

BOARD OF ALDERMEN
AGENDA ITEM ABSTRACT

ITEM NO. D(2)

MEETING DATE: March 15, 2005

TITLE: Update on the Alternative Design for the Smith Level Road Project

DEPARTMENT: PLANNING	PUBLIC HEARING: YES ___NO__X__
ATTACHMENTS: <ul style="list-style-type: none">A. ResolutionB. Adopted Resolution – March 18, 2003C. Project Chronology – 1985 to 2005D. Revised NCDOT Traffic ForecastE. Review by NCDOT Congestion Management SectionF. Project MapG. Four-lane Cross-sectionH. Two-lane Cross-sectionI. Map Showing Existing Right-of-Way and Typical Cross-SectionJ. Case Studies of Weaver Dairy Road and South Columbia Street	FOR INFORMATION CONTACT: Dale McKeel – 918-7329

PURPOSE

On January 5, 2005, the N.C. Department of Transportation proposed an alternative to the four-lane widening project for Smith Level Road between Morgan Creek and Rock Haven Road. The Board of Aldermen have discussed this alternative at meetings on January 18, February 8, and March 1. Town staff have identified four options for consideration by the Board. A resolution is provided for the Board's consideration (Attachment A).

INFORMATION

The N.C. Department of Transportation (NCDOT) held a public hearing on the proposed widening of Smith Level Road on October 25, 2001. The plan presented to the public showed Smith Level Road being widened to four lanes with an 18-foot median, curb and gutter, and bike lanes and sidewalks on both sides of the road.

Approximately 50 persons attended the open house and public hearing in addition to NCDOT and Town of Carrboro staff. Many of those present expressed support for the bike lanes, sidewalks, and crosswalks, but there were major points of contention. Several residents

questioned the need for the project and stated that the focus should be on addressing current problems on Smith Level Road, including timing of signals, speeding, ingress/egress problems at Frank Porter Graham school, and the need for better pedestrian and bike connections to the school and across Morgan Creek.

In response to citizen and Town comments during and following the public hearing, NCDOT prepared additional information on the project. There were also several meetings between NCDOT staff, Town staff, and Board of Aldermen members to discuss the project.

On March 18, 2003, the Board of Aldermen adopted a resolution requesting that the N.C. Department of Transportation consider an alternative design for the proposed modifications to Smith Level Road between Morgan Creek and Rock Haven Road (Attachment B). The adoption of this resolution followed a joint worksession that was held on October 15, 2002 with the Transportation Advisory Board (TAB) to meet with NCDOT staff and review the information that has been compiled.

On January 5, 2005, there was a meeting between town officials, NCDOT staff, and Board Member Doug Galyon to discuss the project. NCDOT staff stated that their continued support for a four-lane, median divided design, but proposed the following alternative design:

We propose to widen the existing pavement to provide 12' lanes with a 2' paved shoulder on the east side; a 4' bike lane with curb and gutter on the west side; right turn lanes NB at Culbreth Road and SB at Rock Haven Road and a left turn lane on NB Smith Level at Rock Haven Road. A sidewalk could also be constructed on the west side adjacent to the curb and gutter. Additional right of way and utility relocation will be required throughout the limits of this project.

Attachment C provides a chronology of the Smith Level Road project from 1985 to 2005. Attachment F is a map showing the beginning and ending points for the project.

OPTIONS FOR CONSIDERATION

Town staff have identified four options for consideration by the Board of Aldermen.

OPTION 1: ACCEPT THE PROPOSED FOUR-LANE, MEDIAN-DIVIDED DESIGN.

The Board of Aldermen's first option is to accept the design proposed by NCDOT. A cross-section of this design is shown in Attachment G. Much of the design work for the project has already been completed and right-of-way acquisition was scheduled to begin this fiscal year. Selection of this option would allow NCDOT staff to finish the design work and begin the process of right-of-way acquisition and construction.

Please note that the Board of Aldermen on June 27, 2000 adopted a resolution endorsing a four-lane median divided road with bike lanes and sidewalks. However, the only other choice presented to the Town at that time was a five-lane roadway (two lanes in each direction with a center two-way left-turn lane).

