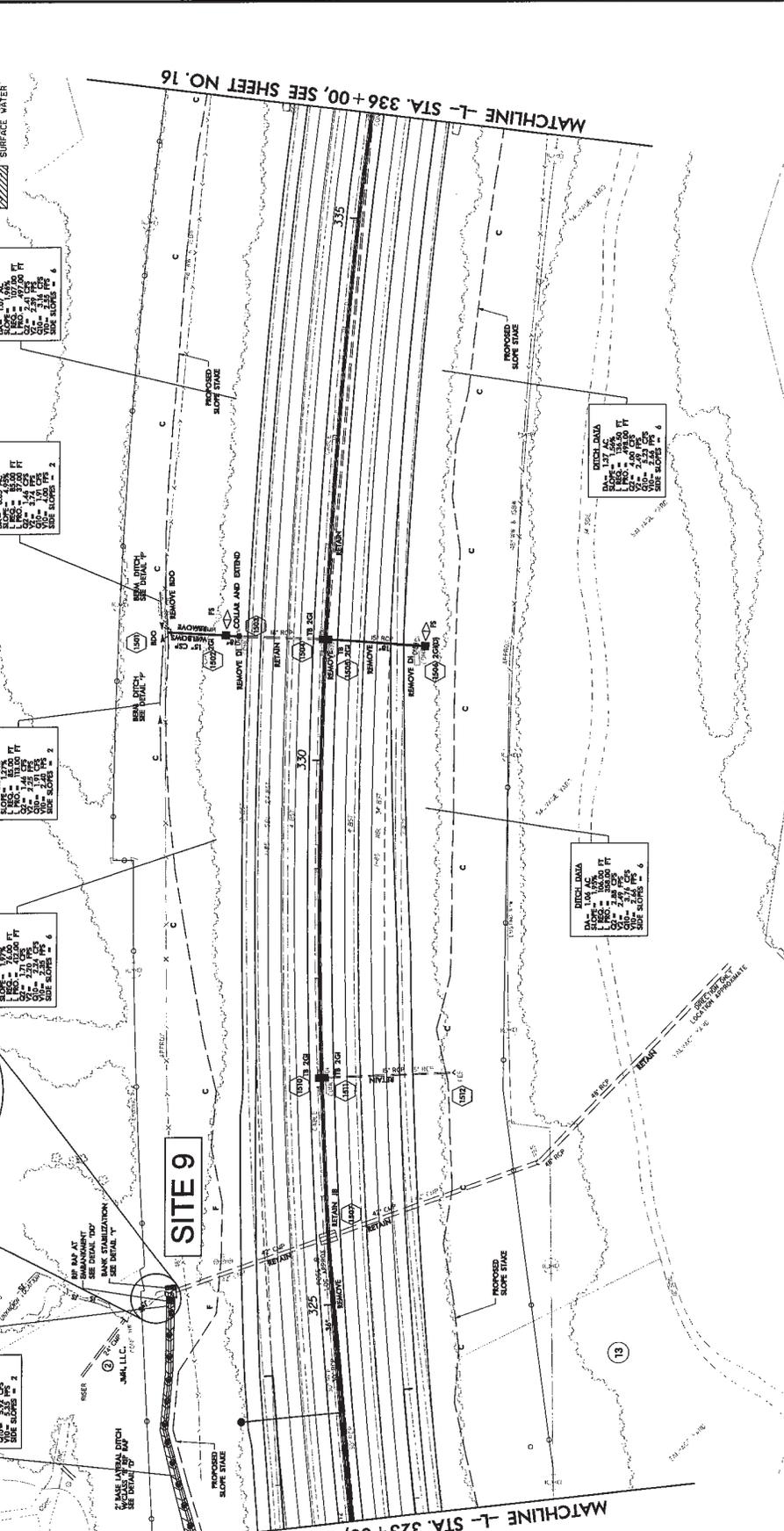
DETAIL DATA
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 L= 100.00 FT
 SLOPE= 1:1
 SIDE SLOPES= 2

SEE SHEET NO. 58, 59 FOR L- PROFILE.
 SEE SHEET NO. 87 FOR -Y&RFB- PROFILE.
 SEE SHEET NO. 89 FOR -Y&RFB- PROFILE.
 DO NOT PLACE ROCK IN BED
 OF JURISDICTIONAL STREAMS.

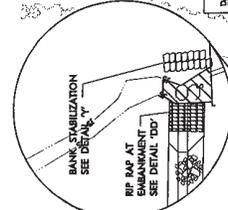
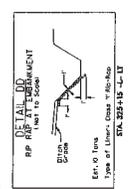
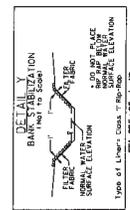
PERMIT DRAWINGS
 SHEET 22 OF 51
 STA. 285+55 -L- RT

ROADWAY DESIGN NOTES
 INCORPORATE PLANS AS NOTED BY THE ARCHITECT
 PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION

THE LANE CONSTRUCTION CORPORATION
 LEGEND
 REMOVED WATER



PERMIT DRAWINGS
 SHEET 24 OF 51



SEE SHEET NO. 61, 62 FOR -L- PROFILE.
 SEE SHEET NO. 85 FOR -Y6RPA- PROFILE.
 SEE SHEET NO. 90 FOR -Y6RPD- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

PROJECT REFERENCE NO. 1-3003B
 SHEET NO. 15

FOR SHEET NO. 1-3003B
 ROYALTY ENGINEERS
 METALLURGY ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR CONSTRUCTION

PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

THE LANE CORPORATION
 11000 W. 10th Ave., Suite 300
 Golden, CO 80401
 PHONE: 303.440.1100
 FAX: 303.440.1101
 WWW.LANECORP.COM

