A RESOLUTION RECEIVING THE FINAL REPORT FROM THE SMITH LEVEL ROAD TASK FORCE Resolution No. 222/2006-07

WHEREAS, in September and October of 2006, the Board of Aldermen received three citizen petitions describing concerns regarding safety along Smith Level Road; and

WHEREAS, on October 10, 2006, the Board of Aldermen created the Smith Level Road Task Force and part of the Task Force's charge was to present a final report to the Board of Aldermen by June 30, 2007; and

WHEREAS, the Task Force has requested the opportunity to present the final report on June 19, 2007.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO:

Section 1. The Board of Aldermen hereby receives the report from the Smith Level Road Task Force.

Section 2. The Smith Level Road Task Force has fulfilled its duties, and the Board of Aldermen hereby thanks the task force members for their diligent participation and final report, and hereby dissolves the task force.

A RESOLUTION RESPONDING TO RECOMMENDATIONS IN THE FINAL REPORT FROM THE SMITH LEVEL ROAD TASK FORCE Resolution No. 238/2006-07

WHEREAS, having heard the final report from the Smith Level Road Task Force; and

WHEREAS, consideration of implementation of several of the task force recommendations would involve parties in addition to the Town of Carrboro;

Section 1. The Board of Aldermen hereby refers the following recommendations to Carrboro town staff and the Carrboro Transportation Advisory Board for analysis and recommendations to the Board of Aldermen:

- 1. Make the following requests of NCDOT:
- (a) impose truck restrictions for through traffic on the section of Smith Level Road between current city limits and South Greensboro Street
- (b) conduct a traffic and feasibility study for installing a roundabout at the intersection of Damascus Church Road and Smith Level Road.
- (c) widen the shoulders and stripe a bikelane along the western side of Smith Level Road from Rock Haven Road to the southern end of the town's jurisdiction (US Highway 15-501)
- (d) reduce the speed limit to 35 miles per hour for the southern portion of Smith Level Road.
- 2. Include the section of Smith Level Road from Culbreth Road to the southern end of the town's jurisdiction (US Highway 15-501) as part of Carrboro's bicycle plan.
- 3. Add a multi-use path along the west side of Smith Level Road from Ray Road to the southern end of the town's jurisdiction (US Highway 15-501).
- 4. Explore landowner compacts (secured easements) to provide a right-of-way or public trail/greenway access for pedestrians and bicyclists from the town's southern jurisdictional boundary (US Highway 15-501) to the high school.
- 5. Until better alternatives are provided, encourage parents to use school buses to transport children to school instead of driving.

Section 2. The Board of Aldermen hereby refers the following recommendations to the Town of Chapel Hill for consideration:

- 1. Make the following requests of NCDOT:
- (a) Impose truck restrictions for through traffic on the section of Smith Level Road between Damascus Church Road and South Greensboro Street
- (b) Conduct a traffic and feasibility study for installing a roundabout at the intersection of Damascus Church Road and Smith Level Road.

