



STATE OF NORTH CAROLINA  
**DEPARTMENT OF TRANSPORTATION**

P.O. BOX 25201, RALEIGH, NC 27611-5201

## CERTIFICATION OF RULEMAKING

<b>Certifying Agency:</b> Department of Transportation				
<b>Action:</b>	<input checked="" type="checkbox"/>	Adoption	<input type="checkbox"/>	Repeal
<b>Statutory Authority:</b> 20-115.1 (g).				
<b>Public Hearing Not Required For This Action Under:</b> GS 150A-1, 20-1.				
<b>Rule Summary:</b> STAA Designated Route (Twins Only).				
<b>Circumstances Requiring Rule Adoption, Repeal:</b> Necessary for public safety and welfare.				
<b>Effective Date:</b> November 30, 2011				

November 30, 2011

DATE

  
OFFICER SIGNATURE

James. K. Lacy, P.E.

TYPED NAME

State Traffic Engineer

TITLE



STATE OF NORTH CAROLINA  
**DEPARTMENT OF TRANSPORTATION**

P.O. BOX 25201, RALEIGH, NC 27611-5201

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## STAA Designated Route (Twins Only)

The Board of Transportation has delegated to the Secretary of Transportation the authority to adopt and promulgate all rules and regulations and ordinances regulating traffic on the highways pursuant to authority of N.C.G.S 143B-350 (g) (see 19ANCAC 4A.0004).

The State Traffic Engineer is subdelegated the authority by the Secretary of Transportation to adopt and promulgate all necessary rules, regulations and ordinances for the use of and to police traffic on state highways, and to set, change, or extend route numbers on the Primary Highway System of North Carolina pursuant to authority of N.C.G.S 143B-350(g) (see 19ANCAC 4A.0004).

Pursuant to that delegation, the State Traffic Engineer hereby adopts and promulgates the following ordinances based on traffic and engineering studies performed by the Traffic Engineering Branch, Department of Transportation, and in accordance with General Statute 20-115.1 (g).

**COUNTY** JOHNSTON                      **DIVISION** 4

### DECLARE THE FOLLOWING

County	Ordinance Number	Route	Long Description
JOHNSTON	1063678	NC 540	Designated Route between the Wake County line and the Wake County line.

**COUNTY** DURHAM                      **DIVISION** 5

### DECLARE THE FOLLOWING

County	Ordinance Number	Route	Long Description
DURHAM	1063670	NC 147	Designated Route between I 85 and SR 2028 (T.W. Alexander Drive).
DURHAM	1063673	NC 540	Designated Route between I 40 and the Wake County line.

**COUNTY** WAKE                      **DIVISION** 5

### DECLARE THE FOLLOWING

County	Ordinance Number	Route	Long Description
WAKE	1063672	US 64	Designated Route between the Chatham County line and US 1, SR 1009 (Regency Parkway, Tryon Road).
WAKE	1063674	NC 540	Designated Route between the Durham County line and US 64, US 264.

---

COUNTY CHATHAM

DIVISION 8

**DECLARE THE FOLLOWING**

County	Ordinance Number	Route	Long Description
CHATHAM	1063671	US 64	Designated Route between US 15, US 501 (Hillsboro Street, Chapel Hill Road) and the Wake County line.

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The foregoing Highway Traffic Ordinances are hereby adopted in accordance with the General Statutes of North Carolina (20-115.1 (g)).

**All the actions to the Highway Traffic Ordinances herein adopted are effective November 30, 2011 and are identified as follows:**

<b>ORDINANCE TYPE</b>	<b>ADOPT</b>	<b>REPEAL</b>
STAA Designated Route (Twins Only)	6	0
<b>Total</b>	<b>6</b>	<b>0</b>

The Division Engineer for each affected Division shall cause to be erected appropriate signs indicating the action of the State Traffic Engineer and these ordinances shall be in full force and effect from and after the erection of such signs.

November 30, 2011  
\_\_\_\_\_  
**DATE**

\_\_\_\_\_  
**OFFICER SIGNATURE**

James. K. Lacy, P.E.

\_\_\_\_\_  
**TYPED NAME**

State Traffic Engineer

\_\_\_\_\_  
**TITLE**

The foregoing Highway Traffic Ordinances are hereby adopted in accordance with the General Statutes of North Carolina (20-115.1 (g)).

All the actions to the Highway Traffic Ordinances herein adopted are effective November 30, 2011 and are identified as follows:

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<b>Total</b>	<b>6</b>	<b>0</b>

The Division Engineer for each affected Division shall cause to be erected appropriate signs indicating the action of the State Traffic Engineer and these ordinances shall be in full force and effect from and after the erection of such signs.

November 30, 2011  
\_\_\_\_\_  
DATE

  
\_\_\_\_\_  
OFFICER SIGNATURE

James. K. Lacy, P.E.

\_\_\_\_\_  
TYPED NAME

State Traffic Engineer

\_\_\_\_\_  
TITLE



KEVIN LACY  
 TRAFFIC ENGINEERING  
 MSC 1561

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
 GOVERNOR

1501 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1501

December 2, 2011

MEMO TO: Terry Gibson, P.E.; Jon Nance, P.E.; Calvin Leggett, P.E.;  
 Greg Thorpe, Ph.D.; Deborah Barbour, P.E.; Beth McKay;  
 Miriam Perry; Pat Simmons; Mark Foster

FROM: Tammy Ashley *ta*

SUBJECT: November 30 – December 1, 2011 Board of Transportation Meeting

**TRAFFIC ENGINEERING  
 GREENFIELD PARKWAY  
 RECEIVED**  
 EUGENE A. CONTI, JR.  
 SECRETARY  
 DEC 5 2011

Refer  
 To \_\_\_\_\_

FILE  TAA  
 SEE ME  FYI  
 REVIEW & COMMENT  
 INVEST & REPORT  
 PLEASE ANSWER  
 REPLY FOR MY SIGNATURE

The Board of Transportation at its meeting on November 30 – December 1, 2011 in Raleigh took the following actions:

1. The Board unanimously approved the minutes of November 2 - 3, 2011 meeting.
2. With respect to the award of contracts covering construction projects in the November 15, 2011 letting (Item C), the Board took the following action:
  - a. Projects were awarded by the Secretary to the low bidder on all projects except for Project C202862 in Orange County and Project C202585 in Watauga/Caldwell Counties. Action is being delayed on these two projects to allow additional time for the Good Faith Effort appeal process. Once resolved, staff will make a recommendation to the Secretary.

Note: Award of contracts involving the use of federal-aid funds is subject to concurrence by The Federal Highway Administration.

3. The Board approved the remaining recommendations as set forth in Item D through Item T after the following corrections and additions were made to the Board's agenda:
  - a. Item G, Page G-1, Pet. No. 49878 in Hoke County should be listed in Division 8.
  - b. Handout Item I-2-1 was distributed. (Atta. #1)
  - c. Item N, Page 2, Division 2, Project E-4736, "Construction FFY 13" should be "Construction FFY 12".
  - d. Item N, Pages 10 & 11, STIP deletions, in the right column, Number 6 – 14, all "5515" string should read "5555".
  - e. Item R, Page 10, Project B-2555A in Forsyth County should be listed as Division 9.

4. Additional Business Items

- a. A Resolution to change the timing on approvals for Right of Way plans was approved.
- b. Designation of Twin Trailer Routes for NC 147 in Durham County, US 64 in Chatham and Wake Counties and NC 540 in Durham, Wake and Johnston Counties were approved.  
There was approval for the Department to enter into a full funding grant agreement regarding the Blue Line Extension Project.
- d. Upon the recommendation of the Road Naming Committee, the Board approved a Resolution for Jeff Gordon. (Atta. #2)
- e. Upon the recommendation of the Road Naming Committee, the Board approved a Resolution for Horace B. Phillips. (Atta. #3)
- f. Upon the recommendation of the Road Naming Committee, the Board approved a Resolution for Patrolman W. H. Hogan and Police Chief C.B. Taylor. (Atta. #4)
- g. Upon the recommendation of the Road Naming Committee, the Board approved a Resolution for F. Donald Rohrbaugh. (Atta. #5)

The next Board meeting is scheduled for **January 4 – 5, 2012** in Raleigh. Agenda information should be sent to Reproduction by Wednesday, December 14, 2011. If you need assistance in the preparation of next month's Board agenda, please call Sarah Mitchell at 707-4612 or Tammy Ashley at 707-2800.

Attachments

cc: Secretary Gene Conti  
Chief Operating Officer Jim Trogdon  
Deputy Secretary Susan Coward  
Division Engineers

Ms. Sarah Mitchell  
Deputy Secretary Anthony Roper  
Deputy Secretary Paul Morris



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

July 15, 2011

Honorable Representative Thomas R. Tillis  
Honorable Senator Philip Edward Berger  
Co-Chairs, Joint Legislative Commission on Governmental Operations  
North Carolina General Assembly  
Legislative Building  
16 West Jones Street  
Raleigh, North Carolina 27601

Subject: Designation of NC 540 for use by Trucks with Twin Trailers

Dear Gentlemen:

It is our recommendation to designate NC 540 (counterclockwise) between I-40 and US 64/264 in Durham, Johnston and Wake Counties as a twin trailer route. These additions to the North Carolina Truck Network were initiated internally by NCDOT's Transportation Mobility and Safety Division. In accordance with designation procedures outlined in General Statute §20-115.1, we have completed the following requirements:

- A determination of public convenience and need (§20-115.1, g, 1)
- A traffic engineering study indicating the subject route can safely accommodate and has sufficient capacity to handle these vehicle combinations (§20-115.1, g, 2)
- The opportunity for a public hearing has been provided in each county through which the subject route passes (§20-115.1, g, 3)

There was one citizen in attendance of the public hearing, and several comments were received prior to the public hearing. The one specific concern raised was related to noise, which is covered by other general statutes and is not specific to this proposed designation.

This route was planned as an interstate and would have been, by default, available to twin trailers. The Turnpike Authority decided this route would be a NC route rather than an interstate; as such the route was designed to high design (interstate) standards and can accommodate the proposed truck combinations. Also, there are no truck crash issues along the existing portion of the route.

There was also some confusion that NC 540 would only allow commuter/passenger vehicles, but all trucks up to and including those with 53-foot trailers are allowed on all primary routes by general statute (20-115.1).

**MAILING ADDRESS:**  
TRANSPORTATION MOBILITY AND SAFETY DIVISION  
1561 MAIL SERVICE CENTER  
RALEIGH NC 27699-1561

TELEPHONE: 919-773-2800  
FAX: 919-771-2745

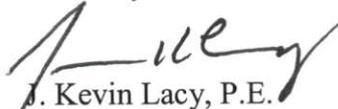
WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

**LOCATION:**  
750 NORTH GREENFIELD PARKWAY  
GARNER NC 27529

Honorable Representative Thomas R. Tillis  
Honorable Senator Philip Edward Berger  
July 15, 2011  
Page 2 of 2

Please contact me at (919) 773-2800 if you have any questions or need additional details including the specific findings of our investigation.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Kevin Lacy". The signature is fluid and cursive, with a large initial "J" and "L".

J. Kevin Lacy, P.E.  
State Traffic Engineer

JKL/lna

cc: Eugene A. Conti, Jr., Secretary of Transportation  
Terry R. Gibson, P.E., State Highway Administrator  
Beau Memory, Legislative Liaison

**Transportation Mobility and Safety Division  
North Carolina Department of Transportation**

**PROPOSED DESIGNATION**

The following is information on the proposed designation of certain routes on the State Highway System for use by one or more types of Surface Transportation Assistance Act (STAA) dimensioned vehicles. The process for designating portions of the State Highway System is outlined in G.S. §20-115.1(g).

Request Number: D-07-3

Route(s): NC 540 (current, under construction, and proposed)

County/Counties: Durham, Johnston, and Wake

Division(s): 5 and 8

Description: NC 540 counterclockwise between Interstate 40 and US 64/264

STAA Vehicle(s): Truck Tractors with Twin Trailers

Contact Person: Lisa Avery, STAA Program Coordinator  
919-773-2893  
[lavery@ncdot.gov](mailto:lavery@ncdot.gov)

Origination: December 12, 2007

Requested By: North Carolina Department of Transportation

Investigation(s): January 30, 2009

Support: City of Durham

Opposition: Some citizen opposition received

Public Notice: None for Wake County (hearing requested by the Town of Morrisville and the  
Town of Cary)  
Durham County Courthouse (2/1/11)  
Johnston County Courthouse (2/1/11)  
NCDOT News Release (2/3/11)  
The Smithfield Herald (2/10/11 and 2/17/11)  
Herald Sun (2/10/11 and 2/17/11)  
Que Pasa (2/10/11 and 2/17/11)  
Clayton News Star (2/9/11 and 2/16/11)

Administrator: March 21, 2011

Hearing Notice: Wake County Courthouse (4/28/11)  
Que Pasa (5/5/11 and 5/12/11)  
News & Observer (5/5/11 and 5/12/11)  
NCDOT News Release (5/16/11)

Public Hearing: May 24, 2011 (7:00 p.m.)  
Town of Cary – Town Hall  
Council Chambers  
316 North Academy Street, Cary

Date to Joint Legislative Commission on Governmental Operations:

July 18, 2011 (sent)  
July 19, 2011 (receipt confirmation)

Date Legislative Consultation Complete:

October 17, 2011

Date to Board of Transportation:

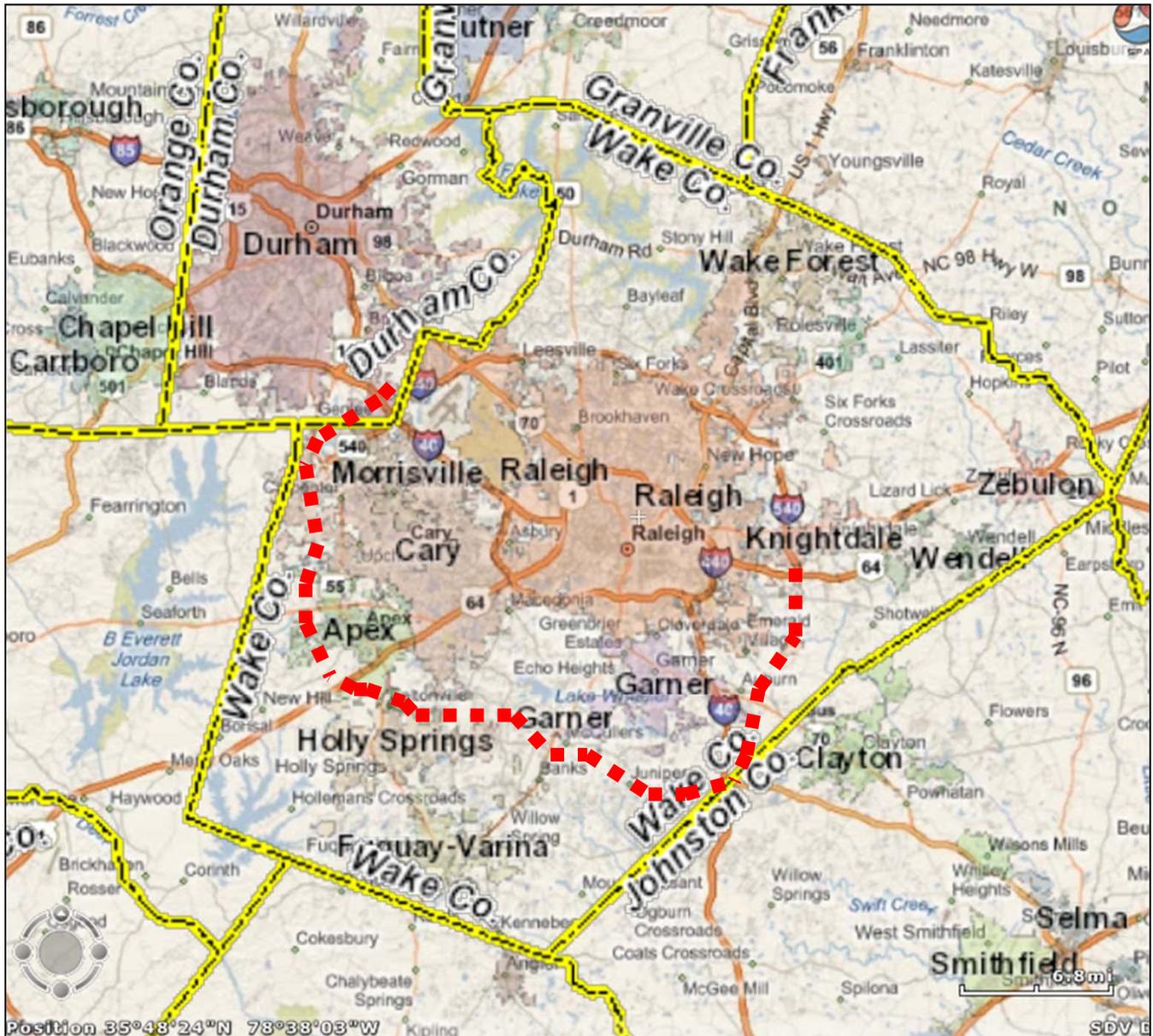
November 30, 2011

**D-07-3**

**Designation of Twin Trailer Trucks on NC 540 counterclockwise between Interstate 40 and US 64/264 in Durham, Johnston, and Wake Counties  
39.7 miles (STIP Projects: R-2635, R-2721, R-2828, and R-2829)**

Map 1:

Location of proposed designated route in relationship to major roads, counties, and municipalities.

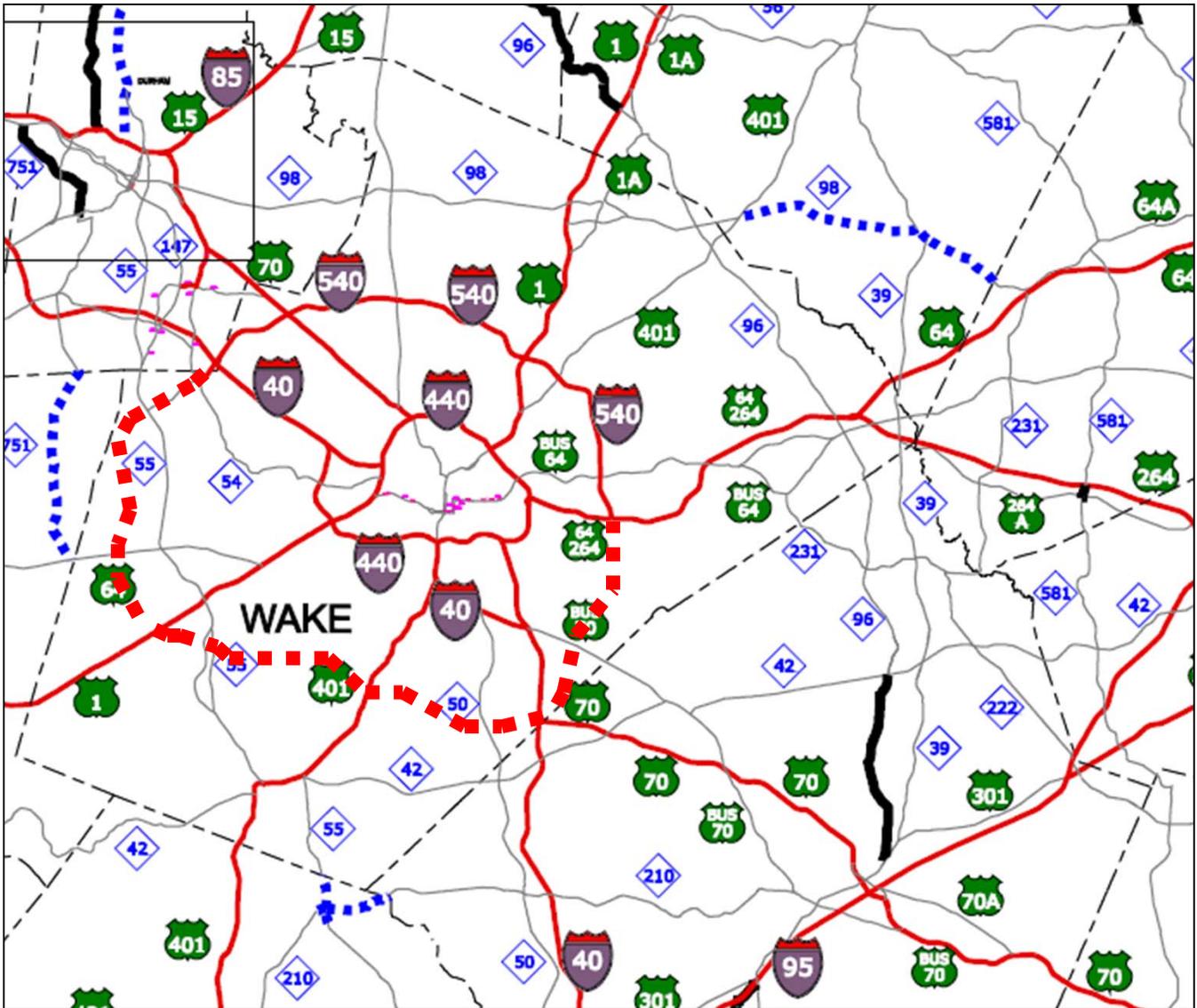


Proposed Designation

**D-07-3**

**Designation of Twin Trailer Trucks on NC 540 counterclockwise between Interstate 40 and US 64/264 in Durham, Johnston, and Wake Counties  
39.7 miles (STIP Projects: R-2635, R-2721, R-2828, and R-2829)**

Map 2:  
Location of proposed addition to the North Carolina Truck Network (NCTN).



-  Routes available to 53-foot trailers and twin trailers
-  Routes available to 53-foot trailers
-  Routes with a truck restriction
-  Routes under study for truck restrictions
-  Proposed Designation



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

January 30, 2009

In Reply Refer  
To File No.: D-07-3

MEMORANDUM

TO: Anthony D. Wyatt, PE, PTOE  
Central Regional Mobility & Safety Engineer

FROM: Kelly L. Becker, PE *Kelly L. Becker*  
Capital Regional Traffic Engineer

SUBJECT: STAA Route Designation on NC 540 from NC 55 in Wake County to I-40 in Durham County

This is in reference to a request from Transportation Mobility & Safety Division Director J. Kevin Lacy for an STAA route designation on NC 540 from NC 55 in Wake County to I-40 in Durham County.

Our office has completed a traffic engineering study of the requested route. The following are our findings and recommendations:

General:

The requested route is approximately 3.96 miles and passes through the City of Durham and the Town of Morrisville (see attached map). This section of freeway was opened to traffic on July 14, 2007.

Lane Configurations and Widths:

1. The entire section of NC 540 from NC 55 to I-40 is a full control of access, six-lane divided freeway with 12 ft. inside and outside paved shoulders. Travel lanes are 12 ft. in width.

Length = 3.96 miles

Pavement Condition:

The entire section is concrete and pavement condition is excellent.

Alignment:

The horizontal and vertical alignments are excellent on the requested route. The entire section is a full control of access, six-lane divided freeway with median barrier throughout. The inside and outside paved shoulders are proposed future travel lanes. Therefore, milled rumble strips were not installed.

Anthony D. Wyatt, PE, PTOE  
January 30, 2009  
Page 2

Bridges/Overpasses:

All bridges/overpasses on the requested route have adequate clearance width and have no indicated weight or height restrictions.

Speed Limit:

The entire section has a speed limit of 65 mph.

Intersections:

Since the subject route is full-controlled access, there are no at-grade intersections.

Schools:

Since the subject route is a full-controlled access facility, any schools in the area are accessed from interchanges.

Railroad Crossings:

There are no at-grade railroad crossings on the requested route.

Traffic Volumes:

2007 ADT on the requested route is 17,400 VPD.

Crash History:

Crash analysis is for the time period the section of NC 540 has been open to traffic, from July 1, 2007 to August 31, 2008.

The entire section had 23 total crashes with one of these being truck crashes. The total crash rate of 80.48 crashes/100 mvm exceeds the statewide crash rate (68.9 crashes/100 mvm) but does not exceed the critical rate (96.19 crashes/100 mvm). In addition, the truck crash rate of 3.50 crashes/100 mvm does not exceed the statewide truck crash rate of 9.2 crashes/100 mvm or the truck critical rate of 20.31 crashes/100 mvm.

Attached is a listing of the crash rates for this section.

Anthony D. Wyatt, PE, PTOE  
January 30, 2009  
Page 2

Recommendations:

It is recommended that the requested route on NC 540 be **approved** for STAA route designation from NC 55 to I-40 for the following reasons:

1. Although the entire section of the requested route exceeds the statewide total crash rate, it does not exceed the critical total crash rate. The subject section analyzed also does not exceed the statewide truck crash rate or critical truck crash rate.
2. The subject route is a full-controlled access, six-lane, divided facility built to interstate standards.
3. The subject route has existing median barrier.

If you require additional information, please let me know.

Attachments

cc: Lisa Avery, w/attachments



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

July 15, 2011

Honorable Representative Thomas R. Tillis  
Honorable Senator Philip Edward Berger  
Co-Chairs, Joint Legislative Commission on Governmental Operations  
North Carolina General Assembly  
Legislative Building  
16 West Jones Street  
Raleigh, North Carolina 27601

Subject: Designation of US 64 for use by Trucks with Twin Trailers

Dear Gentlemen:

It is our recommendation to designate US 64 between US 15-501 in Chatham County and US 1 in Wake County as a twin trailer route. These additions to the North Carolina Truck Network were requested by Barnes Transportation Services, Inc. of Wilson. In accordance with designation procedures outlined in General Statute §20-115.1, we have completed the following requirements:

- A determination of public convenience and need (§20-115.1, g, 1)
- A traffic engineering study indicating the subject route can safely accommodate and has sufficient capacity to handle these vehicle combinations (§20-115.1, g, 2)
- The opportunity for a public hearing has been provided in each county through which the subject route passes (§20-115.1, g, 3)

Public hearings were held in both counties. No citizens attended the public hearing in Pittsboro requested by Chatham County, but the Chatham County Commissioners did provide some items for consideration prior to the meeting. One citizen attended the public hearing in Cary in Wake County, but several citizen comments were received prior to the meeting.

The concerns raised by the various comments for this route were related to the following: noise, safety, weight, stopping distance, pavement design, turning radius, and increased truck usage. The comments are addressed as follows:

Noise: Muffler systems and their alterations are covered by other general statutes and are not specific to this proposed designation.

Safety: This route is a Strategic Highway Corridor (SHC) and is designed to accommodate these vehicle combinations, and there are no safety issues.

**MAILING ADDRESS:**  
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1561 MAIL SERVICE CENTER  
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TELEPHONE: 919-773-2800  
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WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

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Honorable Representative Thomas R. Tillis  
Honorable Senator Philip Edward Berger  
July 15, 2011  
Page 2 of 2

Weight: This proposed designation only considers vehicle type/trailer combination, and will not alter existing legal weight limits. There appears to be some confusion that twin trailers will carry considerably more weight than single unit trucks/trailers, but existing weight limits must still be obeyed.

Stopping Distance: This is related to weight.

Pavement Design: This is related to weight.

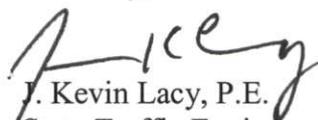
Turning Radius: Reticulated vehicles (vehicles with multiple components such as twin trailers) have better turning radii than longer, single unit vehicles, such as 48-foot trailers and 53-foot trailers, which are already allowed on the route.

Increased Truck Usage: We expect a change in vehicle mix rather than an increase in overall trucks as some carriers will move towards using twin trailers while at the same time decreasing their use of single trailers.

There was also one comment that suggested that US 64 between NC 540 and US 1 be designated on a temporary basis. However, the designation of NC 540 and US 1 would allow reasonable access along this section of US 64 (because it is less than 6 miles), and twin trailers would be on the road anyway.

Please contact me at (919) 773-2800 if you have any questions or need additional details including the specific findings of our investigation.

Sincerely,

  
J. Kevin Lacy, P.E.  
State Traffic Engineer

JKL/lna

cc: Eugene A. Conti, Jr., Secretary of Transportation  
Terry R. Gibson, P.E., State Highway Administrator  
Beau Memory, Legislative Liaison

**Transportation Mobility and Safety Division  
North Carolina Department of Transportation**

**PROPOSED DESIGNATION**

The following is information on the proposed designation of certain routes on the State Highway System for use by one or more types of Surface Transportation Assistance Act (STAA) dimensioned vehicles. The process for designating portions of the State Highway System is outlined in G.S. §20-115.1(g).

Request Number: D-07-4

Route(s): US 64

County/Counties: Chatham and Wake

Division(s): 5 and 8

Description: US 64 between US 15/501 and US 1

STAA Vehicle(s): Truck Tractors with Twin Trailers

Contact Person: Lisa Avery, STAA Program Coordinator  
919-773-2893  
[lavery@ncdot.gov](mailto:lavery@ncdot.gov)

Origination: November 14, 2007

Requested By: Barnes Transportation Services, Inc. (Wilson, NC) – 11/14/07

Investigation(s): January 9, 2009

Support: Chatham County  
State Highway patrol

Opposition: Some citizen opposition

Public Notice: None – A public hearing has been requested by both Chatham County and the Town of Cary

Administrator: May 12, 2011

Hearing Notice: Wake County Courthouse (4/28/11)  
Que Pasa (5/5/11 and 5/12/11) – Wake County hearing  
News & Observer (5/5/11 and 5/12/11) – Wake County hearing  
NCDOT News Release (5/16/11) – Wake County hearing  
Que Pasa (5/19/2011 and 5/26/11) – Chatham County hearing  
The Chatham News (5/19/11 and 5/26/11) – Chatham County hearing  
Chatham County Courthouse (5/12/11)

Public Hearing: May 24, 2011 (7:00 p.m.)  
Town of Cary, Town Hall  
Council Chambers  
316 North Academy Street, Cary

June 9, 2011 (7:00 p.m.)  
Town of Pittsboro, Town Hall  
Board Room  
635 East Street, Pittsboro

Date to Joint Legislative Commission on Governmental Operations:

July 18, 2011 (sent)  
July 19, 2011 (receipt confirmation)

Date Legislative Consultation Complete:

October 17, 2011

Date to Board of Transportation:

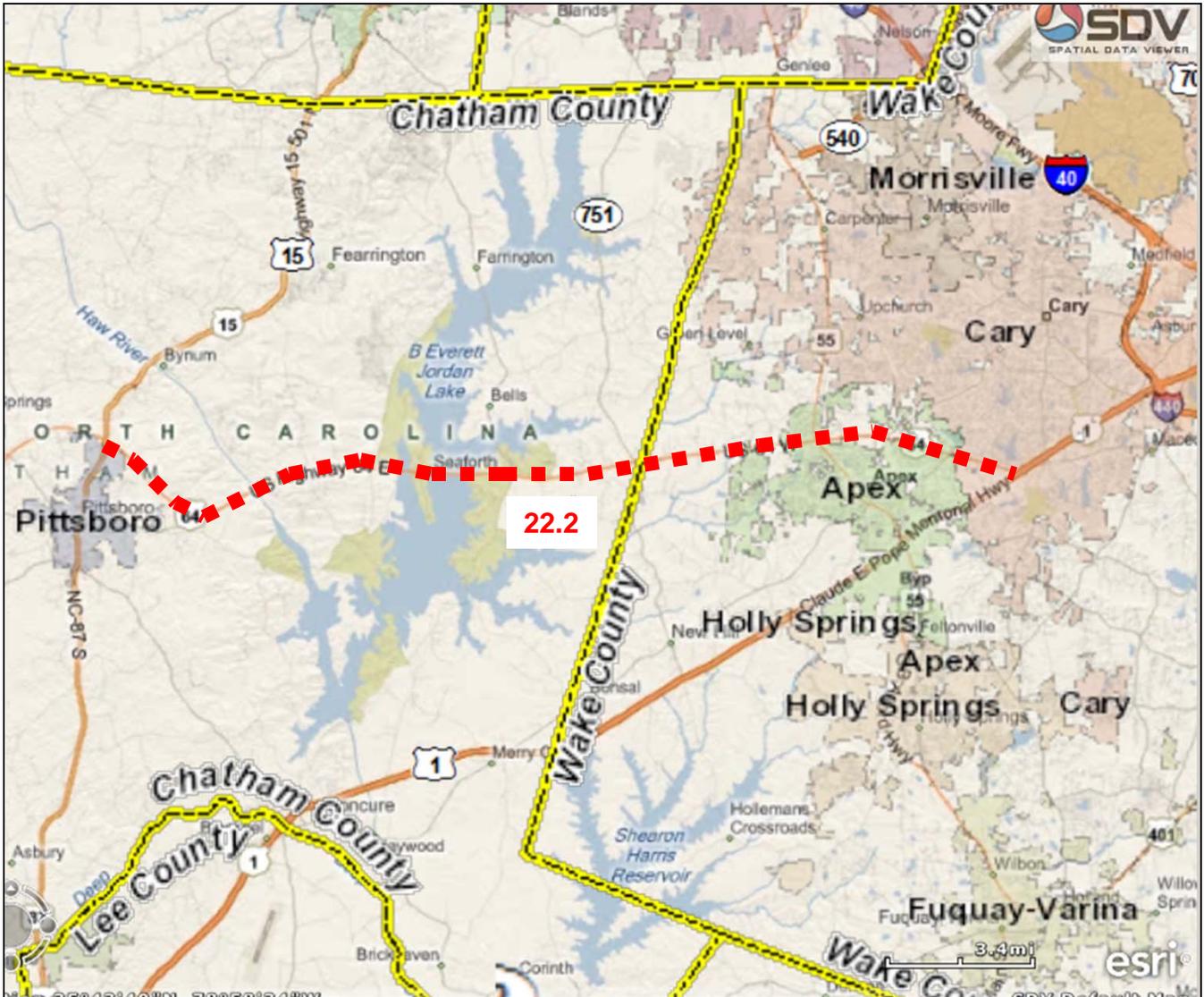
November 30, 2011

**D-07-4**

**Designation of Twin Trailer Trucks on US 64 between US 15/501 in  
Pittsboro, Chatham County, and US 1 in Cary, Wake County**

Map 1:

Location of proposed designated route in relationship to major roads, counties, and municipalities.

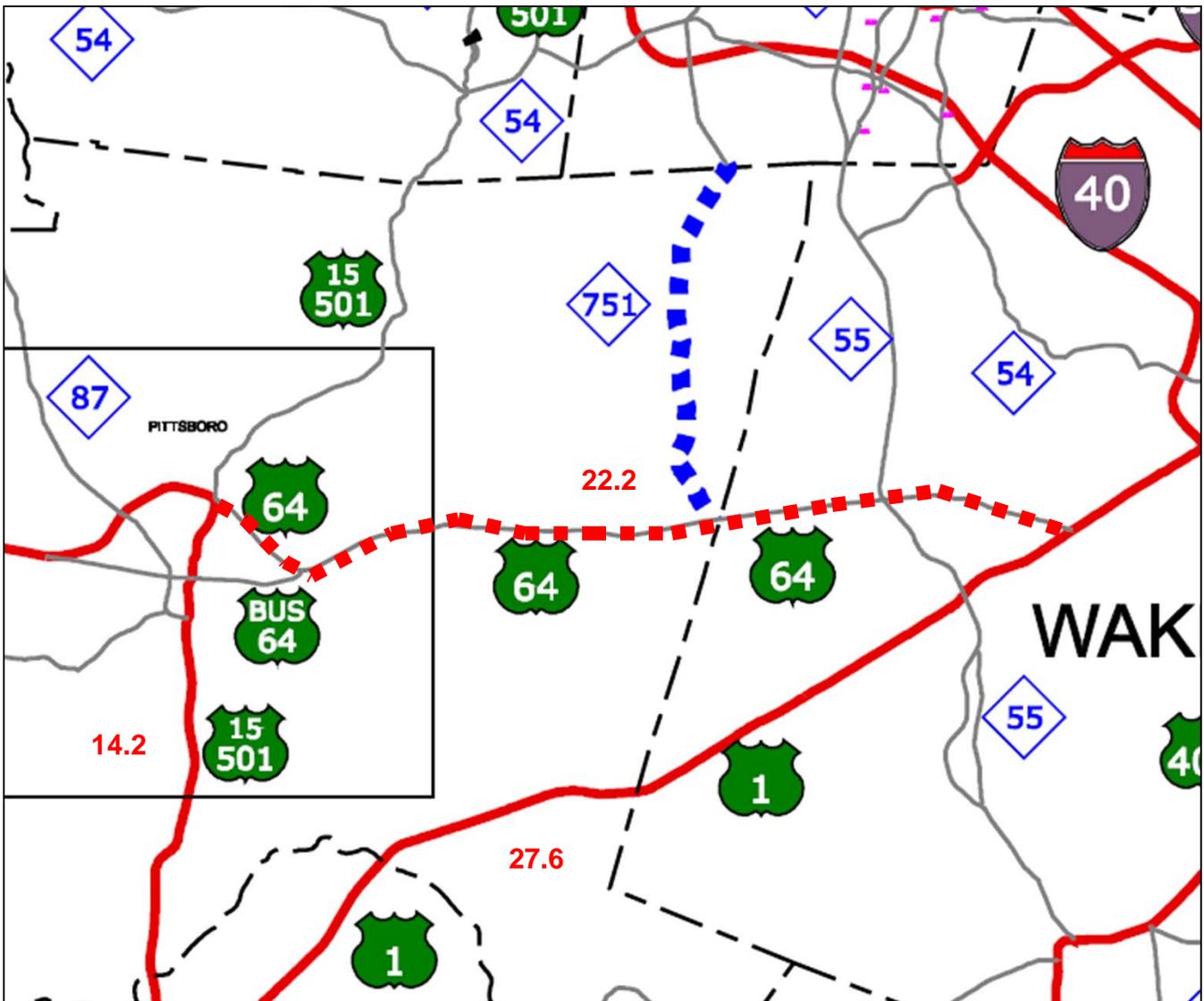


 Proposed Designation

**D-07-4**

**Designation of Twin Trailer Trucks on US 64 between US 15/501 in  
Pittsboro, Chatham County, and US 1 in Cary, Wake County**

Map 2:  
Location of proposed addition to the North Carolina Truck Network (NCTN).



-  Routes available to 53-foot trailers and twin trailers
-  Routes available to 53-foot trailers
-  Routes with a truck restriction
-  Routes under study for truck restrictions
-  Proposed Designation



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

January 9, 2009  
*Revised*

In Reply Refer  
To File No.: D-07-24

MEMORANDUM

TO: Anthony D. Wyatt, PE, PTOE *ADW 1/9/2009*  
Traffic Safety Programs Engineer

FROM: Kelly Becker, PE *Kelly B*  
Capital Regional Traffic Engineer

SUBJECT: Request by Barnes Transportation Services, Inc. for STAA Route Designation  
on US 64 from US 15-501 in Chatham County to US 1 in Wake County

This is in reference to the request from Barnes Transportation Services, Inc. for an STAA route designation on US 64 from US 15-501 in Chatham County to US 1 in Wake County.

Our office has completed a traffic engineering study of the requested route. The following are our findings and recommendations:

General:

The requested route is approximately 22.3 miles and passes through the Town of Cary and the Town of Apex in Wake County. Approximately 8.9 miles of the 22.3 miles are in Wake County. The remaining 13.4 miles are in Chatham County.

Lane Configurations and Widths:

1. The section of US 64 from US 15-501, eastward for 4.0 miles is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 4 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 4.0 miles

2. The section of US 64 from 4.0 miles east of US 15-501 eastward to 0.4 mile east of the Haw River Bridge is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 11 ft. outside paved shoulders and 4 ft. paved inside shoulders.

Length = 0.7 mile

3. The section of US 64 from 0.4 mile east of the Haw River Bridge eastward to 0.7 mile west of SR 1700 (Mount Gilead Church Road) is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 4 ft. paved outside shoulders and 2 ft. paved inside shoulders.

Length = 0.2 mile

4. The section of US 64 from 0.7 mile west of SR 1700 (Mount Gilead Church Road) eastward to 0.3 mile west of SR 1700 (Mount Gilead Church Road) is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 10 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 0.4 mile

5. The section of US 64 from 0.3 mile west of SR 1700 (Mount Gilead Church Road) eastward to approximately 0.5 mile west of SR 1716 (Big Woods Road) and SR 1941 (Seaforth Road) is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 4 ft. paved outside shoulders and 2 ft. paved inside shoulders.

Length = 1.3 miles

6. The section of US 64 from approximately 0.50 mile west of SR 1716 (Big Woods Road) and SR 1941 (Seaforth Road) to 0.8 mile west of SR 1008 (Farrington Road) is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 4 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 3.0 miles

7. The section of US 64 from 0.8 mile west of SR 1008 (Farrington Road) to 0.2 mile west of NC 55 in Wake County is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 10 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 7.7 miles

8. The section of US 64 from 0.2 mile west of NC 55 eastward to 0.18 mile west of Copeland Street is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 5 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 0.9 mile

9. The section of US 64 from 0.18 mile west of Copeland Street to US 1 is a 4 lane divided facility with each direction having two-12 ft. travel lanes with 10 ft. paved outside shoulders and 4 ft. paved inside shoulders.

Length = 4.1 miles

Pavement Condition:

The pavement condition is fair to good on the requested route.

Alignment:

The horizontal and vertical alignment is good on the requested route.

Bridges:

***There is an existing posted bridge with adequate width on Eastbound US 64 over a Railroad west of SR 1308 (Laura Duncan Road). The posting has the following weight limit:***

***Single Vehicle 21 Tons  
Tractor Trailer Semi-Trailer 30 Tons***

All other bridges on the requested route have adequate width and have no weight restriction.

Speed Limit:

Approximately 3.3 miles (14.8%) of the requested route have a speed limit of 65 mph and 19 miles (85.2%) have a speed limit of 55 mph.

Intersections:

There is a slight right turn required from the southbound US 1 exit ramp at the signalized intersection with US 64 westbound in Wake County.

Existing traffic signals are located along the requested route at the following locations:

Wake County

1. US 1 Southbound Ramp
2. Edinburgh Drive
3. Gregson Drive
4. Chalon and Mackenan Drives
5. SR 1521 (Lake Pine Road)
6. SR 1308 (Laura Duncan Road)
7. SR 1600 (Green Level Church Road)
8. SR 1163 (Kelly Road)

Chatham County

1. NC 751
2. SR 1008 (Farrington Road)
3. SR 1700 (North Pea Ridge Road / Mt. Gilead Road)

Highway Patrol:

The Traffic Engineering and Safety Systems Branch did not receive a written response from the Highway Patrol.

Schools:

The following schools are located on or near the requested route:

1. Apex High School

Railroad Crossings:

There are no at grade railroad crossings on the requested route.

Traffic Volumes:

2007 AADT on the requested route ranges from 8,600 VPD to 47,000 VPD.

Crash History:

For the crash analysis, the requested route was divided into nine sections. Analysis is for a three-year period from September 1, 2005 to August 31, 2008.

Section seven from milepost 06.35 to milepost 07.24 (length = 0.89 mile) had 103 total crashes with 3 of these being truck crashes. This portion of the investigated route was the only section in which the total crash rate of 285.65 crashes/100 mvm exceeds the critical rate of 283.48 crashes/100 mvm. The truck crash rate of 8.32 crashes/100 mvm does not exceed the critical rate of 21.27 crashes/100 mvm.

Attached is a listing of the crash rates for all sections.

Recommendations:

It is recommended that the requested route be **approved** for STAA route designation from US 15-501 in Chatham County to US 1 in Wake County for the following reasons:

1. Although one section of the requested route exceeded the statewide total crash rate and critical total crash rate, it had only three truck crashes. None of the sections analyzed exceeded the critical truck crash rate.
2. The requested route is a four-lane divided highway with good horizontal and vertical alignment. Approximately 17.9 miles of the requested route (22.3 miles total) is under full or partial access control.
3. The existing pavement is in fair to good condition. The total width varies, but generally includes twelve ft. travel lanes with two to four ft. paved inside shoulders and four to ten ft. paved outside shoulders.

Anthony D. Wyatt, PE, PTOE  
January 9, 2009  
Page 5

***It should be stressed that all vehicles must obey any posted weight restrictions along the route. There is currently a bridge on eastbound US 64 with a posted weight limit.***

Sandhills Regional Traffic Engineer Al Grandy has reviewed the section of the requested route in Chatham County and is in agreement with this recommendation.

If you require additional information, please let me know.

Attachments

cc: Al Grandy  
Lisa Avery



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

July 15, 2011

Honorable Representative Thomas R. Tillis  
Honorable Senator Philip Edward Berger  
Co-Chairs, Joint Legislative Commission on Governmental Operations  
North Carolina General Assembly  
Legislative Building  
16 West Jones Street  
Raleigh, North Carolina 27601

Subject: Designation of NC 147 for use by Trucks with Twin Trailers

Dear Gentlemen:

It is our recommendation to designate NC 147 between I-85 and SR 2028 (T.W. Alexander Drive) in Durham County as a twin trailer route. These additions to the North Carolina Truck Network were initiated internally by NCDOT's Transportation Mobility and Safety Division. In accordance with designation procedures outlined in General Statute §20-115.1, we have completed the following requirements:

- A determination of public convenience and need (§20-115.1, g, 1)
- A traffic engineering study indicating the subject route can safely accommodate and has sufficient capacity to handle these vehicle combinations (§20-115.1, g, 2)
- The opportunity for a public hearing has been provided in each county through which the subject route passes (§20-115.1, g, 3)

We have not received any public opposition. Please contact me at (919) 773-2800 if you have any questions or need additional details including the specific findings of our investigation.

Sincerely,

J. Kevin Lacy, P.E.  
State Traffic Engineer

JKL/lna

cc: Eugene A. Conti, Jr., Secretary of Transportation  
Terry R. Gibson, P.E., State Highway Administrator  
Beau Memory, Legislative Liaison

MAILING ADDRESS:  
TRANSPORTATION MOBILITY AND SAFETY DIVISION  
1561 MAIL SERVICE CENTER  
RALEIGH NC 27699-1561

TELEPHONE: 919-773-2800  
FAX: 919-771-2745

WEBSITE: [WWW.NCDOT.ORG](http://WWW.NCDOT.ORG)

LOCATION:  
750 NORTH GREENFIELD PARKWAY  
GARNER NC 27529

**Transportation Mobility and Safety Division  
North Carolina Department of Transportation**

**PROPOSED DESIGNATION**

The following is information on the proposed designation of certain routes on the State Highway System for use by one or more types of Surface Transportation Assistance Act (STAA) dimensioned vehicles. The process for designating portions of the State Highway System is outlined in G.S. §20-115.1(g).

Request Number: D-08-1

Route(s): NC 147

County/Counties: Durham

Division(s): 5

Description: NC 147 between Interstate 85 and SR 2028 (T.W. Alexander Drive)

STAA Vehicle(s): Truck Tractors with Twin Trailers

Contact Person: Lisa Avery, STAA Program Coordinator  
919-773-2893  
[lavery@ncdot.gov](mailto:lavery@ncdot.gov)

Origination: September 22, 2008

Requested By: North Carolina Department of Transportation – 9/22/08

Investigation(s): January 30, 2009

Support: No official support received

Opposition: No official opposition received

Public Notice: None – A public hearing has been requested by the City of Durham

Administrator: April 4, 2011

Hearing Notice: Durham County Courthouse (3/10/11)  
NCDOT News Release (3/15/11)  
Herald Sun (3/17/11 and 3/24/11)  
Que Pasa Media (3/24/11 and 3/31/11)

Public Hearing: April 5, 2011 (7:00 p.m.)  
Durham City Hall – Council Chambers  
101 City Hall Plaza, Durham

Date to Joint Legislative Commission on Governmental Operations:

July 18, 2011 (sent)

July 19, 2011 (receipt confirmation)

Date Legislative Consultation Complete:

October 17, 2011

Date to Board of Transportation:

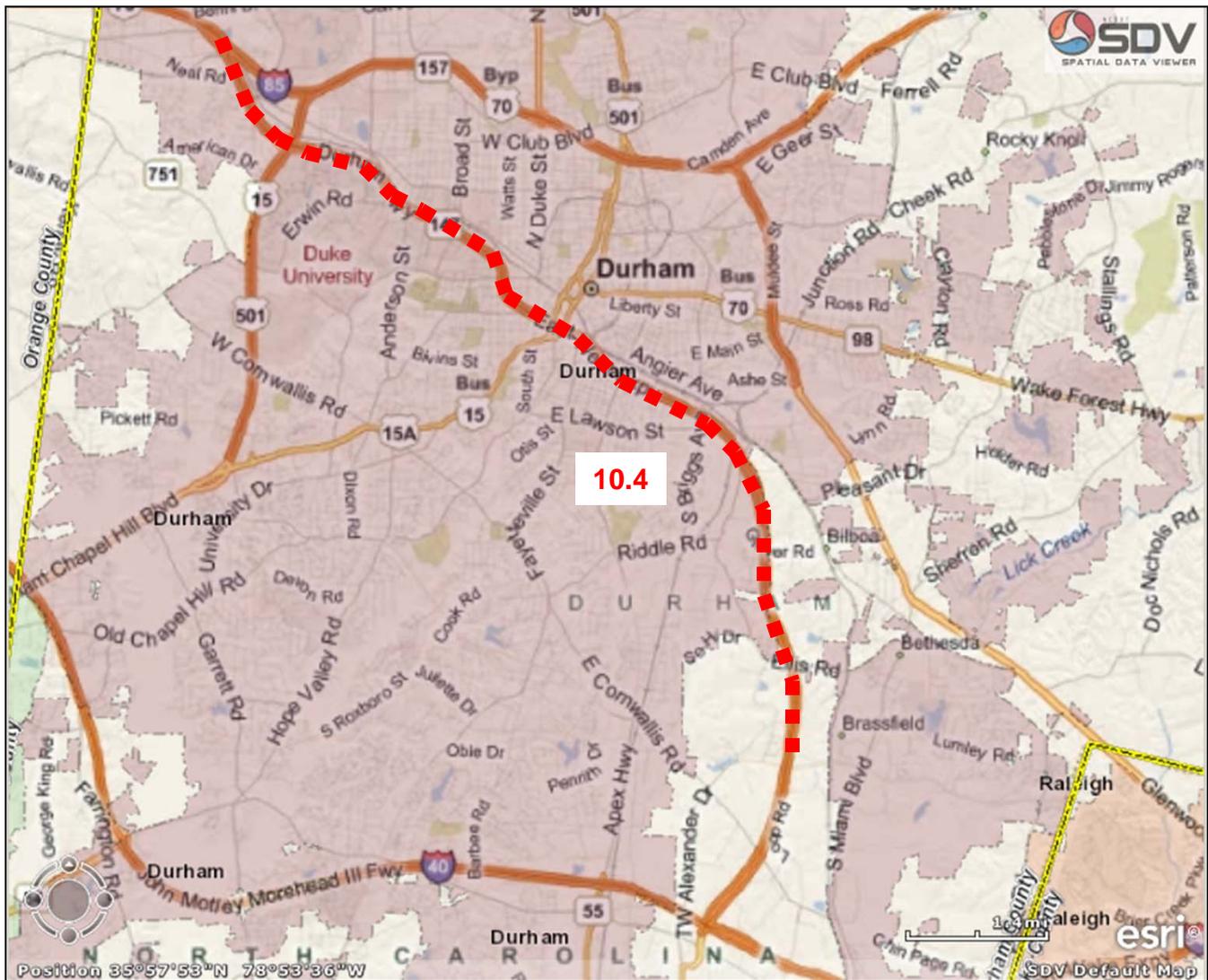
November 30, 2011

# D-08-1

## Designation of Twin Trailer Trucks on NC 147 between I 85 and SR 2028 (T.W. Alexander Drive) in Durham, Durham County

Map 1:

Location of proposed designated route in relationship to major roads, counties, and municipalities.

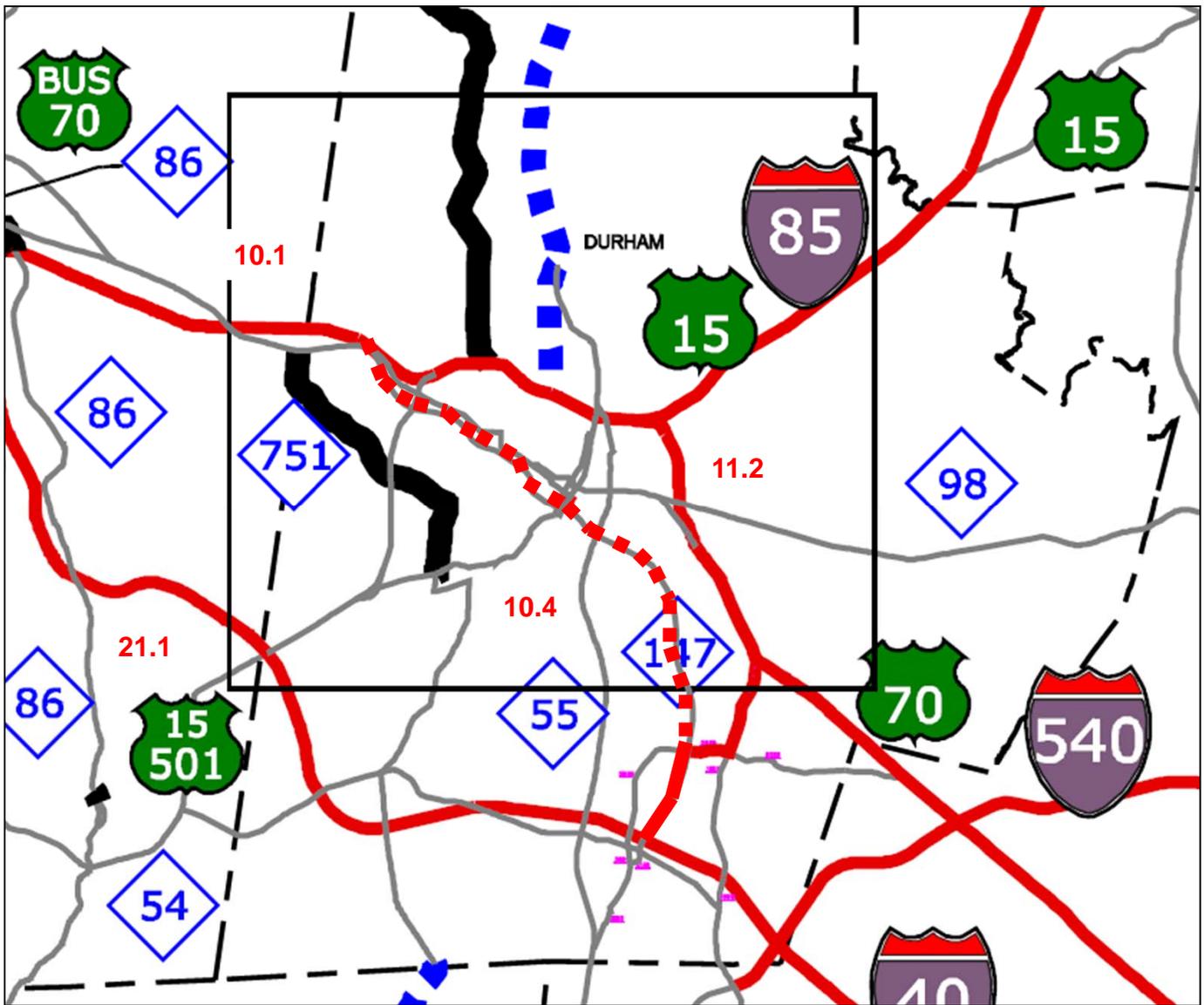


Proposed Designation

**D-08-1**

**Designation of Twin Trailer Trucks on NC 147 between I 85 and SR 2028 (T.W. Alexander Drive) in Durham, Durham County**

Map 2:  
Location of proposed addition to the North Carolina Truck Network (NCTN).



-  Routes available to 53-foot trailers and twin trailers
-  Routes available to 53-foot trailers
-  Routes with a truck restriction
-  Routes under study for truck restrictions
-  Proposed Designation



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

January 30, 2009

In Reply Refer  
To File No.: D-08-1

MEMORANDUM

TO: Anthony D. Wyatt, PE, PTOE  
Central Regional Mobility & Safety Engineer

FROM: Kelly L. Becker, PE *Kelly L. Becker*  
Capital Regional Traffic Engineer

SUBJECT: STAA Route Designation on NC 147 from SR 2028 (T. W. Alexander Drive), northward to I-85 in Durham, Durham County

This is in reference to a request from Transportation Mobility & Safety Division Director J. Kevin Lacy for an STAA route designation on NC 147 from SR 2028 (T. W. Alexander Drive), northward to I-85 in Durham, Durham County.

The 1.8 mile section of NC 147 from I-40, northward to SR 2028 (T. W. Alexander Drive) is already designated as an STAA route. The remaining section of NC 147 from T. W. Alexander Drive, northward to I-85, is 10.3 miles in length.

Our office has completed a traffic engineering study of the requested route. The following are our findings and recommendations:

General:

The requested route is approximately 12.1 miles and passes through the City of Durham (see attached map).

Lane Configurations and Widths:

1. The section of NC 147 from I-40, northward to a point approximately 0.6 mile south of NC 55 (Alston Avenue) is a full control of access, four-lane divided highway with 4 ft. inside paved shoulders and 10 ft. outside paved shoulders. Travel lanes are 12 ft. in width.

Length = 6.1 miles

2. The section of NC 147 from a point approximately 0.6 mile south of NC 55 (Alston Avenue), northward to a point 0.3 mile north of SR 1320 (Erwin Road) is a full control of access, four-lane divided highway. This section has curb and gutter on the outside with 8 to 10 ft. paved shoulders in between the curb and travel lanes except at areas where auxiliary lanes are present or are transitioning. This section also has a 2 ft. paved shoulder on the inside shoulders. Travel lanes are 12 ft. in width.

Length = 3.3 miles

3. The section of NC 147 from a point 0.3 mile north of SR 1320 (Erwin Road), northward to I-85 is a full control of access, four-lane divided highway with 10 ft. outside paved shoulders and 2 ft. inside paved shoulders.

Length = 2.7 miles

Pavement Condition:

The pavement condition varies from good to excellent and consists of both concrete and asphalt sections.

Alignment:

The horizontal and vertical alignments are good on the requested route. The entire section is a full control of access, four-lane divided highway with continuous milled rumble strips and median barrier in all sections with median widths of 70 feet or less.

Bridges/Overpasses:

All bridges/overpasses on the requested route have adequate clearance width and have no indicated weight or height restrictions.

Speed Limit:

Approximately 6.5 miles (53.6 %) of the requested route has a speed limit of 65 mph, and the remaining 5.6 miles (46.4 %) has a speed limit of 55 mph.

Intersections:

Since the subject route is full-controlled access, there are no at-grade intersections.

Schools:

Since the subject route is a full-controlled access facility, any schools in the area are accessed from interchanges.

Railroad Crossings:

There are no at-grade railroad crossings on the requested route.

Anthony D. Wyatt, PE, PTOE  
January 30, 2009  
Page 3

Traffic Volumes:

2007 ADT on the requested route ranges from 17,000 VPD in the vicinity of I-85 to 73,000 VPD in the downtown area.

Crash History:

For the crash analysis, the requested route was divided into two sections. Analysis is for a three-year period from September 1, 2005 to August 31, 2008.

Section one from milepost 1.82 to milepost 3.68 (length = 1.86 miles) had 71 total crashes with none of these being truck crashes. The total crash rate of 55.07 crashes/100 mvm exceeds both the statewide crash rate (22.0 crashes/100 mvm) and the critical rate (30.44 crashes/100 mvm). However, the truck crash rate of 0.00 crashes/100 mvm does not exceed the statewide truck crash rate of 0.6 crashes/100 mvm or the truck critical rate of 2.32 crashes/100 mvm.

Section two from milepost 3.69 to milepost 12.12 (length = 8.43 miles) had 264 total crashes with 4 of these being truck crashes. The total crash rate of 59.71 crashes/100 mvm does not exceed the statewide crash rate (219.3 crashes/100 mvm) or the critical rate (233.22 crashes/100 mvm). In addition, the truck crash rate of 0.90 crashes/100 mvm does not exceed the statewide truck crash rate of 5.9 crashes/100 mvm or the truck critical rate of 8.27 crashes/100 mvm.

Attached is a listing of the crash rates for both sections.

Recommendations:

It is recommended that the requested route on NC 147 be **approved** for STAA route designation from SR 2028 (T. W. Alexander Drive) to I-85 for the following reasons:

1. Although one section of the requested route exceeded the statewide total crash rate and critical total crash rate, it had no truck crashes. Neither of the sections analyzed exceeded the statewide truck crash rate or critical truck crash rate.
2. The subject route is a full-controlled access, four-lane, divided facility.
3. The subject route has existing median barrier on all sections with median widths of 70 feet or less and continuous milled rumble strips along the inside and outside shoulders.
4. The 1.8 mile section of NC 147 from I-40, northward to SR 2028 (T.W. Alexander Drive) is already designated as an STAA Route.

If you require additional information, please let me know.

Attachments

cc: Lisa Avery, w/attachments