LEGEND
 ▨ SEPARATE WATER

DITCH DATA
 STA. 323+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

DITCH DATA
 STA. 324+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

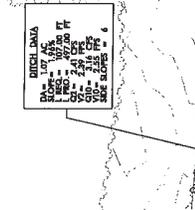
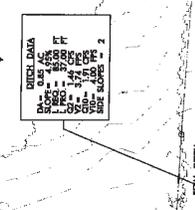
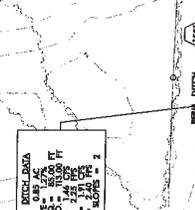
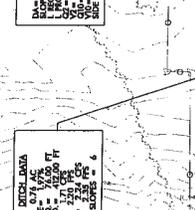
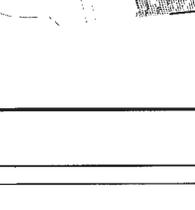
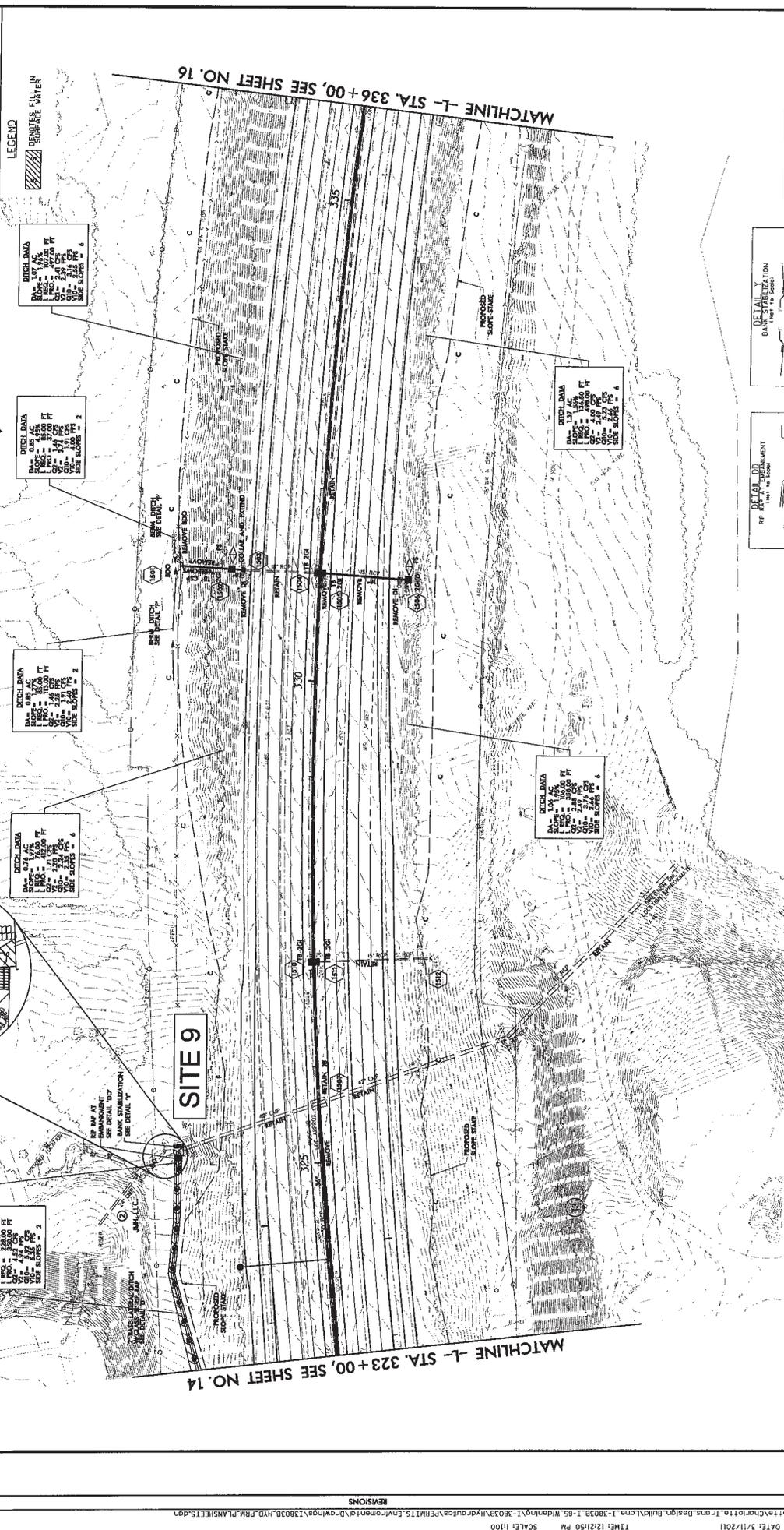
DITCH DATA
 STA. 325+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

DITCH DATA
 STA. 326+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

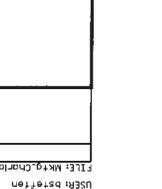
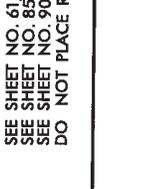
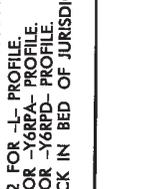
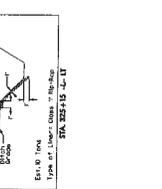
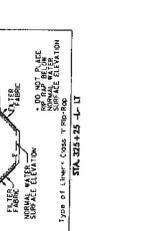
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 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

DITCH DATA
 STA. 328+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2

DITCH DATA
 STA. 329+00
 PA = 4100.00 FT
 L.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 C.F.S. = 10.00 FT
 SIDE SLOPE = 2



PERMIT DRAWINGS
 SHEET 25 OF 51



SEE SHEET NO. 61, 62 FOR -L- PROFILE.
 SEE SHEET NO. 85 FOR -Y6RPA- PROFILE.
 SEE SHEET NO. 90 FOR -Y6RPD- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

REVISIONS
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PROJECT REFERENCE NO. 1-3803B
 SHEET NO. 23
 HWY. SHEET NO. HYDRAULICS ENGINEER

