

ATTACHMENT A

**A RESOLUTION APPROVING THE CONDITIONAL USE PERMIT
FOR THE CHAPEL HILL-CARRBORO HIGH SCHOOL #3
LOCATED AT 201 ROCK HAVEN ROAD
Resolution No. 140/2004-05**

WHEREAS, the Carrboro Board of Aldermen seeks to provide ample opportunities for the public to comment on proposed projects; and

WHEREAS, an application has been received for a Conditional Use Permit for the Chapel Hill-Carrboro High School #3 to be located at 201 Rock Haven Road; and

WHEREAS, the Board of Aldermen finds that the applicant has satisfied the requirements related to Conditional Use Permits contained in the Land Use Ordinance.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Board of Aldermen approve the request made by Board of Aldermen approve the request made by Chapel Hill – Carrboro City Schools subject to the conditions agreed upon during discussion of Section 3 of the Conditional Use Permit Worksheet.

STAFF REPORT

TO: Board of Aldermen

DATE: April 26, 2005

PROJECT: Carrboro High School #3

**APPLICANT
and OWNERS:** CLH Design, Moseley Architects
Chapel Hill – Carrboro City Schools

PURPOSE: To acquire a Conditional Use Permit allowing for the construction of a High School Facility with associated infrastructure and facilities on the property located at the western terminus of Rock Haven Road.

EXISTING ZONING: R-10

TAX MAP NUMBER: 7.122.A.13 & 17

LOCATION: The western terminus of Rock Haven Road Street.

TRACT SIZE: 62.32 acres (2,714,659.2 sf)

EXISTING LAND USE: vacant

PROPOSED LAND USE: 5.110 Secondary School

**SURROUNDING
LAND USES:** North: R-SIR, Highland Hills Apartments
South: R-10, WR, Right-of-way, Single family residential
West: R-10, Single family residential
East: R-10, R-SIR, Village Apartments, Rock Haven Apartments, Ridge Haven Townhomes.

ZONING HISTORY: R-10 (since 1990)

ANALYSIS

Background

Chapel Hill – Carrboro City Schools has submitted an application for construction of a 42-classroom, high-school on the parcel located at the western terminus of Rock Haven Road (**Attachment E**). The Conditional Use Permit, if approved, would allow the construction of the high school, along with associated recreational facilities and infrastructure. The subject property is zoned R-10, Residential, contains 62.32 acres (2,714,659.2 sf) and is listed on the Orange County Tax Map as numbers 7.122.A.13 & 17. The existing site is vacant and wooded sloping predominantly to the west where it descends into a tributary that tees into Morgan Creek. (**Attachment C**).

Note that the initial planning of the school was facilitated by Chapel Hill/Carrboro City Schools (CHCCS) in coordination with Orange County. A large part of this process involved designing the building and site according to the Board of Education's newly adopted environmental policy for high-performance schools, *Policy 9040*. Policy 9040, outlines several building and site performance criteria to designed to lessen the school's environmental impact.

Prior to the Town's official review of the plans, CHCCS, facilitated a community planning committee to help guide the design process. The committee included parents, students, teachers, principals, neighborhood representatives, elected officials and staff members from Orange County and the Town of Carrboro.

CHCCS, in an effort to gain further input on the proposed design, presented the proposal to the Board of Aldermen in a public hearing on June 8th, 2004. Many design suggestions from Town representatives were made during the meeting as shown on the attached minutes (**Attachment F**).

Site Design Summary

To serve the school, a radial public R/W extension is proposed, effectively joining the stub-outs of Rock Haven Road and Tar Hill Drive (**Attachment B**). School buses, commuter traffic, service and utility vehicles will rely on these two existing streets to bring traffic off of Smith-Level Road onto the school site. Once on the site, the plan provides a circulation system designed to segregate drop-off traffic from bus and commuter traffic.

Pedestrians will use a series of sidewalks that connect to the parking and drop-off areas to the school.

The school building itself is a unified structure, located along the parcel's prominent ridgeline. Its building elevation varies from, two-stories with a clerestory to single-story. Multiple sports facilities (i.e. track, baseball field, tennis courts, etc.) are located south of the building with adjacency to a substantial parking lot. The large footprint of these facilities and their supporting infrastructure requires substantial site grading.

Existing Conditions and Natural Constraints

The site is currently undeveloped and wooded. The existing mix of hardwoods and pines suggests that the property was at one time farmed or used for pasture. Existing large trees with a diameter of 18 inches are required to be inventoried by Section 15-316 of the LUO. Shown on the plans are 124 such trees of mixed species which include Black Gum, Sugar Maples, White Ash and Poplars. Several hundred smaller diameter trees are distributed throughout the site as well.

Most of the tract drains into a tributary which ties into Morgan Creek. There are abundant steep grades along this side of the property. A very small portion of the tract, along the southern property line, drains into the University Lake Watershed. Minimal disturbance is planned for the portion of the property draining into the watershed.

Environmental Impact

Tree Protection,

The proposed plan requires significant site disturbance in order to be realized. Mass grading for the building, parking lots, fields and facilities necessitates removal of hundreds of trees including 84 of the trees identified as having diameters of greater than 18". The applicant has provided justification for the tree removal in the attached letter (**Attachment G**). Tree protection meeting the requirements of the LUO has been provided at the clearing and grading limits to protect the remaining forest stand.

Grading and Stream Buffers

The grading plan necessitates disturbance of several of the stream buffers. The athletic fields are responsible for most of this impact. During the plan review, staff requested that the applicant modify the plan to reduce the impact on these natural drainage ways. Combining fields, altering layouts, adding additional stormwater treatment, and removing facilities were all discussed. The applicant has declined substantial revision of the layout as they feel their design represents the program goals of the school district well. A design justification letter has been provided by the applicant to further support the plan. Please note that such disturbance is permissible per Section 15-268(g) of the LUO.

As a result of needing to alter the drainage ways, the applicant has designed the stormwater system to ensure that all impacted areas drain directly into a stormwater treatment facility. In doing so, the applicant ensures that the objectives of Section 15-268(a) of the LUO are met by treating the water prior to it exiting the site.

Erosion Control

Extensive erosion control measures will be required during construction. Because the project requires state funding, the state Department of Health and Natural Resources (DEHNR) division of Land Quality is the regulatory authority with regard to erosion control and the issuance of land disturbing permits. The construction plans will be fully reviewed by DEHNR. No construction may begin until DEHNR issues a permit.

Stormwater

Section 15-263 of the LUO establishes stormwater management criteria that must be met for any project requiring a CUP. In particular the applicant must meet stormwater runoff standards with respect to water quality and quantity and must demonstrate that the project will not cause upstream or downstream damages to other properties. In addition, the applicant must submit a "Truth in Drainage" statement.

The stormwater system is designed to provide water-quality treatment. Proposed treatment devices include bioretention areas, constructed wetlands, sediment-removal technology, below-ground rainwater cisterns (for toilet flushing), and wet detention facilities. Note that the cisterns are designed to collect rainwater from roof drains. Also note that the wet detention ponds are designed to hold standing water and will not dry-out under typical conditions.

The stormwater plan has been designed with additional capacity so as to allow for future building/site additions/parking/etc. The combined goal of this system is to remove at least 85% of Total Suspended Solids from the first inch of a storm event *and* to not exceed the peak flow volume of water that currently exits the site.

Note, that the Town Engineer finds that the existing storm drainage system located along to low-point or "sag" of Rock Haven Road is insufficiently sized to deal with the 10 year design storm. Rock Haven Road was originally in NCDOT's jurisdiction at the time of construction but was never accepted as a public road. The existing storm drain pipes in the "sag" will be replaced as needed with larger pipes in order to meet the engineering requirements of the Town's Storm Drainage Design Manual.

Lighting Plan

Section 15-242 requires adequate lighting of buildings and facilities to assure public safety. Section 15-243 requires all such lighting (excluding street R/W lighting) to be controlled in height and intensity. Fixtures are to be no more than 15' in height and the illumination level must not exceed .2 footcandles at the property line.

The proposed lighting plan for the project includes seven (7) new street lights on 25' poles spaced evenly throughout Street A. The private parking areas have eighty (80) new 15' light poles with *both* single and double fixtures as needed. The building exterior will feature thirty-one (31) wall lights evenly dispersed throughout. All fixtures proposed are cut-off, thereby reducing glare to surrounding properties and limiting upward light pollution. Staff finds the lighting plan to be in compliance with the Land Use Ordinance.

In addition, the central track and soccer field area has six (6) 70-80' lighting poles, each with 12 to 16 sports-light fixtures. The central field was chosen for its relative isolation from the neighboring properties to reduce perceived light pollution. The LUO does not directly regulate these fixtures other than requiring all practicable efforts be made to minimize their impact through limiting their hours of use and shielding. Shielding is integral to the proposed fixture although additional measures may be possible. The Board may wish to discuss this matter as well as hours of use with the applicant.

- ✓ The Board may wish to discuss additional shielding measures and hours of use for the proposed field lighting.

Landscape Plan

The landscape plan proposes approximately 256 large trees, 212 small trees, and 755 shrubs. In addition, the various bioretention areas and the designed-wetland are planted with 109 additional trees and hundreds of additional shrubs and perennials. None of the plant species are listed in the Town's Invasive Plant Species list (Appendix E-3 of the LUO).

Note that there is a greater diversity in tree species than in shrub species (excluding the wetland plantings). The applicant may wish to diversify the shrub selection further during construction plans review, though this is not a requirement of the ordinance. Over one third of the trees and shrubs are evergreen thereby providing landscape interest during the winter.

Parking stops are provided throughout the plan as needed to avoid damage to proposed vegetation.

Shading

Per 15-317 and Appendix E-3, the applicant is required to provide shade on at least 20% of the total vehicle accommodation areas, which in this case amounts to 20% of 198,725 sf or 39,751 sf. Parking areas and drives are generously planted with a diverse combination of small and large trees, which suggest that they likely surpass the Town's requirement; however, the calculations as presented do not reflect the staff's interpretation of the ordinance provisions and therefore don't demonstrate compliance. For this reason, the following condition is recommended:

- That the shading calculations required by Section 15-317 and Appendix E-3 be revised as necessary to demonstrate compliance prior to construction plan approval.

Screening

The LUO requires the applicant screen the proposed high school from the adjacent properties. The school is surrounded predominantly by apartments which require a semi-opaque, Type "B" screen. The few residential properties to the west require an opaque Type "A" screen. The remaining frontage along public streets requires a Type "C" screen. The LUO allows screening to be accomplished in several different ways.

In this case, the landscape plan shows the screening requirements being address both through supplemental plantings and through existing vegetation. The Type B screen adjacent to the southern parking lot uses predominantly existing vegetation, but staff is recommending that additional plantings be added to fully satisfy the type "B" requirement.

In the northeast quadrant, proposed plantings appear to satisfy the requirements of the LUO; however, the applicant has mislabeled the screen as type "C" rather than type "B." Because of these items staff recommends the following conditions:

- That additional plantings be added to the Type “B” screen adjacent to the southern parking lot prior to construction plan approval.
- That the Type “C” screen along the northeastern property line be re-labeled as a Type “B” screen prior to construction plan approval.

Note that the screening requirements will become a part of the permit and will be required to perform throughout the life and use of facility. Should the installed screen not meet the Town’s standards after occupancy, the Town has the authority to require the situation be corrected.

Transportation

Stub outs from both Tar Hill Drive and Rock Haven road terminate at the property. A proposed public right-of-way extension, “Street A” will connect to these stub-outs via roundabouts at each terminus. Each roundabout serves driveways that provide access to the various parking and service areas.

When the project is completed, this infrastructure will create a public collector road loop served off of Smith-Level Road by BPW Club Road and Rock Haven Road. Per the Land Use Ordinance, collector streets are designed to handle over 800 vehicle trips per day. A street connection to Ray Road was discussed (either a full street or emergency only), but the applicant declined interest in the idea.

The circulation system is designed to accommodate peak ingress and egress of school buses, parents, staff, student drivers, and service personnel. The “parent loop” and “bus loop” provide drop-off areas for students. At build-out, the school is predicted serve some 1200 students and 128 staff.

“Street A”

Street “A” meets the Town’s collector street standards by providing, on both sides of the roadway, 5’ sidewalks, 3’ planting strips, and bike lanes. “Street A” begins and ends with 100 foot diameter *roundabouts* which feature internal islands complete with mountable truck aprons. Located along the length of Street A are a Chapel Hill Transit Bus Stop (with Town approved shelter) and a driveway into the student drop-off lot.

As the bus turn-out is slightly different than the one specified by Chapel Hill Transit, Town staff requests modification to the bus stop per the following condition:

- That the Chapel Hill Transit bus stop turn-out detail be modified to the Town of Chapel Hill’s bus stop detail (ST-8) prior to construction plan approval.

Rock Haven Road

Currently Rock Haven Road does not meet public street standards and has not been accepted by the Town as a public R/W. The proposed plan will remedy this situation by

repair, reconstruction and various improvements so that the resulting street will generally meet the Town's standard for Collector Streets. The collector street standard requires a 60' R/W with a 34' pavement width, bike lanes and, 5' sidewalks with 3' planting strips on either side (15-216). The improvements on Rock Haven deviate from these standards by leaving the existing, non-compliant 4' sidewalk and 18" planting strip on the northern side and installing a new, 5' sidewalk and 18" planting strip on the southern side.

