

PROJECT SPECIAL PROVISION

(10-18-95)

Z-1

PERMITS

The Contractor's attention is directed to the following permits which have been issued to the Department of Transportation by the authority granting the permit.

PERMIT

Dredge and Fill and/or  
Work in Navigable Waters (404)  
Water Quality (401)

AUTHORITY GRANTING THE PERMIT

U. S. Army Corps of Engineers  
  
Division of Environmental Management, DENR  
State of North Carolina

The Contractor shall comply with all applicable permit conditions during construction of this project. Those conditions marked by \* are the responsibility of the department and the Contractor has no responsibility in accomplishing those conditions.

Agents of the permitting authority will periodically inspect the project for adherence to the permits.

The Contractor's attention is also directed to Articles 107-10 and 107-14 of the *Standard Specifications* and the following:

Should the Contractor propose to utilize construction methods (such as temporary structures or fill in waters and/or wetlands for haul roads, work platforms, cofferdams, etc.) not specifically identified in the permit (individual, general, or nationwide) authorizing the project it shall be the Contractor's responsibility to coordinate with the Engineer to determine what, if any, additional permit action is required. The Contractor shall also be responsible for initiating the request for the authorization of such construction method by the permitting agency. The request shall be submitted through the Engineer. The Contractor shall not utilize the construction method until it is approved by the permitting agency. The request normally takes approximately 60 days to process; however, no extensions of time or additional compensation will be granted for delays resulting from the Contractor's request for approval of construction methods not specifically identified in the permit.

**Where construction moratoriums are contained in a permit condition which restricts the Contractor's activities to certain times of the year, those moratoriums will apply only to the portions of the work taking place in the waters or wetlands provided that activities outside those areas is done in such a manner as to not affect the waters or wetlands.**



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

August 3, 2006

To: File

From: Deanna Riffey, Permit Specialist

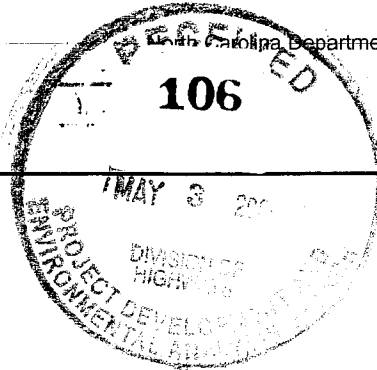
Subject: U-3344 A Section 404 Permit by Default

The Section 404 permit for this project has been issued by default, as the U.S. Army Corps of Engineers review time period has exceeded 45 days (per Nationwide Permit General Condition number 13, a., 3). Therefore, NCDOT must comply with all conditions, descriptions, and mitigation allowance in the attached permit application dated 3/3/2006, Pre-Construction Notification Form, Permit Drawings, 404 General Conditions and Ecosystem Enhancement Program mitigation acceptance letter. A permit modification will be required if any of the above conditions, descriptions, and mitigation allowances cannot be met.



Michael F. Easley, Governor  
 William G. Ross Jr., Secretary  
 North Carolina Department of Environment and Natural Resources  
 Alan W. Klimek, P.E. Director  
 Division of Water Quality

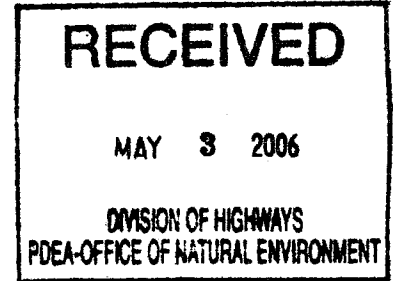
*R. ffey*



April 24, 2006  
 Wake County  
 DWQ Project No. 20060367  
 SR 3015  
 TIP No. U-3344A

**APPROVAL of 401 WATER QUALITY CERTIFICATION and NEUSE BUFFER AUTHORIZATION with ADDITIONAL CONDITIONS**

Dr. Gregory Thorpe, Ph.D  
 NCDOT Project Development & Environmental Analysis Branch  
 1598 Mail Service Center  
 Raleigh, NC 27699-1598



Dear Dr. Thorpe:

You have our approval, in accordance with the conditions listed below, for the following impacts for the purpose of widening SR 3015 (Airport Blvd) in Wake County:

**Stream Impacts in the Neuse River Basin**

Site	Permanent Fill in Intermittent Stream (linear ft)	Temporary Fill in Intermittent Stream (linear ft)	Permanent Fill in Perennial Stream (linear ft)	Temporary Fill in Perennial Stream (linear ft)	Total Stream Impact (linear ft)	Stream Impacts Requiring Mitigation (linear ft)
2	0	0	109	0	109	N/A
<b>Total</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>109</b>	<b>N/A</b>

**Total Stream Impact for Project: 109 linear feet.**

**Wetland Impacts in the Neuse River Basin**

Site	Fill (ac)	Fill (temporary) (ac)	Excavation (ac)	Mechanized Clearing (ac)	Hand Clearing (ac)	Area under Bridge (ac)	Total Wetland Impact (ac)
1	0.07	0	0	0	0	0	0.07
<b>Total</b>	<b>0.07</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.07</b>

**Total Riverine Wetland Impact for Project: 0.07 acres.**



**Neuse Riparian Buffer Impacts**

Site	Zone 1 Impact (sq ft)	minus Wetlands in Zone 1 (sq ft)	= Zone 1 Buffers (not wetlands) (sq ft)	Zone 1 Buffer Mitigation Required (using 3:1 ratio)	Zone 2 Impact (sq ft)	minus Wetlands in Zone 2 (sq ft)	= Zone 2 Buffers (not wetlands) (sq ft)	Zone 2 Buffer Mitigation Required (using 1.5:1 ratio)
1	2050	0	2050	N/A	1811	0	1811	N/A
2	8412	0	8412	N/A	4921	0	4921	N/A
<b>Totals</b>	<b>10462</b>	<b>0</b>	<b>10462</b>	<b>0</b>	<b>6732</b>	<b>0</b>	<b>6732</b>	<b>0</b>

\* n/a = Total for Site is less than 1/3 acre and 150 linear feet of impact, no mitigation required

**Total Buffer Impact for Project: 17194 square feet.**

The project shall be constructed in accordance with your application dated received March 8, 2006. After reviewing your application, we have decided that these impacts are covered by General Water Quality Certification Number 3404. This certification corresponds to the Nationwide Permit 14 issued by the Corps of Engineers. This approval is also valid for the Neuse Riparian Buffer Rules (15A NCAC 2B .0233). In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the accompanying 404 permit.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one acre, or of total impacts to streams (now or in the future) exceed 150 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification as well as those listed below.

**Condition(s) of Certification:**

1. Placement of culverts and other structures in waters, streams, and wetlands shall be placed below the elevation of the streambed by one foot for all culverts with a diameter greater than 48 inches, and 20 percent of the culvert diameter for culverts having a diameter less than 48 inches, to allow low flow passage of water and aquatic life. Design and placement of culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in 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 DWQ. If this condition is unable to be met due to bedrock or other limiting features encountered during construction, please contact the NC DWQ for guidance on how to proceed and to determine whether or not a permit modification will be required.
2. If concrete is used during construction, a dry work area should be maintained to prevent direct contact between curing concrete and stream water. Water that inadvertently contacts uncured concrete should not be discharged to surface waters due to the potential for elevated pH and possible aquatic life and fish kills.
3. 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.



4. The dimension, pattern and profile of the stream above and below the crossing should not be modified. Disturbed floodplains and streams should be restored to natural geomorphic conditions.
5. The use of rip-rap above the Normal High Water Mark shall be minimized. Any rip-rap placed for stream stabilization shall be placed in stream channels in such a manner that it does not impede aquatic life passage.
6. 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.
7. 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.
8. Heavy equipment may be operated within the stream channels however, its usage shall be minimized.
9. 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.
10. No rock, sand or other materials shall be dredged from the stream channel except where authorized by this certification.
11. Discharging hydroseed mixtures and washing out hydroseeders and other equipment in or adjacent to surface waters is prohibited.
12. The permittee and its authorized agents shall conduct its activities in a manner consistent with State water quality standards (including any requirements resulting from compliance with §303(d) of the Clean Water Act) and any other appropriate requirements of State and Federal law. If DWQ determines that such standards or laws are not being met (including the failure to sustain a designated or achieved use) or that State or federal law is being violated, or that further conditions are necessary to assure compliance, DWQ may reevaluate and modify this certification.
13. All fill slopes located in jurisdictional wetlands shall be placed at slopes no flatter than 3:1, unless otherwise authorized by this certification..
14. A copy of this Water Quality Certification shall be posted on the construction site at all times. In addition, the Water Quality Certification and all subsequent modifications, if any, shall be maintained with the Division Engineer and the on-site project manager.
15. 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.
- \*16. Upon completion of the project, the NCDOT Division Engineer shall complete and return the enclosed "Certification of Completion Form" to notify DWQ when all work included in the 401 Certification has been completed.
17. Native riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
18. There shall be no excavation from, or waste disposal into, jurisdictional wetlands or waters associated with this permit without appropriate modification. Should waste or borrow sites be located in wetlands or streams, compensatory mitigation will be required since that is a direct impact from road construction activities.



19. 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:
- 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*.
  - 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.
  - For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.
20. Sediment and erosion control measures shall not be placed in wetlands or waters unless otherwise approved by this Certification. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored upon completion of the project.
21. All stormwater runoff shall be directed as sheetflow through stream buffers at nonerosive velocities, unless otherwise approved by this certification.
22. All riparian buffers impacted by the placement of temporary fill or clearing activities shall be restored to the preconstruction contours and revegetated. Maintained buffers shall be permanently revegetated with non-woody species by the end of the growing season following completion of construction. For the purpose of this condition, maintained buffer areas are defined as areas within the transportation corridor that will be subject to regular DOT maintenance activities including mowing. The area with non-maintained buffers shall be permanently revegetated, with native woody species before the next growing season following completion of construction.
23. Pursuant to NCAC15A 2B .0233(6), sediment and erosion control devices shall not be placed in Zone 1 of any Neuse Buffer without prior approval by the NCDWQ. At this time, the NCDWQ has approved no sediment and erosion control devices in Zone 1, outside of the approved project impacts, anywhere on this project. Moreover, sediment and erosion control devices shall be allowed in Zone 2 of the buffers provided that Zone 1 is not compromised and that discharge is released as diffuse flow.
24. If multiple pipes or barrels are required, they should be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation and/or sills where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
25. Riprap should not be placed in the active thalweg channel or placed in the streambed in a manner that precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.



Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

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

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If you do not accept any of the conditions of this certification, you may ask for an adjudicatory hearing. You must act within 60 days of the date that you receive this letter. To ask for a hearing, send a written petition that conforms to Chapter 150B of the North Carolina General Statutes to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, N.C. 27699. This certification and its conditions are final and binding unless you ask for a hearing. This letter completes the review of the Division of Water Quality under Section 401 of the Clean Water Act. If you have any questions, please contact Rob Ridings at (919) 733-9817.

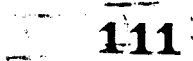
Sincerely,

A handwritten signature in black ink, appearing to read "Alan W. Klimek".

Alan W. Klimek, P.E.