THE LANE CONSTRUCTION CORPORATION

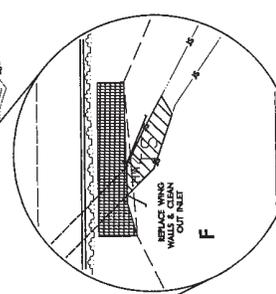
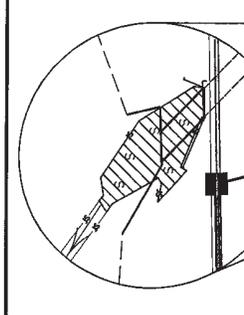
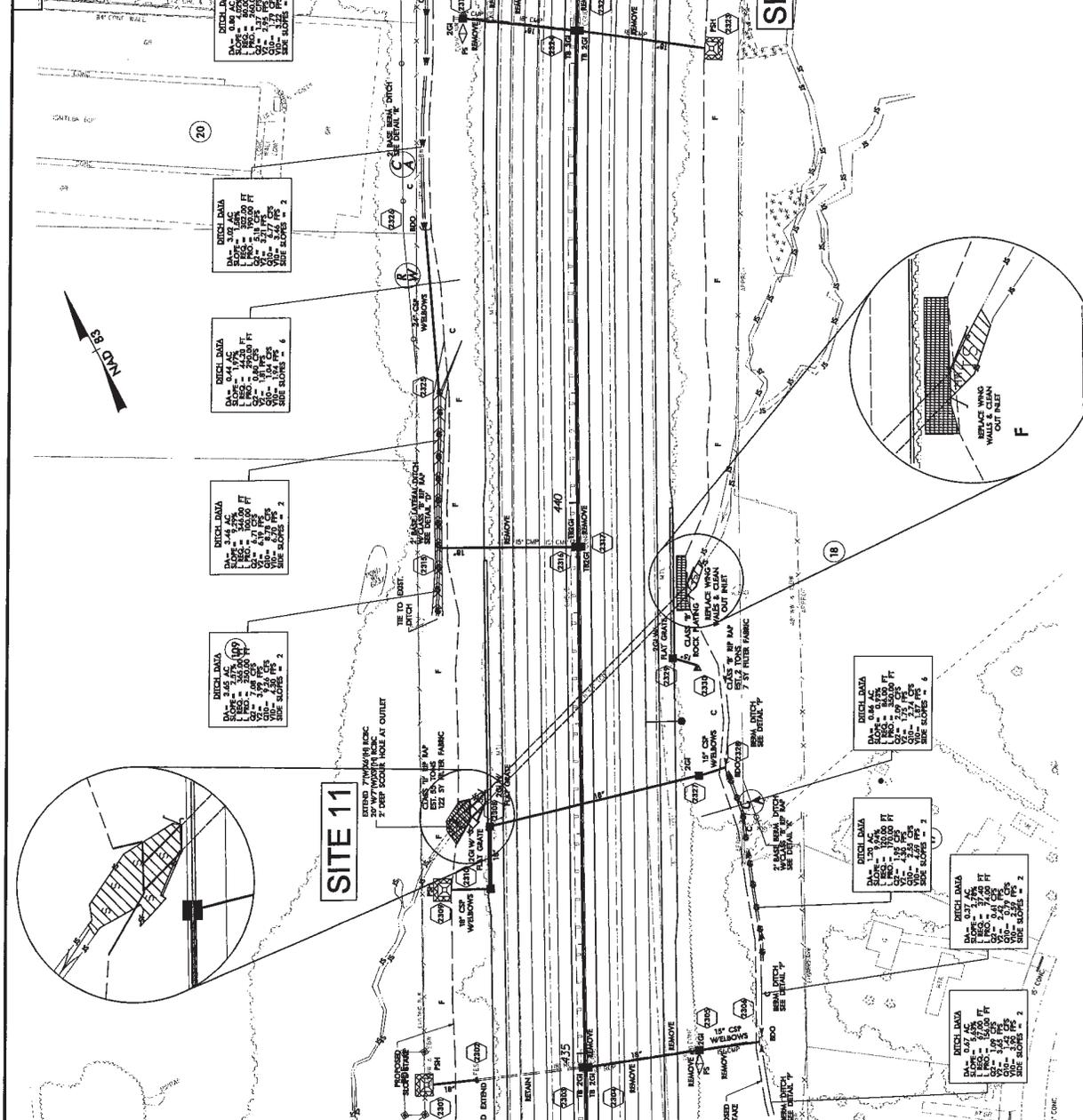
INCOMPLETE PLANS
 IN ACCORDANCE WITH I-95 ADAPTATION
 PRELIMINARY PLANS
 FOR THE I-95 ADAPTATION

FOR: HDR Engineering, Inc. of the Conditions
 of the Contract Documents for the I-95
 ADAPTATION PROJECT, I-95
 ADAPTATION PROJECT, I-95
 ADAPTATION PROJECT, I-95

BY: ELLI HALL

LEGEND

- DEMOTES FILL IN WETLAND
- DEMOTES FILL IN SURFACE WATER
- DEMOTES TEMPORARILY FILL IN SURFACE WATER



MATCHLINE L- STA. 434+00, SEE SHEET NO. 22

MATCHLINE L- STA. 448+00, SEE SHEET NO. 24

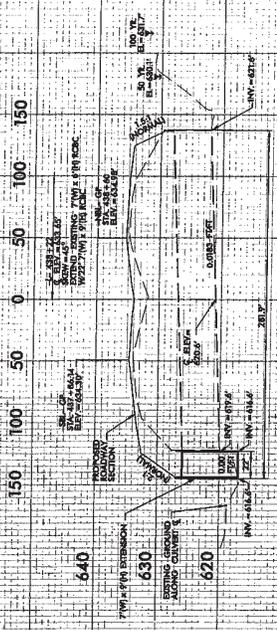
PERMIT DRAWINGS
 SHEET 28 OF 51

SEE SHEET NO. 70, 71 FOR L- PROFILE.
 DO NOT PLACE ROCK IN BED
 OF JURISDICTIONAL STREAMS.