Per 15-216(j), the Board is allowed to grant deviations from the standard width of the planting strip if it finds that the proposed street avoids environmental damage or promotes public safety. Staff finds that in this instance the narrow planting strip will help preserve existing vegetation on the south side of the street and therefore recommends the following conditions:

- That per the provisions of 15-216(j), Rock Haven Road be allowed to deviate from the planting strip standards of Section 15-216 thereby allowing an 18" planting strip between the curb and sidewalk on the south side of the road so as to minimize damage to existing transformers, streetlights, trees and slopes.

Tar Hill Drive

The plans modify the southernmost 80 feet of Tar Hill Drive so as to join harmoniously with the northern roundabout of Street A. Wheelchair ramps, a lane divider, crosswalks and associated curb and gutter are all necessary improvements to this street. Tar Hill Drive connects with BPW Club Road which tees into Smith Level Road. Sidewalks, on only one side of the street, will form a continuous pedestrian link from Smith Level Road to the School.

Smith Level Road

Smith Level Road is on NCDOT's Transportation Improvements Program (TIP) schedule to receive state-funded improvements. Their plans specify a four-lane divided cross section be installed from Morgan Creek Bridge to Rock Haven Road; the Town has reviewed NCDOT's plans but has decided to pursue an alternative cross section. Because of this, the funding for the alternative design requires negotiations with NCDOT.

Transportation Impact Analysis

Ramey Kemp & Associates Analysis

Until the alternative design for Smith Road is finalized and funding is secured, it is difficult for the applicant to specify necessary improvements to Smith Level Road. Because of this, the applicant has removed from the drawing set the depiction of a proposed turn lane on Smith Level for the Rock Haven Road intersection and awaits guidance from the Board of Aldermen and NCDOT on how best to proceed.

The Town requested a traffic impact analysis to determine the impact of the proposed high school. Ramey Kemp & Associates prepared the traffic impact analysis report for the Chapel Hill-Carrboro City Schools. The following intersections were included in the study:

- Merritt Mill Road at Smith Level Road
- NC 54 Eastbound Ramp at Smith Level Road
- BPW Club Road/Apartment Driveway at Smith Level Road
- Culbreth Road at Smith Level Road
- Rock Haven Road at Smith Level Road

These intersections were analyzed for existing year 2003 conditions, background year 2007 conditions without the high school, combined year 2007 conditions with phase 1 of the high school (800 students), background year 2020 conditions without the high school, and combined year 2020 conditions with the high school expansion to 1200 students. The study assumes that the road remains as a two-lane facility.

The traffic impact analysis looked at a.m. and p.m. peak hour traffic. To determine background traffic volumes, existing peak hour traffic volumes were projected to 2007 and 2020 using a compounded annual growth rate of one-half percent.

The study estimated the number of student vehicle trips to the school based on the number of available student parking spaces in phase 1 and at full build-out. Peak hour trips for faculty/staff, parents, and buses were estimated using engineering judgment and the NCDOT Municipal and School Transportation Assistance (MSTA) Calculator. A conservative approach was taken and the estimated number of parent trips was increased slightly due to the restricted number of student parking spaces.

The study considered two scenarios for accessing the school. In Scenario 1, bus traffic will access the school via BPW Club Road while all other traffic will access the school via Rock Haven Road. In Scenario 2, all non-student traffic (buses, parents, faculty/staff) will access the school via BPW Club Road and student traffic will use Rock Haven Road.

The study recommends that access Scenario 2 be used rather than Scenario 1. Separating student and non-student traffic will reduce traffic congestion on Rock Haven Road and on the campus given that a significant amount of traffic will enter and exit the campus in a short period of time. The study makes specific recommendations on the roadway improvements that should be made prior to the completion of the high school, including the following:

Smith Level and Rock Haven Road intersection improvements:

1. Install a traffic signal at the intersection of Smith Level Road and Rock Haven Road.
2. Construct a northbound left turn lane and a southbound right turn lane on Smith Level Road at the Rock Haven Road intersection.
3. Stripe Rock Haven Road to provide separate left and right turn lanes at the intersection with Smith Level Road.
4. Make signal timing adjustments as necessary to provide more green time for the northbound left turn phases on Smith Level Road at Rock Haven Road and BPW Club Road.

Smith Level and Culbreth Road intersection improvements:

5. Construct a northbound right turn lane on Smith Level Road at the Culbreth Road intersection.

Miscellaneous:

6. At the BPW Club Road-Smith Level intersection, construct a southbound right turn lane on Smith Level Road, an eastbound left turn lane on BPW Club Road, and extend the northbound left turn lane on Smith Level Road.

Town staff recommends that above recommendations 1, 2, & 3 be made a condition of the permit while recommending further discussion for conditions 4, 5 & 6. It is likely that some of the suggested changes will be incorporated into the proposed construction project on Smith Level Road by the N.C. Department of Transportation, but it is unknown when this construction might begin.

If the recommended changes are not completed by 2007, the applicant's study states that all signalized intersections will operate at acceptable overall levels of service. However, the study states that significant queues are expected on the northbound approaches of Smith Level Road at the intersections with BPW Club Road and Culbreth Road.

If *all* of the recommended changes are made, all of the study intersections are expected to operate at an acceptable level of service (LOS D or better) in combined year 2007 conditions with phase 1 of the high school (800 students) and in combined year 2020 conditions with the high school expansion to 1200 students.

NCDOT District Office Recommendations

NCDOT's district office located in Graham, NC, also reviewed the project plans and the applicant's TIA. Mr. Chuck Edwards, P.E., district engineer, concurs with the findings of the Ramey Kemp TIA and adds the following recommendation (**Attachment H**):

Rock Haven Road and Renee Lynn Court intersection improvements:

1. Construct an exclusive left turn lane with 100' of full storage and appropriate transition tapers.

NCDOT Department of Congestion Management Recommendations

Further, the TIA and the project plans have been submitted to NCDOT's Congestion Management Section in Raleigh (**Attachment I**). Mr. James Dunlop, P.E. reviewed the plans and the TIA but also performed a separate analysis. His findings have led to the following recommendations:

Smith Level Road and Rock Haven Road intersection improvements:

1. Construct a new traffic signal at this intersection.
2. Northbound, Smith Level Road:
 - a. Exclusive left-turn lane with 100' (minimum) of full storage and appropriate transitional taper.
3. Southbound, Smith Level Road:
 - a. Exclusive right-turn lane with 100' (minimum) of full storage and appropriate deceleration taper.

4. Eastbound, Rock Haven Road:

- a. Three (3) lane cross-section consisting of one (1) ingress lane and two (2) egress lanes; 250 feet (minimum) of internal protected storage before crossing maneuvers and parking be allowed. Egress lanes should consist of one (1) exclusive left-turn lane and one (1) shared through/right-turn lane.

Smith Level/Culbreth Road intersection improvements:

5. Northbound, (Smith Level Road):

- a. No right-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, an exclusive right-turn lane is needed and should provide 100 feet (minimum) of full storage and appropriate deceleration taper.

6. Southbound, (Smith Level Road):

- b. No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, an exclusive left-turn lane should be extended to provide 300 feet (minimum) of full storage and appropriate deceleration taper.

7. Westbound, (Culbreth Road):

- c. No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, an exclusive left-turn lane should be extended to provide 300 feet (minimum) of full storage and appropriate deceleration taper.

Smith Level/BPW Club Road intersection improvements:

8. Northbound, Smith Level Road:

- d. Exclusive left-turn lane to provide 300 feet (minimum) of full storage and appropriate transitional taper.

9. Southbound, Smith Level Road:

- e. Exclusive right-turn lane with 100 feet (minimum) of full storage and deceleration taper.

10. Eastbound, BPW Club Road:

- f. Exclusive left-turn lane with 100 feet (minimum) of full storage and appropriate deceleration taper. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should provide 500 feet (minimum) of full storage and appropriate deceleration taper to accommodate background volumes.

Smith Level and Frank Porter Graham Elementary School Entrance/ Carrboro Public Works entrance intersection improvements:

11. Signal modification may be required at these intersections due to anticipated road improvements and traffic impacts.

Smith Level Road and NC 54 intersection improvements:

12. Signal modification may be required at this intersection due to anticipated road improvements and traffic impacts.
13. Southbound (Smith Level Road)
 - a. Based on the TIA 2013 (Phase II) build-out year traffic volumes, the southbound left-turn will have excessive queuing and may extend northward through the Smith Level Road the NC 54 western-on-ramp/Merritt Mill Road intersection.
14. Eastbound (NC 54)
 - a. Additional right turn lane on eastbound NC 54 off-ramp to Smith Level Road. Both lanes should provide 400 feet (minimum) of full storage and appropriate transitional taper.
 - b. Based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should be extended to provide 400 feet (minimum) of full storage and appropriate transitional taper.
15. Northbound (NC 54)
 - a. Based on the TIA 2013 (Phase II) build-out year traffic volumes, the northbound left-turn will have excessive queuing and may extend southward along Smith Level Road, intersecting with on- and off-ramps to NC 54.

Summary Traffic Impact Analysis Recommendations

The roadway improvements recommended by the TIA and NCDOT above, include several items beyond the means of the applicant to construct. According to the Town Attorney, the Town has only limited authority to require off-site improvements.

The Rock Haven/Smith Level Road intersection is the most obvious point for these improvements to be directed. However, since the BPW/Smith Level Road intersection, is also an access point, programmed in part by the circulation plan, it too should be carefully considered for revision.

In light of this, staff recommends at a minimum the following conditions (each subject to NCDOT approval), as proposed by the TIA, be place on the permit:

- That the applicant installs a NCDOT approved traffic signal at the intersection of Smith Level Road and Rock Haven Road prior to issuance of the certificate of occupancy;
- That the applicant construct a northbound left turn lane and a southbound right turn lane on Smith Level Road (design approved by NCDOT) at the Rock Haven Road intersection prior to issuance of the certificate of occupancy;
- That, prior to issuance of a certificate of occupancy, Rock Haven Road be striped to provide separate (NCDOT approved) left and right turn lanes at the intersection with Smith Level Road

Further, since BPW Club road is integrated into the proposed school's circulation program, the following TIA recommendation for improvements to the Smith Level/ BPW Club Road Intersection warrants discussion by the Board. Staff does not believe that the Town can require these improvements to be a condition of the permit, but is concerned

that vehicle-trips generated by the school will cause certain aspects of this intersection to function poorly in the future.

- That, at the intersection of BPW and Smith Level Roads the following (NCDOT approved) improvements be made: 1) a southbound right turn lane be provided on Smith Level Road, 2) an eastbound left turn lane be provided on BPW Club Road, and, 3) a northbound left turn lane *extension* be provided on Smith Level Road.

The remaining recommendations may warrant further discussion. Should the board wish to do this staff recommends the following:

- That the Board of Aldermen and the applicant discuss and deliberate over the feasibility of implementing the following NCDOT recommendations which address near-term traffic concerns in the general vicinity of the proposed school.

Transit

The Chapel Hill Transit J route currently serves the Smith Level Road area. The J route buses travel down and turn around on both BPW Club Road/Tar Hill Drive and Rock Haven Road. The construction of the high school will include a connecting street (street “A”) between Tar Hill Drive and Rock Haven Road, which will allow the J route to navigate a loop from Smith Level Road to Rock Haven Road to Tar Hill Drive/BPW Club Road and back to Smith Level Road. The location of a new bus turnout and shelter in front of the school has been coordinated with Chapel Hill Transit.

Pedestrian, and Bicycle Access

The following bicycle and pedestrian facilities are on the plan for the proposed school:

- ✓ A 10-foot-wide multi-use path between the school building and Smith Level Road.
- ✓ A 6-foot-wide mulch pedestrian path between the school building and Ray Road.
- ✓ Five-foot sidewalks on both sides of street “A” and on the west side of Smith Level Road.
- ✓ Bike lanes on both sides of street “A”.
- ✓ Bike racks on the east and west sides of the school building.
- ✓ With the construction of the high school, a five-foot sidewalk will be constructed on the south side of Rock Haven Road. There is already a four-foot sidewalk on the north side of Rock Haven Road.

Work on other projects that will improve bicycle and pedestrian access to the high school are underway, including the following:

- NCDOT Project U-2803 is expected to provide bike lanes and sidewalks on both sides of Smith Level Road between Morgan Creek and Rock Haven Road; (the alternate cross-section the Town is pursuing for Smith Level Road has only one bike lane and one sidewalk).
- Rock Haven Road, BPW Club Road, and Tar Hill Drive are designed to accommodate bicycles and will be striped for bike lanes.

- Both Carrboro and Chapel Hill have begun planning for a greenway trail along Morgan Creek. The school district has expressed a willingness to provide a greenway dedication as needed in the future.
- The Town of Carrboro has requested that NCDOT undertake a feasibility study of the BPW Club Road-Westbrook Drive Multi-Use Path, which would provide pedestrian and bicycle access from the Tar Hill Drive/BPW Club Road area across Morgan Creek to Westbrook Drive and the Tennis Club Estates area.
- Staff from Carrboro and Chapel Hill are reviewing options for providing bicycle and pedestrian access from Southern Village and the Kent Woodlands subdivision (Culbreth Road) to the high school.