- (c) Widen the shoulders and stripe them as bikelanes along the eastern side of Smith Level Road from the southern end of the Carrboro town limits (just south of Woodcrest Drive) to the southern end of Chapel Hill's jurisdiction (US Highway 15-501).
- (d) Reduce the speed limit to 35 miles per hour for the southern portion of Smith Level Road.
- 2. Include the section of Smith Level Road from Culbreth Road to the southern end of Chapel Hill's jurisdiction (US Highway 15-501) as part of Chapel Hill's bicycle plan
- 3. Add a multi-use path along the east side of Smith Level Road from the southern end of Carrboro's city limits (just north of Ray Road) to the southern end of Chapel Hill's jurisdiction (US Highway 15-501).
- 4. Explore landowner compacts (secured easements) to provide a right-of-way or public trail/greenway access for pedestrians and bicyclists from US Highway 15-501 to the vicinity of the high school.
- Section 3. The Board of Aldermen hereby refers the following recommendations to the Orange County Board of County Commissioners for consideration:
- 1. Request that NCDOT reduce the speed limit to 35 miles per hour for the southern portion of Smith Level Road.
- 2. Enforce speed limits along Smith Level Road.
- 3. Explore the possibility of providing a multi-use path for pedestrians and bicyclists from the western end of Heritage Hills neighborhood (the portion within Orange County's planning jurisdiction) to Damascus Church Road. This may be through landowner compacts (secured easements) to provide rights-of-way or public trail/greenway access for pedestrians and bicyclists.
- 4. Investigate the feasibility of adding an Orange Public Transit route from the southern section of Smith Level Road to Rock Haven Road (southern boundary of Chapel Hill Transit service area) and to the UNC park-and-ride lot on US Highway 15-501.
- Section 4. The Board of Aldermen hereby refers the following recommendation to Chatham County Commissioners for consideration:
- 1. Include the section of US Highway 15-501 from the Smith Level Road intersection to Old Lystra Road as part of the county's bicycle plan.
- Section 5. The Board of Aldermen hereby refers the following recommendations to NCDOT for consideration:
- 1. Reduce the speed limit on the southern section of Smith Level Road to 35 miles per hour

- 2. Examine the possibility of eliminating one of the two turn lanes and one of the merge lanes at the southern entrance of Smith Level Road coming off US Highway 15-501.
- 3. Impose truck restrictions for through traffic on the section of Smith Level Road between Damascus Church Road and South Greensboro Street
- 4. Request that NCDOT conduct a traffic and feasibility study for installing a roundabout at the intersection of Damascus Church Road and Smith Level Road.
- 5. Examine the possibility of narrowing the traffic lanes by six inches to extend the shoulders for bicyclists on the section of Smith Level Road between Rock Haven Road and US Highway 15-501.
- 6. Widen the shoulders and stripe them as bikelanes along both sides of Smith Level Road from Rock Haven Road to US Highway 15-501.

Report of the Smith Level Road Task Force

Submitted to the Carrboro Board of Aldermen June 19, 2007

Report of the Smith Level Road Task Force

The Carrboro Board of Alderman charged the task force with the following:

- 1. Gather data on existing problems that impact traffic and pedestrian safety along Smith Level Road between Culbreth Road and 15-501.
- 2. Examine development pressures that impact traffic and the University Lake watershed within the study area.
- 3. Explore ways to provide safe, non-vehicular use of Smith Level Road.
- 4. Identify obstacles to transportation improvements

The taskforce began meeting on March 14, 2007. At subsequent meetings, we reviewed DOT traffic projections and accident reports; examined the Chapel Hill Carrboro City School system's walkability policies and current distribution of students living on or along Smith Level Road; and analyzed the best estimates on growth in northern Chatham County and how that growth is reflected in DOT traffic projections.

Development Pressures

Although Carrboro and Chapel Hill have committed to restricting development along Smith Level Road and within the rest of the University watershed, Chatham County has designated the northern section of their county, which borders the watershed, as an economic development district. The Triangle J Council of Government estimates that northeast Chatham County will have 117,000 residents by 2035 compared to the current population of 58,000+ for the entire county. As of May 2007, approximately 15,000 new residences have been approved but not built in northeast Chatham, including Pittsboro and Cary. Additionally, more than one million square feet of retail and commercial projects have been approved, but not built, on 15-501 north of Fearrington Village.

Data on Existing Problems and Future Growth

DOT's most recent traffic projections for a no-build scenario, derived from the 2005 Triangle Regional Model, predict a uniform increase of approximately 5000-5800 vehicles per day between 2005 and 2030. There is recognition that the model is inherently imperfect and represents a best guess based on available data and certain assumptions.

These projections include Lee-Moore Oil Company's proposed big box development and the anticipated growth in northern Chatham County. The two left-turn lanes onto Smith Level added during the widening of 15-501 were built in anticipation of this future increase in traffic coming from Chatham County.

Between 2001 and 2006, there was an average of 25 accidents per year along Smith Level Road. The majority of these accidents were property damage only, however, there was

one fatality and 38 other crashes that involved physical injury. Two pedestrians were struck and there was one accident involving a school bus.

