



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

May 27, 2004

MEMORANDUM TO: Mr. Jon G. Nance, P.E.  
Division 5 Engineer

FROM: Philip S. Harris, III, P.E., Manager *Malayander*  
*Jon* Office of the Natural Environment  
Project Development and  
Environmental Analysis Branch

SUBJECT: Wake and Durham Counties; Division 5; NC 55 Widening from US 64  
to SR 1121 (Cornwallis Road); Federal Aid No. HPSTP-55(12), State  
Project No. 8.1403901; TIP Project No. R-2906

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

PSH/ma

Attachment

cc: Mr. Art McMillan, P.E.  
Mr. Omar Sultan  
Mr. Jay Bennett, P.E.  
Mr. David Chang, P.E.  
Mr. Randy Garris, P.E.  
Mr. Greg Perfetti, P.E.  
Mr. Mark Staley  
Mr. John F. Sullivan, III, FHWA  
Mr. Chris Murray, Division 5 DEO

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

TELEPHONE: 919-733-3141  
FAX: 919-733-9794  
WEBSITE: [WWW.DOT.ORG](http://WWW.DOT.ORG)

**LOCATION:**  
TRANSPORTATION BUILDING  
1 SOUTH WILMINGTON STREET  
RALEIGH NC

## PROJECT COMMITMENTS

NC 55 Widening  
From US 64 to SR 1121 (Cornwallis Road)  
Wake and Durham Counties  
Federal Aid No. HPSTP-55(12)  
State Project No. 8.1403901  
T.I.P. No. R-2906

In addition to the standard Section 404 Individual Permit (IP) General Conditions and Section 401 Water Quality Certification (WQC) Conditions, the following special commitments have been agreed to by NCDOT:

### Commitments Developed Through Project Development and Design

All standard procedures and measures, including Best Management Practices for the Protection of Surface Waters and Sedimentation, will be implemented to avoid or minimize environmental impacts.

All Special Commitments outlined in the July 6, 2001 Greensheet, which was attached to the original permits, are still valid. (attached)

### Commitments Developed Through Permitting

There are no additional special commitments required by this permit modification. All Special Commitments outlined in the July 6, 2001 Greensheet are still valid. (attached)

## PROJECT COMMITMENTS

- The NCDOT and its contractors will not excavate, fill, or perform land clearing activities within Waters of the United States or any areas under jurisdiction of the U.S. Army Corps of Engineers, except as authorized by the COE. To ensure that all borrow and waste activities occur on high ground, except as authorized by permit, the NCDOT shall require its contractors to identify all areas to be used to borrow material, or to dispose of dredged, fill, or waste material. Documentation of the location and characteristics of all borrow and disposal sites associated with the project will be available to the COE on request. (Note: this is part of the standard reclamation process.)

### II. Commitments Developed Through Permitting

Excepts from the U.S. Army Corps of Engineers Individual Permit that are unique to this project:

#### PD&EA Branch, Division Construction Office

- **Special Condition C:** The permittee shall mitigate for 1,175 linear feet of unavoidable impacts to perennial stream channel associated with this project by completing 1,175 linear feet of onsite stream relocation, as described in the permit application. The stream relocation shall be constructed in accordance with the North Carolina Wildlife Resources Commission's (NCWRC) "Stream Relocation Guidelines", and with the attached permit drawings, and the attached "Natural Channel Design; Long Branch", dated August 17, 1999. NCDOT shall consult with NCWRC on all stream relocations and implement all practicable recommendations in the design of specific site requirements for re-establishment of bank vegetation, and placement of meanders and habitat structures. Vegetation shall be used to the maximum extent practicable to stabilize banks, and riprap and other man-made structural measures shall be minimized. NCDOT shall ensure that the stream channel is sufficiently stabilized prior to the diversion of water into the new channel.

#### PD&EA Branch, Roadside Environmental Unit

- **Special Condition D:** The permittee shall visually monitor the vegetative plantings on all mitigation stream banks to assess and insure complete stabilization of the mitigation stream segments. This monitoring shall include adequate visual monitoring of planted vegetation quarterly for a minimum of one year after final planting, and appropriate remedial actions (e.g., replanting, streambank grading, etc.). If within any monitoring year, bank stabilization is not acceptable as determined by the Corps of Engineers, and remedial action required by the Corps of Engineers is performed, the one-year monitoring of the affected portions of the stream will begin again. The permittee will coordinate stream mitigation activities with the Corps of Engineers, Raleigh Regulatory Field Office Project Manager, and will report verbally on the status of the stream mitigation within thirty days of the quarterly monitoring. The permittee will submit a brief written report with representative photographs within 90 days after the monitoring year is completed.

## PROJECT COMMITMENTS

Excerpts from the N.C. Department of Environment and Natural Resources, Division of Water Quality Certification that are unique to this project:

### Division Construction Office

- **Condition 6:** All channel relocations will be constructed in a dry work area, and stabilized before stream flows are diverted. Channel relocations will be completed and stabilized prior to diverting waters into the new channel. Whenever possible, channel relocations shall be allowed to stabilize for an entire growing season. 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.
-



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

*Handwritten initials*

July 8, 2003



Dr. Gregory J. Thorpe, PhD., Manager  
Planning & Environmental Branch  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to NC 55 widening in Wake and Durham Counties, TIP R-2906, Federal Aid No. HPSTP-55(12),  
State Project No. 8.1403901, DWQ No. 010120mod.

Attached hereto is a modification to Certification No. 3317 issued to the North Carolina Department of Transportation on March 13, 2001. The attached modification authorizes additional impacts to 5 linear feet of streams located in the Cape Fear River Basin. It should be noted the modification is applicable only to the additional proposed activities. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superseded by this certification.

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

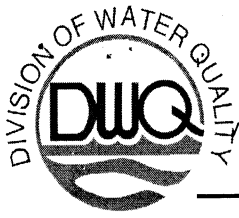
Sincerely,

*Handwritten signature of Alan W. Klimek*  
Alan W. Klimek, P.E.  
Director

Attachments:

Modification to WQC No. 3317

cc: Wilmington District Corps of Engineers  
Corps of Engineers Raleigh Field Office  
DWQ Raleigh Regional Office  
Central Files  
File Copy



## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

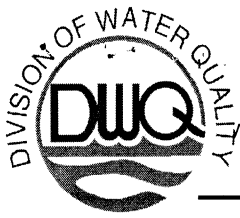
**THIS CERTIFICATION** is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. The attached modification authorizes additional impacts to 5 linear feet of streams located in the Cape Fear River Basin. It should be noted the modification is applicable only to the additional proposed activities. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

The application provides adequate assurance that the discharge of fill material into the proposed wetlands in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations.

### Condition(s) of Certification:

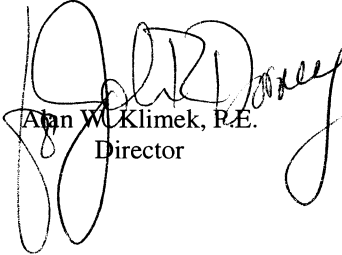
1. Appropriate sediment and erosion control practices which equal or exceed those outlined in the most recent version of two manuals. Either the "North Carolina Sediment and Erosion Control Planning and Design Manual" or the "North Carolina Surface Mining Manual" (available from the Division of Land Resources in the DEHNR Regional or Central Offices). The control practices shall be utilized to prevent exceedances of the appropriate turbidity water quality standard (50 NTUs in all fresh water streams and rivers not designated as trout waters; 25 NTUs in all lakes and reservoirs, and all saltwater classes; and 10 NTUs in trout waters);
2. All sediment and erosion control measures placed in wetlands or waters shall be removed and the natural grade restored after the Division of Land Resources has released the project;
3. Measures shall be taken to prevent live or fresh concrete from coming into contact with waters of the state until the concrete has hardened;
4. There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities;
5. No additional compensatory mitigation shall be done in accordance with this modification.
6. All other conditions written into previous Water Quality Certifications for this project still apply.



Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or coastal Area Management Act Permit. This Certification shall expire upon expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 8<sup>th</sup> day of July 2003  
DIVISION OF WATER QUALITY



Alan W. Klimek, P.E.  
Director

Modification to WQC No. 3317

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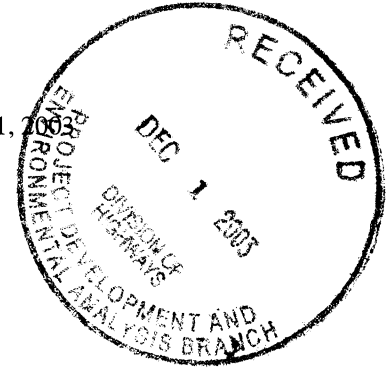


Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

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

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[Signature]

November 21, 2003



Dr. Gregory J. Thorpe, PhD., Manager  
Planning & Environmental Branch  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to NC 55 widening in Wake and Durham Counties, TIP R-2906, Federal Aid No. HPSTP-55(12),  
State Project No. 8.1403901, DWQ No. 010120mod.

Attached hereto is a modification to Certification No. 3317 issued to the North Carolina Department of Transportation on March 13, 2001. The attached modification authorizes additional impacts to 9 linear feet of streams located in the Cape Fear River Basin. It should be noted the modification is applicable only to the additional proposed activities presented in your application dated August 8, 2003. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

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

Sincerely,

[Handwritten Signature]  
Alan W. Klimek, P.E.  
Director

Attachments:

Modification to WQC No. 3317

cc: Wilmington District Corps of Engineers  
Corps of Engineers Raleigh Field Office  
DWQ Raleigh Regional Office  
Central Files  
File Copy







## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. The attached modification authorizes additional impacts to 9 linear feet of streams located in the Cape Fear River Basin. It should be noted the modification is applicable only to the additional proposed activities presented in your application dated August 8, 2003. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superseded by this certification.

The application provides adequate assurance that the discharge of fill material into the proposed wetlands in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations.

### Condition(s) of Certification:

- 1) No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Preconstruction Notice Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.
- 2) 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:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.



- 3) Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project.
- 4) Live concrete or fresh concrete shall not come into contact with waters of the state until the concrete has hardened;
- 5) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities;
- 6) No additional compensatory mitigation shall be done in accordance with this modification.
- 7) All other conditions written into previous Water Quality Certifications for this project still apply.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or coastal Area Management Act Permit. This Certification shall expire upon expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 21<sup>st</sup> day of ~~July~~ <sup>November</sup> 2003  
DIVISION OF WATER QUALITY

Alan W. Klimek, P.E.  
Director

Modification to WQC No. 3317

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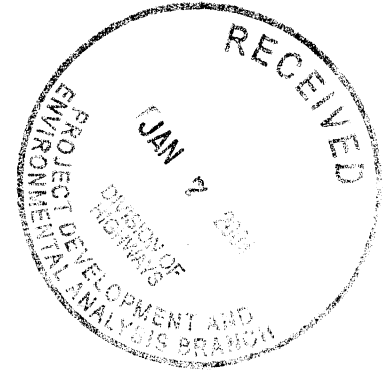


Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director  
Division of Water Quality  
Coleen H. Sullins, Deputy Director  
Division of Water Quality

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January 5, 2004



Dr. Gregory J. Thorpe, PhD., Manager  
Planning & Environmental Branch  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to NC 55 widening in Wake and Durham Counties, TIP R-2906C, Federal Aid No. HPSTP-  
55(12), State Project No. 8.1403901, DWQ No. 010120mod.

Attached hereto is a modification to Certification No. 3317 issued to the North Carolina Department of Transportation on March 13, 2001. The attached modification authorizes the proposed diversion channel from approximately station 17+65 to 22+19. The channel shall be constructed to the dimensions and according to the plan described in your application dated December 5, 2003. This modification is applicable only to the additional proposed activities presented in your application dated December 5, 2003. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

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

Sincerely,

Alan W. Klimek, P.E.  
Director

Attachments:

Modification to WQC No. 3317

cc: Wilmington District Corps of Engineers  
Corps of Engineers Raleigh Field Office  
DWQ Raleigh Regional Office  
Central Files  
File Copy





## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. This modification authorizes a modification to the proposed diversion channel from approximately station 17+65 to 22+19. The channel shall be constructed to the dimensions and according to the plan described in your application dated December 5, 2003. This modification is applicable only to the additional proposed activities presented in your application dated December 5, 2003. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

The application provides adequate assurance that the discharge of fill material into the proposed wetlands in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations.

### Condition(s) of Certification:

- 1) No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Preconstruction Notice Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.
- 2) 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:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.