Note that citizens have expressed concern over the pedestrian connection to Smith Level Road adjacent to the baseball field. They believe that the connection shown could present a pedestrian crossing hazard in relationship to fast northbound traffic. In light of this, staff recommends the following condition:

- That the pedestrian path that adjoins Smith Level Road in the vicinity of the ball fields be relocated, if necessary, so as to prevent an unsafe pedestrian crossing in this area. Town staff, Chapel Hill—Carrboro City Schools staff, and NCDOT would make the final decision regarding location based on field observations.

Greenway Easements

The Town has no plans to extend a greenway through the property at this time but wishes to reserve the opportunity for the future. To this end, staff recommends the following condition:

- That upon request, the school makes an offer of dedication, for a 30' greenway easement to be located in the general vicinity of the natural drainage along the western property line.

Parking

Per Section 15-291(g), 5 parking spaces are required per classroom; for 42 classrooms this amounts to a requirement of 210 spaces. The plan shows 328 parking spaces, 14 of which are Handicap Accessible. Due to experience with other facilities, CHCCS considers 210 spaces insufficient and ultimately, disruptive to the surrounding neighborhoods during peak use periods. The original concept plan had over 400 spaces; CHCCS has lowered this amount considerably. A parking justification letter has been provided by the applicant for the Board's consideration (**Attachment I**).

In order to provide the excess spaces the applicant must be granted a deviation by the Board of Aldermen and have the reasons for the deviation entered onto the face of the permit (Section 15-292(c)). In light of this, staff recommends the following conditions:

- That the Board accepts the applicant's justification for exceeding the presumptive parking standards of Section 15-291 by providing 328 spaces. As represented in

the applicant's letter, this deviation is justified because it reduces disruption to the surrounding community during peak-use events at the school.

Certain community events at the district's other high schools underscore the need for overflow parking. It is the district's hope that the bus loop and the stack spaces of the Kiss and Go Lane can be used for this purpose. Also, the grading plan shows a large graded parking lot "base" to the east of the southern parking lot. This is not identified on the plans as overflow parking but may be utilized in this way if necessary.

It is the experience of the Carrboro Police department that overflow parking at the other schools leads to illegally parked cars. Carrboro Police Chief, Carolyn Hutchinson concurs with the school district's assessment that insufficient parking will lead to greater impact to the surrounding neighborhoods during certain events. The attached safety report by Ms. Carolyn Hutchinson, outlines the strategy the police will take to manage overflow situations at the proposed school (**Attachment J**). The applicant is asked to estimate the amount of special events parking that is needed and develop a plan to accommodate this parking while reducing the impacts of overflow parking on surrounding neighborhoods. On-street parking on collector roads during special events is one strategy that can be considered. Another possible strategy would be to provide parking off-site with a shuttle service to special events. Due to these factors, staff recommends the following condition:

- That prior to issuance of the certificate of occupancy, the school district work with Town Police and Fire staff to develop a traffic management plan to be put in place during peak use events at the school.

All of the spaces (except for the handicapped) are standard size and no compact spaces are provided. However, there are five (5) reserved carpool-spaces and two (2) reserved alternative-fuel-vehicle spaces.

Utilities

The utility plan shows an off-premises sewer extension tying into an existing manhole 390' north of the property line on Tar Hill Drive. The sewer service winds around the main building with service ties at three locations it then proceeds southward to the end of the southern parking lot to serve a concession building.

The proposed waterline ties into existing waterline stub-outs at the end of both Tar Hill Drive and Rock Haven Road. The waterline is looped, serving the building as well as nine fire hydrants. No irrigation plan has been shown at this time, though the project will store rainwater in an underground cistern for reuse in and out of the building.

The plan has been reviewed extensively by OWASA. Several minor comments remain to be addressed during construction plans review. None of the comments are so substantial as to prevent the issuance of a CUP at this stage. To that end, the applicant must work with OWASA during construction plan approval to satisfy their requirements. Because of this, staff recommends the following conditions:

- That the waterline located under the “Future Addition” on the northeast section of the building be relocated out of this area prior to construction plan approval.
- That the waterline and sewer crossing the landscaped area on the southern tip of the northwestern parking lot be relocated into the paved area prior to construction plan approval.

Other Utilities

Per Section 15-246 of the LUO the plans specify that all electric, gas, telephone, and cable television lines are to be located underground in accordance with the specifications and policies of the respective utility companies.

Fire Safety

Per Section 15-249, fire hydrants must be located so that every building is within 500’ of a hydrant. Further, the State Building code and Town Code requires buildings of this size to be fully sprinkled.

To this end, nine (9) fire hydrants are distributed regularly around the building’s perimeter and, the building is sprinkled. Further, fire access is supported by both Tar Hill Drive and Rock Haven Road; the service drive to the west, and the parking areas support fire access around the building’s perimeter.

Refuse Collection

Refuse and recycling containers will be located adjacent to the loading dock on the southwest quadrant of the building. The turning circle in this vicinity will facilitate easy turn-around for the garbage trucks. Public Works Solid Waste finds this arrangement acceptable.

The refuse collection area is out of view of the surrounding properties due to its location in the back of the building; still, the dumpsters are well-screened. Orange County Solid Waste will continue to review the plans during construction plan approval.

Miscellaneous

Architecture

Since the property is located in the R-10 zoning district, the existing building height limitation specified by Section 15-185 of the LUO was insufficient for the proposed two-story building. Because of this, the applicant applied-for and was granted a text amendment on June 22, 2004 (Section 15-185(f)). The amendment allows *schools* to increase building height to a maximum of 50’ when the Board finds that the additional height is necessary to accommodate specific building elements or to accommodate building designs that seek to minimize building footprints and/or maximize natural lighting.

As such, the proposed building features day-lighting clerestories and a generous second story, thereby addressing the requirements of the ordinance. The proposed maximum building height is 50 feet.

The building's architecture uses cues taken from historic Carr Mill Mall. The building itself is designed to implement the environmental goals of the school districts *Policy 9040*. Because of this, a variety of active and passive features are in place to lower the building's environmental impact. Day lighting, stormwater storage and re-use, solar hot water collectors, and energy conserving HVAC systems are a few features integrated into the proposed building.

Community Use and Recreation

The CHCCS Community Use *Policy 5030* endorsed by the Board of Education supports community-use of public school facilities for purposes that contribute to the school program, community affairs, or the goals of the Community Schools Act. The new high school features ample outdoor recreation amenities as well as a building-design that supports community use of the auditorium and media center with minimal disturbance to the classrooms.

Though school activities will take precedence over community activities, Town recreation programs should be able to make some use of the new high school's facilities. Note that the fields and courts are designed and sized according to applicable national standards.

In the event of natural disasters, the school will serve as an emergency recover center. It is fully equipped with a standby generator, showers, and a kitchen.

Joint Review Summary Recommendations

The Town's advisory boards met at a Joint Review Session on April 7, 2005. Attached are the summary recommendations from this meeting (**Attachment K**). The applicant has provided a written response to both the staff and advisory board recommendations (**Attachment L**).

RECOMMENDATION

Town staff recommends that the Board first complete the attached conditional use permit worksheet (**Attachment M**). Upon completing the worksheet, staff recommends that the Board adopt the attached resolution granting approval of the Conditional Use Permit for construction of a 42 classroom high school (Use #5.110) on property located at the western terminus of Rock Haven Road, subject to the following conditions (**Attachment A**):

1. That the shading calculations required by Section 15-317 and Appendix E-3 be revised as necessary to demonstrate compliance prior to construction plan approval;
2. That additional plantings be added to the Type "B" screen adjacent to the southern parking lot prior to construction plan approval;

3. That the Type “C” screen along the northeastern property line be re-labeled as a Type “B” screen prior to construction plan approval;
4. That the Chapel Hill Transit bus stop turn-out detail be modified to the Town of Chapel Hill’s bus stop detail (ST-8) prior to construction plan approval;
5. That per the provisions of 15-216(j), Rock Haven Road be allowed to deviate from the planting strip standards of Section 15-216 thereby allowing an 18” planting strip between the curb and sidewalk on the south side of the road so as to minimize damage to existing transformers, streetlights, trees and slopes;
6. That the applicant installs a NCDOT approved traffic signal at the intersection of Smith Level Road and Rock Haven Road prior to issuance of the certificate of occupancy;
7. That the applicant construct a northbound left turn lane and a southbound right turn lane on Smith Level Road (design approved by NCDOT) at the Rock Haven Road intersection prior to issuance of the certificate of occupancy;
8. That upon request, the school makes an offer of dedication, for a 30’ public access greenway easement to be located in the general vicinity of the natural drainage along the western property line (final location of the easement to be mutually decided by Town Staff and Chapel Hill—Carrboro City Schools Staff);
9. That the Board accepts the applicant’s justification for exceeding the presumptive parking standards of Section 15-291 by providing 328 spaces, as represented in the applicant’s letter, this deviation is justified because it reduces disruption to the surrounding community during peak-use events at the school;
10. That prior to issuance of the certificate of occupancy, the school district work with the Town’s Police Department, Transportation Planner, and Fire Department to develop a plan to manage special event parking, which would be put in place during peak use events at the school;
11. That the applicant apply for voluntary annexation of the subject parcels prior to construction plan approval;
12. That the proposed sidewalk along Smith Level Road shall be constructed within the existing NCDOT right-of-way; or, if necessary, that additional right-of-way shall be dedicated to accommodate the sidewalk. Also, all vegetative screening along Smith Level Road shall be relocated to the west so that it is planted behind the proposed sidewalk.
13. That the applicant shall provide to the Town, prior to the recordation of the final plat for the project or before the release of a bond if some features are not yet in place at the time of the recording of the final plat, Mylar and digital as-builts for the stormwater features of the project. Digital as-builts shall be in DXF format and shall include a base map of the whole project and all separate plan sheets. As-built DXF files shall include all layers or tables containing storm drainage features. Storm drainage features will be clearly delineated in a data table. The data will be tied to horizontal controls;

The following are additional conditions made subsequent to the Joint Review Meeting:

14. That the pedestrian path that adjoins Smith Level Road in the vicinity of the ball fields be relocated, if necessary, so as to prevent an unsafe pedestrian crossing in this area. Town staff, Chapel Hill—Carrboro City Schools staff, and NCDOT would make the final decision regarding location based on field observations.
15. That, prior to issuance of a certificate of occupancy, Rock Haven Road be striped to provide separate (NCDOT approved) left and right turn lanes at the intersection with Smith Level Road

Since BPW Club road is integrated into the proposed school's circulation program, the following TIA recommendation for improvements to the Smith Level/ BPW Club Road Intersection warrants discussion by the Board. Staff does not believe that the Town can require these improvements to be a condition of the permit, but is concerned that vehicle-trips generated by the school will cause certain aspects of this intersection to function poorly in the future.

16. That, at the intersection of BPW and Smith Level Roads the following (NCDOT approved) improvements be made: 1) a southbound right turn lane be provided on Smith Level Road, 2) an eastbound left turn lane be provided on BPW Club Road, and, 3) a northbound left turn lane *extension* be provided on Smith Level Road.