The increase in truck traffic along Smith Level Road cannot be quantified. DOT does not count trucks separately from other vehicles during traffic counts. However, we do know that UNC uses Merritt Mining for construction fill so we should expect their truck traffic to remain constant over the next several years. While there is a perception among residents that there are also many trucks taking a short cut from 54 Bypass to 15-501 there is no data available to support or counter those perceptions.

In 2001, the Chapel Hill Bicycle And Pedestrian Board conducted a Walk to School Day Survey based on the National Highway Traffic Safety Association Walkability Checklist. Two respondents reported on Jones Ferry Road and Smith Level Road. Their comments were consistent with the feedback received during the public meeting held on May 20:

- Too much traffic
- No room for bikes, which a lot of people try to do
- Need traffic signals
- Drivers speed around bikes--no shoulders-- a huge safety issue
- Drivers do not yield to pedestrians
- These roads are impossible to walk and dangerous to bike

Speeding

In 2003, speeding was a contributing factor in 31 percent of all fatal crashes nationwide. The UNC Highway Safety Research Center claims that:

- At 40 mi/h a pedestrian has an 85 percent chance of being killed;
- At 30 mi/h, the likelihood goes down to 45 percent,
- At 20 mi/h, the fatality rate is only 5 percent

Speed control along the unincorporated section of Smith Level falls under the jurisdiction of the Orange County Sheriff's Office and the Highway Patrol. The Highway Patrol has informally responded that speeding control along Smith Level Road is not one of their priorities. The Orange County Sheriff's Office has only recently acquired sufficient radar equipment to make speed control possible.

School Walk Zones

The task force considered the impact of sidewalks, bike lanes, and greenway improvements to the possible extensions of walk zones around Carrboro High School, Frank Porter Graham Elementary School, and Culbreth Middle School.

Public school walk zones must meet several North Carolina requirements. Students may not travel more than 1.5 miles from the closest safe drop off at home to the closest safe drop off at the school. The mileage is generally calculated using driving distances, however, dedicated easements and greenways may also be used. Potential walk zone access routes, dedicated easements, and greenways are judged for safety, sight lines,

ADA compliance, lighting, and entrance and exit points. If conditions do not meet these criteria, a walk zone may be shorter than the 1.5-mile limit or may not be permitted at all by the school board. The school district does not provide school bus transportation to students residing inside designated walk zones.

The Chapel Hill – Carrboro City Schools Board of Education has not yet established a walk zone for Carrboro High. However, based on past practices, the new walk zone should serve approximately 71 students once it is created. If sidewalks were extended along Culbreth School Road and Smith Level Road, an additional 50 students could walk to school, assuming safety requirements were met. If the greenway, which as been discussed, between Southern Village to Smith Level were built, additional areas could most likely be added to the walk zone.

Frank Porter Graham Elementary School currently has a very small walk zone. However, if sidewalks were built along Culbreth School Road and Smith Level Road and the Carrboro section of the Morgan Creek greenway to the east of Smith Level were built, approximately 100 more students could walk to school. If the Chapel Hill section of the Morgan Creek greenway to the west of Smith Level were also completed, 80 more students could walk. Again, all the access routes must be determined to be safe for youngsters to use as their only means of access to and from school.

Finally, extension of Culbreth Middle School's walk zone was considered. Currently, many students walk to school along sidewalks and along a dedicated easement near the track that connects to Southern Village. Within the 1.5-mile limit, there are no infrastructure improvements that would extend the walk zone.

Recommendations for Improving Non-Vehicular Access Along the Southern Section of Smith Level Road

Recommendations for the section of Smith Level Road between Rock Haven and 15-501 (the southern section) will be presented separately from the task force's response to the TIP project for the section of the road that falls within the Carrboro town limits.

