



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

March 14, 2007

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Mr. David Baker
NCDOT Coordinator

Subject: **Nationwide Permit 6 Application** for replacement of Bridge No. 7 on US 64 over the Broad River, Federal Aid No. BRSTP-0064(61), State Project No. 8.1891301, WBS Element No. 33600.1.1, Rutherford County, Division 13, TIP No. B-4258.

Dear Mr. Lund:

The North Carolina Department of Transportation (NCDOT) proposes to replace the structurally deficient Bridge No. 7 on US 64 over the Broad River with a new bridge on a new alignment. NCDOT's Geotechnical Unit is planning a site characterization investigation for the foundation design for the new bridge. The NCDOT is providing written application because a portion of this work (four borings) is to be conducted within the Broad River; DWQ Index No. 9-(1), Class C Tr. The Geotechnical Unit will be conducting the subsurface investigation performing a maximum of eight borings, with four borings to be located on land in the proposed roadway and four borings to be located within Broad River. The temporary surface water impacts total < 0.01 acre (8 ft² per boring). Please see the attached Plan Sheet showing location of borings and PCN for reference. The NC Wildlife Resource Commission (NCWRC) has issued a trout moratorium for in-stream work with 25 foot buffer from January 1 to April 15.

The four borings to be installed in Broad River will be performed from a 12 x 20 foot barge secured by steel spuds, anchors, and/or cables attached to trees. The barge will be launched from the shore using a crane. In the event stream water depth is too shallow to float the barge, the borings will be conducted in the stream using a rubber tired ATV, drill as the barge requires a water depth of approximately one foot. These borings will require rock-coring techniques. A three-inch casing will be advanced until it reaches rock. At that time a two-inch diameter rock core will be obtained through the casing with rotary wash techniques. Drilling fluid will consist of water drawn from the stream without additives. The water cools the casing during the coring process and overflows back into the stream. The water should not contact any contaminants during the

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-715-1500
FAX: 919-715-1501

WEBSITE: www.NCDOT.ORG

LOCATION:
PARKER LINCOLN BUILDING
2728 CAPITAL BLVD., SUITE 240
RALEIGH NC 27604

coring process. This method creates minimal disturbance of the river bottom and is less invasive than auguring.

The four land borings will be conducted with a rubber ATV drill rig utilizing 6” hollow stem augers or 3” casing with rotary wash techniques. The land borings will be backfilled with the cuttings and then sealed with a bentonite plugs.

AVOIDANCE & MINIMIZATION

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize jurisdictional impacts, and to provide full compensatory mitigation of all remaining, unavoidable jurisdictional impacts. Specific measures taken to minimize impacts are as follows:

- Limiting the number of borings within Waters of the United States to four (4).
- Utilizing casing to advance the borings to contain all drilling fluid and cuttings.
- Implementing and strictly enforcing Sedimentation and Erosion Control Guidelines for Sensitive Watersheds (15A NCAC 4B.0024)
- Implementing Best Management Practices (BMPs) for Protection of Surface Waters.

MITIGATION

As the project impacts are temporary, no mitigation is proposed.

FEDERALLY PROTECTED SPECIES

Plants and animals with federal classifications of Endangered (E) and Threatened (T) are protected under provisions of Section 7 of the Endangered Species Act of 1973, as amended. As of February 13, 2006, the U.S. Fish and Wildlife Service (FWS) lists five federally protected species for Rutherford County (Table 1). The one species with habitat present, small-whorled pogonia, was last surveyed in May 2004. Another survey for this species may be required prior to construction of the project.

Table 1. Federally protected species of Rutherford County.

Common Name	Scientific Name	Federal Status	Habitat Present	Biological Conclusion
Indiana bat	<i>Myotis sodalis</i>	E	No	No Effect
Dwarf-flowered heartleaf	<i>Hexastylis naniflora</i>	T	No	No Effect
Small whorled pogonia	<i>Isotria medeoloides</i>	T	Yes	No Effect
White irisette	<i>Sisyrinchium dichotomum</i>	E	No	No Effect
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	No	No Effect

Project Schedule

The project is currently scheduled for review on January 29, 2008 and to Let on March 18, 2008 with construction to begin shortly thereafter.

REGULATORY APPROVALS

The NCDOT anticipates that these activities will be authorized by a Nationwide Permit No. 6 and the associated 401 General Certification No. GC3376. A completed PCN form and appropriate drawings are attached for your review. All General Conditions of the Water Quality Certification will be met. Therefore, written concurrence from the North Carolina Department of Environment and Natural Resources, Division of Water Quality (DWQ) is not required. In accordance with 15A NCAC 2H.0501(a), we are providing two (2) copies of this application to DWQ for their records.

Thank you for your assistance with this project. If you have any questions or need additional information please call Jeff Hemphill at (919) 715-1458.

Sincerely,



for

Gregory J. Thorpe, Ph.D.
Environmental Management Director, PDEA

Cc:

W/attachment

- Mr. John Hennessy, NCDWQ (2 Copies)
- Ms. Marella Buncick, USFWS
- Ms. Marla Chambers, NCWRC
- Dr. David Chang, P.E., Hydraulics
- Mr. Victor Barbour, Project Services Unit
- Mr. Njoroge W. Wainaina, State Engineering Geologist, P.E., Geotechnical Unit
- Mr. Greg Perfetti, P.E., Structure Design
- Mr. Mark Staley, Roadside Environmental
- Mr. J.J. Swain, P.E. Division Engineer
- Mr. Roger Bryan, DEO

W/o attachment

- Mr. Jay Bennett, P.E., Roadway Design
- Mr. Majed Alghandour, P. E., Programming and TIP
- Mr. Art McMillan, P.E., Highway Design
- Mr. Scott McLendon, USACE, Wilmington
- Mr. Joseph Miller, P.E., PDEA Project Planning Engineer

Office Use Only:

Form Version March 05

USACE Action ID No. _____

DWQ No. _____

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

I. Processing

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

Section 404 Permit

Riparian or Watershed Buffer Rules

Section 10 Permit

Isolated Wetland Permit from DWQ

401 Water Quality Certification

Express 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: NWP 6

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Ecosystem Enhancement Program (NCEEP) is proposed for mitigation of impacts, attach the acceptance letter from NCEEP, complete section VIII, and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

II. Applicant Information

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director

Mailing Address: NCDOT – Project Development and Environmental Analysis

1598 Mail Service Center

Raleigh, NC 27699-1598

Telephone Number: (919) 733-3141

Fax Number: (919) 733-9794

E-mail Address: ekschubert@dot.state.nc.us

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

Name: _____

Company Affiliation: _____

Mailing Address: _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

III. Project Information

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

1. Name of project: Bridge No. 7 over the Broad River on US 64.
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-4258
3. Property Identification Number (Tax PIN): N/A
4. Location
County: Rutherford Nearest Town: Chimney Rock Village
Subdivision name (include phase/lot number): N/A
Directions to site (include road numbers/names, landmarks, etc.): Take I-40 west to NC 9 at Exit 54 and turn left. Proceed south for approximately 13 miles to US 64 turn left. Head east for approximately 3.5 miles to the bridge 7 over the Broad River. The bridge crossing is just prior to Broad Rivers confluence with Lake Lure.
5. Site coordinates (For linear projects, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
Decimal Degrees (6 digits minimum): 35°26.15' °N 82°14.10' °W
6. Property size (acres): N/A
7. Name of nearest receiving body of water: Broad River
8. River Basin: Broad
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at [http://h2o.enr.state.nc.us/admin/maps/.](http://h2o.enr.state.nc.us/admin/maps/))
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: The land uses surrounding and within the project study area are commercial and undeveloped.

10. Describe the overall project in detail, including the type of equipment to be used: _____
Subsurface geotechnical investigations will be performed. The four in-water borings will be performed by a drilling barge or ATV. The four land borings will be performed with a rubber tired ATV drill rig.

11. Explain the purpose of the proposed work: To determine foundation potential.

IV. Prior Project History

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

N/A

V. Future Project Plans

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

A NWP 23/33 and associated approvals from the NCDWQ will be requested for the replacement of Bridge No. 7 over Broad River on US 64.

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

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

1. Provide a written description of the proposed impacts: No permanent wetland or stream impacts will occur with this action. Please see cover letter for more details.

2. Individually list wetland impacts. Types of impacts include, but are not limited to mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
No Wetlands					
Total Wetland Impact (acres)					0

3. List the total acreage (estimated) of all existing wetlands on the property: 0

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

Stream Impact Number (indicate on map)	Stream Name	Type of Impact	Perennial or Intermittent?	Average Stream Width Before Impact	Impact Length (linear feet)	Area of Impact (acres)
B-3	Broad River	Temporary	Perennial	160 ft	N/A	< 0.01
B-4	Broad River	Temporary	Perennial	160 ft	N/A	< 0.01
B-5	Broad River	Temporary	Perennial	160 ft	N/A	< 0.01
B-6	Broad River	Temporary	Perennial	160 ft	N/A	< 0.01
Total Stream Impact (by length and acreage)						0

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

Open Water Impact Site Number (indicate on map)	Name of Waterbody (if applicable)	Type of Impact	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)	Area of Impact (acres)
No open water				
Total Open Water Impact (acres)				0

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

Stream Impact (acres):	< 0.01 (Temporary-borings (32ft ²))
Wetland Impact (acres):	0
Open Water Impact (acres):	0
Total Impact to Waters of the U.S. (acres)	< 0.01 (Temporary-borings (32ft ²))
Total Stream Impact (linear feet):	0

7. Isolated Waters

Do any isolated waters exist on the property? Yes No

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

8. Pond Creation

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

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

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

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

Current land use in the vicinity of the pond:

Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts. Only 4 borings will be in Broad River. Casings will be used to advance the borings to contain cuttings. Drilling fluid will consist of water drawn from the stream with no additives. Sedimentation and Erosion Control Guidelines as well as Best Management Practices will be followed.

VIII. Mitigation

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

freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

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

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

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

No mitigation is proposed.

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

Amount of stream mitigation requested (linear feet): 0

Amount of buffer mitigation requested (square feet): 0

Amount of Riparian wetland mitigation requested (acres): 0

Amount of Non-riparian wetland mitigation requested (acres): 0

Amount of Coastal wetland mitigation requested (acres): 0

IX. Environmental Documentation (required by DWQ)

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

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

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

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

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

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

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

XI. Stormwater (required by DWQ)

Describe impervious acreage (existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property. If percent impervious surface exceeds 20%, please provide calculations demonstrating total proposed impervious level. _____
Impervious surface will not significantly increase as a result of this project.

XII. Sewage Disposal (required by DWQ)

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

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?
Yes No

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

XIV. Cumulative Impacts (required by DWQ)

Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality? Yes No
If yes, please submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent North Carolina Division of Water Quality policy posted on our website at <http://h2o.enr.state.nc.us/ncwetlands>. If no, please provide a short narrative description: _____

XV. Other Circumstances (Optional):

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



3.14.07

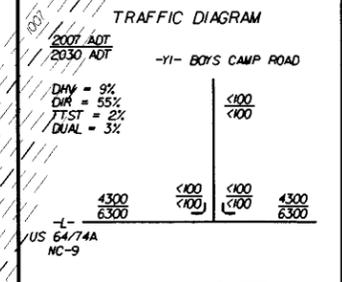
Applicant/Agent's Signature

Date

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

-L-			-Y1-		
PI Sta 15+24.10 Δ = 37° 58' 50.4" (RT) D = 10' 42' 34.2" L = 354.64' T = 184.1' R = 535.00' SE = 0.04 RO = 84.00'	PI Sta 19+63.63 Δ = 27° 39' 19.6" (LT) D = 10' 42' 34.2" L = 258.23' T = 131.68' R = 535.00' SE = 0.04 RO = 84.00'	PI Sta 23+39.47 Δ = 2° 53' 59.1" (RT) D = 1' 54' 35.5" L = 151.83' T = 75.93' R = 3,000.00' SE = NC RO = NONE	PI Sta 12+67.03 Δ = 8° 46' 18.3" (RT) D = 6' 21' 58.3" L = 137.79' T = 69.03' R = 900.00' SE = NC RO = NONE	PI Sta 10+30.78 Δ = 61° 10' 47.9" (RT) D = 229' 10' 59.2" L = 26.69' T = 14.78' R = 25.00' SE = NC RO = NONE	PI Sta 11+57.35 Δ = 16° 49' 30.2" (LT) D = 15' 16' 43.9" L = 110.12' T = 55.46' R = 375.00' SE = NC RO = NONE

-Y1-	
BYI-6 -Y1- STA 8+40+/- OFF 45'+/- LT	BYI-6 -Y1- STA 14+48.64 OFF 45.12' RT



DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDDOT FOR MONUMENT '84258-2' WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 6288463500H EASTING: 10374268100H THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999824561 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM '84258-2' TO L- STATION 28+18.08 IS N 52° 21' 44.6" W 88.20' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

PROJECT REFERENCE NO.
B-4258

SHEET NO.
4

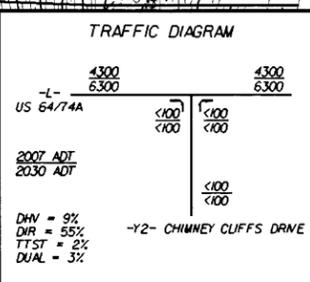
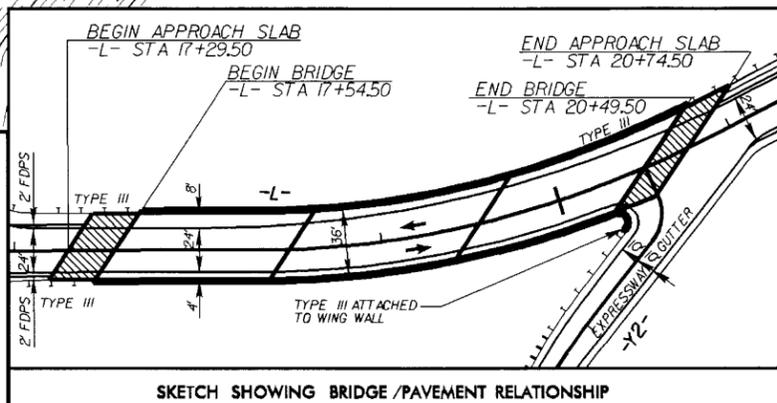
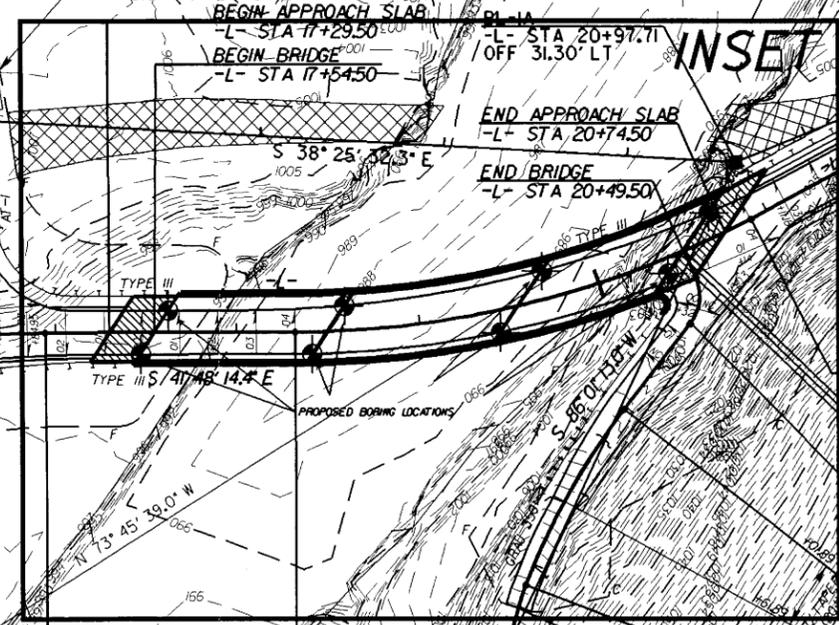
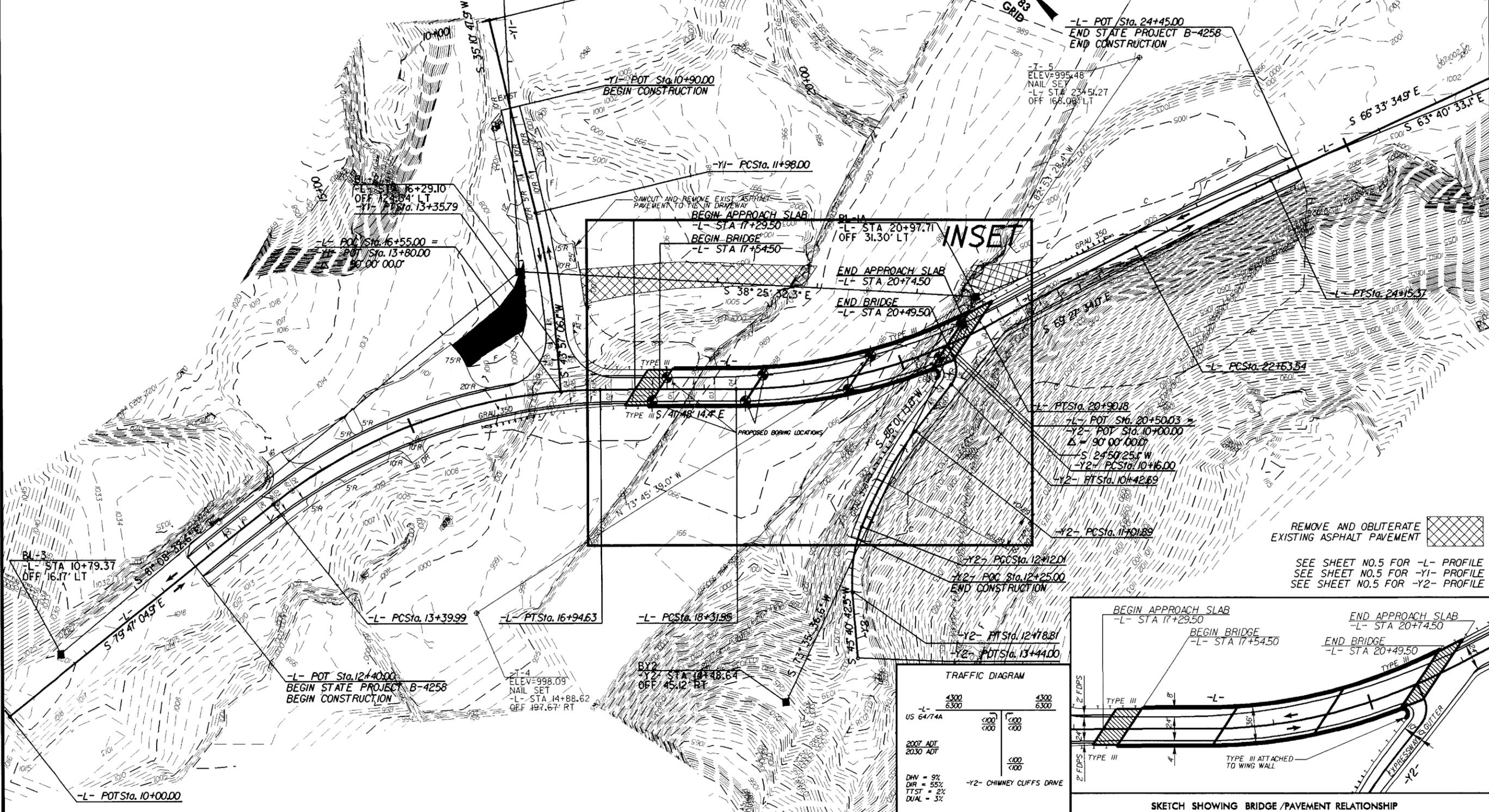
R/W SHEET NO.

ROADWAY DESIGN ENGINEER
Kimley-Horn and Associates, Inc.
P.O. BOX 33068
RALEIGH, N.C. 27636-3068

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



REMOVE AND OBLITERATE EXISTING ASPHALT PAVEMENT

SEE SHEET NO.5 FOR -L- PROFILE
SEE SHEET NO.5 FOR -Y1- PROFILE
SEE SHEET NO.5 FOR -Y2- PROFILE

DATE: \$
FILE: \$