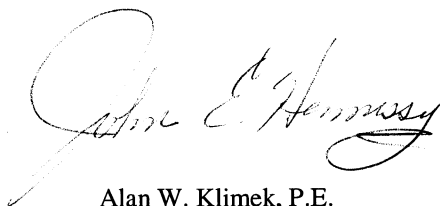


- 3) Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project.
- 4) Live concrete or fresh concrete shall not come into contact with waters of the state until the concrete has hardened;
- 5) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities;
- 6) No additional compensatory mitigation shall be done in accordance with this modification.
- 7) All other conditions written into previous Water Quality Certifications for this project still apply.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or coastal Area Management Act Permit. This Certification shall expire upon expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 5<sup>th</sup> day of January 2004  
DIVISION OF WATER QUALITY



Alan W. Klimek, P.E.  
Director

Modification to WQC No. 3317

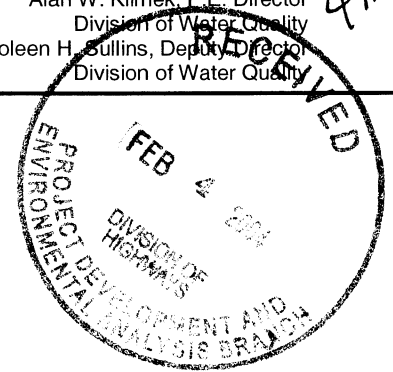
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Michael F. Easley, Governor  
William G. Ross Jr., Secretary  
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director  
Division of Water Quality  
Coleen H. Bullins, Deputy Director  
Division of Water Quality

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AB



January 29, 2004

Dr. Gregory J. Thorpe, PhD., Manager  
Planning & Environmental Branch  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to NC 55 widening in Wake and Durham Counties, TIP R-2906C, Federal Aid No. HPSTP-55(12), State Project No. 8.1403901, DWQ No. 010120mod.

Attached hereto is a modification to Certification No. 3317 issued to the North Carolina Department of Transportation on March 13, 2001. The attached modification authorizes additional impacts to 0.01 acres of surface waters at station number from approximately station 470+00 to 473+00. The project shall be constructed to the dimensions and according to the plan described in your application dated January 9, 2004. In addition, this modification authorizes the proposed design changes presented in your application dated July 10, 2003 (received January 14, 2004). This modification is applicable only to the additional proposed activities presented in your application dated January 9, 2004 and July 10, 2003 (received January 14, 2004). All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

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

Sincerely,

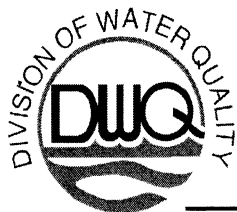
Alan W. Klimek, P.E.  
Director

Attachments:

Modification to WQC No. 3317

cc: Wilmington District Corps of Engineers  
Corps of Engineers Raleigh Field Office  
DWQ Raleigh Regional Office  
Central Files  
File Copy

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## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. This modification authorizes additional impacts to 0.01 acres of surface waters at station number from approximately station 470+00 to 473+00. The project shall be constructed to the dimensions and according to the plan described in your application dated January 9, 2004. In addition, this modification authorizes the proposed design changes presented in your application dated July 10, 2003 (received January 14, 2004). This modification is applicable only to the additional proposed activities presented in your application dated January 9, 2004 and July 10, 2003 (received January 14, 2004). All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

The application provides adequate assurance that the discharge of fill material into the proposed wetlands in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations.

### Condition(s) of Certification:

- 1) No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Preconstruction Notice Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.
- 2) 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:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.



- 3) Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project.
- 4) Live concrete or fresh concrete shall not come into contact with waters of the state until the concrete has hardened;
- 5) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities;
- 6) No additional compensatory mitigation shall be done in accordance with this modification.
- 7) All other conditions written into previous Water Quality Certifications for this project still apply.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or coastal Area Management Act Permit. This Certification shall expire upon expiration of the 404 or CAMA permit.

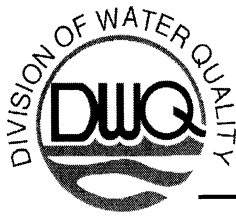
If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 29<sup>th</sup> day of January 2004  
DIVISION OF WATER QUALITY

Alan W. Klimek, P.E.  
Director

Modification to WQC No. 3317

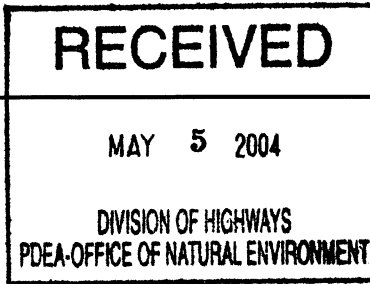




M. Haney

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  
Coleen H. Sullins, Deputy Director  
Division of Water Quality



April 28, 2004



Dr. Gregory J. Thorpe, PhD., Manager  
Planning & Environmental Branch  
N.C. Department of Transportation  
1548 Mail Service Center  
Raleigh, North Carolina, 27699-1548

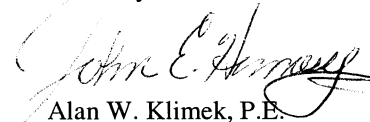
Dear Dr. Thorpe:

Re: Certification Pursuant to Section 401 of the Federal Clean Water Act,  
Modification to NC 55 widening in Wake and Durham Counties, TIP R-2906C, Federal Aid No. HPSTP-55(12), State Project No. 8.1403901, DWQ No. 010120mod.

Attached hereto is a modification to Certification No. 3317 issued to the North Carolina Department of Transportation on March 13, 2001. The attached modification authorizes additional impacts to 0.03 acres of surface waters at station number from approximately station 470+15 to 472+40. The project shall be constructed to the dimensions and according to the plan described in your application dated March 8, 2004. This modification is applicable only to the additional proposed activities presented in your application dated April 28, 2004. All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superseded by this certification.

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

Sincerely,

  
Alan W. Klimek, P.E.  
Director

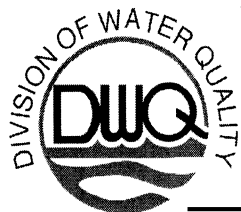
Attachments:

Modification to WQC No. 3317

cc: Wilmington District Corps of Engineers  
Corps of Engineers Raleigh Field Office  
DWQ Raleigh Regional Office  
Central Files  
File Copy

c:\ncdot\TIP R-2906\wqc\R-2906 mod6.doc





## NORTH CAROLINA 401 WATER QUALITY CERTIFICATION

THIS CERTIFICATION is issued in conformity with the requirements of Section 401 Public Laws 92-500 and 95-217 of the United States and subject to the North Carolina Division of Water Quality (DWQ) Regulations in 15 NCAC 2H, Section .0500. This modification authorizes additional impacts to 0.01 acres of surface waters at station number from approximately station 470+00 to 473+00. The project shall be constructed to the dimensions and according to the plan described in your application dated January 9, 2004. In addition, this modification authorizes the proposed design changes presented in your application dated July 10, 2003 (received January 14, 2004). This modification is applicable only to the additional proposed activities presented in your application dated January 9, 2004 and July 10, 2003 (received January 14, 2004). All the authorized activities and conditions of certification associated with the original Water Quality Certification dated March 13, 2001 and all other corresponding modifications still apply except where superceded by this certification.

The application provides adequate assurance that the discharge of fill material into the proposed wetlands in conjunction with the proposed development will not result in a violation of applicable Water Quality Standards and discharge guidelines. Therefore, the State of North Carolina certifies that this activity will not violate the applicable portions of Sections 301, 302, 303, 306, 307 of PL 92-500 and PL 95-217 if conducted in accordance with the application and conditions hereinafter set forth.

This approval is only valid for the purpose and design that you submitted in your application, as described in the Public Notice. Should your project change, you are required to notify the DWQ and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter, and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future exceed one acre, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you are required to comply with all the conditions listed below. In addition, you should obtain all other federal, state or local permits before proceeding with your project including (but not limited to) Sediment and Erosion control, Coastal Stormwater, Non-discharge and Water Supply watershed regulations.

### Condition(s) of Certification:

- 1) No waste, spoil, solids, or fill of any kind shall occur in wetlands, waters, or riparian areas beyond the footprint of the impacts depicted in the Preconstruction Notice Application. All construction activities, including the design, installation, operation, and maintenance of sediment and erosion control Best Management Practices, shall be performed so that no violations of state water quality standards, statutes, or rules occur.
- 2) 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:
  - a. The erosion and sediment control measures for the project must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Sediment and Erosion Control Planning and Design Manual*.
  - b. The design, installation, operation, and maintenance of the sediment and erosion control measures must be such that they equal, or exceed, the requirements specified in the most recent version of the *North Carolina Sediment and Erosion Control Manual*. The devices shall be maintained on all construction sites, borrow sites, and waste pile (spoil) projects, including contractor-owned or leased borrow pits associated with the project.
  - c. For borrow pit sites, the erosion and sediment control measures must be designed, installed, operated, and maintained in accordance with the most recent version of the *North Carolina Surface Mining Manual*.
  - d. The reclamation measures and implementation must comply with the reclamation in accordance with the requirements of the Sedimentation Pollution Control Act.



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  
Coleen H. Sullins, Deputy Director  
Division of Water Quality

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- 3) Sediment and erosion control measures shall not be placed in wetlands or waters to the maximum extent practicable. If placement of sediment and erosion control devices in wetlands and waters is unavoidable, they shall be removed and the natural grade restored within six months of the date that the Division of Land Resources has released the project.
- 4) Live concrete or fresh concrete shall not come into contact with waters of the state until the concrete has hardened;
- 5) There shall be no excavation from or waste disposal into jurisdictional wetlands or waters associated with this permit without appropriate modification of this permit. Should waste or borrow sites be located in wetlands or stream, compensatory mitigation will be required since it is a direct impact from road construction activities;
- 6) No additional compensatory mitigation shall be done in accordance with this modification.
- 7) All other conditions written into previous Water Quality Certifications for this project still apply.

Violations of any condition herein set forth shall result in revocation of this Certification and may result in criminal and/or civil penalties. This Certification shall become null and void unless the above conditions are made conditions of the Federal 404 and/or coastal Area Management Act Permit. This Certification shall expire upon expiration of the 404 or CAMA permit.

If this Certification is unacceptable to you have the right to an adjudicatory hearing upon written request within sixty (60) days following receipt of this Certification. This request must be in the form of a written petition conforming to Chapter 150B of the North Carolina General Statutes and filed with the Office of Administrative Hearings, P.O. Box 27447, Raleigh, N.C. 27611-7447. If modifications are made to an original Certification, you have the right to an adjudicatory hearing on the modifications upon written request within sixty (60) days following receipt of the Certification. Unless such demands are made, this Certification shall be final and binding.

This the 28<sup>th</sup> day of April 2004  
DIVISION OF WATER QUALITY

Alan W. Klimek, P.E.  
Director

Modification to WQC No. 3317



DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS

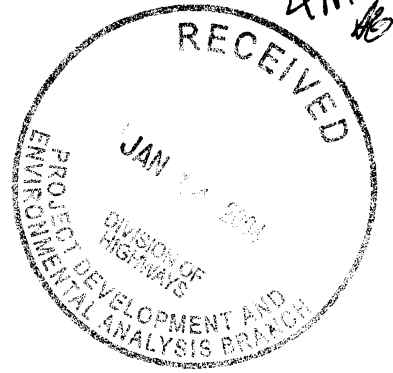
P.O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

January 13, 2004

IN REPLY REFER TO

Regulatory Division

SUBJECT: Action ID 200120353; TIP No. R-2906



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

Dear Dr. Thorpe:

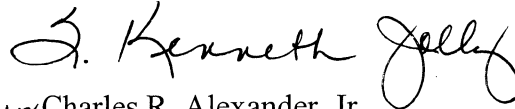
Reference the Department of the Army permit issued on June 19, 2001 (AID 200120353; TIP R-2906; NC 55 Widening), for the discharges of fill material in waters of the United States, including wetlands, to facilitate construction of widening of NC 55 (T.I.P. No. R-2906), in the Cape Fear and Neuse River basins, from north of US 64 in Wake County, to north of SR 1121 in Durham County, North Carolina. Reference also your April 18, 2003 and August 8, 2003 letters requesting modification of the permit, to authorize additional minor stream impacts, due to minor revisions of the construction design, primarily for utility lines.

We have reviewed your proposal and have determined that the additional impacts are minor, and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize 14 linear feet of additional stream channel impacts, as shown on the attached drawings. No additional mitigation will be required for these minor impacts.