The Pedestrian and Bicycle Information Center, part of the UNC Highway Safety Research Center, identifies the following strategies for improving pedestrian safety:

- Reduce speed of motor vehicles.
- Reduce volume of motor vehicles.
- Reduce exposure time for pedestrians.
- Improve access and mobility for all pedestrians, especially those with disabilities.
- Encourage walking by improving aesthetics, safety, and security.
- Improve compliance with traffic laws (motorists and pedestrians).
- Eliminate behaviors that lead to crashes (motorists and pedestrians).

Using these guidelines as the basis for reviewing the collected data, the task force developed two overarching principles for improving safety and multi-model transportation along Smith Level Road while protecting the integrity of the watershed.

Slow Down the Traffic

Traffic calming measures will improve safety for motorists as well as those bicyclists who currently use the road. We expect that the recommended tactics will have the secondary advantage of reducing the volume of traffic by encouraging some commuters to the university and/or hospital to stay on 15-501.

- 1. Reduce the speed limit on the southern section of the road to 35 MPH. DOT's preference would be to conduct a speed zone study to determine if the speed should be reduced. However, it is important to remember that DOT's goals are to facilitate the smooth and even flow of traffic while the hope of the residents living along this road is to improve safety and non-vehicular mobility along the road. In this instance the goals of citizens and the DOT are at odds.
- 2. Examine the possibility of eliminating one of the two turn lanes and one of the merge lanes at the entrance of Smith Level Road coming off 15-501. The stacking lane on 15-501 may need to be extended if a turn lane is eliminated in order to assure smooth movement in the through lanes along 15-501. These additional lanes were added to accommodate long-term traffic projections and a non-permanent design to remove those additional lanes for the short-term may be amenable to DOT.
- 3. Impose truck restrictions on the section of Smith Level Road between Damascus Church Road and S. Greensboro Street. Truck restrictions apply to through traffic and would not restrict access for Merritt's mining operations or school deliveries. Restrictions are imposed by request of local government to the Department of Transportation where they are reviewed to assure that such restrictions will not have the unintended consequence of pushing truck traffic onto smaller neighborhood roads.
- 4. Examine the possibility of narrowing the traffic lanes by 6" on the section of the road between Rock Haven and 15-50l. According to DOT guidelines, Smith Level Road should have 12-foot lanes based on projected traffic volumes. This is another instance where the DOT goal of moving traffic smoothly and evenly is at odds with the citizen-goal of slowing and/or reducing traffic. Narrowing the lanes, in conjunction with extending the shoulders, could help slow down traffic and also improve bicycle accessibility (see #2, page 6).
- 5. Request that NCDOT conduct a traffic and feasibility study at Damascus Church Road and Smith Level. A roundabout would provide speed reduction and increased safety at a dangerous intersection, as well as providing an additional safe crossing point of Smith Level for bicyclists and pedestrians.

6. Enforce speed limits.

Improve Access for Non-Vehicular Traffic

The best strategy for reducing the volume of traffic along any road is to provide safe, attractive, and easily accessible alternatives to single occupancy motorized vehicles. Every one of the citizens who attended the public meeting on May 20 expressed their desire for children to be able to walk or bicycle to school. An equally strong desire was expressed for maintaining the rural character of Smith Level Road and its surrounding neighborhoods.

- 1. Adopt the section of Smith Level Road from Culbreth to 15-501 and from 15-501 to Old Lystra Road as part of Carrboro and Chapel Hill's bicycle plan. The Mountains to the Sea Bicycle route currently runs from Bowden Road (Orange County) to Jones Ferry to South Greensboro St to Culbreth Road to Mt Carmel Church Road. While maintaining the Mountains to the Sea Bicycle route in its current location, an additional local bike route could be added to follow Smith Level Road to 15-501 and over to Old Lystra connecting back to the Mountains to the Sea route at Mt Carmel. The Performance Bicycles headquarters lies along this route and many of their employees commute back and forth along Smith Level Road.
- 2. Extend and line the shoulders along Smith Level Road from Rock Haven to 15-501. Extended shoulders are a viable short-term approach to improving bicycle access since DOT does not have any formal right-of-ways along the southern portion of Smith Level Road. However, DOT can pave an additional two (2) feet in easement areas that they have historically maintained. The additional benefit of adding Smith Level and Old Lystra (see #1 above) to the local bicycle plan is that extended shoulders could be added during DOT's next scheduled repaving, at no or lower cost to local governments through DOT's policy of supporting road enhancements that facilitate multi-modal transportation. Other possible funding resources for implementing this recommendation are the Transportation Improvement Plan (TIP) a Secondary Road Construction Funds, as well as spot safety funds.
- 3. Add a multi-use path along one side of Smith Level from Ray Road to 15-501. OWASA has stated that such an addition would not have a negative impact on the watershed. This is a long-term proposal and would require time and funds for acquiring right-of-way.
- 4. Explore landowner compacts (secured easements) to provide a right-of-way or public trail/greenway access for pedestrians and bicyclists from 15-501 to the high school. An informal, but much used, trail through university property runs from Heritage Hills to Damascus Church Road. A review of the Carrboro planning map indicates that only 2-3 easements would be needed to connect that