Attachments (General Certification and Certificate of Completion form)

cc: Wilmington US Army Corp District Office  
Chris Murray, Division 5 Environmental Officer  
Jon G. Nance, PE, Division 5 Engineer  
Eric Alsmeyer, US Army Corps of Engineers, Raleigh Field Office  
Travis Wilson, NC Wildlife Resources Commission  
DWQ Raleigh Regional Office copy  
Central Files  
File Copy



DWQ Project No.: \_\_\_\_\_ County: \_\_\_\_\_

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

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

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

**\* Certificate of Completion**

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

**Applicant's Certification**

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

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

**Agent's Certification**

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

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

**Engineer's Certification**

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

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

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

Date \_\_\_\_\_



## WQC #3404

**GENERAL CERTIFICATION FOR PROJECTS ELIGIBLE FOR CORPS OF ENGINEERS NATIONWIDE PERMIT NUMBER 14 (ROAD CROSSINGS) AND REGIONAL GENERAL PERMIT 198200031 (WORK ASSOCIATED WITH BRIDGE CONSTRUCTION, MAINTENANCE OR REPAIR CONDUCTED BY NCDOT OR OTHER GOVERNMENT AGENCIES) AND RIPARIAN AREA PROTECTION RULES (BUFFER RULES)**

This General Certification is issued in conformity with the requirements of Section 401, Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15A NCAC 2H, Section .0500 and 15A NCAC 2B .0200 for the discharge of fill material to waters and adjacent wetland areas or to wetland areas that are not a part of the surface tributary system to interstate waters or navigable waters of the United States (i.e., isolated wetlands) as described in 33 CFR 330 Appendix A (B) (14) of the Corps of Engineers regulations (Nationwide Permit No. 14 and Regional General Permit 198200031) and for the Riparian Area Protection Rules (Buffer Rules) in 15A NCAC 2B .0200. The category of activities shall include any fill activity for road crossings and is limited to fill less than one-third acre in tidal waters and less than one-half acre in non-tidal waters. This Certification replaces Water Quality Certification Number 2177 issued on November 5, 1987, Water Quality Certification Number 2666 issued on January 21, 1992, Water Quality Certification Number 2732 issued on May 1, 1992, Water Quality Certification Number 3103 issued on February 11, 1997, Water Quality Certification Number 3289 issued on June 1, 2000 and Water Quality Certification Number 3375 issued March 18, 2002. This WQC is rescinded when the Corps of Engineers re-authorizes Nationwide Permit 14 or Regional General Permit 198200031 or when deemed appropriate by the Director of DWQ.

The State of North Carolina certifies that the specified category of activity will not violate applicable portions of Sections 301, 302, 303, 306 and 307 of the Public Laws 92-500 and 95-217 if conducted in accordance with the conditions hereinafter set forth.

Conditions of Certification:

1. Enumerating and Reporting of Impacts:

- Streams - Impacts to streams as determined by the Division of Water Quality shall be measured as length of the centerline of the normal flow channel. Permanent and/or temporary stream impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Stream relocations and stream bed and/or bank hardening are considered to be permanent stream impacts. Any activity that results in a loss of use of stream functions including but not limited to filling, relocating, flooding, dredging and complete shading shall be considered stream impacts. Enumeration of impacts to streams shall include streams enclosed by bottomless culverts, bottomless arches or other spanning structures when a 404 Permit is used anywhere in a project unless the entire structure (including construction impacts) spans the entire bed and both banks of the stream, is only used for a road, driveway or path crossing, and is not mitered to follow the stream pattern. Impacts for dam footprints and flooding will count toward the threshold for stream impacts, but flooding upstream of the dam will not (as long as no filling, excavation, relocation or other modification of the existing stream dimension, pattern or profile occurs) count towards mitigation requirements.
- Wetlands - Impacts to wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary wetland impacts shall be enumerated on the entire project for all impacts regardless of which 404 Nationwide Permits are used. Any activity that results in a loss of use of wetland functions including but not limited to filling, draining, and flooding shall be considered wetland impacts. Enumeration of impacts to wetlands shall include activities that change the hydrology of a wetland when a 404 Permit is used anywhere in a project.
- Lakes and Ponds – Lake and Pond Impacts Enumeration- Impacts to waters other than streams and wetlands as determined by the Division of Water Quality shall be measured as area. Permanent and/or temporary water impacts shall be enumerated on the entire project for all impacts proposed regardless of which 404 Nationwide Permits are used. Any activity that results in a loss of use of aquatic functions including but not limited to filling and dredging shall be considered waters impacts;

2. Proposed fill or substantial modification of wetlands or waters (including streams) under this General Certification requires application to and prior written concurrence from the Division of Water Quality;

## WQC #3404

3. Application to and payment of a fee to DWQ is not required for construction of a driveway to a single family lot as long as the driveway impacts less than 25 feet of stream channel including any in-stream stabilization needed for the crossing;
4. Impacts to any stream length in the Neuse, Tar-Pamlico or Randleman River Basins (or any other major river basins with Riparian Area Protection Rules [Buffer Rules] in effect at the time of application) requires written concurrence for this Certification from DWQ in accordance with 15A NCAC 2B.0200. Activities listed as "exempt" from these rules do not need to apply for written concurrence under this Certification. New development activities located in the protected 50-foot wide riparian areas (whether jurisdictional wetlands or not) within the Neuse and Tar-Pamlico River Basins shall be limited to "uses" identified within and constructed in accordance with 15A NCAC 2B .0200. All new development shall be located, designed, constructed, and maintained to have minimal disturbance to protect water quality to the maximum extent practicable through the use of best management practices;
5. Irrespective of other application thresholds in this General Certification, all impacts to perennial waters and their associated buffers require written approval from DWQ since such impacts are allowable as provided in 15A NCAC 2B. 0212 (WS-I), 2B .0213 (WS-II), 2B .0214 (WS-III) and 2B .0215 (WS-IV). Only water dependent activities, public projects and structures with diminimus increases in impervious surfaces will be allowed as outlined in those rules. All other activities require a variance from the delegated local government and/or the NC Environmental Management Commission before the 401 Water Quality Certification can be processed. In addition, a 30 foot wide vegetative buffer for low density development or a 100 foot wide vegetative buffer for high density development must be maintained adjacent to all perennial waters except for allowances as provided under the Water Supply Watershed Protection Rules. For the purposes of this condition, perennial waters are defined as those shown as perennial waters on the most recent USGS 1:24,000 topographic map or as otherwise determined by local government studies;
6. Additional site-specific stormwater management requirements may be added to this Certification at DWQ's discretion on a case by case basis for projects that have or are anticipated to have impervious cover of greater than 30 percent. Site-specific stormwater management shall be designed to remove 85% TSS according to the latest version of DWQ's Stormwater Best Management Practices manual at a minimum.

Additionally, in watersheds within one mile and draining to 303(d) listed waters, as well as watersheds that are classified as nutrient sensitive waters (NSW), water supply waters (WS), trout waters (Tr), high quality waters (HQW), and outstanding resource waters (ORW), the Division shall require that extended detention wetlands, bio-retention areas, and ponds followed by forested filter strips (designed according to latest version of the NC DENR Stormwater Best Management Practices Manual) be constructed as part of the stormwater management plan when a site-specific stormwater management plan is required.

Alternative designs may be requested by the applicant and will be reviewed on a case-by-case basis by the Division of Water Quality.

Approval of stormwater management plans by the Division of Water Quality's other existing state stormwater programs including appropriate local programs are sufficient to satisfy this Condition as long as the stormwater management plans meet or exceed the design requirements specified in this condition. This condition applies unless more stringent requirements are in effect from other state water quality programs.

- Unless specified otherwise in the approval letter, the final, written stormwater management plan shall be approved in writing by the Division of Water Quality's Wetlands Unit before the impacts specified in this Certification occur.
- The facilities must be designed to treat the runoff from the entire project, unless otherwise explicitly approved by the Division of Water Quality.
- Also, before any permanent building or other structure is occupied at the subject site, the facilities (as approved by the Wetlands Unit) shall be constructed and operational, and the stormwater management plan (as approved by the Wetlands Unit) shall be implemented.

## WQC #3404

- The structural stormwater practices as approved by the Wetlands Unit as well as drainage patterns must be maintained in perpetuity.
  - No changes to the structural stormwater practices shall be made without written authorization from the Division of Water Quality.
7. Compensatory stream mitigation shall be required at a 1:1 ratio for not only perennial but also intermittent stream impacts that require application to DWQ in watersheds classified as ORW, HQW, Tr, WS-I and WS-II unless the project is a linear, publicly-funded transportation project, which has a 150-foot per-stream impact allowance;
  8. In accordance with North Carolina General Statute Section 143-215.3D(e), any application for a 401 Water Quality Certification must include the appropriate fee. If a project also requires a CAMA Permit, one payment to both agencies shall be submitted through the Division of Coastal Management and will be the higher of the two fees;
  9. In accordance with 15A NCAC 2H .0506 (h) compensatory mitigation may be required for impacts to 150 linear feet or more of streams and/or one acre or more of wetlands. For linear public transportation projects, impacts equal to or exceeding 150 feet per stream may require mitigation. In addition, buffer mitigation may be required for any project with Buffer Rules in effect at the time of application for buffer impacts resulting from activities classified as "allowable with mitigation" within the "Table of Uses" section of the Buffer Rules or require a variance under the Buffer Rules. A determination of buffer, wetland and stream mitigation requirements shall be made for any Certification for this Nationwide Permit. The most current design and monitoring protocols from DWQ shall be followed and written plans submitted for DWQ approval as required in those protocols. When compensatory mitigation is required for a project, the mitigation plans must be approved by DWQ in writing before the impacts approved by the Certification occur, unless otherwise specified in the approval letter. The mitigation plan must be implemented and/or constructed before any permanent building or structure on site is occupied. In the case of public road projects, the mitigation plan must be implemented before the road is opened to the travelling public. Projects may also be implemented once payment is made to a private mitigation bank or other in-lieu fee program, as specified in the written concurrence of 401 Certification for a project. Please note that if a stream relocation is conducted as a stream restoration as defined in *The Internal Technical Guide for Stream Work in North Carolina*, April 2001, the restored length can be used as compensatory mitigation for the impacts resulting from the relocation;
  10. For any project involving re-alignment of streams, a stream relocation plan must be included with the 401 application for written DWQ approval. Relocated stream designs should include the same dimensions, patterns and profiles as the existing channel, to the maximum extent practical. The new channel should be constructed in the dry and water shall not be turned into the new channel until the banks are stabilized. Vegetation used for bank stabilization shall be limited to native woody species, and should include establishment of a 30 foot wide wooded and an adjacent 20 foot wide vegetated buffer on both sides of the relocated channel to the maximum extent practical. A transitional phase incorporating coir fiber and seedling establishment is allowable. Also, rip-rap may be allowed if it is necessary to maintain the physical integrity of the stream, but the applicant must provide written justification and any calculations used to determine the extent of rip-rap coverage requested. If suitable stream mitigation is not practical on-site, then stream impact will need to be mitigated elsewhere;
  11. Placement of culverts and other structures in waters, streams, and wetlands must be placed below the elevation of the streambed to allow low flow passage of water and aquatic life unless it can be shown to DWQ that providing passage would be impractical. Design and placement of culverts including open bottom or bottomless arch culverts and other structures including temporary erosion control measures shall not be conducted in a manner that may result in aggradation, degradation or significant changes in hydrology of wetlands or stream beds or banks, adjacent to or upstream and down stream of the above structures. The applicant is required to provide evidence that the equilibrium shall be maintained if requested to do so in writing by DWQ. Additionally, when roadways, causeways or other fill projects are constructed across FEMA-designated floodways or wetlands, openings such as culverts or bridges must be provided to maintain the natural hydrology of the system as well as prevent constriction of the floodway that may result in aggradation, degradation or significant changes in hydrology of streams or wetlands;