NCDOT's preference for a four-lane design is based on the traffic projections for the year 2030. The most recent traffic projections developed by NCDOT indicate that 24,800 vehicles per day will travel on Smith Level Road in 2030 in the section between Willow Oak Drive and BPW Club Road. NCDOT staff generally recommend a four-lane roadway when daily traffic volumes exceed a certain number, such as 18,000 vehicles per day.

Attachment D provides a revised traffic forecast for Smith Level Road in the year 2030. Attachment E is a review of the revised traffic forecast by NCDOT's Congestion Management Section. Based on the projected traffic volumes, NCDOT staff recommend a four-lane divided roadway as the typical cross-section for the Smith Level Road project.

If this option is selected, it is anticipated that right-of-way acquisition would begin in August 2005 and construction would begin in August 2006. Construction probably would not be completed before the target opening date for the Carrboro High School in August 2007.

OPTION 2: ACCEPT NCDOT'S ALTERNATIVE PROPOSAL

The Board of Aldermen's second option is to accept the alternative design proposed by NCDOT. A cross-section of this design is shown in Attachment H. This alternative would be funded with state Moving Ahead funds rather than from the Transportation Improvement Program. If this option is chosen, the four-lane median divided project would need to be removed from the Transportation Improvement Program so that the alternative design could move forward.

Under this option, NCDOT would manage design and construction, but the Town of Carrboro would be responsible for the costs of purchasing right-of-way or relocating utilities. The cost of NCDOT's alternative would be approximately \$1.7 million compared to \$3 million for the four-lane, median-divided project. On January 5, the Mayor and Town Manager pointed out this cost savings and requested that NCDOT purchase needed right-of-way for the project, but were told that NCDOT typically does not purchase right-of-way for Moving Ahead projects.

Sources of Funds

Town staff has identified the following possible sources of funds for the right-of-way and utility relocation under this option:

1. **Town of Carrboro General Fund.** At the March 1 meeting, the Board requested information on the effect of a five-year payback to NCDOT based on a cost of \$500,000. There has been discussion with NCDOT of spreading the payments over five years, which in this example would be a payment of \$100,000 per year over a five-year period. Based on preliminary estimates for FY 05-06, the Town will be able to generate about \$135,000 per penny on the tax rate. Therefore for FY 05-06, a payment of \$100,000 to NCDOT would equate to an additional tax rate impact of 0.74 cents (or $\frac{3}{4}$ penny increase in the tax rate).

2. STP-DA funds controlled by the Durham-Chapel Hill-Carrboro MPO. The Town could request unallocated STP-DA funds or divert funds set aside for other Carrboro projects, such as the Morgan Creek Greenway (for which \$480,000 has been set aside). The use of STP-DA funds would require a 20 percent local match.
3. County Funds Set Aside for High School Bicycle, Pedestrian, and Transit Improvements. The Orange County Commissioners have set aside \$300,000 for improvements for walkability, bicycling, and transit in conjunction with the new high school. The Town could work with the commissioners and the school system to request that a portion of these funds be used for the Smith Level Road project, which will provide safe bicycling and walking routes to the high school.

Right-of-Way Costs

NCDOT has provided to the Town a map showing the existing right-of-way on Smith Level Road between Morgan Creek and Rock Haven Road (Attachment I). The right-of-way width varies from 94 feet to 60 feet. The map also provides a typical cross-section for the alternative. NCDOT and Town staff met on Tuesday, February 8 to review in the field the typical cross-section and available right-of-way.

On February 18, Division Engineer Mike Mills estimated that the Town's cost of purchasing right-of-way would be in a range from \$270,000 to \$320,000. He said that once a design is prepared and the right-of-way is staked in the field, the cost could be less. The cost could also be reduced by using construction easements in some locations rather than purchasing right-of-way.

When the total amount of right-of-way needed for the project has been determined, NCDOT will provide to the Town a better estimate of the cost of acquiring the right-of-way. However, the actual acquisition cost will be determined through negotiation with landowners or condemnation proceedings, and may vary significantly from the estimate.

Utility Relocation Costs

In addition to right-of-way costs, the Town of Carrboro would be responsible for utility relocation costs under the NCDOT alternative to the TIP project. On February 24, Mr. Mills stated that NCDOT will probably not be able to provide an estimate of utility relocation costs until the design has been prepared. He stated that he did not believe that water, sewer, and gas lines would need to be relocated, and that utility poles would need to be relocated at the cost of the utility if the poles were in the existing right-of-way under an encroachment permit with NCDOT. He said there was not any utility information available that had been prepared for the four-lane project.

Amortization of Costs

On February 8, Alderman Alex Zaffron asked whether NCDOT would allow the Town to repay the cost of right-of-way and utility relocation over a number of years. On February 24, Mr. Mills said that NCDOT would allow the Town to spread the cost over three years and might be willing to go up to five years, and that interest would not be charged under such an arrangement.

Use of Sidewalk Bond Funds

On February 8, Alderman Mark Chilton asked if the Town could use sidewalk bond funds to pay for the sidewalks in the project in exchange for NCDOT using an equal amount of Moving Ahead (or other state funds) to purchase right-of-way. On March 1, Mr. Mills stated that he has spoken to Assistant Secretary of Transportation David King and that such an exchange would not be allowed.

Coordination with the High School

NCDOT staff believes it is feasible to complete the work before the target opening date for the Carrboro High School in August 2007. However, this is also contingent on the Town of Carrboro acquiring any needed right-of-way for the project.

The school system has made a commitment to install turn lanes and a traffic signal at the intersection of Rock Haven Road and Smith Level Road. The acquisition of right-of-way may be necessary to install the turn lanes and signal. The design work for this intersection has been delayed awaiting the outcome of discussions on the cross-section of the road.

Additional Comments on Option 2

NCDOT's alternative proposal would only provide sidewalk on the west side of Smith Level Road, whereas sidewalks on both sides would be provided under Option 1. NCDOT also does not have confirmation that funding is available for the sidewalk.

As proposed, NCDOT's alternative would not provide a standard four-foot bike lane on the east side of the road. However, initial conversations with NCDOT staff indicate that the design can likely be changed to provide bike lanes on both sides of Smith Level Road.

As was stated by the Town Manager on March 1, if the Board chooses Option #2, the Board will basically be "buying a pig in a poke." The estimated cost figures for right-of-way are very soft at this time, there are no preliminary estimates for utility relocation, and NCDOT will not agree to cap the town's cost for right-of-way and utility relocation.

OPTION 3: ASK NCDOT TO DISCONTINUE WORK ON THE PROJECT

The Board of Aldermen's third option is to request that NCDOT discontinue work and drop the project. However, there is a strong need and public support for bike lanes, sidewalks, and other pedestrian improvements along Smith Level Road. There will also be a need for intersection improvements along Smith Level Road in the future. If the project is dropped, it is unclear how needed bike facilities, pedestrian facilities, and intersection improvements will be provided.

At the March 1 meeting, the Board of Aldermen discussed dropping the project and using sidewalk bond funds for a sidewalk on one side of the road between Morgan Creek and BPW Club Road. However, based on the projected cost of other bond projects, this sidewalk could

cost from \$200,000 to \$250,000 or more. In addition, this option would not provide bike lanes, turn lanes at intersections, or a sidewalk between BPW Club Road and Rock Haven Road.

OPTION 4: PRESS NCDOT TO BUILD A SCALED-DOWN TIP PROJECT

The Board of Aldermen's fourth option is to press NCDOT to build the scaled-down TIP project specified in the Board's March 18, 2003 resolution (Attachment B). NCDOT has agreed to build two/three lane roads with sidewalks and bike lanes for two TIP-funded projects in Chapel Hill — Weaver Dairy Road and South Columbia Street — even though NCDOT would have preferred that a four or five lane road be built. As discussed in Attachment J, the history of these projects is similar to the Smith Level Road project.