path to the high school. Such agreements would be legal documents and would need to be held by a legal entity such as the county or some other formal organization.

- 5. Investigate the feasibility of adding an Orange Public Transit from the southern section of Smith Level to Rock Haven (connecting with Chapel Hill Transit) and to the UNC park and ride lot on 15-501.
- 6. Until better alternatives are provided, encourage parents to utilize school buses to transport children to school instead of driving.

Finally, the task force encourages improved public transportation between Carrboro, Chapel Hill, Orange County, Chatham County, and the Chapel Hill Carrboro City Schools.

Feedback on the DOT TIP Proposal For the Northern Section of Smith Level Road*

The Task Force was not able to review the TIP proposal when a DOT representative was able to explain the many features of the proposed design. Therefore, we make the following recommendations, understanding that some of these recommendations may already be present in the DOT proposal.

- Adding bike lanes and sidewalks to both sides of the road throughout the entire length of the project will make travel along Smith Level Road safer and smoother for bicyclists and pedestrians as well as motorists. We are especially concerned that a sidewalk be available on the western side of the road from the end of the school ball fields (beyond the end of the TIP project) where there is a new sidewalk through the back of the school property north to Rock Haven. The new sidewalk exits at a blind curve along Smith Level. Students should be encouraged to walk back to the roundabout before crossing.
- If there is not already a sidewalk along the eastern side of the road from Woodcrest to Rock Haven, we recommend that one be added. That one section will greatly extend the number of students who can safely walk to school.
- The task force would also like to see flashing yellow school lights 100 feet or so before the roundabout during school arrival and departure times, along with painted crosswalks and pedestrian-activated crossing signals.
- We also recommend that the signals at Rock Haven, Culbreth, and BPW will be sensitive enough to be tripped by bicyclists and that they have pedestrian crossing buttons.
- The current project entrance, located approximately 75 feet south of the driveway to Frank Porter Graham Elementary School, leaves the entrance to the school along a particularly pedestrian-unfriendly length of the road. If the project entrance could be moved north to the stoplight at the school entrance, the

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additional sidewalks and bike paths would improve the safety of those families that choose to walk their children to school.

*Note: a quorum was not present when these recommendations were discussed. However, all members had the opportunity to review and comment through email. The following resolution was introduced by Alderman Jacquelyn Gist and duly seconded by Alderman Dan Coleman.

A RESOLUTION APPROVING COMPOSITION AND CHARGE TO THE SMITH LEVEL ROAD TASK FORCE Resolution No. 50/2006-07

WHEREAS, the Carrboro Board of Aldermen has accepted a petition signed by 100 residents of the area around Smith Level Road requesting the creation of a task force to make recommendations regarding improvements to vehicular and pedestrian safety and access along Smith Level Road and protection of the University Lake Watershed; and

WHEREAS, the Carrboro Board of Aldermen seeks to ensure that its existing and proposed policies, regulations, and actions are appropriate and beneficial, and

WHEREAS, the Carrboro Board of Aldermen seeks to respond to citizen concerns and to take appropriate action as fiscal and governmental authority permits; and

WHEREAS, Smith Level Road south of Ray Road serves as the boundary line for the University Lake watershed and is important to the general health and welfare of the community; and

WHEREAS, staff met with Terri Buckner, the residents' representative, and Alex Zaffron, Board of Aldermen liaison, to discuss the residents' concerns, identify stakeholders, and a draft charge for the task force was developed.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the following stakeholders be invited by the Town to serve on the Smith Level Road Task Force:

Smith Level Road residents' representative (currently Terri Buckner); Carrboro Board of Aldermen liaison (currently Alex Zaffron), representatives from Orange County (government and citizen), Chatham County (government and citizen), Chapel Hill (government and citizen), Pittsboro (government and citizen), as well as staff from NCDOT (one representative from each of the 2 adjoining NCDOT districts), Orange County Sheriff's Department, Chapel Hill-Carrboro school system, Culbreth School, and Durham/Chapel Hill/Carrboro Metropolitan Planning Organization.

BE IT FURTHER RESOLVED by the Carrboro Board of Aldermen that the following charge be given to the task force:

- 1. To gather data on existing problems regarding traffic impact and pedestrian safety along Smith Level Road and to receive data on the projected traffic impact of anticipated development in the area.
- 2. To examine development pressures both existing and anticipated in multiple jurisdictions in and near the area roughly encompassed by Culbreth Road (Chapel Hill and Carrboro) on the north; U.S. 15-501 South (Chapel Hill, Orange County, and Chatham County) on the east; U.S. 15-501 approximately at the Chatham County line on the south; and Smith Level Road (Carrboro and Chapel Hill) on the west; to further the understanding by all entities of current and future traffic impact in this area and environmental impact on the University Lake Watershed.
- 3. To explore ways to provide safe, non-vehicular access to Carrboro High School to children living along Smith Level Road between the Carrboro town limit and U.S.Highway 15-501.

- 4. To explore ways to provide safe access for residents whose driveways or subdivisions are located on or along Smith Level Road.
- 5. Regarding recommendations based on the above-described analyses of proposed development and roadway improvements, analyze such recommendations for adverse impacts on the University Lake Watershed.
- 6. By March 2007, present to the Board of Aldermen analyses of development in the study area, including traffic impacts.
- 7. Present a final report to the Board of Aldermen by June 30, 2007, including recommendations based on the foregoing analyses, at which time the Task Force will have fulfilled its duties.

The foregoing resolution having been submitted to a vote, received the following vote and was duly adopted this 10th day of October, 2006:

Ayes: Joal Hall Broun, Mark Chilton, Dan Coleman, Jacquelyn Gist, Randee Haven-O'Donnell, John Herrera, Alex Zaffron

Noes: None

Absent or Excused: None

SMITH LEVEL ROAD TASK FORCE MEMBERS

Carrboro Board of Aldermen

Liaison: Alex Zaffron

Carrboro Town Hall, 301 West Main Street, Carrboro, NC 27510

Carrboro, Smith Level Road Neighborhoods

Appointed citizen: Terri Buckner (chair) 306 Yorktown Drive, Chapel Hill, NC 27516

Chapel Hill, Smith Level Road Neighborhoods

Appointed citizen: Perri Morgan 522 Dogwood Drive

Chapel Hill, NC 27516

Chapel Hill-Carrboro City Schools System

Lisa Stuckey, School Board Member 750 South Merritt Mill Road, Chapel Hill, NC 27516

DCHC MPO

Dale McKeel, Transportation Planner 101 City Hall Plaza, Durham, NC 27701

NCDOT – Division 7 – Greensboro

J.M. (Mike) Mills, Division Engineer

POB 14996, Greensboro, NC 27415-4996

C. N. (Chuck) Edwards, District Engineer

POB 766, Graham, NC 27253

Orange County Board of Commissioners

Liaison: Alice Gordon 282 Edgewood Drive Chapel Hill, NC 27517

Carrboro Transportation Advisory Board Heidi Perry

407 Robert Hunt Drive Carrboro, NC 27510

Carrboro Transportation Advisory Board

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