12. That appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" whichever is more appropriate (available from the Division of Land Resources (DLR) in the DENR Regional or Central Offices) shall be in full compliance with all specifications governing the proper design, installation and operation and maintenance of such Best Management Practices in order to assure compliance with the appropriate turbidity water quality standard;
13. All sediment and erosion control measures placed in wetlands and waters shall be removed and the original grade restored within two months after the Division of Land Resources has released the project;
14. That additional site-specific conditions may be added to projects proposed under this Certification in order to ensure compliance with all applicable water quality and effluent standards;
15. Measures shall be taken to prevent live or fresh concrete from coming into contact with freshwaters of the state until the concrete has hardened;
16. If an environmental document is required, this Certification is not valid until a Finding of No Significant Impact (FONSI) or Record of Decision (ROD) is issued by the State Clearinghouse;
17. If this Certification is used to access building sites, all lots owned by the applicant must be buildable without additional fill beyond that explicitly allowed under other General Certifications. For road construction purposes, this Certification shall only be utilized from natural high ground to natural high ground;
18. When written concurrence is required, the applicant is required to use the most recent version of the Certification of Completion form to notify DWQ when all work included in the 401 Certification has been completed;
19. Concurrence from DWQ that this Certification applies to an individual project shall expire three years from the date of the cover letter from DWQ or on the same day as the expiration date of the corresponding Nationwide Permit 14 or Regional General Permit 198200031, whichever is sooner.

Non-compliance with or violation of the conditions herein set forth by a specific fill project may result in revocation of this Certification for the project and may also result in criminal and/or civil penalties.

The Director of the North Carolina Division of Water Quality may require submission of a formal application for Individual Certification for any project in this category of activity that requires written concurrence under this certification, if it is determined that the project is likely to have a significant adverse effect upon water quality or degrade the waters so that existing uses of the wetland or downstream waters are precluded.

Public hearings may be held for specific applications or group of applications prior to a Certification decision if deemed in the public's best interest by the Director of the North Carolina Division of Water Quality.

Effective date: 28 March 2003

DIVISION OF WATER QUALITY

Signed By

Alan W. Klimek, P.E.

Director



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

March 3, 2006

US Army Corps of Engineers  
Regulatory Branch  
6508 Falls of the Neuse Road  
Suite 120  
Raleigh, NC 27615

ATTENTION: Mr. Eric Alsmeyer  
NCDOT Coordinator

Dear Sir:

SUBJECT: **Nationwide 14 Permit Application and Riparian Buffer Certification** for the widening of SR 3015 (Airport Boulevard) from NC 54 to McCrimmon Parkway, in Wake County. NCDOT Division 5, State Project No. 98051709, T.I.P. No.U-3344 A, \$200.00 Debit work order 98051709, WBS Element No. 34934.1.1.

Please find enclosed a copy of the half-size roadway designs plans, Pre-construction Notification, Stormwater Management Plan, Indirect and Cumulative Effect Assessment, North Carolina Ecosystem and Enhancement Program (EEP) Acceptance letter, and permit drawings for the subject project.

The North Carolina Department of Transportation (NCDOT) proposes to widen Airport Boulevard (SR 3015) from NC 54 to McCrimmon Parkway. The proposed project will widen the existing two-lane roadway equilaterally to a five lane with curb and gutter along both sides of the roadway. The improved facility will include a 12-foot wide center turn lane and 2 through lanes in each direction. The proposed improvement will impact two existing stream crossings and a wetland. The first crossing, Unnamed Tributary #2 (UT2), is a 5' stream section between a 28"x 32" arched corrugated metal pipe (CMP) and a 48" CMP (Site 1). The second crossing, UT3, is at a 66" CMP crossing through the roadway embankment (Site 2). This pipe is to be removed and replaced with an 8' x 8' reinforced concrete box culvert (RCBC). The wetland located at Site 1 will be filled to allow for placement of a lateral base ditch. Traffic will be maintained on existing road. The total project length is 0.61 miles.

The purpose of this project is to improve the traffic flow and safety along Airport Boulevard. Construction of the proposed project will necessitate impacts to jurisdictional waters. This project is located in the Neuse River Basin within HUC 03020201. There will be a total of 109 feet of jurisdictional stream channel impacted, 0.07 acres of wetland, and 17,194 square feet of impacts to protected buffers within the Neuse Watershed. Impacts from this project will qualify

for permitting under a Nationwide Permit 14. The EEP will provide compensatory mitigation. This project has a let date of August 15, 2006.

### NEPA Document Status

An Environmental Assessment (EA) was prepared by the North Carolina Department of Transportation and approved July 18, 1996. A Finding of No Significant Impact (FONSI) was approved on June 12, 1997. In addition, existing and projected conditions in the study area were described including natural systems and wetlands. Alignments were evaluated with respect to costs, social and economic impacts, and environmental consequences. The EA and FONSI have been provided to regulatory review agencies involved in the approval process. Additional copies will be provided upon request.

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

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

### Resource Status

Waters of the United States: One unnamed tributary (UT 3) to Crabtree Creek and one wetland community are the only water resources within the project area. UT 3 is located at Site 2. It is a perennial stream approximately 10-foot wide at the streambed with 3 to 5-foot banks and that has a substrate composed of rock, silt and cobble. The wetland located at Site 1 is associated with UT 2 and is classified as palustrine forested broad-leaved deciduous (PFO1).

Jurisdictional Delineations: On May 24, 2002, the U.S. Army Corps of Engineers (USACOE) verified the wetland delineation at Site 1. On January 5, 2006, UT 2 (Site 1) was classified as an ephemeral channel and is not considered jurisdictional by the USACOE. UT 3 is a jurisdictional perennial stream. Impacts are reported in Table 1.

Table 1. Stream and Wetland Impacts for TIP Project U-3344A Wake County.

Site	Station	Stream Name	DWQ Index No.	Stream Impacts feet	Wetland Impacts (ac)
1	20+92-L- to 22+25-L-				0.07
2	37+30-L- to 37+68-L-	UT #3 to Crabtree Creek	27-33-(3.5)	109	

Permanent Impacts: There are two sites in the project area that impact jurisdictional areas. Site 1 is located at station 20+92-L to 21+82-L. A lateral base ditch and standard base ditch will be constructed parallel to the road followed by a rock weir. The impact will be 0.07 acres of riverine wetland. Site 2 is located at station 37+30-L to 37+68-L. There will be 109 feet of impacts to the jurisdictional perennial UT 3 due to the removal of a 66" CMP and placement of an 8' x 8' RCBC. The NCDOT plans to mitigate for the impacts by compensatory mitigation provided by EEP (see attached EEP Acceptance Letter).

Impacts from dewatering at either Site are not expected. Site 1: the replacement of the 24" and 30" pipe at station 23+00-L with a 42" pipe is expected to occur during no flow conditions. Flow through this pipe network is a resultant of stormwater from the surround parking areas and roadway. Site 2: During the placement of the culvert one side of the roadway will be constructed at a time to allow traffic flow. A temporary flexible pipe will be used to convey the water during the phase build.

### Neuse Buffers

The proposed road project impacts UT 2 & 3, which are protected by the Neuse Buffer Rules. UT 2, although considered non-jurisdictional by USACE, is subject to the buffer rules according to NCDWQ (June 12, 2002 field meeting). Therefore, impacts to stream buffers are comprised of:

- Site 1: 2,050 ft<sup>2</sup> in Zone 1 and 1,811 ft<sup>2</sup> in Zone 2 are exempt impacts. Impacts are a result of the addition of riprap in the 8-foot section between the end of one pipe conveying UT #2 and the beginning of the second pipe conveying UT #2. Pipe 1 (24") is being replaced with a larger 42" pipe. The second pipe (48") is not within the project area.
- Site 2: 8,412 ft<sup>2</sup> in Zone 1 and 4,921 ft<sup>2</sup> in Zone 2 are allowable impacts. Impacts result from the placement of riprap at the input and outfall of RCBC.

The NCDOT does not plan to mitigate for the buffer impacts due to the impacts being either exempt or allowable. According to the Neuse Buffer Rules, buffer impacts resulting from road crossings of streams are exempt if they impact equal to or less than 40 ft and allowable if they impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third acre of riparian buffer. Impacts at Site 1 are 0.09 acres (35 ft) - exempt and at Site 2 impacts are 0.31 acres (120 ft) – allowable.

### Indirect and Cumulative Effects

Considering the current and projected population and employment for the project area, this project is likely to induce land use changes. While the area would likely experience growth regardless of the project, the project will cumulatively increase the attractiveness of the project area to industrial businesses and improve the flow of commuter traffic during peak hours. The increased proportion of the project area devoted to urban land uses will put more strains on the water resources. Long term, these strains can alter the availability and quality of hydrologic resources, both groundwater and surface water. Modifications in land use may also affect the proportions of ground water and surface runoff in rivers and stream. However, the following federal, state, and local regulations are in place to protect surface water quality and accommodate future growth.

- EPA National Pollution Discharge Elimination System (NPDES)
- North Carolina – Watershed Supply Watershed Protection Act
- North Carolina – Neuse River Basin Nutrient Sensitive Waters Management
- Neuse River Basin Buffer Rules
- North Carolina – Nonpoint Source Program
- Wake County – Land Use and Stormwater Regulations

Adhering to these regulations for the protection of surface waters should limit direct and indirect effects to this important resource (see attached Indirect and Cumulative Effects Assessment).

### Federally Protected Species

Plants and animals with federal classifications of Endangered (E), Threatened (T), Proposed Endangered (PE), Proposed Threatened (PT), are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2003, the United States Fish and Wildlife Service lists four federally protected species for Wake County: bald eagle (*Haliaeetus leucocephalus*), red-cockaded woodpecker (*Picoides borealis*), dwarf wedgemussel (*Alasmidonta heterodon*), and Michaux's sumac (*Rhus michauxii*). Since the original EA was prepared no species have been added to or removed from the list. Descriptions and biological conclusions of "No Effect" were given for each species in the referenced EA.

The project site was revisited on August 26, 2004 and overall habitat conditions have not changed. Suitable habitat is not present within the project area for bald eagle or red-cockaded woodpecker. However, suitable habitat is present for Michaux's sumac. All areas containing suitable habitat were examined for Michaux's sumac. No Michaux's sumac species were found. Additionally, a review of the Natural Heritage Program database (last updated on March 31, 2005) revealed no occurrences of these three species within 1.0 mile of the project study area. Therefore, the biological conclusion of "No Effect" remains valid for all three species.

