Highway Fund and Highway Trust Fund Secondary Roads Program

Justification Review March 24, 2007

The General Assembly should eliminate or reduce funding for the secondary roads program and redirect those funds to construction and maintenance of the State's major road systems. The General Assembly should reconsider its overall financial responsibility for the State's local roads.

Executive Summary

In Fall 2006, Fiscal Research Division Staff conducted a justification review of the Secondary Roads Program, which receives approximately $170 million per year from the Highway Fund and Highway Trust Fund. Staff found that the original purpose of the program, paving unpaved roads, had been largely achieved and that recent statutory changes will significantly improve the usefulness of money spent on the secondary road system. However, Staff noted the shortfall in construction and maintenance funds recently identified by the Department of Transportation (DOT) for all of its highway systems and that the State's highway network is not being expanded, preserved, modernized and maintained at an adequate level. As a result, Staff questions the set aside for secondary roads, which serve generally local traffic, and recommends that this funding be redirected to the State's strategic or highest priority roads. Staff also noted that the State's financial responsibility for local roads is high in North Carolina compared to other states and suggests that the division of financial and operational responsibility between State and local government for local roads be reconsidered.

Scope and Methodology

This report on the Highway Fund and Highway Trust Fund Secondary Roads Program of the Department of Transportation (DOT) is one of six "justification reviews" of State government programs being published by the Fiscal Research Division (FRD) during FY 2006-07. The justification review program is a pilot effort designed to satisfy the zero base budgeting requirement set out in S.L. 2005-276, Section 6.34(a-c).

To review the operations and impact of the Secondary Roads Program, FRD met with DOT staff in Raleigh and in DOT divisions and with one Board of Transportation member. Staff also reviewed secondary road plans, DOT fiscal information, and data from the Federal Highway Administration and other sources.

Background and Mission

History

North Carolina has had a long commitment to State responsibility for building and maintaining secondary roads. The State has the second largest state maintained highway system, over 79,000 miles (slightly less than Texas), because the North Carolina system includes almost 64,000 miles of secondary roads that in most states are built and maintained by local units of government.

North Carolina's first real State Highway Commission, established in 1915, provided road building assistance to counties. In 1921, the General Assembly authorized the State to take over 5,500 miles of county roads. At that time a one cent per gallon motor fuel tax was imposed, a system of motor vehicle license and registration fees was created, and a $50 million State highway bond issue was approved to build hard surfaced roads to connect the county seats and other principal towns. By 1927, the State had raised the motor fuels tax to five cents per gallon and authorized an additional $65 million of bonds. It was during this period that North Carolina became "The Good Roads State."[1]

During the Depression, North Carolina counties were under financial stress and the State assumed responsibility for the remainder of the county roads in 1931, leaving only city streets under local control. In 1951, the General Assembly passed the Powell Bill, assuming State control over those city streets that were part of the State highway system. The Powell Bill also provided funds to cities from the motor fuels tax for maintenance and improvement of city streets.

By the 1980's the State of North Carolina's transportation infrastructure and funding mechanisms had become inadequate for the State's growth. A Highway Study Commission established in 1987 held extensive hearings and ultimately recommended a multi-billion dollar highway construction program. The Commission's work led to passage in the General Assembly of the Highway Trust Fund Act in 1989 (S.L.1989-692). This Act provided for a $9.2 billion construction program, which included paving/construction of secondary roads, to be completed over thirteen and a half years. The program included:

- Completion of the Intrastate Highway System, a 3600 mile network of four-lane highways.
- Construction of urban loops near seven major cities.
- Paving all 10,000 miles of the State-maintained roads that carried 50 or more vehicles per day within ten years and within six years after that paving the remaining unpaved roads.
- Increasing Powell Bill funding (assistance to municipalities for street improvement and maintenance) by 50 percent.

Funding of the Secondary Road Construction Program under Current Law

Funding for secondary road construction comes from the Highway Fund and the Highway Trust Fund. For FY 2006-07 the total appropriations are as follows:

Highway Fund	$94,089,500
Highway Trust Fund	$99,630,348
TOTAL	$193,719,848

After deductions for debt repayment, revenue under-collection, and other charges, the amount of funding available for projects is $169,821,873. The funding levels derive from long standing statutory formulas and have not generally been the subject of discussion or change in the legislative appropriations process. In addition to construction, DOT spends over $400 million per year on maintenance and contract resurfacing for the secondary road system.

The Highway Fund appropriation for secondary roads is set in G.S. 136-44.2A, which requires that 1-3/4 cents of the motor fuels tax collected per gallon be allocated for secondary road construction. The Highway Trust Fund appropriation directed by G.S. 136-176(b)(4) requires that 6.5 percent of the Highway Trust Fund (net of the General Fund transfer and administration) be used for secondary road construction as provided in G.S. 136-182, including debt service on the bonds issued for secondary road construction under the State Highway Bond Act of 1996. In addition, G.S. 20-85(b) directs that $15 of each title application fee shall be used for the same purpose.

Allocation to Counties

Secondary road construction funds are allocated to counties by their percentage of the State's unpaved road mileage. The first $68,670,000 is based on the county's percentage of the State's total unpaved miles. Highway Fund dollars above that level, plus all Highway Trust Fund dollars, are based on the county's percentage of the State's unpaved miles that carry 50 or more vehicles per day.

Statutory Changes in 2005 and 2006

Major changes in the statutes governing the allocation of secondary road funding were made by the General Assembly in 2005 (S.L. 2005-404) and 2006 (S.L. 2006-258). The changes are effective July 1, 2007.

The program is changed from a secondary road <u>construction</u> program to a secondary road <u>improvement</u> program, recognizing that a significant part of the need on the secondary road system is related to improving roads that were previously paved but are inadequate based on current design standards (e.g., lane width). Many of these roads now serve subdivisions and commercial areas and carry more and heavier vehicles than they did as farm-to-market roads.

Starting in fiscal year 2010-11, after a three year transition period, funds will be allocated to counties based on the county's percentage of total secondary road miles, not the percentage of unpaved miles. This is consistent with the change to an improvement program that considers the entire system as eligible for improvement rather than a construction program that only considers the unpaved mileage. The three year transition period will allow an emphasis on completion of the paving program to the extent possible in counties where the unpaved mileage is significant.

DOT's goal for the changes was to better address safety and mobility needs through modernization improvements on the secondary road system. The model for the type of project that DOT plans is the NC Moving Ahead program (S.L. 2003-383). The bulk of funds will go for widening, resurfacing, safety, and bridge replacement. DOT has estimated that the new law will offset or reduce maintenance funding needs by $50 million per year.

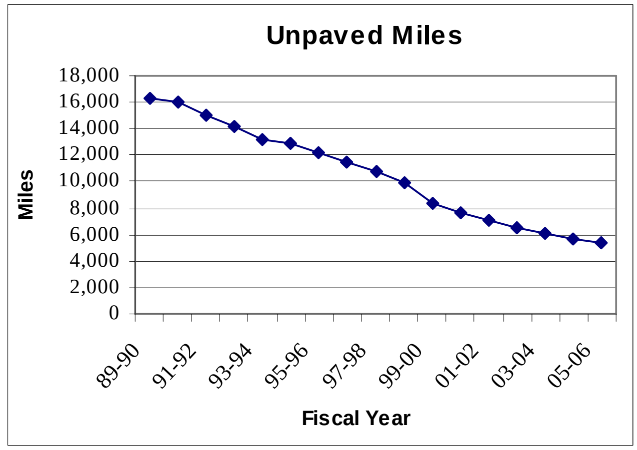
Finding 1

The Department of Transportation has completed most of the secondary road construction program called for in the Highway Trust Fund legislation of 1989. Right of way and environmental issues, combined with the existing statutory allocation system, have slowed progress in recent years.

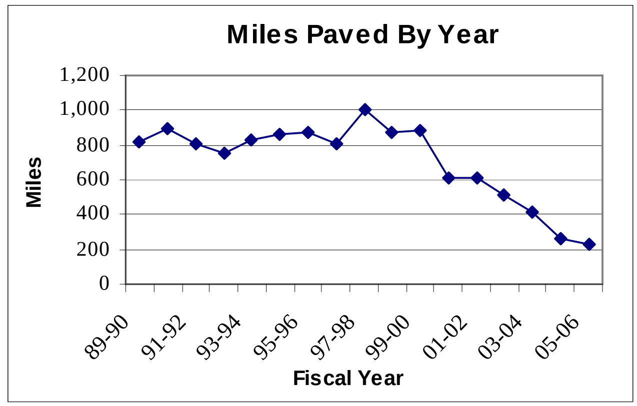
In 1989 there were over 16,000 miles of unpaved road in North Carolina on the State maintained system. The goal of the Highway Trust Fund was to pave those secondary roads with traffic greater than 50 vehicles daily travel (VDT). At that time about 10,475 miles of road met that threshold.

In 1989, there were 16,000 miles of unpaved secondary roads and in 2007 there are less than 5,500 miles.

Since the beginning of the Highway Trust Fund, DOT has paved more than 12,000 miles, serving over 184,000 homes. As of 2006 there were 5,382 unpaved miles on the secondary system, of which 2,369 had more than 50 VDT. Forty percent of the total unpaved miles, and half of the miles with greater than 50 VDT, are located in the mountain counties (DOT Divisions 11, 13, and 14). About 1,800 miles of unpaved roads cannot be paved currently due to right-of-way or environmental issues.

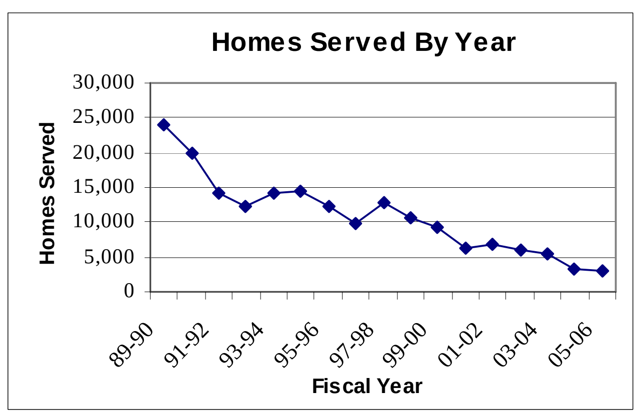


Source: DOT



Source: DOT

Appropriations for secondary road construction are set by statute and grow with the number of gallons of motor fuel sold (Highway Fund appropriation) and Highway Trust Fund availability (Highway Trust Fund appropriation). However, as shown in the tables, miles paved and homes served have generally been declining as the highest priority roads have in most cases been built. In recent years the cost of paving these roads has been approximately $250,000 per mile.



Source: DOT

Appropriations were supplemented during fiscal years 1997-98 through 1999-2000 by $150 million of funding from the Highway Trust Fund bond sale of 1997. Those funds are gone and debt service of about $13.6 million per year is paid from the Highway Trust Fund appropriation.

Roads that would otherwise be a priority for paving become ineligible due to the inability to obtain the right-of-way or environmental permits. A road on the eligible list may get moved to the ineligible list or "Hold List" due to a right-of-way or environmental issue. The Board of Transportation's policy for secondary road improvement is that the property owners must provide, at no cost to DOT, adequate right of way for the paving of the road. (There is an exception; property owners willing to donate their land may post a bond to cover condemnation costs incurred by DOT to obtain the other property needed from owners unwilling to donate their land. However, DOT engineers use this as a last resort in solving right of way disputes.)

Prior to 2003, if the right of way did not become available on roads having 50 or more ADT, counties accumulated allocations that could not be used for paving and could not be used for paved road improvements. According to DOT about 19 counties had paved all the roads having 50 or more ADT but still received Trust Fund secondary road dollars. With respect to environmental permitting, according to DOT, the required environmental analyses and permits have slowed down the construction process, particularly in the mountain counties. Changes in the law in 2003 allowed flexibility to use funds for road improvements.

Finding 2

Under current law there is significant variation between counties in the priority ratings of the roads in the secondary road construction plans. The current approach divides the funds among counties but is not consistent with a statewide strategic plan that paves or maintains roads based on State priorities.

The Department of Transportation Secondary Roads Program maintains an inventory, updated every four years, of all of the unpaved State maintained roads in each county and the points that the road generates. Points are generated according to DOT determined criteria and are based on traffic on the road and the number of homes, businesses, etc. Within the list of roads eligible for paving, counties create a top ten list of the priority roads that have the highest number of points.

Point totals for unpaved roads, as determined under criteria set by DOT, vary greatly among counties. Roads with fewer than 50 points are priorities in some counties while other counties have roads to be paved with a very high number of assigned points. Statewide, the average number of points per road on a county's top-ten list is 89.6. Currently there are 775 rural roads in the State's program that are on a county's top-ten list. There are some counties with fewer than 10 roads or even no roads waiting to be paved, while other counties have many roads beyond their top ten that could be paved.

In addition to the rural unpaved roads, there is a separate priority list by county of subdivision roads identified for paving; there are 319 subdivision roads within counties' top ten lists. The roads that qualify include those subdivision roads planned, constructed, and recorded before October 1, 1975.

This study compared the Secondary Roads Construction Program for paving of State maintained secondary roads for thirty counties selected randomly. The plans were pulled for FY2006-07. If there was no plan filed the FY2005-06 plan was reviewed.

Of the thirty plans reviewed, four of these counties had filed plans that did not include paving of secondary roads; those plans programmed general and safety improvements to secondary roads. (Some plans did not include paving due to spending restrictions related to DOT cash problems in 2005.) The average number of points per county's rural paving program was 123, or 33.4 points higher than the statewide average of 89.6. Of the plans reviewed, the range of average points per county plan was 11.6 to 368.2. There were ten counties that included a subdivision paving plan and of those, the average number of points per county was 277 and ranged from 88 to 470. The points were generally higher for the paving projects within the subdivision paving construction program, reflecting a different method of calculation.

Finding 3

Recent legislation will, when fully implemented, lead to substantial change in the secondary road program. The expectation is that paving will be essentially completed in three years and that starting in 2007 the program will have the flexibility to do higher priority paved secondary road improvement projects that currently have no funding source.

DOT suggested HB 750 in the 2005 Session to transform the secondary road paving program into a more flexible paved road improvement program for secondary roads. The Board of Transportation supported the bill, even though it would change the allocation between counties, because the funding would have greater flexibility and unusable allocations (due to unavailable right-of-way) would not continue to accumulate. HB 1825 in the 2006 Session was introduced to correct a technical problem in HB 750. These laws also contained provisions to:

1. authorize Division Engineers to pave roads having right of way widths less than 60 feet provided safety is not compromised, and
2. set aside from the Highway Trust Fund secondary road appropriation $5 million per year for paving secondary roads that become available off the Hold List.

The projects envisioned by DOT for secondary road improvements would be similar to those undertaken under the NC Moving Ahead program (S.L. 2003-383). That law authorized $630 million of Highway Trust Fund cash balances for highway system preservation, modernization, and maintenance, including projects to enhance safety, reduce congestion, improve traffic flow, reduce accidents, upgrade pavement widths and shoulders, extend pavement life, improve pavement smoothness, and rehabilitate or replace deficient bridges and for certain economic development transportation projects.

DOT considered the NC Moving Ahead structure as a model for making high value system improvements. However, NC Moving Ahead is a one time expenditure of cash balances and therefore is nonrecurring.

The new law, with its added flexibility may lead to better project selection but the paving of the remaining thousands of miles of secondary roads will place an additional burden on the DOT maintenance budget, as paved roads are more expensive to maintain than unpaved roads. For the roads with little traffic this may be a poor investment, given other local transportation needs.

In fact, the original Government Performance Audit Committee (GPAC) study found that North Carolina was underinvesting in highway maintenance and recommended cutting back the Highway Trust Fund construction program and increasing maintenance. With respect to secondary roads the GPAC study recommended:

> "The HTF program should be further adjusted to eliminate the requirement to pave all unpaved secondary roads with total traffic volume of between 50 and 100 cars per day."[2]

The purpose of the recommendation was to direct those funds to roads with sufficient traffic to justify the higher level of maintenance. However, this recommendation was not accepted into the GPAC final report.

G.S. 136-44.3 requires DOT to report to the General Assembly every other year on the condition and funding needs for the State's roads. DOT presented the 2006 *Condition Assessment and Funding Needs for North Carolina's Highway System*[3] to the Joint Legislative Transportation Oversight Committee in December, 2006. DOT calculates the cost of bringing the various road systems up to an acceptable level and notes that the costs of deferring maintenance can be much higher than doing the maintenance on a timely basis and that various programs are endangered when funds are short. DOT also notes that "the paving of 500-600 miles of Secondary Roads a year places an additional burden on the maintenance budget."[4]

Finding 4

The State has a long commitment to the secondary road system and has also provided support to the cities through Powell Bill funding. However, the State is not constructing and maintaining its major transportation infrastructure at an adequate level.

1. Based on the *Condition Assessment* mentioned above, DOT's statewide Annual Maintenance Funding Plan indicates a maintenance shortfall of $200 million in FY 2007-08, growing to $420 million in FY 2011-12.[5]

2. In 2006 DOT released a draft update of the funding and need estimates related to *North Carolina's Statewide Multimodal Transportation Plan* (2004).[6] The estimates for 2005 through 2030 are that needs total $122 billion and funding, based on the funding structure currently in place, totals $57 billion, leaving a gap of $65 billion.

3. The North Carolina Chapter of the American Society of Civil Engineers issued an *Infrastructure Report Card 2006* as part of a national project.[7] Grades were assigned on the basis of condition and capacity and funding versus need. Transportation related grades for the State were generally low, though similar to the national grades:

	NC	Nation
Airports	D+	D+
Bridges	C-	C
Rail	B-	C-
Roads	D	D

4. Transportation is a major part of the State's logistics capability and affects the State's economic development competitiveness and potential. However, according to surveys undertaken by *Logistics Today*[8], North Carolina does not have a city in the top 50 logistics friendly cities in the nation. Greensboro is the State's highest ranking location, ranking number twenty in the southeast.

Finding 5

North Carolina's policy of State responsibility for local roads is a different approach than that generally taken by other states.

North Carolina owns and maintains 77 percent of the State's road mileage, second only to Virginia's 80 percent. For the U.S. as a whole only 19 percent of the road mileage is owned by the State agency.

State Owned Road Miles

STATE	Road Miles Owned by State Agency	Total Road Miles	Percent Owned by State Agency
Florida	12,040	120,557	10%
Georgia	17,930	117,645	15%
North Carolina	**79,031**	**103,128**	**77%**
South Carolina	41,391	66,238	62%
Tennessee	13,817	90,451	15%
Texas	79,648	304,171	26%
Virginia	57,860	71,961	80%
U.S. Total	777,252	3,995,644	19%

Source:http://www.fhwa.dot.gov/policy/ohim/hs05/pdf/hm10.pdf

Another indication of North Carolina's policy of State provision of local road services is that the Federal Highway Administration classifies 157,000 miles of State highway agency-owned public roads in the United States as "local." One third of those miles are in North Carolina.

Recommendations

The General Assembly should reduce or eliminate funding for a specific secondary roads program and reconsider the State's role in funding local roads and streets.

There are significant indications that the State's overall highway network is not being expanded or maintained adequately. To the extent that funds are limited, the General Assembly should ensure that those funds are spent to yield the greatest benefit.

The State's role in funding local roads and streets should also be rethought, with a greater role for local government in raising funds for purely local projects. Because the State funding levels for these local road programs are set by statute there is no current budgetary mechanism to compare the benefits of these expenditures with additional expenditures on high priority primary system projects.

The General Assembly should consider the value of a statewide plan that addresses the statewide road maintenance and improvements needs based on current and future economic development. The funding of particular projects should be identified as a priority need in this statewide plan.

Under the current program, funds are allocated by county for use on one component of the State system, secondary roads. However, there are significant indications that the needs on the State's overall highway system are not being adequately addressed. The General Assembly should direct that the limited funds that exist for road maintenance and improvements be used for those areas with greatest need that provide for the greatest overall benefits.

North Carolina has a major role in the ownership, funding, and maintenance of local roads, more so than most other states. Many states require local governments to manage their own road systems and allow local governments to generate the necessary revenue to fund the cost. It is clear that the State has the responsibility for the major roads that define the system. The General Assembly should ensure that the State is first meeting that responsibility by targeting funding toward that system.

For additional information, please contact:
Bob Weiss
Lisa Hollowell
Fiscal Research Division
NC General Assembly
300 N. Salisbury St., Room 619
Raleigh, North Carolina 27603-5925
(919) 733-4910
bobw@ncleg.net or lisah@ncleg.net
http://www.ncleg.net/fiscalresearch

[1] Harrington, James E., *Pavement, Planks, and Progress: A Review and Analysis of North Carolina's Highway System*, North Carolina Department of Transportation (1987) 3.

[2] Government Performance Audit Committee, *Transportation Issue Paper* (December 1992) 5.8.

[3] NC Department of Transportation, *Maintenance Condition Report: 2006 Maintenance Condition and Funding Needs for the North Carolina State Highway System.*

[4] Ibid, page 32.

[5]NC Department of Transportation, *Condition Assessment and Funding Needs for North Carolina's Highway System*, Report to the Joint Legislative Transportation Oversight Committee, December 12, 2006, slide 40.

[6] NC Department of Transportation, *Charting a New Direction for NCDOT: North Carolina's Long-Range Statewide Multimodal Transportation Plan* (Raleigh: NCDOT, September 2004).

[7] http://sections.asce.org/n_carolina/ReportCard/roads.pdf

[8] http://www.logisticstoday.com/displayStory.asp?S=1&sNO=8267&MLC=AdvancedSearch&OASKEY =CurrentIssue

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

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

LYNDO TIPPETT
SECRETARY

March 21, 2007

Mr. Lynn Muchmore
Director, Fiscal Research Division
300 N. Salisbury Street, Suite 619
Raleigh, North Carolina 27603-5925

Dear Mr. Muchmore:

Thank for the opportunity to review and comment on the draft report provided by the Fiscal Research Division on the Justification Review of the Secondary Roads Program. Staff from the Chief Engineer Operations office met with Bob Weiss and Lisa Hollowell this week to verify data utilized in the report and to offer clarification on portions of the report findings.

The North Carolina Department of Transportation concurs with the report findings that a shift should be made from paving unpaved roads to improving more heavily traveled roadways. House Bills 750 and 1825, which are supported by the Board of Transportation, provide a method to make necessary modernization improvements to the higher volume roads on the secondary system. Over the past year, the Department's senior management has developed a method to establish performance standards for each network tier defined in the Long-Range Statewide Mulitimodal Transportation Plan approved by the Board of Transportation. This approach would shift resources to the primary system resulting in a higher level of service needed to meet customer expectations of this network.

The responsibility to maintain and operate the secondary road system to an acceptable level of service will continue to be that of the Department until such time legislation allows or requires other agencies or parties to assume all or part of this responsibility. Until other fund sources or alternate parties are established to maintain and modernize the secondary road system, the current fund sources are vitally important to operate these roads at an adequate level.

I appreciate your work toward exploring methods to enhance the use of scarce funding needed to address the challenges we encounter regarding transportation needs. If I can be of further assistance, please let me know.

Sincerely,

Lyndo Tippett

LT:ls

cc: Deputy Secretary of Transportation Susan Coward
W. S. Varnedoe, PE, Chief Engineer – Operations

PHONE 919-733-2520 FAX 919-733-9150