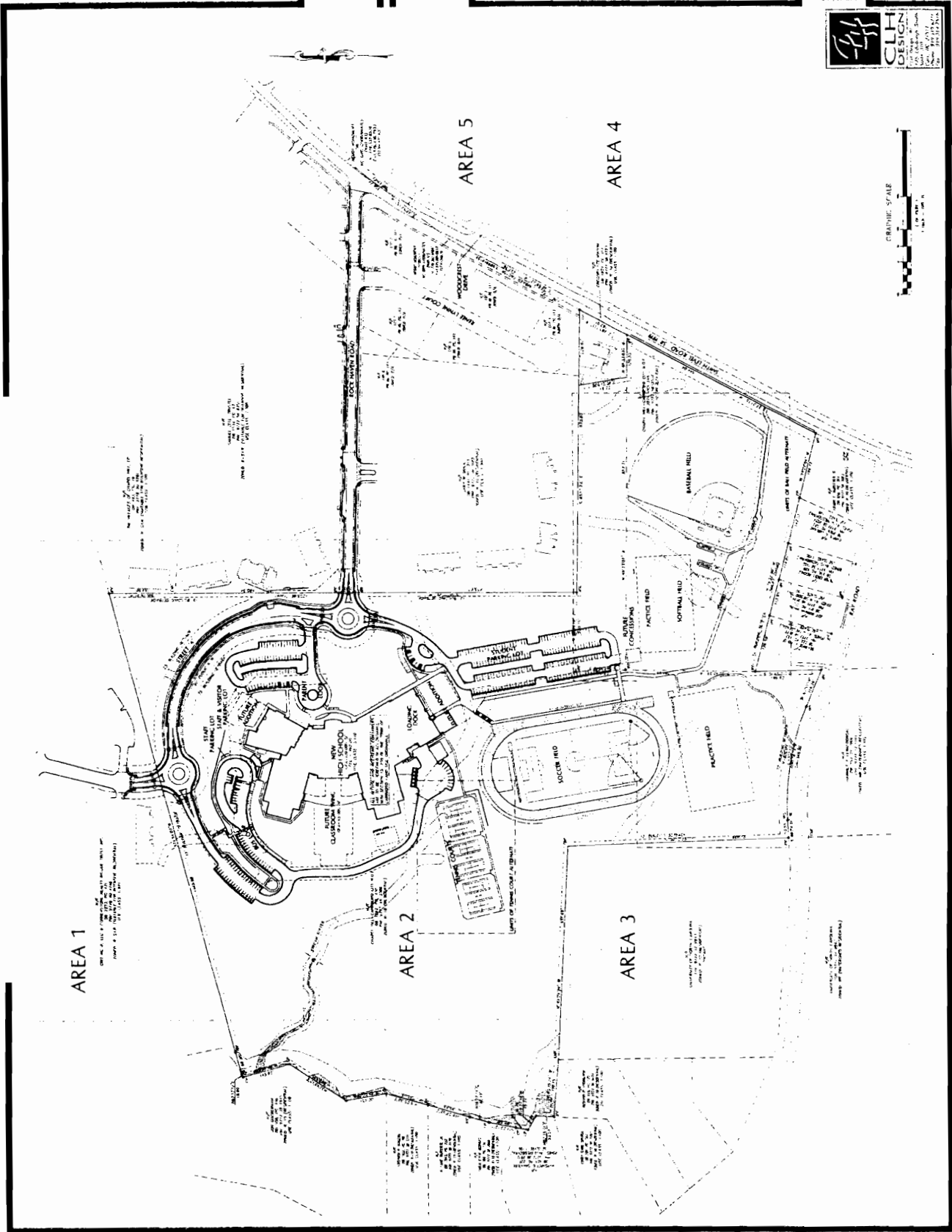
MOSELEY ARCHITECTS
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KEEP YOU COVERED DRIE, SURE (1) 754-56-0044
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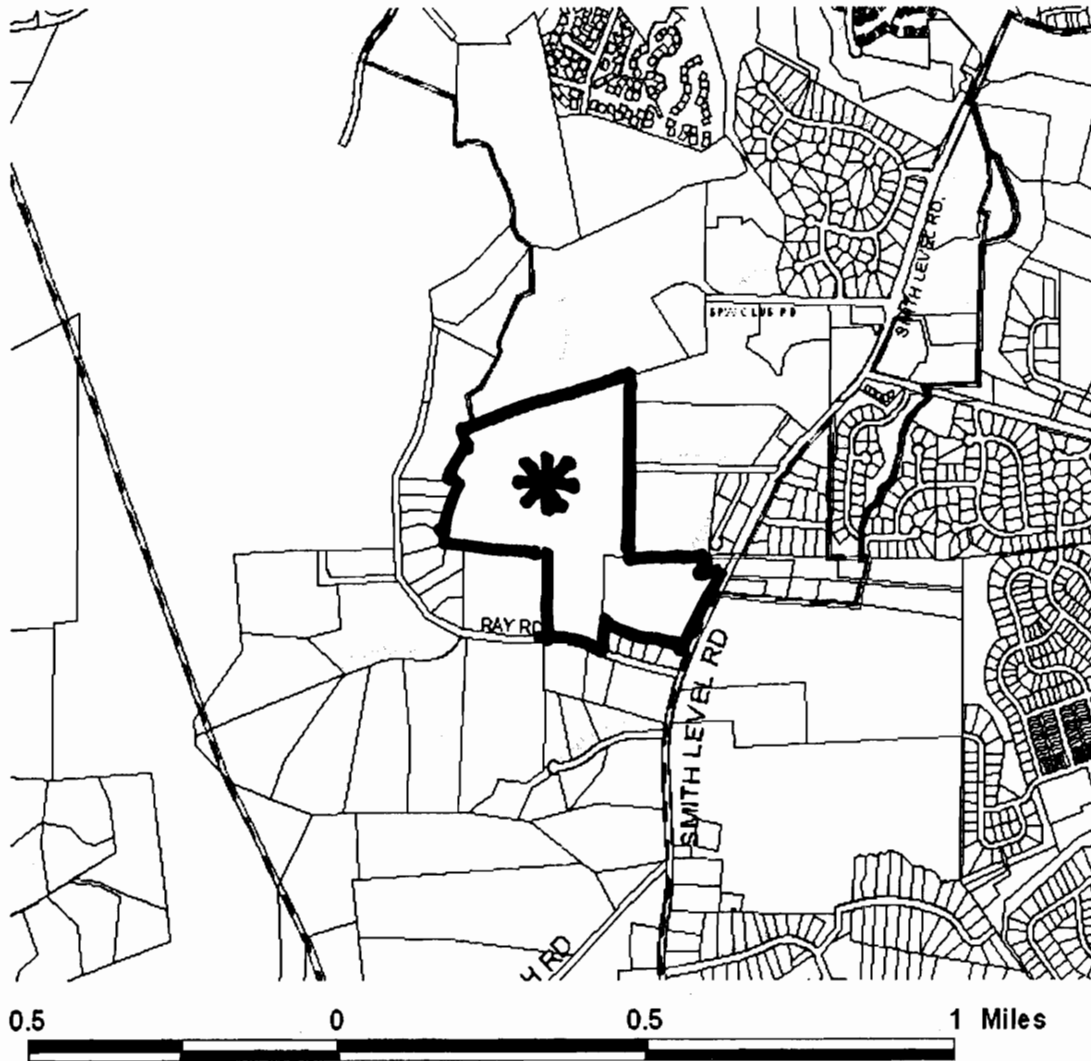
HIGH SCHOOL No. 3
CHAPEL HILL - CARRBORO CITY SCHOOLS
CARRBORO, NORTH CAROLINA

OVERALL
SITE
PLAN

C0.1



Vicinity



TOWN OF CARRBORO
LAND USE PERMIT APPLICATIONDATE: 1-20-04

FEE: _____

APPLICANT: <u>CLH DESIGN, PA</u> <u>ATTN: STEVEN MILLER</u>	OWNER: <u>CHAPEL HILL - CARRBORO</u> <u>CITY SCHOOLS</u>
ADDRESS: <u>165 EDINBURGH SOUTH</u> <u>SUITE 310</u>	ADDRESS: <u>750 S. HERRITT RD.</u>
CITY/STATE/ZIP: <u>CARY, NC 27511</u>	CITY/STATE/ZIP: <u>CHAPEL HILL, NC 27516</u>
TELEPHONE/FAX: PHONE: <u>919-319-6716</u> FAX: <u>919-319-7516</u>	TELEPHONE/FAX: PHONE: <u>919-967-8211</u> FAX: <u>919-938-4660</u>
LEGAL RELATIONSHIP OF APPLICANT TO PROPERTY OWNER: <u>DESIGN FIRM/CONSULTANT</u>	TAX MAP/SE BLOCK/SECTION: <u>9777.58-34.15 9777.58-35.76</u>
PROPERTY ADDRESS: <u>? ROCK HAVEN ROAD</u>	PROPOSED LAND USE & USE CLASSIFICATION: <u>HIGH SCHOOL - 5.11C</u>
PRESENT LAND USE & USE CLASSIFICATION: <u>VACANT</u>	LOT AREA: <u>62.82</u> Acres <u>2,714,700</u> Square Feet
ZONING DISTRICT(S) AND AREA WITHIN EACH (including Overlay Districts): <u>R-10 (GB-NC)</u>	
# OF BUILDINGS TO REMAIN: <u>0</u>	GROSS FLOOR AREA: <u>0</u> Square Feet
# OF BUILDINGS PROPOSED: <u>1</u>	GROSS FLOOR AREA (of proposed building or proposed addition): <u>165,000</u> Square Feet

NAME OF PROJECT/DEVELOPMENT: HIGH SCHOOL No. 3

TYPE OF REQUEST	**INFORMATION REQUESTED (Refer to Attached Key)
SUBDIV. FINAL PLAT	1, 18, 19, 21, 23, 31, 33, 34, 36
<input checked="" type="checkbox"/> CONDITIONAL USE PERMIT (CUP)	1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 34, 35, 36
CUP MODIFICATION	SAME AS CONDITIONAL USE PERMIT (CUP)
SPECIAL USE PERMIT (SUP)	1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 34, 35, 36
SUP MODIFICATION	SAME AS SPECIAL USE PERMIT (SUP)
ZONING PERMIT (Project)	1, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 32, 34, 35, 36
ZONING PERMIT (Building) Residential Infill & Additions	9, 10, 22, 24, 34, 36 (also see "Building Permit Review - Residences Only" checklist)
SIGN PERMIT	1, 10, 13, 14, 17, 20, 36
VARIANCE	4, 5, 10, 20, 29, 34, 36 Attachment A
APPEAL	4, 5, 36 Attachment B
SPECIAL EXCEPTION	1, 4, 5, 8, 10, 20, 35, Attachment C

APPLICANT: [Signature]DATE: 1-20-04OWNER: [Signature]DATE: 1-20-04

1. That the report be referred back to the Transportation Advisory Board for additional review to include:
 - a. Criteria for the point system;
 - b. How education and enforcement can become part of the traffic control solution;
 - c. Reduction of speed limits on residential streets;
 - d. Review of the land use ordinance to determine if changes are necessary to enhance traffic calming in new developments
2. That the TAB's recommendation be brought back to the Board for consideration in a timely fashion.

The foregoing resolution having been submitted to a vote, received the following vote and was duly adopted this 8th day of June, 2004:

Ayes: Joal Hall Broun, Jacquelyn Gist, Diana McDuffee, Michael Nelson, Alex Zaffron

Noes: None

Absent or Excused: Mark Chilton, John Herrera

PUBLIC HEARING ON THE CONCEPTUAL DESIGN OF CHAPEL HILL-CARRBORO HIGH SCHOOL #3

The Chapel Hill-Carrboro School District has submitted CUP plans for the proposed High School # 3 to be located at located at 201 Rock Haven Road, off of Smith Level Road. Staff is still reviewing the plans but a public hearing has been requested by the Chapel Hill-Carrboro City School System to allow for public discussion of the design.

Lisa Stuckey, Chair of the Third High School Committee, was sworn in. She stated that the advisory group has been meeting since September to solicit feedback on the design process.

Steve Scroggs, Assistant Superintendent, was sworn in. He explained the High Performance Building Criteria - Policy 9040 that is the standard that will be used in the construction of the new high school.

Tom Hughes, with Moseley Architects, the project architect, was sworn in. He stated that they wanted to bring the draft plans to the Board to give the Board an opportunity to have input in the development of the school.

Steve Triggiano, with Moseley Architects, presented the site plan for the project.

Marty Roupe, the town's Zoning Administrator, was sworn in. He stated that there is no open space requirement for the school because it is an institutional facility.

Mr. Scroggs stated that there are 420 parking spaces proposed--130 for staff/visitor parking spaces, and 280 student parking spaces.

Mayor Nelson stated that he would like to see the number of student parking spaces reduced since this school would be on the bus route.

Alderman Gist suggested that buses run to the school every 15 minutes.

Alderman Zaffron asked if the vehicle miles traveled information has been shared with NCDOT.

Chris Hilt, the landscape architect, was sworn in. She stated that the town is currently reviewing the traffic impact analysis. She said they have had discussions with Chapel Hill Transit about bus service to the school.

Alderman Zaffron stated that this school would have access to the J route.

Alderman McDuffee stated that the VMT for the school would impact on how Smith Level Road is designed. Emphasis should be placed on public transit usage to this school.

Mr. Scroggs stated that they would probably have 420 parking spaces on the site, which includes parking for both phases.

Alderman McDuffee asked if the school board changes the regulations to allow only seniors to leave campus at lunch, will that affect the number of student parking spaces.

Lisa Stuckey stated that beginning in 2005 only seniors would be allowed to go off campus at lunch.

Alderman Broun stated that the Planning Board recommended that the following issues be considered:

1. That impervious surface be reduced by:
 - a. Exploring additional floors in lieu of adding another classroom wing;
 - b. Reducing student parking to the presumptive standard in the Carrboro Land Use Ordinance to encourage the use of public transportation and school buses; and
 - c. Taking advantage of the sloping terrain to build economical, structured parking without the use of ramps.
2. That traffic safety at the intersection of Rock Haven and Smith Level Roads be addressed.
3. That LEED site lighting standards be followed to reduce the impacts to neighboring properties.
4. That the site be pedestrian accessible from both sides of Smith Level Road.

Alderman Broun asked that the speed limit be lowered on the entrance road. She asked how many classrooms are set aside for non-liberal arts classes.

Mr. Triggiano stated that there are five classrooms in phase one with more in phase two.