In reference to the dwarf wedgemussel, a survey was conducted during the March 1996 natural resource investigation. No mussel fauna was observed and a biological conclusion of "No Effect" in the project area was given. NCDOT environmental biologists, Karen M. Lynch and Logan Williams conducted a re-survey for the dwarf wedgemussel on December 16, 2003. It was concluded that suitable habitat does not exist for the dwarf wedgemussel and no mussels were found to occur in the unnamed tributaries. Additionally, a review of the Natural Heritage Program database (updated March 2005) revealed that no known occurrences of dwarf wedgemussel exist in the project area. Therefore, the biological conclusion for the **dwarf wedgemussel** of "No Effect" remains valid.

### Cultural Resources

Archaeological and Historic Resources: According to a memo dated November 9, 1995 from the State Historic Preservation Office (SHPO), there are no known properties of historical, architectural, or archaeological significance which would be affected by the project (Appendix A of the EA).

### Avoidance, Minimization, and Compensatory Mitigation

Despite the minimization strategies employed for the proposed project, the resulting permanent wetland and stream impacts will be 0.07 acres and 109 feet. Consequently, the project will require compensatory mitigation.

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

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



Avoidance/Minimization:

- Limited instream activity
- Design Standards for Sensitive Watersheds and the Environmental Sensitive Areas Provision implementation.
- Use of 2:1 fill slopes in jurisdictional area.
- Use of grass swales (11+00 –Y3 to 21+82 –L-RT & 26+00 to 29+00 –L-RT), a level spreader and preformed scour hole (38+17 –L-RT), and rock weir (22+05 –L-RT) to diffuse water flow and for treatment before it enters the buffer and wetland areas.
- No staging of construction equipment or storage of construction supplies will be allowed in wetlands or near surface waters.
- Widening on existing alignment.
- A 16” water line will be placed under the new reinforced concrete box culvert at Site 2 during the time the box culvert is placed. The box culvert is replacing the existing 66” corrugated metal pipe (CMP).

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

COMPENSATION: The primary emphasis of the compensatory mitigation is to reestablish a condition that would have existed if the project were not built. As previously stated, mitigation is limited to reasonable expenditures and practicable considerations related to highway operation. Mitigation is generally accomplished through a combination of methods designed to replace stream loss as a result of construction of the project.

EEP will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for NCDOT in accordance with the Memorandum of Agreement (MOA) signed July 22, 2003 by the U.S. Army Corps of Engineers (USACE), the North Carolina Department of Environment and Natural Resources (NCDENR) and the NCDOT.

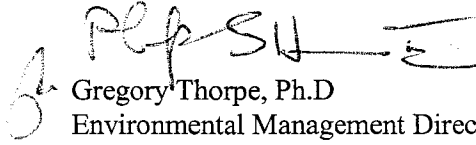
Compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the federal Clean Water Act will be provided by the EEP. An acceptance letter dated January 4, 2005 from EEP is attached. The offsetting mitigation will derive from an inventory of assets already in existence within the same 8-digit cataloguing unit. The Department has avoided and minimized impacts to jurisdictional resources to the greatest extent possible as described above. The unavoidable impacts to 109 feet of jurisdictional stream and 0.07 acres of riverine wetland will be offset by compensatory mitigation provided by the EEP program.

### **Regulatory Approvals**

Application is hereby made for the Department of Army Section 404 Nationwide 14 for the above-described activities. We are also hereby requesting a 401 Water Quality Certification and Neuse Buffer Certification from the Division of Water Quality. In compliance with Section 143-215.3D(e) of the NCAC we will provide \$200.00 to act as payment for processing the Section 401 permit application previously noted in this application (see Subject line). We are providing seven copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, for their review.

A copy of this permit application will be posted on the NCDOT website at: <http://www.ncdot.org/doh/preconstruct/pe/>. If you have any questions or need additional information please call Ms. Deanna Riffey at (919) 715-1409.

Sincerely,



Gregory Thorpe, Ph.D  
Environmental Management Director, PDEA

Cc:

W/attachment

Mr. John Hennessy, Division of Water Quality (7 copies)  
Mr. Travis Wilson, NCWRC  
Mr. Gary Jordan, USFWS  
Mr. Greg Perfetti, P.E., Structure Design  
Dr. David Chang, P.E., Hydraulics  
Mr. Mark Staley, Roadside Environmental  
Mr. Jon Nance, P.E., Division Engineer  
Mr. Chris Murray, DEO

W/o attachment

Mr. David Franklin, USACE, Wilmington  
Mr. Jay Bennett, P.E., Roadway Design  
Mr. Omar Sultan, Programming and TIP  
Mr. Art McMillan, P.E., Highway Design  
Mr. Joseph Qubain, PDEA Project Planning Engineer  
Ms. Beth Harmon, EEP  
Ms. Laurie P. Smith, CPA, NCDOT, Program Management

Office Use Only:

Form Version March 05

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

DWQ No. \_\_\_\_\_

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

**I. Processing**

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

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

2. Nationwide, Regional or General Permit Number(s) Requested: NW 14 & Neuse Buffer

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: NCDOT

Mailing Address: Project Development & Environmental Analysis Branch

1598 Mail Service Center

Raleigh, NC 27699-1598

Telephone Number: (919) 733-3141 Fax Number: (919) 733-3794

E-mail Address: gthorpe@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: Widening of Airport Boulevard (SR 3015) from NC 54 to McCrimmon Parkway
2. T.I.P. Project Number or State Project Number (NCDOT Only): U-3344 A
3. Property Identification Number (Tax PIN): \_\_\_\_\_
4. Location  
 County: Wake Nearest Town: Morrisville  
 Subdivision name (include phase/lot number): N/A  
 Directions to site (include road numbers/names, landmarks, etc.): From Raleigh - I-40 West, Exit 284 (Airport Blvd), Left on Airport Blvd
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° 50' 35" °N 78° 49' 43" °W
6. Property size (acres): 0.61 acres
7. Name of nearest receiving body of water: Unnamed Tributary to Crabtree Creek
8. River Basin: Neuse  
 (Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: SR 3015 is classified as a Major Thoroughfare in the Greater Urban Area Thoroughfare Plan.

10. Describe the overall project in detail, including the type of equipment to be used: (see cover letter)

11. Explain the purpose of the proposed work: Purpose of this project is to improve level of service for the projected traffic volumes.

**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. N/A

**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: (see cover letter)

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

Wetland Impact Site Number (indicate on map)	Type of Impact	Type of Wetland (e.g., forested, marsh, herbaceous, bog, etc.)	Located within 100-year Floodplain (yes/no)	Distance to Nearest Stream (linear feet)	Area of Impact (acres)
Site 1	Permanent	Riverine	No	5	0.07
Total Wetland Impact (acres)					0.07

3. List the total acreage (estimated) of all existing wetlands on the property: 0.09

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)
Site 2	UT to Crabtree Creek	Permanent	Perennial	10 ft	109 ft	0.04
Total Stream Impact (by length and acreage)					109 ft	0.04

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)
N/A				
Total Open Water Impact (acres)				

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

Stream Impact (acres):	0.04
Wetland Impact (acres):	0.07
Open Water Impact (acres):	
Total Impact to Waters of the U.S. (acres)	0.11
Total Stream Impact (linear feet):	109

7. Isolated Waters

Do any isolated waters exist on the property?  Yes  No

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

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8. Pond Creation

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

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

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

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

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

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

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

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

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**VIII. Mitigation**

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

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on January 15, 2002, mitigation will be required when

necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

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

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

Mitigation required for wetland and stream impacts – EEP. See cover letter for details.

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): 109 ft

Amount of buffer mitigation requested (square feet): \_\_\_\_\_

Amount of Riparian wetland mitigation requested (acres): 0.07 ac

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

Amount of Coastal wetland mitigation requested (acres): \_\_\_\_\_

#### **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	10,462	3 (2 for Catawba)	Allowable
2	6,732	1.5	Allowable
Total	17,194		Allowable

\* 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.

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. No mitigation is required. Buffer impacts resulting from road crossings of streams are either exempt or allowable if they impact equal to or less than 40 ft and allowable if they impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third acre if riparian buffer. Impacts at Site 1 are 0.09 acres (35 ft) - exempt and at Site 2 impacts are 0.31 acres (120 ft) – allowable.

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

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

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**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

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**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: \_\_\_\_\_

See Indirect and Cumulative Effects Assessment Report

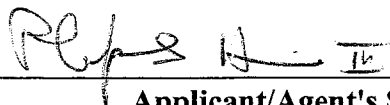
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**XV. Other Circumstances (Optional):**

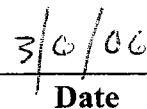
It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g.,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

N/A

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**Applicant/Agent's Signature**

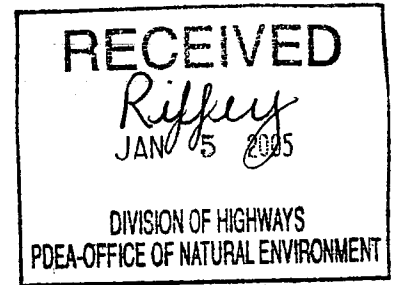


**Date**

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



January 4, 2005



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

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

U-3344A, SR 3015 (Airport Boulevard) Widening, Wake County

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide stream mitigation for the subject project. Based on the information supplied by you in a letter dated December 29, 2004, the impacts are located in CU 03020201 of the Neuse River Basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Riverine Wetland Impacts:	0.07 acre
Stream Impacts:	109 feet (Warm)

As stated in your letter, the subject project is listed in Exhibit 2 of the Memorandum of Agreement among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U. S. Army Corps of Engineers, Wilmington District dated July 22, 2003. The mitigation for the subject project will be provided in accordance with this agreement.

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

Sincerely,

William D. Gilmore, P.E.  
EEP Director

cc: Mr. Eric Alsmeyer, USACE-Raleigh  
Mr. John Hennessy, Division of Water Quality, Wetlands/401 Unit  
File: U-3344A