PROJECT REFERENCE NO. I-3803B
 SHEET NO. HYDRAULIC ENGINEER
 ROUTING DESIGN ENGINEER

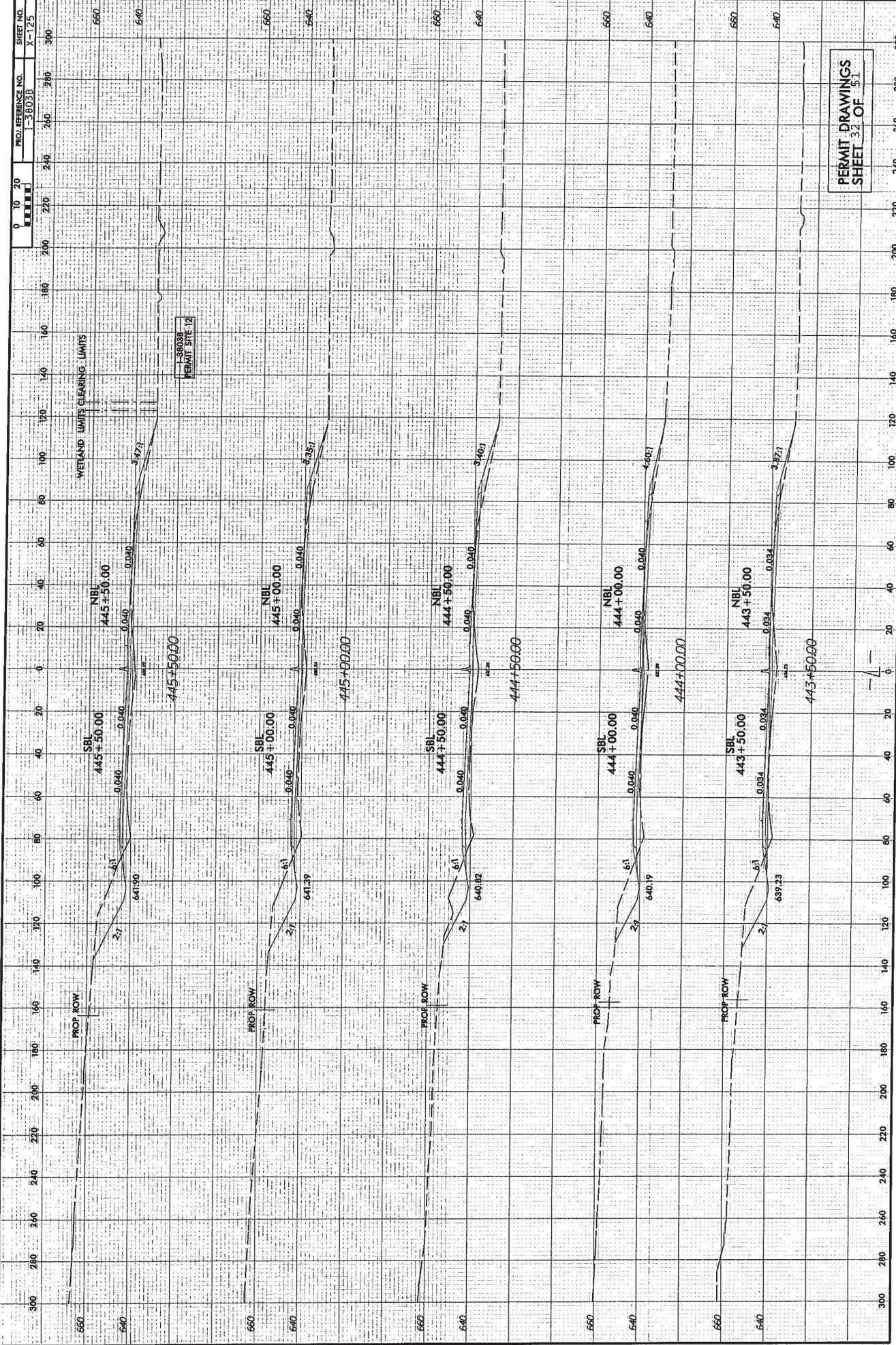
INCOMPLETE PLANS
 DO NOT USE FOR
 PRELIMINARY PLANS
 DO NOT USE FOR
 CONSTRUCTION

I-3803B SITE 11



PROFILE ALONG C.C. OF CULVERT

PERMIT DRAWINGS
 SHEET 31 OF 51



PERMIT DRAWINGS
 SHEET 32 OF 31

PROJECT REFERENCE NO. 13803B
 SHEET NO. 23
 ROADWAY DESIGN ENGINEER
 METALLICS ENGINEER

THE LANE CORPORATION
 INCOMPLETE PLANS
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

FOR THE CLIENT
 2700 Woodloch, Suite 207
 Raleigh, NC 27607
 Telephone: (919) 876-1000
 Fax: (919) 876-1001
 Website: www.lane.com

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
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 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
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 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

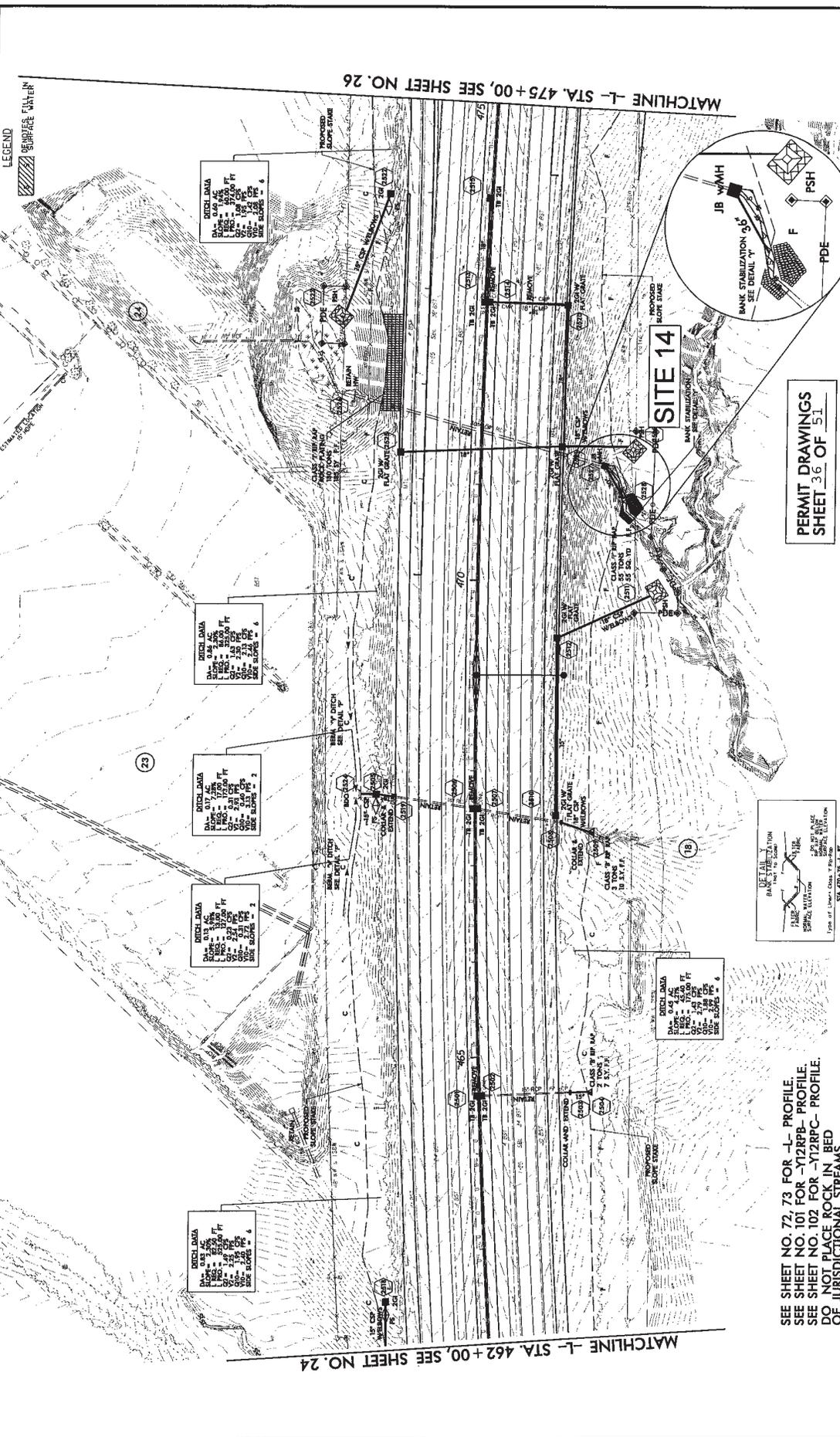
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 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
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 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51