Ricky White, chair the EAB, was sworn in. He stated that the EAB asked that the developer consider the following:

1. To promote native habitat as an educational opportunity and as a general principle for landscaping of public buildings, with diversified plantings (especially native Piedmont flora).
2. That more detailed information about the bio-retention design and proposed plantings be submitted, and that the bio-retention areas be looked at as an opportunity rather than an obligation. That the bio-retention areas be constructed in a way that is ecologically sensitive and that will be an education opportunity as an outdoor living lab while meeting the stormwater requirements, and that native plants with high levels of wetland functions be considered.
3. That Orange County Solid Waste Management be contacted for information on deconstruction and construction waste management.
4. That reliance on single-occupancy vehicles be reduced, and that the developer work with Chapel Hill Transit to improve bus service to the school and provide a more comprehensive plan for bike and pedestrian walkways around the school with specific attention to routes to and from Carrboro town

center, Southern Village, apartments on NC 54, as well as connectivity between campus and the proposed Morgan Creek Greenway.

5. That the developer consider foot traffic when planning the building to avoid erosion problems along "informal" trails.
6. That pervious pavement be used, especially in overflow parking, and innovative bio-retention techniques in the parking area.
7. That the developer strive to reduce slope runoff during the construction process.

Sarah Myers, a member of the EAB, was sworn in. She suggested the use of signs on the special features (High Performance Building Criteria) being used in the building.

Mike Brough stated that if the full project plans are not brought to the Board at the initial C.U.P. stage, more than likely a full C.U.P. process will be required for the second phase of the project.

Kimberly Hill, a resident of Rock Creek Apartments was sworn in. She asked if the town would plow BPW Club Road during snowstorms when the school is constructed. She asked if the school system will be taking steps to protect students, and expressed concern about high school students loitering in the apartment complexes surround the school.

Marty Roupe stated that the town has recently accepted Tarhill Drive and BPW Club Road. Therefore, these streets would be snow plowed. Rock Creek Road is a private road but should be accepted by the town in the future. This road will have to be improved significantly prior to it being accepted by the town.

Alderman Zaffron asked that the school system respond to the concern about students loitering in the surrounding apartment complexes. In addition, he asked that the town staff prepare a report on safety plans for the apartment complexes.

MOTION WAS MADE BY ALEX AFFRON AND SECONDED BY JACQUELYN GIST TO CONTINUE THIS PUBLIC HEARING TO A DATE YET TO BE ESTABLISHED. VOTE: AFFIRMATIVE FIVE, ABSENT TWO (CHILTON, HERRERA)

**REQUEST TO SET A PUBLIC HEARING: LAND USE ORDINANCE TEXT AMENDMENT/
BUILDING HEIGHT LIMITATIONS RELATED TO SCHOOLS**

Steven Miller of CLH Design, P.A. has submitted a petition to amend the text of the Land Use Ordinance to allow the building height of a high school to exceed 35 feet. A draft ordinance that would allow an increase in building height for elementary and secondary schools was presented. The Administration recommended that the Board adopt the resolution setting a public hearing and referring the draft ordinance to the Planning Board and Orange County.

The following resolution was introduced by Alderman Alex Zaffron and duly seconded by Alderman Joal Hall Broun.

A RESOLUTION CALLING A PUBLIC HEARING ON A
LAND USE ORDINANCE TEXT AMENDMENT TO
REVISE BUILDING HEIGHT LIMITATIONS RELATED TO SCHOOLS
Resolution No. 178/2003-04



CLH design, p.a.

*MacGregor Park, 121 Edinburgh South, Suite 203
Cary, North Carolina 27511
Phone: (919) 319-6716 Fax: (919) 319-7516*

19-Aug-04
Revised 16-Nov-04

TO: Jeff Keaveland & Marty Roupe
Town of Carrboro Zoning Division
FROM: Steven J. Miller, PE - CLH Design, PA
RE: C.U.P. PLAN
TREE REMOVAL JUSTIFICATION LETTER
HIGH SCHOOL NO.3
CHAPEL HILL - CARRBORO CITY SCHOOLS

Prior to design, an arborist was hired by the Chapel Hill Carrboro School System to locate and identify any rare trees on the subject property. . The attached letter from the certified arborist notes that no rare trees were found on the site.

To the best of my knowledge and understanding, no rare trees are proposed for removal as part of this project.

The proposed design retains 30% of the site undisturbed, most notably adjacent to the existing tributary, which has been retained to protect the stream buffer and adjacent neighbors whose homes are in a rural setting. Extensive grading is required on the rest of the site due to the sheer scale of the program requirements for a public high school and the need for all portions of the site to be accessible. We carefully evaluated the location of each field in relationship to its impact on the site itself and adjacent property owners from both a buffering and stormwater management standpoint.

The hardship that will be experienced should the Town determine that the removal of the existing trees, as indicated on the attached plans, be disallowed is the basic non-viability of the site for development of a high school.

A handwritten signature in black ink, appearing to read "Steven J. Miller".

Steven J. Miller, PE
CLH Design, PA



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 2, 2005

ORANGE COUNTY

Marty Roupe
Town of Carrboro Zoning Division
301 West Main St.
Carrboro, NC 27510

Subject: Proposed Chapel Hill Carrboro High School #3
Located west of SR 1919 (Smith Level Road)
-Review of TIA and Preliminary Site Plan

Dear Mr. Roupe,

Per your request the Department of Transportation has reviewed the traffic impact analysis prepared by Ramey Kemp and Associates and the preliminary site plan prepared by CLH Design, PA. and provides the following comments:

Traffic Impact Analysis

The NCDOT Traffic Engineering and Safety Systems Branch has completed a review of the subject site. This office concurs with their findings with additional comments indicated below. Please find attached for your information a copy of their recommendations for mitigation of traffic impacts generated by this site.

The site is adjacent to TIP project U-2803. This project proposes to widen SR 1919 (Smith Level Road) to a four lane divided facility from Rock Haven Road to north of the bridge over Morgan Creek. The Town of Carrboro has requested that the scope of this project be reevaluated. No formal decision has been made at this time. Therefore, the review of the proposed development did not consider any planned work included in the TIP project.

A number of roadway improvements necessary to mitigate the site impacts have been identified in the review. Additionally, it should be noted that a number of intersections in the area are expected to operate at an unacceptable level of service with excessive queuing in the peak hour according to TIA 2013 (Phase II) build out year traffic volumes if no additional road improvements are constructed.

Additional recommendations

SR 1919 (Smith Level Road) and Rock Haven Road Intersection

Construct a new traffic signal

Rock Haven Road (non-system) and Renee Lynn Court (non-system) Intersection

Construct an exclusive left turn lane with 100' of full storage and appropriate transition tapers.

Site Plan Review

Sheet C1.4- The proposed sidewalk within the NCDOT right of way must be constructed behind curb and gutter or ditch. A three party encroachment agreement with Town of Carrboro or CHCCCS is required.

Sheet C1.5- Multiple pavement typical sections are proposed for the reconstruction of Rock Haven Road. A single pavement design consisting of 8" of ABC, 4" of I-19.0B and 3" of S9.5B is suggested in order to simplify construction and future maintenance and provide for sufficient strength to accommodate the anticipated bus traffic.

A traffic control and phasing plan should be provided for maintenance of traffic on Rock Haven Road during construction and demolition.

Sheet C5.0- A three party encroachment agreement with OWASA is required for waterline construction within NCDOT right of way on SR 1938 (Ray Road)

Internal Traffic Circulation

The NCDOT Municipal and School Transportation Assistance (MSTA) Group is currently reviewing the project to provide comments and recommendations concerning the internal traffic circulation pattern of the school. Their findings will be provided upon completion of the review.

General

It is necessary to obtain an approved driveway permit and/or encroachment agreement prior to performing work on the NCDOT right of way. An approved permit will be issued upon receipt of approved roadway and signal construction plans and any necessary performance and indemnity bonds.

It is necessary to submit traffic signal construction and/or modification plans for review and approval prior to construction.

Feel free to contact me if you have any questions.

Sincerely,



C. N. Edwards Jr., PE
District Engineer

Attachment

Cc: J. M. Mills, PE

V. E. Barham

J. H. Dunlop, PE, NCDOT Congestion Management Engineer

Dale Mckeel, Town of Carrboro

Ramey Kemp and Associates

Steven Miller, PE, CLH Design, PA



May 23 1965

RECEIVED
DISTRICT ATTORNEY
JAN 10 1961

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

March 24, 2005

In reply, refer to
File No. SC-2004-043

MEMORANDUM

TO: Chuck N. Edwards, P.E., District Engineer
Division 7, District 1

FROM: James H. Dunlop, P.E., Congestion Management Engineer
Congestion Management Section

SUBJECT: Proposed Chapel Hill-Carrboro High School located west of SR 1919(Smith Level Road) in Orange County.

A circular professional engineer seal for the State of North Carolina. The outer ring contains the text "NORTH CAROLINA" at the top and "PROFESSIONAL" at the bottom. Inside the ring, the word "SEAL" is at the top, "18080" is in the center, and "ENGINEER" is at the bottom. Below the seal, the name "JAMES H. DUNLOP" is printed. A handwritten signature, "James H. Dunlop", is written over the printed name. Below the signature, the date "24 March 2005" is handwritten.

Per your request, the Access Management Group of the Traffic Engineering and Safety Systems Branch has completed a review of the subject site. Based on our analysis of the preliminary site plan and the Traffic Impact Analysis (TIA) prepared by Ramey Kemp & Associates, Inc., with consideration given to its impacts on the adjacent transportation facilities, we offer the following comments and recommendations for your consideration.

Proposed Development

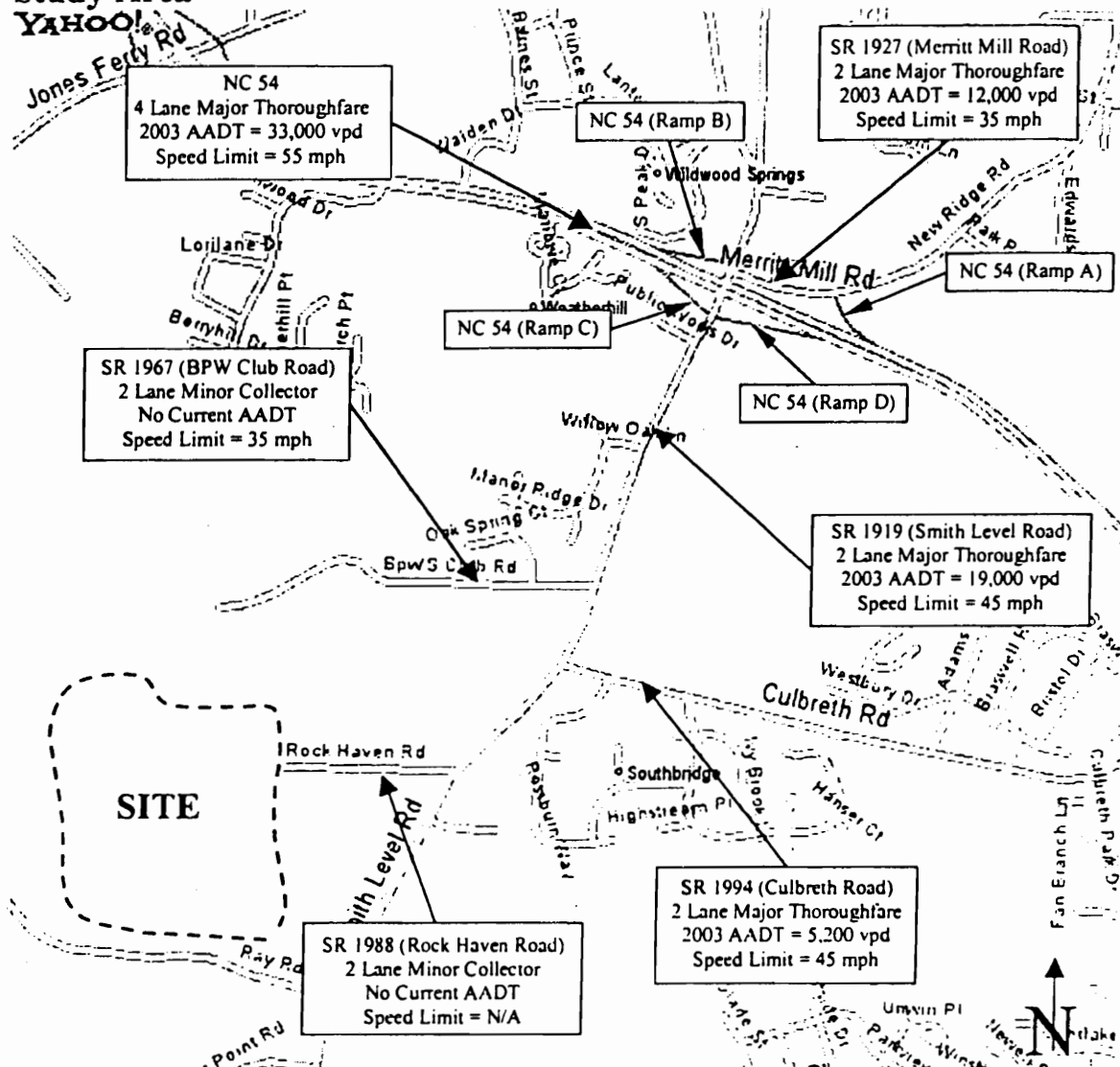
According to the TIA, the proposed Chapel Hill-Carborro High School Development is to be located just to the west of SR 1919 (Smith Level Road), between SR 1938 (Ray Road) and BPW Club Road. The TIA states the development is to be fully constructed by 2013 and is to consist of the following:

- 1,200 Student High School

Access to the development is proposed via two on street access points onto SR 1919 (Smith Level Road).