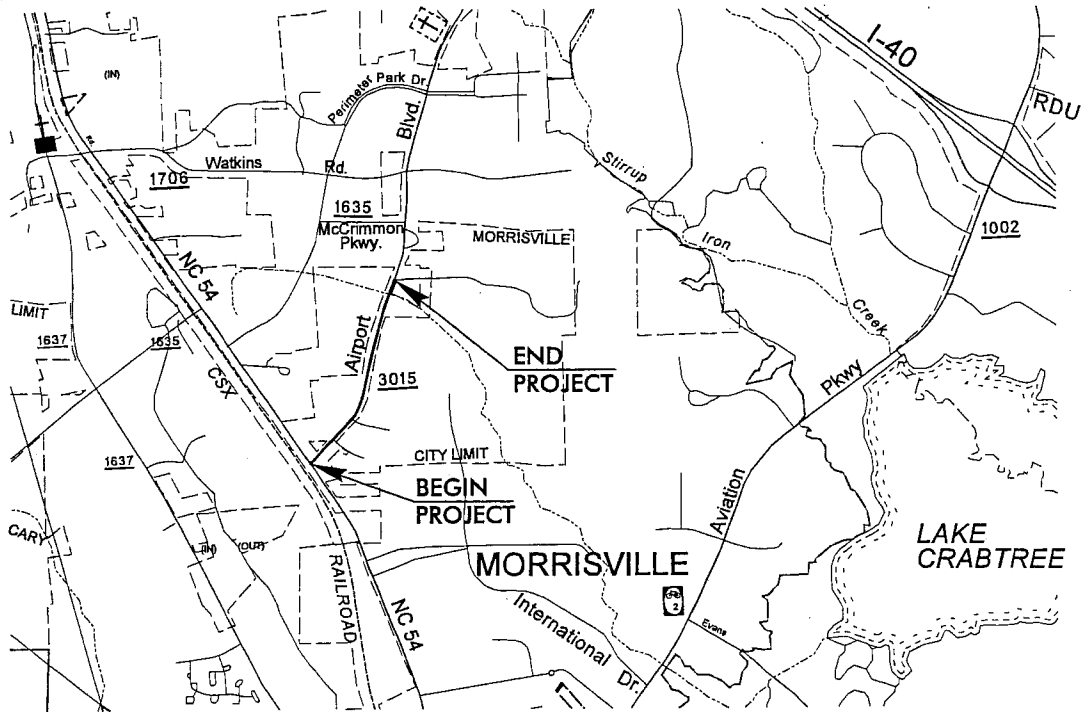
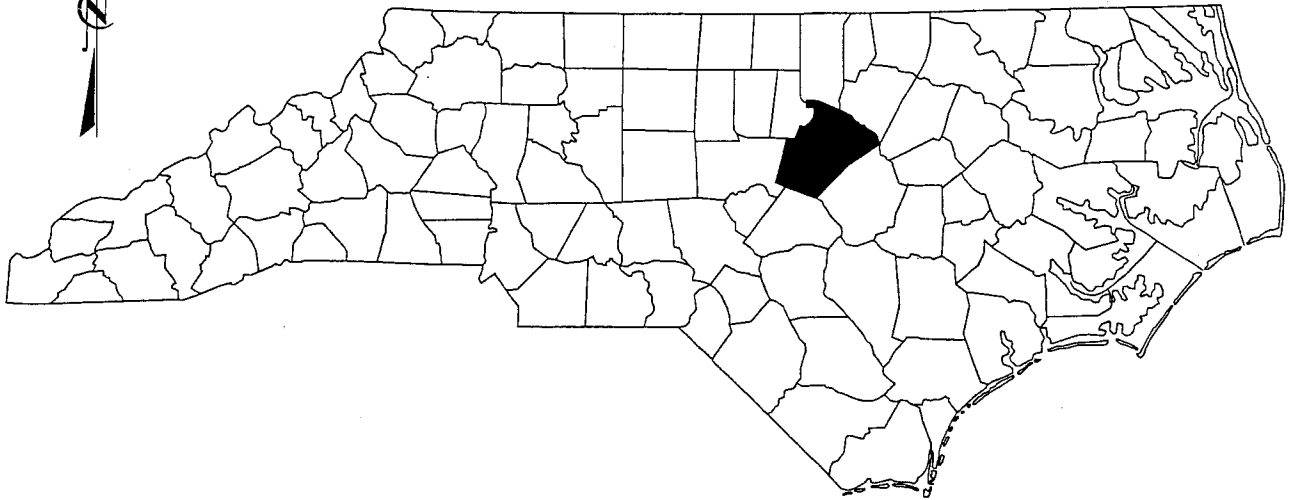
*Restoring... Enhancing... Protecting Our State*



North Carolina Ecosystem Enhancement Program, 1652 Mail Service Center, Raleigh, NC 27699-1652 / 919-715-0476 / [www.nceep.net](http://www.nceep.net)

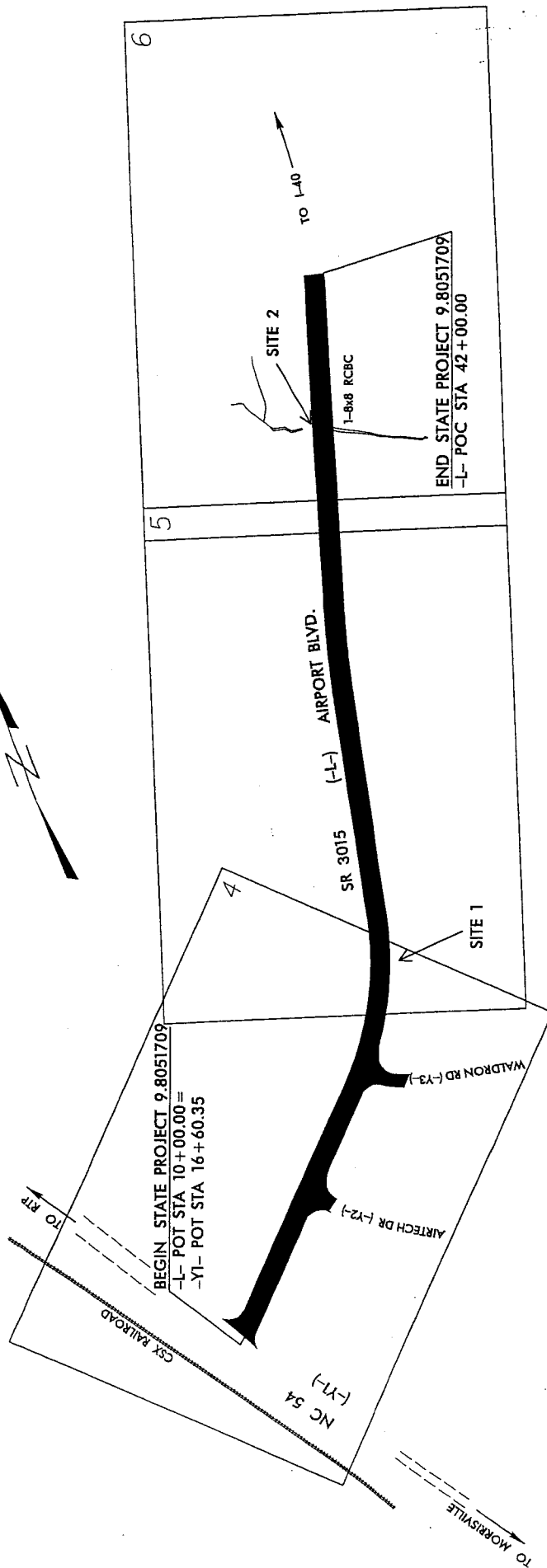
131

# NORTH CAROLINA



Buffer  
VICINITY  
MAPS

**NCDOT**  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD.) FROM NC 54 TO  
 McCRIMMON PARKWAY



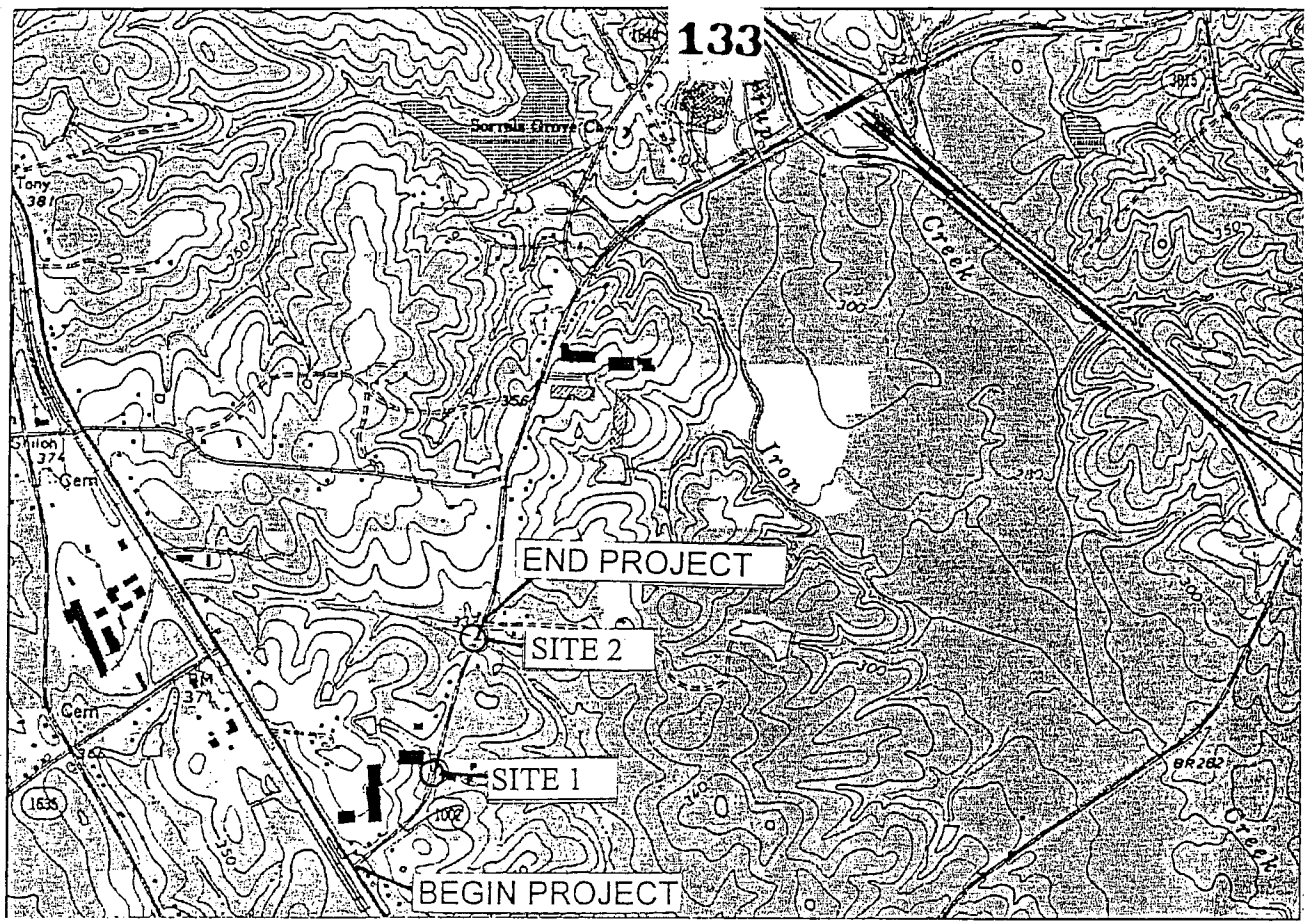
# NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 9.8051709 (U-3344A)  
MORRISVILLE - SR 3015 (AIRPORT  
BLVD.) FROM NC 54 TO  
MCCRIMMON PARKWAY

SHEET 2 OF 8 9/4/02

## SITE MAP Buffer



SCALE 1" = 1000'

QUAD MAP

NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 9.8051709 (U-3344A)

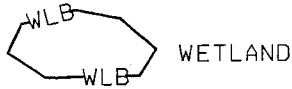
MORRISVILLE - SR 3015 (AIRPORT  
BLVD.) FROM NC 54 TO  
MCCRIMMON PARKWAY

SHEET 3 OF 8

9/4/02

# BUFFER <sup>134</sup> LEGEND

— WLB — WETLAND BOUNDARY



— BZ — RIPARIAN BUFFER ZONE

— BZ1 — RIPARIAN BUFFER ZONE 1  
30 ft (9.2m)

— BZ2 — RIPARIAN BUFFER ZONE 2  
20 ft (6.1m)

— FLOW DIRECTION

— TB — TOP OF BANK

— WE — EDGE OF WATER

— C — PROP. LIMIT OF CUT

— F — PROP. LIMIT OF FILL

— ▲ — PROP. RIGHT OF WAY

— NG — NATURAL GROUND

— PL — PROPERTY LINE

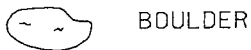
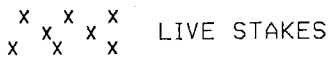
— TDE — TEMP. DRAINAGE EASEMENT

— PDE — PERMANENT DRAINAGE EASEMENT

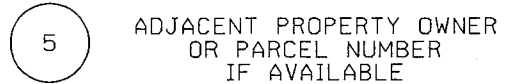
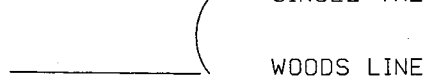
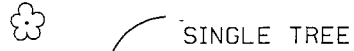
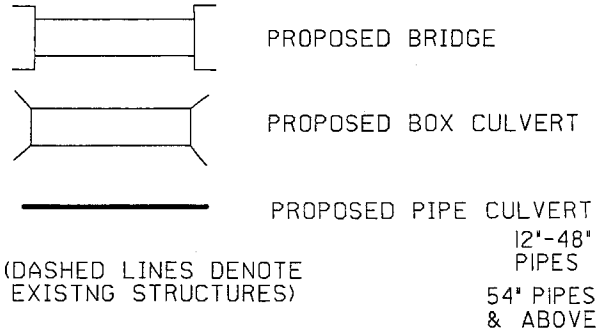
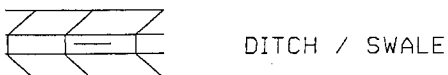
— EAB — EXIST. ENDANGERED ANIMAL BOUNDARY

— EPB — EXIST. ENDANGERED PLANT BOUNDARY

— WATER SURFACE



— CORE FIBER ROLLS



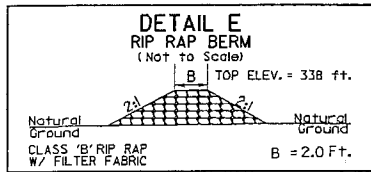
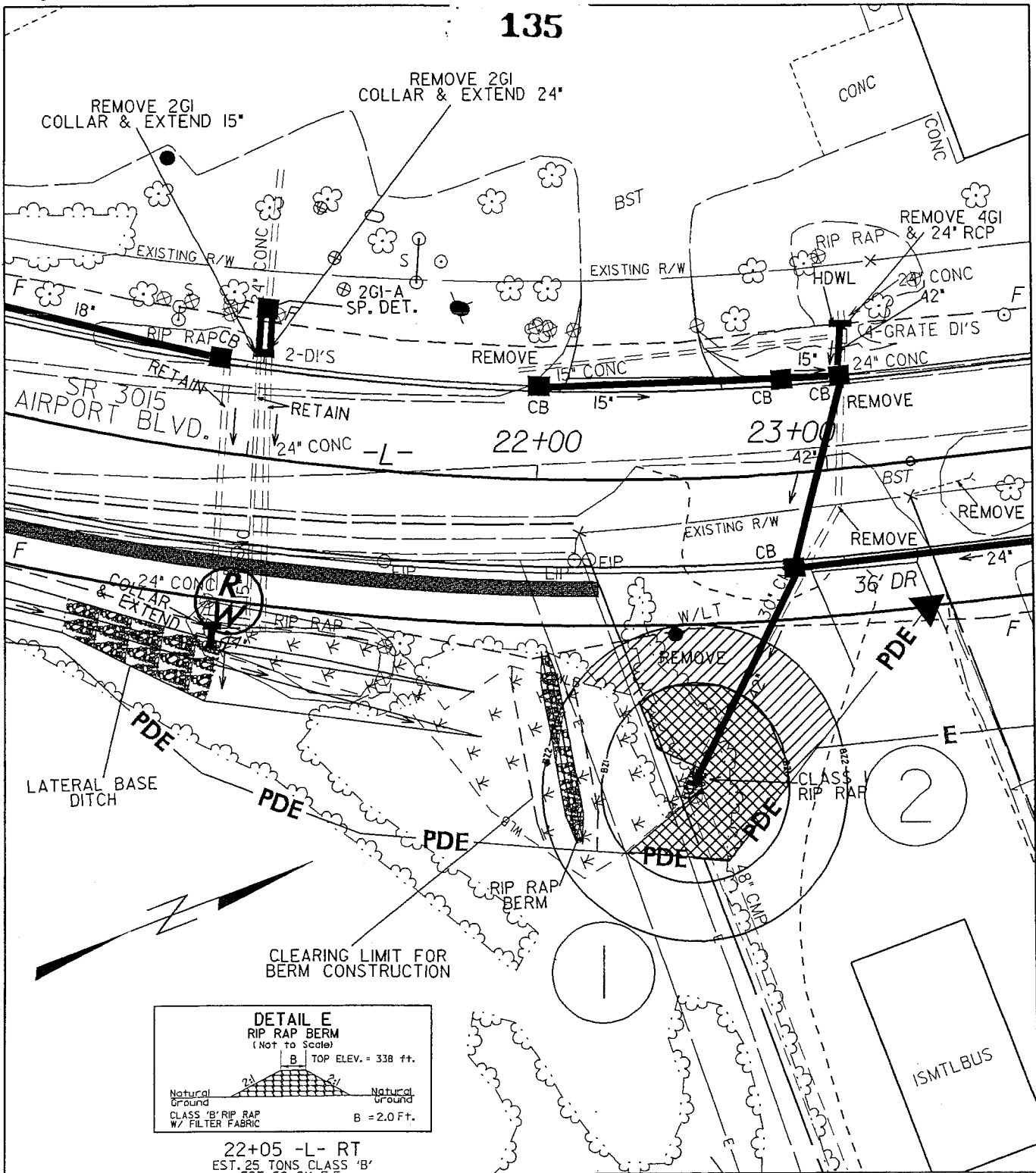
**NCDOT**  
DIVISION OF HIGHWAYS

WAKE COUNTY

PROJECT: 9.80517091 (U-3344A)  
MORRISVILLE - SR 3015 (AIRPORT  
BLVD.) FROM NC 54 TO  
McCRIMMON PARKWAY

SHEET 4 OF 8

9/4/02



22+05 -L- RT  
 EST. 25 TONS CLASS 'B'  
 EST. 50 SY F.F.

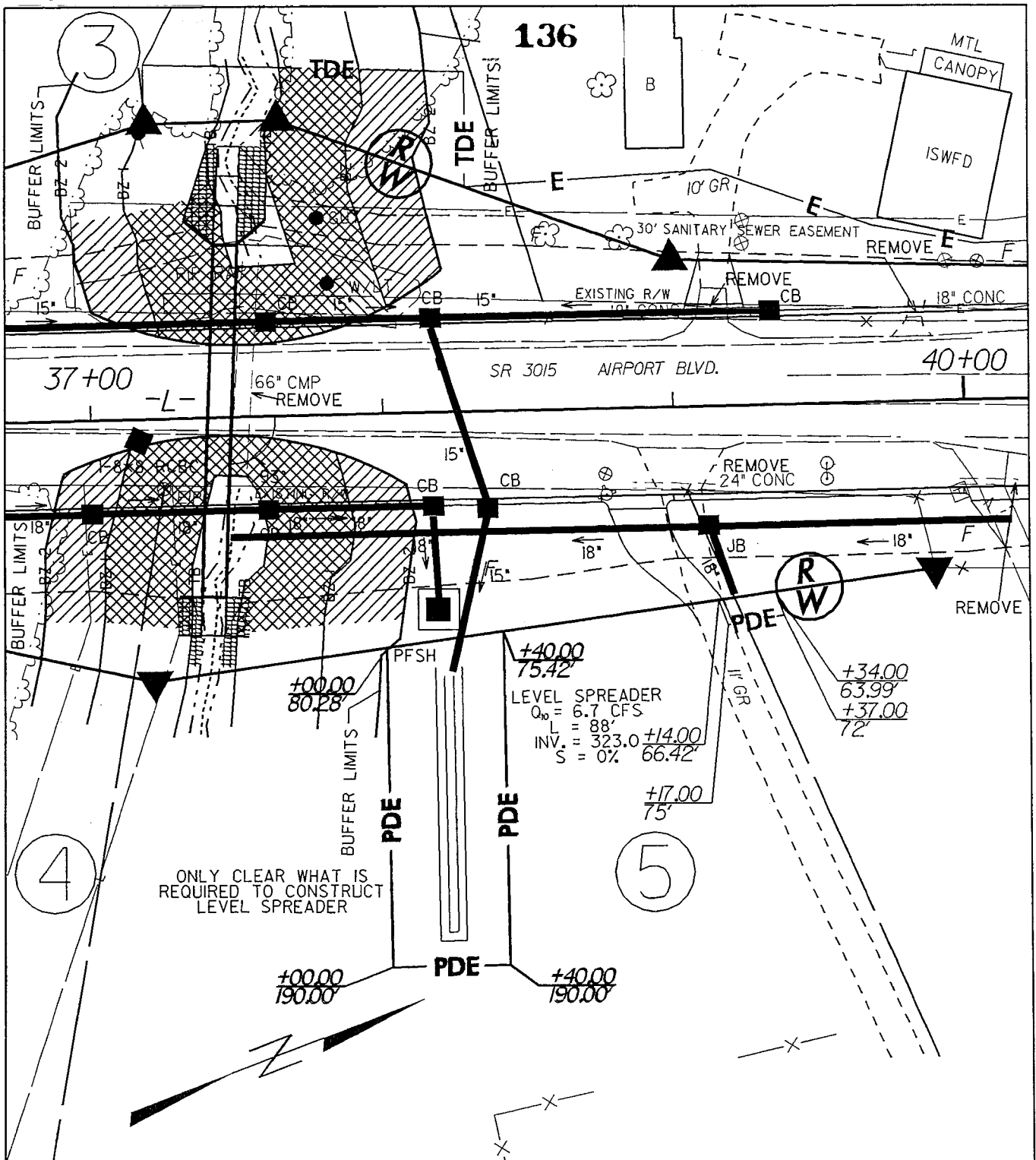
PLAN VIEW  
 SITE 1  
 BUFFER  
 IMPACT  
 SCALE 1" = 50'

**NCDOT**  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD.) FROM NC 54 TO  
 McCRIMMON PARKWAY

Rev 12/04  
 Rev 11/04  
 Rev 8/19/04  
 1/13/03

SHEET 5 OF 8





PLAN VIEW  
 SITE 2  
 BUFFER  
 IMPACTS  
 SCALE 1" = 50'

NCDOT  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD.) FROM NC 54 TO  
 McCRIMMON PARKWAY

Rev 2/16/05  
 Rev 8/19/04  
 12/18/02

SHEET 6 OF 8

PROPERTY OWNERS  
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
1	DOVE ASSOCIATES IV LLC	P.O. BOX 4128 CARY, NC 27519-4128
2	FANELLI, THOMAS & BARBARA	1381 KILDAIRE FARM RD., STE. 281 CARY, NC 27511-5525
3	HOLLOWELL, EDWARD E. & TRUSTEES FOR DOVE INVESTMENT ASSOCIATES, LLC	P.O. BOX 4128 CARY, NC 27519-4128
4	FRITZ, ROBERT & JULIE	17 STREAMVIEW CT. DURHAM, NC 27713
5	WATKINS, RANDY W.	508 AIRPORT BLVD. MORRISVILLE, NC 27560-9187

NCDOT

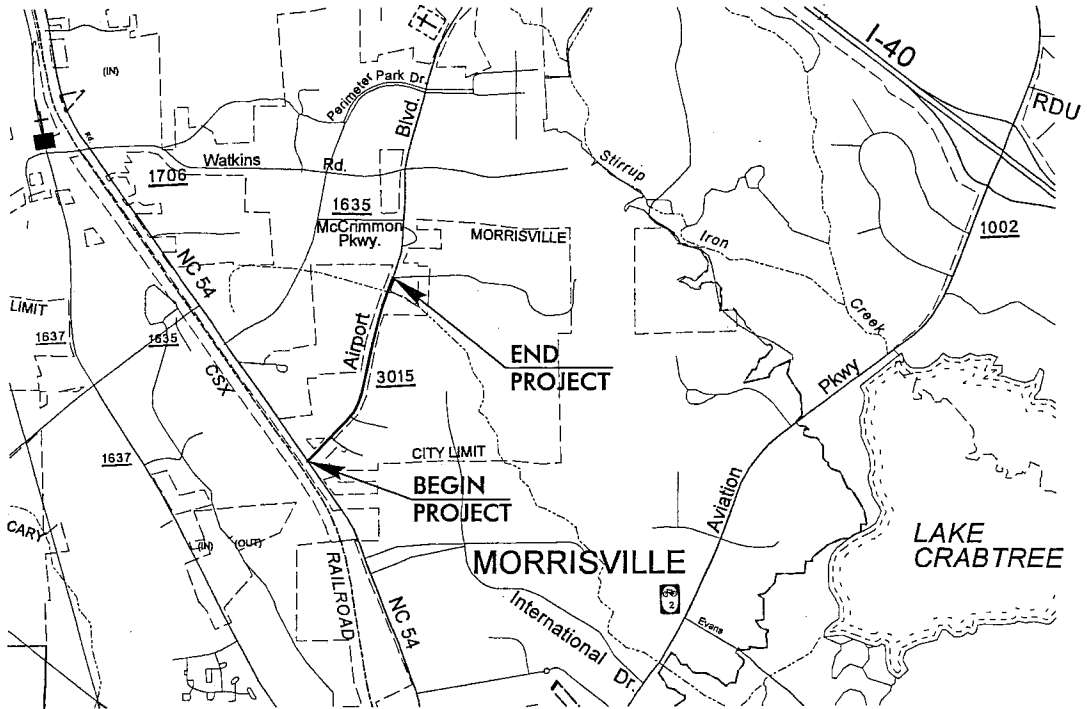
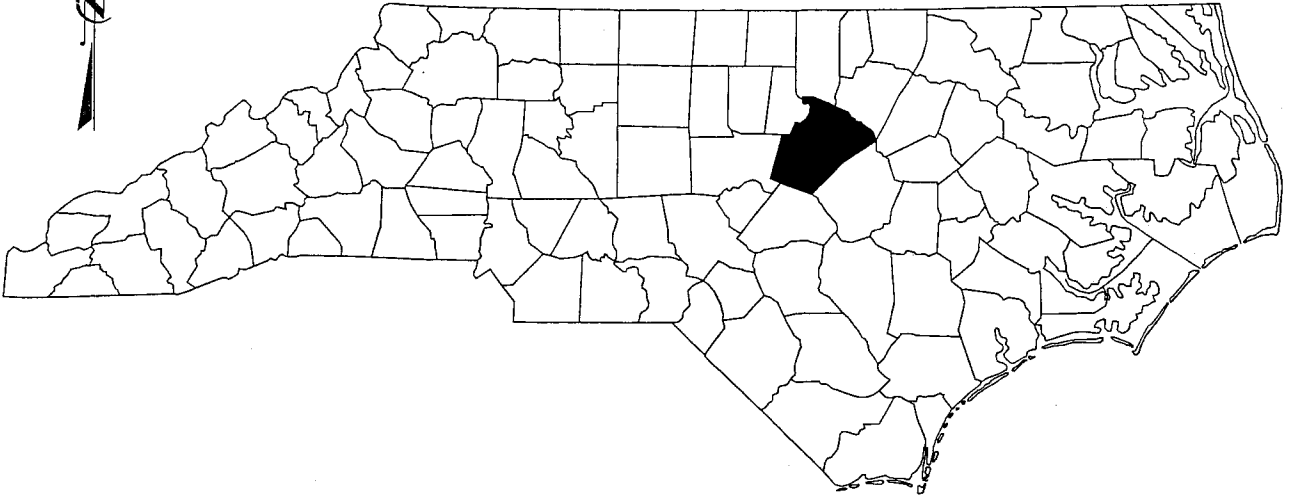
DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 9.8051709 (U-3344A)

MORRISVILLE - SR 3015 (AIRPORT  
BLVD.) FROM NC 54 TO  
McCRIMMON PARKWAY



# NORTH CAROLINA

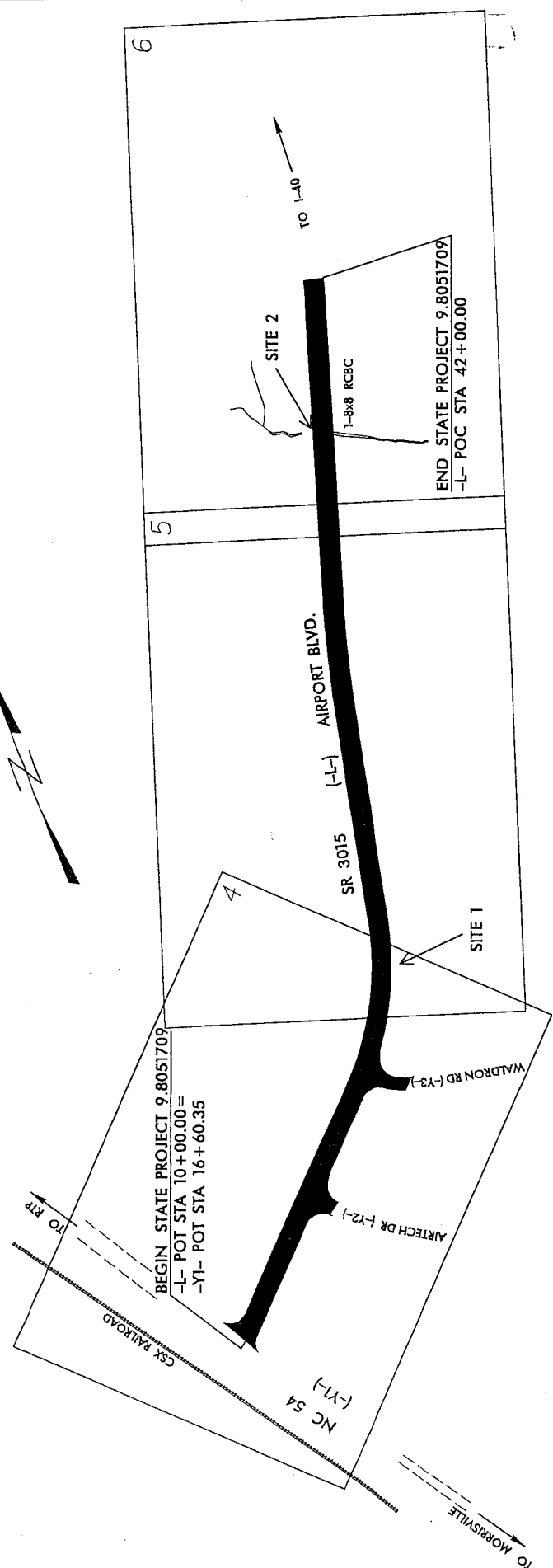
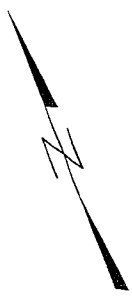


## VICINITY MAPS

### NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 9.8051709 (U-3344A)  
MORRISVILLE - SR 3015 (AIRPORT  
BLVD.) FROM NC 54 TO  
McCRIMMON PARKWAY



140-

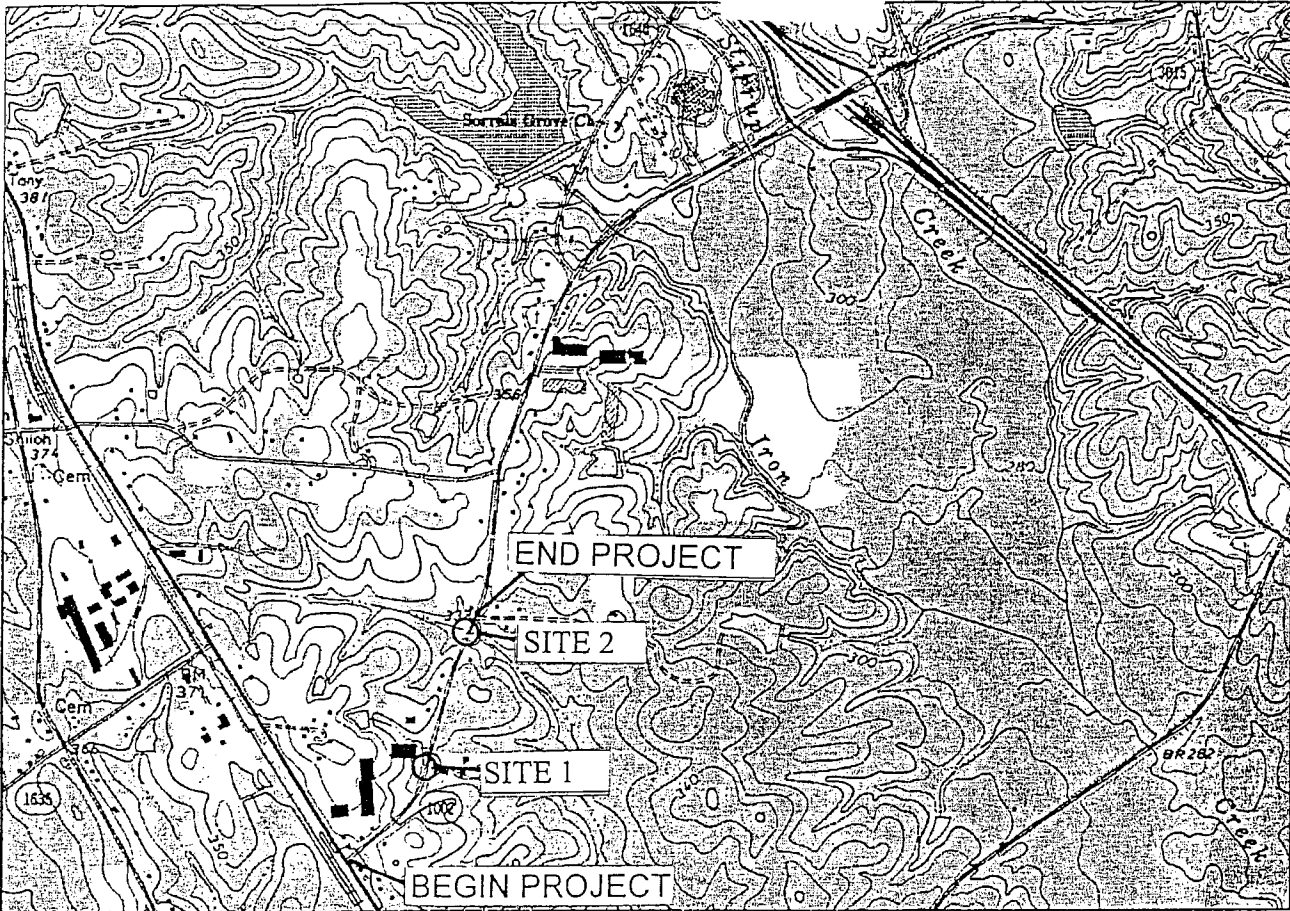
# NCDOT

DIVISION OF HIGHWAYS  
 WAKE COUNTY

PROJECT: 9.8051709 (U-5344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD.) FROM NC 54 TO  
 McCRIMMON PARKWAY

## SITE MAP

SHEET 2 OF 8 9/4/02

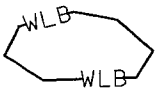
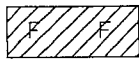

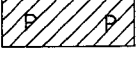
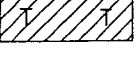
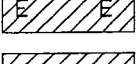
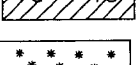
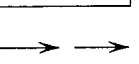
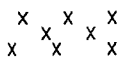

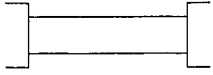
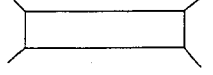
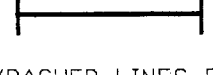

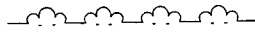
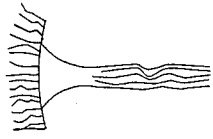
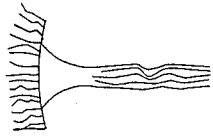



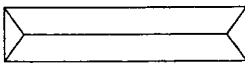
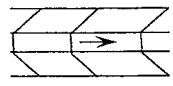


SCALE 1" = 1000'

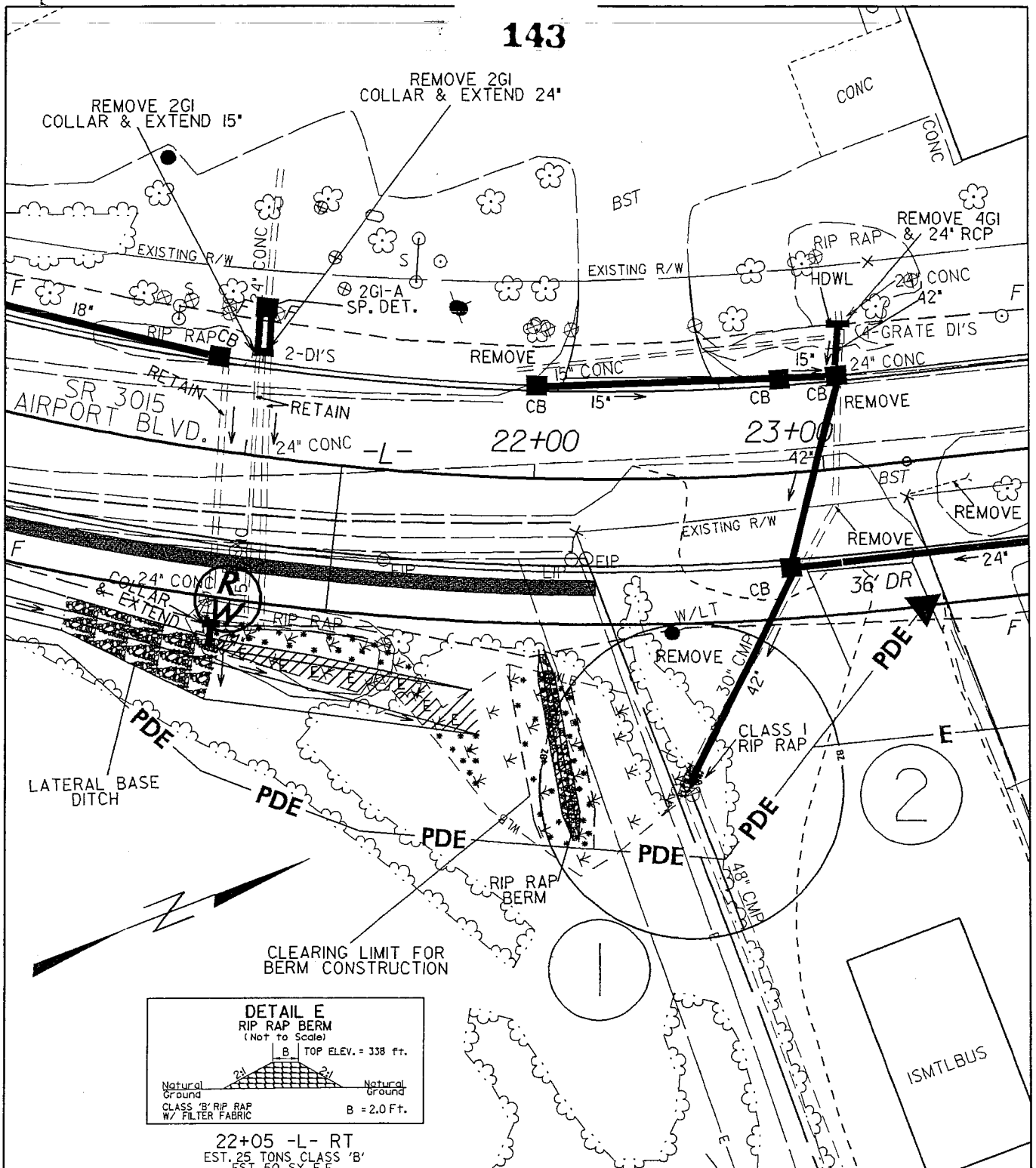
QUAD MAP

NCDOT  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD) FROM NC 54 TO  
 McCRIMMON PARKWAY

# WETLAND 142- LEGEND

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

**NCDOT**  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT BLVD.) FROM NC 54 TO McCRIMMON PARKWAY



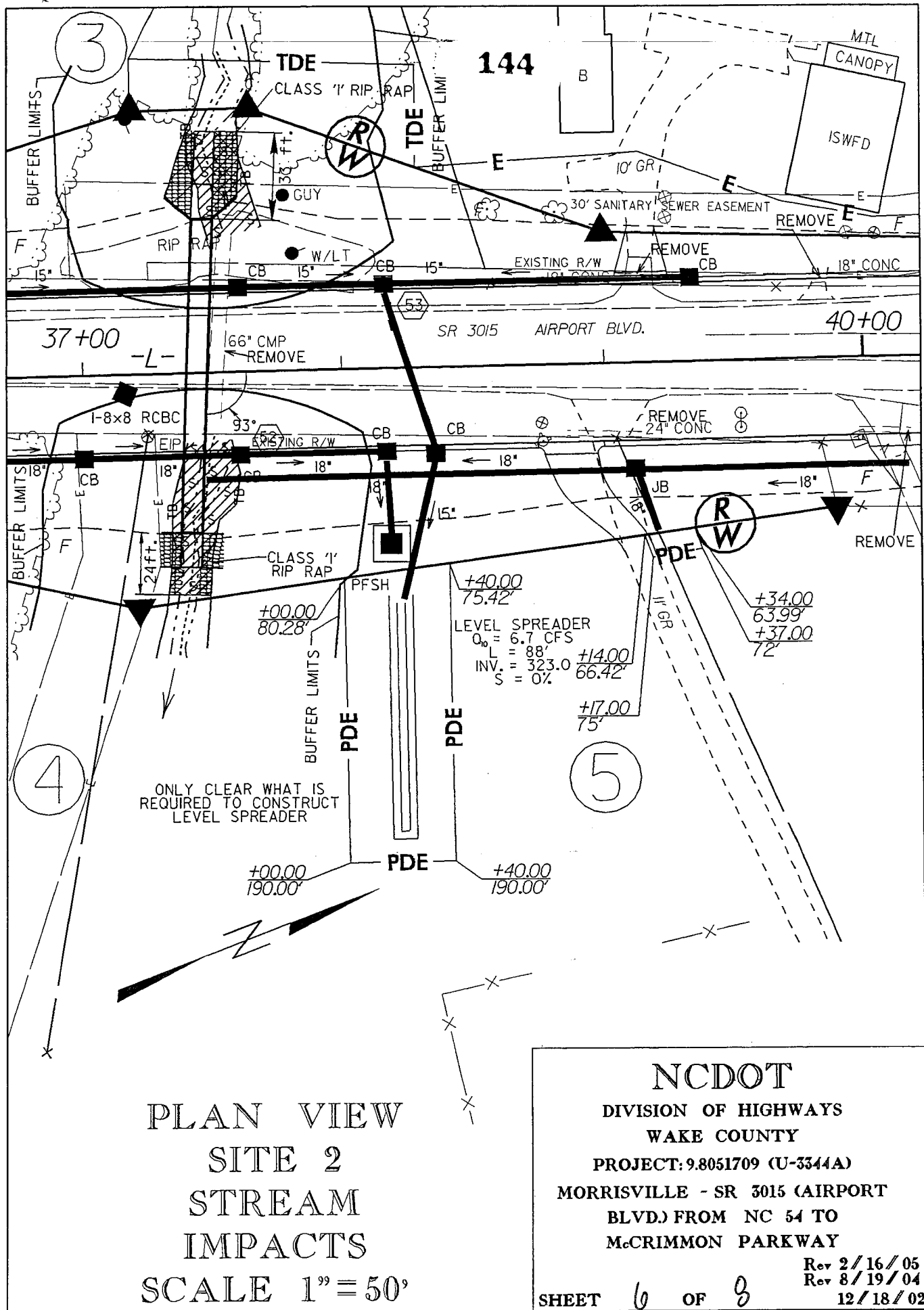
PLAN VIEW  
 SITE 1  
 WETLANDS  
 IMPACT  
 SCALE 1" = 50'

**NCDOT**  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT BLVD.) FROM NC 54 TO McCRIMMON PARKWAY

Rev 12/04  
 Rev 11/04  
 1/13/03

SHEET 5 OF 8





PLAN VIEW  
 SITE 2  
 STREAM  
 IMPACTS  
 SCALE 1" = 50'

**NCDOT**  
 DIVISION OF HIGHWAYS  
 WAKE COUNTY  
 PROJECT: 9.8051709 (U-3344A)  
 MORRISVILLE - SR 3015 (AIRPORT  
 BLVD.) FROM NC 54 TO  
 McCRIMMON PARKWAY  
 Rev 2/16/05  
 Rev 8/19/04  
 12/18/02  
 SHEET 6 OF 8

## PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
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2	FANELLI, THOMAS & BARBARA	1381 KILDAIRE FARM RD., STE. 281 CARY, NC 27511-5525
3	HOLLOWELL, EDWARD E. & TRUSTEES FOR DOVE INVESTMENT ASSOCIATES, LLC	P.O. BOX 4128 CARY, NC 27519-4128
4	FRITZ, ROBERT & JULIE	17 STREAMVIEW CT. DURHAM, NC 27713
5	WATKINS, RANDY W.	508 AIRPORT BLVD. MORRISVILLE, NC 27560-9187

NCDOT

DIVISION OF HIGHWAYS  
WAKE COUNTY

PROJECT: 9.8051709 (U-3344A)

MORRISVILLE - SR 3015 (AIRPORT  
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McCRIMMON PARKWAY