It is understood that all other conditions of the permit, including the expiration date, remain applicable. Please note that the current permit expiration date is December 31, 2004, less than one year away.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,



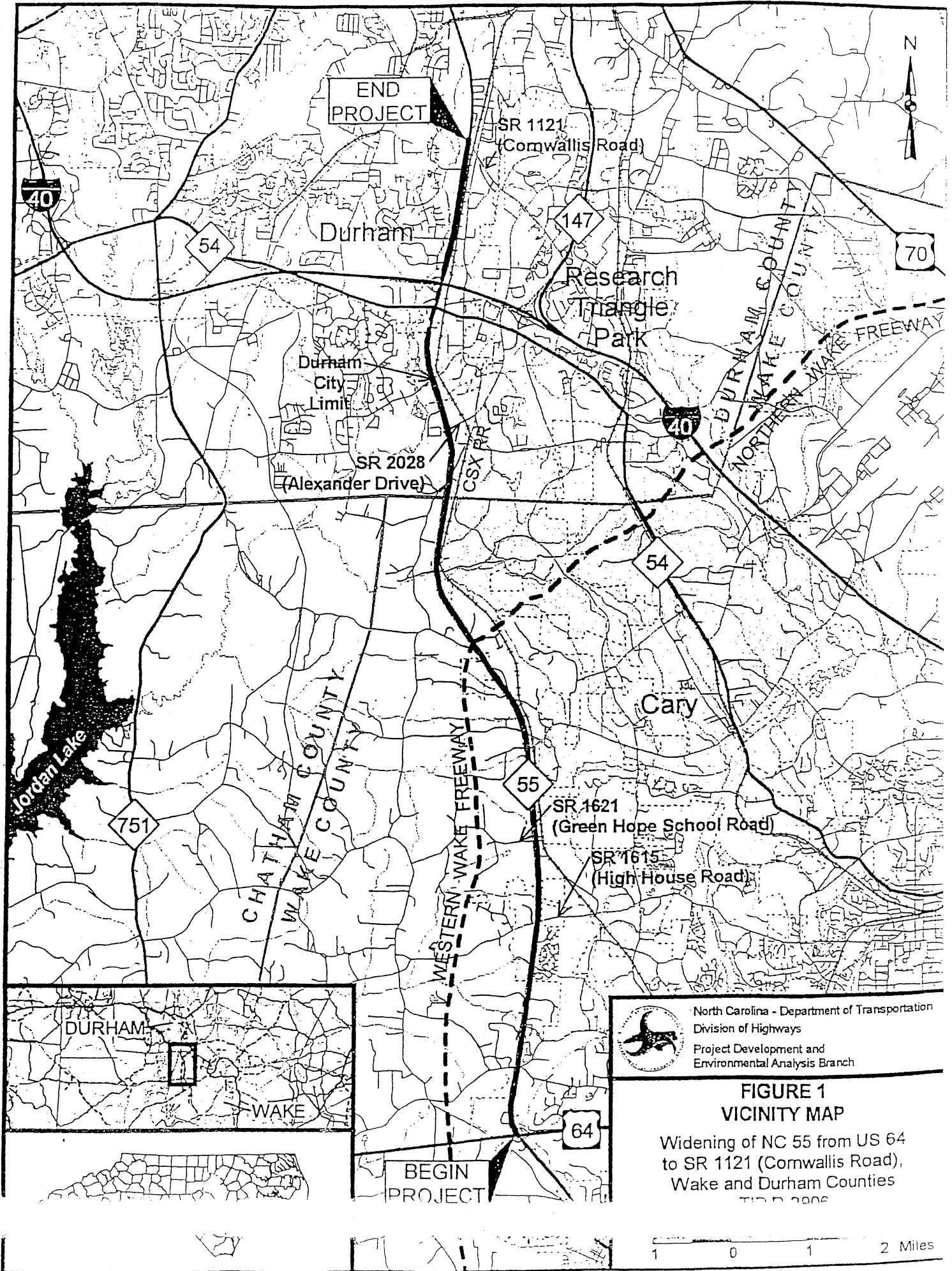
*for* Charles R. Alexander, Jr.  
Colonel, U.S. Army  
District Engineer

Enclosure

Copies Furnished (without attachment):

Ms. Emily Lawton  
Federal Highway Administration  
310 New Bern Ave., Rm. 410  
Raleigh, North Carolina 27601-1442

Mr. John Dorney  
Division of Water Quality  
North Carolina Department of  
Environment and  
Natural Resources  
1650 Mail Service Center  
Raleigh, NC 27699-1650



END PROJECT

SR 1121  
(Cornwallis Road)

Durham

Research Triangle Park

Durham City Limit

SR 2028  
(Alexander Drive)

40

54

Cary

Jordan Lake

751

CHATHAM COUNTY  
WAKE COUNTY

WESTERN WAKE FREEWAY

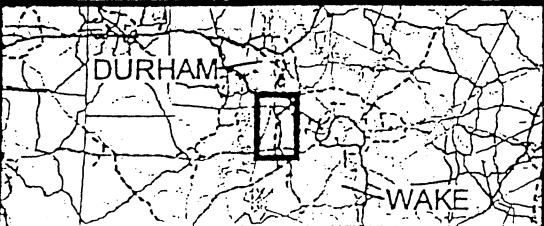
55

SR 1621  
(Green Hope School Road)

SR 1615  
(High House Road)

64

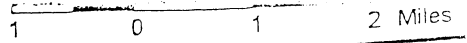
BEGIN PROJECT



North Carolina - Department of Transportation  
Division of Highways  
Project Development and Environmental Analysis Branch

**FIGURE 1  
VICINITY MAP**

Widening of NC 55 from US 64 to SR 1121 (Cornwallis Road), Wake and Durham Counties  
MAY 2006



# VICINITY MAP

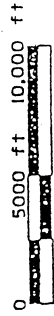
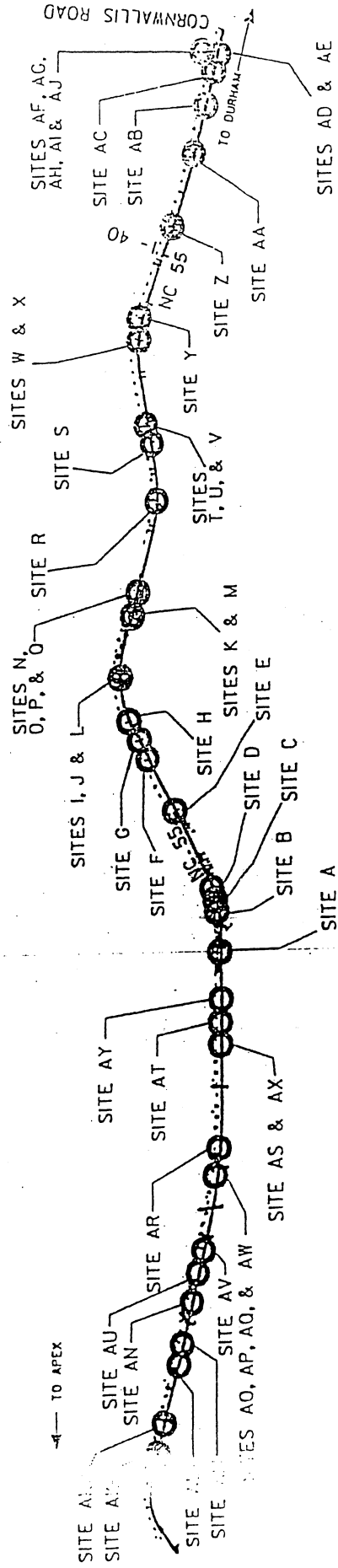
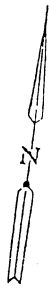
## SITE



NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: 8.1403901 (R-2906 A, B&C)

PROPOSED WIDENING OF NC 55 FROM

# SITE MAP



NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM/WAKE COUNTIES  
 PROJECT: B.140390 1 (R-2906 A, B & C)  
 PROPOSED WIDENING OF NC 55 FROM  
 US64 TO CORNWALLIS ROAD (SR 112 D)

NOTE: SITE AG HAS BEEN DETERMINED NOT TO BE A WETLAND BY THE USACE AND NCDOT.  
 SITE L IS NO LONGER IMPACTED BY THIS PROJECT DUE TO A DESIGN CHANGE.



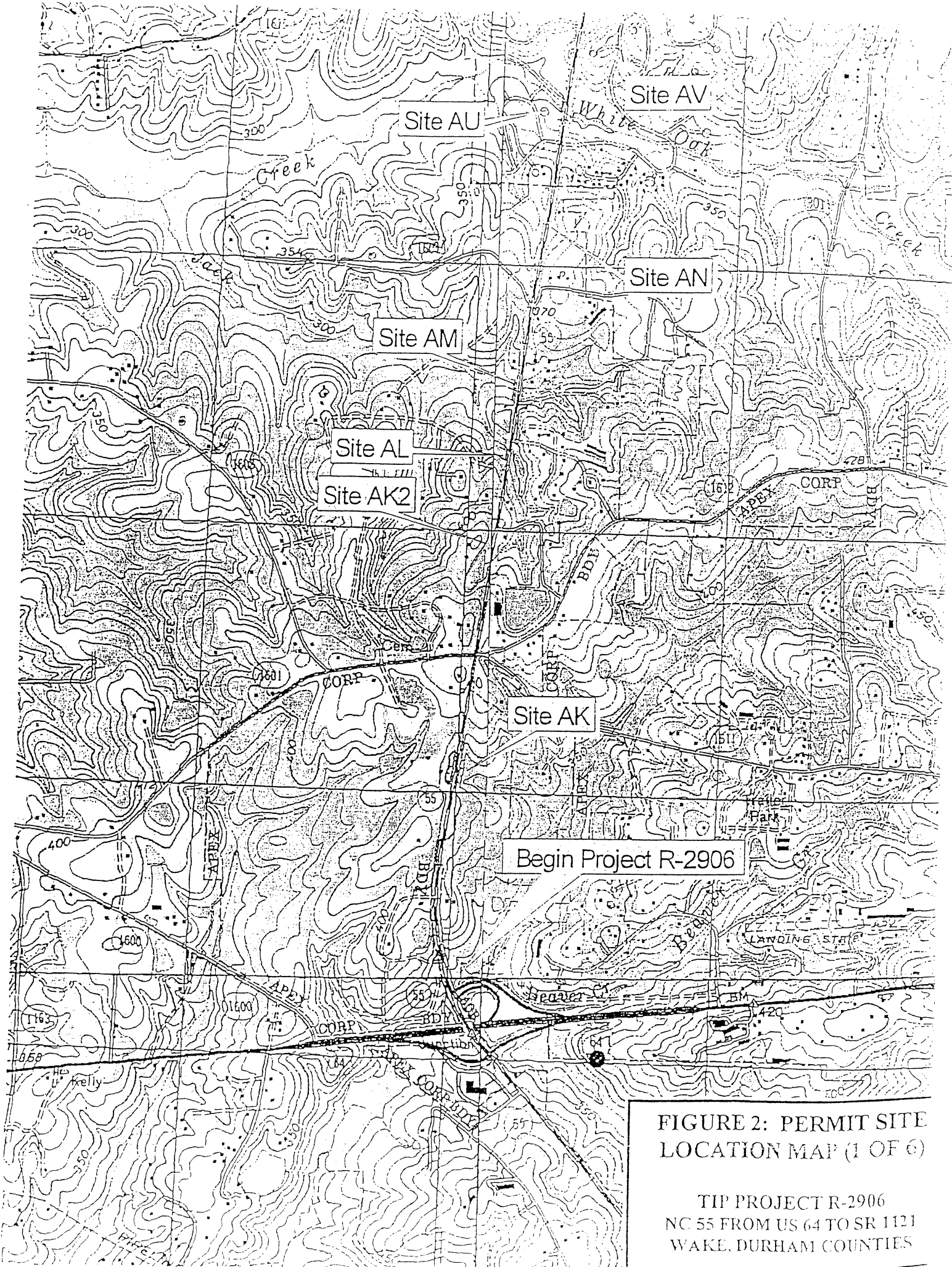
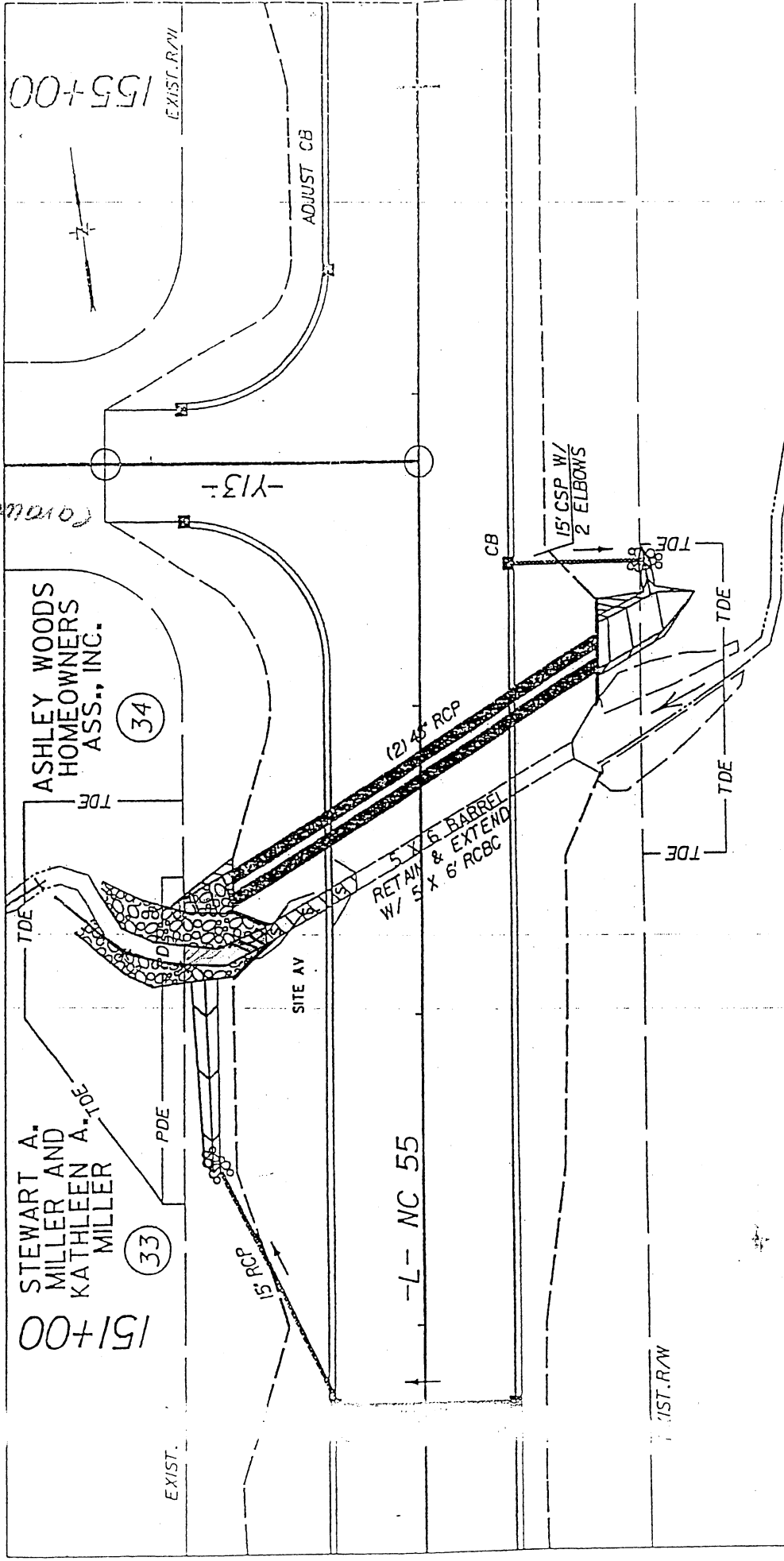