Chuck N. Edwards, P.E.
 March 24, 2005
 Page 2 of 9

Study Area



Note: Route classifications shown are according to the 1994 Chapel Hill-Carrboro Thoroughfare Plan.

TIP Projects

According to the North Carolina Department of Transportation (NCDOT) *Transportation Improvement Program* (TIP), there is one (1) active TIP project located in the vicinity of the proposed development.

- U-2803 proposes to widen SR 1919 (Smith Level Road) to a four-lane, median divided facility from SR 1988 (Rock Haven Road) north to Bridge No. 88. This project is scheduled to be let in (2/26/06). The Town of Carrboro has requested that this project be reevaluated, and removed from the TIP. At this time, no formal decision has been made. This review of the proposed development assumes that the TIP project will be dropped.

Chuck N. Edwards, P.E.
 March 24, 2005
 Page 3 of 9

Trip Generation

Based on the NCDOT Municipal and School Transportation Assistance (MSTA) "School Calculator", and the appropriate methodology outlined in the *ITE Trip Generation Manual*, (7th Edition), the proposed development is expected to generate approximately 1,105 trips per average weekday. The following table provides the expected unadjusted peak hour volumes during a typical weekday.

Peak Hour	IN	OUT
AM	570	110
PM	52	372

Observations/Recommendations

In order to accommodate the site-generated traffic safely and efficiently, while also attempting to protect the functional integrity and operational capacity of the adjacent roadway facilities, we offer the following comments and recommendations for your consideration.

It should be noted that the proposed development includes a proposed school. NCDOT's Municipal and School Transportation Assistance (MSTA) Group is reviewing this project to provide comments and recommendations concerning the internal traffic circulation pattern of the school. These recommendations will be sent under separate cover.

General TIA Comments

It should be noted that a revised TIA was being prepared for the Chapel Hill-Carborro High School, but upon discussion with the consultant, Congestion Management determined that it would not be necessary. We understand that many of these issues listed below were to be addressed by the revised TIA. It should also be noted that this TIA was based on the TIP project U-2803 being constructed.

- For proposed signalized intersection analysis, where protected left-turn treatment is warranted, to ensure adequate storage is provided we recommend analyzing left-turn movements as protected only, not protected/permitted.
- In the future, we recommend using 7.0 seconds yellow/all red time (5.0 seconds yellow plus 2.0 seconds all red) to more accurately reflect field conditions.
- For mainline approaches at signalized intersections, the following minimum initial green times should be used: for 35 mph or less, use 10 seconds; for 36-45 mph use 12 seconds, for 46 mph or higher use 14 seconds. For side street approaches, a minimum initial green time of 7.0 seconds should be used.
- It should be noted that this Traffic Impact Study (TIS) was marked as "draft" and was not sealed by a registered professional engineer. In accordance with the "Policy on Street and Driveway Access to North Carolina Highways," dated July 2003, any TIS associated with a formal driveway permit application "shall be prepared under the direct charge of and sealed by a licensed North Carolina Professional Engineer with expertise in traffic engineering."

Chuck N. Edwards, P.E.
 March 24, 2005
 Page 4 of 9

- The PEF used several values for Peak Hour Factor (PHF) in the analyses. Unless sufficient information is given to support another value, we typically use 0.90 for signalized intersections.
- We have some concerns with the cycle lengths utilized in the signalized capacity analysis. We generally use a 60 second minimum cycle length for two-phase signals, a 90 second minimum cycle length for three-phase signals, a 110 second minimum cycle length for four- or five-phase signals, and a 140 second minimum cycle length for six- or eight-phase signals.
- Right turns on red were used in the analysis. As a standard, we do not analyze right turns on red at any proposed intersection approaches to ensure adequate storage is provided.
- Existing and proposed traffic volumes do not consistently balance in the TIA.
- In the future, please provide recommended storage lane lengths for all exclusive turn lanes.
- Please provide a queue analysis and recommended storage lane lengths for all exclusive turn lanes. Synchro queue analysis or calculation based on the Red Time Formula (unless permitted left-turn phasing is allowed) is acceptable only if the intersection is operating below capacity.
- A SimTraffic "Queuing and Blocking Report" would be helpful to quantify overall queuing through the network of signals.
- At interchanges where both intersections are signalized, the signals should be coordinated. The main street through should be the coordinated movement unless special circumstances dictate otherwise.

SR 1919 (Smith Level Road) and SR 1988 (Rock Haven Road) Intersection

Due to the anticipated impacts that the additional site-generated traffic is to have on this intersection, this intersection may require signal implementation to accommodate this additional volume.

Northbound (Smith Level Road)

- We recommend providing an exclusive left-turn lane with 100 feet (minimum) of full storage and appropriate transitional taper.

Southbound (Smith Level Road)

- We recommend providing an exclusive right-turn lane with 100 feet (minimum) of full storage and appropriate deceleration taper.

Eastbound (Rock Haven Road)

- We concur with the TIA recommendation to provide a three (3) lane cross-section consisting of one (1) ingress lanes and two (2) egress lanes. However, we recommend providing 250 feet (minimum) of internal protected storage before crossing maneuvers and parking should

Chuck N. Edwards, P.E.
March 24, 2005
Page 5 of 9

be allowed. The egress lanes should consist of one (1) exclusive left-turn lane and one (1) shared through/right-turn lane.

SR 1919 (Smith Level Road) and SR 1994 (Culbreth Road) Intersection

Due to the anticipated impacts that the additional traffic volumes associated with this development will have on the adjacent traffic facilities and with various other geometric improvements that may occur, this intersection may require signal modifications to accommodate this additional traffic volume.

It should be noted that multiple movements at this intersection are anticipated to operate at an unacceptable level of service with excessive queuing in the peak hour according to the TIA 2013 (Phase II) build-out year traffic volumes.

Northbound (Smith Level Road)

- No right-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, an exclusive right-turn lane is needed and should provide 100 feet (minimum) of full storage and appropriate deceleration taper.

Southbound (Smith Level Road)

- No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should be extended to provide 300 feet (minimum) of full storage and appropriate deceleration taper.

Westbound (Culbreth Road)

- No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should be extended to provide 300 feet (minimum) of full storage and appropriate deceleration taper.

SR 1919 (Smith Level Road) and SR 1964 (BPW Club Road)/Apartment Drive Intersection

Due to the anticipated impacts that the additional traffic volumes associated with this development will have on the adjacent traffic facilities and with various other geometric improvements that may occur, this intersection may require signal modifications to accommodate this additional traffic volume.

It should be noted that multiple movements at this intersection are anticipated to operate at an unacceptable level of service with excessive queuing in the peak hour according to the TIA 2013 (Phase II) build-out year traffic volumes.

Northbound (Smith Level Road)

- We recommend extending the exclusive left-turn lane to provide 300 feet (minimum) of full storage and appropriate transitional taper.

Southbound (Smith Level Road)

- We recommend providing an exclusive right-turn lane with 100 feet (minimum) of full storage and appropriate deceleration taper.

Eastbound (BPW Club Road)

- We recommend providing an exclusive left-turn lane with 100 feet (minimum) of full storage and appropriate deceleration taper. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should provide 500 feet (minimum) of full storage and appropriate deceleration taper to accommodate background volumes. =

SR 1919 (Smith Level Road) and Frank Porter Graham Elementary School Entrance/Carrboro Public Works Entrance Intersection

Due to the anticipated impacts that the additional traffic volumes associated with this development will have on the adjacent traffic facilities and with various other geometric improvements that may occur, this intersection may require signal modifications to accommodate this additional traffic volume.

SR 1919 (Smith Level Road) and NC 54 Ramps C & D Intersection

Due to the anticipated impacts that the additional traffic volumes associated with this development will have on the adjacent traffic facilities and with various other geometric improvements that may occur, this intersection may require signal modifications to accommodate this additional traffic volume.

It should be noted that multiple movements at this intersection are anticipated to operate at an unacceptable level of service with excessive queuing in the peak hour according to the TIA 2013 (Phase II) build-out year traffic volumes.

Southbound (Smith Level Road)

- No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes the southbound left-turn will have excessive queuing and may extend northward through the SR 1919 (Smith Level Road) and SR 1927 (Merritt Mill Road)/NC 54 Ramp B intersection.

Eastbound (NC 54, Ramp C)

- To accommodate the anticipated site generated trips on this approach, we recommend providing dual right-turn lanes, by constructing an additional right-turn lane. Both lanes should provide 400 feet (minimum) of full storage and appropriate transitional taper.
- No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes, the exclusive left-turn lane should be extended to provide 400 feet (minimum) of full storage and appropriate transitional taper.

SR 1919 (Smith Level Road) and SR 1927 (Merritt Mill Road)/NC 54 Ramp B Intersection

Due to the anticipated impacts that the additional traffic volumes associated with this development will have on the adjacent traffic facilities and with various other geometric

Chuck N. Edwards, P.E.
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improvements that may occur, this intersection may require signal modifications to accommodate this additional traffic volume.

Northbound (Smith Level Road)

- No left-turn improvements are necessary on this approach at this time to mitigate site-generated traffic. However, based on the TIA 2013 (Phase II) build-out year traffic volumes the northbound left-turn will have excessive queuing and may extend southward through the SR 1919 (Smith Level Road) and NC 54 Ramps C & D intersection.

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General

It should be noted that the comments and recommendations contained in this review are subject to the approval of the local District Engineer's Office.

Cross-access to adjacent properties is strongly encouraged to reduce repetitive trips and provide future alternative routes of ingress/egress.

Due to, but not limited to, the comments and recommendations from this review of the proposed development, changes in the internal circulation may be necessary to ensure that driver confusion is minimized to the maximum extent possible.

Any signal revisions, modifications, or additions necessitated by the development should be coordinated with the Regional Traffic Engineer, the Division Traffic Engineer, the Signals and Geometrics Section, and the Town of Carrboro.

Any pavement marking revisions/modifications necessitated by the development should be the responsibility of the developer and coordinated with the Division Traffic Engineer.

Any roadway modifications or improvements necessitated by the development should be the responsibility of the developer unless otherwise noted.

Reference should also be made to the information included in the "General Recommendations Attachment."

Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact me or Heath Gore at (919) 250-4151.

JHD:rhg

cc	J.M. Mills, P.E.	(Attention: V.E. Barham)
	T. M. Hopkins, P.E.	(Attention: A. D. Wyatt, P.E.)
	V. L. Embry	
	G. A. Fuller, P.E.	(Attention: R. E. Mullinax, P.E.)
	L. L. Cove, P.E.	(Attention: J. H. Dunlop, P.E.)

GENERAL RECOMMENDATIONS ATTACHMENT
(For SC-2004-043 / Chapel Hill-Carrboro High School)

Adequate horizontal and vertical sight distances should be reserved at all proposed entrances. Foliage that interferes with sight distance should be cut back to protect lines of sight. The District Engineer should determine if all drainage facilities are adequate. Curb cuts and curb ramps should be constructed in conformance with the "*Guidelines for Curb Cuts and Ramps for Disabled Persons*," if applicable.

The developer may be required to obtain an approved encroachment agreement covering proposed work within the state right-of-way. If this is the case, the encroachment should be cross-referenced to this review.

All street and driveway entrances onto state system roadways should be controlled with appropriate traffic control devices, including but not limited to, stop, yield, directional, regulatory, and advisory signs and pavement markings. All traffic control devices shall conform to the requirements set forth in the Manual on Uniform Traffic Control Devices. Final pavement marking and signing plans should be submitted to the Division Traffic Engineer for approval prior to the installation of any signs and/or pavement markings.

Unless otherwise noted, a recommended width of 40 feet (curb face to curb face) should be used at each drive. It is also recommended that 40 foot (minimum) radii should be used at each drive to accommodate any service type vehicles or truck traffic that may visit the site.

If the developer anticipates adding or petitioning for addition to the state system, all roads/streets should be designed and constructed in conformance with the current North Carolina Department of Transportation design and construction guidelines.

All "outparcels" or "excluded areas" should be served internally with no additional access onto abutting roadways. The developer should convey this condition in any lease or sell agreements.

As required by the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003, the applicant is responsible for identifying all right-of-way and/or control-of-access limits and for including this information on all submittals. Failure to accurately disclose R/W and C/A limits could result in the denial or closure of access points.

Adequate right-of-way for widening and sight distance triangles should be reserved. Consideration should be given to the possible future need for signalization and the associated span poles, controller and pad, and guy wires at the intersections along SR 1967 (Rock Haven Road)

Any additional development, either within this site or adjacent to this site, that intends on using this development's access will require an updated driveway permit and re-evaluation of geometric and traffic control needs.

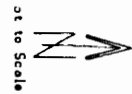
GENERAL RECOMMENDATIONS ATTACHMENT
(For SC-2004-043 / Chapel Hill-Carrboro High School; continued)

All widening should include appropriate transitional and deceleration tapers. Recommended turn lane and transitional treatments are shown on pages 78 and 79 of the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003.