If this option is selected, a new roadway design would be developed and it is uncertain when construction would begin. Construction would probably not be completed before the target opening date for the Carrboro High School in August 2007.

In considering of this option, please note the following language from the revised NCDOT traffic forecast (Attachment E), which provides guarded support for a scaled-down TIP project:

Smith Level Road is functionally classified as a minor arterial *not* of regional or statewide significance. Regional travel into and out of Chapel Hill and Carrboro would be better served on US 15-501. From a planning perspective, limiting the number of lanes for use by automobiles is more consistent with the Town's walkable community goals. We have attached a March 18, 2003, resolution from the Town of Carrboro which describes their goals in more detail. However, we also recommend that NCDOT receive some assurance from the Town of Carrboro that the Town will accept a context sensitive solution which may not meet the long term vehicular mobility needs in the area. NCDOT should also challenge the Town to implement planned travel demand management measures in the corridor as a means to limit growth of automobile trips on Smith Level Road, with a focus on reducing automobile trips to the elementary school. A system of bicycle facilities that provide continuous routes to the UNC campus, sidewalks along neighborhood roadways which connect to Smith Level Road, and convenient transit stops should be constructed by the Town of Carrboro within five years. The Town's land use plan should also allow neighborhood-scale commercial development along Smith Level Road to offer convenient services within walking and biking distance of surrounding residential neighborhoods.

OTHER ISSUES FOR CONSIDERATION

If Option 1, 2, or 4 is chosen, there are several other issues that need to be discussed with NCDOT staff and addressed as part of the final design for the project. These issues have been raised at public meetings, in meetings with NCDOT staff, and by the Transportation Advisory Board. In conjunction with the final decision about the cross-section, careful consideration of these issues will be needed. The following is a list of some of these issues:

- Include improvements to the operation of the interchange at Smith Level Road and NC 54 Bypass as part of the project.
- Consider extending the right southbound lane across the bridge to Willow Oak Lane, as proposed by the Berryhill neighborhood in its presentation to the TAB.
- Add bikelanes and sidewalks to the east side of the existing bridge over Morgan Creek on Smith Level Road and other bicycle and pedestrian improvements in the vicinity of NC 54.
- Ensure that emergency response and public safety needs are addressed in the design.
- Use recycled materials in all aspects of the project.
- Review the design to ensure a safe and functional pedestrian environment along Smith Level Road.
- Incorporate recommendations from the traffic operations study at the Frank Porter Graham site.
- Coordinate signal timing on Smith Level Road.
- Incorporate additional landscape plantings into the project.
- Replace any fencing removed by the project.

FISCAL IMPACT

If Option 1 or 4 is chosen, Carrboro will be responsible for paying 30 percent of the construction cost for new sidewalks constructed within the town limits or extra-territorial jurisdiction area. However, funding of \$66,300 was included in the sidewalk bond program for the Town's share of providing sidewalk along Smith Level Road.

If Option 2 is chosen, the Town of Carrboro will be responsible for securing needed right-of-way for the project and paying for utility relocation. It is estimated that right-of-way costs would be in a range from \$270,000 to \$320,000, but could be much more. An estimate for utility relocation costs is not available.

If Option 3 is chosen and bond funds are used to build a sidewalk on one side of the road between Morgan Creek and BPW Club Road, this sidewalk could cost from \$200,000 to \$250,000 or more.

STAFF RECOMMENDATION

Staff recommends that the Board of Aldermen adopt the attached resolution receiving the report and indicating a preferred option (Attachment A).

Please note that if the Board is interested in selecting Option 2, Town staff recommends that the Board of Aldermen request that the project not be removed from the TIP until (1) the Town and NCDOT have executed a municipal agreement for the work, (2) the Town receives detailed estimates of the cost of right-of-way and utility relocation based on a design, (3) the Town receives confirmation that NCDOT funding is available for all construction including the sidewalks and (4) the Town has determined whether funding is available from the MPO and Orange County.