FIGURE 2: PERMIT SITE LOCATION MAP (1 OF 6)

TIP PROJECT R-2906  
NC 55 FROM US 64 TO SR 1121  
WAKE, DURHAM COUNTIES

75  
Caraway St



ASHLEY WOODS HOMEOWNERS ASS., INC. (34)

STEWART A. MILLER AND KATHLEEN A. MILLER (33)

151+00

155+00

EXIST.

PDE

-Y13-

SITE AV

-L- NC 55

(2) 48" RCP

5' X 6' BARREL RETAIN & EXTEND W/ 5' X 6' RCBC

15' CSP W/ 2 ELBOWS

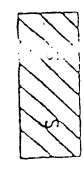
CB

EXIST. RAW

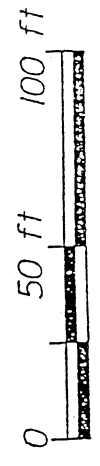
NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM/WAKE COUNTIES  
 PROJECT: B. 140390 I (R-2906 A)

PROPOSED WIDENING OF NC 55 FROM  
 US 64 TO MORRISVILLE  
 CARPENTER ROAD (SR 3014)

SITE AV



DENOTES FILL IN SURFACE WATERS



SHEET 16 OF 52 Revised 8-7-03 12/1/03

**SUMMARY**

Station (From/To)	Structure Size	WETLAND IMPACTS				SURFACE WATER IMPACTS				
		Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation In Wetlands (ac)	Interchange Isolated Wetland (ac)	Machanzied Clearing (Method III) (ac)	Fill In SW (Natural) (ac)	Existing Channel Impacted (ft)	Temp. Channel Impacted (ft)	Relocated Channel (ft)
17+00 TO 18+25	3 - 12' x 8'						0.069	87	0	0
18+00 TO 21+50	NONE						0.065	416	0	382
21+75 TO 22+50	5 - 8' x 10'						0.037	193	0	0
58+50 +/-	18" RCP	0.003	0	0	0		0.002	16		
87+10 +/-	18" RCP						0.012	135		
100 TO 101 +/-	60" RCP	0.039	0	0	0	0.001	0.009	170		55
108 TO 109 +/-	5' x 6' RCBC	0.006	0	0	0	0.008				
127 TO 129 +/-	18" RCP	0.004	0	0	0	0.003				
193+50 +/-	NONE	0.013	0	0	0	0.009				
1+50 TO 195+50 +/-	NONE	0.088	0	0	0	0.000				
196+25 +/-	66" RCP	0.001	0	0	0	0.002	0.008	91		
199+25 +/-	NONE	0.071	0	0	0	0.002				
248+00 +/-	18" RCP	0.006	0	0	0	0.005				
256+50 +/-	18" RCP	0.001	0	0	0	0.001				
143+32 +/-	2 - 7' x 9' RCBC						0.015	112		
152+23 +/-	5' x 6' RCBC						0.004	106		
37+00 TO 190+00 +/-	5' x 6' RCBC	0.042					0.005	101		
242+00 +/-	24" RCP						0.002	47		51
265+00 +/-	30" RCP						0.009	169		488
TOTALS:		0.274	0	0	0	0.031	0.237	1634	0	1832
		0.684	0	0	0	0.092	0.82	593	0	1832

MODIFIED METHOD III CLEARING USED IN WETLANDS

N.C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS

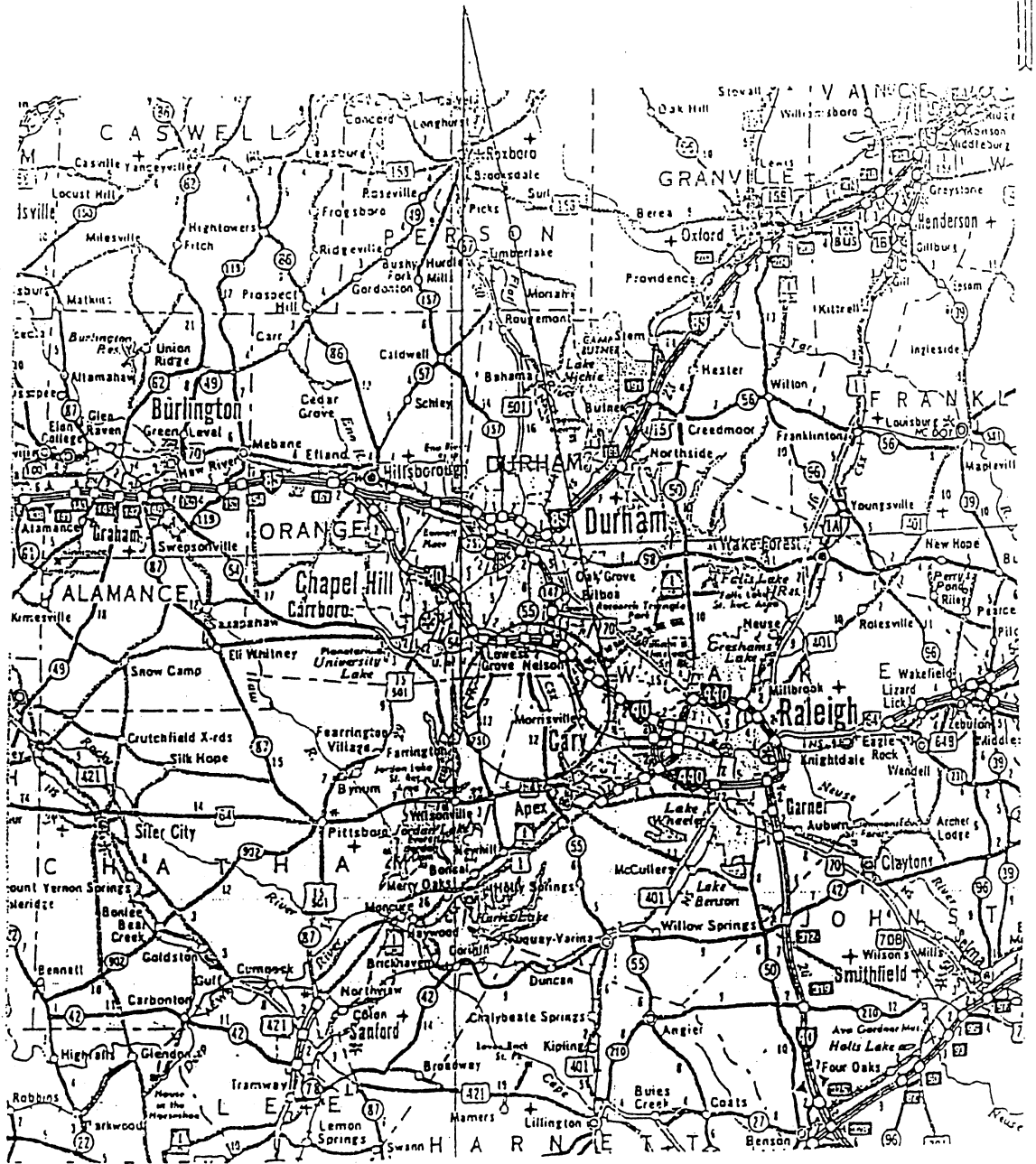
PROJECT: 8.1403901 (R-2906 A, B & C)  
PROPOSED WIDENING OF NC 55 FROM  
US HWY. 64 TO SR 1121

SHEET 52 OF 52

Revised 8-7-03

# VICINITY MAP

## SITE










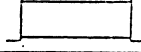

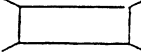


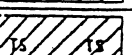

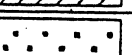


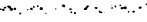




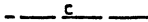










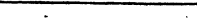
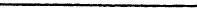


### UTILITY

NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: 8.1403901 (R-2906 A, B&C)

PROPOSED WIDENING OF NC 55 FROM  
VS. 64 TO Cornwallis Rd.

# LEGEND

	WETLAND BOUNDARY		LIVE STAKES
	WETLAND		BOULDER
	DENOTES FILL IN WETLAND		COIR FIBER ROLLS
	DENOTES FILL IN SURFACE WATER		ADJACENT PROPERTY OWNER OR PARCEL NUMBER
	DENOTES FILL IN SURFACE WATER (POND)		PROPOSED BRIDGE
	DENOTES TEMPORARY FILL IN WETLAND		PROPOSED BOX CULVERT
	DENOTES EXCAVATION IN WETLAND		PROPOSED PIPE CULVERT
	DENOTES TEMPORARY FILL IN SURFACE WATER		(DASHED LINES DENOTE EXISTING STRUCTURES)
	DENOTES MECHANIZED CLEARING		SINGLE TREE
	FLOW DIRECTION		WOODS LINE
	TOP OF BANK		DRAINAGE INLET
	EDGE OF WATER		ROOTWAD
	PROP. LIMIT OF CUT		VANE
	PROP. LIMIT OF FILL		RIP RAP
	PROP. RIGHT OF WAY		RIP RAP ENERGY DISSIPATOR BASIN
	NATURAL GROUND		
	PROPERTY LINE		
	TEMP. DRAINAGE EASEMENT		
	PERMANENT DRAINAGE EASEMENT		
	EXIST. ENDANGERED ANIMAL BOUNDARY		
	EXIST. ENDANGERED PLANT BOUNDARY		
	WATER SURFACE		

## UTILITY

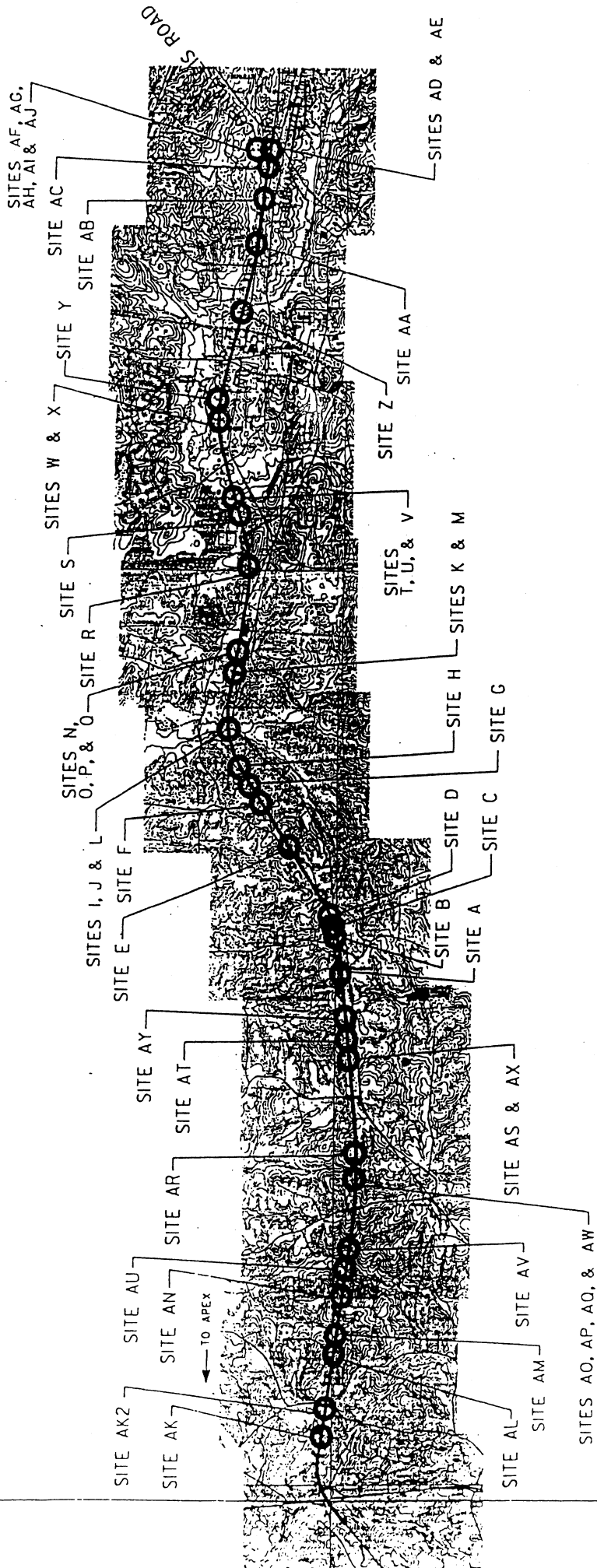
NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: B.1403901 (R-2906 A, B & C)

PROPOSED WIDENING OF NC 55 FROM  
US64 to Cornwallis Rd

Sheet 2 of 11

3/24/00

# SITE MAP

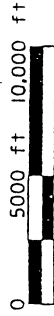


## UTILITY

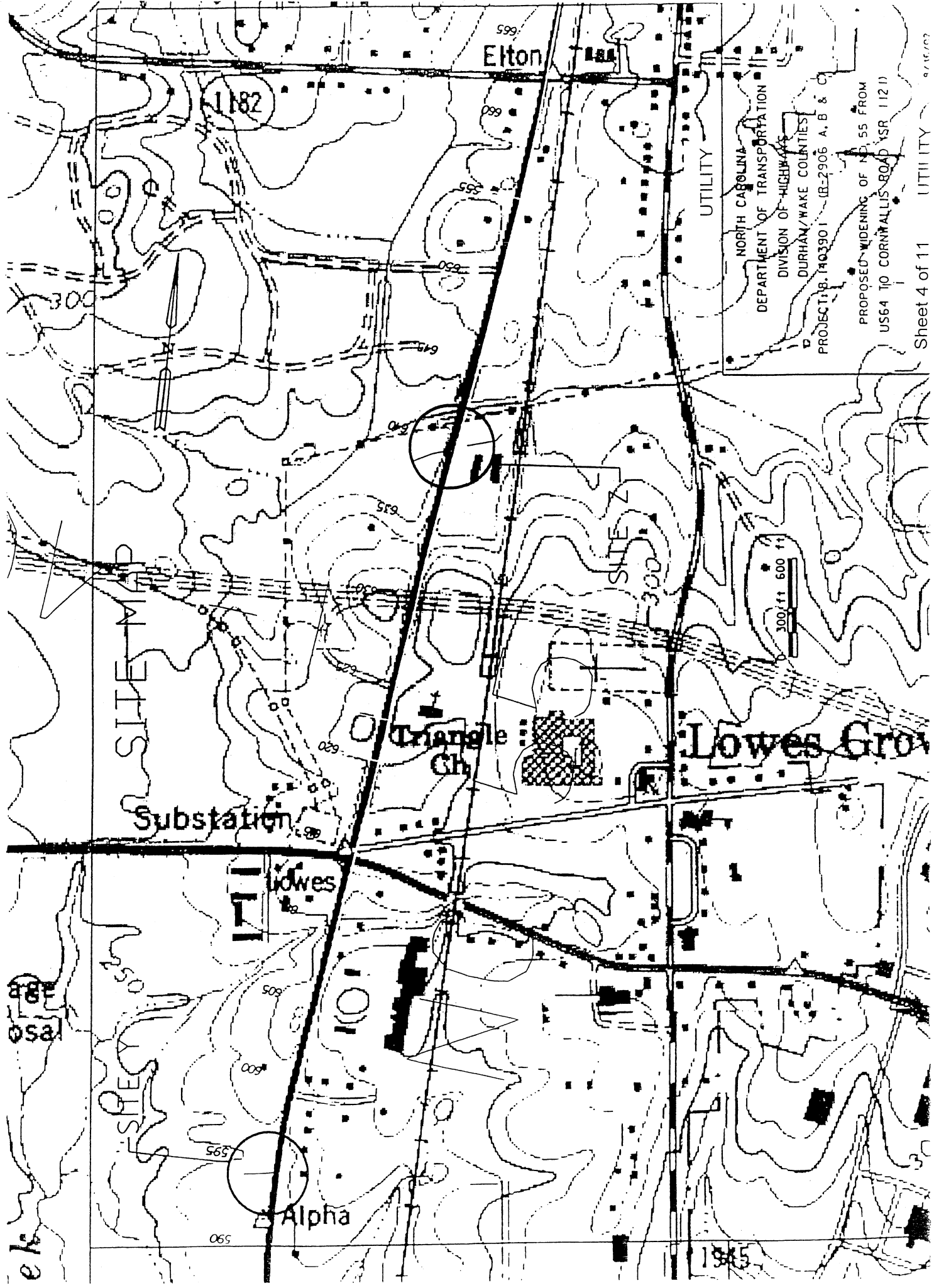
NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM/WAKE COUNTIES  
 PROJECT: 8.1403901 (R-2906 A, B & C)

PROPOSED WIDENING OF NC 55 FROM  
 US64 TO CORNWALLIS ROAD (SR 1121)

Sheet 3 of 11



NOTE: SITE AG HAS BEEN DETERMINED NOT TO BE A WETLAND BY THE USACE AND NCDOT.  
 SITE L IS NO LONGER IMPACTED BY THIS PROJECT DUE TO A DESIGN CHANGE.



NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM/WAKE COUNTIES  
PROJECT: B.1403901 (B-2906 A, B & C)  
PROPOSED WIDENING OF RD. 55 FROM  
US64 TO CORNWALLIS ROAD (SR 1121)

SITE M

SITE Z

SITE N

ag  
osa

els

1585

Elton

1182

300

300 ft 600 ft

Substation

Triangle Ch

Lowes Grov

Lowes

Alpha

599

099

589

099

579

099

569

099

029

029

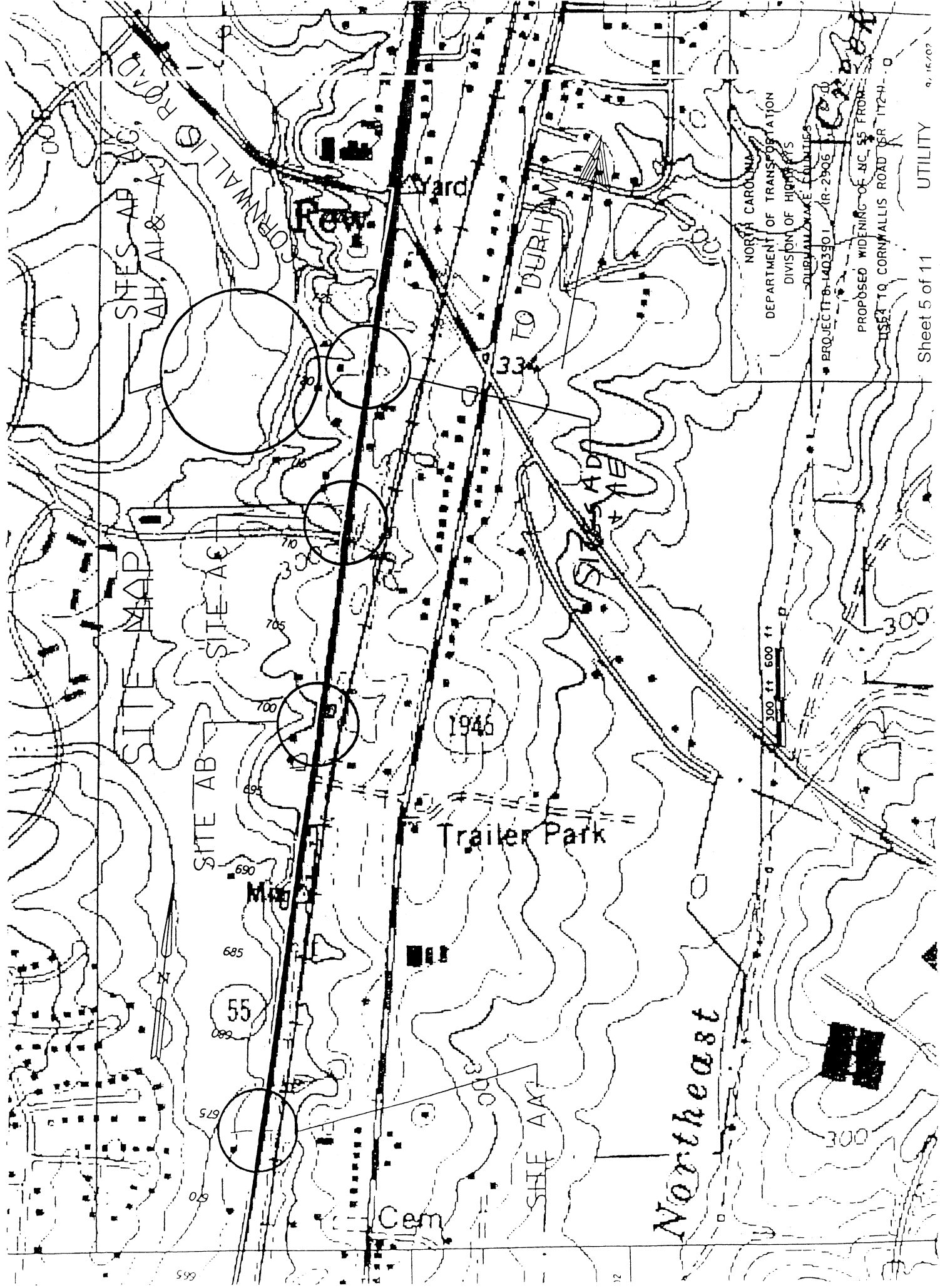
029

509

009

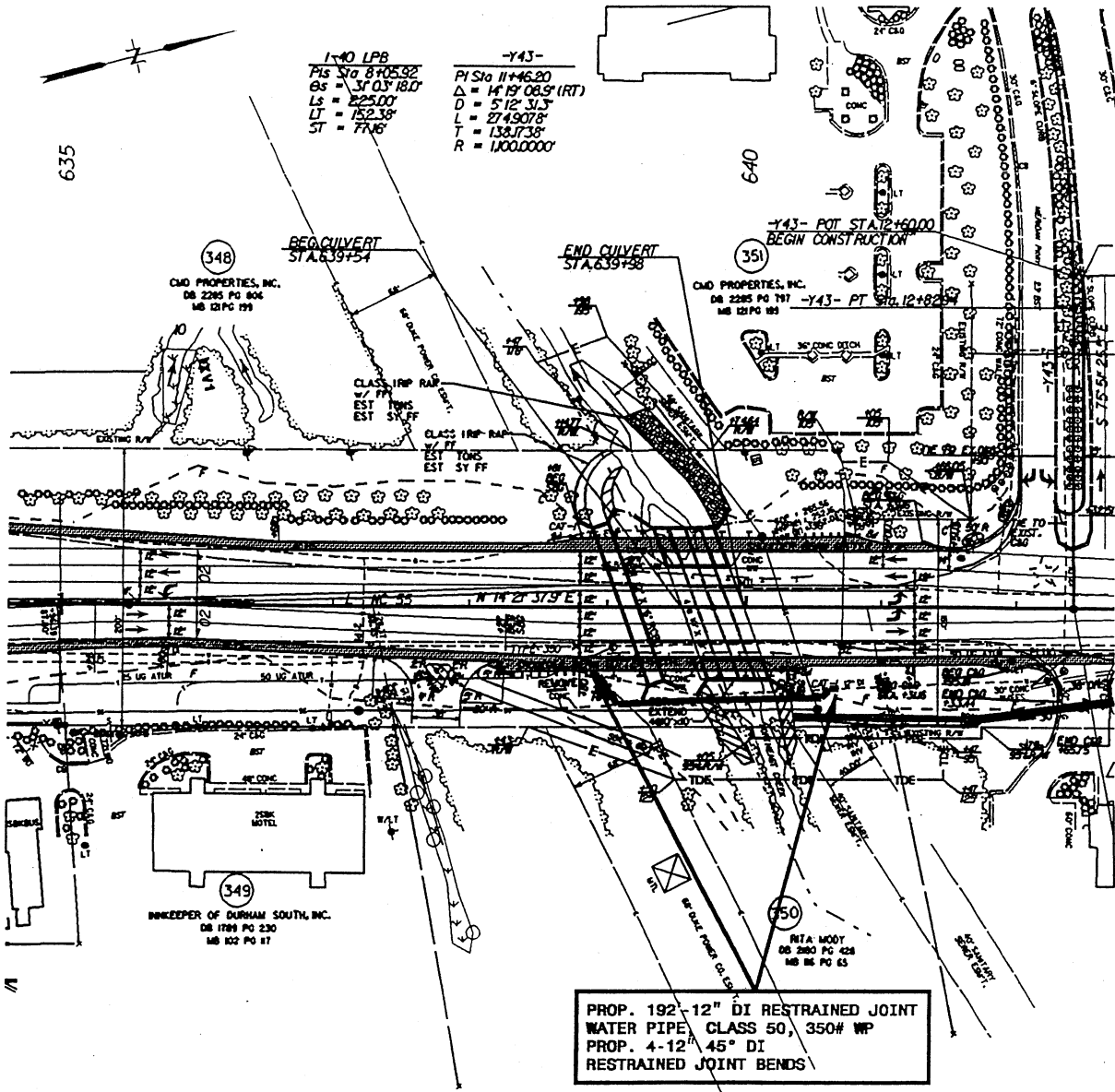
565

065



NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 SUBDIVISION OF COUNTIES  
 PROJECT B-1403901 (R-2906)  
 PROPOSED WIDENING OF NC 55 FROM  
 JUNCTION TO CORNWALLIS ROAD (SR 1724-0)



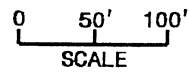


I-40 LPB  
 Pts Sta 8+05.32  
 Gs = 31° 03' 18.0"  
 Ls = 225.00'  
 Lt = 152.38'  
 ST = FNA6

-Y43-  
 P1 Sta 11+46.20  
 Δ = 14° 19' 08.9" (RT)  
 D = 5' 12" 31.3"  
 L = 274.9078'  
 T = 138.7738'  
 R = 1,000.0000'

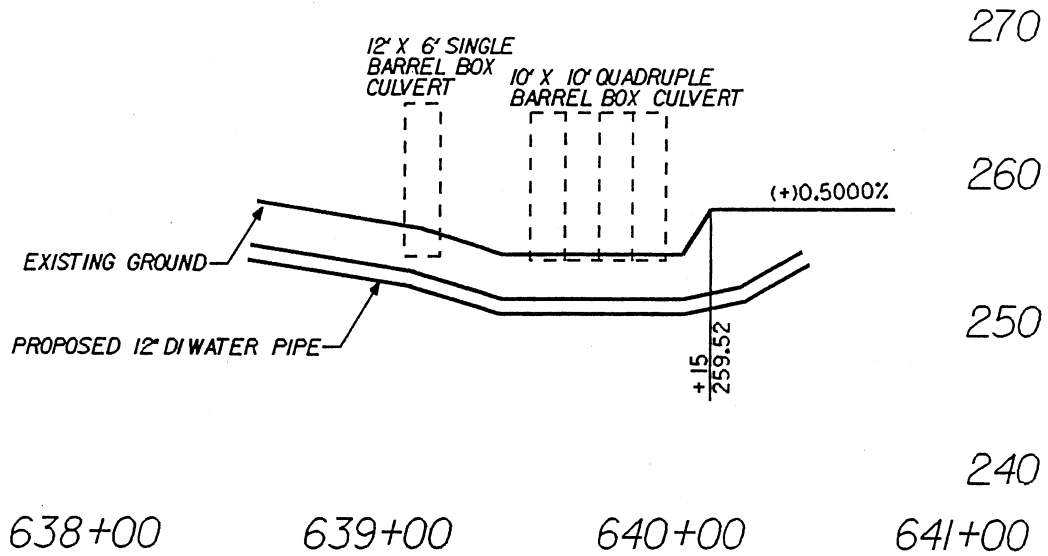
PROP. 192-12" DI RESTRAINED JOINT  
 WATER PIPE, CLASS 50, 350# WP  
 PROP. 4-12" 45° DI  
 RESTRAINED JOINT BENDS

SITE Z

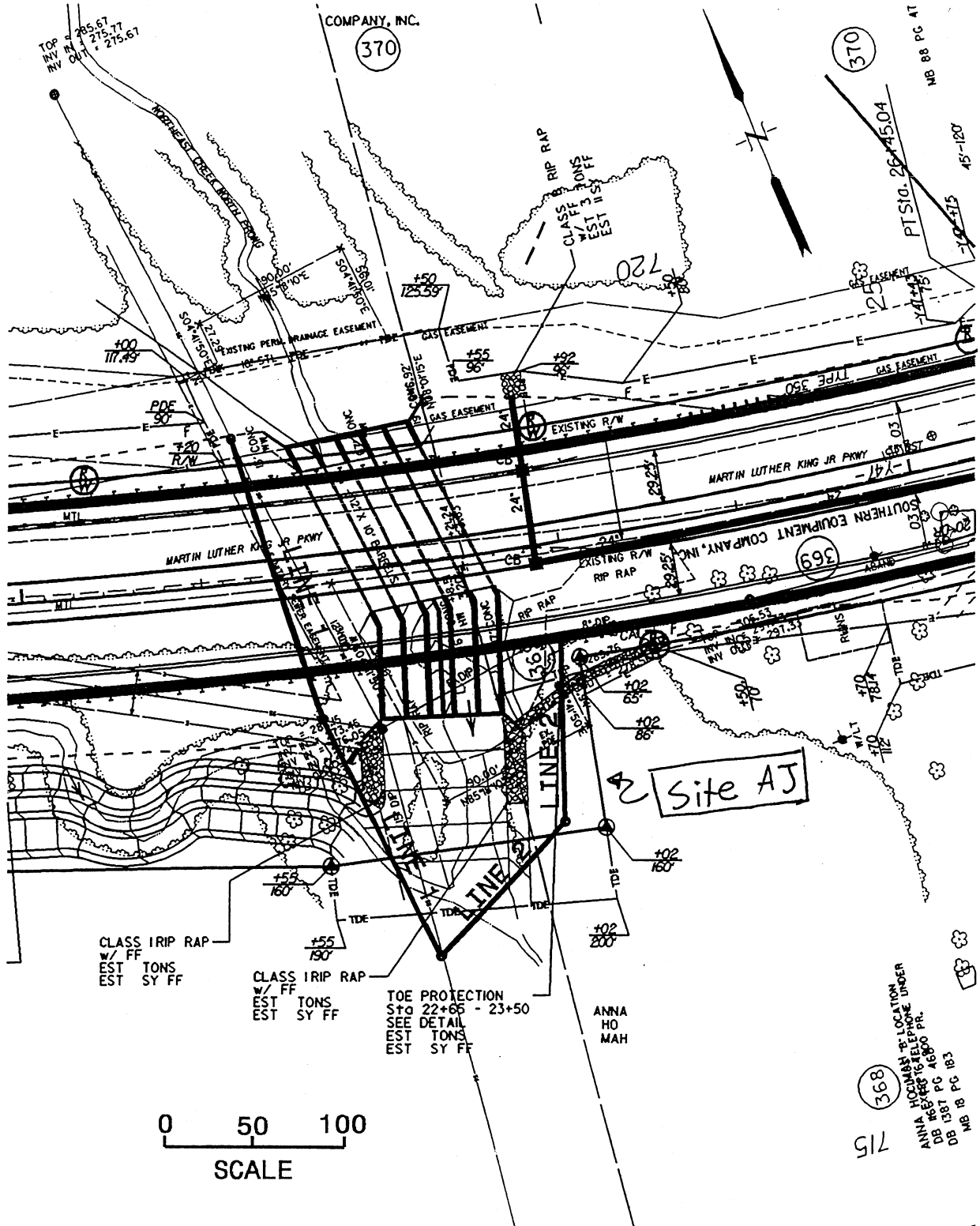


N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 6 of 11

SITE Z

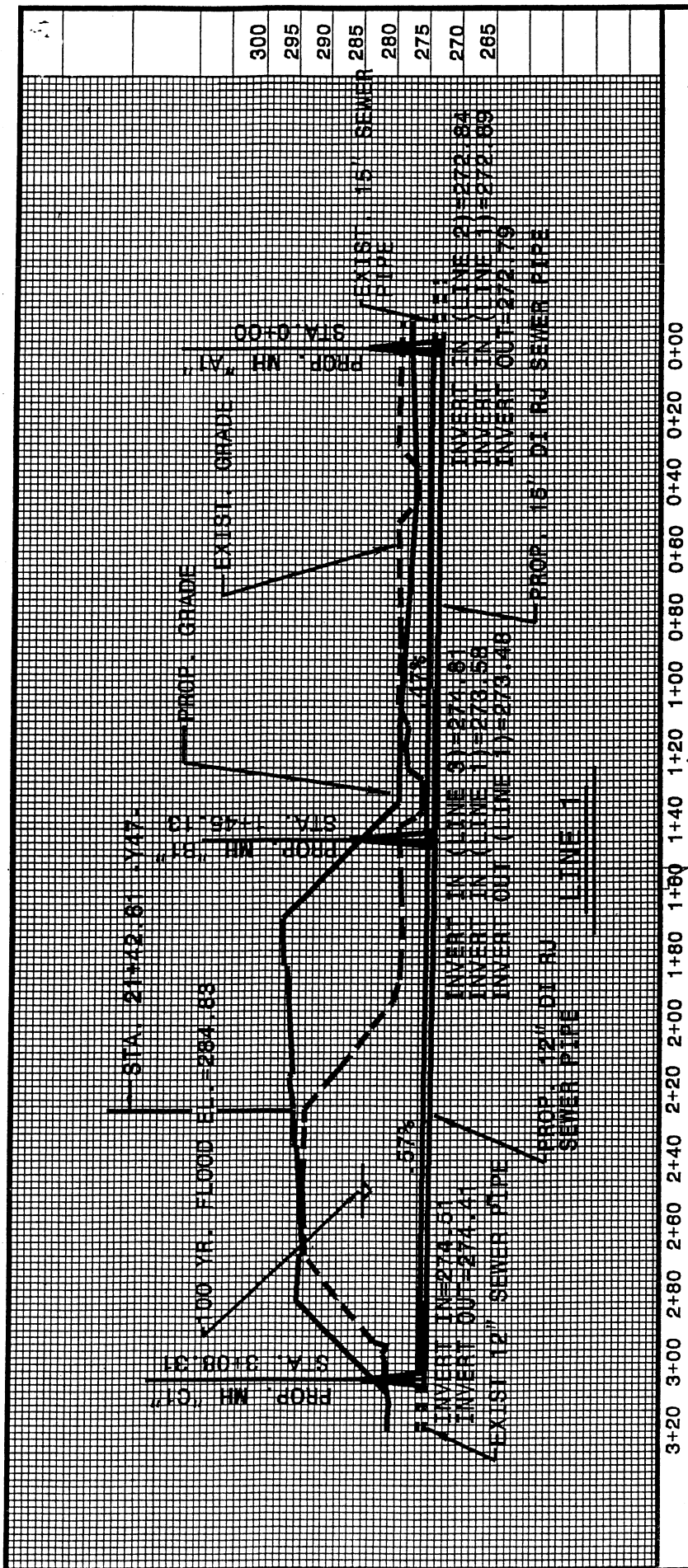


N. C. DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
DURHAM-WAKE COUNTY  
PROJECT 8.1403901  
R-2906C UTILITY  
NC 55 From North of North Wake  
Expressway to SR 1121 Cornwallis  
Road in Durham  
Sheet 7 of 11



SITE AJ

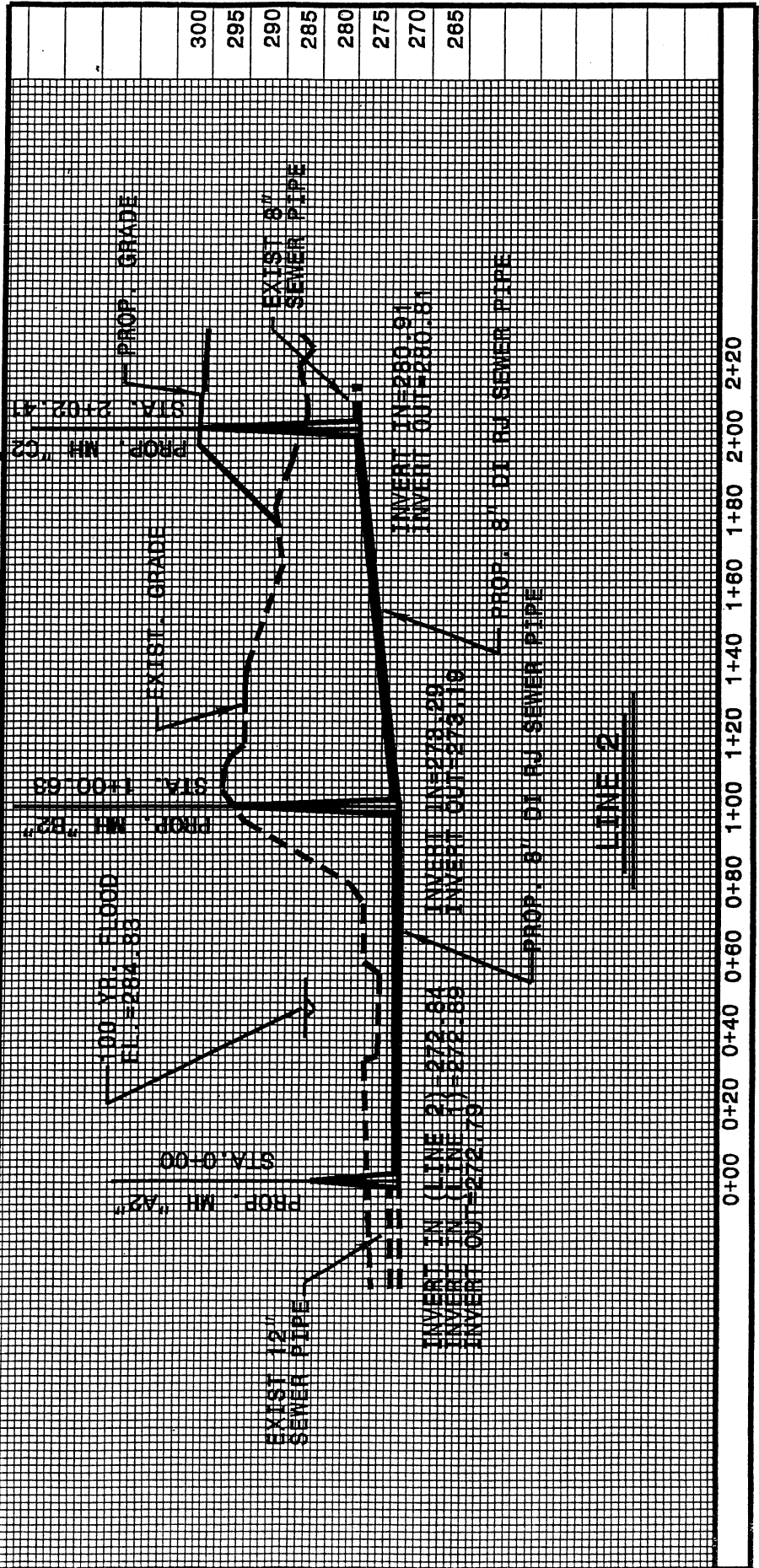
N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 8 of 11