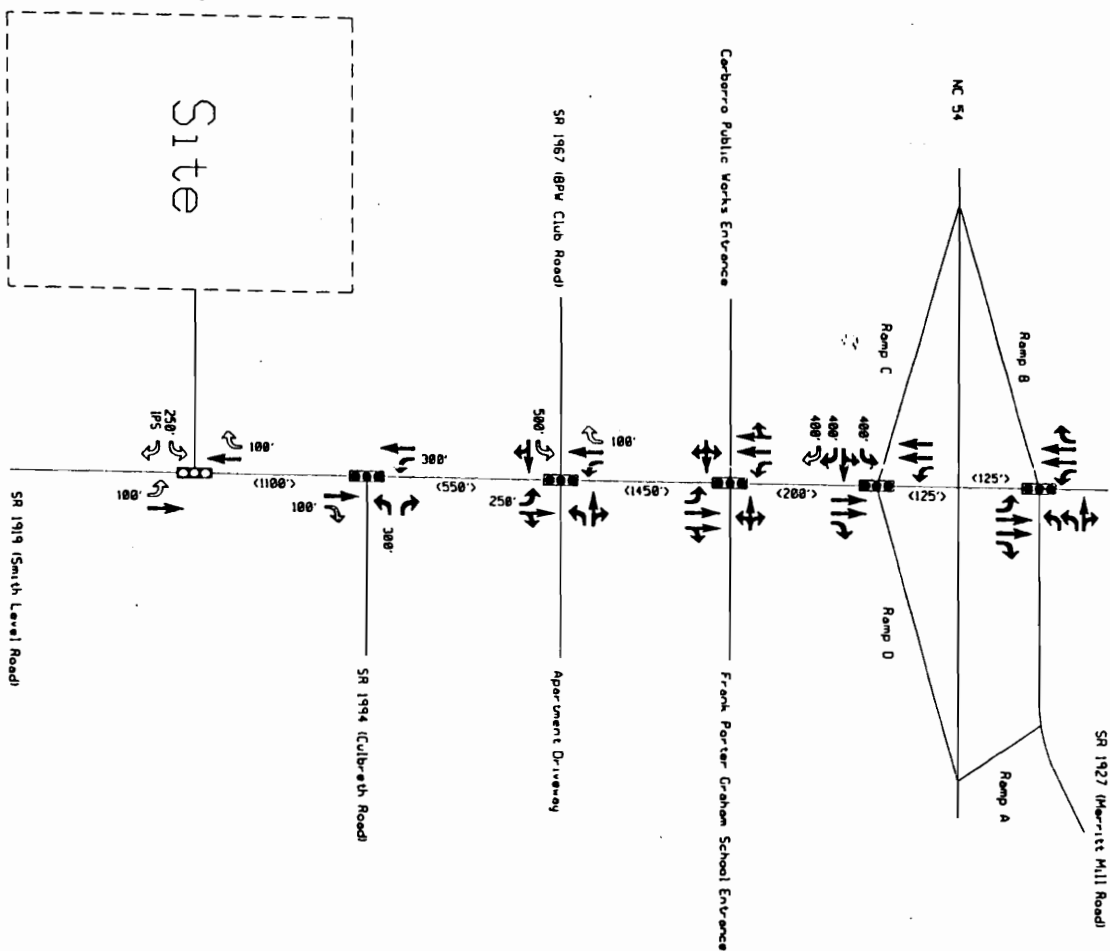
Where possible, opposite side driveways should be aligned to prevent the operational and safety problems caused by offset driveways.

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Recommended Lanes and Storage for Chapel Hill-Carborro High School (SC-2004-043)



- ↑ Existing Lane
- ⇨ Recommended Improvements by Others
- ⇨ Chapel Hill-Carborro High Recommended Lanes
- XXX' Minimum of Full Storage in Feet
- Existing Traffic Signal
- Proposed Traffic Signal
- XXX' Minimum of Internal Protected Storage
- 100' Approximate Distance



- The emissions saved by this reduction is the equivalent of eliminating 888,000 vehicle miles driven per year.

Parking

The original design had 420 spaces paved during the initial construction phase. That was changed for the initial CUP submittal to 328 paved in phase one and 92 additional spaces in phase two, reducing areas of impervious surface in phase 1. The 328 number is significantly less than the Orange County Construction Standards. As the chart below indicates student parking has been reduced significantly by 83 spaces, a 31 percent reduction.

Parking Analysis	Phase I
Planned Student Capacity	800
Orange County Standard	267
Initial CHCCS Smart Growth Reduction	200
Additional CHCCS Amendment B Reduction	184
Proposed Student Parking	184
Proposed Staff Parking	100
Proposed Visitor Parking	44
Total Proposed Parking	328

Upon further review, we have eliminated the request for the additional student parking in Phase II. That would result in only 328 total parking spaces. While there is no further reduction in Phase 1, efforts to find other ways to get students to school will have a chance to work before simply adding more parking. When the addition is constructed, the student enrollment will grow to 1,200 and the staff will grow to 128. Without additional staff parking some downward adjustment to student parking will be required. The Board would reserve the right to request a modification to the CUP in the future if growth or other measures warrant an increase.

The Board is sensitive to the neighborhood concerns about spill over parking on Ray Road and the apartment complexes on Rock Haven Road. We feel that the 328 spaces requested will provide an opportunity to determine the sufficiency of this capacity before considering additional parking.

Event parking is another consideration for the site. For Open Houses, rivalry games, large concerts and community events, adequate parking is required. The pictures below show the overflow parking at an Open House at CHHS. We

believe that the 328 spaces may accommodate event parking, if overflow parking can take place in the bus loop and the stack space of the Kiss and Go lane. To lower the spaces any more would jeopardize community and school events as well as the security of surrounding neighborhoods.



The Board of Education, through Policy 9040, also wanted to focus on reducing vehicle miles traveled or (VMT). A major purpose in locating the school in the south of the district was to reduce driving time and distance. Based on current ridership data at the high schools, the mere location of the building off Rock Haven will save in excess of 750,000 vehicle miles traveled annually. Another concern was to get students to school and to keep them there. Starting in 2005-2006, off campus privileges for lunch will be restricted to seniors. That will significantly reduce traffic during lunch time.

An analysis of ridership at our present high schools indicates that 33% of the students ride a bus, 32% drive themselves and 35% are brought by their parents. To reduce VMTs even further at the new high school, several efforts need to be made.

1. Encourage students to ride the school bus. There is no more efficient or safer way for students to get to and from school. The average bus trip in the district is less than 25 minutes, substantially less than that of public transportation.
2. Provide adequate parking for students in order to reduce round trips by parents. One parking space reduces VMTs by 50 % if the parent otherwise would bring the student to school in the morning and pick him up in the afternoon.
3. Encourage the use of public transportation to and from school. While public transportation does not serve several areas that the school will draw students from, any use of public transportation reduces VMTs.

**Office of the
Chief of Police**

Memo

To: Steve Stewart, Town Manager
From: Carolyn Hutchison, Chief of Police
CC: Jeff Kleaveland, Planner/Zoning Development Specialist
Date: December 15, 2004
Re: "Safety plan" for neighborhoods adjacent to proposed Chapel Hill-Carrboro High School #3

I have been asked to develop a "safety plan" for neighborhoods adjacent to the proposed Chapel Hill-Carrboro High School #3. It is difficult to develop a specific plan at this time since we cannot anticipate with any certainty the types of problems residents may encounter after the high school is built and in-session. Anecdotal information from both the Chapel Hill-Carrboro City Schools (CHCCS) and Chapel Hill Police Department personnel indicate that high school students do not cause crimes or nuisances in neighborhoods close to either Chapel Hill High School or East Chapel Hill High School. However, the lack of sufficient parking spaces, especially at Chapel Hill High School, frequently contributes to illegal and unsafe parking along nearby streets, which negatively impacts both pedestrian and vehicular safety in the area. Attached to this memorandum are several documents, including photographs, which I obtained from CHCCS personnel that clearly outline their concerns related to the lack of sufficient on-site parking. I echo these concerns and fully support planning for sufficient parking at the Chapel Hill-Carrboro High School #3 site. If students are unable to park at the high school, I believe that they will park in neighboring apartment complexes, a burden that apartment residents should not have to bear. In addition, events at the school will draw increased vehicular traffic, as evidenced by the current experience of the two existing high schools. In fact, the photographs provided with this memorandum show the impact of Chapel Hill High School's open house where 361 vehicles were illegally parked. In Carrboro, we experience a similar problem anytime Carrboro Elementary School has a special event involving significant numbers of students and their parents.

The Carrboro Police Department adopted the philosophy and practice of community policing during the early 1990s. Our community policing efforts have always involved the problem-solving approach, where police and community groups work together to solve crime and quality of life issues. Once we notice a problem or are notified of a problem, we develop a tailor-made response to deal with that particular issue. We try to identify strategies with the best potential for eliminating or reducing the incidence of the problem. While it is unlikely that the response would consist of only one strategy, depending on the type of problem, we could employ only one. Usually, though, we find it necessary to develop several strategies which, when combined, help us regain control of the situation. The type of response that the Board has asked for—develop a safety plan for neighborhoods—is difficult, if not impossible, to develop now. Any response to problems at this site in the future may involve many strategies and would have to be tailor-made for the specific crimes or nuisances.

It may be helpful to the Board to discuss briefly the mission of the Community Services Division. Although all Police Department personnel are involved to some degree with community policing and problem-solving, when we need to focus resources in certain areas, we assign Officers from the Community Services Division to analyze the problem, develop strategies to eliminate or reduce the problem, and employ those strategies—along with other Police Department personnel—until we determine that our mission is complete. Generally, the Community Services Division Officers maintain constant contact with community members, monitor written police reports to learn what has happened in an area when they are off-duty, and work closely with the Patrol and Investigative Division Officers when they respond to complaints from neighborhoods. We are able to assign these Officers to a variety of problems anywhere in Carboro. For example, members from this Division have the flexibility to work speed enforcement patrols if regulating the speed of vehicles is a neighborhood's priority. They are also able to intervene when citizens report drug activity, other crimes, or suspicious activity. Community Services Division Officers understand that to a degree, the community dictates its mission. The community also lets us know when they see results from our work. Often, the problems this Division deals with are social problems that will not "go away" through police action alone. As a result, we work with other community members and continue to do our part in an effort to enhance quality of life throughout the Town.

School Resource Officers (SROs) are assigned to the Community Services Division. Currently, the Department has two SROs, one assigned full-time who splits his time between our two elementary schools and one who is assigned full-time to the middle school. I fully expect the CHCCS personnel to agree to fund a full-time SRO position at our new school, "Carboro High School," when it opens to students. The SRO will work closely with school staff and students to anticipate and identify problems and will be available to us as an additional resource should we begin to experience problems in neighborhoods adjacent to the school.

While I am unable to predict future problems at the high school site, I hope that I have described the Department's philosophy and problem-solving methodology in such a way that the reader feels reassured that the Department will be ready and willing to respond. I do hope that the Town will ensure that the school has sufficient parking. Frankly, I believe that without sufficient parking, we will experience problems for which solutions are difficult.

**SUMMARY SHEET OF STAFF AND ADVISORY BOARD
RECOMMENDATIONS**

***CONDITIONAL USE PERMIT— CHAPEL HILL-CARRBORO CITY SCHOOLS HIGH
SCHOOL #3***

Recommended by	Recommendations
Staff, PB, AC, EAB	1. That the shading calculations required by Section 15-317 and Appendix E-3 be revised as necessary to demonstrate compliance prior to construction plan approval;
Staff, PB, AC, EAB	2. That additional plantings be added to the Type “B” screen adjacent to the southern parking lot prior to construction plan approval;
Staff, PB, AC, EAB	3. That the Type “C” screen along the northeastern property line be re-labeled as a Type “B” screen prior to construction plan approval;
Staff, PB, AC, TAB	4. That the Chapel Hill Transit bus stop turn-out detail be modified to the Town of Chapel Hill’s bus stop detail (ST-8) prior to construction plan approval;
Staff, PB, AC, EAB	5. That per the provisions of 15-216(j), Rock Haven Road be allowed to deviate from the planting strip standards of Section 15-216 thereby allowing an 18” planting strip between the curb and sidewalk on the south side of the road so as to minimize damage to existing transformers, streetlights, trees and slopes;
Staff, PB, AC, EAB	6. That the applicant installs a NCDOT approved traffic signal at the intersection of Smith Level Road and Rock Haven Road prior to issuance of the certificate of occupancy;
Staff, PB, AC, EAB	7. That the applicant construct a northbound left turn lane and a southbound right turn lane on Smith Level Road (design approved by NCDOT) at the Rock Haven Road intersection prior to issuance of the certificate of occupancy;

ATTACHMENT K-2

Staff, PB, AC, EAB	8. That upon request, the school makes an offer of dedication, for a 30' public access greenway easement to be located in the general vicinity of the natural drainage along the western property line (final location of the easement to be mutually decided by Town Staff and Chapel Hill—Carrboro City Schools Staff);
Staff, PB, AC, EAB	9. That the Board accepts the applicant's justification for exceeding the presumptive parking standards of Section 15-291 by providing 328 spaces, as represented in the applicant's letter, this deviation is justified because it reduces disruption to the surrounding community during peak-use events at the school;
Staff, PB, AC, EAB	10. That prior to issuance of the certificate of occupancy, the school district work with the Town's Police Department, Transportation Planner, and Fire Department to develop a plan to manage special event parking, which would be put in place during peak use events at the school;
Staff, PB, AC, EAB	11. That the applicant apply for voluntary annexation of the subject parcels prior to construction plan approval;
Staff, PB, AC, EAB	12. That the proposed sidewalk along Smith Level Road shall be constructed within the existing NCDOT right-of-way; or, if necessary, that additional right-of-way shall be dedicated to accommodate the sidewalk. Also, all vegetative screening along Smith Level Road shall be relocated to the west so that it is planted behind the proposed sidewalk.