LEGEND
 SURFACE WATER

MATCHLINE -L- STA. 462+00, SEE SHEET NO. 24
 MATCHLINE -L- STA. 475+00, SEE SHEET NO. 26

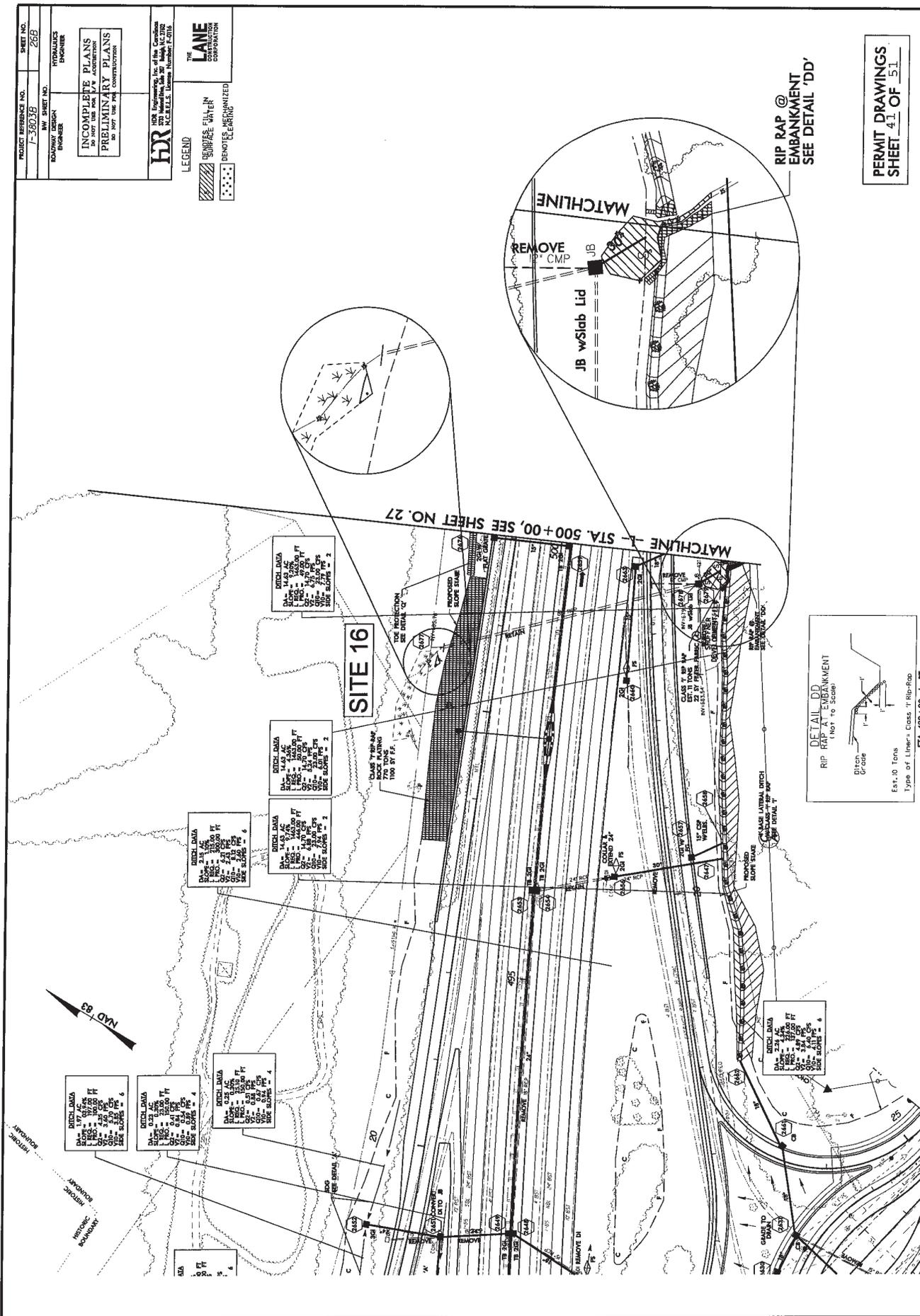
PERMIT DRAWINGS
 SHEET 36 OF 51

SEE SHEET NO. 72, 73 FOR -L- PROFILE.
 SEE SHEET NO. 101 FOR -Y12RPB- PROFILE.
 SEE SHEET NO. 102 FOR -Y12RPC- PROFILE.
 DO NOT PLACE ROCK IN BED OF JURISDICTIONAL STREAMS.

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

DATE: 04/11/11
 DRAWN BY: J. W. WILSON
 CHECKED BY: J. W. WILSON
 SCALE: AS SHOWN
 SHEET NO. 23 OF 51

PROJECT REFERENCE NO. 7-300JB
 SHEET NO. 268
 ROADWAY DESIGN ENGINEER
 SPECIALISTS ENGINEER
 INCOMPLETE PLANS
 DO NOT USE FOR CONSTRUCTION
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION
 HR
 HOK Engineering, Inc. of the Carolinas
 270 Westhills, Suite 200, Raleigh, NC 27602
 A.C.E.C. License Number: F-0715
 THE LANE CORPORATION
 LEGEND
 REMOVE AND RECONSTRUCT
 REMOVE AND RECONSTRUCT



DITCH DATA
 DIA. = 14.0 AC
 SLOPE = 1:1.5
 LENGTH = 100.00 FT
 VOLUME = 1,125.00 CU YD
 SIDE SLOPE = 2:1

DITCH DATA
 DIA. = 14.0 AC
 SLOPE = 1:1.5
 LENGTH = 100.00 FT
 VOLUME = 1,125.00 CU YD
 SIDE SLOPE = 2:1

DITCH DATA
 DIA. = 14.0 AC
 SLOPE = 1:1.5
 LENGTH = 100.00 FT
 VOLUME = 1,125.00 CU YD
 SIDE SLOPE = 2:1

DITCH DATA
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 SIDE SLOPE = 2:1

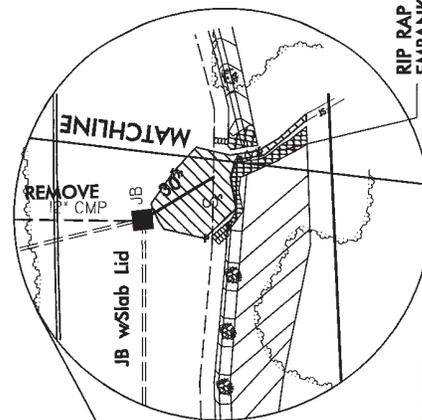
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 LENGTH = 100.00 FT
 VOLUME = 1,125.00 CU YD
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DITCH DATA
 DIA. = 14.0 AC
 SLOPE = 1:1.5
 LENGTH = 100.00 FT
 VOLUME = 1,125.00 CU YD
 SIDE SLOPE = 2:1

DITCH DATA
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 SIDE SLOPE = 2:1

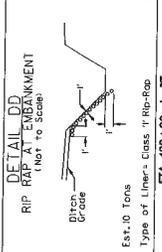
MATCHLINE - STA. 500+00, SEE SHEET NO. 27

SITE 16



RIP RAP @ EMBANKMENT
 SEE DETAIL 'DD'

PERMIT DRAWINGS
 SHEET 41 OF 51



PROJECT REFERENCE NO. 1-38038
 SHEET NO. 2B
 ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER
 INCOMPLETE PLANS
 DO NOT USE FOR P.A. ACQUISITION
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

THE LANE
 CONSTRUCTION CORPORATION

LEGEND
 SLOPE WATER

DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC

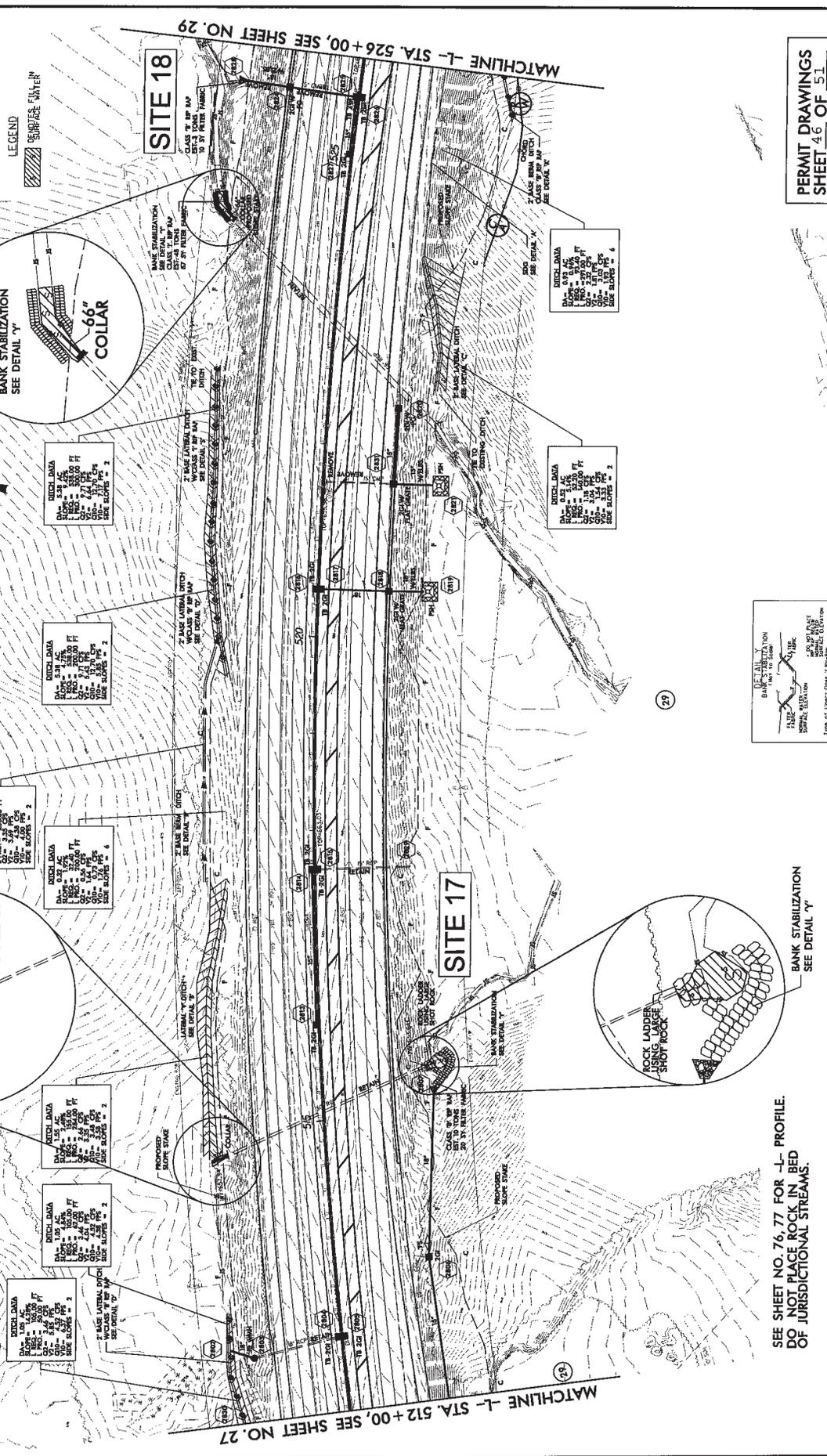
DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC

DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC

DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC

DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC

DETAIL DATA
 BANK STABILIZATION
 SEE DETAIL 'Y'
 CLASS 9' 8" W 8" P
 20' W 2" PETER FABRIC



MATCHLINE -L- STA. 526+00, SEE SHEET NO. 29

MATCHLINE -L- STA. 512+00, SEE SHEET NO. 27

SEE SHEET NO. 76.77 FOR -L- PROFILE.
 DO NOT PLACE ROCK IN BED
 OF JURISDICTIONAL STREAMS.

REGIONS

PERMIT DRAWINGS
 SHEET 46 OF 51

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 DATE: 3/11/2011
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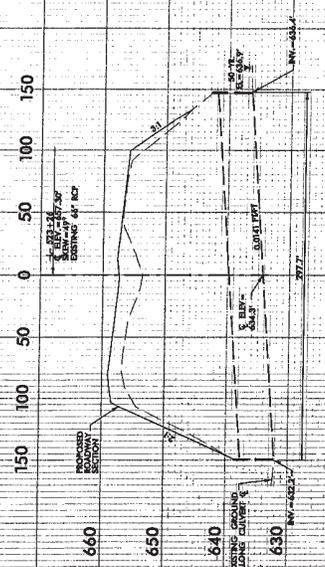
REGIONS

I-3803B SITE 18

PROJECT REFERENCE NO. I-3803B
 ROADWAY DESIGN BRIDGE

PROJANALYSIS BRIDGE

INCOMPLETE PLANS
 DO NOT USE FOR A
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION



PROFILE ALONG C. OF 66' RCP

PERMIT DRAWINGS
 SHEET 47 OF 51

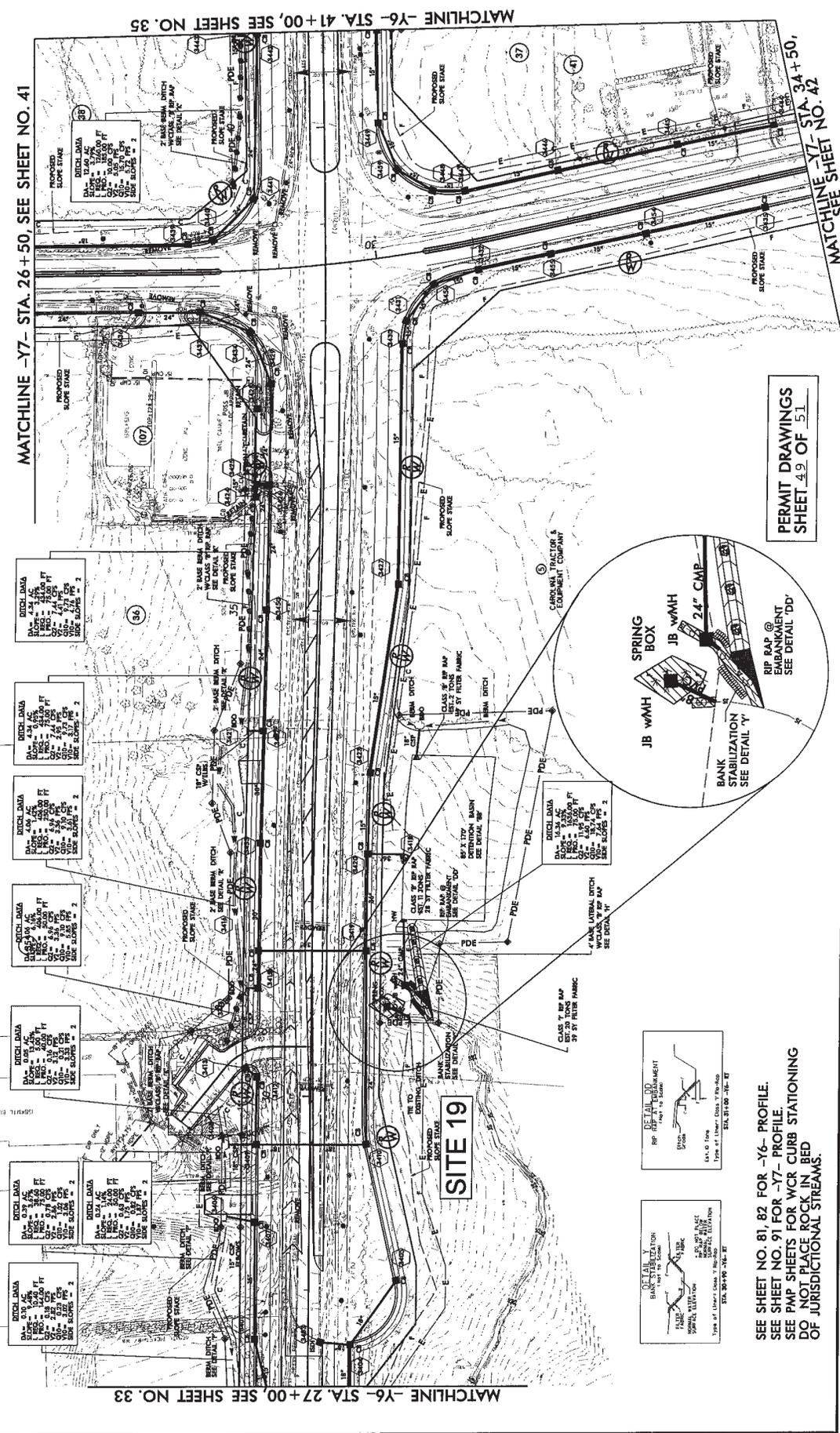
PROJECT REFERENCE NO. 13803B
 SHEET NO. 34

THE **LANE** CORPORATION
 ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR P.A. APPLICATION
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

LEGEND
 REMOVED FILL IN
 SURFACE WATER

ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER



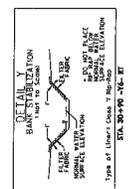
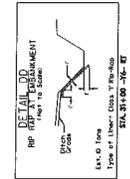
MATCHLINE -Y7- STA. 26+50, SEE SHEET NO. 41

MATCHLINE -Y6- STA. 27+00, SEE SHEET NO. 33

MATCHLINE -Y6- STA. 41+00, SEE SHEET NO. 35

PERMIT DRAWINGS
 SHEET 49 OF 51

SEE SHEET NO. 81, 82 FOR -Y6- PROFILE.
 SEE SHEET NO. 91 FOR -Y7- PROFILE.
 SEE P&P SHEETS FOR W/CB CURB STATIONING.
 DO NOT PLACE ROCK IN BED
 OF JURISDICTIONAL STREAMS.



SITE 19

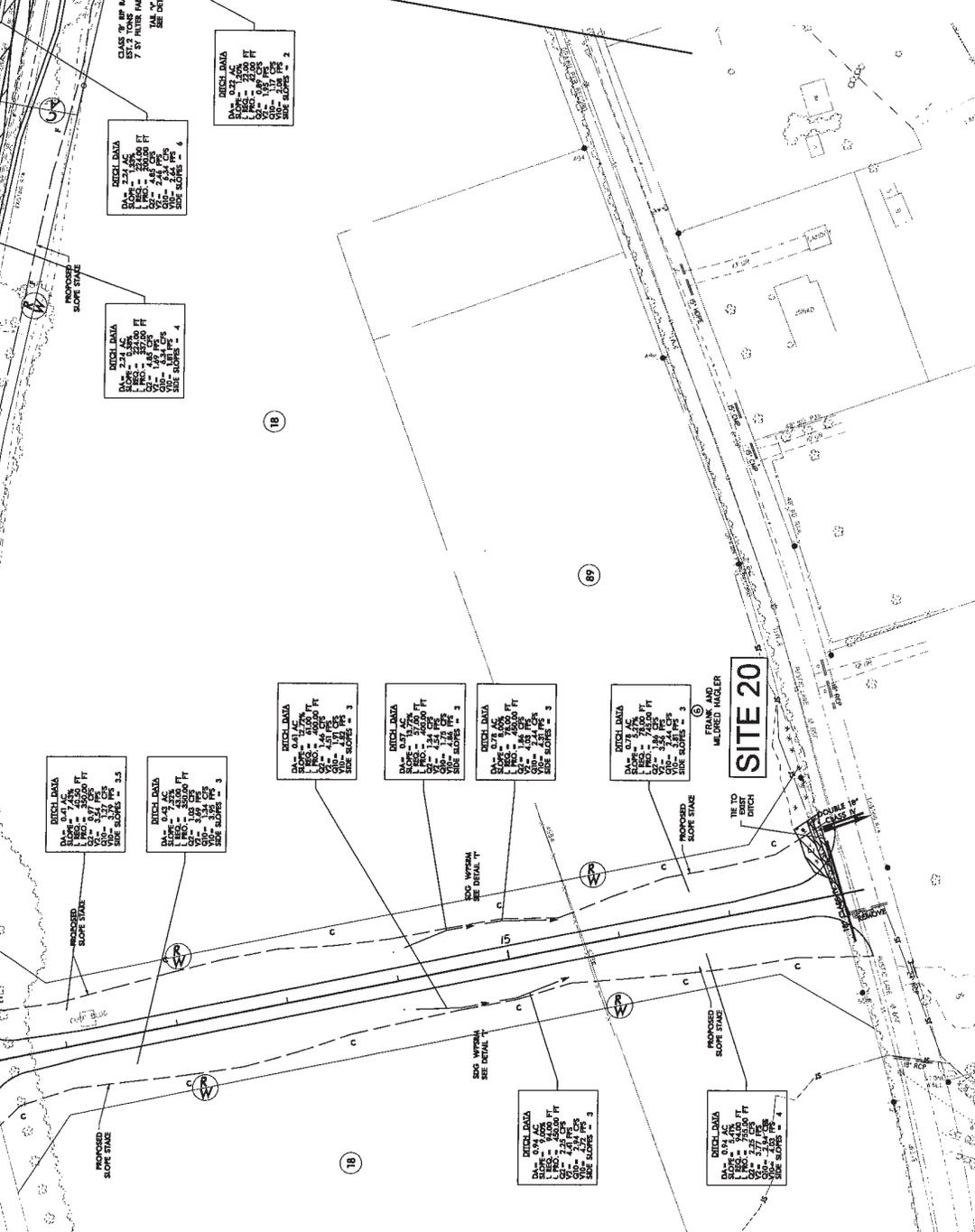
PROJECT REFERENCE NO. I-3803B
 SHEET NO. 48
 ROADWAY DESIGN ENGINEER
 PRELIMINARY PLANS
 DO NOT USE FOR CONSTRUCTION

THE LANE CORPORATION
 11000 W. 11th Street, Suite 300, Omaha, NE 68147
 PHONE: 402.476.1000
 FAX: 402.476.1001
 WWW.LANE-CORP.COM



LEGEND
 REMOTES EXCAVATION IN WETLAND
 REMOTE REPERFORATED
 SURFACE WATER

PERMIT DRAWINGS
 SHEET 50 OF 51



SEE SHEET NO. 105 FOR -Y14- PROFILE.
 SEE SHEET NO. 106 FOR -Y16- PROFILE.
 DO NOT PLACE ROCK IN BED.