300
295
290
285
280
275
270
265

SITE AJ

N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 9 of 11



300
295
290
285
280
275
270
265

SITE AJ

N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8.1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 10 of 11

Utility Impact Summary

Additional temporary impacts

Site	Station Number	Plan View Permit Drawing	Fill in Surface Water (Natural) Acre	Existing Stream Channel Impacted (Feet) Mitigation	Existing Stream Channel Impacted (Feet) No Mitigation	Temporary Channel Impact (Feet)	Relocated Stream Channel (Feet)	Proposed On-Site Stream Mitigation (Feet)	Stream Channel Loss After On-Site Mitigation	Proposed 2:1 Off-Site Compensatory Stream Mitigation (Feet)
AI' & AJ'	-Y47-21+24	46 of 52	0	-	-	5	-	-	-	-

The revision involves the relocation of two gravity sewer lines that are in conflict with proposed culvert construction at approximate Station 21+42, -Y47-. There will be no additional fill placed in the existing stream and no relocation of the stream associated with this utility work. The site is identified as AI' & AJ' and corresponds with sites identified in the original permit application dated January 3, 2001.

Impacts simultaneous with culvert extension

Site	Station Number	Plan View Permit Drawing	Fill in Surface Water (Natural) Acre	Existing Stream Channel Impacted (Feet) Mitigation	Existing Stream Channel Impacted (Feet) No Mitigation	Temporary Channel Impact (Feet)	Relocated Stream Channel (Feet)	Proposed On-Site Stream Mitigation (Feet)	Stream Channel Loss After On-Site Mitigation	Proposed 2:1 Off-Site Compensatory Stream Mitigation (Feet)
Z	-L-639+00 to 640+00	40 of 52	0	-	-	3	-	-	-	-

The revision involves the relocation of an existing ductile iron water line outside the wingwalls of the proposed culvert and culvert extensions at approximate Station 639+76 -L-. The existing water line is being impacted by the culvert extension and the new culvert construction to the south. Due to the anticipated method of construction, water will be diverted around a portion of the existing culvert to facilitate construction of the culvert extension to the east. The water line can be installed by open cut through the channel at this location at that time.

N. C. DEPT. OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 DURHAM-WAKE COUNTY  
 PROJECT 8-1403901  
 R-2906C UTILITY  
 NC 55 From North of North Wake  
 Expressway to SR 1121 Cornwallis  
 Road in Durham  
 Sheet 11 of 11

4M14

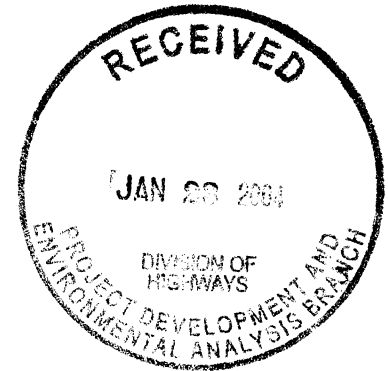


DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS

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

January 20, 2004

IN REPLY REFER TO



Regulatory Division

SUBJECT: Action ID 200120353; TIP No. R-2906

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

Dear Dr. Thorpe:

Reference the Department of the Army permit issued on June 19, 2001 (AID 200120353; TIP R-2906; NC 55 Widening), for the discharges of fill material in waters of the United States, including wetlands, to facilitate construction of widening of NC 55 (T.I.P. No. R-2906), in the Cape Fear and Neuse River basins, from north of US 64 in Wake County, to north of SR 1121 in Durham County, North Carolina. Reference also your December 5, 2003 letter requesting modification of the permit, to authorize a change in the plan to divert the stream channel for culvert construction, at Station Y+47 17+65 to 22+19 left in Section C.

We have reviewed your proposal and have determined that there are no additional impacts to waters of the United States, and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize the revised stream diversion, as shown on the attached drawing. No additional mitigation will be required for this modification.

It is understood that all other conditions of the permit, including the expiration date, remain applicable. Please note that the current permit expiration date is December 31, 2004, less than one year away.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,

*S. Kenneth Jolly*  
for Charles R. Alexander, Jr.  
Colonel, U.S. Army  
District Engineer

Enclosure

Copies Furnished (without attachment):

Ms. Emily Lawton  
Federal Highway Administration  
310 New Bern Ave., Rm. 410  
Raleigh, North Carolina 27601-1442

Mr. John Dorney  
Division of Water Quality  
North Carolina Department of  
Environment and  
Natural Resources  
1650 Mail Service Center  
Raleigh, NC 27699-1650

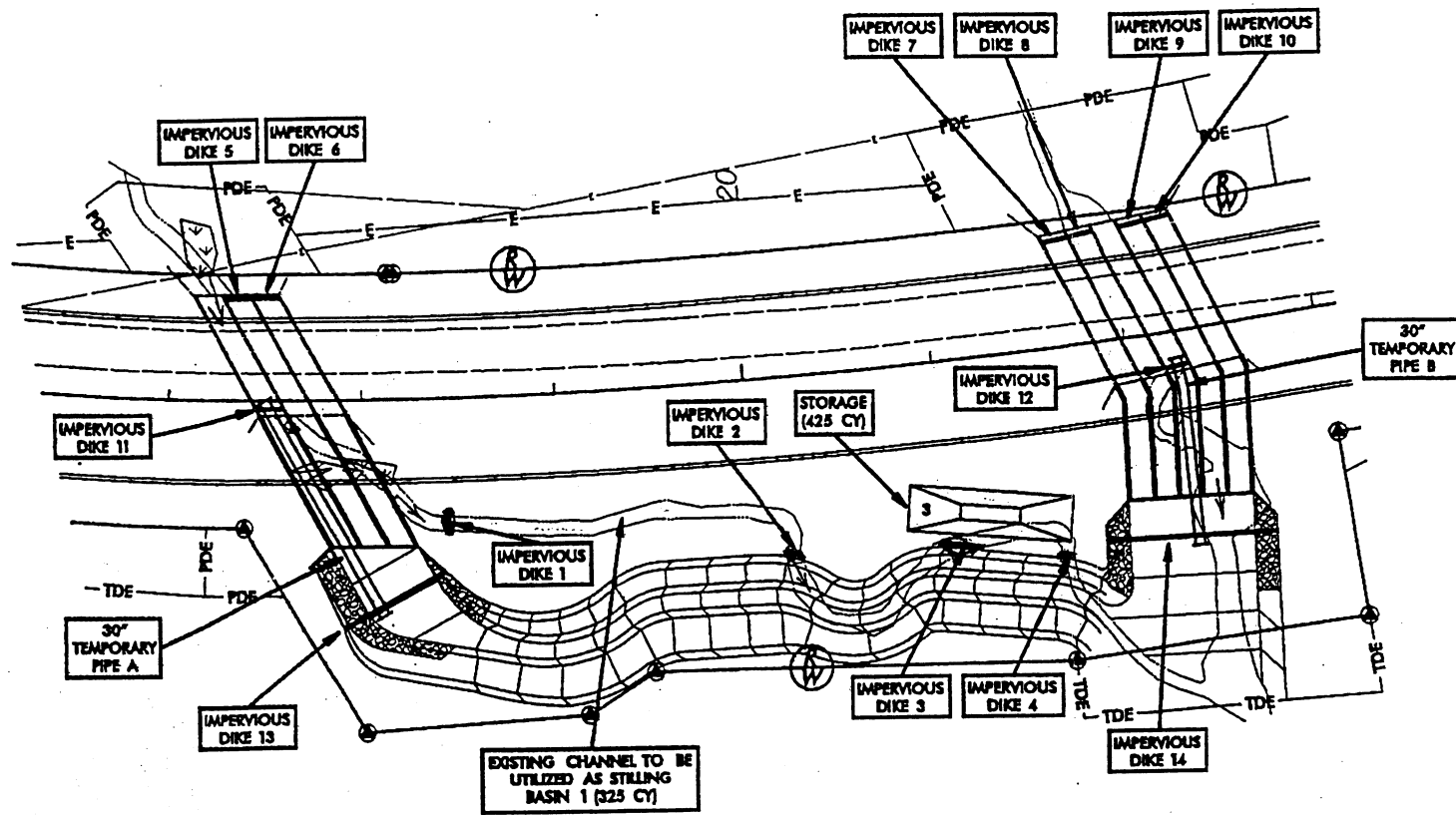


# CULVERT CONSTRUCTION SEQUENCE (SIA. 22+18.58 & 17+03.02 -1477)

ROADWAY DESIGN  
ENGINEER

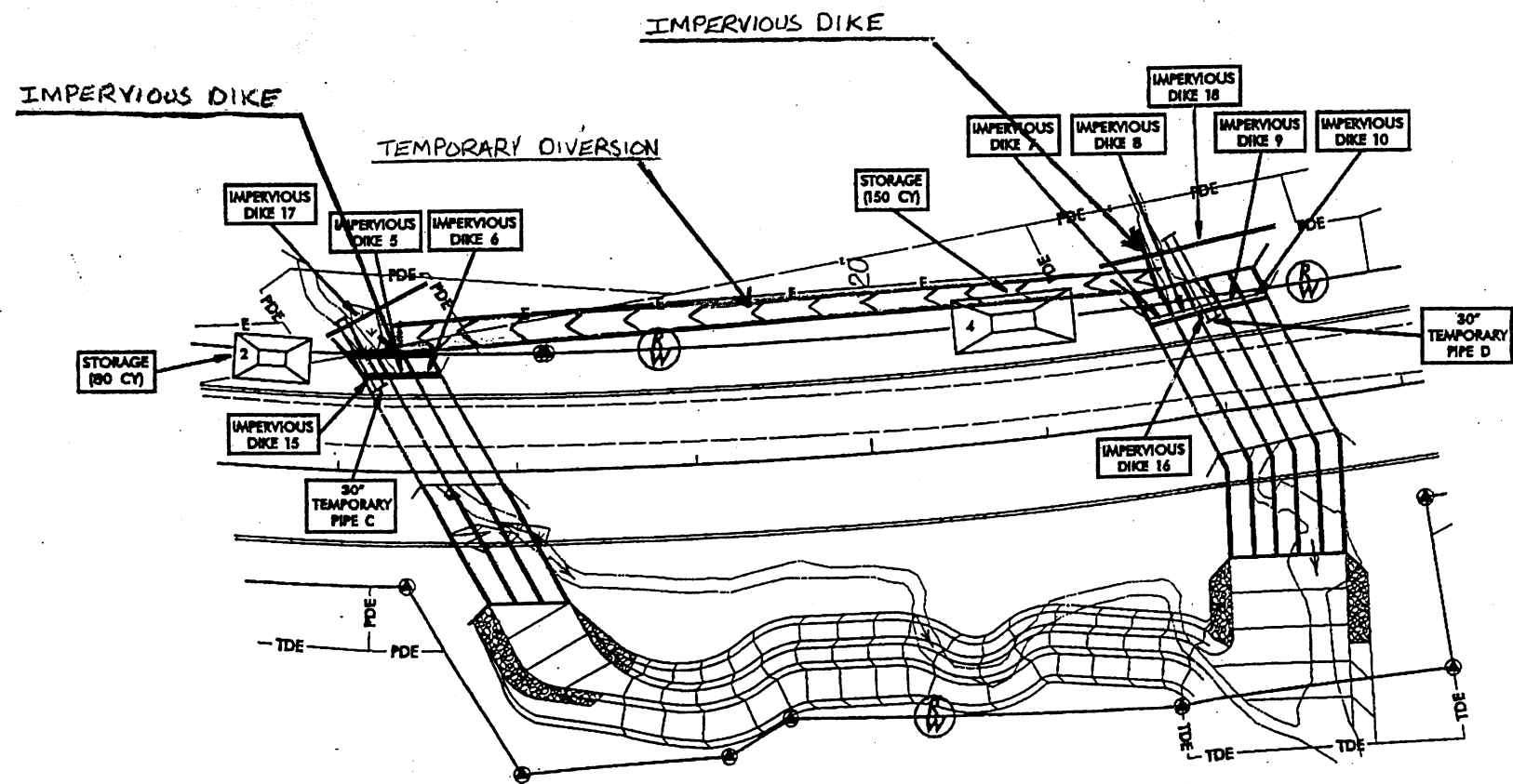
HYDRAULICS  
ENGINEER

## PHASE I



1. RELOCATE THE NORTHEAST CREEK, NORTH PRONG, TRIBUTARY A CHANNEL FROM THE EXISTING OUTLET OF THE 3 @ 12' X 8' RCBC TO THE CONFLUENCE OF NORTHEAST CREEK, NORTH PRONG. DIVERT WATER FROM THE EXISTING CHANNEL INTO THE PROPOSED CHANNEL USING IMPERVIOUS DIKES 1, 2, 3, AND 4.
2. UTILIZE EXISTING (OLD) CHANNEL AS STILLING BASIN 1 (325 CY) AND CONSTRUCT STILLING BASIN 3 (425 CY).
3. CONSTRUCT IMPERVIOUS DIKES 5, 6, 7, 8, 9, AND 10.
4. CONSTRUCT IMPERVIOUS DIKES 11 AND 13, AND 30" TEMPORARY PIPE A. CONSTRUCT IMPERVIOUS DIKES 12 AND 14, AND 30" TEMPORARY PIPE B.
5. CONSTRUCT DOWNSTREAM CULVERT EXTENSIONS AND OUTLET CHANNEL IMPROVEMENTS FOR BOTH CULVERTS.
6. REMOVE IMPERVIOUS DIKES 1 - 4 AND 11 - 14, 30" TEMPORARY PIPES A AND B, AND STILLING BASINS 1 AND 3.

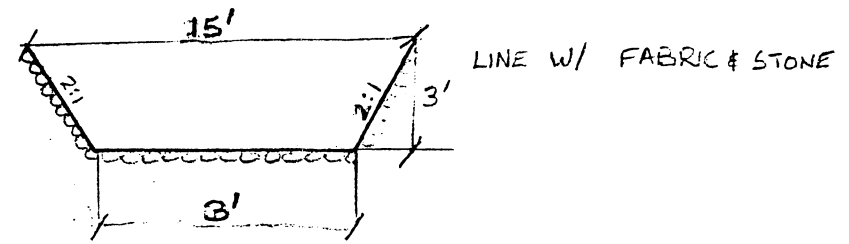
## PHASE II



— BY CONSTRUCTION OF TEMPORARY DIVERSION  
— CHANNEL RELOCATION AND CULVERT EXTENSION CAN BE CONSTRUCTED IN DRY.

7. CONSTRUCT STILLING BASIN 2 (80 CY) AND STILLING BASIN 4 (150 CY).
8. CONSTRUCT IMPERVIOUS DIKES 15 AND 17, AND 30" TEMPORARY PIPE C. CONSTRUCT IMPERVIOUS DIKES 16 AND 18, AND 30" TEMPORARY PIPE D.
9. CONSTRUCT UPSTREAM CULVERT EXTENSIONS AND INLET CHANNEL IMPROVEMENTS FOR BOTH CULVERTS.
10. COMPLETE ROADWAY.

### TEMPORARY DIVERSION DETAIL



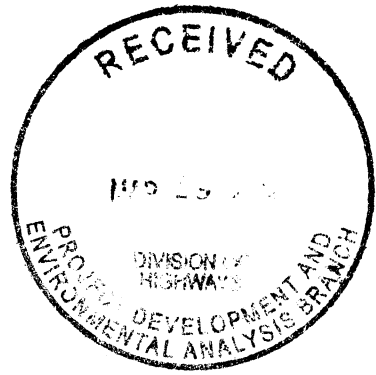
Naney



DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS

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

March 17, 2004



IN REPLY REFER TO

Regulatory Division

SUBJECT: Action ID 200120353; TIP No. R-2906

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

Dear Dr. Thorpe:

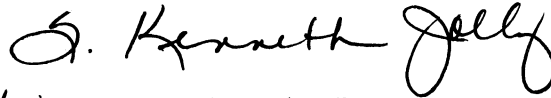
Reference the Department of the Army permit issued on June 19, 2001 (AID 200120353; TIP R-2906; NC 55 Widening), for the discharges of fill material in waters of the United States, including wetlands, to facilitate construction of widening of NC 55 (T.I.P. No. R-2906), in the Cape Fear and Neuse River basins, from north of US 64 in Wake County, to north of SR 1121 in Durham County, North Carolina. Reference also your July 10, 2003 letter requesting modification of the permit, to authorize reduction of the requirement to bury two separate box culvert extensions. One of the culvert extensions cannot be buried a full foot because to do so would put a reverse slope on the extension because of the elevation of the existing culvert invert. The other culvert extension cannot be buried because of rock at the site.

We have reviewed your proposal and have determined that there are no additional impacts to waters of the United States, and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize the revised construction of the two culvert extensions, in TIP R-2906A at Station 100+00 right, and in TIP R-2906C at Station 509+00 right, as described in your request. No additional mitigation will be required for this modification.

It is understood that all other conditions of the permit, including the expiration date, remain applicable. Please note that the current permit expiration date is December 31, 2004, less than one year away.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,



*for* Charles R. Alexander, Jr.  
Colonel, U.S. Army  
District Engineer

Copies Furnished

Ms. Emily Lawton  
Federal Highway Administration  
310 New Bern Ave., Rm. 410  
Raleigh, North Carolina 27601-1442

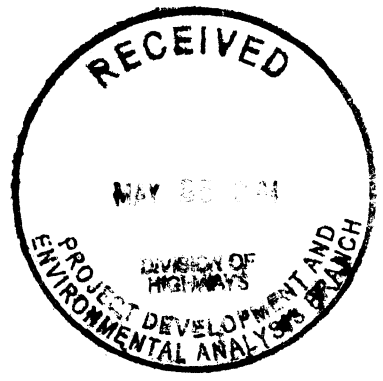
Mr. John Dorney  
Division of Water Quality  
North Carolina Department of  
Environment and  
Natural Resources  
1650 Mail Service Center  
Raleigh, NC 27699-1650

Haney



REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
WILMINGTON DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 1890  
WILMINGTON, NORTH CAROLINA 28402-1890

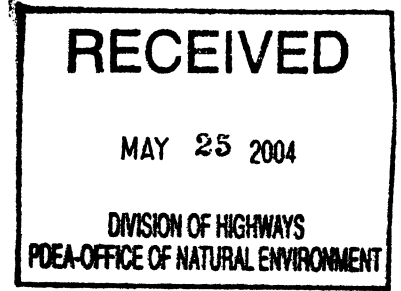


May 20, 2004

Regulatory Division

SUBJECT: Action ID 200120353; TIP No. R-2906

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



Dear Dr. Thorpe:


Reference the Department of the Army permit issued on June 19, 2001 (AID 200120353; TIP R-2906; NC 55 Widening), for the discharges of fill material in waters of the United States, including wetlands, to facilitate construction of widening of NC 55 (T.I.P. No. R-2906), in the Cape Fear and Neuse River basins, from north of US 64 in Wake County, to north of SR 1121 in Durham County, North Carolina. Reference also your March 8, 2004 letter requesting modification of the permit, to authorize construction of a rock embankment in a pond, to stabilize the steep slope necessary to reduce the fill impact.

We have reviewed your proposal and have determined that there the additional impacts to waters of the United States are minor (0.03 acre of fill impact in an open water pond), and an additional public notice is not necessary. Therefore, the permit is hereby modified to authorize the revised construction of the fill slope, to include a rock embankment, from Station L470+15 to 472+40 right, in TIP R-2906, Section C, as shown in the attached drawing. No additional mitigation will be required for this modification.

It is understood that all other conditions of the permit, including the expiration date, remain applicable. Please note that the current permit expiration date is December 31, 2004, less than eight months away.

If you have questions, please contact Eric Alsmeyer of the Raleigh Regulatory Field Office, at telephone (919) 876-8441, extension 23.

Sincerely,

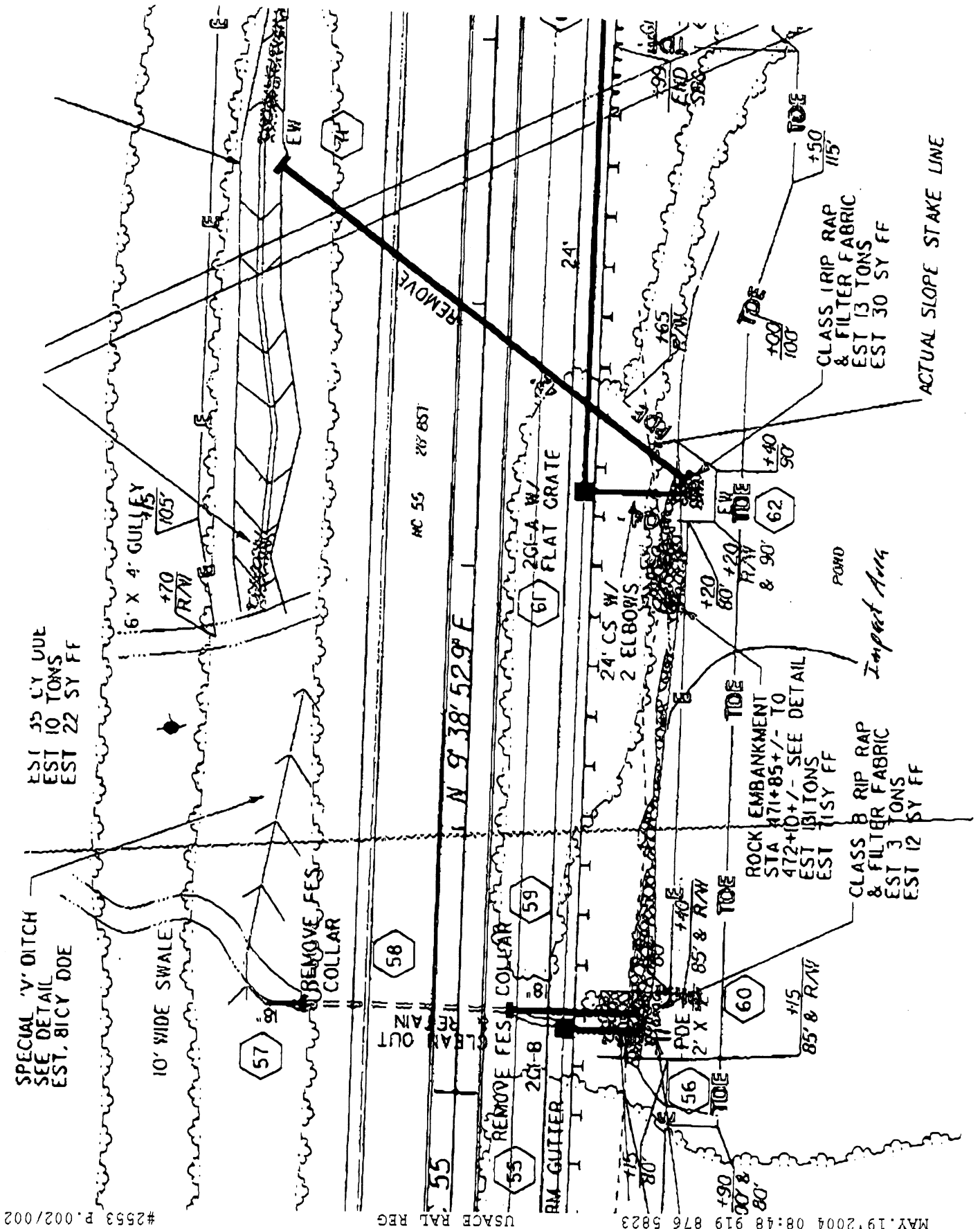
  
for Charles R. Alexander, Jr.  
Colonel, U.S. Army  
District Engineer

Enclosure

Copies Furnished (without enclosure):

Ms. Emily Lawton  
Federal Highway Administration  
310 New Bern Ave., Rm. 410  
Raleigh, North Carolina 27601-1442

Mr. John Dorney  
Division of Water Quality  
North Carolina Department of  
Environment and  
Natural Resources  
1650 Mail Service Center  
Raleigh, NC 27699-1650



#2553 P:002/002

USACE PAL REG

MAY.19'2004 08:48 919 876 5823