Staff, PB, AC, EAB	<p>13. That the applicant shall provide to the Town, prior to the recordation of the final plat for the project or before the release of a bond if some features are not yet in place at the time of the recording of the final plat, Mylar and digital as-builts for the stormwater features of the project. Digital as-builts shall be in DXF format and shall include a base map of the whole project and all separate plan sheets. As-built DXF files shall include all layers or tables containing storm drainage features. Storm drainage features will be clearly delineated in a data table. The data will be tied to horizontal controls;</p>
Additional Advisory Board Comments & Recommendations:	
AC	<p>1. That the landscaping plan be changed to include a more diverse/native planting list of North Carolina plants</p>
PB	<p>1. That traffic calming devices be added; such as raised crosswalks (using brick or other pavers), or speed bumps.</p> <p>2. That the wall pack lights be replaced with ground flood wall wash type lights directed at the building (which would direct less light into surrounding neighborhoods and provide better surveillance and defensible space around the building).</p> <p>3. That impervious paving materials in parking areas be replaced with pervious or semi-pervious materials where feasible.</p>
TAB	<p>1. A different style of bike rack that will allow for a higher density of bicycle parking should be specified.</p> <p>2. Covered bicycle parking should be provided.</p> <p>3. Chapel Hill gravel or a similar material should be used rather than mulch for the surface of the path connecting to Ray Road.</p> <p>4. Stamped concrete or a texture treatment should be used for crosswalks.</p> <p>5. Bike racks should be placed closer to the entrances of the school.</p>

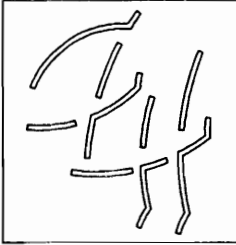
EAB	<ol style="list-style-type: none"> 1. Selected plants for wet detention and wetland areas must be appropriate for the submerged depth in the particular stormwater device. 2. That plants that are native to North Carolina be used for landscaping. The recommended plant list in Appendix E-10 should be consulted as a source for appropriate species. Consultation about appropriate plants has been offered by Kathy Buck of the EAB and Wendy Wenck of the Appearance Commission. 3. That no lespedeza be planted on the site for soil stabilization or any other purpose. It is highly invasive and very difficult to remove.
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The following are additional conditions made subsequent to the Joint Review Meeting:

14. That the pedestrian path that adjoins Smith Level Road in the vicinity of the ball fields be relocated, if necessary, so as to prevent an unsafe pedestrian crossing in this area. Town staff, Chapel Hill—Carrboro City Schools staff, and NCDOT would make the final decision regarding location based on field observations.
15. That, prior to issuance of a certificate of occupancy, Rock Haven Road be striped to provide separate (NCDOT approved) left and right turn lanes at the intersection with Smith Level Road

Since BPW Club road is integrated into the proposed school's circulation program, the following TIA recommendation for improvements to the Smith Level/ BPW Club Road Intersection warrants discussion by the Board. Staff does not believe that the Town can require these improvements to be a condition of the permit, but is concerned that vehicle-trips generated by the school will cause certain aspects of this intersection to function poorly in the future.

16. That, at the intersection of BPW and Smith Level Roads the following (NCDOT approved) improvements be made: 1) a southbound right turn lane be provided on Smith Level Road, 2) an eastbound left turn lane be provided on BPW Club Road, and, 3) a northbound left turn lane *extension* be provided on Smith Level Road.



CLH design, p.a.

MacGregor Park, 125 Edinburgh South, Suite 310
Cary, North Carolina 27511
Phone: (919) 319-6716 Fax: (919) 319-7516

21-Apr-05

TO: Jeff Keaveland & Marty Roupe
Town of Carrboro Zoning Division

FROM: Steven J. Miller, PE - CLH Design, PA

RE: C.U.P. PLAN
RESPONSES TO OUTSTANDING ISSUES
HIGH SCHOOL NO.3
CHAPEL HILL – CARRBORO CITY SCHOOLS

CC: CHCCS
Moseley Arch.
File (1138/prmt)

Dear Jeff & Marty:

I am writing to on behalf of Chapel Hill Carrboro City Schools to summarize our current positions on a number of CUP plan issues heading into the Board of Aldermen meeting scheduled for 26-Apr-05. These issues consist of outstanding comments from the Town's staff and proposed conditions recommended by the Advisory Boards and Planning Board.

Town Staff

Please revise the gross floor area (GFA) of the proposed school from 120,000-sf to 166,063-sf on the Staff's recommendations and all applicable documents related to this CUP. A revised Cover Sheet plan will be forwarded to your office for inclusion in the official approved CUP plan set.

1. Shading Calculations: We agree with this condition and are willing make the change during the construction plan review.
2. Additional Plantings at Type B Screen: We agree with this condition and are willing make the change during the construction plan review.
3. Re-label Landscape Screen: We agree with this condition and are willing make the change during the construction plan review.
4. Bus Stop: We feel bus stop on the CUP plans complies with the Town of Chapel Hill standard and cannot agree to changes without knowing the scope of the changes requested. We request that this recommended condition not be included in the CUP approval.
5. Rock Haven Road Planting Strip: We agree with this condition. The CUP plans currently depict this condition.
6. Traffic Signal: We agree with this condition.
7. Smith Level Road: We agree to this condition however we would ask that it be re-written to include a provision that the required road improvements be adjusted as deemed necessary by NCDOT during their review and as affected by the potential TIP project.
8. Greenway Easement: We agree with this condition.
9. Parking: We agree with this condition and ask that it be incorporated as written.
10. Special Event Parking Plan: We agree with this condition.
11. Annexation: We agree with this condition.
12. Sidewalk at Smith Level Road: We agree with this condition and are willing to make changes to the plans as determined by NCDOT during NCDOT encroachment agreement review.
13. As-Built: We agree with this condition.

14. Path to Smith Level Road: We agree to this condition.
15. Rock Haven Road Turn Lanes: We agree to this condition.
16. BPW & Smith Level Road Improvements: We disagree with this condition as funding is not available for these improvements.

Town Staff (Sungate Design Group)

1. One item that was required to be resolved and revised on the plans prior to CUP approval was the replacement of an existing undersized pipe located at the low point of Rock Haven Road. The plans have been revised to indicate a larger pipe in this area. A set of revised plans and design calculations have been forwarded directly to Sungate Design Group for review. Our understanding is that this requirement has been met and is no longer a potential condition.
2. Sungate also provided written comments dated April 13, 2005 in reference to the proposed Bioretention and Wetland areas. We have discussed these issued directly with Sungate and agree to provide necessary plan revisions prior to Construction Plan approval.

Orange County Solid Waste

1. We intend to comply with the recommendations of Orange County Solid Waste presented in their review letter dated March 28, 2005 however we ask that they not be made a condition of the CUP approval.

Transportation Advisory Board (TAB)

1. The bike racks specified for this project will be revised to a design that will allow for higher density of bicycle parking. A specific design will be utilized based on samples that were forwarded by the Town's Transportation Engineer. We agree with this condition and are willing make the changes during the construction plan review.
2. A portion of the overall bicycle parking will be relocated under the proposed canopy along the east side of the school building. We agree with this condition and are willing make the changes during the construction plan review however we ask that it be re-written to indicate a portion of the bike parking be covered.
3. The surface of the new path from the site to Ray Road will be changed from mulch to Chapel Hill gravel or similar material. We agree with this condition and are willing make the changes during the construction plan review.
4. The TAB recommended stamped concrete or a textured treatment be used for crosswalks. We do not wish to incorporate this recommendation for the following reasons: a) the crosswalks proposed for this project are all of the high visibility (ladder) type that will almost completely obscure the pavement texturing and, b) the Carrboro Public Works Department does not want the textured pavement within the public right-of-way. We disagree with this recommended condition and request it not be included in the CUP approval.
5. A portion of the proposed bike racks will be relocated under the canopy along the east side of the building and closer to the building entrance. We agree with this condition and are willing make the changes during the construction plan review, however we ask that the condition be re-worded to read: "A portion of the bike racks should be placed closer to the entrances of the building".

Appearance Commission Advisory Board

1. Following the Joint Review meeting we have discussed recommended changes to some of the specified plant material on the Landscape Plans with Wendy Wenck and have begun making revisions to the plans to provide more diverse and native plants on the site. We agree in general with the intention of this recommended condition and are willing to make the changes during the construction plan review however we ask that it not be made a condition of approval of the CUP due to possible unintended exclusions of some plant material.

Environmental Advisory Board (EAB)

1. Wetland Plants: We agree with recommended condition and are willing make the change during the construction plan review.

2. Native Plants: We have been in direct contact with Kathleen Buck to discuss changes in the proposed plant list to include more native and diverse plants. We agree to make changes during the construction plan review but ask that this not be a condition of CUP approval due to the possible unintended exclusions of some acceptable plant material.
3. Steep Slopes: We agree with this recommendation however we ask that this not be a condition of CUP approval as lespedeza is not proposed and will not be used on this site.

Planning Board

1. The Planning Board recommended traffic calming devices be added to the plan, such as raised crosswalks or speed humps. We see the proposed roundabouts at each terminus of the new connector road and the horizontal geometry of the road as the primary and effective means of traffic calming on this site. We request that the use of additional means of traffic calming not be made a condition of approval. We would like to delay the installation of speed humps until they are deemed necessary based on actual traffic conditions observed following the opening and operation of the school. We feel raised crosswalks would not prove effective since they are located immediately adjacent to roundabouts and may also cause drainage and maintenance problems due the challenging grading requirements of the connector road. We disagree with this recommended condition and request it not be included in the CUP approval.
2. We will continue to investigate the use of ground flood wall wash type lights in-lieu of wall pack lights and ask that the owner and designers be allowed to make a decision regarding these lights based on the best solution for the project with all aspects considered. We request this proposed condition not be included in the CUP approval.
3. We request that the condition to replace impervious pavement with pervious or semi-pervious pavement where feasible be removed from the conditions. We make this request due primarily to capital and maintenance budget reasons but also for practical design considerations. Many Best Management Practices were chosen for this project at considerable expense to the school district – including rainwater harvesting. We feel the BMPs being utilized on the site provide the most cost effective benefit for this project. While we agree pervious pavement can provide an effective means of stormwater management, we feel it is not well suited for use on this project due to the underlying clay soils and steep slopes of this site. We disagree with this recommended condition and request it not be included in the CUP approval.

Please note that our comments provided above represent our position on these issues at this time and are subject to change prior to the Board of Aldermen meeting. We will make any changes to these positions clear to the Board at their meeting.

Thank you again for your assistance with this project. We look forward to seeing you at the Board meeting. Please do not hesitate to call with any questions or comments.

Sincerely,

Steven J. Miller

TOWN OF CARRBORO



CONDITIONAL OR SPECIAL USE PERMIT WORKSHEET

I. COMPLETENESS OF APPLICATION

- ☐ The application is complete
☐ The application is incomplete
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II. COMPLIANCE WITH THE ORDINANCE REQUIREMENTS

- ☐ The application complies with all applicable requirements of the Land Use Ordinance
☐ The application is not in compliance with all applicable requirements of the Land Use Ordinance for the following reasons:
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III. CONSIDERATION OF PROPOSED CONDITIONS

If the application is granted, the permit shall be issued subject to the following conditions:

1. The applicant shall complete the development strictly in accordance with the plans submitted to and approved by this Board, a copy of which is filed in the Carrboro Town Hall. Any deviations from or changes in these plans must be submitted to the Development Review Administrator in writing and specific written approval obtained as provided in Section 15-64 of the Land Use Ordinance.
2. If any of the conditions affixed hereto or any part thereof shall be held invalid or void, then this permit shall be void and of no effect.

IV. GRANTING THE APPLICATION

- ☐ The application is granted, subject to the conditions agreed upon under Section III of this worksheet.

V. DENYING THE APPLICATION

- ☐ The application is denied because it is incomplete for the reasons set forth above in Section 1.
- ☐ The application is denied because it fails to comply with the Ordinance requirements set forth above in Section II.
- ☐ The application is denied because, if completed as proposed, the development more probably than not:

1. Will materially endanger the public health or safety for the following reasons:

2. Will substantially injure the value of adjoining or abutting property for the following reasons:

3. Will not be in harmony with the area in which it is to be located for the following reasons:

4. Will not be in general conformity with the Land Use Plan, Thoroughfare Plan, or other plans officially adopted by the Board of Aldermen for the following reasons:
